Hamilton and Other Suburban Counties Lead the State in Population Growth

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Most Indiana counties continue to experience population growth, according to population estimates released by the U.S. Bureau of the Census in March 2000. The estimates for July 1, 1999 indicate that 47 of 92 Hoosier counties have grown faster than the state average of 7.2 percent since the most recent census in 1990. Thirty counties have grown in population since 1990, but more slowly than the state as a whole. Seven Hoosier counties have seen little net population change since the census (less than 1%), and 8 counties experienced population decline of 1 percent or more between 1990 and 1999 (see **Figure 1**).

Figure 1
Indiana Net Population Change, 1990-1999

The Fastest Growing Counties

The fastest growing Hoosier county continues to be Hamilton, home of rapidly growing Fishers, Noblesville and Carmel (see **Figure 2**). Hamilton County has added more than 63,000 persons since the 1990 census, for a growth rate of 58 percent between 1990 and 1999. Hamilton County has led the state in population growth rates for each year in the decade, with annual growth rates of about 5 percent each year.

Hamilton has been the fastest growing county in the region consisting of Indiana and its neighboring states of Illinois, Michigan, Ohio and Kentucky and the 27th fastest growing county in the nation. The fastest growing counties in the nation since the 1990 census are in Colorado and Georgia. Other Hoosier counties experiencing high rates of growth include Hendricks (30.5%), Johnson (27.9%), Dearborn (23.6%), and Hancock (22.2%). These high growth rates are consistent with growth patterns experienced by the nation as a whole, where much of the rapid population growth is occurring in suburban areas. Indiana counties with growth rates exceeding 15 percent are Morgan, Owen, Washington, Jennings, Jasper, Harrison, Boone, Warrick, Switzerland, Steuben and Lagrange. Hamilton County also led the state in population growth in the most recent year from 1998 to 1999, with a growth rate of 5.7 percent, compared with 0.6 percent for the state. The increase of 9,300 persons between 1998 and 1999 represented Hamilton County's largest annual increase in population. Other counties experiencing growth of 2 percent or more between 1998 and 1999 are Hendricks, Johnson, Morgan, Boone, Harrison and Hancock.

Domestic and International Migration

Domestic migration is driving this population growth, with the fastest growing Hoosier counties experiencing large amounts of positive net domestic migration (more people from other states and counties moving in than moving out). **Figure 3** shows the amount of population growth due to net migration and natural increase (more births than deaths) for the state's ten fastest growing counties. Migration accounts for the larger part of population change for each of these counties.

International migration to Indiana has steadily increased since 1990, with the largest number of international in-migrants moving to Hoosier counties with the largest populations: Marion, Lake and Allen (see **Figure 4**).

