



**Loudoun County**

**VIRGINIA**

WHERE TRADITION MEETS INNOVATION

# Sidewalk and Trail Program Equity Analysis

MWCOG Meeting  
September 19, 2023

Laura E. Ghosh

# Agenda

- Sidewalk and Trail Program Overview
- Equity Analysis Methodology
- Existing Sidewalk and Trail Network Equity
- Equity Impacts of the Sidewalk and Trail Program
- Priority List Adjustments

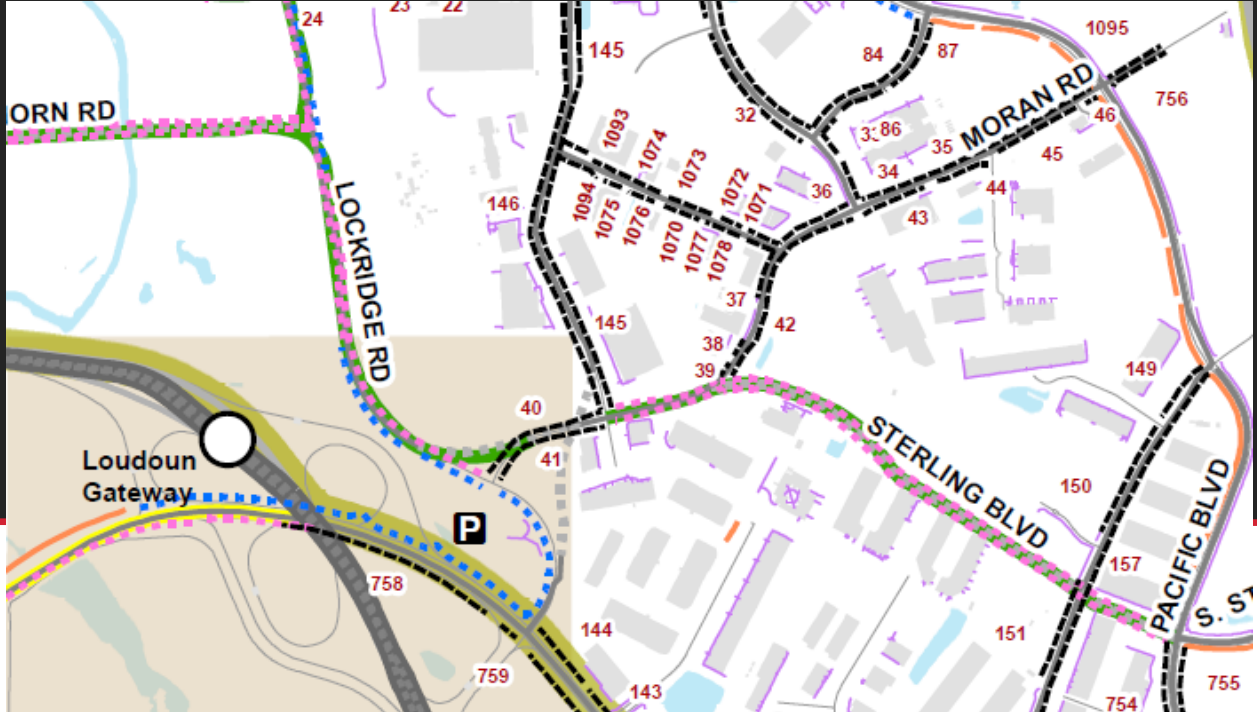
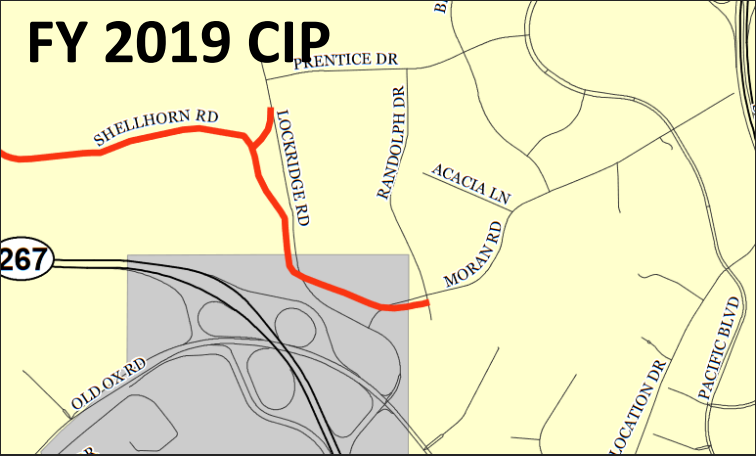
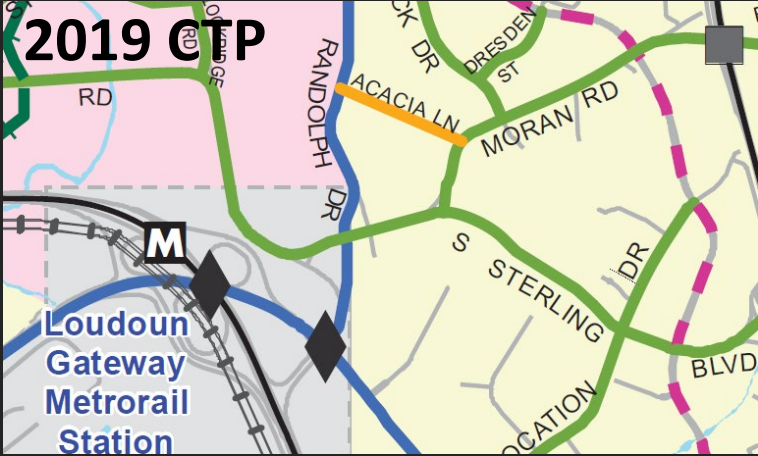
# Sidewalk and Trail Program Overview

# Sidewalk and Trail Program

- Intent:
  - To provide planning, design or construction of approximately 3 to 5 miles of sidewalk and/or trail improvements per year



