Too many migrants, too few services: a model of decision-making on immigration with cultural distance

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Background

- Immigrant population reaching unprecedented levels
  - 12% in the United States (2005)
  - 10% in France, Germany, Austria, and The Netherlands (2004)

- Two general trends in immigrant populations
  - Concentrated in low-skilled, low-paying jobs
  - Geographically concentrated in specific areas
Impacts of geographic concentration

- Reduces degree of language acquisition and cultural assimilation
  - Probability of finding a high-paying job falls
  - Negatively affects the “political climate”
- Emergence of “dual labor markets”
  - Primary (skilled) and secondary (unskilled)
Objective

- Develop a model that explains the impact of immigration on the native political climate and labor market
  
  - Simplifying assumptions:
    - Two-sector economy: goods and services
    - Decision to assimilate made at time of immigration
    - Homogeneous natives dislike cultural differences
Model Assumptions

Homogeneous Native Population, $N$

- Utility, $V^N$
  - Consumption
    - Goods, $f$
    - Services, $g$
  - Cultural Norms
- Income, $y$
  - Work in goods sector for wage, $w^N$
  - Profits from service sector, $\pi$
- Choose degree of spreading policy, $s$
  - Policy affects the utility of natives, $g(s)$
Model Assumptions

- Utility of native population

\[ V^N = \log(f) + \delta \log(g) - q(s) \log(U), \]
\[ 0 \leq s \leq 1 \]

- \( s \): degree of spreading policy
  - \( s = 0 \): no policy
  - \( s = 1 \): max policy

- \( q(s) \): how the spreading policy affects the disutility of the native
  - \( q'(s) < 0 \)
Model Assumptions

Assimilated ($c = 1$) Immigrant Population, $M$

- Utility, $V^I$
  - Consumption
    - Goods, $f$
  - Cultural Loss
- Income
  - Work in goods sector for higher wage, $w^N$
Model Assumptions

Unassimilated \((c=1)\) Immigrant Population, \(U\)

- Utility, \(V_U\)
  - Consumption
    - Goods, \(f\)
  - Retain Culture
- Income
  - Work in service sector for lower wage, \(w_U\)
Model Assumptions

- General Utility: \( V_j^I = \log(f) + \rho_j (1 - c)(1 - s)U^\gamma \),

  - \( \rho_j \): weight the individual places on native culture \( 0 \leq \rho_j \leq 1 \),

  - \( \gamma \): degree to which immigrant enjoys being with other unassimilated immigrants \( \gamma < 1 \)

- Unassimilated Utility: \( V_j^I = \log(f) + \rho_j (1 - s)U^\gamma \)

- Assimilated Utility: \( V_j^I = \log(f) \)
Model Assumptions

Dual Labor Market

Goods Sector
\[ F = F(L) \]
- Skilled labor, \( L \)
  - wage = \( w^N \)
  - Natives, \( N \)
  - Assimilated Immigrants, \( M \)

Service Sector
\[ G = \beta U \]
- Unskilled Labor, \( U \)
  - wage = \( w^U \)
  - Non-Assimilated Immigrants, \( U \)
The Model

- **Goods Sector**
  - $L$: skilled labor
  - $F = f(L)$: production function
  - $f$: quantity of goods
  - $Pg$: Price of goods, normalized to 1
  - $w^N$: wage rate

- **Service Sector**
  - $U$: unskilled labor
  - $G = \beta U$: production function
  - $g$: quantity of services
  - $p$: service price
  - $w^U$: wage rate
  - $w^N = p$
Assimilation

- Utility as a function of culture only
  \[ V_j^I = \log(w^I(c) - Kc) + \rho_j(1 - c)(1 - s)U^\gamma, \]

- \( K \): Cost of assimilation
  - If \( c=1 \) (assimilation): \( V_j^I = \log(w^N - K) \)
  - If \( c=0 \): \( V_j^I = \log(w^U) + \rho_j(1 - s)U^\gamma \)
Assimilation

- An immigrant will assimilate if

\[ \rho_j < \hat{\rho}_j \equiv \frac{1}{1-s} U^{-\rho} \log \left( \frac{w^N - K}{w^U} \right) \]

- Decision to assimilate is determined by the relative gain in net expenditures on goods and the number of immigrants

- As the population of immigrants increases, the number choosing to assimilate decreases

- Increases in spreading policy, \( s \), increases the number who assimilate
Political vs. Market demand

- Political demand for nonassimilated migrants:
  \[ U^* = \frac{\delta - q}{(1 + \delta - q)} w^N \]

- Market demand for nonassimilated migrants
  \[ U^M = \frac{\delta}{(1 + \delta)} w^N \]

- As long as the native experiences disutility from cultural heterogeneity \((q > 0)\), the market demand for unassimilated migrants will be less than the political demand \((U^* < U^m)\)
Immigration Policy

- Gap between $U^*$ and $U_m$ create an upward pressure on service price (Fig. 1)
  - Will this be reflected in a higher wage for immigrants?

- Simultaneous political and market equilibrium occur if the service price increases above the costs and the resulting profit is distributed among the native population
Spreading Policy

- Spreads the location of immigrants among the native population
  - Used in The Netherlands
  - Decreases the burden imposed on natives by immigrants

- As $s$ increases, the gap between political demand and market demand decreases

- Can be an affective policy instrument to mitigate the negative side effects of immigration
The paper developed a very simplified view of the political and market impacts of immigration

- Political equilibrium does not match the market equilibrium demand for immigrants
- Immigration policy does not easily bridge the gap
- Optimal spreading policy can decrease this gap and increase the overall welfare of native workers.