

# **Are They Better Off? Municipal Annexation and the Socioeconomic Well- Being of a City's Lowest-Income Residents**

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# Research Objectives

1. Examine and test the impact of municipal annexation or consolidation on socio-economic outcomes for residents of neighborhoods inside the original city limits.
2. Develop a GIS method for making temporal comparisons that use present-day and historical boundaries as a weak form of natural experiment

# Genesis of the Research

- Our research regarding legacy cities highlighted differences between “landlocked” central cities and central cities with the option to annex or consolidate surrounding land.\*
- This observation reinforced our decision to re-conceptualize legacy cities as legacy *regions*.
- St. Louis “Better Together” 2019
- We used the example of Cleveland and Columbus in a working paper but realized that the phenomena deserves a closer look.
- We are testing the observations & assertions made by David Rusk among others: *Cities without Suburbs* (1993) and the update (Johns Hopkins 2013)

\* [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3672696](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3672696)



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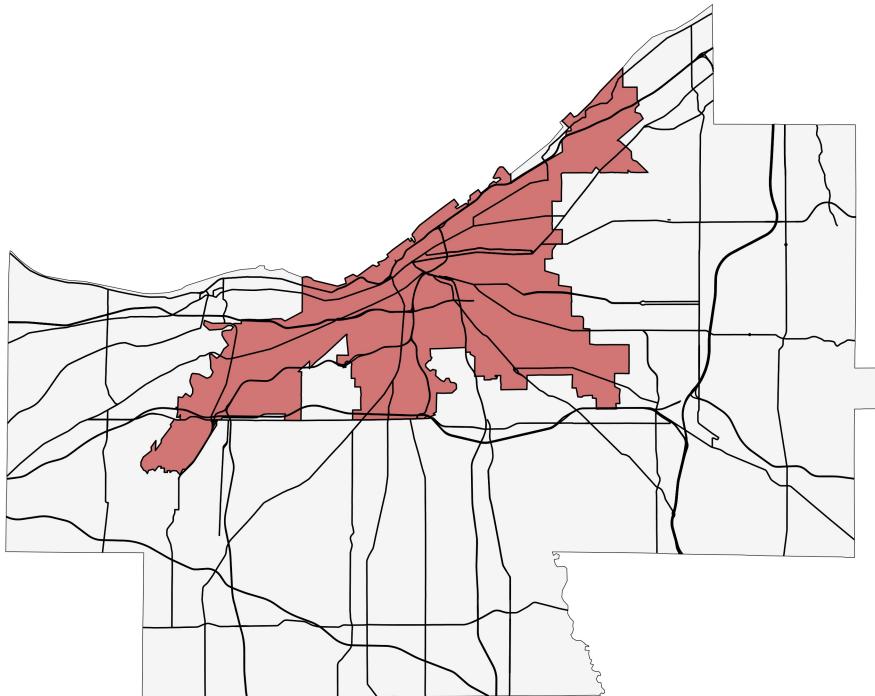
# Initial observation

- We carried out a simple comparison of two cities—Cleveland and Columbus—across two time periods—1950 and 2000.
- Cleveland is a “landlocked” city, bordered on all sides by other jurisdictions (or a lake).
- Columbus was *not* densely surrounded by incorporated municipalities in 1950. Mayor Sensenbrenner began to use the water and sewer as an incentive to annex in 1954.
- Advantage of comparing Cleveland and Columbus is that state-wide heterogeneity is controlled for

