



UNDERSTANDING OUR COMMUNITY:

**Using Census data to inform
community change**

KNOWLEDGE EXCHANGE

Leveraging Insight. Inspiring Solutions.



**United Way
of Greater Cincinnati**

Understanding Our Community: Using Census Data to Inform Community Change

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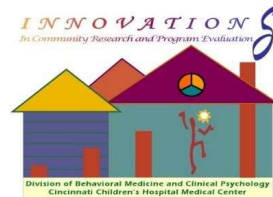
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Understanding Our Community Presentation Objectives



Discuss *The Social Areas of Cincinnati* as a tool for using census data and spatial analysis to understand community change



Discuss real-world examples of using census data and social factors for community planning



Implications for policy and practice



Implications for understanding culture and diversity



Encourage interactive discussion and questions

Our Community Matters



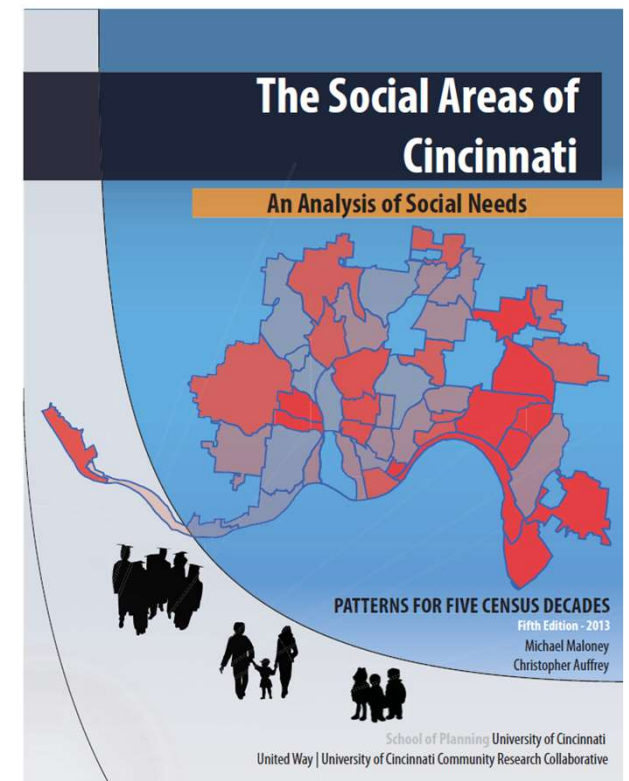
“The greatness of a community is most accurately measured by the compassionate actions of its members.” -Coretta Scott King

**The Social Areas of Cincinnati:
Using Census Data and Spatial Analysis to Inform
Community Change**



The Social Areas of Cincinnati

- ◆ The first edition of *The Social Areas of Cincinnati* was written in 1974 by Michael Maloney
- ◆ 5th Edition (2013) co-authored by Michael Maloney and Dr. Christopher Auffrey with Dr. Eric Rademacher
- ◆ Documents the social and economic changes in Cincinnati since 1970; tracks 50 years of data
- ◆ Data used to improve decision-making for community leaders and advocacy groups
- ◆ Now being updated to include 2021 U.S. Census (American Community Survey) data



Census Tracts and Time Series Analysis



Census Tract Map Method

- ◇ Census tracts created by US Census Bureau to measure population change
- ◇ Socioeconomic Indicators from U.S. Census/American Community Survey
- ◇ Process for Ranking Census Tracts
- ◇ Mapping Geographic/Spatial Outcomes
 - Education
 - Poverty
 - Race
 - Gender
 - Others

Time Series Analysis

- Documents change over time (shows trends)

Socioeconomic Status (SES)

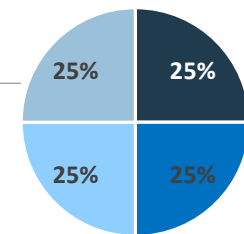
- ◆ Socioeconomic status (SES) is derived from both social and economic factors:
 - Income, Education, Occupation, etc.
- ◆ Measures for SES can provide valuable context to identify inequities, risk factors, and to better understand changes within the population (e.g., Academic Achievement)
- ◆ Access to student-level SES data is uncommon and impractical for researchers to obtain (privacy and confidentiality)
- ◆ A more plausible alternative is to use characteristics from a student's place of residence to estimate their likely social and economic factors



What are SES Quartiles?

- ◇ A classification for socioeconomic risk based on census tract data
- ◇ Uses public data from the American Community Survey (ACS): an annual survey administered by the U.S. Census Bureau
- ◇ Helps researchers understand *relative* socioeconomic risk within Cincinnati
- ◇ Allows researchers to estimate economic conditions of subjects using SES Quartile as a proxy for income and social class
- ◇ Does not represent the socioeconomic characteristics of an individual, but rather the average characteristics of families living within their geographic area

Quartiles



■ SES 1 ■ SES 2 ■ SES 3 ■ SES 4

SES 1

SES 2

SES 3

SES 4

SES Quartile Indicator Variables

- ◆ Summarize census tracts using five socioeconomic indicators from ACS
- ◆ Indicators combined into a single SES ranking score, used to rank tracts and divide tracts into quartiles (SES 1-4)
- ◆ Lower quartiles represent areas with a higher concentration of socioeconomic risk factors

SES Indicator	ACS Variable
Income	Median family income
Education	Percent of population 25 years of age or older with less education than a high school diploma
Family Structure	Percent of children (under the age of 18) living in married-couple, family households
Crowding	Percent of housing units with more than one person per room
Occupation	Percent of workers in unskilled and semiskilled occupations

SES Quartiles and Social Factors

	Income	Education	Family Structure	Crowding	Occupation
SES Quartile	Median Family Income*	Percent of 25+ year olds with less than a high school diploma	Percent of children living in married-couple households	Percent of housing units with more than one person per room	Percent of workers in unskilled and semiskilled occupations
SES 1	\$29,707	21.9%	14.1%	4.4%	84.9%
SES 2	\$50,852	13.6%	36.5%	2.0%	79.1%
SES 3	\$73,437	8.2%	53.5%	0.9%	64.0%
SES 4	\$141,579	3.6%	77.7%	0.8%	50.3%

Source: SES Quartiles from 2021 ACS 5-Year Estimates.
 * Weighted average of census tracts' median family income



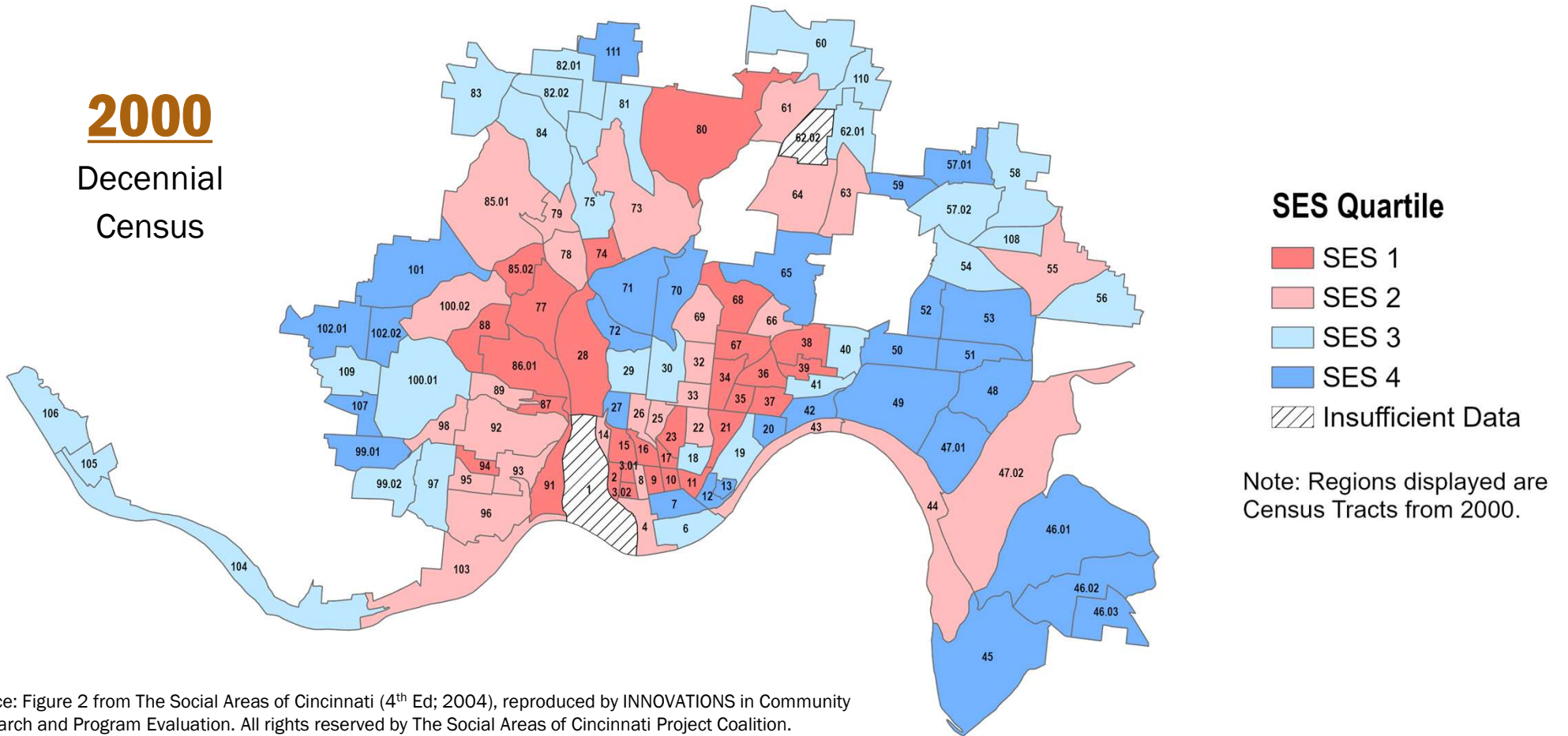
Social Areas Analysis

- ◆ Uses Small Area Data
- ◆ Aggregated into Larger Units:
 - Neighborhoods
 - Four Quartiles of Census Tracts
 - Broader Areas of City, County or Region

