
Are Refugees Different from Economic
Immigrants? Some Empirical Evidence on the
Heterogeneity of Immigrant Groups in the U.S.

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Motivation

Differences between Refugees & Economic Immigrants:

Refugee

- Unable or unwilling to return home
- Forced to make a life in the country that gives them refuge

Economic

- Can return home when ever they choose
- Purpose of trip to earn money (and then return home)

Motivation (cont'd)

Economic Implications of these Differences:

- Refugees have longer time horizons in host countries
 - ⇒ More likely to invest in Country-Specific Human Capital (i.e., language skills and enroll in school)
 - ⇒ More likely to assimilate to the earnings growth paths of natives

Research Questions

Given the differences we observe between refugees and economic immigrants, do these two groups differ in their earnings growth?

What attributes explain the difference in earnings growth between these two groups?

Preview of Findings

- In 1980, refugee immigrants for the 1975-80 arrival cohort earned 6 percent less and worked 14 percent fewer hours than economic immigrants. Both had about the same level of English skills.
- In 1990, refugees from this arrival cohort earned 20 percent more, worked 4 percent more hours, and improved their English skills by 11 percent relative to economic immigrants.
- The higher rates of human capital accumulation (i.e., education and English skills) for refugee immigrants contribute to these findings.

Outline of Presentation

- Related Literature
- Data and Methodology
- Results and Discussion
- Concluding Remarks

Related Literature

Human Capital Theory

- Chiswick (1978)

Synthetic Panel Approach

- Borjas (1985)

Second look at Chiswick's hypothesis of country-specific human capital: English language acquisition

- Carliner (1995), White & Kaufman (1997), Duleep & Regets (1999), Khan (1997)

Data Sources & Methodology

Data Sources

- 1980 and 1990 Census Public Use Samples
- Statistical Yearbook of Immigration and Naturalization Services (INS): 1970-1990

Methodology

- Synthetic Cohort
 - 1975-1980 for 1980 and 1975-1979 for 1990 arrival cohorts
 - Ages 16-45 in 1980 and ages 26-55 in 1990
 - Excluded English speaking countries

Identification of Refugees

- Year of entry and place of birth

**Table 1. Sample Sizes of Refugee and Economic Immigrants:
Fixed Cohort Year of Immigration 1975-1980**

	1980 Census	1990 Census
Refugees from	12,086	9,614
Afghanistan	95	83
Cuba	843	588
Russia	2119	1,411
Ethiopia	131	110
Haiti	1,134	924
Cambodia (Khmer)	505	488
Lao	1,239	939
Vietnam	6,020	5,071
Economic Immigrants from	67,135	58,621
Mexico	23,435	25,276
Central America	4,430	4,797
Caribbean	1,674	1,330
South America	5,328	3,613
Northern Europe	613	255
Western Europe	1,242	602
Southern Europe	3,607	2,830
Central Eastern Europe	5,512	2,700
East Asia	11,542	8,362
Southeast Asia	1,558	891
Middle East & Asia Minor	4,018	2,289
Philippines	5,215	5,101
Northern Africa	961	575

