UC Berkeley
Earlier Faculty Research

Title
Car Ownership and Welfare-to-Work

Permalink
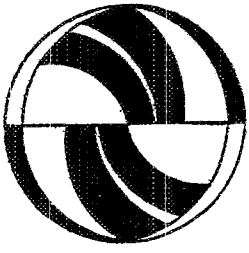https://escholarship.org/uc/item/81v246mr

Author
Ong, Paul M.

Publication Date
2001-02-01

Car Ownership and Welfare-to-Work

Paul M Ong

Reprint
UCTC No 540

The University of California
Transportation Center

The University of California Transportation Center (UCTC) is one of ten regional units mandated by Congress and established in Fall 1988 to support research, education, and training in surface transportation. The UC Center serves federal Region IX and is supported by matching grants from the U.S. Department of Transportation, the California Department of Transportation (Caltrans), and the University

Based on the Berkeley Campus, UCTC draws upon existing capabilities and resources of the Institutes of Transportation Studies at Berkeley, Davis, Irvine. and Los Angeles; the Institute of Urban and Regional Development at Berkeley. and several academic departments at the Berkeley, Davis. Irvine. and Los Angeles campuses. Faculty and students on other University of California campuses may participate in

Center activities. Researchers at other universities within the region also have opportunities to collaborate with UC faculty on selected studies.

UCTC's educational and research programs are focused on strategic planning for improving metropolitan accessibility, with emphasis on the special conditions in Region IX. Particular attention is directed to strategies for using transportation as an instrument of economic development, while also accommodating to the region's persistent expansion and while maintaining and enhancing the quality of life there

The Center distributes reports on its research in working papers, monographs. and in reprints of published articles. It also publishes *Access*, a magazine presenting summaries of selected studies For a list of publications in print, write to the address below

University of California
Transportation Center

108 Naval Architecture Building
Berkeley, California 94720
Tel: 510/643-7378
FAX: 510/643-5456

DISCLAIMER
The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U S. Government assumes no liability for the contents or use thereof

Car Ownership and Welfare-to-Work

Paul M. Ong

School of Public Policy and Social Research
University of California, Los Angeles
Los Angeles, CA 90095-1656
Phone (310)-825-4390 email pmong@ucla edu

CAR OWNERSHIP AND WELFARE-TO-WORK[1]

PAUL M. ONG

School of Public Policy and Social Research
3250 Public Policy Building
University of California, Los Angeles
Los Angeles, California 90095-1656
Telephone (310) 825-4390, FAX (310) 206-5566
E-mail pmong@ucla.edu

February 26, 2001

Paul M. Ong is Professor of Urban Planning and Social Welfare at UCLA=s School of Public Policy and Social Research, and affiliated faculty with Asian American Studies. He has a master=s degree in urban planning from the University of Washington, Seattle and a Ph.D. in economics from the University of California, Berkeley. He is the Director of UCLA=s Lewis Center for Regional Policy Studies. He has conducted research on immigration, racial inequality, and welfare-to-work.

CAR OWNERSHIP AND WELFARE-TO-WORK

February 21, 2001

Abstract: This study examines the role of car ownership in facilitating employment among recipients under the current welfare-to-work law   Because of a potential problem with simultaneity, the analysis uses an instrumental variable constructed from insurance premiums and population density for car ownership   The data comes from a 1999-2000 survey of TANF recipients in the Los Angeles metropolitan area. The empirical results show a significant independent contribution of car ownership on employment The presence of an observed ownership is associated with 12 percentage point increase in the odds of being employed Moreover, the results indicate that lowering insurance premiums by $100 can increase the odds of employment by 4 percentage points

2

INTRODUCTION

This study examines the role of car ownership in facilitating employment among
recipients under the current welfare-to-work law The question on the effectiveness of this form
of transportation has become more important since Congress enacted the 1996 Personal
Responsibility and Work Opportunity Reconciliation Act (PRWORA), which dramatically
altered this nation's social policy TANF (Temporary Assistance to Needy Families) replaced
the old AFDC (Aid to Families with Dependent Children) program, but the transformation went
well beyond renaming the welfare system Instead of providing an income entitlement, the
legislation calls for ending welfare dependency through economic self-sufficiency. New
regulations limit cash support, place time limits on benefits, mandate strong work requirements,
and delegate the implementation to the states and local agencies As a result of these reforms,
hundreds of thousands of recipients have entered the labor market, but their ability to find a job
remains problematic Successful restructuring of the welfare system requires implementing
agencies to eliminate as many barriers as possible, but time limits constrain the number of
available programmatic options. Despite the fact that many recipients are severely disadvantaged
by limited education and work experience, strategies have shifted from training and schooling to
placing individuals in a job as quickly as possible. With this focus on a jobs-first approach,
tackling transportation barriers has emerged as a top priority. A 1996 survey of California
recipients reveals that among the immediate barriers, inadequate transportation is a close second
behind inadequate childcare (Blumenberg and Ong, 1999). Providers are keenly aware of this. A
1999 RAND survey reports that about nine-tenths of county welfare administrators in California

3

stated that transportation problems hinder the implementation of welfare reform (Ebener, 1999).