"Hamilton is the 27th fastest growing county in the nation..."
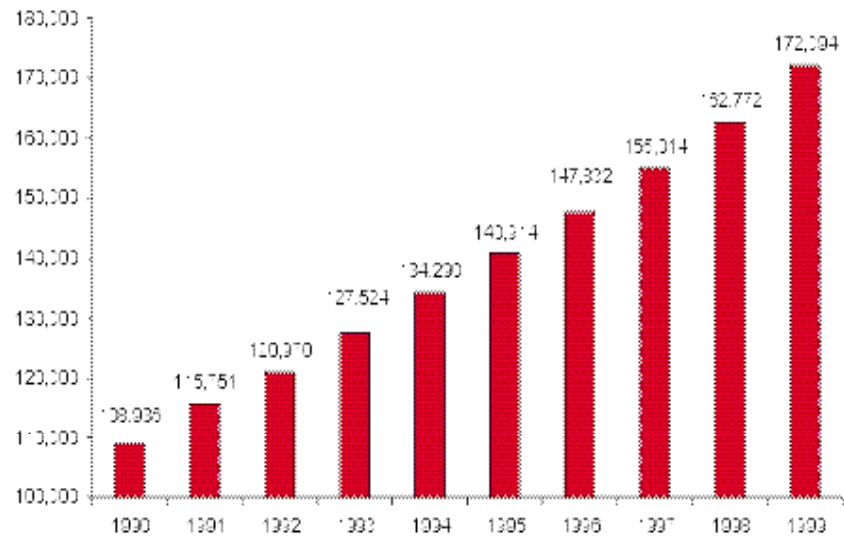
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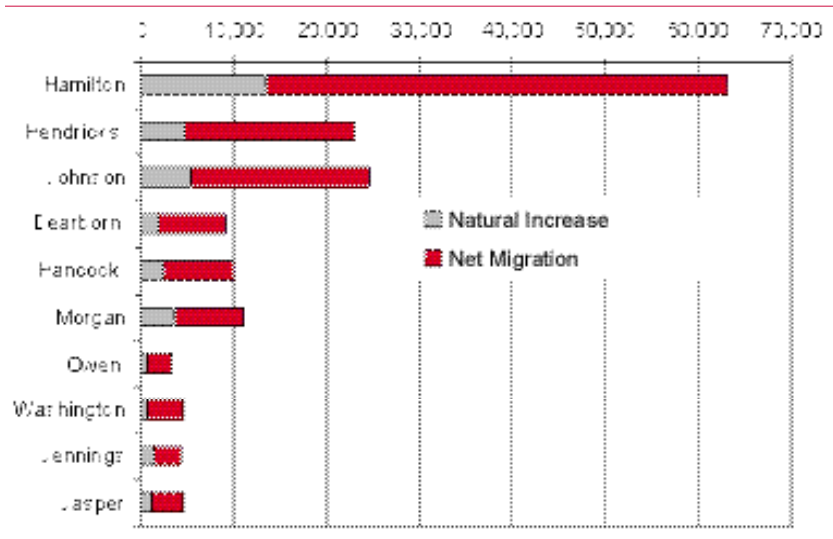
"International migration has steadily grown in Indiana since 1990..."
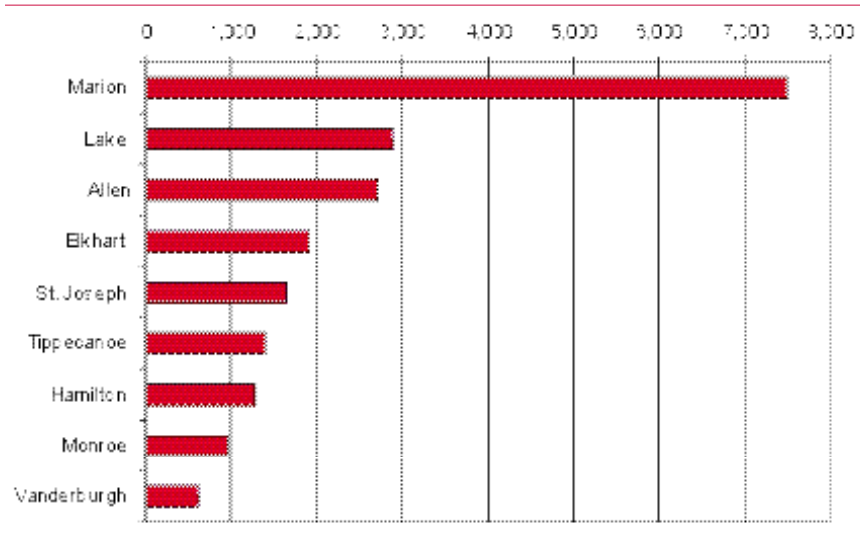
Most and Least Populous Counties in the State

The ten largest Hoosier counties are Marion, Lake, Allen, St. Joseph, Elkhart, Hamilton, Vanderburgh, Porter, Tippecanoe and Madison (see **Table 1** and **Figure 5**). Hamilton passed Vanderburgh in the most recent year to become the 6th most populous county in the state. The smallest Indiana counties are Ohio, Union, Warren, Switzerland and Benton, each with population under 10,000.

Marion County

Marion population has seen an overall increase of 13,800 persons since 1990, but has experienced population decline of 4,800 persons since 1996. Earlier in the decade, Marion County's natural increase (more births than deaths) exceeded its out-migration, resulting in population growth. However, since 1996, the county's out-migration has exceeded its natural increase, resulting in population loss. The county has experienced growing domestic out-migration during the decade, with increasing numbers of people moving to other states, but international migration from other countries to Marion County has increased steadily throughout the decade.

