Madison Neighborhood Indicators Report, 2016 ed.





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About Madison Neighborhood Indicators

The Madison Neighborhood Indicators project seeks to quantify the diverse and changing social conditions in Madison neighborhoods. The project staff works to provide up-to-date measures each year, bringing together data from a variety of sources and compiling them into a suite of variables used to generate neighborhood-level reports. It is our hope that these data will afford insight into Madison's varied social landscape, helping to identify and highlight neighborhoods' assets as well as their needs.

The Indicators project is also an attempt to "democratize," or make readily available, data that already exist in some form but might otherwise remain difficult to use and access. Developments in mapping technology and electronic record-keeping have made it possible to evaluate and monitor conditions on a temporal and geographic scale that is relevant to residents, organizers and planners. These measures are not intended as a substitute for the lived experience of neighborhood residents, but nonetheless, provide a means of quantifying a number of neighborhood attributes that data users regard as important when making comparisons.

Longtime Madison Alder Tim Bruer first proposed the development of a neighborhood indicators system in 2007. With the support of the Mayor's office and the City Council, a 2008 pilot study provided sample data for five Madison neighborhoods as a test of the feasibility and utility of a broader citywide undertaking that would include Madison Plan Districts, Neighborhood Associations and other tabulation areas. Full-scale implementation began in 2008, and since then city staff advisors have managed the project's implementation in collaboration with the University of Wisconsin Applied Population Laboratory (APL).

The project's development has been an iterative process wherein the project staff consult with data managers, area specialists, residents, and external entities. The thrust of the effort has been to develop indicators that were in keeping with the expressed needs of data users, while being consistently available at the required temporal and spatial scale. The Neighborhood Indicators project remains a work in progress. As we move forward, the steering group continues its effort to refine the tabulation methods, visualization tools, and distribution of neighborhood level data with an eye toward improving the overall quality and utility of indicator data. This 2016 edition Madison Neighborhood Indicators report, the neighborhood summary profiles, and the website referred to herein are available for public consideration, and the project steering group welcomes your feedback.

For more information about the Applied Population Lab, please visit: http://www.apl.wisc.edu/

2016 Executive Summary

The summary below offers a brief sketch of some recent changes at the city level but only begins to touch on the breadth of temporal and spatial variation across eight years of data for the city's 160 primary tabulation areas. Because the project's aim is to provide localized information about Neighborhood Association (NA) and Plan District (PD) geographies, users are encouraged to explore the differences across the city and over time by accessing the web-based tools.

Changes and New Developments:

- This year's tabulation geographies include several new Neighborhood Associations: Highland Manor, Liberty Place, Madison West, Majestic Oaks, and Truax
- The data sources and tabulation methods include several changes this year: First, the Madison City and Campus dwelling units tallies in this iteration were updated and revised in a way that produced significantly larger counts than indicated in the previous edition. City staff undertook an extensive data cleaning, validation and updating process that accounts for much of the observed dwelling unit count change in the 2016 edition (the City of Madison (non-campus) dwelling unit tally increased by 10,926 and the Campus dwelling unit tally increased by 1,540). Changes to the methods for tabulating dwelling units may also account for differences in indicators whose formulas rely on dwelling units in their formulas (i.e. Median Year Built, Bike Network Access, and Available Transit Service Rate)
- More details are provided about the current dwelling unit tabulation methods in the 2016 Data Dictionary: http://madison.apl.wisc.edu/documents/2016 NI Data Dictionary.pdf

Basic Area and Population Data:

• To view demographic variation across Madison, please refer to the descriptive statistics in Appendix A and the maps in Appendix C. The demographics section includes Census 2000 and 2010 population counts and percentages that were cross-tabulated by age, race/ethnicity, and household composition.

Community Action and Involvement:

• The percentage of registered Madison voters who voted in the 2016 presidential election was smaller than in 2012 (75.3% versus 86.4%). This apparent decline at the City level or at other tabulation scales should be interpreted with caution, as the number of registered voters does not always correspond to the number of eligible voters.

Housing Quality and Availability:

• Total number of *Community Pride Violations* continued to decrease significantly across the City from 2,734 in 2014 to 2,574 in 2015. The Emerson-Eken, Marquette and Greentree Plan Districts had the highest total pride violation counts.

- Foreclosures continued their decline in Madison from a count of 214 in 2014 to 191 in 2015. Among Plan Districts, higher Foreclosure counts tended to cluster on the east and southwest sides of Madison.
- The Assisted Housing source data were not updated this year, so the 2016 indicator tallies show assisted units as of early 2013. Assisted Housing Units were unevenly dispersed throughout the city; ten PDs with the most units account for over 55% of the city's total 6,416 units. Eight districts had no units with assistance.
- Average assessed value of single household owner occupied units increased by over \$3,700 for the city as a whole. Five west side PDs had mean values over \$400,000. The number of districts with mean values of under \$200,000 remained stable at 16.

Public Safety:

- Citywide, Crimes Against Persons declined by 8% in 2015. Crimes Against Property increased slightly (1%) while and Crimes Against Society increased more significantly (8%). The maps in Appendix C show the geographic distribution of each of the three crime incident types. Differences between PD counts are dependent in part on geocoding accuracy (See Data Quality below).
- The citywide total number of automobile crashes declined by nearly 5% in 2015. Observed changes in counts at the PD and NA levels should be interpreted with caution, because crashes had especially poor geocoding success rates at the address level (39%).
- Calls for EMS/Fire Service increased by over 3% to a total of 26,938 in 2015.

