

The Child Opportunity Index

What it is, what it shows, and how to use it

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Overview

What is the Child Opportunity Index?

Why is it needed?

What does it show?

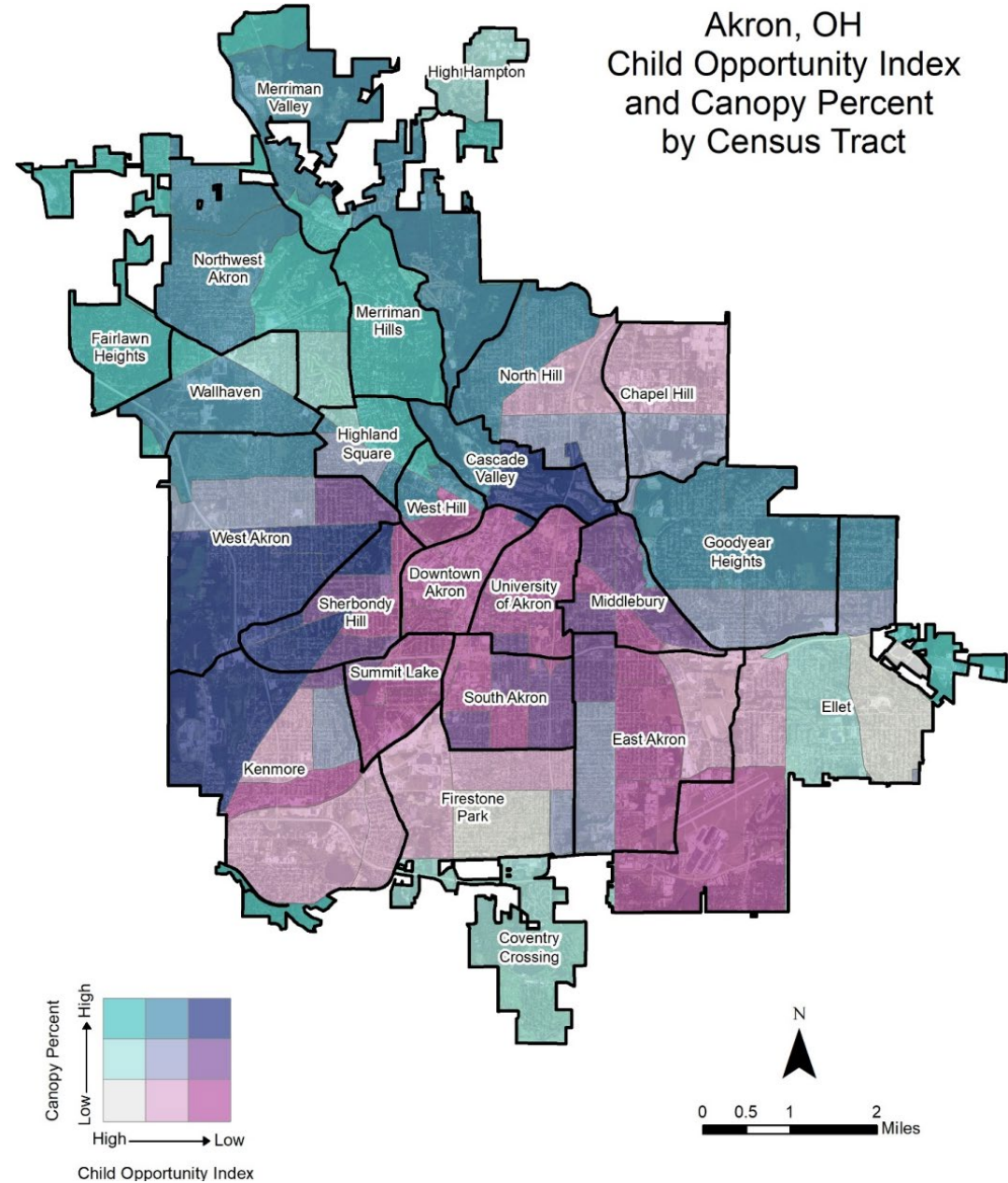
How can you use it?

**How do you allocate resources equitably
across neighborhoods?**

How do you plant trees equitably?

Focus on areas that lack trees and are low opportunity

https://www.akronohio.gov/cms/resource_library/files/581087c52852896c/2021_akron_urban_tree_canopy_assessment_and_planting_plan.pdf



The Child Opportunity Index 3.0

- A multi-sectoral metric of child opportunity, constructed from 44 indicators covering three domains and fourteen subdomains
- Focus on neighborhood features that matter for children today
- Granular data on nearly all U.S. neighborhoods (>72,000 census tracts)
- Annual data comparable across neighborhoods and over time (2012 to 2021)
- Rapidly growing peer-reviewed research evidence establishing the validity of the COI and supporting applications across different sectors, including early childhood education and health

Why do we need composite neighborhood indices?

Efficiency

- Composite indices reduce complexity and facilitate data-driven decision-making

Validity

- Holistic measurement of neighborhood environments
- Better capture racial/ethnic inequality in access to neighborhood opportunity
- More predictive of children's outcomes

Child Opportunity Index 3.0

What is included and how is it constructed?

COI 3.0 component indicators

Education

Early childhood education

Private pre-K enrollment, public pre-K enrollment

Elementary education

Reading/math test scores,
Reading/math test score growth,
Poverty-adjusted test scores

Secondary and post-secondary

High school graduation, AP enrollment,
college access

Educational resources

School poverty, teacher experience
Adult educational attainment, child
enrichment non-profits

Health and Environment

Pollution

Airborne microparticles, ozone
concentration, industrial pollutants,
Superfund sites

Environmental health

Walkability, NatureScore, healthy food
access, extreme heat exposure

Safety-related resources

Vacant housing, safety-focused non-
profits

Health resources

Health-focused non-profits, health
insurance coverage

Social and Economic

Employment

Employment rate, high-skill employment,
full-time year-round earnings

Economic resources

Poverty rate, public assistance rate,
median household income

Concentrated inequity

Advanced education degrees, very high
income households, no high school
education, very low income households

Housing resources

Broadband access, crowded housing

Social resources

Mobility-enhancing friendship networks,
single-headed households, non-profit
density

Wealth

Home ownership rate, home values, real
estate taxes, capital income

Neighborhood racial/ethnic composition is not included in the COI

- Focus measurement on structural neighborhood differences
- Structural racism has generated and sustains structural inequities across neighborhood where children of different races/ethnicities reside
- Risk to mis-interpretation: What aspect of opportunity does the presence/absence of specific racial/ethnic groups measure?

How we built the index

- Indicators standardized (converted to z-scores) so that they are on a common scale
- Standardized indicators averaged into 14 subdomain scores
 - Weights capture how strongly each indicator predicts four different health and socio-economic outcomes
- Subdomain scores averaged into one overall score and three domain scores

Child Opportunity Levels

5 categories: very low, low, moderate, high, very high

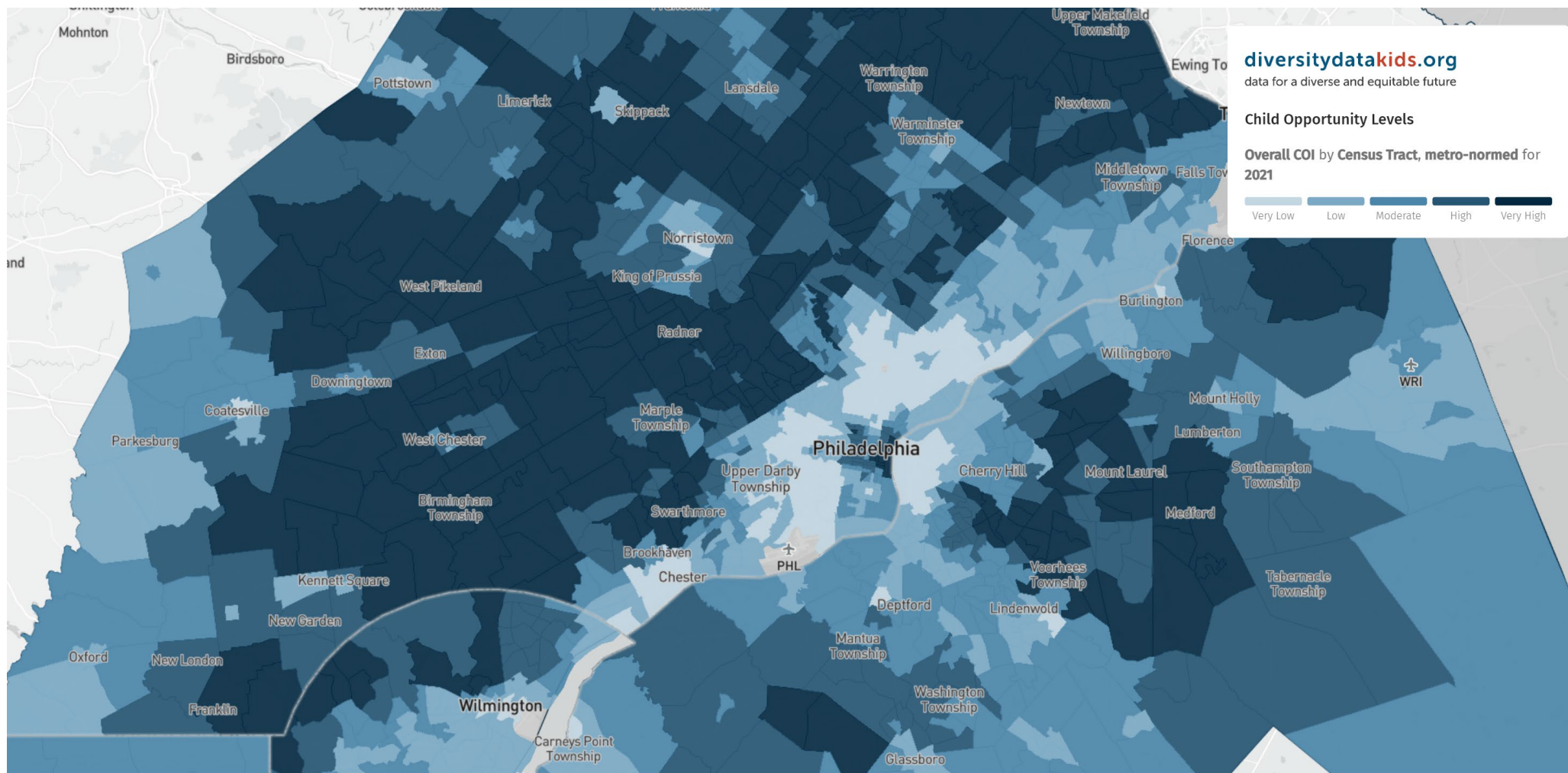
To construct them,

- we ranked all neighborhoods on their composite z-scores
- and grouped neighborhoods into 5 categories containing 20% of children each

