IMMIGRATION AND WELFARE,
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ABSTRACT

This paper uses the 1970, 1980, and 1990 Public Use Samples of the U.S. Census to trace the evolution of immigrant participation in welfare programs during the past two decades. The data indicate that immigrant participation in welfare programs is on the rise, and that the dollar costs associated with this trend are rising even faster. By 1990, immigrant households received a disproportionately high share of the cash benefits distributed in the United States. Even though only 8.4 percent of the households are foreign-born, these households accounted for 10.1 percent of all households that received public assistance, and for 13.1 percent of the total cash assistance distributed.

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I. Introduction

More immigrants will enter the United States during the 1990s than in any other decade in the country's history. We are now admitting over 800,000 legal immigrants annually, and at least 200,000 illegal aliens manage to evade the Border Patrol and settle permanently in the country. In view of the increase in the number of immigrants, as well as in the historic changes in their national origin and skill composition, it is not surprising that immigration has again become a charged political issue. Previous immigration debates revolved around the questions of whether immigrants assimilated in the United States and whether they took jobs away from natives. The rapid growth of entitlement programs in the past three decades introduces an additional explosive question into the arena: Do immigrants "pay their way" in the welfare state?

The conventional wisdom regarding immigrant participation in welfare programs has changed drastically in recent years. Blau's (1984) study, which analyzed data drawn from the 1976 Survey of Income and Education, concluded that immigrant households had a lower probability of receiving public assistance than U.S.-born (or "native") households.[1] The more recent work of Borjas and Trejo (1991), based on the joint study of the 1970 and 1980 Censuses, concluded that by 1980 immigrant households were more likely to participate in welfare programs than native households.

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[1] See also Simon (1984), Tienda and Jensen (1986) and Jensen (1988).

More importantly, Borjas and Trejo noted that the increase in immigrant welfare participation could be attributed to two distinct factors. First, more recent immigrant waves had higher probabilities of receiving public assistance than earlier waves. In other words, the "cohort effects" in immigrant skills which have studied extensively in recent years (Borjas, 1985, 1990) manifest themselves as higher welfare propensities for the more recent and relatively less skilled immigrant waves.[2] In addition, the welfare participation rate of a particular cohort increases over time (relative to the change in welfare participation rates experienced by native households as they age). Put differently, immigrants assimilate into the welfare system.

This paper uses the 1970, 1980, and 1990 Public Use Samples of the U.S. Census to trace the evolution of immigrant participation in welfare programs during the past two decades. The paper has two key objectives. First, to determine if the trends in welfare participation rates evident in the data drawn from the 1970 and 1980 Census continued during the 1980s. The paper also analyzes the impact of immigration on the costs of providing welfare programs. These calculations yield useful insights into the question of whether immigrants pay their way in the welfare system.

In view of the potential policy implications of the results, it is important to provide an empirical analysis that is both convincing and that can be replicated easily by other researchers. As a result, much of the empirical evidence reported in this paper is based on "raw" statistics drawn directly from the various Census files. These calculations do not impose any type of parametric or statistical structure on the data. Although I also report the results of a more formal statistical analysis based on a regression model that allows the identification of assimilation,

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[2]Other studies which report sizable cohort effects in the skills of immigrants since 1965 include LaLonde and Topel (1992) and Funkhouser and Trejo (1994).

cohort, and period effects, the regression results simply "repackage" the key insights provided by the raw Census statistics.

The conclusions of the analysis are striking and can be easily summarized. First, immigrant participation in welfare programs is on the rise, and the dollar costs associated with this disturbing trend are rising even faster. Second, the empirical evidence unambiguously indicates that immigrants now receive a disproportionately high share of the cash benefits distributed in the United States.

II. Data and Summary Statistics

I use data from the 1970, 1980, and 1990 Public Use Samples of the decennial Censuses. The household is the unit of observation. A household is classified as an immigrant household if the household head was born outside the United States and is either an alien or a naturalized citizen. All other households are classified as native households. This definition of immigration status implies that persons born abroad of American parents or persons born in U.S. possessions (such as Puerto Rico) are classified as native households.[3] Finally, the year of immigration of the household is determined by the household head's year of arrival to the United States.[4]

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[3]Because Puerto Ricans form the bulk of "natives" born outside the United States and because they also have exceptionally high welfare participation rates. it is evident that the definition I use to determine the nativity status of a household overstates the average welfare participation rate of persons born in one of the 50 states.

[4]In the 1970 Census file, about 2.9 percent of household heads who report a foreign birthplace do not report the year of migration. This sample of persons is deleted from the analysis below. It is worth noting that the households that have missing information on the years-since-migration variable do not form a random sample of the immigrant population. They have much higher welfare participation rates than the immigrants who do report their year of migration to the United States.

Unless otherwise specified, the 1970 Census data used in the empirical analysis consists of a 1/1000 random sample of native households, and of a 2/100 random sample of immigrant households. The immigrant extract is constructed by pooling the 1/100 State and County Files (5 percent questionnaire). The 1980 Census data consists of a 1/1000 random sample of native households, and of a 5/100 random sample of immigrant households. The immigrant extract is drawn from the A File of the 1980 Census. Finally, the 1990 Census data consists of a 5/1000 random sample of native households, and of a 5/100 random sample of immigrant households.[5] The empirical analysis is restricted to households not residing in group quarters and headed by persons who are at least 18 years of age.

As in previous studies, I classify a household as receiving public assistance if any member of the household received public assistance income in the calendar year prior to the Census. The cash benefit programs for which the Census reports public assistance income include Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), and general assistance. The decennial Censuses do not contain any information on the household's participation in non-cash assistance programs, such as Food Stamps and Medicaid.

Table 1 reports the welfare participation rates (i.e., the percent of households receiving public assistance) calculated in the various Censuses. A number of results are clear. In 1970, immigrants were slightly less likely, on average, to receive cash benefits than natives. By 1980, the direction of the differential had reversed and immigrants were about 1 percentage point more likely to receive public assistance. During the 1980s, the "welfare gap" between immigrant and native households widened substantially. While native households experienced a decline in the

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[5]The Public Use Sample of the 1990 Census (unlike the earlier Censuses) is not a random sample of the population. As a result, I use the household's sampling weight throughout the analysis.

TABLE 1

WELFARE PARTICIPATION RATES OF NATIVE
AND IMMIGRANT HOUSEHOLDS, 1970-1990
(Percent of Households Receiving Public Assistance)

Group	All Households			Male-Headed Households			Female-Headed Households		
	1970	1980	1990	1970	1980	1990	1970	1980	1990
Natives	6.0	7.9	7.4	3.7	4.7	4.4	14.8	16.1	13.5
All Immigrants	5.9	8.7	9.1	4.5	6.4	6.9	10.4	14.7	14.4
Cohort:									
1985-1989 Arrivals	---	---	8.3	---	---	7.0	---	---	13.2
1980-1984 Arrivals	---	---	10.7	---	---	8.3	---	---	19.1
1975-1979 Arrivals	---	8.3	10.0	---	6.9	7.3	---	14.6	19.1
1970-1974 Arrivals	---	8.4	9.7	---	5.8	6.7	---	19.1	18.7
1965-1969 Arrivals	5.5	10.1	9.8	4.4	7.0	6.7	11.7	20.5	17.8
1960-1964 Arrivals	6.5	9.2	8.4	4.9	6.3	6.2	14.5	18.3	13.6
1950-1959 Arrivals	4.9	7.1	6.7	3.5	4.8	5.1	12.1	14.1	10.3
Pre-1950 Arrivals	6.2	9.3	8.1	4.7	7.3	7.0	9.8	12.3	9.4
Sample Size:									
Immigrants	86,201	298,045	357,294	64,980	214,502	256,999	21,221	83,543	100,295
Natives	58,958	72,733	423,468	46,653	52,635	290,228	12,305	20,098	133,240

welfare participation rate, immigrant households experienced an increase. By 1990, the welfare participation rate of immigrant households was 9.1 percent, or about 1.7 percentage points higher than the participation rate of native households.

As in the Borjas-Trejo (1991) analysis, two distinct factors "explain" the disproportionate increase in welfare participation among immigrant households. Table 1 shows that the 1980s witnessed a continuation of the trend wherein more recent immigrant waves have relatively higher welfare participation rates than earlier waves. For example, in 1970 only 5.5 percent of the most recent immigrant households (i.e., households that have been in the United States fewer than five years) received welfare; and in both 1980 and 1990, 8.3 percent of the newly-arrived immigrant households received public assistance. Although the welfare participation rate of the most recently arrived immigrant households remained constant between 1980 and 1990, the immigrant recipiency rate rose relative to that of native households. In 1980, for example, the probability that the most recently arrived immigrants received public assistance exceeded that of native households by only .4 percentage points; by 1990, the immigrant rate was almost 1 percentage point higher. Among households that have been in the United States between five and ten years, there has been a rise (both absolutely and relatively) in welfare participation rates over the last two decades: from 6.5 percent in 1970, to 8.4 percent in 1980, and to 10.7 percent in 1990.

Table 1 also indicates that not only are recent waves more "welfare-prone," but that the welfare participation rate for a specific wave of immigrant households increases over time. Even though only 5.5 percent of the households that migrated between 1965 and 1969 received public assistance in 1970, the welfare participation rate of this group had increased to about 10 percent in both 1980 and 1990. Similarly, households who arrived between 1975 and 1979 had a welfare participation rate of 8.3 percent in 1980 and of 10.0 percent in 1990.