Population Decline

Miami County has lost population since the 1990 census, due to the restructuring of Grissom Air Force Base in the early 1990s. Miami County's population is down by 8.9 percent since the census, but the county has seen population increases in each of the most recent four years, with population growth of over 1,200 persons since 1995.

Other counties experiencing population decline since 1990 are Delaware, down by 4,200 persons or 3.5 percent; Grant, down by 2,100 persons or 2.8 percent; Vigo, down by 1,800 persons or 1.7 percent and Knox, down by 800 persons or 2.1 percent. Counties showing smaller rates of decline include Wabash, Wayne and Blackford.

Table 1
Shifting Ranks: Top Ten Counties Over Time

Counties	1999	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900
Allen	2	3	3	3	4	4	4	4	3	2	2
Delaware	12	10	9	7	7	8	8	9	9	9	8
Elkhart	6	6	7	8	9	9	9	8	8	12	9
Hamilton	6	12	16	51	29	21	43	23	23	31	52
Lake	3	2	2	2	5	2	2	2	2	5	13
La Porte	14	13	12	11	10	10	10	10	11	10	12
Madison	10	7	6	6	6	7	7	7	7	7	4
Marion	1	1	1	.	1	.	.	.	.	1	.
Porter	8	8	10	12	14	50	50	41	43	51	55
St. Joseph	4	4	4	4	3	3	3	3	4	4	6
Tippecanoe	9	9	8	10	11	11	13	13	15	12	11
Vanderburgh	7	5	5	5	5	5	5	5	6	6	3
Vigo	15	14	11	9	8	6	6	6	5	3	5
Wayne	22	22	19	15	13	12	11	11	12	11	10

Figure 5
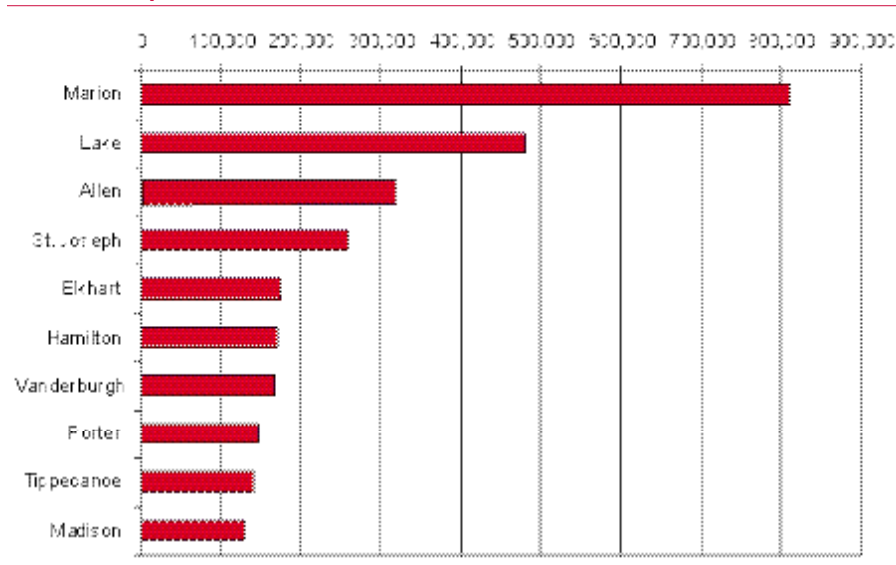**Ten Most Populous Indiana Counties in 1999**