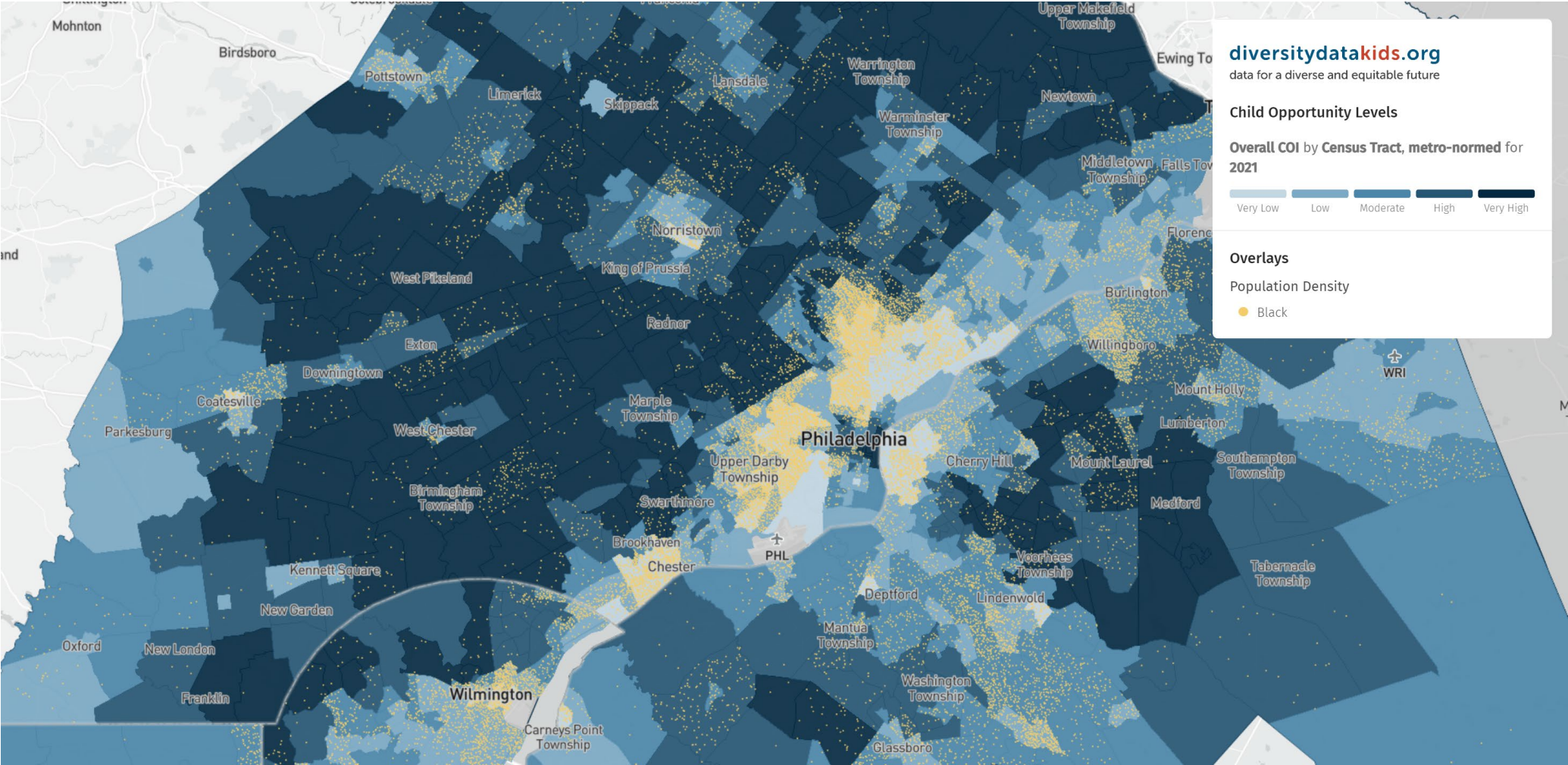
COI 3.0 analyses

Quantifying access to neighborhood opportunity

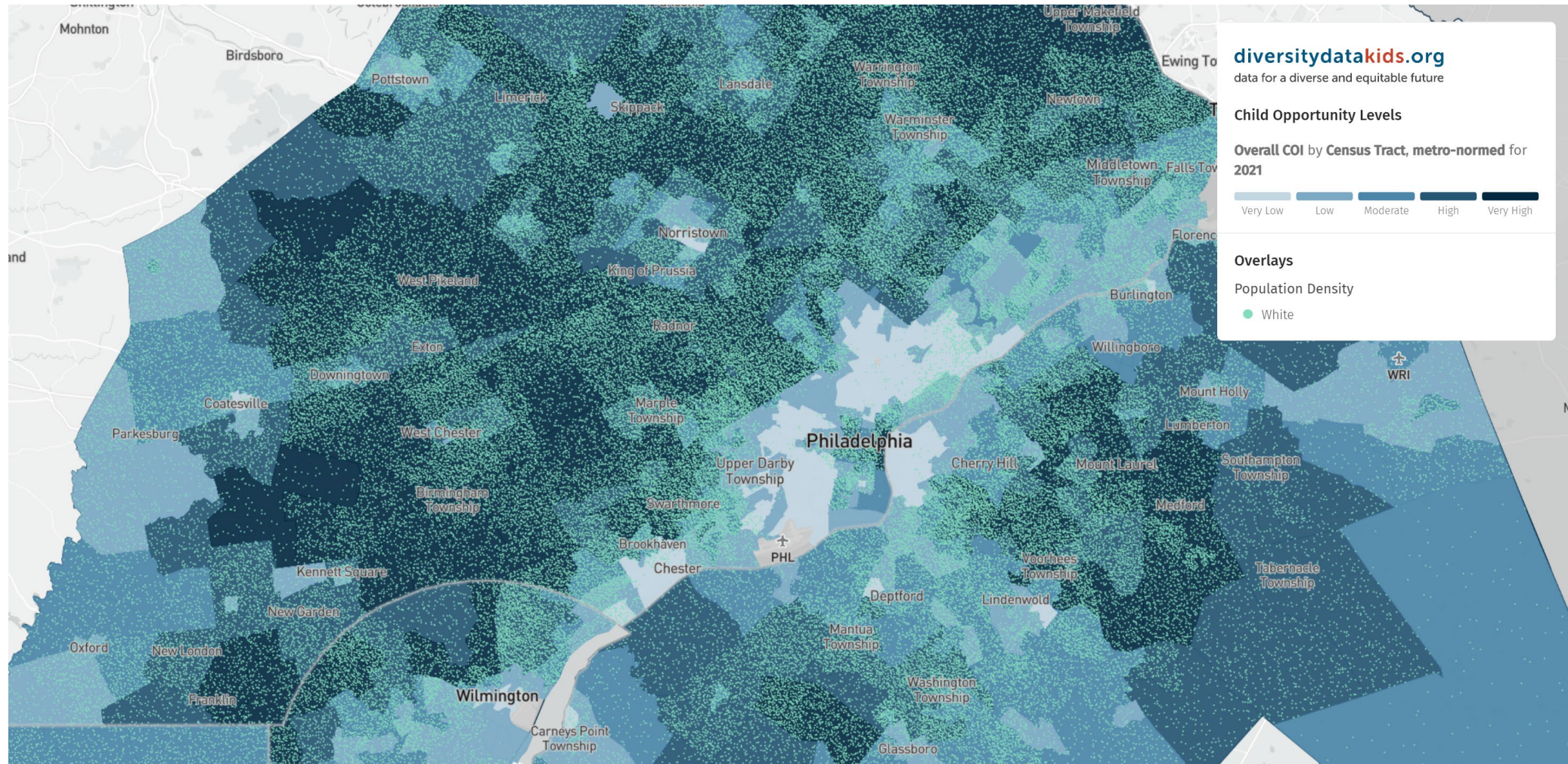
Variation in neighborhood opportunity, Philadelphia metro area