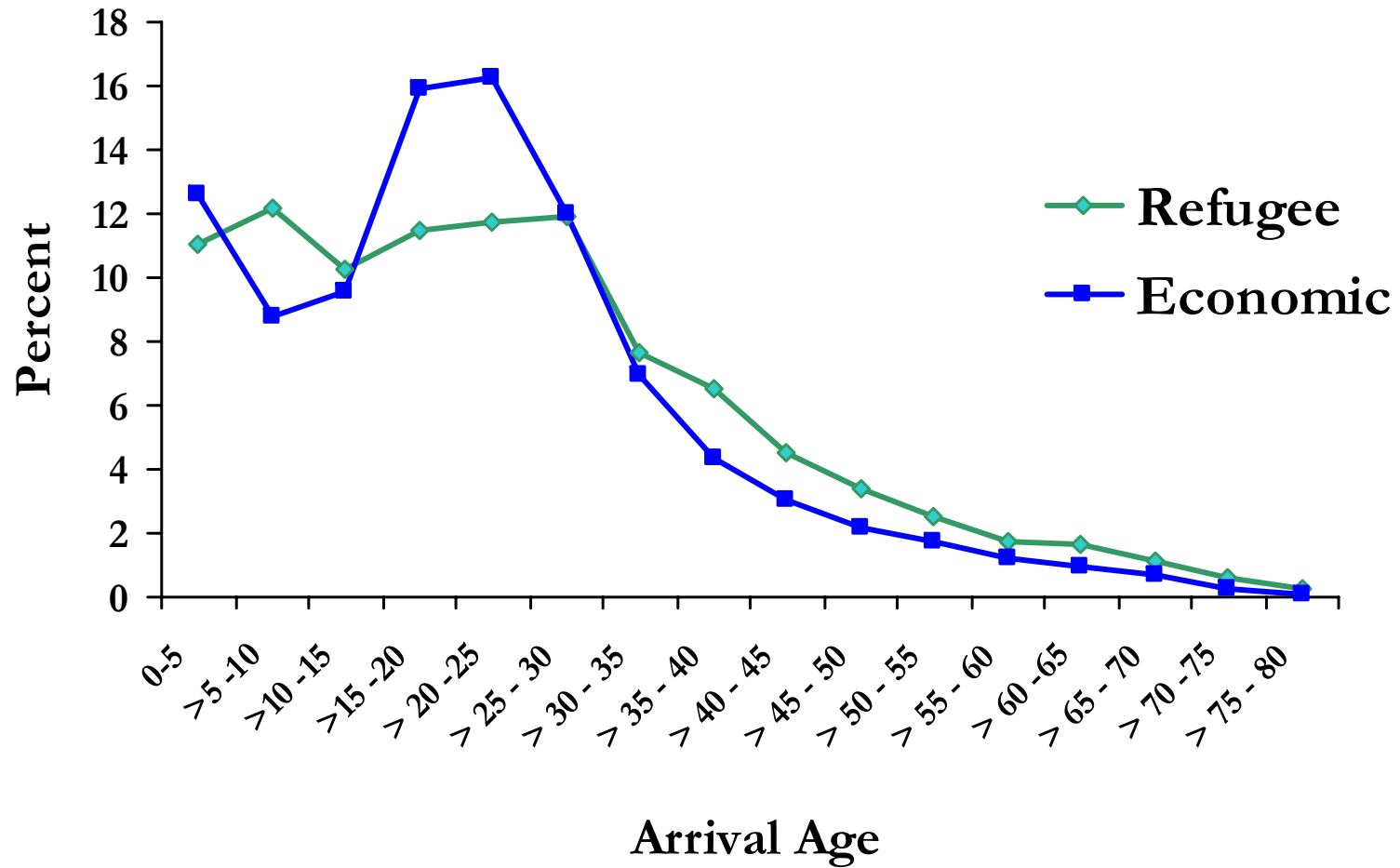
Characteristics of Refugees vs. Economic Immigrants

- Marital status, number of children, educational attainment, country-specific human capital
- Age at arrival

Table 2. Characteristics of Refugees and Economic Immigrants for a Fixed Cohort Year of Immigrant 1975-1980 (percent)

	Refugee Immigrants		Economic Immigrants	
	1980 Census	1990 Census	1980 Census	1990 Census
Gender				
Male	54	48	52	49
Female	46	52	48	51
Marital Status				
Married	53	73	56	76
Number of Children				
None	55	32	60	28
One	17	18	16	16
Two	13	24	13	27
Three	6	13	6	16
Four	4	7	2	7
Five-Nine	5	6	2	5
Regional Enclaves				
Northeast	21	19	20	16
Midwest	14	8	13	9
South	27	29	20	22
West	37	44	47	53
Educational Attainment				
None, Kinder, Grade 1-4	9	9	12	15
Grade 5-8	13	6	21	21
Grade 9	7	2	6	5
Grade 10	7	3	5	3
Grade 11	7	2	5	2
Grade 12	26	26	20	21
1-3 Years of College	18	28	15	16
4 + Years of College	13	24	16	17
Other				
Low English	45	22	46	33
School Enrollment	31	13	21	11
Citizenship Status	6	63	8	38

