



MID-OHIO REGIONAL
MORPC
PLANNING COMMISSION

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NOTICE OF A MEETING
REGIONAL INFORMATION & DATA GROUP
MID-OHIO REGIONAL PLANNING COMMISSION
REMOTE MEETING

May 5, 2021, 2:30 pm – 4:30 pm

AGENDA

1. **Welcome**
2. **[Census 2020](#)** – Aaron Schill, MORPC
3. **[How to Get Started with Jupyter Notebook](#)** –
Langdon Sanders, City of Marysville
4. **[National Historical Geographic Information System \(NHGIS\)](#)**
–Dave Van Riper, NHGIS
5. **Group Discussion / Round Robin**
6. **Data News**
7. **RIDG Meeting Format**
8. **Closing Remarks**
9. **Adjourn**

Please notify Lynn Kaufman at 614-233-4189 or LKaufman@morpc.org to confirm your attendance for this meeting or if you require special assistance.

**The next Meeting of the Regional Information & Data Group
will be August 4, 2021 – Location to be Determined.**

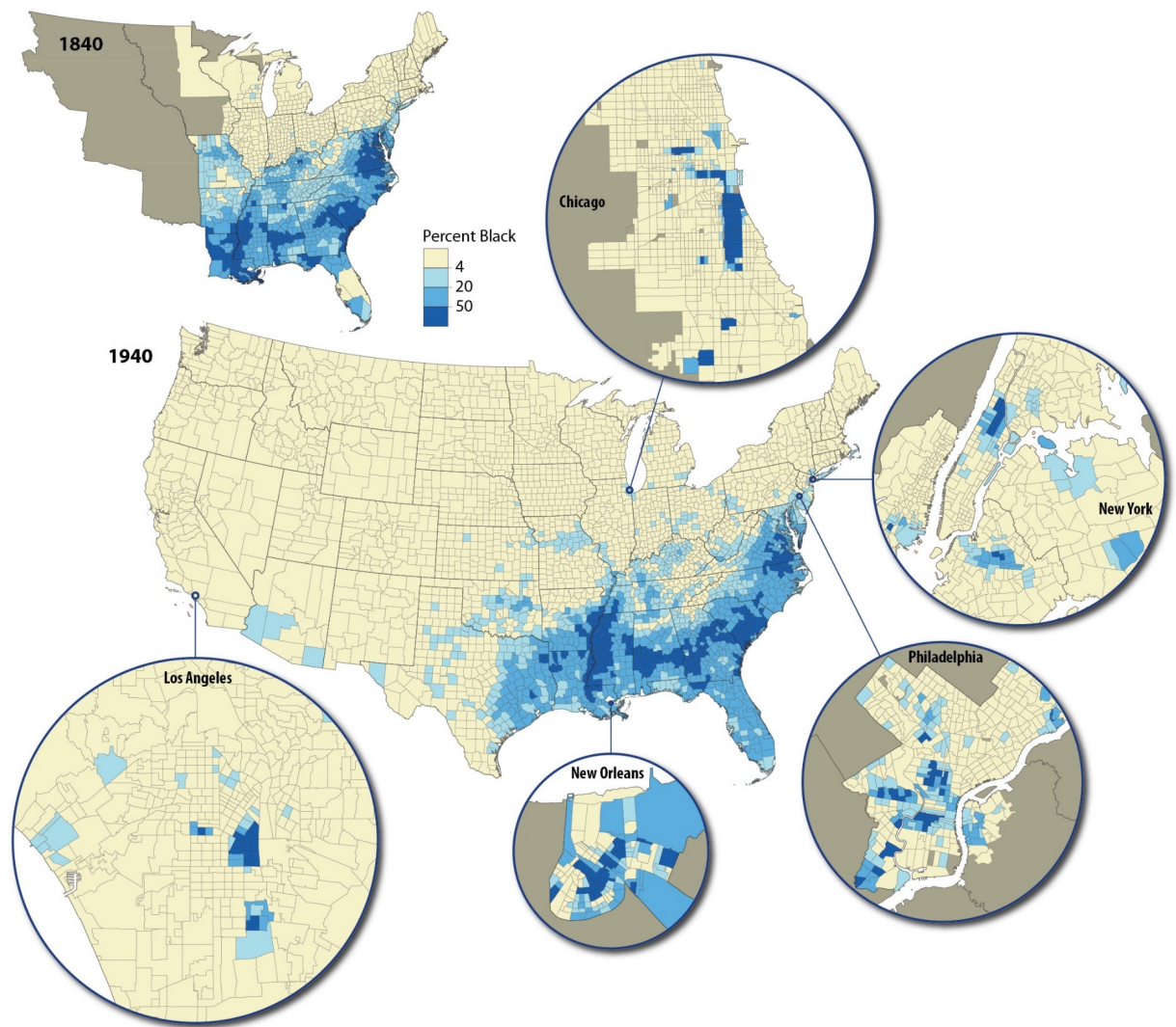
IPUMS NHGIS

David Van Riper
MORPC – May 5, 2021

THE BASICS OF NHGIS

NHGIS

- Geographic U.S. census & survey data
- Summary tables *and* GIS files
- 1790 to the present
- All levels: from nation to census blocks



Alternative: data.census.gov

Explore Census Data

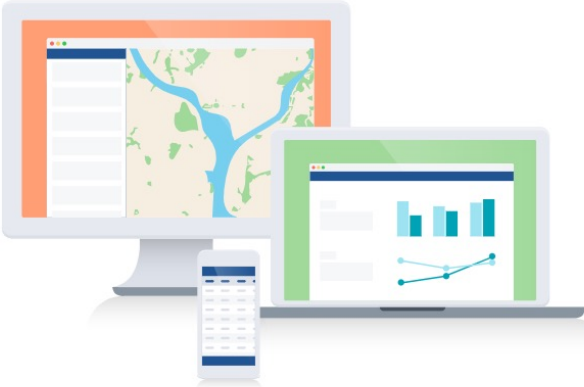
https://data.census.gov/cedsci/

United States
Census
Bureau

Explore Census Data

The Census Bureau is the leading source of quality data about the nation's people and economy.

[Advanced Search](#)



Subjects

Population	Economic	Education	Business
Emergency Preparedness	Employment	Families & Living Arrangements	Health

Send Feedback
cedsci.feedback@census.gov

Alternative: Social Explorer

The screenshot shows the Social Explorer website in a web browser. The browser's address bar displays 'www.socialexplorer.com'. A dark banner at the top of the page states 'Professional license provided by Univ of Minnesota - Twin Cities'. The main navigation bar includes the 'Social Explorer' logo, links for 'Maps', 'Tables', and 'Help', and 'Log In' and 'Sign Up' buttons. The central content area features a large map of the United States with numerous orange circles of varying sizes representing demographic data points. To the left of the map, the text 'Visually Explore Demographic Data' is displayed, followed by a description: '220 years of demographic data, 25,000 maps, hundreds of profile reports, 40 billion data elements and 335,000 variables'. Below this text are two buttons: 'Take the Tour' and 'Start Now →'. At the bottom of the page, a 'Clients' section lists logos for The New York Times, Stanford University, GE, Yale University, and Target, with a 'Show more' link to the right.

Social Explorer

www.socialexplorer.com

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Social Explorer®

Maps Tables Help

Log In Sign Up

Visually Explore Demographic Data

220 years of demographic data, 25,000 maps, hundreds of profile reports, 40 billion data elements and 335,000 variables

Take the Tour Start Now →

Clients

The New York Times Stanford University GE Yale University TARGET Show more

Unique to NHGIS

- Historical census tables *and* GIS files
- Universal data filtering & selection
 - All years, levels & data types accessible at once
- Nationwide extent for all* levels
 - *Blocks & block groups available by state
- Historical vital statistics, agriculture, businesses, religious bodies...
- Complete 1970-2010 summary file data
- Time series tables
- **FREE**

developer.ipums.org

IPUMS Developer Portal

Get started

API Program

Workflows & Code

Reference

Forum

Search...



IPUMS APIs

Interact with IPUMS using code

Get started

OUR DATA, YOUR WAY!

Now you can interact with IPUMS data products programmatically! IPUMS APIs allow you to explore and retrieve IPUMS data in a whole new way. You can automate and integrate IPUMS data into your own tools and workflows.

Our first public APIs, the IPUMS Metadata and Data Extract APIs, allow you to submit a JSON request to describe the data you want, monitor our progress

IPUMS API NEWS

December 17, 2019 - NHGIS Metadata and Data Extract APIs have reached v1.0!

October 30, 2019 - We've added shapefiles, extent selection, year selection and breakdown values to the IPUMS NHGIS Metadata and Data Extract Beta APIs! The docs have all the info.

Form titled "DEPARTMENT OF COMMERCE—BUREAU OF THE CENSUS SIXTEENTH CENSUS OF THE UNITED STATES: 1940 POPULATION SCHEDULE 405". The form includes fields for State (Minnesota), Incorporated place (Minneapolis), Ward of city (2nd), Unincorporated place, Institution, and Enumerator (Dwight H. Haddford). It also contains a table for PERSONS 14 YEARS OLD AND OVER—EMPLOYMENT STATUS, with columns for SEX, AGE, and OCCUPATION. The table lists individuals such as Anderson, Antonia, Head, P, W, 58, 3, M, 3, Minneapolis, and others, with their respective employment status and occupation details.



NHGIS GEOMARKER
NATIONAL HISTORICAL GIS

HOME | SELECT DATA | MY DATA | FAQ | HELP | LOG IN



DATA

SELECT DATA

MY DATA HISTORY

USER RESOURCES

ABOUT NHGIS

FAQ

DATA AVAILABILITY

USER'S GUIDE

OVERVIEW OF DATASETS

MAPPING OPTIONS

GEOGRAPHIC CROSSWALKS

ENVIRONMENTAL SUMMARIES

DOCUMENTATION

TABULAR DATA SOURCES

TIME SERIES TABLES

GIS FILES

RELEASE LOG

RESEARCH

CITATION AND USE

RELATED SITES

DOWNLOAD U.S. CENSUS DATA TABLES & MAPPING FILES

The **National Historical Geographic Information System (NHGIS)** provides easy access to summary tables and time series of population, housing, agriculture, and economic data, along with GIS-compatible boundary files, for years from 1790 through the present and for all levels of U.S. census geography, including states, counties, tracts, and blocks. [Read more.](#)

START HERE:

Get Data

WHAT IS IPUMS?

IPUMS provides census and survey data from around the world integrated across time and space. IPUMS integration and documentation makes it easy to study change, conduct comparative research, merge information across data types, and analyze individuals within family and community context. Data and services are available free of charge. [Learn more about IPUMS.](#)

NHGIS NEWS

[2010 CENSUS DEMONSTRATION DATA FOR DIFFERENTIAL PRIVACY](#)

1. 2010 AGE 1 YEAR SUMMARY FILE NOW AVAILABLE 1. MARRIAGE & DIVORCE DATA FOR 1967-2010



IPUMS
NHGIS

[SIGN IN](#) | [IPUMS.ORG](#) | [EXIT DATA FINDER](#)

DATA CART

- 0 SOURCE TABLES
- 0 TIME SERIES TABLES
- 0 GIS BOUNDARY FILES

SHOW SELECTIONS

FILTER » OPTIONS » REVIEW

APPLY FILTERS ?

HOW TO USE THE DATA FINDER

GEOGRAPHIC LEVELS

YEARS


TOPICS

DATASETS

No filters selected.

NHGIS Data Finder

Secure | https://data2.nhgis.org/main



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INCLUDES

Journey to Work

[RESET FILTERS](#)

SELECT DATA ?

1786 SOURCE TABLES

7 TIME SERIES TABLES







818 GIS BOUNDARY FILES

PAGE

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VIEW 1 - 20 OF 1,786

	POPULARITY	TABLE NAME	UNIVERSE	CLASSIFICATIONS	YEAR - DATASET	BREAKDOWNS
	<div></div>	NT51. Working Persons 14 and Over by Means of Transportation to Work	Workers 14 Years and Over (includes Armed Forces)	Means of Transportation to Work (8)	1960_tPH	
	<div></div>	NBT37. Employed Population by Means of Transportation to Work [from printed report]	Employed Persons	Means of Transportation to Work (8)	1960_tPH	
	<div></div>	NT36. Means of Transportation to Work	Workers	Means of Transportation to Work (9)	1970_Cnt4Pb	Race/Ethnicity. Spatial
	<div></div>	NTLOC. Location of Work	Locations of Workplace for Workers 16 Years and Over in Commuter Flow		1980_JTW	Work Location
	<div></div>	NT001. Workers 16 Years of Age and Older in Commuter Flow	Workers 16 Years and Over in Commuter Flow		1980_JTW	Work Location
	<div></div>	NT014. Means of Transportation	Workers 16 Years and Over	Means of Transportation to Work (13)	1980_JTW	Work Location
	<div></div>	NT015. Aggregate Travel Time to Work in Minutes	Workers 16 Years and Over	Means of Transportation to Work (3)	1980_JTW	Work Location
			Workers 16 Years and Over in			

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POPULARITY ▾	TABLE NAME	UNIVERSE	CLASSIFICATIONS	YEAR - DATASET	BREAKDOWNS
	B08301. Means of Transportation to Work	Workers 16 years and over	Means of Transportation to Work (20)	2011_2015_ACS5a	Spatial
	B08303. Travel Time to Work	Workers 16 years and over who did not work at home	Travel Time to Work (12)	2011_2015_ACS5a	Spatial
	B08334. Means of Transportation to Work by Travel Time to Work	Workers 16 years and over who did not work at home	Means of Transportation to Work (12). Travel Time to Work (9)	2011_2015_ACS5a	Spatial
	B08303. Travel Time to Work	Workers 16 years and over who did not work at home	Travel Time to Work (12)	2006_2010_ACS5a	Spatial
	B030A. Means of Transportation to Work	Workers 16 Years and Over	Means of Transportation to Work (7)	2000_SF3a	Spatial
	B08301. Means of Transportation to Work	Workers 16 years and over	Means of Transportation to Work (20)	2006_2010_ACS5a	Spatial
	B08301. Means of Transportation to Work	Workers 16 years and over	Means of Transportation to Work (20)	2010_2014_ACS5a	Spatial
		Workers 16 years and over	Time Leaving Home to Go		

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	POPULARITY	YEAR	GEOGRAPHIC LEVEL	EXTENT	BASIS
+	<div><div></div></div>	1960	Census Tract	United States	2000 TIGER/Line +
+	<div><div></div></div>	1960	Census Tract	United States	2008 TIGER/Line +
+	<div><div></div></div>	1970	State	United States	2000 TIGER/Line +
+	<div><div></div></div>	1970	County	United States	2000 TIGER/Line +
+	<div><div></div></div>	1970	County	United States	2008 TIGER/Line +
+	<div><div></div></div>	1970	Census Tract	United States	2000 TIGER/Line +
+	<div><div></div></div>	1970	Census Tract	United States	2008 TIGER/Line +
+	<div><div></div></div>	1970	Place (Points)	United States	GNIS, TIGER/Line & Census Maps
+	<div><div></div></div>	1970	Standard Metropolitan Statistical Area (by State)	United States	2000 TIGER/Line +

*

- ☐ School Year 2011-2012
- ☐ School Year 2010-2011
- ☐ School Year 2009-2010

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NHGIS Data Finder

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Search, Star, Download, Print icons

TOPICS

POPULATION

HOUSING

AGRICULTURE

BUSINESS AND INDUSTRY

OTHER SUBJECTS

TECHNICAL

TABLE TOPIC FILTER ?