The existing literature indicates that car ownership can facilitate the movement from welfare to work. Unfortunately, the existing studies have a potential flaw because car ownership may not be an independent factor. This study addresses this issue and is organized into four parts. The first part reviews the relevant literature, and the second part describes a conceptual model using an instrumental variable to address the causality problem. The third section presents the data from a recent survey of TANF recipients in the Los Angeles metropolitan area, and the multivariate methods used to estimate the independent contribution of car ownership on employment. Part four presents the major findings. automobile ownership has a positive and sizeable impact on having a job, even after controlling for other factors. The last part discusses the policy and programmatic implications. Given the findings, welfare programs should facilitate the ownership of a reliable car through modifications of eligibility requirements and the creation of support services.

REVIEW OF THE LITERATURE

At the heart of the transportation problem is the fact that most employment opportunities are located far from where recipients reside[2] Many on welfare are trapped in the inner-city,

---

2. Working outside one's immediate neighborhood is not unique to welfare recipients but is a fact of life for the vast majority of workers. Nationally, the average one-way work commute reported in the 1995 National Transportation Survey is 12 miles and 20 minutes by automobile and 13 miles, and 42 minutes by public transit (Hu and Young, 1999, p. 42). This travel-to-work pattern is embedded in a sprawling urban structure built on the availability of automobiles. Solo travel by car is the most widely used means to get to work, accounting for 80 percent of all work trips. Another 11 percent are in a carpool. Even among the working poor, 84 percent travel by private vehicle to work, and, furthermore, 83 percent of working single parents do the same

spatially isolated from the expanding number of suburbanized jobs and poorly qualified for many of the jobs remaining in the central business districts (Kasarda, 1980; Kain, 1992, Coulton and Bania, 1997; Bania, Coulton and Leete, 1999, Rich, 1999) This problem is compounded by the fact that firms tend to avoid recruiting in low-income, minority neighborhoods (Kirschenman and Neckerman, 1991) Because the entry-level job market relies heavily on walk-in applicants, informal referrals, and face-to-face contact, those looking for work must go outside their neighborhoods to seek openings, file applications and conduct interviews When recipients do find work, most have jobs that are miles away from home (Ong and Blumenberg, 1998) Of course, not all welfare recipients reside in job-scarce, inner-city neighborhoods, but even in job-rich neighborhoods, most welfare recipients find employment outside their immediate community (Blumenberg and Ong, 1998) While the geographic barrier has been viewed as a "spatial mismatch," the problem is also one of a transportation "mismatch " (Taylor and Ong, 1995)

One logical solution to the transportation problems facing recipients is auto ownership. A private vehicle would enable them to conduct a geographically broader job-search, accept employment offers farther away from home, improve work attendance, and minimize the commute burden. Unfortunately, car ownership rates are low for welfare recipients relative to the general population, and public transit, with its fixed routes and limited schedules, is a poor substitute. In other words, there is a mismatch between the needs of moving people from welfare to work and the transportation resources available to recipients

---

(Murakami and Young, 1997). On the other hand, relying on public transportation is not only outside the norm but also seriously restricts employment opportunities, particularly for minorities

5

There is evidence that employment and car ownership are tied to each other. Studies of welfare recipients find that employment is correlated with car ownership.[3] In one study, employment rates were 14 percentage points higher for those with a car than those without one, and after controlling for other causal factors (e g , age, education, years on welfare, etc), the rate decreased only slightly to 12 percentage points (Ong, 1996). In another study, recipients with a car were nearly ten times more likely to find a job and leave welfare than those without a car (Cervero, Sandoval and Landis, 1999). Among those receiving welfare, the average number of vehicle for a family with at least one working member is three times larger than the average number of vehicles for a family without a working member (Passero, 1996) Correlation, however, is not causality The critical question is does car ownership enhances the ability to find employment, or does employment enhances the ability to own a vehicle. It is likely that causality flows in both directions.

One study has addressed the causality problem using state-level variation on gas taxes and insurance premium as an instrumental variable (Raphael and Rice, 2000). These findings show that automobile ownership has a significant impact on increasing employment; however, that study has two limitations The first is that it relies on average insurance cost, which fails to capture the considerable within-state variation in premiums. The second limitation is the use of pre-TANF data (the fourth waves of the 1992 and 1993 Survey of Income and Program

---

(Taylor and Ong, 1995).

