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Effects of a minimum wage increase on the employment of disabled persons

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by

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This is to certify that the master's thesis of

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has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy

This thesis is dedicated to:

Joyce Larsen
and
In loving memory of Hannah Femrite

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INTRODUCTION

Minimum wage is a policy used by politicians and studied by scholars. Fortunately the concept is straightforward, and almost everyone understands how it works. However, there are macro and micro-economic issues involved that may not be as apparent as simply considering a minimum wage earner's pay raise. One segment of study on the minimum wage is how it affects employment. Brown, Gilroy, and Cohen (1982) find that a 10% increase in the minimum wage leads to 1% to 3% decrease in the employment of teenagers, with larger declines in employment among women and African Americans compared with Caucasian males. Although the minimum wage can have a specific effect on some demographics, most of the literature indicates that its impact on the overall employment level is negligible. With no estimated change in overall employment, economists have focused their attention on specific groups of people who may be affected significantly by a minimum wage increase. Most research focuses on groups which include a high proportion of workers earning the minimum wage, such as teenagers.

The purpose of this paper is to examine the effects of a minimum wage change on the employment of disabled persons. Minimum wage changes may take place at either the federal or state level. Using data from the Survey of Income and Program Participation (SIPP), this study concludes that there is an insignificant increase in the employment of disabled persons following an increase in the minimum wage. More precisely, the results indicate that a 10% increase in the minimum wage leads to a 0.6% increase in the employment of disabled persons. The study conducts simulations of various hypothetical

policy changes affecting the minimum wage and predicts how those changes affect the employment status of the disabled.

LITERATURE REVIEW

A new revolution in the theory of the minimum wage began after economists Card (1992, 1994, 1995), Kruger (1992, 1994, 1995), and Katz (1992, 1994) utilized models that estimated an increase in employment after a minimum wage change. They measured the employment impact on teenagers and young adults. Even though there are articles that have found an increase in the employment of specific groups following a minimum wage change, most of which yield an insignificant effect, there is far more literature that shows the opposite.

The effect of a minimum wage change on the disabled has been evaluated using a difference in difference model from data gathered in the United Kingdom (UK). Burchardt and McKnight (2003) examine whether there were any adverse effects from the National Minimum Wage (NWM) being signed into UK law. The NWM is similar to the U.S. federal minimum wage. Also, the UK has an anti-discrimination law in place similar to the United States Americans with Disabilities Act (ADA) called the Disability Discrimination Act.[1] Their trend analysis of hours worked suggests that a majority of workers whose earnings were below the level of the NMW before its induction retained their jobs for one year and benefited from higher earnings. However, when using difference in difference estimation, no significant effects on the employment of disabled persons were found.

One study that is of particular interest is by Burkhauser et al. (2000a), because they use the Survey of Income and Program Participation (SIPP) and Current Population Survey (CPS) as the primary data sets to measure the effects of a minimum wage change. Burkhauser et al. (2000a) estimate the impact of a minimum wage change on the

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[1] For more information about the ADA and its impact on the disabled, see Appendix A.

employment of subpopulation groups, such as young adults without a high school degree, young African American adults and teenagers and overall teenage population. Their findings indicate that an increase in the federal minimum wage leads to a statistically significant reduction in the employment of these specific subpopulations.

In their follow up study, Burkhauser et al. (2000b) re-evaluate their methodology by excluding macroeconomic controls for the year. By including time variables in the model, there may be a reduction in the estimated effect of the minimum wage changes. This is due to the time dummies being correlated with the minimum wage variables. By removing the time dummies from their model, unobserved macroeconomic effects may be present in the minimum wage variable. However, they argue that the estimation should be viewed as an upper-bound estimate of the effect of minimum wage increases. This study uses monthly data from the CPS from the years 1979-1997. Econometric results show a small but significant negative relationship between the employment of teenagers and the minimum wage.

A different look at the distribution of employment when there is a minimum wage change is presented by Lang and Kahn (1998). They use a dynamic game to show that it is possible to increase the employment level when there is a minimum wage change. From the outcome of the game, Lang and Kahn provide two useful insights: The first examines the distribution of employment, which is not pertinent to this paper, but the second analyzes overall employment. Lang and Kahn show, through the dynamic game, that a higher minimum wage would attract more highly qualified and less qualified applicants to the low-wage job pool, thus making employers open more low-wage job positions to accommodate the highly qualified workers. This would likely lead to an increase in overall employment. However, when estimating the model with actual data, the results were only suggestive to an

employment increase. Even though the empirical results were not statistically significant, the paper shows a different way to analyze the minimum wage effect by using dynamic game theory.

The minimum wage literature primarily uses subpopulations for the analysis of minimum wage increases. This paper uses a similar focus by estimating the impact of a minimum wage change on the disabled population. Since a high proportion of employed disabled people earn at or near the minimum wage, this subpopulation could have a substantial change in employment when the minimum wage changes. Modeling techniques similar to Burkhauser (2000b) will be used to estimate the impact of a federal or state minimum wage change on the employment of disabled persons. The following sections employ a data set of monthly state variables from 1996-1999. Following the estimation, a policy simulation will illustrate the effects of several hypothetical minimum wage changes.

THEORY

Various economic studies reveal a decrease in employment following an increase in the minimum wage. If binding, an increase in the minimum wage leads to an increase in the marginal cost of labor. Figure 1 shows a simple competitive market for labor and what happens when the minimum wage changes. The quantity of labor supplied increases when there is a change in the minimum wage, because employed workers desire to work more hours and/or more people desire to work. There is an increase in the number of potential workers represented by the distance from X to Qs. Now, instead of being able to hire quantity X and pay the market clearing wage P, the company is forced to pay the minimum wage P'. In reaction to this higher price for labor, the company will reduce the quantity of workers it desires to hire, represented by the distance from X to Qd. The government has forced the market out of equilibrium and now a surplus of labor exists, shown as the distance between Qd and Qs. This surplus of labor is called unemployment.

An increase in income due to a higher wage floor seems plausible only for those groups that earn near or at the minimum wage. Because most other groups of people are significantly above the minimum wage, a change in employment would be unlikely. For example, if a worker earns $20 per hour in a particular industry and the federal government raises the minimum wage from $5.15 to $6 per hour, the increase will not directly affect this worker. That is why it is necessary to study specific groups of individuals where the majority of workers in that group earn near the minimum wage. Card and Kruger (1994) use employees in fast food restaurants, because the industry pays near the minimum wage.

