EMPLOYER DEMAND FOR WELFARE RECIPIENTS

AND THE BUSINESS CYCLE:

EVIDENCE FROM RECENT EMPLOYER SURVEYS

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ABSTRACT

In this paper I present evidence on the extent to which labor market tightness, and measured by job vacancy rates and other indicators of hiring difficulty, affect the willingness of establishments to hire welfare recipients. From these estimates, I infer the effects of the business cycle on the labor market demand for welfare recipients. The data are from a new survey of employers in Michigan. The results indicate that labor market tightness has a substantial effect on employer demand for welfare recipients. They also suggest that employer willingness to provide workplace amenities or supports to welfare recipients (such as child care, transportation assistance, training, etc.), and their receptiveness to policy interventions on behalf of recipients, are influnced by labor market tightness as well.

I. Introduction

The extent to which the business cycle affects the labor market for welfare recipients has recently become an issue of major concern. A number of studies have tried to estimate the effect of the business cycle or local labor market conditions on welfare caseloads over the 1980's and 1990's (e.g., Hoynes, 1996; Blank and Wallace, 1998; Ziliak and Figlio, 1998); but less evidence has been brought to bear directly on the question of how their labor market outcomes are (or will be) affected. Ultimately, the labor market performance of welfare recipients should be our primary concern, since most welfare programs are now being viewed as *transitional* assistance for those who need help getting into the market rather than permanent income support for those who are disengaged.

It is, of course, well-known that minorities and less-educated workers face relatively improved employment prospects in tighter labor markets (e.g., Freeman, 1991; Bound and Holzer, 1996). But we cannot necessarily infer from these studies the magnitudes of the wage or employment declines that welfare recipients will experience over the next cycle. For one thing, what has been observed over the cycle for other disadvantaged groups might differ considerably from what welfare recipients will experience. For any given cyclical downturn, the magnitude of the decline in labor demand faced by recipients might be greater or lesser than for other groups that have comparable levels of education but perhaps different levels of cognitive ability and work experience. Even among the recipients themselves, the declines in demand should vary according to their own personal characteristics and work histories.

Direct evidence on the labor market experiences of welfare recipients to date is quite limited (e.g., Burtless, 1994; Pavetti, 1997), and offers little insight into changes over the business cycle. Furthermore, earlier evidence on welfare recipients reflects those who "self-selected" into the labor market under a very different set of rules and incentives than the ones which current and future recipients will face, rendering the earlier evidence much less useful.[1] Recent efforts to analyze labor market changes for low-income or single mothers, many of whom may have been on welfare, are too indirect or reflect too many simultaneous labor market changes to be able to sort

[1] This self-selection generally implies that the average employment outcomes that we've observed for welfare recipients to date are biased upwards, though the estimated effects of labor market conditions or policy initiatives on these employment outcomes might not be.

out cyclical from other causes.[2] And very little of this work to date considers the extent to which policy instruments might influence the demand for welfare recipients, or their earnings and employment, over the cycle.

In this paper, I hope to address some of these issues by analyzing recent data from employer surveys on the labor market demand for welfare recipients under a variety of conditions. My earlier work on employers (Holzer, 1996, 1998; Holzer and Danziger, 1998) focuses on how employer skill needs, geographic locations, recruiting/screening behavior and attitudes influence the employment opportunities of minorities and disadvantaged workers more generally. But these efforts do not deal explicitly with demand for welfare recipients, or how those might be affected by the business cycle. Likewise, some other recent surveys of employers deal with issues of skill needs, training, work organization, etc. and how these affect worker compensation and establishment productivity (e.g., Department of Employment, City of New York, 1994; Osterman, 1994; Cappelli, 1996; Black and Lynch, 1997), but provide little evidence on disadvantaged workers or effects of the cycle and aggregate demand.[3]

Therefore, in this paper I focus on data from a new survey of employers that I administered in Michigan during the fall of 1997. The data focus specifically on the hiring of welfare recipients, and include several measures of establishment-level labor demand (such as the job vacancy rate) that reflect the business cycle. Below we provide estimates of how these measures of demand affect the willingness of employers to hire welfare recipients, and use them to infer how their employment is likely to change over the cycle. The effects of certain policy measures, such as the activities of labor market intermediaries or employment subsidies/tax credits for welfare recipients, and how these effects might also vary over the cycle, can be inferred from these data as well.

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[2] See Eissa and Liebman (1996), Eissa and Hoynes (1998) and Bishop (1998) for evidence on the recent improvements in employment rates of single women. But, in these analyses of aggregate data over time, it is often difficult to disentangle the effects of the Earned Income Tax Credit, changes in Medicare coverage, welfare reform, and the business cycle.

[3] One possible exception to this was a survey of establishments in Milwaukee, administered by the Employment and Training Institute of the University of Wisconsin at Milwaukee (1995). They gauged numbers of job vacancies, both overall and in specific occupations, and compared them with numbers of unskilled unemployed workers in the metropolitan area. As of the mid-1990's, the number of unemployed workers continued to exceed the number of vacant jobs, despite the very low unemployment rates observed there.

While we draw some very limited inferences about changes in the demand for disadvantaged workers over the cycle from comparisons of different surveys over time, the estimates presented below (and the resulting predictions regarding business cycle effects) are from a single cross-section of establishments.[4] While this procedure seems to generate quite plausible estimates of business cycle effects, some potential biases from using cross-sectional estimates to infer these effects over time are acknowledged and discussed below. We also analyze the self-reported willingness of employers to hire welfare recipients currently or in the future, as well as their having done so in the recent past. Thus, both *prospective* and *actual* employer demands for welfare recipients are considered here.

The rest of this paper is laid out as follows: Section II will describe the new employer data, particularly those presented below, in somewhat greater detail. Section III then presents the empirical results, while Section IV contains the conclusions and some discussion of policy implications.