The Census data reveal that these trends occur among both male-headed and female-headed households. Among male-headed households, for example, the participation rate of the most recent wave increased by 2.6 percentage points between 1970 and 1990, as opposed to the .7 percentage point rise experienced by male-headed native households over the same period. Similarly, among female-headed households, the welfare participation rate of the most recent wave increased by 1.5 percentage points, in contrast to the 1.3 percentage point decline experienced by female-headed native households.

As in earlier studies, the 1990 Census reveals substantial differences in welfare propensities among national origin groups. Table 2 reports the welfare participation rates for selected groups. The dispersion in welfare propensities across national origin groups is remarkable. Only about 2 to 4 percent of the households originating in South Africa, Taiwan, or the United Kingdom receive public assistance, as opposed to 11 to 12 percent of the households originating in Ecuador or Mexico, and nearly 50 percent for households originating in Laos or Cambodia. Table 2 also shows that the variation in welfare propensities across national origin groups cannot be explained by differences in the number of years that the various groups have resided in the United States. Even among households who are "long-time" residents, welfare participation rates differ significantly across groups: 4 percent of German immigrants, 11 percent of Filipino immigrants, and 30 percent of immigrants from the Dominican Republic receive welfare even after 10 years in the United States.

The statistics presented in Table 2 suggest a major "structural shift" between two types of immigrant households. In particular, refugee households tend to exhibit much higher rates of welfare participation than non-refugee households. As noted earlier, households originating in Cambodia or Laos had a welfare participation rate of near 50 percent; those originating in

TABLE 2. WELFARE PARTICIPATION RATES IN 1990, BY NATIONAL ORIGIN GROUP

Country of Birth	All Immigrants		Pre-1980 Arrivals	
	Percent on Welfare	Sample Size	Percent on Welfare	Sample Size
Europe:				
Austria	4.3	2,407	4.5	2,299
Czechoslovakia	4.9	2,320	4.9	2,111
France	4.8	2,613	5.9	2,054
Germany	4.1	17,198	4.2	16,143
Greece	5.5	4,196	5.6	3,851
Hungary	5.1	3,142	5.1	2,943
Italy	5.4	15,220	5.6	14,626
Poland	5.7	9,437	5.9	7,645
Portugal	7.1	3,903	7.6	3,293
U.S.S.R.	16.3	7,133	10.1	5,387
United Kingdom	3.7	14,928	4.1	12,279
Yugoslavia	5.3	3,339	5.7	3,000
Asia:				
Cambodia	48.8	1,560	24.4	317
China	10.4	9,804	11.1	6,034
India	3.4	8,092	4.2	4,572
Iran	7.5	4,317	4.1	2,747
Japan	2.3	4,860	3.7	2,551
Korea	8.1	8,286	8.6	4,163
Laos	46.3	2,197	34.1	595
Lebanon	7.3	1,722	8.8	1,039
Philippines	9.8	13,839	10.5	9,312
Taiwan	3.3	4,005	4.2	1,660
Vietnam	25.8	7,170	15.9	3,288
North and South America:				
Argentina	4.8	1,972	5.7	1,445
Canada	4.8	18,398	5.1	16,401
Colombia	7.5	4,713	8.9	2,972
Cuba	16.0	16,472	15.3	13,197
Dominican Republic	27.9	5,124	29.9	3,280
Ecuador	11.9	2,279	13.8	1,631
El Salvador	7.3	6,047	10.2	2,409
Guatemala	8.7	2,982	11.4	1,426
Haiti	9.1	3,359	9.7	1,781
Jamaica	7.5	5,512	8.7	3,793
Mexico	11.3	68,076	12.8	47,630
Nicaragua	7.8	2,144	11.8	825
Panama	9.0	1,488	8.7	1,131
Peru	5.9	2,304	7.8	1,268
Africa:				
Egypt	5.5	1,578	6.7	1,039
Ethiopia	5.9	601	3.0	181
Nigeria	3.2	1,164	3.3	449
South Africa	1.6	680	1.6	361
Australia	3.7	834	3.8	569

Vietnam have a welfare participation rate of 25.8 percent; while those originating in Cuba or the Soviet Union have a participation rate of 16 percent. Moreover, the participation rate of refugee households remains high even after a decade in the United States. Refugee groups that are thought of as being economically successful, such as the pre-1980 Cubans (i.e., Cubans who migrated prior to the Mariel flow), have a welfare participation rate of over 15 percent in 1990.

The high propensity of refugee households to enter (and stay in) the welfare system is the likely result of government policies designed to ease the transition of refugees into the United States. Persons who enter the country as refugees or political asylees have immediate access to a wide array of social services and programs that neither other legal immigrants nor natives qualify for. The impact of this introduction to the welfare state seems to be both profound and long-lasting.

Because refugees accounted for 12 percent of the immigration flow in the 1970s and 17 percent of the immigrant flow during the 1980s, it is possible that some of the trends observed across cohorts in the past twenty years can be directly attributable to the relative growth in the number of refugee households.[6] It is important, therefore, to determine if the same trends are observed among non-refugee immigrant households.

Unfortunately, the U.S. Census does not contain any information on the type of visa used by a particular household to enter the United States. To approximate the refugee population, therefore, I classify all households who originate in the main refugee-sending countries as refugees (all other households are classified as non-refugees). A refugee-sending country is defined as one

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[6]These percentages are obtained by dividing the number of refugees granted permanent residence by the total size of the immigrant flow, where the denominator excludes the population of illegal aliens who received amnesty (and who were granted permanent residence status) in 1989 and 1990.

where more than 1,000 refugees originated between 1981 and 1990, and where the refugee flow

was responsible for at least 40 percent of the total immigrant flow (from that country) during the

decade.[7] Thirteen countries satisfy these restrictions: Afghanistan, Bulgaria, Cambodia, Cuba,

Czechoslovakia, Ethiopia, Hungary, Laos, Poland, Romania, Thailand, the former U.S.S.R., and

Vietnam.[8] These thirteen countries accounted for 90.4 percent of the refugees awarded

permanent residence status during the 1970s, and for 90.5 percent in the 1980s.[9]

Table 3 illustrates the trends in immigrant participation rates for non-refugee and refugee

households, and these trends show that both types of immigrants are now more likely to be

enrolled in welfare programs. In 1970, 5.6 percent of non-refugee households received public

assistance as opposed to 7.1 percent of refugee households.. By 1990, non-refugee households

had a welfare participation rate of 7.8 percent, as opposed to 16.1 percent for refugee households.

The table also indicates that the increasing participation in welfare programs of non-refugee

households can be attributed to both cohort effects and to assimilation effects, although the

cohort effects were very weak during the 1980s. For example, the welfare participation rate of

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[7]The data on the number of refugee entrants is obtained from U.S. Immigration and Naturalization
Service (1992, p. 84). It is worth noting that the INS data on the number of refugees refers to refugees
granted permanent residence status during the decade. Some refugees who entered the United States
between 1981 and 1990 will not adjust status until after 1991, and hence they are not included in the
total count of refugees.

[8]The immigrant flow from Poland does not strictly satisfy these restrictions because only about 35
percent of the 1980s Polish flow entered the United States using a refugee visa. I include it as one of the
13 countries because of the relatively large size of its refugee flow (33.9 thousand immigrants), and
because Poland was an important source of refugees throughout much of the postwar period.

[9]Obviously, this construction of a refugee sample is, to some extent, arbitrary. For instance, the list of
refugee-sending countries could conceivably include Iran (which was the source of 46.8 thousand
refugees during the 1980s, although refugees accounted for only 30 percent of the total Iranian flow). I
experimented with a number of alternative definitions of the refugee sample, and the results were
essentially the same as those reported below because the refugee data is dominated by a small set of
countries, such as Cambodia, Cuba, Laos, and Vietnam.

TABLE 3

WELFARE PARTICIPATION RATES OF IMMIGRANT HOUSEHOLDS, 1970-1990, BY REFUGEE STATUS

Group	Non-Refugee Households			Refugee Households		
	1970	1980	1990	1970	1980	1990
All Immigrants	5.6	8.2	7.8	7.1	11.6	16.1
Cohort:						
1985-1989 Arrivals	---	---	5.3	---	---	30.5
1980-1984 Arrivals	---	---	7.4	---	---	25.9
1975-1979 Arrivals	---	5.6	8.6	---	23.6	18.5
1970-1974 Arrivals	---	7.5	9.2	---	15.9	14.9
1965-1969 Arrivals	3.3	8.8	9.1	16.7	16.9	13.9
1960-1964 Arrivals	4.7	8.4	8.2	13.1	12.1	9.6
1950-1959 Arrivals	4.7	7.1	6.8	5.5	7.2	8.2
Pre-1950 Arrivals	6.4	9.7	8.4	5.5	7.4	6.6
Sample Size:						
Immigrants	67,767	248,515	303,489	18,434	49,530	53,805

Note: Refugee households are households originating in Afghanistan, Bulgaria, Cambodia. Cuba, Czechoslovakia, Ethiopia, Hungary, Laos, Poland, Romania, Thailand, the U.S.S.R.. and Vietnam.

non-refugee households who have been in the country fewer than five years was 3.3 percent in 1970, 5.6 percent in 1980, and 5.3 percent in 1990.

In contrast, much of the rise in welfare participation rates exhibited by refugees in the past twenty years can be attributed to sizable cohort effects: About 17 percent of the newly-arrived refugees in the 1970 Census received public assistance; by 1990, 30.5 percent of the newly-arrived immigrants received public assistance. The data also indicate that the welfare participation rate of refugee households does not seem to rise over time. There seems to be, in fact, a slight decline in welfare recipiency rates as the refugee population ages. For example, 23.6 percent of refugee households admitted in the late 1970s received public assistance in 1980; by 1990, the welfare participation rate of this cohort had fallen to 18.5 percent. It is important to point out, however, that even after 20 years in the United States refugee households are much more likely to receive public assistance than either natives or non-refugee immigrants.

