

Welfare and Social Insurance Participation by Korean Immigrants to the United States*

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This paper examines welfare and social insurance participation by Korean immigrant households in the U.S. relative to native-born households of Korean ancestry using 1990 U.S. Census microdata. The empirical model accounts for linkages between hours worked, wages, and welfare and social insurance participation. Results indicate that Korean immigrant households are more likely to participate in welfare programs than otherwise similar native households of Korean ancestry, but are not statistically different from natives with respect to social insurance participation. Age at entry is negatively related to participation in both types of programs. Household age composition also is important.

I. Introduction and Background

Immigration policy at all levels of government has resurfaced as a major issue in the 1990s. Proposition 187 in California and the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) serve as illustrations. Proposition 187 directly limits the services available to illegal immigrants in California. PRWORA places strict limitations on the access of even legal immigrants to U.S. welfare programs. Moreover, the number of immigrants admitted to the United States each year has grown considerably in the recent past (Table 1, column 3). In fact, the number of immigrant admittances reached an all time high of over 1.8 million in 1991, surpassing the historical highs set in the early 1990s (U.S. Immigration and Naturalization Service (1996)).¹ One issue that has been given a great deal of attention is the behavior of immigrants with regard to social program participation and usage (see Borjas and Trejo (1993) and Tienda and Jensen (1986)). This paper adds to that literature by exploring both welfare participation and social insurance participation by Korean immigrants in the United States using 1990 Census microdata.

Korea provides an interesting case study since it was the second largest immigrant sending country in Asia in 1990, behind only the Philippines (U.S. Immigration and Naturalization Service (1996)). Table 1 indicates that immigrants from Korea account for more than 10% of all immigrants

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1. This number is somewhat inflated by legalizations under the 1986 Immigration Reform and Control Act.

from Asia through the late 1980s. Although this share has diminished somewhat into the 1990s, Korea is still the third largest immigrant sending country in Asia as of 1994 (U.S. Immigration and Naturalization Service (1996)).

Table 1 Korean Immigration to the United States, 1984-1994

Year	Immigrants from Korea	Immigrants from Asia	Total Immigrants to U.S.
1984	33,042	256,272	543,903
1985	35,253	264,691	570,009
1986	35,776	268,248	610,708
1987	35,849	247,684	601,516
1988	34,703	264,465	643,025
1989	34,222	312,149	1,090,924
1990	32,301	338,581	1,536,483
1991	26,518	358,533	1,827,167
1992	19,359	356,955	973,977
1993	18,026	358,047	904,292
1994	16,011	292,589	804,416

Source: U.S. Immigration and Naturalization Service (1996)

This paper is unique in that it empirically examines both welfare and social insurance participation as part of a broader, more detailed empirical model than has been used in previous studies. The welfare programs analyzed here include Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI). Social insurance programs refer primarily to Social Security.² A seven equation, simultaneous system is developed for empirical estimation from a household level utility maximization problem. This framework makes it possible to account for the linkages between head and spouse hours worked and household welfare and social insurance participation. However, only the welfare and social insurance participation results are presented and discussed here (results from the complete model may be found in Davies (1996)). These results indicate that immigrants from Korea are more likely than natives of Korean ancestry to participate in welfare programs but are not statistically different from natives with respect to social insurance participation.

The rest of this paper proceeds as follows. Section II presents the findings of some previous studies. The data and empirical model are described in section III. Section IV discusses the empirical results. Finally, Section V concludes with policy implications and suggestions for future research.

II. Previous Findings

Previous studies examining immigrant welfare participation have generally found that immigrants are less likely to participate in welfare programs than otherwise similar natives. However, none has conducted a detailed econometric analysis of Korean immigrants, while only two studies

2. These definitions of welfare and social insurance programs are a result of the definitions used for welfare and social insurance in the 1990 U.S. Census data.

have considered Asian immigrants as a group. Borjas and Trejo (1993) present unadjusted and adjusted welfare participation rates for immigrants from 62 countries of origin based on 1980 U.S. Census microdata. The unadjusted (or raw) welfare participation rate for Korean male-headed immigrant households is 5.3 percent, while that for Korean female-headed immigrant households is 8.7 percent. When these rates are adjusted (or predicted) based on a vector of household characteristics, the participation rates skyrocket to 18.1 percent for Korean male-headed immigrant households and 21.4 percent for Korean female-headed immigrant households. Although the unadjusted participation rates are at or below the mean for all 62 countries of origin, the adjusted participation rates are far above average.