Health and Family Well Being:

- The citywide MMSD Kindergarten Preparedness measure dropped slightly to 83%.
- The share of Madison Metropolitan School District (MMSD) students in households with parents who had less than a high school diploma remained at just over 6%. The share of students who had a parent with a college degree increased slightly to just over 53%. Year to year differences in these data items should be interpreted with care, as they are not reported for all students.
- The share of MMSD students identified as High Mobility decreased by one percentage point to just under 6%.
- Citywide, the percentage of MMSD students identified as Economically Disadvantaged increased by one percentage point to 48%. The number of PDs with over 75% of MMSD students identified as Economically Disadvantaged increased from 10 to 12.
- Citywide, the rate for Full or Near Term Births for the 2012-14 period remained stable at 98%.
- For the 2012-2014 period, the citywide percentage of births classified as having had Appropriate Care was 91%, a slight decrease from the previous year.

Economic Vitality Indicators:

• The American Community Survey (ACS) continues to provide annually updated estimates; however, for small population areas these yearly updates are averages over a 5-year span.

This year's ACS estimates come from the 2011-2015 surveys. The geographic scale and measurement error associated with these estimates makes them less-than-ideal for tracking neighborhood economic conditions. Still, they can offer some degree of insight into some difficult-to-track conditions, so we have opted to include them in several instances.

- This year a more rigorous reliability filter was applied to ACS-based estimates for the smaller tabulation areas. As a result 23 PDs had their ACS-based indicators suppressed because they were not geographically well- aligned with ACS tabulation geographies.
- Median Household Income citywide was just under \$54,900 according to 5-year ACS estimates from 2015. Estimated median incomes for PDs ranged from under \$20,000 in the largely student areas to over \$80,000 in several west side Plan Districts.
- According to 5-year ACS estimate of 2015, there were 4,383 Families in Poverty citywide. The estimated family poverty rate was just under 9%. Family poverty rates were highest in largely student districts, but several others also had rates of over 15%.
- The 2015 5-year ACS Unemployment estimate for Madison was 5.3%. Plan Districts' Unemployment rate estimates ranged from less than 1% to 15%. Five PDs had unemployment estimates of 10% or greater.
- Of the 62 PDs, 13 had fewer than 3 out of 5 basic goods and services (Hospitals, Pharmacies, Banking, Groceries, and Childcare) within a ¼ mile of the PD boundary.

Transportation Indicators:

- The share of a neighborhoods' land area within ¼ mile of a bus stop, referred to as *Transit Stop Access*, ranged from below 10% in some far west Plan Districts to over 90% in more central PDs. *Available Transit Service*, which reflects the number of bus trips to an area, shows a concentration of services in PDs nearer to downtown. Citywide there were a total of 13,201 trips per week, about 200 more trips than in the previous year.
- According to the 2015 5-year ACS data, about 88% of Madison households had access to a vehicle. Lower Household Vehicle Access rates were concentrated in downtown and student areas; however, there were also PDs further from downtown where access rates were below 90%.
- The Bike Network Access for dwelling units citywide was 77%. Bike Access rates were over 75% for 33 PDs. Ten PDs on the most peripheral east, west, and north sides that had access rates of less than 10%. This year's rates may not be comparable with previous years' figures due to changes in the source data for bike networks and dwelling units.
- Among PD's average *Pavement Condition* ratings ranged from 4.2 to 8.4. The citywide average remained stable at 6.6.

Corrections and Updates:

The Neighborhood Indicator system is a work in progress. To ensure the indicators we include are comparable over time we aim to use consistent sources and methodologies whenever possible. However, at times we have identified ways to make our indicator tabulations more accurate and reliable. The Definitions link provides information about sourcing and methodology changes that have occurred.

Methodology

To be considered for inclusion in the project, potential indicators needed to be obtainable on an annual basis and available for small geographic units. The steering group assembled a suite of variables that met these criteria and while serving the needs expressed by users. Most of the items were obtained locally, through government and other institutional providers. The remainder came from third party data sources, most significantly from the 2000 and 2010 Decennial Censuses and the American Community Survey; two widely used sources for small area demographic and economic data. While less current than some local data, these Federal data provide a useful demographic context to annually updated indicator data. Brief descriptions and source information for each item are provided in Appendix B.

Tabulation Geographies

The Neighborhood Indicators project provides data for Madison Plan Districts (PDs) and Neighborhood Associations (NAs) with estimated population and dwelling unit counts of 100 or greater each and a minimum area of 20 acres. Indicator data for areas under the size threshold are suppressed due to a combination of concerns related to residents' privacy and small area rate instability.

Most of the geographies presented in this report are consistent with their original boundaries; however, because many of the variables rely on City of Madison data providers, the PDs and NAs were in some cases "clipped," retaining only those portions of the tabulation geographies that lay within Madison city limits. Additional adjustments to the NA boundaries included removal of NAs that were nested within larger associations.

Whenever possible, the project relies on data from city and local agencies that are able to provide it at a very fine grain geographic detail. In many cases the indices provided here are neighborhood-level summaries of address, parcel, or dwelling unit data. When address-based data were unavailable, as was the case with several of the age, race, household structure, and economic variables, APL derived PD and NA area estimates based on the 2010 Census and American Community Survey estimates at Census block and block group geographic scales. Because Census geographies do not generally correspond to neighborhood boundaries, APL interpolated these estimates to the neighborhood geographies using area and population weights derived from the Census 2010 population.

The use of local PD and NA boundaries in lieu of more standard statistical geographies, such as zip codes or census tracts, poses numerous challenges. Despite these challenges, the project team concluded that the potential benefits of having finer grain data for more socially relevant geographic units justified the additional effort this required. The Madison indicators remains one of the only systems in the country where users can access data for neighborhood associations' self-defined geographic extent.

Neighborhood Comparisons

Because neighborhoods vary considerably in terms of their size, population, and other characteristics, users should be cautious when drawing comparisons across neighborhoods, especially with those indicators that have not been "normalized" as rates or percentages.

