A HUMAN RESOURCE TAX CREDIT: AN EXAMINATION INTO ITS BASE, RATE, AND POTENTIAL EFFECT

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CHAPTER I

INTRODUCTION

Nature of the Problem

Manpower problems have received increasing attention in recent years. Numerous projects and programs have been directed toward improving the employment prospects of disadvantaged individuals. The success of these projects and programs in alleviating the rather bleak job outlook of the disadvantaged individual has been the subject of considerable debate and analysis.[1] There does appear to be some general consensus, however, that there is a need for increased participation by the private sector of the economy in the overall manpower program.[2]

The need for greater involvement of private business in the carrying out of an effective manpower program for

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[1]For an excellent summary and evaluation of programs legislated during the 1960's, see Garth L. Mangum, The Emergence of Manpower Policy (New York: Holt, Rinehart, and Winston, Inc., 1969), pp. 103-61.

[2]Robert A. Gordon, "Introduction," in Toward a Manpower Policy, ed. by Robert A. Gordon (New York: John Wiley and Sons, 1967), p. 5. Also see, National Industrial Conference Board, Education, Training, and Employment of the Disadvantaged, Studies in Public Affairs, No. 4 (New York: National Industrial Conference Board, 1969), p. 2.

disadvantaged individuals has led to discussions of the problem of how to encourage such participation. Various financial incentives have been suggested and discussed.[3] An incentive identified as the Work Incentive Program Credit has recently been legislated.[4] Under the Work Incentive Program Credit, employers are entitled to a credit against their income tax of 20 percent of the first 12 months' wages paid to employees certified by the Secretary of Labor as eligible for tax credit employment. Therefore, if a tax credit employee is paid $5,000 during his first year of employment, a $1,000 credit would be available as an offset against the employer's tax liability. This type of credit is similar to the investment tax credit which was originally enacted in 1962. However, a human resource tax credit such as the work incentive tax credit is directed toward encouraging increased investment in people rather than property.

Prior to enactment of the work incentive tax credit, tax credits on investment in human resources were proposed in several different versions of the Human Investment Act introduced in the U.S. Congress. A 1969 version of the Act proposed that employers be granted a credit against

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[3]For example, see U.S. Department of Labor, Manpower Administration, A Government Commitment to Occupational Training in Industry (Washington, D.C.: Government Printing Office, August, 1968), pp. 77-90.

[4]Commerce Clearing House, Inc., Explanation of Revenue Act of 1971 (Chicago: Commerce Clearing House, Inc., 1971), pp. 60-62.

their income tax for an amount equal to 10 percent of training period wages and other specified training costs, e.g., tuition.[5]

A human resource tax credit was also recommended by the Advisory Panel on Private Enterprise in its report to the National Advisory Commission on Civil Disorders (Kerner Commission).[6] Below are some of the statements pertinent to the tax credit approach which the Advisory Panel included in its report to the Kerner Commission:

> We are convinced that large numbers and many different types of business and industrial companies will participate in hiring and training the hard-core unemployed only if an incentive technique is devised which is as simple and automatic as possible....
>
> We believe that the single most powerful inducement for broad involvement of private enterprise in job training and job development lies in the use of a tax incentive....
>
> An advantage of the tax credit route is that only companies which are profitable and therefore owe Federal income tax are eligible for the incentive credit. Profitable companies are in the best position to provide meaningful and continuing employment.[7]

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[5]U.S. Congress, Senate, 91st Cong., 1st sess., February 17, 1969, Congressional Record, CXV, 2423. Earlier versions of the 1969 Act were introduced in 1965, 1966, and 1967. Each version of the Human Investment Act was referred to the appropriate Congressional Committee where no further action was taken. For an expanded discussion of the different versions of this Act see infra, pp. 14-16.

[6]Report of the National Advisory Commission on Civil Disorders, Otto Kerner, Chairman (New York: The New York Times Company, 1968), pp. 558-69.

[7]Ibid., pp. 564-66.

Although the Human Investment Act proposed a tax credit on specified training costs in addition to wages, the Advisory Panel proposed a tax credit based only on wages. The work incentive credit is similar to the Advisory Panel's proposal. However, the work incentive credit is only 20 percent of the first 12 month's wages, whereas the Advisory Panel proposed a 75 percent tax credit on the wages paid eligible employees during the first six months of their employment, a 50 percent credit on the wages paid such employees during the second six months of their employment, and a 25 percent credit on the second year's wages.

The above discussion indicates a difference of opinion on what should be included in tax credit legislation aimed at encouraging expanded employment and training in private industry. There has been little empirical research, however, to support or refute the contention of tax credit proponents that this is the type of financial incentive preferred by business. Nor has there been significant empirical research directed specifically to questions concerning the tax credit rate, base structure, and potential effect.

Purpose of Study

This study was undertaken in order to gain insight into the attitudes of employers on the nature and potential effectiveness of a human resource tax credit to encourage expanded employment and training by private industry.

Information was sought on the feasibility and potential effect of including in the tax credit base education costs, relocation expenses, and wages paid individuals certified by local employment security offices as being eligible for tax credit employment. In addition, an attempt was made to determine the magnitude of the credit rate necessary to affect the employer's decision to hire, relocate, and provide educational opportunities for disadvantaged individuals.

Finally, employers' estimates of the effect of a wage tax credit on their employment were sought in order to have a basis for estimating the potential effect of a human resource tax credit on the nation's employment and on tax revenue.

Organization of Study

This introductory chapter outlines the nature of the problem investigated in this study; the purpose, organization, significance, and limitations of the study; and a clarification of terms used in the study. A second chapter outlines the work incentive tax credit and other human resource tax credits which have been proposed. Pro and con arguments on the use of a human resource tax credit are also summarized in this chapter. The third chapter contains a discussion of the research methodology. Included in this chapter is a discussion of the research population and samples, a description of the data collection

procedures, and a discussion of the type of analyses to which the survey data were subjected.

The attitudes of employers toward the tax credit approach are examined in the fourth chapter. The data presented in this chapter provide insight into the following questions:

1. What type of financial incentive for employing and training disadvantaged individuals is preferred by employers?

2. What are employers' attitudes on the inclusion of wages, relocation costs, and educational costs in the tax credit base?

3. What are employers' attitudes on potential employer abuse of a human resource tax credit?

4. Do employers feel it would be feasible and effective to establish a maximum acceptable employee turnover ratio as an employer eligibility requirement for a human resource tax credit?

5. Is firm size or business activity a factor affecting the attitudes of employers on the desirability and nature of a human resource tax credit?

Chapter V involves an analysis of employers' numerical estimates related to a tax credit employer eligibility requirement, the tax credit base, the tax credit rate, and the potential effect of a human resource tax credit. The following questions are analyzed in this chapter:

1. What maximum employee turnover rate would be fair as an employer eligibility requirement for a human resource tax credit?

2. If a tax credit is granted on wages paid disadvantaged employees, over what length of time should the wages paid such employees be included in the tax credit base?

3. What magnitude of credit rates is necessary in order for a tax credit to have an effect on the employment, relocation, and education of disadvantaged individuals?

4. What is the potential effect of alternative tax credit rates on the employment of disadvantaged individuals?

5. What is the potential tax revenue loss of alternative tax credit rates?

6. Are the employment plans of employers flexible enough so that they could be adjusted to take into account monthly changes in the tax credit rate?

7. Would employers be willing to add disadvantaged individuals to their registered apprenticeship programs if granted a tax credit on wages paid such individuals during their apprenticeship training?

A final chapter summarizes the results of the study and presents conclusions and recommendations relating to the desirability and nature of a human resource tax credit.

Significance of Study

A most important question concerning the use of a human resource tax credit is whether or not employers would prefer this type of incentive over a direct expenditure subsidy. This study provides significant empirical data on this question. Additionally, if human resource tax credit legislation again comes under consideration in the Congress, this study provides data which should be useful in answering the following questions:

1. On what cost factors should a human resource tax credit be based?

2. How much of a tax credit is necessary in order for it to stimulate the desired response in industry?

3. What is the potential effect of a human resource tax credit on the nation's employment and on tax revenue?

Finally, it is felt that this study is significant in that it points to the need for additional research on the use of tax credits to combat social, economic, and environmental problems.

Limitations of the Study

This study is limited to a survey of employers' attitudes and estimates on the desirability, nature, and potential effectiveness of a tax credit financial incentive to encourage increased employment and training of disadvantaged individuals. No attempt was made to obtain estimates from government officials or participating employers on the extra administrative costs of such a tax incentive. Nor was there any attempt to measure the relative administrative efficiency of a tax credit financial incentive versus a direct expenditure incentive. The study was also limited in that it did not seek to measure union reaction to the tax credit approach. Chapter II does, however, make note of a union argument against the tax incentive approach. Also, this study involves only the demand side of the labor market for disadvantaged individuals. No attempt was made to study the effectiveness of government agencies in identifying individuals eligible for tax credit employment.

To summarize, although it is felt that this study generated meaningful data on the nature and potential effectiveness of a human resource tax credit, it should be viewed as only a step in the gathering of empirical data necessary to properly evaluate such a tax credit.

Clarification of Terms

Disadvantaged Individual. For the purpose of this study a disadvantaged individual is anyone so designated by the employment security office in accordance with the U.S. Department of Labor definition of a disadvantaged individual. (See infra, p. 21.)

Tax Credit. "A tax credit is an allowance that can be directly offset against the tax liability of an individual or business, in contrast to a tax deduction, which is subtracted from gross income before tax."[8]

Tax Credit Base. Cost elements such as the taxable wages reported on the employer's withholding statement, education costs, and relocation costs. The credit base is the dollar amount of qualifying cost elements to which the credit rate is applied in computation of the net tax credit.

Qualified Education Cost. Education costs which would be defined by the Internal Revenue Service as eligible for inclusion in a human resource tax credit base.

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[8]Tax Credits Past Experience and Current Issues (New York: Tax Foundation, Inc., 1969), p. 31.

Relocation Costs. Costs paid by employers to move disadvantaged individuals from a labor surplus area to the employer's labor market area. Such costs would constitute part of the credit base and would be strictly defined in the Internal Revenue Service Code.

Tax Credit Rate. A percentage established by the tax law. This percentage is applied against the credit base in computing the net amount of the credit.

CHAPTER II

SUMMARY OF HUMAN RESOURCE TAX CREDIT LEGISLATION AND PROPOSALS, AND A REVIEW OF THE ISSUES

Several tax credit plans for encouraging employers to increase their employment and training have been proposed in recent years. The Congress has also enacted into law a tax credit on wages paid individuals employed under a work incentive program. The purpose of the chapter is to summarize the basic features of the tax credit legislation and proposals and to review the issues surrounding the use of human resource tax credits.

Tax Credit Legislation

A human resource tax credit was incorporated into law as part of the 1971 Revenue Act. This credit is identified as the Work Incentive Program Credit.[1]

Under the work incentive tax credit an employer is granted a 20 percent tax credit on the first 12 months' wages or salaries paid to welfare recipients certified by

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[1]Commerce Clearing House, Inc., Explanation of Revenue Act of 1971 (Chicago: Commerce Clearing House, Inc., 1971), pp. 60-62.

the Secretary of Labor as being eligible for the tax credit. The maximum tax credit is $25,000 plus 50 percent of the taxpayer's liability in excess of $25,000. For married taxpayers filing separate returns the credit is limited to $12,500 plus 25 percent of the taxpayers taxable income in excess of $25,000. Unused work incentive tax credits may be carried back to offset tax liabilities in three prior years and then carried forward to offset tax liabilities in seven subsequent years. Since the credit was enacted in 1971, the carryback provision applies only to tax years which begin after 1971.

The work incentive tax credit also contains a provision which provides for a recapture of the tax credit granted on an employee whose employment is "terminated without cause" prior to being employed for 24 months. Under this provision it will not be held that an employee's employment was "terminated without cause" if the termination is determined under the State's unemployment compensation law to be due to the employee's misconduct.

Proposed Tax Credit Plans

Human resource tax credit proposals have ranged from broadly based plans intended to increase employment and training in general to more narrowly defined plans geared toward increasing employment and training of certified disadvantaged individuals. Various proposals which have been advanced are summarized in the following paragraphs.

Tax Credits to Increase Overall Employment and Training

A bill proposing a tax credit to employers as an incentive to create jobs was introduced in the U.S. House of Representatives by Congressman McClory (Republican-Illinois) on March 21, 1963.[2] This bill proposed granting employers an income tax credit for employees added to the employer's payroll above the average number of employees on the payroll during the prior three years. In introducing this bill, Congressman McClory claimed that such a tax credit would "stimulate economic growth" and would provide additional job opportunities for individuals.

In proposing other tax credit plans Congressmen have recognized the need to combat unemployment due to an inadequately trained labor force. One of the first proposals of this type was introduced in Congress on July 29, 1965 by Senator Javits (Republican-New York).[3] This bill, if enacted, would have resulted in an amendment of the 1962 investment tax credit provision of the tax law to include investments in approved training programs. The bill provided that training programs would be eligible for approval by the Secretary of Labor if they developed skills necessary for the national defense, replaced skills made

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[2]U.S. Congress, House, 88th Cong., 1st sess., March 21, 1963, Congressional Record, CIX, 4595.

[3]U.S. Congress, Senate, 89th Cong., 1st sess., July 29, 1965, Congressional Record, CXI, 18801.

obsolete by automation or economic change, or retrained workers relocated by defense shutdowns. In stressing the need for enactment of the bill, Senator Javits counseled that a tax credit on training costs would result in an upgrading of the current work force and would make available entry level jobs for the unemployed and unskilled worker.

Other proposals for providing business with a tax credit to stimulate increased manpower training were introduced in Congress as different versions of the Human Investment Act. The first version of this Act was introduced by Senator Prouty (Republican-Vermont) on February 17, 1965.[4] This Act proposed granting employers a credit against their income tax liability equal to seven percent of qualified manpower training costs. Qualified training costs were defined to include the cost of books, instructors' salaries, training materials and equipment, and a reasonable amount of overhead. In order to qualify for the credit, the employer had to employ the trainee for at least one year after the training period. Also, in a provision similar to one contained in the 1962 investment tax credit, the bill proposed a maximum credit equal to $25,000 plus 50 percent of the taxpayer's liability in excess of $25,000.

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[4]U.S. Congress, Senate, 89th Cong., 1st sess., February 17, 1965, Congressional Record, CXI, 2780.

A subsequent version of the Human Investment Act was introduced by Congressman Curtis (Republican-Missouri) on September 9, 1965.[5] This version defined covered training expenses with more precision. It specifically excluded from the credit base costs associated with the training of managerial, administrative, professional, and scientific personnel. It identified as eligible for the credit wages paid apprenticeship employees, employees in on-the-job training under the Manpower Development and Training Act, and employees in cooperative work-study programs. Also, this second version of the Act reduced from twelve to six months the length of time a trainee would have to remain on the payroll in order for the employer to qualify for the credit.

Congressman Michel (Republican-Illinois) introduced another version of the Human Investment Act on June 20, 1966.[6] His bill proposed placing a $40,000 overall limitation on the amount of the credit to be granted to any one employer. Also, he proposed that the tax credit rate be based on a graduated scale so that employers would be given a credit equal to 40 percent of their first $25,000 of allowable training costs, 20 percent of the next $75,000, and seven percent of all allowable expenses over $100,000.

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[5]U.S. Congress, House, 89th Cong., 1st sess., September 9, 1965, Congressional Record, CXI, 23253.

[6]U.S. Congress, House, 89th Cong., 2nd sess., June 20, 1966, Congressional Record, CXII, 13687.

Other versions of the Human Investment Act were introduced by Senator Prouty (Republican-Vermont) on February 2, 1967 and on February 17, 1969.[7] With the exception of the credit rate which was increased from seven to ten percent, these versions contained essentially the same provisions as the September 9, 1965 version of the Act. However, on August 15, 1969 Senator Prouty introduced another version which expanded the previous versions to include a 20 percent tax credit on training expenses related to the employment and training of individuals certified by the various state employment agencies as "hard-core"[8] unemployed.[9] With this added provision, this version gave recognition to a criticism of prior versions; i.e., a ten percent tax credit on training does not represent sufficient incentive for employers to hire individuals at the end of the queue of unemployed workers. Other proposals, discussed below, were directed specifically toward increasing employment of target individuals.

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[7]U.S. Congress, Senate, 90th Cong., 1st sess., February 2, 1967, Congressional Record, CXIII, 2338; and U.S. Congress, Senate, 91st Cong., 1st sess., February 17, 1969, Congressional Record, CXV, 2423.

[8]This term is used to refer to individuals who are at the end of the unemployment queue because they lack basic employability traits; e.g., an eighth grade education.

[9]U.S. Congress, Senate, 91st Cong., 1st sess., August 5, 1969, Congressional Record, CXV, 22293.

Tax Credits for Employment and Training of Target Individuals

The National Advisory Commission on Civil Disorders (Kerner Commission) reported in 1968 that urban unemployment was a major cause of riots in the nation's cities. Recognizing this problem, the Advisory Panel on Private Enterprise in its report to the Kerner Commission proposed a tax credit plan providing a subsidy to employers on wages paid to individuals certified as "hard-core" unemployed.[10] The Panel's plan called for a 75 percent income tax credit on wages paid certified employees the first six months, a 50 percent credit on the second six month's wages, and a 25 percent credit on wages paid to such employees during the second year of their employment. The Panel recommended that employment security offices or community action agencies be responsible for certifying "hard-core" unemployed individuals as eligible for tax credit employment. According to the plan, each certified individual would be issued a "green card" or some other form of identification. To prevent employers from obtaining a competitive advantage, the plan provided a maximum credit of $25,000 plus 50 percent of the tax liability over $25,000. The plan also limited to a percentage of a firm's employees the number of certified employees for whom a tax credit could be claimed. The limitation was on a sliding scale so that a firm with 100

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[10] Report of the National Advisory Commission on Civil Disorders, Otto Kerner, Chairman (New York: The New York Times Company, 1968), pp. 565-66.

or more employees could claim a credit for no more than 15 percent of its employees, a firm with more than 10 and fewer than 100 employees could claim a credit for up to 25 percent of its work force, and a firm with 10 or fewer employees could claim a credit for no more than 50 percent of its work force. In order to eliminate any hurdle mandatory union membership might be to the placement of the "hard-core," the Panel also included in its proposal a recommendation that certified employees (green card holders) be exempt from union membership until they become permanent employees.

The manpower tax credit provisions recommended by the Kerner Commission were incorporated into the National Manpower Act introduced in the Congress on March 28, 1968.[11] Also, on July 10, 1968 Senator Percy (Republican-Illinois) introduced a Private Enterprise Incentive Act patterned after the tax credit plan proposed by the Kerner Commission.[12] This Act, however, would have spread the tax credit on wages paid certified individuals over a one-year period instead of two years as proposed in the Kerner Commission's report. Specifically, this Act proposed a tax credit equal to 75 percent of wages paid certified individuals the

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[11]U.S. Congress, Senate, 90th Cong., 2nd sess., March 28, 1968, Congressional Record, CXIV, 8113.

[12]U.S. Congress Senate, 90th Cong., 2nd sess., July 10, 1968, Congressional Record, CXIV, 20430.

first four months, a 50 percent credit on wages paid the second four months, and a 25 percent credit on wages paid certified individuals during the last four months of their first year of employment.

Issues Involved in the Tax Credit Approach

The issues surrounding the use of tax credits to encourage increased employment and training by business are examined below by summarizing pro and con arguments relating to the feasibility, effectiveness, and efficiency of using tax credits.

Feasibility of a Human Resource Tax Credit

One of the major problems inherent in the bills proposing a tax credit on training appears to be an adequate definition of eligible on-the-job training costs. For example, one category of eligible training costs was defined in the 1969 version of the proposed Human Investment Act as follows:

> expenses to the taxpayer for "organized job training," including books, testing and training materials, classroom equipment and instructors fees, incurred in training any individual in job skills necessary for and directly related to his employment by the taxpayer or his continued employment with the taxpayer in a position requiring additional job skills, and amounts paid by the taxpayer to an individual as reimbursement for such instruction.[13]

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[13] Congressional Record, CXV, 3427.

The above definition opens up the question of whether or not a firm could include as part of the credit base indirect expenses; e.g., property taxes for that portion of a business firm's premises which may be used for training activities. Inclusion of such overhead items as part of the cost basis for a tax credit might result in a substantial workload of tax cases involving the judgment of Internal Revenue Service auditors and employers' accountants on the allocation of overhead. Those who question the use of a training tax credit make note of this problem. They point out that an attempt to include in a definition of training cost all costs which could reasonably be identified with the training effort could render meaningless the advantage of administrative simplicity which has been claimed for the tax credit approach.[14]

The problem of defining training cost is avoided in those plans which would base a tax credit on wages paid eligible employees. However, with these plans there is a problem of defining who is to be considered an eligible employee. A guideline for determining such eligibility is provided in the Department of Labor's definition of disadvantaged individual for federal manpower programs; e.g.,

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[14]Daniel M Holland, "An Evaluation of Tax Incentives for On-The-Job Training of the Disadvantaged," The Bell Journal of Economics and Management Science, II (Spring, 1971), p. 317.

JOBS.[15] Disadvantaged individuals are defined as:

> Poor individuals who do not have suitable employment and who are either:
>
> 1. School dropouts
> 2. Under 22 years of age
> 3. 45 years of age or older
> 4. Handicapped, or
> 5. Subject to one of the following obstacles to employment
>
> a. Unskilled workers who have had two or more spells of unemployment during the past year totaling 15 weeks or more,
>
> b. Workers whose last jobs were in occupations of significantly lower skill than their previous jobs,
>
> c. Workers who have family histories of dependence on welfare,
>
> d. Workers who have been permanently laid off jobs in industries which are declining in their region,
>
> e. Members of minority groups[16]

A noted weakness of the above definition is the wide range of interpretations it covers as to what constitutes "suitable employment."[17]

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[15]The JOBS (Job Opportunities in Business Sector) is a program sponsored by the National Alliance of Businessmen under which the government contracts with employers to reimburse them for extra costs associated with employing the "hard-core." For an expanded discussion and evaluation of the JOBS program, see "Training Hard-Core Jobless: The Record After Two Years," U.S. News and World Report, March 30, 1970, pp. 68-72. Also see, U.S. Department of Labor, Manpower administration, Introducing JOBS' 1970 (Washington, D.C.: Government Printing Office, 1970).

[16]Holland, "An Evaluation of Tax Incentives for On-The-Job Training of the Disadvantaged," p. 307.

[17]Ibid.

It is apparent from the preceding paragraphs that defining a base for a human resource tax credit involves unique problems not encountered in legislating a tax credit on property. Whether or not it is possible to define employee training costs in such a way so that it is feasible to include such costs in a human resource tax credit base is still open to question.

