Statewide Park and Trail Visitation

Key findings from a Legacy-funded joint research project

CLEAN WATER LAND & LEGACY AMENDMENT

May 15 2023 **Raven McKnight**

Lake Elmo Park Reserve

Contents

Project background

- Two-year joint research project funded by MN Legacy Parks and Trails Fund
  - Coordinate Among Partners pillar
  - Joint powers agreement
- Question: Is location-based services (LBS) data useful for park and trail research?
  - Exploratory project
  - 200+ parks and 3600+ miles of trails
  - Goal: Park- and trail-level use estimates

CLEAN WATER LAND & LEGACY AMENDMENT

DEPARTMENT OF NATURAL RESOURCES

GREATER MINNESOTA REGIONAL Parks and Trails COMMISSION

METROPOLITAN COUNCIL

What is location-based services (LBS) data?

- Data vendor: StreetLight Data, Inc
- Derived from smartphones with opt-in GPS
- Aggregated and **anonymized**
- **Can't** identify individuals, **can** look at patterns of travel
- Benefits
  - No in-field work required
  - Spatial and temporal detail

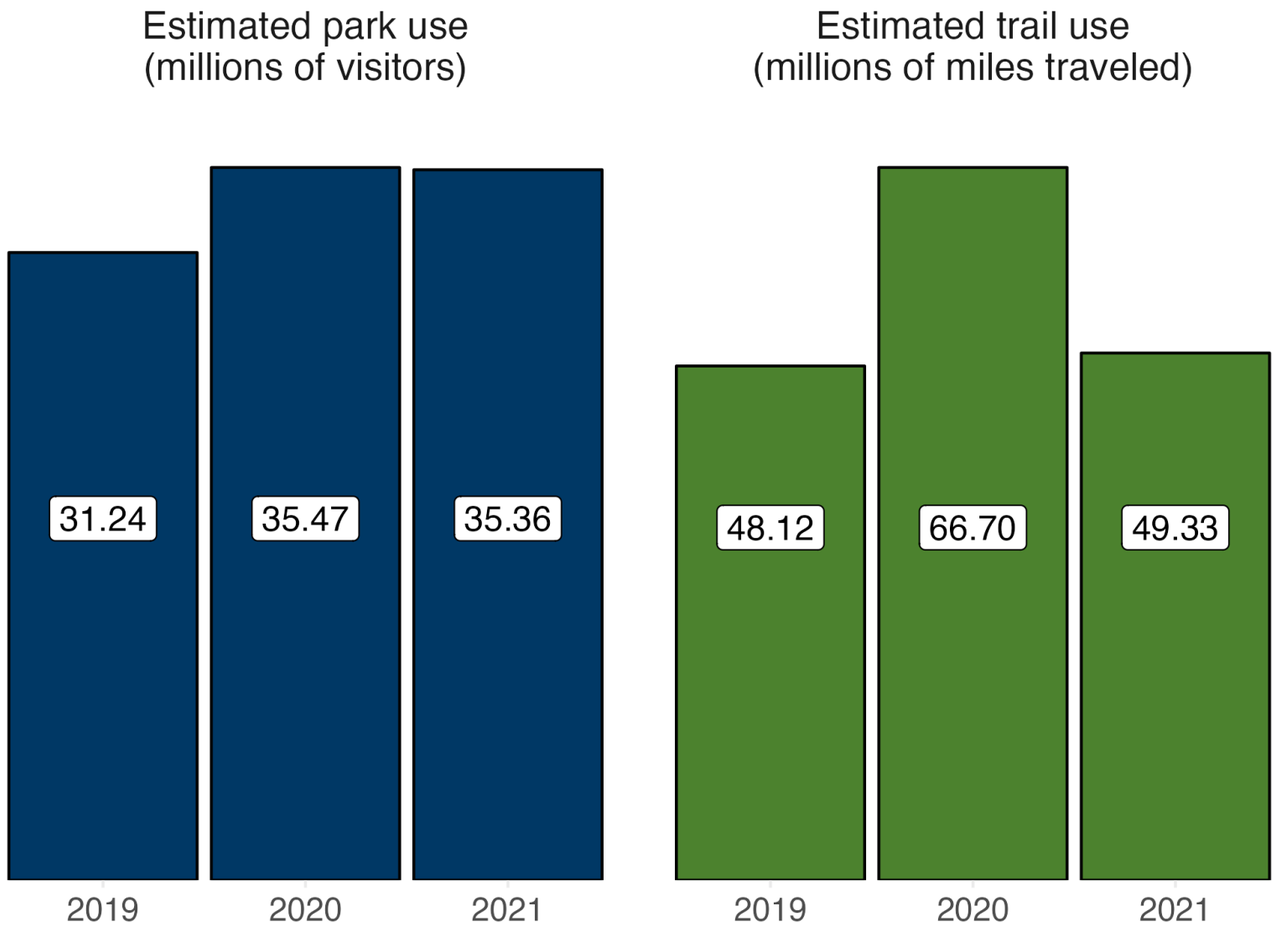
STREETLIGHT DATA

What can we measure with LBS?

- Definitions do not agree 100% with annual use estimates or visitor survey
- Estimated **weekly visits to parks** (bike, pedestrian, and vehicle)
- Estimated **monthly miles of use on trails**
- Inferred visitor home locations and demographics
  - Complements, but does not replace surveys or qualitative data
- January 2019 – April 2022

Finding: parks and trails are valuable

Metropolitan regional park and trail use



Source: StreetLight Data, Inc. Accessed April 2023.

- Average of 34 park visits and 57 miles of trail use per 7-county resident
- COVID-19 affected trails more than parks
- Use trended upward 2019–2021

Park Findings

Como Conservatory

- COVID-19 affected individual parks differently
  - Behavior change = more use
  - Closed amenities = less use
- Most visitors arrive around noon or shortly after work (5-7pm)
  - Specific to regional parks
- 58% of park visitors arrive by vehicle
  - 35% pedestrian, 7% bicycle