BREAKDOWN FILTER ?

GENERAL

15/ Total Population

CORE DEMOGRAPHICS

15/ Age

15/ Sex

15/ Marriage

Births and Fertility

Deaths

RACE, ETHNICITY, AND ORIGINS

15/ Race

15/ Hispanic Origin

Ancestry

15/ Nativity and Place of Birth

Citizenship

Year of Entry

Language

GEOGRAPHY

15/ Urban, Rural, and Farm Status

Place and Metropolitan Status

Migration and Previous Residence

Population Density

HOUSEHOLDS, FAMILIES, AND GROUP QUARTERS

15/ Households (Termed "Families" before 1940)

15/ Families

Subfamilies

15/ Relationship to Householder

15/ Children in Households

15/ Household and Family Size

15/ Unrelated Individuals

15/ Group Quarters

EDUCATION

15/ Educational Attainment

School Enrollment

Type of School

Literacy

EMPLOYMENT AND COMMUTING

15/ Labor Force and Employment Status

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APPLY FILTERS

GEOGRAPHIC

YEAR

TO

DATA

DATASETS

ALL

SERIES TYPE:

DECENNIAL CENSUS

AMERICAN COMMUNITY SURVEY

AGRICULTURE

RELIGIOUS BODIES

VITAL STATISTICS

COUNTY BUSINESS PATTERNS

OTHER

MODERN CENSUS SUMMARY FILES:

CORE FILES: 100% COUNT

CORE FILES: SAMPLE BASED

SPECIAL & SUPPLEMENTAL FILES

2016 AMERICAN COMMUNITY SURVEY

+ 2016_ACS1 1-Year Data

+ 2012_2016_ACS5a 5-Year Data [2012-2016, Block Groups & Larger Areas]

+ 2012_2016_ACS5b 5-Year Data [2012-2016, Tracts & Larger Areas]

+ 2012_2016_ACS5c 5-Year Data [2012-2016, Summary by Residence 1 Year Ago]

+ 2012_2016_ACS5d 5-Year Data [2012-2016, Summary by Place of Work]

2015 AMERICAN COMMUNITY SURVEY

+ 2015_ACS1 1-Year Data

+ 2011_2015_ACS5a 5-Year Data [2011-2015, Block Groups & Larger Areas]

+ 2011_2015_ACS5b 5-Year Data [2011-2015, Tracts & Larger Areas]

+ 2011_2015_ACS5c 5-Year Data [2011-2015, Summary by Residence 1 Year Ago]

+ 2011_2015_ACS5d 5-Year Data [2011-2015, Summary by Place of Work]

2014 AMERICAN COMMUNITY SURVEY

+ 2014_ACS1 1-Year Data

+ 2010_2014_ACS5a 5-Year Data [2010-2014, Block Groups & Larger Areas]

+ 2010_2014_ACS5b 5-Year Data [2010-2014, Tracts & Larger Areas]

+ 2010_2014_ACS5c 5-Year Data [2010-2014, Summary by Residence 1 Year Ago]

+ 2010_2014_ACS5d 5-Year Data [2010-2014, Summary by Place of Work]

2013 AMERICAN COMMUNITY SURVEY

+ 2013_ACS1 1-Year Data

+ 2011_2013_ACS3 3-Year Data [2011-2013]

+ 2009_2013_ACS5a 5-Year Data [2009-2013, Block Groups & Larger Areas]

+ 2009_2013_ACS5b 5-Year Data [2009-2013, Tracts & Larger Areas]

+ 2009_2013_ACS5c 5-Year Data [2009-2013, Summary by Residence 1 Year Ago]

+ 2009_2013_ACS5d 5-Year Data [2009-2013, Summary by Place of Work]

2012 AMERICAN COMMUNITY SURVEY

+ 2012_ACS1 1-Year Data

+ 2010_2012_ACS3 3-Year Data [2010-2012]

+ 2008_2012_ACS5a 5-Year Data [2008-2012, Block Groups & Larger Areas]

+ 2008_2012_ACS5b 5-Year Data [2008-2012, Tracts & Larger Areas]

+ 2008_2012_ACS5c 5-Year Data [2008-2012, Summary by Residence 1 Year Ago]

+ 2008_2012_ACS5d 5-Year Data [2008-2012, Summary by Place of Work]

CANCEL

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SELECT DATA ?

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	POPULARITY	TABLE NAME	GEOGRAPHIC INTEGRATION	YEARS	GEOGRAPHIC LEVELS
+	<div><div></div></div>	Workers of Working Age* by Means of Transportation to Work [9]	Nominal	1970, 1980, 1990, 2000, 2008-2012	STATE , COUNTY , CTY , SUB , PLACE
+	<div><div></div></div>	Workers 16 Years and Over by Means of Transportation to Work [18]	Nominal	1980, 1990, 2000, 2008-2012	STATE , COUNTY , CTY , SUB , PLACE
+	<div><div></div></div>	Workers 16 Years and Over by Means of Transportation to Work [20]	Nominal	1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Total Commuters (Workers 16 Years and Over Who Did Not Work at Home)	Nominal	1980, 1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Commuters by Travel Time to Work [8]	Nominal	1980, 1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Commuters by Travel Time to Work [12]	Nominal	1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Aggregate Travel Time to Work for Commuters	Nominal	1980, 1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE

nhgis0215_ts_state.csv [Read-Only] - Microsoft Excel non-commercial use

FileHomeInsertPage LayoutFormulasDataReviewViewAdd-Ins

A1GISJOIN

	A	B	C	D	E	F	G	H	I	J
1	GISJOIN	STATE	STATEA	BL1AA1970	BL1AA1980	BL1AA1990	BL1AA2000	BL1AA125	BL1AA125M	BL1AB1970
	GIS Join		State	1970: Persons:	1980: Persons:	1990: Persons:	2000: Persons:	2008-2012:	Margin of error:	1970: Persons:
2	Match			Male ~ Never married	Male ~ Never married	Male ~ Never married	Male ~ Never married	Persons: Male ~ Never married	Persons: Male ~ Never married	Male ~ Now married
3	Code	State Name	Code							
3	G010	Alabama	10	324572	375515	406140	444450	584355	4261	792229
4	G020	Alaska	20	38428	53423	67827	78955	105333	1532	69046
5	G040	Arizona	40	170463	286183	409976	581715	876661	5440	410438
6	G050	Arkansas	50	170171	200864	209851	245874	330745	3312	464000
7	G060	California	60	2102965	2938148	4034185	4343790	5778554	18439	4611973
8	G080	Colorado	80	230115	341985	373157	516816	678866	4145	510105
9	G090	Connecticut	90	306085	369471	412921	385888	496941	3768	706908
10	G100	Delaware	100	52000	58000	60000	65000	122851	1650	126479
11	G110	District Of Co	110	99000	100000	100000	100000	142162	1558	142605
12	G120	Florida	120	596000	600000	600000	600000	2553294	14356	1687636
13	G130	Georgia	130	446917	564696	716125	940487	1299191	7312	1050444
14	G150	Hawaii	150	104625	137448	152188	166715	205985	2060	169920
15	G160	Idaho	160	69395	86794	91380	128613	172169	2427	169553
16	G170	Illinois	170	1115952	1318480	1395167	1495795	1838840	9371	2542632
17	G180	Indiana	180	477592	541264	569459	643222	814989	5228	1222896
18	G190	Iowa	190	271540	301518	281081	318000	375129	2818	665781
19	G200	Kansas	200	223168	241362	244866	281338	345753	3010	542632
20	G210	Kentucky	210	318856	358353	361278	401465	518929	4039	757239
21	G220	Louisiana	220	370838	450684	464285	514633	633702	4170	793188
22	G230	Maine	230	97253	116576	126930	132473	163254	1650	227135
23	G240	Maryland	240	392646	501319	587368	610852	814952	4997	906860
24	G250	Massachusetts	250	622162	743825	832633	817954	981462	5728	1243732
25	G260	Michigan	260	872687	1036241	1078995	1159693	1352844	6714	2021198
26	G270	Minnesota	270	403762	484050	504483	591866	716441	4620	849440
27	G280	Mississippi	280	222569	252992	275422	319922	388559	3394	480663

Time varies by column

nhgis0215_ts_state

Ready

100%

Time varies by column

nhgis0217_ts_state.csv [Read-Only] - Microsoft Excel non-commercial use

GISJOIN											
1	A	B	C	D	E	F	G	H	I	J	K
	GISJOIN	YEAR	STATE	STATEA	NAME	BL1AA	BL1AB	BL1AC	BL1AD	BL1AE	BL1AF
2	GIS Join Match Code	Row Source Year	State Name	State Code	Area Name	Persons: Male ~ Never married	Persons: Male ~ Now married	Persons: Male ~ Now married-- Not separated	Persons: Male ~ Now married-- Separated	Persons: Male ~ Widowed	Persons: Male ~ Divorced
3	G010	1970	Alabama		1 Alabama	324572	792229	772606	19623	34715	29261
4	G010	1980	Alabama		1 ALABAMA	375515	904748	879413	25335	37370	75051
5	G010	1990	Alabama		1 Alabama	406140	925748	898827	26921	40619	115510
6	G010	2000	Alabama		1 Alabama	444450	1012430	982641	29789	45857	164061
7	G010	2008-2012	Alabama		1 Alabama	584355	996641	957174	39467	52899	207461
8	G020	1970	Alaska		2 Alaska	38428	69046	67768	1278	1604	4579
9	G020	1980	Alaska		2 ALASKA	53423	89520	87025	2495	1834	12561
10	G020	1990	Alaska		2 Alaska				4146	2541	22187
11	G020	2000	Alaska		2 Alaska				4146	3422	26344
12	G020	2008-2012	Alaska		2 Alaska				5476	4942	32300
13	G040	1970	Arizona		4 Arizona	170463	410438	403552	6886	14944	21038
14	G040	1980	Arizona		4 ARIZONA	286183	636243	621664	14579	21708	65500
15	G040	1990	Arizona		4 Arizona	409976	817459	792947	24512	32270	125206
16	G040	2000	Arizona		4 Arizona	581715	1141032	1109792	31240	50333	192952
17	G040	2008-2012	Arizona		4 Arizona	876661	1293932	1255797	38135	62655	263025
18	G050	1970	Arkansas		5 Arkansas	170171	464000	454528	9472	23955	19079
19	G050	1980	Arkansas		5 ARKANSA	200864	558303	544680	13623	24086	44078
20	G050	1990	Arkansas		5 Arkansas	209851	563189	548531	14658	24977	70529
21	G050	2000	Arkansas		5 Arkansas	245874	636346	619624	16722	27611	105763
22	G050	2008-2012	Arkansas		5 Arkansas	330745	630722	607327	23395	33244	134161
23	G060	1970	California		6 California	2102965	4611973	4488984	122989	170209	315630
24	G060	1980	California		6 CALIFORN	2938148	5260299	5049511	210788	194463	640946
25	G060	1990	California		6 California	4034185	6348675	6096047	252628	237667	897477
26	G060	2000	California		6 California	4343790	7205642	6949183	256459	278180	1017057
27	G060	2008-2012	California		6 California	5778554	7400001	7123855	276146	311362	1172808