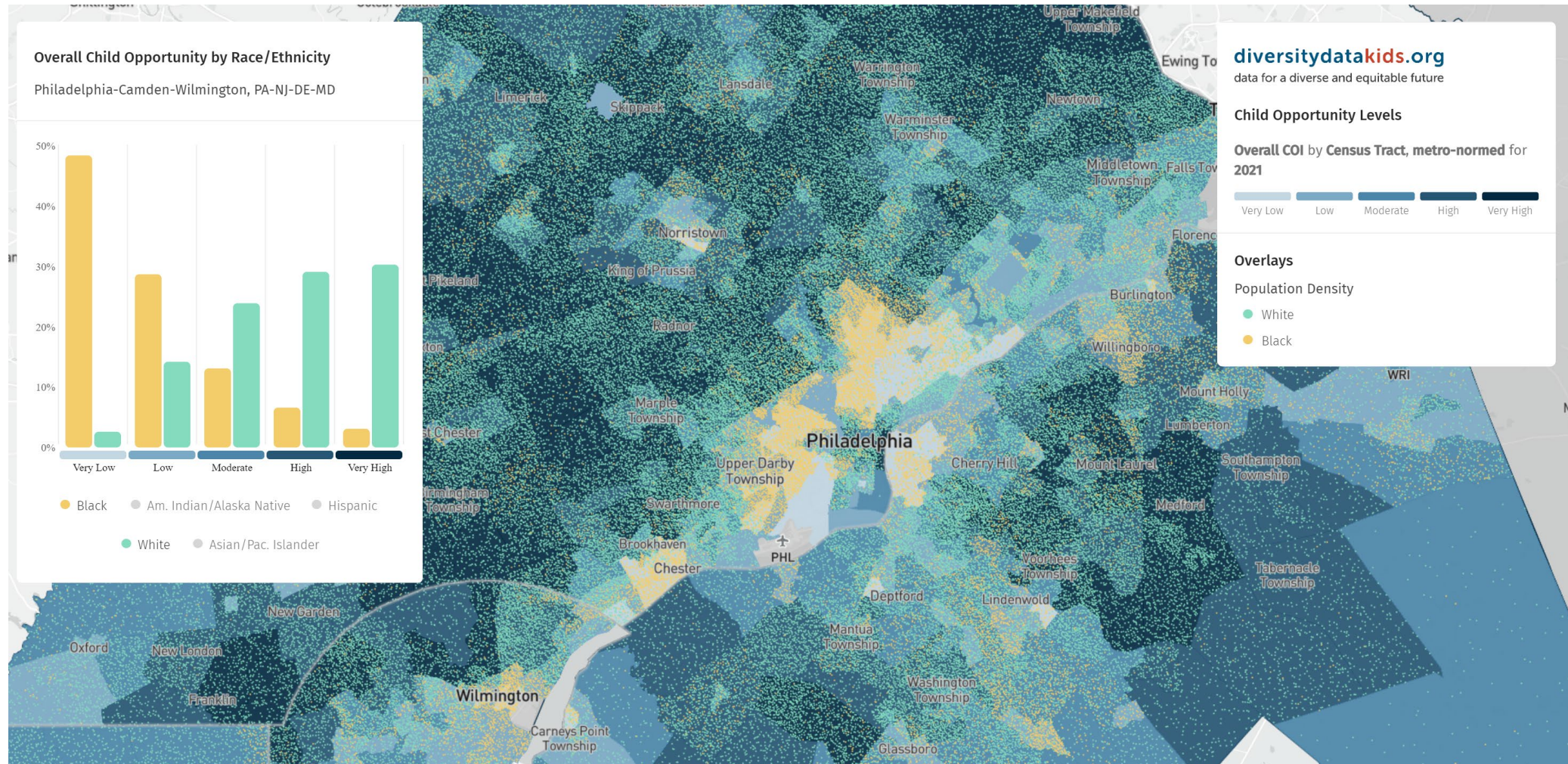
Black children's access to neighborhood opportunity, Philadelphia metro



White children's access to neighborhood opportunity, Philadelphia metro



Opportunity and residential segregation, Philadelphia metro



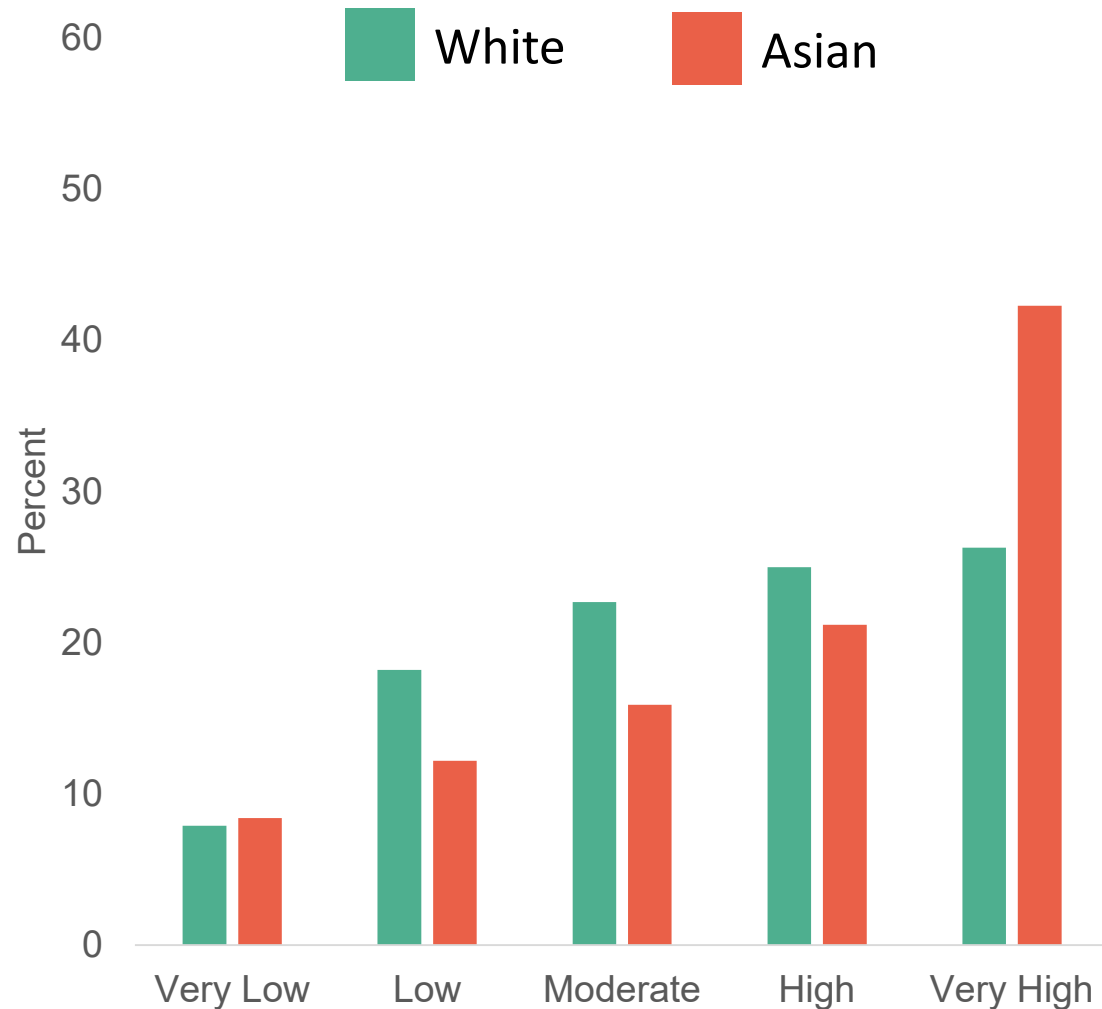
Opportunity around the Philadelphia city boundary (census tracts)