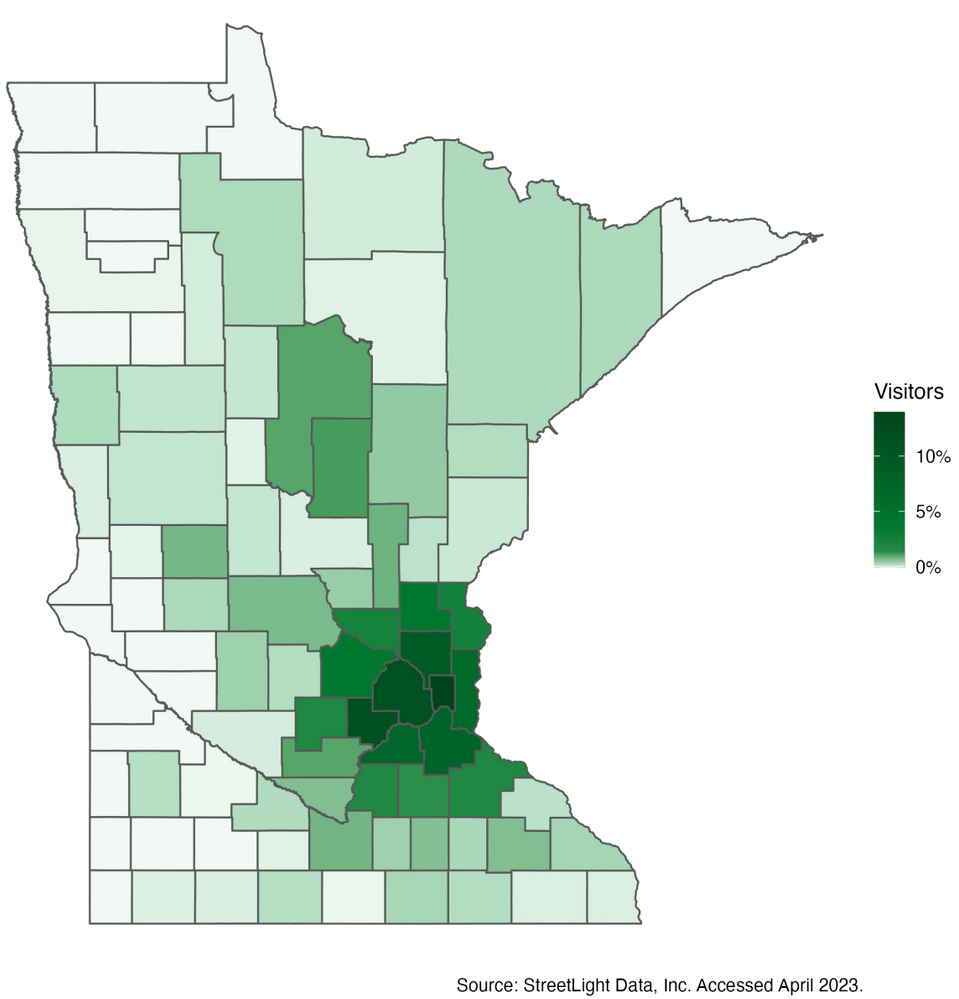
Trail Findings

Theodore Wirth

- Trails had a larger “COVID effect” than parks
- Bikes make up the majority of use (60%)
- Pedestrians have a larger share:
  - during the winter
  - in walkable areas
- Many trails are busy at 9am and 5pm
  - Integral to transportation and recreation

Finding: Metro region attracts statewide visitors