Tienda and Jensen (1986) conduct logit analyses of immigrant welfare participation based on 1980 U.S. Census microdata. They report that Asian immigrants are 2.2 percent more likely than otherwise comparable natives to receive welfare income; however, this result “is attributable to the Vietnamese group... , who received transfer income at a rate 9% above Chinese and Korean families” (Tienda and Jensen (1986), p. 390). When accounting for year of immigration, Tienda and Jensen (1986) find that the most recent Asian immigrants are significantly more likely to participate than otherwise similar Asian natives. Jensen (1988) conducts a similar analysis using both 1970 and 1980 U.S. Census microdata. He finds that Asian immigrant families in 1979 are significantly more likely to receive welfare than Asian immigrant families in 1969, all else equal. Furthermore, Asian immigrants arriving less than five years before each census year are significantly more likely to participate than otherwise similar native families.

Blau (1984) is the only previous study to have examined immigrant social insurance participation. Based on the 1976 Survey of Income and Education, she finds that more recent immigrants are significantly less likely to receive social insurance benefits. However, more distant immigrants are significantly more likely than natives to receive social insurance benefits. In other words, social insurance participation by immigrants increases as they spend more time in the U.S. and gain more experience in Social Security covered jobs. Blau (1984) does not consider Asian immigrants separately from all other immigrants.

III. Data and Empirical Model

The data set employed is the 5% sample of the 1990 Public Use Microdata Sample (PUMS) of the United States Census (Bureau of the Census (1992)). A data set was prepared containing households of Korean birth as well as native households of Korean ancestry. Households are classified as foreign born if either the head, the spouse, or both were born in Korea. For native households, Korean ancestry is based on the ancestry reported for the household head. Regarding program participation, a household is classified as a welfare participant if any member of that household has positive income from welfare programs (AFDC and SSI) in 1989. Similarly, a household is classified as a social insurance participant if any member of that household has positive income from social insurance programs (primarily Social Security) in 1989. Household - and person - level variables are created for a number of socio-economic characteristics such as sex, age, education, and non-labor income. These variables are used as control variables in the empirical analysis in order to ensure the comparison of “otherwise similar” households. A complete list of variable names and definitions is provided in Table 2.

Table 2 Variable Definitions

Variable Name	Variable Definition
Household Characteristics	
YSPEND	Annual household consumption
PASTPART	Public assistance participation dummy (equal to 1 if participate)
SSPART	Social security participation dummy (equal to 1 if participate)
SOTHINC2	Sum of household's dividend, interest, and net rental income, retirement income, and all other income
SEXTFAM	Number of extended family members living in the household
SPOUSE	Equal to 1 if a married spouse or unmarried partner is present
ENGONLY	Equal to 1 if English is only language spoken in the household
SHHLE17	Number of household members less than or equal to 17
KOREA*17	SHHLE17 interacted with KOREA dummy variable
SHHGE65	Number of household members greater than or equal to 65
KOREA*65	SHHGE65 interacted with KOREA dummy variable
SHHDISAB	Number of household members who are disabled
KOREA*DIS	SHHDISAB interacted with KOREA dummy variable
KOREA*WID	HWIDOWED interacted with KOREA dummy variable
INMA	Equal to 1 if household is located in a metropolitan area
Head (Spouse) Characteristics	
LHWAGE*	Head's log-wage
HHOURS*	Hours worked in 1989 by the household head
HSEX*	Sex of household head (equal to zero if male, 1 if female)
HAGE*	Age of household head
HEDUC*	Head's years of completed education
HEXPER*	Head's potential market experience (=age-education-6)
HUNEMPLY*	Equal to 1 if head is unemployed or not in the labor force
HWRKLIM*	Equal to 1 if head has work limiting disability
HWRKPREV*	Equal to 1 if head has work preventing disability
HENGABIL*	Head's English speaking ability
HSERVED*	Equal to 1 if head is military veteran
HWIDOWED	Equal to 1 if head is a window(er)
Foreign-Born Characteristics	
KOREA	Equal to 1 if household is of Korean birth
ENTAGE	"Household's" age at entry into the U.S.
Area Characteristics	
AFDCAVG	State's average monthly AFDC payment
SSIAVG	State's average SSI payment

* If variable name prefixed with S instead of H, then variable is a spouse characteristic.

