Session 4: Empirical evidence on the extent of immigrant segregation

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7 September 2010

Outline

- Immigrant segregation in the United States

- Immigrant segregation in Europe

- Would better descriptive information be valuable?
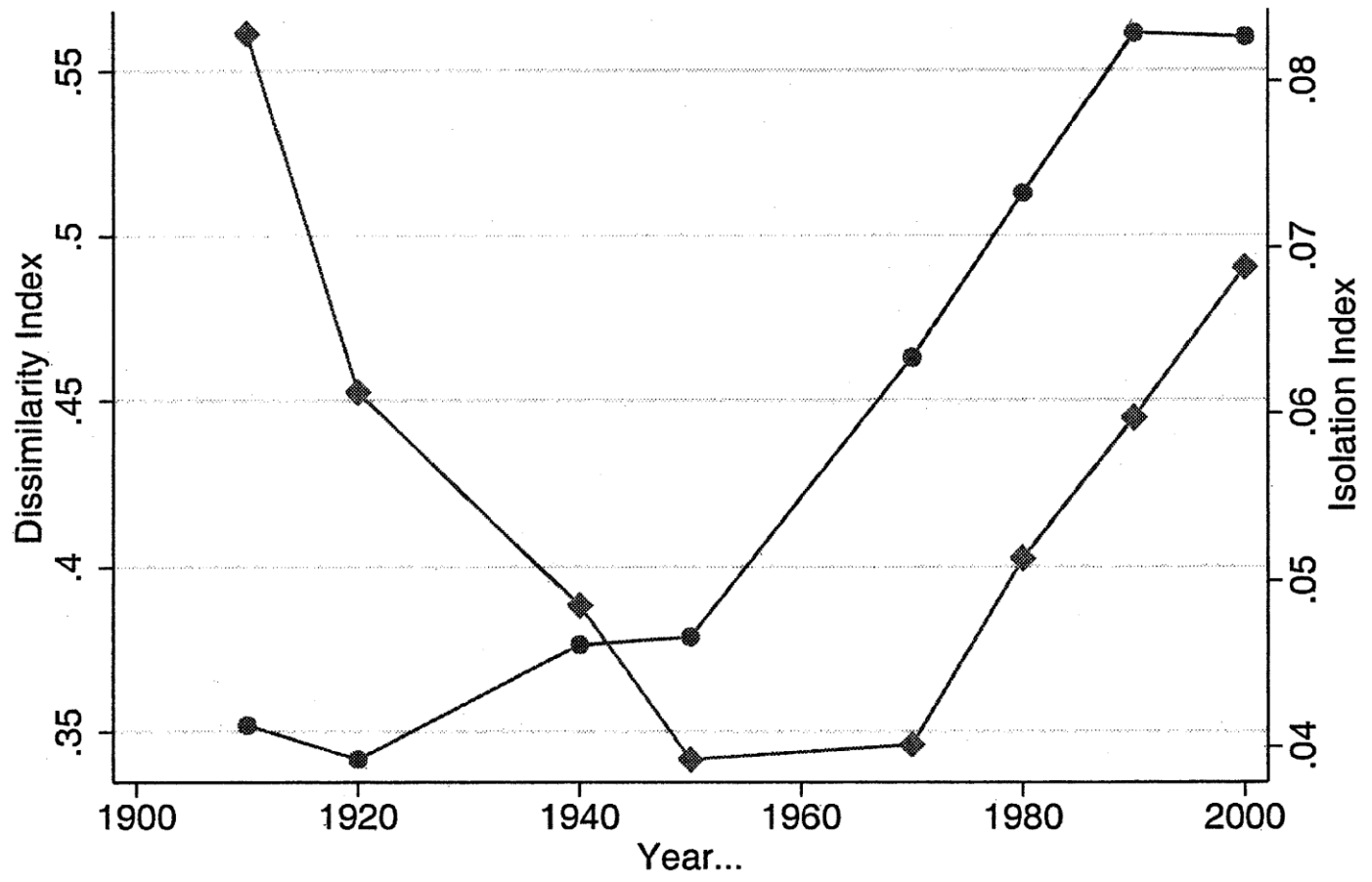
The United States

- Periodic waves of immigration since the 17th century.
  - 17th century: colonies formed on basis of religious affiliation, national origin:
    - Massachusetts: Pilgrims in Plymouth, Puritans in Boston…
    - Rhode Island: Baptists
    - New York: Dutch colony
    - Pennsylvania: Quakers
    - Maryland: Catholics
  - 18th century: German immigrants settle in enclaves. Continued German migration in 19th century.
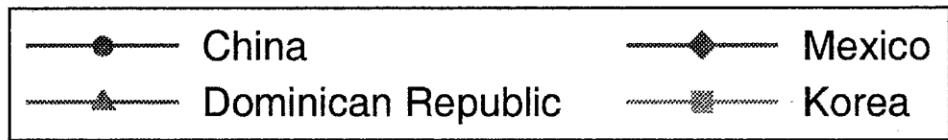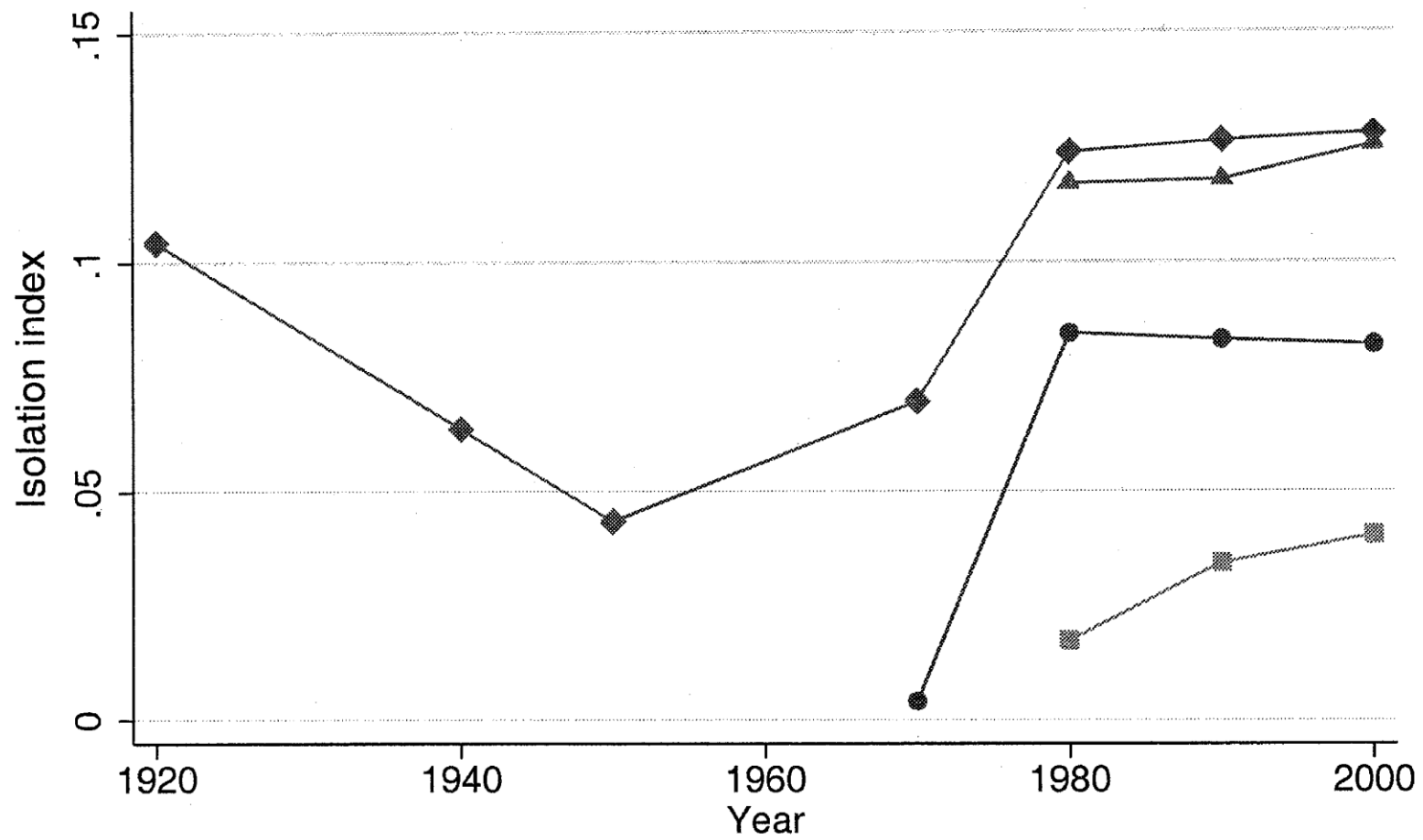
The United States