Figure 1   **Supply and Demand of Labor**
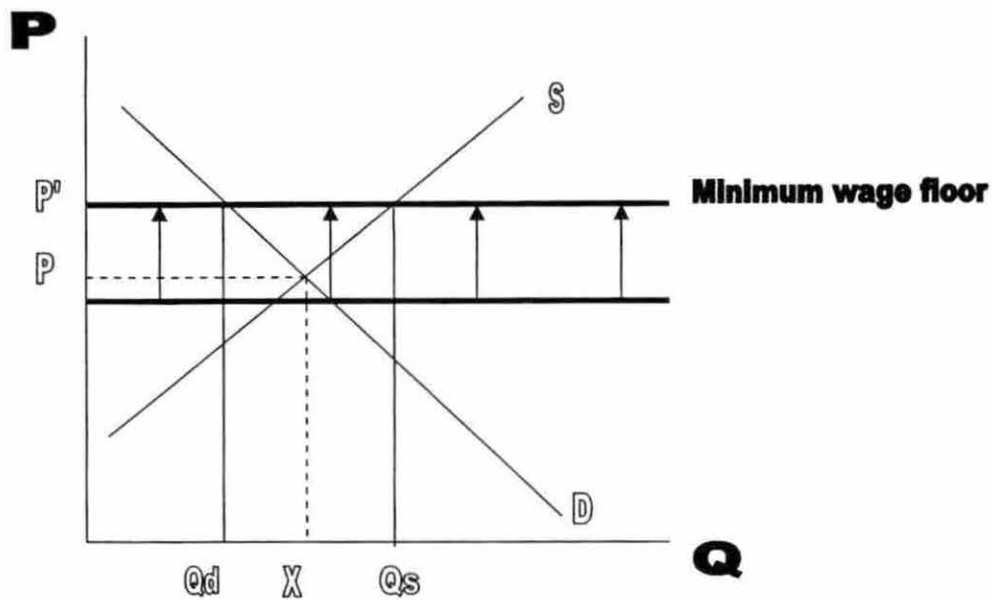
P = Price of labor
Q = Quantity of labor
S = Supply of labor
D = Demand for labor
Qd = Quantity demanded
Qs = Quantity supplied
X = Equilibrium

Also, this group of employees tends to reside in a similar age group. This study investigates the employment of disabled persons, which is another group that has many earners at or near the minimum wage. Because many disabled workers are minimum wage employees, a minimum wage increase may have a significant impact on their employment status.

The employment status of the disabled following a minimum wage change may have a different impact than expected. At first glance, it would be easy to assume that an increase

in the minimum wage leads to a decrease in employment of the disabled. As the price for labor becomes more expensive, employers need to find a way to return to an optimum where their marginal costs equal the marginal revenue product. Assuming employers are in equilibrium before the minimum wage change takes place, the wage change would lead to an increase in marginal cost per worker.

There are several leading theories about how employers react to a minimum wage increase. Reducing the number of hours worked by employees is one way to compensate for the higher wages employers are forced to pay. Employers could also simply layoff the worker or workers with the lowest productivity, because the revenue generated by these employees is less than the wage they are being paid. This would increase the marginal revenue product of the remaining workers and bring the company back to the equilibrium where marginal revenue is equal to marginal costs.

Another theory that could be used by employers to compensate for the minimum wage increase is to absorb a profit loss and keep the same people employed. This would leave the employment rate unchanged. However, MaCurdy and McIntyre (2001) state that this is not likely, because employers who hire many low wage employees are not in high-profit industries, making it hard to absorb the profit losses. Additionally, this theory does not hold within the context of the competitive model, because it is assumed that no profits are made in the long run.

Raising a firm's price is another way for a firm to recover the reduced profits from a minimum wage increase. Studies by Lee and O'Roark (1999), Aaronson (2001), and Wilson (1998) evaluate the effects on prices from an increase in the minimum wage. Each found that prices increased in affected markets. The changes appear to be quite small; nevertheless

price changes were estimated to occur. Just like absorbing profits is unlikely to occur, raising a firm's price in the perfectly competitive setting cannot be changed by one firm.

Even though the basic theory seems to suggest that there would be a decrease in employment when there is a minimum wage increase, this may not hold true for disabled persons. The following sections explain the possible consequences to the supply side, demand side and monopsony model for disabled labor when there is an increase in the minimum wage.

Supply Side

The lifetime earnings of disabled persons may be affected by a change in the minimum wage. A disabled person has a choice to either apply for Social Security Disability Insurance (SSDI) or remain in the work force. Kreider's (1999) paper on SSDI shows that the immediate time period is not the only criterion when deciding to apply for benefits. The individual's decision to apply takes into account the future flow of earnings. Those who were earning the minimum wage at the time of an increase would now have higher lifetime earnings ability, unless they become unemployed. However, because of the ADA it would be relatively difficult to cut disabled workers in order to achieve a new equilibrium.[2] The minimum wage increase could encourage the disabled not to apply for SSDI, resulting in an increase in the quantity supplied of disabled workers. Because disabled workers must be out of the work force for at least 6 months before they receive disability benefits, there may be disabled workers waiting to apply who might re-enter the workforce because of the higher wage. The higher wage floor would encourage workers to stay in the workforce and earn the

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[2] For more information on the ADA, see Appendix A.

higher wage rather than only get a portion of it through SSDI. These reasons help explain why there might be an increase in the quantity of disabled labor supplied.[3]

Demand Side

Supply side arguments are fundamental, because an increase in the minimum wage would result in an overall increase in the quantity supplied; however, without a demand change, there would be no overall change in the employment level. Basic economic principles would show that an increase in the minimum wage would result in a decrease in the quantity demand for labor. Since labor is a key input into the production process, firms must adjust their employment of labor to compensate for the increase in the marginal cost of labor. To this end, most employers could simply reduce the number of workers to increase their marginal product of labor for all other workers to reach an equilibrium level. This theory applies to the average worker, but not necessarily to the disabled worker. Because of the ADA, the market for the disabled behaves differently than for the normal workers. Without the ADA, the movements along the supply line would lead to excess supply of labor that is not hired by potential employers. However, because of the ADA some disabled workers have to be hired and an overall employment increase can result.

Even though one might think that the demand for labor must decrease with an increase in the minimum wage, this is not necessarily true for the disabled, because companies employing the disabled receive increased economic benefits. According to Stein (2003) there are tax credits that allow from $2,400 to $15,000 for disabled employees in order for employers to upgrade their facilities to accommodate the workers. This adds to the overall value of the employer's building by hiring a disabled worker. With the addition of

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[3] Background information on SSDI and SSI is provided in Appendix B.

these tax credits, a disabled worker may be preferred over a non-disabled worker. By taking advantage of these tax incentives, disabled worker productivity increases. The following example may clarify this point. If you have two workers with exactly the same skill set to complete a particular job, assuming they can perform the job duties in the same time and manner, it would appear that either of the two candidates would fulfill the employer's expectations. However, suppose that one of the two prospective employees has a disability but still can perform the job in the same manner as the other candidate. Assuming that the employer does not discriminate against disabled persons, it would be in the employer's best interest to hire the disabled person, because the firm could obtain one of the tax credits to improve their facilities. The result would be a decrease in the marginal cost of the disabled workers in relation to the non-disabled one.

The law also allows companies exemption from paying the minimum wage to employees who are disabled if they obtain a special certificate. If the disabled can be paid less than the minimum wage, they are more attractive to employers because of the lower marginal cost. The only difference is that those particular disabled persons are not directly affected by the minimum wage; rather it is an indirect effect from the increasing marginal costs of all other workers.

When a firm is faced with a minimum wage change that increases costs for the company, the firm may have to reexamine how they minimize costs. The company may change the quantity of disabled and non-disabled workers they employ. Since hiring disabled workers enables the company to take advantage of a tax break and some disabled workers are exempt from minimum wage laws, there may be a shift in the demand for disabled labor.

Figure 2 shows the relationship behind an increase in the employment of disabled people when there is a minimum wage increase. The increase in quantity supplied Qd to Qd' comes from the increased wage that the disabled worker will receive in accordance with the ADA. Higher income prospective will coax some disabled people to rejoin the workforce, thus increasing the quantity of disabled labor. On the other side, demand will shift from D to D' because of a firm's plans to replace non-disabled workers with disabled ones to cut costs. The relative decrease in marginal cost of disabled workers shifts the demand for disabled workers to the right. With these two movements, there is an increase in the employment of disabled person reflected in the distance Qd to Qd'.