The Census data provide striking evidence that not only are the recipiency rates of immigrant households rising over time, but also that the dollar costs of immigrant welfare participation are rising even faster. Table 4 documents that the typical native household on welfare received roughly $4,000 in cash benefits (in 1989 dollars) in all three Census years under study. In contrast, the typical immigrant household on welfare received about $3,800 in 1970, nearly $4,700 in 1980, and about $5,400 in 1990. The table also reveals sizable cohort effects in the welfare income received by immigrant households. In 1970, households who had just entered the country and were on welfare received an average of $3,800 in cash benefits. By 1990, the newly-arrived immigrant households on welfare received an average of $6,400.[10]

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[10]Although the trends in public assistance incomes received by immigrant households across Censuses can be meaningfully interpreted in terms of cohort effects, some caution is required when using the data

TABLE 4

MEAN WELFARE INCOME OF NATIVE AND IMMIGRANT HOUSEHOLDS, 1970-1990
(In 1989 dollars)

Group	All Households			Non-Refugee Households			Refugee Households		
	1970	1980	1990	1970	1980	1990	1970	1980	1990
Natives	3,837	4,248	4,017	---	---	---	---	---	---
All Immigrants	3,806	4,662	5,363	3,885	4,625	4,759	3,575	4,791	7,011
Cohort:									
1985-1989 Arrivals	---	---	6,385	---	---	4,943	---	---	8,194
1980-1984 Arrivals	---	---	6,571	---	---	4,896	---	---	8,772
1975-1979 Arrivals	---	5,228	5,652	---	4,928	5,008	---	5,646	7,559
1970-1974 Arrivals	---	5,220	4,884	---	5,203	4,899	---	5,288	4,796
1965-1969 Arrivals	3,830	5,044	4,796	3,997	5,121	4,912	3,662	4,820	4,364
1960-1964 Arrivals	4,144	5,050	4,480	4,631	5,180	4,636	3,520	4,692	3,949
1950-1959 Arrivals	4,402	4,680	4,514	4,574	4,739	4,518	3,817	4,379	4,486
Pre-1950 Arrivals	3,629	4,022	4,262	3,660	4,033	4,218	3,503	3,962	4,530
Sample Size:									
Immigrants	5,119	26,063	32,858	3,815	20,297	24,109	1,304	5,766	8,749
Natives	3,544	5,733	31,311	---	---	---	---	---	---

Note: Mean incomes are calculated in subsample of households that receive public assistance.

Table 4 also reveals a growing gap in the average public assistance income received by refugee and non-refugee households on welfare, with refugee households receiving substantially higher levels of cash benefits by 1990. In 1970, the typical non-refugee household on welfare received about $300 more than the typical refugee household on welfare. By 1990, the typical non-refugee household on welfare received about $2,200 less per year than the typical refugee household on welfare

To complete the descriptive analysis, it is instructive to track a specific immigrant cohort, defined in terms of both year-of-migration and age-at-arrival, across the various Censuses. As noted by Friedberg (1992) and Smith (1992), the intercensal comparison of a sample of immigrants aged 18+ is contaminated by the fact that later Censuses include a number of persons who migrated as children. It is likely that immigrant children did not experience the same process of labor market adaptation (or introduction into welfare programs) as adult immigrants. For example, if immigrant children are more like natives in terms of their welfare propensities, then the results summarized in Table 1 understate the extent of immigrant assimilation into welfare programs. Therefore, a better description of the assimilation experience of immigrants is obtained by controlling for age-at-migration.

Table 5 summarizes the empirical evidence. It is evident that tracking specific age groups across Censuses reveals the existence of sizable assimilation effects into welfare both in the entire immigrant population, as well as among non-refugees. Consider, for example, the sample of non-refugee households who arrived between 1965 and 1969 and who were 18-34 years old in 1970 (so that most persons in the sample migrated as young adults). This group of immigrant

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to calculate the assimilation effects. The households observed receiving welfare from a specific cohort in the 1970 Census need not be the same households that receive welfare in either the 1980 or 1990

TABLE 5. THE IMPACT OF AGING ON WELFARE PARTICIPATION RATES

Cohort	Age Group	1970	1980	1990
Natives:	18-34 in 1970	5.1	6.4	5.6
	35-49 in 1970	4.5	7.2	8.1
	18-34 in 1980	—	6.7	6.2
	35-49 in 1980	—	6.7	6.2
Immigrants: 1950-59 Arrivals:	18-34 in 1970	4.5	5.7	4.8
	35-49 in 1970	4.1	6.2	7.2
Immigrants: 1960-64 Arrivals:	18-34 in 1970	4.2	7.3	6.5
	35-49 in 1970	5.5	8.8	10.4
	18-34 in 1980	—	6.7	5.7
	35-49 in 1980	—	7.7	6.9
Immigrants: 1965-69 Arrivals:	18-34 in 1970	3.2	7.4	8.2
	35-49 in 1970	5.7	10.1	11.7
	18-34 in 1980	—	7.6	8.0
	35-49 in 1980	—	8.0	8.1
Immigrants: 1970-74 Arrivals:	18-34 in 1980	—	6.2	8.1
	35-49 in 1980	—	7.2	8.5
Immigrants: 1975-79 Arrivals:	18-34 in 1980	—	5.8	7.8
	35-49 in 1980	—	8.8	9.8
Non-Refugees: 1950-59 Arrivals:	18-34 in 1970	4.5	5.8	4.9
	35-49 in 1970	4.0	6.1	7.1
Non-Refugees: 1960-64 Arrivals:	18-34 in 1970	3.6	7.2	6.6
	35-49 in 1970	3.8	7.7	10.1
	18-34 in 1980	—	7.2	6.1
	35-49 in 1980	—	7.2	6.8
Non-Refugees: 1965-69 Arrivals:	18-34 in 1970	2.6	7.2	8.0
	35-49 in 1970	3.1	8.7	10.9
	18-34 in 1980	—	7.7	8.2
	35-49 in 1980	—	7.5	7.6
Non-Refugees: 1970-74 Arrivals:	18-34 in 1980	—	6.2	8.2
	35-49 in 1980	—	6.7	8.0
Non-Refugees: 1975-79 Arrivals:	18-34 in 1980	—	4.2	7.0
	35-49 in 1980	—	5.5	8.4
Refugees: 1950-59 Arrivals:	18-34 in 1970	4.5	5.5	3.4
	35-49 in 1970	4.4	6.4	7.2
Refugees: 1960-64 Arrivals:	18-34 in 1970	7.7	7.9	5.9
	35-49 in 1970	11.6	12.9	11.3
	18-34 in 1980	—	4.5	3.8
	35-49 in 1980	—	11.2	7.4
Refugees: 1965-69 Arrivals:	18-34 in 1970	9.3	9.4	10.0
	35-49 in 1970	15.2	15.1	14.4
	18-34 in 1980	—	6.2	5.9
	35-49 in 1980	—	11.9	11.6
Refugees: 1970-74 Arrivals:	18-34 in 1980	—	6.8	6.7
	35-49 in 1980	—	11.8	12.5
Refugees: 1975-79 Arrivals:	18-34 in 1980	—	18.1	14.0
	35-49 in 1980	—	23.6	16.1

households had an initial welfare participation rate of 2.6 percent (much less than that of similarly-aged natives). By 1980, the participation rate had rise to 7.4 percent, and by 1990 to 8.0 percent (or about 2.4 percentage points above that of comparable natives). Similarly, non-refugee households who arrived between 1965 and 1969 and were 35-49 in 1970 (so that they migrated as prime-age adults) have an initial welfare participation rate of 3.1 percent, which increases to 10.9 percent by 1990. During a twenty-year period, therefore, the participation rate of non-refugees increases by about 5 percentage points relative to that of native households.

The table also indicates that refugee households do not move out of the welfare system once we control for age-at-migration. For example, among refugee households who arrived in the United States between 1965 and 1969 and who were aged 35-49 in 1970, the participation probability fell from 15.2 to only 14.4 percent between 1970 and 1990. Similarly, the refugees who entered the United States between 1960 and 1964 and who were aged 35-49 in 1970 experienced a decline in the participation probability from 11.6 percent to 11.3 percent during the 20-year period.

The descriptive data in Table 5, therefore, clearly indicate that the typical non-refugee immigrant assimilates into welfare, while the typical refugee immigrant has a high welfare participation probability throughout the life cycle. Borjas and Trejo (1991) conjectured that the assimilation into welfare programs by non-refugees might arise because newly-arrived immigrants fear that they jeopardize their chances for naturalization (and thus for sponsorship of family members residing abroad under the family preference system) if they receive public assistance. To the extent that this type of behavior occurs, the data should reveal discrete jumps in welfare

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Censuses.

participation rates after the household has resided in the United States for five years (i.e., the length of residency required for naturalization).

However, the tracking of specific immigrant cohorts over a 20-year period reveals that, in many cases, the assimilation of immigrants into welfare programs continues even after the household has resided in the United States for ten years. It is unlikely, therefore, that the incentives provided by naturalization explains the assimilation effect. It is also unlikely that the data can be explained in terms of the immigrant household gaining information about the welfare system; after all, most of that information can surely be gathered during the household's first decade in the United States. The perverse assimilation effects influencing immigrant participation in welfare programs, therefore, remain unexplained and will surely be the focus of much additional research.