Figure 6
Population Estimates for Indiana Counties (Percent Change 1990-1999)
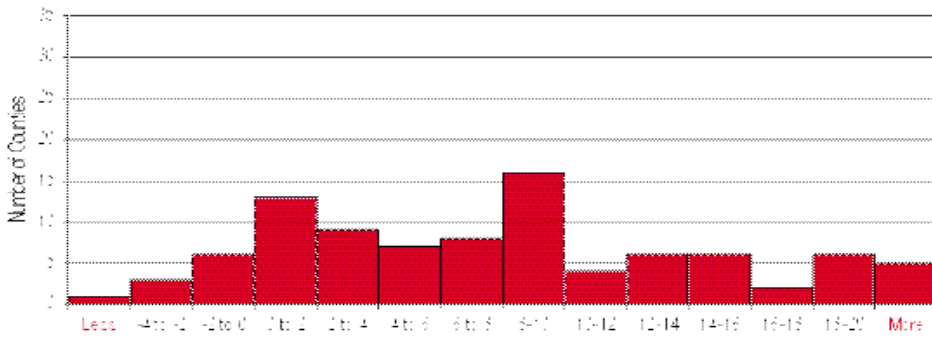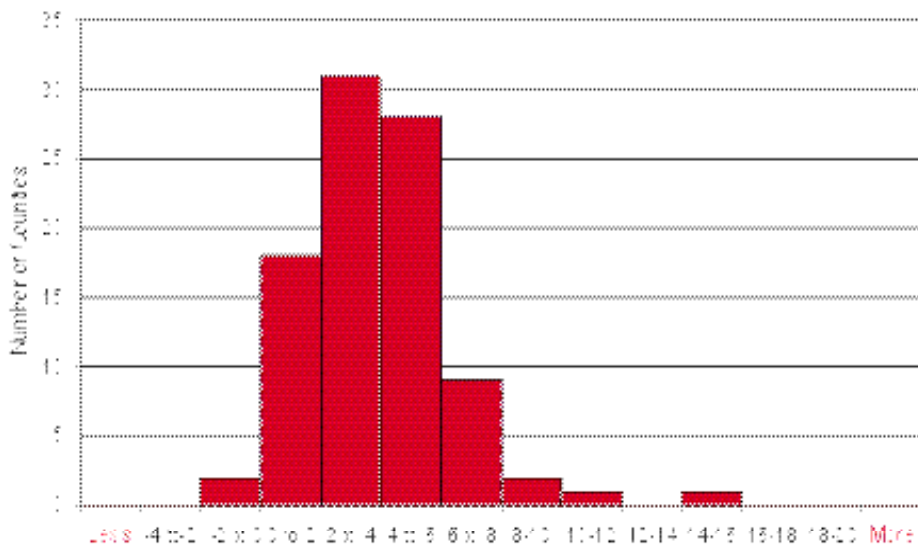

Figure 7
What If-Scenario for "No Migration" Population Estimates
(Indiana Counties Percent Change 1990-1999)

What if?

Figure 6 is a histogram showing the number of counties that experienced population growth rates from 1990 to 1999 in various ranges. The chart shows somewhat of a concentration of counties experiencing growth rates between 0 and 10 percent (53 counties). Twenty-nine counties saw growth exceeding 10 percent and 10 counties experienced population decline.

What if no one had moved into or out of Indiana counties from 1990 to 1999? To illustrate population change due only to natural increase (births minus deaths), we applied average annual birth and death rates to 1990 population counts and produced a fictitious set of "no migration" population estimates for 1999. **Figure 7** shows the resulting distribution of counties in the same growth rate ranges as above.

In **Figure 7**, the concentration of counties experiencing growth rates between 0 and 10 percent is much more pronounced (88 of 92 counties). In this scenario, only 2 counties saw growth exceeding 10 percent and only 2 counties experienced population decline. Without net migration, the variability of population growth rates is relatively small.

Natural increase accounted for almost three-fourths of the population change experienced by the state between 1990 and 1999, with only the remaining one-fourth due to net migration. However, even though the volume of net migration may be small compared with natural increase, population estimates are strongly affected by the estimated net migration component.

Background on production...

It is important to note that these population figures are estimates produced using a demographic model and are not the result of an attempt to directly count people, as is done in a census. This set of estimates was produced by the U.S. Bureau of the Census using a demographic technique called the Tax Return Method. Estimates are produced annually and when estimates for the next year are released, estimates for previous years are corrected and/or revised to reflect more up-to-date information that may be available.

