

Suburban Sprawl Advances

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Detailed census data from the ongoing 2000 headcount will not be available for another year, but population estimates released by the Census Bureau on March 9 give us an opportunity to analyze county population dynamics in the 1990s. The estimation methods employed by the Census Bureau yield estimates of population change by two main components: natural increase, the balance of births over deaths, and net migration. The interplay between these components appears to be a major factor in determining the rate of growth or decline. Specifically, net in-migration is nearly always the predominant component in counties that are growing rapidly, and net out-migration usually prevails in counties that are losing population rapidly.

Net migration exceeds natural increase in virtually all the top-ranking counties, when the nation's 3,141 counties or county equivalents are ranked from high to low on percent population change between 1990 and 1999. In 98 of the 100 fastest *growing* counties, net in-migration is higher than natural increase; when the list is expanded to the top 500, net migration exceeds natural increase in 472 counties. Looking at the ranking from the other direction, 92 of the 100 fastest *declining* counties were characterized by net out-migration lower than natural increase totals.

Of the two components, natural increase is much easier to measure, given the universal system of birth and death registration in the United States. Even when current data are not available, natural increase can

be reliably estimated since births and deaths typically remain quite stable from one year to the next. Given this stability, it is usually net migration that accounts for fast rates of growth or decline. The Census Bureau regularly studies the moving patterns of Americans through data collected in the *Current Population Survey*. The current study reports that 16 percent of the U.S. population changed residences (see *Geographic Mobility: March 1997 to March 1998*, at www.census.gov/prod/2000pubs/p20-520.pdf). Only a third of these movers, around five percent of the total population, actually moves across county lines, but over time the movers have a big impact on the re-distribution of the U.S. population.

Figure 1 shows the geographic distribution of counties in the lower 48 states on the net migration component between April 1, 1990 and July 1, 1999 (the reference dates for the 1990 census and latest Census Bureau county estimates, respectively). Approximately 64 percent of all counties (including Alaska and Hawaii) attracted more movers than they lost during the estimation period. The largest clusters of counties with a net outflow of migrants are concentrated in the Great Plains states and other rural areas. On the opposite end of the rural-urban spectrum, careful examination reveals that many heavily urbanized counties, home to some of the nation's largest cities, also lost residents through migration.

Figure 1
Geographic Distribution
of Counties in Lower 48
States, 1990-1999

**Net
Migration
Component**

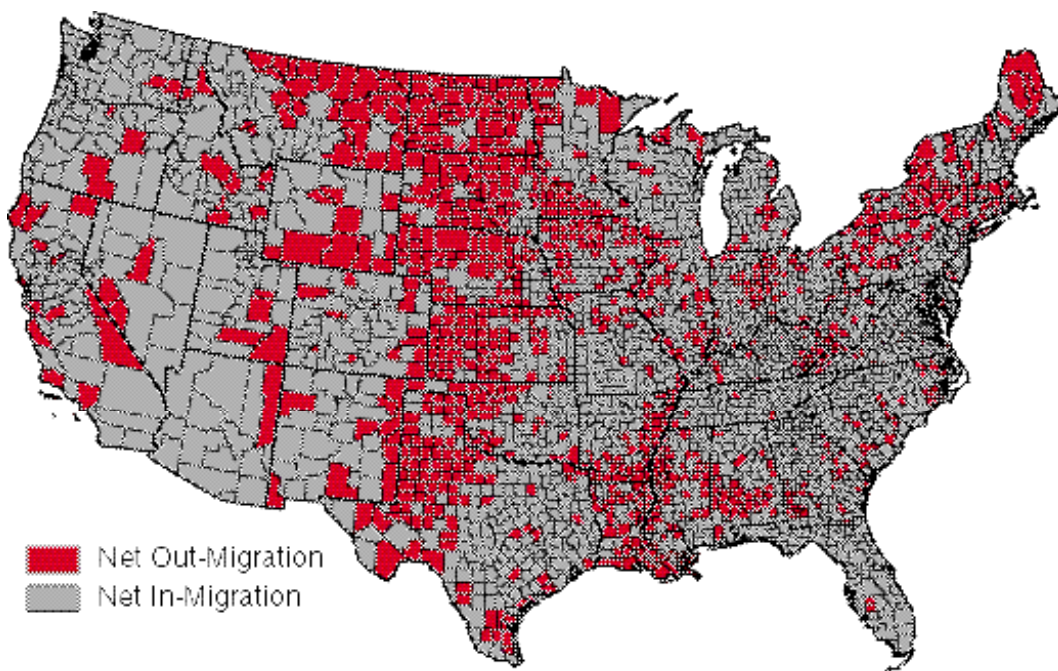


Figure 2 gives a similar view of natural increase. In this case the distribution is even more lopsided, as births exceeded deaths in 78 percent of all counties. Approximately one in five counties, though, experienced negative natural increase (a.k.a., natural decrease). These counties have high concentrations of older residents, and are clustered primarily in the Great Plains states as well as parts of Florida, Pennsylvania, and West Virginia.