Monospony Model

A more convincing argument for how it might be possible for a minimum wage change to increase the employment of disabled persons is shown by looking at a monospony model. Two of the assumptions for a monopsony model that differ from the competitive model are presented by Manning (2003) in <u>Monopsony in Motion</u>. The two assumptions are:

1. There are frictions in the market place.
2. Employers set wages.

Frictions are rents to jobs that make the employer and the worker worse off when they part ways. An example would be the cost involved with searching for a new job or looking for a new worker by the employer. Other frictions include ignorance on the part of the worker about wages, mobility costs to travel to and from the job, and heterogeneous preferences by the laborer. These assumptions are close to how the actual labor markets work. Frictions are prevalent in United States job market: workers know that it is going to cost them income

Figure 2   Supply and Demand of Disabled Labor with Increased Demand
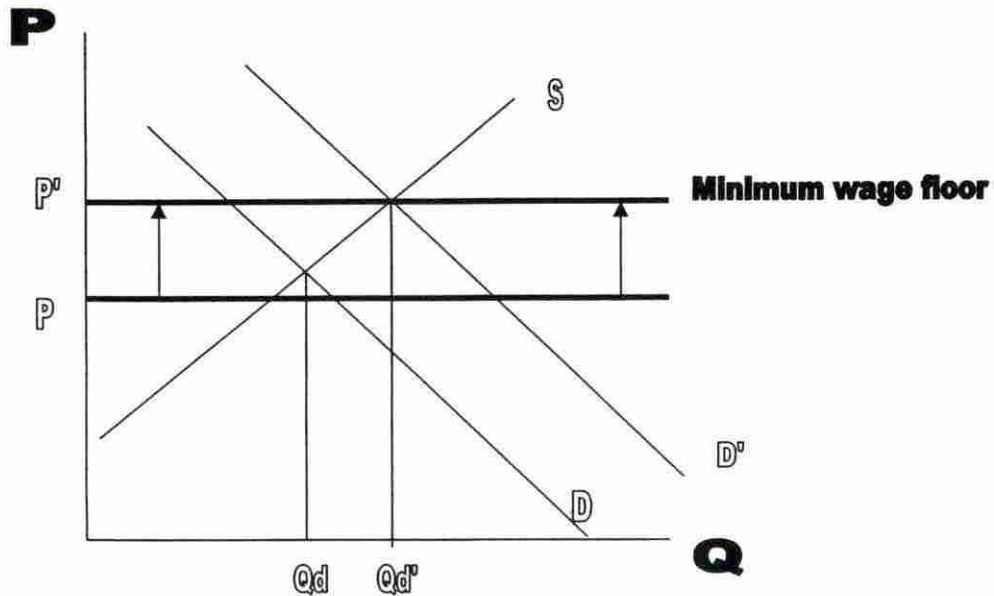
P   = Price of disabled labor
Q   = Quantity of disabled labor
S   = Supply of disabled labor
D   = Demand for disabled labor
Qd = Quantity demanded
Qs = Quantity supplied
X   = Equilibrium

and time to find a new job. This would indicate frictions in the labor market and a break

down of the classical model. Because of these frictions in the market, it allows employers to

cut wages and not lose all of their employees. The second assumption refers to employers

actually exercising this market power.

Frictions are common within the market for disabled labor. As discussed in Appendix A, with the arrival of the ADA it became harder for employers to part ways with disabled workers, thus creating increased frictions. Lawsuits, investigations and civil fines make it more difficult and potentially more expensive when a firm tries to fire a disabled worker. On the other hand, disabled workers also have higher frictions in the labor market than non-disabled workers. Even though the prospect of getting a job increased for disabled workers after the ADA was passed, there still exists a high cost of leaving a job to find a new one. Disabled workers still face the same, if not more, frictions than non-disabled workers. The ADA may have improved the disabled worker's chances of getting a job, but it is still far from being completely equal to non-disabled workers. The time and effort a non-disabled worker expends to change jobs is still less than that of a disabled worker, regardless of the ADA or a minimum wage change.

The definition of monopsony in this case does not deal with only one buyer of disabled labor, but rather with the supply of labor not being infinitely elastic. If there is a decrease in the wages of a particular company, it would be very unlikely to see all of the workers leaving to find new employment. Manning also states that monopsony models of the labor market provide more realism than the perfectly competitive model. Even as long ago as the in 1940s and 1950s, economists took from Hicks (1932) that the competitive model gives a seriously inaccurate picture of the labor market. Manning (2003) uses evidence presented by Lester (1946), Reynolds (1946), Slichter (1950) and Dunlop (1957) to determine that there is dispersion in wages in labor markets with very tightly defined terms. This is the same argument that Manning makes about frictions in the labor market. The monopsony model provides a realistic look at the labor market.

Figure 3 shows the mechanics of the monopsony model. The producer wants to hire workers until the marginal factor cost is equal to the marginal revenue product of the last worker hired. In this situation, marginal revenue product is equal to demand. In the initial case, the worker would hire Qd workers at a wage of P. This satisfies the equilibrium condition of MFC = D. When there is a minimum wage increase, a price floor exists. This makes the point of MFC = D not feasible, because there exists a minimum wage of Pmin, which is higher than P. The company is forced to pay its workers Pmin. This results in the company trying to find a new equilibrium where MFC = D, which occurs at price Pmin and quantity Qd'. As the figure shows, there is both an increase in the wage paid to the worker and an increase in the quantity demanded. Thus, the result would be an increase in the employment level of the disabled.

This monopsony theory has come under scrutiny when trying to apply the argument to the minimum wage debate, ever since Card and Kruger used it to show an increase in the employment of teenage workers as a result of a minimum wage increase. Schmitt (1996) discusses the discrepancies involved with the study. Card and Kruger found empirical evidence that suggest there was an increase in the employment of teenage workers when there was an increase in the minimum wage. The caveats to this study were focused on data collection. Schmitt cites Richard Berman, who was a lobbyist for the fast-food industry, for questioning the accuracy of their data, when he published his opinion in an editorial for the *Wall Street Journal*. Berman cited a study by Neumark and Wascher that used payroll data, but that data found no statistically significant coefficients that would imply a potential decrease in the employment level after a minimum wage change. Neumark and Wascher's arguments are very convincing and detract from the findings of Card and Kruger.

Figure 3   Monopsony of Disabled Labor
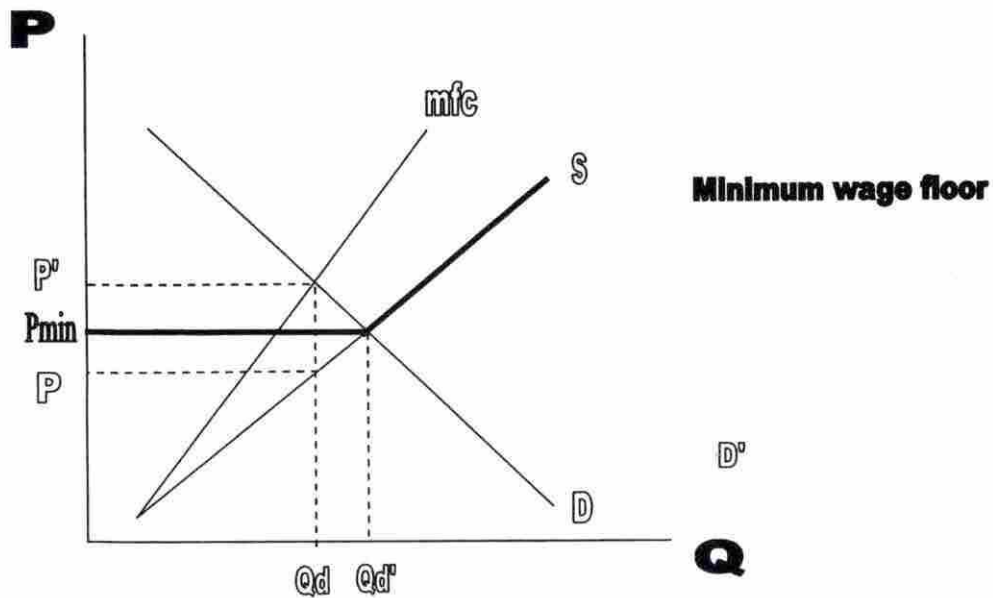
P = Price of disabled labor
Q = Quantity disabled labor
S = Supply of disabled labor
D = Demand for disabled labor and marginal revenue product
Qd = Quantity demanded
Mfc = Marginal factor cost