# Method

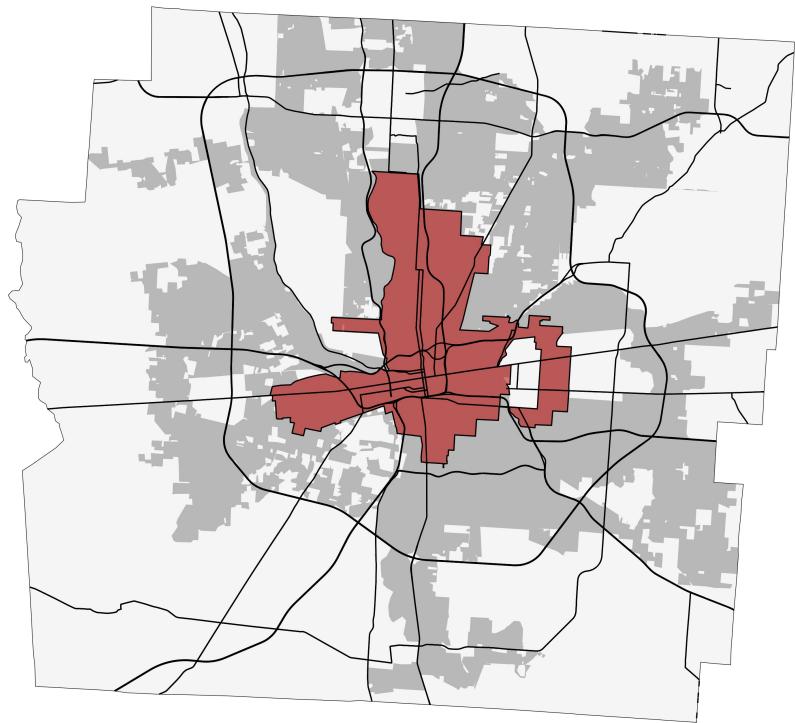
- We calculated the population for Columbus in 2010 as if it had not annexed new land since 1950.
  1. Import USGS historical survey maps into Google earth and manually trace the polygon of historic boundary
  2. Perform GIS intersection between traced “historic boundary” file and smaller present-day administrative geographies (e.g., blocks or block groups)
  3. Aggregated the present-day population counts (or other additional variable) of census blocks within historic boundary
- We also calculated the population for Columbus in 1950 as if its present-day boundaries had *always* been in place.
  1. Start with 1950 population for Franklin County
  2. Subtract population totals pertaining to all townships/cities that were not annexed (an imprecise measure, but roughly captures the desired value)