II. The New Employer Data

In the fall of 1997, I administered a new telephone survey to 900 establishments in Michigan. The establishments were located in three metropolitan areas: Detroit, Flint and Grand Rapids. The survey was administered to the individual at each establishment who was responsible for entry-level hiring, and to all establishments that had hired someone within the past two years. Conditional on meeting these criteria, response rates to the survey averaged over 70%.

The questions on the survey gauged a wide range of establishment characteristics, especially regarding their workforces. For instance, questions were included on the numbers of jobs in the establishment that require very few cognitive skills or credentials, overall hiring and employment growth rates, numbers of current job vacancies, and any difficulties they have recently had finding qualified workers (all discussed in greater detail below). A series of questions was also asked about the last worker hired into a job that didn't require a college degree.

Regarding welfare recipients, respondents were asked whether or not they had hired anyone in the previous two years who had been a welfare recipient; if so, they were asked a series

[4] Another wave of the survey will be administered to the same establishments in Michigan during the fall of 1999. The survey is currently being administered in several other metropolitan areas as well, such as Chicago, Cleveland,

of questions about the job filled and the workers' characteristics and performance. The respondent was asked whether or not they have had any contact with an agency trying to place welfare recipients, particularly a "Michigan Works" agency; if so, they were asked whether or not they had hired any referrals from these agencies.[5] Finally, a series of questions was asked about their prospective willingness to hire welfare recipients, even if they had no high school diplomas or recent work experience, either currently or over the next year.[6] If respondents indicated that they were willing to hire some, they were asked how many. These were converted into percentages of the total numbers of current jobs in each establishment (either filled or vacant) that were potentially available to unskilled welfare recipients. A series of questions was then asked about the chracteristics of the jobs most likely to be filled that way, about whether or not the employer would provide a series of supports (such as training, child care, or transportation), and whether or not government policies (such as subsidies/tax credits or technical assistance) would make them any more likely to do so.

Below we provide some summary data on these measures of potential job availability to welfare recipients, based on actual past hiring as well as prospective willingness to do so in the future. Summary measures are also provided on a variety of measures of labor market tightness at the establishment level, and also of their employment of very unskilled workers. They extent to which these latter characteristics of establishments help to account for observed availability of employment are then explored through a series of regressions that are described below.

III. Empirical Results

A. Summary Findings

In Table 1 we present data on the demand for welfare recipients at the establishment level. We present measures of both actual and prospective demand for recipients - i.e., whether or not a

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Milwaukee and Los Angeles.

[5] "Michigan Works"agencies are private contractors with the various Workforce Development Boards established at the county level by the Michigan Jobs Commission. For more detailed descriptions of their activities see Seefeldt *et. al.* (1998).

[6] The exact wording of these questions is as follows: "Suppose you were contacted by an employment agency that was trying to place welfare recipients who did not have a high school diploma or any recent work experience. Do you currently have any open positions that you might consider filling with these welfare recipients?" If yes: "How many of them would you consider employing right away?" For the following year: "Do you think you will have open positions during the next year that you might consider filling with these welfare recipients?" If yes: "How many of them would you possibly employ at any time during the next year?"

welfare recipient has been hired at some point during the previous two years; whether they would do so either now or over the next year; and, if so, how many they would hire in ech case. As indicated above, the latter numbers have been converted into percents of jobs in each establishment that could be filled by welfare recipients. Results are presented for all establishments; for three large industry groups - manufacturing, retail trade and service industries; for four establishment size categories: 1-20, 21-50, 51-100, and over 100; and by location within the metropolitan area: in the central-city v. suburbs.[7]

According to the results of Table 1, employers report that they would be willing to fill over 3% of the jobs in their establishments with welfare recipients currently, and over 9% of the course of the next year. Also, over 40% of employers indicate that they have hired someone whom they believe to be a welfare recipient over the past two years.[8]

The results in Table 1 also indicate some variation across establishments in their demand for welfare recipients by industry and establishment size. By all three measures, demand seems highest in retail trade and lowest in manufacturing.[9] Establishments that are very small (i.e., with 20 or fewer employees) also have much higher demand for recipients in percentage terms than do larger establishments.[10] Finally, demand for recipients seems a bit higher among establishments located in the suburbs than the central-city, though this is not consistently true across metropolitan areas.[11]

Relative to the total number of welfare recipients who are projected to enter the labor force over the next few years (e.g., McMurrer *et. al.*, 1997), these data suggest a fairly high degree of job availability. This is consistent with other evidence that the employment of welfare recipients to date (and single mothers more generally) has improved markedly since welfare

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[7] These three industries account for almost 80% of the establishments in the survey. Also, "central city" refers to the city of Detroit, as well as Flint and Grand Rapids, but does not include other municipalities that are officially designated as "central cities" by the Census Bureau in these areas, such as Dearborn or Pontiac.

[8] We have set missing values equal to zeroes for the question of whether or not employers had hired welfare recipients over the previous two years; these account for roughly 20% of the sample in this case. The wages on jobs actually filled by recipients as well as those prospectively available to them averaged between $6.00 and 6.50, and about two-thirds offered some type of health care coverage.

[9] Reported job availability for welfare recipients was particularly high in restaurants, and in health care facitlities and personal service establishments in the service sector.

[10] Larger establishments are more likely to have hired at least one recipient, given that they engage in more hiring overall, but not as percentages of their respective workforces.

[11] In Detroit, job availability for welfare recipients was actually higher in the central city than the suburbs, while the opposite was true in Flint and Grand Rapids.

reform legislation was implemented at the state and federal levels during the 1990's (e.g., Bishop, 1998).