Even though there are opponents to the monopsony model, it does provide the

possibility that an increase in the minimum wage yields an increase the employment level of

disabled persons. A decrease in the employment level is also quite possible if the

competitive model holds true. Through an empirical estimation of the employment of

disabled persons when a minimum wage change takes place, the issue of whether a change in

the minimum wage affects the employment of disabled persons will become more apparent.

Manning also dedicates a section of the book to explore the effects of a minimum wage increase in the labor market. His final judgment can be summed up with the following quote:

> The impact of the minimum wages on employment should primarily be an empirical issue and the results of these empirical studies should be used to inform policy.

The following sections of this study focus on the empirical estimation of a minimum wage change's effect on the employment of the disabled.

DATA

The data used in this study come from the Survey of Income and Program Participation (SIPP) and the Current Population Survey (CPS). Other employment data sets used to measure the impact of a minimum wage change on teenage employment (Burkhauser 2000a,b) come completely from the CPS, but in this situation it is impossible to determine whether someone is or is not disabled and currently working, making it necessary to employ the SIPP as the primary source for employment data. A study by Hale (2001) suggests that the CPS does not yield a representative sample of the disabled population. The model uses the 1996 panel data that consists of the period from January, 1996 to December, 1999.

There have been several changes in the federal minimum wage over the past 13 years. The increases that affect this data set occurred as follows: April, 1991, from $3.85 to $4.25; October, 1996, from $4.25 to $4.75; September, 1997, from $4.75 to the current rate of $5.15. Since the 1996 panel of the SIPP encompasses two different federal minimum wages, this time period will be used to estimate the model. Having two minimum wage changes in the model should better identify the effects of the minimum wage.

Looking at Figure 4, a visible change is present in the employment of disabled persons over the years. The overall downward trend is consistent with a study by Parsons (1980). However, there appears to be significant periods where the employment has been higher. More importantly, for this particular figure, there seems to be a higher employment rate for disabled persons around the time of each minimum wage increase. Specifically, in the first part of Figure 4 up to the end of 1997, there appears to be an increasing trend in the

FIGURE 4 **Average State % of Employed Disabled**

Avg disabled employment %
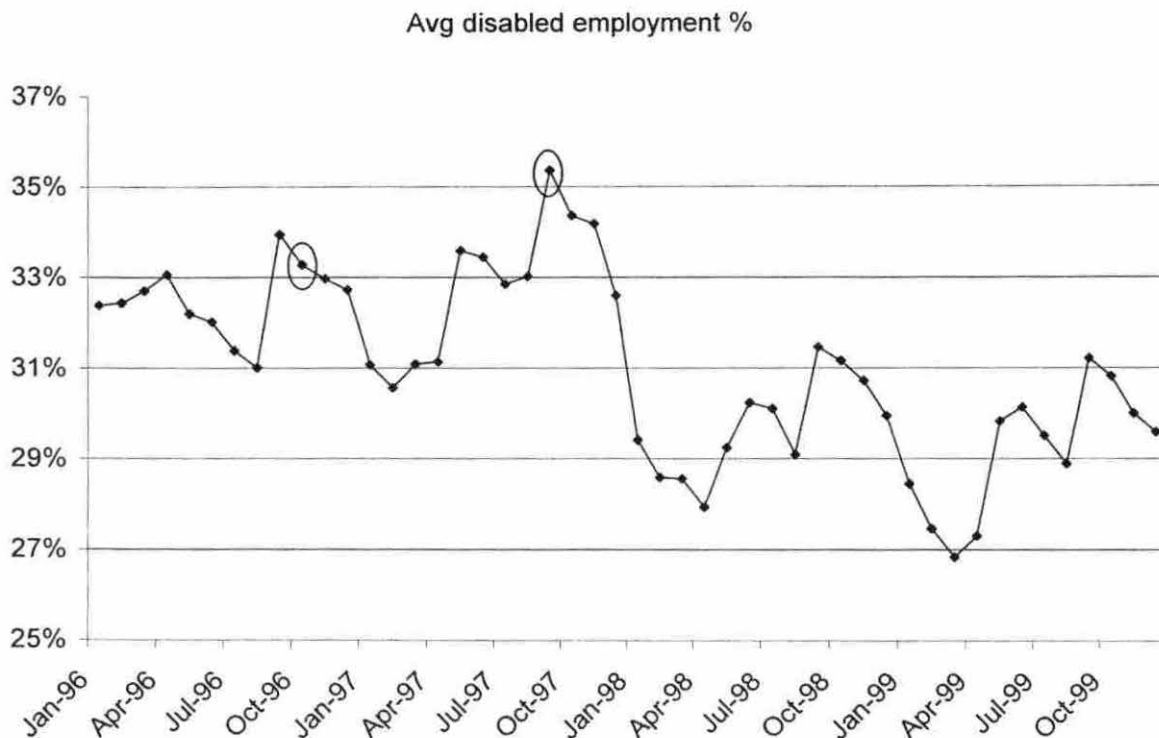
*Circle indicates when minimum wage changes took place.

employment level of the disabled. The highest two periods occurred around October, 1996, and September, 1997- exactly the same time period that the federal minimum wage was increased. The changes are noted on Figure 4 by a circle. This indicates that there is correlation between an increase of the minimum wage and high levels of employment of the disabled population.

Every state must abide by the ruling of the federal minimum wage, but states may increase the minimum wage to a level each state government mandates. From January, 1996 to December, 1999, 10 states had minimum wages higher than the Federal rates. These states include: Alaska, Oregon, Rhode Island, Massachusetts, Delaware, Washington D.C., Connecticut, Vermont, Hawaii and Washington state. Since the data are separated by state, the differences in the state minimum wages do not pose a problem. Instead of using the federal minimum wage for these data points, the specific state wage will replace the lower federal wage. These wage changes should capture the employment shifts in the same manner as the federal rate.

There is a caveat to using the minimum wage as a determinate for the employment of disabled workers. The law allows companies an exemption from giving the minimum wage to employees who are disabled if they obtain a special certificate. Not all companies are allowed this certification. If the disabled can be paid less than the minimum wage, they are more attractive to employers because of the lower marginal cost. The only difference is that particular disabled persons are not directly affected by the minimum wage; rather, it is an indirect effect from the increasing marginal costs of all other workers. This is how employment for the disabled may increase in a perfectly competitive labor market when there is a minimum wage change.

Each wave of the survey is separated by months and then by states. Since the minimum wage increases took place during a particular year, monthly data will capture the effects more accurately than yearly data.

Since monthly data by state is not readily available, several variables are calculated by using data from the CPS. The time periods for these variables coincide with the data from the SIPP.