III. Regression Analysis

Although the descriptive statistics in the previous section clearly illustrate the trends in welfare participation in the immigrant population, it is important to ascertain if immigrant households, for given characteristics, are more "prone" to enter the welfare system. I address this question by estimating the following regression model in each of the Census cross-sections:

$$(1) \qquad P_i = X_i\beta + \delta I_i + \varepsilon_i,$$

where P_i is a dummy variable set to unity if household i receives public assistance; X_i is a vector of background socioeconomic characteristics; and I_i is a dummy variable set to unity if the household head is foreign-born. Because of the very large samples available in my Census

extracts (nearly 1.3 million households in the three Censuses), I estimate equation (1) using the linear probability model. I estimated the same model using maximum likelihood probit on random samples of the data, and obtained virtually identical results. Table 6 reports the coefficient of the immigrant dummy estimated in each Census for several specifications of the vector X.

The first column of the table reports the raw difference in the probability of welfare participation between immigrant and native households in each of the Censuses (i.e., the vector X contains only an intercept). Column 2 adds the gender and the age of the household head (where age is entered as a fourth-order polynomial) to the list of regressors. It is evident that differences in the gender or the age of the household head do not "explain" the differences between immigrant and native households. In 1990, immigrant households still have a substantially higher probability of receiving public assistance. The third column adds the educational attainment of the household head to the regression. The addition of this variable greatly reduces the gap in welfare participation propensities between immigrant and native households. In the 1970 and 1980 Censuses, immigrants are now less likely to receive public assistance than native households, while in the 1990 Census, immigrant households are only slightly more likely to be on welfare than similarly-educated native households. Therefore, an important reason for the relatively higher welfare participation rate of recent immigrants is the lower educational attainment of immigrant households.[11]

Column 4 of the table adds three variables describing the household's composition: the number of persons residing in the household, the number of persons under age 18, and the number

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[11]I also estimated equation (1) by using a vector of variables indicating the year of migration to the United States rather than a single immigrant dummy. This analysis led to a similar qualitative conclusion: the differences in welfare participation between native and immigrant households are entirely "explained" by differences in socioeconomic characteristics among the groups.

TABLE 6

STANDARDIZED DIFFERENCES IN WELFARE PARTICIPATION PROBABILITY
BETWEEN IMMIGRANT AND NATIVE HOUSEHOLDS

Regression

Year	(1)	(2)	(3)	(4)	(5)	Sample Size
1970	-.0007	-.0131	-.0248	-.0243	-.0239	145,159
	(.0025)	(.0025)	(.0024)	(.0024)	(.0025)	
1980	.0086	.0054	-.0088	-.0140	-.0255	370,778
	(.0017)	(.0017)	(.0016)	(.0016)	(.0017)	
1990	.0170	.0214	.0073	-.0027	-.0151	780,727
	(.0006)	(.0006)	(.0006)	(.0006)	(.0007)	
Variables Held Constant	None	Includes Gender and Age of Household Head	Adds Education of Head	Adds Number of Persons in Household, Number of Persons Under Age 18, and Over age 65	Adds Race Dummies	

Note: Standard errors are reported in parentheses.

of persons over age 65. The results are striking. After controlling for these household

characteristics, immigrant households become less likely to participate in public assistance

programs than native households. Moreover, adding a vector of race dummies (black, Hispanic,

or Asian) in column 5 reduces the coefficient of the immigrant dummy even further. Within race

groups, therefore, immigrants are much less likely to receive public assistance than natives.

In view of the ongoing debate over the impact of immigration on welfare expenditures, the

empirical evidence summarized in Table 6 should be interpreted with caution. The evidence does

not say that immigrants are less likely to receive welfare. Rather, the evidence indicates that

immigrants who have the same characteristics as natives are less likely to receive welfare. But

because immigrants, on average, have less favorable socioeconomic characteristics, they also have

higher welfare participation rates. Put differently, it is not "immigrant-ness" per se that leads to

high welfare propensities; it is the characteristics of the immigrants currently entering the United

States.

To summarize the trends between 1970 and 1990, I pool the data from all three decennial

Censuses, and estimate the following regression model that allows for aging, period, and cohort

effects:[12]

(2) $$P_i = X_i \theta + \delta I_i + \alpha y_i + \sum_t \beta_t C_{it} + \gamma_{70} D_{i,70} + \gamma_{80} D_{i,80} + \varepsilon_i,$$

[12]The identification of aging, period, and cohort effects is achieved by assuming that the coefficients of
the period effects γ_{70} and γ_{80} are the same for immigrants and natives.

where, as before, P_i is a dummy variable set to unity if household i receives public assistance; X_i is a vector of socioeconomic variables which includes a fourth-order polynomial in the age of the household head; I_i is a dummy variable set to unity if the household head is foreign-born; y_i gives the number of years that the immigrant household has resided in the United States and is introduced as a fourth-order polynomial (y_i takes on the value of zero for native households); C is a vector of dummy variables indicating the calendar year in which the migration occurred (the variables in the vector indicate if the household migrated in 1980-84, 1975-79; 1970-74; 1965-69; 1960-64; 1950-59; and prior to 1950); and the dummy variables $D_{i,80}$ and $D_{i,90}$ indicate if the observation was drawn from the 1980 or the 1990 Census, respectively.

Because the age of the household is held constant in the vector X, the coefficient α measures the aging or assimilation effect (i.e., the rate at which the immigrant and native welfare participation probabilities converge or diverge over time). The coefficient vector β summarizes the cohort effects (i.e., how the probability of welfare participation at the time of entry differs across cohorts). Finally, the coefficient vector γ gives the period effects.

The first two columns of Table 7 report the estimates of the regression model in equation (2). The first column includes only the age and gender of the household head in the vector X, while the second column adds other background characteristics, including the educational attainment of the household head and variables describing the household's composition (see the notes to the table for a list of these control variables). For convenience, the table only reports the linear and quadratic coefficients of age and years-since-migration (even though both of these variables are introduced as fourth-order polynomials).

In view of the trends revealed by the descriptive statistics summarized in the previous section, the regression results are not surprising. There are sizable cohort effects, with more

TABLE 7. REGRESSION USING POOLED 1970, 1980, AND 1990 CENSUSES

	Regression					
	All Immigrants		Non-Refugees		Refugees	
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Female Head of Household (=1)	.0893 (.0005)	.0946 (.0005)	.0887 (.0005)	.0923 (.0006)	.0928 (.0007)	.0957 (.0007)
Age	.0057 (.0011)	-.0417 (.0012)	.0056 (.0012)	-.0367 (.0013)	-.0007 (.0016)	-.0442 (.0017)
Age^2	-.0003 (.0000)	.0012 (.0000)	-.0003 (.0000)	.0011 (.0000)	-.0001 (.0000)	.0013 (.0001)
Immigrant (=1)	.0225 (.0021)	-.0005 (.0021)	-.0157 (.0023)	-.0317 (.0023)	.2587 (.0062)	.2125 (.0060)
1980-1984 Arrivals	.0111 (.0025)	.0112 (.0025)	.0016 (.0027)	.0020 (.0026)	-.0168 (.0083)	-.0131 (.0080)
1975-1979 Arrivals	-.0042 (.0030)	.0019 (.0029)	.0025 (.0032)	.0080 (.0031)	-.0793 (.0102)	-.0570 (.0099)
1970-1974 Arrivals	-.0145 (.0034)	-.0080 (.0033)	-.0002 (.0037)	.0029 (.0036)	-.1158 (.0120)	-.0689 (.0116)
1965-1969 Arrivals	-.0199 (.0038)	.0020 (.0037)	-.0080 (.0042)	.0082 (.0040)	-.1209 (.0130)	-.0741 (.0126)
1960-1964 Arrivals	-.0355 (.0042)	.0029 (.0041)	-.0203 (.0047)	.0104 (.0046)	-.1563 (.0143)	-.0999 (.0139)
1950-1959 Arrivals	-.0542 (.0047)	-.0088 (.0046)	-.0352 (.0053)	.0055 (.0051)	-.1858 (.0157)	-.1405 (.0153)
Pre-1950 Arrivals	-.0577 (.0062)	-.0142 (.0061)	-.0355 (.0070)	.0017 (.0068)	-.2023 (.0204)	-.1473 (.0197)
Years-Since-Migration	.0026 (.0008)	-.0044 (.0007)	.0049 (.0008)	-.0027 (.0008)	-.0065 (.0025)	-.0138 (.0024)
(Years-Since-Migration)^2	.0000 (.0001)	.0003 (.0001)	-.0001 (.0001)	.0003 (.0001)	.0002 (.0002)	.0007 (.0002)
1980 Period Effect	.0122 (.0008)	.0313 (.0008)	.0122 (.0009)	.0302 (.0008)	.0119 (.0012)	.0360 (.0012)
1990 Period Effect	.0021 (.0008)	.0317 (.0008)	.0024 (.0008)	.0307 (.0008)	.0024 (.0011)	.0392 (.0010)
Intercept	-.0121 (.0130)	.5604 (.0136)	-.0018 (.0133)	.5112 (.0140)	.0732 (.0181)	.6189 (.0190)
R^2	.030	.088	.029	.085	.046	.116
Includes Demographic Characteristics	No	Yes	No	Yes	No	Yes

Notes: Standard errors are reported in parentheses. All the regressions also include cubic and quartic polynomials in age and year-of-migration. The regressions in columns (1) and (2) have 1,296,664 observations; those in columns (3) and (4) have 1,174,896 observations; and those in columns (5) and (6) have 676,903 observations. The demographic characteristics held constant in columns (2), (4), and (6) include education of head, the number of persons in the household, the number of persons under the age of 18 and over the age of 65, and a vector of race dummies.

recent cohorts having higher welfare participation rates than earlier cohorts (the exception being the 1980-1984 cohort, which has the highest entry participation probability of any cohort in the data). For the most part, the regressions also suggest that immigrants experience strong assimilation effects into welfare: the probability of participating in the welfare system increases substantially over time for a particular cohort.[13]

The implications of the estimated regressions are easy to grasp if I use the coefficients reported in column 1 of Table 7 to predict the differences in welfare participation rates between immigrant and native households over the life cycle. To conduct this simulation, I assume that immigrants arrive in the United States at age 20 (so that years-since-migration equals zero at age 20, one at age 21, and so on).[14] The predicted life-cycle profiles for the difference in welfare participation rates between selected immigrant cohorts and natives is illustrated in the top panel of Figure 1. The graph clearly illustrates that the assimilation effects into welfare are substantial, increasing the welfare participation of a particular immigrant cohort, relative to natives, by about 3 percentage points over a twenty year period (from ages 20 to 40).