In cases where the appropriate "base" from which to calculate a rate or percentage is not self-evident, the reports show only counts. Community Pride Violations and Crime Incidents are examples of items shown only as counts. Depending on their needs, users might deem it appropriate to calculate a rate for these occurrences using counts per person, per dwelling unit, per acre, etc., each of which would produce a different result. In the case of these indicator items, the exclusion of rates from the report requires users to make an often times complex and application-specific determination about the appropriate base from which to derive rates.

Data Quality

A degree of error is inherent in each of the tabulation methods employed. For this reason, users should treat the data provided as estimates. Three important sources of error are worth mentioning specifically:

- First, geocoding error occurs in the address data when they cannot be matched to an address on the map or when address matching systems position them inaccurately. In the Crimes Against Society data reported here, for instance, the geocoding match rate was 90%, meaning 10% of Madison incidents could not be matched with confidence to a discrete geographic location and are not reflected in the NA and PD level reports.
- A second significant source of error is non-response bias. An example of this is non-response to Madison Metropolitan School District (MMSD) surveys on parent educational attainment. As a result there is some degree of uncertainty in the MMSD household data provided for the educational attainment measures.
- The third noteworthy source of uncertainty is *sampling error*, which applies to the indicators derived from American Community Survey estimates. Although these items are similar to many of the demographic and housing estimates previously tallied in the Decennial Census long form, they are based on smaller sample size and thus do not provide the same degree of reliability. The geographic interpolation of those estimates from block group scale to neighborhood scale based on Census 2010 population weights, noted above, introduces an additional source of uncertainty.

Together, these limitations necessitate caution in the interpretation of some indicators; however, the project staff have conscientiously endeavored to provide the most reliable estimates possible in each instance.

Data Corrections and Versioning

In nine years of data production, we have found ways to make our indicator tabulations more accurate and reliable. In order to improve the validity of the figures and maximize their year-to-year comparability, the neighborhood indicators steering group has elected to revise previously published counts whenever it is warranted and feasible. Although the previously released static documents (pdfs) may not always reflect these changes, the online system will include the most up-to-date

figures available. Notes regarding these revisions and year-to-year inconsistencies will appear on the *Definitions* link of the website.

Data Dissemination

This report serves as the project overview and provides a link to a citywide summary of all individual PDs and NAs; the website, however, is intended to serve as the principal means by which users access indicator data. In addition to an Adobe pdf version of this report, the website also serves as a source for individual print-ready profiles in pdf format. More importantly, the site provides tools for tabular data comparisons, time-series graphing, and mapping of neighborhood characteristics.

The Compare tool allows users to make comparisons in the tabular data across time or across geographies. The Chart tool is designed to display changes over time among up to three neighborhood geographies. The Map tool allows users to view neighborhood characteristics in the context of other neighborhoods as well as other geophysical attributes of interest, such as roads, lakes, and parks.

APL works to optimize the network, server, and software configurations for the system on an ongoing basis. Consequently, users may encounter delays and glitches as they interact with the system, particularly during periods of high volume web traffic. The APL staff appreciates feedback about technical problems and general functionality of the site. Comments should be directed to apl feedback@dces.wisc.edu.

NI Reporting Tools:

PDF Profile Sample

Madison Neighborhood Indicators, 2016 Edition Bay Creek Neighborhood Assn. Neighborhood Organization: Information about the Bay Creek Neighborhood Assn. can be found at: http://www.cityofmadison.com/neighborhoods/profile/4.html Aldermanic District: The neighborhood is within district(s) 13 and is represented by Alders(s) Sara Eskrich. Total Area: 368 Acres Boundary change from previous year: No Note: Any areas of a neighborhood boundary that lie outside the City of Madison are not included in the map or the table below.

The Madison Neighborhood Indicators project seeks to quantify the diverse and changing social conditions in Madison neighborhoods. The project staff has endeavored to provide up to date measures each year, bringing together data from a variety of sources and compiling them into a suite of variables used to generate neighborhood level profile reports.

To provide a demographic context to the year-to-year indicator data, a population profile sourced from U.S. decennial censuses of 2000 and 2010 is shown directly below. The annually updated indicators are shown on page two of the profile. Definitions for Census and 2016 edition indicator items can be found on pages three through six.

DEMOGRAPHIC PROFILE		Neighb	City of Madison				
DEIVIOGRAPHIC PROFILE	Censu	s 2000	Census	2010	Census 2010		
		Percent or		Percent or		Percent	
	Number	Rate	Number	Rate	Number	or Rate	
Number of Housing Units	1,348	n/a	1,316	n/a	108,641	n/a	
Owner Occupied Units	601	45.8%	568	44.9%	50,451	49.3%	
Total Population	2,548	n/a	2,401	n/a	232,830	n/a	
Age							
Young Children (Age 0 to 4)	90	3.5%	115	4.8%	13,541	5.8%	
Youth Population (Age 0 to 17)	336	13.2%	355	14.8%	40,679	17.5%	
Senior Population (Age 65 and Over)	469	18.4%	266	11.1%	22,357	9.6%	
Race and Ethnicity							
White	2,195	86.1%	2,007	83.6%	176,145	75.7%	
Black or African American	122	4.8%	119	5.0%	16,523	7.1%	
Asian	80	3.2%	65	2.7%	17,052	7.3%	
Other Races or Multiracial	73	2.9%	100	4.2%	7,160	3.1%	
Hispanic or Latino	78	3.1%	110	4.6%	15,949	6.9%	
Household Structure							
Total Households	1,312	n/a	1,266	n/a	102,329	n/a	
Family Households	456	34.8%	494	39.0%	47,758	46.7%	
Families with Children	187	14.2%	199	15.7%	21,336	20.8%	
Female Headed Families with Children	42	3.2%	40	3.2%	5,408	5.3%	

Annual reports, interactive maps, and neighborhood comparison tools are available online: <u>www.cityofmadison.com/ni</u>

PDF Profile Sample (Continued)