Time varies by row

nhgis0217_ts_state

nhgis0216 ts_1970 state.csv [Read-Only] - Microsoft Excel non-commercial use												
File Home Insert Page Layout Formulas Data Review View Add-Ins												
A1 GISJOIN												
	A	B	C	D	E	F	G	H	I	J	K	L
1	GISJOIN	YEAR	STATE	STATEA	NAME	BL1AA1970	BL1AB1970	BL1AC1970	BL1AD1970	BL1AE1970	BL1AF1970	B
2	GIS Join Match Code	Data File Year	State Name	State Code	Area Name	Persons: Male ~ Never married	Persons: Male ~ Now married	Now married-- Not separated	Persons: Male ~ Now married-- Separated	Persons: Male ~ Widowed	Persons: Male ~ Divorced	P
3	G010	1970	Alabama		1 Alabama	324572	792229	772606	19623	34715	29261	
4	G020	1970	Alaska		2 Alaska	38428	69046	67768	1278	1604	4579	
5	G040	1970	Arizona		4 Arizona	170463	410438	403552	6886	14944	21038	
6	G050	1970	Arkansas		5 Arkansas	170171	464000	454528	9472	23955	19079	
7	G060	1970	California		6 California	2102965	4611973	4488984	122989	170209	315630	
8	G080	1970	Colorado		8 Colorado	230115	510105	501665	8440	17989	26060	
9	G090	1970	Connectic		9 Connectic	306085	706908	692637	14271	31302	21853	
10	G100	1970	Delaware		10 Delaware				4066	5208	4496	
11	G110	1970	District Of		11 District Of				16943	9814	10821	
12	G120	1970	Florida		12 Florida				45569	81012	83596	
13	G130	1970	Georgia		13 Georgia	446917	1050444	1019145	31299	41282	42198	
14	G150	1970	Hawaii		15 Hawaii	104625	169920	167778	2142	6433	8198	
15	G160	1970	Idaho		16 Idaho	69395	169553	167692	1861	6142	8349	
16	G170	1970	Illinois		17 Illinois	1115952	2542632	2486837	55795	122803	108659	
17	G180	1970	Indiana		18 Indiana	477592	1222896	1206358	16538	49784	55706	
18	G190	1970	Iowa		19 Iowa	271540	665781	660244	5537	31358	21556	
19	G200	1970	Kansas		20 Kansas	223168	542632	536569	6063	22798	22475	
20	G210	1970	Kentucky		21 Kentucky	318856	757239	745046	12193	34636	31068	
21	G220	1970	Louisiana		22 Louisiana	370838	793188	765679	27509	36094	25765	
22	G230	1970	Maine		23 Maine	97253	227135	224170	2965	12156	10385	
23	G240	1970	Maryland		24 Maryland	392646	906860	869787	37073	36331	31050	
24	G250	1970	Massachu		25 Massachu	622162	1243732	1217981	25751	66891	41665	
25	G260	1970	Michigan		26 Michigan	872687	2021198	1976907	44291	84358	88150	
26	G270	1970	Minnesota		27 Minnesot	403762	849440	840847	8593	37285	27100	
27	G280	1970	Mississipp		28 Mississipp	222569	480663	465986	14677	25970	15513	

Time varies by file


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File Edit Search View Tools Macros Configure Window Help
[Icons]
nhgis0071_ts_state_codebook.txt
-----
Codebook for NHGIS data file 'nhgis0071_ts_state'
-----
Contents
- Data Summary
- Data Dictionary
- Source Data
- Citation and Use

Additional documentation on NHGIS data sources is available at:
http://internal.nhgis.org/documentation/tabular-data

-----
Data Summary
-----

Time series layout: Time varies by row
Geographic level: State
Measurement times: 1970, 1980, 1990, 2000, 2007-2011

Tables:

1. Persons of Marrying Age* by Sex [2] by Marital Status [6]
   Valid years in file: 1970, 1980, 1990, 2000, 2007-2011
   Code: BL1

2. Persons of Marrying Age* by Sex [2] by Marital Status [5] by Age [7]
   Valid years in file: 1970, 1980, 1990, 2000, 2007-2011
   Code: A34

-----
Data Dictionary
-----

Context Fields
GISJOIN: GIS Join Match Code
YEAR: ROW Source Year
STATE: State Name
STATEA: State Code
NAME: Area Name

Table 1: (BL1) Persons of Marrying Age* by Sex [2] by Marital Status [6]
BL1AA: Persons: Male ~ Never married
BL1AB: Persons: Male ~ Now married
BL1AC: Persons: Male ~ Now married--Not separated
BL1AD: Persons: Male ~ Now married--Separated
BL1AE: Persons: Male ~ widowed
BL1AF: Persons: Male ~ Divorced
BL1AG: Persons: Female ~ Never married
BL1AH: Persons: Female ~ Now married
BL1AI: Persons: Female ~ Now married--Not separated
BL1AJ: Persons: Female ~ Now married--Separated

-----
For Help, press F1
1 1 Read Ovr Block Sync Rec Caps
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File Edit Search View Tools Macros Configure Window Help
nhgis0071_ts_state_codebook.txt

-----
Source Data
-----

Table 1: (BL1) Persons of Marrying Age* by Sex [2] by Marital Status [6]

Time series AA: Persons: Male ~ Never married
Year: 1970
  Source dataset: 1970 Census: Count 2 - 100% Data [Tracts, Urban Areas, Metro Areas, etc.]
  Source table: NT5A. Sex by Age by Marital Status
  Universe: Persons 14 Years and Over
    Variable: [CII005] Male >> 14-19 years >> Never married
    Variable: [CII010] Male >> 20-24 years >> Never married
    Variable: [CII015] Male >> 25-34 years >> Never married
    Variable: [CII020] Male >> 35-44 years >> Never married
    Variable: [CII025] Male >> 45-54 years >> Never married
    Variable: [CII030] Male >> 55-64 years >> Never married
    Variable: [CII035] Male >> 65 years and over >> Never married
Year: 1980
  Source dataset: 1980 Census: STF 1 - 100% Data
  Source table: NT14. Sex by Marital Status
  Universe: Persons 15 Years and Over
    Variable: [C7F001] Male >> Single
Year: 1990
  Source dataset: 1990 Census: STF 1 - 100% Data
  Source table: NP14. Sex by Marital Status
  Universe: Persons 15 Years and Over
    Variable: [ET6001] Male >> Never married
Year: 2000
  Source dataset: 2000 Census: SF 3a - Sample-Based Data [Areas Larger Than Block Groups]
  Source table: NP018C. Population 15 Years and Over by Sex by Marital Status
  Universe: Persons 15 Years and Over
    Variable: [GIZ001] Male >> Never married
Year: 2007-2011
  Source dataset: 2011 American Community Survey: 5-Year Data [2007-2011, Block Groups & Larger Areas]
  Source table: B12001. Sex by Marital Status for the Population 15 Years and over
  Universe: Population 15 years and over
    Variable: [MPG003] Male: Never married

Time series AB: Persons: Male ~ Now married
Year: 1970
  Source dataset: 1970 Census: Count 2 - 100% Data [Tracts, Urban Areas, Metro Areas, etc.]
  Source table: NT5A. Sex by Age by Marital Status
  Universe: Persons 14 Years and Over
    Variable: [CII001] Male >> 14-19 years >> Now married (excludes separated)
    Variable: [CII004] Male >> 14-19 years >> Separated
    Variable: [CII006] Male >> 20-24 years >> Now married (excludes separated)
    Variable: [CII009] Male >> 20-24 years >> Separated
    Variable: [CII011] Male >> 25-34 years >> Now married (excludes separated)
    Variable: [CII014] Male >> 25-34 years >> Separated
    Variable: [CII016] Male >> 35-44 years >> Now married (excludes separated)
    Variable: [CII019] Male >> 35-44 years >> Separated

