

Rationing As A Determinant of Immigration Composition and Outcomes

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Order the countries of origin of the most educated immigrants in the US

- Algeria
- Israel
- Japan

Facts

Country	Education Rank	Proportion of US Immigrants
Algeria	25	.0005
Israel	37	.003
Japan	48	.009

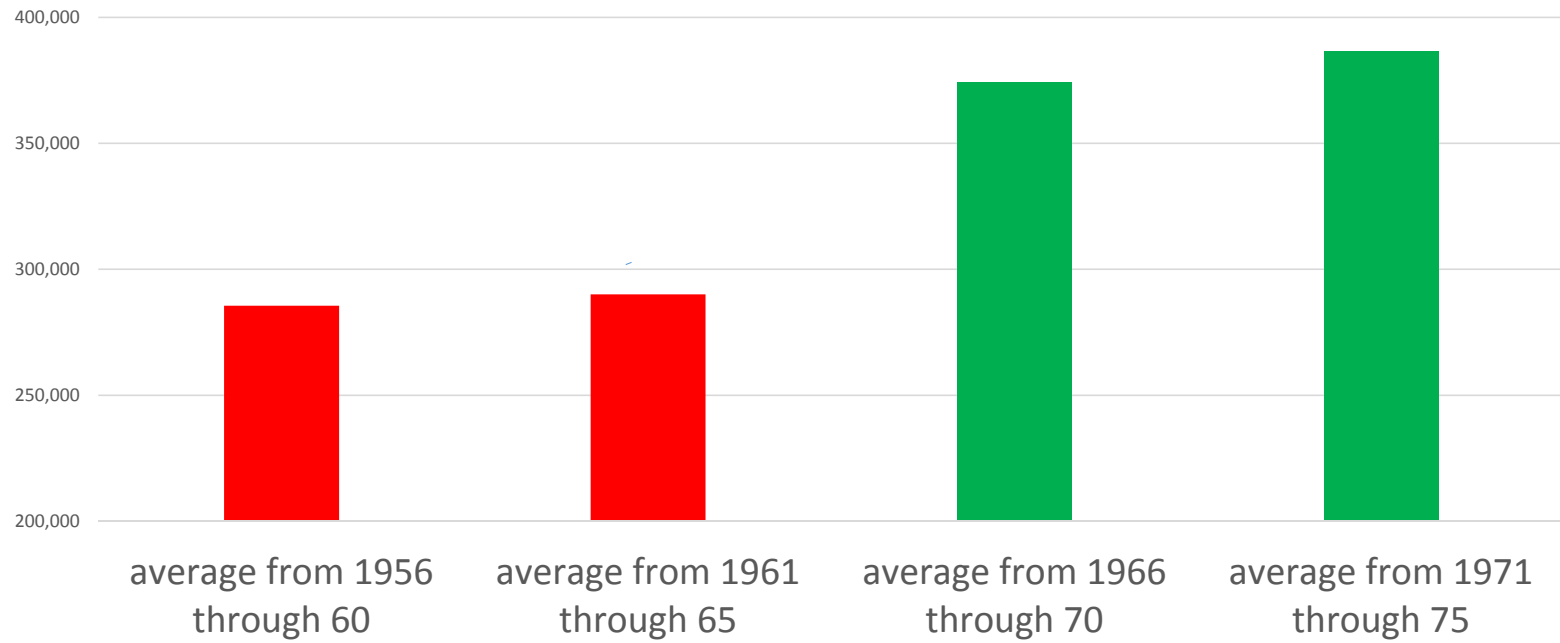
More Facts

- Immigration slots are rationed
 - Over 20 million applicants for 1.1 million permanent resident slots annually
 - US emphasizes family criteria first then skills for selection
- Correlation between US immigrant group and representation ratio and educational attainment is $-.32$ (and significant at $.001$)
- In France, Algerians are over-represented and have low educational attainment