- 19th century: significant migration in the latter half.
  - Irish populate immigrant enclaves in many cities.
  - More Germans.
  - Chinese immigrants on the West coast.
  - Scandinavians migrate in large number, but more likely to take up rural residence.

- Early 20th century: migrants from Southern/Eastern Europe.
  - Italian enclaves in many industrializing cities.
  - Smaller groups (Czechs, Serbians, etc.) congregate in some cities.

- Significant restrictions on immigration placed in 1920s.
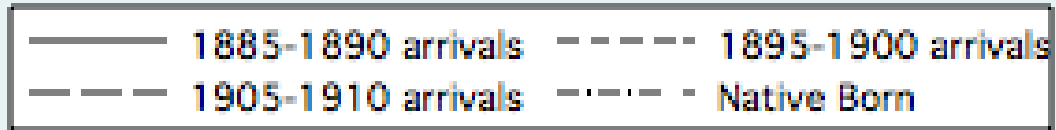
The United States

- Neighborhood-level data on birthplace begins 1910.
  - Ward data 1910-1920
  - Census tract level data 1940-1950, 1970-2000.

- No more data after 2000 ☹

- Cities transform into Metropolitan Areas beginning 1960.

- No data for 1930, 1960.
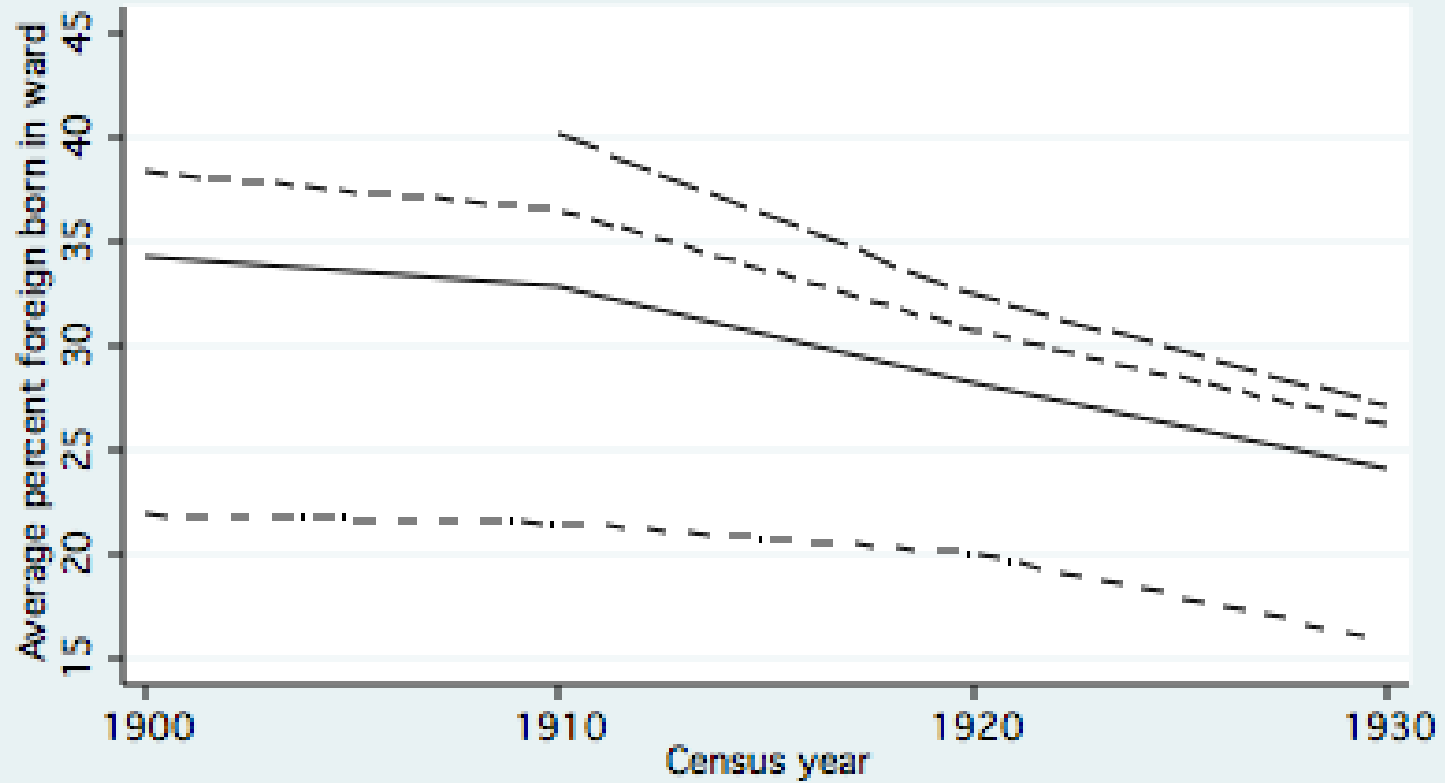
New York
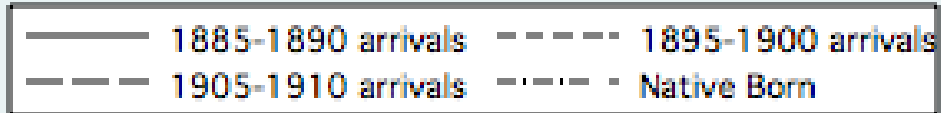
United States
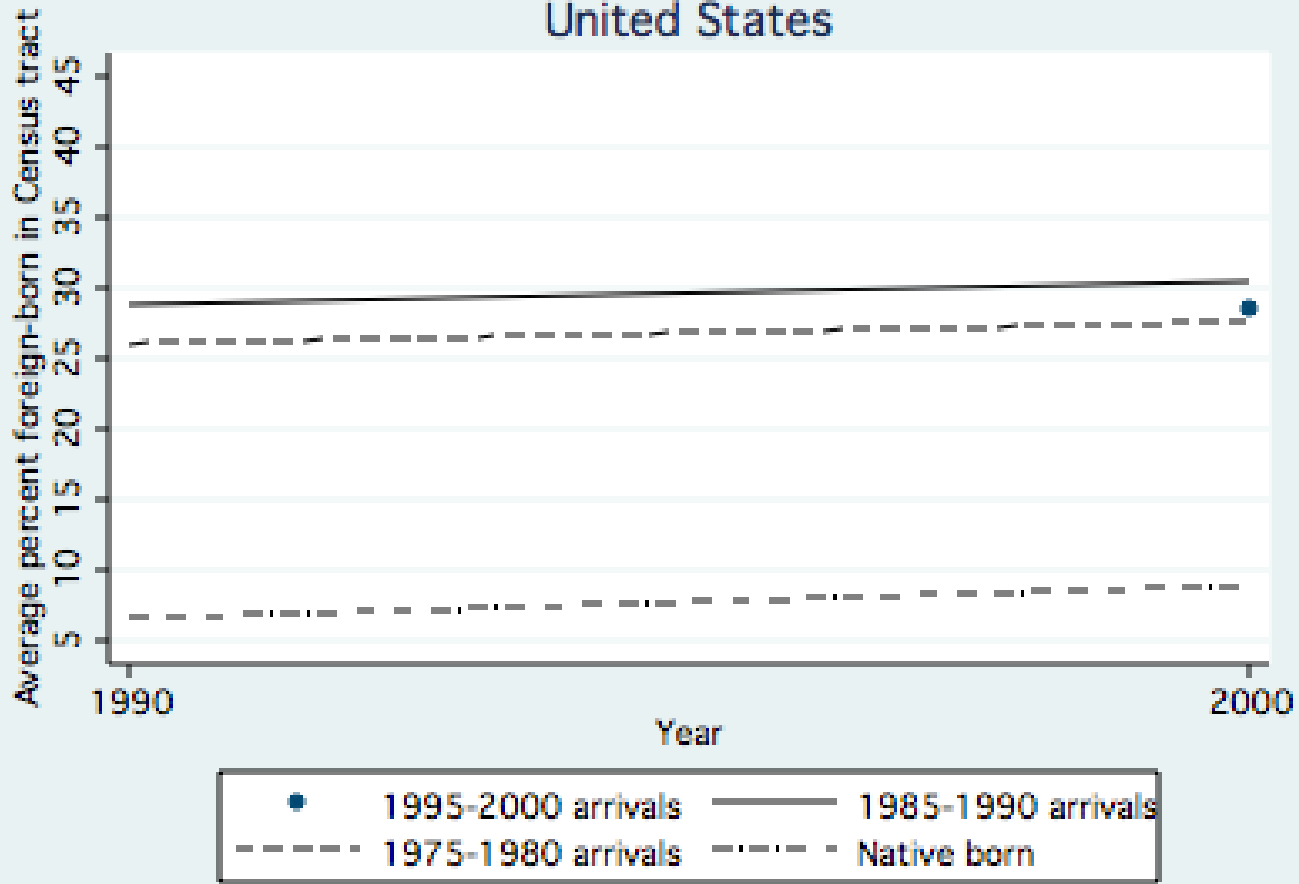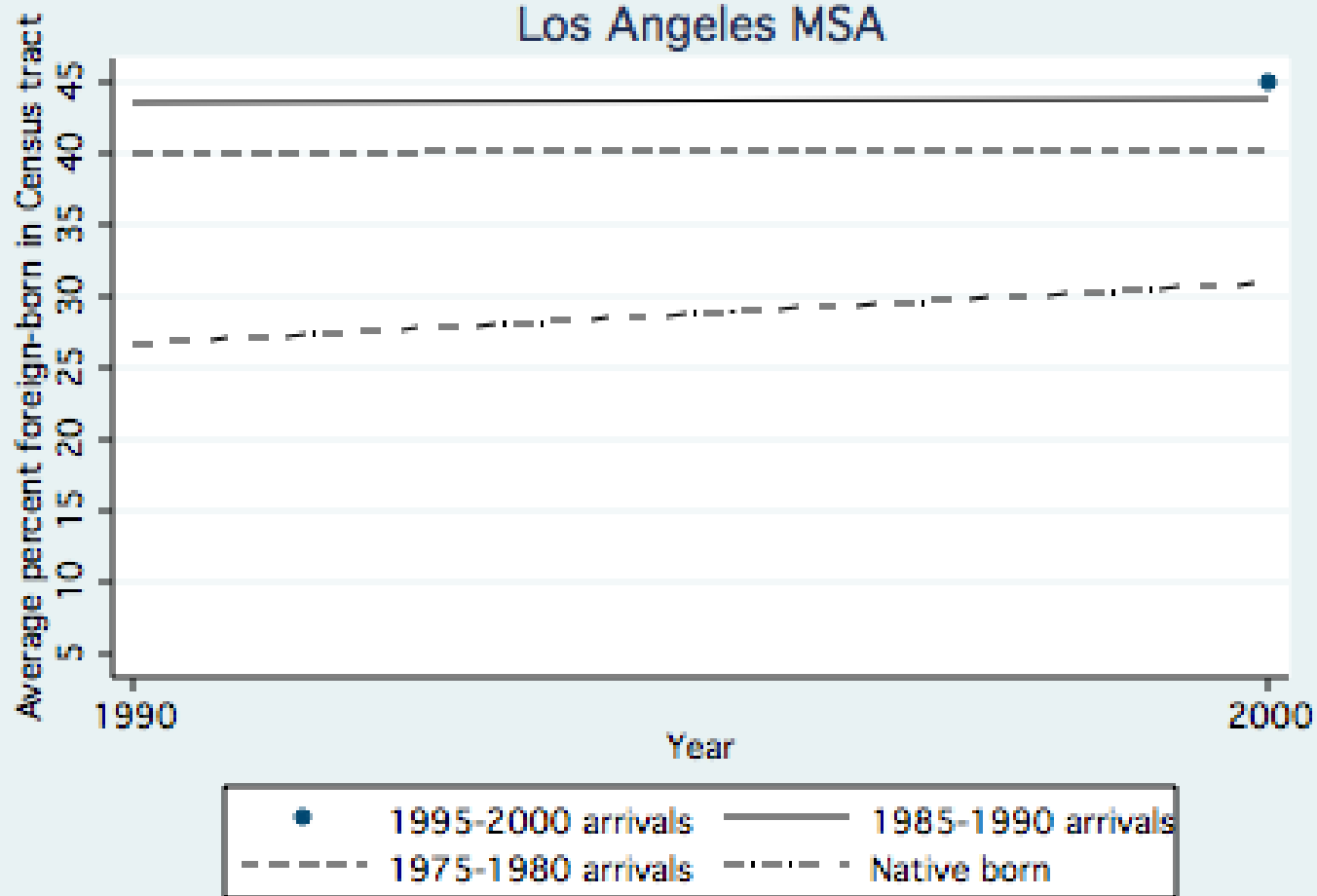
Explaining the time trend

