FROM WORKING FOR A LIVING TO SEARCHING FOR A LIVING

A Thesis By

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I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts with a major in Sociology.

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Dr. David Wright, Committee Chair

We have read this thesis
and recommend its acceptance

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Dr. Charles Koeber, Committee Member

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Dr. Brian Withrow, Committee Member

DEDICATION

To my wife and son

ABSTRACT

This research utilizes data from the 2000 Displaced Worker Survey to analyze the role of individual-, structural- and gender-level factors in reemployment after displacement. The literature review samples literature from the human capital, dual economy, segmented labor market, and feminist models. Drawn from the previous literature, an alternative model has been formulated. The hypotheses from the alternative model include the effect of educational attainment, age, labor markets, minority status, and gender. Support for all of the hypotheses is observed from bivariate and multivariate analysis. Key findings from the individual-level indicate that greater educational attainment increase the likelihood of post-displacement employment. Age and receiving unemployment benefits decreases the likelihood of post-displacement employment. Key findings for the structural-level indicate increased likelihoods of post-displacement employment for respondents relocating for work and respondents displaced from positions with higher occupational prestige. Key findings for the gender-level indicate increased likelihoods of post-displacement employment for female respondents, minorities, married and unmarried respondents. Policy implications as a result of key findings are also suggested.

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1. INTRODUCTION

With the emergence of the competitive global market, new challenges have come to face American workers. The implementation of global communications and transportation technology has effectively decreased the size of our world. It is now possible to utilize the cheaper labor markets in many countries to create goods and services. Companies engaged in the global market are able to create components in satellite facilities across the globe and assemble them into finished commodities. Companies engaged in service work are able to utilize high-speed data transfer equipment to set up call centers half-a-world away from their customers. The ability to engage in the global trade and manufacturing directly and indirectly affects the American worker. Workers are directly affected by plant closings and relocation and indirectly affected by competition to reduce prices. One response to global competitive pressure has been the dislocation of workers (Fallick 1996). Once displaced, the worker has difficulty obtaining work in a comparable position (Fallick 1996). Corporations transferring factories to locations with lower labor costs are often leaving communities in which they represent a large proportion of the workforce. The relocation of production is often an industry-wide trend thereby reducing the demand for labor.

This analysis will focus on the employment outcomes of displaced workers. The literature review summarizes the theoretical perspectives and the body of literature related to displaced workers. The first section will examine issues related to workers investments in human capital. This perspective emphasizes the individual choices of investment in human capital as a determinant of employment. The second section will examine the structural aspects of the labor markets. This perspective suggests workers position will largely determine employment. The third section will examine the perspectives related to gender and race. These

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perspectives describe the processes that select women and minorities into lower paying

occupations and devalue their earning power. The fourth section presents an alternative model

describing the processes in the determination of post-displacement employment of workers. The

alternative model incorporates the individual, structural and race and gender perspectives to

provide a wider view of the determination of post-displacement employment of workers. Data to

examine reemployment of displaced workers will be utilized from the 2000 Displaced Worker,

Employee Tenure, and Occupational Mobility Survey, a supplement to the February 2000

Current Population Survey.

2. LITERATURE REVIEW

2.1 Individual Model

Human capital theory argues workers receive rewards for investing in activities designed to increase their skills (Becker 1975). The human capital system of investments and rewards assumes the worker is a rational actor within the system (Becker 1975). The assumption of rationality within human capital theory dictates a worker will choose investments in capital that will yield the greatest amount of return in employment and income (Becker 1975).

The worker gains capital from formal education or job training from employers (Schultz 1961). The worker utilizes human capital to obtain employment that provides greater income. Often workers increase human capital through adaptation within the position. The development cost of human capital within an occupation is borne by the worker through decreased wages (Becker 1975). Workers gain two types of human capital from on-the-job training. The first is general capital. General capital includes skills easily transferred from employer to employer. Specific capital includes skills that are firm specific. However, skills taught do not fall directly into general and specific capital categories. On-the-job training is often a mixture of both types of capital resulting in productivity increases for the employer (Becker 1975). As the worker becomes more productive in the position, the worker receives increased compensation for the increased contribution to the marginal product (Becker 1975).

The increase in productivity, combined with technological innovation and competitive economic pressures, creates a situation necessitating a response from the employer. One possible response by employers is the displacement of workers to remain competitive. The ability to contribute more to production shelters workers from displacement. Rodriguez and Zavodny (2003) found workers with higher levels of education suffered lower displacement

rates. This article also indicated older workers suffer lower displacement rates (Rodriguez and Zavodny 2003). These findings support the productivity argument in dislocation selection, in that, workers with larger investments in capital are able to utilize skills to become more productive. Workers who chose to invest in activities resulting in greater capital demonstrate rational thought.

Once displaced, the ability to transfer human capital between positions by the worker is essential to successful reemployment. Human capital theory suggests that employers pay workers specifically trained in an industry a premium as compared to generally trained workers (Becker 1975). Several studies have found a relationship between the proximity of a worker's pre- and post-displacement occupation and the degree of income loss suffered by the worker (Fallick 1993; Neal 1995; Ong and Mar 1992). These studies reveal lower degrees of income loss for workers reemployed in occupations closely related to their pre-displacement occupation. This reflects an employer's investment in their employees. If a worker with general training and a worker with specific skills hired by a company desiring specific skills, the worker with specific skills receives greater compensation than the worker with general training (Becker 1975). The employer needs to invest less capital in the worker with specific training to achieve the same return on their investment (Becker 1975). This difference between investment and return creates a wage premium for the worker (Becker 1975). Workers who possess and successfully transfer human capital applicable to their post-displacement occupation receive wage premiums over those workers who do not.

An ideal situation for the displaced worker is to become reemployed within a related occupation. However, the necessity of income often dictates the choice of position unrelated to a worker's pre-displacement occupation. Upon displacement, the worker chooses a satisfactory

income wage. Workers test wages from new job offers against their reservation wage. If the proposed wage is greater than the worker's reservation wage, the worker will accept the position (Fallick 1993). Fallick (1993) suggests that a worker's reservation wage varies with the opportunity within the industry. Displacement from industries with low or negative job growth would cause a worker to choose a lower reservation wage. Research has shown that seventy percent of displaced workers found that lower income outweighed the costs of continued unemployment (Moore 2003).

Whether the worker is able to obtain reemployment within the pre-displacement field or not, losses in income of the individual worker demonstrate an inability to compensate for overall economic changes. The worker's choice to accumulate capital within a specific field degrades the workers ability to adapt to occupations outside of that field. Workers who choose to obtain at least a bachelor's degree are less likely to be displaced than workers with less than a bachelor's degree (Kletzer 1998). Workers who choose to build human capital within areas that are not occupation specific tend to have better post-displacement outcomes than workers who invest in occupation-specific human capital (Fallick 1993). The worker who chooses to invest in human capital unspecific to a particular occupation demonstrates an increased ability to adapt to shifts in the economy.

Regardless of the type of human capital a worker chooses to invest in, the level of human capital is expected to increase with age. The covariance of human capital and age usually results in an older receiving a higher wage. This wage premium is a result of the contribution of increased levels of productivity to the marginal product of the employer. For displaced individuals, employers are likely to choose younger workers as a result of the long-term

contribution to the company's marginal product. Therefore, older workers are more likely to experience lower rates of post-displacement employment.

Research has shown displaced workers choosing to engage in job training or formal education after displacement receive higher wages than displaced workers who do not choose to seek job training or education in the long term (Zippay 2001). These higher wages are usually associated with advanced education programs, such as apprenticeships or college degrees (Zippay 2001). During the education process, the worker must adjust resource allocation to finance the education (Zippay 2001). Of the possible adjustments, a worker may require the support of a working spouse or family member, expenditure of savings, or obtain loans (Zippay 2001). While workers who invest in education after displacement realize wage gains over workers who do not invest in education, workers investing in education may not recover the costs associated with education.

2.2 Structural Model

The structural model assumes organizations are a hierarchy of positions. The supply argument, as presented in the individual model, argues employers select workers from the pool of applicants based on the skill of the individual. The demand argument, as presented by the structural model, argues employers select workers based on the needs of the organization. Under the structural model, income is determined by the position to which an individual is selected. Positions higher within the hierarchy are better compensated.   The supply-side argument, as presented in the individual model, focuses upon the individual attributes of the worker as the basis of selection for the employer. The demand-side argument, as presented by the structural model, focuses upon the needs of the employer as the method of selection of employees.

The structural model presents two similar theories, economic dualism and labor market segmentation. Economic dualism assumes that differences in worker outcomes arise from the technical relations to production. Labor market segmentation assumes that differences in worker outcomes arise from the social relations to production.