As documented in the previous section, non-refugees and refugees have very different life cycle trends in welfare participation. Columns 3 and 4 of Table 7 report the regressions which

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[13]The regression reported in column 2 makes it seem as immigrant households assimilate out of welfare. In particular, the coefficient of the linear years-since-migration variable turns negative, while the quadratic term turns positive. Recall, however, that the regressions also include cubic and quartic terms in years-since-migration. After accounting for these higher-order terms, it turns out that the regression still implies that immigrants assimilate into welfare (although the assimilation rate is much smaller than in column 1). To see this result easily, note that if I estimate the regression using only a second-order polynomial, the linear coefficient of years-since-migration is .0003 (with a standard error of .0002), while the quadratic term is -.00001 (.00001). Much of the movement of immigrants into welfare programs as they age, therefore, seems to be explained by changes in socioeconomic characteristics.

[14]I also let the variable describing the gender of the household head take on a value of .281, because 28.1 percent of all immigrant households in the 1990 Census are female-headed. Finally, the exercise "turns on" the 1990 period effect.

Figure 1. Difference in Welfare Participation Rate Between Immigrants and Natives Over the Life Cycle
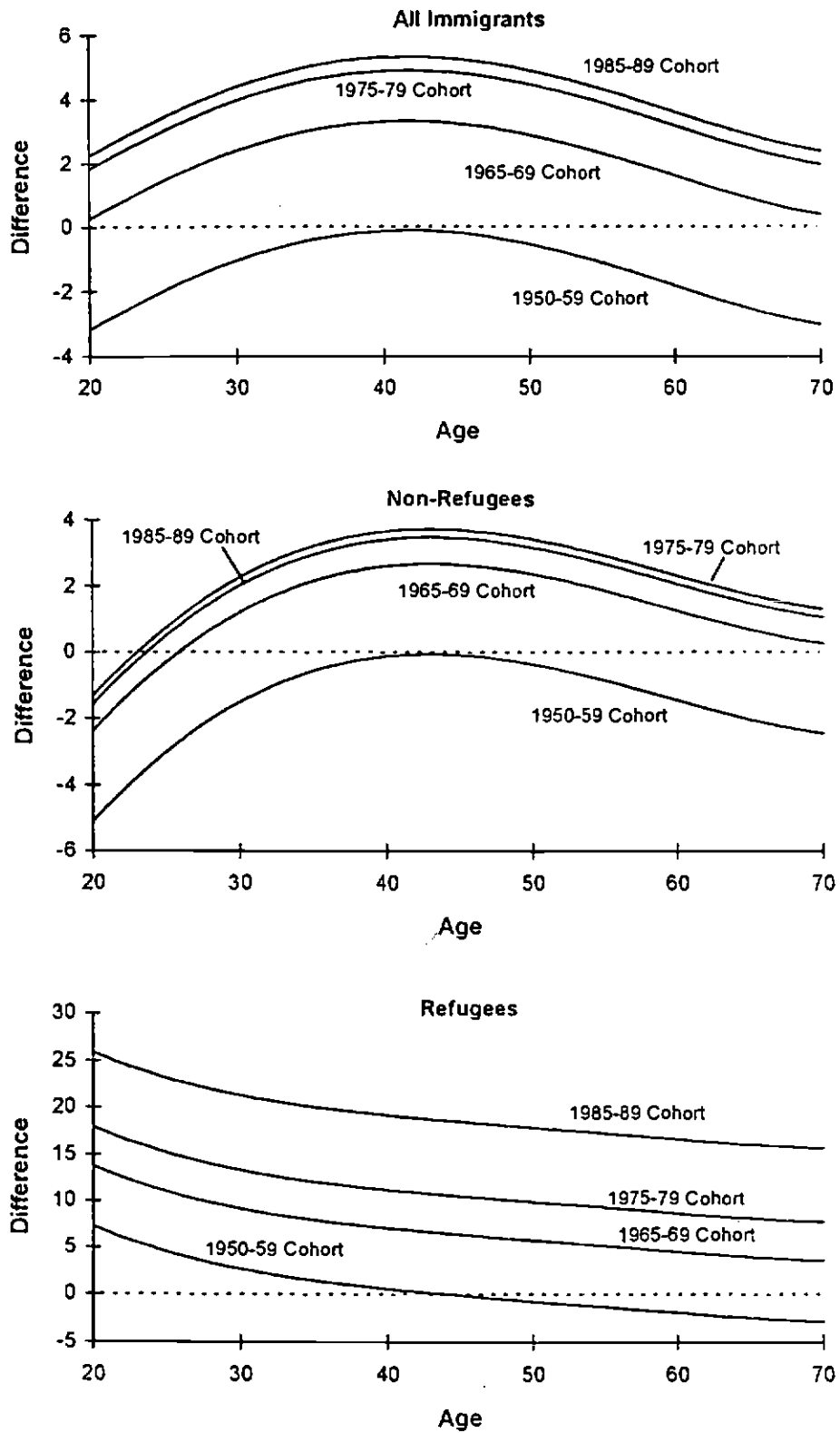
compare native households to non-refugee immigrant households, while columns 5 and 6 of the table report the equivalent regressions comparing native and refugee households. The middle and bottom panels of Figure 1 illustrate the implications of the regressions in columns 3 and 5 for the life cycle trends in welfare participation.

It is evident that more recent non-refugee households are more likely to participate in welfare programs (particularly in comparison to pre-1970 immigrants), and that over a twenty-year period, the probability that a typical non-refugee household receives public assistance increases by about 5 percentage points. As a result, all the post-1965 non-refugee immigrant waves eventually have higher welfare participation rates than natives. The graph also illustrates that refugees tend to "assimilate" out of welfare. However, the refugee welfare participation rate (relative to natives) declines by only 5 percentage points over a twenty year period, so that the predicted welfare participation rate of the 1965-1969 wave is 7 percentage points higher than that of natives even after 20 years in the United States.

As noted earlier, the process of immigrant assimilation into (or out of) welfare is better captured when the analysis controls for age-at-migration. The expanded regression model is given by:

$$(3) \qquad P_i = X_i \theta + \delta I_i + \rho A_m + \alpha y_i + \sum_i \beta_i C_{ii} + \gamma_{70} D_{i,70} + \gamma_{80} D_{i,80} + \varepsilon_i \, .$$

where A_m is the age-at-migration of the household head (A_m is set to zero for native-born households). It is important to note that the impact of age-at-migration on welfare propensities is identified because the coefficient of the variable giving the householder's age, which is one of the variables in the vector X, is restricted to be the same for both native and immigrant households. It

is this restriction that allows the estimation of equation (3), despite the fact that $A_m = (Age - y)$ for immigrant households. Table 8 reports the regression for the pooled sample of immigrants and for non-refugee and refugee households, respectively. The life-cycle implications of the regressions in columns 1, 3, and 5 are illustrated in Figure 2 (again assuming that the immigrant household arrives in the United States at age 20).