Descriptive statistics are presented in Table 3. One thing to note from the descriptive statistics is the difference in welfare and social insurance participation between native Korean households and Korean immigrant households. Only 4% of the native households of Korean ancestry

participate in welfare programs compared to 7% of Korean immigrant households. For social insurance programs, on the other hand, 17% of the native Korean households participate compared to only 6% of the immigrant Korean households.

Table 3 Descriptive Statistics (Key Variables)

Variable	Mean ^{***}	Standard Deviation
HSEX	0.19	0.40
HAGE	42.56	12.67
HHOURS	1804.38	1,091.43
LHWAGE	2.09	1.19
HEDUC	13.85	13.85
HEXPER	22.71	13.82
HUNEMPLY	0.19	0.39
SPOUSE	0.77	0.42
SAGE	30.62	19.28
SHOURS	873.42	1,108.04
LSWAGE	0.99	1.19
SEDUC	9.88	6.23
SEXPER	16.15	13.61
SUNEMPLY	0.32	0.47
KOREA*	0.95	0.22
ENTAGE*	29.56	12.85
SHHDISAB	0.15	0.42
SHHLE17	0.92	1.00
SHHGE65	0.09	0.31
SSPART**	0.17/0.06	0.38/0.24
PASTPART**	0.04/0.07	0.20/0.26
# of observations	10830	

* Foreign-born households only.

** Left figure is for native households, right figure is for foreign-born households.

*** For dichotomous variables, the figures presented are sample proportions. For continuous variables, the figures presented are sample means.

These differences should come as no surprise given the eligibility requirements for each type of program. AFDC and SSI eligibility, for example, is based primarily on income and asset levels. One must only be a legally admitted resident alien to qualify. Social Security eligibility, however, is based on quarters of Social Security covered employment. These quarters of covered employment can only be earned while working in the U.S. (except in very rare circumstances).

The basis for the empirical model is a household-level utility-maximization problem in which the household chooses welfare and social insurance participation along with hours worked and consumption for each household member.³ A number of changes were made from the theoretical

3. The complete presentation of the theoretical framework can be found in Davies (1996).

framework for the purpose of empirical tractability. Whereas the theoretical model calls for the estimation of a labor supply equation and a consumption equation for each member of the household, the empirical model contains a labor supply equation only for the household head and spouse (if present) and a single household-level consumption equation.

The empirical model consists of seven equations for each household: head hours worked, spouse hours worked, head wage, spouse wage, social security participation, public assistance participation, and household consumption. The complete empirical model is as follows:

$$\text{hhours} = \beta_0 + \beta_1\text{sspart} + \beta_2\text{pastpart} + \beta_3\text{shours} + \beta_4\text{lh wage} + \mathbf{x}_1\psi_1 + \varepsilon_1 \quad (1)$$

$$\text{shours} = \gamma_0 + \gamma_1\text{sspart} + \gamma_2\text{pastpart} + \gamma_3\text{hhours} + \gamma_4\text{lswage} + \mathbf{x}_2\psi_2 + \varepsilon_2 \quad (2)$$

$$\text{lh wage} \mid (\text{hhours} > 0) = \delta_0 + \mathbf{x}_3\psi_3 + \delta_1\text{hmills} + \varepsilon_3 \quad (3)$$

$$\text{lswage} \mid (\text{shours} > 0) = \eta_0 + \mathbf{x}_4\psi_4 + \eta_1\text{smills} + \varepsilon_4 \quad (4)$$

$$\text{sspart} = \theta_0 + \theta_1\text{lh wage} + \theta_2\text{lswage} + \theta_3\text{pastpart} + \mathbf{x}_5\psi_5 + \varepsilon_5 \quad (5)$$

$$\text{pastpart} = \pi_0 + \pi_1\text{lh wage} + \pi_2\text{lswage} + \pi_3\text{sspart} + \mathbf{x}_6\psi_6 + \varepsilon_6 \quad (6)$$

$$\text{yspend} = \mu_0 + \mu_1\text{lh wage} + \mu_2\text{lswage} + \mu_3\text{sspart} + \mu_4\text{pastpart} + \mathbf{x}_7\psi_7 + \varepsilon_7 \quad (7)$$

where the variable are as defined in Table 2. The vectors \mathbf{x}_1 through \mathbf{x}_7 are vectors of exogenous explanatory variables which may contain common elements. These explanatory variables include household head characteristics, other household characteristics, area characteristics, and foreign-born characteristics in order to ensure the comparison of “otherwise similar households.”