On the other hand, there are some reasons to be cautious about our interpretation of these numbers. The first two measures presented clearly represent *prospective* rather than actual demand, and are based on subjective responses to hypothetical questions; these variables might therefore be measured with considerable error. Some employers might consider it more socially acceptable to answer such questions affirmatively, implying an upward bias in average estimates of such demand. And even our measure of the actual hiring of recipients in the recent past might be measured quite imperfectly, if employers are uncertain about who really has or has not been on welfare. On the other hand, the fact that the actual and prospective measures are correlated fairly highly with each other and with the establishment characteristics listed in Table 1 gives us somewhat greater confidence that they are meaningful measures, with reasonably high ratios of "signal" to "noise".[12]

Even if employer responses are accurate, competition for available job slots from other groups of unskilled workers would limit the actual availability of jobs for welfare recipients (Holzer and Danziger, 1996). Given that most establishments and jobs are currently located in the suburbs, while long-term welfare recipients are disproportionately found in the poorest neighborhoods of central-cities, the data suggest some potential "mismatch" between the locations of welfare recipients and the employers who would hire them; while gaps between expected and actual skill levels and work performance are likely to materialize as well.[13] Thus, the extent to which these potential employment opportunities for welfare recipients will become realized remains uncertain at this time.

Summary statistics on some likely determinants of employer demand for welfare recipients appear in Table 2. Several measures of the extent to which establishments experience tight labor

[12] The correlation between job availability currently and over the next year for welfare recipients is roughly .6, while the correlation between availability over the next year and the past two years is roughly .3.

[13] In fact, the vast majority of available jobs for welfare recipients are in relatively small establishments (i.e., those with 50 or fewer employees), in suburban locations that are frequently not accessible to public transit, in establishments that recruit unskilled workers informally, or in establishments that frequently receive no applications from blacks (Holzer, 1998). Thus, many potentially available jobs will be relatively inaccessible to poor minority residents of inner-city areas, who constitute large fractions of long-term welfare recipients. The basic skills required on many of these jobs may also put some out of the reach of long-term recipients with poor cognitive abilities (Pavetti, *op. cit.*).

markets and unmet demand for labor appear in that table. These measures include the current job vacancy rate for the etablishment (defined as the number of current vacancies divided by the total number of jobs, both filled and vacant); the percentage of establishments that have hired workers in the past two years with lower than usual qualifications, and the percentage of all jobs filled by such workers; and the ease with which qualified applicants can currently be found to fill vacant jobs - in other words, whether it is very easy, somewhat difficult, or very difficult to do so.

We also present a few different measures of establishment-wide relative demand for unskilled labor in Table 2. These include the percentage of jobs in the establishment that do not require any particular level of education or previous experience; of these, the percentage that also do not require significant reading, writing or arithmetic on a daily basis; and, of the latter, the percentage that are currently filled by women. As in the earlier table, means on all of these variables are presented for the total sample of establishments, and separately by major industry, size, and location within the metro area.

The results of Table 2 show that, by our measure, roughly 6% of jobs in these establishments are currently vacant, while unemployment rates in Michigan during this period have averaged just 3-4%. Even allowing for the fact that our measure of job vacancies differs slightly from those generally used in the past, this is an extremely high vacancy rate on jobs.[14] This portrait of a very tight labor market is confirmed by the other measures of market tightness, which show that over 40% of establishments have hired workers with lower than usual qualifications in the past two years; these workers account for about 7% of all filled jobs in these establishments. Also, we find that roughly 80% of establishments report some current difficulty finding qualified applicants, with almost 40% reporting great difficulty.

The data in Table 2 also indicate that 37% of currently filled jobs do not require workers with any particular levels of education or experience. Roughly a third of these also require no reading, writing or arithmetic on a daily basis; and roughly half of the latter (or about 6% of jobs overall) are filled by women. Since these data refer to all current employment in these

[14] See, for instance, Abraham (1983) and Holzer (1989) for evidence that unemployment rates usually exceed job vacancy rates by considerable amounts at all points in the business cycle. The question used in this survey to gauge job vacancies asks about all vacant jobs that the employer is currently trying to fill, while the question used in other surveys has generally also stipulated that these vacancies be available for immediate occupancy. It seems quite unlikely that a large percentage of vacancies that employers are currently trying to fill would only be available for future occupancy, though such a restriction might reduce the current vacancy rate to the 4-5% range.

establishments rather than the most recently filled jobs there, and since demand for skills among employers appear to be rising over time, these data appear to considerably overstate the *current* demand for unskilled workers in these establishments.[15]

By industry, the results of Table 2 suggest that small and/or retail trade establishments have the highest vacancy rates, the greatest difficulty finding qualified workers, and the lowest skill requirements for current employees. The difficulties that small establishments have finding qualified applicants, despite their relatively low formal skill requirements, reflect the smaller pool of applicants that they appear to draw, and perhaps their relatively greater use of informal hiring procedures as well (Holzer *et. al.*, 1991; Holzer, 1998). All of these findings are also consistent with the relatively greater demand for welfare recipients, both actual and prospective, that we observe for these establishments in Table 1.

On the other hand, the results indicate more mixed results for the manufacturing sector: vacancy rates are below average, but employers in that sector are experiencing somewhat greater difficulty finding qualified applicants than are other sectors. Somewhat mixed results are also found regarding relative demand for unskilled workers in manufacturing compared to the other sectors: the percentages of all employees in jobs that require no credentials or cognitive skills are somewhat high, but relatively few of these workers are women. These data, along with their relatively low implied demand for welfare recipients, suggest a rapid growth in skill demand among recent hires in manufacturing (Berman *et. al.*, 1994). The data also indicate comparable or slightly higher levels of unmet demand in the suburbs than the cities, with relatively comparable demands for unskilled workers there.

Overall, these data imply very tight labor markets in Michigan with significant current demand for unskilled labor, particularly in small establishments and in the retail trade sector.

B. Regression Results: Determinants of Demand for Welfare Recipients

Comparisons across industries and establishment size categories in Table 2 suggest that the very tight labor markets that we have recently experienced in Michigan help to account for at least some of the employer demand for welfare recipients that we observe in Table 1. The estimates presented in this section test this notion more formally.