3. The positive effect on car ownership on employment has also been documented for minorities in general (Raphael and Stoll, 2000). Racial differences in ownership rate accounts for 45 percent of the employment gap between whites and blacks, and 17 percent of the employment gap between whites and Latinos.

6

Participation) Given the radical changes imposed by PRWORA, particularly the emphasis on jobs-first and time limits, it is uncertain that the earlier findings can be extrapolated to current welfare recipients. Conditions are now different because there is enormous pressure to find a job, regardless of car ownership.[4] There is, then, still an empirical question whether car ownership makes a difference under welfare reform

CONCEPTUAL MODEL

There are empirical methods to address the causality problem To understand the nature of the problem, we start with a simple model, where the probability of being employed at time "t", $E_{i,t}$, is modeled as follow

1) $Prob(E_{i,t}) = f(X_i, E_{i,t-1}, A_{i,t})$

X is a vector of the personal characteristics, household factors, and programmatic features that affect employment.[5] The key personal characteristics are the marketable skills of a recipient. The more human capital, the greater the chance that the prevailing market wage is higher than the

---

4. This shift can be conceived as a transition from one steady state to another. The prior (pre-TANF) state had an "equilibrium" characterized by a weak attachment to the labor market and a low rate of employment for many recipients. This is due in part to a stream of benefits with a relatively long-time horizon Welfare reform is an "exogenous" shock dramatically altering the present value of paid work relative to benefits by shortening the time horizon on the latter. This, in turn, forces individuals to adjust their behavior with respect to employment. How well and quickly they respond hinges on their initial endowment of human capital and other resources, including access to an automobile. New data are being collected for the TANF populations, but the analyses are at an early stage or based on simple cross tabulations (Crew and Eyerman, 1999; Coalition for Workforce Preparation, 1999, Green et al., 2000, Danziger et al , 1999; Work, Welfare and Families and the Chicago Urban League, 2000).

5. See Moffitt, 1992 for summary of discussion on the key independent variables.

reservation wage (the wage required to make working economically worthwhile) Household factors are related to obligations a recipient has within the household, and the greater the obligations, the lower the odds of being employed. Programmatic features are related to the impact of welfare regulations and participation in programs on the ability or need to be employed. Past employment $(E_{i,t-1})$ should be a strong predictor of current employment because many with prior employment are able to continue with their employer or are better positioned to find a new job They are more familiar with and connected to the labor market, and they have work-related experiences that give them an advantage with potential employers. Moreover, past employment may capture unobserved individual characteristics related to the willingness and ability to work. Prior employment is likely to be correlated with many of the other independent variables; consequently, X_i captures the probability of current employment after accounting for the impact of past employment. $A_{i,t}$ is included to capture the effect discussed above of auto ownership on employment

Equation (1) by itself is problematic because automobile ownership may be a function of employment In other words, there is a second equation·

2) $\text{Prob}(A_{i,t}) = g(E_{i,t}, Y_i)$

Current employment $(E_{i,t})$ can increase the probability of owning a car because there is more income. Y_i is the vector of other causal factors Equations (1) and (2) form a system of simultaneous equations One way to address this problem is to estimate equation (1) using an instrumental variable for car ownership -- $IV(A_{i,t})$ -- constructed from exogenous variable or variables that are highly correlated with car ownership but not correlated with the stochastic

component for equation (1). The instrumental variable for automobile ownership can be conceived as a function of two factors

$$IV(A_{i,t})=h(C_i, N_i)$$

C_i is related to the cost of auto ownership, and N_i is related to the need for auto ownership. Costs can vary for a number of reasons, including the costs beyond that associated with purchasing a vehicle. The need for a car can vary with the availability of alternative transportation and the proximity of desired destinations. With the appropriate instrumental variable, equation (1) can be modified as follow·

$$3) \quad Prob(E_{i,t})=f[X_i, E_{i,t-1}, IV(A_{i,t})].$$

Estimating equation (3) should produce unbiased estimates of the impact of car ownership on employment

DATA AND METHODOLOGY

This study uses data from a survey of TANF recipients in the urbanized areas of the Los Angeles County [6] The sample is restricted to cases headed by a single female (the most common