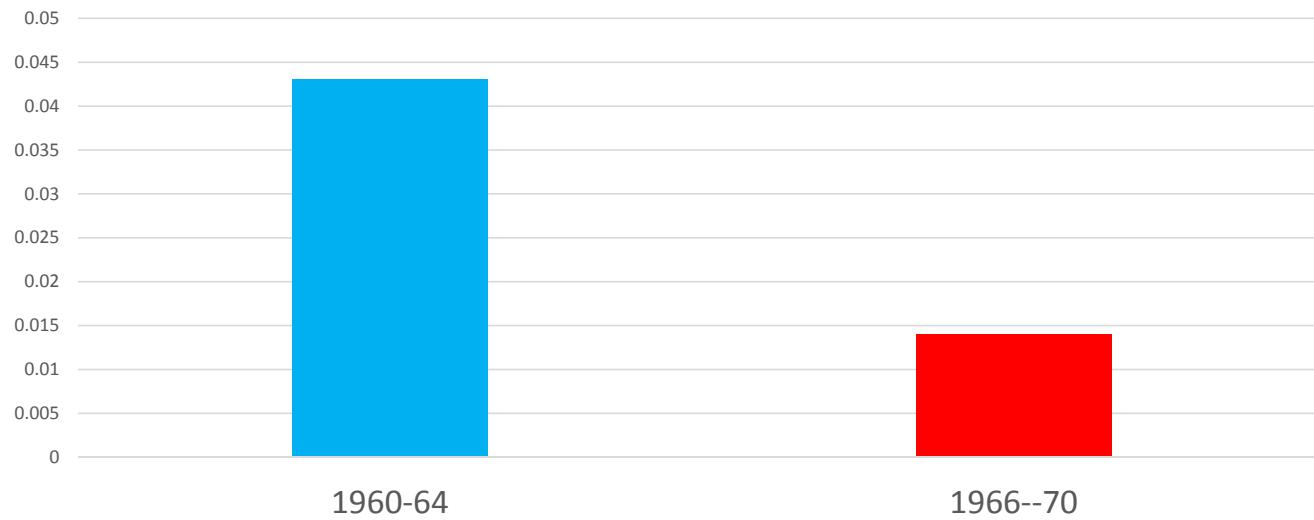
Figure 1

Jump In Immigration Number After Law Change in 1965

Source: Department of Homeland Security Yearbook of Immigration Statistics 2017



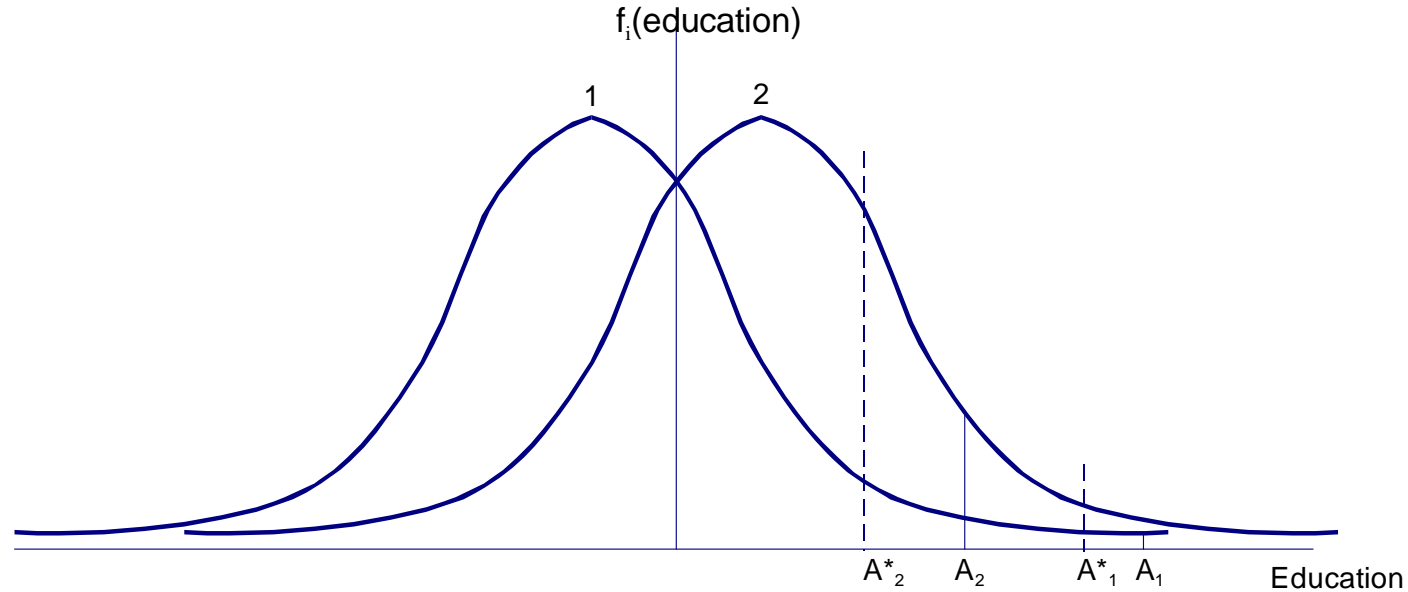
Share of US Immigrants Coming from France