Model

The model used to estimate the effects of a minimum wage change on the

employment of disabled persons is similar to Burkhauser's (2000b) model for the

employment effects on teenage employment. The model used by Burkhauser differs from the

one presented in this paper only in the unemployment variable. Burkhauser uses the prime

age male unemployment rate, and this study uses the overall unemployment rate. The model

is defined as follows:

$$E_{it} = \alpha_0 + MW_{it}\beta_i + X_{it} + S_i\delta_i + T_i\tau_i + M_i + \varepsilon_i \qquad (1)$$

E_{it} = Ratio of employed disabled persons to total disabled population
MW_{it} = Minimum wage for the ith state, t^{th} time period
X_{it} = Set of explanatory variables for i^{th} state, t^{th} time period
S_i = Set of dummy variables representing each state
T_i = Set of dummy variables representing the year
M_i = Set of dummy variables representing each month of the year

The dependent variable is the ratio of employed disabled persons to the total disabled

population for each particular state in a given month for each year from 1996 to 1999. The

equation to calculate the dependent variable is as follows:

E_{it} = # of disabled persons working / Total # of disabled persons   (2)

This variable is calculated using data from the SIPP. To determine who is deemed disabled,

a definition of "disability" is necessary. The definition used for this study is taken from

Haveman and Wolfe (2000). It states that one is disabled if one has a mental or physical

condition that limits normal daily activities or reduces the amount of productivity on the job.

The definition coincides with a direct question asked in the SIPP. The question used from

the SIPP to distinguish someone as disabled or not is as follows:

> Does ... have a physical, mental, or other health condition that limits the kind or amount of work ...
> can do?

The survey's participants are coded with a -1 equaling not in the universe, 1 being they do have a disability, or 0 they do not have a disability. This question is compatible with the definition of a "disability" that is used in this paper. For each state, the respondents that claimed to have a disability were summed. This gives the denominator for equation (2).[4]

For the numerator, those who claimed to have a disability were then referenced to another question on the survey about their working status for the month. The variable used was the employment status recode for the month. Questionnaires could be answered in the following manner:

1 .With a job entire month, worked all weeks.
2 .With a job all month, absent from work w/out pay 1+ weeks, absence not due to layoff.
3 .With job all month, absent from work w/out pay 1+ weeks, absence due to layoff.
4 .With a job at least 1 but not all weeks, no time on layoff and no time looking for work.
5 .With job at least 1 but not all weeks, some weeks on layoff or looking for work.
6 .No job all month, on layoff or looking for work all weeks..
7 .No job, at least one but not all weeks on layoff or looking for work.
8 .No job, no time on layoff and no time looking for work.

Those who answered with a 1 or 2 are considered employed in this paper. Those who were laid off are not considered as employed in this study, because for a portion of that month, they were not employed. Since the study is longitudinal, those who were laid off in 1 month would show up as unemployed in the next if they were still out of work.

MW_{it} is a variable representing the minimum wage in month t. This variable ranges from \$4.25 to \$5.15 for the federal minimum wage set by the government. However, state minimum wages are allowed to be higher than the federal rate. Therefore, this variable will be the higher of the two minimum wages. By taking the higher of the two wages, the results will show how a minimum wage change affects the disabled, regardless if it is a federal or

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[4] Appendix C covers government information on the definition of who is disabled.

state change. The higher state minimum wages are retrieved from Media Services®. This is the variable of interest in the paper. If the coefficient is positive and significant, then an increase in the minimum wage statistically increases the employment of disabled persons. The variable is adjusted for inflation by using the Consumer Price Index with January 1996 as the base month. When inserting this variable into the equation for estimation, the natural log is taken to provide a better fit.

When estimating the coefficient on the minimum wage variable, there exists a potential for bias. Other programs that could have been initiated during the same time period as a minimum wage change might be captured in the coefficient. These programs could include policy initiated by state legislatures that are unobservable. If such programs exist and are correlated with the minimum wage variable, then it is possible that the coefficient on the minimum wage variable is biased.

The variable X_{it} is a vector of explanatory variables. This vector includes the log of the average wage of working age adults by state, the unemployment rate for the state and the portion of working age population by state.

Average wage of working age adults by state was not readily available by month, so this variable was calculated in a similar fashion to the dependent variable. This variable was calculated using data from the CPS. It is the average hourly wage of the workers who took the survey:

$$\text{Average wage} = \sum \text{Hourly wages paid / number of workers} \qquad (3)$$

Similar to the minimum wage variable, average wage is also adjusted for inflation using the Consumer Price Index with January, 1996 as the base month. A positive effect should be the outcome for this variable, because a higher average wage would imply an expanding state

economy. Therefore, an increase in the average wage would lead to an increase in the employment of disabled persons.

Unemployment rate for each state by month from January, 1996, to December, 1999, was available through the Bureau of Labor Statistics. Upon first examination, an increase in the overall unemployment level should have a negative effect on the employment of all groups of people including the disabled. However, since the disabled appear to react to labor markets differently than normal workers, this variable is ambiguous and should be left to empirical estimation.

The final explanatory variable is the portion of working age population by state, which is calculated using data from the CPS. Since the variable was not available, some manipulation was involved in the calculation. Working age population is defined as people who are between ages 16-61. The age is limited to 61 to limit those in the data set who are on early retirement. This covers all of the people who are considered to be a prime age productive worker. The variable is determined by the following equation:

Working Age Population = # people ages 16-61 / Total surveyed population   (4)

The intent of this variable is to control for the pool of talented workers. If a state has many people in the 16-61 category, it would be harder for everyone to find a job because there are more potential candidates for job openings. On the other hand, if there is a majority of people outside the ages of 16-61, then there are more retired people and children in the state, allowing for easier entry into the workforce. Therefore, the variable should have a negative sign.

A set of monthly dummy variables is also included to control for any seasonal effects. S_i is a dummy variable indicating each state's data. This will control for any effect that might

be specific to a state, such as the social demographics of the general population, a liberal governor who is more apt to adopt favorable disability policy, different taxing regimens, or various differences in the SSDI benefits.

Another variable is T_i which is a set of dummy variables for each of the years from which data were taken. Burkhauser (2000b) does not include this variable, because it reduces the effect of the minimum wage increase on employment in his study of teenage employment effects. Burkhauser suggests that the results for the minimum wage variable may capture unobserved macroeconomic factors but states that their estimates should be viewed as an upper-bound estimate of the effect of minimum wage increases. However, in the case of disabled persons, there are additional reasons to retain them in the model. The reasons include: Easing of eligibility standards for Social Security Disability Insurance; increasing the replacement ratio, which leads to greater benefits for disabled persons on SSDI; and other federal legislation that may have changed the employment status of the disabled, which are difficult to estimate accurately.

ESTIMATION

To estimate equation 1, standard Ordinary Least Squares is employed. Descriptive statistics are reported in Table 1. The results are reported in Table 2.

TABLE 1   **Descriptive Statistics**

Descriptive statistics

Variable	Mean	Stdev
% of Working Disabled	0.3104	0.1396
Minimum Wage	4.9288	0.3895
Average State Wage	10.5803	2.0429
State Unemployment Rate	4.6898	1.2454
% Working age population	0.6130	0.01801
N = 2304		

Model 1 is the complete estimation as noted in equation 1 in the previous section. Models 2, 3 and 4 are added for comparison. Model 2 does not include the year variables in the estimation equation. This particular estimation appears to be incorrect because of the significance of the yearly variables in the other two models. Model 3 eliminates the state variables from the estimation. The model appears to have severe problems yielding an R-squared of only .05. The exclusion of the state variables leads to an omitted variable bias for the model. Model 4 eliminates both yearly and state dummy variables. This estimation also yields a very low R-squared and suffers from an omitted variable bias. For the purpose of the analysis, Model 1 will used for explanation of the coefficients.