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
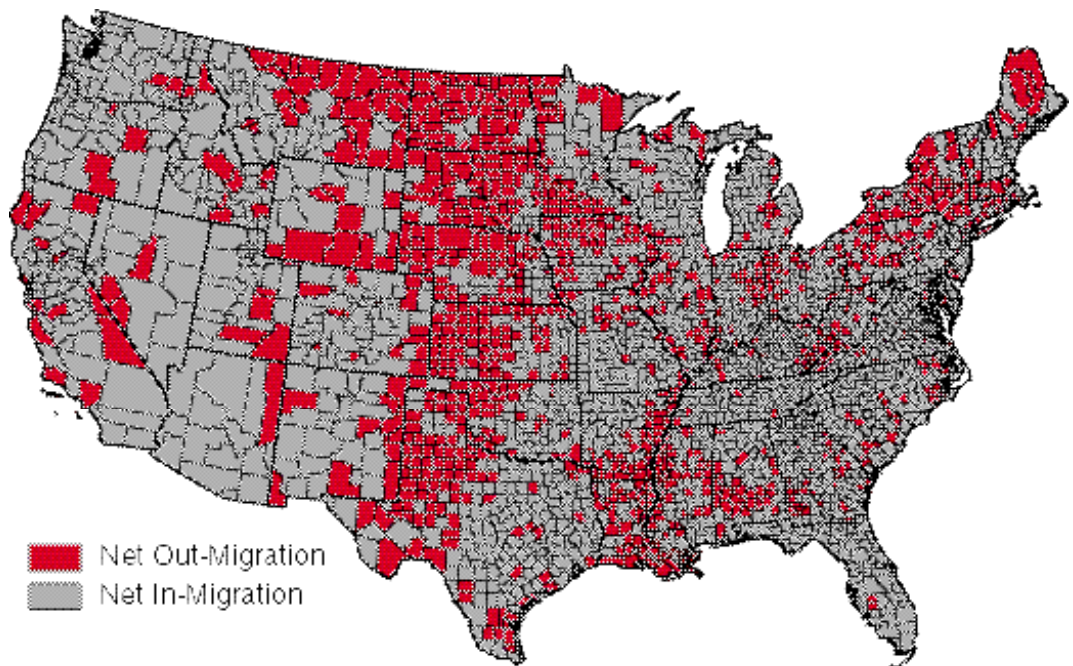

Net Out-Migration
Net In-Migration

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
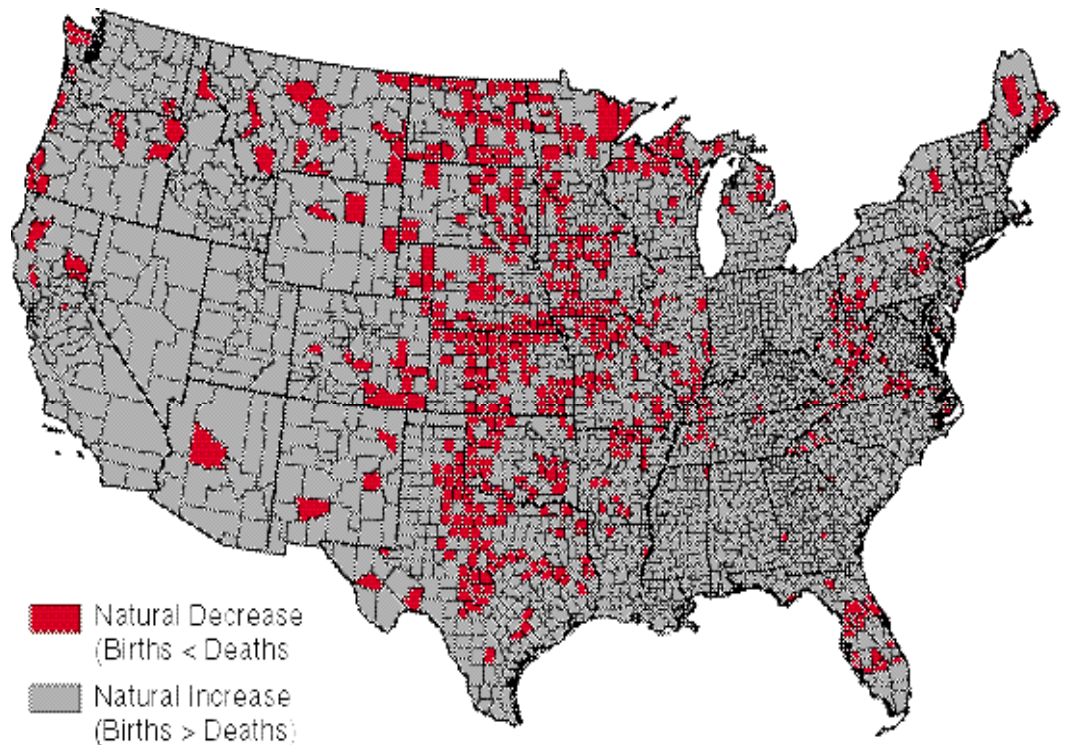**of Counties in Lower 48 States,**
1990-1999