Potential Effects of a Human Resource Tax Credit

A major argument advanced in support of the tax credit approach to encourage employment and training of the disadvantaged is that more employers will participate in the employment and training of eligible individuals under a tax credit financial incentive than would be the case under a financial incentive requiring a government contract. It is argued that a tax credit involves "a minimum of red tape," and accordingly will encourage smaller employers to participate in the employment of the disadvantaged individual.[18] It is also suggested that businessmen are afraid of "exasperating government requirements," and that a tax credit has the advantage of less government review than subsidy payments under a government contract.[19]

The evidence on the type of financial incentive preferred by employers is limited and inconclusive. In 1968

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[18] Congressional Record, CXIV, 20431.

[19] Congressional Record, CXIII, 2346.

the National Industrial Conference Board sought opinions on the type of financial incentive preferred by business. Results from its survey among 356 companies showed that respondents were about equally divided between government grants or subsidies and tax relief. This survey provided some insight into the attitudes of employers on financial incentives; however, the question to which respondents were replying was not geared directly to a human resource tax credit. Specifically, companies were asked to indicate their preference between tax relief and other financial incentives for encouraging their participation in solving urban problems. Reported comments of the respondents indicate that some of them were thinking about subsidies other than manpower subsidies (e.g., rent) in answering the question. Therefore, there is some question whether respondents would have answered the question in the same manner if they had been limited specifically to a choice between a tax credit or direct subsidy for employing and training the disadvantaged individual.[20] In another very limited and unscientific poll among representatives of 47 companies attending a meeting in 1968 of the President's Task Force on Occupational Training in Industry respondents were reported to be "about equally divided" as to their preference between a tax credit or direct subsidy financial

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[20]National Industrial Conference Board, Business Amid Urban Crisis Private-sector Approaches to City Problems, Studies in Public Affairs, No. 3 (New York: National Industrial Conference Board, 1968), p. 65-66.

incentive.[21] Holland makes note of the limited nature of both of the above surveys and he implies that there is a need for a scientific survey of employers on the type of financial incentive they think would best stimulate their increased participation in manpower programs.[22]

One of the limiting features of a tax credit is that it provides an incentive only to companies which pay income tax. However, proponents argue that this is an advantage of the tax credit approach for training the disadvantaged in that profitable companies provide greater job security and are apt to provide more meaningful training.[23]

In advocating a tax credit as an effective device for encouraging investment in human resources, proponents also point to the experience of the investment tax credit. For example, Senator Prouty in introducing the February 2, 1967 version of the Human Investment Act noted that the seven percent investment tax credit "did help to produce a surge of new investment in equipment and the presumption is now in favor of expanded activity as a result of a tax credit incentive."[24] Whether or not the investment tax credit was a significant factor in business decisions is still a matter

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[21]Holland, "An Evaluation of Tax Incentives for On-The-Job Training of the Disadvantaged," p. 320.

[22]Ibid, p. 318.

[23]Report of the National Advisory Commission on Civil Disorders, p. 566.

[24]Congressional Record, CXIII, 2345.

of some debate. Data on expenditures for plant and equipment during the period the credit was in effect do show a marked increase in such expenditures. Also, an analysis of plant and equipment expenditure data during the suspension of the credit in 1966-67 shows that the rate of increase in such expenditures fell during this period. Such data, however, do not provide direct evidence on the effect of the investment tax credit. Fluctuation in plant and equipment expenditures could have been caused by several other factors; e.g., the 1965 tax rate reduction.[25]

Efficiency of a Tax Credit Financial Incentive

The use of tax credits to solve social and economic problems is often supported on the grounds that the tax credit approach is more efficient than direct government expenditures. The following statement made in support of manpower tax credit legislation is indicative of the intuitive thinking behind this premise:

> Instead of taking money in taxes, paying a number of bureaucratic middlemen, and spending the difference on public programs, the tax-credit method gives a true incentive to business to accomplish the same ends much more efficiently.[26]

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[25] Ray M. Sommerfeld, Hershel M. Anderson, and Horace R. Brock, An Introduction to Taxation (New York: Harcourt, Brace and World, Inc., 1969), pp. 284-90.

[26] Congressional Record, CXIII, 2346.

The elimination of "bureaucratic middlemen" seems to be a strong argument for the efficiency of tax credits. However, opponents of tax credits point out that the use of tax credits to attack social and economic problems may lead to inefficient use of legislative talent. It is argued that the congressional committees responsible for tax credit legislation; i.e., House Ways and Means and Senate Finance Committees, do not have special expertise in areas such as manpower training. Under a direct expenditure program manpower legislation would be referred to a congressional committee(s) having special knowledge of manpower problems.[27]

Another weakness that has been noted in connection with the use of tax credits is that Congress and the Bureau of the Budget cannot exercise direct control over the amount of tax revenue loss resulting from tax incentives. This lack of control has led tax credit opponents to caution that such incentives may not be an efficient means of combating social and economic problems. The fear is expressed that since a tax credit is available to all taxpayers it results in many taxpayers receiving a benefit for actions which would be undertaken in the absence of a tax credit.[28]

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[27]Stanley S. Surrey, "Tax Incentives as a Device for Implementing Government Policy: A Comparison with Direct Government Expenditures," Harvard Law Review, LXXXIII (February, 1970), p. 728.

[28]Tax Credits Past Experience and Current Issues (New York: Tax Foundation, Inc., 1969), p. 29.

The American Federation of Labor and Congress of Industrial Organizations has expressed concern that a manpower tax credit might result in employers playing "musical chairs" with employees. The fear is expressed that regular employees would be replaced with tax credit employees, and that tax credit employees would be replaced with a new group of eligible employees as soon as their wages ceased to be subsidized by a tax credit.[29] Advocates of human resource tax credits argue, however, that control procedures can be devised to prevent the above type of abuse. For example, the following control procedures for a human resource tax credit were recommended in a minority report of the President's Task Force on Occupational Training in Industry:

> Displacement of regular employees to make room for "certified" trainees could be readily checked through normal unemployment insurance procedures. Participating establishments would be flagged in the local office. U.I. /Unemployment Insurance/ claimants from these establishments would automatically trigger an investigation of the circumstances of the layoff or dismissal.
>
> To ascertain that the employer is fulfilling the terms of his agreement, occasional spot checks could be conducted by the field staff of investigators employed under the Fair Labor Standards Act.[30]

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[29] American Federation of Labor and Congress of Industrial Organizations, The AFL-CIO Platform Proposals, presented to the Republican and Democratic National Conventions, 1968, p. 4.

[30] U.S. Department of Labor, Manpower Administration, A Government Commitment to Occupational Training in Industry (Washington, D.C.: Government Printing Office, August, 1968), pp. 77-90.

It should be noted in connection with the above procedures, however, that as more control is exercised over a tax credit the less legitimate becomes the claim that a tax credit is simple and more attractive to employers because it involves less bureaucratic interference.[31]

Those who question the use of tax credits to accomplish social objectives also express concern that such incentives will make more confusing an already complex tax law. They point out that the administration of social legislation is usually the responsibility of government agencies such as Health, Education, and Welfare; and that it may be an inefficient use of administrative talent to place primary responsibility for administration of a social program with the Internal Revenue Service.[32] However, the Internal Revenue Service has in the past been assigned responsibility for the administration of programs not directly connected with the collection of tax revenue; e.g., administration of the Nixon wage and price controls. Moreover, proponents of a manpower tax credit contend that the additional cost to administer a more complex tax code would be less than the cost of maintaining another government agency to administer a program under which

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[31]Supra, p. 22.

[32]Surrey, "Tax Incentives," pp. 729-32.

employers receive direct cash payments for employing and training the disadvantaged.[33]

Summary

This chapter summarized main features of human resource tax credit legislation and proposals. Also, the debate surrounding the use of such tax credits was discussed by examining pro and con arguments as they relate to the feasibility, effectiveness, and efficiency of the tax incentive approach. This review of the literature indicates that there is a lack of empirical research data to support or refute contentions relating to the potential success of a tax credit to encourage increased employment and training of disadvantaged individuals. It is obvious that the success of such a tax credit depends on the actions of individual employers. Therefore, this study was designed (as described in the following chapter) to measure employers' attitudes and obtain their estimates on the potential impact of a tax credit on investment in human resources.

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[33]Marie Murray, "The Human Investment Act: Pro and Con," (Washington, D.C.: The Library of Congress Legislative Reference Service, March 2, 1966), p. 8.

CHAPTER III

RESEARCH METHODS

The purpose of this chapter is to describe the research methodology used to obtain employers' opinions on the use of income tax credits to encourage expanded employment and training of disadvantaged individuals by private industry. The chapter includes explanations of the population and samples from whom empirical data were obtained, the methods used for data collection, the type of analyses to which the data collected were subjected, and the statistical tests used in analyzing the data.

Population and Samples

The population of this study includes approximately 2300 firms listed in the Dun and Bradstreet Reference Book of Corporate Management 1970 for Companies with $20 million or more in sales and (or) 1000 or more employees. The population also includes approximately 1550 Oklahoma firms employing more than five persons and which are not subsidiaries or divisions of other firms. This population is identified in the Oklahoma Directory of Manufacturers

and Products.[1] The Directory lists firms engaged in various economic activities; e.g., agriculture, mining, construction, manufacturing, transportation, communication, wholesale and retail trade, and various services. It appears from scanning the Directory that total employment for the majority of firms listed is between 5 and 100 employees. This population was, therefore, considered representative of small employers.

A sample of 500 firms, consisting of 250 firms from the Dun and Bradstreet listing and 250 firms from the Oklahoma listing, was selected with the use of tables of randomly selected numbers. The two samples were selected in order to determine if firm size is a factor affecting employers' attitudes toward a human resource tax credit.

Concerning the size of the samples, Simon notes that "there is just no easy answer to the question of how large a sample to take."[2] According to Blalock, as the sample size approaches 100 a normal distribution; e.g., a bell shaped curve, can generally be assumed.[3] In this connection, it was felt that the samples of 250 Oklahoma firms and 250 Dun and Bradstreet firms would each yield approximately 100

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[1]Oklahoma, Industrial Development and Park Department, Oklahoma Directory of Manufacturers and Products, 1970 (Oklahoma City, 1970).

[2]Julian L. Simon, Basic Research Methods in Social Science (New York: Random House, 1969), p. 431.

[3]Hubert M. Blalock, Jr., Social Statistics (New York: McGraw-Hill Book Company, Inc., 1960), p. 142.

responses; and that the respondents would be representative of the respective populations.

A consideration in determining sample size was also the nature of the statistical tests to which the survey results were to be subjected. According to Siegel, the Kolmogorov-Smirnov test (this test is discussed in a subsequent section) can be used for testing the statistical significance of differences between very small samples; e.g., samples of fewer than eight firms; and it can also be used for testing the statistical significance of differences between large samples; e.g., samples containing 100 or more firms.[4] Therefore, use of the Kolmogorov-Smirnov test was not restricted by the sample sizes of this study. Also, Chao's discussion of the difference in means (t test) and analysis of variance (F test) indicates that the number of responses received from the independent samples of this study was sufficient for the use of these tests.[5] The t and F tests are discussed in a subsequent section.

Data Collection

A mail questionnaire was utilized in this study in order to obtain the following type of information:

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[4] Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, 1956), p. 48.

[5] Lincoln L. Chao, Statistics: Methods and Analyses (New York: McGraw-Hill Book Company, 1969), pp. 260 and 301.

1. The attitudes of employers toward a tax credit versus contractual reimbursement for training the disadvantaged.

2. Employers' attitudes on employer eligibility and tax credit base criteria.

3. Employers' estimates of the appropriate magnitude for the tax credit eligibility and base criteria and for the tax credit rates.

4. Employers' estimates of the effect a wage tax credit would have on their employment, including apprentice employment.

5. Employers' opinions on the adaptability of their employment plans to changes in a tax credit rate.

An initial questionnaire was prepared in a format that attempted to incorporate the best ideas from textbooks on questionnaire design.[6] Competent advice was also obtained from statisticians at Oklahoma State University. In discussing questionnaire design, Oppenheim states that "probably the best way to assess a question is make it part of a short questionnaire and administer it to a pilot sample of about fifty people."[7] During the period April 10 to May 8, 1971 test versions of the questionnaire used in this study were mailed to the presidents of 50 Dun and Bradstreet firms and 60 Oklahoma firms. Responses to the test surveys were received from 26 firms (23.6 percent). No follow-up mailings were made of the test instruments.

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[6]Textbooks used were: A.N. Oppenheim, Questionnaire Design and Attitude Measurement (New York: Basic Books, Inc., 1966); and Herbert Hyman, Survey Design and Analysis: Principles, Cases, and Procedures (Glencoe, Illinois: The Free Press, 1955).

[7]Oppenheim, Questionnaire Design, p. 28.

The results of the test surveys indicated that employers understood the questions being asked but were hesitant to think in terms of more than one credit rate in answering questions concerning the effect of the credit on their employment decision. Therefore, the final instrument did not ask employers to assume different credit rates in answering questions concerning the potential effect of the tax credit.

The final version of the questionnaire was mailed to the presidents of 250 Dun and Bradstreet firms and 250 Oklahoma firms on May 22, 1971. In order to improve response, follow-up letters and additional copies of the questionnaire were mailed to the nonrespondent Dun and Bradstreet firms on June 11 and 28, and to the nonrespondent Oklahoma firms on June 5 and 26. The questionnaire and cover letters are included in the appendix of this study.

Answers to the questionnaire were received from 45.4 percent of the firms surveyed. In addition, another 3.2 percent of the firms (16 firms) responded without filling out the questionnaire. Company policy and lack of information were reasons given by some of the firms for not filling out the questionnaire. Nine of the firms which did not fill out the questionnaire did, however, add comments pertinent to the survey. In all, responses were received from 124 (49.6 percent) of the Oklahoma firms and 119 (47.6 percent) of the Dun and Bradstreet firms.

Although the identity of respondents was not asked for on the questionnaire, some of the returned questionnaires were signed by the president or other responsible individuals in the firm. These signatures provide support for the assumption that completed questionnaires were filled out by responsible, competent individuals.

In order to obtain additional insight into why employers did or did not indicate a preference for the tax credit approach, telephone interviews were conducted with fifteen of the Oklahoma respondents. The telephone interviews were also used to obtain an indication of the reliability that can be placed on the responses to the mail instrument. An indication of the reliability is that in responding to a telephone interview question regarding a tax credit versus direct expenditure financial incentive only one of the fifteen respondents indicated a preference different than their answer to a similar question on the mail questionnaire.

Analysis of Data

The data obtained in this study were analyzed for the overall Dun and Bradstreet and Oklahoma samples and for subsamples of these firms. The subsamples of Dun and Bradstreet firms were determined by classifying respondents according to the standard industrial classification code into the following four categories: manufacturing,

wholesale-retail, utility-transportation, and financial. Firms engaged in mining activity were included in the manufacturing classification. The subsamples of Oklahoma firms were determined by classifying the respondents according to principal product, as identified in the Oklahoma Directory of Manufacturers and Products. The firms were classified into the following four categories: construction, industrial, food, and miscellaneous. It is felt that the breakdown of the data from the Dun and Bradstreet and Oklahoma firms into the above subsamples provides some insight into the effect, if any, of business activity on the firms' responses to the statements and questions related to a human resource tax credit.

The study generated both ordinal and ratio data. To comprehend the difference between ordinal and ratio data, note that with ratio data we can say that the distance between 1 and 2 is the same as the distance between 2 and 3. However, with ordinal data, we can only say that one category ranks higher or lower than another; e.g., strongly agree ranks higher than agree and agree ranks higher than uncertain. With ordinal data we cannot say that the distance between two categories; e.g., strongly agree and agree, is the same as the distance between another two categories; e.g., agree and uncertain. Also, with ordinal data we cannot say that two respondents mean the same thing when they select identical choices. For example, the term strong agreement will have different degrees of meaning to

different individuals. With ratio data, however, when two people select the same choice, e.g., the number 5 in response to a question asking the number of persons in the respondent's family, there is no doubt that they mean the same thing.

The ordinal data obtained in this study related to employers' attitudes on the desirability and nature of a human resource tax credit. Such data were analyzed by tabulating frequency and percentage distributions of the responses from the different types of Dun and Bradstreet and Oklahoma firms. The responses of each sample and subsample were also tested against the following operational null hypotheses in order to determine the significance of the attitudes of large and small employers and different types of employers:

1. Employers do not have significant preferences between tax credit and contractual reimbursement for employing the disadvantaged.

2. Employers do not have significant attitudes with regard to the feasibility and effectiveness of a tax credit on wages paid individuals certified as disadvantaged.

3. Employers do not have significant attitudes with regard to the feasibility and effectiveness of a tax credit on the cost incurred by employers to relocate a disadvantaged individual from a labor surplus area to the employer's labor market area.

4. Employers do not have significant attitudes with regard to the feasibility and effectiveness of a tax credit on educational costs paid for disadvantaged employees.

5. Employers do not have significant attitudes with regard to potential employer abuse of a human resource tax credit through replacement of regular employees with tax credit employees.

6. Employers do not have significant attitudes with regard to the use of employee turnover as an employer eligibility requirement for a human resource tax credit.

12. The opinions of employers on their ability to adapt their employment plans to changes in the magnitude of a human resource tax credit rate are not statistically significant.

The tests of hypotheses one through six are reported in Chapter IV. The test of hypothesis twelve is reported in Chapter V. The Kolmogorov-Smirnov one-sample test was used to test these hypotheses. This test is discussed below in the section on statistical tests.

The ratio data in this study consisted of employers' estimates related to employer eligibility and base criteria; the magnitude of tax credit rates on wages, relocation costs, and education costs; and the potential effect of a tax credit on the firm's employment. Ratio data related to employer eligibility and base criteria and tax credit rates were analyzed by tabulating frequency and percentage distributions and means for the samples and subsamples of Dun and Bradstreet and Oklahoma firms. In addition, the responses were tested against the following operational null hypotheses in order to gain insight into the feasibility of establishing uniform employer eligibility and base criteria and uniform credit rates for employers which

differ significantly with respect to firm size and business activity:

7. There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the employee turnover ratio which should be established as an employer eligibility requirement for a human resource tax credit.

8. There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the length of time wages paid disadvantaged employees should be covered by an income tax credit.

9. There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the rate that should be established for a tax credit on wages.

10. There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the rate that should be established for a tax credit on costs incurred by employers to relocate disadvantaged individuals to the employer's labor market area.

11. There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the rate that should be established for a tax credit on educational costs paid for disadvantaged employees.

The tests of the above hypotheses are reported in Chapter V. The differences in means (t test) was used to test the hypotheses for differences between the Dun and Bradstreet and Oklahoma firms. The analysis of variance (F test) was used to test the hypotheses for differences among the four classifications of Dun and Bradstreet firms

and among the four classifications of Oklahoma firms. These tests are discussed below in the section on statistical tests.

Ratio data on the potential effect of a tax credit were also obtained by asking employers to indicate the number of disadvantaged individuals they would add to their present employment if granted a tax credit on the wages paid such individuals. In responding to this question, employers were asked to assume the credit rate and base period indicated in their responses to earlier statements on the questionnaire. To analyze this data, the Dun and Bradstreet and Oklahoma firms were classified according to the credit rate indicated in their response to the question asking their estimate of the magnitude of credit rate necessary to affect their employment decision. The number of firms, present employment of the firms, employers' estimates of the additional employment of disadvantaged individuals which would result from the tax credit, and the percentage increase in employment were tabulated for seven credit rate intervals. These statistics were then related to national statistics on employment in order to estimate the potential effect of alternative tax credit rates on the nation's employment and on tax revenue.

Explanation of Statistical Tests

The Kolmogorov-Smirnov one-sample statistical test was used to test at the .05 level of significance hypotheses related to employers' attitudes on the desirability and nature of a human resource tax credit. Testing at the .05 level of significance means that there is less than 5 percent probability that a sample response could occur if the null hypothesis being tested is true. A one-sample statistical test (rather than a two sample statistical test; e.g., Mann-Whitney U) was appropriate because the hypothesis involved tests of the statistical significance of responses from individual samples and subsamples, rather than tests of the statistical significance of differences between samples.

The Kolmogorov-Smirnov one-sample test was chosen over the one-sample t test and over the one-sample X^2 (Chi square) test because the hypotheses are related to ordinal data which were obtained from a Likert-type scale. In discussing a Likert-type scale, Selltiz, et al., state:

> the subjects are asked to respond to each item in terms of several degrees of agreement or disagreement; for example, (1) strongly approve, (2) approve, (3) undecided, (4) disapprove, (5) strongly disapprove....the Likert-type scale does not claim to be more than an ordinal scale; that is, it makes possible the ranking of individuals in terms of the favorableness of their attitude toward a given object, but it does not provide a basis for saying how much more favorable one is than another, nor for measuring the amount of change after some experience.[8]

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[8]Selltiz, et al., Research Methods in Social Relations (New York: Holt Rinehart and Winston, 1959), pp. 366-69.

According to the above quotation, data obtained from a Likert-type scale is ordinal rather than interval. Siegel notes that the t test is not appropriate for data measured on an ordinal scale;[9] e.g., employer's attitudes. The t test is, however, used in connection with ratio data obtained in this study; e.g., employers' numerical estimates of credit rate magnitudes, etc.

The X^2 test could have been used for testing the hypotheses related to data measured on an ordinal scale; however, when ordinal measurement has been obtained, Siegel suggests that the X^2 test is not as powerful as the Kolmogorov-Smirnov test because with the X^2 test information is lost through the combining of categories.[10] For example, use of the X^2 test in this study would have resulted in the combining of three agreement and three disagreement categories into two categories-one for agreement and one for disagreement. The X^2 test is useful for nominal data. Nominal data results when respondents are only given a choice of yes or no in response to a question or statement. Nominal data does not provide for a ranking of categories.

The following paragraphs describe the use of the Kolmogorov-Smirnov, t, and F tests. Examples are included for the purpose of explaining the logic of the tests. The examples do not present findings of the study.

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[9]Siegel, Nonparametric Statistics, p. 19.

[10]Ibid., p. 51.

Under the Kolmogorov-Smirnov test a theoretical cumulative percentage distribution indicated by a null hypothesis is compared with a cumulative percentage distribution of actual responses from a population sample. To illustrate the use of this test, assume responses from 60 employers to the questionnaire item for which Hypothesis 1 above was tested yield the following percentage and cumulative percentage distributions.