# Develop Master List of Missing Links



# Urban/Suburban Prioritization Criteria

LCPS Generators

Other Activity Generators

Land Use

W&OD Trail

Transit Access

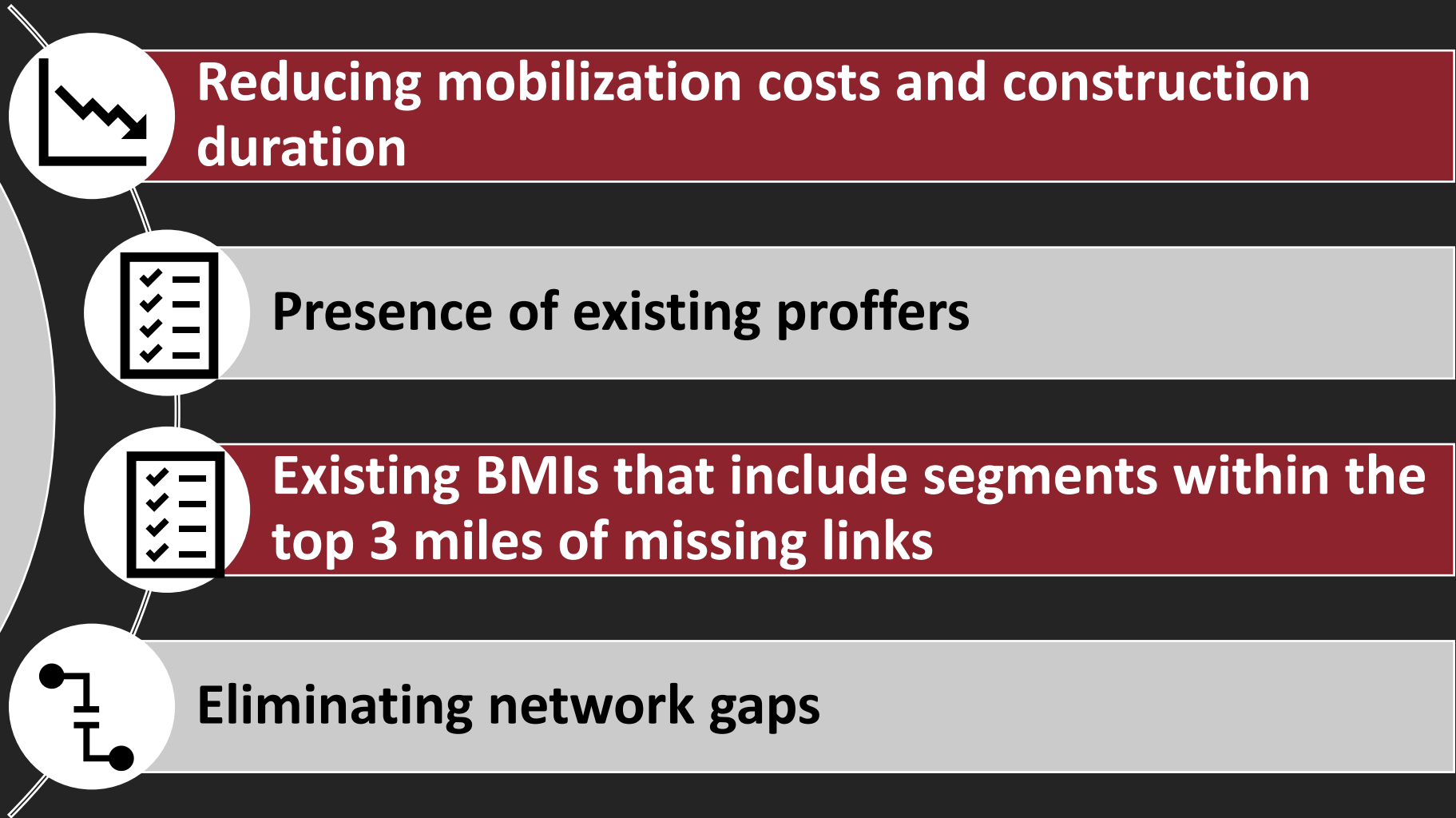
Roadway Characteristics

Safety

Network Connectivity

# Project Selection

**23  
Projects**

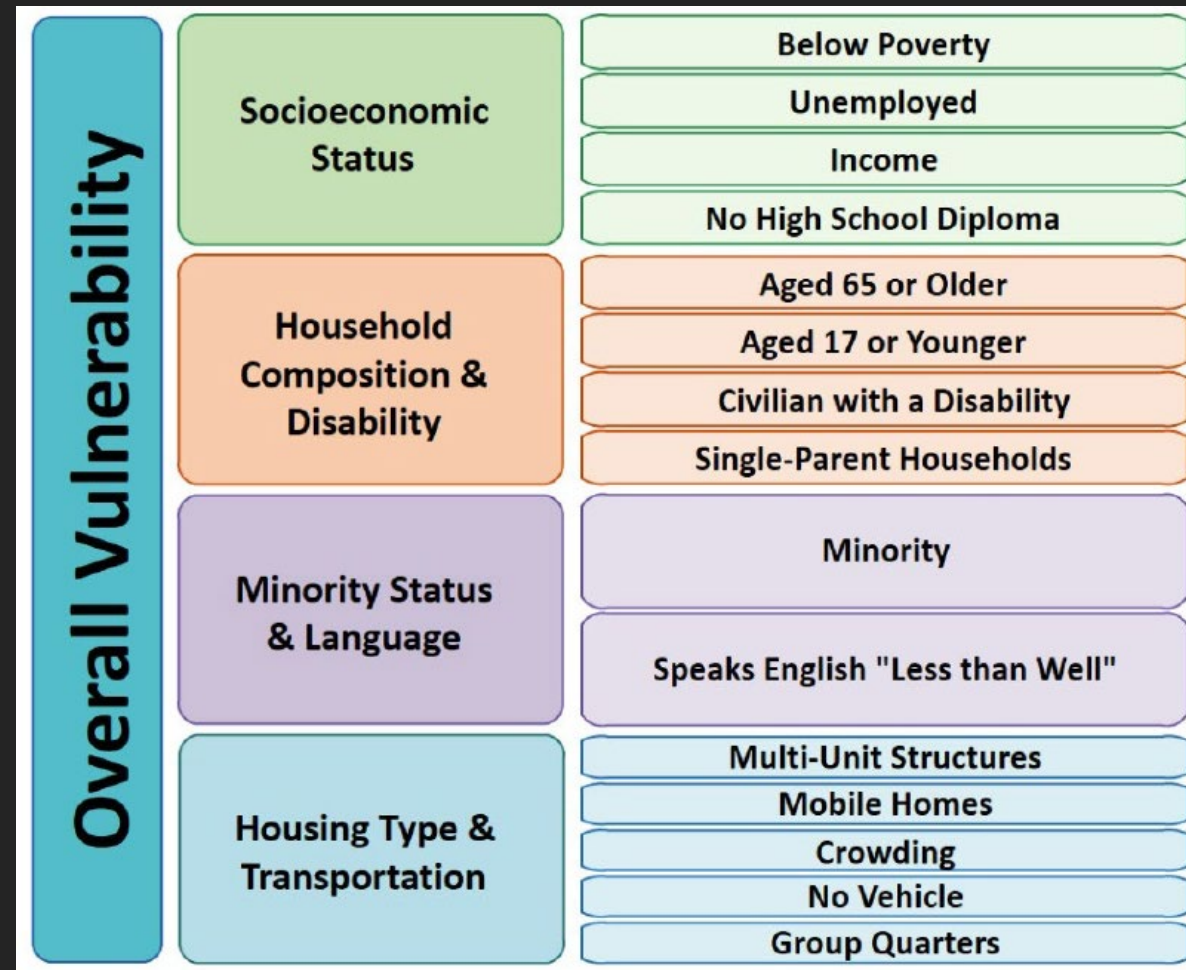