1 1 Read Ovr Block Sync Rec Caps
```

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	POPULARITY	TABLE NAME	GEOGRAPHIC INTEGRATION	YEARS	GEOGRAPHIC LEVELS
+	<div><div></div></div>	Workers of Working Age* by Means of Transportation to Work [9]	Nominal	1970, 1980, 1990, 2000, 2008-2012	STATE , COUNTY , CTY , SUB , PLACE
+	<div><div></div></div>	Workers 16 Years and Over by Means of Transportation to Work [18]	Nominal	1980, 1990, 2000, 2008-2012	STATE , COUNTY , CTY , SUB , PLACE
+	<div><div></div></div>	Workers 16 Years and Over by Means of Transportation to Work [20]	Nominal	1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Total Commuters (Workers 16 Years and Over Who Did Not Work at Home)	Nominal	1980, 1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Commuters by Travel Time to Work [8]	Nominal	1980, 1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Commuters by Travel Time to Work [12]	Nominal	1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE
+	<div><div></div></div>	Aggregate Travel Time to Work for Commuters	Nominal	1980, 1990, 2000, 2008-2012	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY , SUB , PLACE

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DATA CART

TIME SERIES TABLE DETAILS

[About time series tables](#)

Table: Ac2. Workers 16 Years and Over by Means of Transportation to Work (18)

Years: 1980, 1990, 2000, 2008-2012

Geographic integration: Nominal

Time series in table (18) :

- Persons: Worker ~ 16 years and over ~ Car, truck, or van
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Drove alone
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Carpooled
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Carpooled--In 2-person carpool
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Carpooled--In 3-person carpool
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Carpooled--In 4-person carpool
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Carpooled--In 5- or 6-person carpool
- Persons: Worker ~ 16 years and over ~ Car, truck, or van--Carpooled--In 7-or-more-person carpool
- Persons: Worker ~ 16 years and over ~ Public transportation (excluding ferryboat and taxicab)
- Persons: Worker ~ 16 years and over ~ Public transportation (excluding ferryboat and taxicab)--Bus or streetcar
- Persons: Worker ~ 16 years and over ~ Public transportation (excluding ferryboat and taxicab)--Subway or elevated train
- Persons: Worker ~ 16 years and over ~ Public transportation (excluding ferryboat and taxicab)--Railroad
- Persons: Worker ~ 16 years and over ~ Taxicab
- Persons: Worker ~ 16 years and over ~ Motorcycle
- Persons: Worker ~ 16 years and over ~ Bicycle
- Persons: Worker ~ 16 years and over ~ Walked
- Persons: Worker ~ 16 years and over ~ Other means (including ferryboat)
- Persons: Worker ~ 16 years and over ~ Worked at home

Available geographic levels (4) :

State

Aggregate Travel Time to Work for Commuters	Nominal	1980, 1990, 2000, 2008-2012	COUNTY, TRACT, CTY, SUB, PLACE
			NATION, REGION, DIVISION, STATE, COUNTY, TRACT, CTY, SUB, PLACE

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TIME SERIES TABLE DETAILS

[About time series tables](#)

Table: cs4. Workers of Working Age* by Means of Transportation to Work [9]

Years: 1970, 1980, 1990, 2000, 2008-2012

Geographic integration: Nominal

Time series in table (9) :

- Persons: Worker ~ Of working age* ~ Private auto (1970) or car, truck, or van (since 1980)
- Persons: Worker ~ Of working age* ~ Public transportation (excluding ferryboat and taxicab)
- Persons: Worker ~ Of working age* ~ Public transportation (excluding ferryboat and taxicab)--Bus or streetcar
- Persons: Worker ~ Of working age* ~ Public transportation (excluding ferryboat and taxicab)--Subway or elevated train
- Persons: Worker ~ Of working age* ~ Public transportation (excluding ferryboat and taxicab)--Railroad
- Persons: Worker ~ Of working age* ~ Taxicab
- Persons: Worker ~ Of working age* ~ Walked
- Persons: Worker ~ Of working age* ~ Other means (including ferryboat, motorcycle, and bicycle)
- Persons: Worker ~ Of working age* ~ Worked at home

Available geographic levels (4) :

- State
- County
- County Subdivision
- Place

Data sources:

Dataset	Table
1970 Census: Count 4Pb - Sample-Based Population Data with Race/Ethnicity Breakdown	NT36. Means of Transportation to Work
1980 Census: STF 3 - Sample-Based Data	NT40. Means of Transportation

Aggregate Travel Time to Work for Commuters