Inferred home locations of visitors to metropolitan regional parks
Minnesota counties, summer 2021



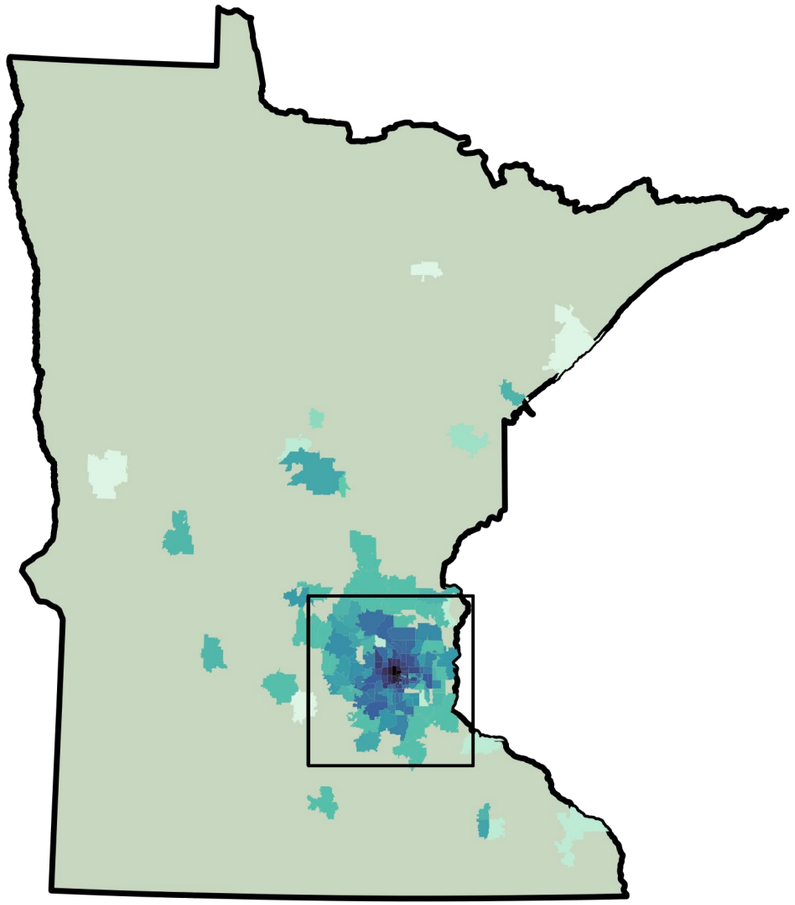
- 21% of visitors came from a different county
- 7.5% of visitors came from out of state
  - Adjacent states
  - California, Texas, Florida
  - All lower 48 states represented
- Data available at park or trail level

