

Immigrants and transport barriers to employment: The case of Southeast Asian welfare recipients in California

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Abstract

Increasing international migration has prompted public officials to develop policies to better integrate foreign-born residents. While scholars have shown the positive relationship between access to transport and economic outcomes among low-income adults, very little is known about this relationship with respect to immigrants. This study examines transport and employment rates among low-income adults focusing specifically on Southeast Asian refugees. The findings show the importance of automobiles across all racial and ethnic groups. Southeast Asians, however, report the greatest difficulty with their travel largely because they face auto-related problems including the age and unreliability of their vehicles. These findings suggest the need for both universal and group-specific policies for addressing the transport needs of the poor.

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1. Introduction

Economic integration, political instability, and environmental catastrophes among other factors have resulted in increasing international migration, as many low-income families seek improved opportunities outside of their countries of origin. The influx of foreign-born residents—many of them low-skilled and speaking languages other than those spoken in their host countries—has prompted public officials to develop policies and programs to facilitate their economic integration.

While access to transport—both cars and public transit—has been shown by scholars to positively affect the economic outcomes of low-income adults (Cervero et al., 2002; Gurley and Bruce, 2005; Ong, 1996, 2002; Raphael and Rice, 2002), thus far very little is known about the travel patterns of immigrants and, further, the relationship between the transportation resources of immigrants and their likelihood of employment. Consequently, scholars and policymakers largely have ignored the role of transportation programs and policies in linking immigrants to the workforce.

This study, therefore, helps to fill this gap in the literature with respect to low-income immigrants. Drawing from original survey data from two California counties, the study examines racial and ethnic variation in the travel patterns and transportation barriers of welfare recipients, adults living in households that receive income support. The analysis shows that Southeast Asian welfare recipients are more—not less—reliant on automobiles for their travel than other US racial and ethnic groups. While this finding might suggest that low-income Southeast Asian families do not face travel difficulties, evidence from the surveys shows otherwise. Some Southeast Asian households do not own automobiles. However, even those with cars face barriers. Southeast Asian respondents reported the greatest difficulty with their travel largely as a function of auto-related problems, the most apparent being the age and unreliability of their vehicles. Two-thirds of auto-owning Southeast Asian respondents owned vehicles that were over ten years old and 61% had trouble maintaining their vehicles.

The findings of this study suggest that policies to facilitate the economic incorporation of low-income families—including Southeast Asian households—must include efforts to increase access to automobiles and, in particular, access to reliable vehicles. For immigrants living

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in dense urban areas where public transit systems tend to be extensive, demand oftentimes can be greater than supply. Consequently, transit agencies must provide additional transit service in these neighborhoods. Further, they also can devote greater attention to overcoming immigrants' fears associated with traveling by public transit. One strategy for doing this is to provide language assistance to those who are not proficient in the dominant language of the country. Finally, additional data are needed to better understand the travel patterns and barriers of immigrants and to evaluate existing programs to meet their transport needs.

The article proceeds as follows. The next section includes a brief review of the scholarship on the relationship between Southeast Asians and poverty. Following this review is a description of the survey and research design, a presentation of the major findings, and an analysis of these findings. The article concludes with a discussion of policy and research recommendations.

2. Southeast Asians and poverty

In the aftermath of the Vietnam War and the collapse of the governments of Laos and Cambodia, millions of refugees fled Indochina, the vast majority entering the United States. Since the 1970s, over a million Southeast Asian refugees migrated to the United States from Cambodia, Laos, and Vietnam (US Department of Homeland Security, 2004). Migration from this area of the world peaked in the 1980s and has since waned; still Southeast Asian refugees comprise the largest group of refugees to settle in the US, 37% of all refugees since 1971. Data from the 2000 US Census show that California is home to 39% of all US Southeast Asians, almost three quarters originating from Vietnam.