Nominal

1980, 1990, 2000, 2008-2012

NATION, REGION, DIVISION, STATE, COUNTY, TRACT, CTY, SUB, PLACE

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TIME SERIES TABLE DETAILS

Data sources:

Dataset	Table
1970 Census: Count 4Pb - Sample-Based Population Data with Race/Ethnicity Breakdown	NT36. Means of Transportation to Work
1980 Census: STF 3 - Sample-Based Data	NT40. Means of Transportation to Work
1980 Census: STF 4Pb - Sample-Based Detailed Population Data with Race/Ethnicity Breakdown	NTPB39. Means of Transportation to Work
1990 Census: STF 3 - Sample-Based Data	NP49. Means of Transportation to Work
2000 Census: SF 3a - Sample-Based Data [Areas Larger Than Block Groups]	NP030A. Means of Transportation to Work
2000 Census: SF 3a - Sample-Based Data [Areas Larger Than Block Groups]	NP030C. Means of Public Transportation
2012 American Community Survey: 5-Year Data [2008-2012, Block Groups & Larger Areas]	B08301. Means of Transportation to Work

Notes:

1970 Negative Values: The 1970 data for this table may include some negative values, which indicate suppressed data. For more information on 1970 suppression codes, see pp. 3-5 in the Electronic Data Processing (EDP) Series section of the *1970 Census Users' Guide*.

Measured features:

Persons

Classification dimensions:

Labor Force and Employment Status

No known comparability issues for this time period.

Aggregate Travel Time to Work for Commuters	Nominal	1980, 1990, 2000, 2008-2012	<div> COUNTY, TRACT, CITY, SUB, PLACE </div>
			<div> <div> NATION, REGION, DIVISION, STATE, COUNTY, TRACT, CTY, SUB, PLACE </div> </div>

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TIME SERIES TABLE DETAILS

Forces personnel" (p. 107). The universe description for Table 36, which provides 1970 means of transportation counts, says nothing about age, but the sum of the table's state counts is 2.6% greater than the sum of workers age 16 years and over from Table 115, suggesting that the means of transportation counts cover a larger universe including workers of age 14 and 15.

Means of Transportation to Work

- 1970 Private Autos:** The 1970 census questionnaire did not separately identify car, truck, and van as options under the means of transportation question, as did later questionnaires. Instead, the 1970 options included "Driver, private auto" and "Passenger, private auto" as options covering this range of vehicles. Accordingly, 1970 tables provide no counts specifically for workers commuting by car, truck, or van, as there were in later years.

In NHGIS time series, 1970 private auto counts are matched with later counts for car, truck, or van, and 1970 counts for "Other means" are matched with combined counts for motorcycle, bicycle, ferryboat, and other means in later years. Given that "Motorcycle" was not a listed option on the 1970 questionnaire, some motorcyclists may have selected the "Private auto" option that year, in which case they would be counted in the "Private auto" time series and not the "Other means" time series. This discrepancy should have affected only a small fraction of the overall counts, given that in 1980, the total number of workers commuting by motorcycle was only 0.5% as large as the number commuting by car, truck, or van.

Relevant source documentation:

- [1970 Census Users' Guide: Electronic Data Processing \(EDP\) Series](#)
- [1970 Census Users' Guide: Census Users' Dictionary](#)
- [1980 Census of Population and Housing: Summary Tape File 4--Technical Documentation: Appendix A. Glossary](#)
- [1990 Census of Population and Housing: Guide, Part B. Glossary](#)
- [2000 Census of Population and Housing: Summary File 3--Technical Documentation: Appendix B. Definitions of Subject Characteristics](#)
- [American Community Survey and Puerto Rico Community Survey: 2012 Subject Definitions](#)

Aggregate Travel Time to Work for Commuters	Nominal	1980, 1990, 2000, 2008-2012	<div> COUNTY, TRACT, CITY, SUB_PLACE </div> <div> NATION, REGION, DIVISION, STATE, COUNTY, TRACT, CTY, SUB_PLACE </div>
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POPULARITY	TABLE NAME	GEOGRAPHIC INTEGRATION	YEARS	GEOGRAPHIC LEVELS
<div><div></div><div></div></div>	Total Population	Nominal	1970, 1980, 1990, 2000, 2010, 2008-2012	STATE, COUNTY, TRACT, CTY, SUB, PLACE
<div><div></div><div></div></div>	Total Population	Nominal	1980, 1990, 2000, 2010, 2008-2012	NATION, REGION, DIVISION, STATE, COUNTY, TRACT, CTY, SUB, PLACE