Natural
Increase
Component

Legend:
■ Natural Decrease (Births < Deaths)
▨ Natural Increase (Births > Deaths)

Figure 3
Net Migration For Counties

Indiana and Surrounding States, 1990-1999
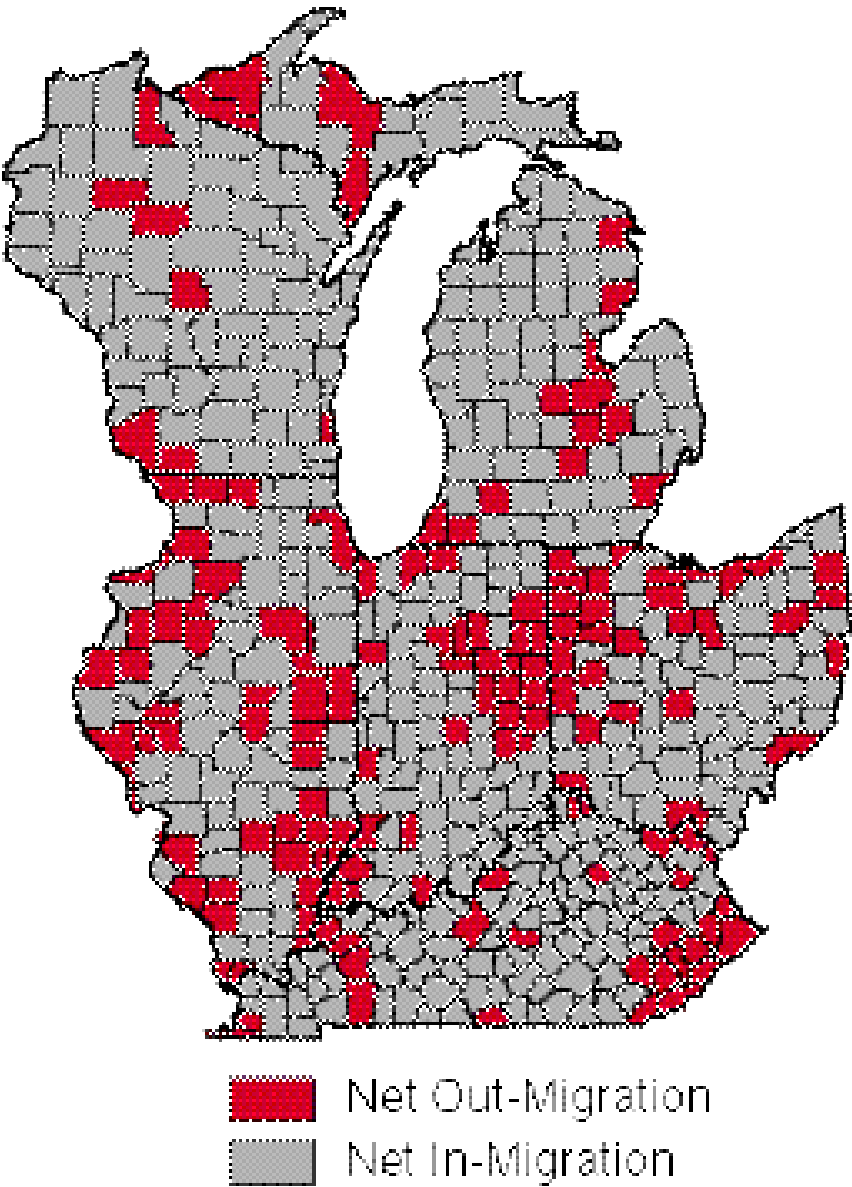