# Then and Now: Cleveland and Columbus



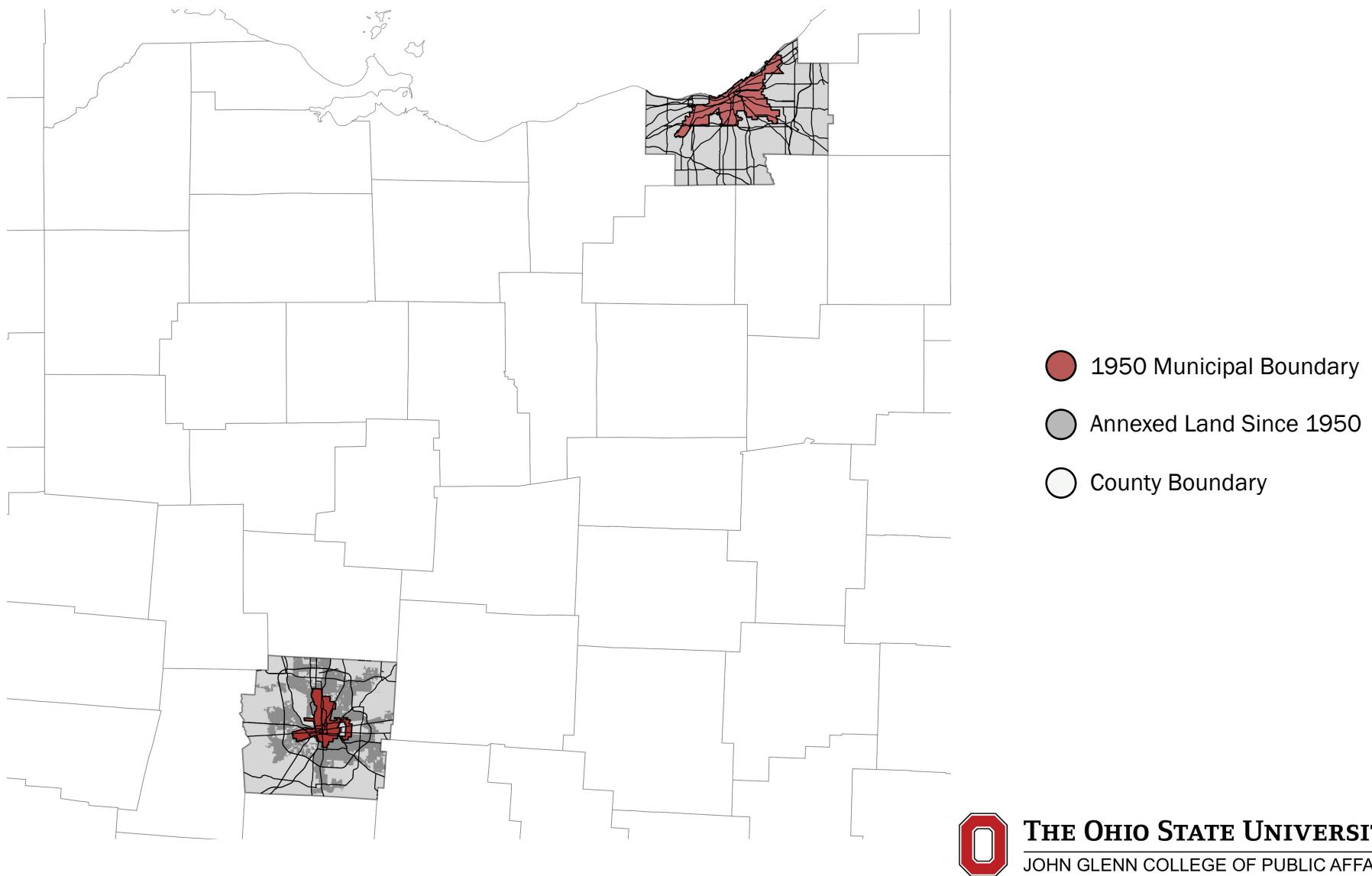
Cleveland

- 1950 Municipal Boundary
- Annexed Land Since 1950
- County Boundary



Columbus

# Then and Now: Cleveland and Columbus



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# Then and Now: Cleveland and Columbus