Figure 1. Age at Time of Arrival (Percent)



Results and Discussion

- Regression Specification
- Discussion of Results
- Robustness Test

Regression Specification

Ln(y)_{i,t}: Log Annual Earnings, Log Hourly Earnings, Log Annual Hours

Basic Controls: Age, Age², Age³, Age⁴, Region, and Marital status

Country-Specific Human Capital (CSHC): English Ability

Educational Attainment: Kindergarten, 1st-4th Grade, 5th-8th Grade, 9th Grade, 10th Grade, 11th Grade, 12th Grade, 1 to 3 Years of College, and 4 Plus Years of College

Model: With Controls, CSHC, and Educational Attainment

$$\begin{aligned} \text{Ln}(y)_{i,t} = & \alpha_0 + \alpha_1 \cdot D^{1990} + \alpha_2 \cdot D^{\text{Refugee}} + \alpha_3 \cdot D^{1990} \cdot D^{\text{Refugee}} + X_{i,t} \cdot \gamma \\ & + \beta_0 \cdot \text{LowEng} + \beta_1 \cdot \text{LowEng}^{1990} + \text{Educ}_{i,t} \cdot \theta + \mu_{i,t} \end{aligned}$$

**Table 3. Data and Summary Statistics: Means of Log Annual Earnings,
Log Weekly Earnings and Log Hourly Earnings**

Immigrant Groups	Log Annual Earnings		Log Weekly Earnings		Log Hourly Earnings	
	1980	1990	1980	1990	1980	1990
Pooled Sample						
Refugee	9.08	9.85	5.57	6.03	1.97	2.33
Economic	9.14	9.65	5.53	5.87	1.89	2.17
Change for Refugees	0.77		0.46		0.36	
Change for Economic	0.51		0.34		0.28	
<i>Relative Gain of Refugees</i>	0.26		0.12		0.08	
<i>Relative Gain of Refugee Males</i>	0.28		0.13		0.09	
<i>Relative Gain of Refugee Females</i>	0.21		0.12		0.06	

Potential Biases

Contamination

- Variable “year of immigration” is coded in intervals
- Some economic immigrants may have been included as part of refugee waves coming from the same countries
- How then are the estimates affected by the aggregation of the variable “year of immigration”?
 - ⇒ Downward Biased (refugee coefficient)

Other Biases

- Missing the 1980 Arrivals in the 1990 Census Sample
 - ⇒ Upward Biased (both coefficients)
- Return Migration for Economic Immigrants (Lubotsky 2002)
 - ⇒ Upward Biased (economic coefficient)

Table 4. Log Annual Earnings Regression Results (Male Sample)

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>
Constant	9.2806 (0.0061)	2.4166 (0.5524)	2.5673 (0.5395)	2.6415 (0.5282)
Dummy '90	0.5163 (0.0085)	0.2478 (0.0095)	0.237 (0.0109)	0.3119 (0.0108)
Refugee	-0.0762 (0.0169)	-0.1271 (0.0162)	-0.1797 (0.0160)	-0.1863 (0.0157)
Refugee '90	0.2842 (0.0231)	0.3374 (0.0221)	0.3163 (0.0217)	0.2463 (0.0212)
R²	0.0902	0.1760	0.2143	0.2543

Table 5. Percent Contribution to Growth in Annual Earnings from Growth in Hourly Wages (Male Sample)

	$\Delta\text{Refugee} - \Delta\text{Economic}$			<i>% Contribution</i>
	Annual Earnings Growth	Hourly Wages Growth	Annual Hours Growth	
Model 1	0.28	0.09	0.19	1/3
Model 2	0.34	0.12	0.22	1/3
Model 3	0.32	0.12	0.20	2/5
Model 4	0.25	0.05	0.20	1/5