Net Out-Migration
Net In-Migration

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 Census	7/1/99 Estimate	Pop. Change, '90-'99 Number	Percent	Natural Increase	Net Migration
Chicago-Gary-Kenosha, IL-IN-WI CMSA	8,239,820	8,885,9'9	645,099	7.8%	697,009	-60,9'0
Cook County, IL	5,105,044	5,192,325	87,282	1.7%	401,309	-314,327
MA balance (12 counties	3,134,775	3,693,591	558,817	17.8%	295,700	253,''7
Detroit-Ann Arbor-Flint, MI CMSA	5,187,171	5,469,3'2	282,141	5.4%	3'5,537	-33,396
Wayne County, MI	2,111,537	2,105,495	-6,192	-0.2%	'25,375	-132,068
MA balance (9 counties	3,075,484	3,362,8'7	287,333	9.3%	'98,551	98,572
Cleveland-Akron, OH CMSA	2,859,552	2,910,5'5	50,964	1.8%	'2',693	-70,639
Cuyahoga County, OH	1,412,140	1,371,7'7	-40,423	-2.9%	49,328	-89,751
MA balance (7 counties	1,447,522	1,538,899	9',377	5.3%	72,265	19,''2
Cincinnati, OH-KY-IN CMSA	1,817,542	1,960,995	143,453	7.9%	'08,713	34,715
Hamilton County, OH	866,228	840,443	-25,735	-3.0%	40,745	-65,531
MA balance (12 counties	961,314	1,120,552	159,238	17.8%	67,972	101,298
Milwaukee-Racine, WI CMSA	1,607,183	1,648,'99	4',015	2.5%	96,104	-55,088
Milwaukee County, WI	959,212	906,245	-52,964	-5.5%	58,369	-111,323
MA balance (4 counties	547,971	741,95'	93,980	14.5%	37,246	55,715
Indianapolis, IN MSA	1,380,491	1,535,565	155,174	11.3%	'00,737	55,437
Marion County, IN	797,159	810,945	'3,737	1.7%	63,597	-49,9'0
MA balance (8 counties	583,332	725,7'9	142,387	24.4%	37,040	105,347
Columbus, OH MSA	1,345,450	1,489,437	144,027	10.7%	'00,929	43,098
Franklin County, OH	961,437	1,027,82'	66,384	5.9%	79,543	-13,'54
MA balance (6 counties	384,023	461,566	77,543	20.2%	2',381	55,252
Dayton-Springfield, OH MSA	951,252	968,595	7,436	0.8%	4',540	-34,204
Montgomery County, OH	573,809	565,866	-7,943	-1.4%	27,529	-35,472
MA balance (3 counties	377,463	392,832	'5,379	4.'%	'4,111	1,258
Louisville, KY-IN MSA	949,012	1,005,349	56,337	5.0%	42,544	14,'93
Jefferson County, KY	665,123	672,900	7,777	1.2%	27,385	-19,508
MA balance (5 counties	283,889	332,949	49,060	17.3%	'5,259	33,80'
Grand Rapids-Muskegon-Holland, MI MSA	937,891	1,052,092	114,201	12.2%	8',750	32,44'
Kent County, MI	500,531	550,388	49,757	9.9%	48,353	1,404
MA balance (3 counties	437,360	501,704	64,444	14.7%	33,407	31,037
Toledo, OH MSA	614,128	608,975	-5,152	-0.8%	3',099	-35,35'
Lucas County, OH	462,361	446,482	'5,879	-3.4%	23,793	-39,572
MA balance (2 counties	151,757	162,494	'0,727	7.'%	7,305	3,421
Youngstown-Warren, OH MSA	600,377	589,206	'',541	-1.9%	9,905	-21,846
Mahoning County, OH	264,806	252,597	'2,209	-4.5%	2,070	-14,279
MA balance (2 counties	335,071	336,609	553	0.2%	7,335	-7,257

Census 2000: How Is Indiana Doing?

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April 1st, Census Day, is long gone. So the census must be over, right? *Wrong*. Thousands of Indiana households have yet to respond to the census. As a result, the US Census Bureau sent out hundreds of enumerators in Indiana to conduct the follow-up and coverage improvement phases of this decennial census. Those efforts, scheduled to end by the end of August 2000, should result in an improved count. In the meantime, we have only the initial mail response rates as of April 25, 2000 to show us what might have happened to our count.