- Hypothesis 1: recent immigrants have highest demand for enclave residence; time trend is explained by that alone. The "cultural distance" hypothesis

- Hypothesis 2: discrimination. Would introduce a puzzle: could attitudes towards immigrants have worsened even as racial attitudes moderate?

- Hypothesis 3: urban form: rise of personal autos has left immigrants behind.

Empirical strategy

- Regress segregation (for group i in city j in year t) on year dummies to replicate the time trend.

- Add variables and see what happens to the time trend.

- Check relationship between segregation and housing prices. Who pays a premium in cities with marked segregation?

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)
1920 year effect	−0.006	−6.99 × 10⁻⁴	−0.030**	0.001	−0.027	−0.029**
	(0.017)	(0.015)	(0.013)	(0.011)	(0.018)	(0.008)
1940 year effect	0.070**	0.068**	0.026**	0.103**	0.040	0.050**
	(0.018)	(0.015)	(0.013)	(0.021)	(0.028)	(0.013)
1950 year effect	0.079**	0.081**	0.035**	0.131**	0.052	0.072**
	(0.018)	(0.015)	(0.013)	(0.019)	(0.032)	(0.013)
1970 year effect	0.148**	0.184**	0.141**	0.211**	0.131**	0.174**
	(0.018)	(0.015)	(0.013)	(0.026)	(0.035)	(0.019)
1980 year effect	0.188**	0.247**	0.163**	0.248**	0.146**	0.198**
	(0.017)	(0.015)	(0.013)	(0.023)	(0.035)	(0.018)
1990 year effect	0.208**	0.280**	0.155**	0.271**	0.169**	0.203**
	(0.015)	(0.013)	(0.012)	(0.021)	(0.033)	(0.017)
2000 year effect	0.203**	0.275**	0.149**	0.274**	0.168**	0.199**
	(0.015)	(0.013)	(0.012)	(0.019)	(0.035)	(0.016)
Ln(city/MSA population)	—	—	—	−0.006	0.004	−0.002
				(0.010)	(0.012)	(0.008)
Group share	—	—	—	−0.764**	−0.940**	−0.588**
				(0.302)	(0.194)	(0.149)
Mean occupation score in group/city/year	—	—	—	1.30 × 10⁻³	−3.42 × 10⁻⁴	0.002**
				(1.22 × 10⁻³)	(0.002)	(0.001)
Mean age in group/city/year	—	—	—	−0.004**	−0.003**	−0.003**
				(8.83 × 10⁻⁴)	(0.001)	(4.04 × 10⁻⁴)
African origin country	—	—	—	—	0.200**	—
					(0.042)	
Caribbean origin country	—	—	—	—	0.116**	—
					(0.036)	
Asian origin country	—	—	—	—	0.032	—
					(0.035)	
Latin American origin country	—	—	—	—	−0.003	—
					(0.030)	
Germanic language other than English	—	—	—	—	−0.014	—
					(0.052)	
Indo-European language other than Germanic	—	—	—	—	0.125**	—
					(0.033)	
Non-Indo-European language	—	—	—	—	0.124**	—
					(0.043)	
City/MSA fixed effects	No	Yes	No	Yes	Yes	Yes
Group fixed effects	No	No	Yes	No	No	Yes
N	7,362	7,362	7,362	7,362	7,362	7,362
R^2	0.124	0.402	0.551	0.483	0.623	0.773

Note: Standard errors in parentheses. Regression specifications are weighted according to the sample size used to compute mean group/city/year characteristics used in columns 4–6. Standard errors in column 5 have been corrected for within–ethnic group clustering. **denotes a coefficient significant at the 5% level.

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)
1920 year effect	−0.018**	−0.017**	−0.022**	0.009	0.004	0.001
	(0.008)	(0.007)	(0.005)	(0.007)	(0.011)	(0.007)
1940 year effect	−0.021**	−0.023**	−0.029**	0.031**	0.020**	0.018**
	(0.008)	(0.007)	(0.005)	(0.008)	(0.004)	(0.008)
1950 year effect	−0.028**	−0.030**	−0.038**	0.038**	0.025**	0.023**
	(0.008)	(0.007)	(0.005)	(0.009)	(0.012)	(0.008)
1970 year effect	−0.029**	−0.037**	−0.053**	0.061**	0.046**	0.038**
	(0.008)	(0.007)	(0.005)	(0.013)	(0.013)	(0.012)
1980 year effect	0.005	−0.010	−0.045**	0.071**	0.053**	0.043**
	(0.008)	(0.007)	(0.005)	(0.012)	(0.015)	(0.012)
1990 year effect	7.87×10^{-4}	−0.016**	−0.046**	0.066**	0.048**	0.041**
	(0.007)	(0.006)	(0.005)	(0.010)	(0.014)	(0.010)
2000 year effect	0.006	−0.005	−0.046**	0.073**	0.055**	0.047**
	(0.007)	(0.006)	(0.005)	(0.012)	(0.015)	(0.010)
Ln(city population)	—	—	—	−0.017**	−0.014**	−0.013**
				(0.004)	(0.007)	(0.004)
Group share	—	—	—	0.978**	0.934**	0.772**
				(0.102)	(0.055)	(0.108)
Mean occupation score	—	—	—	−0.003**	−0.003**	−0.003**
				(4.68×10^{-4})	(0.001)	(3.53×10^{-4})
Mean age	—	—	—	−0.001**	−0.001**	−0.001**
				(0.86×10^{-4})	(4.06×10^{-4})	(1.49×10^{-4})
African origin country	—	—	—	—	−0.002	—
					(0.008)	
Caribbean origin country	—	—	—	—	0.026**	—
					(0.008)	
Asian origin country	—	—	—	—	0.008	—
					(0.010)	
Latin American origin country	—	—	—	—	−0.002	—
					(0.010)	
Germanic language other than English	—	—	—	—	−0.001	—
					(0.003)	
Indo-European language other than Germanic	—	—	—	—	0.021**	—
					(0.004)	
Non-Indo-European language	—	—	—	—	0.015**	—
					(0.006)	
City/MSA fixed effects	No	Yes	No	Yes	Yes	Yes
Group fixed effects	No	No	Yes	No	No	Yes
N	7,362	7,362	7,362	7,362	7,362	7,362
R^2	0.021	0.271	0.592	0.767	0.789	0.833

Note: Standard errors in parentheses. Regression specifications are weighted according to the sample size used to compute mean group/city/year characteristics used in columns 4–6. Standard errors in column 5 have been corrected for within-ethnic group clustering. **denotes a coefficient significant at the 5% level.