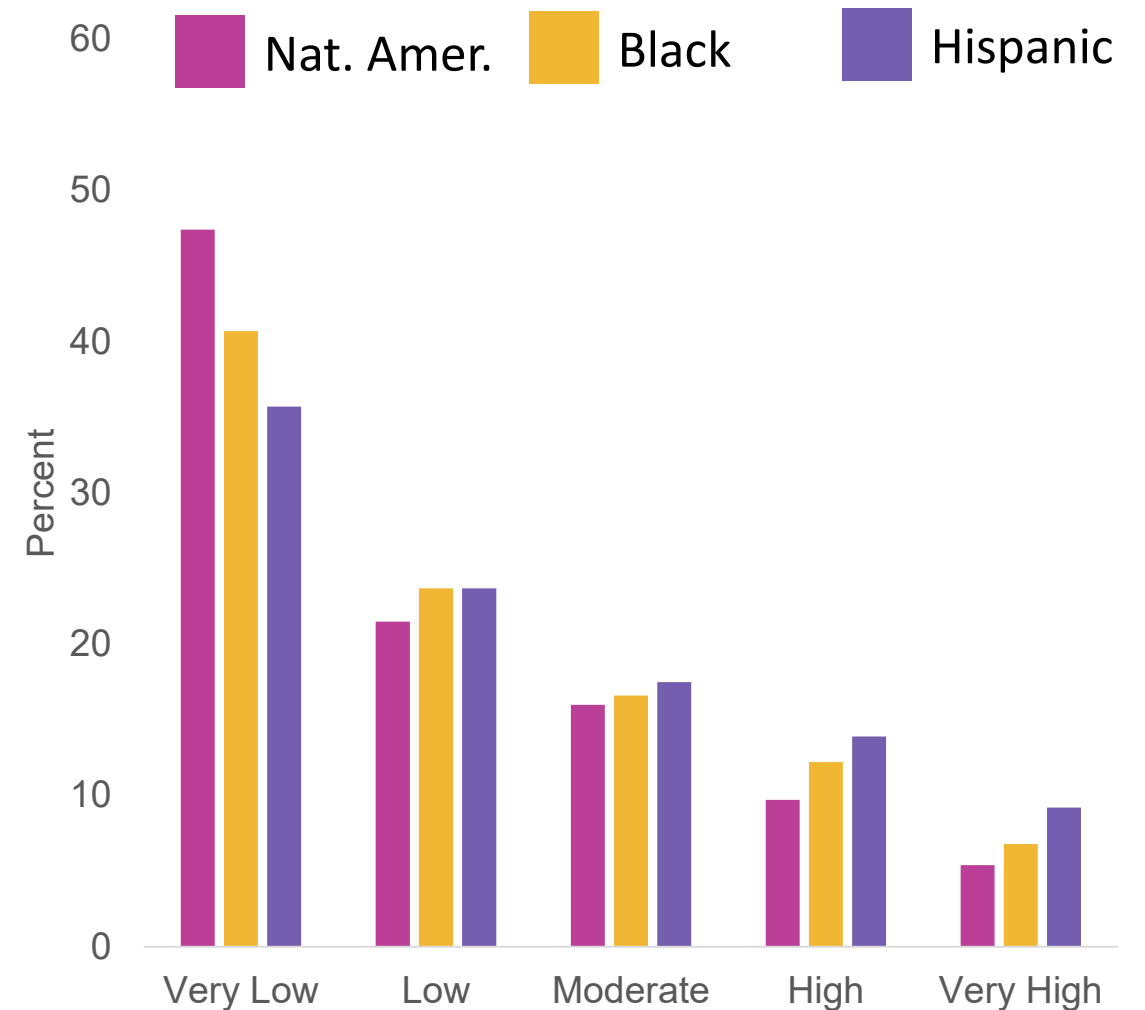
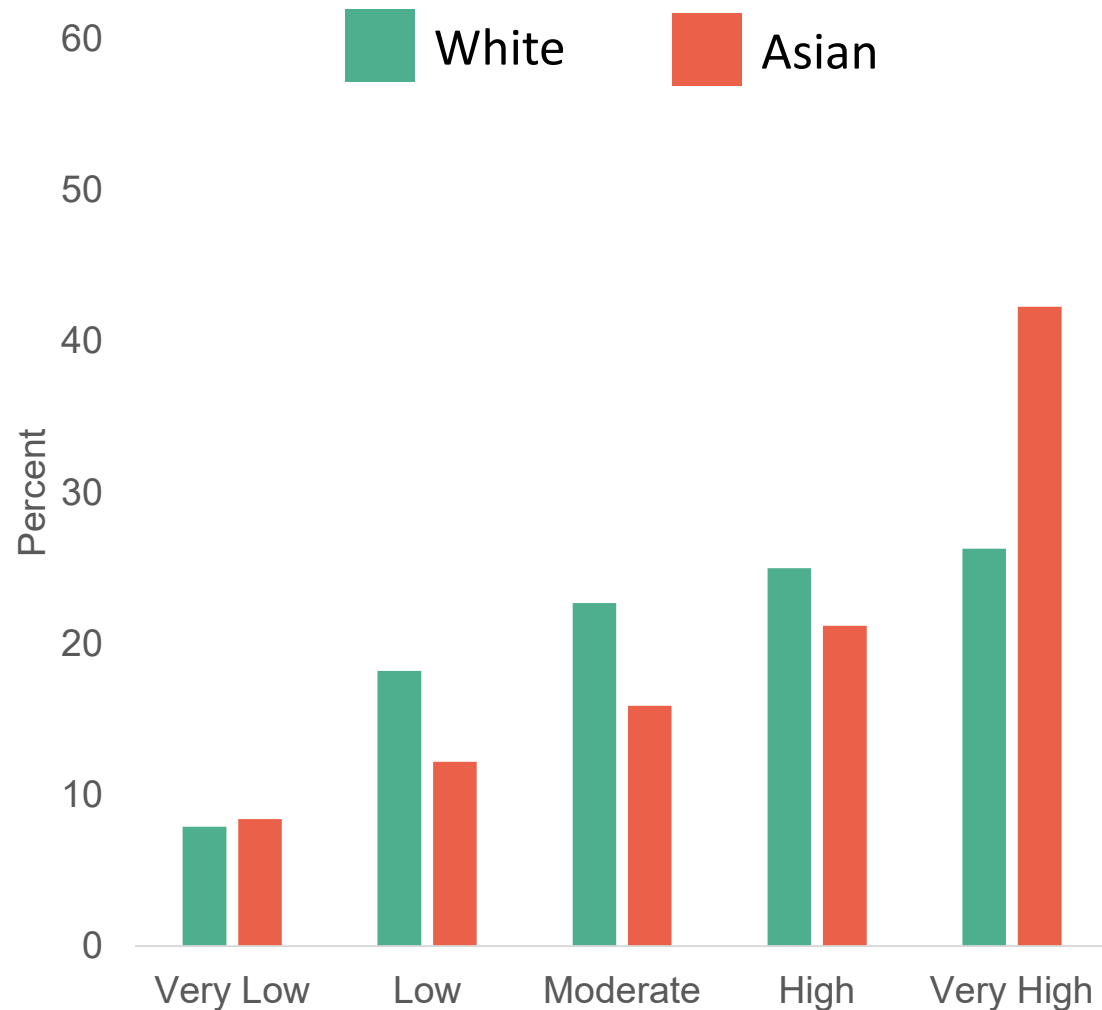
Opportunity around the Philadelphia city boundary (ZIP codes)



Nationally, the majority of White and Asian children resides in high- and very high-opportunity neighborhoods



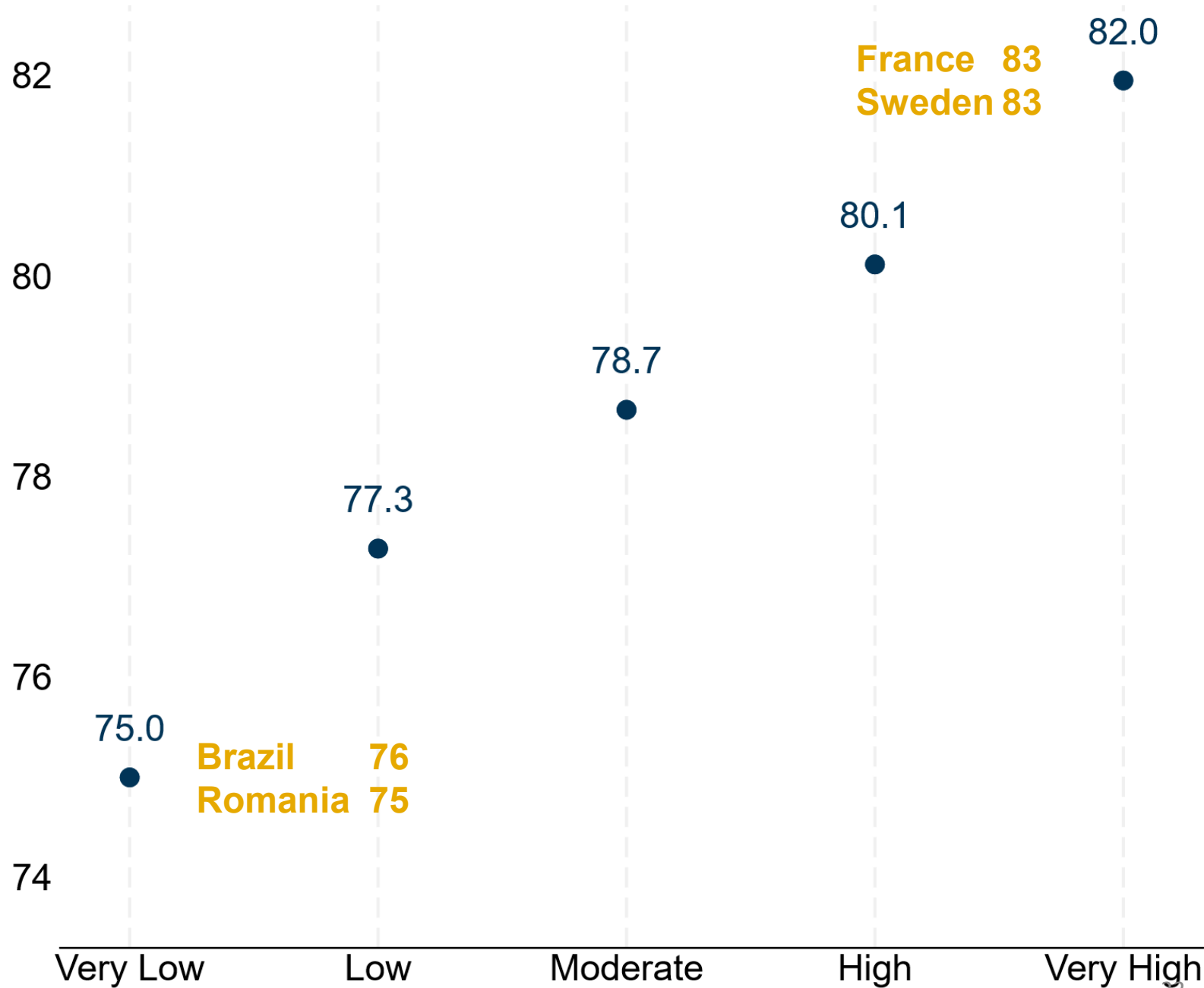
The majority of Black, Hispanic and Native American children reside in low or very low-opportunity neighborhoods