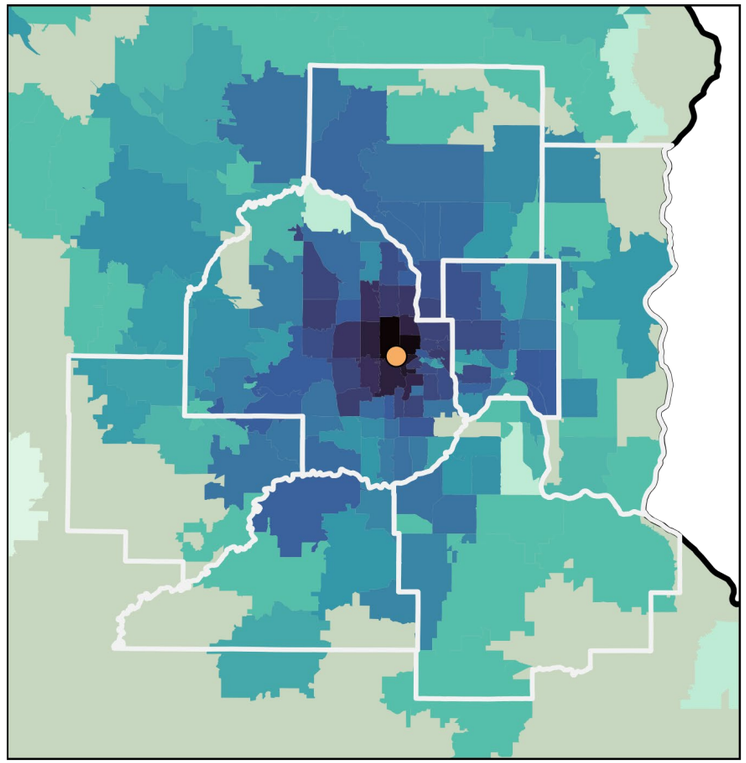
Source: StreetLight Data, Inc. Accessed April 2023.