<div><div></div><div></div></div>	Total Population	Standardized to 2010	1990, 2000, 2010	STATE, COUNTY, TRACT, BLCK, GRP, CTY, SUB, PLACE, CD110TH-112TH, CBSA, URB, AREA, ZCTA
<div><div></div><div></div></div>	Persons by Urban/Rural Status [4]	Nominal	1980, 1990, 2000, 2010	NATION, REGION, DIVISION, STATE, COUNTY, TRACT, CTY, SUB, PLACE
<div><div></div><div></div></div>	Persons by Urban/Rural Status [4]	Standardized to 2010	1990, 2000, 2010	STATE, COUNTY, TRACT, BLCK, GRP, CTY, SUB, PLACE, CD110TH-112TH, CBSA, URB, AREA, ZCTA
<div><div></div><div></div></div>	Persons by Sex [2]	Nominal	1970, 1980, 1990, 2000, 2010, 2008-2012	STATE, COUNTY, TRACT, CTY, SUB, PLACE
<div><div></div><div></div></div>	Persons by Sex [2]	Standardized to 2010	1990, 2000, 2010	STATE, COUNTY, TRACT, BLCK, GRP, CTY, SUB, PLACE, CD110TH-112TH, CBSA, URB, AREA, ZCTA

Nominal integration

	A	B	C	D	E	F	G	H	I	J
1	GISJOIN	STATE	STATEA	BL1AA1970	BL1AA1980	BL1AA1990	BL1AA2000	BL1AA125	BL1AA125M	BL1AB1970
	GIS Join Match		State	1970: Persons: Male ~ Never married	1980: Persons: Male ~ Never married	1990: Persons: Male ~ Never married	2000: Persons: Male ~ Never married	2008-2012: Persons: Male ~ Never married	2008-2012: Persons: Male ~ Never married	1970: Persons: Male ~ Now married
2	Code	State Name	Code							
3	G010	Alabama	10	324572	375515	406140	444450	584355	4261	792229
4	G020	Alaska	20	38428	53423	67827	78955	105333	1532	69046
5	G040	Arizona	40	170463	286183	409976	581715	876661	5440	410438
6	G050	Arkansas	50	170171	200864	209851	245874	330745	3312	464000
7	G060	California	60	2102965	2938148	4034185	4343790	5778554	18439	4611973
8	G080	Colorado	80	230115	341985	373157	516816	678866	4145	510105
9	G090	Connecticut	90	306085	369471	412921	385888	496941	3768	706908
10	G100	Delaware	100	52624	67052	76997	87154	122851	1650	126479
11	G110	District Of Co	110	99908	112013	118273	112516	142162	1558	142605
12	G120	Florida	120	596651	950049	1336469	1702648	2553294	14356	1687636
13	G130	Georgia	130	446917	564696	716125	940487	1299191	7312	1050444
14	G150	Hawaii	150	104625	137448	152188	166715	205985	2060	169920
15	G160	Idaho	160	69395	86794	91380	128613	172169	2427	169553
16	G170	Illinois	170	1115952	1318480	1395167	1495795	1838840	9371	2542632
17	G180	Indiana	180	477592	541264	569459	643222	814989	5228	1222896
18	G190	Iowa	190	271540	301518	281081	318000	375129	2818	665781
19	G200	Kansas	200	223168	241362	244866	281338	345753	3010	542632
20	G210	Kentucky	210	318856	358353	361278	401465	518929	4039	757239
21	G220	Louisiana	220	370838	450684	464285	514633	633702	4170	793188
22	G230	Maine	230	97253	116576	126930	132473	163254	1650	227135
23	G240	Maryland	240	392646	501319	587368	610852	814952	4997	906860
24	G250	Massachusetts	250	622162	743825	832633	817954	981462	5728	1243732
25	G260	Michigan	260	872687	1036241	1078995	1159693	1352844	6714	2021198
26	G270	Minnesota	270	403762	484050	504483	591866	716441	4620	849440
27	G280	Mississippi	280	222569	252992	275422	319922	388559	3394	480663

Nominal integration

1	NHGISCODE	STATE	STATEFP	STATENH	COUNTY	COUNTYFP	COUNTYNH	TRACTA	AV0AA1970	AV0AA1980	AV0AA1990	AV0AA2000	AV0AA2010
2	NHGIS Integrated Geographic Unit Code	NHGIS Integrated State Name	FIPS State Code	NHGIS Integrated State Code	NHGIS Integrated County Name	FIPS County Code	NHGIS Integrated County Code	NHGIS Integrated Census Tract Code	1970: Persons: Total	1980: Persons: Total	1990: Persons: Total	2000: Persons: Total	2010: Persons: Total
73390	G3701190001400	North Carolina	37	370	Mecklenburg	119	1190	1400	3338	2799	2400	2656	2607
73391	G3701190001501	North Carolina	37	370	Mecklenburg	119	1190	1501	4660	6891	9260		
73392	G3701190001502	North Carolina	37	370	Mecklenburg	119	1190	1502	7506				
73393	G3701190001503	North Carolina	37	370	Mecklenburg	119	1190	1503		5047	7081	9191	
73394	G3701190001504	North Carolina	37	370	Mecklenburg	119	1190	1504		4728	4629	4806	6401
73395	G3701190001505	North Carolina	37	370	Mecklenburg	119	1190	1505				2906	3678
73396	G3701190001506	North Carolina	37	370	Mecklenburg	119	1190	1506				6423	
73397	G3701190001507	North Carolina	37	370	Mecklenburg	119	1190	1507					4004
73398	G3701190001508	North Carolina	37	370	Mecklenburg	119	1190	1508					6061
73399	G3701190001509	North Carolina	37	370	Mecklenburg	119	1190	1509					2976
73400	G3701190001510	North Carolina	37	370	Mecklenburg	119	1190	1510					3047
73401	G3701190001601	North Carolina	37	370	Mecklenburg	119	1190	1601	7408				
