August 8, 2023

Dear NIP Users,

The release of the 2022 edition of the Madison Neighborhood Indicators Project (NIP) is accompanied by several big changes, both to the project and to the city. These updates include a new set of geographic "containers" for NIP data, a revised timeline for NIP updates, and a significant expansion of the city due to the annexation of the Town of Madison late in 2022.

For the NIP, the most significant change is the adoption of new geographic containers, or tabulation areas. Whereas prior editions' data were summarized within Plan Districts and Neighborhood Association boundaries, data for the 2022 edition and subsequent years will be shown in census tract and census block group boundaries. Two principal aims motivated this change: the first aim was to better align NIP data with the geographic boundaries used in City programming and planning processes; the second was to provide more comprehensive and granular data than what the previous tabulation areas allowed. Moving to the new scales means that users will, initially, be unable to access time-series trends that they were accustomed to seeing with the previous tabulation areas. However, the new tract and block group boundaries will remain largely stable throughout the decade and, beginning with the release of the next edition in 2024, they will allow for the robust times-series comparisons that users are accustomed to seeing.

The 2022 edition is also the first release of data since the decision to move from an annual to bi-annual NIP data update schedule. This revised schedule for data updates emerged in 2020 as part of an effort by the city to balance the need for timely data with tighter budgetary constraints. The project steering group understands users' desire for timely data and continues to explore opportunities that would allow for a return to annual updates of NIP data in the future.

Finally, users will note that the 2022 edition reflects the recent annexation of the Town of Madison into the City of Madison. Town of Madison areas that were previously excluded from NIP tabulations are now included in the maps and data summaries. This provides a more geographically exhaustive view of certain portions of south Madison. Several indicators derived from City agencies (such as 2022 police and fire calls) are incomplete for areas that were partially outside of the city in 2022, and those measures have been suppressed in the current edition. However, data are available for indicators sourced from the Census and from local agencies (such as Public Health of Madison and Dane County and Madison Metro School District) that also served the Town of Madison.

As a tool for understanding the evolving needs of local communities, the Neighborhood Indicators Project is more important than ever. Since the release of the 2020 edition, Madison neighborhoods and communities have experienced big changes in each of the NIP domains, including demographics, housing, health, safety, education, economics, and transportation. Our aim is to ensure that the NIP continues to be a resource for decision makers, community advocates, and grant writers as they seek to support marginalized communities and address inequities. Our hope is that NIP tools will help direct available support and resources to the people and places where they are most needed.

Sincerely,

The NIP Team at the UW Applied Population Laboratory & the City of Madison

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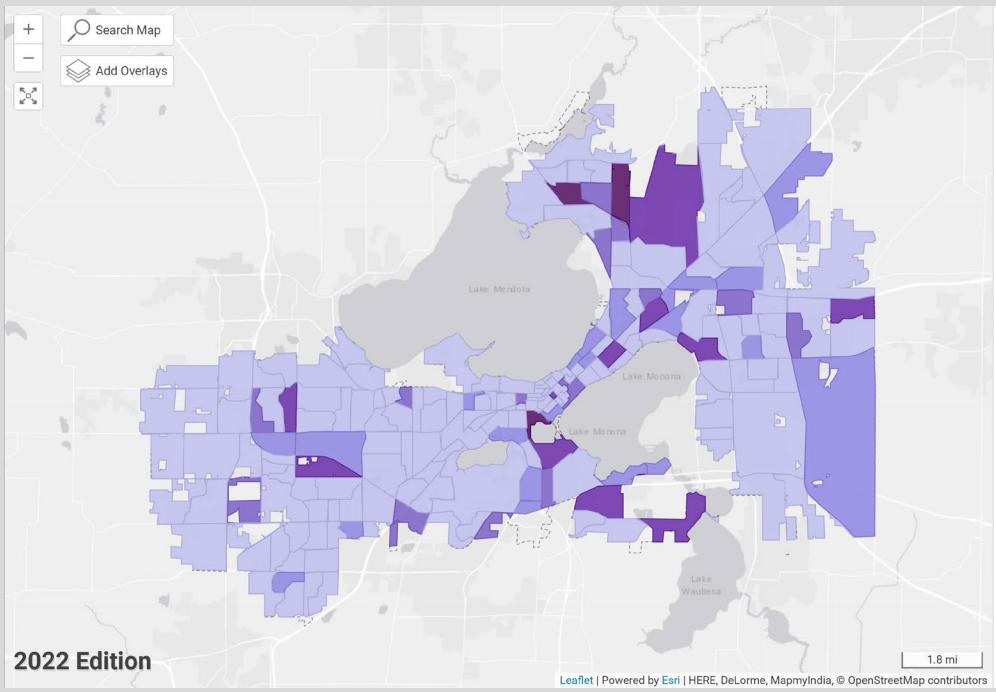
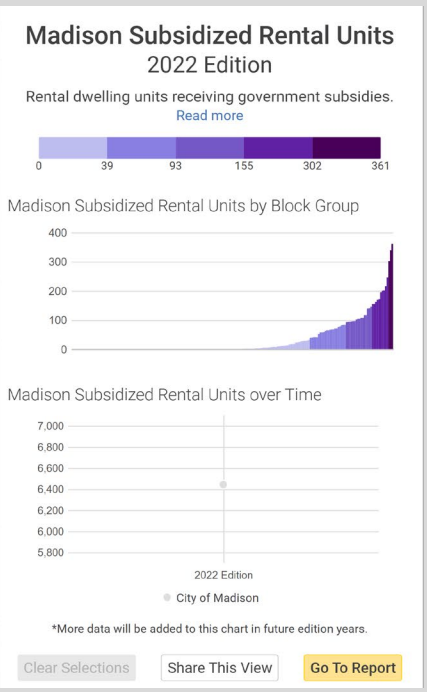
The Neighborhood Indicators Project is a collaboration between the City of Madison Planning Division and the UW Applied Population Lab