# Equity Analysis Methodology







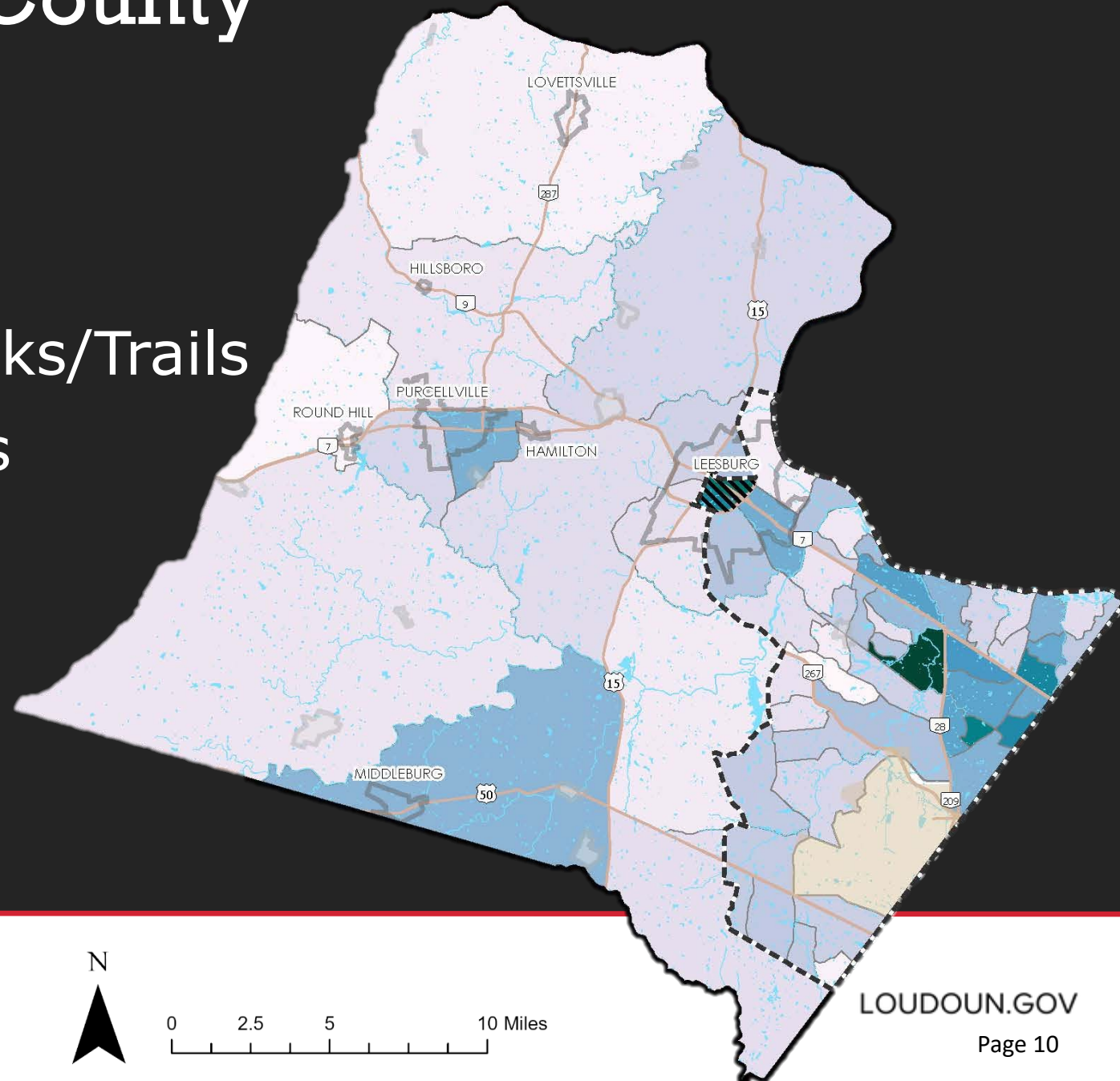
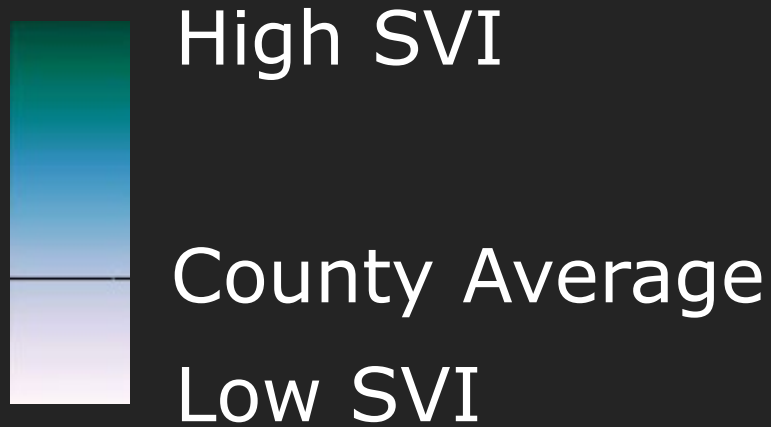
# CDC Social Vulnerability Index (SVI)

- Measures vulnerability of a population
- Based on demographic data from Census (2010) and American Community Survey (2018)







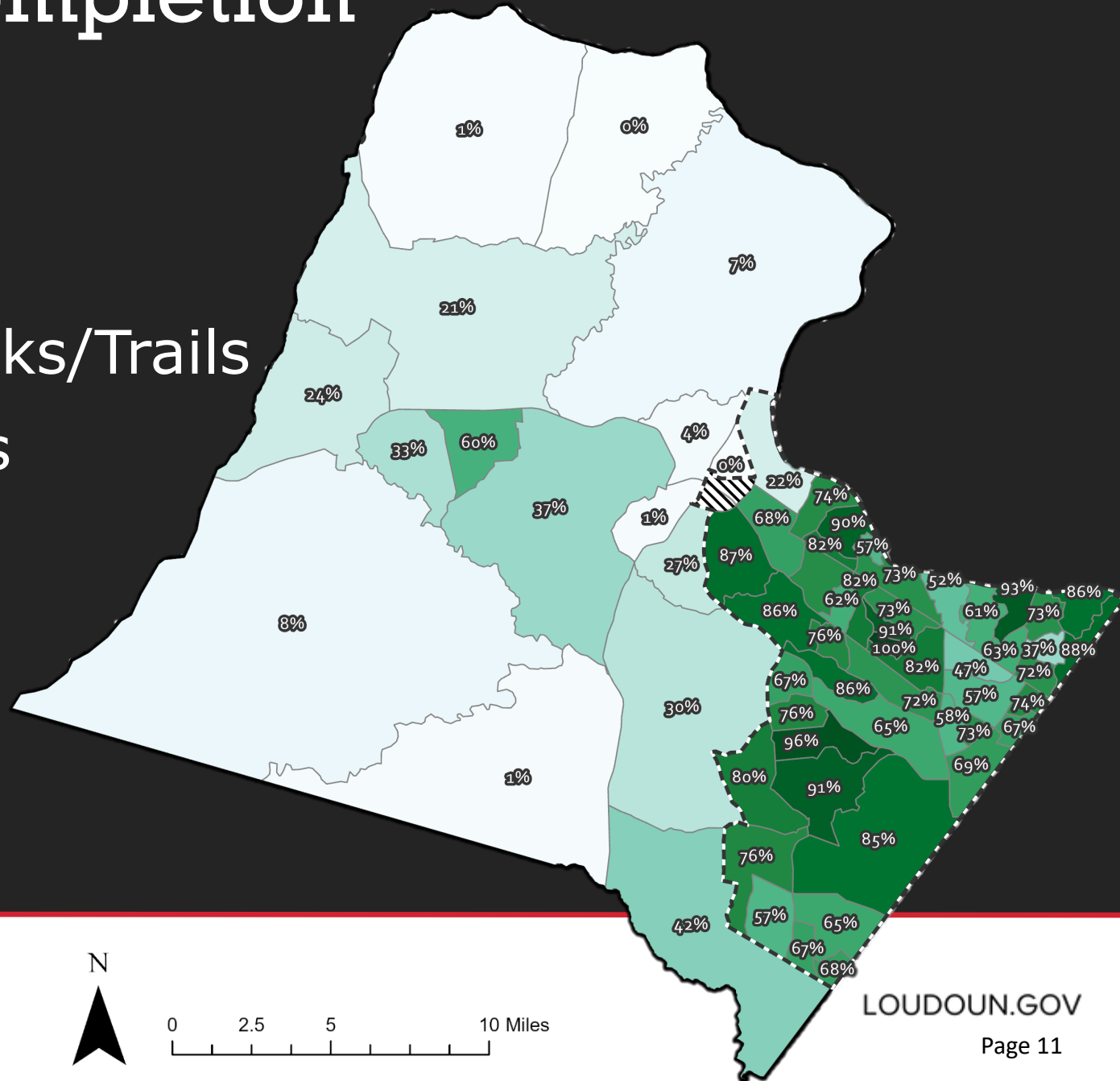
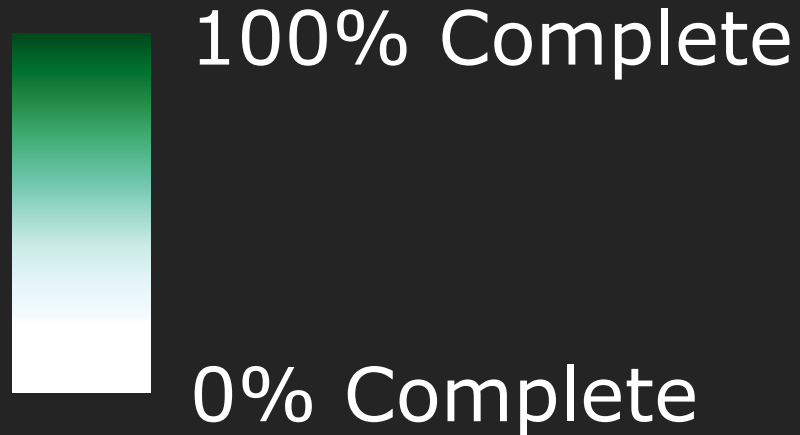
# CDC SVI in Loudoun County