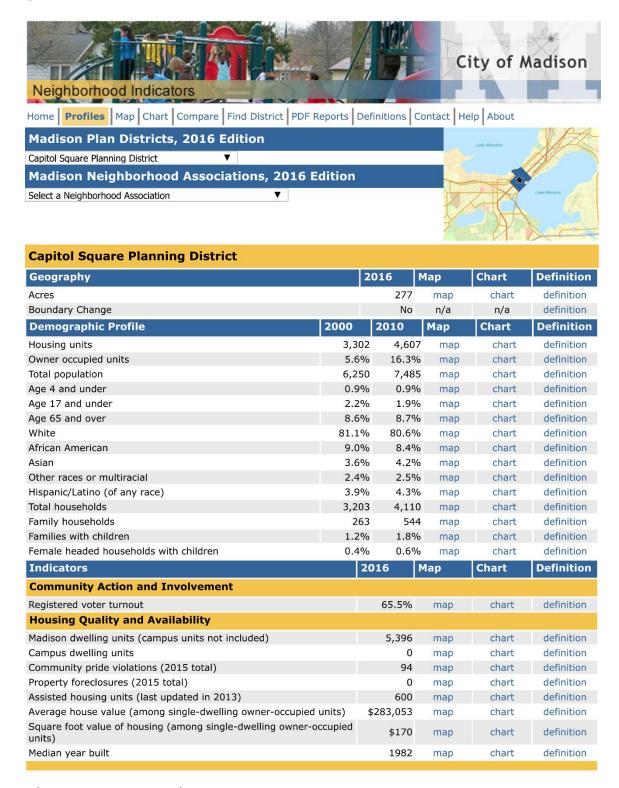
INDICATORS		Neighb	City of Madison				
INDICATORS	2015	ed.	2016	ed.	2016 ed.		
		Percent		Percent		Percent	
	Number	or Rate	Number	or Rate	Number	or Rate	
HOUSING CHARACTERISTICS							
Madison Dwelling Units (campus units not included) ²	1,392	n/a	1,401	n/a	121,045	n/a	
Campus Dwelling Units ²	0	n/a	0	n/a	6,260	n/a	
Community Pride Violations	29	n/a	40	n/a	2,574	n/a	
Property Foreclosures	1	n/a	1	n/a	191	n/a	
Assisted Housing Units (last updated in 2013)	173	n/a	173	n/a	6,416	n/a	
Average House Value (among single-dwelling owner-occupied units)	\$243,522	n/a	\$253,288	n/a	\$252,399	n/a	
Square Foot Value (among single-dwelling owner-occupied units)	\$162	n/a	\$167	n/a	\$135	n/a	
Median Year Built ²	1948	n/a	1949	n/a	1976	n/a	
HEALTH & FAMILY WELL-BEING							
Kindergarten Preparedness 1,3	Spr*	Spr*	Spr*	Spr*	4,447	82.8%	
Parent Education Level: No High School Diploma/G.E.D. ¹	Spr*	Spr*	Spr*	Spr*	1,371	6.2%	
Parent Education Level: College Graduate ¹	Spr*	Spr*	Spr*	Spr*	11,676	53.0%	
High Mobility Students 1,3	Spr*	Spr*	Spr*	Spr*	1,033	5.9%	
Economically Disadvantaged Students ¹	Spr*	Spr*	Spr*	Spr*	11,280	48.0%	
Infant Health: Term or Near Term Births ³	Spr*	Spr*	Spr*	Spr*	9,217	98.2%	
Maternal Health: Appropriate Care ³	Spr*	Spr*	Spr*	Spr*	7,591	91.0%	
COMMUNITY ACTION & INVOLVEMENT	J	56.	ор.	<u> </u>	,,,,,,,	02,070	
Registered Voter Turn-Out	n/a	n/a					
ECONOMIC VITALITY							
Median Household Income ³	\$55,617	n/a	\$53,661	n/a	\$54,896	n/a	
Families in Poverty ³	4	0.8%	16	3.2%		8.7%	
Unemployment ³	59	3.7%	41	2.9%	-	5.3%	
Basic Goods & Svcs (Hospital, Pharmacy, Bank/CU, Grocery, Childcare)	H,P,B,G,C	n/a	H,P,B,G,C	n/a		n/a	
PUBLIC SAFETY INDICATORS							
Crimes Against Persons	7	n/a	10	n/a	1,122	n/a	
Crimes Against Property	124	n/a	97	n/a	8,927	n/a	
Crimes Against Society	64	n/a	63	n/a		n/a	
Crashes	47	n/a	60	n/a	10,457	n/a	
Calls for EMS/Fire Service	382	n/a	366	n/a	26,938	n/a	
TRANSPORTATION							
Transit Stop Access	n/a	98.6%	n/a	98.6%	n/a	63.2%	
Available Transit Service ²	1.391	1.0	1,391	1.0		0.1	
Households with Access to a Vehicle ³	1,088	89.7%		87.3%	· '	87.9%	
Bike Network Access ²	1,392	100.0%	1,401	100.0%		76.9%	
Pavement Condition	6.0	n/a	5.9	n/a	6.6	n/a	

Notes:

Time series data: In some instances year-to-year variation in counts and rates will reflect changes in the variable definition, geocoding success, or neighborhood boundaries. Data definitions for previous years can be found here: http://madison.apl.wisc.edu/definitions.php