City of Madison

Neighborhood Indicators Project

madison.apl.wisc.edu





Annual Report - 2022 edition

August 8, 2023

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EXECUTIVE SUMMARY

Overview

Madison contains a multitude of richly varied communities each with their own character and attributes, and each with a unique set of assets and challenges. The summary below highlights, in brief, some of the vast differences across the city in each of the NIP measures, but these snapshots cannot begin to convey the breadth of variation across the city. At its core, the NIP aims to provide detailed information about neighborhoods and communities *within* Madison. In most cases, making effective use of the NIP data requires a "deep dive" into the geographically detailed data and taking a closer look at the indicators for individual areas, sometimes in their local or citywide context. Most users will find that the NIP website is preferable to this report as a means to explore indicator data. Moreover, combining NIP data with local knowledge, lived experience, and other information sources can help provide users with an even more complete picture.

The NIP site contains tools for mapping characteristics, making time-series graphs, and building custom tabular reports. The map tool allows users to identify their own residential area and compare items of interest across tracts or block groups; the chart tool displays changes over time for up to five geographies; and the advanced comparison report tool allows users to make tabular data comparisons across geographic areas and over time. The site also enables users to create and share custom views, print-ready profiles, and tabular data extracts.

The City of Madison Planning Division and the Applied Population Lab (APL) staff appreciate user input about the site's general functionality or technical concerns. A feedback form is available on the upper right corner of the site. Users can also send feedback or questions to the APL project coordinator by emailing *apl_feedback@dces.wisc.edu*.

Changes and New Developments

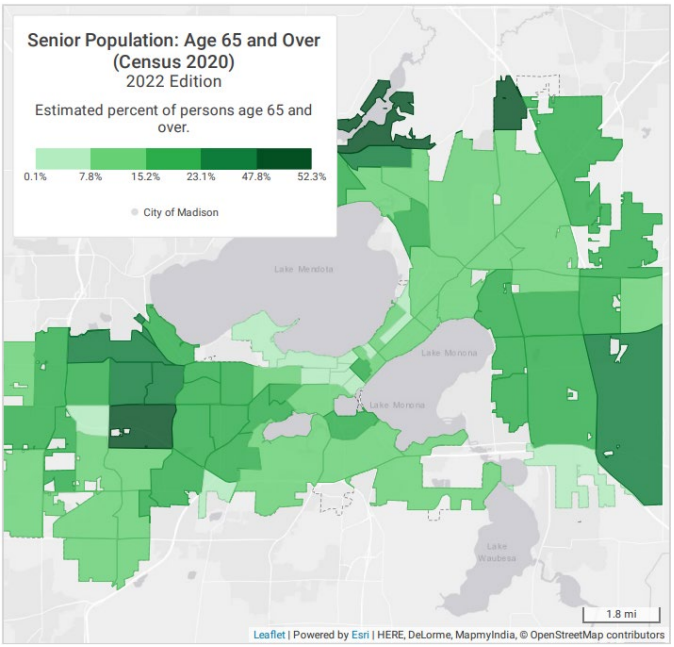
Geographic Changes: As noted in the 2022 edition cover letter, new tabulation geographies include Census tracts and Census block groups that are all completely or partially within the City of Madison. Legacy data for neighborhoods and plan districts from prior editions is still available from the "Downloads" link.