The model is simultaneous due to the appearance of endogenous explanatory variables in the labor supply, program participation, and consumption equations. Given this simultaneity, the system must be identified so that meaningful estimates of the coefficients may be obtained. In order to ensure identification, the rank and order conditions are checked (Kmenta (1986)). The system passes both conditions for identification and can therefore be estimated by any appropriate systems estimation technique.

The estimation technique adopted here is a two-stage procedure. In the first stage, reduced-form equations are estimated for all right-hand-side endogenous variables (i.e., hhours, shours, spart, and pastpart). These reduced form equations cannot be estimated by ordinary least squares due to the nature of the dependent variables. Head and spouse hours worked, for example, are left censored at zero due to the presence of non-working heads and spouses in the sample. Tobit is the appropriate estimation method for the head and spouse hours worked equations. The program participation variables, on the other hand, are dichotomous variables equal to one if the household participates and zero otherwise. Probit is the appropriate estimation technique for this type of dependent variable. The fitted values from these reduced form equations are

retained and renamed by adding the extension “ht” to the variable name.

As part of the first stage, the log-wage equations are estimated separately for the subsamples of working heads and spouses (if present), including sex, potential labor market experience and its square, education, work limitation status, ability to speak English, and a vector of foreign-born status indicators as independent variables.⁴ The inverse Mill’s ratio, derived from Tobit estimates of (1) and (2), also is included to correct for sample selection bias.⁵ Those who did not work in 1989 are initially assigned a wage of zero. However, this cannot be used as their wage in estimating Equations (1) through (7) above. As described in the labor supply literature, a wage of zero means that the wage that individual could command in the labor market, given his or her skills and ability, is less than that individual’s reservation wage. Thus, the individual chooses not to work. For the purpose of estimating the model, predicted head and spouse wages are derived by applying the estimated parameters from (3) and (4) to the characteristics of the full sample of heads and spouses, both working and not working. When no spouse is present, the spouse’s estimated wage is set equal to zero.

The second stage involves estimating the structural equations of the model (Equations 1, 2, 5, 6, and 7) using the first stage fitted values in place of the right-hand-side endogenous variables. The structural equations for head and spouse hours are estimated by Tobit while those for social insurance and public assistance participation are estimated by Probit. Household consumption is estimated by ordinary least squares (OLS).

Differences in program participation between Korean immigrant households and native households of Korean ancestry are accounted for by the variable KOREA. This is a dummy variable equal to one if the household head or spouse was born in Korea. The estimated coefficient on this country of birth dummy variable indicates whether Korean-born households are more likely, equally likely, or less likely to participate in welfare and social insurance programs than are otherwise similar households of Korean ancestry.

An additional variable is included to control for age at entry into the U.S. This variable is constructed as current age less the midpoint of the year group in which immigration occurred. For natives, age at entry is set equal to zero. Friedberg (1993), in the context of immigrant labor market assimilation, showed that age at arrival is an important explanatory variable, though it has been excluded from nearly all previous studies. She finds that immigrants arriving at older ages earn less at every stage of assimilation than otherwise similar immigrants arriving at younger ages. Furthermore, controlling for age at arrival reduces the rate at which immigrants close the earnings gap with otherwise similar natives.

In the case of welfare and social insurance participation, age at arrival may play a similarly important role. For example, immigrants arriving while young may gain greater knowledge of the U.S. welfare system and may therefore be more likely participants than otherwise similar immigrants arriving at older ages. Furthermore, those arriving earlier in their lives may lose the feelings of stigma attached to welfare participation in their home country as they grow up more like an American. If this is the case, welfare participation and age at arrival will be negatively

4. Killingsworth (1983) discusses wage equations in the labor supply context. Friedberg (1993) analyzes wage and earnings equations including foreign-born characteristics.