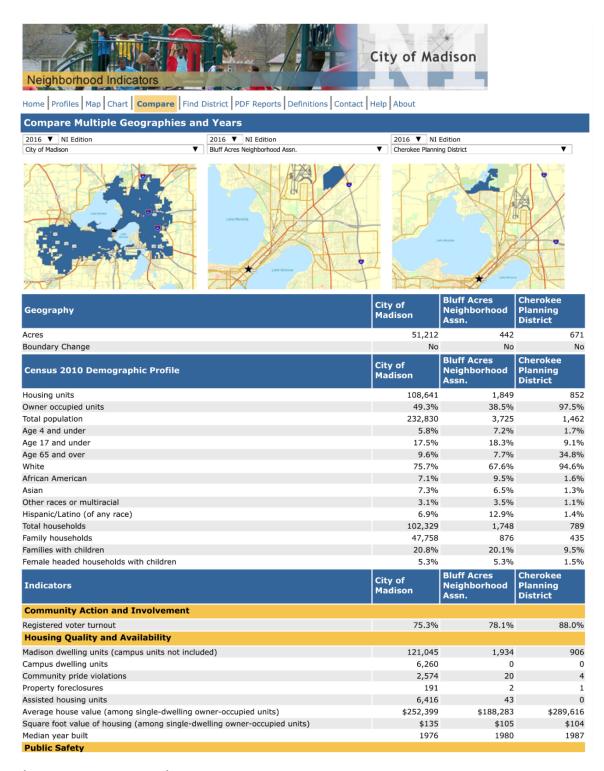
- 1: Student and parent education data are from the Madison Metropolitan School District and show figures for MMSD students or students' households as available; in some instances these represent only a subset of the MMSD student population. See definitions for details.
- 2: Current year data source and/or tabulation method differ(s) from previous year. See definitions for details.
- 3: Multi-year estimate. See definitions for details.
- $\ensuremath{\text{n/a}}\xspace$. Value is not applicable or not available for the reference year.
- spr*: Value has been suppressed to protect confidentiality. This occurs when there is a count of five or fewer in the category shown or five or fewer in the counterpart of the category shown, the latter being derivable from the percentage. Correspondence between some neighborhood associations and plan district geographies required suppression of these data for neighborhood geographies.

Web Profile



(screenshot truncated)

Web Comparison

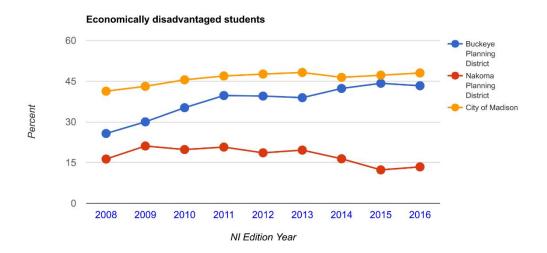


(screenshot truncated)

Web Charting



Data points and lines may appear missing from the chart either due to data suppression or because they are not available for the reference year.



2016 Definition: Percent of MMSD students that were economically disadvantaged. Data available for 100% of MMSD students in the City of Madison.

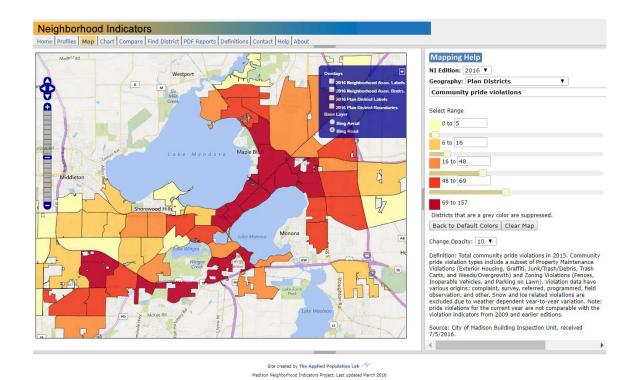
Source: Madison Metropolitan School District, received 1/12/2017; APL interpolation to 2016 tabulation geography.

Data descriptions for prior years are available on the Definitions page.

Site created by The Applied Population Lab

Madison Neighborhood Indicators Project, Last updated March 2016

Web Mapping



<u>Data Disclaimer</u>

Appendix A.

Descriptive Statistics: Plan Districts

	Madison (2	Madison (2016 Bndry)		Planning Districts (2015 Boundaries)									
	Census	Census		Census	2000		Census 2010						
	2000	2010	Mean	Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.			
Number of Housing Units	93,117	108,641	1,492	21	5,674	1,054	1,745	101	6,652	1,148			
Owner Occupied Units - Number	42,599	50,451	682	9	2,000	494	811	0	2,300	500			
Owner Occupied Units - Percent	47.5%	49.3%	54.2%	0.8%	98.2%	25.9%	55.0%	0.0%	97.5%	24.1%			
Total Population	208,985	232,830	3,350	43	15,688	2,526	3,742	211	16,319	2,547			
Age													
Preschool Age Population (Age 0 to 4) - Number	10,880	13,541	174	0	463	123	218	2	764	154			
Preschool Age Population (Age 0 to 4) - Percent	5.2%	5.8%	5.7%	0.2%	15.3%	2.8%	6.3%	0.0%	13.4%	2.8%			
Youth Population (Age 0 to 17) - Number	37,471	40,679	600	6	1,732	424	654	15	1,920	421			
Youth Population (Age 0 to 17) - Percent	17.9%	17.5%	19.6%	0.5%	38.5%	7.3%	19.1%	0.2%	34.5%	7.3%			
Population Age 65 and Over - Number	19,277	22,357	309	6	1,379	254	359	7	969	228			
Population Age 65 and Over - Percent	9.2%	9.6%	11.0%	0.2%	44.4%	7.6%	11.7%	0.2%	48.6%	8.5%			
Race and Ethnicity													
White - Number	171,107	176,146	2,741	43	13,338	2,165	2,831	168	13,197	2,089			
White - Percent	81.9%	75.7%	83.5%	27.8%	100.0%	13.8%	75.6%	24.1%	94.6%	14.4%			
Black or African American - Number	12,125	16,523	194	0	1,233	226	265	7	1,216	254			
Black or African American - Percent	5.8%	7.1%	5.6%	0.0%	33.6%	6.5%	7.2%	0.9%	33.7%	6.5%			
Asian -Number	12,011	17,052	193	0	1,412	275	275	12	1,564	342			
Asian - Percent	5.7%	7.3%	4.9%	0.0%	50.6%	7.0%	7.1%	0.5%	52.0%	7.3%			
Other Race or Multiracial - Number	5,083	7,160	82	0	308	61	115	7	450	77			
Other Race or Multiracial - Percent	2.4%	3.1%	2.3%	0.0%	6.0%	1.1%	3.1%	0.8%	6.1%	1.1%			
Hispanic or Latino - Number	8,659	15,949	139	0	835	147	256	6	972	220			
Hispanic or Latino - Percent	4.1%	6.9%	3.7%	0.0%	19.8%	3.0%	7.0%	1.4%	28.5%	5.8%			
Household Structure													
Total Households	89,637	102,329	1,436	21	5,480	1,027	1,644	83	6,287	1,084			
Family Households - Number	42,743	47,758	684	12	1,821	437	767	32	1,815	433			
Family Households - Percent	47.7%	46.7%	54.4%	4.2%	83.3%	17.4%	51.5%	2.2%	77.3%	16.2%			
Families with Children - Number	19,783	21,336	317	3	898	220	343	2	1,066	219			
Families with Children - Percent	22.1%	20.9%	24.5%	0.3%	52.5%	10.1%	23.1%	0.1%	46.9%	9.8%			
Female headed families with children - Number	4,494	5,408	72	0	191	60	87	2	277	66			
Female headed families with children - Percent	5.0%	5.3%	5.2%	0.0%	20.2%	3.9%	5.8%	0.1%	21.3%	4.0%			