Example: Theodore Wirth

Visitor home locations

Zip codes, summer 2021





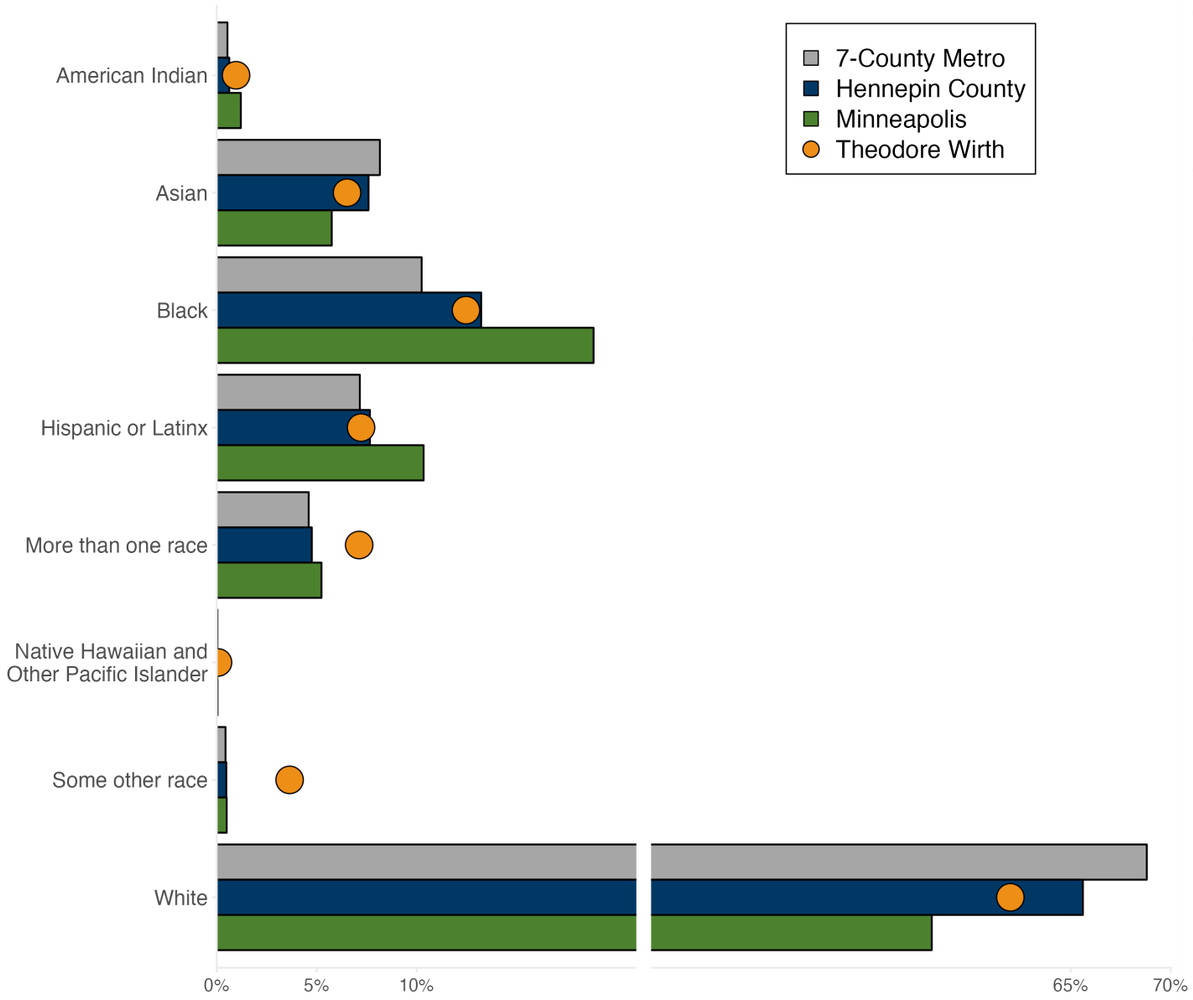
Only zip codes with > 0.1% of all 2021 visitors are shown.

Finding: Detailed data allows for equity analysis

Category	Census Group
Race/ethnicity	American Indian/Alaska Native
	Asian/Asian American
	Black/African/African American
	Hispanic/Latinx/Latino
	Multiple races/ethnicities
	Native Hawaiian/Pacific Islander
	Some Other Race
	White
Household income	Less than $25,000
	$25,000 - 39,999
	$40,000 - 59,999
	$60,000 - 74,999
	$75,000 - 99,999
	$100,000 - 149,999
	$150,000 or higher
Highest educational attainment	High school
	Associate degree/some college
	4-year degree
	Graduate or professional degree

- Unit-level inferred visitor demographics
  - Based on 2020 Census data
- Limitations: inferred data, Census categories
- Identify barriers to access or opportunity gaps
- Guide survey or outreach efforts
- Best used at the park or trail level