Source: American Community Survey 2011-15 to calculate year of arrival in US

Average attainment depends on proportion admitted

Figure 1



Cutoffs are A_1^* and A_2^*

$A_1 > A_2$, even though country 1's education level at home is below that of country 2 at home

Model

- Destination country chooses I_i
- Let N_i be the population of country i and let $F_i(A)$ be the distribution of education or other attainment variable

- Cutoff level

$$N_i[1 - F_i(A_i^*)] = I_i$$

or

$$\frac{N}{I}[1 - F_i(A_i^*)] = \frac{I_i / I}{N_i / N} \equiv R_i$$

- Average attainment among immigrants

$$\bar{A}_i = \frac{1}{1 - F_i(A_i^*)} \int_{A_i^*}^{\infty} A f_i(A) dA$$

- Implies average attainment decreases in R_i

Data: US

- American Communities Survey, 2011-2015 for educational attainment, wages, annual earnings
- World Bank for population
- UN Report for education of origin country
- Other data for GDP, GDP growth rate, share in agriculture, distance
- OECD for 90/10 wage ratio
- Swedish Registry Data

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Represent- ation Ratio R_i	Average Education of Immigrants from Country i	Log of Average Wage of Immigrants from Country i	Average Education of Immigrants from Country i	Sweden
Log of GDP per capita origin country	-1.263 (1.271)			-1.987 (1.163)	
Percent of GDP from agriculture origin country	0.264 (0.271)			0.528 (0.356)	
5-year GDP growth rate origin country	-0.321 (0.288)			0.025 (0.091)	
Distance from the US in thousands of miles	-1.010** (0.444)			0.277 (0.142)	
90/10 Wage Ratio in origin country				-.206 (0.320)	
log of Representation ratio $\ln(R_i)$		-0.565*** (0.0595)	-0.0850*** (0.0114)		
log of Representation ratio $\ln(R_i)$ Sweden					-0.039 (0.0050)
mean level of education in origin country, μ_i		0.308*** (0.0349)	0.0688*** (0.00669)		0.029 (.0035)
Constant	9.225 (6.817)	10.97*** (0.312)	2.860*** (0.0598)	13.4 (1.25)	.0766 (.0323)
Observations	69	129	129	31	77
R-squared	0.129	0.527	.520	.246	.59
Notes:				OECD countries	

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VARIABLES					Sweden Proportion of Immigrants From an Origin Country Who Have Successfully Completed a Post- Secondary Degree
Log of GDP per capita origin country					
Percent of GDP from agriculture origin country					
5-year GDP growth rate origin country					
Distance from the US in thousands of miles					
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Conclusion

- Rationing is key to understanding the composition of immigrants
- Supply factors alone do not explain immigrant composition or attainment
- Policy, as reflected in the number admitted from a country, is an important determinant of attainment of immigrants in the US
- The more stringent the admission requirement , the higher the attainment of immigrants