

# **NOACA**

## **Technical Memorandum**

### **COUNTY POPULATION ESTIMATES: 2002**



The Northeast Ohio Areawide Coordinating Agency (NOACA) is a public Organization serving the counties of and municipalities & townships within Cuyahoga, Geauga, Lake, Lorain and Medina (covering an area with 2.1 million people). NOACA is the agency designated or recognized to perform the following functions:

- **Serve as the Metropolitan Planning Organization (MPO), with responsibility for comprehensive cooperative and continuous planning for highways, public transit, and bikeways, as defined in the Transportation Equity Act for the 21st Century.**
- **Perform continuous water quality, transportation-related air quality and other environmental planning functions.**
- **Administer the area clearinghouse function, which includes providing local government with the opportunity to review a wide variety of local or state applications for federal funds.**
- **Conduct transportation and environmental planning and related demographic, economic and land use research.**
- **Serve as an information center for transportation and environmental and related planning.**
- **At NOACA Governing Board direction, provide transportation and environmental planning assistance to the 172 units of local, general purpose government.**

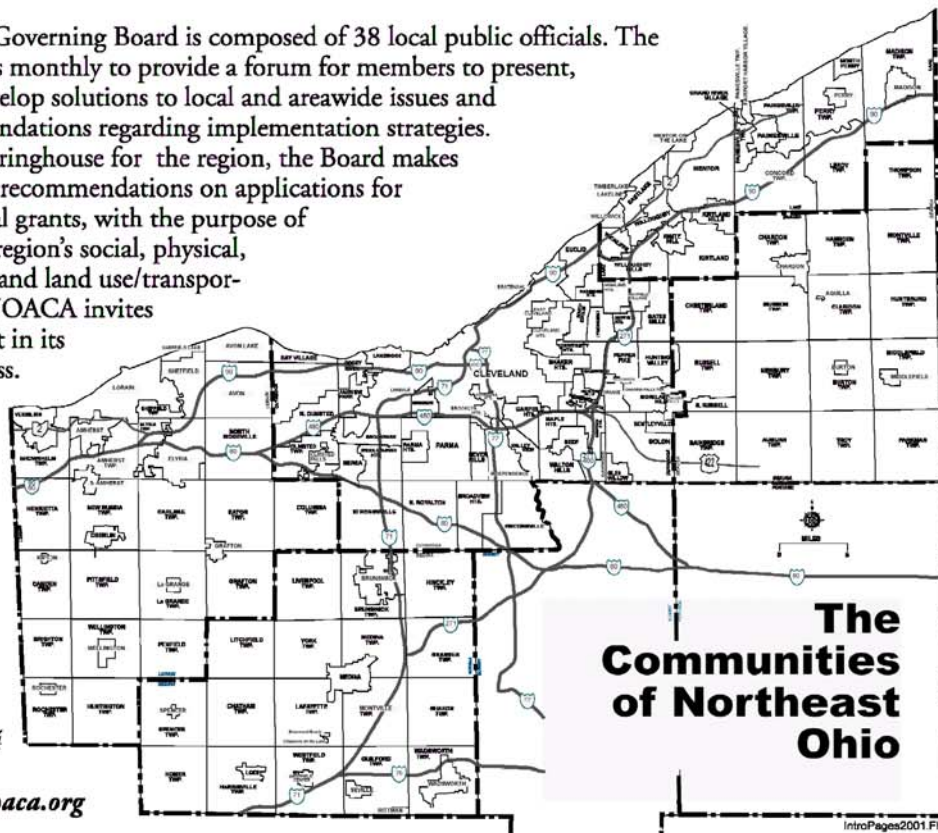
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### Communication Coordinators:

Sharon Hosek  
Cheryl Onesky

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# County Population Estimates: 2002

May 2003

Prepared by

**NORTHEAST OHIO AREAWIDE COORDINATING AGENCY**

Principal Author:

Robert W. Layton

BETTY C. BLAIR  
BOARD PRESIDENT

HOWARD R. MAIER  
EXECUTIVE DIRECTOR

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# County Population Estimates: 2002

## Technical Memorandum

May 2003

### INTRODUCTION

On April 17, 2003 the Census Bureau released estimates of county population for 2002.<sup>1</sup> This memorandum presents these estimates and explores their implications for northeast Ohio. In addition, the estimates and growth patterns are used to evaluate the NOACA population projections.

