

Supplementary material

Supplementary Table 1 Foreign-born population per metropolitan statistical areas

MSA	Percentage foreign born, by region										
	Total	Africa	Asia	Europe	Oceania	South America	North America	Asia (other)*	China*	Japan*	Korea*
Albuquerque, NM	9.5	0.2	1.6	0.8	0.0	0.3	0.2	1.1	0.3	0.1	0.1
Allentown-Bethlehem-Easton, PA-NJ	8.2	0.4	2.4	1.8	0.0	1.1	0.2	1.9	0.4	0.0	0.1
Atlanta-Sandy Springs-Roswell, GA	13.8	1.4	4.0	1.3	0.0	1.0	0.2	2.7	0.5	0.1	0.7
Bakersfield, CA	20.3	0.2	3.2	0.4	0.1	0.2	0.2	2.8	0.2	0.1	0.2
Bridgeport-Stamford-Norwalk, CT	20.8	0.6	3.9	4.9	0.1	4.3	0.4	2.8	0.7	0.2	0.2
Cincinnati, OH-KY-IN	4.1	0.5	1.7	0.8	0.0	0.2	0.1	1.2	0.3	0.1	0.1
Detroit-Warren-Dearborn, MI	9.1	0.3	4.7	2.2	0.0	0.2	0.6	4.0	0.4	0.1	0.2
Fresno, CA	21.9	0.2	5.7	0.7	0.1	0.2	0.2	5.2	0.3	0.1	0.2
Hartford-West Hartford-East Hartford, CT	12.5	0.6	3.2	3.9	0.0	1.3	0.6	2.4	0.5	0.0	0.2
Lexington-Fayette, KY	7.3	0.7	2.4	0.8	0.0	0.2	0.2	1.3	0.7	0.2	0.1
Los Angeles-Long Beach-Anaheim, CA	34.8	0.6	13.1	1.7	0.1	0.9	0.3	8.3	2.6	0.4	1.7
Louisville/Jefferson County, KY-IN	4.9	0.6	1.5	0.7	0.0	0.2	0.1	1.2	0.2	0.0	0.1
Modesto, CA	20.7	0.1	4.7	1.2	0.3	0.3	0.2	4.2	0.3	0.0	0.1
New Haven-Milford, CT	11.7	0.7	3.0	3.2	0.0	1.6	0.4	2.0	0.7	0.1	0.2
New Orleans-Metairie, LA	7.1	0.2	2.1	0.6	0.0	0.4	0.1	1.7	0.3	0.0	0.1
New York-Newark-Jersey City, NY-NJ-PA	28.4	1.2	8.0	4.7	0.1	4.3	0.2	4.6	2.4	0.2	0.8
Ogden-Clearfield, UT	6.1	0.1	1.0	0.7	0.1	0.5	0.2	0.6	0.2	0.1	0.1
Omaha-Council Bluffs, NE-IA	6.8	0.6	1.9	0.6	0.0	0.1	0.1	1.5	0.2	0.1	0.2
Oxnard-Thousand Oaks-Ventura, CA	22.8	0.2	5.3	1.7	0.1	0.6	0.4	4.0	0.8	0.2	0.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	9.8	0.9	3.9	2.0	0.0	0.5	0.2	2.7	0.8	0.0	0.4
Provo-Orem, UT	7.5	0.1	1.2	0.5	0.3	1.3	0.4	0.6	0.3	0.1	0.2
Riverside-San Bernardino-Ontario, CA	22.0	0.4	4.6	0.9	0.1	0.5	0.4	3.4	0.7	0.1	0.4
Sacramento--Roseville--Arden-Arcade, CA	18.0	0.4	7.9	2.8	0.6	0.3	0.3	6.1	1.3	0.2	0.4
Salt Lake City, UT	12.3	0.5	2.7	1.4	0.5	1.1	0.3	2.0	0.4	0.1	0.2
San Diego-Carlsbad, CA	23.7	0.5	8.6	1.9	0.1	0.5	0.4	6.8	1.0	0.3	0.5
San Francisco-Oakland-Hayward, CA	30.7	0.6	16.6	3.0	0.5	0.9	0.5	9.6	6.0	0.4	0.7
San Jose-Sunnyvale-Santa Clara, CA	38.0	0.6	23.5	3.0	0.2	0.6	0.5	16.3	5.4	0.6	1.2
Santa Rosa, CA	16.7	0.4	2.9	1.9	0.2	0.3	0.4	2.0	0.5	0.1	0.2
Seattle-Tacoma-Bellevue, WA	17.3	1.2	8.6	2.8	0.3	0.4	0.8	5.5	1.7	0.4	1.1
Stockton-Lodi, CA	23.6	0.3	9.0	0.9	0.2	0.3	0.2	8.0	0.7	0.1	0.2
Urban Honolulu, HI	19.8	0.1	16.2	0.7	1.9	0.3	0.2	10.1	2.5	2.1	1.6
Worcester, MA-CT	10.0	1.2	3.1	2.0	0.0	1.5	0.5	2.4	0.5	0.0	0.1