Robustness Tests: Illusion or Reality

Test1: Analyze the individual earnings growth coefficients for each refugee and economic immigrant sending country:

$$\text{Model: } \ln(y)_{i,t} = \alpha_0 + \alpha_1 \cdot D^{1990} + X_{i,t} \cdot \gamma + \mu_{i,t}$$

Robustness Tests (cont'd)

Test 2: Takes into account the large fraction of Asians in the refugee category:

$$\alpha_3^R - \alpha_3^E = s_R (y_{4,4,2,4}^{A,R} - y_{4,4,3}^{A,E}) + (1-s_R) (y_{4,4,4,2,4}^{NA,R} - y_{4,4,4,3}^{NA,E}) + (y_{4,4,4,2,4}^{A,E} - y_{4,4,4,2,4}^{NA,E}) (s_R - s_E)$$

Asian Refugees
Non-Asian Refugees

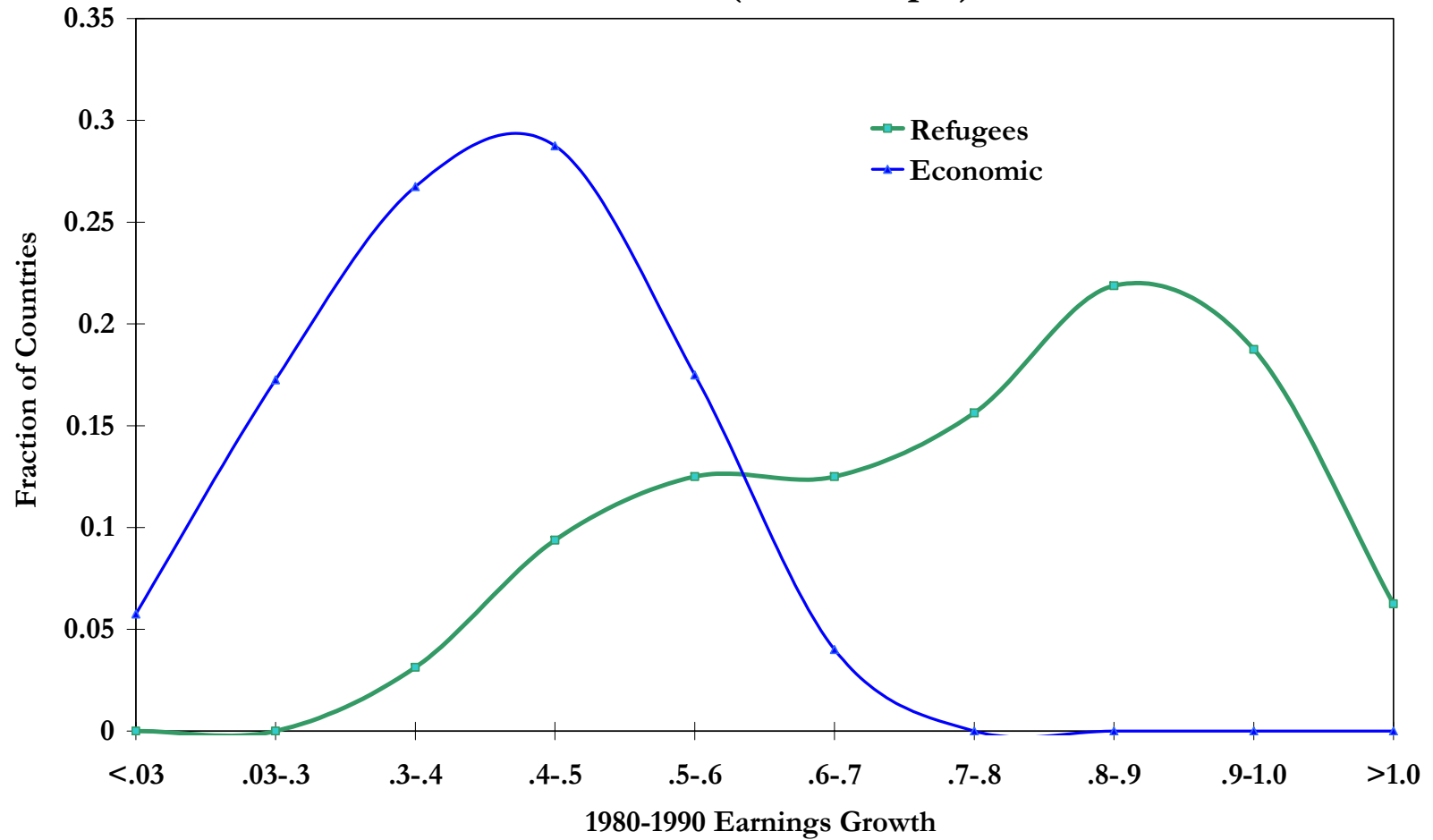
"Refugee effect term"