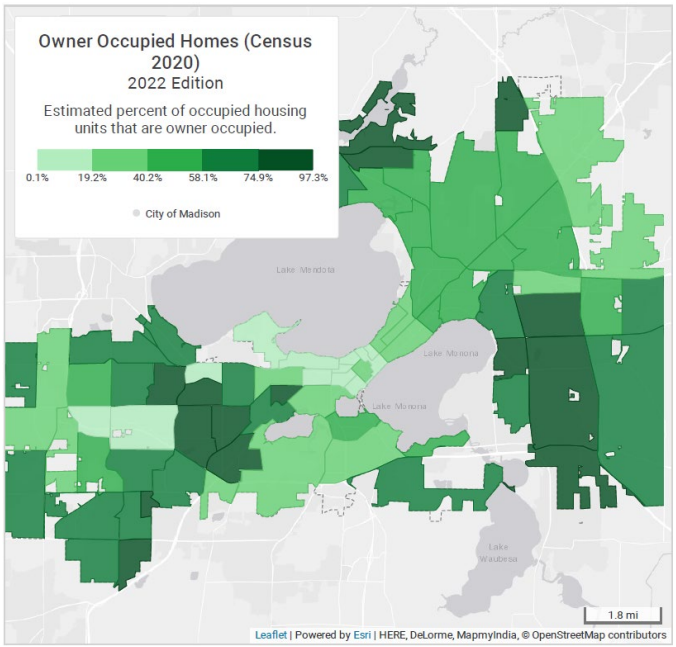
Data Update Timing Changes: NIP data are currently scheduled to be updated on a two-year cycle. The next iteration (2024 ed.) is slated for release early in 2025.

Topical Summaries

Census:

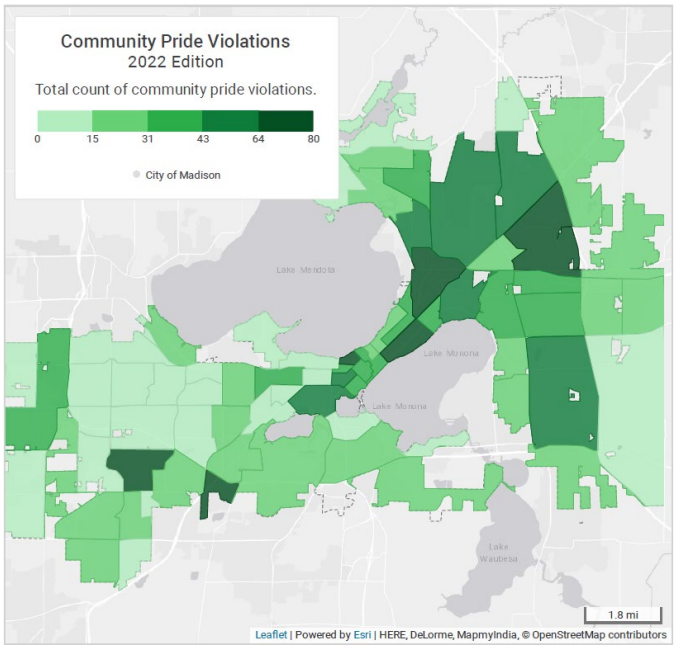
To examine demographic variation across Madison, users should refer to the web mapping tool and the descriptive statistics at the end of this report. The section includes Census 2020 counts or percentages that are cross tabulated by age, race/ethnicity, and household composition. The NIP also tabulates demographics from the prior decennial censuses (Census 2000 and 2010) demographics within 2020 boundaries and makes these data available for use independently of the site.