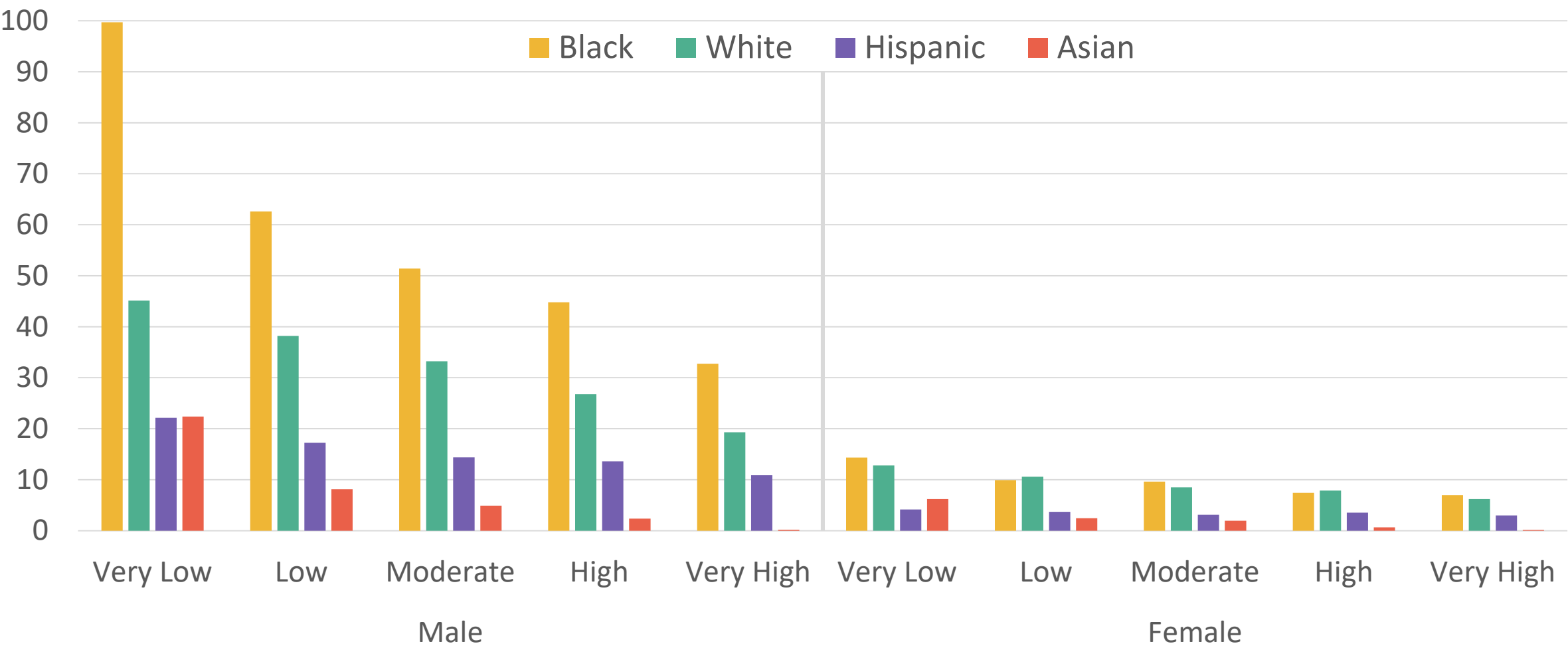
Life expectancy by Child Opportunity Level

The average number of years a person can be expected to live at birth

Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics, United States Small-area Life Expectancy Estimates Project (USALEEP), World Bank.



Violent deaths per 100,000 individuals by COI, gender, and race

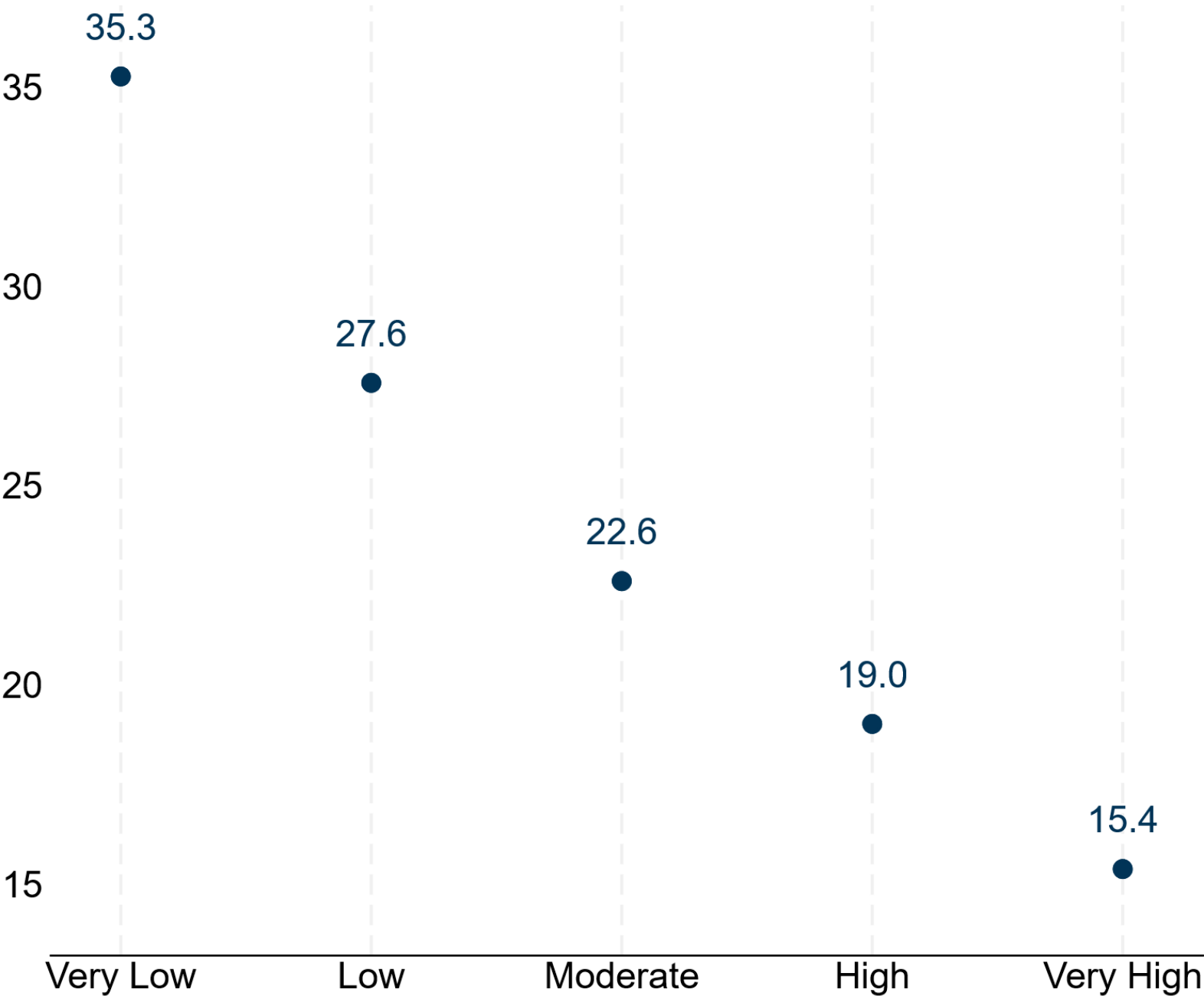


UNITED STATES

Limited physical activity

Estimated percentage of adults reporting no leisure-time physical activity in the last month

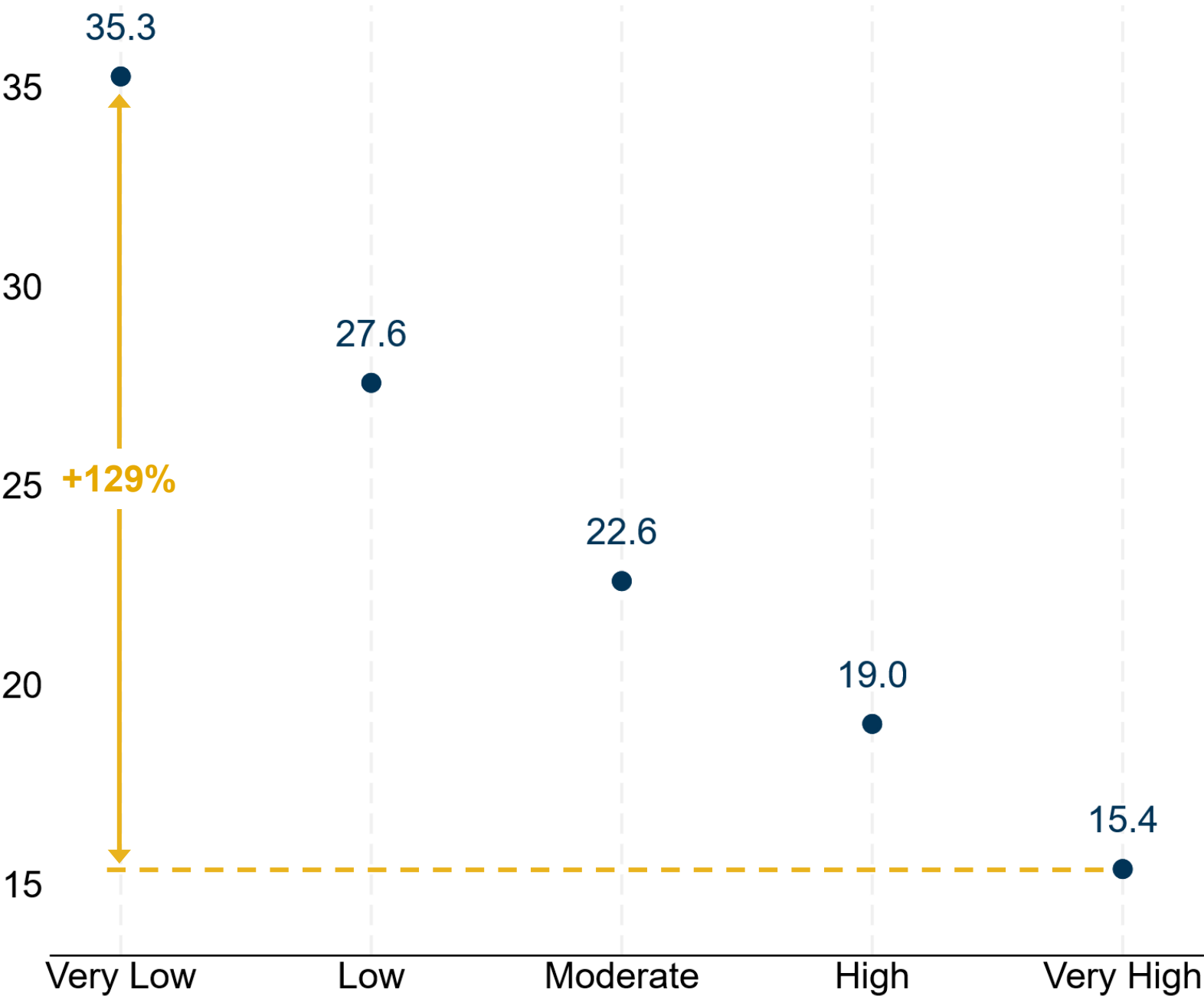
Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics.