$$\Leftrightarrow \alpha_3 = s_R \alpha_3^A + (1-s_R) \alpha_3^N + (y^{A,E} - y^{NA,E}) (s_R - s_E)$$

$$\Leftrightarrow \alpha_3 = \text{"Asian Refugee term"} + \text{"Non-Asian Refugee term"} + \text{"Asian effect term"}$$

Robustness Test 1

Figure 2. Smoothed Histograms of Country-Specific Growth Rates (Male Sample)



Robustness Test 2

Table 6. Decomposition of Earnings Growth from Table 4

	Model 1	Model 2	Model 3	Model 4
Earnings growth of refugees relative to economic immigrants from 1980 to 1990, α_3	0.28	0.34	0.32	0.25
Asian Refugee term, $s_R \alpha_3^A$	0.03	0.01	0.01	-0.01
Non-Asian Refugee term, $(1 - s_R) \alpha_3^N$	0.23	0.33	0.31	0.28
Asian effect term, $(y^{A,E} - y^{NA,E})(s_R - s_E)$	0.02	0.00	0.00	-0.02

Effects of Improving English Fluency

What is the monetary value of English improvement?

- Standard Oaxaca Decomposition is used

Table 7. Means of Low English (Male Sample)

Immigrant Groups	Low English	
	1980 Census	1990 Census
Refugee	0.43	0.19
Economic	0.46	0.31
Change for Refugees		-0.24
Change for Economic		-0.15
<i>Relative Gain of Refugee Males</i>		0.09

Oaxaca Decomposition

$$\text{LnW}_{1980,j} = \text{HC}_{1980,j} \cdot \beta_{1980,j} + \eta_{1980,j} \quad (1)$$

$$\text{LnW}_{1990,j} = \text{HC}_{1990,j} \cdot \beta_{1990,j} + \eta_{1990,j} \quad (2)$$

Taking the difference between (1) and (2), then adding and subtracting the following term $\text{HC}_{1980} \cdot \hat{\beta}_{1990}$:

$$\begin{aligned} \text{Ln}\bar{W}_{1990,j} - \text{Ln}\bar{W}_{1980,j} &= \text{HC}_{1990,j} \cdot \hat{\beta}_{1990,j} - \text{HC}_{1980,j} \cdot \hat{\beta}_{1980,j} \\ &+ \text{HC}_{1980} \cdot \hat{\beta}_{1990} - \text{HC}_{1980} \cdot \hat{\beta}_{1990} + \eta_{1990,j} - \eta_{1980,j} \end{aligned}$$

We get,

$$\Delta \text{Ln}\bar{W}_j = \frac{\Delta \text{HC}}{1} \frac{\text{HC}}{44} \frac{\hat{\beta}_{1980,j}}{2} \frac{\hat{\beta}_{1980,j}}{4} \frac{\hat{\beta}_{1980,j}}{45} + \frac{\Delta \hat{\beta}}{1} \frac{\hat{\beta}}{44} \frac{\text{HC}}{2} \frac{\text{HC}}{4} \frac{\text{HC}}{45} + \mu_j \quad (3)$$