Among Indiana's 92 counties, only Sullivan experienced negative natural increase over the 1990-99 period. In contrast, 29 counties, almost one third of the state, had negative net migration in the 1990s. Ten Indiana counties lost population in this time span, and all ten had net out-migration. Nationally, almost one in four U.S. counties are estimated to have lost population in the 1990s. Among these losing counties, more than nine in ten (91.5%) experienced net out-migration. By comparison, about one in six gaining counties nationwide (16.8%) had net out-migration. Nineteen Hoosier counties fell in this

category, increasing in population while overcoming net out-migration. This group includes six of the state's top seven counties in 1990 population: Marion, Lake, Allen, St. Joseph, Vanderburgh, and Madison.

Net out-migration from urbanized counties is occurring all over the country, not just in Indiana. The growth of suburban counties at the expense of urban centers has led to a pattern of suburban sprawl with characteristic long commuting times, among other concerns to planners and policymakers. For a closer look at the population numbers relevant to suburbanization, metropolitan areas with 1990 population over 500,000 were examined in the six states surrounding and including Indiana. The states encompass the East North Central census division (Wisconsin, Illinois, Indiana, Ohio, and Michigan) as well as the southern neighboring state of Kentucky. Metro area definitions issued by the federal Office of Management and Budget as of June 30, 1999 are used in this analysis (see **Figure 3**).