TABLE 2   OLS Regression Model Estimates (Dependent variable = % working disabled)

OLS Regression estimates

	Model 1	Model 2	Model 3	Model 4
Log(average state wage)	0.022	0.097	0.113*	0.091*
	(0.020)	(0.020)	(0.024)	(0.024)
Log(minimum wage)	0.063	-0.023	0.464*	-0.015
	(0.059)	(0.040)	(0.064)	(0.038)
Unemployment rate	0.009*	0.019*	0.014*	-0.001
	(0.004)	(0.003)	(0.003)	(0.002)
% Working age population	-0.107	-0.193	0.807*	-0.665*
	(0.163)	(0.163)	(0.165)	(0.168)
1996*	0.028*	No	0.094	No
	(0.009)		(0.011)	
1997*	0.029*	No	0.054	No
	(0.006)		(0.008)	
1998	0.003	No	0.004	No
	(0.005)		(0.007)	
Month dummies	Yes	Yes	Yes	Yes
State dummies	Yes	Yes	No	No
R2	0.613	0.608	0.056	0.014
n	2304	2304	2304	2304

Standard errors in parenthesis
*significant at the 5% significance level

The coefficient on the minimum wage variable is positive but insignificant. The sign follows

the intuition presented in the theory section. From the results in Table 1, an increase in the

minimum wage leads to an increase in the employment of disabled persons. The

interpretation of the coefficient on the minimum wage variable is that a 10% increase in the

minimum wage leads to a 0.6% increase in the employment of disabled persons. Previous

literature shows that there are relatively small increases or decreases in the employment rate

for specific subpopulations. Therefore, it should not be surprising that the magnitude of the minimum wage is very low. However, the coefficient is insignificant.

The sign of the coefficient on the average state wage has the correct perceived sign. Therefore, a higher state wage would be an indication of an expanding economy, and an increase in the employment of all groups of people. A relatively small increase of .22% is the result of a 10% increase in the average state wage. As observed in minimum wage variable, the coefficient on the average state wage variable is insignificant.

Overall unemployment rate coefficient is significant and affects the employment of disabled persons positively. Contemporary theory would likely contradict the sign on this variable. However, it appears the magnitude is quite small. One explanation for this result is that the time period used was one with relatively stable employment. Since the variable itself does not change dramatically during this period, it may not yield a very useful explanation.

The coefficient on the percentage of working age population has a negative sign and is not significant. This follows the intuition present in the previous section: If there are more workers in the age range of 16-61, there would be some difficulty finding a job, especially for someone who is disabled. If the variable was significant, the magnitude of the variable is plausible. If there was an increase in the working age population by 10%, then there would be a reduction of the employment of disabled persons by 1%.

Monthly dummies were included to control for particular seasonal factors. There may be increase in employment during holiday seasons in the retail industry or during the summer months when more people tend to be available for work. Year dummies were also included to control for unique events that may have taken place in that year, such as recessions or lower standards for receiving disability insurance.

State dummies were added to control for disturbances that are unique to a particular region of the United States. These factors may include each state's disability legislation, state workers' compensation programs and administration changes. Comparing all of the models estimated it appears that state dummies are a necessary variable to include in the estimation.

The error term is likely to include factors such as the amount of government funds spent on disabled persons. It could also include other benefits that the government has for specific ailments that cannot be controlled for on an aggregate level, plus other unobservable policy changes that may affect the disabled population.

POLICY SIMULATIONS

After completing a model to show the various factors that affect the employment status of the disabled, that model can be used as a policy tool. The model allows one to experiment with different policies and how they might affect a particular outcome. In this case, the minimum wage policy is analyzed using Model 1 from the previous section. The simulations will be calculated at the means to achieve a result. Three hypothetical minimum wage change simulations are computed using a static simulation.

Before simulating changes to the minimum wage policy, the original model must be estimated at the means as a method of comparison. The following table shows the results of the means estimation. Table 3 shows the results of the estimation of the model at the means. Year, Month, and State have all been calculated to be a constant, because the variables will not change from simulation to simulation. Also, when estimating the model at the means, it becomes a constant, because it is just the mean multiplied by the coefficient. The simulation shows that the average state of the employment of disabled persons is 32.0%. This estimate is the average employment of disabled persons for the time period of January, 1996 to December, 1999 and it is the benchmark that the policy simulations will be set against.

There are some opponents to a minimum wage, so the first simulation involves the dissolution of the policy. This would effectively reduce the minimum wage to zero. By replacing the minimum wage variable with 0 in the regression equation, an estimate of the impact can be observed. Table 4 shows the results of the simulation. In this case the minimum wage of zero would yield a significantly negative number, because the natural log of the minimum wage was taken for the regression estimation. Therefore, a minimum wage

Table 3 **Policy Simulation at the Means**

Variable	Coefficients	Means	% Working disabled simulation control
Intercept	0.3866	1.0000	0.3866
LMIN	0.0634	1.5992	0.1014
LAWAGE	0.0228	2.3590	0.0538
UNEMP	0.0097	4.6899	0.0455
WORKP	-0.1071	0.6130	-0.0657
YEAR	0.0201	1.0000	0.0201
MONTH	0.0020	1.0000	0.0020
STATE	-0.2231	1.0000	-0.2231
		% Working Disabled	**32.05%**

Table 4 **Policy Simulation with Minimum Wage Dissolution**

Variable	Coefficients	Means	% Working disabled simulation control
Intercept	0.3866	1.0000	0.3866
LMIN	0.0634	0.0000	0.0000
LAWAGE	0.0228	2.3590	0.0538
UNEMP	0.0097	4.6899	0.0455
WORKP	-0.1071	0.6130	-0.0657
YEAR	0.0201	1.0000	0.0201
MONTH	0.0020	1.0000	0.0020
STATE	-0.2231	1.0000	-0.2231
		% Working Disabled	**21.92%**

of $1 is used to mimic the abolition of the policy. This would then yield an output of zero, showing the necessary policy effects. The simulation shows a dramatic effect on the employment of disabled persons when the minimum wage policy is eliminated. With the elimination of the minimum wage program, the employment status of the disabled reduces from 32.0% to 21.9%. This would appear to be a significant decrease in the employment of disabled persons. The 10.1 percentage point drop in the employment of the disabled would have a significant impact on the nation's economy. Those who became unemployed could then apply for SSDI and SSI benefits and increase the government transfer payments. It could also lead to an increase in other welfare programs for those who do not qualify for the disability programs.

In the wake of the recent presidential election, the second simulation takes a look at presidential candidate John Kerry's proposed minimum wage increase to $7 per hour for the year 2007 (Kerry-Edwards 2004, Inc.). Table 5 gives the results from the policy simulation. The proposed wage change would impact the disabled in a positive way. An increase in the employment of the disabled from 32.0% to 34.3% is the result of the policy simulation. The proposed increase may inspire those on the disability rolls to make an effort to go back to work, because there would be a higher monetary incentive for them to return to the workforce. A 2.3 percentage point change in the employment of the disabled would have a positive effect on the subpopulation, but it would hardly influence the overall employment level of the entire United States.