-  Urban/Suburban Tracts
-  Rural/Transitional Tracts
-  No CTP Planned Sidewalks/Trails
-  Census Tract Boundaries

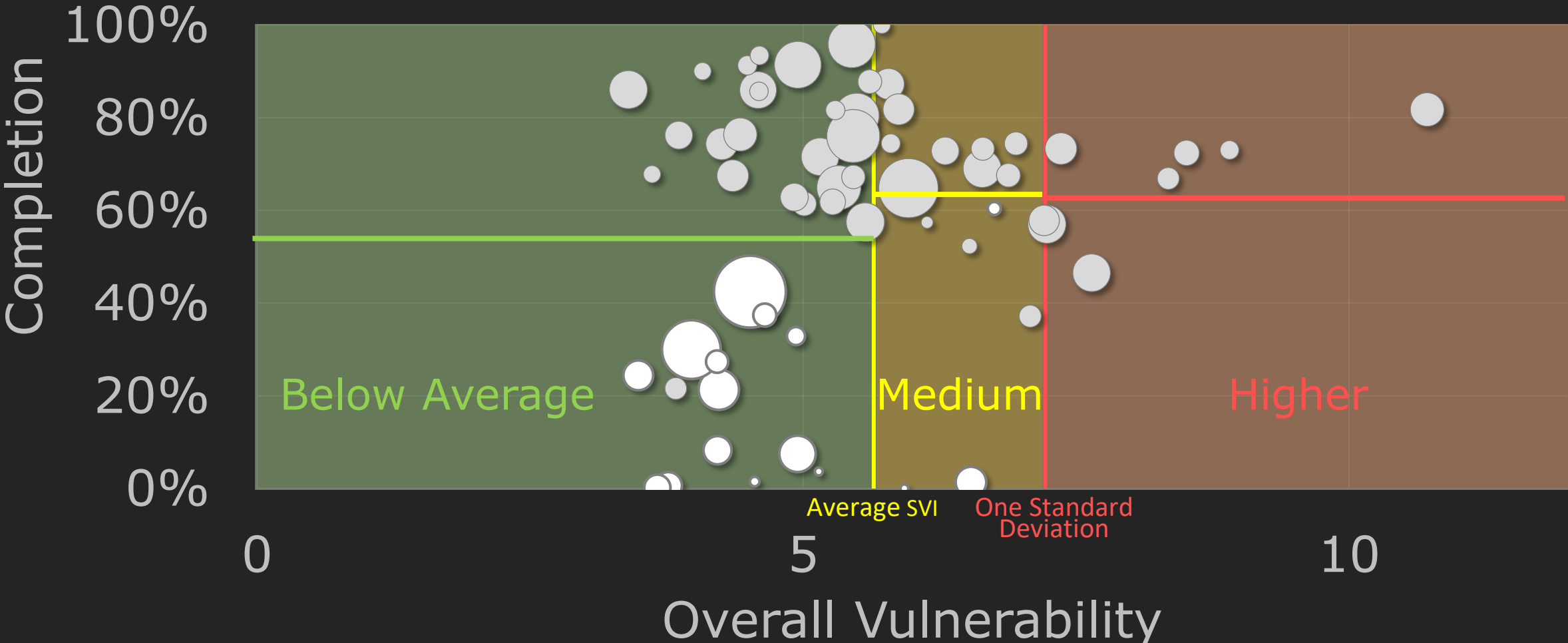


# Sidewalk and Trail Completion

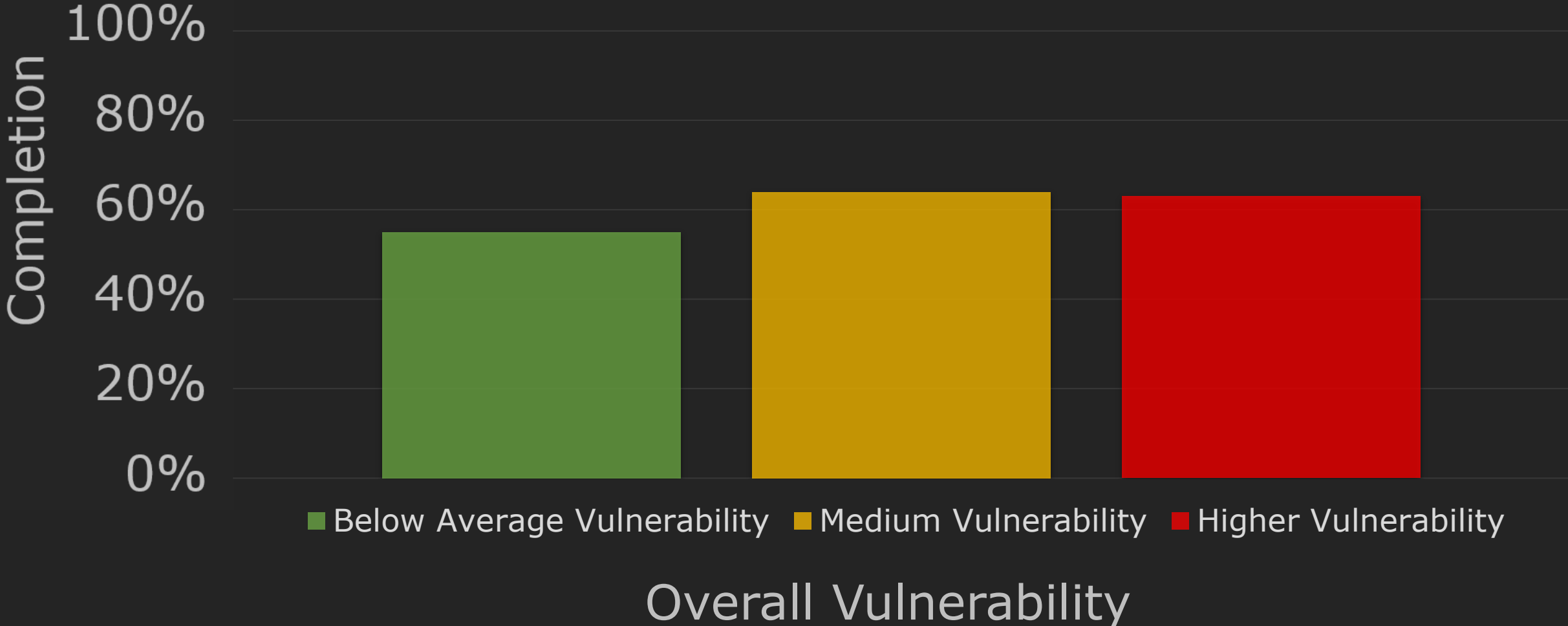
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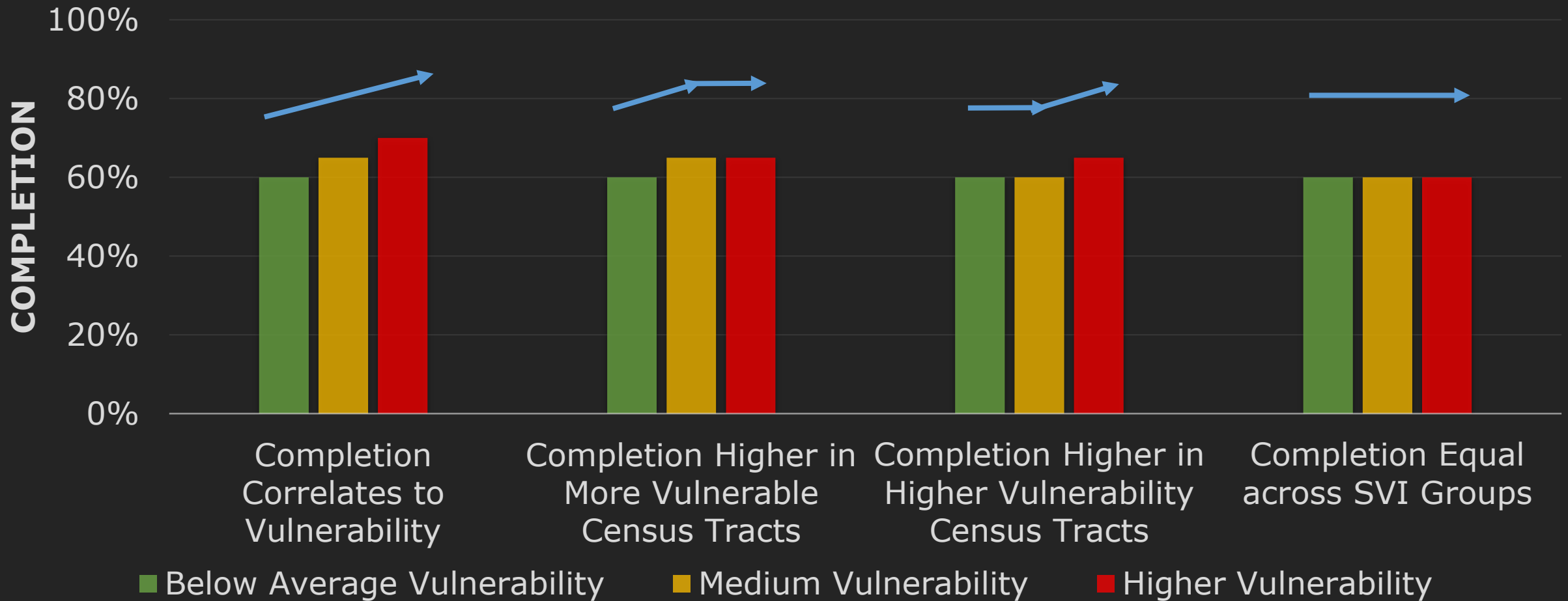
# Trends Analysis