Many refugees in the early group of arrivals came from households with relatively high socioeconomic levels and, therefore, arrived in the US with both education and work experience (Bach and Carroll-Seguín, 1986). However, the second wave of refugees, commonly known as “boat people,” came from a wider range of socioeconomic backgrounds and was less prepared to enter the US workforce since they had, on average, limited education and professional work experience and little English language proficiency. Although the economic integration of refugees typically increases with the assimilation associated with length of US residency (US Department of Health and Human Services, 2002), Southeast Asian poverty rates remain high despite the passage of time. As Table 1 shows, all of the Southeast Asian ethnic groups in California have poverty rates higher than the statewide average of 14%. Hmong residents have the highest poverty rates, exceeding 50% and, at 18%, Vietnamese residents have the lowest.

Since the passage of the US Indochina Migration and Refugee Assistance Act in 1975, economic assistance to Southeast Asian refugees to the US has been channeled

Table 1
California poverty rates, public assistance rates, and family income (2000)

	Poverty rate (%)	Public assistance (%)	Median family income (1999\$)
California	14.2	4.9	\$53,025
Cambodian	40.8	37.3	\$26,183
Hmong	53.2	50.2	\$24,372
Laotian	32.2	32.5	\$29,755
Vietnamese	18.0	15.5	\$49,114

US Census (2000). Summary File 4.

primarily through the welfare system. With welfare reform—and the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act—the US Congress substantially restricted federal welfare benefits to new legal immigrants to the US. However, refugees remain eligible for some federal public aid programs. For the first 7 years in the US low-income refugees can receive aid for the aged, blind, and disabled through the Supplemental Security Program, food and medical assistance through the food stamps and Medicaid programs, and for first 5 years in the US they can receive income support through the Temporary Assistance to Needy Families program (Fremstad, 2002). Changes in federal law, however, may have created an unintended “chilling effect,” suppressing the welfare usage of eligible refugees confused about program rules and fearful of the negative consequences of program participation (Fix and Passel, 2002). Welfare usage rates among refugees declined sharply subsequent to welfare reform; but some studies show that much of this decline was due to improvements in the economic status of refugees (Potocky-Tripodi, 2004).

Although declining, public assistance rates among Southeast Asians in California remain high, significantly higher than for other racial and ethnic groups. According to figures from the 2000 Census, over 50% of Hmong households, over 37% of Cambodian households, and over 32% of Laotian households received some form of public assistance. Vietnamese households had the lowest rates of assistance, 15.5%, a figure that is still 3 times that of the state average of 4.9%.¹

A number of studies have examined the economic adaptation of Southeast Asian refugees and, in particular, the determinants of employment, income, and welfare usage (Bach and Bach, 1980; Bach and Carroll-Seguín, 1986; Ong and Blumenberg, 1994; Potocky-Tripodi, 2003, 2001, 1997; Potocky and McDonald, 1995). These studies show that educational attainment, sex, household structure, citizenship status, and years living in the US contribute to economic assimilation. For example, refugees with higher educational attainment either prior or subsequent to immigration have better economic outcomes

¹In comparison, 2.7% of non-Hispanic white, 11.8% of Black, 5.7% of Asian, and 7.9% of Hispanic households received public assistance income.

than those with less education. Single-parent households and households with numerous children fare worse than two-parent households and households with fewer children. On average, men fare better than women; and citizens better than non-citizens. Finally, length of residence in the US is strongly and positively related to economic status, as it is also correlated with other aspects of assimilation such as English language acquisition.

While a growing body of scholarship has examined the effects of demographic, acculturation, residential location, and health characteristics on the economic adaptation of Southeast Asian refugees, few studies have focused on the transportation barriers and needs of this population group. Yet evidence from the small, but growing, literature on the travel patterns and behavior of immigrants suggests that refugees—particularly low-income refugees—may face unique transportation issues (Casas et al., 2004; Douma, 2004; Heisz and Schellenberg, 2004; Myers, 1996). Although auto use among immigrants increases with time living in the US, recent immigrants—also those with the lowest incomes—are disproportionately reliant on public transit (Blumenberg and Shiki, 2007; Myers, 1996). There are multiple explanations for this finding. Low incomes may prevent poor immigrant families from purchasing or maintaining automobiles; and some immigrants may be less likely than others to have had drivers' licenses, driven cars, or owned automobiles in their countries of origin.