73402	G3701190001602	North Carolina	37	370	Mecklenburg	119	1190	1602	5815	5401	6735	8346	
73403	G3701190001603	North Carolina	37	370	Mecklenburg	119	1190	1603		3351	3675	4082	4598
73404	G3701190001604	North Carolina	37	370	Mecklenburg	119	1190	1604		4028	6191	6993	
73405	G3701190001605	North Carolina	37	370	Mecklenburg	119	1190	1605					1776
73406	G3701190001606	North Carolina	37	370	Mecklenburg	119	1190	1606					4295
73407	G3701190001607	North Carolina	37	370	Mecklenburg	119	1190	1607					2613
73408	G3701190001608	North Carolina	37	370	Mecklenburg	119	1190	1608					3933
73409	G3701190001609	North Carolina	37	370	Mecklenburg	119	1190	1609					3168
73410	G3701190001700	North Carolina	37	370	Mecklenburg	119	1190	1700	6784	7399			
73411	G3701190001701	North Carolina	37	370	Mecklenburg	119	1190	1701				4111	3749
73412	G3701190001702	North Carolina	37	370	Mecklenburg	119	1190	1702				5151	4881
73413	G3701190001798	North Carolina	37	370	Mecklenburg	119	1190	1798			7840		
73414	G3701190001800	North Carolina	37	370	Mecklenburg	119	1190	1800	5485	4031		4380	

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Nominal integration

1970

1990

2008-
2012

**Detroit Area
Poverty Rates
by County Subdivision**

Poverty Rate (%)

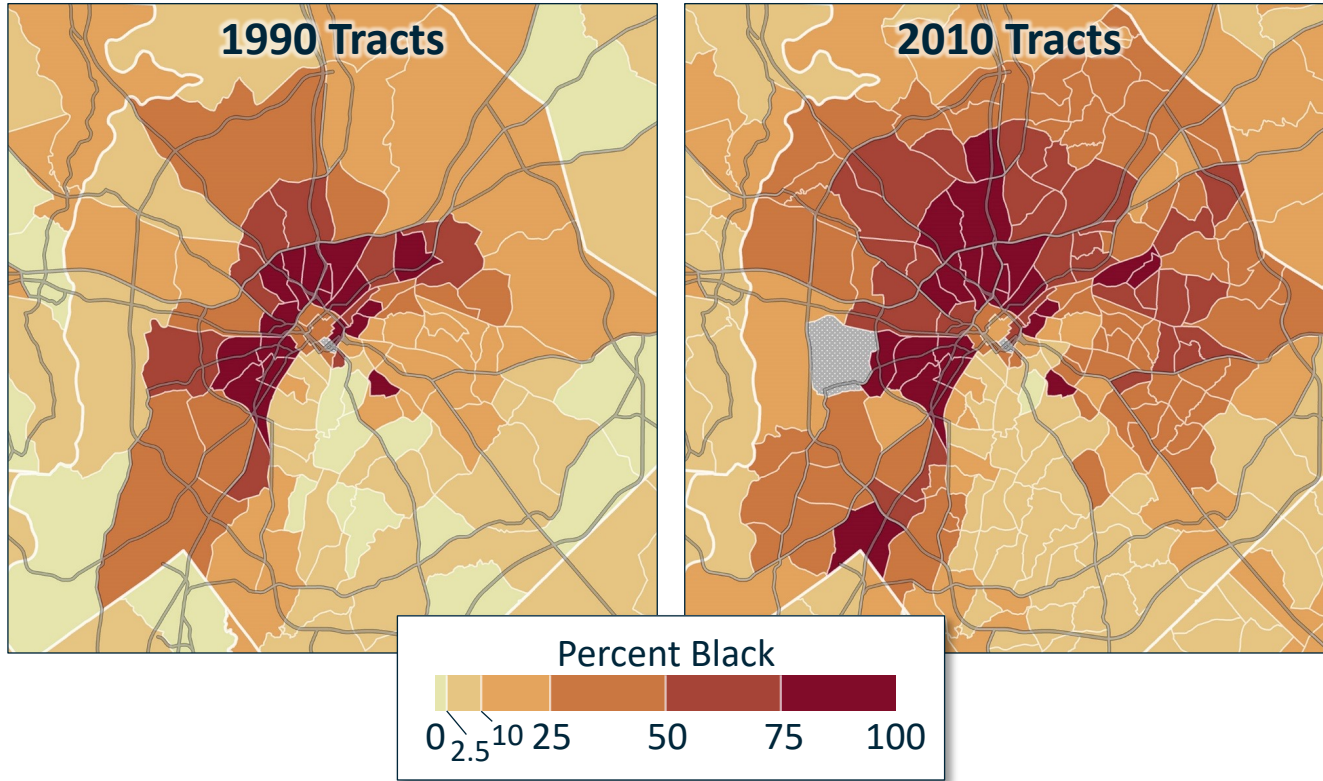
3	6	10	15	21	28	36
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Population

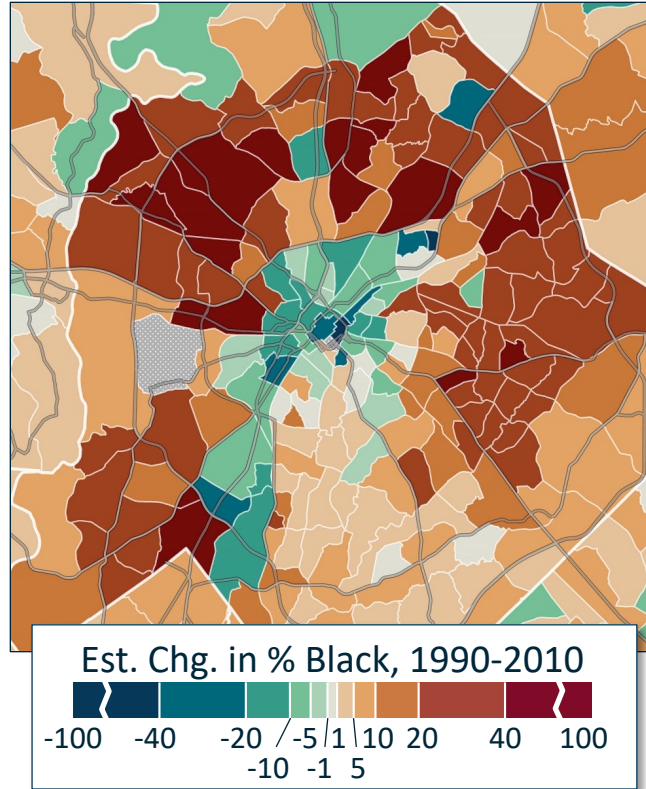
1,000,000
100,000
25,000
5,000
1,000

Nominal integration

Racial
segregation
in Charlotte



Geographic standardization

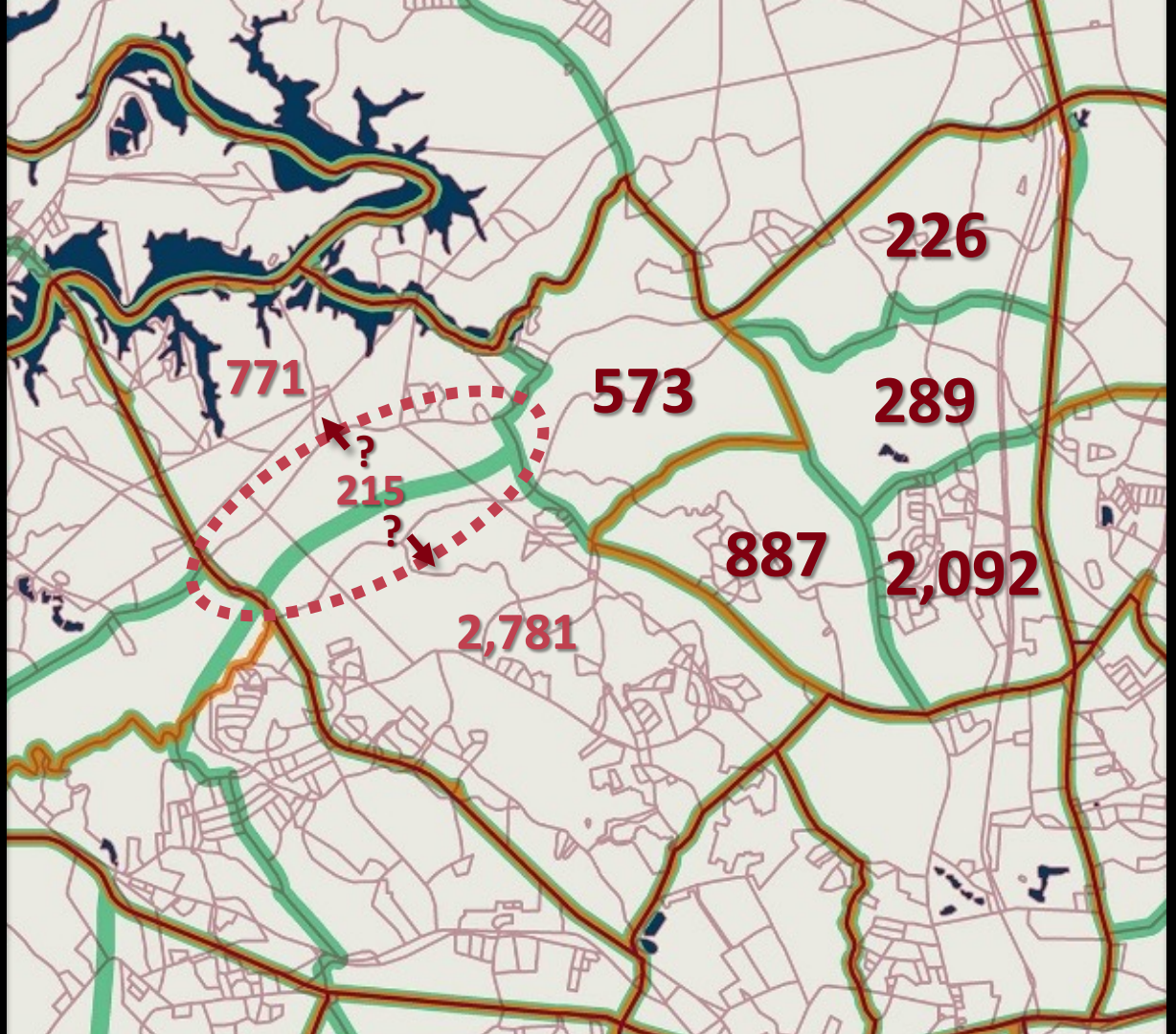
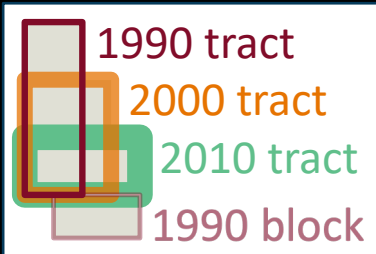


Geographic standardization

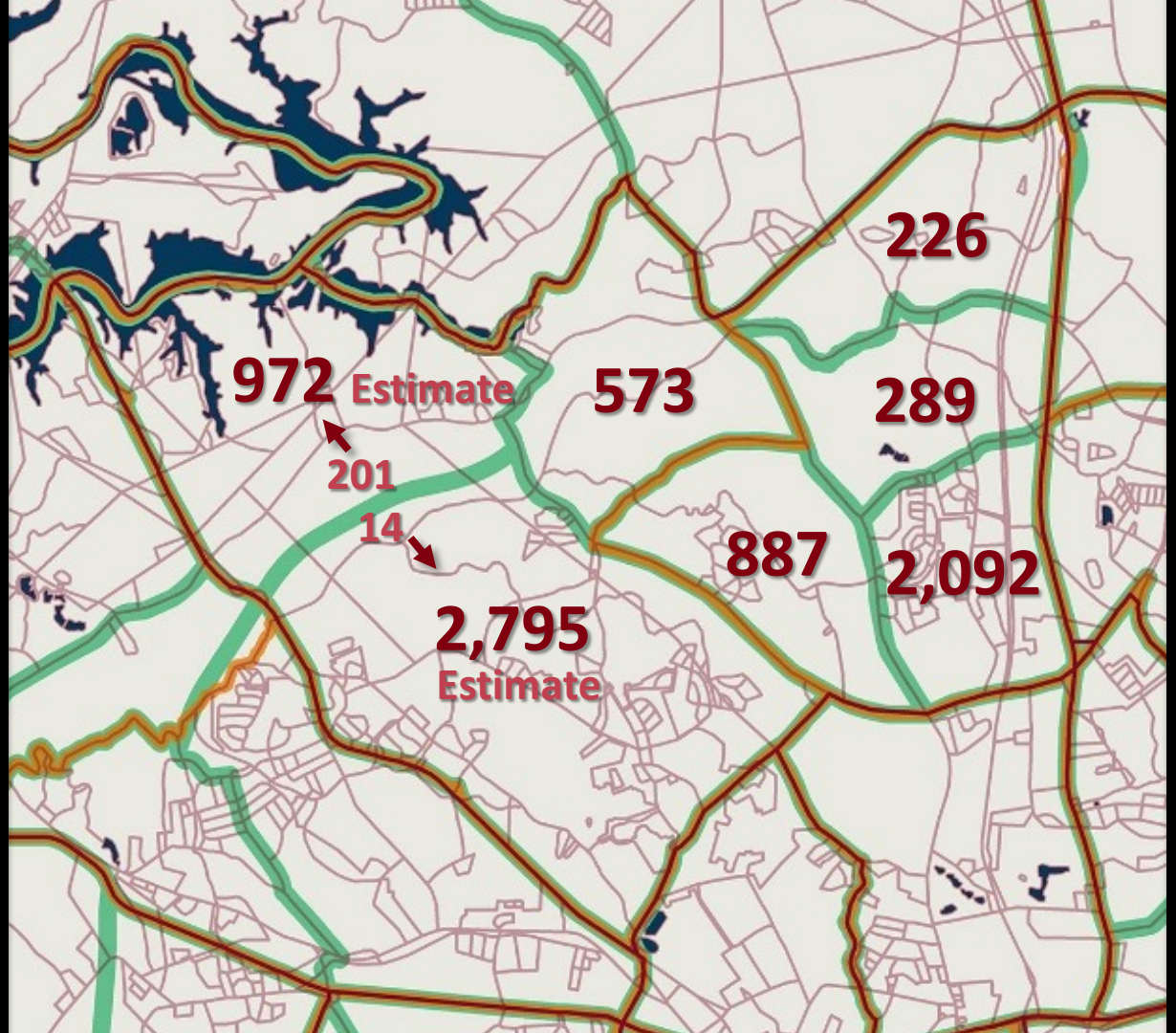
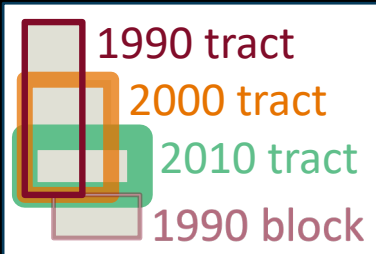
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	GISJOIN	GEOYEAR	STATE	STATEA	COUNTY	COUNTYTA	TRACTA	CL8AA199	CL8AA199	CL8AA199	CL8AA200	CL8AA200	CL8AA200	CL8AA2010
2	GIS Join Match Code	Geography Year	State Name State Name	State Code	County Name County Name	County Code	Census Tract Code	1990: Persons: Total	1990: Persons: Total	1990: Persons: Total	2000: Persons: Total	2000: Persons: Total	2000: Persons: Total	2010: Persons: Total
49315	G3701190001400	2010	North Carolina	37	Mecklenburg Co	119	1400	2389.68	2366	2391	2652.31	2640	2653	2607
49316	G3701190001504	2010	North Carolina	37	Mecklenburg Co	119	1504	4629	4629	4629	4806	4806	4806	6401
49317	G3701190001505	2010	North Carolina	37	Mecklenburg Co	119	1505	2901	2901	2901	2906	2906	2906	3678
49318	G3701190001507	2010	North Carolina	37	Mecklenburg Co	119	1507	3419	3419	3419	4791	4791	4791	4004
49319	G3701190001508	2010	North Carolina	37	Mecklenburg Co	119	1508	3662	3662	3662	4400	4400	4400	6061
49320	G3701190001509	2010	North Carolina	37	Mecklenburg Co	119	1509	3213	3213	3213	3229	3229	3229	2976
49321	G3701190001510	2010	North Carolina	37	Mecklenburg Co	119	1510	3146.1	3146	3211	3194.36	3194	3367	3047
49322	G3701190001603	2010	North Carolina	37	Mecklenburg Co	119	1603	3660	3660	3660	4065	4065	4065	4598
49323	G3701190001605	2010	North Carolina	37	Mecklenburg Co	119	1605	1389	1389	1389	1978	1978	1978	1776
49324	G3701190001606	2010	North Carolina	37	Mecklenburg Co	119	1606	3822	3822	3822	4154	4154	4154	4295
49325	G3701190001607	2010	North Carolina	37	Mecklenburg Co	119	1607	1524	1524	1524	2214	2214	2214	2613
49326	G3701190001608	2010	North Carolina	37	Mecklenburg Co	119	1608	3872	3872	3872	4321	4321	4321	3933
49327	G3701190001609	2010	North Carolina	37	Mecklenburg Co	119	1609	2251.16	1687	2334	2445.55	2137	2635	3168
49328	G3701190001701	2010	North Carolina	37	Mecklenburg Co	119	1701	3303	3303	3303	4111	4111	4111	3749
49329	G3701190001702	2010	North Carolina	37	Mecklenburg Co	119	1702	4537	4537	4537	5151	5151	5151	4881
49330	G3701190001801	2010	North Carolina	37	Mecklenburg Co	119	1801	1813.95	1349	1814	1706.96	1702	1707	1249
49331	G3701190001802	2010	North Carolina	37	Mecklenburg Co	119	1802	2775	2775	2775	2673	2673	2673	2892
49332	G3701190001910	2010	North Carolina	37	Mecklenburg Co	119	1910	4277	4277	4277	4614	4614	4614	5117
49333	G3701190001911	2010	North Carolina	37	Mecklenburg Co	119	1911	4613	4613	4613	5041	5041	5041	5441
49334	G3701190001912	2010	North Carolina	37	Mecklenburg Co	119	1912	5096.84	5014	5661	5506.45	5317	5815	6565
49335	G3701190001914	2010	North Carolina	37	Mecklenburg Co	119	1914	3295	3295	3295	3965	3965	3965	3485
49336	G3701190001915	2010	North Carolina	37	Mecklenburg Co	119	1915	4403	4403	4403	5460	5460	5460	6293