% Δ in earnings for immigrant group j for investing in ΔHC

% Δ in return

Table 8. Percent Contribution to Annual Earnings, Annual Hourly Earnings, and Annual Hours Growth Attributable to English Improvement (Male Sample)

	Refugee Immigrants	Economic Immigrants
Annual Earnings	7	6
Annual Hourly Earnings	4	4
Annual Hours	3	2

Concluding Remarks

- This paper analyzes how the implicit difference in time horizons of immigrants affects their subsequent human capital investments and wage assimilation.
- Based on Immigration and Naturalization Service (INS) definitions, I develop a schema for distinguishing refugees from economic immigrants.
- The analyses uses the 1980/1990 five percent Public Use Samples, which allows me to analyze a synthetic panel of refugee and economic immigrants that entered the US between 1975 and 1980.

Concluding Remarks (cont'd)

- Refugee immigrants on average start at a lower annual earnings; however, over time their annual earnings grow faster than these of economic immigrants.
- Some of the greater economic gains of the refugees are attributable to relative gains in education and English skills.
- The striking comparisons between economic immigrants and refugees are not attributable to any single country of origin or ethnic group.
- These results suggest that refugees are in fact different from economic immigrants, and ultimately do better in the U.S.

Thank You

Bonus Slides

**Table 7. 1980-1990 Earnings Growth For
Country/Region-Specific Refugee and Economic
Immigrants Groups**

	Coefficients (Standard Errors)
Refugees from	Male
Afghanistan	0.95 ^{***} (0.29)
Cuba	0.71 ^{***} (0.11)
Russia	0.85 ^{***} (0.07)
Ethiopia	0.92 ^{***} (0.26)
Haiti	0.60 ^{***} (0.08)
Cambodia (Khmer)	0.88 ^{***} (0.12)
Lao	0.59 ^{***} (0.09)
Vietnam	0.47 ^{***} (0.03)
Economic Immigrants from	Male
Mexico	0.28 ^{***} (0.01)
Central America	0.43 ^{***} (0.04)
Caribbean	0.58 ^{***} (0.07)
South America	0.37 ^{***} (0.04)
Northern Europe	0.03 (0.12)
Western Europe	0.03 (0.08)
Southern Europe	0.39 ^{***} (0.04)
Central Eastern Europe	0.33 ^{***} (0.04)
East Asia	0.43 ^{***} (0.03)
Southeast Asia	0.53 ^{***} (0.09)
Middle East & Asia Minor	0.47 ^{***} (0.05)
Philippines	0.42 ^{***} (0.03)
Northern Africa	0.47 ^{***} (0.09)

Robustness Tests 2:

Let y^R and y^E represent mean outcomes for the two groups,

$$y^R = s_R y^{A,R} + (1-s_R) y^{NA,R} \quad \text{and} \quad y^E = s_E y^{A,E} + (1-s_E) y^{NA,E}$$

$$y^R - y^E = [s_R y^{A,R} + (1-s_R) y^{NA,R}] - [s_E y^{A,E} + (1-s_E) y^{NA,E}] + (s_R y^{NA,E} - s_E y^{NA,E}) + (s_R y^{A,E} - s_E y^{A,E})$$

$$y^R - y^E = s_R(y^{A,R} - y^{A,E}) + (1-s_R)(y^{NA,R} - y^{NA,E}) + (y^{A,E} - y^{NA,E})(s_R - s_E) \quad (*)$$