There is also evidence of cultural differences associated with travel behavior and transport resources. For example, in some countries women are much less likely to possess driver's licenses or to know how to operate vehicles than women in the US (Pisarski, 1999) and, therefore, may be less likely to purchase or drive automobiles once in the US. Cultural differences also may influence the use of transit services. In focus groups with Latino, Somali, and Hmong immigrants in Minnesota, Douma (2004) finds that Latino immigrants are more open to transit and “social” types of travel, compared to Hmong immigrants who place a greater value on privacy.

3. Survey and research design

To examine the transportation behavior and needs of Southeast Asian welfare recipients, data were drawn from telephone surveys of the travel patterns, transportation resources, and travel barriers of welfare participants in two California counties—Los Angeles and Fresno. Fig. 1 shows the counties in California and highlights the location of the two study counties. Los Angeles County is located in Southern California and is one of the largest metropolitan areas in the country. In contrast, Fresno County, located in California's agricultural heartland, includes a medium-sized metropolitan area and a sizeable non-urban population.



Fig. 1. Geographic location of two study counties, Fresno and Los Angeles.

Surveys were conducted from December 1999 through February 2000 in Los Angeles County and in May and June 2001 in Fresno County. Although the data were collected a number of years ago, the findings are still relevant. Recent studies show that immigrants exit welfare at slower rates than native-born families (Tumlin and Zimmerman, 2003; Zimmermann and Fix, 1998). Moreover, immigrants with limited English language skills are least likely to exit welfare and, conversely, most likely to have reached the 5-year time limit on the receipt of benefits yet remain financially eligible (California Budget Project, 2002). Hence, Southeast Asians remain disproportionately represented among welfare recipients in California (California Department of Social Services, 2005). The findings from this study, therefore, provide the means to initiate a discourse on nativity, ethnicity, and transport.

Survey respondents were randomly sampled from administrative welfare caseload data and were contacted by telephone and asked to participate in a telephone survey. In Los Angeles, the survey was administered in English, Spanish, and Vietnamese; in Fresno, the survey was administered in English, Spanish, and Hmong. Recipients who agreed to participate in the survey completed an abbreviated travel diary in which they described the first five trips they took on the day prior to the survey including their destinations and travel modes. They were then asked a series of questions related to their work, job search, and childcare travel and their use of automobiles and public transit. Finally, respondents were

asked to identify auto- and transit-related policies and programs that would best meet their travel needs.

As Table 2 shows, more than half of the sample is Hispanic (52%), 27% is black, 18% is white, and 4% is Southeast Asian. The data include 127 Southeast Asian welfare recipients. In Los Angeles of the 1645 surveyed, 23 were Southeast Asian, with 21 from Vietnam. In Fresno, Hmong recipients were oversampled comprising 99, or almost one-fifth, of the 502 respondents. In addition, the Fresno sample includes three Laotians and two Cambodians. Although the sample of Southeast Asians is relatively small, it is large enough to describe some of the unique transport needs facing this population.

Table 2 includes key characteristics of the sample by race and ethnicity. As the data show, overall the sample is predominantly female since the welfare program disproportionately serves single parents with children. However, California has a small program for two-parent households and, therefore, as indicated by the data, includes some families with men. Southeast Asian refugees largely live in two-parent households (Table 3). They qualify for the program based on their refugee status and, consequently, are more likely than other welfare households to have two parents (California Department of Social Services, 2005).

Consistent with the broader literature on immigrants and refugees (Fennelly and Palasz, 2003), the findings show that Southeast Asians tend to be more linguistically isolated than other racial or ethnic groups in the sample. Approximately 70% of Southeast Asians were non-English speakers compared to 40% of Hispanic respondents.