	Percentage Distribution of Responses	Cumulative Percentage Distribution
strong agreement	.334	.334
moderate agreement	.250	.584
slight agreement	.167	.751
slight disagreement	.083	.834
moderate disagreement	.083	.917
strong disagreement	.083	1.000

Under the null hypothesis, which states that employers do not have significant preferences between tax credit and contractual reimbursement, we theorize the following percentage and cumulative percentage distributions:

	Percentage Distribution of Responses	Cumulative Percentage Distribution
strong agreement	.166	.166
moderate agreement	.166	.333
slight agreement	.166	.500
slight disagreement	.166	.666
moderate disagreement	.166	.833
strong disagreement	.166	1.000

Siegel notes that the theoretical distribution under the Kolmogorov-Smirnov test is based on the assumption that if respondents do not have strong opinions with regard to the

characteristic being measured each response category "should be chosen equally often except for random differences."[11] Thus, with the ordinal data of this study, it is assumed that if employers do not have strong opinions on the attitude being measured, there will be a uniform distribution among the response categories. The Kolmogorov-Smirnov test is used to determine at the .05 significance level whether the actual sample responses could have come from a population with attitudes as specified by the theoretical distribution. The Kolmogorov-Smirnov test involves the computation of a test value, D. The D value is equal to the maximum absolute deviation which occurs between a response category in the cumulative distribution of actual responses and the corresponding response category in the theoretical cumulative distribution. For the above data, the maximum deviation is .25. This value occurs in both the moderate agreement and slight agreement categories. Therefore, the D statistic for this data is equal to .25. Reference to a table of D values[12] shows that for samples (n) greater than 35 a D value is significant at the .05 level if it is equal to or greater than $\frac{1.36}{\sqrt{n}}$. For a sample of 60, the $\frac{1.36}{\sqrt{n}}$ is equal to .176. Since the D value of .25 for the above data is greater than .176, the

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[11] Ibid., p. 49.

[12] Ibid., p. 251.

null hypothesis is rejected at the .05 level of significance; i.e., there is less than five percent probability that a sample of 60 employers would respond in the manner shown in the actual distribution above if employers in the total population were evenly divided in their attitudes toward tax credit versus contractual reimbursement. Therefore, assuming the hypothetical data of this example, it would be concluded that employers do have significant preferences between tax credit and contractual reimbursement for employing the disadvantaged.

The t test was used to test at the .05 level of significance Hypotheses 7 through 11 above for the significance of differences between Dun and Bradstreet and Oklahoma firms. These hypotheses relate to ratio data on employer eligibility, the tax credit base, and the tax credit rate. The t test was chosen because it is appropriate for ratio data, and because it is designed to test the significance of differences between two samples.[13]

To illustrate the t test, assume the following means and variances for the responses of 101 Dun and Bradstreet firms and 99 Oklahoma firms to a question related to Hypothesis 10, which specifies that there is no significant difference between Dun and Bradstreet and Oklahoma firms on the rate that should be established for a tax credit on wages:

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[13]Delbert C. Miller, Handbook of Research Design and Social Measurement (New York: David McKay Company, Inc., 1964), p. 79.

	Dun and Bradstreet	Oklahoma
Size of sample	(n_1) 101	(n_2) 99
Mean response	$(\bar{X}_1)$ 20	$(\bar{X}_2)$ 15
Variance	(s_1^2) 1200	(s_2^2) 1274

To compute t, the estimated standard error of the difference (SD) is determined as follows:

$$SD = \sqrt{\frac{s_1^2}{n_1-1} - \frac{s_2^2}{n_2-1}} = \sqrt{\frac{1200}{100} - \frac{1274}{98}} = \sqrt{25} = 5$$

The t ratio is then computed as follows:

$$t = \frac{\bar{x}1-\bar{x}2}{SD} = \frac{20-15}{5} = 1$$

According to Chao, the normal distribution (Z) can be used as an approximation of the t distribution when the sample is large. He states that a sample of 31 or more observations can be considered large with a negligible risk of error.[14] Therefore, for the Dun and Bradstreet and Oklahoma samples it is appropriate to use the Z distribution for evaluating whether the computed t is significant. Under the Z distribution, a value is significant at the .05 level if it is equal to or greater than 1.96 or if it is less than or equal to -1.96. Since the computed t above is less than 1.96 but greater than -1.96, the null hypothesis is not rejected at the .05 level. Therefore, assuming the

[14]Chao, Statistics: Methods and Analyses, p. 253-260.

hypothetical data in this example, it could not be concluded with at least a 95 percent probability that there is a significant difference between Dun and Bradstreet and Oklahoma firms on the rate that should be established for a tax credit on wages.

The F test was used to test at the .05 level of significance Hypotheses 7 through 11 above for significant differences among different types of Dun and Bradstreet and Oklahoma firms. The F test was chosen because it is appropriate for ratio data and because the F test is designed to test the significance of differences among the means of more than two samples.[15]

The F ratio for determining the significance of differences among sample means is computed by the formula:

$$F = \frac{\dfrac{\sum_{K=1}^{K} \frac{Tk^2}{nk} - \frac{T^2}{N}}{K - 1}}{\dfrac{\sum_{l=1}^{nk} \sum_{k=1}^{K} Xik^2 - \sum_{k=1}^{k} \frac{Tk^2}{nk}}{N - K}}$$

K is equal to the number of different samples.
Xik^2 is equal to the square of the i^{th} score in the k^{th} sample.
T^2 is equal to the square of the total of all the raw scores.
Tk^2 is equal to the square of the total of the raw scores for the k^{th} sample.
N is equal to the total number of raw scores.
nk is equal to the number of raw scores in the k^{th} sample.

[15]Ibid., p. 495.

To illustrate the F test, assume the following values are computed from data provided by three different types of Dun and Bradstreet firms in response to the question related to Hypothesis 10, which specifies that there is no significant difference among subsamples of Dun and Bradstreet firms with respect to the rate that should be established for a tax credit on wages:

$$\sum_{k=1}^{K} \frac{Tk^2}{nk} = 44{,}030$$

$$\frac{T^2}{N} = 43{,}740$$

$$\sum_{i=1}^{nk} \sum_{k=1}^{k} Xik^2 = 44{,}408$$

$$N = 15$$

$$K = 3$$

By substituting the above values into the F ratio formula and solving we obtain the following:

$$F = \frac{\frac{44{,}030 - 43{,}740}{2}}{\frac{44{,}408 - 44{,}030}{12}} = \frac{145}{31.5} = 4.6$$

Reference to a table of F ratios[16] shows that for the above samples an F ratio greater than or equal to 3.89 is significant at the .05 level. Since 4.6 is greater than 3.89, Hypothesis 10 would be rejected for the above

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[16] Ibid,, p. 495.

hypothetical data. Therefore, we would conclude that there is at least a 95 percent probability that the different types of Dun and Bradstreet firms represented by the above samples do have significantly different opinions with regard to the necessary magnitude of a tax credit on wages.

Summary

This chapter has detailed the research methods used in this study to obtain and analyze employer data on the nature and potential effect of a human resource tax credit. This discussion included a description of the population and samples, the data collection procedures, the type of analyses performed on the data, and the statistical tests used in the analyses. The findings, conclusions, and recommendations resulting from this research are presented in the following chapters.

CHAPTER IV

FINDINGS AND IMPLICATIONS OF EMPLOYERS' ATTITUDES ON THE DESIRABILITY AND NATURE OF A TAX CREDIT TO ENCOURAGE EMPLOYMENT AND TRAINING OF DISADVANTAGED INDIVIDUALS

The purpose of this chapter is to report and analyze employer's attitudes related to the desirability and nature of a human resource tax credit. First, employers' preferences between a tax credit and contractual reimbursement for employing and training the disadvantaged are summarized and analyzed. Second, the chapter examines the attitudes of employers on the feasibility and effect of including in the base of a tax credit wages paid disadvantaged individuals, education costs paid by employers for such individuals, and the costs associated with relocating a disadvantaged person from a labor surplus area to the employer's labor market area. Finally, this chapter presents a summary and analysis of employers' attitudes on the potential abuse of a human resource tax credit by employers and on the control of this potential abuse through a requirement specifying that a firm's employee turnover ratio be below a specified maximum in order for the firm to be eligible for the tax credit.

Tax Credit Versus Contractual Reimbursement for Employing the Disadvantaged

Hypothesis 1: Employers do not have significant preferences between tax credit and contractual reimbursement for employing the disadvantaged.

It was noted in Chapter II that a major issue concerning the use of a tax credit to encourage employment of the disadvantaged is the receptiveness of private business firms to this type of approach. The issue is in essence a question of the mode of reimbursement preferred by employers. In order to obtain information on this issue, the employers surveyed in this study were asked to indicate their degree of preference between a tax credit or direct contract form of reimbursement. Specifically, employers were asked to express their degree of agreement or disagreement with the following statement:

> Your firm would be more inclined to employ certified individuals if granted a tax credit providing a reimbursement of a percentage of their wages than if required to enter into a formal contract with the government in order to receive a reimbursement of an equivalent amount.

The heading of the research instrument informed repondents that "certified individuals" referred to persons identified as disadvantaged by local employment security offices. The frequency and percentage distributions of the 225 responses to the above statement are presented in Table I.

TABLE I

FREQUENCY AND PERCENTAGE DISTRIBUTION OF EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING A PREFERENCE FOR TAX CREDIT REIMBURSEMENT OVER CONTRACTUAL REIMBURSEMENT

Dun and Bradstreet Firms

Type of Response	Manufacturing N[a]	Manufacturing (%)[b]	Wholesale-Retail N	Wholesale-Retail (%)	Utility-Transportation N	Utility-Transportation (%)	Financial N	Financial (%)	Total N	Total (%)
Strong Agreement	24	(36)	4	(40)	5	(25)	2	(15)	35	(31)
Moderate Agreement	15	(22)	2	(20)	5	(25)	3	(21)	25	(22)
Slight Agreement	15	(22)	0	(0)	3	(15)	6	(43)	24	(22)
Total Agreement	54	(80)	6	(60)	13	(65)	11	(79)	84	(75)
Slight Disagreement	3	(5)	1	(10)	4	(20)	0	(0)	8	(7)
Moderate Disagreement	4	(6)	1	(10)	0	(0)	0	(0)	5	(5)
Strong Disagreement	6	(9)	2	(20)	3	(15)	3	(21)	14	(13)
Total Disagreement	13	(20)	4	(40)	7	(35)	3	(21)	27	(25)
Total Responses	67	(100)	10	(100)	20	(100)	14	(100)	111	(100)
D Values	.306*		.267		.184		.286		.256*	

Oklahoma Firms

Type of Response	Construction N	Construction (%)	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
Strong Agreement	5	(46)	14	(37)	7	(30)	16	(38)	42	(37)
Moderate Agreement	4	(36)	12	(32)	8	(35)	5	(12)	29	(25)
Slight Agreement	0	(0)	5	(13)	3	(13)	15	(36)	23	(20)
Total Agreement	9	(82)	31	(82)	18	(78)	36	(86)	94	(82)
Slight Disagreement	1	(9)	2	(5)	2	(9)	3	(7)	8	(7)
Moderate Disagreement	0	(0)	2	(5)	1	(4)	1	(2)	4	(4)
Strong Disagreement	1	(9)	3	(8)	2	(9)	2	(5)	8	(7)
Total Disagreement	2	(18)	7	(18)	5	(22)	6	(14)	20	(18)
Total Responses	11	(100)	38	(100)	23	(100)	42	(100)	114	(100)
D Values	.485*		.351*		.329*		.357*		.325*	

*D value is significant at the .05 level. (See Siegel, Nonparametric Statistics, Table E, p. 251.)

[a]Number of Responses
[b]Percent of Total Responses

Summary of Results

The data in Table I show that a majority of the Dun and Bradstreet firms (75 percent) and a majority of the Oklahoma firms (82 percent) agree that they would be more inclined to employ certified disadvantaged individuals under a tax credit approach than under a formal contractual agreement with the government. Moreover, the percentage distributions for the four subsamples of Dun and Bradstreet firms and for the four subsamples of Oklahoma firms show that a majority of the firms in each subsample prefer a tax credit approach. In order to determine the significance of these response distributions, the responses of each of the samples and subsamples were subjected to the Kolmogorov-Smirnov one-sample test. Table I shows that the D values computed under this test are significant at the .05 level for the overall Dun and Bradstreet sample, the overall Oklahoma sample, the manufacturing subsample of Dun and Bradstreet firms, and for all four subsamples of Oklahoma firms. The significant D values mean that Hypothesis 1 is rejected for these classifications of firms. It is concluded, therefore, that there is at least a 95 percent probability that the populations represented by these firms have significant preferences with regard to a tax credit versus contractual reimbursement for employing the disadvantaged.

Although the D values for the wholesale-retail firms, utility-transportation firms, and financial firms in the Dun and Bradstreet sample are not significant; 60 percent of the wholesale-retail firms, 65 percent of the utility-transportation firms, and 79 percent of the financial firms do indicate some degree of preference for the tax credit approach. With small samples a very large D value is required for statistical significance; e.g., the D value for the ten wholesale-retail firms would have to be equal to or greater than .410 in order for it to be significant at the .05 level. There is reason to believe, therefore, that responses of these firms would have been statistically significant if the samples were larger. Overall, the data in Table I indicate that a majority of all types of firms in the Dun and Bradstreet and Oklahoma populations favor tax credit over contractual reimbursement for employing and training the disadvantaged.

Most of the reasons given by respondents for preferring the tax credit approach were centered around the apparent administrative simplicity of this approach. Below are some of the comments made by respondents to the mail questionnaire and to follow-up telephone interviews:

> Based on prior experience in contracting with the government a tax credit would be less cumbersome.
>
> Tax credit involves less forms than a government contract

> Experience with the investment tax credit favorable.
>
> Less paper work and government interference with a tax credit.
>
> Prefer tax credit because of less red tape.
>
> Have hired hard core before but it didn't work out. Didn't fool around with reimbursement.
>
> What is wrong with the JOBS training program - 'red tape' makes it impossible for small employers to consider it.

Some comments of employers who questioned the tax credit approach were:

> It seems to have built in inequities and would be extremely difficult to administer.
>
> You have to wait too long for /ān/ income tax credit and then /it/ is good only if there is profit.
>
> Tax credits are expensive and difficult to administer.
>
> A tax credit generally always results in some abuse.

Implications of Results

In the report of the Kerner Commission it was stated in reference to the participation of employers in the employment and training of the disadvantaged that:

> Effective administration of a monetary incentive is almost as important in attracting widespread business interest as the amount of the incentive itself.[1]

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[1] Report of the National Advisory Commission on Civil Disorders, Otto Kerner, Chairman (New York: The New York Times Company, 1968), p. 564.

The data in Table I and the foregoing comments of respondents provide support for the above statement. Both the comments of respondents in favor of the tax credit reimbursement and the comments of respondents in favor of contractual reimbursement indicate complexity of administration is a factor affecting their choice. Some of the respondents also cite prior experience in contracting with the government as a reason for being against this approach. Such comments are in conflict with the viewpoint noted by Holland that perhaps getting employers to participate in government contracts is essentially a matter of the employer "getting his feet wet." Under this theory once employers have contracted with the government they will lose their fear of this method of reimbursement.[2] Of course, even if this viewpoint is true, there still exists the problem of persuading the large majority of employers who have never had a government contract to enter into their first such contract.

The major implication for government policy in the above results is that a tax credit incentive will attract more employers, regardless of their size or the nature of their business, to on-the-job training programs for the disadvantaged than direct contractual reimbursement.

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[2]Daniel M. Holland, "An Evaluation of Tax Incentives for On-the-Job Training of the Disadvantaged," The Bell Journal of Economics and Management Science, II (Spring, 1971), p. 319.

Therefore, if "widespread" business involvement in a manpower program for the disadvantaged is a desirable objective, these results would seem to justify the recent action of the Congress in including in the 1971 Revenue Act a provision granting a 20 percent tax credit to employers on wages paid to individuals certified by the Secretary of Labor as eligible for tax credit employment.[3] Moreover, since the attitudes of all types of firms were so pronounced in favor of tax credit reimbursement, further study by government planners and other researchers into uses of tax credits to combat other social and economic problems appears to be justified; e.g., research on the use of tax credits to encourage business development and installation of pollution control devices.

Employers' Attitudes on the Feasibility and Effect of a Human Resource Tax Credit Based on Wages Paid Disadvantaged Individuals

Hypothesis 2: Employers do not have significant attitudes with regard to the feasibility and effectiveness of a tax credit on wages paid individuals certified as disadvantaged.

In advocating an income tax credit as a means of encouraging increased employment and training of the

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[3]See, Commerce Clearing House, Inc., Explanation of Revenue Act of 1971 (Chicago: Commerce Clearing House, Inc., 1971), pp. 60-62.

disadvantaged, the Advisory Panel on Private Enterprise in its report to the Kerner Commission recommended that such a tax credit be based on wages paid by employers to certified disadvantaged individuals.[4] As was noted in Chapter II, basing a tax credit on wages rather than training costs simplifies the problem of defining eligible training costs. In recommending a tax credit based on wages, the Advisory Panel reasoned that more employers would participate in the employment and training of the disadvantaged under an incentive plan "which is as simple and automatic as possible."[5] To find out whether there is support on the part of employers for this type of tax credit, the employers surveyed in this study were asked to respond to the following statement:

> An income tax credit on the wages paid certified new employees could be a feasible and effective device for encouraging increased employment of such individuals.

Responses to the above statement were received from 226 firms. The frequency and percentage distributions of the responses are reported in Table II.

Summary of Results

The data in Table II show that 77 percent of the Dun and Bradstreet firms and 77 percent of the Oklahoma

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[4]Report of National Advisory Commission on Civil Disorders, p. 565.

[5]Ibid., p. 564.

TABLE II

FREQUENCY AND PERCENTAGE DISTRIBUTION OF EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING THAT AN INCOME TAX CREDIT ON WAGES PAID CERTIFIED EMPLOYEES COULD ENCOURAGE INCREASED EMPLOYMENT OF SUCH INDIVIDUALS

Dun and Bradstreet Firms

Type of Response	Manufacturing N[a]	Manufacturing (%)[b]	Wholesale-Retail N	Wholesale-Retail (%)	Utility-Transportation N	Utility-Transportation (%)	Financial N	Financial (%)	Total N	Total (%)
Strong Agreement	16	(24)	1	(10)	0	(0)	2	(15)	19	(17)
Moderate Agreement	25	(37)	4	(40)	9	(45)	3	(21)	41	(37)
Slight Agreement	14	(21)	2	(20)	4	(20)	6	(43)	26	(23)
Total Agreement	55	(82)	7	(70)	13	(65)	11	(79)	86	(77)
Slight Disagreement	4	(6)	0	(0)	2	(10)	0	(0)	6	(5)
Moderate Disagreement	2	(3)	1	(10)	1	(5)	0	(0)	4	(4)
Strong Disagreement	6	(9)	2	(20)	4	(20)	3	(21)	15	(14)
Total Disagreement	12	(18)	3	(30)	7	(35)	3	(21)	25	(23)
Total Responses	67	(100)	10	(100)	20	(100)	14	(100)	111	(100)
D Values	.321*		.200		.150		.287		.275*	

Oklahoma Firms

Type of Response	Construction N	Construction (%)	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
Strong Agreement	6	(55)	12	(31)	5	(22)	15	(35)	38	(33)
Moderate Agreement	2	(18)	11	(29)	9	(39)	6	(14)	28	(25)
Slight Agreement	0	(0)	6	(16)	3	(13)	13	(30)	22	(19)
Total Agreement	8	(73)	29	(76)	17	(74)	34	(79)	88	(77)
Slight Disagreement	2	(18)	1	(3)	2	(9)	3	(7)	8	(7)
Moderate Disagreement	1	(9)	2	(5)	1	(4)	1	(2)	5	(4)
Strong Disagreement	0	(0)	6	(16)	3	(13)	5	(12)	14	(12)
Total Disagreement	3	(27)	9	(24)	6	(26)	9	(21)	27	(23)
Total Responses	11	(100)	38	(100)	23	(100)	43	(100)	115	(100)
D Values	.394*		.272*		.275		.291*		.265*	

*D value is significant at the .05 level. (See Siegel, Nonparametric Statistics, Table E, p. 251.)

[a]Number of Responses
[b]Percent of Total Responses

firms agree with the statement that an income tax credit on wages could be a feasible and effective device for encouraging increased employment of disadvantaged individuals. Also, percentage distributions of responses for the four subsamples of Dun and Bradstreet firms and for the four subsamples of Oklahoma firms show that a majority of firms in each subsample agree with the statement. The D values presented in Table II show that the responses of both the Dun and Bradstreet and Oklahoma firms are significant at the .05 level. The D values are also significant for the manufacturing firms in the Dun and Bradstreet sample and for the construction, industrial, and miscellaneous firms in the Oklahoma sample. The significant D values mean rejection of Hypothesis 2 for these firms. Therefore, it is concluded with at least a 95 percent probability that the populations from which these samples and subsamples were drawn do have significant attitudes with respect to the feasibility and potential effect of a tax credit based on wages.

The D values in Table II are not significant for the wholesale-retail firms, utility-transportation firms, and financial firms in the Dun and Bradstreet sample and for the food firms in the Oklahoma sample. However, 70 percent of the wholesale-retail firms, 65 percent of the utility-transportation firms, 79 percent of the financial firms, and 74 percent of the food firms do indicate some degree of agreement with the statement.

As was noted in the preceding section, a large D value is required for statistical significance when sample sizes are small. Since the samples of the above firms are relatively small, there is reason to believe that responses from larger samples of these firms would have yielded significant D values allowing rejection of Hypothesis 2.

Implications of Results

The above results indicate that employers of different sizes and types can be induced to employ disadvantaged individuals if given a tax credit on wages paid such individuals. On the basis of these results there is reason to believe that the recently enacted tax credit based on wages paid individuals employed under the Work Incentive Program will have some effect on the employment opportunities of such persons.

Employers indicated that they regard a tax credit based on wages as a straightforward financial incentive for hiring the disadvantaged. One employer commented, "a credit based on wages makes sense, it is simply another adjustment on the tax return based on a figure readily available." Once again, these results indicate that simple procedures are of utmost importance to the success of any government program which seeks to elicit the cooperation of a large number of private business firms.

Employers' Attitudes on Including the Cost of Relocating Disadvantaged Individuals in the Base of a Human Resource Tax Credit

Hypothesis 3: Employers do not have significant attitudes with regard to the feasibility and effectiveness of a tax credit on the cost incurred by employers to relocate a disadvantaged individual from a labor surplus area to the employer's labor market area.