Cleveland

1950

82 square miles and & water

Population: 915,000

School Districts: 2

2010 82 square miles

2017 Population: 385,000

School Districts: 2

Columbus

1950

40 square miles

Population: 376,000

School Districts: 1

2010 233 square miles

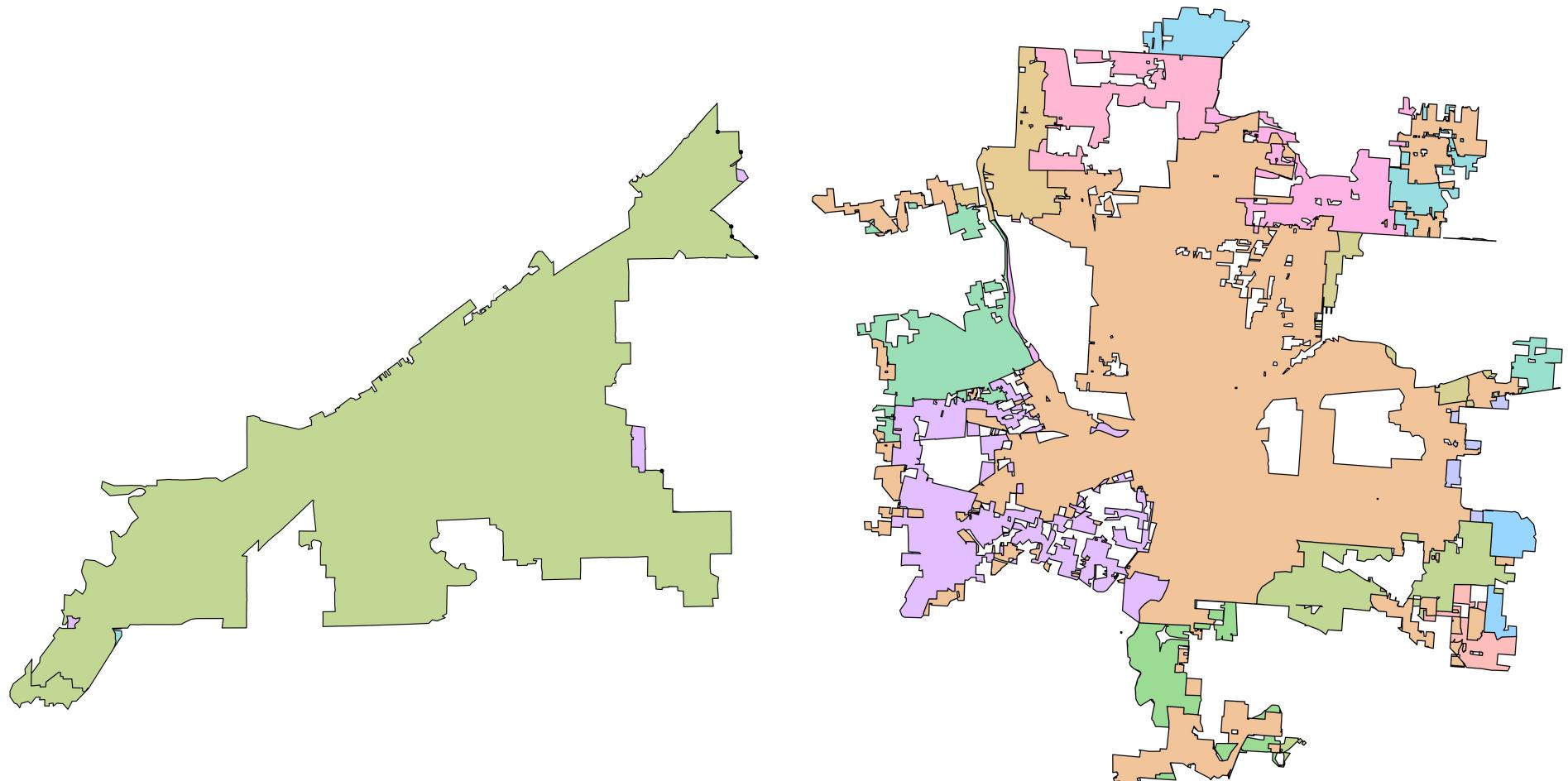
2017 Population 880,000

School Districts: 10



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# School Districts Comparison



# The Comparison

Municipality	1950 Population	2000 Population	2010 Population	1950 - 2000 % Change
Cleveland	914,808	478,403	396,815	-47.7%
Columbus (1950 Boundary)	375,901	263,210*	297,131*	-30%*
Columbus (Present-Day Boundary)	456,884*	711,033	787,033	55.6%

\* Indicates a value estimated in the analysis

# Data Sources

- U.S. Decennial Census (population)
- TIGER/Line Shapefiles (current municipal boundaries)
- U.S. Geological Survey (historic municipal boundaries)

# Impact on residents and the municipal corporation

## People

- Poverty
- Income growth
- Integration
- Health outcomes

## David Rusk's fiscal variables

- Bond rating
- Tax rateables

# Going forward, we are asking for your thoughts & observations

Do we need matched pairs?

Comparable cities? Suggestions please

Indianapolis

Louisville (match with Cincinnati?)

Nashville

Jacksonville

Is this a valid method of comparing the impact of annexation on the quality of life of residents of neighborhoods inner-city neighborhoods ?



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# Ohio 1950 Census

35-16

## OHIO

Table 6.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1930 TO 1950—Con.