Table 2
Demographic characteristics of sample by race and ethnicity

	Southeast Asian (%)	Hispanic (%)	White (%)	Black (%)
Sex	4	52	18	27
Male (%)	67	14	21	7
Female (%)	33	86	79	93
Education				
Less than high school (%)	67	57	23	20
High school (%)	33	43	78	80
Children				
1 child (%)	35	23	35	31
2+ children (%)	20	29	38	33
3+ children (%)	45	47	27	36
Non-English speakers (%)	68	38	16	0
Employment				
Currently employed (%)	74	52	50	51
Job search (%)	12	22	19	30
Not working/not searching (%)	12	25	32	19
Total (weighted)	78	1021	358	527

Table 3
Travel and transport characteristics by race and ethnicity

	Southeast Asian (%)	Hispanic (%)	White (%)	Black (%)
Commute mode				
Car	91	6	75	57
Transit	2	24	13	30
Other	7	9	11	13
Car ownership				
Does not own car	16	45	29	58
Owns car	84	56	71	42
Auto access				
Limited access	22	19	22	9
Unlimited access	62	36	49	33
No access	16	45	29	58
Borrow vehicle				
Difficult to borrow	91	84	79	83
Easy to borrow	9	16	21	17
Age of vehicle				
Young car	34	62	50	76
Old car	66	38	50	24
Ease of travel				
Difficult travel	53	43	42	42
Easy travel	47	57	58	58

Additionally, Southeast Asian respondents were more likely to have less than a high school education compared to respondents from the other three racial or ethnic groups. Sixty-seven percent of all Southeast Asian respondents had less than a high school education. With respect to family size, the distribution of Southeast Asian households by number of children is bimodal. Thirty-five percent of Southeast Asian respondents live in families with only one child; this figure is similar to that of non-Hispanic whites (35%) and much higher than for Hispanic households (24%). However, compared to non-Hispanic White and African American families, Southeast Asian households are more likely to have three or more children, a figure that rivals the percentage among Hispanic families. Forty-seven percent of Hispanic families have three or more children compared to 45% among Southeast Asians and only 36% and 27% among African Americans and non-Hispanic whites, respectively.

A higher percentage of Southeast Asian respondents were working than any other ethnic or racial group. However, this finding may be due to the overrepresentation of Southeast Asian men in the sample, who tend to have higher labor force participation rates than women (Bach and Carroll-Seguín, 1986).

4. The travel patterns and transport barriers of Southeast Asians

Over 90% of Southeast Asian respondents commute by automobile and 84% owned their automobiles; both of these figures are much higher than for all other ethnic and racial groups in the sample, including non-Hispanic whites. Auto ownership does not necessarily indicate that household drivers can use vehicles whenever they might need them. Although a very high percentage of households have automobiles, oftentimes adults in low-income households must share vehicles since there is frequently less than a one-to-one relationship between household cars and drivers. For example, among Southeast Asians in the sample, there are 0.4 automobiles for each household adult 18 years or older. Despite this figure, Southeast Asian respondents reported very high levels of unlimited access to automobiles; 62% stated that they could use a vehicle whenever they needed. In contrast, only one-third of African American respondents reported unlimited access to automobiles and 58% reported no access to personal vehicles at all.

These figures suggest that Southeast Asians do not have difficulty traveling to their destinations since they can use vehicles whenever they require them. At the same time, Southeast Asians were more likely than recipients of other racial and ethnic groups to report travel difficulties. Over half stated that they had difficulty traveling compared to approximately 42% of Blacks, Hispanics, and non-Hispanic whites. One reason for their travel difficulties may be their ownership of old vehicles, in this case defined as vehicles that are more than 10 years old. Sixty-six

percent of Southeast Asian respondents reported having an old car compared to 50% of non-Hispanic Whites, 38% of Hispanics, and only 24% of African Americans. Therefore, although Southeast Asian families are more likely to have reliable access to vehicles, they also are more likely to have automobiles that are old and in need of continual maintenance and repair. Not surprisingly, when asked to name two of the biggest auto-related problems they face, 61% of Southeast Asian respondents stated that they had problems maintaining their vehicles.

A logistic model was used to predict the independent effect of transportation on the employment outcomes of welfare recipients. The model takes the following functional form:

$$\text{logit}(p) = \log \frac{p}{1-p} = \alpha + \beta X,$$

where p is the probability of employment, α is the intercept parameter, and β is the vector of slope parameters representing the determinants of employment. This model is then applied to the racial and ethnic groups separately.