The regressions indicate that age-at-migration has a strong positive impact on welfare propensities: immigrants who migrate at older ages are much more likely to participate in welfare programs. Holding all other factors constant, an immigrant who enters the United States at age 20, for example, is 2.4 percentage point more likely to be on welfare than an immigrant who enters the United States at the age of 10. This is not surprising because immigrants who migrate as children go through an extensive period of assimilation prior to entering the labor market. It is also likely that younger immigrants (say those who migrate in their 20s and 30s) are much more adaptable than older immigrants.
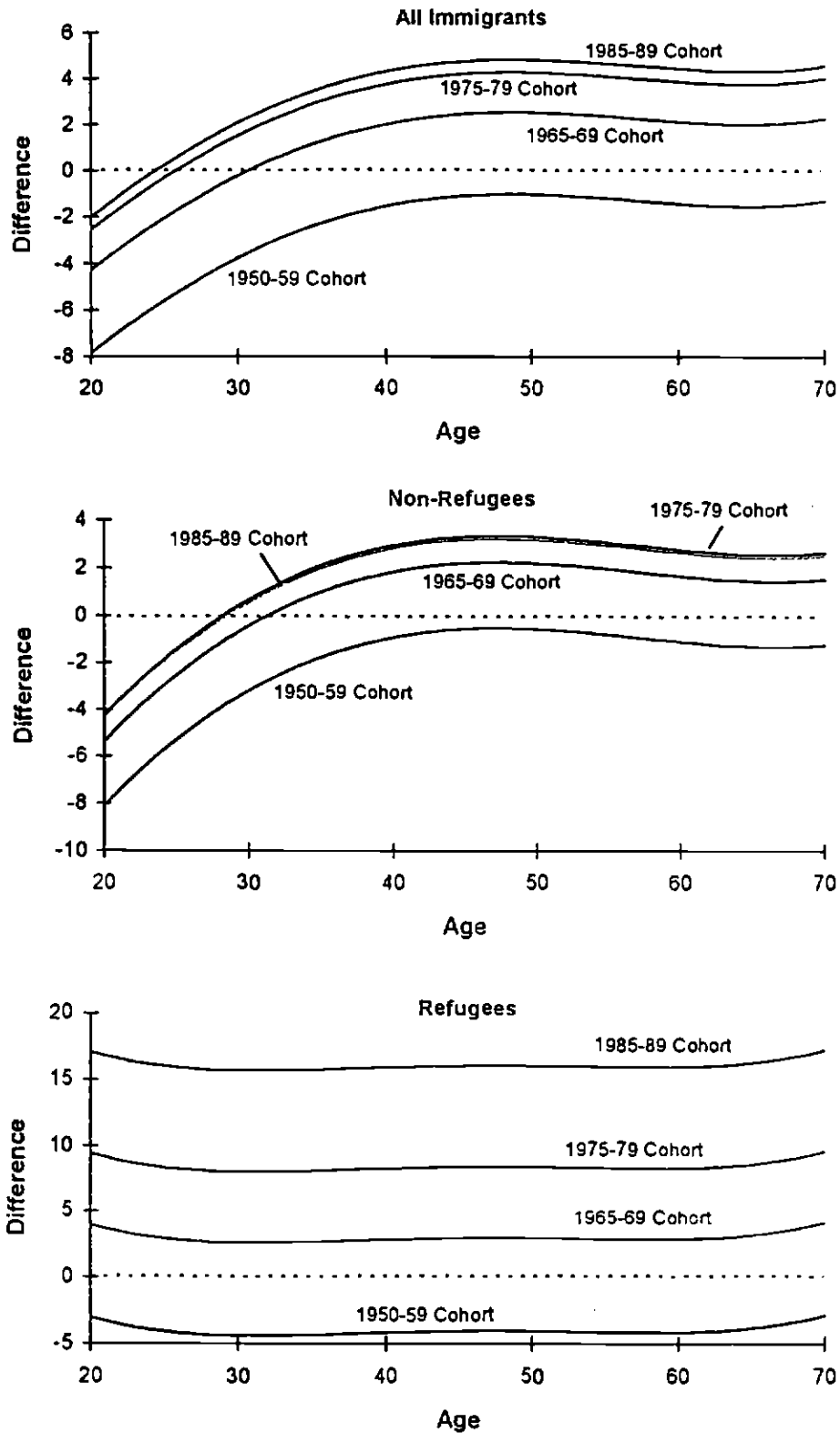
The regressions also show that adding age-at-migration as a control variable barely affects the coefficients measuring the magnitude of the cohort effects. The inclusion of age-at-migration in the model, however, does affect the coefficients of the variables measuring the extent of immigrant assimilation into welfare programs. In particular, controlling for age-at-migration intensifies the assimilation of non-refugees into welfare programs, and weakens the assimilation of refugees out of welfare programs. As shown in Figure 2, the welfare participation probability of a non-refugee household increases by almost 7 percentage points relative to that of natives over a 20-year period, as opposed to the 5 percentage point rise documented when the regression did not control for age-at-migration. Among refugee households, adding age-at-migration to the regression flattens the life cycle profile of immigrant welfare participation relative to that of

TABLE 8. REGRESSION USING POOLED 1970, 1980, AND 1990 CENSUSES, INCLUDING AGE-AT-MIGRATION

			Regression			
	All Immigrants		Non-Refugees		Refugees	
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Female Head of Household (=1)	.0897 (.0005)	.0948 (.0005)	.0888 (.0005)	.0924 (.0006)	.0933 (.0007)	.0960 (.0007)
Age	.0106 (.0011)	-.0377 (.0012)	.0089 (.0012)	-.0343 (.0013)	.0023 (.0016)	-.0412 (.0017)
Age^2	-.0004 (.0000)	.0011 (.0000)	-.0004 (.0000)	.0010 (.0000)	-.0002 (.0000)	.0012 (.0001)
Immigrant (=1)	-.0685 (.0025)	-.0805 (.0025)	-.0780 (.0027)	-.0819 (.0027)	.0862 (.0070)	.0459 (.0069)
1980-1984 Arrivals	.0104 (.0025)	.0105 (.0025)	.0011 (.0027)	.0016 (.0026)	-.0119 (.0083)	-.0089 (.0080)
1975-1979 Arrivals	-.0056 (.0030)	.0006 (.0029)	.0013 (.0032)	.0069 (.0031)	-.0766 (.0102)	-.0568 (.0099)
1970-1974 Arrivals	-.0165 (.0034)	-.0102 (.0033)	-.0018 (.0037)	.0016 (.0036)	-.1261 (.0120)	-.0737 (.0116)
1965-1969 Arrivals	-.0229 (.0038)	-.0014 (.0037)	-.0097 (.0041)	.0064 (.0040)	-.1311 (.0130)	-.0773 (.0126)
1960-1964 Arrivals	-.0373 (.0042)	.0002 (.0041)	-.0211 (.0047)	.0092 (.0046)	-.1588 (.0142)	-.0955 (.0139)
1950-1959 Arrivals	-.0583 (.0047)	-.0137 (.0046)	-.0372 (.0053)	.0029 (.0051)	-.2013 (.0157)	-.1483 (.0153)
Pre-1950 Arrivals	-.0760 (.0062)	-.0318 (.0061)	-.0483 (.0070)	-.0098 (.0068)	-.2358 (.0203)	-.1715 (.0197)
Years-Since-Migration	.0048 (.0008)	-.0024 (.0007)	.0064 (.0008)	-.0015 (.0008)	-.0032 (.0025)	-.0111 (.0024)
(Years-Since-Migration)^2	-.0001 (.0001)	.0003 (.0001)	-.0002 (.0001)	.0003 (.0001)	.0002 (.0002)	.0008 (.0002)
Age-At-Migration	.0024 (.0000)	.0022 (.0000)	.0017 (.0000)	.0014 (.0000)	.0042 (.0001)	.0040 (.0001)
1980 Period Effect	.0115 (.0008)	.0306 (.0008)	.0117 (.0009)	.0298 (.0008)	.0116 (.0012)	.0354 (.0012)
1990 Period Effect	.0021 (.0008)	.0315 (.0008)	.0024 (.0008)	.0305 (.0008)	.0023 (.0010)	.0386 (.0010)
Intercept	-.0449 (.0129)	.5334 (.0136)	-.0241 (.0133)	.4957 (.0140)	.0463 (.0181)	.5910 (.0190)
R^2	.034	.091	.031	.086	.050	.119
Includes Demographic Characteristics	No	Yes	No	Yes	No	Yes

Notes: Standard errors are reported in parentheses. All the regressions also include cubic and quartic polynomials in age and year-of-migration. The regressions in columns (1) and (2) have 1,296,664 observations: those in columns (3) and (4) have 1,174,896 observations; and those in columns (5) and (6) have 676,903 observations. The demographic characteristics held constant in columns (2), (4), and (6) include education of head, the number of persons in the household, the number of persons under the age of 18 and over the age of 65, and a vector of race dummies.

Figure 2. Difference in Welfare Participation Rate Between Immigrants and Natives Over the Life Cycle, Controlling for Age-At-Migration

All Immigrants

1985-89 Cohort
1975-79 Cohort
1965-69 Cohort
1950-59 Cohort

Difference
Age

Non-Refugees

1985-89 Cohort
1975-79 Cohort
1965-69 Cohort
1950-59 Cohort

Difference
Age

Refugees

1985-89 Cohort
1975-79 Cohort
1965-69 Cohort
1950-59 Cohort

Difference
Age

natives, so that the welfare participation rates of refugees remain constant at very high levels over much of the life cycle.

IV. Do Immigrants Pay Their Way?

The current debate over immigration policy seems to be dominated by the question of whether immigrants "pay their way" in the welfare state. As with all accounting exercises, this one is fraught with questionable assumptions which effectively determine the answer to the question. Passel and Clark (1994), for example, find that immigrants pay over $27 billion more in taxes than they took out of the welfare and schooling systems, while Huddle (1993) concludes that the net costs of immigration exceeded $40 billion in 1992.[15]

Regardless of which calculation one wishes to believe, there are some facts about the costs of immigrant participation in welfare programs that are indisputable and that do not depend on accounting assumptions. Table 9 summarizes the relevant data for the 1970-1990 period. The first row of the table reports the fraction of households in the United States that have an immigrant head. This fraction rose from 6.8 percent in 1970, to 7.6 percent in 1980, and to 8.4 percent in 1990. Using the summary statistics reported in Section II, it is easy to calculate the fraction of immigrant households in the population of "welfare households" (i.e., households that receive public assistance). In 1970, 6.7 percent of welfare households had an immigrant head, so that immigrants were slightly under-represented among welfare households. By 1990, the situation had changed dramatically: 10.1 percent of welfare households had a foreign-born head, so that immigrants were substantially over-represented among welfare households.

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[15]Other accounting exercises include North (1983) and Parker and Rea (1993). A critical survey of the literature is given by Rothman and Espenshade (1993).