[15] For instance, when we analyze the most recently filled job in each establishment, we find that employers do not require (or even strongly prefer) high school diplomas, previous experience or training in roughly 17% of these

In Table 3 we present results of estimated regression equations in which the dependent variable is the percent of jobs that are currently available to welfare recipients in each establishment. The subjective nature of this variable, and any resulting measurement error, generally implies inefficient but consistent estimates when it is used as a dependent variable.[16] Independent variables include the current job vacancy rate at the establishment; the percentage of jobs that do not require education or previous training; and dummies for establishment size, industry, and location.[17]

The vacancy rate alone is used to capture the effects of labor market tightness on the establishment in these equations. The current vacancy rate should capture both the *frequency* with which firms have new vacancies as well as their average *duration*. The former should be a function of gross hiring activity at the establishment, reflecting both turnover and net employment growth, as well as the percentage of hires at each establishment that are at least temporarily vacant before they are filled. The duration of any given vacancy should then depend on the relative supply of applicants and their quality, as well as the costs of recruiting and screening them.[18] While at least some of these determinants of vacancy rates are separately measured in our data, their effects on demand for welfare recipients appear to be captured primarily by the vacancy rate, which therefore appears exclusively in these equations.[19] Likewise, the relative demand for unskilled labor at an establishment appears to be fully captured by the percentage of jobs with no formal education or experience requirements.[20]

In Table 3, separate results are presented for the entire sample, for retail trade establishments, and for small establishments (defined as those with 50 or fewer employees). Results are also presented for equations estimated by OLS and by tobit, where the latter

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jobs, and they also do not require reading/writing or arithmetic in just 11%.

[16] This assumes that the errors are not correlated with the independent variables of interest.

[17] Dummies for all 1-digit industries are included, with construction as the omitted category. Locational variables include dummies for metropolitan area, central city, and interactions between them.

[18] See Davis *et. al.* (1996), Barron *et. al.* (1985), and Holzer (1994, 1996).

[19] Measures of overall hiring activity or recent difficulty in finding qualified applicants did not generate significant estimates in these equations after controlling for the job vacancy rate.

[20] The three measures of skill demand that appear in Table 1 all generated qualitatively similar estimates when used as independent variables in these equations.

functional form is used to deal with the large numbers of zero values that are found in the dependent variable and the potential "censoring" that these values might imply.[21]

The results of Table 3 indicate that the job vacancy rate and the percentage of unskilled employees currently working at an establishment have strong positive effect on their stated willingness to hire unskilled welfare recipients. These estimates are significant in both the OLS and tobit cases, but the tobit estimates are about twice as large for the vacancy rate and almost five times as large for skill levels of current employees. Establishment size, in contrast, has an effect only in the OLS equations. Interestingly, manufacturing establishments have lower demands for welfare recipients that are marginally significant, but the positive effect of being in retail trade disappears once we control for vacancy rates and skill needs. When separate equations are estimated for samples of small establishments or those in retail trade, the estimated effects of vacancy rates are larger - especially in the retail trade establishments.

The magnitude of the estimated coefficients for job vacancy rates at the establishment level imply large effects of labor market tightness on employer demand for welfare recipients. For instance, a one-percentage point increase in the job vacancy rate at any establishment implies that demand for welfare recipients will rise by .3-.6 percentage points, and by .6-.8 percentage points in the retail trade sector.

The results also imply possibly large effects of the business cycle on aggregate labor demand for welfare recipients. Most frequently, job vacancy rates during recessions average roughly 1.2-1.3% (Abraham, *op. cit.*; Holzer, 1989), which might be anywhere from 2.8 to 4.8 percentage points lower than comparably measured current rates.[22] Using our cross-sectional OLS estimates, the results imply declines in demand for welfare recipients during the next recession of roughly .8-1.3 percentage points, or *roughly 25-40% of all current demand for recipients*. The tobit estimates imply effects roughly twice as large, though these are mostly relevant for the subset of establishments that have higher demand for welfare recipients at the

[21] The dependent variable might be censored if, for example, very weak demand generates "negative hiring" or layoffs of welfare recipients while measured willingness to hire is zero.

[22] Given the discrepancy that we noted above between traditional measures of vacancy rates and those presented here (Footnote 14), we assume that current rates could be in the range of 4-6 % if measured comparably to more traditional measures.

outset.[23] The OLS estimates for the retail trade sector also imply business-cycle effects that are more than twice as large as those for the overall economy, relative to a starting level of demand that is higher (by 56%) than the economy-wide mean.

Of course, there is some question as to whether the estimates generated from a cross-section of data are appropriate for inferring aggregate effects over time. For instance, job vacancy rates among establishments are likely to reflect relatively fixed firm-specific components (perhaps related most strongly to their job turnover rates) as well as more cyclical components. While only the latter is really relevant for the business cycle, our estimated effects of vacancies on employer demand for recipients will confound the effects of both components, and it is possible that this could generate either an upward or downward bias in these estimates.[24] But the estimates generated here are generally unaffected by the inclusion of additional controls for gross hiring or turnover (for the limited number of establishments where these responses are provided); and the estimates are fairly consistent with others that appear in the recent literature on how business cycle effects on employment vary by demographic group.[25] Thus, the estimates provided here are certainly plausible and possibly quite accurate.

Table 4 presents results from similar regression equations, in which the dependent variables are their prospective willingness to hire recipients over the next year, and whether or not the employer has hired any welfare recipients during the past two years. The former equations are again estimated by both OLS and Tobit, while the latter are estimated by OLS (and therefore represent linear probability models). Both equations represent demand for welfare recipients that is measured over a somewhat longer time period, and at least the latter measures actual hiring (as opposed to that which could prospectively occur).

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[23] Calculations of predicted values using tobit estimates must also allow for the probability that individual observations were censored at the outset. The sample-wide predictions here do not appear to differ substantially from those generated using the OLS estimates.