SES Quartiles for Cincinnati Census Tracts

2000

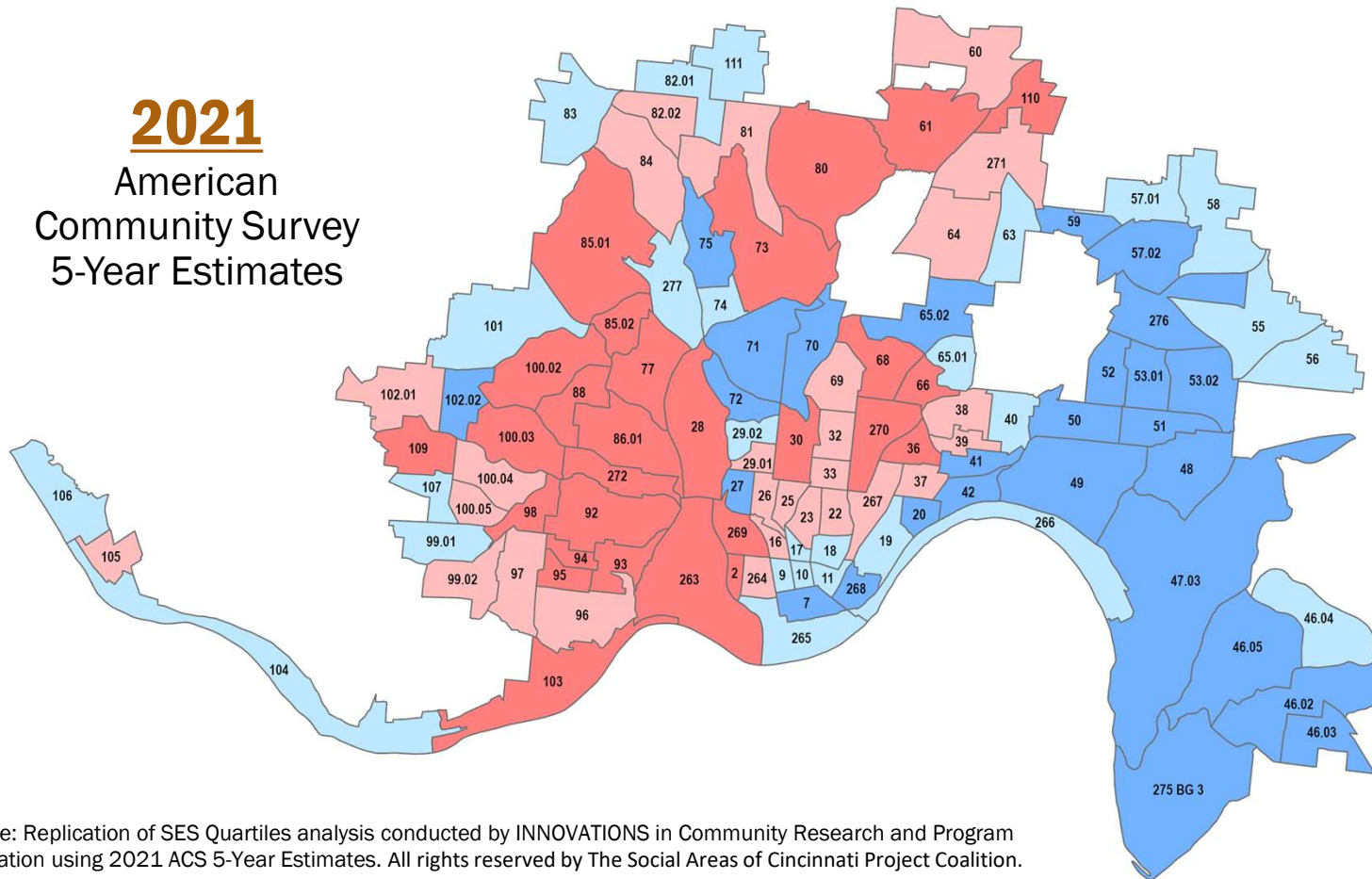
Decennial
Census



SES Quartiles for Cincinnati Census Tracts

2021

American
Community Survey
5-Year Estimates



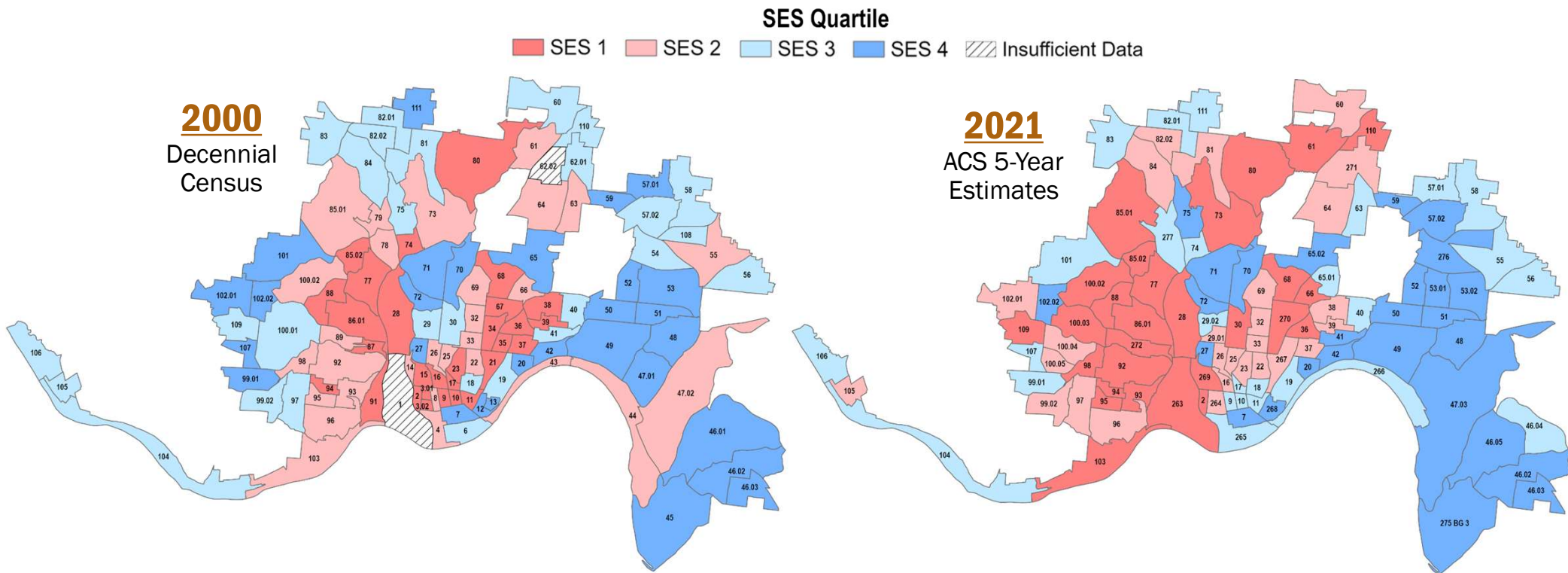
SES Quartile

- SES 1
- SES 2
- SES 3
- SES 4

Note: Regions displayed are
Census Tracts from 2020.

Source: Replication of SES Quartiles analysis conducted by INNOVATIONS in Community Research and Program Evaluation using 2021 ACS 5-Year Estimates. All rights reserved by The Social Areas of Cincinnati Project Coalition.