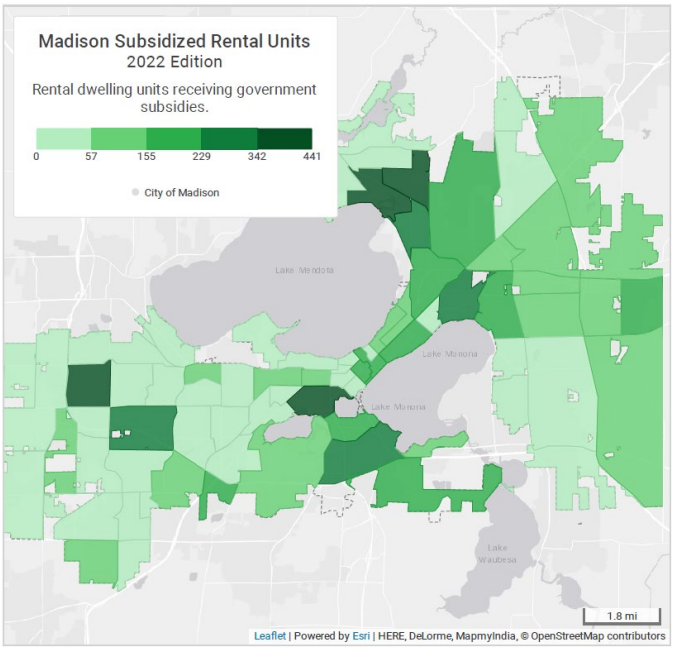




Housing:

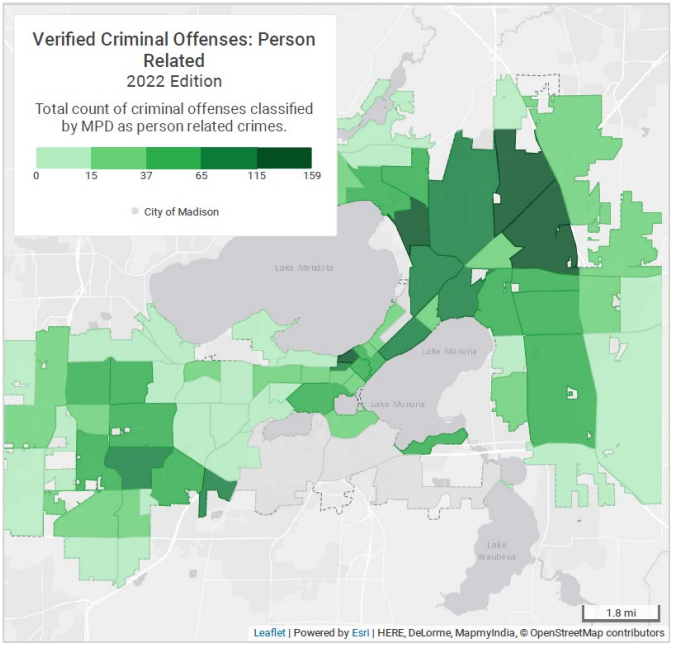
- ***Madison Dwelling Units*** counts (which exclude campus units) ranged from just over 51 in the most central UW campus tract to over 4,053 units in one far westside tract. The citywide count was 134,536.
- ***Community Pride Violations*** were unevenly distributed across Madison tracts with concentrations showing up in tracts on the southwest side, the east side, and on the isthmus.
- ***Property Foreclosure*** counts have diminished since their peak in 2011. Citywide, there were 90 in total for the 2022 calendar year. Many Madison tracts had no foreclosures. The tract with the most foreclosures had seven and was in south Madison.
- ***Madison Subsidized Rental Units*** reached a count of 6,443. Subsidized units were unevenly distributed across the city: the ten tracts with the most units account for over 47% of the city's total units. Twenty-four of the 73 Madison tracts contained fewer than five subsidized units.
- ***Average Value of Single Family Owner Occupied Houses*** was about $418,500. There were only 8 tracts with a mean value under $200,000 and 36 tracts with a mean of over $400,000. Citywide, the ***Square Foot Value*** of these houses was $221.
- The ***Average Value of Single Family Non-Owner Occupied Houses*** was $450,500 for the city as a whole. Citywide, the ***Square Foot Value*** of these homes was $219.
- The ***Average Value of Condominiums*** was $282,900 for the city as a whole. Citywide, the ***Square Foot Value*** of condos was $221. Values were highest in downtown tracts.
- ***Median Year Built*** for non-university dwelling units citywide was 1977. The most recently built units were concentrated in far east and far west side tracts, as well as several downtown tracts.