The decomposition of the right hand side of equation (*) is attained by estimating the following regression:

$$\begin{aligned} \ln(\text{annearn})_{i,t} = & \alpha_0 + \alpha_0^A D^A + X_{it} \gamma + \alpha_1^A D^{1990} D^A + \alpha_1^N D^{1990} D^N + \\ & \alpha_2^A D^{\text{Ref}} D^A + \alpha_2^N D^{\text{Ref}} D^N + \alpha_3^A D^{1990} D^{\text{Ref}} D^A + \alpha_3^N D^{1990} D^{\text{Ref}} D^N + \mu_{it} \quad (**) \end{aligned}$$

Making the link between equations (*) and (**) yields,

$$\begin{aligned} \alpha_3 = & s_R (y^{A,R} - y^{A,E}) + (1-s_R) (y^{NA,R} - y^{NA,E}) + (y^{A,E} - y^{NA,E}) (s_R - s_E) \\ & \alpha_3^A \quad \alpha_3^N \quad \text{"Asian effect term"} \\ & \text{Asian Refugees} \quad \text{Non-Asian Refugees} \\ & \text{"Refugee effect term"} \end{aligned}$$

$$\Leftrightarrow \alpha_3 = s_R \alpha_3^A + (1-s_R) \alpha_3^N + (y^{A,E} - y^{NA,E})(s_R - s_E)$$

$$\Leftrightarrow \alpha_3 = \text{"Asian Refugee term"} + \text{"Non-Asian Refugee term"} + \text{"Asian effect term"}$$

Other Differences Between Refugees and Economic Immigrants

	<u>Refugees</u>	<u>Economic (legal)</u>
Services and Benefits the US Government Provides:		
1. No interest travel loan	Eligible	Does not exist
2. Cash assistance and medical assistance	Eligible (e.g., RCA, RMA)	Does not exist
3. Food stamps	Eligible	Eligible
4. Housing assistance, furnishings, and clothing	Eligible	Does not exist
5. Employment services	Eligible	Eligible
6. Social Security Card	Eligible	Eligible
7. School registration for children	Eligible	Eligible
8. Case management through community based non-profit organizations	Eligible	Does not exist
May Apply for Permanent Resident (a “green card”) After One Year of US Residence	Adjustment of status from refugee to legal permanent resident	n/a
Can Become a Naturalized Citizen After Five Years of US Residence	Eligible	Eligible

Table: Occupations of Refugee and Economic Immigrants

	Refugee			Economic			$\Delta R - \Delta E$
	1980	1990	ΔR	1980	1990	ΔE	
Managerial & Professional	9.47	19.52	10.05	10.44	14.69	4.25	5.80
Technical, Sales, & Admin. Support	17.11	25.48	8.37	14.53	17.99	3.46	4.91
Service	11.90	13.00	1.10	14.31	15.57	1.26	-0.16
Farming, Forestry, & Fishing	1.54	1.23	-0.31	4.71	5.91	1.20	-1.51
Precision Produc., Craft, & Repair	10.33	13.05	2.72	7.97	11.98	4.01	-1.29
Operators, Fabricators, & Laborers	20.41	16.41	-4.00	22.64	22.22	-0.42	-3.58
N/A	29.24	11.31	-17.93	25.40	11.64	-13.76	-4.17

Table: Employment Status, Welfare Participation, and Class of Worker

	Refugee			Economic			$\Delta R - \Delta E$
	1980	1990	ΔR	1980	1990	ΔE	
Employment Status							
<i>Employed</i>	52.51	77.55	25.04	58.21	78.81	20.6	4.44
<i>Unemployed</i>	6.64	4.93	-1.71	5.33	5.78	0.45	-2.16
<i>Not in the labor force</i>	40.85	17.52	-23.33	36.45	19.41	-17.04	-6.29
Welfare Participation							
<i>Yes</i>	10.36	6.6	-3.76	1.55	3	1.45	-5.21
Class of Worker							
<i>Self-employed</i>	2.75	10.9	8.15	2.7	9.06	6.36	1.79
<i>Work for wage or salary</i>	68.29	77.84	9.55	72.7	79.38	6.68	2.87
<i>n/a</i>	28.96	11.25	-17.71	24.6	11.56	-13.04	-4.67