Dual economy theory describes a dichotomous economy utilizing two distinct industrial sectors (Gordon 1972). The two industrial sectors operate to fill positions within their respective counterparts in the core and periphery sectors of the economy (Gordon 1972). Differentiation between the core and peripheral sectors demonstrate predictable characteristics (Beck, Horan and Tolbert 1978). The core sector consists of large corporate entities, where as, the peripheral sector consists of smaller entities (O'Connor 1973). Corporate entities within the core sector have been observed to have high levels of productivity, intensive utilization of capital, high degrees of unionization and high profits (Bluestone 1973). Entities within the peripheral sector have been observed to exhibit high labor intensity, low productivity, low profits, low levels of unionization and low wages (Bluestone, et al. 1973). Members of the core sector utilize their advantages in an oligolpolistic fashion to ensure positive outcomes (Baran and Sweezy 1966). Members of the peripheral sector, lacking in advantages, operate in a highly competitive market (Baran and Sweezy 1966).

The ability and inability to set employment and wages for workers within the core and peripheral industrial sectors create vastly different experiences for workers dependent upon their position. Workers within the core sector tend to experience wage growth attached to job structure (Gordon 1972). Workers within the peripheral sector experience a restricted opportunity structure, which limits wage growth (Beck, Horan and Tolbert 1978). Peripheral sector workers' wages vary little within a job structure and are unlikely influenced by individual

characteristics (Gordon 1972). Supply and demand for workers determine peripheral sector wages, which tend to become homogenous (Gordon 1972).

Previous research exemplifies the effects of dual economy on displaced workers. Workers displaced by layoffs receive lower post-displacement wages than workers displaced by plant closures (Krashinsky 2002; Clark, Herzog, Jr., and Schlottmann 1998). Workers displaced by plant closures are more likely to be employed within the periphery or secondary industrial sectors. Workers displaced from larger entities suffer greater losses in income as compared to workers displaced from smaller entities (Krashinsky 2002). These workers are more likely to be located within the core industrial sector. Since overall wages are higher and wage growth is common, the opportunity for wage loss is greater.

Labor market segmentation utilizes a similar structure to dual economy. The labor market is segmented in two sectors. High wages and occupational mobility designate positions in the primary sector (Reich, Gordon, and Edwards 1973). Low wages and low occupational mobility designate positions in the secondary sector (Reich, et. al 1973). Segmentation within the primary sector occurs between positions based on autonomy. Subordinate primary positions often operate within a routinized environment and lack personal autonomy (Reich, et. al 1973). Independent primary positions utilize skills to solve problems for the employer (Reich, et. al 1973). Autonomy and individual motivation create a higher set of wages for workers within the independent primary sector (Reich, et. al 1973).

In labor market segmentation, position determines income of the individual. Those workers filling positions within the primary sector receive greater employment security and greater income than workers filling positions within the secondary sector (Reich, et. al 1973).

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Perceptions about the requirements for entry into individual sectors limit mobility of workers (Reich, et. al 1973).

During the last quarter of the 20th Century, the primary and secondary sectors have experimented with the work process to attempt to reduce the number of workers employed by a firm. The impetus to compete on a growing global scale has fueled the need to free capital from labor to enable geographic expansion. As a result, the emergence of the "high-performance work organization" (HPWO) has challenged the employment security of many American workers in the primary and secondary sectors alike. HPWOs are formed through the creation of several work practices, such as, self-managed work teams, job rotation, quality circles and total quality management (Osterman 1999). These work practices attempt to improve quality and increase customer satisfaction by decreasing bureaucratic layers and increasing responsibility of workers at lower levels (Osterman 1999). Threats to job security exist for workers within the middle bureaucratic layers. As workers intensify their participation within HPWO work practices, the level of self-management increases (Osterman 1999). Ultimately, self-management will result in less demand for immediate supervisors and managers. Without demand for immediate supervisors and managers, the HPWO is able to effectively reduce its workforce while increasing productivity.

Weaknesses of these two structural arguments and new conceptions of labor markets have hindered the development of research utilizing economic dualism and labor market segmentation (Reid and Rubin 2003). Criticisms about the parallel nature of separate labor markets and the definition of the sector structures themselves have slowed the development of research (Reid and Rubin 2003). Further more, the focus upon race and gender as structural

components have gained wide focus from researchers of income determination (Reid and Rubin 2003).

2.3 Race and Gender

The individual and structural models have addressed gender as a variable. Feminist thought conceptualizes gender as a process. Feminist theory conceptualizes gender as social structure that is developed socially, not an inherent characteristic of individuals (Lorber 1994). Gender creates expectations of patterned behavior that dictates the roles of women (Lorber 1994). Women are often devalued in the economic sector. The devaluation of women forces women into lower positions within the economic structure.

Social roles dictate differences among men and women. Traditionally, women's roles place them in the home, while traditional men's roles place them outside of the home (England and Farkas 1986). This difference created dual work patterns for men and women that caused fragmentation of women's work participation (England and Farkas 1986). The fragmentation of women's work patterns helped to create a culture of devaluation of the woman. The difference in gender roles have also created gendered segregation within occupations. Gendered segregation within the workplace has arisen out of the thought that men are able to perform some tasks superior to women. This thought has pushed women into lower occupational positions receiving lower pay and low status.

The study of gender often focuses upon the division of household labor. Research concerning the division of household labor has yielded a description of a power dynamic between spouses (England and Farkas 1986). Power between husband and wife is determiniant of the party that is able to complete objectives despite the objection of the other party (England and Farkas 1986). The central observation to which this power dynamic is based is the type of

work each partner chooses to focus upon. Women usually focus upon the instrumental and expressive work, while men focus on economic work (England and Farkas 1986). Each partner calculates the difference between the gains outside of the relationship and the gains within the relationship (England and Farkas 1986). When the positive benefits of gains within the relationship outweigh the gains outside the relationship, a partner will desire to remain in the relationship (England and Farkas 1986). The desire to remain within the relationship causes the partner to placate the other to decrease the risk of dissolution of the relationship (England and Farkas 1986). The result of the difference between gains often leads to diminished power for female partners. Female partners who have chosen to focus upon instrumental and expressive work are often dependent upon the financial contribution of the male partner. Likewise, the male partner is dependent upon the resources provided by the female partner and may attempt to solidify this power imbalance by limiting the female partner's access to economic work.

Implications of the division of household labor upon the displaced worker should be substantial. Workers with children, especially female workers, must divide resources between instrumental, expressive, and economic work. Families without children or single member households do not experience the intensity of division of labor experienced by families with children. Families with children are more likely to be subject to displacement (Attewell 1999). The likelihood of displacement increases with the responsibilities tied to children. Families with children under the age of six suffer greater rates of displacement than families with children under the age of 18 (Attewell 1999). Single parent families also suffer greater rates of displacement than two parent families (Attewell 1999).

Labor market queues have been used to describe differences in occupational position and earnings among women and minorities. Employers use labor market queues to sort acceptable

workers from unacceptable workers (Reskin and Roos 1990). Three structural properties effect

the operation of labor market queues (Reskin and Roos 1990). Ordering of groups set up the

hiring order of potential applicants (Reskin and Roos 1990). In a labor market queue that ranks

men above women, poorly qualified males are chosen over well-qualified females. In a labor

market queue that has a small number of candidates ranked ahead of others and a larger

proportion of positions, members from the next lower queue will be selected to fill vacant

positions left by insufficient applicants from the primary queue (Reskin and Roos 1990).

Ranker's differences in preference to gender and racial queues the outcome of the job selection

process. Ranker's who prefer to queue workers on the basis of qualification select the most

qualified applicant regardless of race or gender (Reskin and Roos 1990).

Workers utilize queues to rank order positions (Reskin and Roos 1990). Generally,

workers sort positions categorically from high-status to low-status (Reskin and Roos 1990).

Worker queues may vary upon the preferences of the worker (Reskin and Roos 1990). Workers

within the privileged group may choose to rank certain positions lower based on the position's

desirability (Reskin and Roos 1990).

Selection of workers to positions functions through matching processes created by labor

market and worker's queues (Reskin and Roos 1990). Employers select the highest ranked

worker for a position from their labor market queues. Workers accept positions based on their

queues. Opportunities for those workers placed lower in queues receive better positions when

workers ranked higher are unavailable or unwilling to accept positions. Workers may fill lower

positions when higher ranked positions are unavailable or the position is undesirable.

Previous research indicates white males are queued highest in labor market queues

(Spalter-Roth and Deitch 1999). White males are more likely to be reemployed sooner and to be

paid a higher wage than minorities and women after displacement (Spalter-Roth and Deitch 1999). Post-displacement labor market queues rate white women just below white men after displacement (Spalter-Roth and Deitch 1999). More white white women were able to find positions within the same job queue as compared with other minority workers after displacement (Spalter-Roth and Deitch 1999). Black men fall below white women in post-displacement labor market queues (Spalter-Roth and Deitch 1999). Higher proportions of black men suffered lower rates of reemployment (Spalter-Roth and Deitch 1999). The exception to this trend occurred in blue-collar and manufacturing occupations where men benefited over women in reemployment after displacement (Spalter-Roth and Deitch 1999). Black women fill the lowest rank in the post-displacement labor market (Spalter-Roth and Deitch 1999).