5. Killingsworth (1983), Heckman (1979), and Maddala (1983), among others, provide very detailed discussions of this procedure.

related. On the other hand, immigrants arriving at younger ages may have made greater earnings progress through the assimilation process than otherwise similar immigrants arriving later in life and may therefore be less likely to participate in welfare programs. For social insurance programs, younger age at arrival translates into more years in which to gain quarters of Social Security covered work experience. This should lead to a negative relationship between age at arrival and social insurance participation. These hypotheses are empirically tested below.

Friedberg (1993) also points out an important identification issue when including age at arrival as an explanatory variable. For immigrants, current age is equal to years since arrival plus age at entry. Including all three explanatory variables in the same equation leads to perfect multicollinearity and the parameters are not identified. However, by including both immigrants and natives in the sample, identification of these three parameters is possible because the relation “current age equals years since arrival plus age at entry” does not hold for natives. Friedberg (1993) correctly argues that if one imposes the restriction that the effects of current age on participation are the same for immigrants and natives, then the parameters on current age, years since arrival, and age at entry can all be identified. This identification method is employed here, although it imposes no true restriction on the model since immigrants and natives were to be pooled, and a single coefficient was to be estimated for the current age variable, regardless of the inclusion of the age at entry variable. A simple addition, including the age at entry variable represents an important advance over previous studies of immigrant social program participation.

IV. Empirical Results

The empirical results are presented in Table 4. Although the full system is estimated (Equations 1 through 7), only the results for the welfare participation and social insurance participation equations are presented and discussed here. Results from the complete model are available from the author.

Table 4 Empirical Results

Variable	Welfare	Social Insurance
INTERCEPT	-1.594***	-2.847***
LHWAGEHT	-0.925***	-0.358**
LSWAGEHT	-0.063	-0.540**
SSPARTHT	-0.956***	---
PAPARTHT	---	-0.718***
SOTHINC2	0.000***	0.000***
SEXTFAM	0.109***	0.153***
KOREA	0.309*	0.147
ENTAGE	-0.020***	-0.032***
HSEX	-0.135	0.131
HEDUC	0.032***	---
HAGE	0.033***	0.058***
HEXPER	---	-0.005

Table 4 (Continued)

Variable	Welfare	Social Insurance
HWRKLIM	-0.417***	0.095
HWRKPREV	0.362***	0.283**
HUNEMPTY	0.486***	---
HWIDOWED	0.165	0.645***
SPOUSE	-0.316	0.212
SEDUC	-0.006	---
SAGE	0.005	0.032**
SEXPER	---	-0.017
SUNEMPTY	0.185***	---
ENGONLY	-0.070	-0.055
SHHLE17	0.316***	-0.097
SHHGE65	0.636*	2.393***
SHHDISAB	0.284	-0.139
KOREA*65	0.603	-1.444***
KOREA*17	-0.173*	0.156
KOREA*DIS	0.218	0.343
KOREA*WID	0.217	-0.074
AFDCAVG	0.000	---
SSIAVG	0.000	---
INMA	0.020	-0.053
log L	-1,797.478	-1,854.547

* implies statistical significance at the .10 level.

** implies statistical significance at the .05 level.

*** implies statistical significance at the .01 level.

Focusing first on the foreign-born variables, we find that the coefficient on the KOREA dummy variable is positive and significant at the 10% level in the welfare participation equation. In other words, immigrant households from Korea are more likely to participate in welfare programs than are otherwise similar native households of Korean ancestry. For social insurance programs, we also find a positive coefficient on the KOREA dummy variable, although it is not significant at conventional levels. This leads to the conclusion that Korean immigrant households do not differ statistically from otherwise similar native households of Korean ancestry with respect to social insurance participation. This latter finding is somewhat anticipated given that Korea is a relatively new immigrant sending country (compared to, say, Germany) causing native households of Korean ancestry to be young and relatively inexperienced in the U.S. labor market.

The coefficient on the age at entry (ENTAGE) variable is highly significant and negative, as expected, in the social insurance participation equation. This implies that Korean households entering the U.S. at older ages are less likely to receive social insurance benefits than Korean households entering the U.S. at younger ages, all else equal. Again, this is likely the result of program ineligibility due to the lack of the required quarters of Social Security covered work

experience. For welfare program participation, the coefficient on this entry age variable is also negative and significant. This result lends support to the hypothesis that households immigrating at younger ages “learn the system” better than otherwise similar households immigrating at older ages and are therefore more likely to become participants.