One of the problems involved in the placement of disadvantaged individuals in on-the-job training programs is that many of these individuals reside in areas of the country which have comparatively high unemployment rates. In this connection, Thurow notes that "imperfect labor mobility" is a major cause of poverty in the United States. He suggests that a way to overcome poverty resulting from unemployment in poverty areas is to provide incentives for firms to move into such areas.[6] This study examines an incentive for relocation of the disadvantaged individual, rather than the business firm. The incentive proposed is that a human resource tax credit base include the costs incurred by employers to relocate a disadvantaged individual from a labor surplus area to the employer's labor market area. Although individuals with skills which are in short supply may find employers quite willing to pay their relocation expenses, this is obviously not true in the case of

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[6]Lester C. Thurow, Poverty and Discrimination (Washington, D. C.: The Brookings Institution, 1969), pp. 157-158.

disadvantaged individuals. In order to gain insight into employer's attitudes on inclusion of relocation costs in a tax credit base, the employers surveyed in this study were asked to respond to the following statement:

> A tax credit on the cost incurred by employers to relocate certified employees from a labor surplus area to the employer's labor market area could be a feasible and effective device for encouraging employers to pay such expenses.

The frequency and percentage distributions of the 222 responses to the above statement are presented in Table III.

Summary of Results

The data in Table III show that 55 percent of the Dun and Bradstreet firms and 68 percent of the Oklahoma firms agree that a tax credit on relocation costs could be a feasible and effective device for encouraging employers to pay such costs for disadvantaged individuals. The D value computed for the responses of the Dun and Bradstreet firms is not significant at the .05 level. This means Hypothesis 3 is accepted for these firms. Therefore, it cannot be concluded with 95 percent probability that the population of Dun and Bradstreet firms has significant attitudes with regard to the feasibility and effect of granting a tax credit on relocation costs. The D value computed for the responses of the Oklahoma firms is, however, significant at the .05 level. This means Hypothesis 3 is rejected for these firms. Therefore,

TABLE III

FREQUENCY AND PERCENTAGE DISTRIBUTION OF EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING THAT A TAX CREDIT ON THE COST INCURRED BY EMPLOYERS TO RELOCATE DISADVANTAGED PERSONS COULD ENCOURAGE EMPLOYERS TO PAY SUCH EXPENSES

Dun and Bradstreet Firms

Type of Response	Manufacturing N[a]	Manufacturing (%)[b]	Wholesale-Retail N	Wholesale-Retail (%)	Utility-Transportation N	Utility-Transportation (%)	Financial N	Financial (%)	Total N	Total (%)
Strong Agreement	9	(14)	0	(0)	0	(0)	1	(7)	10	(9)
Moderate Agreement	9	(14)	2	(20)	4	(20)	3	(21.5)	18	(17)
Slight Agreement	20	(31)	3	(30)	6	(30)	3	(21.5)	32	(29)
Total Agreement	38	(59)	5	(50)	10	(50)	7	(50)	60	(55)
Slight Disagreement	7	(10)	0	(0)	4	(20)	1	(7)	12	(11)
Moderate Disagreement	9	(14)	1	(10)	1	(5)	1	(7)	12	(11)
Strong Disagreement	11	(17)	4	(40)	5	(25)	5	(36)	25	(23)
Total Disagreement	27	(41)	5	(50)	10	(50)	7	(50)	49	(45)
Total Responses	65	(100)	10	(100)	20	(100)	14	(100)	109	(100)
D Values	.085		.166		.166		.191		.063	

Oklahoma Firms

Type of Response	Construction N	Construction (%)	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
Strong Agreement	3	(27)	8	(21)	6	(26)	8	(20)	25	(22)
Moderate Agreement	2	(19)	8	(21)	5	(22)	8	(20)	23	(20)
Slight Agreement	3	(27)	10	(26)	4	(17)	12	(29)	29	(26)
Total Agreement	8	(73)	26	(68)	15	(65)	28	(69)	77	(68)
Slight Disagreement	1	(9)	4	(10)	2	(9)	3	(7)	10	(9)
Moderate Disagreement	1	(9)	1	(3)	0	(0)	4	(10)	6	(5)
Strong Disagreement	1	(9)	7	(19)	6	(26)	6	(14)	20	(18)
Total Disagreement	3	(27)	12	(32)	8	(35)	13	(31)	36	(32)
Total Responses	11	(100)	38	(100)	23	(100)	41	(100)	113	(100)
D Values	.227		.184		.152		.183		.181*	

*D value is significant at the .05 level. (See Siegel, Nonparametric Statistics, Table E, p. 251.

[a]Number of Responses
[b]Percent of Total Responses

it is concluded with at least 95 percent probability that the population of Oklahoma firms has significant attitudes with regard to the statement on relocation costs. Perhaps a reason for the difference in response from the two samples is that many of the Oklahoma firms which responded to the survey are located in small communities where the number of disadvantaged individuals may be limited whereas most of the Dun and Bradstreet firms which responded to the survey are located in large urban areas where the supply of disadvantaged individuals is probably more than adequate. Therefore, in responding to the statement, Oklahoma firms may have foreseen a need to recruit disadvantaged persons from other labor market areas whereas for many of the Dun and Bradstreet firms such a need probably appeared unrealistic.

The D values in Table III are not significant for any of the subsample classifications. Hypothesis 3 specifying that employers do not have significant attitudes with regard to inclusion of relocation costs in a tax credit base is therefore accepted for all of the subsamples. However, a majority of firms in each of the Oklahoma subsamples, ranging from 73 percent for the construction firms to 65 percent for the food firms, agree with the statement on relocation cost. These percentages indicate that significant response distributions might result from larger samples of these firms. In the case of the Dun and Bradstreet firms, the percentage of firms in each subsample

indicating agreement with the statement ranges from 59 percent for the manufacturing subsample to 50 percent for each of the other three subsamples. On the basis of these percentages there is little reason to believe that larger samples of the different types of Dun and Bradstreet firms would have yielded responses showing significant attitudes toward a tax credit on relocation costs. This narrowness of the range in the percentage of firms agreeing with the tax credit among the four subsamples of Oklahoma firms and among the four subsamples of Dun and Bradstreet firms also indicates that the nature of a firm's business has little, if any, effect on its attitude toward a tax credit on relocation costs.

Implications of Results

The above results indicate that a tax credit on relocation costs might be an inducement for small employers in relatively rural areas to participate in the employment of the disadvantaged. Moreover, the fact that 68 percent of the Oklahoma firms and 55 percent of the Dun and Bradstreet firms thought a tax credit could encourage employers to pay such costs should be of some inducement for Congress and others to study the possibility of using a tax credit for increasing mobility of the overall labor force. Precedent for using the tax law to increase mobility of the labor force already exists in the form of the moving expense deduction allowed to employees under Section 217 of

the Internal Revenue Code. This provision of the code allows individuals, subject to several rules and limitations, to deduct job related moving expenses; e.g., transportation costs, costs of temporary living expenses in new locations, etc.

Employers' Attitudes on Including in a Human Resource Tax Credit Base Educational Costs Paid for Disadvantaged Employees

> Hypothesis 4: Employers do not have significant attitudes with regard to the feasibility and effectiveness of a tax credit on educational costs paid for disadvantaged employees.

The need to complement on-the-job training with institutional training for the disadvantaged has been generally recognized.[7] To gain insight into whether employers could be encouraged by a tax credit to pay the cost of institutional training for their disadvantaged employees, the employers surveyed in this study were asked to respond to the following statement:

> An income tax credit on tuition paid colleges and trade schools, books, and other educational expenses could be a feasible and effective device for encouraging employers to pay such costs for certified individuals.

Responses to the above statement were received from 223 firms. The frequency and percentage distributions of the responses are presented in Table IV.

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[7]Gerald G. Sommers, "Our Experience with Retraining and Relocation," in Toward a Manpower Policy, ed. by Robert A. Gordon (New York: John Wiley and Sons, 1967), p. 227.

TABLE IV

FREQUENCY AND PERCENTAGE DISTRIBUTION OF EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING THAT AN INCOME TAX CREDIT ON EDUCATIONAL EXPENSES PAID FOR CERTIFIED EMPLOYEES COULD ENCOURAGE EMPLOYERS TO PAY SUCH EXPENSES

Dun and Bradstreet Firms

Type of Response	Manufacturing N[a]	Manufacturing (%)[b]	Wholesale-Retail N	Wholesale-Retail (%)	Utility-Transportation N	Utility-Transportation (%)	Financial N	Financial (%)	Total N	Total (%)
Strong Agreement	13	(20)	0	(0)	3	(15)	1	(7)	17	(15)
Moderate Agreement	14	(21)	6	(60)	6	(30)	2	(14)	28	(25)
Slight Agreement	26	(39)	1	(10)	9	(45)	7	(50)	43	(39)
Total Agreement	53	(80)	7	(70)	18	(90)	10	(71)	88	(79)
Slight Disagreement	9	(14)	0	(0)	0	(0)	1	(7)	10	(9)
Moderate Disagreement	2	(3)	1	(10)	1	(5)	0	(0)	4	(4)
Strong Disagreement	2	(3)	2	(20)	1	(5)	3	(22)	8	(8)
Total Disagreement	13	(20)	3	(30)	2	(10)	4	(29)	22	(21)
Total Responses	66	(100)	10	(100)	20	(100)	14	(100)	110	(100)
D Values	.303*		.267		.400*		.214		.300*	

Oklahoma Firms

Type of Response	Construction N	Construction (%)	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
Strong Agreement	3	(27)	9	(24)	2	(9)	8	(20)	22	(19)
Moderate Agreement	2	(18.5)	9	(24)	7	(30)	10	(24)	28	(25)
Slight Agreement	3	(27)	8	(21)	5	(22)	9	(22)	25	(22)
Total Agreement	8	(72.5)	26	(69)	14	(61)	27	(66)	75	(66)
Slight Disagreement	1	(9)	4	(10)	3	(13)	8	(20)	16	(14)
Moderate Disagreement	2	(18.5)	2	(5)	3	(13)	4	(9)	11	(10)
Strong Disagreement	0	(0)	6	(16)	3	(13)	2	(5)	11	(10)
Total Disagreement	3	(27.5)	12	(31)	9	(39)	14	(34)	38	(34)
Total Responses	11	(100)	38	(100)	23	(100)	41	(100)	113	(100)
D Values	.227		.184		.109		.187		.164*	

*D value is significant at the .05 level. (See Siegel, Nonparametric Statistics, Table E, p. 251.)

[a]Number of Responses
[b]Percent of Total Responses

Summary of Results

The data in Table IV show that a majority of the Dun and Bradstreet firms (79 percent) and a majority of the Oklahoma firms (66 percent) agree that a tax credit on education costs could be a feasible and effective device for encouraging employers to pay such costs for disadvantaged individuals. The significant D values in the table indicate that there is less than five percent probability that the response distributions obtained from the Dun and Bradstreet and Oklahoma samples could have resulted from populations with indifferent attitudes toward the feasibility and effect of a tax credit on education costs. Hypothesis 4 is rejected for both the Dun and Bradstreet and Oklahoma firms. Based on these results it seems reasonable to conclude that a majority of both large and small firms have positive attitudes toward a tax credit on education costs.

Although the D values in Table IV show that Hypothesis 4 is rejected for only the manufacturing and utility-transportation subsamples of the Dun and Bradstreet firms, a majority of the firms in each subsample are in agreement with the statement on education costs. The percentage of agreement among the Dun and Bradstreet subsamples ranges from 70 percent for the wholesale-retail firms to 90 percent for the utility-transportation firms. The percentage of agreement among the Oklahoma subsamples ranges from 61

percent for the food firms to 72.5 percent for the construction firms. These results indicate that a majority of employers, regardless of the nature of their business, are in favor of including in the base of a human resource tax credit tuition and other educational costs paid for disadvantaged employees.

Implications of Results

The above results indicate that employers could be induced to pay for the cost of formal schooling for the disadvantaged individuals on their payroll if granted a tax credit reimbursement for at least a portion of this cost. This finding can be significant in that, even though there are direct grants and scholarships available for disadvantaged individuals, there may be some advantage to having employers pay for the additional formal training they think will be of benefit to the disadvantaged employee. The disadvantaged employee may, for example, be more inclined to take his formal training seriously if he knows his employer is sufficiently interested in his training to pay the cost. In this connection, Bushnell has noted the importance of a job to the employee's motivation for training.[8] The fact that a significant majority of both the

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[8] David S. Bushnell, "The Value of Vocational Education," in Toward a Manpower Policy, ed. by Robert A. Gordon (New York: John Wiley and Sons, 1967), p. 202.

large and small employers thought a tax credit could be an effective device for encouraging employers to pay education costs is also significant in that it provides some indication employers were not thinking of inexpensive labor for "dead end" jobs when they agreed to the earlier statement specifying that a tax credit on wages could encourage increased employment of disadvantaged individuals.

Employers' Attitudes on Whether Employers Would Abuse a Human Resource Tax Credit by Replacing Regular Employees with Tax Credit Employees

> Hypothesis 5: Employers do not have significant attitudes with regard to potential employer abuse of a human resource tax credit through replacement of regular employees with tax credit employees.

The fear has been expressed that a tax credit granted to employers as an incentive to encourage increased employment of the disadvantaged would cause employers to replace regular employees with tax credit employees.[9] To see whether or not employers expect such abuse of a human resource tax credit, the employers surveyed in this study were asked to respond to the following statement:

> If granted a tax credit to hire certified individuals, employers would abuse the credit by replacing regular employees with tax credit employees.

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[9] American Federation of Labor and Congress of Industrial Organizations, The AFL-CIO Platform Proposals, presented to the Republican and Democratic Conventions, 1968, p. 4.

Responses were received from 224 firms. The frequency and percentage distributions of the responses are presented in Table V.

Summary of Results

The data in Table V show that a majority of the Dun and Bradstreet firms (82 percent) and Oklahoma firms (67 percent) do not agree with the contention that employers would abuse a tax credit incentive for employing disadvantaged individuals by replacing regular employees with disadvantaged individuals. The significant D values shown in the table for the responses of both samples indicate that there is less than five percent probability that these firms would have responded in this manner if the populations represented by the two samples were evenly divided in their attitudes toward the statement. Hypothesis V is therefore rejected for both the Dun and Bradstreet and Oklahoma firms. Based on these results it seems reasonable to conclude that a majority of both large and small employers feel that a tax credit incentive to hire the disadvantaged would not cause employers to replace regular employees with employees which qualify the employer for a tax credit.

The D values in Table V show that Hypothesis 5 is also rejected for all the subsamples of Dun and Bradstreet firms and for the construction and food subsamples of Oklahoma firms. Although the D values show that the responses of the industrial and miscellaneous subsamples

TABLE V

FREQUENCY AND PERCENTAGE DISTRIBUTION OF EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING THAT EMPLOYERS WOULD ABUSE A TAX CREDIT BY REPLACING REGULAR EMPLOYEES WITH TAX CREDIT EMPLOYEES

Dun and Bradstreet Firms

Type of Response	Manufacturing N[a]	Manufacturing (%)[b]	Wholesale-Retail N	Wholesale-Retail (%)	Utility-Transportation N	Utility-Transportation (%)	Financial N	Financial (%)	Total N	Total (%)
Strong Agreement	3	(5)	0	(0)	0	(0)	1	(7)	4	(3)
Moderate Agreement	4	(6)	0	(0)	3	(15)	1	(7)	8	(7)
Slight Agreement	6	(9)	1	(10)	1	(5)	1	(7)	9	(8)
Total Agreement	13	(20)	1	(10)	4	(20)	3	(21)	21	(18)
Slight Disagreement	11	(16)	2	(20)	0	(0)	0	(0)	13	(12)
Moderate Disagreement	17	(25)	0	(0)	3	(15)	3	(22)	23	(21)
Strong Disagreement	26	(39)	7	(70)	13	(65)	8	(57)	54	(49)
Total Disagreement	54	(80)	9	(90)	16	(80)	11	(79)	90	(82)
Total Responses	67	(100)	10	(100)	20	(100)	14	(100)	111	(100)
D Values	.308*		.533*		.483*		.452*		.360*	

Oklahoma Firms

Type of Response	Construction N	Construction (%)	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
Strong Agreement	0	(0)	4	(11)	5	(23)	4	(9)	13	(11)
Moderate Agreement	0	(0)	1	(3)	0	(0)	7	(17)	8	(7)
Slight Agreement	3	(27)	6	(16)	3	(13)	5	(12)	17	(15)
Total Agreement	3	(27)	11	(30)	8	(36)	16	(38)	38	(33)
Slight Disagreement	1	(9)	7	(18)	5	(23)	8	(19)	21	(19)
Moderate Disagreement	4	(37)	7	(18)	7	(32)	7	(17)	25	(22)
Strong Disagreement	3	(27)	13	(34)	2	(9)	11	(26)	29	(26)
Total Disagreement	8	(73)	27	(70)	14	(64)	26	(62)	75	(67)
Total Responses	11	(100)	38	(100)	22	(100)	42	(100)	113	(100)
D Values	.333*		.211		.364*		.119		.164*	

*D value is significant at the .05 level. (See Siegel, Nonparametric Statistics, Table E, p. 251.

[a]Number of Responses

[b]Percent of Total Responses

of Oklahoma firms are not statistically significant, 71 percent of the industrial firms and 62 percent of the miscellaneous firms disagree with the statement. Overall, the responses from the various subsamples indicate that employers, regardless of the nature of their business, are in disagreement with the contention that employers would abuse a human resource tax credit by replacing regular employees with tax credit employees.

Implications of Results

The above results indicate that there may be little need to be concerned that a human resource tax credit will result in the replacement of regular employees. In interpreting these results it should be kept in mind, however, that the questionnaire statement on potential employer abuse could have been looked at by respondents as a statement akin to asking them if they would cheat if given the chance. Therefore, to the extent respondents answered the statement from the point of view of what they might do as employers, rather than on the basis of what they thought other employers might do, the above results probably reflect a bias toward disagreement with the statement. Restrictions of union contracts were also a likely reason for some respondents' attitudes toward the statement on employer abuse. One employer did, in fact, note that his ability to add tax credit employees to his

work force was limited by the nature of the company's contract with the union.

Employers' Attitudes on the Use of Employee Turnover as an Employer Eligibility Requirement for a Human Resource Tax Credit

> Hypothesis 6: Employers do not have significant attitudes with regard to the use of employee turnover as an employer eligibility requirement for a human resource tax credit.

One potential device for limiting the potential abuse of a tax credit through employers' replacement of regular employees with tax credit employees is to require that employers maintain a labor turnover ratio below a specified maximum in order to be eligible for a tax credit. To see if employers consider such a device feasible and effective, the employers surveyed in this study were asked to respond to the following statement:

> A feasible and effective device for preventing the above type of employer abuse /the preceding statement referred to potential employer abuse through replacement of regular employees/ would be to grant the tax credit only to employers with an employee turnover rate below a specified maximum.

The frequency and percentage distributions of the 224 responses to the above statement are presented in Table VI.

Summary of Results

The data in Table VI show that 77 percent of the Dun and Bradstreet firms disagree with the statement on

TABLE VI

FREQUENCY AND PERCENTAGE DISTRIBUTION OF EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING THAT EMPLOYER ABUSE OF A TAX CREDIT COULD BE PREVENTED BY BASING ELIGIBILITY FOR THE CREDIT ON THE EMPLOYERS' EMPLOYEE TURNOVER RATE

Dun and Bradstreet Firms

Type of Response	Manufacturing N[a]	Manufacturing (%)[b]	Wholesale-Retail N	Wholesale-Retail (%)	Utility-Transportation N	Utility-Transportation (%)	Financial N	Financial (%)	Total N	Total (%)
Strong Agreement	3	(5)	0	(0)	0	(0)	0	(0)	3	(3)
Moderate Agreement	3	(5)	1	(10)	1	(5)	0	(0)	5	(5)
Slight Agreement	11	(17)	1	(10)	4	(20)	1	(7)	17	(15)
Total Agreement	17	(27)	2	(20)	5	(25)	1	(7)	25	(23)
Slight Disagreement	12	(18)	2	(20)	2	(10)	1	(7)	17	(15)
Moderate Disagreement	13	(19)	0	(0)	5	(25)	2	(15)	20	(18)
Strong Disagreement	24	(36)	6	(60)	8	(40)	10	(71)	48	(44)
Total Disagreement	49	(73)	8	(80)	15	(75)	13	(93)	85	(77)
Total Responses	66	(100)	10	(100)	20	(100)	14	(100)	110	(100)
D Values	.242*		.433*		.317*		.548*		.285*	

Oklahoma Firms

Type of Response	Construction N	Construction (%)	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
Strong Agreement	2	(18)	5	(13)	4	(17)	10	(24)	21	(18)
Moderate Agreement	1	(10)	6	(16)	3	(13)	8	(19)	18	(16)
Slight Agreement	2	(18)	13	(34)	7	(30)	9	(21)	31	(27)
Total Agreement	5	(46)	24	(63)	14	(60)	27	(64)	70	(61)
Slight Disagreement	2	(18)	3	(8)	1	(4)	2	(5)	8	(7)
Moderate Disagreement	2	(18)	6	(16)	4	(18)	4	(10)	16	(14)
Strong Disagreement	2	(18)	5	(13)	4	(18)	9	(21)	20	(18)
Total Disagreement	6	(54)	14	(37)	9	(40)	15	(36)	44	(39)
Total Responses	11	(100)	38	(100)	23	(100)	42	(100)	114	(100)
D Values	.061		.132		.109		.143		.114	

*D value is significant at the .05 level. (See Siegel, Nonparametric Statistics, Table E, p. 251.)

[a]Number of Responses
[b]Percent of Total Responses

employee turnover. The significant D value at the .05 level means that Hypothesis 6 is rejected for these firms. On the basis of these results it is concluded with at least 95 percent probability that a majority of the population of Dun and Bradstreet firms are against employee turnover as an eligibility requirement. The data for the Oklahoma firms show that 61 percent of these firms favor employee turnover as an eligibility requirement. However, the insignificant D value at the .05 level means that Hypothesis 6 is not rejected for these firms. Therefore, there is at least a five percent probability that the population of Oklahoma firms is evenly divided with regard to the statement on employee turnover. These results show a marked difference between the attitudes of the Dun and Bradstreet and Oklahoma employers. A comment received from a Dun and Bradstreet respondent indicates that large firms may have envisioned more problems on the use of turnover than could be foreseen by many of the Oklahoma respondents. The comment made note of a problem of variation in turnover rates among different divisions of the company.