This first set of models predicts the likelihood of employment controlling for sex, English language proficiency, education, unlimited access to a personal vehicle, ability to borrow a vehicle, the age of the vehicle, and the county (either Fresno or Los Angeles County). Existing studies suggest that each of these variables should influence employment outcomes. For example, men tend to be employed at higher rates than women; non-white welfare recipients tend to have greater difficulty finding employment compared to white recipients; and human capital measured by English language proficiency and education tends to be positively correlated with employment (Bach and Carroll-Seguín, 1986; Blumenberg, 2002; Danziger et al., 2000).

Transportation options and, in particular, access to automobiles can also affect the employment outcomes of welfare recipients (Cervero et al., 2002; Danziger et al., 2000; Gurley and Bruce, 2005; Ong 1996, 2002). In these statistical models, three auto-related variables are included to incorporate different aspects of auto accessibility. The first auto variable measures not only whether there are automobiles in the household but also whether recipients can use these vehicles whenever necessary. Second, as many welfare recipients do not own vehicles but yet report that they commute to work by automobile, the models also include a variable identifying how easy it is for the recipient to borrow cars. Finally, access to vehicles may not positively affect employment if the vehicle is prone to mechanical difficulties and cannot reliably transport recipients to their destinations. The age of the vehicle is a proxy for reliability; old cars are defined as those 10 years or older.

Table 4 reports the results of the five models. Model 1 includes data from the total sample and controls for race and ethnicity. This model shows that Southeast Asians are more likely to be employed than non-Hispanic whites.

Table 4
Determinants of employment

Variable	Description	Model 1 Total	Model 2 Southeast Asian	Model 3 Hispanic	Model 4 White	Model 5 Black
Intercept		-0.750***	1.477	-0.651***	-0.481	0.686
Sex	Female	0.282*	-0.804	0.419*	0.054	12.57
Black	Black	0.134				
Hispanic	Hispanic	0.240				
Southeast Asian	Southeast Asian	1.283***				
English proficiency	Speak English	-0.147	-0.299	-0.094	-0.241	12.57
Education	High school +	0.308**	0.416	0.255	0.234	0.455
Unlimited auto access	Can use a vehicle when need to	0.928***	1.480**	0.879***	0.917***	1.02***
Borrow	Easy to borrow	0.177	-0.733	0.103	0.303	0.304
Age of car	Old car	-0.137	-0.448	-0.077	-0.076	-0.200
County	Los Angeles	0.033	-0.662	0.085	-0.076	0.216

* $p > 0.05$.

** $p > 0.01$.

*** $p > 0.001$.

Table 5
Ease of travel—difficulty of travel for work or job search

Variable	Description	Model 1 Total	Model 2 Southeast Asian	Model 3 Hispanic	Model 4 White	Model 5 Black
Intercept		-0.287	-2.609**	-0.368	-0.449	-12.625
Sex	Female	-0.157	-0.362	-0.034	-0.635	-0.471
Black	Black	0.010				
Hispanic	Hispanic	-0.035				
Southeast Asian	Southeast Asian	-0.283				
Family size	3+ members	-0.114	-0.873	-0.159	0.154	-0.106
Job search	Searching for work	0.052	0.037	0.0132	0.798*	-0.168
English proficiency	Speak English	-0.046	0.395	-0.1499	0.006	13.025
Unlimited auto access	Can use a vehicle when need to	-0.345*	0.618	-0.364	-0.442	-0.562*
Borrow	Easy to borrow	-0.346*	0.998	-0.118	-0.931*	-0.661*
Age of car	Old car	-0.203	1.322*	-0.022	-0.131	-0.773*
County	Los Angeles	1.606***	2.374**	1.383***	2.751***	1.432***

* $p > 0.05$.

** $p > 0.01$.

*** $p > 0.001$.

In Models 2–5 the probability of employment is modeled separately by racial and ethnic group. The results show that with respect to the transportation variables, unlimited access to automobiles was a strong and statistically significant predictor of employment for each of the racial and ethnic groups. It is important to acknowledge the issue of causality. Having access to automobiles may increase the likelihood that welfare recipients find and retain employment. Conversely, employment may provide welfare recipients with the resources to purchase vehicles. Neither the age of the vehicle nor the relative ability to borrow a vehicle was a significant predictor of employment for any of the racial and ethnic groups.