Another simulation that may be of interest is the raising of the minimum wage to a living wage. The hourly rate that is required to bring a family of four to the poverty line is

Table 5 Policy Simulation with Kerry's Proposed Minimum Wage

Variable	Coefficients	Means	% Working disabled simulation control
Intercept	0.3866	1.0000	0.3866
LMIN	0.0634	1.9459	0.1234
LAWAGE	0.0228	2.3590	0.0538
UNEMP	0.0097	4.6899	0.0455
WORKP	-0.1071	0.6130	-0.0657
YEAR	0.0201	1.0000	0.0201
MONTH	0.0020	1.0000	0.0020
STATE	-0.2231	1.0000	-0.2231
		% Working Disabled	**34.25%**

Table 6 Policy Simulation with the Minimum Wage Equal to the Average wage

Variable	Coefficients	Means	% Working disabled simulation control
Intercept	0.3866	1.0000	0.3866
LMIN	0.0634	2.1804	0.1382
LAWAGE	0.0228	2.3590	0.0538
UNEMP	0.0097	4.6899	0.0455
WORKP	-0.1071	0.6130	-0.0657
YEAR	0.0201	1.0000	0.0201
MONTH	0.0020	1.0000	0.0020
STATE	-0.2231	1.0000	-0.2231
		% Working Disabled	**35.74%**

considered a living wage, which in this case will be $8.85 per hour. This wage will bring a family of four to the poverty line with the head of the household working 52 weeks in the year for 40 hours each week according to the "2003 Poverty Guidelines". The annual income adds up to $18,400 (Living Wage Resource Center 2004). Table 6 shows the results from the simulation. The simulation shows an increase in the employment of disabled persons from 32.0% to 35.7%. A living wage has a positive effect on the employment status of the disabled holding all else constant.

Because the coefficient on the minimum wage variable is positive, there will be a positive relationship between the employment of the disabled and the minimum wage. If there is an increase in the minimum wage, then an increase in the employment of disabled people will follow. However, the model presented in the paper is quite simple, and other factors could change when there is a minimum wage increase. This could change the outcome of the model. Also, many of the estimated coefficients on the variables are insignificant. These simulations are presented to show what could occur if there are changes to the minimum wage policy.

CONCLUSIONS

Throughout most of the literature on the impact of the minimum wage, no clear consensus can be drawn on the employment effects. Several studies done by Card and Kruger have shown that teenage employment increases when the minimum wage increases. Classical economic theory contradicts that.

This study follows the model presented by Burkhauser et al. (2000a) in their study of the employment of teenagers by employing a similar model. Using data from the SIPP, another subpopulation -the disabled- is examined in this paper. The results indicate that an increase in the minimum wage yields an insignificant impact on the employment of disabled persons. Card and Kruger's findings on employment increases in the teenage population with an increase in the minimum wage appear to be mirrored in the disabled population. Various policy simulations also give a glimpse on how changes in the minimum wage policy could affect the disabled population. Further research may involve seeking out other specific groups of people who earn at or near the minimum wage who may be affected by a change in the minimum wage, or by focusing on the difference in the number of hours worked by disabled workers when there is a change in minimum wage.

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APPENDIX A: AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act (ADA) was signed into law on July 26, 1990. President Bush said as he signed the Act into law: "Let the shameful wall of exclusion come tumbling down." Section I of the ADA deals with the employment of people with disabilities and was written to abolish discrimination against job candidates who have disabilities. In addition, people with disabilities are protected against discrimination in the workplace or unjust termination. The act benefits the disabled in numerous ways and brings to light the legal definition of a disability. Section I was enacted 12 months after being signed into law with the remaining sections effective 24 months later.

As stated in the ADA handbook, for a person to be qualified for a job, they need to satisfy the necessary job skills, have proper work experience and education. A disabled person must be capable of doing the tasks involved with a particular job regardless of their disability status. Therefore, the employer does not have to hire the disabled person if they are less qualified and face potential legal ramifications. The ADA also places no quotas or limits on the number of disabled persons that must be hired.

Another issue is to determine whether an employee has a disability and falls under the ADA. The ADA handbook defines one as having a disability if the person satisfies one of the following conditions: has a physical or mental impairment which substantially limits one or more of that person's daily life activities, has a record of such impairment, or is regarded by the covered entity as having such impairment. The law also elaborates on the government's assessment of what is considered a "physical or mental impairment".

Physical or mental impairment means
a)Any physiological disorder, or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems:

neurological, musculoskeletal, special sense organ, respiratory (including speech organs), cardiovascular, reproductive, digestive, genite-urinary, hemic or lymphatic, skin and endocrine.
b)Mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities.

These definitions are aligned with the terms used in this paper to identify someone who is disabled.

Disabled job seekers are not the only group of people who benefit from the advent of the ADA. There is a large pool of employers that also benefit from the new laws. The ADA emphasized specific tax codes that benefit employers who hire disabled people. There are three particular tax incentives that make disabled candidates attractive to prospective employers.

First, within the ADA there is a type of tax incentive for building alterations. From the Omnibus Budget Reconciliation Act of 1990, there are two options available: a tax deduction or tax credit. For larger companies, the tax deduction falls under Section 190 of the Internal Revenue Code. It states that a business can deduct up to $15,000 per year for the cost of removing barriers or providing auxiliary aids and services. For smaller businesses, which are defined as ones with less than 30 full-time employees and gross receipts of less than $1,000,000, the tax credit is under Section 44 of the Internal Revenue Code, which states that the credit can be taken for 50% of eligible costs above $250 and less than $10,250, and can only be used to make existing facilities more accessible.

There is another tax incentive that falls under Section 190 of the Internal Revenue Code for businesses. It states that there is a $35,000 tax incentive for businesses to make their facilities and vehicles accessible to handicapped and elderly persons, which can be

deducted every year. This enables companies to upgrade their vehicles and facilities, and gives the employer a reason to hire disabled workers in order to receive these specific upgrades to their capital. If the facility ever goes up for sale, it can be marked as handicap accessible.

The Targeted Jobs Tax Credit is another incentive for employers to hire disabled workers. It was reauthorized in June 1992 as a part of the Tax Extension Act of 1991 for the purpose of targeting nine different groups, one of which is the disabled. The credit is equal to 40% of the first year's wage up to $6,000 or $2,444 per employee for the first year of employment (ADA handbook). This gives the employer a small amount of insurance when choosing to hire someone with a disability, in case that worker is not up to the productivity standard.

These tax incentives give employers an added incentive to hire disabled persons. Not only are the companies hiring a qualified person for the job, but they are also receiving a tax break for the first year and upgrades to their facilities.

Even though the incentives are abundant for the hiring of a disabled candidate, there are also drawbacks for those who do not comply with the act. There appears to be a disadvantage on the employer's part when terminating someone with a disability. Even if that person may be deserving of termination, it may be hard for an employer to fire them. One consideration is that a disabled person who is fired from a job may perceive it as discrimination and file a lawsuit under the ADA protection. No law exists in the ADA that directly states that an employer may not terminate a disabled person. However, it may make it considerably harder to prove that they deserved to be fired. Even if their actions are just, the company may still be damaged publicly if the story is reported in the media. The stigma

involved with firing a disabled person may prove more costly than simply keeping the employee.

Just as public stigma may be a severe punishment for firing a disabled person, there are other penalties in place for those who discriminate against the disabled. As mentioned before, there could be a lawsuit filed by the person who is wrongfully terminated. There are also several other penalties that can occur for failure to comply with the ADA: permanent or temporary injunctions, restraining orders, preventative relief and litigation costs. In addition there is a series of civil actions with fines of $50,000 being levied for the first infraction and $100,000 for the second violation (ADA handbook).