(table continued below)

Descriptive Statistics: Plan Districts (Continued from above)

	Mad	ison				Planning	g Districts				
			2015 Ed.								
	2015 Ed.	2016 Ed.	Mean	Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.	
Acres	50,218	51,212	662	247	2,350	341	676	247	2,350	350	
Housing Characteristics											
Madison Dwelling Units ²	110,119	121,045	1,772	51	6,730	1,197	1,947	52	8,900	1,414	
Campus Dwelling Units ²	5,108	6,648	82	0	1,993	356	107	0	2,547	470	
Community Pride Violations	2,734	2,574	44	0	169	43	41	0	157	41	
Property Foreclosures	214	191	3	0	12	3	3	0	11	3	
Assisted Housing Units	6,416	6,416	103	0	600	134	103	0	600	134	
Average house value	\$248,621	\$252,399	\$258,249	\$128,595	\$569,260	\$91,285	\$264,882	\$129,316	\$557,405	\$91,341	
Square foot value of housing	\$131	\$135	\$132	\$95	\$208	\$29	\$136	\$95	\$213	\$31	
Median year built ²	1972	1976	1973	1917	2014	24	1974	1921	2016	23	
Health & Family Well-Being											
Kindergarten Preparedness - Number ^{1,3}	4,667	4,447	75	0	235	52	72	0	220	51	
Kindergarten Preparedness - Percent 1,3	85.2%	82.8%	88.1%	61.3%	100.0%	10.6%	85.8%	56.9%	100.0%	11.7%	
Parent Education Level: No H.S. Diploma/G.E.D Num. 1	1,308	1,371	21	0	127	31	22	0	139	33	
Parent Education Level: No H.S. Diploma/G.E.D Pct. 1	6.1%	6.2%	4.9%	0.0%	22.1%	6.0%	5.0%	0.0%	23.2%	6.1%	
Parent Education Level: College Graduate - Number 1	11,237	11,676	181	0	750	153	188	1	779	160	
Parent Education Level: College Graduate - Percent ¹	52.3%	53.0%	58.5%	0.0%	100.0%	28.7%	58.8%	7.5%	98.8%	27.3%	
High mobility students - Number ^{1,2,3}	1,151	1,033	18	0	93	18	17	0	72	16	
High mobility students - Percent ^{1,2,3}	6.6%	5.9%	6.1%	0.0%	23.8%	4.9%	5.4%	0.0%	16.8%	3.8%	
Economically Disadvantaged Students - Number ¹	11,156	11,280	179	0	761	189	181	0	763	187	
Economically Disadvantaged Students - Percent ¹	47.2%	48.0%	41.3%	0.0%	100.0%	27.9%	41.2%	0.0%		27.2%	
Infant Health: Term or Near Term Births - Percent ³	98.2%	98.2%	98.3%	93.8%	100.0%	1.6%	98.5%	93.9%		1.6%	
Maternal Health: Appropriate Care - Percent	91.9%	91.0%	92.2%	80.0%	100.0%	4.4%	91.9%	78.1%		4.7%	
Community Action & Involvement	31.370	31.070	32.270	00.070	100.070	4.470	31.370	70.170	100.070	4.770	
Voter Turnout (Presidential Election)	n/a	152,929	n/a	n/a	n/a	n/a	2,454	307	13,592	2,001	
Voter Turnout as a percentage of registered voters	n/a	75.3%	n/a	n/a	n/a	n/a	77.9%	57.5%		6.0%	
Economic Vitality	.,, 0		, -	, -	, -	,-					
Median household income ³	\$53,933	\$54,896	\$61,879	\$16,454	\$114,895	\$21,189	\$60,188	\$19,028	\$114,021	\$20,216	
Families in poverty (among families) - Number ³	4,914	4,383	78	0	287	78	74	0	260	66	
Families in poverty (among families) - Percent ³	9.8%	8.7%	10.7%	0.0%	97.8%	14.9%	10.5%	0.0%			
Unemployment - Number ³	8,511	7,942	136	0	753	127	150	10		124	
, ,	5.8	5.3	5.7	0.2	14.1	3.2	5.5	1.0	14.6	3.6	
Unemployment - Percent ³ Public Safety	3.0	ى.5	5.7	0.2	14.1	3.2	3.5	1.0	14.6	3.6	
Crimes against persons	1,221	1,122	18	0	127	23	16	0	119	21	
Crimes against persons Crimes against property	8,816	8,927	123	1	809	144	125	3		146	
Crimes against society	8,777	9,443	121	0	781	159	129	0		185	
Crashes	10,993	10,457	61	2	290	58	60	1		59	
Calls for EMS / fire service	26,028	26,938	487	26	2,423	425	484	20		439	
Transportation	,	,							,		
Transit Stop Access - Percent ²	64.2%	63.2%	76.0%	0.0%	100.0%	27.8%	75.6%	0.0%	100.0%	28.4%	
Available Transit Service - Trips ²	13,003	13,201	1,507	0.0%	7,468	1,682	1,526	0.070		1,689	
Available Transit Service - Trips Available Transit Service - Rate ²	0.1	0.1	0.9	0.0	5.4	0.9	0.8	0.0	3.3	0.7	
Households with access to a vehicle - Number ³	90,221	91,455	1,451	88	3,551	807	1,725	675	3,650	805	
•		87.9%	90.5%	42.2%	100.0%	10.2%	89.0%	43.5%		11.39	
Households with access to a vehicle - Percent ³	87.4%										
Bike Network Access - Number ²	88,208	98,282	1,420	0 000	8,386	1,429	1,582	0 000		1,759	
Bike Network Access - Percent ²	76.6%	77.0%	67.3%	0.0%	100.0%	37.4%	67.6%	0.0%			
Pavement Condition For Data Definitions visit: http://madison.apl.wiss.odu/definitions	6.6	6.6	6.6	4.1	8.6	0.8	6.6	4.2	8.4	0.8	