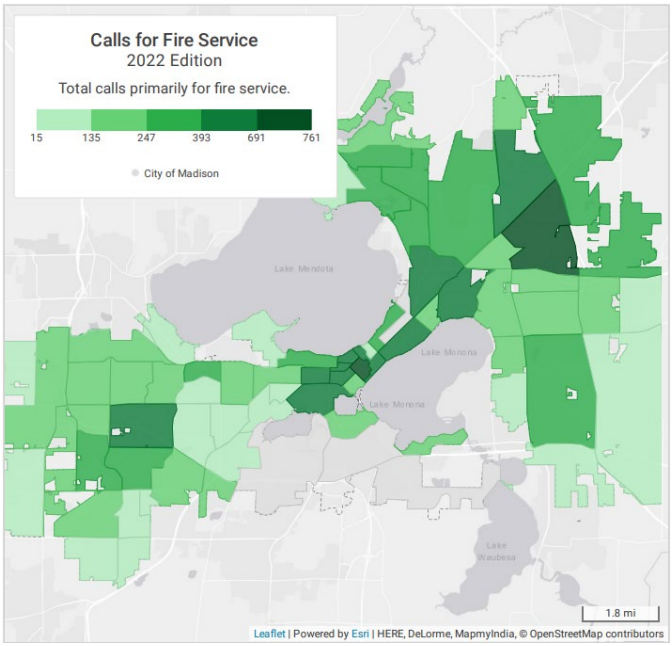




Public Safety:

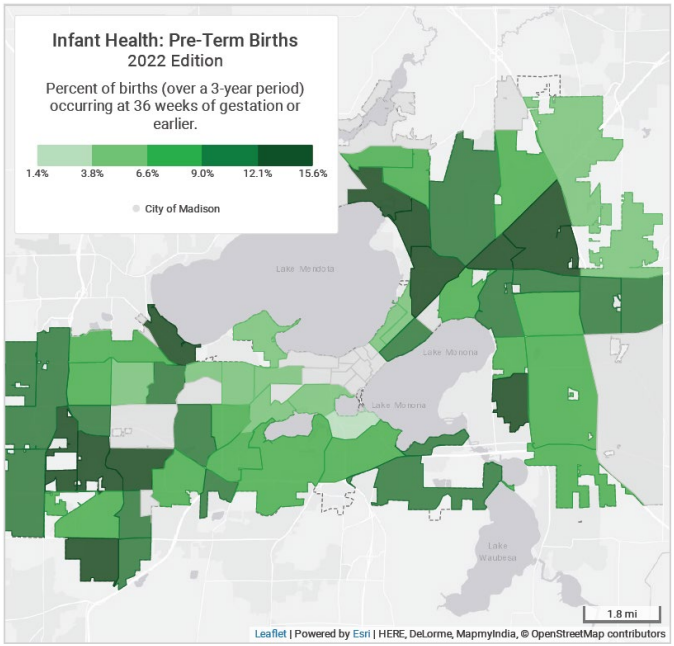
- In 2022 there were 1,138 ***Reported Person Related Police Incidents*** citywide. Incidents that occurred in the areas formerly in the Town of Madison are incomplete. The tract with the highest count of person related incidents was nearly 5 times greater than the NIP tract average. ***Reported Property Related Incidents*** citywide totaled 7,359 and the tract with the highest count of property related incidents was 9 times greater than the NIP tract average. ***Reported Society Related Incidents*** totaled 7,331 citywide. The tract with the highest count of person related incidents was nearly 6 times greater than the NIP tract average.
- **Verified *Criminal Offenses*** numbered 2,874 citywide in 2022. During that year, there were 9,864 ***Verified Property Related Offenses*** and 14,239 ***Verified Society Related Offenses***.
- There were 2,576 ***Crashes*** in the City of Madison in 2022. Tracts with the highest counts were widely dispersed across the city.
- There was a total of 24,258 ***EMS Service Calls*** and 13,331 ***Fire Service Calls*** in 2022. Fire call counts were largely concentrated in downtown tracts, but tracts in the northeast portion of the city also had high call counts.