County and minor civil division	1950	1940	1930	County and minor civil division	1950	1940	1930	County and minor civil division	1950	1940	1930
<b>Franklin County</b>	<b>503,410</b>	<b>388,712</b>	<b>361,055</b>	<b>Gallia County</b> —Con.				<b>Guernsey County</b> —Con.			
Bexley township	12,378	8,705	7,598	Gallipolis township	8,905	8,506	7,809	Millwood township	1,400	1,400	1,472
Bexley city	12,378	8,705	7,598	Gallipolis city	7,371	7,832	7,106	Quaker City village	655	634	613
Blendon township <sup>21</sup>	7,173	5,010	4,369	Green township	1,346	1,070	1,109	Salesville village	187	213	193
Minerva Park village <sup>21</sup>	238			Greenfield township	605	757	603	Monroe township	457	393	506
Westerville village	4,112	3,146	2,879	Guyan township	1,313	1,500	1,270	Oxford township	764	913	606
Brown township	9,471	6,600	6,651	Crown City village	501	364	298	Fairview village (part)	182	201	210
Clinton township <sup>21</sup>	9,471	4,599	2,788	Harrison township	772	880	857	Richland township	1,248	1,763	2,053
Franklin township <sup>21</sup>	10,127	13,868	11,770	Huntington township	1,331	1,327	1,286	Lore City village (part)	140	187	178
Marble Cliff village	497	531	518	Vinton village	378	387	344	Senecaville village	588	808	993
Valley View village <sup>21</sup>	611			Morgan township	912	800	791	Spencer township	980	1,001	1,050
Grandview Heights township <sup>21</sup>	7,859			Ohio township	877	1,207	1,153	Cumberland village	557	521	558
Grandview Heights city <sup>21</sup>	7,859	6,960	8,358	Perry township	881	807	815	Valley township	2,381	3,084	3,402
Hamilton township	4,556	3,123	2,888	Raccoon township	1,299	1,045	1,042	Pleasant City village	511	663	687
Lockbourne village	376	372	299	Centerville village	142	113	127	Washington township	291	369	358
Oetzl village	1,049	771		Rio Grande village	388	204		Westland township	613	647	680
Jackson township	6,023	4,424	3,663	Springfield township	1,551	1,637	1,429	Wheeling township	483	560	625
Grove City village	2,339	1,787	1,648	Walnut township	1,030	1,165	983	Wills township	1,145	1,222	1,152
Urbancrest village <sup>21</sup>	828			Geauga County	26,646	19,480	15,414	Lore City village (part)	219	262	256
Jefferson township	2,273	1,035	1,451	Auburn township	1,075	833	668	Washington village	323	207	358
Madison township <sup>21</sup>	5,331	4,400	4,152	Bainbridge township	2,026	1,563	920				
Canal Winchester village (part) <sup>21</sup>	1,187	1,046	906	Burton township	1,886	1,543	1,253	Hamilton County	723,952	621,987	589,356
Groveport village	1,165	1,052	946	Burton village	382	761	597	Anderson township <sup>21</sup>	10,330	6,002	4,834
Marion township <sup>21</sup>	9,038	5,701	12,406	Chardon township	3,374	2,682	2,456	Newtown village	1,462	1,146	939
Hansford village	922	223	220	Chardon village	2,478	2,001	1,818	Cincinnati city <sup>21</sup>	503,098	455,010	451,160
Mifflin township <sup>21</sup>	8,251	4,926	6,018	Chester township	2,097	1,351	806	Colorain township	7,473	4,627	3,064
Gahanna village	598	445	417	Clarendon township	1,508	1,089	761	Columbian township <sup>21</sup>	23,645	14,825	30,338
Montgomery township <sup>21</sup>	375,901	306,087	290,564	Aquilla village <sup>21</sup>	388			Amberley village (part) <sup>21</sup>	281		
Columbus city <sup>21</sup>	375,901	308,087	290,564	Hambden township	980	726	604	Golf Manor village <sup>21</sup>	3,003		
Norwich township	2,561	2,002	1,746	Hunting Valley village (part)	47	38		Indian Hill village (part) <sup>21</sup>	1,685		
Hilliard village	810	583	465	Huntsburg township	1,137	920	885	Madeira village (part)	1,635	1,143	950
Perry township <sup>21</sup>	3,426	8,023	5,255	Middlefield township	2,508	2,081	1,666	Mariemont village <sup>21</sup>	3,614		
Plain township	1,615	1,277	1,148	Middlefield village	1,141	932	726	Miford village (part)	60	60	66
New Albany village	288	221	220	Montville township	862	734	634	Silverton village (part)	2,891	1,791	1,191
Pleasant township	2,527	1,826	1,641	Munson township	1,221	884	691	Terrace Park village	1,265	858	719
Harrisburg village (part)	328	288	278	Newbury township	1,041	1,071	679	Crosby township	1,021	942	543
Pratlie township	4,047	2,492	2,178	Parkman township	1,310	1,055	857	Delhi township <sup>21</sup>	6,347	4,176	2,821
New Rome village <sup>21</sup>	75			Russell township	1,695	1,029	763	Elmwood Place township <sup>21</sup>	4,113	4,248	4,882
Sharon township <sup>21</sup>	10,704	4,068	3,459	South Russell village	349	231	141	Elmwood Place village <sup>21</sup>	4,113	4,248	4,882
Riverton village	534	92		Thompson township	1,060	920	860	Green township <sup>21</sup>	27,108	18,403	13,172
Worthington village <sup>21</sup>	8,141	1,569	1,239	Troy township	1,119	981	818	Cheviot city	9,944	9,043	8,046
Truro township <sup>21</sup>	8,556	4,710	3,718	Greene County	58,892	35,863	33,259	Harrison township	2,923	2,435	1,930
Reynoldsburg village <sup>21</sup>	784	652	562	Bath township	20,039	5,987	4,101	Harrison village <sup>21</sup>	1,943	1,653	1,446
Whitehall village <sup>21</sup>	4,877			Fairborn city <sup>21</sup>	7,847			Lockland township	5,736	5,001	
Upper Arlington township <sup>21</sup>	9,024			Beaver Creek township	5,327	3,014	2,657	Lockland city	5,736	6,001	6,703
Upper Arlington city <sup>21</sup>	9,024	5,870	5,059	Caesar Creek township	914	850	838	Miami township	6,070	5,757	5,204
Washington township	1,258	1,128	1,107	Cedarville township	2,323	2,223	2,161	Addyston village	1,051	1,010	1,703
Dublin village (part) <sup>21</sup>	289	237	224	Cleves village	1,981	1,871	1,711	Cleves city	711	679	607
				Jefferson township	1,752	1,062	1,062	North Bend village			
								Norwood township	35,001	34,010	
								Norwood city	35,001	34,010	



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