The D values in Table II are significant for all the subsamples of Dun and Bradstreet firms indicating rejection of Hypothesis 6 for these firms. Thus, the nature of the firm's business appears to have little effect, if any, on the attitudes of Dun and Bradstreet

employers toward turnover as an eligibility requirement. Although the D values are insignificant for all Oklahoma subsamples, the data do indicate that business activity may have some effect on the attitudes of the construction firms. Whereas disagreement with the statement on employee turnover ranges from 36 to 40 percent among the industrial, food, and miscellaneous firms; 54 percent of the construction firms disagree with the statement. If the construction firms are more susceptible to seasonal peaks and troughs in their business cycle than the other subsamples of Oklahoma firms, it is understandable that their attitudes would be more negative toward the use of employee turnover as an eligibility requirement for the tax credit.

Implications of Results

The negative responses to the statement on turnover from the Dun and Bradstreet employers indicate that this type of requirement may not be the best means of controlling employer abuse of a human resource tax credit. Of course, a turnover requirement would limit to some extent, depending upon its stringency, participation in the tax incentive. (Employers' estimates of how stringent a turnover requirement should be are analyzed in Chapter V.) Since replacement of regular employees with tax credit employees increases the employer's turnover ratio, a turnover requirement would also have the desired effect of limiting employer abuse of a tax incentive program. However, if a

turnover requirement prevents large national firms with facilities to provide sound training for the disadvantaged from participating in a tax incentive program, perhaps better control procedures can be found. For example, spot checks by investigators employed under the Fair Labor Standards Act as suggested in a presidential task force report, might provide sufficient control over large employers' participation in a tax credit program.[10]

The fact that the Oklahoma employers are not significantly against employee turnover as an eligibility requirement indicates that this may be an acceptable device for preventing small employers from using the tax credit to obtain temporary labor. However, such control can also be provided by recapture of the tax credit. For example, the recently enacted tax credit on wages paid persons employed under the Work Incentive Program provides for a recapture of the credit if the employee is dismissed without cause.[11] Of course, a turnover requirement would reduce participation by firms with seasonal peaks and troughs in employment, as does a recapture provision. In this connection, if employment which may be temporary is felt to be better than no employment for the disadvantaged

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[10]See U.S. Department of Labor, Manpower Administration, A Government Commitment to Occupational Training in Industry (Washington, D.C.: Government Printing Office, August, 1968) p. 104.

[11]See, Explanation of Revenue Act of 1971, p. 60.

individual, the likely exclusion of seasonal and other employers susceptible to high turnover rates is an obvious disadvantage of the recapture provision and of using employee turnover as an eligibility requirement for a human resource tax credit.

Summary

The research findings described in the preceding pages provide insight into employers' attitudes on a human resource tax credit. These findings indicate that:

(1) A majority of employers regardless of their size or the nature of their business, prefer a tax credit mode of reimbursement over contractual reimbursement for employing disadvantaged individuals.

(2) A majority of employers, regardless of their size or the nature of their business, think a tax credit based on wages could be feasible and effective in encouraging increased employment of disadvantaged individuals.

(3) A majority of small firms, regardless of the nature of their business, think a tax credit on costs incurred to relocate disadvantaged individuals from a labor surplus area to the employer's labor market area could be a feasible and effective device for encouraging employers to pay such costs.

(4) Large national firms are divided in their opinions on whether a tax credit on relocation costs paid for disadvantaged individuals could be a feasible

and effective device for encouraging employers to pay such costs.

(5) A majority of employers, regardless of their size or the nature of their business, think a tax credit on educational costs paid for disadvantaged individuals could be a feasible and effective device for encouraging employers to pay such costs.

(6) A majority of employers, regardless of the size or the nature of their business, feel that employers would not abuse a tax credit incentive, intended to increase employment of disadvantaged individuals, by replacing regular employees with tax credit employees.

(7) A majority of large national firms are against the use of employee turnover as a criterion to establish employer eligibility for a human resource tax credit.

(8) Small firms are somewhat uncertain as to the feasibility and effect of using employee turnover as a criterion to establish employer eligibility for a human resource tax credit.

On the basis of the research findings, there is reason to believe that more business firms will participate in the employment and training of the disadvantaged under a tax credit financial incentive than under a financial incentive involving a government contract. The findings indicate that employers are very much concerned with the administrative simplicity of a reimbursement mode. The

findings also indicate that a tax credit on relocation costs and educational costs can be successful in encouraging employers to provide disadvantaged persons with greater job mobility and educational opportunities. Moreover, the findings indicate that a tax credit would not be subject to "wide-scale" employer abuse as some people fear. Although the findings indicate that the use of employee turnover as an eligibility criterion may not be a necessary or effective device for control over the participation of large firms in a tax credit program, the findings do indicate that the use of an employee turnover ratio may be effective for controlling participation in a tax credit by small employers who may only be interested in obtaining inexpensive labor for a short duration.

The following chapter examines employers' numerical estimates on the tax credit base and employer eligibility criteria; the magnitude of credit rates on wages, relocation costs, and educational costs; and the potential effect of a wage tax credit on employment and on tax revenue. In addition, the following chapter examines employers' attitudes on their ability to adapt their employment plans to changes in the magnitude of a tax credit.

CHAPTER V

FINDINGS AND IMPLICATIONS RELATED TO EMPLOYERS' ESTIMATES ON TAX CREDIT ELIGIBILITY, BASE, RATE, AND EFFECT

The previous chapter reported employers' attitudes on the desirability and nature of a tax credit to encourage on-the-job training of the disadvantaged. The findings and implications of the research results reported in this chapter relate to employers' numerical estimates on criteria for determining employer eligibility for a human resource tax credit, the base and rate structure of such a tax credit, and the potential effectiveness of a tax credit on the employment of the disadvantaged.

In connection with employer eligibility, this chapter analyzes employers' estimates on what would be reasonable as a maximum acceptable employee turnover requirement for employers participating in a tax credit program. With regard to the base period for a tax credit on wages paid eligible disadvantaged employees, this chapter analyzes employers' estimates on the length of time wages paid such persons should be included in the base of a human resource tax credit. Also included in this chapter are employers' estimates on the magnitude of tax credit rates on wages, relocation costs, and education costs necessary for the tax

credit to have an effect on their decisions to employ, relocate, and provide training for the disadvantaged. This chapter also reports on employers' responses to a question asking them to estimate the number of disadvantaged persons they would add to their employment if granted a tax credit of the magnitude specified in their response to a previous question on the research instrument. Finally, this chapter analyzes findings related to the effect of changes in a human resource tax credit rate on employers' decisions to employ the disadvantaged and to the willingness of employers to provide meaningful on-the-job training for the disadvantaged persons they employ.

Employers' Estimates on the Maximum Employee Turnover Rate Which Should be Established as an Employer Eligibility Requirement for the Tax Credit

Hypothesis 7: There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the employee turnover ratio which should be established as an employer eligibility requirement for a human resource tax credit.

Assuming that an employee turnover requirement is to be used to control potential employer abuse of a human resource tax credit, a maximum acceptable turnover rate would have to be determined and also the question of whether a single maximum acceptable rate is suitable for businesses which vary significantly with respect to size and activity would have to be resolved. In order to obtain information

which might be helpful in establishing a turnover requirement, the different employers surveyed in this study were asked to respond to the following question:

> What maximum turnover rate (discharges, quits, etc. as a percent of average employment for the year) do you feel would be fair as an employer eligibility requirement for the above tax credits?

Responses to the above question were received from 176 firms. The frequency and percentage distributions and means of the responses are presented in Table VII.

Summary of Results

The data in Table VII show that the average response of both Dun and Bradstreet and Oklahoma firms on the turnover rate which would be fair as an employer eligibility requirement is equal to 23.3 percent. Since there is no difference in the mean response of the two samples, the t value shown in the table indicates that Hypothesis 7 is accepted at the .05 level for the comparison between the two samples. Therefore, it cannot be concluded that there is a significant difference between the Dun and Bradstreet and Oklahoma populations with regard to the employee turnover rate that would be fair as an employer eligibility requirement for a tax credit.

The mean turnover rates indicated by the various types of Dun and Bradstreet firms range from 16.7 percent for the utility-transportation firms to 40 percent for the wholesale-retail firms. The mean turnover rates indicated

TABLE VII

FREQUENCY AND PERCENTAGE DISTRIBUTIONS AND MEANS OF EMPLOYERS' RESPONSES ON THE MAGNITUDE OF EMPLOYEE TURNOVER AS AN EMPLOYER ELIGIBILITY REQUIREMENT

	Dun and Bradstreet Firms									
	Manufacturing		Wholesale-Retail		Utilities-Transportation		Financial		Total	
Turnover Rate (%)	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
1	1	(2)			1	(8)			2	(3)
2	3	(6)							3	(4)
3	3	(6)							3	(4)
4	2	(4)			1	(8)			3	(4)
5	2	(4)			2	(17)			4	(5)
6	1	(2)							1	(1)
10	6	(13)			5	(42)			11	(15)
12	2	(4)							2	(3)
15	5	(11)			1	(8)			6	(8)
18	1	(2)							1	(1)
20	8	(17)			1	(8)	3	(30)	12	(16)
25	2	(4)	3	(50)			1	(10)	6	(8)
30	5	(11)	1	(17)			3	(30)	9	(12)
35			1	(17)					1	(1)
36							1	(10)	1	(1)
40	1	(2)							1	(1)
45							1	(10)	1	(1)
50	3	(6)					1	(10)	4	(5)
60	1	(2)							1	(1)
100	2	(4)	1	(17)	1	(8)			4	(5)
Total Responses	48	(100)	6	(101)[d]	12	(99)[d]	10	(100)	76	(99)[d]
Mean Response	21.39		40.00		16.67		30.60		23.32	

TABLE VII (Continued)

Oklahoma Firms

Turnover Rate (%)	Construction N[a]	Construction (%)[b]	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
1	1	(11)					2	(5)	3	(3)
2			2	(6)	1	(5)	1	(3)	4	(4)
3			1	(3)			1	(3)	2	(2)
5			5	(15)			4	(11)	9	(9)
6					1	(5)			1	(1)
7							1	(3)	1	(1)
10	1	(11)	10	(30)	5	(24)	8	(22)	24	(24)
12							1	(3)	1	(1)
15	1	(11)	4	(12)	2	(10)	1	(3)	8	(8)
20	1	(11)	4	(12)	5	(24)	7	(19)	17	(17)
25	1	(11)	3	(9)	2	(10)	2	(5)	8	(8)
30	1	(11)					3	(8)	4	(4)
35							2	(5)	2	(2)
40	1	(11)							1	(1)
50	1	(11)	1	(3)	2	(10)	3	(8)	7	(7)
80					1	(5)			1	(1)
90			1	(3)					1	(1)
100	1	(11)	2	(6)	2	(10)	1	(3)	6	(6)
Total Responses	9	(99)[d]	33	(99)[d]	21	(103)[d]	37	(101)[d]	100	(100)
Mean Response	32.33		20.82		29.43		20.03		23.32	

Statistics for Differences in Mean Responses:

Among Dun and Bradstreet firms - Computed F = 1.97[c]
Among Oklahoma firms - Computed F = 1.15[c]
Between Dun and Bradstreet and Oklahoma firms - Computed t = 0 - not significant

[a]Number of Responses

[b]Percent of Total Responses

[c]Not significant at the .05 level (See Chao, Statistics, Appendix IX, p. 495.)

[d]Rounding of individual percentages causes total not to equal 100 percent.

by the various types of Oklahoma firms range from 20 percent for the miscellaneous firms to 32.3 percent for the construction firms. Even though there is a large difference between the high and low means, the F values indicate that the overall differences among the means are not significant at the .05 level for either the Dun and Bradstreet or Oklahoma firms. Hypothesis 7 is therefore accepted for the comparison of different types of firms. Thus, it is concluded that there is not a significant difference of opinion among the different types of Dun and Bradstreet and Oklahoma firms on the maximum acceptable employee turnover rate which would be fair as an employer eligibility requirement for a tax credit.

Implications of Results

The above results indicate that if employee turnover is to be used as an employer eligibility requirement for a tax credit it may be suitable to establish a single maximum acceptable rate for firms diverse as to business size and activity since these factors do not appear to have a significant effect on employers' estimates on what would be fair as a maximum acceptable employee turnover rate. With regard to the magnitude of the turnover rate requirement, the rates indicated by employers in response to the survey appear to be quite stringent when compared to published data by the Bureau of Labor Statistics on

average turnover rates for manufacturers.[1] According to the May, 1972 issue of the Monthly Labor Review, the average separation (turnover) rate per month during 1971 amounted to 4.2 separations for each 100 employees.[2] This amounts to an annual rate of 50.4 percent which is considerably more than the 21.4 mean annual rate which the manufacturing firms in this survey indicate would be a fair maximum rate to use in determining employer eligibility for a human resource tax credit. Therefore, if a turnover limitation of the magnitude indicated by the manufacturing firms responding to this survey were to be adopted as an eligibility requirement, it appears that many firms would not be eligible for participation in the tax incentive program.

Employers' Estimates of the Base Period for a Tax Credit on Wages

Hypothesis 8: There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the length of time wages paid disadvantaged employees should be covered by an income tax credit.

A tax credit based on wages necessitates a determination of the period of time wages paid eligible employees should be covered by the tax credit. In order to determine

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[1]The Bureau of Labor Statistics does not publish employee turnover data for nonmanufacturing industries.

[2]Monthly Labor Review, May, 1972, p. 96.

what length of time employers feel wages paid eligible employees should be included in the base of a human resource tax credit, the employers surveyed in this study were asked to respond to the following question:

> Over what length of time should wages paid new certified employees be covered by an income tax credit?

The respondents were limited to the following choices: 6 months, 1 year, 1½ years, 2 years. The frequency and percentage distributions and means of the 210 responses are presented in Table VIII.

Summary of Results

The data in Table VIII show that the largest frequency of responses occurs in the 12 month base period category; i.e., 54 percent of the Dun and Bradstreet firms and 43 percent of the Oklahoma firms prefer a 12 month base period. The mean responses are 13.8 and 14.7 months for the Dun and Bradstreet and Oklahoma samples respectively. According to the t value shown in the table, the difference between the means of the two samples is not significant at the .05 level. This means that Hypothesis 8 is accepted for the comparison between the Dun and Bradstreet and Oklahoma firms. It is thus concluded that there is not a significant difference of opinion between the Dun and Bradstreet and Oklahoma populations on the length of time wages should be included in the base of a human resource tax credit.

TABLE VIII

FREQUENCY AND PERCENTAGE DISTRIBUTIONS AND MEANS OF EMPLOYERS' RESPONSES ON THE BASE PERIOD FOR A TAX CREDIT ON WAGES

Dun and Bradstreet

	Manufacturing		Wholesale-Retail		Utility-Transportation		Financial		Total	
Base Period (Months)	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
6	12	(19)	3	(38)	2	(11)	2	(17)	19	(19)
12	34	(54)	4	(50)	9	(50)	8	(67)	55	(54)
18	2	(3)	0		3	(17)	0		5	(5)
24	15	(24)	1	(12)	4	(22)	2	(17)	22	(22)
Total Responses	63	(100)	8	(100)	18	(100)	12	(101)[e]	101	(100)
Mean Response	13.90		11.25		15.00		13.00		13.78	

Oklahoma Firms

	Construction		Industrial		Food		Miscellaneous		Total	
Base Period (Months)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
6	3	(27)	7	(20)	7	(31)	7	(17)	24	(22)
12	6	(55)	13	(37)	10	(43)	18	(45)	47	(43)
18	1	(9)	1	(3)	1	(4)	1	(3)	4	(4)
24	1	(9)	14	(40)	5	(22)	14	(35)	34	(31)
Total Responses	11	(100)	35	(100)	23	(100)	40	(100)	109	(100)
Mean Response	12.00		15.80		13.04		15.30		14.65	

Statistics for Differences in Mean Responses:

Among Dun and Bradstreet firms - Computed F = .78[c]
Among Oklahoma firms - Computed F = 1.41[c]
Between Dun and Bradstreet and Oklahoma firms - Computed t = .42[d]

[a]Number of Responses

[b]Percent of Total Responses

[c]Not significant at the .05 level (See Chao, Statistics, Appendix IX, p. 495.)

[d]Not significant at the .05 level (See Chao, Statistics, Appendix IV, p. 490.)

[e]Rounding of individual percentages causes total not to equal 100 percent.

The means of the responses among the various types of Dun and Bradstreet firms range from 11.3 months for the wholesale-retail firms to 15 months for the utility-transportation firms. The means of the responses among the various types of Oklahoma firms range from 12 months for the construction firms to 15.8 months for the industrial firms. The F values shown in the table indicate that the differences among the means are not significant at the .05 level for either the Dun and Bradstreet or Oklahoma firms. Hypothesis 8 is therefore accepted for the comparison of the different types of firms. Thus, it cannot be concluded that there is a significant difference among the different types of firms with regard to length of time wages paid disadvantaged employees should be included in the base of a human resource tax credit.

Implications of Results

Under the 20 percent Work Incentive Program Credit included in the 1971 Revenue Act, a tax credit is granted on wages paid to eligible disadvantaged employees during the first 12 months of their employment. The above results indicate that a 12 month period for including wages paid eligible employees in the base of a human resource tax credit is preferred by more employers than a 6 month, 18 month, or 24 month period. Therefore, it appears that the 12 month base period included in the work incentive credit is sufficiently long so that

participation in the program will not be significantly affected because of this factor. The insignificant t and F values indicated in the above results also support the use of a uniform base period for firms diverse as to size and business activity.

Employers' Estimates of the Necessary Magnitude of a Tax Credit on Wages

> Hypothesis 9: There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the rate that should be established for a tax credit on wages.

The magnitude of the tax credit rate is of utmost importance in inducing employers to participate in a tax credit program for on-the-job training of the disadvantaged. To gain insight into the rate magnitude necessary in order for a human resource tax credit to have an effect on the employment decision, the employers surveyed were asked to respond to this question:

> What percent of wages would a tax credit have to be in order for it to affect your decision to employ certified individuals?

The frequency and percentage distributions and means of the 196 responses to the question are presented in Table IX.

TABLE IX

FREQUENCY AND PERCENTAGE DISTRIBUTIONS AND MEANS OF EMPLOYERS' RESPONSES ON THE MAGNITUDE OF A TAX CREDIT ON WAGES

	Dun and Bradstreet Firms									
	Manu-facturing		Wholesale-Retail		Utilities-Transportation		Financial		Total	
Credit Rate (%)	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
5	1	(2)							1	(1)
10	3	(5)							3	(3)
15	1	(2)							1	(1)
17.5	1	(2)							1	(1)
20	3	(5)			4	(25)	2	(18)	9	(10)
25	7	(12)	2	(25)	1	(6)	1	(9)	11	(12)
30	1	(2)							1	(1)
33	1	(2)	2	(25)					3	(3)
37.5	1	(2)							1	(1)
40							1	(9)	1	(1)
50	24	(41)	4	(50)	9	(56)	3	(27)	40	(43)
60	2	(3)					1	(9)	3	(3)
62.5	3	(5)							3	(3)
70	1	(2)							1	(1)
75	4	(7)			1	(6)	1	(9)	6	(7)
80							1	(9)	1	(1)
90	1	(2)							1	(1)
100	4	(7)	—	—	1	(6)	1	(9)	6	(7)
Total Responses	58	(101)[e]	8	(100)	16	(99)[e]	11	(99)[e]	93	(100)
Mean Response	47.76		39.5		45.63		51.82		47.16	

TABLE IX (Continued)

Oklahoma Firms

	Construction		Industrial		Food	Miscellaneous		Total
Credit Rate (%)	N[a]	(%)[b]	N	(%)	N (%)	N	(%)	N (%)
3					1 (5)			1 (1)
8					3 (14)	1	(3)	4 (4)
10	1	(10)	2	(6)				3 (3)
12.5					1 (5)			1 (1)
15			1	(3)				1 (1)
20	2	(20)	4	(12)	1 (5)	3	(8)	10 (10)
25	1	(10)	9	(27)	1 (5)	9	(23)	20 (19)
30			3	(9)	3 (14)			6 (6)
33			2	(6)		1	(3)	3 (3)
35						2	(5)	2 (2)
40			2	(6)				2 (2)
50	4	(40)	5	(15)	7 (33)	14	(36)	30 (29)
60					1 (5)			1 (1)
67	1	(10)						1 (1)
70						1	(3)	1 (1)
75	1	(10)	1	(3)		2	(5)	4 (4)
80			1	(3)				1 (1)
90			1	(3)				1 (1)
100			2	(6)	3 (14)	6	(15)	11 (11)
Total Responses	10	(100)	33	(99)[e]	21(100)	39	(101)[e]	103(101)[e]
Mean Response	41.70		38.52		42.03	49.13		43.57

Statistics for Differences in Mean Responses:

Among Dun and Bradstreet firms - Computed F = .49[c]
Among Oklahoma firms - Computed F = 1.02[c]
Between Dun and Bradstreet and Oklahoma firms - Computed t = 1.07[d]

[a]Number of Responses

[b]Percent of Total Responses

[c]Not significant at .05 level (See Chao, Statistics, Appendix IX, p. 495.)

[d]Not significant at .05 level (See Chao, Statistics, Appendix IV, p. 490.)

[e]Rounding of individual percentages causes total not to equal 100 percent.

Summary of Results

The data in Table IX show that the largest frequency of responses occurs at the 50 percent credit rate; i.e., percent of the Dun and Bradstreet firms and 29 percent of the Oklahoma firms think that a tax credit of 50 percent of the wages paid eligible employees would be sufficient for the credit to affect their employment decision. The mean rates are 47.2 percent and 43.6 percent for the Dun and Bradstreet and Oklahoma firms respectively. The t value computed for the difference between these means is not significant at the .05 level. Hypothesis 9 is accepted for the comparison between the Dun and Bradstreet and Oklahoma firms. On the basis of this result it is concluded that there is no significant difference of opinion between the Dun and Bradstreet and Oklahoma populations with regard to the rate magnitude which will be necessary in order for a tax credit to affect their decision to employ individuals eligible for tax credit employment.

The means of the responses from the various types of Dun and Bradstreet firms range from a 39.5 percent credit rate for the wholesale-retail firms to a 51.8 percent credit rate for the financial firms. The means of the responses

from the various types of Oklahoma firms range from a 38.5 percent credit rate for the industrial firms to a 49.1 percent credit rate for miscellaneous firms. The F values in the table indicate that the differences among the means are not significant at the .05 level for either the Dun and Bradstreet or Oklahoma firms. This means that Hypothesis 9 is accepted for the comparison of the different types of firms. Therefore, it is concluded that there is no significant difference of opinion among the different types of Dun and Bradstreet and Oklahoma firms with regard to the rate magnitude necessary for a human resource tax credit on wages to be effective.