---

6 The metropolitan area is coterminous with Los Angeles County. The survey was sponsored by the Department of Public Social Services of Los Angeles County, designed by the Lewis Center for Regional Policy Studies at UCLA, and conducted by the Survey Research Center at the California State University, Fullerton. The sample was drawn from administrative files for those in the welfare-to-work program in September, October or November of 1999. The administrative files also provide limited information on work and welfare history. The survey is based on stratified samples for each of the five districts for the County Board of Supervisors. The questionnaire was automated in a CATI (Computer Assisted Telephone Interview) system and administered over the telephone in English, Spanish, Vietnamese, and Armenian. The survey, which was conducted between late November 1999 and February 2000, contains over fifteen

type of welfare household) between the ages of 18 and 45 and required to participate in welfare-to-work A total of 770 observations meet these criteria. The outcome (dependent) variable is dichotomous, indicating whether the respondent was employed at the time of the interview. ("Are you currently working?") A small majority (53 percent) of the interviewees fell into this category. This rate is considerably higher than those reported in the earlier studies on AFDC recipients, suggesting that welfare reform is having its predicted effect of increasing employment (However, this is not the same as saying that those with employment have achieved economic self-sufficiency) Information on car ownership is based on the following question: "How many vehicles (including cars, vans, trucks) do you own? This includes your family or household " About half (49 percent) of the sample gave a positive response (i e , owned one or more vehicle) to this question.[7]

Based on the existing literature (see Moffitt, 1992 for summary), this study uses the following set of additional independent variables available from the survey. age, the number of young children (4 years old and younger), educational attainment, years on welfare, race, prior

---

hundred respondents

7. This percentage is higher than estimates from audit information, which indicates that only about a fifth of all recipients in Los Angeles County own a registered car in their name (Miller and Ong, 1999) The high percentage is probably due to two factors One, the sample includes only those required to participate in the welfare-to-work program, thus excluding many "hard to serve" recipients. This selection is likely to include a higher proportion of those with a car. Two, a positive response can be given if another family or household member owns a car, and this could produce a high percentage. The rate is consistent with pre-TANF estimates by Federman, et al (1996), who reported that 65 percent of families receiving welfare own a car or truck More recent estimates are also high: 58 percent of recipients in Santa Cruz County in California own a car (Coalition for Workforce Preparation, 1999), 50 percent recipients in Alameda County in California have an "available car," (Green, et al., 2000), half of recipients in Michigan had access to a car (Danziger, et al., 1999). Moreover, Murakami and Young (1997, p

work experience, and car ownership Employment is expected to increase with age, but at a declining rate This captures both more life experiences as well as greater maturity. Employment is expected to decrease with the number of young children (ages 0 to 4 years) because of the difficulty in finding adequate childcare (Ball, 1999) Higher levels of education are expected to increase the odds of being employed. Because recipients constitute a highly disadvantaged population, educational attainment is compressed toward the lower end. The major distinction is between those with and without a high school education, and that is captured by a dummy variable for those who had completed at least 12 years of schooling The excluded category is those without a high school degree It is expected that long-term welfare dependency lowers the employment rate Because of the limitation of the available administrative data, time on welfare is captured by a dummy variable for respondents on welfare for 90 or more months The excluded category is less than 90 months Race/ethnic variables are included to capture any systematic differences in employment opportunities for whites relative to minorities Prior work experience is captured by earnings (in log form) during the last half of the year before the survey.

As discussed in the previous section, observed car ownership is not an ideal right-hand variable because it may not be causally independent of employment. We use two factors to construct an instrumental variable, one related to the cost of auto ownership, and the other related to the need for a private vehicle. Although many factors affect the cost of ownership, the single most important and significant variation is automobile insurance premium. Insurance rates vary considerably by geographic location, with residents in predominantly minority neighborhoods

---

6) estimate that only 36 percent of single-parent, low-income households do not own a car.

facing higher rates than other residents.[8] For this study, premiums for basic coverage for a single mother range from $679 to $1,275 per year.[9] We expect that the need for an automobile (N_i) to vary with neighborhood characteristics that either increases or decreases the demand for vehicle travel. To minimize the problem with potential correlation with employment status, job density is not used. Instead, population density is used Because higher density neighborhoods have more desired destinations nearby, the demand for vehicle travel and a private car should be lower. Population density is based on the 1990 population at the census-tract level.

The variation in car ownership rates and the two variables (insurance rates and population density) can be seen in Figure 1. The sample is divided into seven groups ranked by premium and density. In general, ownership rates drop from 62 percent for the group with the lowest insurance cost to 40 percent for the group with the highest insurance cost. The rates do not drop as much for increases in population density, with the level going from 55 percent to 39 percent.