### CURRENT ESTIMATES

The county population estimates for 2002 show a continuation of the population theme of NOACA, viz., regional stability and internal redistribution. As Table 1 shows, regional population was unchanged from Census 2000, while county patterns ranged from a loss of 15,000 in Cuyahoga County to a gain of 7,000 in Medina County. Ohio's population increased almost 70,000, or 0.6 percent.

Using the state's percentage gain as a standard, all counties in the NOACA region except Cuyahoga had an above average increase. To the south, Portage and Summit Counties exceeded and equaled, respectively, the state's rate of increase, while Ashtabula County suffered a slight decrease. In sum, the seven county region gained 5,000 people while the eight county Standard Consolidated Statistical Area (SCSA) increased by 4,800.

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<sup>1</sup> In brief, the estimates methodology starts with the county's population as enumerated in Census 2000, adds births, subtracts deaths (data obtained from State health departments), and accounts for domestic migration through individual Federal income tax returns and international migration through national data files. Separate estimates are produced for the population under age 65 and the population aged 65 and older, mainly because different data are used to measure migration for the two groups.

Note the numbers are not rounded. The estimates are given in whole numbers and thus are used in that manner. In reality, there is a margin of error associated with the county estimates.

Also, be aware of the terminology used in this memorandum. By convention, "estimates" refer to a previous time period, while "projections" refer to a future time period.

TABLE 1

## County Population Change: 2000 to 2002

COUNTY/REGION	Census	Estimated	CHANGE:	
	Population 4/1/2000	Population. 7/1/2002	Number	Percent
OHIO	11,353,140	11,421,267	68,127	0.6
Cuyahoga County	1,393,978	1,379,049	-14,929	-1.1
Geauga County	90,895	92,980	2,085	2.3
Lake County	227,511	229,004	1,493	0.7
Lorain County	284,664	288,360	3,696	1.3
Medina County	151,095	158,439	7,344	4.9
NOACA	2,148,143	2,147,832	-311	0.0
Portage County	152,061	153,886	1,825	1.2
Summit County	542,899	546,381	3,482	0.6
Seven Counties	2,843,103	2,848,099	4,996	0.2
Ashtabula County	102,728	102,515	-213	-0.2
Cleveland SCSA	2,945,831	2,950,614	4,783	0.2

Source: U S Census Bureau, Census 2000 and county estimates for 2002

Table 2 provides the detail of these changes: births, deaths, and net migration. As shown, Cuyahoga County's decline of 15,000 was due to negative net migration. The county gained approximately 10,000 from natural increase, i.e., births minus deaths, but lost 25,000 to net out-migration. The remaining four counties had a positive migration pattern, with Medina County gaining 5,200. In the larger regions, both Summit and Ashtabula Counties had negative migration patterns, although both were less than 1,000.

TABLE 2

County Population and Components of Change  
2000 to 2002

COUNTY/REGION	Census Population 4/1/2000	Births	Deaths	Net Migration	Estimated Population. 7/1/2002
Cuyahoga County	1,393,978	44,638	34,406	-24,925	1,379,049
Geauga County	90,895	2,663	1,447	918	92,980
Lake County	227,511	6,094	4,704	220	229,004
Lorain County	284,664	8,749	5,670	790	288,360
Medina County	151,095	4,593	2,468	5,179	158,439
NOACA	2,148,143	66,737	48,695	-17,818	2,147,832
Portage County	152,061	3,878	2,438	486	153,886
Summit County	542,899	16,405	11,742	-875	546,381
Seven Counties	2,843,103	87,020	62,875	-18,207	2,848,099
Ashtabula County	102,728	3,006	2,643	-530	102,515
Cleveland SCSA	2,945,831	90,026	65,518	-18,737	2,950,614

Source: U S Census Bureau, Census 2000 and county estimates  
for 2002

The extent of movement from Cuyahoga County is rather large from a historical perspective. Over the decade of the 1990s, the county lost 71,000 people to out-migration, while in the first two years of the current decade it has lost 35 percent of that amount.

Data provided by the Internal Revenue Service shows the detail of county-to-county migration.<sup>2</sup> The IRS data show the number of movers into a county from each county in the U. S. and from abroad. Likewise, the data show the moves from a county to all other counties and abroad.<sup>3</sup> This file then facilitates an examination of migration at two levels: first, northeast Ohio counties with, literally, the rest of the world, and second, northeast Ohio counties with themselves.