For Data Definitions visit: http://madison.apl.wisc.edu/definitions.php

¹ Student and parent education data are from the Madison Metropolitan School District and show figures for MMSD students or students' households as available; in some instances these represent only a subset of the MMSD student population. See definitions for details

² Current year data source and/or tabulation method differ(s) from previous year. See definitions for details.

 $^{^{\}rm 3}$ Multi-year estimate. See definitions for details.

Descriptive Statistics: Neighborhood Associations

	Madison (2	016 Bndry)	Neighborhood Associations (2016 Boundaries)								
	Census	Census	Census 2000				Census	2010			
	2000	2010	Mean	Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.	
Number of Housing Units	93,117	108,641	817	0	6,389	884	935	56	8,003	1,097	
Owner Occupied Units - Number	42,599	50,451	382	0	1,544	357	442	0	2,641	412	
Owner Occupied Units - Percent	47.5%	49.3%	59.2%	0.5%	99.1%	29.1%	60.2%	0.0%	99.6%	27.4%	
Total Population	208,985	232,830	1,852	1	12,343	1,924	2,025	119	13,845	2,196	
Age											
Preschool Age Population (Age 0 to 4) - Number	10,880	13,541	98	0	419	87	117	0	883	119	
Preschool Age Population (Age 0 to 4) - Percent	5.2%	5.8%	6.2%	0.0%	20.3%	3.4%	6.7%	0.0%	18.6%	3.2%	
Youth Population (Age 0 to 17) - Number	37,471	40,679	342	0	1,103	285	360	0	2,450	335	
Youth Population (Age 0 to 17) - Percent	17.9%	17.5%	21.8%	0.0%	50.4%	8.9%	21.0%	0.0%	43.3%	8.3%	
Population Age 65 and Over - Number	19,277	22,357	164	0	854	172	179	2	720	167	
Population Age 65 and Over - Percent	9.2%	9.6%	11.0%	0.2%	98.7%	11.1%	11.2%	0.2%	97.9%	10.9%	
Race and Ethnicity											
White - Number	171,107	176,146	1,513	1	10,295	1,645	1,538	37	11,347	1,778	
White - Percent	81.9%	75.7%	81.7%	24.9%	100.0%	17.2%	73.6%	19.5%	98.3%	18.0%	
Black or African American - Number	12,125	16,523	111	0	883	168	146	0	800	187	
Black or African American - Percent	5.8%	7.1%	6.6%	0.0%	42.1%	8.7%	8.5%	0.0%	47.0%	9.6%	
Asian -Number	12,011	17,052	107	0	1,398	196	141	1	1,447	250	
Asian - Percent	5.7%	7.3%	5.2%	0.0%	52.1%	6.9%	6.9%	0.5%	52.9%	7.0%	
Other Race or Multiracial - Number	5,083	7,160	46	0	277	48	63	0	374	63	
Other Race or Multiracial - Percent	2.4%	3.1%	2.5%	0.0%	8.1%	1.5%	3.3%	0.2%	12.0%	1.7%	
Hispanic or Latino - Number	8,659	15,949	76	0	600	102	138	0	747	156	
Hispanic or Latino - Percent	4.1%	6.9%	4.0%	0.0%	24.7%	4.0%	7.7%	0.3%	34.0%	6.4%	
Household Structure											
Total Households	89,637	102,329	790	0	6,209	859	884	54	7,299	1,021	
Family Households - Number	42,743	47,758	379	0	1,301	312	417	16	2,643	365	
Family Households - Percent	47.7%	46.7%	58.1%	3.3%	94.9%	19.6%	56.2%	1.9%	84.7%	17.5%	
Families with Children - Number	19,783	21,336	178	0	607	150	188	0	1,324	177	
Families with Children - Percent	22.1%	20.9%	27.9%	0.0%	72.7%	13.2%	26.2%	0.0%	57.8%	11.6%	
Female headed families with children - Number	4,494	5,408	40	0	189	44	47	0	233	48	
Female headed families with children - Percent	5.0%	5.3%	6.0%	0.0%	61.5%	7.5%	7.2%	0.0%	43.9%	7.4%	

(table continued below)

Descriptive Statistics: Neighborhood Associations (Continued from above)