# Existing Conditions – Countywide Equity

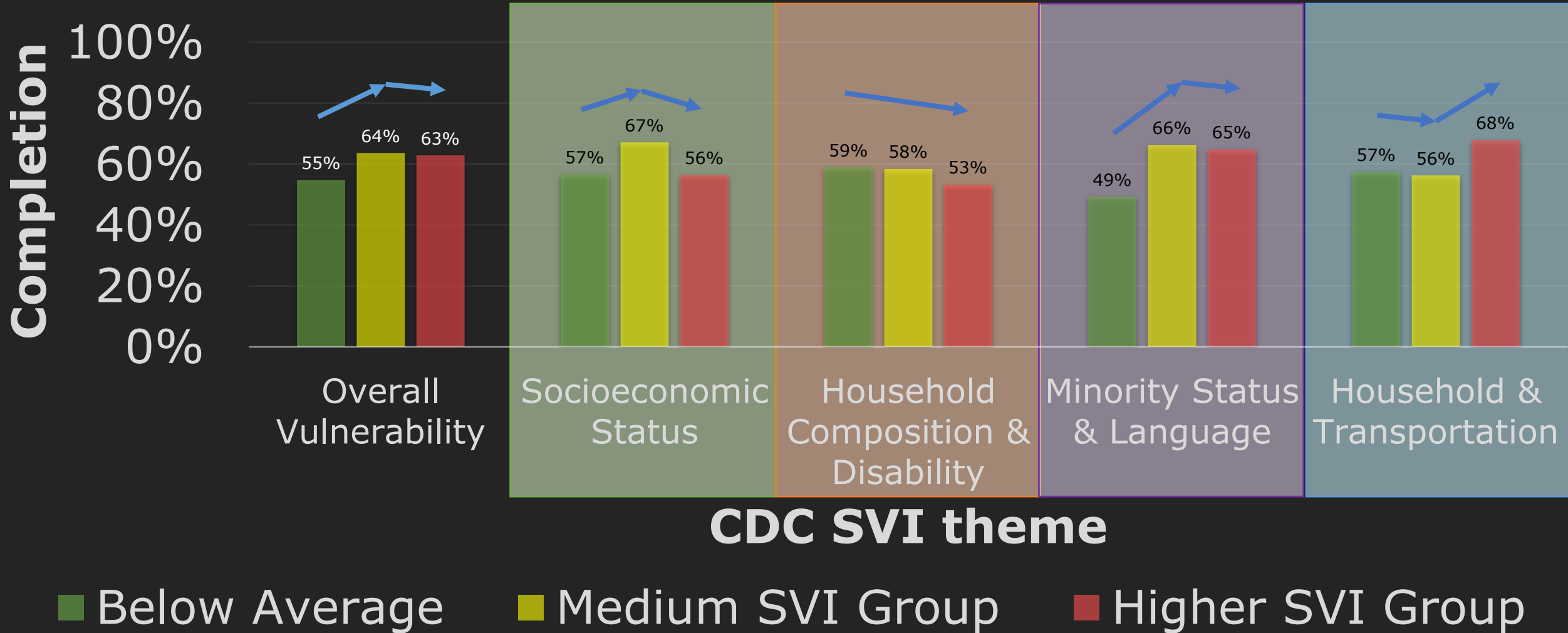


# Ideal Trend Examples



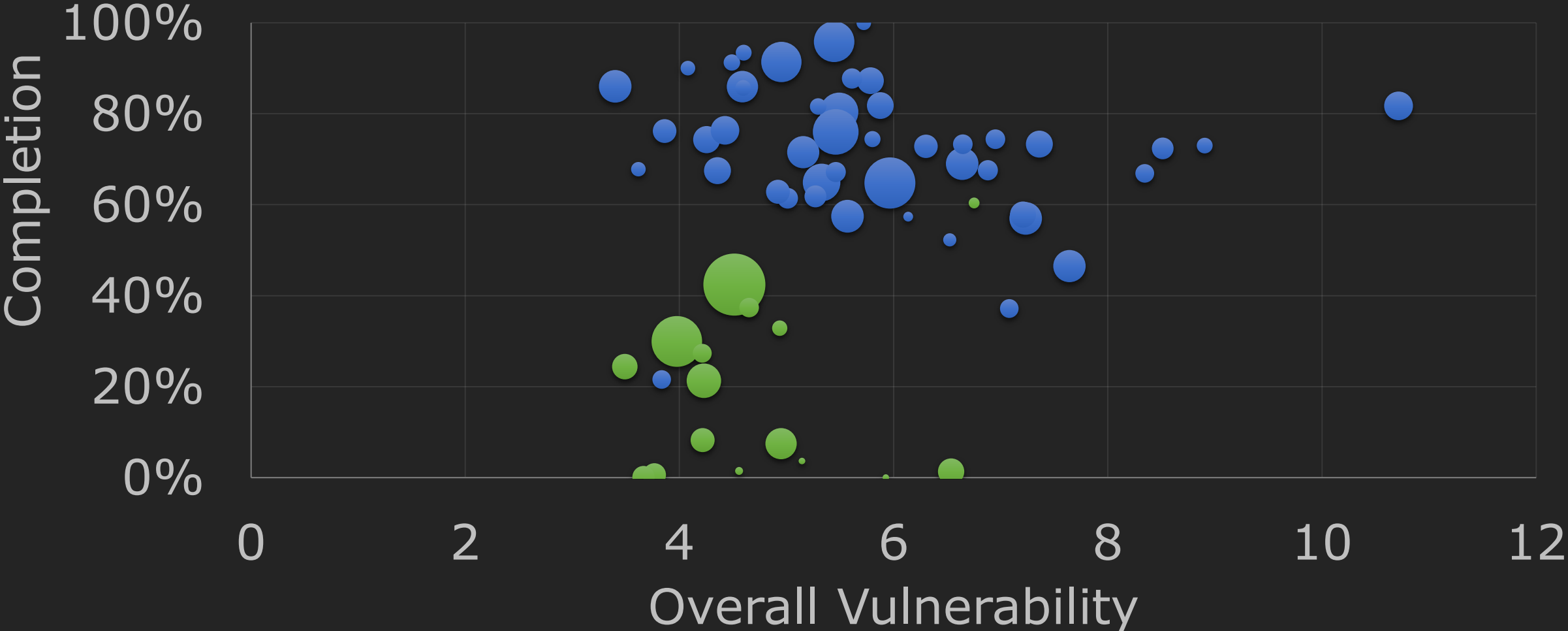
# Existing Sidewalk and Trail Network Equity

# Existing Conditions – Countywide by SVI Theme

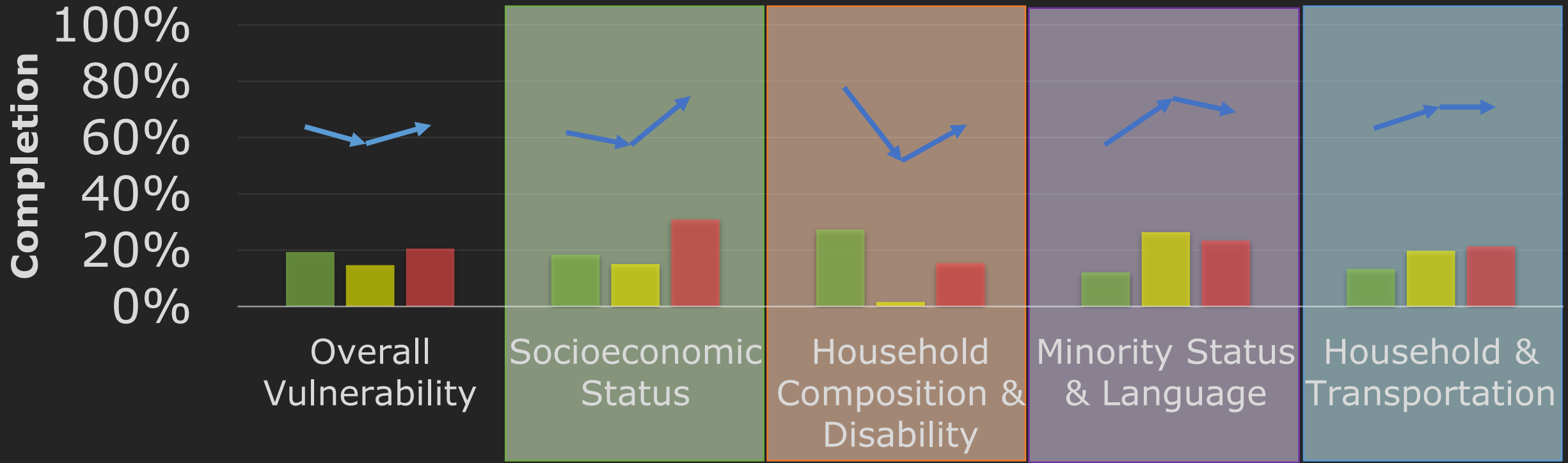




# Existing Conditions – Urban/Suburban vs Rural



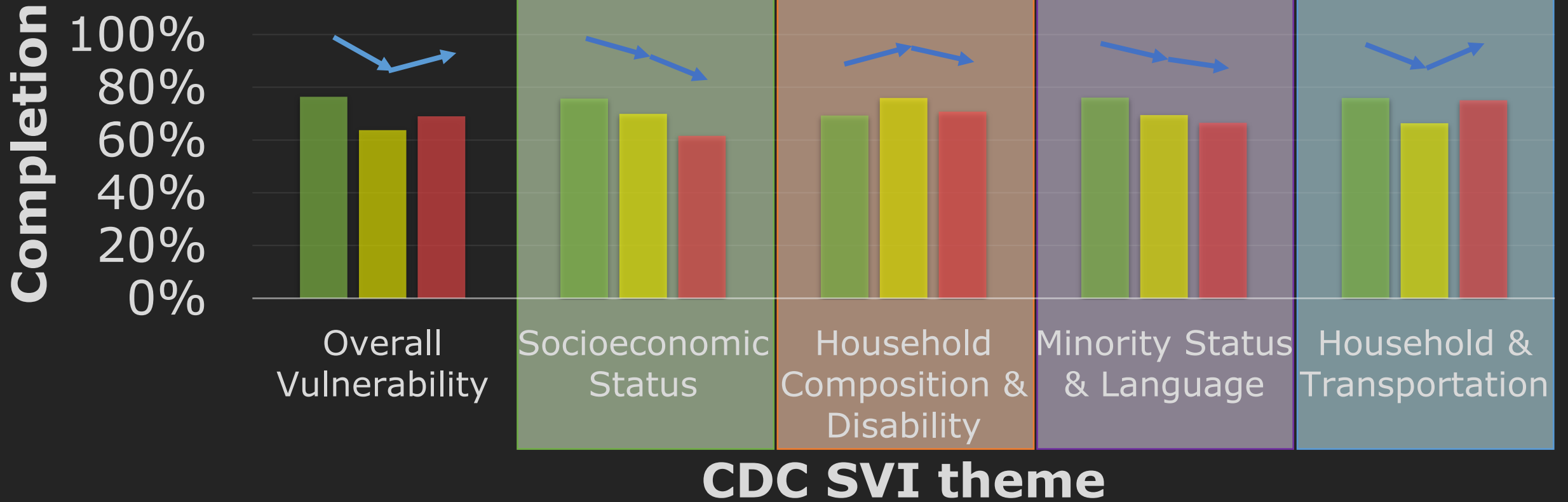
# Existing Conditions – Rural Census Tracts by SVI Theme