[24] The estimates will be upward-biased if the firm-specific components of job vacancy rates have larger effects on demand for recipients than do the more cyclical components. This will be true if, for example, high-turnover firms regard welfare recipients as potentially more stable sources of labor than the ones on which they currently draw. But it is also possible that such firms have limited costs associated with such turnover, in which case temporarily high demand might be more costly and generate greater effects on their hiring behavior.

[25] For instance, the figures presented in Freeman and Rodgers (1998) show that the employment rates of less-educated young black males (i.e., those aged 16-24 with 12 or fewer years of education) have varied by roughly one-fourth to one-third over the last few business cycles. Hoynes (1998) also shows that demand for less-skilled females is more cyclically sensitive than that of less-skilled males. Neither paper focuses exclusively on high

The specifications of these equations are identical to those of Table 3 except for one change: I also include the dummy variable for whether or not the establishment has hired any workers who are less qualified than usual in the past two years as an additional independent variable in some equations. Given that both of these dependent variables are measured over somewhat longer time frames than current demand for welfare recipients, a stronger case can be made for including a measure of labor market tightness that captures the establishment's experience over a comparably longer period of time.[26] But, given that the current vacancy rate is correlated with this measure and may at least partly capture its effects, we present results from three specifications of each equation: one including only the vacancy rate, one including only the dummy for having hired less qualified workers, and one including both. We also must note the greater potential for measurement error in the more subjective variable for less qualified hires, and therefore for downward biases in the estimated effects of this variable on demand for welfare recipients.

The results appear in Columns 1-3 in Table 4. The results do not differ dramatically from those presented in Table 3. Estimated coefficients on the current job vacancy rate are roughly similar to those presented earlier, with the OLS estimate being a bit larger and the Tobit estimate somewhat smaller. The variable for having hired less qualified workers has positive and significant effects on the past hiring of welfare recipients and on prospective hiring in the Tobit equations.[27] The effects of skill requirements of jobs and establishment size are larger here than in the earlier table, as are some of the industry effects.

If we assume that, in addition to the declines in vacancy rates specified above, the tendency to hire less qualified workers will also decline by 50-100% during a recession (an admittedly arbitrary assumption), then the Column 3 estimates suggest that the tendency to have hired a welfare recipient over a two-year period will have declined by roughly 7-14 percentage points during a downturn. The prospective demand for welfare recipients over the next year will

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school dropouts or other unskilled workers whose employment experiences might be more comparable to those of welfare recipients.

[26] Indeed, these variables had little significant effect in any of the estimated equations for current willingness to hire welfare recipients but had more effect in equations for past or future hiring.

[27] The percentage of jobs currently filled by workers with low qualifications also generated significant effects in the OLS version of the equation for future hiring, though it performed considerably less well that the dummy variable for any such hiring in some other equations presented below. While the continuous version of this variable might generally be preferred to the categorical one, it is likely that the former are measured with more error as well.

decline by 1.3-2.1 percentage points using the OLS estimates, and 3.3-6.1 percentage points using the Tobits.[28] These predicted changes over the business cycle are larger in absolute magnitude than those reported earlier, but somewhat smaller relative to the means of these variables that appear in Table 1.[29]

The smaller relative effects of the cycle, along with larger effects of skill needs and other establishment characteristics, suggest that estimates of establishment demand for recipients over a longer time period might approach some "equilibrium" level that is less sensitive to short-term cyclical conditions and more tied to underlying characteristics of the establishment and its workforce. Of course, our estimated effects of labor market tightness on the future demand for welfare recipients depends on the extent to which employers project current market conditions into the future; while estimated effects on past hiring also depend on the duration over which any current market tightness has been experienced. These issues add to our uncertainty over how to interpret these results.

Still, the results of Table 4 lend further support the notion that a business cycle downturn will have quite significant effects on the labor market demand for welfare recipients. Given that the measure of whether or not the establishment has hired someone with lower qualifications is relatively subjective and therefore likely measured with some error, the predicted effects of the cycle here are likely to be *downward-biased*. Furthermore, the estimates of Tables 3 and 4 only capture the effects of the cycle on new *hiring* activity, and do not reflect its likely effects on the *retention* of those previously hired as layoffs rise; these estimates therefore will not fully reflect the cycle's effects on the overall employment of recipients.[30]

The notion that aggregate labor market conditions affect employer willingness to hire less-skilled workers receives some additional support from comparisons between employer data collected in the Detroit metropolitan area in 1992-93 and those collected in 1997. The earlier data

[28] In other words, the lower end of the range of predictions was generated by using the lower bound changes in both independent variables, while the upper end of the predictions was generated using the upper bound changes in both cases.

[29] For instance, the predictions from the OLS equations suggest that the probability of hiring any welfare recipient over a two-year period should decline by 17-33% in a recession, while the percentage of jobs available to recipients over the next year should decline by 14-22%.

[30] The percentage decline in the overall demand for labor among welfare recipients will thus reflect the relative magnitudes of declines in retention as well as in new hiring. Davis *et. al.* (1996) suggest that the former are generally more important in explaining the variation in unemployment rates over the business cycle, as changes in movements "into" unemployment appear to dominate changes in movements "out".

were collected just as the economy in Detroit was beginning to recover from the recession of the early 1990's; metropolitan-wide unemployment rates averaged about 7% over the course of that survey. Assuming that little else has changed in the labor market over this relatively short time period, and that establishment and job characteristics in the two samples are fairly similar, comparisons between the two surveys should indicate the extent to which the business cycle affects hiring determinants and outcomes for unskilled workers.

Though still quite preliminary, the data suggest that employers in Detroit are more willing to hire workers into noncollege jobs that lack certain non-essential credentials, such as high school diplomas or previous experience; and that they are more willing to hire black (especially male) applicants.[31] These results confirm that, in the context of the much tighter labor market that characterizes Detroit in 1997, employers are more willing to hire less-credentialed or minority workers now than earlier in the decade when the labor market contained a good deal more slack.