---

8 Not only are premiums higher in low-income, minority neighborhoods, but these are the same areas that major insurers tend to avoid For example, 1997 data for State Farm Mutual Insurance Company show that the company lacks agents in most of the zip codes in central and south-central Los Angeles, areas that have high concentrations of welfare recipients (The Foundation for Taxpayer and Consumer Rights, 1999; Ghonna, 1999) Only two of the 25 company's claims offices are located in low-income neighborhoods

9. Insurance premium estimates are based on information provided by the following website. http.//www.realquote com Multiple quotes from different insurers were requested for each zip code. To capture the "pure" geographic variation of insurance rates, we held the characteristic of the "applicant" constant by using the same demographic profile for every zip code: a 25-year old single mother, employed as a civilian. She has been driving for seven years and had taken a driver training course. She is not a student. She has one moving violation, but no accidents and is a non-smoker. She owns a 1990 Ford Escort LX, 2-door hatchback. Its value is about $8,000 new and has no anti-theft devices, no anti-lock brakes and no airbags It has manual seatbelts and is parked on the street She carries only the minimum insurance required—$15/30,000 bodily liability, $5,000 property liability. She has no deductibles. The insurance premium for

Figure 1: Car Ownership Rates
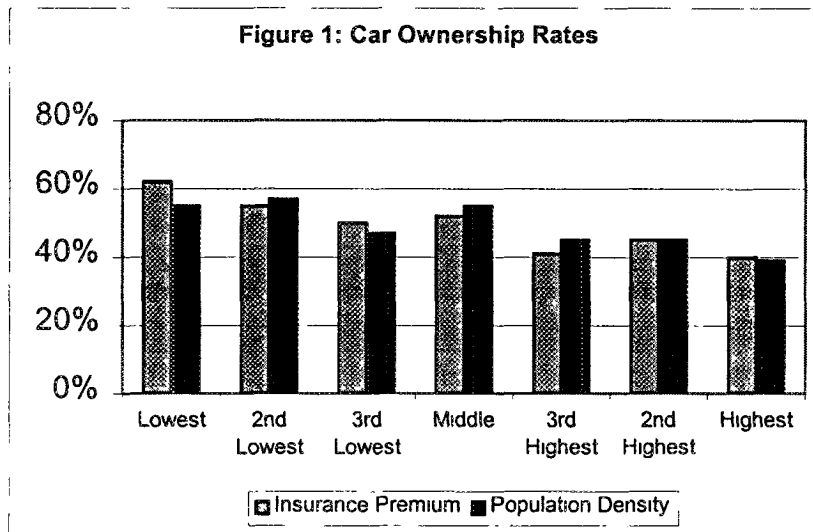
The impact of the insurance premiums and population density can be estimated using

logit regressions The estimated equation is

Probability of Auto ownership=$1/(1+e^x)$,

where x=(-1 48+.125*insurance cost+.216*population density)

The p-value for the coefficient for insurance cost (in $100 units) is .007, and the p value for

population density (in units of 1,000 person per square miles) is 0501.[10] The results from the

logit regression are used to construct the instrumental variable, which is defined as:

$IV(A_{i,j}) = 1$ if the estimated $Prob(A_{i,j})=>.50$

Else, $IV(A_{i,j}) = 0$.

---

each zip code is the average of quotes from at least a half dozen companies.
10. Estimating car ownership with a linear regression produces very similar results. The simulated probability of car ownership using the results from a linear regression is highly correlated (r=.99) with the simulated probability of car ownership using results from the logit regression.

IV($A_{i,j}$) is not a simple substitute for observed car ownership Only a slight majority of the respondents have the same value for both measures (26 percent of the sample actually own a car and were imputed to own a car, and 21 percent of the sample did not actually owned a car and were imputed not to own a car) For 44 percent of the sample, the observed and imputed values do not agree. Using the instrumental variable moderates the relationship with employment outcomes Sixty percent of those observed owning a car were employed, while only 46 percent of non-owners were, a difference of 14 percentage points. The difference is only 11 percentage points using the instrumental variable for automobile ownership

Multivariate analysis is used to separate the independent effect of ownership from other causal factors. Specifically, the logit functional form is used

$$Pr_i \ (EMPLOYED) = e^{\beta Z}/(1+e^{\beta Z})$$

$$for \ EMPLOYED \subset (1,0)$$

Z is the vector of independent variables, and beta is the vector of estimated coefficients The means for the dependent and independent variables are listed in Table 1 There are systematic differences in the means for employed versus unemployed recipients. The statistics show that current employment is correlated with more education, number of young children, prior earnings, and, of course, car ownership. Interestingly, current employment does not strongly correlate with age, long-term welfare dependency, and race However, covariation among the independent variables may obscure the true causal relations

Table 1 Means of Variables

	All Recipients	Employed Recipients	Unemployed Recipients	T-Test Probability
Currently Employed	0.527	0 000	1 000	
Less Than HS	0 374	0.409	0 342	0.0553
Age	31.2	30.8	31.6	0.1135
Age squared/100	10 3	10 1	10.5	0 2354
Young Children	0 651	0 698	0 608	0 0768
Long-term Welfare User	0 256	0.261	0.251	0.7571
White	0.078	0.088	0.069	0.3281
Log of Prior Earnings	3.615	2 365	4.735	< 0001
Car Owner	0 492	0 418	0.559	< 0001
IV Car Owner	0 469	0 420	0 512	0 0106
Insurance Premium/100	9 75	9 95	9 57	0 0031
Population Density	1 35	1.37	1.33	0 493
N size	770	406	364	