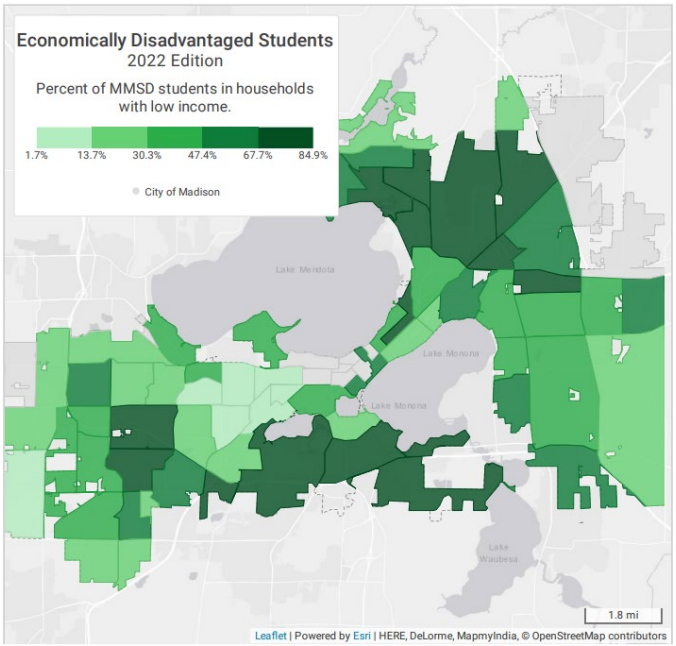




Health:

- ***Pre-Term Births*** comprised 9% of all Madison births during the 2019-21 period. Among tracts with publicly available (un-suppressed) data, the highest rates of pre-term births were in the north and northeastern tracts of the city.
- About 18% of babies born citywide had ***Less than Adequate Prenatal Care*** during the 2019-21 period.





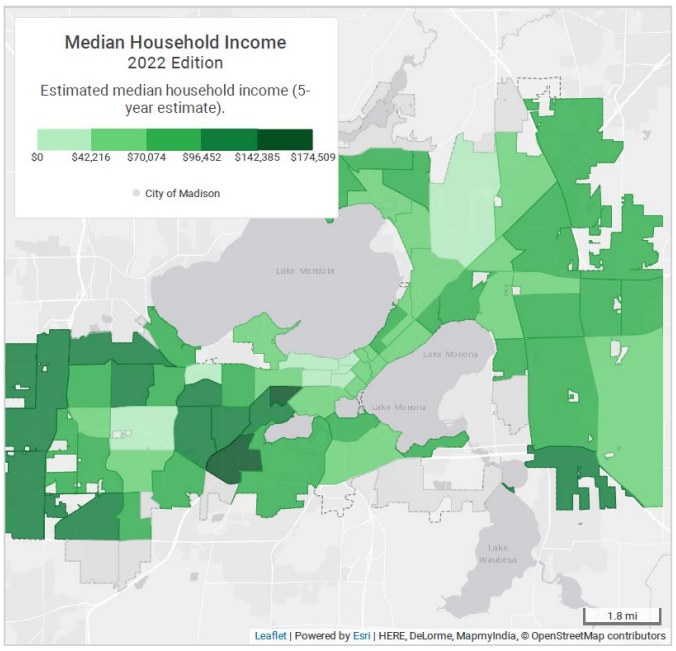
Education:

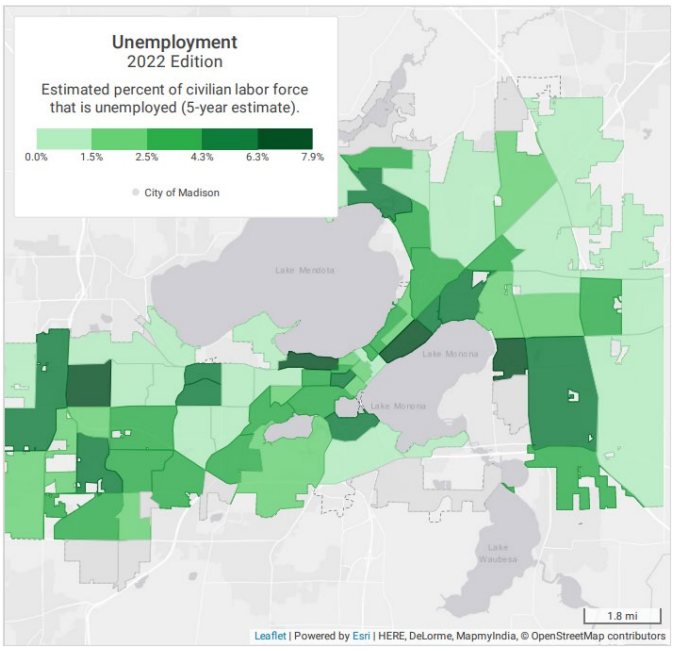
- Citywide, about 60% of Madison Metropolitan School Districts (MMSD) students in grades 3-5 scored ***Less Than Proficient*** on the ***English Language Arts*** component of the Wisconsin Forward Exam. Lower proficiency tracts were concentrated mostly in northeast and south Madison.
- About 8% of MMSD students in Madison lived with parents who had ***No High School Diploma/GED***. Fifty-one percent of students lived with a parent with ***Less than a Bachelor's Degree***. Lower parent education tracts were concentrated on the northeast and south sides.
- ***High Mobility*** students comprised about 6% of all MMSD students in Madison.
- ***Economically Disadvantaged*** students comprised about 50% MMSD students citywide. Tracts with more disadvantaged students were in northeast and south Madison.