SES Quartiles for Cincinnati Census Tracts

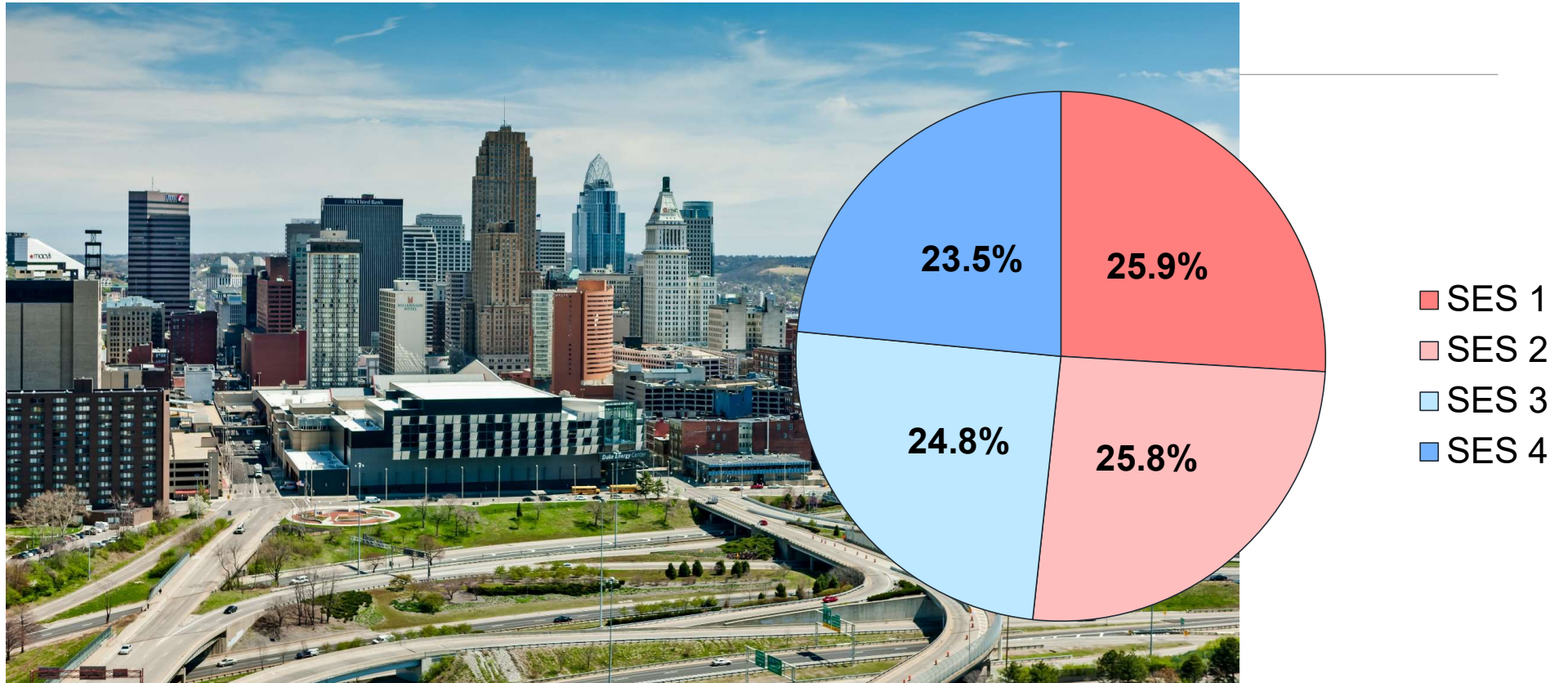


Note: Maps show Cincinnati census tracts color-coded by SES quartile. (Left) Reproduction of Figure 2 from The Social Areas of Cincinnati (4th Ed, 2004) using 2000 decennial census data; (Right) Social areas analysis using 2021 ACS 5-Year Estimates. All rights reserved by The Social Areas of Cincinnati Project Coalition.

**Real-World Examples:
Using Census Data and Spatial Analysis to Inform
Community Change**



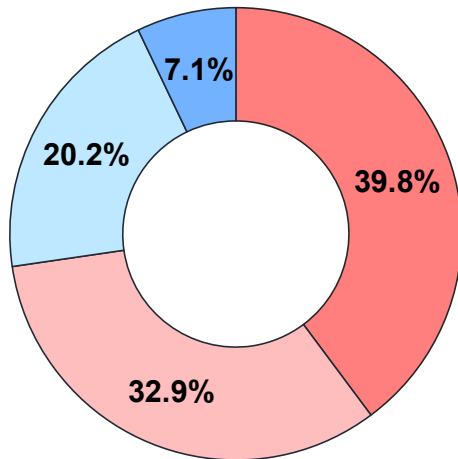
Distribution of SES Quartiles in Cincinnati Population



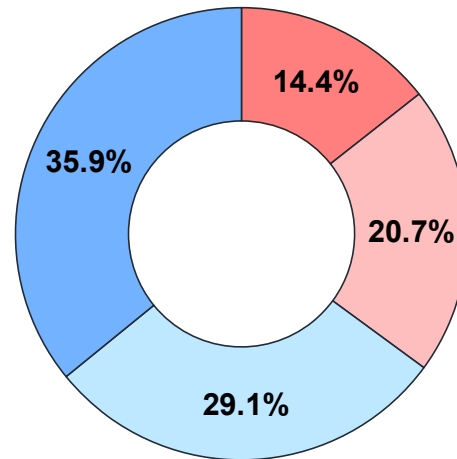
Source: American Community Survey 2021 5-Year Estimates

Percent of Specific Populations who Live in Each Quartile within the City of Cincinnati

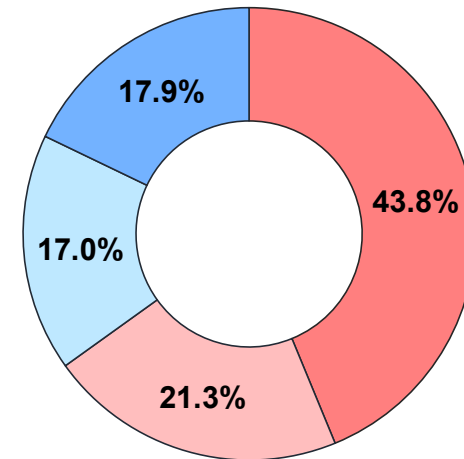
Black/African-American



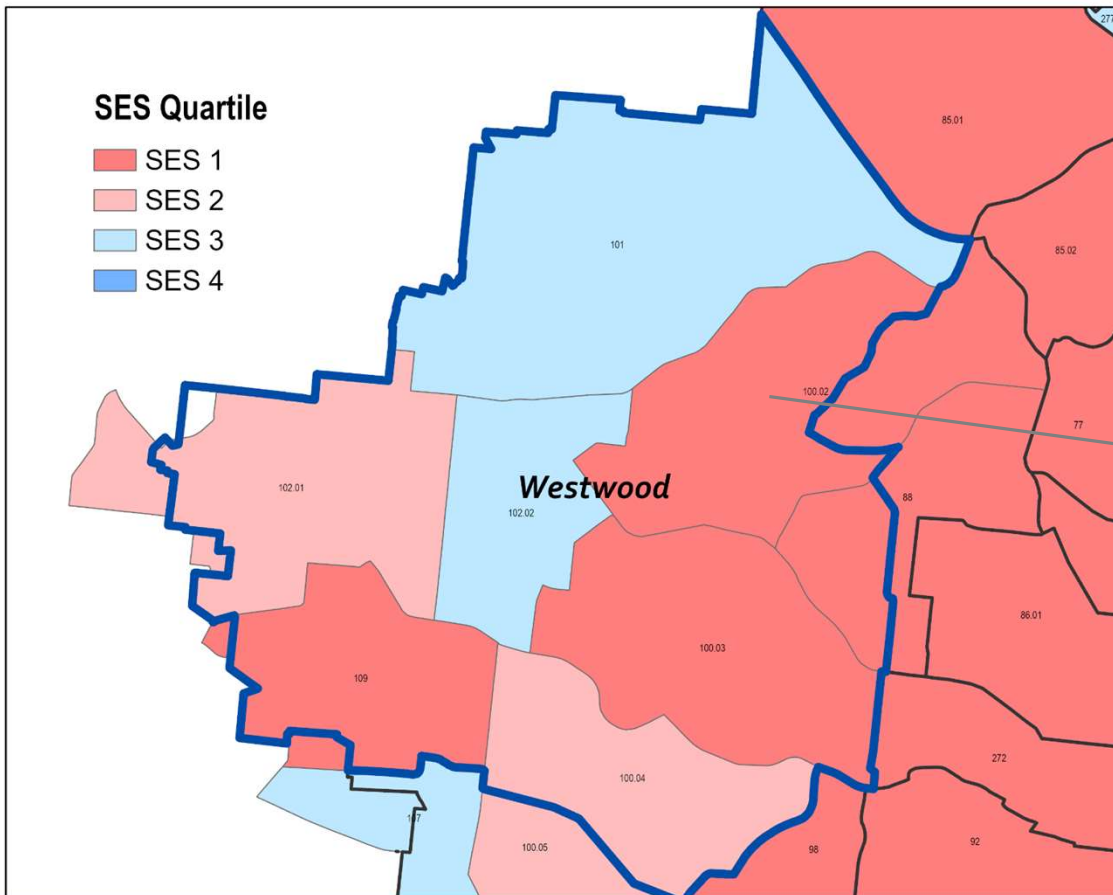
White



Hispanic/Latino



Understanding SES Quartiles



Tract 100.02 (SES 1)