## CDC SVI Theme

■ Below Average 
 ■ Medium SVI Group 
 ■ Higher SVI Group

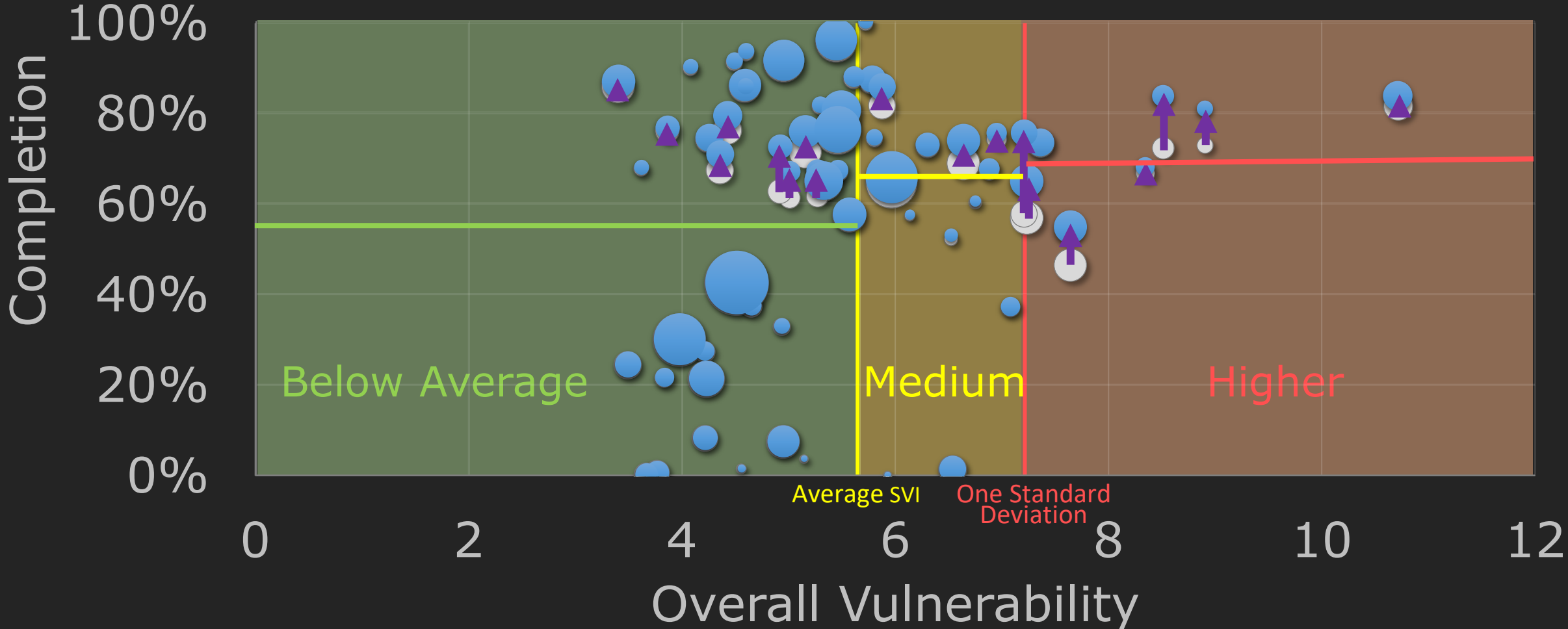
# Existing Conditions – Urban/Suburban Census Tracts by SVI Theme



■ Below Average ■ Medium SVI Group ■ Higher SVI Group

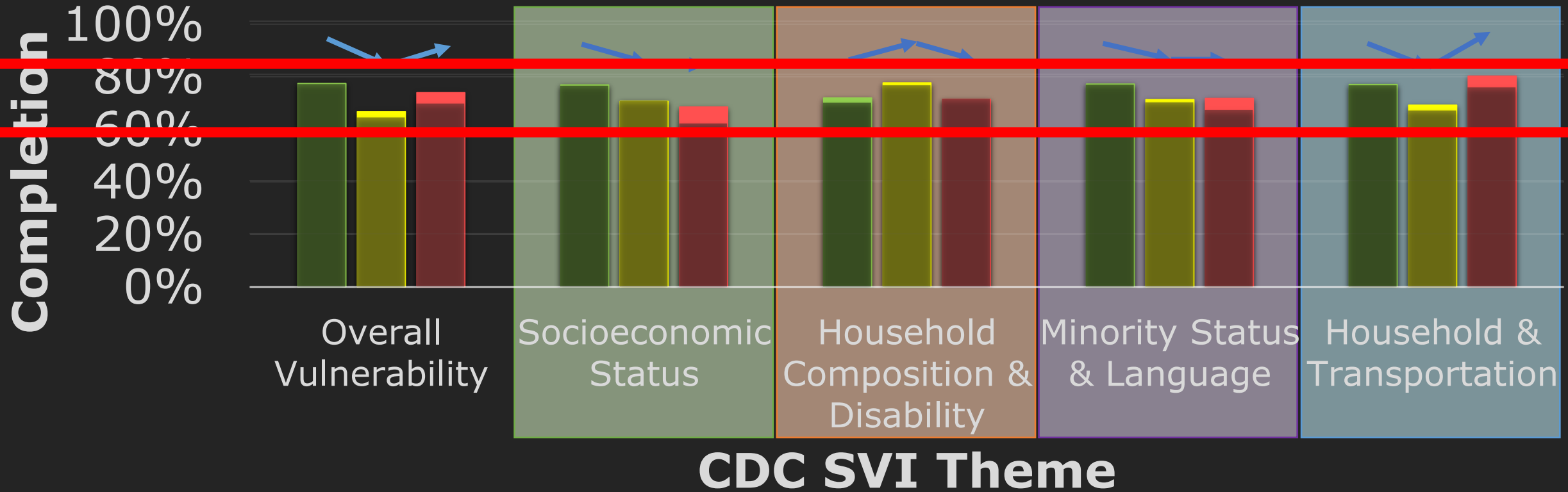
# Equity Impacts of the Sidewalk and Trail Program