Table 3 shows each county's migration exchange with the outside region for the 1990 to 2000 time period. For example, Ashtabula County received 17,340 migrants from outside northeast Ohio and sent 21,029 to that larger area. The net exchange, shown in the last column, was a negative 3,689. The significance here is the last column which

<sup>2</sup> The data are taken from individual tax returns and include the respondent filing the return plus claimed exemptions. Returns are monitored on a year-over-year basis to determine movers and non-movers.

<sup>3</sup> The file lists individual counties sending or receiving ten or more returns.

shows that each county had a negative migration exchange with the larger region outside northeast Ohio. This is especially significant when recalling that the 1990s was a period of major economic expansion. Employment in the NOACA region increased by 140,000, while the eight county region added 210,000 jobs<sup>4</sup>. Despite these unprecedented gains, more people left the region than moved in.

TABLE 3  
Northeast Ohio Counties' Net Migration With  
Extra-Region  
1990 - 2000

	IN	OUT	NET
ASHTABULA	17,340	21,029	-3,689
CUYAHOGA	200,050	229,989	-29,939
GEAUGA	12,450	16,389	-3,939
LAKE	28,245	35,034	-6,789
LORAIN	47,368	63,474	-16,106
MEDINA	32,414	36,687	-4,273
PORTAGE	32,127	36,542	-4,415
SUMMIT	116,121	130,628	-14,507
REG TOTAL	486,115	569,772	-83,657

Source: Internal Revenue Service,  
County-to-County Migration

Further analysis of the migration data for the 1990s settles on movement within northeast Ohio. First, note the file documents that 44 percent of the total migration out of Cuyahoga County settled in another of the seven counties in northeast Ohio. After accounting for net movement with these seven counties, the data show 24 percent of the Cuyahoga out-migrants settled in Medina County, 21 percent in Summit County, 19 percent in Lorain County, and 17 percent in Lake County (Table 4).

The last two columns of Table 4 document the impact of this movement on the recipient counties. Column 4 shows the summation of each county's net migration with the other seven counties. Thus, for example, Ashtabula County had a net gain of 4,704 migrants from the other seven counties, while Geauga County had a net gain of 7,298. The final column shows the proportion of net gain that came from Cuyahoga County. Again using Ashtabula County as an example, 30 percent of its net gain (or 1,409 out of 4,704) came from Cuyahoga County. A scan of the final column shows three counties (Summit, Lorain, and Lake) with net migration from Cuyahoga County that exceeds 100 percent. The interpretation is that without Cuyahoga County, these counties would have had negative migration.

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<sup>4</sup>U. S. Department of Commerce, Bureau of Economic Analysis, "Regional Economic Information System 1969-2000". The BEA file includes both full and part time employment.

TABLE 4  
Intracounty Net Migration  
1990 – 2000

	Cuyahoga County Net Migration With Eight County Region		County Net Migration With Region	
	Number	Percent	Number	Percent from .Cuyahoga
Ashtabula	1,409	3	4,704	30
Geauga	6,696	9	7,298	92
Lake	12,014	17	5,784	208
Lorain	13,830	19	12,055	115
Medina	17,537	24	21,332	82
Portage	5,619	8	7,721	73
Summit	15,133	21	13,344	113

Source: Internal Revenue Service, County-to-County Migration

In summation, Table 3 presented the very startling observation that each of the eight counties in northeast Ohio had a negative migration exchange with the total region outside northeast Ohio, i.e., each county sent more migrants out than it received. Given this negative out-flow from the region, Table 4 showed that positive migration into a northeast Ohio county was the result of regional redistribution, primarily from Cuyahoga County. The eight county region did not attract outside growth, but rather shuffled population within northeast Ohio. See Appendix Table A1 for the detail of the county-to-county moves.

### STATE AND NATIONAL RANKINGS

Within Ohio, Franklin County had the largest population gain over the two year period, with an increase of 17,836, while Warren County had the largest proportional gain with a 14 percent increase. Medina County ranked fifth in both categories. Cuyahoga County had the largest decline, while Hamilton County (Cincinnati) was second with a loss of 11,582, which helped fuel the aforementioned gain in Warren County.

On the national scale, the 2002 data show Cuyahoga County ranked 25<sup>th</sup> largest county in the nation. Franklin County is 33<sup>rd</sup>, and Hamilton County is 56<sup>th</sup>. For the record, Los Angeles County, CA with 9,806,577 people is the nation's largest.