	Madison				Ne	ighborhoo	d Associations				
				2015	Ed.		2016 Ed.				
	2015 Ed.	2016 Ed.	Mean	Min.	Max.	Std. Dev.	Mean	Min.	Max.	Std. Dev.	
Acres	50,218	51,212	270	20	857	192	289	20	2,707	312	
Housing Characteristics											
Madison Dwelling Units ²	110,119	121,045	900	51	8,040	995	1,036	52	10,244	1,353	
Campus Dwelling Units ²	5,108	6,648	33	0	1,656	206	44	0	2,426	273	
Community Pride Violations	2,734	2,574	27	0	181	34	25	0	166	33	
Property Foreclosures	214	191	2	0	8	2	2	0	9	2	
Assisted Housing Units	6,416	6,416	53	0	744	111	56	0			
Average house value	\$248,621	\$252,399	\$241,551	\$113,830	\$583,266	\$96,336	\$245,408	\$108,870	\$559,197		
Square foot value of housing	\$131	\$135	\$126	\$84	\$209	\$29	\$130	\$87	\$215		
Median year built ²	1972	1976	1971	1916	2013	22	1971	1917	2015	23	
Health & Family Well-Being											
Kindergarten Preparedness - Number ^{1,3}	4,667	4,447	39	0	149	34	40	0			
Kindergarten Preparedness - Percent ^{1,3}	85.2%	82.8%	87.7%	48.1%	100.0%	12.5%	84.7%	39.1%	100.0%	14.0%	
Parent Education Level: No H.S. Diploma/G.E.D Num. 1	1,308	1,371	11	0	107	21	12	0			
Parent Education Level: No H.S. Diploma/G.E.D Pct. 1	6.1%	6.2%	5.2%	0.0%	40.5%	7.2%	6.2%	0.0%			
Parent Education Level: College Graduate - Number ¹	11,237	11,676	98	0	484	102	106	0	758	127	
Parent Education Level: College Graduate - Percent ¹	52.3%	53.0%	56.2%	2.9%	100.0%	29.0%	54.6%	4.3%	100.0%	29.4%	
High mobility students - Number 1,2,3	1,151	1,033	9	0	55	11	9	0	50	10	
High mobility students - Percent 1,2,3	6.6%	5.9%	5.6%	0.0%	23.8%	4.7%	5.5%	0.0%	21.3%	4.8%	
Economically Disadvantaged Students - Number ¹	11,156	11,280	94	0	595	123	97	0	540	118	
Economically Disadvantaged Students - Percent ¹	47.2%	48.0%	42.4%	0.0%	100.0%	29.9%	44.9%	0.0%	99.5%	30.6%	
Infant Health: Term or Near Term Births - Percent 3	98.2%	98.2%	98.6%	88.5%	100.0%	2.0%	98.3%	83.3%	100.0%	2.4%	
Maternal Health: Appropriate Care - Percent ³	91.9%	91.0%	92.0%	75.0%	100.0%	6.2%	90.5%	66.7%	100.0%	7.1%	
Community Action & Involvement											
Voter Turnout (Presidential Election)	n/a	152,929	n/a	n/a	n/a	n/a	1,348	97	10,646	1,652	
Voter Turnout as a percentage of registered voters	n/a	75.3%	n/a	n/a	n/a	n/a	78.5%	57.5%	89.7%	6.9%	
Economic Vitality											
Median household income ³	\$53,933	\$54,896	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Families in poverty (among families) - Number ³	4,914	4,383	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Families in poverty (among families) - Percent ³	9.8%	8.7%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Unemployment - Number ³	8,511	7,942	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Unemployment - Percent ³	5.8	5.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Public Safety											
Crimes against persons	1,221	1,122	9	0	143	19	9	0	131	17	
Crimes against property	8,816	8,927	58	0	738	90	63	0	799	100	
Crimes against society	8,777	9,443	67	0	998	128	74	0	1,349	158	
Crashes	10,993	10,457	30	0	350	43	29	0			
Calls for EMS / fire service	26,028	26,938	269	6	3,259	373	266	3	3,342	385	
Transportation											
Transit Stop Access - Percent ²	64.2%	63.2%	83.0%	0.0%	100.0%	26.4%	83.5%	0.0%	100.0%	25.89	
Available Transit Service - Trips ²	13,003	13,201	1,048	0	7,363	1,337	1,061	0	7,363	1,338	
Available Transit Service - Rate ²	0.1	0.1	1.3	0.0	4.9	1.2	1.2	0.0	4.3	1.:	
Households with access to a vehicle - Number ³	90,221	91,455	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Households with access to a vehicle - Percent ³	87.4%	87.9%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Bike Network Access - Number ²	88,208	98,282	741	0	8,040	1,086	846	0	10,309	1,34	
Bike Network Access - Percent ²	76.6%	77.0%	71.7%	0.0%	100.0%	37.5%	72.5%	0.0%	100.0%	37.09	
Pavement Condition	6.6	6.6	6.6	4.0	8.4	0.9	6.6	4.0	8.3	0.9	

For Data Definitions visit: http://madison.apl.wisc.edu/definitions.php

¹ Student and parent education data are from the Madison Metropolitan School District and show figures for MMSD students or students' households as available; in some instances these represent only a subset of the MMSD student population. See definitions for details

² Current year data source and/or tabulation method differ(s) from previous year. See definitions for details.

 $^{^{\}rm 3}$ Multi-year estimate. See definitions for details.

Appendices B through D are available as separate files accessible via the links below.

Appendix B. 2016 Data Definitions

http://madison.apl.wisc.edu/documents/2016 NI Data Dictionary.pdf

Appendix C. Citywide Variable Maps for Neighborhood Associations and Plan Districts

http://madison.apl.wisc.edu/documents/2016 NI Appendix C.pdf

Appendix D. Individual Neighborhood and Planning District Reports

http://madison.apl.wisc.edu/documents/2016 NI Appendix D.pdf