2.4 Alternative Model

Race/Gender   →   Structure

Individual

Post-Displacement Employment

Adapted from Wright, 1992
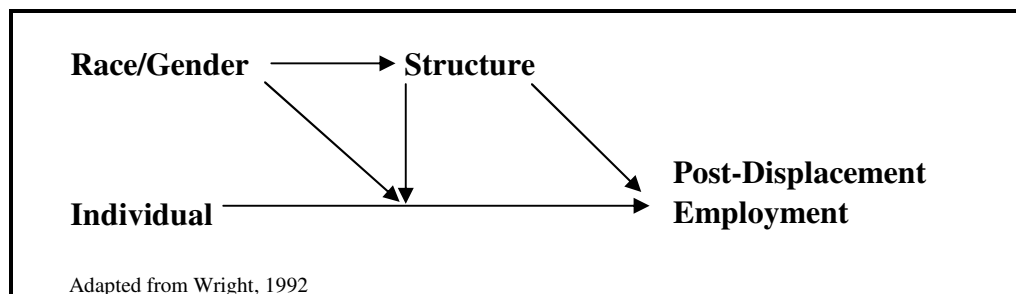
The alternative model integrates the individual, structural and race/gender model to determine post-displacement outcomes. The individual model predicts that workers with investments in human capital will receive higher post-displacement employment. The individual model also suggests workers with significant investments in non-specific capital will minimize losses to employment. Workers with higher degrees of education should receive higher post-displacement employment. The individual model also suggests workers investing in education after displacement will increase their post-displacement employment probability. The structural model suggests that workers able to obtain post-displacement employment in an occupation

related to the pre-displacement occupation maximize the likelihood of reemployment as compared with workers obtaining employment in an occupation unrelated to the pre-displacement occupation. The structural model suggests workers employed in the secondary sector suffer lower rates of post-displacement employment. The gender/race model suggests workers within minority groups will suffer lower rates of post-displacement employment than members of majority status.

To test the alternative model, the following hypotheses will be tested:

1a.   Workers with higher educational attainment will see higher probabilities of post-displacement employment, net of other factors.

1b.   Net of other factors, older workers will see lower probabilities of post-displacement employment.

2a.   Workers within the primary labor market will see higher probabilities of post-displacement employment, net of other factors.

2b.   The individual characteristics of primary workers will have a greater effect on post-displacement employment than the individual characteristics of secondary workers, net of other factors.

3a.   Net of other factors, female workers will be sorted into lower positions than equally experienced male workers.

3b.   Workers of minority status will lower probabilities of post-displacement employment than workers of non-minority status, net of other factors.

3.   DATA/METHODS

3.1   Data

This research intends to address the question of which groups suffer the greatest loss through displacement. To address these economic issues, data was utilized from the February 2000 Displaced Worker, Employee Tenure, and Occupational Mobility Survey, a supplement to the Current Population Survey conducted by the United States Census Bureau. The February 2000 Current Population Survey produced 78,084 participants, of which, 5,854 participants were eligible to provide responses for the Displaced Worker, Employee Tenure, and Occupational Mobility Survey.

For the purposes of this research, restrictions were placed on this data. For the displaced worker portion of the supplement, persons aged 20 years or older who had lost or left their job within the last three years for selected reasons were selected for participation in the survey. A sample restriction excluded respondents who were not currently employed at the time of the survey. This restriction enabled an accurate measure of pre-displacement and post-displacement income. A sample restriction included those workers with weekly earnings greater than zero for their pre-displacement job and post-displacement job. A sample restriction excluded military spouses from the sample. These restrictions upon the sample created a sample size of 2776.

The data from the Displaced Worker, Employee Tenure, and Occupational Mobility Survey included weights to adjust the sample to match the population parameters. The included weights must be applied to correctly perform data analysis. The included weights will create very large sample sizes which bias the sample by reducing standard errors. To avoid this bias, a relative weight must be created. To create the relative weight, the standard weight is divided by its own mean. The new relative weight is then applied to the sample. This process adjusts the

proportion of the sample to match the proportion of the sample using the standard weight, without increasing the size of the sample.

3.2 Variables

3.2.1 Dependent Variable

The dependent variable used in this research measures the employment status of the respondent. The dependent variable is coded to create a binary variable. A value of one was assigned to respondents who were employed at the time of the survey.

3.2.2 Independent Variables

3.2.2.1 Individual Level Variables

The individual level variables used in the analysis of this research include measures of education, age, location, family income, and job-related measures. The education variable was originally an ordinal level variable measuring grade level achievement. This variable was recoded to a five level ordinal variable measuring degree attainment as did not complete high school, completed high school, completed some college or an associate's degree, completed an undergraduate degree, and completed a graduate-level degree. Binary coded variables were also created for each of the five categories, with the value of one being assigned to respondents of the selected educational attainment. A binary coded variable was created assigning a value of one to all respondents reporting a bachelor-level degree or higher. Expectations for the education variable in data analysis indicate that those with higher educational attainment will possess higher probabilities of post-displacement employment.

The age variable was originally an interval level variable measuring age in years. The age variable ranges from 20 to 82. Expectations for the age variable in data analysis indicate that increases in age will result lower probabilities of post-displacement employment.

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A variable measuring the region of country for the subject was created as a nominal level variable with categories North, South, Midwest and West. A one-way analysis of variance indicated category South had a significantly lower family income than other regions. From this information, a binary variable was assigning a value of one to respondents that lived in the South. Expectations for this region variable indicate lower probabilities of post-displacement employment for those who reside in the South.

A variable measuring urban or rural location is included in the dataset. This variable was coded to create a binary variable a value of one assigned to rural respondents. Expectations for this variable in data analysis indicate that non-rural respondents will realize higher probabilities of post-displacement employment.

An ordinal variable measuring family structure is included in the dataset. The variable measures two parent families, single parent families, and lives alone. Binary coded variables were also created for each of the three categories, with the value of one being assigned to respondents of the selected family structure. Expectations for the family structure variable indicate higher rates of post-displacement employment for single parent families.

The variable measuring family income was coded as a 13 level ordinal variable ranging from families earning less than $5000 to families earning more than $75,000. The family income variable has been recoded to the midpoint value of the ranges to allow for multi-variate analysis of this variable. The expectations for this variable indicate higher probabilities of post-displacement employment for families with higher income.

A binary coded variable was created measuring respondents indicating relocation after displacement. A value of one has been assigned to those respondents who indicated they had

relocated. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents who indicated they had relocated.

A binary coded variable was created measuring respondents indicating relocation for work. A value of one has been assigned to those respondents who indicated they had relocated for work. Expectations for this variable indicate lower probabilities of post-displacement employment for respondents who did not indicate they had relocated for work.

The variable measuring the number of jobs held by the respondent is coded as a binary variable. Respondents indicating holding more than one job have been assigned a value of one. Expectations for this variable indicate lower probabilities of post-displacement employment for respondents who did not hold more than one job.

A variable measures the amount of tenure in the respondent's last job. The interval level variable measures tenure in years. Expectations for this variable indicate lower probabilities of post-displacement employment for respondents with lower job tenure.

A variable measures the respondent's use of unemployment benefits. The binary variable assigned a value of one to respondents who used unemployment benefits. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents who did not use unemployment benefits.

A variable measures the length of time unemployed for the respondent. The interval level variable measures length of time unemployed in weeks. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents with longer periods of unemployment.

3.2.2.2 Structural Level Variables

The structural level variables used in this analysis include measures of number of hours worked, union membership, and class of worker. This set of variables is intended to measure those influences upon the worker's employment after displacement.

Two binary variables have been created measuring the sector of employment with respect to private sector and government sector for pre- and post-displacement positions. Each binary variable assigns a value of one to respondents indicating employment in a position within the government sector. Expectations for these variables indicate lower probabilities of post-displacement employment for respondents employed in private sector positions.

Two binary variables have been created measuring union membership in pre- and post-displacement. Each variable assigns a value of one to respondents indicating union membership. Expectations for this variable indicate lower probabilities of post-displacement employment for respondents after displacement from a union position.

A binary variable has been created measuring respondents who received advance notice of displacement. The binary variable assigns a value of one to respondents who received advance notice prior to displacement. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents receiving advance notice of displacement.

Two binary variables have been created measuring respondent who have health insurance in their pre- or post-displacement position. Each variable assigns a value of one to respondents with health insurance for the respective position. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents with health coverage in their pre-displacement position.