49337	G3701190001916	2010	North Carolina	37	Mecklenburg Co	119	1916	3003.8	2465	3050	3005.23	2508	3009	3725
49338	G3701190001917	2010	North Carolina	37	Mecklenburg Co	119	1917	3050.2	3004	3589	3294.77	3291	3792	3567
49339	G3701190001918	2010	North Carolina	37	Mecklenburg Co	119	1918	2842.4	698	3700	3129	3129	3129	3527
49340	G3701190001919	2010	North Carolina	37	Mecklenburg Co	119	1919	3243.6	2386	5388	3837	3837	3837	3379

nhgis0570_ts_geog2010_tract

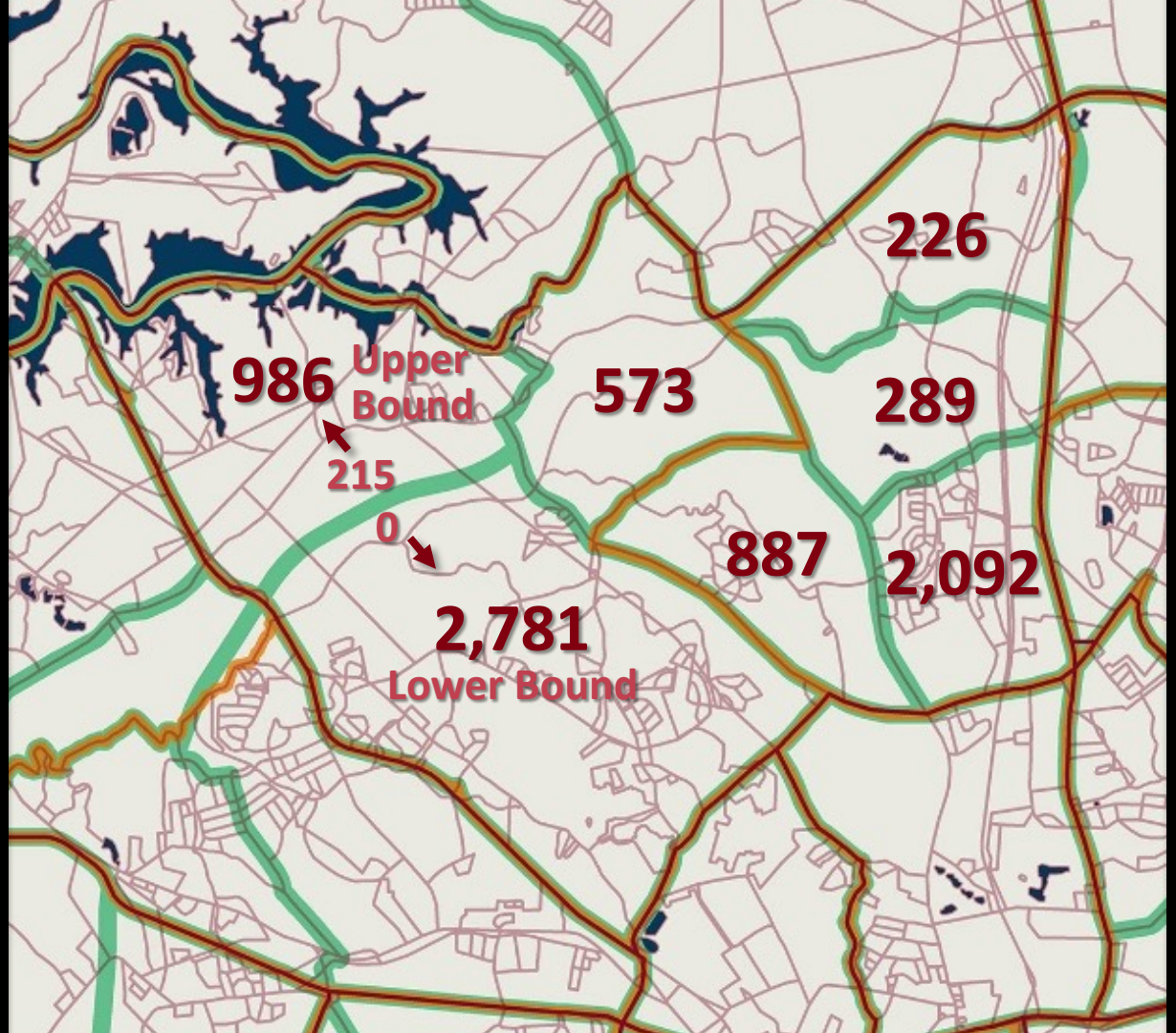
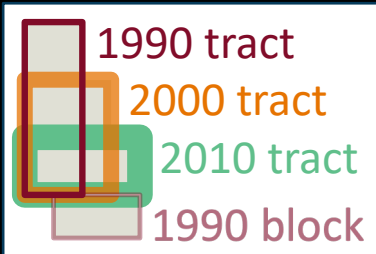
1990 populations of 2010 tracts?



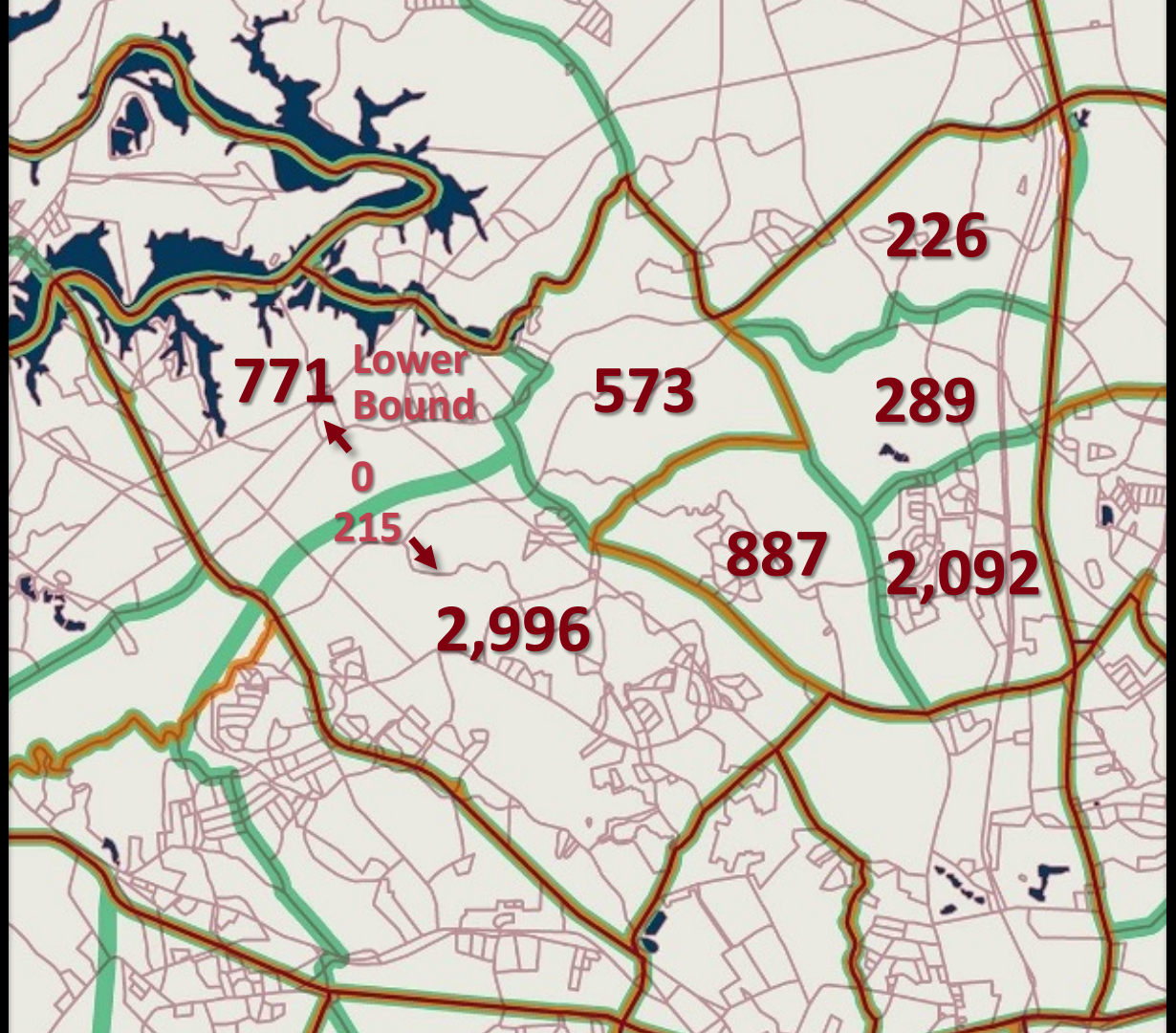
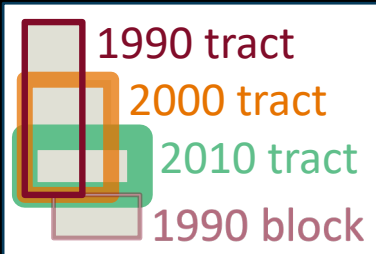
1990 populations of 2010 tracts?



1990 populations of 2010 tracts?



1990 populations of 2010 tracts?



Documentation at nhgis.org

2. **Geographically standardized tables** provide data from multiple times for a single census's geographic units. At this time, NHGIS's standardized time series tables provide 1990, 2000, and 2010 data for *2010 census units*.

To allocate 1990 and 2000 summary data to 2010 census units, NHGIS reaggregates data from the smallest source units for which 1990 and 2000 data are available: census blocks. Where a source block intersects multiple 2010 units, NHGIS applies interpolation to estimate how the source block's characteristics are distributed among the 2010 units.

Detailed methodology:

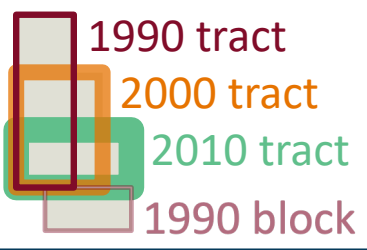
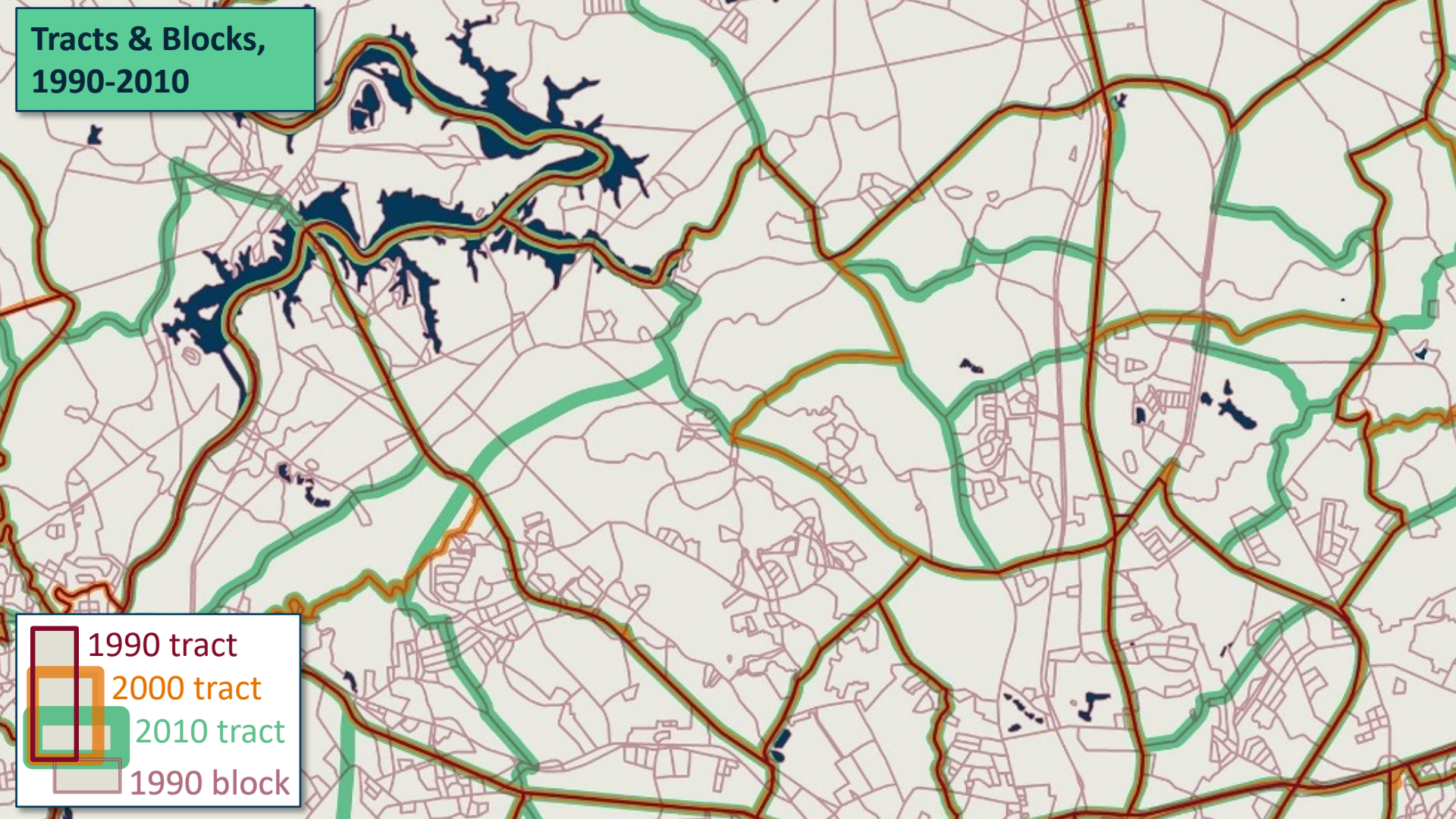
- [2000 Block Data Standardized to 2010 Geography](#)
- [1990 Block Data Standardized to 2010 Geography](#)

For each standardized statistic, NHGIS also supplies lower and upper bounds based on the spatial relationship between the source units and standard units. For example, if there are three 2000 census blocks that straddle a 2010 census unit's boundary, then it is possible that either all or none of the three blocks' 2000 residents were located in the 2010 unit. The upper bound assumes that all residents and housing units in straddling blocks were located in the 2010 unit, and the lower bound assumes that none were. [Bounds for 1990 estimates](#) also take account of additional uncertainty due to accuracy improvements in Census Bureau's geographic data files, which make it impossible to determine exact spatial relationships between 1990 and 2010 units.

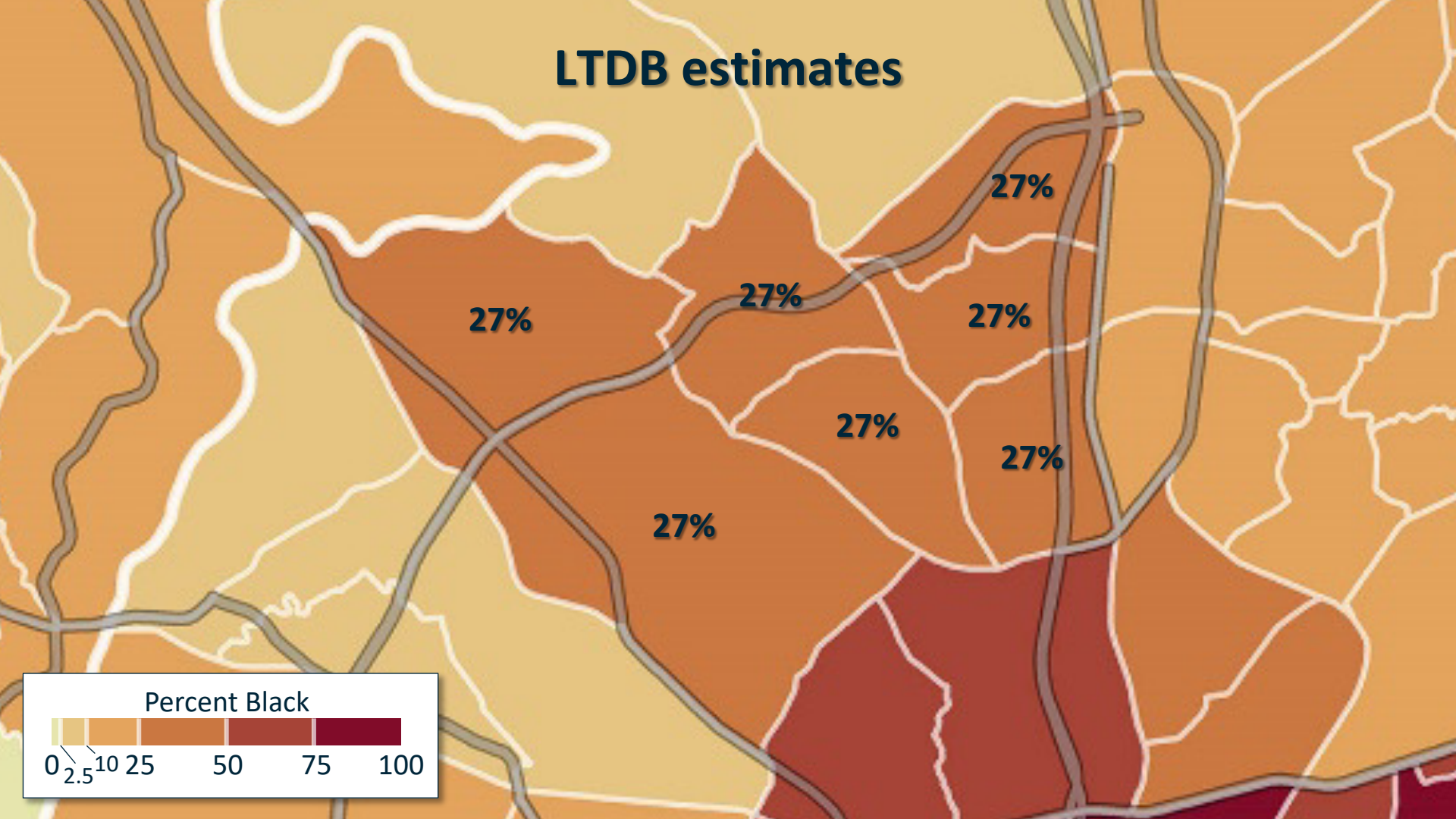
NHGIS has not yet implemented standardization for non-count statistics such as medians and quotients. Therefore, currently available standardized tables supply only count statistics.

NHGIS delivers standardized statistics with two decimal digits of precision in order to reduce the size of rounding errors when users sum estimates. Rounding errors may still

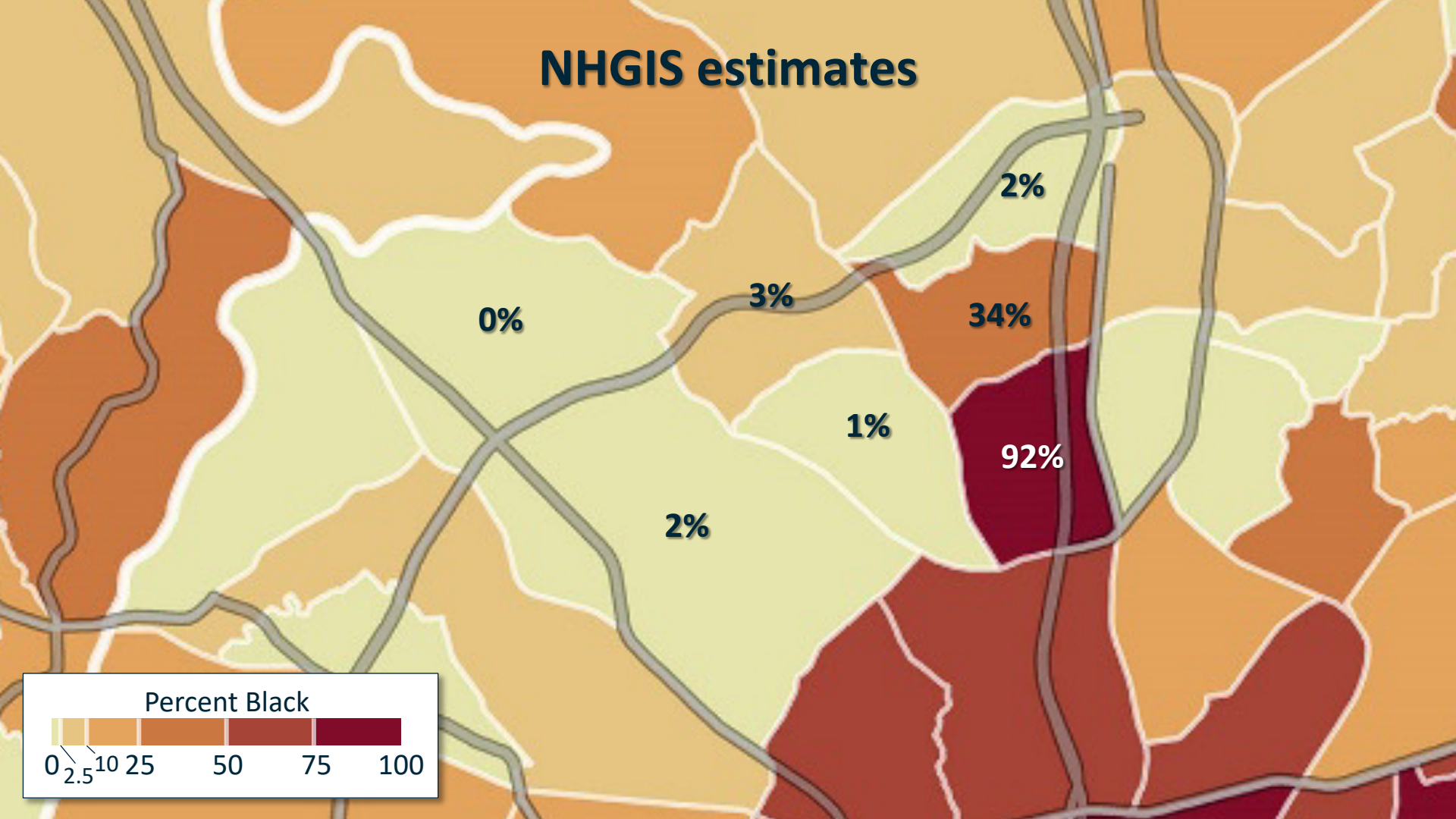
Tracts & Blocks, 1990-2010



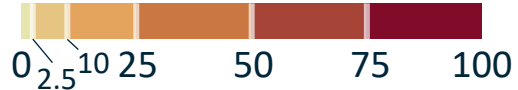
LTDB estimates



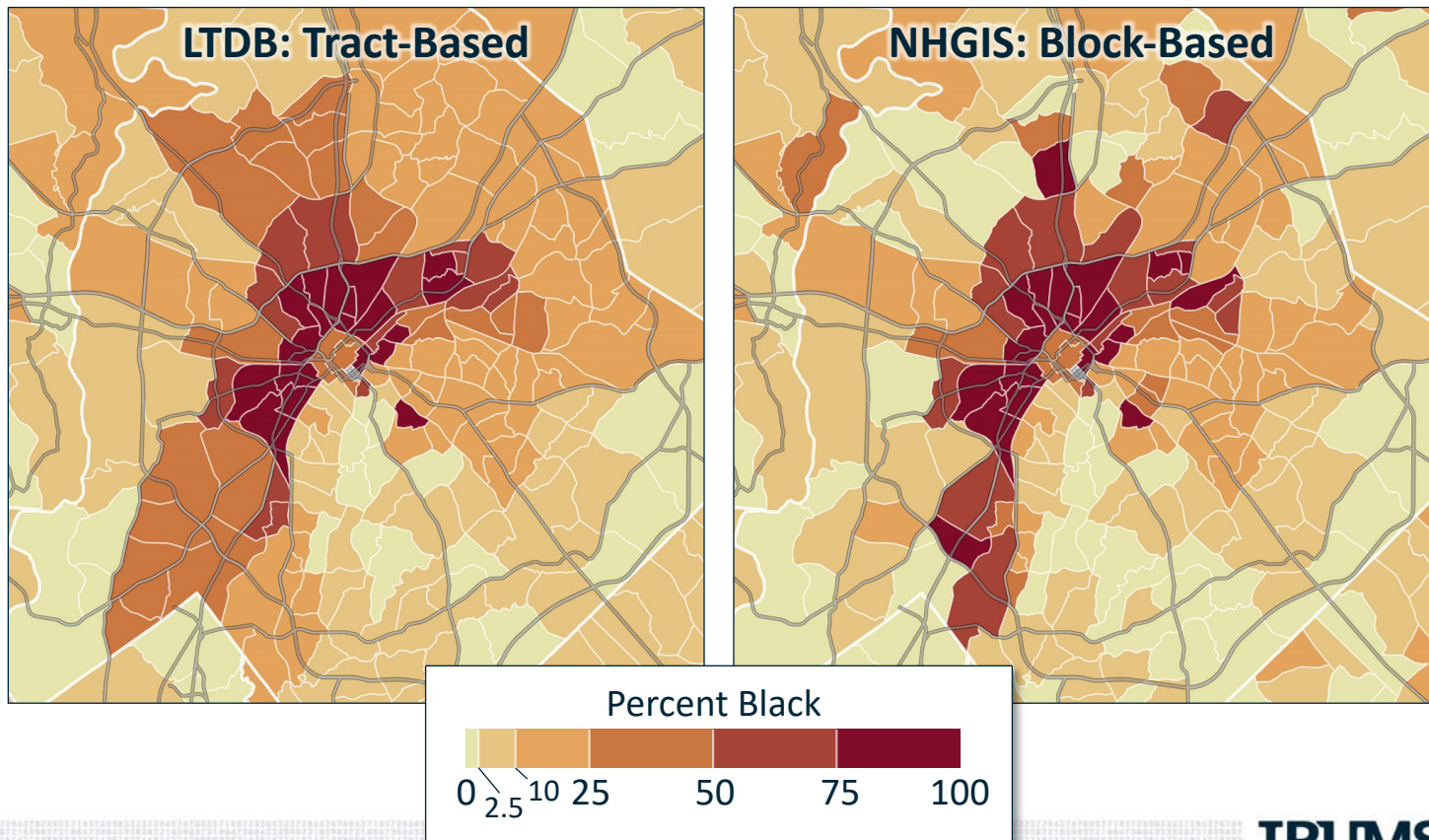
NHGIS estimates



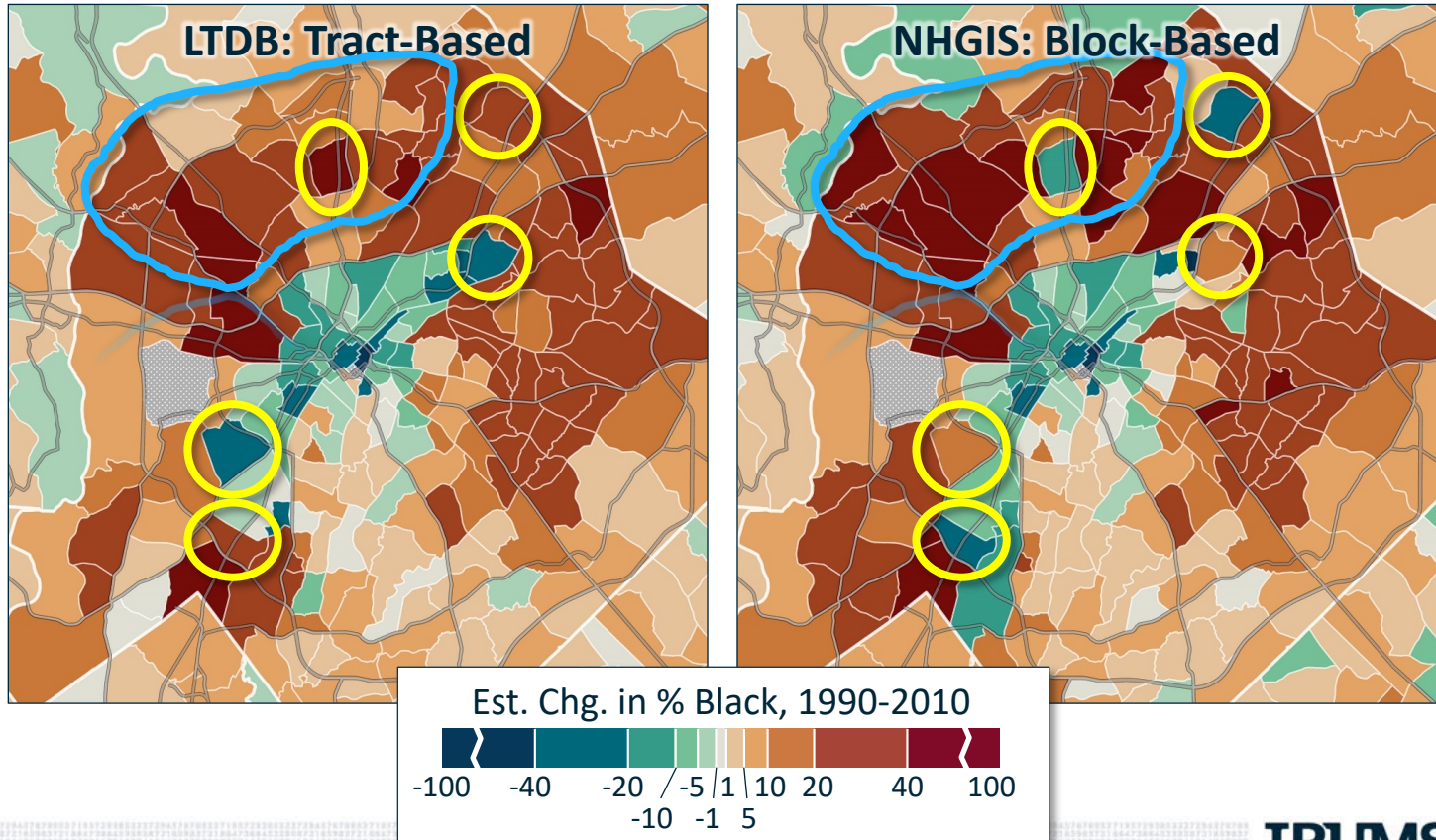
Percent Black



1990 Percent Black in 2010 Tracts



Change in Percent Black, 1990-2010



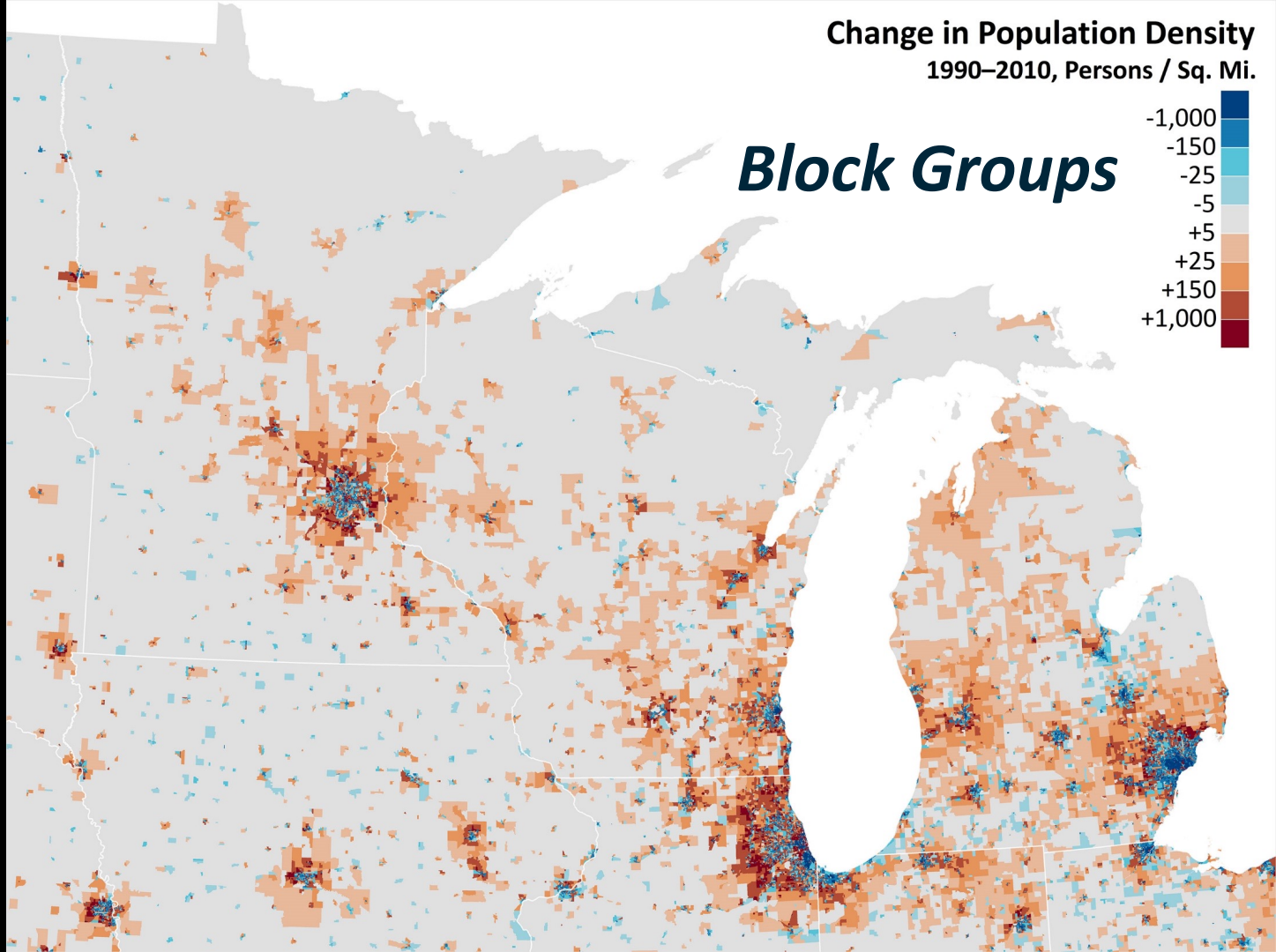
Geographically standardized time series

- 1990, 2000 & 2010 data for 2010 units
- 10 geographic levels: states, counties, tracts, block groups, county subdivisions, places, congressional districts, CBSAs, urban areas, ZCTAs
- ~1,600 time series in 109 tables
- “Short-form” counts only
 - Race, ethnicity, age, sex, household size & relationships, housing occupancy & tenure
 - *Not* income, education, employment, ...

Change in Population Density
1990–2010, Persons / Sq. Mi.

Block Groups

-1,000
-150
-25
-5
+5
+25
+150
+1,000



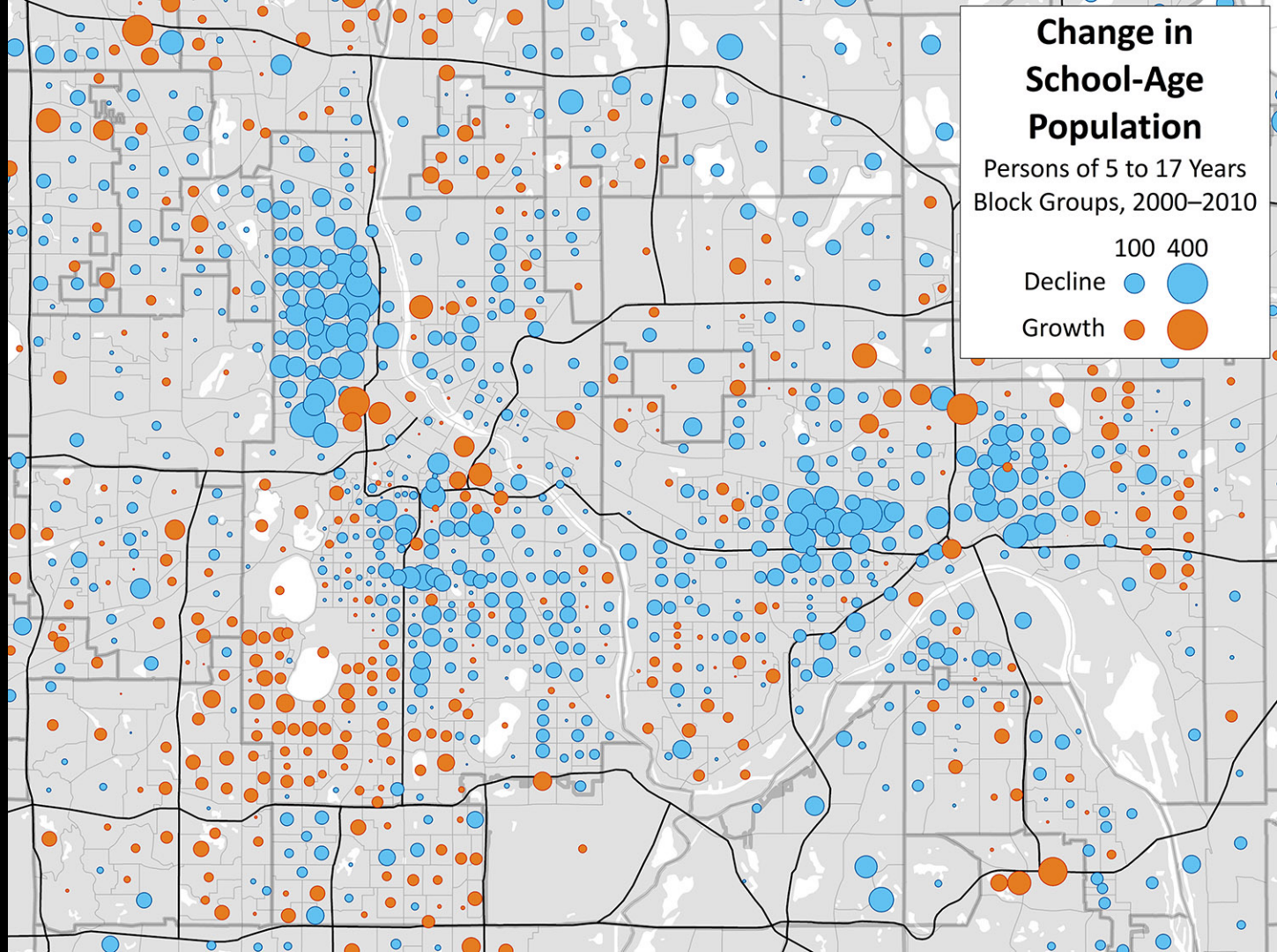
Change in School-Age Population

Persons of 5 to 17 Years
Block Groups, 2000–2010

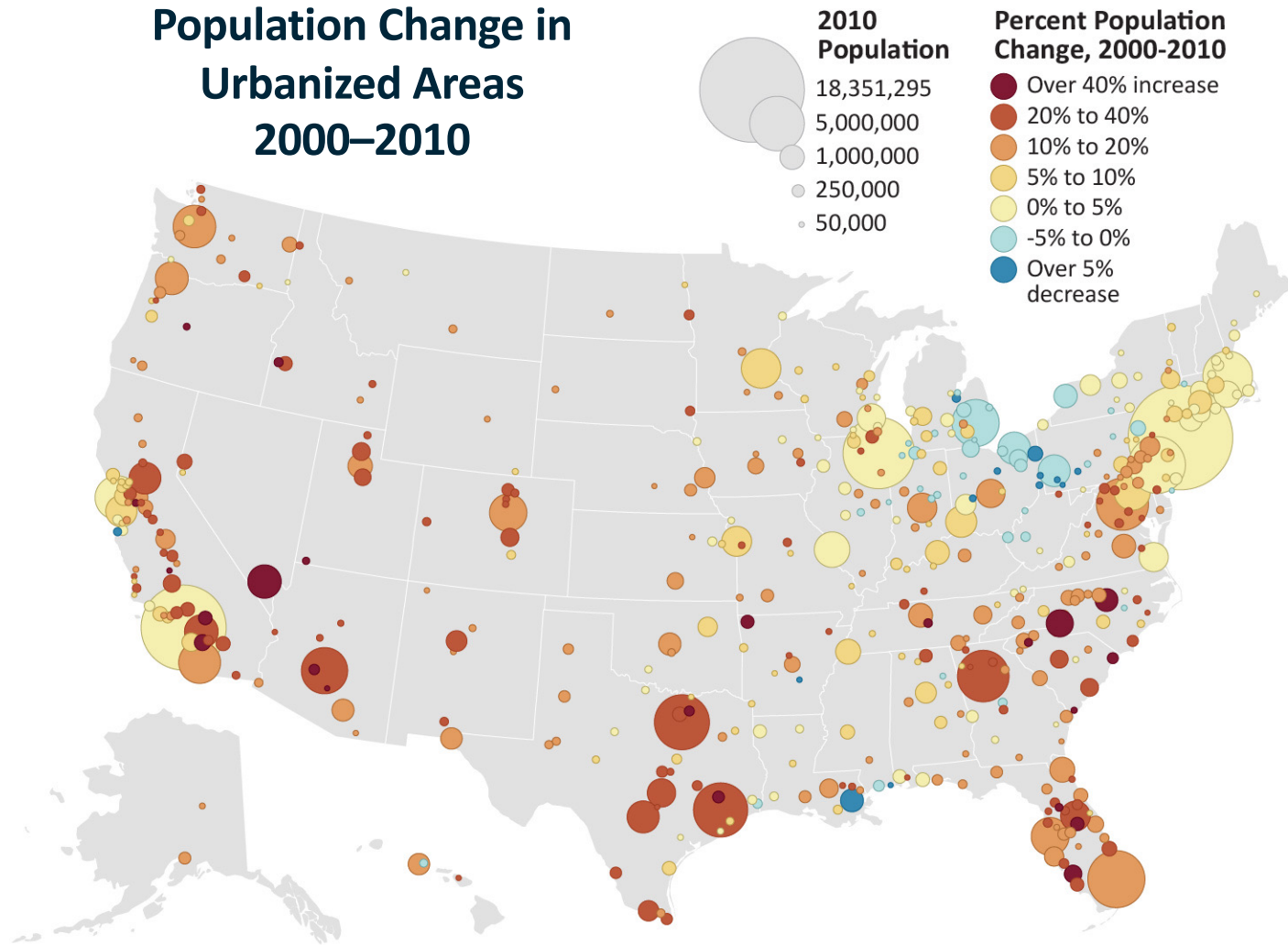
100 400

Decline

Growth



Population Change in Urbanized Areas 2000–2010



Nominally integrated time series

- ~5,700 time series in 271 tables
- 8 geographic levels: nation, regions, divisions, states, counties, tracts, county subdivisions, places
- Years mainly in 1970-2010 range
 - *Total Population* back to 1790 &
Persons by Sex back to 1820
 - “Long-form” tables use 2008-2012 ACS

Acknowledgments

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Health & Human Development

[NIH-R01HD043392,
NIH-R01HD057929,
NIH-R24HD041023]

National Science Foundation

[SES-1324875]

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