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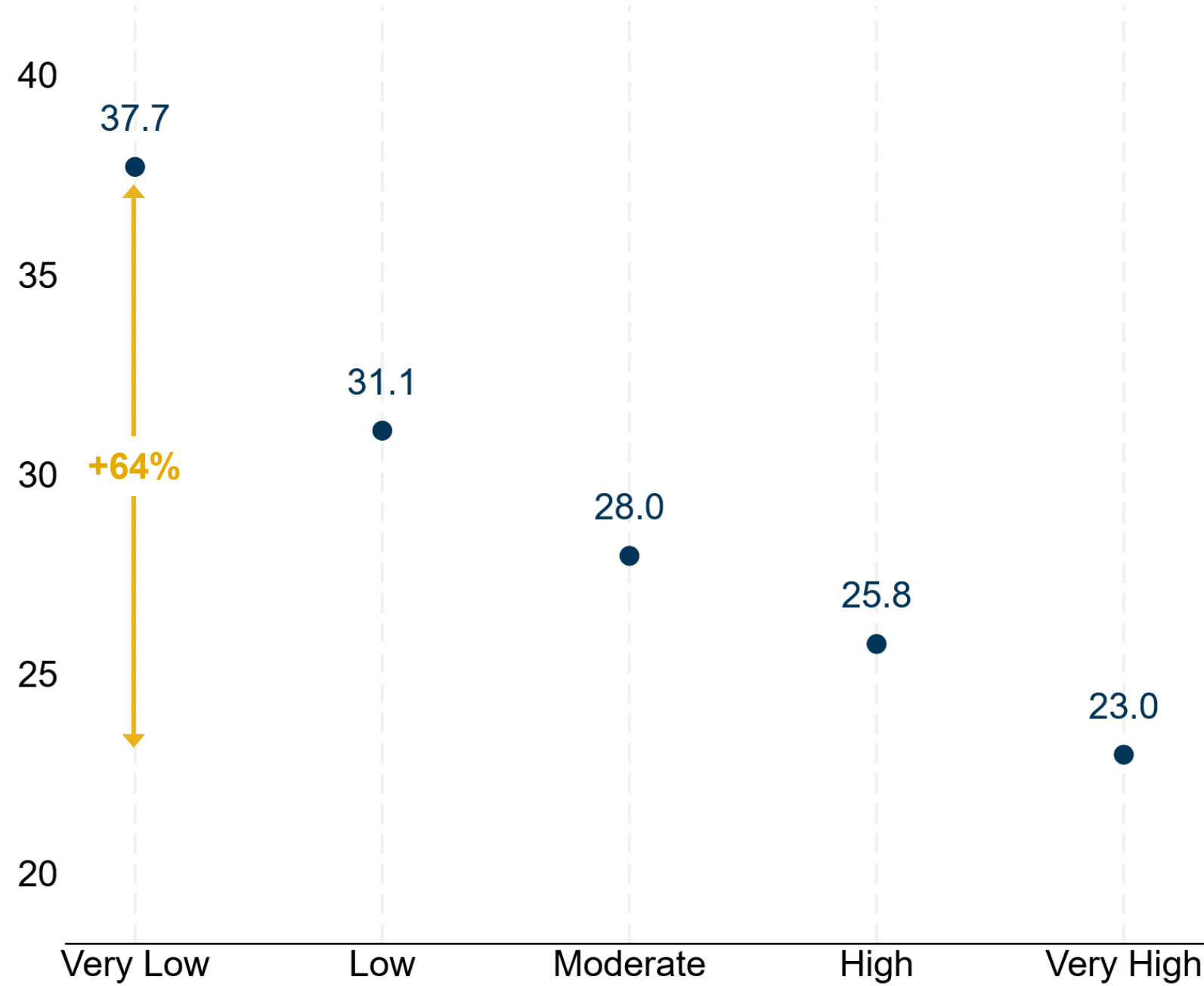


UNITED STATES

Obesity

Estimated percentage of adults who are obese (BMI ≥ 30)

Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics.

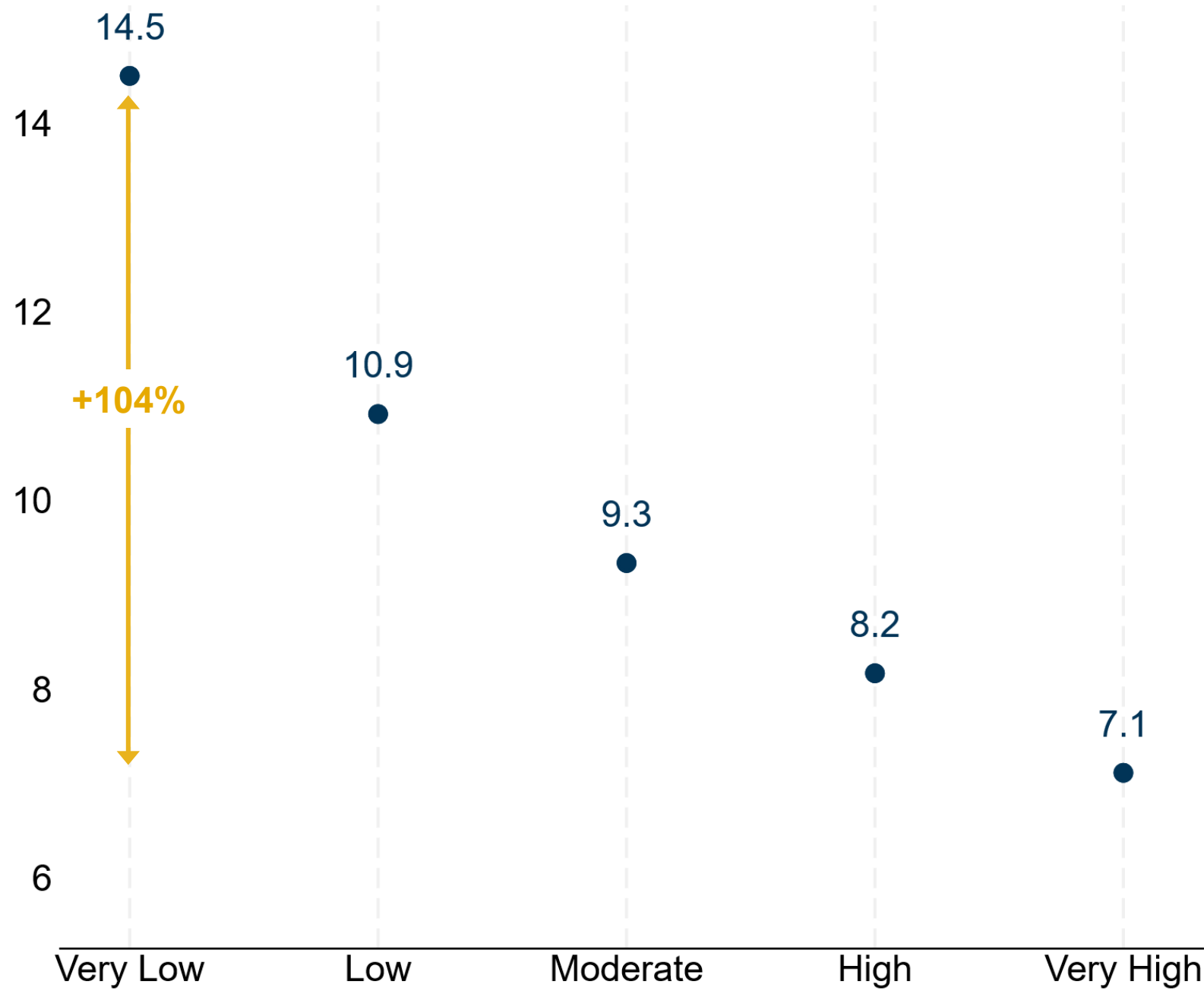


UNITED STATES

Diabetes

Estimated percentage of adults diagnosed with diabetes

Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics.