\$32,545 Median Family Income

28% Percentage of 25+ year olds with less than a high school diploma

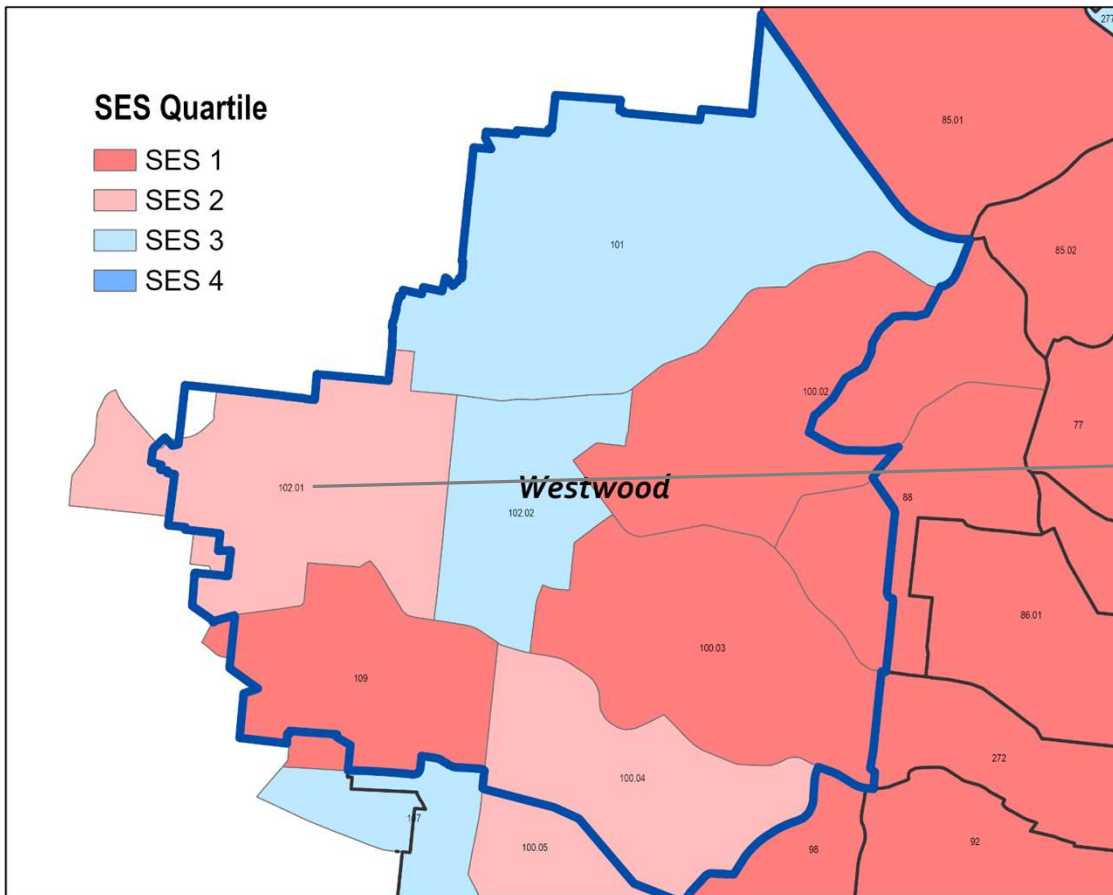
13% Percentage of children living in married-couple households

4% Percent of housing units with more than one person per room

88% Percent of workers in unskilled and semiskilled occupations

Source: SES Quartiles from 2021 ACS 5-Year Estimates.

Understanding SES Quartiles



Tract 102.01 (SES 2)

\$52,516 Median Family Income

15% Percentage of 25+ year olds with less than a high school diploma

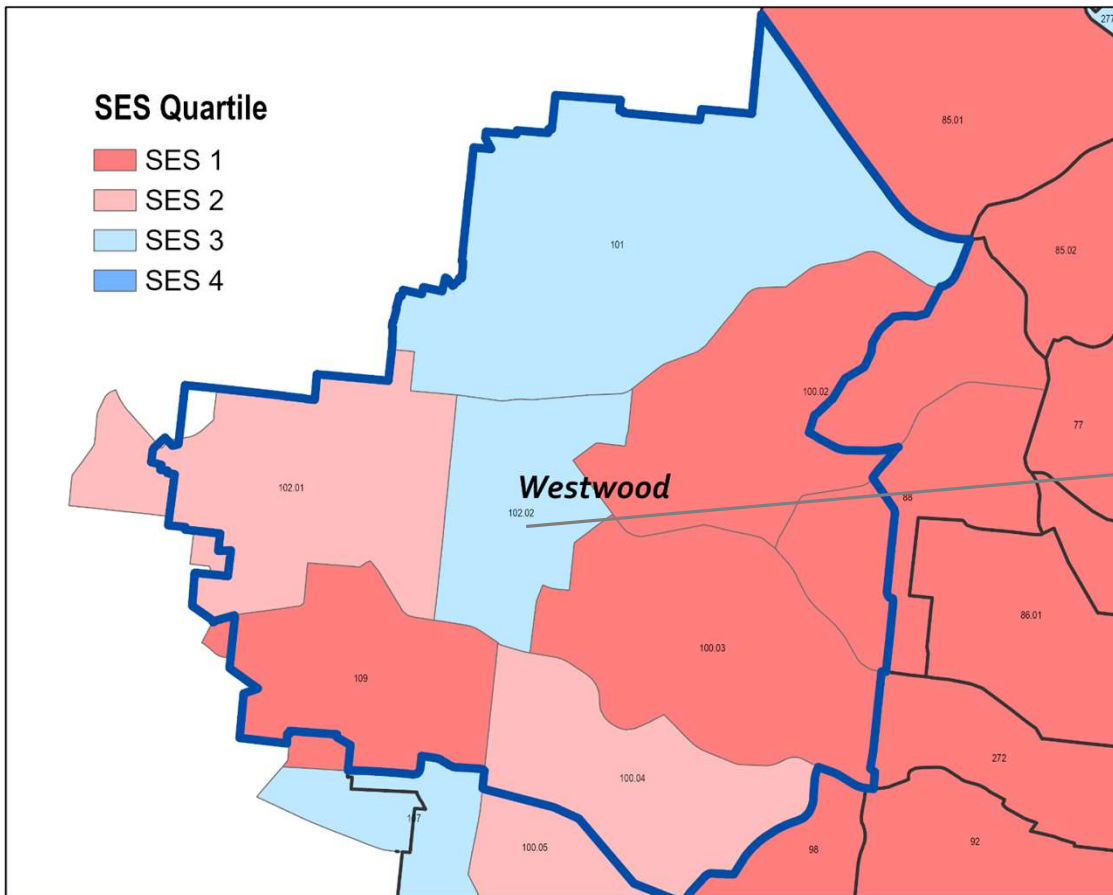
44% Percentage of children living in married-couple households

0% Percent of housing units with more than one person per room

82% Percent of workers in unskilled and semiskilled occupations

Source: SES Quartiles from 2021 ACS 5-Year Estimates.

Understanding SES Quartiles



Tract 102.02 (SES 3)