TABLE 5.—PUBLIC TRANSPORTATION AND IMMIGRANT SEGREGATION, 1970–2000

Independent Variable	Dissimilarity			Isolation		
Ln(city population)	0.029**	0.016**	0.011*	0.014**	0.004	0.001
	(0.004)	(0.006)	(0.007)	(0.003)	(0.004)	(0.004)
Group share	−1.107**	−1.097**	−1.092**	0.456**	0.465**	0.467**
	(0.088)	(0.088)	(0.087)	(0.095)	(0.095)	(0.094)
Mean occupation score	0.002	0.002	0.002	−0.003**	−0.003**	−0.003**
	(0.001)	(0.001)	(0.001)	(4.99×10^{-4})	(4.94×10^{-4})	(0.001)
Mean age	−0.004**	−0.004**	−0.004**	−0.002**	−0.002**	−0.002**
	(0.001)	(4.89×10^{-4})	(4.86×10^{-4})	(2.78×10^{-4})	(2.70×10^{-4})	(2.69×10^{-4})
1980 year effect	0.022*	0.027*	−0.012	0.002	0.006	−0.003
	(0.012)	(0.015)	(0.029)	(0.008)	(0.011)	(0.024)
1990 year effect	0.030**	0.017	−0.120**	0.001	−0.010	−0.074**
	(0.011)	(0.014)	(0.037)	(0.007)	(0.009)	(0.027)
2000 year effect	0.034**	0.022	−0.098**	0.008	−0.002	−0.085**
	(0.010)	(0.014)	(0.032)	(0.006)	(0.009)	(0.026)
Ln(public transit commuters)	—	0.008**	−0.001	—	0.006**	0.001
		(0.003)	(0.003)		(0.002)	(0.002)
Ln(public transit commuters) × 1980 year effect	—	—	0.004	—	—	0.001
			(0.002)			(0.002)
Ln(public transit commuters) × 1990 year effect	—	—	0.013**	—	—	0.006**
			(0.003)			(0.002)
Ln(public transit commuters) × 2000 year effect	—	—	0.012**	—	—	0.008**
			(0.003)			(0.002)
Group fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	5,006	5,006	5,006	5,006	5,006	5,006
R^2	0.705	0.707	0.710	0.739	0.746	0.752

Note: Standard errors in parentheses. Regression specifications are weighted according to the sample size used to compute mean group/city/year characteristics. Standard errors are adjusted for clustering within metropolitan area/year observations. **denotes a coefficient significant at the 5% level, *the 10% level.