Two binary variables have been created measuring the sector of employment for the respondent's pre- and post-displacement position. Each variable assigns a value of one to

respondents holding a position in the goods-producing sector. Respondents holding a position in the service sector are assigned a value of zero. Expectations for this variable indicate lower probabilities of post-displacement employment for respondents holding a position in the goods-producing sector prior to displacement.

Four binary variables have been created measuring the skill and nature of employment for the respondent prior to displacement. The four classifications of skill and nature are white collar/high skill (managers, professionals, and education), white collar/low-skill (clerical and sales), blue collar/high skill (protective, precision craft, high skill transportation and construction), and blue collar/low skill (service, laborers and machine operators). Each variable assigns a value of one to a single classification to create four individual variables. Expectations for these variables indicate higher probabilities of post-displacement employment for respondents employed in blue collar/high skill positions prior to displacement.

A variable measures the occupational prestige of the respondent's position prior to displacement. The interval level variable ranges from the lowest occupational prestige score of 17 to the highest occupational prestige score of 86. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents with higher occupational prestige.

3.2.2.3 Gender/Race Level Variables

The gender and race variables used in this analysis measure sex, race, marriage status, and the presence of children. This set of variables intends to measure the effect of race and gender on post-displacement employment.

A binary variable has been created measuring the sex of the respondent. The variable assigns a value of one to all female respondents. Expectations for this variable indicate lower probabilities of post-displacement employment for female respondents.

A variable measures the percentage of women represented in an occupational field for the year prior to the survey. The interval level occupational sex segregation score ranges from zero to two. A value of one indicates equal proportions of men and women within the occupation. A value less than one indicates occupations where women are under represented. A value greater than one indicates occupations where women are over represented. Expectations for this variable indicate higher probabilities of post-displacement employment for workers holding positions prior to displacement within occupations with greater proportions of males.

A variable measuring the presence of a child in the respondent's household has been created. The binary variable assigns a value of one to all respondents indicating the presence of a child. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents with a child present.

A binary variable has been created measuring the presence of a child under the age of six in the respondent's household. This variable assigns a value of one to all respondents indicating the presence of a child under six. Expectations for this variable indicate higher probabilities of post-displacement employment for respondents with a child under the age of six.

A nominal level variable has been created measuring the respondent's race and ethnicity. The variable captures respondents indicating a race and ethnicity of White non-Hispanic, Black non-Hispanic, American Indian non-Hispanic, Asian non-Hispanic, or Hispanic. Five binary variables have been created for each category of the race variable. Each binary variable assigns a value of one to a single category of the race variable. A binary variable has been created

measuring respondents of minority status. The binary variable assigns a value of zero to all respondents indicating a race of White non-Hispanic. The remaining respondents were assigned a value of one indicating a minority race. Expectations for the minority variable indicate lower probabilities of post-displacement employment to minority members. Blacks and Hispanics are also expected to have lower probabilities of post-displacement employment than other racial groups.

Three binary variables have been created measuring marital status. A measure of respondents indicating currently being married has been created. The binary variable assigns a value of one to currently married respondents. A measure of respondents indicating past marriages has been created. The binary variable assigns a value of one to respondents indicating past marriages. A measure of respondents indicating never being married has been created. The binary variable assigns a value to one to respondents indicating never being married. Expectations for these variables indicate higher probabilities of post-displacement employment for married respondents.

3.3 Analysis

This research will utilize a computerized statistical processing package (SPSS) to analyze data. Univariate analysis will be utilized to provide statistics of the full sample and the subsample, male and female respondents. Bivariate analysis will be utilized to determine statistically significant differences between male and female respondents. A significance value of .05 has been chosen to be utilized in the determination of significant differences. Logistic regression will be utilized to determine the independent effects of variables upon the employment status of respondents and the size of the effect.

4. RESULTS

4.1 Bivariate Analysis

Table 1 provides univariate and bivariate analysis of variables by employment status. Bivariate analysis of the individual-level factors by employment status indicates meaningful statistical differences for respondents with at least a college degree, respondents receiving unemployment benefits, number of weeks unemployed, and members of single parent households. Working respondents are more likely than non-working respondents to possess at least a college degree (25.5% versus 15.4%). Non-working respondents are more likely than working respondents to be members of a single-parent household (23.1% versus 18.0%) and to receive unemployment benefits (44.6% versus 33.9%). Working respondents are more likely to experience shorter periods of unemployment than non-working respondents (9.67 weeks versus 32.45 weeks). No statistically significant differences were observed between working and non-working respondents and age, respondents residing in the South, respondents residing in rural areas, or job tenure on the previous occupation.

Bivariate analysis of structural-level factors by employment status indicates several statistically meaningful and significant differences. Working respondents were more likely than non-working respondents to have been given advance notice of displacement (35.7% versus 30.9%), to have moved since displacement (14.4% versus 11.2%) and to have moved for work after displacement (8.7% versus 3.9%). Working respondents are also more likely than non-working respondents to have been employed in White-Collar High-Skill positions (32.0% versus 20.6%) and to have been displaced from occupations with higher prestige (42.79 versus 38.30). Non-working respondents are more likely than working respondents to have been employed in Blue-Collar Low-Skill positions (33.1% versus 22.7%). No significant differences are observed

between working and non-working respondents and respondents displaced from the private sector or goods-producing industries, previous union members, and respondents displaced from White-Collar Low-Skill or Blue-Collar High-Skill positions.

Bivariate analysis of gender-level factors by employment indicates statistically meaningful and significant differences for four variables. Non-working respondents are more likely than working respondents to be female (55.2% versus 44.0%), of minority status (37.1% versus 25.4%) and unmarried (28.5% versus 23.2%). Working respondents are more likely than non-working respondents to be married (57.0% versus 51.8%). No significant differences have been observed between employment status and respondents with children, respondents with children under 6, or differences in the proportions of females within the respondents previous position.

Table 2 provides univariate and bivariate analysis of education levels and race/ethnicity by employment status. Bivariate analysis of education levels by employment status yields statistically significant and meaningful differences for respondents with less than a master's degree. Non-working respondents are more likely than working respondents to possess less than a high school diploma (19.1% versus 9.4%) or a high school diploma (59.0% versus 54.4%). Working respondents are more likely than non-working respondents to possess an associates degree (10.6% versus 6.5%) or a bachelors degree (18.1% versus 9.9%). No statistical differences have been observed between employment status and respondents with advanced degrees. Bivariate analysis of race/ethnicity by employment status yields statistically significant and meaningful differences for all race/ethnicities excluding Asian respondents. Working respondents are more likely than non-working respondents to be White non-Hispanic (74.6% versus 62.9%). Non-working respondents are more likely than working respondents to be Black

non-Hispanic (17.0% versus 11.5%), Hispanic (15.4% versus 10.6%) or Native American (2.1% versus 0.7%).

Table 3 presents bivariate analysis of pre-displacement occupations by employment status. Bivariate analysis of pre-displacement occupations by employment status reveals statistically significant and meaningful differences for respondents displaced from professional positions, service positions, machinist positions and labor positions. Working respondents are more likely than non-working respondents to have been displaced from professional positions. Non-working respondents are more likely than working respondents to have been displaced from service positions, general labor positions or machine operator positions. No statistically significant differences have been observed for respondents displaced from executive, technical, sales, administrative, protective service, precision craft, transportation, or farm positions.

Table 4 provides univariate and bivariate analysis of respondents' pre-displacement industry by employment status. Bivariate analysis reveals statistically significant and meaningful differences between employment status and respondents displaced from professional service, service and wholesale trade industries. Working respondents are more likely than non-working respondents to have been displaced from professional service (15.2% versus 10.4%) and wholesale trade industries (5.9% versus 3.6%). Non-working respondents are more likely than working respondents to have been displaced from service industries (5.7% versus 3.7%). No statistically significant differences were observed between employment status and agricultural, extractive, construction, non-durable and durable manufacturing, communication and public utilities, retail trade, financial, repair service, or public administration industries.

Table 5 presents occupational mobility movement for the full sample, males and females. The intersection of respondents' pre- and post-displacement occupational skill level is

represented in the table. For the full sample, 72.1% of respondents displaced from White-Collar High-Skill positions remained in the same occupational skill level. Of the remaining displaced White-Collar High-Skill respondents, 17.4% are employed in White-Collar Low-Skill positions, 5.1% are employed in Blue-Collar High-Skill positions, and 5.4% are employed in Blue-Collar Low-Skill positions. A majority of respondents displaced from White-Collar Low-Skill positions remained in White-Collar Low-Skill positions (61.5%). Of the remaining displaced respondents from White-Collar Low-Skill positions, 18.2% are employed in White-Collar High-Skill Positions, 5.1% are employed in Blue-Collar High-Skill positions, and 15.2% are employed in Blue-Collar Low-Skill positions. A majority of respondents displaced from Blue-Collar High-Skill positions remained in Blue-Collar High-Skill positions (69.1%). Of the remaining displaced respondents from Blue-Collar High-Skill positions, 6.0% are employed in White-Collar High-Skill Positions, 5.2% are employed in White-Collar Low-Skill positions, and 19.6% are employed in Blue-Collar Low-Skill positions. A majority of respondents displaced from Blue-Collar Low-Skill positions remained in Blue-Collar Low-Skill positions (62.4%). Of the remaining displaced respondents from Blue-Collar High-Skill positions, 6.0% are employed in White-Collar High-Skill Positions, 15.5% are employed in White-Collar Low-Skill positions, and 16.0% are employed in Blue-Collar High-Skill positions.