EMPIRICAL OUTCOMES

The estimated logit models are listed in Table 2 Model 1 is included for comparison and is a basic human-capital model augmented with household (number of young children), programmatic (long-term welfare user) and race (white) variables. Model 2 adds a variable for observed car ownership, while model 3 uses the instrumental variable for car ownership Model 4 replaces the instrumental variable with insurance premium and population density. Because the models are non-linear, the coefficients have to be transformed to derive the marginal changes in probability due to a one-unit change in an independent variable. This can be estimated using the following equation:

15

$$\Delta Pr/\Delta x = B(p(1-p))$$

where B is the estimated coefficient for variable x, and p is the observed employment probability

for the total sample

Table 2· Logit Results

Dependent Variable Currently Employed	Model 1	Model 2	Model 3	Model 4
Independent Variables				
Intercept	-5 661 ***	-6 046 ***	-5 899 ***	-4 234 ***
Less Than High School	-0 353 **	-0 310 *	-0 334 **	-0 331 **
Age	0 350 ***	0 359 ***	0 354 ***	0 340 ***
Age squared	-0 524 ***	-0 542 ***	-0.531 ***	-0 510 ***
Young Children	-0 096	-0 080	-0 106	-0 125
Long-term Welfare User	-0 404 **	-0 334 *	-0 379 **	-0 371 *
White	-0 180	-0 282	-0 291	-0 304
Log of Prior Earnings	0 161 ***	0 157 ***	0 161 ***	0 161 ***
Car Owner		0 499 ***		
IV Car Owner (Ins + Density)			0 402 **	
Insurance Premium				-0 127 ***
Population Density				-0 350
Number of Observations	770	770	770	770
Likelihood Ratio of Covariates	93 16	103 26	99 76	101 74

* p< 10 ** p< 05 *** p< 01

Most of the estimated coefficients are consistent with the predicted impacts discussed

earlier. The impact of prior earnings is sizeable and very significant. Those with a high school

degree fare better than those with less schooling by a difference of about 8 to 9 percentage

points. Employment increases with age, with the effect diminishing with each additional year as

indicated by the negative coefficient for age squared. The presence of younger children (ages 0

to 4) decreases employment, but the estimated coefficients are not statistically significant. Very

long-term welfare usage (90 or more months) decreases the employment rate by 8 to 10

16

percentage points Given the widely held notion that long-term dependency creates an extremely

hard to employ population, this difference is surprising small. The result may be due to the

selective nature of those required to participate in the welfare-to-work programs or to a

fundamental change in behavior caused by time limits The coefficients for the race variable are

all statistically insignificant. Interestingly, the estimated coefficients for the personal, household

and programmatic variables are robust across the models This indicates that these variables are

not highly collinear with the additional variables added to models (2), (3) and (4).

As expected, car ownership has a large and statistically significant impact on

employment The presence of an observed ownership is associated with 12 percentage point

increase in the odds of being employed This estimate is consistent with that reported for AFDC

(pre-welfare reform) recipients (Ong, 1996). This implies that automobile ownership remains

just as important under welfare reform as under the old system. The estimated impact, however,

may be upwardly biased because of the causality problem. Replacing observed ownership with

the instrumental variable bears this out As expected, the explanatory power of the model

declines when the potentially endogenous variable (observed car ownership) is removed, as

indicated by the lower chi-square value for the covariates. However, the estimated coefficient for

the instrumental variables remains positive and statistically significant, indicating that

automobile ownership has an independent effect on increasing the probability of being

employed. The estimated impact is smaller but nonetheless not inconsequential The ability to

own a car, as influenced by insurance cost and population density, increases the odds of having a

17

job by over 9 percentage points.[11] The last model directly incorporates the insurance premium and population density rather than indirectly through the instrumental variable. The estimated coefficient for population density is not statistically significant, but the estimated coefficient for insurance premium is. Based on the result, lowering this cost by $100 can increase the odds of employment by 4 percentage points Larger decreases have the potential of dramatically reducing joblessness among welfare recipients.

CONCLUSION

Unquestionably, the above analysis can be refined. The model can be improved by incorporating information on the location of jobs, the availability and quality of public transportation, availability of loans, access to resources from friends and relatives, and other factors. Moreover, the cross-sectional nature of the model fails to capture the dynamic changes in car ownership Despite these limitations, the analysis overwhelmingly supports the premise that an automobile is crucial to employment This conclusion is not surprising given that the labor market mirrors the automobile-dominated structure of metropolitan areas The findings are sufficiently strong to argue for programs that facilitate car access.