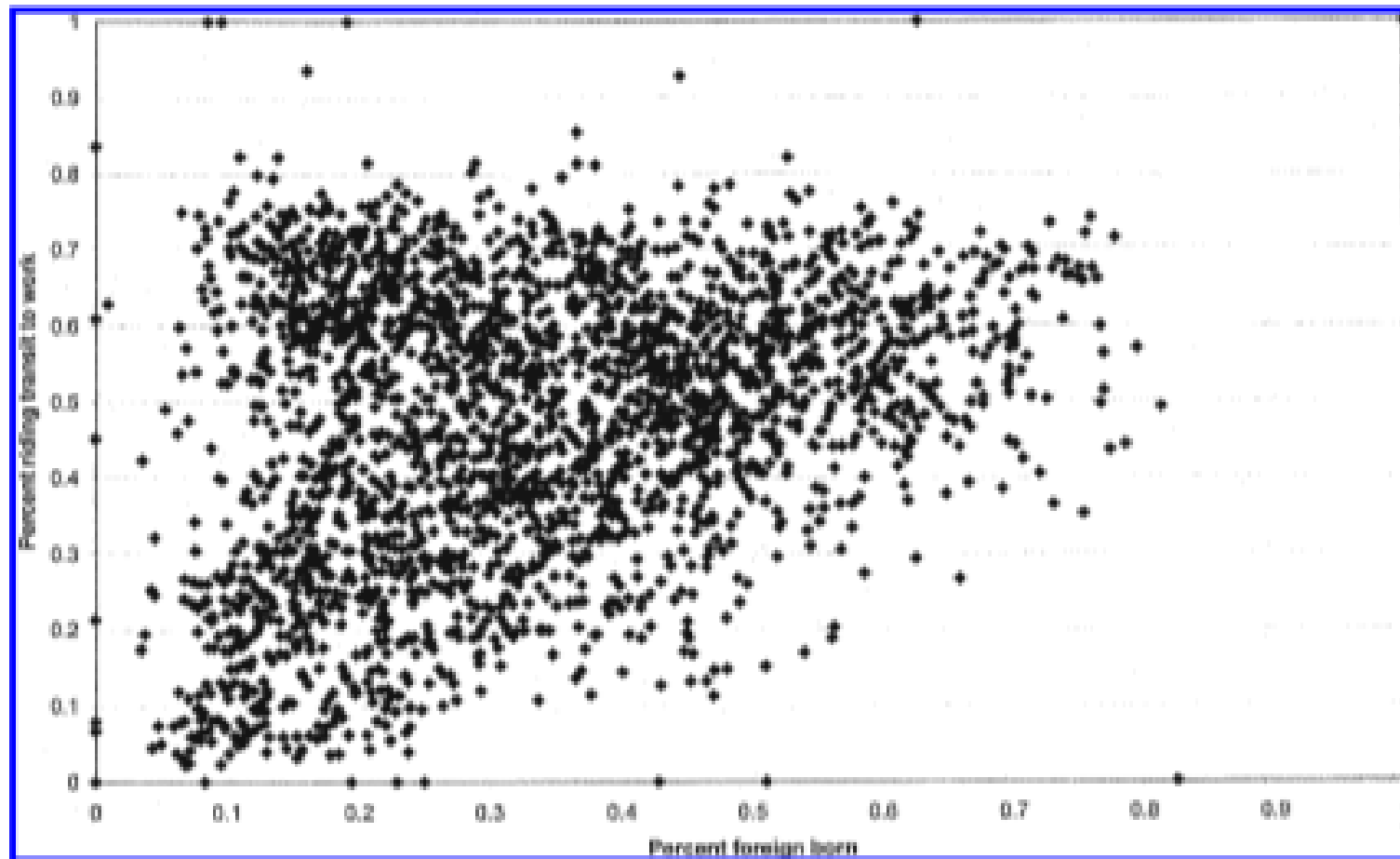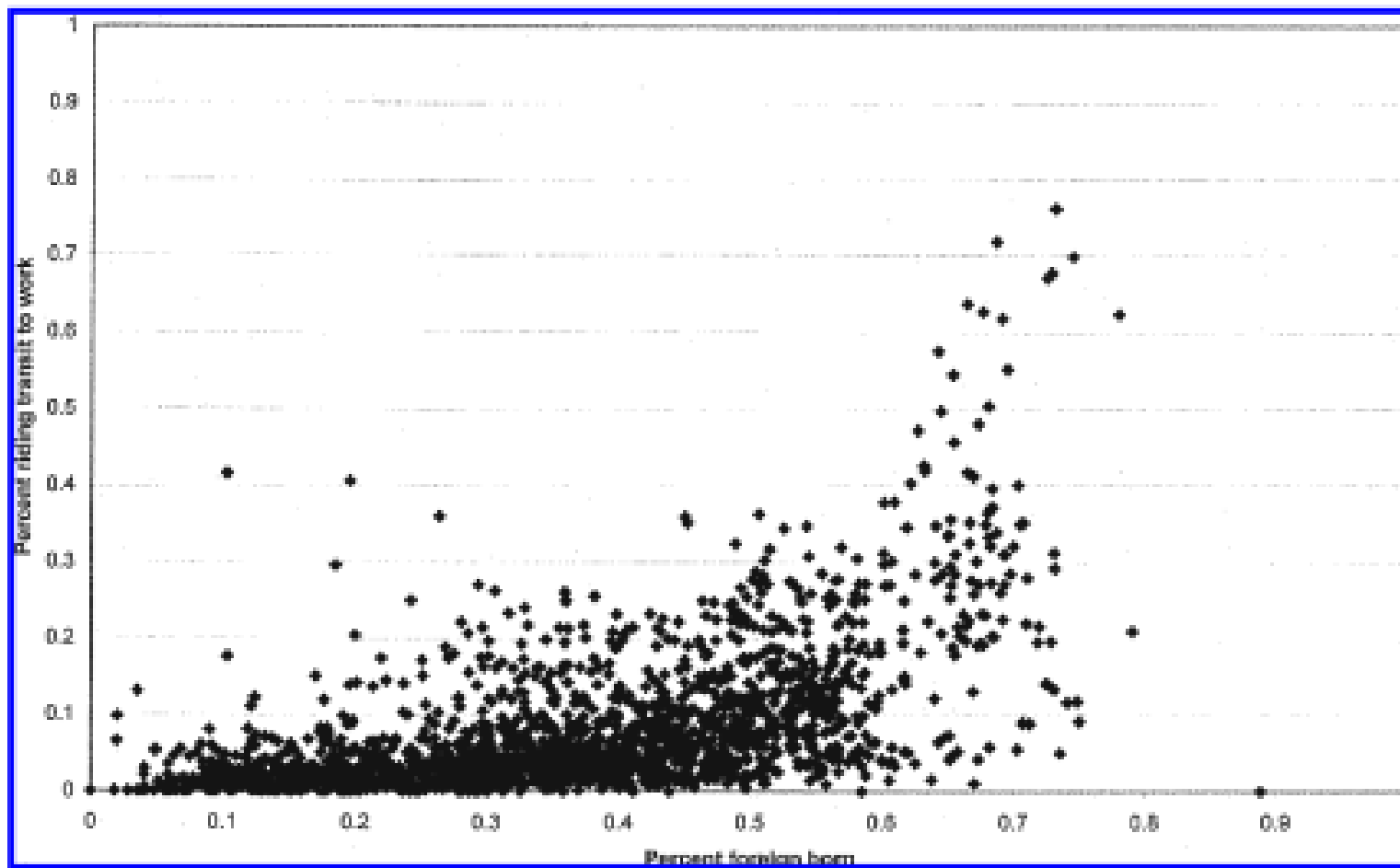FIGURE 8.—PUBLIC TRANSIT USE AND IMMIGRANT DENSITY IN NEW YORK PMSA CENSUS TRACTS, 2000

FIGURE 9.—PUBLIC TRANSIT USE AND IMMIGRANT DENSITY IN LOS ANGELES PMSA CENSUS TRACTS, 2000

The Transit hypothesis

- In cities with reliable transit networks, movement of population to private autos leaves immigrants behind in transit-dense neighborhoods (LA).

- In cities without reliable transit networks (Houston), immigrants have always clustered – rise of carpooling as a commuting mode.

Table 6A.—Segregation and House Rents

| | Dependent Variable: ln(Annual Rental Payments) | | | | | | | |
| | 1970 | | | | 2000 | | | |
Independent Variable	Dissimilarity		Isolation		Dissimilarity		Isolation	
Segregation	0.732**	0.741**	1.808**	1.815**	0.065**	0.049**	0.037	0.066
	(0.124)	(0.129)	(0.464)	(0.477)	(0.022)	(0.024)	(0.175)	(0.176)
Recent Immigrant	—	0.220**	—	0.134**	—	0.076**	—	0.113**
		(0.056)		(0.018)		(0.017)		(0.011)
Segregation × recent immigrant	—	−0.200*	—	−0.472**	—	0.043	—	−0.279
		(0.105)		(0.129)		(0.030)		(0.187)
Group share	0.433	0.366	−3.218**	−2.910**	−0.904**	−0.833**	−0.895**	−0.831
	(0.320)	(0.323)	(0.767)	(0.747)	(0.178)	(0.173)	(0.222)	(0.219)
N	147,271	147,271	147,271	147,271	162,435	162,435	162,435	211,288
R^2	0.378	0.378	0.377	0.378	0.186	0.195	0.194	0.299

Note: Standard errors, corrected for clustering of observations at the MSA by ethnic group level, in parentheses. All specifications control for housing structural characteristics, metropolitan area fixed effects, and country-of-origin fixed effects.
**denotes a coefficient significant at the 5% level, *the 10% level.


Table 6B.—Segregation and Owner-Occupied House Values

| | Dependent Variable: ln(Owner's Report of Housing Value) | | | | | | | |
| | 1970 | | | | 2000 | | | |
Independent Variable	Dissimilarity		Isolation		Dissimilarity		Isolation	
Segregation	0.372**	0.371**	0.772	0.789	0.027	0.033*	−0.223	−0.183
	(0.078)	(0.079)	(0.520)	(0.518)	(0.017)	(0.017)	(0.292)	(0.291)
Recent immigrant	—	−0.010	—	0.017	—	0.042	—	0.019
		(0.085)		(0.027)		(0.032)		(0.019)
Segregation × recent immigrant	—	0.029	—	−0.287	—	−0.130**	—	−0.740**
		(0.184)		(0.253)		(0.060)		(0.185)
Group share	0.852*	0.851*	−0.810	−0.791	−0.086	−0.093	0.097	0.080
	(0.347)	(0.349)	(0.999)	(0.992)	(0.120)	(0.120)	(0.275)	(0.274)
N	188,945	188,945	188,945	188,945	289,979	289,979	289,979	289,979
R^2	0.441	0.441	0.440	0.440	0.522	0.522	0.522	0.522

Note: Standard errors, corrected for clustering of observations at the MSA by ethnic group level, in parentheses. All specifications control for housing structural characteristics, metropolitan area fixed effects, and country-of-origin fixed effects.
**denotes a coefficient significant at the 5% level, *the 10% level.