For the males within the sample, 74.6% of males displaced from White-Collar High-Skill positions remained in the same occupational skill level. Of the remaining displaced White-Collar High-Skill males, 13.9% are employed in White-Collar Low-Skill positions, 8.2% are employed in Blue-Collar High-Skill positions, and 3.3% are employed in Blue-Collar Low-Skill positions. A majority of males displaced from White-Collar Low-Skill positions remained in White-Collar Low-Skill positions (51.9%). Of the remaining displaced males from White-Collar

Low-Skill positions, 21.8% are employed in White-Collar High-Skill Positions, 12.0% are employed in Blue-Collar High-Skill positions, and 14.4% are employed in Blue-Collar Low-Skill positions. A majority of males displaced from Blue-Collar High-Skill positions remained in Blue-Collar High-Skill positions (72.0%). Of the remaining displaced males from Blue-Collar High-Skill positions, 5.5% are employed in White-Collar High-Skill Positions, 3.8% are employed in White-Collar Low-Skill positions, and 18.8% are employed in Blue-Collar Low-Skill positions. A majority of males displaced from Blue-Collar Low-Skill positions remained in Blue-Collar Low-Skill positions (60.1%). Of the remaining displaced males from Blue-Collar High-Skill positions, 5.9% are employed in White-Collar High-Skill Positions, 9.5% are employed in White-Collar Low-Skill positions, and 24.6% are employed in Blue-Collar High-Skill positions.

For the females within the sample, 69.1% of females displaced from White-Collar High-Skill positions remained in the same occupational skill level. Of the remaining displaced White-Collar High-Skill females, 21.5% are employed in White-Collar Low-Skill positions, 1.4% are employed in Blue-Collar High-Skill positions, and 7.9% are employed in Blue-Collar Low-Skill positions. A majority of females displaced from White-Collar Low-Skill positions remained in White-Collar Low-Skill positions (66.0%). Of the remaining displaced females from White-Collar Low-Skill positions, 16.4% are employed in White-Collar High-Skill Positions, 2.0% are employed in Blue-Collar High-Skill positions, and 15.6% are employed in Blue-Collar Low-Skill positions. Blue-Collar High-Skill females remained in the same occupational skill level at a rate of 43.2%. Of the remaining displaced females from Blue-Collar High-Skill positions, 11.4% are employed in White-Collar High-Skill Positions, 18.2% are employed in White-Collar Low-Skill positions, and 27.3% are employed in Blue-Collar Low-Skill positions. A majority of

females displaced from Blue-Collar Low-Skill positions remained in Blue-Collar Low-Skill positions (64.9%). Of the remaining displaced females from Blue-Collar High-Skill positions, 6.5% are employed in White-Collar High-Skill Positions, 23.2% are employed in White-Collar Low-Skill positions, and 5.4% are employed in Blue-Collar High-Skill positions.

4.2 Multivariate Analysis

Table 6 presents logistic regression analysis for the employment status model. Multivariate analysis of the full sample, males and females are provided. Multivariate analysis of the individual-level variables indicates statistical significance for variables measuring education level in years and respondents receiving unemployment benefits. For each year increase in education, respondents' likelihood of employment are increased 1.071 times. Respondents receiving unemployment benefits decrease the likelihood of employment by .582 times. No statistical significance is observed for variables measuring respondents' age, living in rural areas, members of single-parent households, or differences in job tenure.

Multivariate analysis of structural-level factors indicates statistical significance for variables measuring respondents relocating for work and the occupational prestige of the respondent's previous position. Respondents relocating for work increase the likelihood of employment by 2.176 times. A one-level increase in the respondents' occupational prestige of the pre-displacement position increases the likelihood of employment by 1.021 times. No statistical significance is observed for variables measuring respondents displaced from the private sector, goods-producing industries, pre-displacement occupational skill level, union membership, or advance notification of displacement.

Multivariate analysis of gender-level factors indicates statistical significance for variables measuring sex and race. Female respondents are .686 times as likely to be employed as male

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respondents. Respondents of minority status are .670 times as likely to be employed as white non-Hispanic respondents. No statistical significance is observed for respondents' proportion of females within pre-displacement positions, respondents with children under 6 or respondents' marital status.

Standardized rankings of statistically significant variables indicate respondents' previous occupational prestige as the greatest indicator of post-displacement employment (0.26). Years of education and relocation for work are weaker indicators of post-displacement employment (0.19 and 0.19). Respondents receiving unemployment benefits is the greatest indicator of post-displacement non-employment (-0.24). Female respondents and respondents of minority status also indicate non-working respondents   (-0.19 and -0.18).

Logistic regression analysis of the male only sample indicates statistical significance for variables within individual-level, structural-level and gender/race-level factors. Multivariate analysis of individual-level variables indicates statistical significance for variables measuring education, age and respondents receiving unemployment benefits. A one-year increase in education level increases male respondents' likelihood of employment by 1.07 times.   A one-year increase in age decreases the likelihood of employment by .975 times. Respondents receiving unemployment benefits decrease the likelihood of employment by .472 times. No statistical significance is observed for variables measuring respondents with advanced degrees, living in rural areas, members of single-parent households, or differences in job tenure.

Multivariate analysis of structural-level variables indicates statistical significance for respondents' previous occupational prestige level. For each level of increase in the occupational prestige level of the previous position, male respondents increase the likelihood of employment by 1.01 times. No statistical significance is observed for variables measuring previous private

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sector positions, previous goods producing industry positions, previous union membership, advance notification of displacement, or relocation for work.

Multivariate analysis of the gender-level variables from the male sample indicates statistical significance for variables measuring race, and marital status. Married male respondents are 2.26 times more likely to be employed than unmarried male respondents. No statistical significance is observed for respondents' proportion of females within pre-displacement positions, respondents with children under 6, or minority status.

Standardized rankings of variables demonstrating statistical significance indicate marriage is the greatest indicator of post-displacement employment (0.398). Education level and occupational prestige of pre-displacement positions are weaker indicators of post-displacement employment (.196 and .195). Respondents receiving unemployment benefits is the greatest indicator of post-displacement non-employment (-0.356). Age of the respondent is a weaker indicator of post-displacement non-employment (-0.231).

Logistic regression analysis of the female only sample indicates statistical significance for variables within the individual-, structural- and gender-level variables. Multivariate analysis of individual-level variables indicates statistical significance for the variable measuring education. For each level of increase in education, female respondents increase the likelihood of post-displacement employment by 1.09 times. No statistical significance is observed for variables measuring respondents' age, living in rural areas, members of single-parent households, receiving unemployment benefits, or differences in job tenure.

Multivariate analysis of structural-level variables indicates statistical significance for variables measuring respondents relocating for work and the occupational prestige of the respondent's pre-displacement position. Female respondents relocating for work are 3.726 times

more likely to be employed than respondents remaining in the same location. A one-level increase in the respondents' occupational prestige of the pre-displacement position increases the likelihood of employment by 1.024 times. No statistical significance is observed for variables measuring respondents displaced from the private sector, goods-producing industries, pre-displacement occupational skill level, union membership, or advance notification of displacement.

Multivariate analysis of gender-level variables indicates statistical significance for minority status. Female respondents of minority status decrease the likelihood of post-displacement employment by 0.578 times. No statistical significance is observed for respondents' proportion of females within pre-displacement positions, respondents with children under 6, or married respondents.

Standardized rankings of statistically significant variables indicate female respondents' previous occupational prestige as the greatest indicator of post-displacement employment (0.308). Female respondents relocating for work is a weaker indicator of post-displacement employment (0.282) than previous occupational prestige, but stronger than education (0.229). The minority status of females is the greatest indicators of post-displacement non-employment (-0.250).