Unfortunately, policy is still shaped by an earlier and largely unfounded fear of welfare recipients waste resources on luxury cars. In about half of all states, the existing eligibility rules

---

11 To test the robustness of these results, additional models were estimated. A logit model using an instrumental variable based only on insurance premium produced similar results. A simultaneous two-stage least squares model was also estimated. Although this approach uses linear specifications that do not restrict the predicted outcome to the 0-to-1 range, the results also show that car ownership has a positive and statistically significant impact on employment.

prevent an individual from having a car worth more than $4,650, and this limit also applies to food stamp and MediCare eligibility after a recipient leaves welfare. This makes it difficult to purchase a very reliable car for under $4,650 [12] Most available cars in this price range are old and less reliable This policy should be eliminated, and more should be done

Policy-makers should establish programs that help recipients to acquire a reliable automobile, to operate and maintain it, and to purchase insurance at a reasonable price. The first objective can be achieved through a loan program that provides mandatory testing of potential used cars There are potential net gains to providing training for do-it-yourself maintenance, and referrals to reliable and honest automobile repair services Some of this can be accomplished at a low cost through cooperation with vocational training programs related to automobile repair. There should be some assistance given to those encountering temporary needs caused by unforeseen disruptions to employment or major repair problems This can include providing temporary transportation assistance Improving the continuity of employment or car ownership can prevent short-term crises from degenerating into prolonged joblessness Finally, there should be programs to address the high cost of automobile insurance Unfortunately, many recipients reside in neighborhoods that suffer from "redlining," a practice that restricts the availability of insurance and pushes up premium. Recipients need access to reasonably priced automobile insurance.

---

12. This is apparent in examining the cars listed in the April 1999 issue of *Consumer Report* as "reliable used cars." The lowest price category is less than $6,000, which includes vehicles that are 5 to 8 years old. Using that list and updating it to include models that are a year newer, a tabulation from the February 13, 2000 *Los Angeles Times* Sunday newspaper shows that less than half of the advertised used cars had an asking price below $4,500. Most of those cars had extremely high mileage

Some progress is being made. President Clinton called for new legislation that will

enable families with low amounts of equity in their cars to qualify for food stamps, increase the

vehicle asset limits, and apply these standard to welfare programs (U.S. President's Office,

2000). Moreover, the proposal called for expanding the use of Individual Development Accounts

to include savings for a car. Some relief can come from reducing high automobile insurance

premiums. California's 1988 Proposition 103 officially bans redlining, but this provision has not

been fully implemented because of resistance by the insurance companies. There is also a new

experimental "Lifeline Insurance Program" funded by the State of California. This pilot program

requires that all insurance companies offer flat rate insurance to residents of Los Angeles and San

Francisco counties to qualified drivers who earn less than 150 percent of the official poverty line

at a $450 flat fee. If fully implemented, this program can promote welfare-to-work for a

significant number of individuals. Taking advantage of the Lifeline Insurance Program can

dramatically decrease the cost of car ownership for a recipient, which would move this

population closer to economic self-sufficiency.

REFERENCES

Ball, Brenda (2000). "Implementing CalWORKs Support Services: Child Care in Los Angeles County," working paper, UCLA Lewis Center for Regional Policy Studies.

Bania, Neil, Claudia Coulton, and Laura Leete (1999). "Welfare Reform and Access to Job Opportunities in the Cleveland Metropolitan Area," paper for the 1999 APPAM Fall Research Conference, Washington, D C., November 6, 1999.

Blumenberg, Evelyn and Paul Ong, (1998) "Job Accessibility and Welfare Usage: Evidence from Los Angeles," Journal of Policy Analysis & Management, 1998

Blumenberg, Evelyn and Paul Ong, (1999) "The Transportation-Welfare Nexus: Getting

Welfare Recipients to Work," California Policy Options, 1999, edited by Daniel Mitchell and Patricia Nomura, Los Angeles, UCLA School of Public Policy and Social Research and UCLA Anderson Forecast, 1999, pp. 24-35.

Cervero, Robert and Onesimo Sandoval, and John Landis (1999). "The Value of Transportation in Stimulating Welfare-to-Work Transitions. Evidence from the San Francisco, paper prepared for the Annual Meeting of the Transportation Research Board, July 1999.

Coalition for Workforce Preparation (1999). "Transportation Needs of CalWORKs Participants," paper presented at the CalWORKs Partnerships Conference, Anaheim, Ca , December 15-17, 1999.

Committee on Ways and Means, U.S House of Representatives (1993). Overview of Entitlement Programs. 1993 Green Book. July 7 Washington, D C : Government Printing Office.