\*For supplemental analysis of Asia-specific regions

MSA, metropolitan statistical area

Note: where sums do not equal total, persons were specified as foreign born, without further details

**Supplementary Table 2** Results of an age-standardized generalized linear model of all gastric adenocarcinomas

Geographic area	Coefficient	P-value
Per percent foreign born in:		
Africa	-3.19	0.28
Central America	0.25	0.12
South America	1.53	0.39
North America	233.30	0.43
Caribbean	-2.48	0.14
Northern Europe	3.07	0.80
Western Europe	-7.67	0.61
Eastern Europe	3.50	0.06
Eastern Asia	0.36	0.65
South Central Asia	-0.96	0.27
South Eastern Asia	0.64	0.27
Western Asia	0.32	0.86

Coefficients are per 100,000

**Supplementary Table 3** Results of an age-standardized generalized linear model of cardia adenocarcinomas, evaluating Asian-born populations

Geographic area	Coefficient	P-value
Per percent individuals of:		
Asia (excluding China, Japan, Korea)	43.09	0.06
China	-0.27	0.30
Japan	0.35	0.65
Korea	0.32	0.68

Coefficients are per 100,000

**Supplementary Table 4** Results of an age-standardized generalized linear model of all gastric adenocarcinomas, evaluating Asian born populations

Geographic area	Coefficient	P-value
Per percent individuals of:		
Asia (excluding China, Japan, Korea)	167.64	0.02
China	-1.04	0.19
Japan	3.92	0.11
Korea	2.51	0.30

Coefficients are per 100,000

**Supplementary Table 5** Results of an age-standardized generalized linear model of all foreign-born individuals

Cancer classification	Coefficient	P-value
Non-cardia	0.13	<0.001
Cardia	0.04	0.11
All	0.22	<0.001

Coefficients are per 100,000 cases

**Supplementary Table 6** Age standardized incidence rates per 100,000 persons by metropolitan statistical area (MSA)

MSA	Non-cardia	Cardia	Not otherwise specified
Albuquerque, NM	4.14	2.28	3.35
Allentown-Bethlehem-Easton, PA-NJ	0.51	0.42	0.38
Atlanta-Sandy Springs-Roswell, GA	4.81	2.65	2.87
Bakersfield, CA	4.31	2.44	3.24
Bridgeport-Stamford-Norwalk, CT	6.31	3.57	3.25
Cincinnati, OH-KY-IN	0.54	0.72	0.44
Detroit-Warren-Dearborn, MI	4.68	3.44	2.5
Fresno, CA	5.1	3.04	3
Hartford-West Hartford-East Hartford, CT	5.33	4.29	2.55
Lexington-Fayette, KY	3.69	2.96	1.99
Los Angeles-Long Beach-Anaheim, CA	7.54	2.8	3.46
Louisville/Jefferson County, KY-IN	3.07	2.89	1.75
Modesto, CA	3.98	3.6	2.31
New Haven-Milford, CT	4.6	4.6	3.12
New Orleans-Metairie, LA	5.66	3.2	3.08
New York-Newark-Jersey City, NY-NJ-PA	1.85	1.16	1.25
Ogden-Clearfield, UT	2.52	2.11	1.96
Omaha-Council Bluffs, NE-IA	0.47	0.72	0.28
Oxnard-Thousand Oaks-Ventura, CA	4.73	3.02	2.03
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1.03	0.83	0.69
Provo-Orem, UT	2.27	1.82	1.45
Riverside-San Bernardino-Ontario, CA	4.65	2.77	2.76
Sacramento--Roseville--Arden-Arcade, CA	4.36	3.29	2.22
Salt Lake City, UT	2.88	2.41	2.28
San Diego-Carlsbad, CA	4.15	2.88	2.43
San Francisco-Oakland-Hayward, CA	6.02	2.92	2.69
San Jose-Sunnyvale-Santa Clara, CA	6.27	3.04	2.71
Santa Rosa, CA	3.89	3.59	1.91
Seattle-Tacoma-Bellevue, WA	3.63	3.81	2.52
Stockton-Lodi, CA	4.63	3.4	3.63
Urban Honolulu, HI	8.33	2.38	4.08
Worcester, MA-CT	0.37	0.75	0.24