Table 7 presents logistic regression analysis of the employment status model while disaggregating the measures of education, occupational class, race/ethnicity, and marital status. Multivariate analysis of the full sample, males and females are provided. Multivariate analysis of the individual-level variables indicates statistical significance for variables measuring education, age and respondents receiving unemployment benefits. Variables measuring education are tested utilizing respondents with less than a high school diploma as the reference

group. Respondents with a high school diploma are 1.588 times more likely to be employed than respondents with less than a high school diploma. Respondents with an associate's degree are 2.401 times more likely to be employed than respondents with less than a high school diploma. Respondents with a bachelors degree are 2.31 times more likely to be employed than respondents with less than a high school diploma. A one-year increase in age decreases the likelihood of employment by .988 times. Respondents receiving unemployment benefits decrease the likelihood of employment by .582 times. No statistical significance is observed for variables measuring respondents with advanced degrees, living in rural areas, members of single-parent households, or differences in job tenure.

Multivariate analysis of structural-level factors indicates statistical significance for variables measuring respondents relocating for work and the occupational prestige of the respondent's previous position. Respondents relocating for work increases the likelihood of employment by 2.176 times. A one-level increase in the respondents' occupational prestige of the pre-displacement position increases the likelihood of employment by 1.021 times. No statistical significance is observed for variables measuring respondents displaced from the private sector, goods-producing industries, pre-displacement occupational skill level, union membership, or advance notification of displacement.

Multivariate analysis of gender/race-level variables indicates statistical significance for variables measuring sex, race, and marital status. Female respondents are .653 times as likely to be employed as male respondents. Black non-Hispanic respondents are .720 times as likely to be employed as White non-Hispanic respondents. Native American respondents are .264 times as likely to be employed as White non-Hispanic respondents. Hispanic respondents are .717 times as likely to be employed as White non-Hispanic respondents. Married respondents are .944

times as likely to be employed as previously married respondents. Single respondents are .616 times as likely to be employed as previously married respondents. No statistical significance is observed for respondents' proportion of females within pre-displacement positions, respondents with children under 6 or Asian respondents.

Logistic regression analysis of the male only sample indicates statistical significance for variables within the individual-level variables and the gender/race-level variables. No statistical significance is observed in the structural-level variables. Multivariate analysis of the individual-level variables indicates statistical significance for variables measuring education, age and respondents receiving unemployment benefits. Respondents with a high school diploma are 2.202 times more likely to be employed than respondents with less than a high school diploma. Respondents with an associate's degree are 2.292 times more likely to be employed than respondents with less than a high school diploma. Respondents with a bachelors degree are 2.53 times more likely to be employed than respondents with less than a high school diploma. A one-year increase in age decreases the likelihood of employment by .975 times. Respondents receiving unemployment benefits decrease the likelihood of employment by .451 times. No statistical significance is observed for variables measuring respondents with advanced degrees, living in rural areas, members of single-parent households, or differences in job tenure.

Multivariate analysis of the gender-level variables indicates statistical significance for variables measuring race, and marital status. Native American male respondents are .145 times as likely to be employed as White non-Hispanic respondents. Married male respondents are 1.835 times more likely to be employed than previously married male respondents. No statistical significance is observed for respondents' proportion of females within pre-displacement

positions, respondents with children under 6, Black non-Hispanic, Asian or Hispanic respondents or never married respondents.

Logistic regression analysis of the female only sample indicates statistical significance for variables within the individual-, structural- and gender-level variables. Multivariate analysis of individual-level variables indicates statistical significance for variables measuring education and respondents receiving unemployment benefits. Female respondents with an associate's degree are 2.56 times more likely to be employed than respondents with less than a high school diploma. Female respondents with a bachelor's degree are 2.231 times more likely to be employed than respondents with less than a high school diploma. Female respondents receiving unemployment benefits decrease the likelihood of employment by .749 times. No statistical significance is observed for variables measuring respondents with high school diplomas, with advanced degrees, age, living in rural areas, members of single-parent households, or differences in job tenure.

Multivariate analysis of structural-level variables indicates statistical significance for variables measuring respondents relocating for work and the occupational prestige of the respondent's pre-displacement position. Female respondents relocating for work are 4.093 times more likely to be employed than respondents remaining in the same location. A one-level increase in the respondents' occupational prestige of the pre-displacement position increases the likelihood of employment by 1.021 times. No statistical significance is observed for variables measuring respondents displaced from the private sector, goods-producing industries, pre-displacement occupational skill level, union membership, or advance notification of displacement.

Multivariate analysis of gender-level variables indicates statistical significance for race and marital status. Female Black non-Hispanic respondents are .617 times as likely to be employed as White non-Hispanic respondents. Female Hispanic respondents are .61 times as likely to be employed as White non-Hispanic respondents. Married female respondents are .581 times as likely to be employed as previously married female respondents. No statistical significance is observed for respondents' proportion of females within pre-displacement positions, respondents with children under 6, Native American, Asian or never married respondents.

5. CONCLUSIONS

Hypothesis 1a states workers with higher educational attainment will see higher probabilities of post-displacement employment, net of other factors. Significant results from Tables 6 and 7 show that higher levels of education improve the likelihood of post-displacement employment, net of other factors. Hypothesis 2a states older workers will see lower probabilities of post-displacement employment, net of other factors. This hypothesis was weakly supported as depicted in Table 7. The effect of one-year increase in age decreases the likelihood of post-displacement employment by only 1%.

Hypothesis 2a states workers within the primary labor market will higher probabilities of post-displacement employment, net of other factors. This hypothesis was weakly supported. Higher pre-displacement occupational prestige increased the odds of being employed at the time of the survey. Factors such as occupational skill level were not found to be significant. Hypothesis 2b states the individual characteristics of primary workers will have a greater effect on post-displacement than secondary workers, net of other factors. This hypothesis was also weakly supported. The increases in the likelihood of employment with increases in occupational prestige and increases in education indicate that better educated workers in higher prestige positions will have a greater likelihood of post-displacement employment.

Hypothesis 3a states female status will be sorted into lower positions than equally educated male workers. Table 5 indicates that men with pre-displacement positions in White-Collar Low-Skill and Blue-Collar Low-Skill occupations have higher incidences of employment in higher occupational skill levels than females. Females with pre-displacement position in Blue-Collar High-Skill occupations experience greater upward mobility than males. This pattern for females with pre-displacement in Blue-Collar High-Skill occupations may be an effect of the

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small percentage of females with in the occupational skill level. Hypothesis 3b states workers of minority status will have lower probabilities of post-displacement employment than workers of non-minority status, net of other factors. Support for this hypothesis can be found in Tables 6 and 7. Black non-Hispanic, Hispanic and Native American respondents have lower probabilities of post-displacement employment than White non-Hispanic respondents, net of other factors.

The limitations in this research preclude accurate measurement of training during the period of displacement, primary and secondary labor market, and family issues. Since measurement of variables occurs at one point after displacement, respondents completing or enrolling in educational programs after the administration of the questionnaire are not accurately represented in the measure of education. The variables measuring marriage status and presence of children are also subject to the measurement bias. Respondents may experience the birth of a child or the dissolution of a marriage after data gathering. These life altering experiences may well effect the ability of the respondent to find employment. Measurement of the respondent's spouse economic activity is not included in this research. Spousal employment is likely to increase the reservation wage of the displaced respondent. Measurement of primary and secondary labor markets is not directly included within the data set. Proxy measurements must be utilized, however many factors are not included that preclude accurate measurement of labor markets. While company size is included, the economic aspects of companies are not included. The inclusion of economic aspects of companies would provide for more accurate measurement of primary and secondary labor markets. This research is also limited by the lack of measurement of local or regional economic conditions.

The policy implications of these results reveal flaws of current social programs designed to aid the reemployment of displaced workers. At the individual level, social programs designed

to increase education levels and decrease discrimination by age. This research has observed higher levels of education improve the likelihood of reemployment after displacement. Private and government funded programs need to be created and expanded to increase workers education. Companies displacing workers should be expected to contribute to the worker education programs. In addition, government funding should be readily available to displaced workers. This type of aid will be especially helpful for workers displaced from positions with a specific skill set where the supply of these workers is greater than demand. The observation of a diminished likelihood of post-displacement employment as age increases. Expansions of protections against age discrimination need to be broadened to protect older workers. The recent Supreme Court decision to ease employees' burden of evidence in age discrimination cases provide a basis to begin build equality for workers of all ages. Programs must also be developed to inform employers of the benefits of hiring workers of all ages, especially older workers that are able to provide additional experience and leadership to their workforce.

Implications from the structural level analysis reveal the necessity of changes to social programs in the local response to displacement. Respondents relocating improved the likelihood of post-displacement employment. Relocation would indicate poor economic conditions for workers skilled within specific areas. Local governments should ensure that aid programs designated for displaced workers are properly staffed. The ultimate responsibility of administrators of programs aiding displaced workers is to provide the recipients with accurate and pertinent information to their job search. It is also the responsibility of the local government and employers to direct displaced workers to available programs and benefits. Local governments should also strive to extend incentives to drive replacement job growth. In doing

so, government officials should not only consider the number of jobs created by a potential new employer, but also the stability of positions created by the new employer.