Crew, R , and J. Eyerman (1999), "The Impact of Problems Related to Child Car, Transportation, and Illness on Success in Gaining and Keeping Employment after Leaving Welfare," paper presented at the 39th Annual Workshop of National Association for Welfare Research and Statistics, Cleveland, OH.

Danziger, S , M Corcoran, C Heflin, A Kalil, J. Levine, D. Rosen, K Seefeldt, K. Siefert, and R Tolman (1999) "Barriers to the Employment of Welfare Recipients," Poverty Research and Training Center, School of Social Work, University of Michigan, Ann Arbor, MI.

Federman, Maya, Thesia I. Garner, Kathleen Short, W Bowman Cutter IV, John Kiely, David Levine, Duane McDough, and Marilyn McMillen, "What Does It Mean To Be Poor In America?" Monthly Labor Review, May 1996, 119(5): 3-17

Ghonna, John M , "State Farm Suit Seeks Return of Data Critics Say Indicate Redlining," Los Angeles Times, December 5, 1999.

Green, Rex S , Lynn Fujiwara, Jean Norris, Shanthi Kappagoda, Anne Driscoll, and Richard Speiglman (2000) "Alameda County CalWORKs Need Assessment: Barriers to Working and Summaries of Baseline Status," Public Health Institute, Berkeley, CA.

Ebener, Patricia A. (1999). "1999 All-County Implementation Survey," presented at the RAND Statewide CalWORKs Evaluation Advisory Committee Meeting, October 26, 1999, Santa Monica, CA.

Hu, Patricia S. and Jennifer R. Young (1999). "Summary of Travel Trends, 1995 Nationwide Personal Transportation survey," draft version, Oak Ridge National Lab, Oak Ridge, Tennessee, January 8, 1999

Kain, John F (1992), "The Spatial Mismatch Hypothesis Three Decades Later," Housing Policy Debate 3(2).371-460

Kasarda, John (1980) "The Implications of Contemporary Redistribution Trends for National Urban Policy," Social Science Quarterly, 61:373-400

Kirschenman, Joleen, and Kathryn M. Neckerman (1991). "'We'd Love to Hire Them, But...'' The Meaning of Race for Employers," in Christopher Jencks and Paul E. Peterson, eds. The Urban Underclass, Washington, D C. The Brookings Institution, pp. 203-232

Miller, Doug and Paul Ong (1999) "Technical Report Analysis of Transportation Access and Employment using Q5 and Related Surveys," unpublished paper, UCLA Lewis Center for Regional Policy Studies, November 1999.

Murakami, Elaine and Jennifer Young (1997) "Daily Travel by Persons with Low Income," Paper for NPTS Symposium, Bethesda, MD, October 29-31, 1997.

Moffitt, Robert (1992) "Incentive Effects of the U S Welfare System A Review," Journal of Economic Literature v. 30, March, 1992

Ong, Paul "Work and Car Ownership Among Welfare Recipients," Social Work Research, 20(4). 255-262, December 1996.

Ong, Paul and Evelyn Blumenberg, "Job Access, Commute, and Travel Burden Among Welfare Recipients," Urban Studies, 35(1) 77-93, 1998.

Passero, William D , "Spending Patterns Of Families Receiving Public Assistance," Monthly Labor Review, April 1996, 119(4). 21-28

Raphael, Steven and Lorien Rice (2000) "The Effect of Car Ownership on the Employment Rates of Welfare Recipients and Low Skilled Women: Evidence from Quasi-Experiments," paper presented at "The Journey to Work: UCLA Symposium on Welfare Reform and Transportation," April 6-7, 2000, Los Angeles, CA

Raphael, Steven and Michael Stoll (2000). "Can Boosting Minority Car-Ownership Rates Narrow Inter-Racial Employment Gaps?" working paper, UC Berkeley and UCLA, Berkeley and Los Angeles, CA.

Rich, Michael (1999) "Access to Opportunities. The Welfare-to-Work Challenge in Metropolitan Atlanta," paper for the 1999 APPAM Fall Research Conference, Washington, D C., November 6, 1999.

Taylor, Brian and Paul Ong (1995) "Spatial Mismatch or Automobile Mismatch? An Examination of Race, Residence, and Commuting in the U S. Metropolitan Areas," <u>Urban Studies</u>, 32(9) 1453-1474, November 1995

The Foundation for Taxpayer and Consumer Rights, "Website Map Illustrates State Farm Redlining in Los Angeles, CA," News Release, December 7, 1999. tp://www.consumerwatchdog org/insurance/pr/pr000017 php3

U.S. President's Office (2000) "President Clinton Helping Low-Income Families Get To Work," press release, February 23, 2000

Work, Welfare and Families and the Chicago Urban League (2000), "Living with Welfare Reform, A Survey of Low Income Families in Illinois," Chicago, Illinois, January 2000.