C. Regression Results: Determinants of Workplace Supports and Policy Responses

If employers are more willing to hire unskilled welfare recipients when labor markets are very tight, it might also be true that they are more willing to provide higher compensation or other workplace supports for these workers when markets are tight. They also might be more amenable to government programs or interventions that are designed to create employment for welfare recipients under these circumstances.

While the data do not support the notion that compensation of hired welfare recipients improves with labor market tightness, the other hypotheses listed above receive somewhat greater support.[32] Table 5 presents results from regressions in which the dependent variables are a series of dummies for whether or not the employer might be willing to help provide any welfare recipients whom they might hire with particular workplace supports, such as transportation, child care, or training (either basic skills or job-related). We also include regressions for whether

[31] For instance, specific experience was absolutely necessary or strongly preferred in 56% of non-college jobs filled in 1992-93 but only in 49% in 1997, even though the fraction of newly filled jobs that were white collar was higher in the earlier period. The ratio of the percentage of new hires that are black to the percentage of applicants that are black rose from .78 to .85 as well.

employers might be more willing to provide such training to welfare recipients if they could receive either tax credits or technical assistance for doing so; whether they would be more willing to hire recipients if they could receive a 50% wage subsidy for one year; and whether they hired welfare recipients after having contact with a Michigan Works Agency (for those who, in fact, had such contact). These equations are estimated by OLS, and have the same three specifications in each case as those presented in Table 4.[33]

The means in Table 5 indicate that relatively few employers would help provide transportation or child care to welfare recipients, though much larger percentages might provide job training (especially if it is job-related). Many employers claim that their willingness to provide the latter would rise if they could receive tax credits or especially technical assistance.[34] Roughly one-third of employers report that they would increase employment of welfare recipients in response to wage subsidies; and a majority of the firms that had contact with a Michigan Works agency did subsequently hire at least one welfare recipient.[35] The data therefore suggest that employers might be relatively responsive to a variety of policy interventions designed to raise the private sector employment and earnings prospects of the welfare population.

The results of Table 5 also indicate that the degree of labor market tightness facing establishments influences their willingness to provide workplace supports and their responsiveness to several potential government policy interventions. For instance, those that have hired wokers in the past two years with lower than usual qualifications are more willing to provide each type of benefit or support, and are more responsive to each of these government interventions.[36] Despite the crudeness of the dependent variables and the likelihood of measurement error (and therefore

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[32] The effects of vacancy rates and the hiring of less qualified workers on wage levels and provision of health benefits on jobs actually filled by welfare recipients and those prospectively available were generally negative but not significant, even after controlling for establishment characteristics (such as industry, size, and location).

[33] For the first six of these dependent variables, we assign the value of 1 to both "yes" and "maybe" responses and the value of 0 to "no".

[34] The relatively small numbers of employers who answered "maybe" to these questions are counted among the positive answers here. Missing values are excluded from the sample.

[35] More evidence on the likely effects of wage subsidies and intermediary efforts appears in Holzer (1998). The magnitudes of the reported hiring increases in response to hypothetical wage subsidies are generally consistent with estimates of labor demand elasticities for unskilled workers. But firms often showed little knowledge of existing federal tax credits for hiring welfare recipients, and often seemed unwilling to claim these credits even when they were aware of them and eligible to receive them. These results suggest that tax credits might be much more effective when provided in an "employer-friendly" fashion and when accompanied by significant outreach efforts, perhaps by intermediaries who handle the paperwork (see also Katz, 1998). While a majority of the firms that had contact with an agency hired recipients, only about 17% of the total reported any such contact.

downward bias) in the independent variable measuring market tightness, the magnitudes of these effects range from increases of 3 to16 percentage points in the probabilities of providing supports or responding to government programs; relative to the means presented in the first column of that table, these are not necessarily small effects.

In addition, job vacancy rates at the firm also have positive and at least marginally significant effects on firm willingness to provide transportation or child care, and on their responsiveness to subsidies or agency intermediation. Together with those for hiring less qualified workers, these results imply that changes in these market tightness variables over the business cycle, of the magnitudes assumed earlier in this paper, would generate some significant differences in the provision of workplace supports and effectiveness of policy interventions on behalf of welfare recipients. For instance, the estimates imply that a recession would reduce the willingness of those who had contact with a Michigan Works Agency to hire recipients by roughly 7-9 percentage points (relative to the current level .59), and would reduce willingness to hire more recipients in response to subsidies by 4-6 percentage points (relative to its current level of .32). If anything, these estimates probably understate the effects of the cycle to a considerable degree. [37]

IV. Conclusion

This paper presents some data on employer demand for welfare recipients from a recent survey of employers in Michigan. We investigate the determinants of employer willingness to hire welfare recipients either currently or in the future, and their tendency to have done so over the past two years. We focus specifically on how such demand is affected by establishment-level measures of labor market tightness, such as job vacancy rates and their recent need to have hired workers with lower than usual qualifications. We also explore the effects of these variables on employer willingness to provide a variety of workplace supports to any welfare recipients whom they might hire, and on the extent to which their hiring or training of recipients might be affected by subsidies and credits, technical assistance or labor market intermediation by local agencies.

The results of this exercise can be summarized as follows:

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[36] Of all of these estimates, significant levels are marginal only in the case of job-related training.

[37] For instance, the likelihood that establishments have contact with the agency at all probably declines in a recession as well, especially for those cases where the contact was initiated by the establishment rather than the agency.

- Self-reported employer demand for welfare recipients is currently quite high in Michigan;
- Labor markets in Michigan are currently very tight;
- The tightness of the labor market accounts for significant portions of the current demand for recipients, which will likely disappear during the next recession; and
- Labor market tightness also makes employers more willing to provide workplace supports (such as training) to recipients whom they hire, and the employers are also more open to potential policy interventions on their behalf.