Economy:

The American Community Survey (ACS) provides new estimates annually. However, the estimates for small population areas including census tracts and block groups represent survey responses over a 5-year period. ACS estimates used in the 2022 ed. of the NIP represent survey responses from 2017-2021. The time lag and measurement error associated with these estimates makes them less-than-ideal for timely monitoring of economic conditions in small areas.

- ***Median Household Income*** citywide was just over $70,000 according to the 2021 5-year ACS estimate. Estimated median incomes ranged from under $25,000 in several tracts near the UW campus to over $100,000 in numerous mostly west side tracts.
- Citywide, the share of **Families in Poverty** was 6% according to the 2021 5-year ACS. Rates were highest in the UW campus area tracts.
- The 2021 5-year ***Unemployment*** estimate for Madison was about 3%. Unemployment estimates ranged from close to zero to nearly 8%.
- Fifty-two of the 73 tract had all three ***Basic Goods and Services*** tallied (Pharmacies, Banking and Groceries) within ¼ mile of the tract extent.

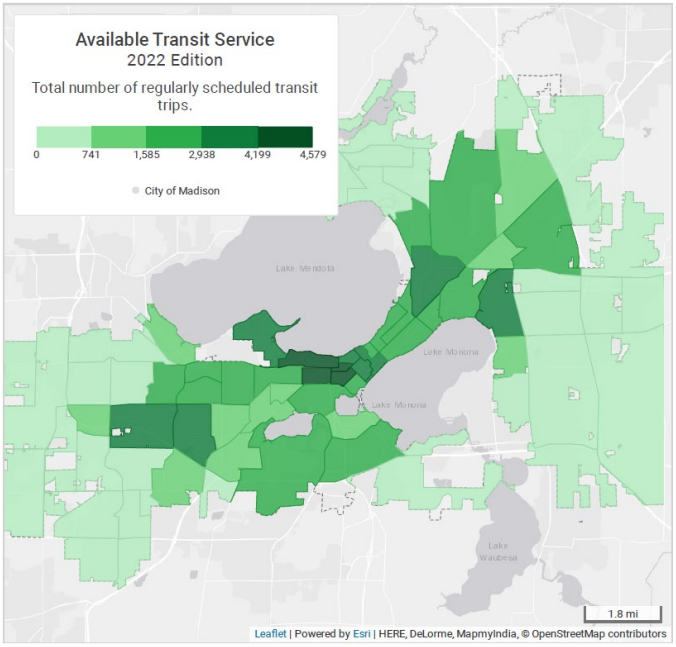


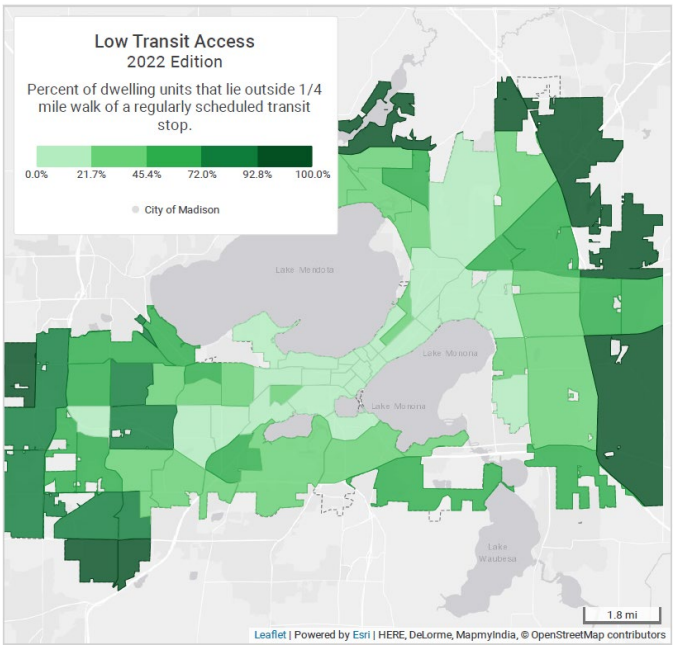


Transportation:

- ***Low Transit Access***, measured as the share of area dwelling units outside ¼ mile walk of a bus stop, was 37% citywide after the Metro Transit Redesign in 2023. Low access rates ranged from 0% in some downtown tracts to 100% in several tracts on the periphery of the city.
- ***Available Transit Service***, defined as the number of regular bus trips to an area, was about 10,317 total trips per week. Tracts nearer to downtown had the highest trip counts.

- Madison ***Households Without a Vehicle*** constituted 11% of the city's households according to the 2021 5-year ACS data. Among tracts, rates appeared highest in the downtown and UW campus areas. However, several tracts in other portions of the city also had rates over 20%.
- The ***Pavement Condition* Rating** for the city as a whole was 7.1. Among tracts, condition scores varied widely from 4.2 to 8.3.





METHODOLOGY & USE

To be considered for inclusion in the project, the indicators' source data need to be reliable and available on a timely basis at a geographically detailed scale. Local government agencies and other institutional providers supply most of the source data inputs. The remainder come from federal and state data sources, including the Decennial Censuses and the American Community Survey. Users can find details related to each item's source and tabulation method in the "About the Data" section of the NIP site.

Tabulation Geographies

The Neighborhood Indicators Project provides data for all Madison tracts and block groups with estimated Census 2020 population counts of 100 or greater and at least 20 acres of land. We suppress information for geographic areas below these thresholds due to concerns related to rate instability that may occur in smaller population areas.

Most of the tabulation geographies presented in this report are consistent with their original boundaries. However, because many of the indicators rely on City of Madison data providers, our analysis requires that we exclude portions of tracts and block groups that lie outside Madison city limits.

Many NIP measures rely on address-level data inputs from City and other local agencies. When detailed address-based data are unavailable, the NIP draws on data inputs at other geographic scales and uses geographic interpolation methods to produce estimates for the tabulation areas shown; this is the case with several demographic indicators that are sourced from data available only at the Census block level.

In addition to the data shown on the NIP website, the project team produces data at several other geographic scales. Data at these other scales may be reviewed and made available for use with other City and community projects on a case-by-case basis. Please reach out to the NIP staff using the "Contact Link" on the site if you would like to discuss this further.

Comparing between geographies

Comparing among geographies is sometimes difficult. Several NIP measures exist as summary counts that have *not* been "normalized" as rates or percentages (e.g., *Community Pride Violations* and *Reported Police Incidents)*. In the case of these indicators, users seeking to compare counts across tracts or block groups should account for variation in land area, daytime and resident populations, and other contextual factors that may contribute to count differences.

Data Quality

A degree of uncertainty is inherent in each of the NIP tabulation methods, so users should view NIP measures as estimates rather than precise figures in most cases.

Three important sources of error are worth noting specifically:

- *Geocoding Error.* This refers to instances where address records cannot be accurately positioned on a map. Address level Public Safety and Health inputs are subject to this type of error. For example, Society Related Police Incident Reports had a 90% geocoding match rate, which means we were unable to match 10% of those incidents to a specific geographic location. Block group and tract level tallies exclude unmatched records; however, those records are included in the citywide tallies.

- *Non-Response Error.* This error occurs when a survey fails to include a subset of the intended respondents. Among the NIP measures, Parent Education Level and Prenatal Care variables are most likely to be subject to this type of error. For example, we know that not all households respond to School District (MMSD) questionnaires. If survey participation rates among households with lower educational attainment differed from that of households with higher attainment, there would be nonresponse bias in NIP measures of parent education.

- *Sampling Error.* Surveys with a small sample size produce estimates that lack precision. American Community Survey (ACS) estimates for small areas rely on a limited number of respondents and can produce unreliable estimates. The Median Income, Family Poverty, Unemployment, and Vehicle Access items are all subject to sampling error. Partly due to concerns related to sampling error, the NIP team has limited the number of NIP items sourced from the ACS.

The sources of error described above limit the accuracy and precision of some indicator items. Nevertheless, the project team responds to these challenges by diligently seeking to minimize these errors and providing the most reliable estimates possible in each case.