By the end of April, Indiana had an overall initial response of 67%, compared to 72% after the 1990 Census. These response rates are termed initial because they do not include late mailings (what, Hoosiers procrastinate? Never!). They also include what may later be found to be vacant housing units and housing units that don't receive mail at the home but at a post office (this situation caused what may have been significant problems in rural portions of our state). Bottom line? These response rates do not represent the final tally, but do give an indication of the quality of initial census efforts. See **Figures 1** and **2**.

We do know, based on the rates the Census Bureau has provided publicly thus far, that Indiana's counties, cities and towns had lower response rates in 2000 than they did in 1990. Indiana led the nation during the 1990 Census, but had the second largest decline, in percentage terms, of the 50 states. Why? Based on our experiences with the Indiana Census Awareness (ICAUSE) project and the connections made with communities throughout the state, we believe (1) that the Master Address File was incomplete and incorrect—we based this on information from the Bureau itself and on reports from many communities in Indiana that established neighborhoods did not receive questionnaires; (2) that people were more apathetic and sometimes even angry at the governmental intrusion than has been witnessed in previous decades; and (3) that the partnership efforts on the part of the Census Bureau were primarily one-way—local officials were expected to comply with rules and regulations that impeded or prohibited participation in many of the geographic adddress list verification and awareness programs. Many Indiana communities complained that they were expected to be full time employees for the Census but with no pay. For this reason, we believe that Congress should seriously consider providing funds that could be administered through, for example, the Community Development Block Grant Program. In this way, the federal government could direct seed monies to communities to encourage early and diligent participation in boundary and address verification, the two most critical components to conducting the Census. Less than 50 percent of Indiana's local governments participated in Census 2000 partnership programs. Recommendation to the Bureau for next time: involve localities early and listen to what they say; they know their citizens.

What Went Well?

Communities throughout Indiana were grateful that the State of Indiana put funding toward a Census Awareness Program that deployed awareness specialists throughout Indiana to help "get the count out." About 200 communities established complete count committees that actively involved their residents through media, events, displays, and other interesting and unique activities. Hundreds of newspaper articles and television and radio stories ran during March and April, most of them in support of the Census. In those communities that made *The Census* a cause, the spirit of cooperation was palpable, evidenced by the sincere belief of many Hoosiers that "everyone counts."

Recommendations for 2010

As part of the ICAUSE final report, a set of recommendations for communities for the next census were formulated based on population size. Here are some that apply to any sized community:

- Establish a census subcommittee for the city council, to focus on what has been and what should be in the next census. As community data from the census becomes available next year, this committee can review the data and apply it to city work.
- Start a census fund for 2010 promotion. This way, by 2009, city activities can gear up without spending time chasing funding.
- Appoint a city employee in 2008 to make plans for a committee on awareness to begin its work in 2009. Establish connections with the regional office of the Census Bureau early.

For more detail on response rates and the ICAUSE recommendations to cities and towns by size of community, turn to the web at www.census.indiana.edu.

Figure 1

1990 Initial Mail Response Rates

Figure 2

2000 Initial Mail Response Rates

State Rate = 67%
U.S. Rate = 65%

- 75% or More (3)
- 70% - 74% (26)
- 65% - 69% (40)
- 60% - 64% (17)
- Less than 60% (6)

As of April 25, 2000

City	Est. Pop.	Mail-back Rate
Carmel	42,074	77%
Greenwood	33,419	73%
Noblesville	25,983	73%
Valparaiso	25,931	73%
Merrillville	30,571	72%
Portage	33,030	72%
Fishers	25,591	71%
Goshen	25,262	71%
Mishawaka	45,310	71%
West Lafayette	27,975	71%
Columbus	32,250	70%
Lafayette	44,583	70%
Evansville	122,779	69%
Fort Wayne	185,716	68%
Jeffersonville	26,018	68%
New Albany	38,265	68%
Richmond	37,091	68%
Hammond	78,212	66%
Kokomo	45,149	66%
South Bend	99,417	66%
Anderson	58,528	64%
Elkhart	43,673	64%
Lawrence	34,561	64%
Marion	28,812	64%
Bloomington	65,065	62%
Indianapolis	751,557	62%
Muncie	67,476	62%
Terre Haute	53,355	60%
Michigan City	32,626	59%
Gary	108,469	58%
East Chicago	30,885	51%

# of Cities: 31
Avg. Mail Response: 66.9%
State Avg.: 67%