\$78,646 Median Family Income

6% Percentage of 25+ year olds with less than a high school diploma

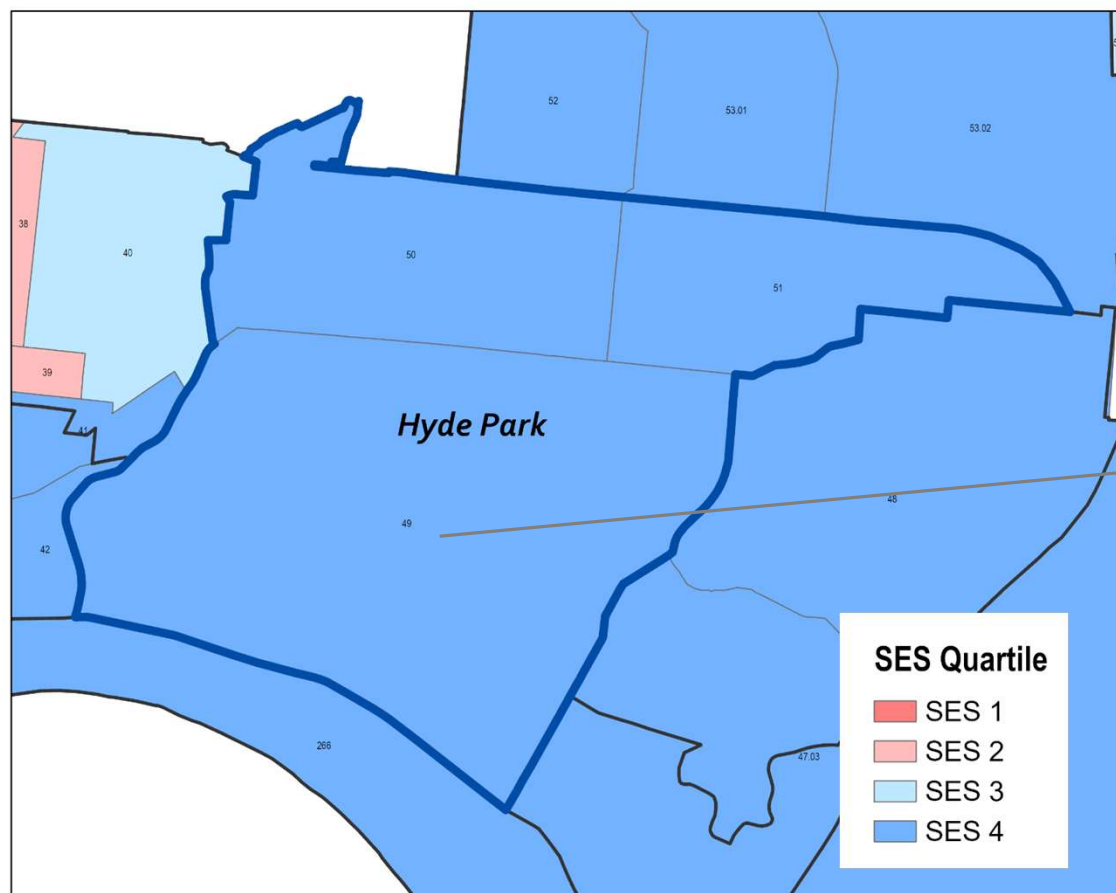
80% Percentage of children living in married-couple households

0% Percent of housing units with more than one person per room

71% Percent of workers in unskilled and semiskilled occupations

Source: SES Quartiles from 2021 ACS 5-Year Estimates.

Understanding SES Quartiles



Tract 49 (SES 4)

\$171,840 Median Family Income

1%

Percentage of 25+ year olds with less than a high school diploma

85%

Percentage of children living in married-couple households

1%

Percent of housing units with more than one person per room

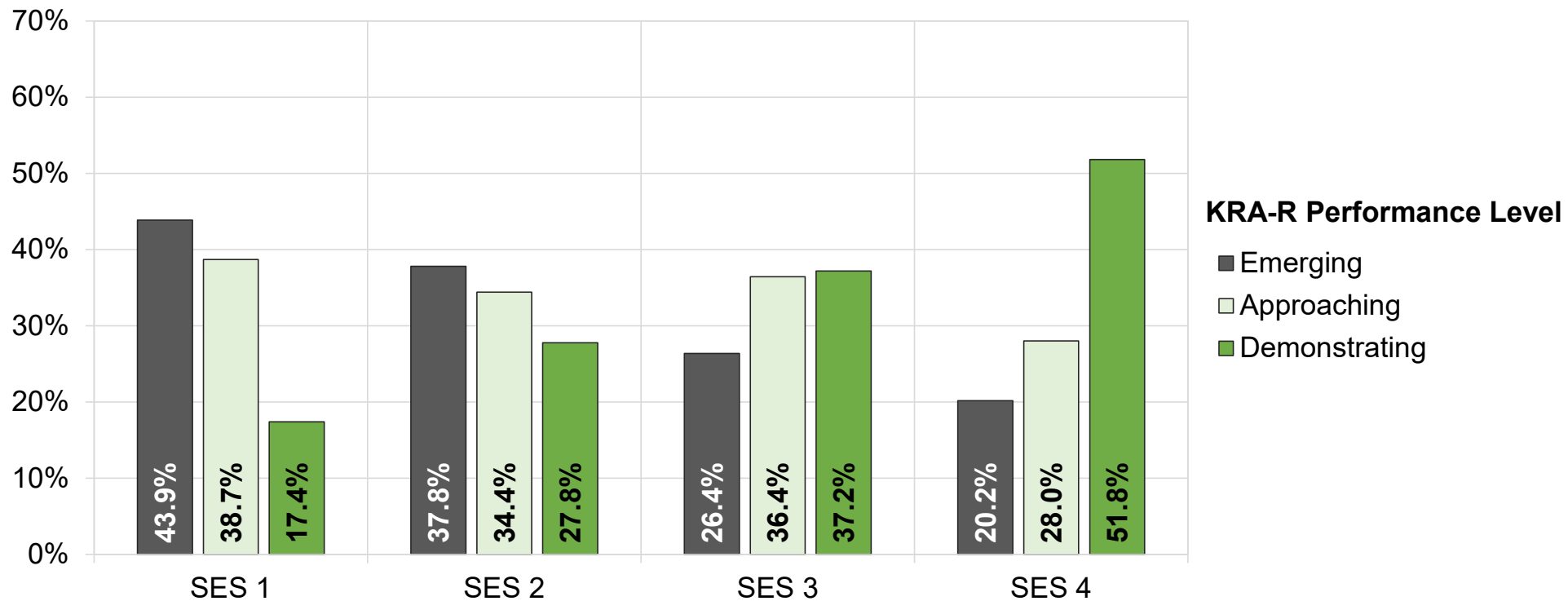
42%

Percent of workers in unskilled and semiskilled occupations

Source: SES Quartiles from 2021 ACS 5-Year Estimates.

Academic Outcomes by SES Quartile

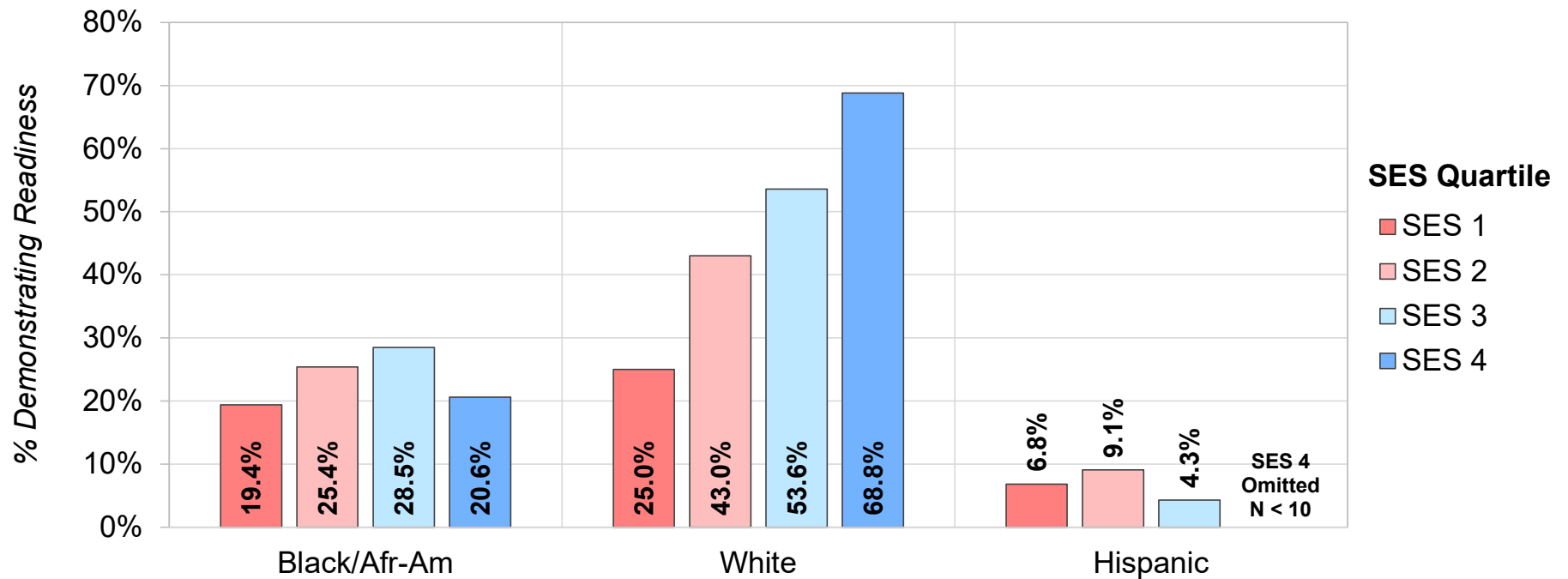
Kindergarten Readiness Assessment Revised (KRA-R) Performance Levels by SES Quartile



Source: KRA-R 2021-22 Annual Report for Cincinnati Public Schools District;
reported by INNOVATIONS in Community Research and Program Evaluation