TABLE 9

IMMIGRANT CONTRIBUTION TO WELFARE EXPENDITURES

	1970	1980	1990
All Immigrants:			
1. Percent of Households with Immigrant Heads	6.8	7.6	8.4
2. Percent of Households with Immigrant Heads in Population of Households Receiving Public Assistance	6.7	8.3	10.1
3. Percent of Public Assistance Income Distributed to Households with Immigrant Heads	6.7	9.1	13.1
4. Percent of Non-Welfare Income Received by Households with Immigrant Heads	6.3	7.0	8.3
Non-Refugees:			
1. Percent of Households with Immigrant Heads	5.4	6.3	7.1
2. Percent of Households with Immigrant Heads in Population of Households Receiving Public Assistance	5.0	6.5	7.4
3. Percent of Public Assistance Income Distributed to Households with Immigrant Heads	5.1	7.0	8.5
4. Percent of Non-Welfare Income Received by Households with Immigrant Heads	4.9	5.9	7.2
Refugees:			
1. Percent of Households with Immigrant Heads	1.5	1.3	1.3
2. Percent of Households with Immigrant Heads in Population of Households Receiving Public Assistance	1.7	1.8	2.7
3. Percent of Public Assistance Income Distributed to Households with Immigrant Heads	1.6	2.1	4.6
4. Percent of Non-Welfare Income Received by Households with Immigrant Heads	1.3	1.1	1.2
Non-Refugee, Non-Mexican:			
1. Percent of Households with Immigrant Heads	4.9	5.3	5.6
2. Percent of Households with Immigrant Heads in Population of Households Receiving Public Assistance	3.9	4.9	5.1
3. Percent of Public Assistance Income Distributed to Households with Immigrant Heads	3.8	5.3	6.0
4. Percent of Non-Welfare Income Received by Households with Immigrant Heads	4.6	5.1	6.1

Using the data on the number of households receiving public assistance as well as on the average benefits received by these households, it is possible to calculate the total amount of public assistance reported by households. In 1970, a total of $14.6 billion was distributed to households; by 1980, this expenditure had risen to $26.8 billion; and by 1990, to $28.6 billion. The third row of Table 9 reports the fraction of "welfare income" that was distributed to foreign-born households. In 1970, 6.7 percent of cash benefits were distributed to immigrant households. again indicating that immigrant were slightly under-represented in the distribution of welfare benefits. By 1990, the situation had changed drastically: 13.1 percent of all cash benefits were distributed to immigrant households, indicating a substantial over-representation of immigrants in welfare expenditures. Put differently, the total amount of cash benefits received by immigrant households was 56 percent higher than would have been the case if immigrants used the welfare system to the same extent (both in terms of participation rates and per-household benefit levels) as natives.

It is evidently clear, therefore, that immigrants are now receiving a disproportionately high share of welfare benefits (at least in terms of the cash benefits programs reported in Census data). Moreover, the evidence also indicates that immigrants do not receive a disproportionately high share of non-welfare income. In each decennial Census, I calculated the non-welfare income of households (defined as the total income from all sources minus public assistance income), and then calculated the fraction of such income that is received by immigrant households. The fourth row of Table 9 reports this statistic. In 1970, immigrants received approximately 6.3 percent of all non-welfare income (slightly less than their population proportion). By 1990, immigrants

received 8.3 percent of all non-welfare income (about the same as their population proportion).[16] Because immigrants do not receive a disproportionately high share of income, they also do not pay a disproportionately high share of taxes. The relatively high use of cash benefits programs by immigrants, therefore, suggests that the immigrant population does not pay its way in the welfare state.

The next two panels of Table 9 reestimate the various statistics for the population of non-refugee and refugee immigrants, respectively. The data indicate that both immigrant groups receive a disproportionately large share of welfare expenditures. In 1990, for example, non-refugee immigrants made up 7.1 percent of all households in the United States, but these households received 8.5 percent of all cash benefits distributed. Similarly, refugee immigrants made up only 1.3 percent of households in the United States, but received 4.6 percent of all cash benefits distributed.

Finally, the bottom panel of Table 9 reestimates the various statistics for the sample of non-refugee, non-Mexican immigrants. It is sometimes argued that the adverse impact of immigration on welfare costs arises because of the problems associated with the refugee population, as well as because of the very large number of unskilled Mexicans who have migrated to the United States (both legally and illegally). The data in Table 9, however, indicate that the welfare costs resulting from immigration have increased even in the "select" subsample of non-refugee, non-Mexican immigrant households. In 1970, these immigrant households made up 4.9 percent of the population, but received only 3.8 percent of the cash benefits distributed. By 1990,

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[16]It is interesting to note that immigrants, as a group, do not get a disproportionately low share of non-welfare income, even though the typical immigrant earns less than the typical native. This discrepancy is explained by the fact that immigrants have larger labor force participation rates than natives.

however, these immigrants made up 5.6 percent of the population and received 6.0 percent of the cash benefits distributed. In other words, the welfare costs of immigration would have increased even in the absence of the refugee and Mexican immigrant flows.

As noted earlier, accounting exercises which assign a dollar figure to the tax burden imposed by immigration inevitably incorporate a number of hidden and questionable assumptions. Table 10 illustrates the problem by reporting a back-of-the-envelope calculation of the costs and benefits of immigration. The first row reports that immigrants received $3.7 billion dollars in cash welfare benefits in 1990, or as noted earlier, 13.1 percent of all expenditures in cash benefit programs. At that time, expenditures on means-tested entitlement programs was $181.3 (U.S. Bureau of the Census, 1992, p. 357).[17] If we assume that immigrants received a 13.1 percent share of these expenditures, immigrants then accounted for $23.8 billion of expenditures in all means-tested entitlement programs.

The next step in the calculation is to compute the taxes that immigrants pay. According to the 1990 Census data, immigrant households earned a total income (net of welfare payments) of $284.7 billion. There are no nationwide estimates of the total tax burden (i.e., one that includes federal, state, and local taxes) faced by the immigrant population. Table 10 provides estimates of total taxes using three alternative tax rates: 20, 30, and 40 percent.

If the tax rate were 30 percent, for example, immigrant households pay about $85.4 billion in taxes. The calculations thus indicate that immigrants pay more in taxes ($85.4 billion) than they take out of the system ($23.8 billion). But this comparison is misleading. It is, in effect, saying

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[17]Actually, expenditures on means-tested entitlement programs totaled $186.4 billion. The figure reported in the text nets out expenditures on Indian Health Services and on pensions for needy veterans from the total because few immigrants are likely to qualify for these programs.

TABLE 10

ACCOUNTING OF WELFARE EXPENDITURES AND TAXES PAID
BY IMMIGRANT HOUSEHOLDS IN 1990
(In Billions of Dollars)

	Tax Rate		
	20%	30%	40%
1. Cash Benefits Received by Immigrant Households (= 698,071 Households × $5,363)	$3.7	$3.7	$3.7
2. Dollar Value of Benefits from Means-Tested Programs Received by Immigrant Households (13.1% of $181.3 Billion)	$23.8	$23.8	$23.8
3. Non-Welfare Income Received by Immigrant Households	$284.7	$284.7	$284.7
4. Taxes Paid by Immigrant Households	$56.9	$85.4	$113.9
5. Taxes Allocated to Means-Tested Entitlement Programs (8.9% of Taxes Paid)	$5.1	$7.6	$10.1
6. Fiscal Burden on Native Taxpayers Imposed by Immigrant Households	$18.7	$16.2	$13.7

that immigrant taxes are only used to fund their use of entitlement programs. One can justify this assumption by arguing that all other government programs provide pure public goods, and that expenditures in these programs would be the same whether or not we had immigration. It is likely, however, that immigrants increase the congestion associated with the provision of many of these public goods (e.g., more crowded parks, schools, jails, and roads). Therefore, the marginal cost of providing these public goods to the immigrant population is not zero.

Obviously, different assumptions about the marginal cost of providing services will lead to very different conclusions about whether immigrants pay their way in the welfare state. If the marginal cost is zero, immigrants make a substantial contribution to the U.S. Treasury. If the marginal cost equals the average cost, however, then immigrants should be charged for the costs of the various government programs as if they were natives. In 1990, 91.1 percent of taxes were used to pay for programs other than means-tested entitlement programs.[18] If we charge immigrants 91.1 percent of their tax payments for using these other programs, then only 8.9 percent of immigrants' taxes are left to fund their use of means-tested entitlement programs. As reported in the fifth row of Table 10, immigrants would then contribute only $7.6 billion to the funding of the entitlement programs. The tax burden resulting from immigration would then be on the order of about $16 billion.

As this back-of-the-envelope calculation suggests, accounting exercises can lead to radically different conclusions about whether immigrants pay their way. Because we do not have any estimates of the impact that immigrants have on expenditures in a vast array of non-welfare programs, accounting exercises which claim that immigration has a huge fiscal impact (either

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[18] In 1989, total government expenditures totaled $2,031 billion, of which $181.3 billion (or 8.9 percent) were allocated to means-tested entitlement programs; see U.S. Bureau of the Census (1992), p. 357.

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positive or negative) should be interpreted with a great deal of caution. The data, however, do unambiguously indicate that immigrants receive a disproportionately high share of welfare benefits.

V. The California Experience

The recent California experience with immigrant participation in welfare programs deserves separate study for a number of reasons. First, California is the destination of a large number of legal immigrants: over one-third of legal immigrants declare that California is their intended state of residence upon arriving to the United States (U.S. Immigration and Naturalization Service, 1992, p. 61). Second, California is the destination of large numbers of illegal aliens. Over half of the illegal aliens who were granted amnesty under the 1986 Immigration Reform and Control Act live in California. Finally, California offers a very generous menu of public assistance programs to its residents. In 1989, for example. the average cash grant to an AFDC household was $642 per month in California, as compared to $383 nationwide (U.S. Bureau of the Census, 1992, p. 371). In fact, California's average cash grant was the second highest in the country (behind Alaska). In view of these trends, it is not surprising that much of the current public debate over the economic impact of immigration today focuses on the California experience.