Survey respondents were also asked to rate their ease of travel. A second set of logistic models examines the independent determinants of welfare recipients' perceived difficulty of travel. Table 5 shows the results of these models; once again, Model 1 includes the entire sample

controlling for race and ethnicity and Models 2–5 show the results for individual racial and ethnic groups. Among Southeast Asians the only significant predictor of difficulty was age of the vehicle. Respondents with older vehicles experienced greater difficulty with their travel.

5. Findings and analysis

The study shows the variation in transportation patterns and behavior by race and ethnicity. Southeast Asian welfare recipients in this sample are more reliant on private vehicles than other racial and ethnic groups. There are a number of potential explanations for these findings. The result may be due, in part, to the geographic composition of the sample; 82% of the Southeast Asian respondents are from Fresno County where Hmong were oversampled. In general, auto reliance among welfare recipients is much

higher in Fresno than in Los Angeles since the county is smaller, less densely developed and, therefore, has a less extensive public transit infrastructure. Studies show that a shortfall of adequate and affordable public transit motivates many households, even those with limited incomes, to rely on automobiles (Lucas et al., 2001). However, even among the Fresno sample, auto use remains much higher among Southeast Asians than the other three racial and ethnic groups.

Household size may also contribute to this finding. Among the four population groups, Southeast Asian households have the greatest number of adults—close to three adults per family compared to just over two adults in Hispanic and white households and less than two in black households. Since additional adults in the household oftentimes translates into additional wage earners, Southeast Asian households might be more likely to have the incomes necessary to purchase automobiles. Another explanation may be related to the intra-metropolitan residential location patterns of low-income Southeast Asian families. They may be more likely than other low-income households to live in job-poor neighborhoods where they must travel outside of their neighborhoods for employment; cars, therefore, may be the only reasonable travel option.

Finally, English language difficulties may deter Southeast Asian welfare recipients from using public transit and, therefore, compel them to rely on automobiles (Lucas et al., 2001; Sanchez et al., 2004). Sixty-eight percent, or more than two-thirds, of Southeast Asians in the sample had limited English language proficiency. In a community study of transportation issues in Fresno County, researchers found that limited English language skills made it difficult for Southeast Asian adults to navigate the transit system “...where most of the information, materials, signage and staff assistance are provided in unfamiliar languages (Odyssey, 2004, p. 3).” Language barriers can limit travelers’ knowledge of the transit system thereby increasing their overall levels of uncertainty and fear and reducing the likelihood of transit ridership. Recent advances in mode choice modeling have incorporated the role of cognitive processes—such as fear and uncertainty—in influencing travel behavior (Ben-Akiva et al., 2002).

The data also suggest that information on commute mode or the presence of household vehicles is not sufficient information in determining whether low-income families face transportation barriers. Numerous low-income adults live in households with automobiles but have limited access to them since they must compete with other household drivers for use of the car. Further, low-income households may only have the financial resources to purchase old vehicles that are more likely than newer vehicles to have mechanical problems and, therefore, be unreliable. With respect to Southeast Asian welfare recipients, the age of household vehicles—disproportionately 10 years or older—was a significant obstacle to travel.

6. Policy and research prescriptions

The findings, therefore, suggest a number of important policy prescriptions and recommendations for further research. Unlimited access to automobiles is associated with employment across all ethnic and racial groups. Therefore, policies to facilitate the economic incorporation of low-income families—including Southeast Asian households—must include programs to facilitate access to automobiles. This is a controversial proposal considering the numerous externalities—such as congestion and poor air quality—associated with automobiles. Transport, environmental, and land use policies clearly need to address the negative effects of widespread auto use. At the same time, low-income households should not be channeled into alternative modes of transportation under the erroneous belief that doing so will mitigate these externalities. The marginal contribution of additional low-income drivers to these problems will be quite small. And, without access to automobiles, low-income adults who live in areas where public transit is not a viable option will be isolated from jobs, services, and other essential destinations.