Academic Outcomes by SES Quartile

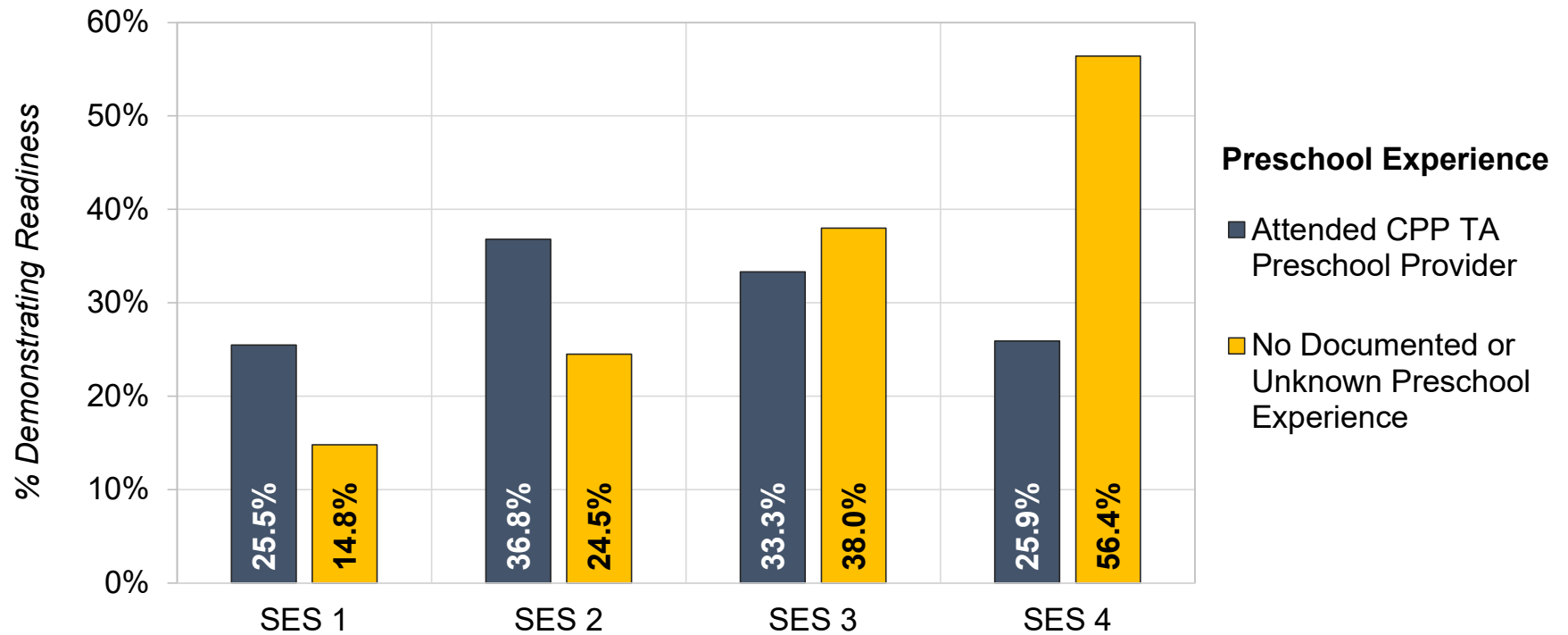
Percent Demonstrating Kindergarten Readiness by SES Quartile and Race



Source: KRA-R 2021-22 Annual Report for Cincinnati Public Schools District; reported by INNOVATIONS in Community Research and Program Evaluation

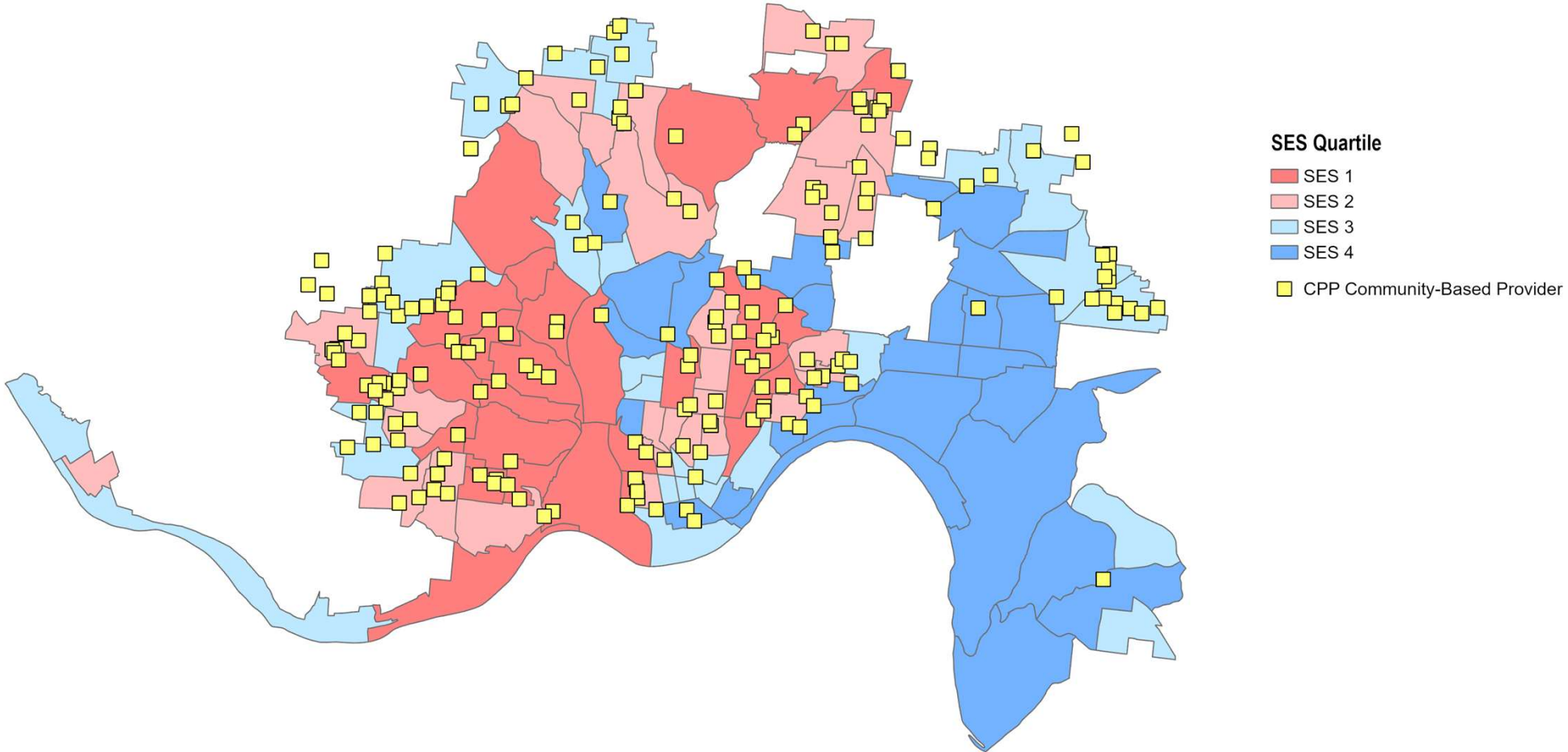
Academic Outcomes by SES Quartile

Percent Demonstrating Readiness by SES Quartile and Participation at Tuition Assistance (TA) Cincinnati Preschool Promise (CPP) Provider



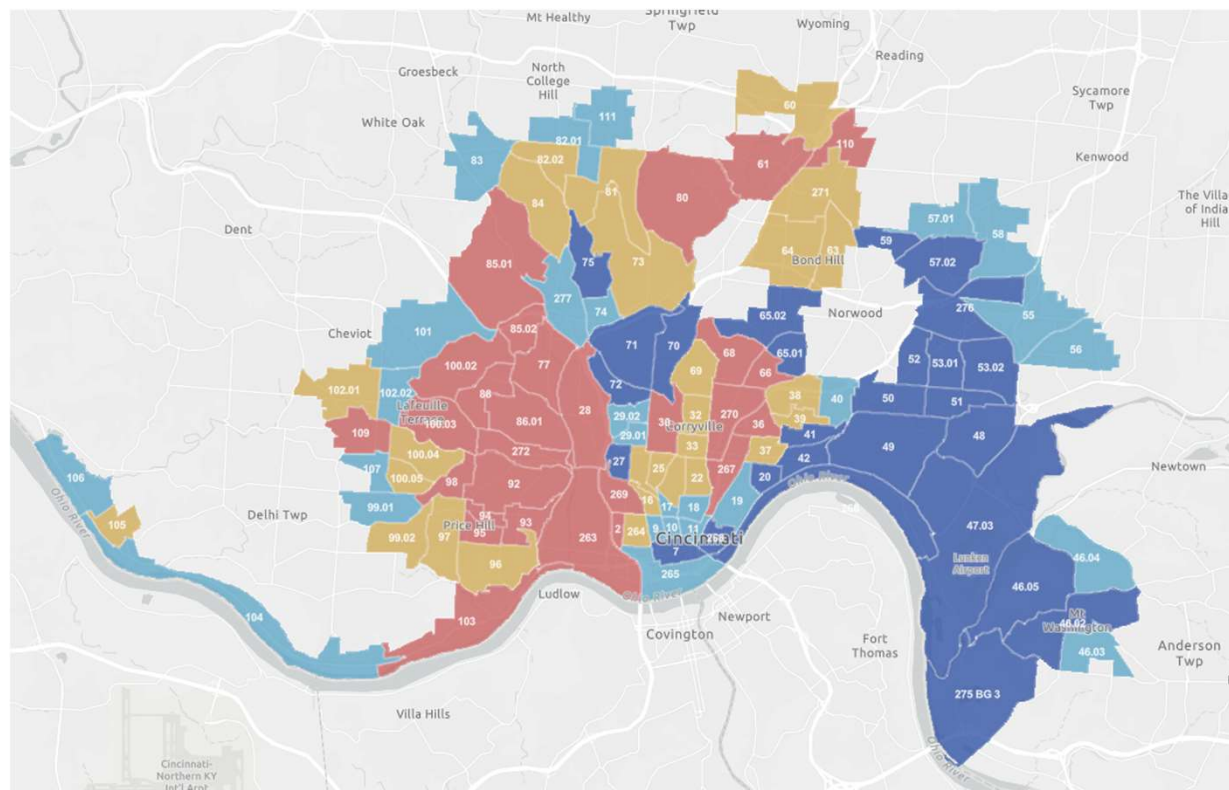
Source: Cincinnati Preschool Promise Program Evaluation Report – Year Five (2021-22); reported by INNOVATIONS in Community Research and Program Evaluation