Implications of Results

The 1971 Work Incentive Program Credit on wages paid eligible employees provides for a tax credit rate of 20 percent. The results of this survey indicate that a credit rate of 20 percent may not be sufficient to induce the participation of the majority of business firms in the Work Incentive Program Credit. Only 16 percent of the Dun and Bradstreet firms and only 20 percent of the Oklahoma firms indicate that tax credit rates of 20 percent or below would affect their decision to employ eligible disadvantaged individuals. The fact that the means of the credit rate responses from the different samples and subsamples were not significantly different does support, however, the use of one credit rate as in the Work Incentive Program

Credit for firms diverse as to business size and activity.

Employers' Estimates of the Necessary Magnitude of a Tax Credit on Relocation Costs

> Hypothesis 10: There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the rate that should be established for a tax credit on costs incurred by employers to relocate disadvantaged individuals to the employer's labor market area.

In Chapter IV it was reported that a majority of both the Dun and Bradstreet and Oklahoma employers think that a tax credit on relocation costs could be a feasible and effective device for encouraging employers to relocate disadvantaged persons from a labor surplus area to the employer's labor market area. To obtain insight into the magnitude of the credit rate necessary in order for a tax credit on relocation costs to be effective, the employers surveyed were asked to respond to the following question:

> What percent would a tax credit on relocation expenses have to be in order for it to affect your decision to pay such expenses for certified employees?

Table X presents the frequency and percentage distributions and means of the 179 responses.

Summary of Results

The data in Table X show that most of the employers (68 percent of the Dun and Bradstreet firms and 58 percent of the Oklahoma firms) feel that it will take a rate of 100

TABLE X

FREQUENCY AND PERCENTAGE DISTRIBUTIONS AND MEANS OF EMPLOYERS' RESPONSES ON THE MAGNITUDE OF A TAX CREDIT ON RELOCATION COSTS

	Dun and Bradstreet Firms									
	Manu-facturing		Wholesale-Retail		Utility-Transportation		Financial		Total	
Credit Rate (%)	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
10	2	(4)			1	(7)			3	(3)
25	1	(2)	1	(14)					2	(2)
40			1	(14)	2	(13)			3	(3)
45							1	(10)	1	(1)
48			1	(14)					1	(1)
50	13	(24)			1	(7)	1	(10)	15	(17)
75	1	(2)			1	(7)	1	(10)	3	(3)
100	38	(69)	4	(57)	10	(67)	7	(70)	59	(68)
Total Responses	55	(101)[e]	7	(99)[e]	15	(101)[e]	10	(100)	87	(98)[e]
Mean Response	83.09		73.29		81.00		87.00		82.39	

TABLE X (Continued)

Oklahoma Firms

Credit Rate (%)	Construction N[a]	Construction (%)[b]	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
5					1	(5)			1	(1)
8					1	(5)			1	(1)
10					1	(5)			1	(1)
20	1	(11)			1	(5)			2	(2)
25	1	(11)	3	(10)	2	(10)	1	(3)	7	(8)
30			1	(3)	1	(5)			2	(2)
40			1	(3)					1	(1)
50	2	(22)	6	(20)	1	(5)	8	(24)	17	(18)
60			1	(3)					1	(1)
75			1	(3)			3	(9)	4	(4)
80					1	(5)			1	(1)
85							1	(3)	1	(1)
100	5	(55)	17	(57)	11	(55)	20	(61)	53	(58)
Total Responses	9	(99)[e]	30	(99)[e]	20	(100)	33	(100)	92	(99)[e]
Mean Response	71.66		76.00		67.65		82.90		76.23	

Statistics for Differences in Mean Responses:

Among Dun and Bradstreet firms - Computed F = .37[c]
Among Oklahoma firms - Computed F = 1.13[c]
Between Dun and Bradstreet and Oklahoma firms - Computed t = .49[d]

[a]Number of Responses

[b]Percent of Total Responses

[c]Not significant at .05 level (See Chao, Statistics, Appendix IX, p. 495.)

[d]Not significant at .05 level (See Chao, Statistics, Appendix VI, p. 490.)

[e]Rounding of individual percentages causes total not to equal 100 percent.

percent in order for a tax credit on relocation costs to have an effect on their decision to pay such costs for disadvantaged individuals. The mean rates are 82.4 percent and 76.2 percent for the Dun and Bradstreet and Oklahoma firms respectively. The t value computed for the significance of the difference between these means is not significant at the .05 level. Therefore, Hypothesis 10 is accepted for the comparison between the Dun and Bradstreet and Oklahoma firms. It is thus concluded that the Dun and Bradstreet and Oklahoma firms do not have significantly different opinions on the rate magnitude which will be necessary to make a tax credit on relocation costs effective.

The means of the responses from the various types of Dun and Bradstreet firms range from a credit rate of 73.3 percent for the wholesale-retail firms to 87 percent for the financial firms. The means of the responses from the various types of Oklahoma firms range from a credit rate of 67.7 percent for the food firms to 82.9 percent for the miscellaneous firms. The F values shown in the table indicate that the differences among the means are not significant at the .05 level. Hypotheses 10 is therefore accepted for the comparison of the different types of firms. Thus, it can be concluded that there is not a significant difference of opinion among the different types of firms with regard to the rate magnitude necessary to make a tax credit on relocation costs effective.

Implications of Results

The above results indicate that employers are hesitant to bear much, if any, of the cost to relocate the disadvantaged from a labor surplus area to the employer's labor market. As was indicated in Chapter IV, many of the employers surveyed in this study are located in labor markets where the supply of individuals meeting the criteria to be classified as disadvantaged is more than adequate. Obviously, employers in such areas see little reason for attracting additional disadvantaged persons to their labor market area. It is therefore understandable that for a tax credit to be an inducement for such employers to pay relocation costs for the disadvantaged, the tax credit rate would have to be of a magnitude sufficient to provide a reimbursement of most, if not all, of the employer's outlay. Indeed, if a credit rate of 82.4 percent (mean credit rate indicated by the Dun and Bradstreet firms) were to be granted on relocation costs it would mean that most taxpayers would actually realize an after tax saving on the payment of such costs. To illustrate, assume a corporation subject to a 48 percent income tax pays $100 in relocation costs which qualify for an 82.4 percent tax credit. If such a credit is legislated in a manner similar to the work incentive tax credit, the corporation would be able to deduct the $100 in arriving at taxable income yielding a tax saving of $48 (48 percent tax rate would be applied

against a $100 lower base). In addition, the corporation would be able to reduce its computed tax liability by $82.40 - the amount of the tax credit. Therefore, the corporation would realize total tax savings of $130.40 offsetting the initial $100 expenditure.

The results in Table X also indicate that firm size or business activity are not significant factors affecting the magnitude of a tax credit on relocation costs which will be necessary for the credit to affect the employer's decision.

Employers' Estimates of the Necessary Magnitude of a Tax Credit on Education Costs

Hypothesis 11: There are no significant differences between Dun and Bradstreet and Oklahoma firms and among subsamples of these firms on the rate that should be established for a tax credit on educational costs paid for disadvantaged employees.

It was reported in Chapter IV that a majority of the Dun and Bradstreet and Oklahoma employers think that a tax credit on educational costs could be a feasible and effective device for encouraging employers to pay such costs for disadvantaged individuals. To obtain information on the rate at which a tax credit on educational costs would have to be established in order for it to have an effect on employers' decisions to pay such costs, the employers surveyed were asked to respond to the following question:

What percent would a tax credit on tuition, books, etc., have to be in order for it to affect your decision to pay such costs for certified employees?

The frequency and percentage distributions and means of the 172 responses are presented in Table XI.

Summary of Results

The results in Table XI show that a significant percent of the employers (33 percent of the Dun and Bradstreet employers and 43 percent of the Oklahoma employers) feel that it would take a tax credit rate of 100 percent in order for a tax credit on educational costs to have an effect on their decision to pay such costs for their disadvantaged employees. The mean rates are 66.1 percent for the Dun and Bradstreet firms and 67.6 percent for the Oklahoma firms. The t value computed for the significance of the difference between these means is not significant at the .05 level. Therefore, Hypothesis 11 is accepted for the comparison between these two samples. It cannot be concluded that there is a significant difference of opinion between the two populations on the rate magnitude which will be necessary to make a tax credit on educational costs effective.

The means of the responses from the sample of Dun and Bradstreet firms range from 64 percent for the manufacturing firms to 80.6 percent for the financial firms and for the Oklahoma sample from 60.6 percent for the food firms to 75.1 percent for the miscellaneous firms. The

TABLE XI

FREQUENCY AND PERCENTAGE DISTRIBUTIONS AND MEANS OF EMPLOYERS' RESPONSES ON THE MAGNITUDE OF A TAX CREDIT ON EDUCATION COSTS

	Dun and Bradstreet Firms									
	Manufacturing		Wholesale-Retail		Utilities-Transportation		Financial		Total	
Credit Rate (%)	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
5	1	(2)							1	(1)
10	2	(4)			1	(7)			3	(7)
15					1	(7)			1	(1)
20	1	(2)							1	(1)
25	2	(4)	1	(14)					3	(4)
35	1	(2)							1	(1)
40	1	(2)			2	(13)	1	(13)	4	(5)
48			1	(14)					1	(1)
50	19	(36)	2	(29)	4	(27)	1	(13)	26	(31)
60	2	(4)							2	(2)
62.5	2	(4)							2	(2)
75	5	(9)			1	(7)	1	(13)	7	(8)
80	2	(4)					1	(13)	3	(1)
90	1	(2)							1	(1)
100	14	(26)	3	(43)	6	(40)	4	(50)	27	(33)
Total Responses	53	(101)[e]	7	(100)	15	(101)[e]	8	(102)[e]	83	(99)[e]
Mean Response	63.96		67.57		65.33		80.63		66.12	

TABLE XI (Continued)

Oklahoma Firms

Credit Rate (%)	Construction N[a]	Construction (%)[b]	Industrial N	Industrial (%)	Food N	Food (%)	Miscellaneous N	Miscellaneous (%)	Total N	Total (%)
6					1	(5)			1	(1)
8					1	(5)			1	(1)
10	1	(9)	1	(4)					2	(2)
12.5					1	(5)			1	(1)
20	1	(9)	2	(8)			1	(3)	4	(4)
25	2	(18)	3	(12)	2	(11)	2	(6)	9	(10)
35			1	(4)					1	(1)
40			1	(4)					1	(1)
50	1	(9)	6	(23)	5	(26)	9	(27)	21	(24)
60							1	(3)	1	(1)
70	1	(9)			1	(5)			2	(2)
73							1	3	1	(1)
75					1	(5)	3	(9)	4	(4)
80					1	(5)			1	(1)
90			1	(4)					1	(1)
100	5	(45)	11	(42)	6	(32)	16	(48)	38	(43)
Total Responses	11	(99)[e]	26	(101)[e]	19	(99)[e]	33	(99)[e]	89	(98)[e]
Mean Response	63.64		65.00		60.61		75.09		67.63	

Statistics for Differences in Mean Responses:

Among Dun and Bradstreet firms - Computed F = 1.00[c]
Among Oklahoma firms - Computed F = 1.08[c]
Between Dun and Bradstreet and Oklahoma firms - Computed t = .14[d]

[a]Number of Responses

[b]Percent of Total Responses

[c]Not significant at the .05 level (See Chao, Statistics, Appendix IX, p. 495.)

[d]Not significant at the .05 level (See Chao, Statistics, Appendix VI, p. 490)

[e]Rounding of individual percentages causes total not to equal 100 percent.

F values shown in the table indicate that the differences among the means are not significant at the .05 level. Hypothesis 11 is therefore accepted for the comparison of the different types of firms. Thus, it is concluded that there are not significantly different opinions among the different subsamples of firms on the rate magnitude which will be necessary to make a tax credit on educational costs effective.

Implications of Results

The above results indicate most employers would be unwilling to sustain much of the cost of providing formal training for their disadvantaged employees. In fact, as was the case with the mean rate indicated for a tax credit on relocation costs, corporations subject to a 48 percent tax rate would actually have a net after tax gain if granted a credit of 66.1 percent (the mean credit rate indicated by the Dun and Bradstreet employers) on educational expenditures for disadvantaged employees. For example, on a qualified expenditure of $100 the business deduction would result in a tax saving of $48 (48 percent corporate tax rate would be applied against a $100 lower taxable income amount), and the 66.1 percent tax credit would result in an additional tax saving of $66.10. Therefore, the corporation would realize total tax savings of $114.10 offsetting the initial $100 expenditure. This assumes

that the credit would be legislated in a manner similar to the work incentive tax credit under which the taxpayer is entitled to both the credit and the expense deduction.

The results in Table XI also indicate that a tax credit on educational costs of a given magnitude will have approximately the same effect on the decisions of business firms which are diverse as to size and activity.

Employers' Estimates on the Effect of a Tax Credit on Their Employment of Disadvantaged Individuals

In order to obtain data for estimating the potential effect of a human resource tax credit on employment and on tax revenue, the employers surveyed in this study were asked to respond to the following statement:

> Estimate the number of certified individuals your firm would add to its present employment if granted a tax credit for the length of time and rate you have indicated in the preceding questions.

The responses of the 168 firms which responded to the above statement are tabulated in Table XII which shows for seven credit rate intervals a cumulative distribution of the number of firms from which responses were received, present employment of the firms, the number of disadvantaged individuals which the firms estimate would be added to their employment as a result of the tax credit, and the estimated added employment expressed as a percent of the present employment for all firms providing estimates on the employment effect.

TABLE XII

EMPLOYERS' ESTIMATES OF THE DISADVANTAGED INDIVIDUALS WHICH WOULD BE EMPLOYED AS A RESULT OF A HUMAN RESOURCE TAX CREDIT[a]

	Dun and Bradstreet				Oklahoma			
Credit Rate (%)	Number of firms	Present Employment	Added Employment N[b]	P[c]	Number of Firms	Present Employment	Added Employment N[b]	P[c]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10	2	51,500	10	-	7	289	26	.63
20	12	103,750	654	.11	16	667	48	1.17
30	23	219,390	1,874	.31	41	2,048	227	5.55
40	28	277,890	2,199	.36	46	2,135	247	6.04
50	62	523,534	4,497	.75	71	3,125	296	7.24
75	74	564,134	4,793	.80	76	3,394	311	7.61
100	82	594,514	5,392	.90	86	4,083	349	8.54

[a]The data in the table is cumulative in that the data for each credit rate includes the data from all employers which provided estimates for lower credit rates. The data are thus based on the assumption that an employer's estimate of the employment effect of a tax credit at a given credit rate; e.g., 10 percent, would not vary from what his estimate would be at a higher credit rate. Therefore, the cumulative estimates in the table are conservative to the extent that employers would hire more tax credit eligible individuals at credit rates above the threshold rate at which they based their estimates. With regard to the effect of increases in the tax credit rate, employers' attitudes on the effect of changes in the tax credit rate (reported in Table XVI) generally support the assumption that increases in the tax credit rate above their threshold rate would not have a significant effect on the number of tax credit individuals they would employ.

[b]Estimated number of persons which would be hired by responding firms as a result of the tax credit.

[c]Estimated increase in employment expressed as a percent of the total employment for all firms which provided estimates on the employment effect of the tax credit; i.e., the figures in Columns 4 and 8 are related to the cumulative totals at the 100 percent rate in Columns 3 and 7 to derive the percentages in Columns 5 and 9.

Summary of Results

The data in Table XII indicate that employers are willing to add disadvantaged individuals to their payroll if granted a tax credit on the wages paid to such individuals. The data in Column 5 show that the Dun and Bradstreet employers might increase their employment by 0.11 to 0.90 percent with disadvantaged persons if granted a tax credit of from 20 to 100 percent on the wages paid such persons. The estimated employment effect at a 10 percent credit rate interval is insignificant. And, since the category contains the responses of only two of the Dun and Bradstreet employers, the data for the category is somewhat meaningless.

The data for the Oklahoma employers show that these firms might increase their employment by 0.63 to 8.54 percent with disadvantaged persons if granted a tax credit of from 10 to 100 percent on the wages paid such persons. Thus, the data show that the employment effect of a tax credit on present employment would be considerably more significant with the Oklahoma employers than it would be with the Dun and Bradstreet employers. One possible explanation for this difference is that since it is primarily the large firms which are participating in the JOBS program,[3] fewer slots are available in these firms

[3]Sar A. Levitan, Garth L. Mangum, and Ray Marshall, Human Resources and Labor Markets: Labor and Manpower in the American Economy (New York: Harper and Row, 1972), p. 354.

for the addition of tax credit employees. Also, since the present employment upon which the percentage effect is based is much larger for the Dun and Bradstreet firms, these employers would have to add a very significant number of employees in order to match the percentage effect indicated by the Oklahoma employers.

Implication of Employers' Responses for the Potential Effect of a Tax Credit on the Nation's Employment

The data in Table XII provide a basis for estimating the potential effect of alternative tax credit rates on the employment of disadvantaged individuals in the nation. These estimates are presented in Table XIII.

The estimates in Table XIII for the Dun and Bradstreet firms are based on the assumption that the 82 Dun and Bradstreet firms which provided estimates on the employment effect of a tax credit are representative of the population of Dun and Bradstreet firms. Based on this assumption, the percentages in Column 5 of Table XII are applied against the total employment for all the firms in the Dun and Bradstreet population (20 million which the Dun and Bradstreet Reference Book on Corporate Management indicates is the approximate employment for all the firms listed in the Directory) to derive the estimated potential effect of alternative tax credit rates on employment of disadvantaged individuals by all firms in the Dun and Bradstreet population. These estimates are shown in Column 2 of

TABLE XIII

ESTIMATED POTENTIAL EFFECT OF A HUMAN RESOURCE TAX CREDIT ON THE NATION'S EMPLOYMENT

Credit Rate (%)	Estimated Increase in Employment (Thousands of Persons)			Employment Increase as a Percent of Unemployment[b]	Employment Increase as a Percent of AFDC Families[c]
	Large Firms[a]	Small Firms[a]	Total		
(1)	(2)	(3)	(4)	(5)	(6)
10	-	291	291	5.83	9.95
20	22	541	563	11.28	19.30
30	62	2,568	2,630	52.66	90.13
40	72	2,794	2,866	57.40	98.22
50	150	3,349	3,499	70.08	119.91
75	160	3,521	3,681	73.71	126.15
100	180	3,951	4,131	82.73	141.57

[a]These estimates are based on the assumption that the Dun and Bradstreet sample represents the nation's large firms and that the Oklahoma sample is representative of all the small firms in the nation. See the text for a detailed description of how these estimates are derived.

[b]The percentages in this column are derived by relating the estimates in Column 4 to the 4,993,000 average number of persons unemployed during 1971. (See Monthly Labor Review, May, 1972, p. 89.)

[c]The percentages in this column are derived by relating the estimates in Column 4 to the 2,918,000 families which were on AFDC (Aid to Families with Dependent Children) rolls as of December, 1971. (See Social Security Bulletin, May, 1972, p. 54.)

Table XIII and are identified as the potential effect of the alternative tax credit rates on large firms, since in order to be included in the Dun and Bradstreet listing the firms have to employ 1,000 or more people and (or) have $20 million or more in sales.

Estimates of the potential employment effect of the alternative tax credit rates on small firms (firms not included in the Dun and Bradstreet population) are given in Column 3 of Table XIII. These estimates are derived by assuming that the estimates of the respondent Oklahoma firms are representative of all firms not included in the Dun and Bradstreet population. The estimates in Column 3 are computed by multiplying the percentage in Column 9 of Table XII by 46,262,000. This figure represents the average employment during 1971 (79,120,000) less the government employees (12,858,000) and the 20,000,000 estimated number of employees on the payrolls of the Dun and Bradstreet firms.[4]

The estimates in Columns 2 and 3 of Table XIII are combined in Column 4 of the table to show the estimated potential national employment effect of alternative human resource tax credit rates. The estimates show that a tax credit might result in the employment of an additional 291,000 individuals at a 10 percent rate to a possible additional employment of 4,131,000 individuals at a 100

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[4] Monthly Labor Review, May, 1972, pp. 89 and 93.

percent credit rate. In Column 5 of Table XIII the employment estimates in Column 4 are expressed as percentages of the 4,993,000[5] average number of individuals which were unemployed during 1971. Column 6 of the table shows the estimates in Column 4 as percentages of the 2,918,000 families[6] which received aid under Aid to Families with Dependent Children (AFDC) in December, 1971. These figures are presented only to give some idea of the relative potential of a tax credit and are not intended to mean that a tax credit would reduce unemployment or the number of welfare families by the amount of the percentages shown in Columns 6 and 7. The macroeconomic figures on unemployment and welfare families include many unemployed persons and welfare family heads which would not be employed even if sufficient job openings were to be created by a tax credit. Many of the unemployed would not meet eligibility requirements (assuming eligibility is limited to the disadvantaged as defined by the Department of Labor), and some welfare recipients are disabled to the extent that they are unable to work.[7]

Obviously, the estimates in Table XIII have to be interpreted somewhat loosely. In the first place, the

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[5]Ibid. p. 89.

[6]Social Security Bulletin, May, 1972, p. 54.

[7]In 1971 it was estimated that approximately 1 million of the adults in AFDC families were employable. See, Charles L. Schultze, et al., Setting National Priorities: The 1973 Budget (Washington: The Brookings Institution, 1972), p. 192.

projections are based on assumptions that the 82 Dun and Bradstreet firms and the 86 Oklahoma firms which provided estimates on the effect of a human resource tax credit on their employment are respectively representative of the large and small firms in the nation and that the distribution of the employment effect of the alternative tax credit rates as shown in Columns 5 and 9 of Table XII corresponds to what the distribution would be for all the large and small firms in the nation. A second reason for interpreting the estimates somewhat loosely is that what employers say they will do in response to a questionnaire survey may vary significantly from the action which would actually be taken. Also, even if it can be assumed that firms will act as they indicate at the time they respond to a questionnaire, the applicability of the estimates to later time periods is limited due to such uncertainties as changes in the firm's economic condition and in the environment within which it operates.