FIGURE 10.—MATCHING CURRENT IMMIGRANT LOCATIONS TO PAST NATIVE LOCATIONS
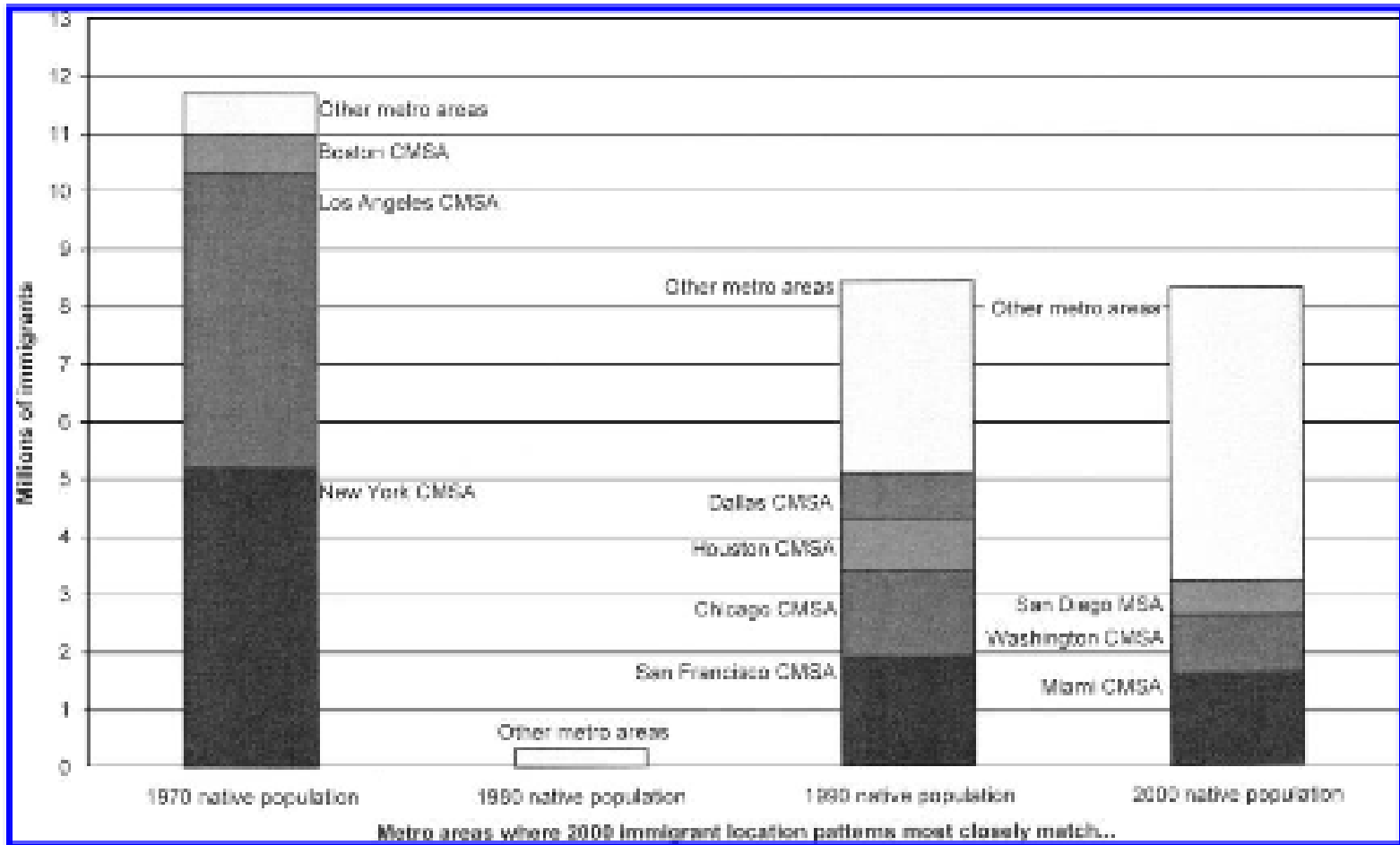
European evidence

- Cross-country comparisons are difficult.
  - Size of neighborhoods differ; measured segregation tends to increase as neighborhood size decreases.
  - Not all nations collect uniform data on country of origin.
  - Data sources often taken from differing points in time, and segregation can change dramatically in short periods – particularly for fast-growing groups.
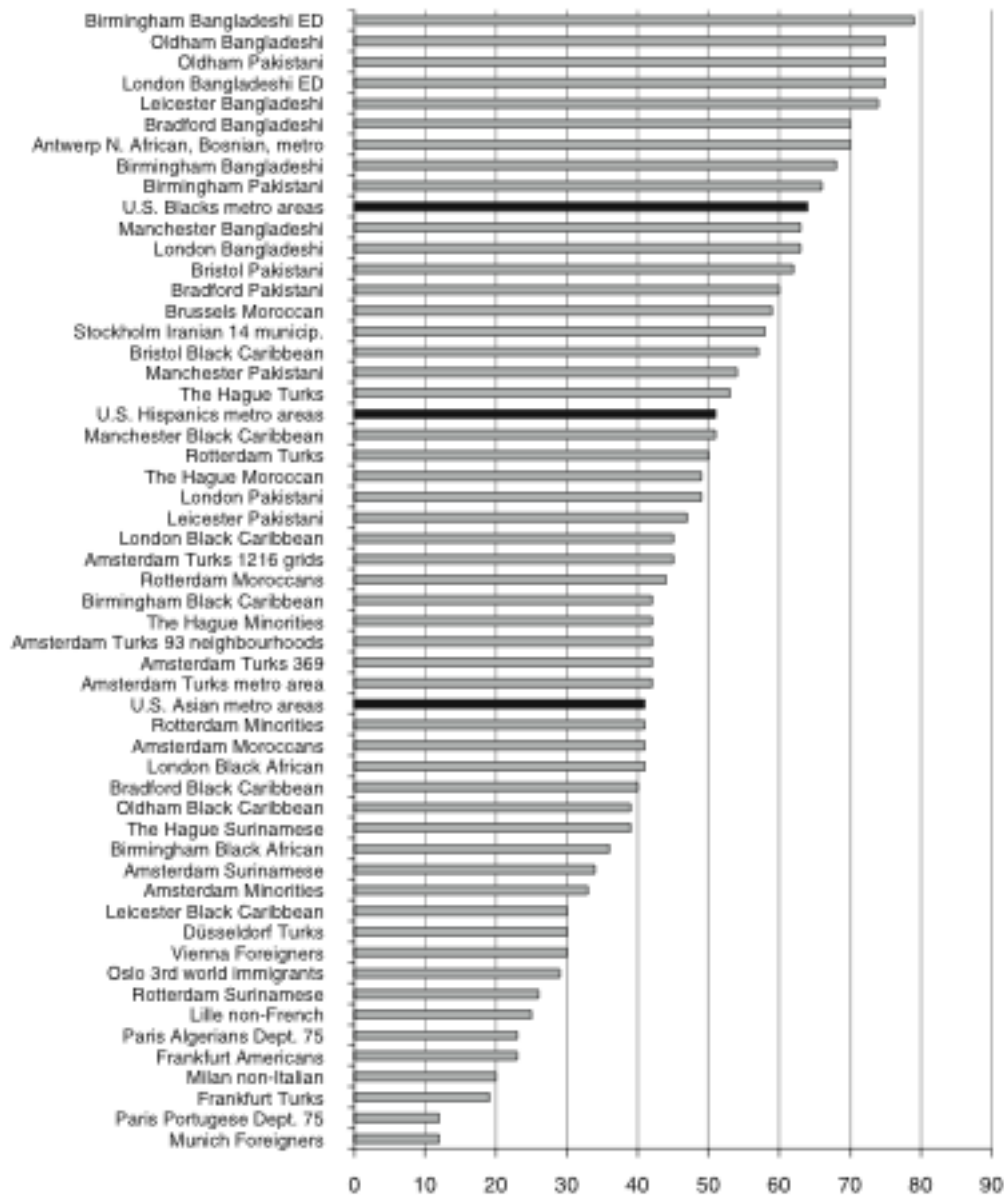
FIGURE 1