The socio-economic control variables generally perform as expected in both equations. Higher predicted wages of the household head significantly reduce the likelihood of participation in welfare and social insurance programs. Households with an older head and with more extended family members present are found to be more likely participants in both types of programs. Furthermore, households whose head has a work preventing disability are more likely to participate. Moreover, it is found that households which participate in welfare (social insurance) programs are significantly less likely to also participate in social insurance (welfare) programs. This effect is captured by the SSPARTHT variable in the welfare participation equation and the PAPARTHT variable in the social insurance participation equation.

The household composition variables also provide some interesting results. Households with more children under 18 (SHHLE17) and with more members 65 and over (SHHGE65) are significantly more likely to be welfare participants. This finding is expected given that the welfare programs being analyzed are directed at poor households with young children (AFDC) and poor elderly households (SSI). However, the positive effect of more children under 18 on welfare participation is somewhat reduced for Korean immigrant households relative to native households of Korean ancestry, as shown by the negative and significant coefficient on KOREA*17. In other words, an additional child under the age of 18 does not increase the probability of welfare participation as much for Korean immigrant households as it does for Korean ancestry native households.

For social insurance programs, elderly households are more likely participants, all else equal. This effect is reduced for Korean immigrant households relative to native households of Korean ancestry, as shown by the negative and significant coefficient on KOREA*65. These are the expected results due to the age and U.S. work experience requirements for Social Security eligibility.

The SPOUSE variable, as expected, has a negative coefficient in the welfare participation equation, indicating that households with a spouse present are less likely to receive welfare. This coefficient is not statistically significant at conventional levels in the welfare participation equation, nor is it significant in the social insurance participation equation.

The only variable that has an unanticipated coefficient is HEDUC in the welfare participation equations. This variable is positive and highly significant, indicating that households with more educated heads are more likely to receive welfare. The spouse education variable (SEDUC), on the other hand, is not significant.

V. Conclusions

This paper addresses the issue of participation in welfare and social insurance programs by Korean immigrant households relative to the control group of native households of Korean ancestry. The case of Korea is important and interesting because Korea has been among the top three immigrant sending nations in Asia for more than a decade, sending over 30,000 immigrants per year to the U.S. through the late 1980s. A detailed and unique empirical model is developed

and estimated using microdata records from the 1990 Public Use Microdata Sample of the U.S. Census. This model examines welfare and social insurance participation, while accounting for linkages between head and spouse hours worked and participation in the two types of programs.

The empirical results indicate that Korean immigrant households are more likely to participate in welfare programs than are otherwise similar native households of Korean ancestry. Regarding social insurance participation, however, Korean immigrant households are not statistically different from their native counterparts. Interactions with the household composition variables indicate that the positive effect of children less than 18 on welfare participation, as well as the positive effect of members 65 and over on social insurance participation, is somewhat smaller for Korean immigrant households than for native households of Korean ancestry. Furthermore, Korean immigrant households entering the U.S. at older ages are less likely to participate in welfare and social insurance programs than are Korean households immigrating at younger ages.

On first reading, the results presented here seem to indicate that recent legislative efforts, such as the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, that deny means-tested welfare benefits to legal immigrants are warranted. However, before making such strong policy recommendations, this research should be extended in a number of directions. For example, additional native-born control groups must be examined. Different results may be found if welfare and social insurance participation by Korean immigrants is compared to all natives regardless of ancestry, black natives, or white natives. Furthermore, additional welfare programs should be added to the analysis. However, this extension involves turning to other data sources, such as the Survey of Income and Program Participation, that provide less detailed information about immigrants. Finally, age-specific analyses should be conducted in order to examine those most likely to use AFDC (young, female-headed households) separately from those most likely to use SSI (elderly households).

Nevertheless, these results are important because they specifically address Korean immigrants rather than simply focusing on Asia as a whole, as others have done. Furthermore, the fact that previous studies have found immigrants to be generally less likely to participate in welfare programs, while this study indicates that Korean immigrants are more likely to participate, leads one to conclude that more study of specific countries of origin is necessary. Studies which examine broad regions of origin may obscure important differences to be found among the individual sending nations.

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