Figure 2
Geographic Distribution
of Counties in Lower 48 States,
1990-1999

Natural
Increase
Component

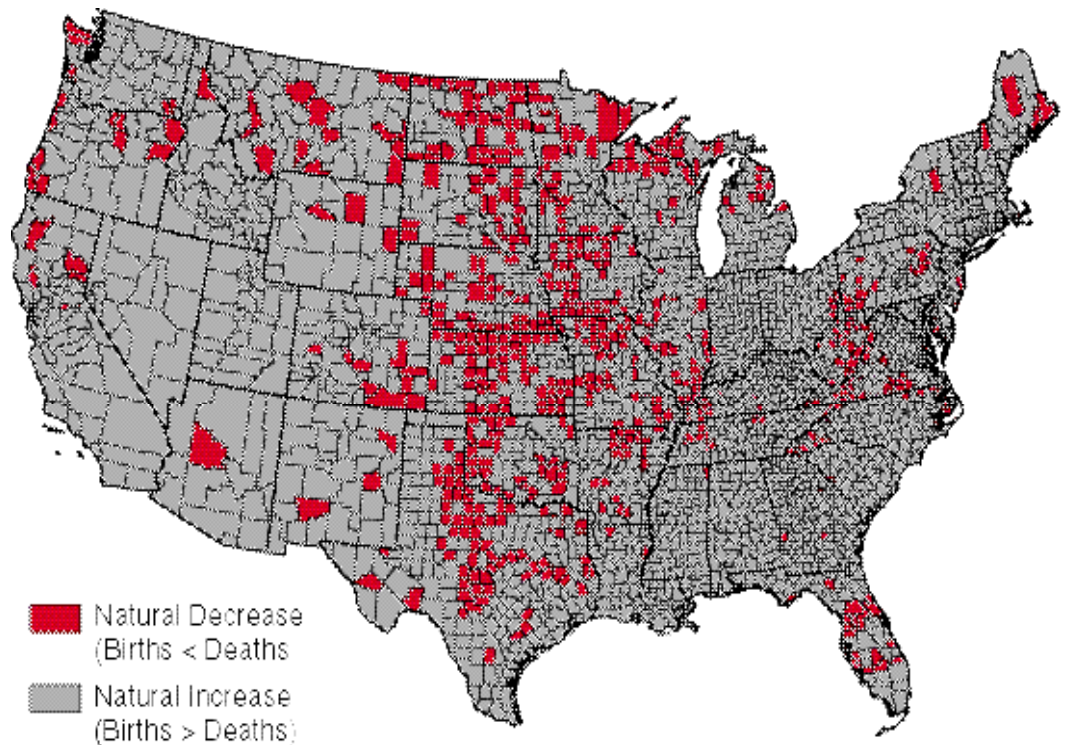


Figure 3
Net Migration For Counties

Indiana and Surrounding States, 1990-1999

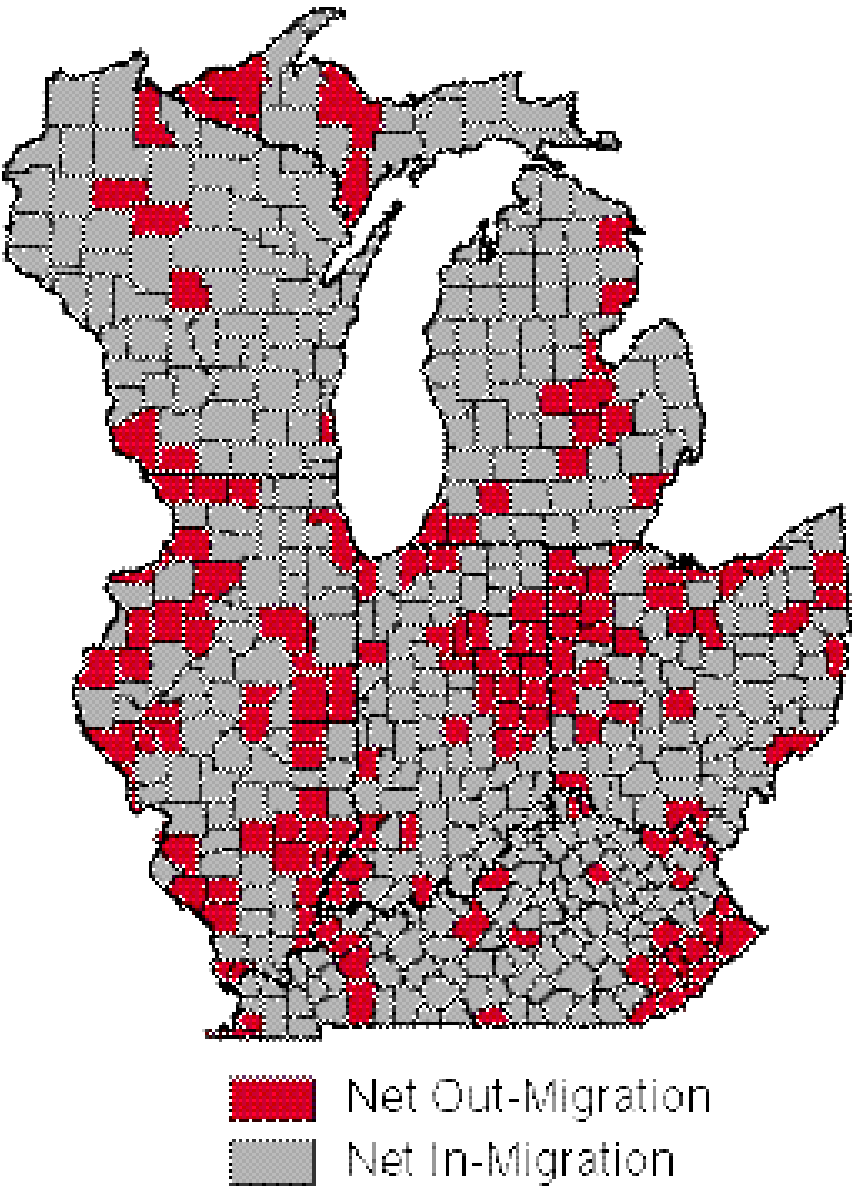


Table 1, on the next page, shows selected population data for 12 metropolitan areas ranked by MSA population size. Each MSA is split into two geographic components: the central county, where the first city in the MSA name is located, and the balance of the metropolitan area. Six of the 12 MSA central counties are in Ohio, two in Michigan, and one in each of the remaining four states.

Ten of the 12 selected MSAs gained population over the 1990-99 period; three grew by more than 10 percent. But in 11 of 12 cases, more people moved out of the central county than moved in, presumably to the outlying suburban counties of the MSA. Only in the Grand Rapids MSA did the central county have more in-migrants than out-migrants, and even there the gain was marginal. Seven of 12 central counties actually lost population as net out-migration outstripped positive gains through natural increase. It should be noted that in all 12 MSAs both the central county and remainder area experienced (positive) natural increase.

In each metro area, the growth rate of the MA balance easily outpaced the central county. The growth rate differential between the MA balance and central county was especially large, exceeding 20 percent, in three MSAs: Milwaukee, Cincinnati, and Indianapolis. Indianapolis' suburban counties had the fastest growth rate, 24.4 percent, among the 12 MSAs, followed by Columbus, Ohio, where the suburban counties increased by 20.2 percent. Wisconsin's Milwaukee stands out as the most distressed of the 12 central counties in this analysis, losing more than five percent of its 1990 population. Five MSA central counties, all in Ohio, lost between one and five percent of their 1990 base populations: Youngstown, Toledo, Cleveland, Cincinnati, and Dayton.