Index of Segregation, Ethnic Minorities

TABLE 1

Index of Segregation

	1983	1993	1998
Amsterdam, Turks	36	41	42
Amsterdam, Moroccans	35	39	41
Rotterdam, Turks	51	54	50
Rotterdam, Moroccans	50	50	44
Cologne, Turks	34	34	33
Cologne, Yugoslavian	25	25	26
London, Black Caribbean	56	41	

Note. Data for Cologne 1984, 1989, 1994; London 1961, 1991.
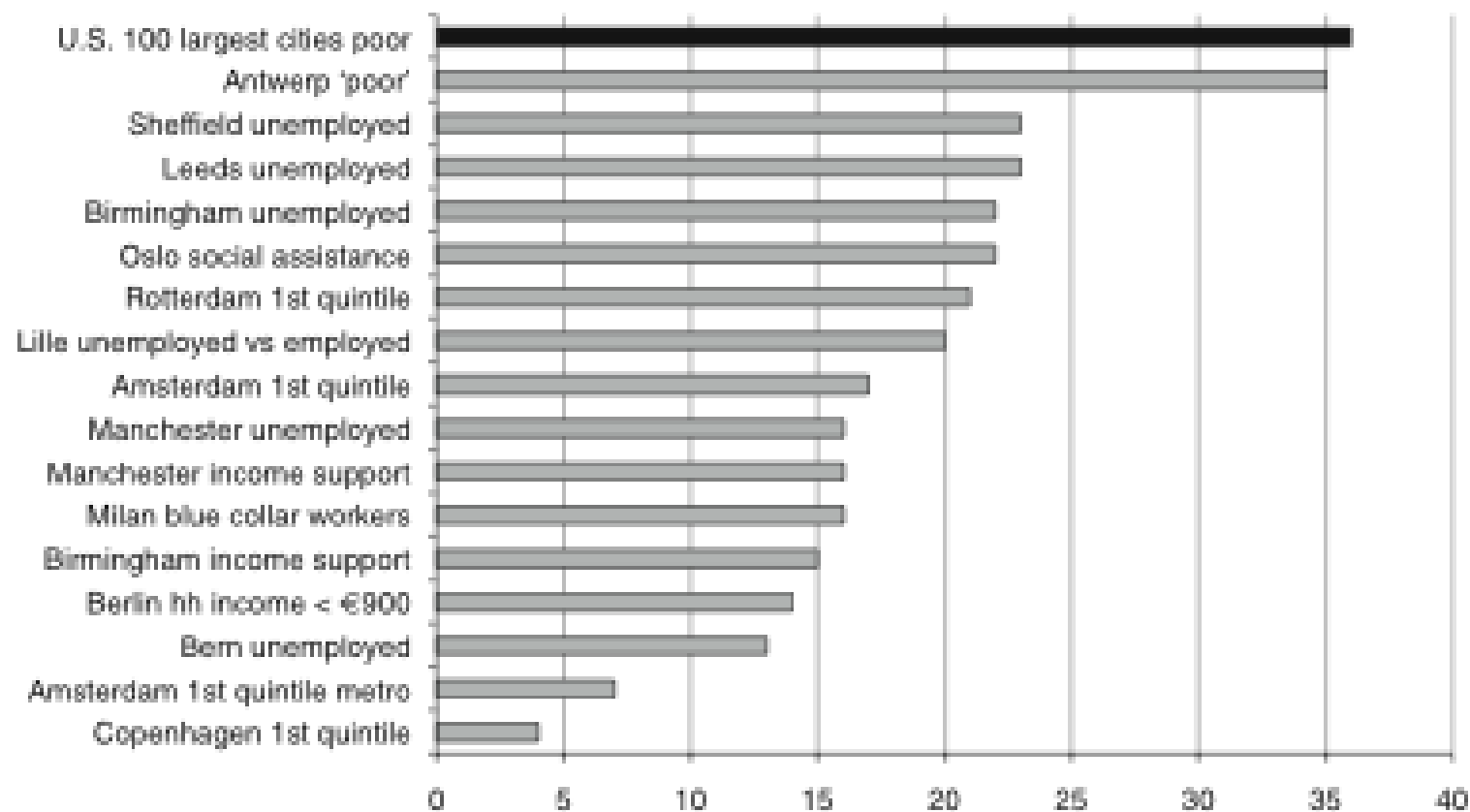Sources. Centraal Bureau voor de Statistiek, n.d.; Friedrichs, 1998; Peach, 1999;

FIGURE 5

Index of Segregation, Socio-Economic Levels

The value of description

- Europe has relatively little information on immigrant segregation, and international comparisons are quite difficult.

- Potential for improvement with 2011 Census?

- Is it worth the investment to produce descriptive information?

Arguments against describing

- Empirical economics increasingly values sound causal identification of parameters relevant to theory and practice.

- As a junior scholar, write papers that the profession values! Save the risky stuff for later in your career.

- To motivate pure measurement, you must make reference to hypothesized relationships (causes, effects) that are difficult to identify quasi-experimentally.

Arguments FOR describing

- Papers that introduce useful descriptive data are highly cited, and citations matter (to journal editors and promotion committees).

- There are policy interventions in Europe (e.g., settlement policies in Sweden and Denmark) that potentially introduce some idiosyncratic variation in segregation levels.