## CONCLUSIONS

The settlement patterns noted in the estimates can also be used to evaluate the current NOACA population projections. Table 5 compares the estimated 2002 population with NOACA's 2002 projection, as interpolated from the 2000 and 2005 projections. Note first the regional projection is quite accurate, less than one percent below the Census estimate. Further, two counties, Lorain and Cuyahoga, are also within one percent of the estimated figure. The largest discrepancy is Medina County, which has an estimated population nine percent higher than its projected value.

TABLE 5

Evaluation of County Population Projections

	Census Estimate for 2002	NOACA Projection for 2002	PROJ - EST		NOACA Projection for 2025	
			Number	Percent	Compact	Trend
Cuyahoga County	1,379,049	1,389,000	9,951	0.7	1,405,800	1,321,500
Geauga County	92,980	88,180	-4,800	-5.2	90,000	103,000
Lake County	229,004	220,980	-8,024	-3.5	225,600	225,800
Lorain County	288,360	288,280	-80	0.0	294,300	325,100
Medina County	158,439	143,640	-14,799	-9.3	146,600	186,600
NOACA	2,147,832	2,130,080	-17,752	-0.8	2,162,300	2,162,000

Source: U S Census Bureau, County estimates for 2002 and NOACA projections

A more significant problem posed in Table 5 is a comparison of the 2002 estimates with the 2025 projection, recalling that the Compact projection serves as the agency's official statement. Note that Cuyahoga County's current population is below its projected figure, and the current figure is on a downward trend while the projection shows the county increasing. Note also the other four counties have an estimated current population that exceeds their projected 2002 figure. Further, in three of the four counties, Geauga, Lake, and Medina, the estimated 2002 population exceeds the projected population for 2025.

The situation does not improve appreciably when evaluating the Trend projection. While it is unlikely the 2000 – 2002 numerical change in county population will continue in a linear pattern, assume for a moment it does. Medina County will then reach its Trend projection in 3.8 years, and indeed will more than double in population by 2025. Cuyahoga County will decline to its projected 2025 figure in 3.9 years. Geauga County

will achieve its Trend figure in 4.8 years, and Lorain County in 9.9. Lake County has already exceeded its Trend figure.

Clearly revisions are required. In recent communication with the State Department of Development, it was learned that draft county population projections based on Census 2000 will be released by the end of May, at latest. The State projections typically reflect trends between the preceding two censuses and do not attempt to include development policies or goals, nor projected economic conditions. To that end, the projections will likely show a continuation of the conditions described here. While the Compact projections, per se, cannot be achieved, the philosophy should not be abandoned. The new projections can serve as an appropriate tool to rethink regional development patterns and engage the Governing Board in the process.

The starting point for these discussions should acknowledge the following points. First, despite steady population, northeast Ohio continues to lose migrants. Second, any positive migration within the individual counties is primarily at the expense of Cuyahoga County. Third, there is no indication these patterns will change.

Appendix Table A1  
 County Gross Migration Flows: 1990 to 2000

1990-2000	TO:												
FROM:	ASHTABULA	CUYAHOGA	GEAUGA	LAKE	LORAIN	MEDINA	PORTAGE	SUMMIT	REG TOTAL	OTHER OUT	TOTAL OUT	NET 90-00	
ASHTABULA		2,236	1,768	5,423	213	21	551	631	10,843	21,029	31,872	1,015	
CUYAHOGA	3,645		15,303	37,941	37,688	33,053	12,933	36,741	177,304	229,989	407,293	-102,177	
GEAUGA	2,940	8,607		6,517	91	96	2,976	1,508	22,735	16,389	39,124	3,359	
LAKE	7,715	25,927	8,697		772	643	1,383	2,795	47,932	35,034	82,966	-1,005	
LORAIN	219	23,858	159	772		4,151	530	1,678	31,367	63,474	94,841	-4,051	
MEDINA	ND	15,516	119	441	3,056		755	8,241	28,128	36,687	64,815	17,059	
PORTAGE	516	7,314	2,436	849	412	787		21,986	34,300	36,542	70,842	3,306	
SUMMIT	512	21,608	1,551	1,773	1,190	10,709	22,893		60,236	130,628	190,864	-1,163	
REG TOTAL	15,547	105,066	30,033	53,716	43,422	49,460	42,021	73,580	412,845	569,772	982,617	-83,657	
OTHER IN	17,340	200,050	12,450	28,245	47,368	32,414	32,127	116,121	486,115				
TOTAL IN	32,887	305,116	42,483	81,961	90,790	81,874	74,148	189,701	898,960				

Source: Internal Revenue Service