Effect of a Human Resource Tax Credit on Income Tax Revenue

The estimates in Table XIV provide some idea of the impact of a human resource tax credit on the nation's tax revenue for seven different tax credit rates. The estimates in the table are based on the assumption that employees hired as a result of the tax credit will be paid wages equal to $6,600 for a 12 month period. The $6,600 figure

TABLE XIV

ESTIMATED POTENTIAL EFFECT OF A HUMAN RESOURCE TAX CREDIT ON INCOME TAX REVENUE DURING THE FIRST 12 MONTH PERIOD OF ITS ENACTMENT
(Amounts are in Millions of Dollars)

Credit Rate (%)	Wages of Tax Credit Employees[a]	Revenue Loss Due to Tax Credit Offset (Col. 1 times Col. 2)	Revenue Loss Due to Wage Expense Deduction[b]	Marginal Product Value of Tax Credit Employees[c]	Tax Collections Attributed to the Value of the Tax Credit Employee's Marginal Product[d]	Tax Collections from the Tax Credit Employees[e]	Estimated Net Revenue Loss (Columns 3 & 4 Minus Columns 6 & 7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
10	$ 1,921	$ 192	$ 922	$ 1,729	$ 830	$ 168	$ 116
20	3,716	743	1,784	2,973	1,427	326	774
30	17,358	5,207	8,332	12,151	5,832	1,523	6,184
40	18,916	7,566	9,080	11,350	5,448	1,659	9,539
50	23,093	11,547	11,085	11,547	5,543	2,026	15,063
75	24,295	18,221	11,662	6,074	2,916	2,131	24,836
100	27,265	27,265	13,087	-0-	-0-	2,392	37,960

[a]Computed by multiplying $6,600 times the employment estimates given in Table XIII for each of the tax credit rates. The $6,600 amount is based on the assumption that on the average the tax credit employees will be paid wages during the year approximately equal to the $126.91 average weekly earnings of nonsupervisory employees during 1971. (See, Monthly Labor Review, May, 1972, p. 98.)

[b]Based on the assumption that all employers are corporations subject to the marginal corporate income tax rate of 48 percent. The amounts in this column are thus computed by multiplying the wages in Column 2 times 48 percent.

[c]Based on the assumption that the tax credit employee's marginal product value will be equal to his wage less the tax credit. (See the text for an expanded explanation of this computation.)

[d]48 percent marginal corporate tax rate times the estimates in Column 5.

[e]Computed by multiplying $579 times the employment estimates given in Table XIII for each of the tax credit rates. $579 is the tax liability on an income of $6,600 for a taxpayer claiming three exemptions and head of household rates according to the 1972 Optional Tax Tables. (See the text for an expanded discussion of this computation.)

is based on the $126.91 average weekly earnings of nonsupervisory employees during 1971.[8] The average earnings of nonsupervisory employees during 1971 is probably higher than the average earnings of tax credit employees would be; however, it is felt that this figure is sufficiently realistic for the estimates in Table XIV, which are only intended to give some general idea of what the impact of a human resource tax credit on tax revenue might be. Also, since the estimates are for an annual period, it is assumed that the average number of tax credit employees on employers' payrolls for the annual period will equal the estimates of additional employment shown in Column 4 of Table XIII. Thus, the wage figures shown in Column 2 of Table XIV are computed by multiplying the estimated additional employment for each of the credit rates, as shown in Column 4 of Table XIII, times $6,600.

Column 3 of Table XIV shows the estimated tax revenue which would be lost as a result of the tax credit offset against the tax liability of employers. The estimates equal the rates in Column 1 times the wages in Column 2. The credit is the indirect payment employers would receive for employing disadvantaged individuals. Naturally, in order to receive the benefit of the tax credit, employers will have to have a tax liability against which the credit can be offset. Carryback and carryover provisions written

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[8] Monthly Labor Review, May, 1972, p. 98.

into the tax law can, however, minimize the number of firms which would not eventually receive a benefit from the tax credit. For example, under the Work Incentive Program Credit unused tax credits may be carried back to offset tax liabilities of three prior years and then carried forward to offset tax liabilities of seven succeeding years.

In addition to the tax credit benefit, employers which hire disadvantaged individuals under a tax credit program will also be entitled to deduct the wages paid such persons in arriving at taxable income. The estimated tax revenue loss from this deduction for the wage estimates in Column 2 of Table XIV are given in Column 4 of the table. The estimates are based on the assumption that the employers employing the tax credit individuals are subject to the marginal corporate tax rate of 48 percent. Thus, the estimates in Column 4 are equal to the wage estimates in Column 2 times 48 percent.

The estimates in Column 2 of Table XIV show that the tax credit offset might result in a revenue loss of from $192 million at a 10 percent credit rate to $27,265 million at a 100 percent credit rate. The estimates in Column 3 of Table XIV show that the expense deduction for wages paid tax credit employees might result in a revenue loss of from $922 million at a 10 percent credit rate to $13,087 million at a 100 percent credit rate.

The revenue losses attributable to the tax credit and expense deduction would be at least partially offset by tax

collections attributable to the value of the marginal product of the tax credit employees and by tax collections from the tax credit employees. These estimates are shown in Columns 6 and 7 of Table XIV.

The estimates on the tax collections which would result from the marginal product of tax credit employees are based on the assumption that the value of the marginal product of these employees will equal their wage ($6,600) less the tax credit employers receive on this wage. Therefore, with a 10 percent tax credit the value of a tax credit employee's marginal product is assumed to be $5,940 ($6,600 minus 10 percent of $6,600). The reasoning supporting the above assumption is that it is felt that employers in providing estimates on the number of disadvantaged individuals they would employ at the rate specified in response to an earlier question were planning to at least break even on the employment of tax credit employees as compared to regular employees. Thus, if an employer indicated he would employ disadvantaged individuals at a 10 percent tax credit rate it is assumed that he thinks that the disadvantaged person will be 90 percent as productive as an additional nondisadvantaged person whose marginal product value is equal to his salary.

The estimated values of the marginal product of the disadvantaged individuals employers estimated they would hire are given in Column 5 of Table XIV. The estimated effect (assuming a 48 percent marginal tax rate) on tax

collections of these marginal product values are shown in Column 6 of the table. The estimates range from $830 million at a 10 percent credit rate to $2,916 million at a 90 percent credit rate. These estimates indicate that a significant portion of the tax revenue loss resulting from the tax credit offset against the tax liability and from the wage expense deduction by participating employers might be offset by tax collections attributable to the additional revenue employers might receive from the marginal product of the tax credit employees. Of course, no savings are indicated at the 100 percent credit rate since it is assumed that disadvantaged persons hired by firms requiring a 100 percent tax credit will have a zero marginal product during the credit period.

The estimates in Column 7 of Table XIV show that the tax revenue loss of a human resource tax credit would also be significantly reduced by taxes collected on the earnings of tax credit employees. The estimates in Column 7 show that these collections might range from $168 million at a 10 percent credit rate to as much as $2,392 million at a 100 percent credit rate. The estimates are based on the assumption that tax collections from tax credit employees will average $579. $579 is the tax liability for a family of three with $6,600 income according to the 1972 Optional Tax Tables of the Internal Revenue

Service.[9] Obviously, many of the tax credit employees would be entitled to claim either more or less than three exemptions on their tax returns. However, in order to estimate the tax collections which might be received from tax credit employees it is necessary to assume some average family size (number of exemptions). Three exemptions were used because government data show that there are approximately three AFDC recipients for each AFDC family.[10]

In Column 8 of Table XIV the estimates in Columns 3 and 4 of the table were netted against the estimates in Columns 6 and 7 of the table to derive estimates of the net effect of a human resource tax credit on income tax revenue. The estimates in Column 8 show that the revenue loss might range from $116 million at a 10 percent tax credit rate to $37,960 million at a 100 percent tax credit rate. It should be remembered that these estimates take into account only the initial effect of a tax credit on income tax revenue. A human resource tax credit will also have a "multiplier" effect on the gross national product and consequently income tax revenue of the base period year and subsequent years. Under the "multiplier" theory an increase in investment for labor as a result of the tax credit will increase

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[9]This tax figure is based on the assumption that the disadvantaged employee will qualify for head of household tax rates.

[10]Social Security Bulletin, May, 1972, p. 54.

production and national income. This in turn will stimulate greater demand for investment and consumer goods leading to still greater production creating more new income resulting in still more spending. The additional income resulting from the "multiplier" chain will of course generate additional income tax revenue.[11]

Other Tax Credit Benefits Offsetting Loss in Tax Revenue

The income tax revenue which might be lost as a result of a human resource tax credit would be offset at least in part by reduced welfare and unemployment benefits. In December, 1971 the average monthly AFDC payment was $188.45[12] per family and unemployment benefits averaged $54.20[13] per week. Thus, to the extent that a tax credit results in the removal of individuals from the AFDC or unemployment benefit rolls, significant savings in direct government payments will result. The addition of AFDC family heads and unemployed individuals to the ranks of the employed will also result in a reduction of distributions in kind; i.e., food, housing, and medical subsidies. For Fiscal Year 1973 federal expenditures for distributions in kind to the

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[11]For an expanded discussion of the "multiplier" concept see a standard economics textbook; e.g., Gardner Ackley, Macroeconomic Theory (Toronto: The Macmillian Company, 1961), pp. 312-320.

[12]Social Security Bulletin, May, 1972, p. 54.

[13]Ibid., p. 53.

unemployed, aged, disabled, blind, and families with dependent children are expected to be approximately 65 percent of the cash distributions to such individuals.[14]

The addition of welfare recipients and unemployed persons to the ranks of the employed also means additional payroll tax collections. In 1972 both the employer and employee are subject to a 5.2 percent payroll tax under the Federal Insurance Contributions Act (F.I.C.A.). This tax is imposed on the first $9,000 paid to an employee during the year. Thus, if a tax credit employee is paid $6,600 in 1972, the loss in income tax revenue from the tax credit would be offset by F.I.C.A. collections from the employee and his employer totaling $686.40 (10.4 percent times $6,600). In addition to F.I.C.A. taxes, most employers are also subject to state and federal unemployment taxes on the first $4,200 paid to an employee during the year. The state unemployment tax rate is generally 2.7 percent; however, this rate may vary depending on the various state merit rating systems which base the rate on the employer's labor turnover experience. The generally effective federal unemployment tax rate is 0.4 percent.

Table XV shows the magnitude of the estimated benefits discussed in the above paragraphs assuming the employment estimates shown in Column 4 of Table XIII. The totals in Columns 8 and 9 of Table XV indicate that these other

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[14] Schultz, et al., Setting National Priorities, p. 196.

TABLE XV

ESTIMATED TAX CREDIT BENEFITS OFFSETTING LOSS
IN INCOME TAX REVENUE
(Amounts are in Millions of Dollars)

	Savings in Cash Benefits and Distributions in Kind						Total Benefits	
	If Added Employees were AFDC Family Heads		If Added Employees Received Unemployment Benefits					
Credit Rate (%)	Cash Distributions[a]	Distributions in Kind[b]	Cash Distributions[c]	Distributions in Kind[b]	Additional F.I.C.A. Tax Collections[d]	Additional Unemployment Tax Collections[e]	Employees were AFDC Family Heads (Total-Columns 2,3,6&7)	Employees Received Unemployment Benefits (Total-Columns 4,5,6&7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10	$ 658	$ 428	$ 820	$ 533	$ 200	$ 38	$ 1,324	$ 1,591
20	1,273	827	1,587	1,032	386	73	2,559	3,078
30	5,947	3,866	7,412	4,818	1,805	342	11,960	14,377
40	6,481	4,213	8,076	5,249	1,967	373	13,034	15,665
50	7,913	5,143	9,862	6,410	2,402	456	15,914	19,130
75	8,324	5,411	10,375	6,744	2,527	479	16,741	20,125
100	9,342	6,072	11,643	7,568	2,836	538	18,788	22,585

[a] Computed by multiplying $188.45 (average monthly payment during 1971 to AFDC families - see Social Security Bulletin, May, 1972, p. 54.) times 12 months times the estimated number of employees which would be added at each credit rate as shown in Column 4 of Table XIII.

[b] Estimated to be 65 percent of cash distributions - see text.

[c] Computed by multiplying $54.20 (average weekly unemployment benefits during 1971 - see Social Security Bulletin, May, 1972, p. 53.) times 52 weeks times the estimated number of employees which would be added at each credit rate as shown in Column 4 of Table XIII.

[d] 10.4 percent (effective FICA tax rate during 1972) times the wage estimates shown in Column 2 of Table XIV.

[e] 3.1 percent (generally effective combined state and federal unemployment tax rates during 1972) times $4,200 (the maximum amount of wages subject to unemployment taxes) times the number of employees which would be added at each credit rate as shown in Column 4 of Table XIII.

benefits of a tax credit can be very significant. In fact, at the 50 percent and lower tax credit rates these estimated other benefits more than offset the estimated loss in income tax revenue shown for these rates in Column 8 of Table XIV. These results indicate that a human resource tax credit at a rate of 50 percent or below will actually result in a net overall saving to the government during the first annual period it is put into effect. Of course, the "multiplier" effect (discussed in the previous section) should result in further savings.

Although the above discussion is not intended as an exhaustive list of the benefits resulting from a human resource tax credit, it is felt that it does make reference to the most significant benefits. Of course, a human resource tax credit would also result in some additional administrative costs for the Internal Revenue Service.

Effect of Changes in Tax Credit Rate on Employers' Decisions to Hire the Disadvantaged

> Hypothesis 12: The opinions of employers on their ability to adapt their employment plans to changes in the magnitude of a human resource tax credit rate are not statistically significant.

In order to obtain some insight into whether the individual employer's demand for tax credit employees is elastic with regard to the tax credit rate, the employers surveyed in this study were asked to respond to the following statement:

> Your employment plans are flexible enough so that a significant increase in the magnitude of a wage tax credit in one month could have an effect on the number of certified unemployed individuals your firm would add to its payroll in the following month.

The frequency and percentage distributions of the 207 responses to the statement are presented in Table XVI.

Summary of Results

The data in Table XVI show that 67 percent of the Dun and Bradstreet firms strongly disagree or disagree with the statement that they could change their employment plans monthly to take into account changes in the tax credit rate. The majority of firms in each of the subsamples of Dun and Bradstreet firms also are in some degree of disagreement with the statement. The D values shown in the table are significant at the .05 level for each of the Dun and Bradstreet subsamples and for the overall sample. Hypothesis 12 is therefore rejected for these firms. Thus, it is concluded that Dun and Bradstreet employers do have significant negative attitudes with regard to their ability to make monthly changes in their employment as a result of changes in a human resource tax credit rate.

The data in Table XVI show that Oklahoma employers are somewhat negative as to the adaptability of their employment plans to changes in a tax credit rate. Forty percent of the firms in the overall Oklahoma sample are uncertain with regard to the statement and 35 percent of

TABLE XVI

EMPLOYERS' RESPONSES TO STATEMENT SPECIFYING THAT A SIGNIFICANT CHANGE IN THE TAX CREDIT RATE IN ONE MONTH COULD HAVE AN EFFECT ON THEIR EMPLOYMENT IN THE FOLLOWING MONTH

Dun and Bradstreet Firms

	Manufacturing		Wholesale-Retail		Utilities-Transportation		Financial		Total	
	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
Strongly Agree	0	(0)	1	(11)	0	(0)	0	(0)	1	(1)
Agree	6	(10)	0	(0)	0	(0)	0	(0)	6	(6)
Uncertain	16	(26)	3	(33)	3	(16)	4	(33)	26	(26)
Disagree	19	(30)	2	(22)	7	(37)	6	(50)	34	(33)
Strongly Disagree	21	(34)	3	(33)	9	(47)	2	(17)	35	(34)
Total	62	(100)	9	(99)[c]	19	(100)	12	(100)	102	(100)
D Values	.303*		.289*		.442*		.400*		.331*	

TABLE XVI (Continued)

	Oklahoma Firms									
	Construction		Industrial		Food		Miscellaneous		Total	
	N[a]	(%)[b]	N	(%)	N	(%)	N	(%)	N	(%)
Strongly Agree	0		3	(9)	2	(9)	2	(5)	7	(7)
Agree	2	(20)	6	(18)	3	(13)	8	(20)	19	(18)
Uncertain	2	(20)	10	(30)	9	(39)	21	(54)	42	(40)
Disagree	2	(20)	8	(24)	5	(22)	5	(13)	20	(19)
Strongly Disagree	4	(40)	6	(18)	4	(17)	3	(8)	17	(16)
Total	10	(100)	33	(99)[c]	23	(100)	39	(100)	105	(100)
D Values	.200		.127		.183		.144		.152*	

*D Value is significant at the .05 level (See Siegel, Nonparametric Statistics, Table E, p. 251.

[a]Number of Responses

[b]Percent of Total Responses

[c]Rounding of individual percentages causes total not to equal 100 percent.

the firms in the sample either disagree or strongly disagree with the statement. The D value in the table for the overall Oklahoma sample shows that the distribution of responses is significant at the .05 level. Therefore, it is concluded that overall Oklahoma employers are somewhat negative in their attitudes on the adaptability of their employment plans to changes in a tax credit rate. With smaller samples there is a greater likelihood of error which requires a larger D value for statistical significance; thus, for the subsamples of the Oklahoma firms none of the D values are significant at the .05 level even though the D value for the overall sample is significant. It cannot be concluded therefore that the different types of Oklahoma firms have significant positive or negative attitudes on the adaptability of their employment plans to changes in a tax credit rate.

Implications of Results

The data in Table XVI show that the percentage of Dun and Bradstreet employers which disagree with the statement on adaptability of employment plans to changes in a tax credit rate is considerably greater than the percentage of Oklahoma firms which disagree with the statement. This difference indicates that small firms can more readily adjust their employment plans than large firms. However, the results in Table XVI indicate that business activity

may have little effect on the adaptability of a firm's employment plans to changes in a tax credit rate.

Both the Dun and Bradstreet and Oklahoma employers tended to disagree with the statement that an increase in the tax credit rate in one month could have an effect on the number of tax credit eligible persons they would employ in the next month. This indicates that once the employer's threshold rate for participation in a human resource tax credit is reached, a higher tax credit rate might not be very effective in causing the employer to hire additional tax credit employees.

One possibility in connection with a human resource tax credit is to have the tax credit rate flexible. For example, the rate could be set to fluctuate with changes in the unemployment rate. The idea behind such a tax credit is that it would tend to serve as an automatic stabilizer in the economy. For example, as the unemployment rate moves upward, the tax credit could be set to increase 1 percent for each .1 percent change in the unemployment rate. In connection with such a flexible tax credit, the results in Table XVI indicate that individual employers would not significantly change their employment plans to take into account changes in the credit rate. However, the results reported in Table IX of this study show that the threshold rate at which employers think they would participate in a tax credit program varies among employers. Therefore,

although an individual employer might not increase his employment of tax credit employees at credit rates above his threshold rate, higher tax credit rates would cause more employers to participate in the tax credit program.

Willingness of Employers to Provide Quality Training for Tax Credit Employees

One important question in connection with the employment of the disadvantaged as a result of a tax credit is whether employers will provide such individuals with quality training. In order to obtain some insight into whether a human resource tax credit can induce employers to train the disadvantaged for meaningful jobs, the employers in this study with registered apprenticeship programs were asked to respond to the following questions:

> How many individuals do you currently have enrolled in registered apprenticeship programs?
>
> How many certified individuals would you add to your apprenticeship program(s) if granted a tax credit of the rate indicated in question 4 on the wages paid such persons during their apprentice training?

Responses to the above questions were received from 33 firms. The results of these responses are reported in Table XVII.

Summary and Implications of Results

The data in Table XVII for the Dun and Bradstreet and Oklahoma employers with apprenticeship programs indicate

TABLE XVII

EMPLOYERS' ESTIMATES OF THE EFFECT OF A TAX CREDIT ON THEIR APPRENTICE EMPLOYMENT

	Dun and Bradstreet Firms	Oklahoma Firms
Number of Responses	17	16
Present Apprentice Employment of Firms Providing Estimates	802	36
Estimated Additional Apprentice Employment Resulting from Tax Credit	278	50
Added Apprentice Employment as a Percent of Present Apprentice Employment	34.6	138.9

that these employers would significantly increase their apprentice employment by hiring disadvantaged persons if granted a tax credit on the wages paid such persons. The Dun and Bradstreet and Oklahoma employers estimate increases in their apprentice employment of 35 and 139 percent respectively. Perhaps the greater percentage increase indicated by the Oklahoma employers can be partially explained by the nature of the Dun and Bradstreet and Oklahoma firms which provided estimates on the effect of a wage tax credit on their apprentice employment. The 17 Dun and Bradstreet firms were all large firms in which probably only a small percent of the entry level jobs involve training in a formal apprenticeship program. In contrast, the 16 Oklahoma firms were small firms (e.g., machine shops, printing offices, and construction firms) of the type that probably train under a formal apprenticeship program a significant percentage of their new employees. The greater availability of nonapprentice entry level jobs in the Dun and Bradstreet firms may be a reason why these firms estimate a lower percentage increase in their apprentice employment than the Oklahoma firms. By placing the disadvantaged individuals hired as a result of a wage tax credit in nonapprentice entry level jobs the Dun and Bradstreet firms would still be entitled to a tax credit, but would avoid the higher costs training under an apprenticeship program would most likely entail. Also, the results in Table XVII, which indicate that the estimated

percentage increase in apprentice employment will be greater for the Oklahoma firms than for the Dun and Bradstreet firms, are consistent with the estimates in Table XII of this chapter, which indicate that a wage tax credit will cause a greater percentage increase in overall employment by the Oklahoma firms. It is logical to expect that the greater percentage increase in overall employment estimated by the Oklahoma firms (possibly explained by greater participation of large firms; i.e., Dun and Bradstreet, in the JOBS program)[15] would also be reflected by higher estimates from the Oklahoma employers on the effect of a tax credit on apprentice employment.

The results in Table XVII do indicate, however, that both large and small employers are willing to provide meaningful training for disadvantaged persons which would be hired under a tax credit program.

Summary

The findings reported in this chapter relate to employers' numerical estimates on criteria for determining employer eligibility for a human resource tax credit, and the potential effectiveness of a tax credit on the employment of the disadvantaged. On the basis of the findings reported in the preceding pages there is some reason to believe that:

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[15] Supra, p. 109.

(1) A single maximum acceptable employee turnover rate may be suitable as an employer eligibility requirement for a human resource tax credit for firms diverse as to size and business activity, since firm size and business activity do not appear to be significant factors affecting employers' estimates on what would constitute a fair maximum turnover rate.

(2) Employers are willing to accept a reasonably stringent employee turnover rate as a human resource tax credit employer eligibility requirement.

(3) Employers generally feel that a 12 month period is a sufficient length of time for including the wages paid eligible employees in the base of a human resource tax credit.

(4) Firm size or business activity do not have a significant effect on the period of time employers feel wages paid eligible employees should be included in a human resource tax credit base.

(5) The tax credit rate on wages at which the largest number of employers will decide to hire tax credit employees is 50 percent.

(6) Firm size and business activity do not have a significant effect on the tax credit rate at which employers will decide to hire tax credit employees.

(7) 100 percent is the tax credit rate on relocation costs at which the greatest frequency of employers feel

their decision to pay such costs for disadvantaged individuals will be affected.

(8) Firm size and business activity do not have a significant effect on the tax credit rate at which employers will decide to pay relocation costs for disadvantaged individuals.