More specifically, employers in Michigan currently experience a considerable degree of labor market tightness. Job vacancy rates appear to be higher than current unemployment rates. About 80% of employers report at least some difficulty finding qualified applicants, and about 40% claim that they have hired workers recently with lower than usual qualifications. Regarding employer willingness to hire welfare recipients, they claim that they would be willing to fill about 3% of all of their jobs (or roughly half of their job vacancies) right away with recipients, even if the latter had no high school diplomas or recent work experience; and that they would be willing to hire many more over the next year. Furthermore, roughly 40% of employers claim that they have already hired one or more recipients during the past two years. On the other hand, long-term welfare recipients and especially inner-city minorities might have limited access to many of these jobs, for a variety of reasons.

To what extent do the hiring difficulties of employers that are attributable to labor market tightness affect their willingness to hire welfare recipients? Our measures of market tightness and of willingness to hire recipients are both particularly high in certain sectors of the labor market, such as small establishments and the retail trade sector. But, even controlling for these and other observable characteristics of establishments, we find that those with high vacancy rates (and, to some extent, those that have recently hired less qualified workers) are more likely to hire welfare recipients, both currently and over the next year.

Using these cross-sectional estimates to predict the effects of the aggregate business cycle on hiring lead us to predict that a recession would reduce the current demand for recipients by 25-40%, and longer-term hiring by somewhat greater absolute magnitudes (but smaller percentage ones). Estimated effects of demand conditions on small establishments and especially those in

retail trade are even higher than those observed overall. Of course, there are potential problems with inferring aggregate time-series economic changes from a cross-section of data, though the biases caused here could go in either direction. Measurement error in our more subjective dependent and independent variables likely generate inefficiency and/or downward biases in these estimates, which also fail to include the effects of the cycle on the employment of recipients through its effects on retention as well as hiring. Overall, the results should be interpreted as suggestive rather than definitive with regards to specific magnitudes of effects.

The data also imply that many firms might now be responsive to a wide range of potential government efforts to improve the employment prospects of welfare recipients. These include placement efforts by intermediaries, wage subsidies or tax credits for the hiring of disadvantaged recipients (provided they are "employer-friendly"), and tax credits or technical assistance for providing them with training. Furthermore, under tight labor markets, employers appear to be more willing than they otherwise would be to provide certain workplace supports (such as transportation, child care assistance, or training) to welfare recipients, and to respond to the kinds of government efforts mentioned above.

Overall, these results imply that the labor market difficulties of welfare recipients will almost certainly grow more severe during the next recession. There will likely be some need to provide countercyclical increases in labor demand (perhaps through some version of Public Service Employment), or at least to improve the safety nets that welfare recipients will face during that time. The fact that some of the least skilled welfare recipients have not yet entered the labor market, and may be reaching their time limits for assistance during the next economic downturn, renders these problems even more urgent.

Given the apparent openness of employers to policies aimed at improving the employment options of recipients in tight markets, and given that many long-term welfare recipients in inner-city will have limited access to available jobs (because of their poor skills, transportation or information problems, etc.), a strong case can also be made for funding some of these efforts right now, especially if they are accompanied by serious evaluation efforts. A fair amount of funding is potentially available during the current period of tightness, as many states and localities have surpluses to spend in their welfare budgets and are receiving "welfare-to-work" grants from the federal government. Of course, even if these programs are successful in improving the current

labor market prospects of recipients, the extent to which those who achieve some success now will be retained by employers during the next downturn remains unclear, though at least some persistence of positive outcomes over the cycle should be expected.

This study also suggests the need for continued research on these issues. Data on prospective employer demand for welfare recipients during the next downturn is not a perfect substitute for data on actual demand when that downturn occurs. This is particularly true since the estimated effects of labor market tightness in a cross-section of firms might differ substantially from the effects of an aggregate downturn that affects all firms. Evidence on layoffs/retention as well as on new hire rates could be provided from such data, and we could also obtain data on the experiences of employers with the later entrants to the market (who are likely to be more disadvantaged than those whom we have observed to date). While many such experiences will be apparent from supply-side data on recipients and their labor market experiences, the data on employers can continue to provide insights on the demand-side factors that contribute to the outcomes we observe among these workers.

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Table 1

Demand for Welfare Recipients in 1997: Summary Results

	All	By Industry			By Establishment Size				By Location	
		Mfg	RT	Service	1-20	21-50	51-100	100+	CC	Sub
Percent of Jobs in which Welfare Recipients Could be hired										
Currently	.032	.014	.050	.027	.054	.026	.028	.014	.030	.033
Over Next Year	.094	.055	.175	.076	.136	.081	.095	.060	.088	.098
Percent of Establishments that have hired Recipients in the past 2 years	.419	.274	.600	.433	.370	.371	.481	.477	.403	.443

Note: "Mfg" and "RT" refer to the manufacturing and retail trade industries respectively. "CC" and "Sub" refer to central-cities and suburbs respectively.