The type of development described here is sometimes called a "doughnut" pattern, characterized by an empty center surrounded by a ring of growth. The pattern is now found not only in older manufacturing centers like Chicago and Detroit, but also in rapidly growing metro areas like Columbus, Ohio and Indianapolis. There is no consensus of opinion on the effects of doughnut-style development or suburban sprawl. Some analysts bemoan the high cost of new infrastructure and inefficient allocation of resources, while others cite the free-market benefits of consumers choosing where they want to live. But the movement of population away from large urbanized counties to outlying suburban counties is not subject to debate.

Table 1
Selected Population Data for 12 Metropolitan Areas

CMSA - Consolidated Metropolitan Statistical Area MSA - Metropolitan Statistical Area	4/1/90	7/1/99	Pop. Change, 90-99		Natural Increase	Net Migration
	Census	Estimate	Number	Percent		
Chicago-Gary-Kenosha, IL-IN-WI CMSA	8,239,320	8,886,919	646,099	7.8%	597,009	-50,910
Cook County, IL	5,106,044	5,192,325	87,282	1.7%	401,309	-314,027
MA balance (12 counties)	3,134,775	3,693,593	558,817	17.8%	295,700	253,117
Detroit-Ann Arbor-Ft. MI CMSA	5,137,171	5,469,312	332,141	6.4%	316,637	-33,395
Wayne County, MI	2,111,587	2,105,495	-6,192	-0.2%	125,375	-132,068
MA balance (9 counties)	3,025,484	3,363,817	297,333	9.8%	191,262	98,572
Cleveland-Akron, OH CMSA	2,869,552	2,910,515	40,964	1.4%	121,693	-70,529
Cuyahoga County, OH	1,412,140	1,371,717	-40,423	-2.9%	49,325	-89,751
MA balance (7 counties)	1,447,522	1,538,999	91,377	6.3%	72,256	19,121
Cincinnati, OH-KY-IN CMSA	1,317,542	1,960,995	643,453	49.2%	108,713	34,740
Hamilton County, OH	355,229	840,441	485,212	138.0%	40,745	-55,531
MA balance (12 counties)	961,314	1,120,552	159,238	16.6%	67,972	101,266
Milwaukee-Racine, WI CMSA	1,507,130	1,643,199	136,069	9.0%	95,104	-66,385
Milwaukee County, WI	959,212	906,245	-52,967	-5.5%	58,359	-111,323
MA balance (4 counties)	547,917	741,954	194,037	35.4%	37,245	55,718
Indianapolis, IN MSA	1,380,491	1,535,555	155,174	11.2%	100,737	55,437
Marion County, IN	797,159	810,945	13,787	1.7%	53,597	-49,910
MA balance (3 counties)	583,332	725,710	142,377	24.4%	47,140	106,147
Columbus, OH MSA	1,345,450	1,489,437	144,027	10.7%	100,929	43,098
Franklin County, OH	951,437	1,027,521	76,084	8.0%	79,645	-13,564
MA balance (5 counties)	384,023	461,916	77,893	20.2%	21,281	55,252
Dayton-Springfield, OH MSA	961,252	968,595	7,343	0.8%	41,540	-34,204
Montgomery County, OH	573,309	565,365	-7,943	-1.4%	27,529	-35,472
MA balance (3 counties)	377,453	392,532	15,079	4.0%	14,111	1,258
Louisville, KY-IN MSA	949,012	1,006,349	57,337	6.0%	42,544	14,793
Jefferson County, KY	556,129	572,900	16,771	3.0%	27,385	-19,508
MA balance (5 counties)	293,389	332,949	39,560	13.5%	15,269	33,501
Grand Rapids-Muskegon-Holland, MI MSA	937,391	1,052,092	114,701	12.2%	51,750	32,441
Kent County, MI	500,531	560,388	59,857	11.9%	45,353	1,404
MA balance (3 counties)	437,250	501,704	64,454	14.7%	33,407	31,037
Toledo, OH MSA	514,129	508,375	-5,754	-1.1%	31,099	-36,251
Lucas County, OH	452,351	445,432	-6,919	-1.5%	23,793	-39,572
MA balance (2 counties)	151,757	162,434	10,677	7.0%	7,305	3,421
Youngstown-Warren, OH MSA	500,377	489,205	-11,172	-2.2%	9,305	-21,545
Mahoning County, OH	254,305	252,597	-1,708	-0.7%	2,070	-14,279
MA balance (2 counties)	336,071	336,509	438	0.1%	7,336	-7,257