To increase automobile ownership among welfare recipients in the US, state legislatures that have not done so already must simply eliminate the vehicle asset limitation. Approximately one-half of all states—including California—deny public benefits to welfare recipients who own vehicles worth more than a set dollar value, despite federal regulations giving states the flexibility to raise or eliminate this asset limitation; two-thirds of all welfare recipients live in states that maintain a vehicle asset limitation (Urban Institute, 2001; US Department of Health and Human Services, 2000). The importance of changing this regulation is underscored by Sullivan (2006) who finds that eliminating the vehicle asset would increase auto ownership among low-income single mothers; a shift from a \$1500 vehicle exemption to a full vehicle exemption would increase the probability of owning a vehicle by 20% for low-educated single mothers.

Vehicle ownership programs also show some promise. In response to the employment-oriented focus of current US welfare programs, a growing number of public and non-profit agencies have established programs to help low-income families purchase automobiles. These programs include a variety of strategies such as providing loans for auto purchases, maintenance and repairs; leasing programs; and automobile ownership programs in which agencies and organizations acquire vehicles and, then, transfer them to needy families (Wong et al., 2003). According to the National Economic Development and Law Center (http://www.nedlc.org/center/car_ppd_car_map.htm), there are approximately 60 low-income auto ownership programs in the US of which eight are in California. Although most existing programs are new and relatively small making it difficult to evaluate their effectiveness conclusively, emerging evidence suggests that

vehicle ownership programs contribute to better employment outcomes for participants and, therefore, merit support (Brabo et al., 2003).

Individual Development Accounts (IDAs) can help low-income families accumulate savings and purchase vehicles. IDAs are savings accounts for low-income workers that provide an incentive to save by matching participants' deposits with public and private funds. In general, IDAs are intended to encourage asset-building among low-income families largely to help families buy a first home, start a small business, or pay for post-secondary education. Federal welfare funds can be used to match IDAs for the purchase of automobiles; however, this is rarely done since auto-related IDAs may be considered assets for the purposes of eligibility determination for other federal benefit programs. US federal and state programs must be altered to ensure that car-related IDAs are allowable expenses and do not jeopardize families' eligibility for other federal programs.

An IDA program has been administered as part of the US Department of Health and Human Services, Office of Refugee Resettlement (ORR). The program provides matched savings accounts and financial education to low-income refugees for a number of purposes including automobile purchases. Federal funds are available—on a competitive basis—to public and non-profit organizations to provide matched savings up to \$2000 per individual refugee and \$4000 per refugee household. From the onset of the program through 2002, 57% of participant asset goals were for vehicle purchases (Office of Refugee Resettlement, 2002). However, while the ORR has been the second largest funder of IDAs in the country, in recent years due to budget cuts, the program has been reduced substantially. In 2002, ORR awarded 49 IDA grants totaling \$18.4 million. In contrast, the 2005 program letter reports that \$1.5 million will be allocated to the program, funding only 7–8 grant recipients (Office of Refugee Resettlement, 2005). Further, the announcement requires that accounts for automobile purchases represent less than 10% of all IDAs established through the program. These figures suggest that funds for this program should be increased and greater flexibility given in the use of these funds for automobiles purchases.

Programs to facilitate auto ownership among welfare recipients also may have the added benefit of enabling low-income families to purchase newer vehicles that have fewer mechanical difficulties. In California, for example, the vehicle asset limitation is currently set at \$4650, well below what is needed to purchase a reliable automobile. Many auto ownership programs also have addressed the auto “reliability” issue. Some programs have established funds to help participants with auto maintenance such as incorporating regular maintenance costs as part of loans or establishing agreements with city and county mechanics to provide free or low-cost maintenance to individuals who receive cars (Reichert, 1998). Other programs help participants transition from short-term, perhaps older vehicles,

to newer, better-quality vehicles particularly as their incomes rise (Brenna, 2005).

Finally, car-sharing—multiple households that share a pool of automobiles—may also hold promise for low-income families. It may allow low-income families increased mobility without the expenses associated with automobile ownership (Ortega, n.d.). While numerous organizations tout the potential benefits of car sharing for low-income families, the empirical evidence of these benefits needs greater examination.²

There is also an important role for public transit improvements. Public transit works best in dense urban areas where riders can travel to their destinations in a reasonable amount of time. Studies show that public transit can have a small but beneficial effect on the employment rates of welfare recipients who live in households without automobiles (Kawabata, 2003; Ong and Houston, 2002). However, public transit investments in these neighborhoods, where ethnic neighborhoods and immigrant transit riders are numerous, falls short of meeting the demand for service resulting in long delays, overcrowding, and potentially discouraging ridership (Garrett and Taylor, 1999; Ong and Houston, 2002; Sanchez et al., 2004). It is in these neighborhoods that transit agencies ought to make greater investments and, in particular, increase service frequencies.