Table 11 uses Census data to summarize the trends in welfare participation and benefit levels of native and immigrant households in California between 1970 and 1990. The 1970 calculations are based on the 1/100 State File (5% questionnaire). The 1980 calculations use a 5/1000 random sample of native households, and a 5/100 sample of immigrant households, while

TABLE 11

WELFARE PARTICIPATION RATES AND WELFARE INCOMES OF NATIVE AND IMMIGRANT HOUSEHOLDS RESIDING IN CALIFORNIA, 1970-1990

Group	Welfare Participation Rate			Public Assistance Income		
	1970	1980	1990	1970	1980	1990
Natives	8.8	9.1	8.6	4,420	5,124	5,720
All Immigrants	10.7	10.9	12.0	4,398	5,450	7,276
Cohort:						
1985-1989 Arrivals	---	---	12.5	---	---	8,701
1980-1984 Arrivals	---	---	14.6	---	---	9,062
1975-1979 Arrivals	---	10.0	11.8	---	6,085	7,403
1970-1974 Arrivals	---	8.4	10.8	---	5,992	6,413
1965-1969 Arrivals	7.8	10.6	11.0	4,526	6,117	6,338
1960-1964 Arrivals	8.1	10.8	10.7	5,181	5,914	5,632
1950-1959 Arrivals	8.8	9.6	9.2	5,063	5,298	5,369
Pre-1950 Arrivals	13.0	14.4	12.4	4,057	4,520	4,811
Sample Size:						
Immigrants	7,461	68,439	106,558	801	7,449	12,937
Natives	58,033	36,418	39,814	5,122	3,304	3,429

the 1990 calculations use a 5/1000 random sample of native households, and a 5/100 sample of immigrant households.

A number of results are immediately evident. Perhaps most striking is the fact that a relatively large fraction of California's households, whether native- or foreign-born, received public assistance. In 1990, for example, nearly 8.6 percent of native households residing in California received public assistance, as compared to only 7.4 percent of native households nationwide. Similarly, 12.0 percent of California's immigrant households received public assistance, as compared to 9.1 percent nationwide.

The trends in immigrant welfare participation rates in California mirror those documented in earlier sections. In 1970, immigrant households in California were 1.9 percentage points more likely than native households to receive public assistance; by 1990, the gap in welfare participation rates between immigrant and native households had widened to 3.4 percentage points. This increase can be explained in terms of both cohort and assimilation effects. The most recent immigrant wave residing in California in 1970 had a welfare participation rate of 7.8 percent, as compared to 12.5 percent for the most recent wave in 1990. Similarly, the welfare participation rate of immigrant households that arrived in California between 1965 and 1969 rose from 7.8 percent to 11.0 percent between 1970 and 1990.[19]

Table 11 also documents that not only is the propensity to go on welfare rising rapidly among California's immigrants, but that the dollar costs associated with this trend are rising even faster. The average payment to both native and immigrant welfare households in 1970 was about

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[19]Some caution is required when interpreting this fact as an assimilation effect. The tracking of specific waves of immigrants residing in a particular state across Censuses is contaminated by the interstate migration of immigrant households, so that the sample composition will change over time.

$4,400. By 1990, the typical immigrant household on welfare received approximately $1,500 more than the typical native household on welfare. Moreover, a newly-arrived immigrant household on welfare in 1990 received $8,700 in cash benefits.

The current debate over immigrant participation in welfare programs in California focuses on the welfare expenditures attributable to illegal aliens, and particularly to so-called citizen-children (the U.S. born children of illegal aliens who are citizens and who qualify for social services). However, illegal aliens are only part of the "welfare problem" attributable to immigrants in California. Although the Census does not report whether a household is illegally residing in the United States, the post-1965 (that is, post-Bracero program) trends in welfare participation experienced by Mexican households and by non-Mexican, non-refugee households are quite similar. Table 12 indicates that, if anything, recent Mexican immigrants have slightly lower welfare participation rates than non-refugee, non-Mexican households.[20] In contrast, California's sizable refugee population (19.9 percent of all refugees reside in California) has strikingly high welfare participation rates: about 50 percent of refugees who arrived during the 1980s are on welfare as of 1990.

The fiscal impact of the large number of immigrants enrolled in California's generous welfare programs is summarized in Table 13. The first row of the table simply reports the fraction of California's households that are headed by immigrants. This fraction has risen rapidly in recent decades, from 11.4 percent in 1970 to 21.1 percent in 1990. The second row, however, indicates

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[20]The table also illustrates a very interesting trend in welfare participation among successive waves of Mexican immigrants arriving in California. Pre-1950 arrivals, in particular, seem to have very high rates of attachment to welfare programs. Galarza (1977) argued that the Bracero program displaced and urbanized the rural Mexicans who had migrated to California prior to 1950. This urbanization "shock," as well as the economic experiences of Bracero immigrants after the program ended in 1964, might explain many of the trends observed in welfare participation among Mexican households in California.

TABLE 12

TRENDS IN WELFARE PARTICIPATION RATES FOR MEXICAN, NON-REFUGEE
AND REFUGEE HOUSEHOLDS RESIDING IN CALIFORNIA, 1970-1990

Group	Mexican Households			Non-Refugee, Non-Mexican Households			Refugee Households		
	1970	1980	1990	1970	1980	1990	1970	1980	1990
All Immigrants	18.1	12.7	11.3	8.1	8.9	8.7	12.8	18.1	32.5
Cohort:									
1985-1989 Arrivals	---	---	7.0	---	---	7.8	---	---	54.1
1980-1984 Arrivals	---	---	8.8	---	---	8.6	---	---	46.2
1975-1979 Arrivals	---	6.1	9.2	---	7.0	10.0	---	34.0	26.9
1970-1974 Arrivals	---	7.5	10.1	---	8.6	10.8	---	15.2	18.5
1965-1969 Arrivals	10.2	11.6	13.1	4.1	9.1	8.9	26.1	17.4	16.3
1960-1964 Arrivals	12.6	15.1	16.5	5.5	8.0	7.2	11.2	14.0	13.5
1950-1959 Arrivals	14.8	16.5	16.4	6.0	7.0	6.3	10.3	8.6	10.6
Pre-1950 Arrivals	26.6	25.7	23.1	10.4	11.8	9.5	11.4	12.1	9.4
Sample Size	1,555	21,349	36,590	5,062	41,098	59,270	844	5,992	10.698

TABLE 13

CONTRIBUTION TO WELFARE EXPENDITURES BY IMMIGRANT HOUSEHOLDS
RESIDING IN CALIFORNIA

	1970	1980	1990
1. Percent of Households with Immigrant Heads	11.4	15.8	21.1
2. Percent of Households with Immigrant Heads in Population of Households Receiving Public Assistance	13.5	18.4	27.0
3. Percent of Public Assistance Income Distributed to Households with Immigrant Heads	13.5	19.3	32.0
4. Percent of Non-Welfare Income Received by Households with Immigrant Heads	9.5	13.8	18.2

that the representation of immigrants among households receiving public assistance rose even faster. In 1970, 13.5 percent of the welfare households in California were foreign-born; in 1980 it was 18.4 percent; and in 1990, it was 27.1 percent. Put differently, in 1970, immigrants were only slightly over-represented in California's welfare population. By 1990, California's welfare population is disproportionately foreign-born.

More importantly, because of the high level of benefits received by immigrant households in California, they account for a large fraction of the total costs of cash benefits programs. In 1970, immigrant households accounted for only 13.5 percent of total expenditures on cash benefit programs. By 1990, immigrants accounted for nearly a third of the cash benefits distributed.

Although an exact accounting of the fiscal impact of California's "immigration problem" is beyond the scope of this paper, the last row of Table 13 suggests that the tax burden to California's native taxpayers might be substantial. Immigrants in California are disproportionately unskilled (not only relative to natives, but also relative to immigrants elsewhere in the United States). In particular, even though California's immigrants account for 21.1 percent of the households, immigrant households only receive 18.2 percent of the non-welfare income. To the extent that a significant fraction of the costs of welfare programs are paid by state and local tax revenues, it seems that California's immigrants are receiving a disproportionately high share of the benefits and paying a disproportionately low share of the taxes.

VI. Summary

This paper uses the 1970, 1980, and 1990 Public Use Samples of the U.S. Census to document the trends in immigrant welfare participation during the past two decades. The empirical evidence convincingly indicates that immigrant participation in welfare programs is on

the rise for two reasons. First, more recent immigrant waves are more likely to receive public assistance. Second, immigrants "assimilate" into welfare, so that the probability that immigrants participate in welfare programs actually increases (relative to that of natives) as they age.

As a result of these trends, the costs associated with immigrant participation in public assistance programs have risen rapidly in recent years. By 1990, even though only 8.4 percent of households in the United States were foreign-born, these households accounted for 10.1 percent of all households that received public assistance, and for 13.1 percent of the total cash assistance distributed. In California, where the concern over immigrant participation in welfare programs has generated a charged political debate, the 21.1 percent of the households that are foreign-born account for 27.0 of all households that receive public assistance, and for 32.0 percent of the total cash assistance distributed in the state.

Although this type of accounting exercise is interesting, it is important to keep in mind that the true costs of immigrant participation in welfare programs have little, if anything, to do with the bottom line of the ledger sheet. National expenditures on the AFDC program, after all, only total about $22 billion annually. As the raging debate over welfare in the past thirty years has shown, the debate is not over the $22 billion expenditure. Rather, it is over the possibility that the current welfare system reduces work incentives, encourages the breakdown of the family unit in low-income households, and nourishes the transmission of welfare dependency across generations.

There are substantial benefits associated with the immigration of unskilled workers: a relative abundance of cheap labor for American companies and lower prices for consumers. The trends in immigrant welfare participation documented in this paper raise serious questions as to whether these benefits are sufficiently large to outweigh the increased expenditures on social

programs as well as the costs associated with the potential creation of a new underclass. This

cost-benefit calculation will surely be a key component of the immigration debate that is likely to

dominate domestic public policy in the next decade.

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