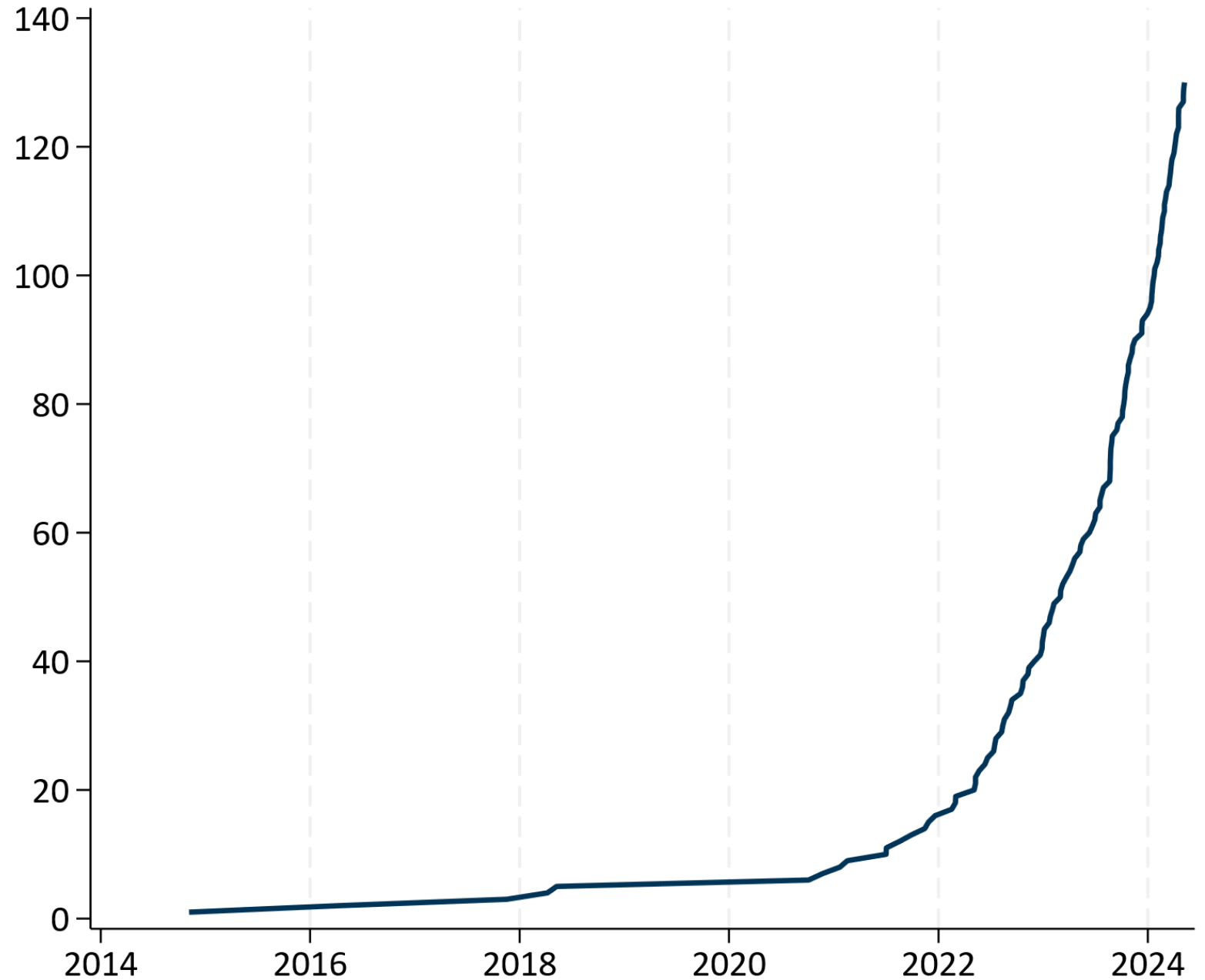
SCIENTIFIC VALIDATION

Cumulative number of scientific articles published

Peer-reviewed studies on PubMed citing Child Opportunity Index

Source: pubmed.ncbi.nlm.nih.gov

diversitydatakids.org

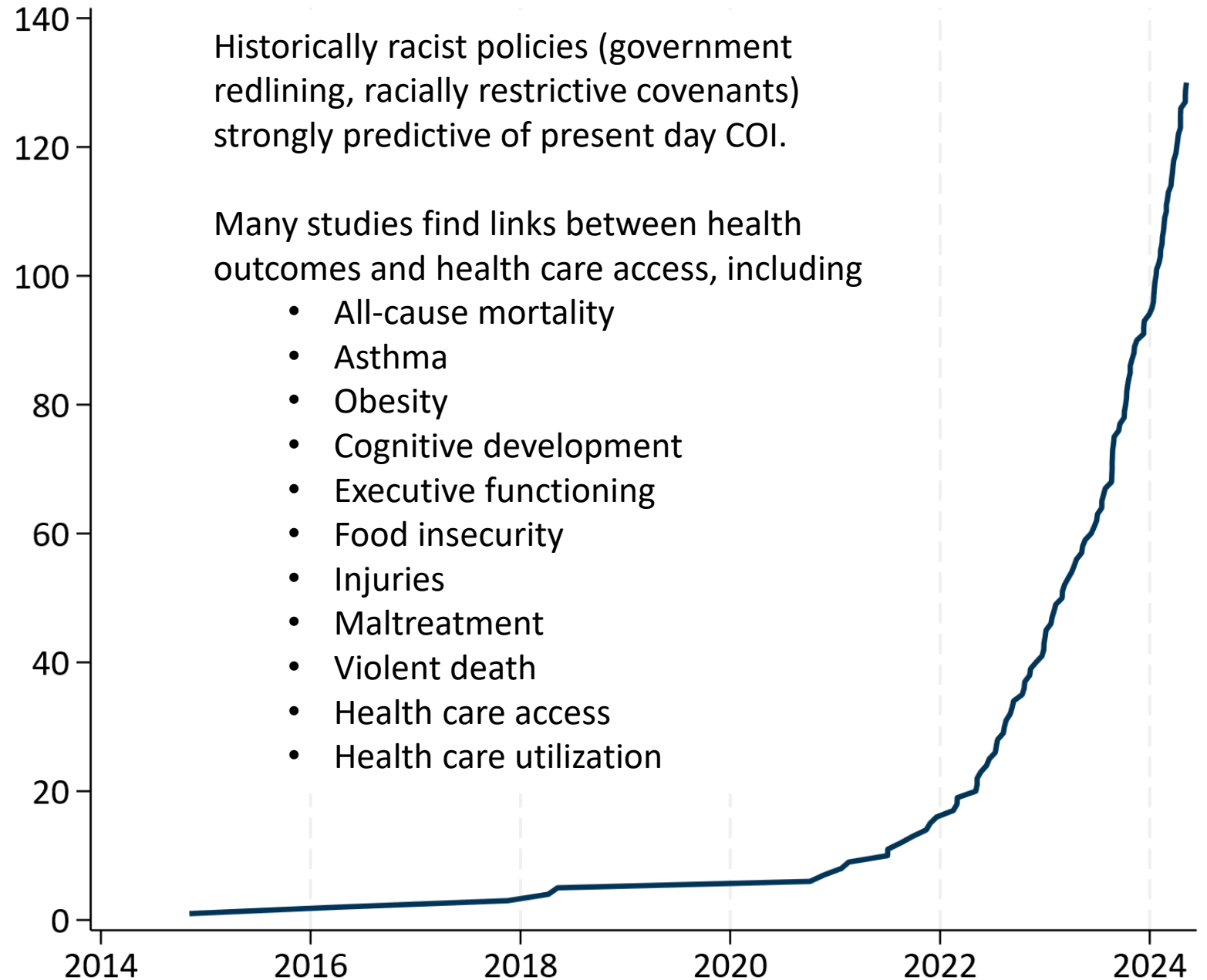


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Applications

Common applications of the Child Opportunity Index

Identify and target neighborhoods for intervention, investment etc.

Examine inequities in access to neighborhood opportunity

Provide equity context, in combination with other data on

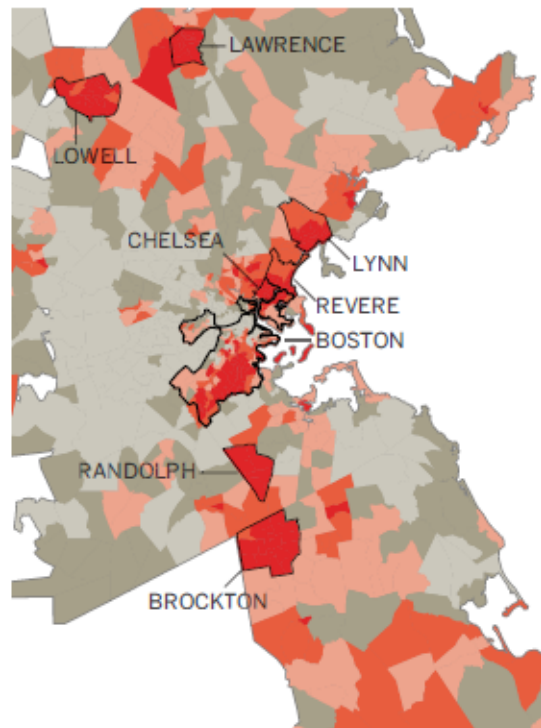
- children's outcomes or access to resources
- public/program spending or investments

Examine policies/programs that reinforce or mitigate existing inequities

Opportunity and subsidized housing

Brick-and-mortar subsidized housing tends to cluster in struggling neighborhoods. And so do the Section 8 housing vouchers that can, in theory, be used anywhere.

NEIGHBORHOOD OPPORTUNITY LEVEL



OPPORTUNITY INDEX

Just 9 percent of brick-and-mortar subsidized housing is in very high opportunity neighborhoods, with the best access to jobs, healthy food, and quality schools:

9%	Very high opportunity neighborhood	9%
10%	High	11%
14%	Moderate	14%
23%	Low	19%
44%	Very low opportunity neighborhood	45%

NOTE: Totals may not add to 100 percent due to rounding

Section 8 vouchers

Brick-and-mortar subsidized housing

Defining “opportunity areas” for housing mobility program

“In [my old neighborhood] I didn’t have that peace of mind where my kids could be outside alone...Moving out here with the SNO Mass program...it’s safer.”

SNO Mass Participant in Hampden County

“My children are going to get what they need in this community.”