Transit agencies must also ensure that their services are accessible to foreign-born neighborhood residents and, in particular, address the language barriers facing immigrants and refugees. Many transit agencies already provide services to improve transit information for those with limited English proficiency (LEP). In the US, they were mandated to do so following President Clinton's signing of Executive Order 13166 on August 11, 2000 and the subsequent release by the Department of Justice of the policy guidance document, “Enforcement of Title VI of the Civil Rights Act of 1964—National Origin Discrimination against Persons with Limited English Proficiency.” Executive Order 13166, entitled “Improving Access to Services for Persons with Limited English Proficiency,” requires that:

...each Federal agency shall examine the services it provides and develop and implement a system by which LEP persons can meaningfully access those services consistent with, and without unduly burdening, the fundamental mission of the agency. Each Federal agency shall also work to ensure that recipients of Federal financial assistance (recipients) provide meaningful access to their LEP applicants and beneficiaries (The White House, 2000).

The US Department of Transportation (DOT) responded to these regulations by releasing “DOT Guidance

²See, for example, the Transportation and Land Use Coalition, in the San Francisco Bay Area, <http://www.transcoalition.org/ia/carshare/01.html>.

to Recipients on Special Language Services to Limited English Proficient (LEP) Beneficiaries,” a document that specifies how the DOT can provide meaningful access to LEP persons by ensuring that they are “given adequate information, are able to understand that information, and are able to participate effectively in recipient programs or activities, where appropriate (US Department of Transportation, 2001, p. 6736).” The document further specifies the components of providing “meaningful access” to services. Transit agencies that receive federal funds must conduct a thorough assessment of the language needs of the affected population and communities served, develop a written language assistance plan, provide staff training to support this plan, provide necessary language services, and monitor the effectiveness of the program.

There are three primary methods by which agencies can provide language assistance services—oral interpretation, written translation, and alternative, non-verbal communication. Oral interpretation includes providing skilled interpreters such as employing bilingual staff, hiring permanent or part-time interpreters, or establishing telephone interpreter lines. Agencies must also ensure that written materials routinely available in English are translated into other languages. This includes “applications, consent forms, letters containing important information regarding participation in a program...notices pertaining to the reduction, denial or termination of services or benefits or that require a response from beneficiaries, notices advising LEP persons of the availability of free language assistance, and other outreach materials be translated into the non-English language of each regularly encountered LEP group eligible to be served or likely to be directly affected by the recipient’s program (US Department of Transportation, 2001, p. 6740).” Finally, the DOT also encourages agencies to use methods and devices that do not use language such as pictograms, symbols, diagrams, color-coded warnings, illustrations, graphics, and pictures.

There is evidence that US transport agencies are attempting to comply with these requirements under threat of potential litigation based on Title VI of the US Civil Rights Act of 1964 barring discrimination based on national origin, among other factors, by any program or activity receiving federal assistance.³ However, neither the extent of programs to provide special language services for those with limited English language proficiency nor the effectiveness of existing programs have been examined yet.

Finally, the study suggests a need for additional research to more fully explore the transport needs of immigrant groups who in many major metropolitan areas worldwide comprise a growing percentage of the population and a

sizeable percentage of transit riders (Myers, 1996). This study is a start; however, larger sample sizes are needed to examine ethnic as well as geographic differences across immigrant population groups. Further, any programs to address these transport barriers must include rigorous program evaluations to ensure that they attract participants and that they effectively meet the transportation needs of this population group.

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³See, for example, the report produced by the National Capital Region Transportation Planning Board (<http://www.mwcog.org/uploads/committee-documents/9ltfWg20030626164928.pdf>) or the Residential Transit Coordinator (RTC) program established in King County, Washington (<http://www.metrokc.gov/kcdot/aboutus/intrans/2004/6multilingual.htm>).

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