Cincinnati Preschool Promise (CPP) Network by SES Quartile



Source: Cincinnati Preschool Promise community-based preschool provider network as of December 2022

Interactive Map: SES Quartiles for Cincinnati Census Tracts



Open Discussion and Other Examples



- ◇ Disparities in the Appalachian Community
- ◇ Council on Aging - Senior Center in Hyde Park
- ◇ Cincinnati Recreation Commission (CRC) - Recreation Center in Price Hill
- ◇ Empowerment Zones - \$6M Allocated for African-American Neighborhoods
- ◇ Hamilton County - Investing \$1B in SES I Neighborhoods
- ◇ Cincinnati Police Department - Revising Police District Boundaries

Implications for Policy and Practice

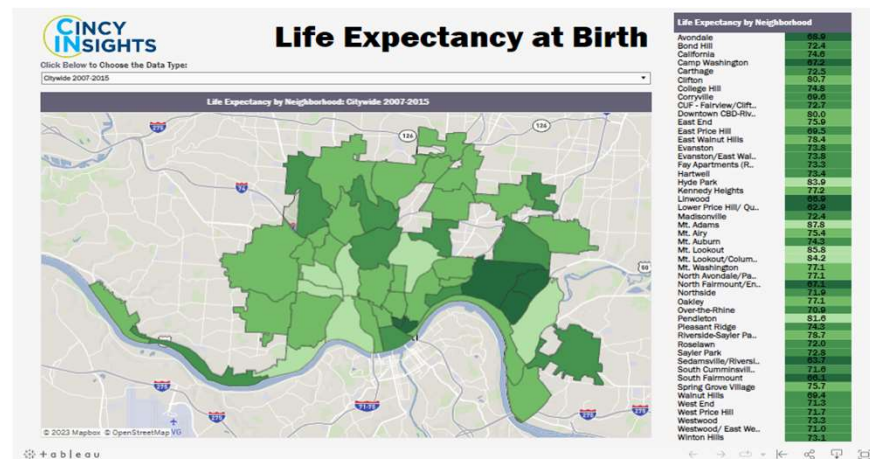
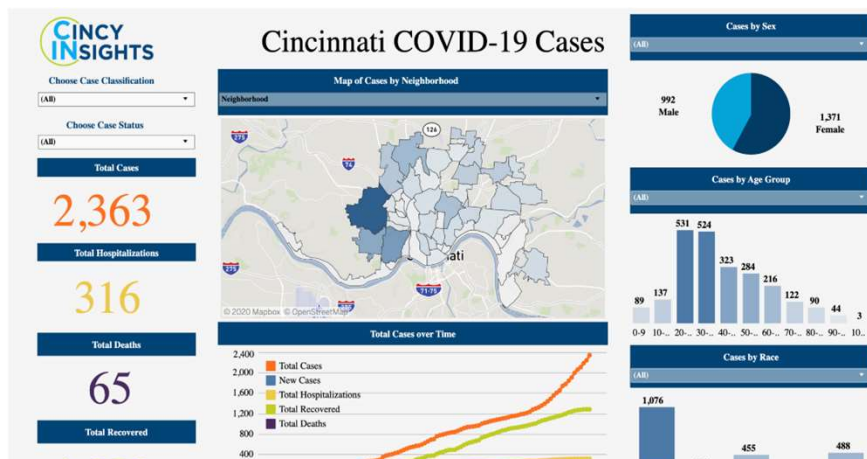


Implications for Policy and Practice



“The results of the census help determine how hundreds of billions of dollars in federal funding, including grants and support to states, counties and communities are spent every year for the next decade. It helps communities get its fair share for schools, hospitals, roads, and public works. That funding shapes many different aspects of every community, no matter the size, no matter the location. These funds are based on population totals and breakdowns by sex, age, race and other factors.”

Implications for Policy and Practice



“Studies have shown that COVID-19 does not affect all population groups equally. Three important factors are age, race, and ethnicity.”



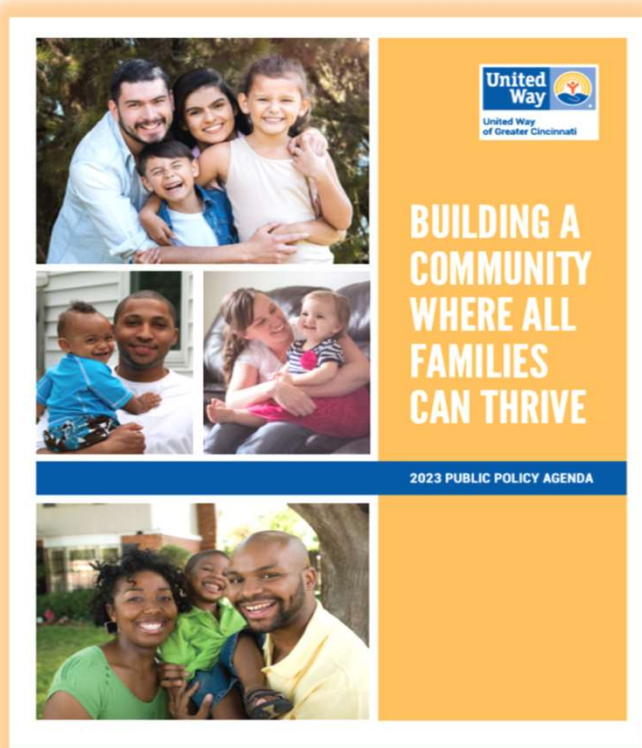
Shanahan et al. 2022

“Conclusions and relevance: In this study, neighborhood conditions and resources for children were significantly associated with life expectancy at birth ... at the Census tract level. These findings suggest that community resources and conditions are important targets for antipoverty interventions and policies to improve life expectancy and address health inequities.”

Image Credits and Sources:

- <https://insights.cincinnati-oh.gov/stories/s/Health-and-Environment/fq5f-c2zv/>
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html>
- <https://pubmed.ncbi.nlm.nih.gov/36239940/>

Implications for Policy and Practice



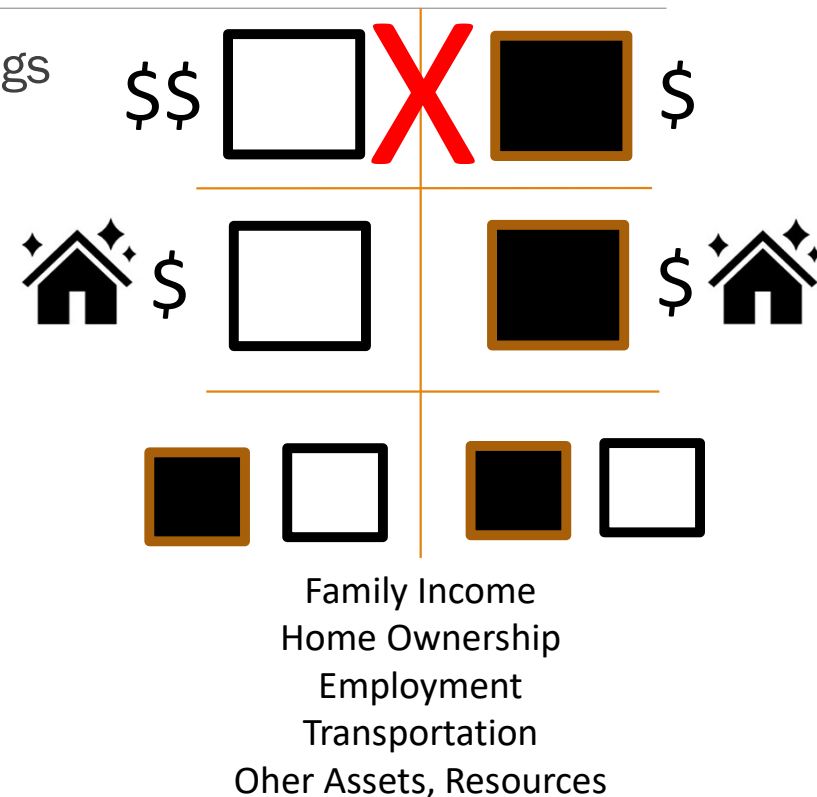
Implications for Culture and Diversity



Implications for Culture and Diversity

Social factors are important to ensuring that findings are understood and utilized in proper social and cultural contexts:

- ◆ Places and Geography
- ◆ Community Assets, Resources and Risks
- ◆ Race and Ethnicity



Race, Place and Grace Matters.....