SNO Mass Participant on the Boston North Shore

DHCD Address Locator Tool v.2.0.1

Type the address and the number of bedrooms

Street Address, City/Town *

Please, type the address

Number of bedrooms *

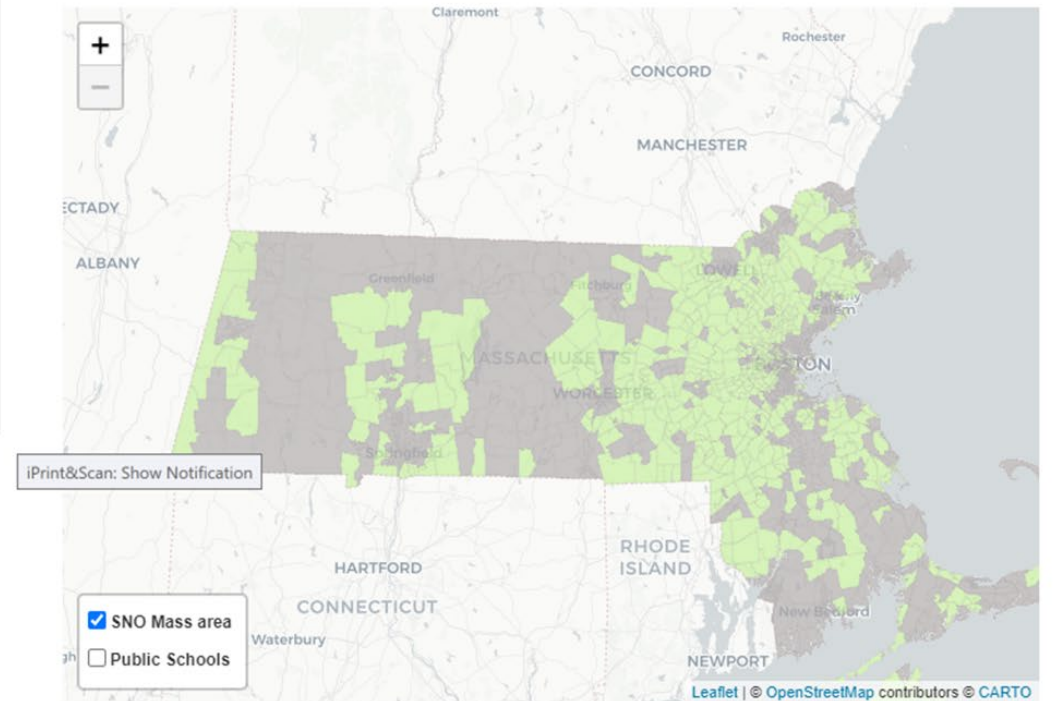
2-bedroom

Total rent being requested for this unit

\$2000

Search

Map



Tracking hiring, promotions, and procurement

“Annually, we aim to hire at least 15% of new employees from neighborhoods with a low or very low Child Opportunity Index. In 2020-2021, we exceeded that goal, with 20% of non-physician new hires and over 10% of employees who received a promotion residing in low or very low COI communities.”



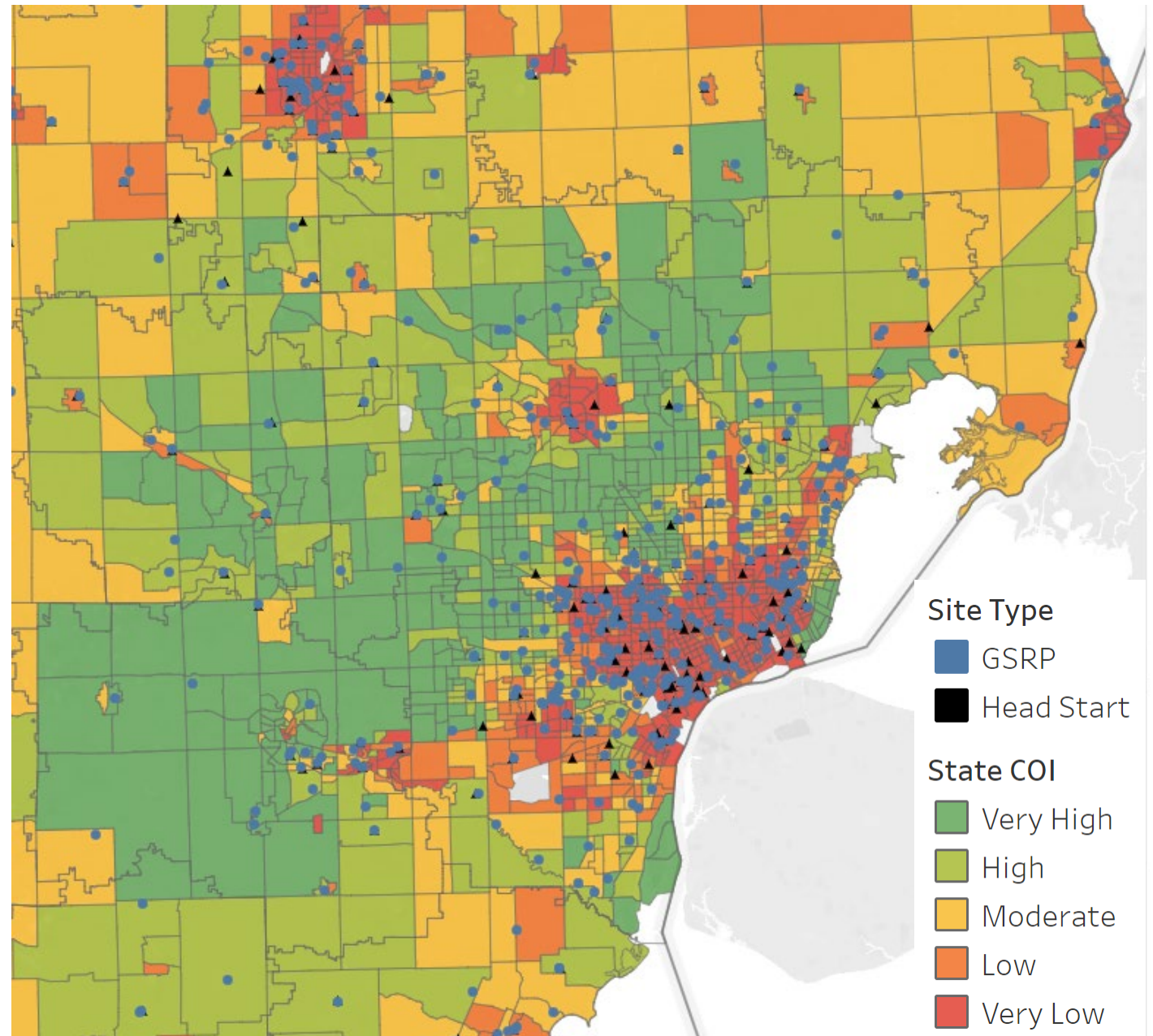
MICHIGAN

Increasing equitable access to public preschool

The Great Start Readiness Program (GSRP) provides public preschool education to 38,000 4-year-olds in Michigan.

It uses the COI to identify high-need communities and ensure that the state's highest need children have access to high quality public preschool education.

Sources: diversitydatakids.org/research-library/impact-story/fostering-equitable-early-education-michigan

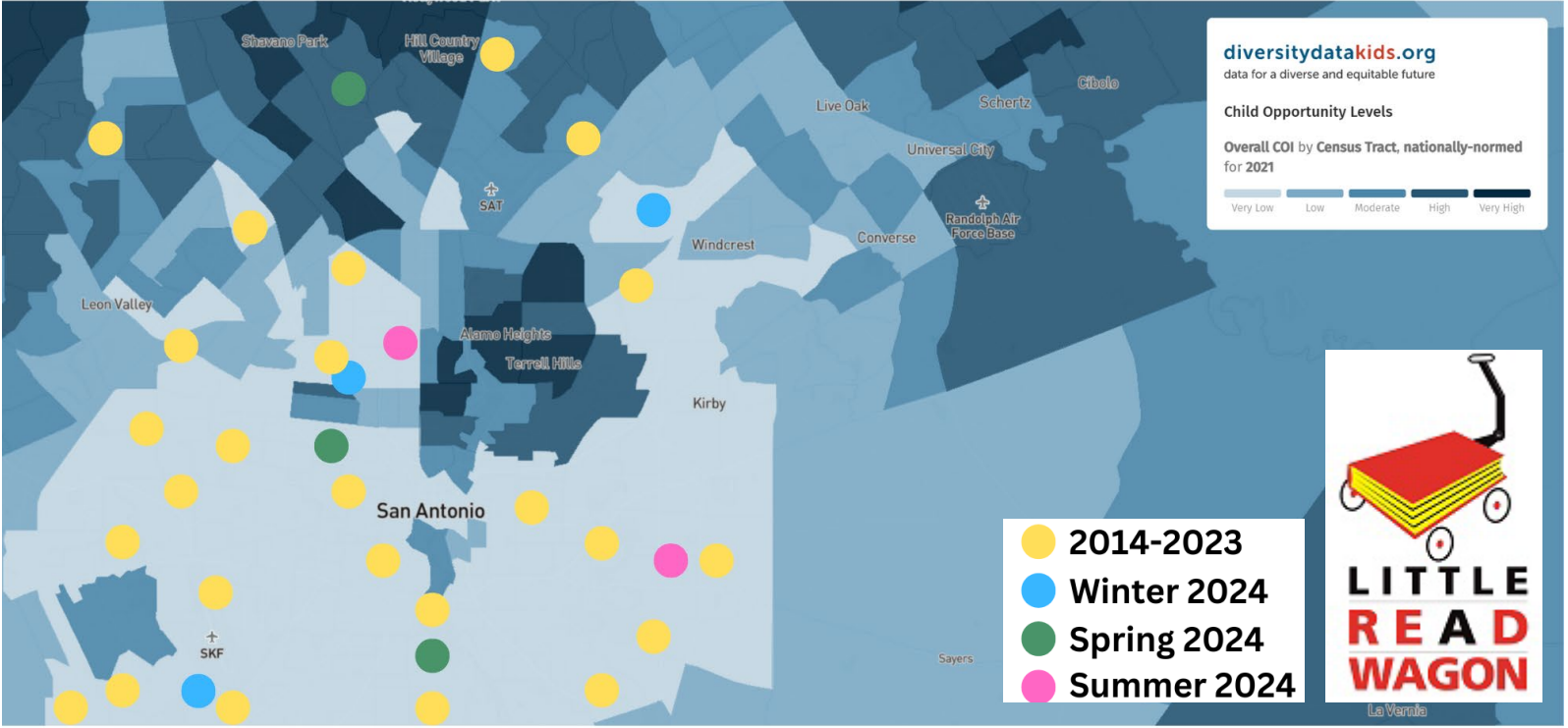


Where to send the mobile library van?



Play Locations for the Little Read Wagon early literacy program

Source: Kristin Yourdon, Manager, Little Read Wagon, San Antonio Public Library



Thank you!

Questions?

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COI Maps

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