Overall, the ADA gives people with disabilities the opportunity to compete for jobs on a more even level. It also has numerous incentives for employers to hire disabled people who are qualified for job vacancies. With some 33 million non-institutionalized persons having some sort of disability, it is not a surprise that this act has passed into law. These incentives become important when businesses are faced with policy changes that affect the payment made to their workers.

APPENDIX B: DISABILITY BENEFITS

Since a large population of disabled persons reside in the United States, there are various government programs that aid those who are less fortunate. These programs differ based on the qualifications of the applicants. Some are for those who have more severe conditions, whereas others are more lenient in determining eligibility. It is necessary to understand the basis of these programs, because disabled persons must choose whether to stay employed or drop out of the work force to become eligible for particular programs.

Social Security Disability Insurance

The first and most prominent type of disability compensation program is the Social Security Disability Insurance program (SSDI). The program was founded as part of the Old Age, Survivors, Disability and Hospital Insurance (OASDHI) program, which is known as Social Security. To be eligible under this program, a worker must be old enough to have paid Social Security taxes. It is also necessary to have the correct amount of credits to apply for the programs. Credits are defined by the Social Security website as 1 credit for every $900 earned with a max of 4 credits when earnings reach $3,600 for the year. An applicant must have a total of 40 credits to apply for the SSDI program, with 20 of the credits being achieved in the last 10 years (www.ssa.gov). This is an important factor for someone who is disabled when deciding whether to remain employed or drop out of the work force. If they do not fall into this category, they must remain in the work force or apply for a different type of benefit program.

Another qualifying attribute the applicant must have is a total disability. This refers to those who cannot do the same work that they once were capable of because of the disability. It must be a condition that will last for at least one year or will result in death.

Also, the applicant must not be working when applying, meaning that they do not earn over $810 a month. The disability must interfere with basic work-related functions that they were once capable of doing. Specific conditions are listed with the Social Security Administration that are automatically accepted as disabilities. If the disability is not listed with the government, an extensive series of questions must be answered, for determining total disability.

Once a candidate is approved to receive SSDI, the first payment is not dispersed until 6 months after the disability occurred. This is another consideration to factor when applying for SSDI. Those who may still be capable of working would have to decide whether they can go 6 months without any payment. Even if the applicant knows they will be approved, there still exists the opportunity cost of applying and the lost wages that could have been earned during that 6 month time period.

Even if an applicant will be approved, there is still the question if the compensation will be enough. SSDI does not compensate the successful applicant equal to previous earnings. Disabled recipients are given only a percentage of what they were earning, and that is based on the disabled persons total life earnings and not only the last couple years of work. Government officials adjust the 35 highest yearly wages earned for inflation, determine the average monthly earnings, which are then multiplied by set laws. The following rates are from the Social Security Website:

- 90 percent of your first $592 of average monthly earnings
- 32 percent of the amount between $592 and $3,567, and
- 15 percent of everything over $3,567 to give you your full retirement benefit amount. (If you start your benefits before you reach full retirement age, this amount will be reduced.)

This only replaces about 46% of the average earnings that the person had achieved.

Therefore, one's income will be severely reduced if they go on SSDI.

Supplemental Security Income

In 1974 another program was designed and aimed at the aged, blind and disabled, that could be combined with other programs. Legislation that established the Social Security Disability Insurance program added a separate federal program called Supplemental Security Income (SSI). Eligibility for this program is the same as for the SSDI program. The applicant must fit the same definition of disability. The program is means-tested, meaning that the applicant's contributions to social security taxes do not matter. It is a program that is based purely on the need for food, clothing and shelter. This benefit is then received in addition to the SSDI. It allows additional income for those who are eligible.

Even though these programs are available to aid the disabled, those who may qualify and would benefit significantly still may not apply. There are several reasons for this; one of which is pride. There is some public stigma about being on welfare. A disabled worker may not want to go on a welfare program because of how it reflects on them in society. Another possibility is that many workers are unaware that such programs exist and therefore never advantage of such a system. It also requires a lot of paper work to complete the application and usually requires a lawyer for those who need to go through the appeal's process.

These are the two main government programs to support those who are disabled. Although there are other programs available, they are more targeted to specific illnesses. SSDI and SSI give those who are disabled and cannot work the opportunity to have a stream of income. These programs also play a large role in the decision making process of those

with a disability. Having to choose between welfare programs or remaining employed can cause some to consider their options carefully. Even if a disabled person is accepted, they may go back to work when physically or psychologically able to do so. This is important, because other policy changes may influence the decision to remain on SSDI. Certain policy changes may make the work force or welfare programs seem more attractive.

APPENDIX C: DISABILITY GROUP

One struggle that is apparent in the literature on disability is the exact definition of a disability. It is necessary to understand what is classified as a disability to make full use of the analysis provided in this paper. This study targets the truly disabled, since they comprise the market of government payment applicants. By using only an SSDI applicant as the pool of disabled to estimate the number of disabled, it may not be a comprehensive look at the disabled population. There is a wide range of disabilities that may result in unemployment. Since applying for Social Security disability benefits requires that a worker must not have worked for 12 months, a lot of disabled people might not apply and simply continue working. To determine the number of illnesses that the U.S. government classifies as a disability, the following list is taken from the Social Security Disability Claims website (http://www.social-security-disability-claims.org/).

> Cancer, Diabetes, Type 2 Diabetes, Diabetic Neuropathy, lupus, crohn's disease, multiple sclerosis, High Blood Pressure (Hypertension), Hip, Neck, Shoulder, Ankle, Wrist, Back, or other Joint Problems, Disc Herniation, Degenerative Disc Disease, Spinal Stenosis, Carpal Tunnel Syndrome, rsi or Repetetive Stress Injury, Inflammatory Bowel Disease, Ulcerative Colitis, Irritable Bowel Syndrome, Arthritis, Dysthymia, Depression or other Mood Disorders, Congestive or Chronic Heart Failure, Type 1 Seizure Disorder, Stroke, copd, Emphysema, Hearing Loss or Poor Hearing, Statutory Blindness, Peripheral Field Problems or Other Vision Loss, Clinical Obesity, Attention Deficit Hyper Activity or adhd, Bipolar Disorder or Manic Depression, Panic Disorder, schizophrenia, autism, head trauma, memory loss, low iq, mental retardation, learning disability, epilepsy, cancer, chronic fatigue, lupus, anxiety, inner ear problems, meniere's, vertigo or dizziness, kidney failure requiring dialysis or other renal problems, cirrhosis, hepatitis, or other liver disease, pancreatitis, osteoarthritis, osteoporosis, asthma, bronchitis, cystic fibrosis, rsd or reflex sympathetic dystrophy, , sarcoidosis, peripheral vascular disease, lyme disease, cerebral palsy, down syndrome, hiv, aids, anemia, sickle cell, thyroid problems including hypothyroidism, esrd or end stage renal disease, reflux, gerd (gastroesophageal reflux disease), cfids,

muscular dystrophy, coronary artery disease, cardiomyopathy, or tachycardia,
bradycardia or other arrhythmia

The list shows a wide range of disabilities that exist. Many of these disabilities do not

require one to cease working. For example, a condition such as asthma, in most cases, is not

serious enough for that person to quit working completely. However, it may hamper their

job opportunities. If someone had a natural talent, but could not work in the requisite

environment, that should be considered a disability. Therefore, it is necessary to monitor

those who have a disability but continue to work.

Because there may be disabled people who are employed, it is important to consider

the entire population with disabilities and not only those who have applied or received some

form of disability insurance. Policy changes could have a dramatic affect on those who have

a disability and remain employed.