(9) 100 percent is the tax credit rate on educational costs at which the greatest frequency of employers feel their decision to pay such costs for their disadvantaged employees will be affected.

(10) Firm size and business activity do not have a significant effect on the tax credit rate at which employers will decide to pay educational costs for their disadvantaged employees.

(11) Depending on the magnitude of the tax credit rate, large employers (represented by the Dun and Bradstreet firms) might increase their employee ranks by 0.11 to 0.90 percent with disadvantaged persons if granted a tax credit on the wages paid such persons.

(12) Depending on the magnitude of the tax credit rate, small employers (represented by the Oklahoma firms) might increase their employee ranks by 0.63 to 8.54 percent with disadvantaged persons if granted a tax credit on the wages paid such persons.

(13) The nationwide demand for tax credit employees as a result of a tax credit on wages might range from 291

thousand individuals at a 10 percent tax credit rate to 4,131 thousand individuals at a 100 percent tax credit rate.

(14) A human resource tax credit might result in an income tax revenue loss during the first 12 month period it is effective of from $116 million at a 10 percent tax credit rate to $37,960 million at a 100 percent tax credit rate.

(15) The income tax revenue loss resulting from a human resource tax credit at tax credit rates of 50 percent or less might be more than offset by reduced welfare and unemployment benefits and by additional F.I.C.A. and unemployment tax collections.

(16) Once the employer's threshold rate for participation in a human resource tax credit is reached, a higher tax credit rate might not be effective in encouraging the employer to hire additional tax credit employees.

(17) Employers are willing to provide meaningful training for the tax credit individuals they employ.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to gain insight into employers' attitudes on the nature and potential effectiveness of a human resource tax credit incentive for expanded employment and training of the disadvantaged by private business firms. Information was obtained from employers on the feasibility and potential effect of including in the tax credit base education costs, relocation expenses, and wages paid individuals certified by local employment security offices as being eligible for tax credit employment. In addition, employers provided data on the magnitude of the credit rate necessary to affect their decision to hire, relocate, and provide educational opportunities for disadvantaged individuals they employ. Employers also provided estimates on the effect of a wage tax credit on their employment. These estimates provided a basis for estimating the potential effect of a human resource tax credit on the nation's employment and on income tax revenue.

Limitations of Study

It is felt that this study has generated meaningful data on the desirability, nature, and potential effectiveness of a human resource tax credit. However, this study was limited in that it included only the demand side of the labor market for disadvantaged individuals. No attempt was made to evaluate the effectiveness of government agencies in identifying individuals eligible for tax credit employment. This study was also limited in that it did not attempt to measure the relative administrative efficiency of a tax credit financial incentive versus a direct expenditure incentive. Also, this study contains only empirical data from employers on the desirability, feasibility, and potential effectiveness of a human resource tax credit. No attempt was made to directly measure the attitudes of government or union officials on the use of a tax credit to provide jobs for the disadvantaged.

Data Collection

This study utilized a mail questionnaire in order to obtain insight into the following questions:

1. What type of financial incentive for employing and training disadvantaged individuals is preferred by employers?
2. What are employers' attitudes on the inclusion of wages, relocation costs , and educational costs in the tax credit base?
3. What are employers' attitudes on potential employer abuse of a human resource tax credit?

4. Do employers feel it would be feasible and effective to establish a maximum acceptable employee turnover ratio as an eligibility requirement for a human resource tax credit?

5. Is firm size or business activity a factor affecting the attitudes of employers on the desirability and nature of a human resource tax credit?

6. What maximum employee turnover rate would be fair as an employer eligibility requirement for a human resource tax credit?

7. If a tax credit is granted on wages paid disadvantaged employees, over what length of time should the wages paid such employees be included in the tax credit base?

8. What magnitude of credit rates are necessary in order for a tax credit to have an effect on the employment, relocation, and education of disadvantaged individuals?

9. What is the potential effect of alternative tax credit rates on the employment of disadvantaged individuals?

10. What is the potential tax revenue loss of alternative tax credit rates?

11. Are the employment plans of employers flexible enough so that they could be adjusted to take into account monthly changes in the tax credit rate?

12. Will employers provide meaningful on-the-job training for the tax credit employees?

The questionnaire was mailed to presidents of 250 firms selected randomly from the Dun and Bradstreet Reference Book of Corporate Management 1970 for companies with $20 million or more in sales and (or) 1,000 or more employees and to presidents of 250 Oklahoma firms selected randomly from the Oklahoma Directory of Manufacturers and Products. Answers to the questionnaire were received from 45.4 percent

of the firms surveyed. In addition, another 3.2 percent of the firms (16 firms) responded without filling out the questionnaire. Nine of the firms which did not fill out the questionnaire did, however, add comments pertinent to the survey. In all, responses were received from 124 (49.6 percent) Oklahoma firms and 119 (47.6 percent) Dun and Bradstreet firms.

Analysis of Data

The study data were analyzed for the overall Dun and Bradstreet and Oklahoma samples and for subsamples of these firms. The subsamples of Dun and Bradstreet firms were determined by classifying respondents according to the standard industrial classification code into the following four categories: manufacturing, wholesale-retail, utility-transportation, and financial. The subsamples of Oklahoma firms were determined by classifying the respondents according to principal product, as identified in the Oklahoma Directory of Manufacturers and Products. The firms were classified into the following four categories: construction, industrial, food, and miscellaneous.

The study generated both ordinal and ratio data. The ordinal data obtained in this study related to employers' attitudes on the desirability and nature of a human resource tax credit. Such data were analyzed by tabulating frequency and percentage distributions of the responses from the different types of Dun and Bradstreet and Oklahoma firms.

The ordinal data from each sample and subsample were also tested against null hypotheses specifying that the measured attitudes of different types of employers are not statistically different. The Kolmogorov-Smirnov one-sample statistical test was used to test these hypotheses.

The ratio data in this study consisted of employers' estimates related to employer eligibility and base criteria; the magnitude of tax credit rates on wages, relocation costs, and education costs; and the potential effect of a tax credit on the firm's employment. Ratio data related to employer eligibility and base criteria and tax credit rates were analyzed by tabulating frequency and percentage distributions and means for the samples and subsamples of Dun and Bradstreet and Oklahoma firms. In addition, the ratio data were tested against null hypotheses specifying that there are no significant differences between the Dun and Bradstreet and Oklahoma firms and among subsamples of these firms. The t test and the F test were used to test these hypotheses. Ratio data on the potential effect of a tax credit were anlayzed by relating the data to national statistics on employment in order to estimate the potential effect of alternative tax credit rates on the nation's employment and on income tax revenue.

Summary of Research Results

Employers' opinions relating to the desirability of a human resource tax credit show that 75 percent of the

national firms responding and 82 percent of the respondent Oklahoma firms prefer a tax credit method of reimbursement over contractual reimbursement for employing disadvantaged individuals.

With regard to the nature of a human resource tax credit most responding employers, regardless of their size or the nature of their business, think a tax credit based on wages could be feasible and effective in encouraging increased employment of disadvantaged individuals. Also, most small firms responding to the research instrument think a tax credit on costs incurred to relocate disadvantaged individuals from a labor surplus area to the employer's labor market area could be a feasible and effective device for encouraging employers to pay such costs. Responses from the large national firms indicate these firms are divided in their opinions on the feasibility and effectiveness of a tax credit on relocation costs.

Most of the responding employers from all types of firms do feel, however, that a tax credit on educational costs paid for disadvantaged individuals could be a feasible and effective device for encouraging employers to pay such costs.

Most of the responding employers feel that employers would not abuse a tax credit incentive, intended to increase employment of disadvantaged individuals, by replacing regular employees with tax credit employees. In connection with basing employer eligibility for a human resource tax

credit on a maximum acceptable employee turnover ratio in order to limit possible employer abuse of the credit, most of the large national firms responding are against such a criterion while responding small firms are somewhat uncertain as to the feasibility and effect of using employee turnover as a criterion for employer eligibility.

Employers' estimates on the magnitude of tax credit employer eligibility and base period criteria for a tax credit on wages indicate that a single maximum acceptable employee turnover rate may be suitable as an employer eligibility requirement for firms diverse as to size and business activity and that employers are willing to accept a reasonably stringent employee turnover rate as a human resource tax credit employer eligibility requirement. With regard to the base period, the responding employers generally feel that a 12 month period is a sufficient length of time for including the wages paid eligible employees in the base of a human resource tax credit. Also, firm size or business activity do not appear to have a significant effect on the period of time employers feel wages paid eligible employees should be included in a human resource tax credit base.

The estimates of responding employers show that the threshold tax credit rate on wages at which the largest number of employers feel their decision to hire the disadvantaged will be affected is 50 percent. The threshold rates at which the largest number of responding employers

feel their decision to pay relocation and education expenses for disadvantaged employees will be affected is 100 percent. Firm size and business activity do not appear to have a significant effect on the tax credit rates at which employers will decide to hire the disadvantaged and pay their relocation and education expenses.

Estimates from responding employers on the employment effect of a human resource tax credit on wages at tax credit rates ranging from 10 to 100 percent indicate that large employers (represented by Dun and Bradstreet firms) might increase their employee ranks by 0.11 to 0.90 percent with disadvantaged persons and that small employers (represented by the Oklahoma firms) might increase their employee ranks by 0.63 to 8.54 percent. These estimates when related to national statistics on the labor force indicate that nationwide demand for tax credit employees as a result of a tax credit on wages might range from 291 thousand individuals at a 10 percent credit rate to 4,131,000 individuals at a 100 percent credit rate. These estimates on employment provide a basis for estimating that the loss in income tax revenue during the first 12-month period a human resource tax credit is effective might range from $116 million at a 10 percent tax credit rate to $37,960 million at a 100 percent tax credit rate. However, the loss in income tax revenue resulting from a human resource tax credit at rates of 50 percent or less might

be more than offset by reduced welfare and unemployment benefits and by additional F.I.C.A. and unemployment tax collections.

Employers' estimates on effect of monthly changes in the tax credit rate indicate that once the employer's threshold rate for participation in a human resource tax credit is reached, a higher tax credit rate might not be effective in encouraging the employer to hire additional tax credit employees. Also, employers' estimates on the effect of a tax credit on wages on their apprentice employment indicate that employers are willing to provide meaningful training for the tax credit individuals they employ.

Conclusions

On the basis of the research findings, it is concluded that more business firms will participate in the employment and training of the disadvantaged under a tax credit financial incentive than under a financial incentive involving a government contract. The findings indicate that the administrative simplicity of the reimbursement method does have a significant effect on the decision of employers to employ the disadvantaged.

Although employers generally think tax credits on relocation costs and educational costs can be feasible and effective, the magnitude of the tax credit which they will

require to pay such costs makes it doubtful whether this is the most efficient way to provide disadvantaged persons with relocation and educational opportunities.

If we can accept employers' attitudes on their actions, then there is reason to believe that a tax credit would not be subject to "wide-scale" employer abuse as some people fear. Even though a control device to prevent employer abuse may not be necessary, the findings do indicate that it is feasible to establish a single maximum acceptable employee turnover rate as a tax credit eligibility requirement for diverse business firms.

The findings of this study provide support for the use of a 12-month base period for a tax credit on wages paid disadvantaged employees. Thus, it is concluded that Congress acted correctly in selecting 12 months as the base period for the work incentive tax credit. The results of this study do indicate, however, that the 20 percent tax credit rate of the work incentive tax credit is not a sufficient inducement for most employers to employ individuals eligible for the tax credit. Employers' estimates show that a human resource tax credit, depending on the size of the credit rate, can have a significant impact on employment of the disadvantaged in the United States. Moreover, it can be expected that at least some of the disadvantaged individuals hired as a result of the tax credit will be given meaningful job training; e.g., training under a formal apprenticeship program.

Recommendations

The following recommendations are made on the basis of the research results of this study:

(1) On the assumption increased employment is a desired objective, it is recommended that a human resource tax credit similar to the work incentive credit be a part of the income tax law. The results of this study clearly show that employers prefer this type of incentive for employing the disadvantaged. Consequently, it is felt that more disadvantaged individuals will be hired under a tax credit approach than would be hired under a direct expenditure approach; e.g., the JOBS program.

(2) Consideration should be given by Congress and the Administration to increasing the rate of the work incentive tax credit above 20 percent. The results of this study show that most employers feel that a credit rate higher than 20 percent is necessary in order for them to be attracted to a tax credit program for employing the disadvantaged.

(3) Additional research should be undertaken into the possible use of a tax credit pegged to rise and fall with changes in an indicator of economic activity; e.g., the unemployment rate. Although employers indicate that their employment plans may not be significantly changed as a result of monthly changes in the rate of a human resource tax credit, the data of this study show that more employers will participate in the tax credit program as the credit

rate is increased. Theoretically, a credit rate set to rise and fall with changes in an indicator of economic activity would act as an automatic stabilizer in the economy. For example, if the credit rate is set to change with changes in the unemployment rate, as the unemployment rate goes up resulting in a higher tax credit rate more individuals would be employed as a result of increased employer participation in the tax credit program. This in turn should cause the unemployment rate to go back down. Further research should be undertaken to determine whether such an automatic stabilizer would be feasible and effective.

(4) Investigations should also be made to determine to what extent, if any, employers may be abusing the work incentive tax credit by replacing regular employees with individuals eligible for the work incentive tax credit. Research should also be undertaken on the effect of the work incentive tax credit recapture provision on employers' willingness to take advantage of the tax credit through the employment of the disadvantaged. If research shows that present control procedures to prevent employer abuse of the tax credit are inadequate, then additional study of the turnover requirement suggested in this report is recommended.

(5) It is also recommended that research be undertaken on other uses of a tax credit to accomplish social and economic objectives. For example, studies could be undertaken to determine the potential of the tax credit approach

as an incentive for business firms to install pollution control devices.

(6) Research should be undertaken to determine whether the benefit of the work incentive tax credit is (or should be) allocated to business segments in connection with internal reporting. In discussing the receptiveness of business executives to a human resource tax credit, Holland indicates that a failure of accountants to allocate the benefit of a tax credit to the financial statements of individual segments of large companies for which consolidated tax returns are filed might be a factor causing the managers of the individual segments to be hesitant to take advantage of a tax credit program.[1] It makes sense that a division manager would be somewhat reluctant to incur extra costs to hire disadvantaged persons if the tax credit benefit resulting from his efforts is not allocated to his division. Research should be undertaken to determine whether the accounting treatment of tax credit benefits does affect the decision of managers to take actions which will give rise to a tax credit.

(7) Finally, since this study is a normative and predictive study on the use and effect of a human resource tax credit, it is suggested that an "after the fact"

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[1]Daniel M. Holland, "An Evaluation of Tax Incentives for On-The-Job Training of the Disadvantaged," The Bell Journal of Economics and Management Science, II (Spring, 1971), p. 318.

evaluation of the Work Incentive Program Credit be undertaken. Data obtained in such a study could be related to the employers' estimates in this study. Such a study should be extremely helpful in providing insight into the reliability that can be put on predictive economic studies based on employers' estimates of their future actions.

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APPENDIX

QUESTIONNAIRE AND COVER LETTERS

QUESTIONNAIRE

The following statements and questions relate to proposed income tax credits on wages, moving expenses, and educational costs paid by employers to or for individuals certified as "hard core" or disadvantaged by local employment security offices.

Please mark next to each of the following six statements a number from the scale below which best expresses your agreement or disagreement with the statement.

+3: strong agreement	-1: slight disagreement
+2: moderate agreement	-2: moderate disagreement
+1: slight agreement	-3: strong disagreement

_____1. An income tax credit on wages paid certified new employees could be a feasible and effective device for encouraging increased employment of such individuals.

_____2. Your firm would be more inclined to employ certified individuals if granted a tax credit providing a reimbursement of a percentage of their wages than if required to enter into a formal contract with the government in order to receive a reimbursement of an equivalent amount.

_____3. A tax credit on the cost incurred by employers to relocate certified employees from a labor surplus area to the employer's labor market area could be a feasible and effective device for encouraging employers to pay such expenses.

_____4. An income tax credit on tuition paid colleges and trade schools, books, and other educational expenses could be a feasible and effective device for encouraging employers to pay such expenses for certified individuals.

_____5. If granted a tax credit to hire certified individuals, employers would abuse the credit by replacing regular employees with tax credit employees.

_____6. A feasible and effective device for preventing the above type of employer abuse would be to grant the tax credit only to employers with an employee turnover rate below a specified maximum.

Please circle or supply the number asked for in responding to the items below. Since we are interested in the trend of the combined estimates of all respondents, it is important that you answer the questions even though some of the estimates may involve considerable judgment.

1. What is your present full time employment? _____ persons

2. What maximum turnover rate (discharges, quits, etc. as a percent of average employment for the year) do you feel would be fair as an employer eligibility requirement for the above tax credits? _____%

3. Over what length of time should wages paid new certified employees be covered by an income tax credit? 6 months 1 year 1½ years 2 years

4. What percent of wages would a tax credit have to be in order for it to affect your decision to employ certified individuals? _____%

5. Estimate the number of certified individuals your firm might add to its present employment if granted a tax credit for the length of time and rate you have indicated in the preceding questions. _____ persons

6. Your employment plans are flexible enough so that a significant increase in the magnitude of a wage tax credit in one month could have an effect on the number of certified unemployed individuals your firm would add to its payroll in the following month.

   1. Strongly agree 2. Agree 3. Uncertain 4. Disagree 5. Strongly disagree

7. What percent would a tax credit on tuition, books, etc., have to be in order for it to affect your decision to pay such costs for certified employees? _____%

8. What percent would a tax credit on relocation expenses have to be in order for it to affect your decision to pay such expenses for certified employees? _____%

Answer questions 9 and 10 if your firm has a registered apprenticeship training program.

9. How many individuals do you currently have enrolled in registered apprenticeship programs? _____ persons

10. How many certified individuals would you add to your apprenticeship program(s) if granted a tax credit of the rate indicated in question 4 on the wages paid such persons during their apprentice training? _____ persons

Please use the reverse side or separate stationery for any comments you may wish to make on the tax credits proposed above.

FIRST COVER LETTER

Oklahoma State University

COLLEGE OF BUSINESS ADMINISTRATION

STILLWATER, OKLAHOMA 74074
(405) 372-6211, EXT. 258

You are no doubt aware of the fact that income tax credits have been proposed as financial incentives for creating jobs in private industry. Tax credits on wages paid eligible employees and on other related costs have received attention in the Congress and have been discussed in Presidential task force reports. We would like your opinions on the feasibility and potential effectiveness of such tax credits in connection with a study currently being conducted at Oklahoma State University. The results of this study will be made available to members of Congress and to officials in the Executive Branch of the government.

A tax credit, in contrast to a deduction or an expense, is a direct offset to a computed tax liability. If granted the tax credits currently being studied, firms would still be allowed to deduct as business expenses the full cost of the items upon which the credit is based.

We will be very grateful if you will take a few minutes to complete the enclosed form. Your response will make a most important contribution to the validity of this study. If your identity is revealed, it will be held in the strictest confidence.

Sincerely,

Robert Van Regenmorter
Project Director

John C. Shearer
Professor of Economics
and Director, Manpower Research
and Training Center

RVR/JCS/jb

Enclosure

SECOND COVER LETTER

Oklahoma State University
COLLEGE OF BUSINESS ADMINISTRATION

STILLWATER, OKLAHOMA 74074
(405) 372-6211, EXT. 258

June 11, 1971

You were recently asked for your opinions on the potential effect of granting income tax credits to employers as a means of combating the Nation's problem of high unemployment and excessive welfare rolls. You, as an employer, are in the best position to provide meaningful opinions on whether the granting of income tax credits on wages paid eligible employees represents a better approach for increasing employment than direct subsidies under formal governmental contracts. A high response from employers selected to participate in this study is crucial in order for the study to be meaningful. If your firm has not already returned the form previously mailed, we will be very grateful if you or an appropriate person in your firm will take about five minutes to complete the enclosed copy.

Since your opinions are to be used strictly for an overall statistical tabulation of results, it is not necessary for you to reveal your identity on the enclosed form. If you have already participated in this survey, we sincerely thank you for your cooperation.

Sincerely,

Robert Van Regenmorter
Research Project Director

John C. Shearer
Professor of Economics and Director,
Manpower Research and Training Center

RVR/jlb

Enclosure

THIRD COVER LETTER

Oklahoma State University

COLLEGE OF BUSINESS ADMINISTRATION

STILLWATER, OKLAHOMA 74074
(405) 372-6211, EXT. 258

June 28, 1971

The cooperation of you or an appropriate person in your firm is vital in order for me to complete my Ph.D. dissertation on manpower income tax credits. Many legislators have speculated on the type of financial incentive employers would prefer for employing disadvantaged individuals. Even if your firm is currently not in the position to employ such persons, the response of your firm is most important to the success of my study which is attempting to obtain concrete information on the attitudes of a representative cross section of employers toward specified tax credits. It is felt that the statistical tabulation of the results of this study will provide much needed information on the pros and cons of manpower income tax credits before tax laws are enacted based on assumptions of legislators regarding employers' attitudes.

As indicated above, your responses are to be used only for a statistical tabulation. Therefore, your firm will not be identified individually with the study results. If you would like a summary of the results, please mail back this cover letter with your completed questionnaire or in a separate envelope.

Sincerely,

Robert Van Regenmorter
Ph.D. Candidate
Accounting and
Manpower Economics

RVR:cb/jlb

Enclosures

VITA

Robert Jay Van Regenmorter

Candidate for the Degree of

Doctor of Philosophy

Thesis: A HUMAN RESOURCE TAX CREDIT: AN EXAMINATION INTO ITS BASE, RATE, AND POTENTIAL EFFECT

Major Field: Business

Biographical:

Personal Data: Born in Jamestown, Michigan, June 3, 1941, the son of Mr. and Mrs. William Van Regenmorter

Education: Graduated from Unity Christian High School, Hudsonville, Michigan, in June, 1959; received the Bachelor of Science Degree from Ferris State College, Big Rapids, Michigan, in 1963, with a major in accounting; received the Master of Business Administration Degree from Michigan State University, East Lansing, Michigan, in 1966, with a concentration in accounting; completed requirements for the Doctor of Philosophy Degree at Oklahoma State University in May, 1973

Professional Experience: Auditor, U.S. General Accounting Office, 1963-64; Auditor, Beene, Garter and Hrouda, Grand Rapids, Michigan, 1964-65; Instructor, Department of Business Administration and Education, Southeast Missouri State College, Cape Girardeau, Missouri, 1966-69, Part-time Instructor, Department of Accounting, Oklahoma State University, 1969-71; Lecturer, Department of Accounting, Southern Illinois University-Edwardsville, 1971-72.