Table 2

Labor Market Tightness and Employment of Unskilled Workers in 1997: Summary Results

	All	By Industry			By Establishment Size				By Location	
		Mfg	RT	Service	1-20	21-50	51-100	101+	CC	Sub
Job Vacancy Rate	.060	.043	.079	.053	.086	.055	.056	.042	.060	.061
Have Hired Workers with Lower Qualifications than Usual in Past Two Years	.419	.492	.550	.339	.397	.443	.449	.409	.397	.433
Percent of Jobs filled by Workers with lower qualifications in the past 2 years	.068	.034	.105	.061	.121	.071	.073	.022	.063	.072
Ease of finding qualified workers currently:										
Very Easy	.189	.146	.144	.236	.165	.190	.191	.208	.205	.179
Somewhat Difficult	.422	.392	.510	.382	.406	.444	.443	.413	.464	.395
Very Difficult	.381	.453	.341	.376	.422	.356	.357	.373	.321	.420
Percent of Currently Filled Jobs that:										
Do not require Education Or Experience	.370	.422	.532	.277	.334	.376	.392	.390	.342	.388
Also no reading, writing or arithmetic	.125	.143	.159	.103	.128	.116	.118	.133	.127	.125
Also filled by women	.062	.059	.087	.062	.057	.055	.061	.070	.066	.059

Table 3

Determinants of Current Demand for Welfare Recipients

	All		Small Establishments		Retail Trade	
	OLS	**Tobit**	**OLS**	**Tobit**	**OLS**	**Tobit**
Vacancy Rate	.276 (8.212)	.599 (7.820)	.222 (8.048)	.699 (5.085)	.582 (10.281)	.849 (9.150)
Percent of Jobs that require No education or experience	.019 (1.994)	.093 (4.147)	.019 (1.238)	.134 (2.850)	.017 (1.216)	.056 (2.259)
Establishment Size (Hundreds)	-.002 (1.615)	.001 (.068)	-.101 (2.633)	-.015 (.129)	-.008 (1.645)	-.013 (1.214)
Industry:						
Mfg	-.022 (1.249)	-.051 (1.208)	-.033 (1.106)	-.097 (1.100)	--	--
RT	.003 (.203)	.016 (.412)	.005 (.215)	.012 (.167)	--	--
Service	-.009 (.556)	-.025 (.639)	-.016 (.664)	-.084 (1.189)	--	--
R^2	.137	--	.148	--	.436	--
-Log L	--	105.90	--	108.28	--	30.688
N	724	724	404	404	190	190

Note: T-Statistics are in parentheses. Regression equations also include dummies for other 1-digit industries (construction is omitted); MSA, central-city locations, and their interactions; and a constant term.

Table 4

Determinants of Demand for Welfare Recipients:
Over the Past Two Years or Next Year

	NEXT YEAR						PAST TWO YEARS		
	OLS			TOBIT			OLS		
Vacancy Rate	.326	--	.329	.475	--	.451	.514	--	.398
	(4.207)		(4.177)	(3.859)		(3.640)	(2.991)		(2.285)
Have hired workers with lower qualifications	--	.016	.005	--	.054	.040	--	.126	.119
		(1.018)	(.320)		(2.161)	(1.599)		(3.762)	(3.489)
Percent of Jobs that Require no Ed. or Exp.	.099	.095	.098	.217	.207	.210	.160	.133	.139
	(4.431)	(4.167)	(4.381)	(6.010)	(5.635)	(5.828)	(3.394)	(2.819)	(2.937)
Establishment Size (Hundreds)	-.004	-.005	-.004	-.003	-.004	-.003	.004	.001	.003
	(1.732)	(2.104)	(1.751)	(.764)	(1.113)	(.815)	(.696)	(.175)	(.519)
Industry									
Mfg	-.040	-.034	-.019	-.066	-.062	-.040	.082	.062	.059
	(.971)	(.797)	(.463)	(.997)	(.898)	(.584)	(.875)	(.666)	(.616)
RT	.048	.064	.069	.059	.081	.091	.367	.370	.357
	(1.211)	(1.544)	(1.709)	(.926)	(1.220)	(1.388)	(4.097)	(4.168)	(3.900)
Service	-.009	-.000	.014	-.031	-.015	.007	.223	.218	.217
	(.229)	(.012)	(.346)	(.495)	(.238)	(.114)	(2.533)	(2.496)	(2.409)
R^2	.161	.135	.164	--	--	--	.122	.131	.137
-Log L	--	--	--	145.53	146.704	140.241	--	--	--

Note: T-statistics are in parentheses. Sample sizes are 850 and 533 for the regressions on hiring in the past two years and over the next year respectively. Other regressors are the same as those listed in Note to Table 3.

Table 5
Determinants of Workplace Supports for Welfare Recipients and Responses to Policies

	Mean of Dependent Variable	Vacancy Rate		Have hired less qualified workers		N	R^2
Would help provide transportation:		**b**	t	**b**	t		
1)	.170	.402	2.959	--	--	784	.044
2)	.170	--	--	.058	2.129	784	.034
3)	.170	.356	2.595	.047	1.705	784	.046
Would help provide child care:							
1)	.129	.194	1.594	--	--	797	.042
2)	.129	--	--	.045	1.832	797	.046
3)	.129	.137	1.099	.048	1.921	797	.050
Would provide basic skills training:							
1)	.468	.119	.616	--	--	817	.038
2)	.468	--	--	.082	2.240	817	.043
3)	.468	.055	.281	.092	2.463	817	.046
Would provide job-related skills training:							
1)	.887	-.028	.243	--	--	807	.011
2)	.887	--	--	.027	1.188	807	.017
3)	.887	-.026	.222	.025	1.06	807	.012
Would be more willing to train if tax credit available:							
1)	.550	.078	.365	--	--	528	.028
2)	.550	--	--	.101	2.262	528	.030
3)	.550	.023	.104	.095	2.081	528	.038
Would be more willing to train if technical assistance was available:							
1)	.657	-.039	.200	--	--	545	.064
2)	.657	--	--	.106	2.577	545	.075
3)	.657	-.101	.528	.107	2.572	545	.077
Would hire more welfare recipients in Response to 50% wage subsidy for 1 year							
1)	.322	.454	2.641	--	--	829	.027
2)	.322	--	--	.120	3.552	829	.033
3)	.322	.389	2.226	.105	3.072	829	.039
Did hire welfare recipients after contact with Michigan Works Agency							
1)	.592	1.638	2.206	--	--	133	.139
2)	.592	--	--	.164	1.794	133	.136
3)	.592	.915	1.909	.131	1.401	133	.155

Note: Specifications 1) – 3) correspond to those in Table 4.