■ FOR SUBSCRIBERS

'It's abysmal': Lifespans in parts of Greater Cincinnati are as short as in Afghanistan

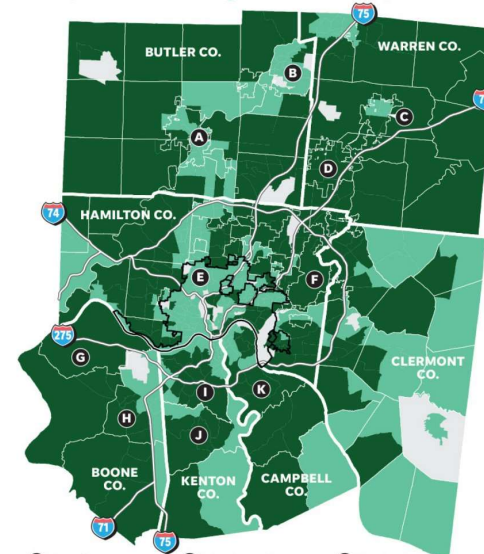
Dan Horn and Terry DeMio, Cincinnati Enquirer
Updated 4 days ago



Life expectancy in the Cincinnati region

Census tracts in seven Cincinnati-area counties where life expectancy is either above or below the region's median life expectancy of 77 years.

● Age 77 and more ● Less than age 77 ● No data



- A Hamilton
- B Middletown
- C Lebanon
- D Mason
- E Cincinnati
- F Indian Hill
- G Hebron
- H Florence
- I Covington
- J Independence
- K Newport-Fort Thomas

SOURCES: U.S. Census and the Centers for Disease Control and Prevention

Dan Horn and Michael Nyerges / THE ENQUIRER

Image Credits and Source:

<https://www.cincinnati.com/story/news/local/2023/04/19/why-life-expectancy-gap-disparity-exists-in-greater-cincinnati/70109301007/>

Race, Place and Grace Matters.....

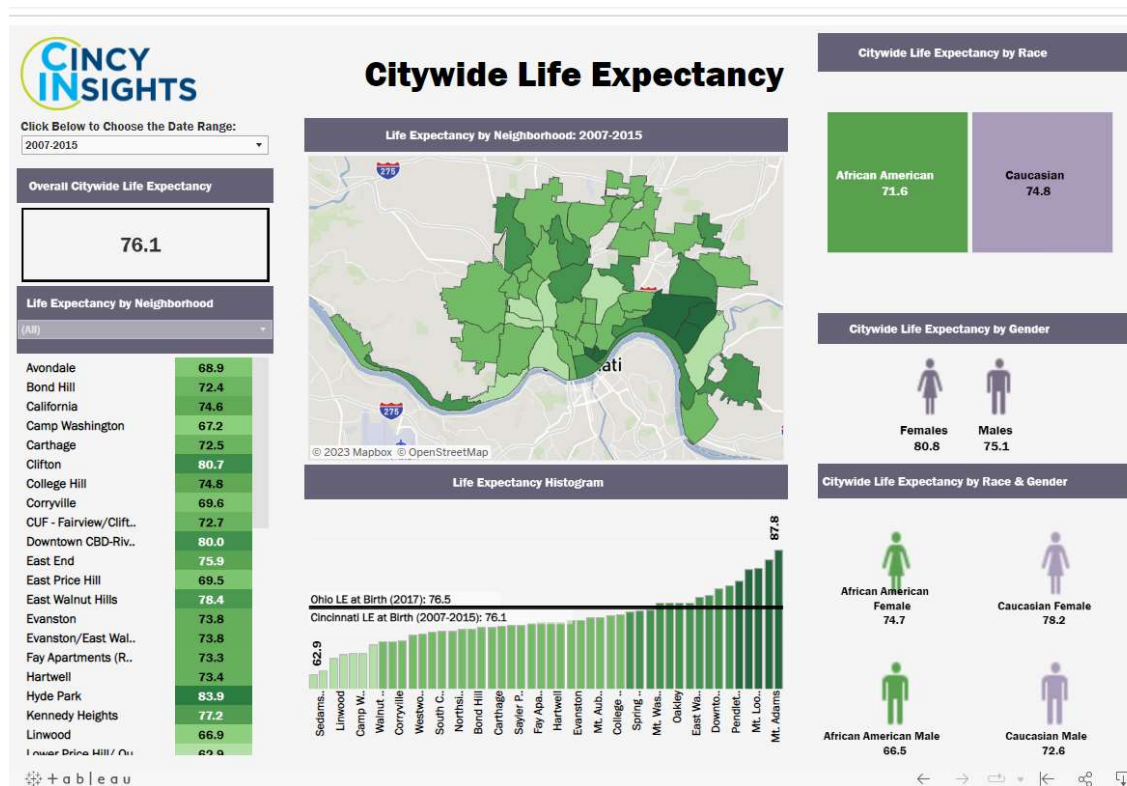


Image Credits and Source:

<https://insights.cincinnati-oh.gov/stories/s/Life-Expectancy/9xxh-r3qg/>



United Way
of Greater Cincinnati

TOP PROGRAMS



FREE TAX PREP

Free Tax Prep, an initiative of United Way of Greater Cincinnati, provides free income tax preparation and filing services. The program is funded by the IRS and powered by numerous volunteers.



BLACK EMPOWERMENT WORKS

Black Empowerment Works promotes Black self-determination, social mobility and economic prosperity by resourcing and funding grassroots-generated, Black-led ideas, programs and projects.



211 HELP CENTER

Our certified information and referral specialists are trained to listen, engage, ask questions, assess your needs and connect you to a community resource from our large database of local providers.

Image Credits and Source:

<https://www.uwgc.org/your-impact/programs-initiatives>

Questions, Discussion and Closing Remarks



Resources: Utilizing SES Quartiles

- ◇ ***The Social Areas of Cincinnati: An Analysis of Social Needs Reports***
 - 5th Edition (2013)
<http://www.socialareasofcincinnati.org/files/FifthEdition/SASBook.pdf>
 - 4th Edition (2004)
<http://www.socialareasofcincinnati.org/files/SocialAreasOfCincinnati2004.pdf>

- ◇ **SES Quartiles Interactive Map for the City of Cincinnati (2021)**
<https://www.arcgis.com/home/item.html?id=59c3ba26e9ee45f08b7fe2f1ab6b28c0>

Census Data: The Social Areas of Cincinnati

U.S. Census Data and American Community Survey are the foundations of *The Social Areas of Cincinnati Reports*:

City of Cincinnati Census Data & Demographics

<https://www.cincinnati-oh.gov/planning/maps-and-data/census-demographics/>

American Community Survey (ACS) 2021 Data

<https://www.census.gov/programs-surveys/acs/news/data-releases/2021/release-schedule.html>

City of Cincinnati Life Expectancy (2009-2015)

<https://insights.cincinnati-oh.gov/stories/s/Life-Expectancy/9xxh-r3qg/>

Census Data: Help for Novice Users

Census Survey Explorer

<https://www.census.gov/data/academy/data-gems/2022/finding-data-with-census-survey-explorer.html>

2020 Census

<https://www.census.gov/data/academy/topics/2020-census.html>

<https://www.census.gov/data/academy/courses/comprehensive-course-for-accessing-2020-census-redistricting-data.html>

American Community Survey

<https://www.census.gov/data/academy/courses/discovering-the-american-community-survey.html>

Census Data: Simple Examples

Description of Geographies (Nation to Tracts to Block Groups to Blocks)

<https://www.youtube.com/watch?v=1LZPYS0cR68&list=PLewV-zKXDZkg3sjxrt2r4RUkjPCeKQBxh&index=10>

Boston as a Neighborhood Example

<https://www.census.gov/data/academy/data-gems/2020/how-to-access-data-for-your-neighborhood.html>

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