Implications from the gender level analysis reveal the need for expansion of support programs for females and minorities. The disadvantages experienced by displaced women and minorities are likely to be due to discrimination. Programs targeted toward employers designed to dispel the negative stereotypes and connotations associated with women and minorities need to be enacted. Stricter enforcement of discrimination laws also needs to occur at the Federal government level. Displaced workers also need to be informed about the possibility of discrimination during the job search process and educated in the proper methods to deal with possible discrimination. Targeted social programs for aiding females and minorities in job search and education need to be expanded. Expanded job search programs would provide participants with skills that will improve the outcome of the job search process. Expanded access to education will allow for the benefits of increased education to aid in the reemployment of displaced females and minorities.

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APPENDIX

Table 1
Values for Full Sample and by Sex

Variables:	Full Sample	Working	[1]	[2]	Non-Working
Independent Variables:					
Individual-level factors:					
% College Degree (1,0)	23.4%	25.5%	***	^	15.4%
	(0.42)	(0.44)			(0.36)
Age (in years)	38.8	38.7			38.9
	(11.46)	(11.30)			(12.05)
% South (1,0)	32.8%	31.9%			35.8%
	(0.47)	(0.47)			(0.48)
% Rural (1,0)	18.8%	18.2%			21.2%
	(0.39)	(0.39)			(0.41)
% Single-Parent Household (1,0)	19.1%	18.0%	**		23.1%
	(0.39)	(0.38)			(0.42)
% Received Unemployment Benefits (1,0)	36.2%	33.9%	***	^	44.6%
	(0.48)	(0.47)			(0.50)
Previous Job Tenure (in years)	4.55	4.52			4.64
	(6.59)	(6.17)			(7.93)
Weeks Unemployed	14.56	9.67	***	^	32.45
	(21.47)	(16.24)			(27.85)
Structural-level factors:					
% Previously Employed in Private Sector (1,0)	95.8%	95.7%			96.2%
	(0.20)	(0.20)			(0.19)
% Previously Goods Producing Industry (1,0)	36.6%	36.3%			37.8%
	(0.48)	(0.48)			(0.49)
% Previously Union Member (1,0)	8.6%	8.6%			8.3%
	(0.28)	(0.28)			(0.28)
% Given Advance Notice of Layoff (1,0)	34.7%	35.7%	*		30.9%
	(0.48)	(0.48)			(0.46)
% Moved since Last Job (1,0)	13.7%	14.4%	*		11.2%
	(0.34)	(0.35)			(0.31)
% Moved for Work (1,0)	7.7%	8.7%	***	^	3.9%
	(0.27)	(0.28)			(0.19)
% Previously White-Collar High-Skill (1,0)	29.5%	32.0%	***	^	20.6%
	(0.46)	(0.47)			(0.40)
% Previously White-Collar Low-Skill (1,0)	26.5%	26.3%			27.4%
	(0.44)	(0.44)			(0.45)
% Previously Blue-Collar High-Skill (1,0)	19.0%	19.1%			19.0%
	(0.39)	(0.39)			(0.39)
% Previously Blue-Collar Low Skill (1,0)	24.9%	22.7%	***	^	33.1%
	(0.43)	(0.42)			(0.47)
Previous Occupational Prestige Scale	41.83	42.79	***	^	38.30
	(12.91)	(13.12)			(11.45)
Gender:					
Previous Occupational Sex Segregation Scale	0.918	0.906			0.959
	(0.627)	(0.620)			(0.650)
% Female (1,0)	46.4%	44.0%	***	^	55.2%
	(0.50)	(0.50)			(0.50)
% Has Children (1,0)	43.3%	43.7%			42.0%
	(0.50)	(0.50)			(0.49)
% Has Child under 6 (1,0)	18.9%	18.9%			19.0%
	(0.39)	(0.39)			(0.39)
% Minority (1,0)	28.0%	25.4%	***	^	37.1%
	(0.45)	(0.44)			(0.48)
% Currently Married (1,0)	55.9%	57.0%	*		51.8%
	(0.50)	(0.50)			(0.50)
% Never Married (1,0)	24.3%	23.2%	**		28.5%
	(0.43)	(0.42)			(0.45)
Sample n (weighted):	2,776	2,179			597
	100%	78.5%			21.5%

[1] = *** p< 0.001; ** p< 0.01; * p< 0.05
[2] effect size greater than or equal to 0.20

Table 2
Values for Education and Race/Ethnicity by Employment Status

Variables:	Full Sample	Working [1]		[2]	Non-Working
Education					
% Less Than High School Dip. (0,1)	11.5%	9.4%	***	^	19.1%
	(0.32)	(0.29)			(0.39)
% High School Dip. (0,1)	55.4%	54.4%	*		59.0%
	(0.50)	(0.50)			(0.49)
% Assoc. Deg. (0,1)	9.7%	10.6%	**		6.5%
	(0.30)	(0.31)			(0.25)
% Bach. Deg. (0,1)	16.3%	18.1%	***	^	9.9%
	(0.37)	(0.38)			(0.30)
% Adv. Deg. (0,1)	7.0%	7.5%			5.5%
	(0.26)	(0.26)			(0.23)
Race / Ethnicity					
% White Non-Hispanic (1,0)	72.1%	74.6%	***		62.9%
	(0.45)	(0.44)			(0.48)
% Black Non-Hispanic (1,0)	12.7%	11.5%	***		17.0%
	(0.33)	(0.32)			(0.38)
% Native American (1,0)	1.0%	0.7%	***		2.1%
	(0.10)	(0.08)			(0.14)
% Asian (1,0)	2.6%	2.6%			2.6%
	(0.16)	(0.16)			(0.16)
% Hispanic (1,0)	11.6%	10.6%	***		15.4%
	(0.32)	(0.31)			(0.36)
Sample n (weighted):	2776	2179			597
	100.0%	78.5%			21.5%

[1] = *** p< 0.001; ** p< 0.01; * p< 0.05
[2] effect size greater than or equal to 0.20

Table 3
Values for Previous Occupational Level by Employment Status

Variables:	Full Sample	Working	[1]	[2]	Non-Working
Previous Occupational Level					
% White-Collar High-Skill (0,1)	29.5%	32.0%	***	^	20.6%
(std. dev)	(0.46)	(0.47)			(0.40)
% Executives (0,1)	15.5%	16.2%			13.0%
	(0.36)	(0.37)			(0.34)
% Professional (0,1)	10.1%	11.6%	***	^	4.7%
	(0.30)	(0.32)			(0.21)
% Technical (0,1)	4.0%	4.3%			2.9%
	(0.20)	(0.20)			(0.17)
% White-Collar Low-Skill (0,1)	26.5%	26.3%			27.4%
	(0.44)	(0.44)			(0.45)
% Sales (0,1)	12.6%	12.5%			13.1%
	(0.33)	(0.33)			(0.34)
% Administrative (0,1)	13.9%	13.8%			14.3%
	(0.35)	(0.34)			(0.35)
% Blue-Collar High-Skill (0,1)	19.0%	19.1%			19.0%
	(0.39)	(0.39)			(0.39)
% Protective Services (0,1)	0.9%	1.0%			0.7%
	(0.09)	(0.10)			(0.09)
% Precision Craft (0,1)	13.9%	14.2%			12.9%
	(0.35)	(0.35)			(0.34)
% Transportation (0,1)	4.2%	3.9%			5.4%
	(0.20)	(0.19)			(0.23)
% Blue-Collar Low-Skill (0,1)	24.9%	22.7%	***	^	33.1%
	(0.43)	(0.42)			(0.47)
% Service (0,1)	8.0%	7.1%	***		11.2%
	(0.27)	(0.26)			(0.32)
% Machinists (0,1)	9.4%	8.8%	*		11.7%
	(0.29)	(0.28)			(0.32)
% Laborers (0,1)	5.7%	5.0%	**		8.0%
	(0.23)	(0.22)			(0.27)
% Farm Workers (0,1)	1.7%	1.6%			2.1%
	(0.13)	(0.12)			(0.14)
Sample n (weighted):	2776	2179			597
	100.0%	78.5%			21.5%

[1] = *** p< 0.001; ** p< 0.01; * p< 0.05
[2] effect size greater than or equal to 0.20