Example: Theodore Wirth

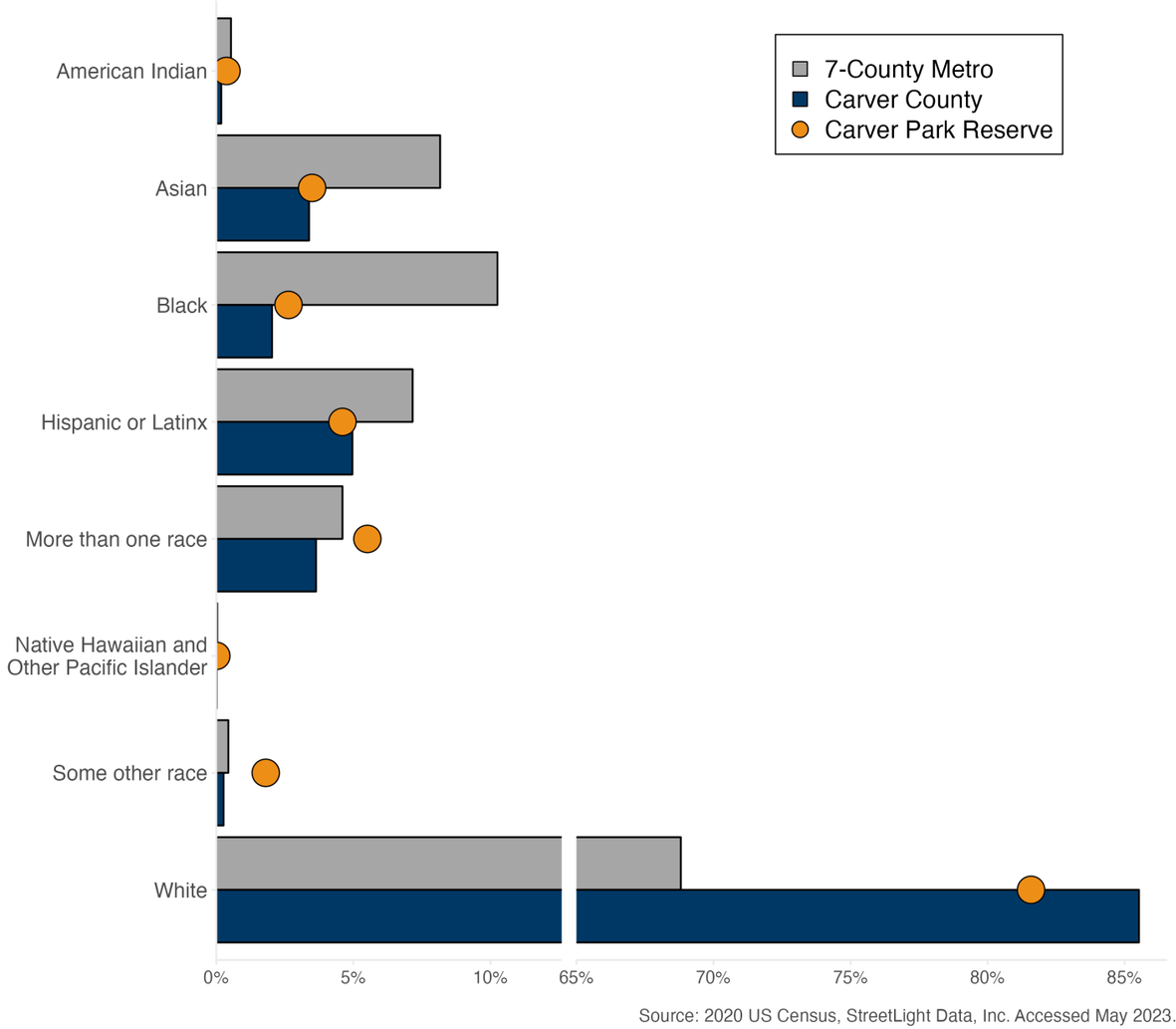


Source: 2020 US Census, StreetLight Data, Inc. Accessed May 2023.

- Visitors may not represent the region's population
- Requires expert knowledge
  - Who is the "audience" for the park?
- Differs by unit
  - Ex) state vs regional parks

Group	Estimated percent Black	Data source
7-county metro population	10.3%	2020 Census
Hennepin county population	13.2%	2020 Census
Minneapolis population	18.9%	2020 Census
Theodore Wirth visitors	12.5%	LBS