Table 4
Values for Previous Industry by Employment Status

Variables:	Full Sample	Working [1]	[2]	Non-Working
% Goods-Producing Industries (0,1)	36.6%	36.3%		37.8%
(Std. Dev)	(0.48)	(0.48)		(0.49)
% Agriculture (0,1)	1.5%	1.6%		1.1%
	(0.12)	(0.12)		(0.10)
% Extractive (0,1)	1.2%	1.0%		1.8%
	(0.11)	(0.10)		(0.13)
% Construction (0,1)	9.4%	9.3%		10.0%
	(0.29)	(0.29)		(0.30)
% Non-Durable Manufacturing (0,1)	9.7%	9.2%		11.3%
	(0.30)	(0.29)		(0.32)
% Durable Manufacturing (0,1)	14.9%	15.3%		13.6%
	(0.36)	(0.36)		(0.34)
% Service Industries (0,1)	63.4%	63.7%		62.2%
	(0.48)	(0.48)		(0.49)
% Communications and Public Utilities (0,1)	5.7%	5.9%		5.2%
	(0.23)	(0.24)		(0.22)
% Wholesale Trade (0,1)	5.4%	5.9%	*	3.6%
	(0.23)	(0.24)		(0.19)
% Retail Trade (0,1)	17.2%	16.6%		19.4%
	(0.38)	(0.37)		(0.40)
% Finance (0,1)	6.5%	6.6%		6.0%
	(0.25)	(0.25)		(0.24)
% Repair Services (0,1)	8.7%	8.2%		10.4%
	(0.28)	(0.27)		(0.30)
% Service (0,1)	4.2%	3.7%	*	5.7%
	(0.20)	(0.19)		(0.23)
% Professional Service (0,1)	14.2%	15.2%	***	10.4%
	(0.35)	(0.36)		(0.31)
% Public Administration (0,1)	1.5%	1.5%		1.6%
	(0.12)	(0.12)		(0.13)
Sample n (weighted):	2776	2179		597
	100.0%	78.5%		21.5%

Table 5
Occupational Mobility for the Full Sample, Males and Females

Full Sample

	Current Position				
Previous Position	White-Collar High-Skill	White-Collar Low-Skill	Blue-Collar High-Skill	Blue-Collar Low-Skill	Total
White-Collar High-Skill	**72.1%**	17.4%	5.1%	5.4%	100%
White-Collar Low-Skill	18.2%	**61.5%**	5.1%	15.2%	100%
Blue-Collar High-Skill	6.0%	5.2%	**69.1%**	19.6%	100%
Blue-Collar Low-Skill	6.0%	15.5%	16.0%	**62.4%**	100%

Male Sample

	Current Position				
Previous Position	White-Collar High-Skill	White-Collar Low-Skill	Blue-Collar High-Skill	Blue-Collar Low-Skill	Total
White-Collar High-Skill	**74.6%**	13.9%	8.2%	3.3%	100%
White-Collar Low-Skill	21.8%	**51.9%**	12.0%	14.4%	100%
Blue-Collar High-Skill	5.5%	3.8%	**72.0%**	18.8%	100%
Blue-Collar Low-Skill	5.9%	9.5%	24.6%	**60.1%**	100%

Female Sample

	Current Position				
Previous Position	White-Collar High-Skill	White-Collar Low-Skill	Blue-Collar High-Skill	Blue-Collar Low-Skill	Total
White-Collar High-Skill	**69.1%**	21.5%	1.4%	7.9%	100%
White-Collar Low-Skill	16.4%	**66.0%**	2.0%	15.6%	100%
Blue-Collar High-Skill	11.4%	18.2%	**43.2%**	27.3%	100%
Blue-Collar Low-Skill	6.5%	23.2%	5.4%	**64.9%**	100%

Logistic Regression Analysis for the Employment Status Model
(Working =1)

Variables	Full Sample unstd.	1	Odds Ratio	Stdz. Rank	Males unstd.	1	Odds Ratio	Stdz. Rank	2	Females unstd.	1	Odds Ratio	Stdz. Rank
Independent Variables:													
Individual-Level Factors:													
Education (in years)	0.068	***	1.071	0.188	0.070	*	1.073	0.196		0.084	**	1.088	0.229
Age	-0.006		0.994		-0.020	**	0.981	-0.231		0.001		1.001	
Rural	-0.156		0.855		-0.263		0.769			-0.145		0.865	
Single Parent HH	0.081		1.084		0.017		1.017			0.063		1.065	
Rec. Unemp. Ben.	-0.507	***	0.602	-0.244	-0.750	***	0.472	-0.356		-0.269		0.764	
Lost Job Tenure	-0.005		0.995		0.005		1.005			-0.017		0.983	
Structural-Level Factors:													
Previous Private Sector	-0.021		0.916		-0.010		0.991			-0.086		0.918	
Prev. Goods Prod. Ind.	0.031		1.051		-0.029		0.972			0.114		1.121	
Previous Union Member	0.258		1.255		0.436		1.547			0.012		1.012	
Received Advanced Notice	0.171		1.161		0.271		1.311			0.052		1.053	
Moved For Work	0.706	**	2.176	0.188	0.426		1.530			1.315	**	3.726	0.282
Prev. Occupational Prestige	0.020	***	1.021	0.258	0.015	*	1.016	0.195		0.024	***	1.024	0.308
Gender:													
Prev. Occ. Sex Seg.	0.000		1.000		0.000		1.000			0.001		1.001	
Sex	-0.377	**	0.686	-0.188									
Has Child Under 6	-0.020		0.980		0.262		1.299			-0.255		0.775	
Minority	-0.400	***	0.670	-0.180	-0.287		0.751			-0.548	***	0.578	-0.250
Currently Married	0.202		1.224		0.816	***	2.261	0.398		-0.330		0.719	
(Constant)	0.153				0.539					-0.506			
Model Chi-sq	158.66	***			101.03	***				100.42	***		
n=	2,776				1,465					1,311			

1 = ***p<0.001, **p<0.01, *p<0.05; ns non-significant
2 Significant difference between men and women at the 0.05 level or higher

Table 7
Logistic Regression Analysis for the Employment Status Model
(Working=1)

Variables	Full Sample unstd.	[1]	Full Sample Odds Ratio	Men unstd.	[1]	Men Odds Ratio	[2]	Women unstd.	[1]	Women Odds Ratio
Independent Variables:										
Individual-Level Factors:										
Less Than High School Dip.	ref. group			ref. group				ref. group		
High School Dip.	0.463	***	1.588	0.789	***	2.202		0.254		1.289
Assoc. Deg.	0.876	***	2.401	0.830	*	2.292		0.940	**	2.560
Bach. Deg.	0.837	***	2.310	0.928	**	2.530		0.802	**	2.231
Adv. Deg.	0.412		1.509	0.508		1.663		0.458		1.581
Age	-0.012	*	0.988	-0.025	***	0.975		-0.004		0.996
Rural	-0.126		0.881	-0.227		0.797		-0.092		0.912
Single Parent HH	0.032		1.033	0.014		1.014		-0.006		0.994
Rec. Unemp. Ben.	-0.540	***	0.582	-0.797	***	0.451		-0.288	*	0.749
Lost Job Tenure	-0.002		0.998	0.009		1.009		-0.016		0.984
Structural-Level Factors:										
Previous Private Sector	-0.088		0.916	0.019		1.019		-0.158		0.854
Prev. Goods Producing Industry	0.050		1.051	-0.069		0.934		0.178		1.195
Previous Union Member	0.227		1.255	0.393		1.482		0.067		1.069
Received Advanced Notice	0.149		1.161	0.273		1.314		0.019		1.019
Moved For Work	0.777	***	2.176	0.486		1.625		1.409	**	4.093
Prev. White-Col High-Skl	-0.011		0.989	-0.091		0.913		0.160		1.173
Prev. White-Col Low-Skl	0.146		1.157	0.022		1.022		0.327		1.387
Prev. Blue-Col High-Skl	-0.106		0.899	-0.267		0.766		-0.211		0.810
Prev. Blue-Col Low-Skl	ref. group			ref. group				ref. group		
Prev. Occupational Prestige	0.021	***	1.021	0.020		1.021		0.021	*	1.021
Gender:										
Prev. Occ. Sex Seg.	-0.001		0.999	-0.002		0.998		0.000		1.000
Sex	-0.426	***	0.653							
Has Child Under 6	-0.062		0.940	0.249		1.282		-0.283		0.753
White non-His.	ref. group			ref. group				ref. group		
Black non-His.	-0.329	*	0.720	-0.203		0.816		-0.483	*	0.617
Native American	-1.331	***	0.264	-1.928	***	0.145		-1.117		0.327
Asian	-0.210		0.810	0.229		1.258		-0.414		0.661
Hispanic	-0.332	*	0.717	-0.204		0.816		-0.495	*	0.610
Curr. Married	-0.058	**	0.944	0.607	**	1.835		-0.543	**	0.581
Never Married	-0.484	**	0.616	-0.437		0.646		-0.358		0.699
Prev. Married	ref. group			ref. group				ref. group		
(Constant)	1.163	**		1.185				0.743		
Model Chi-sq	186.47	***		126.33	***			112.36	***	
n=	2,776			1,465				1,311		

1 = ***p<0.001, **p<0.01, *p<0.05; ns non-significant
2 = Significant difference between men and women at the 0.05 level or higher