Example: Carver Park Reserve

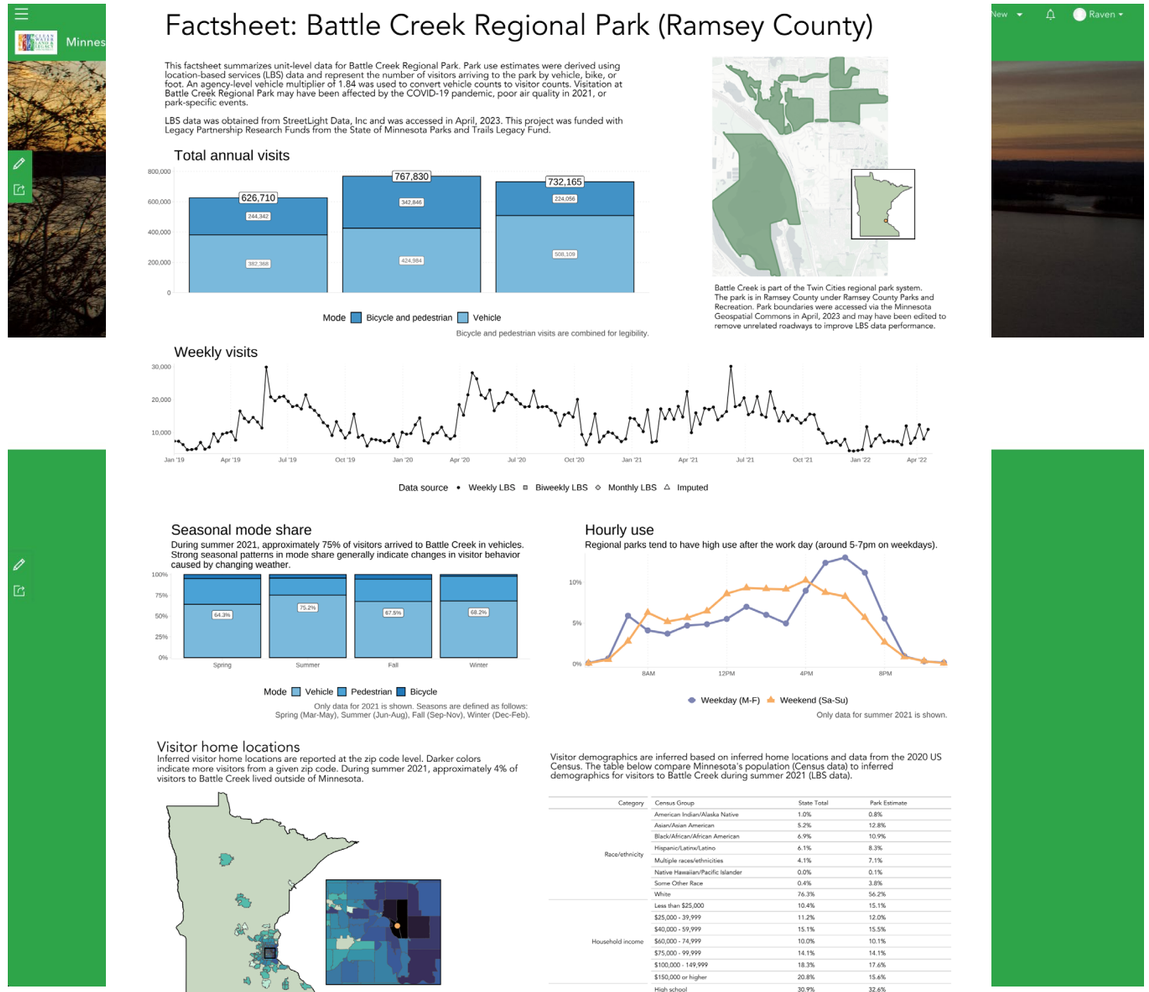


Source: 2020 US Census, StreetLight Data, Inc. Accessed May 2023.

- Ideal comparison likely more specific than county or city limits
- Ex) Expect somewhere between 69% and 85% white visitors

Group	Estimated percent white	Data source
7-county metro population	68.8%	2020 Census
Carver county population	85.5%	2020 Census
Carver Park Reserve visitors	81.6%	LBS

Project website and webinars



- Key findings for parks, trails, and visitors
- Content in peer review
- Additional resources (FAQ, technical documentation, etc)
- Detailed unit-level data (Excel workbook)
- Summarized and interpreted figures
- May 22-25: 4 public webinars
  - Key Findings, Parks, Trails, Visitors
  - Link: **https://bit.ly/3NfQEPP**

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