# Future Conditions – Countywide Census Tracts



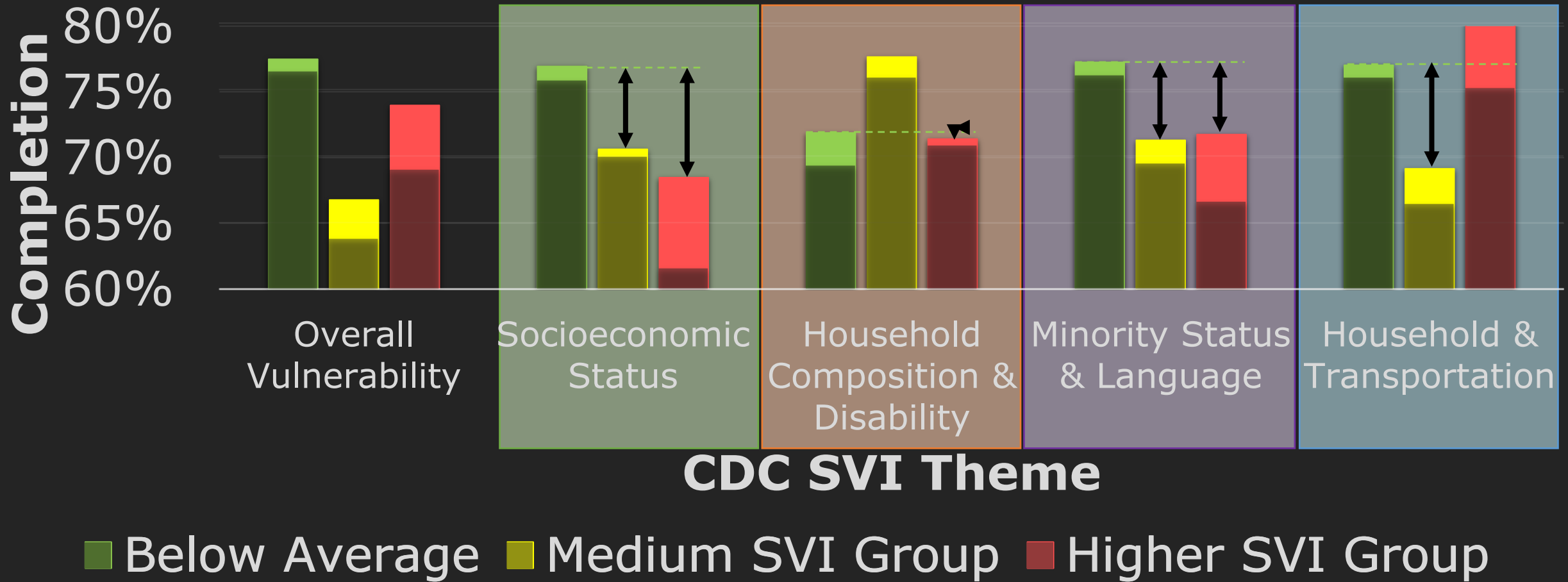
- Existing Network + First 23 Projects
- Existing Network
- ↑ Change in Percent Complete

# Conditions after implementing First 23 Projects – Urban/Suburban Census Tracts by SVI Theme



■ Below Average 
 ■ Medium SVI Group 
 ■ Higher SVI Group

# Conditions after implementing First 23 Projects – Urban/Suburban Census Tracts by SVI Theme



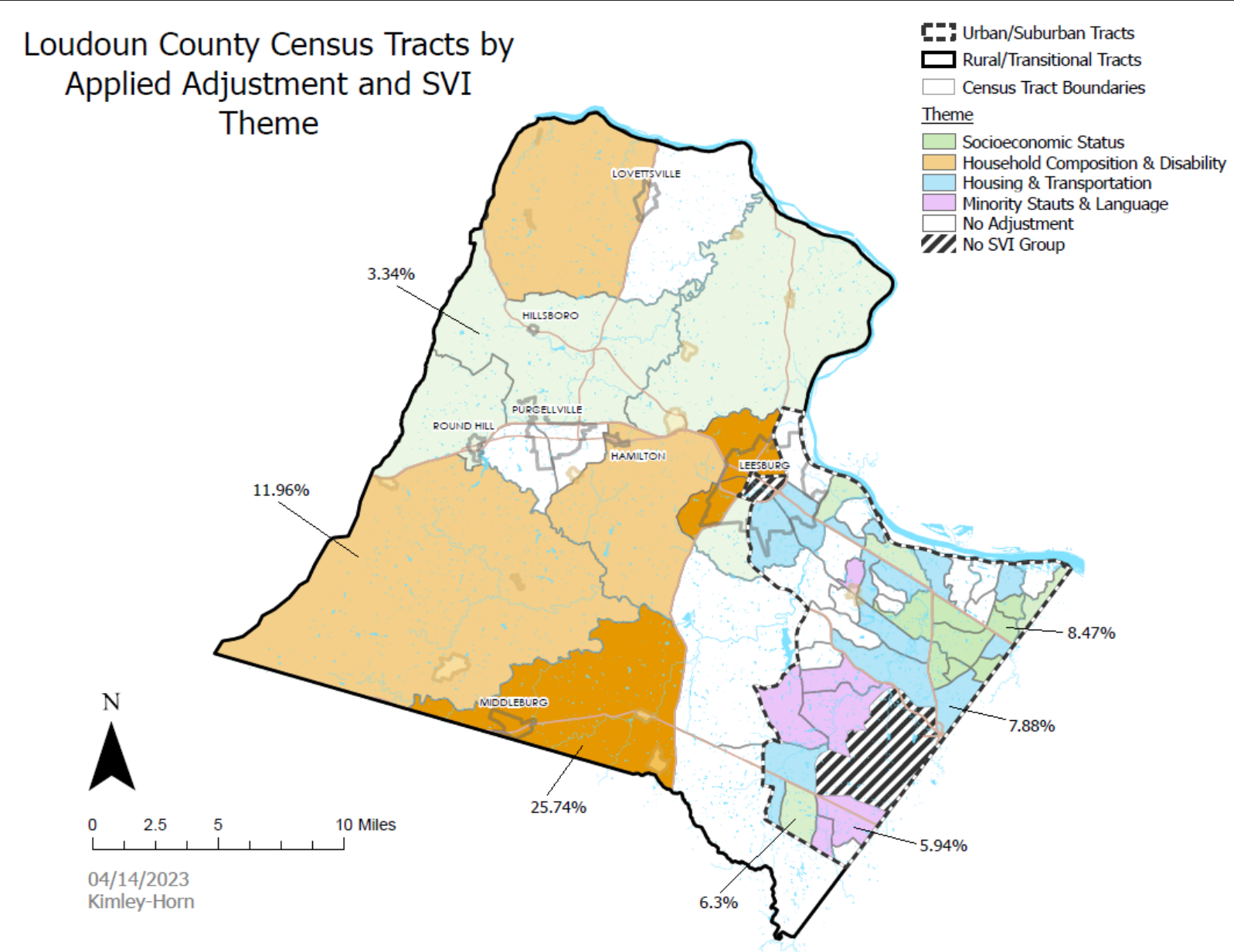
# Table of Differences with Urban/Suburban and Rural

SVI Theme	Urban/Suburban Census Tracts		Rural Census Tracts	
	Medium Vulnerability SVI Group	Higher Vulnerability SVI Group	Medium Vulnerability SVI Group	Higher Vulnerability SVI Group
Socioeconomic Status	6.30%	8.47%	3.34%	✓
Household Composition & Disability	✓	0.47%	25.74%	11.96%
Minority Status & Language	5.94%	5.50%	✓	✓
Housing Type & Transportation	7.88%	✓	✓	✓

Note: ✓ These groups already have an average completion percentage equal to, or greater than, the **baseline**



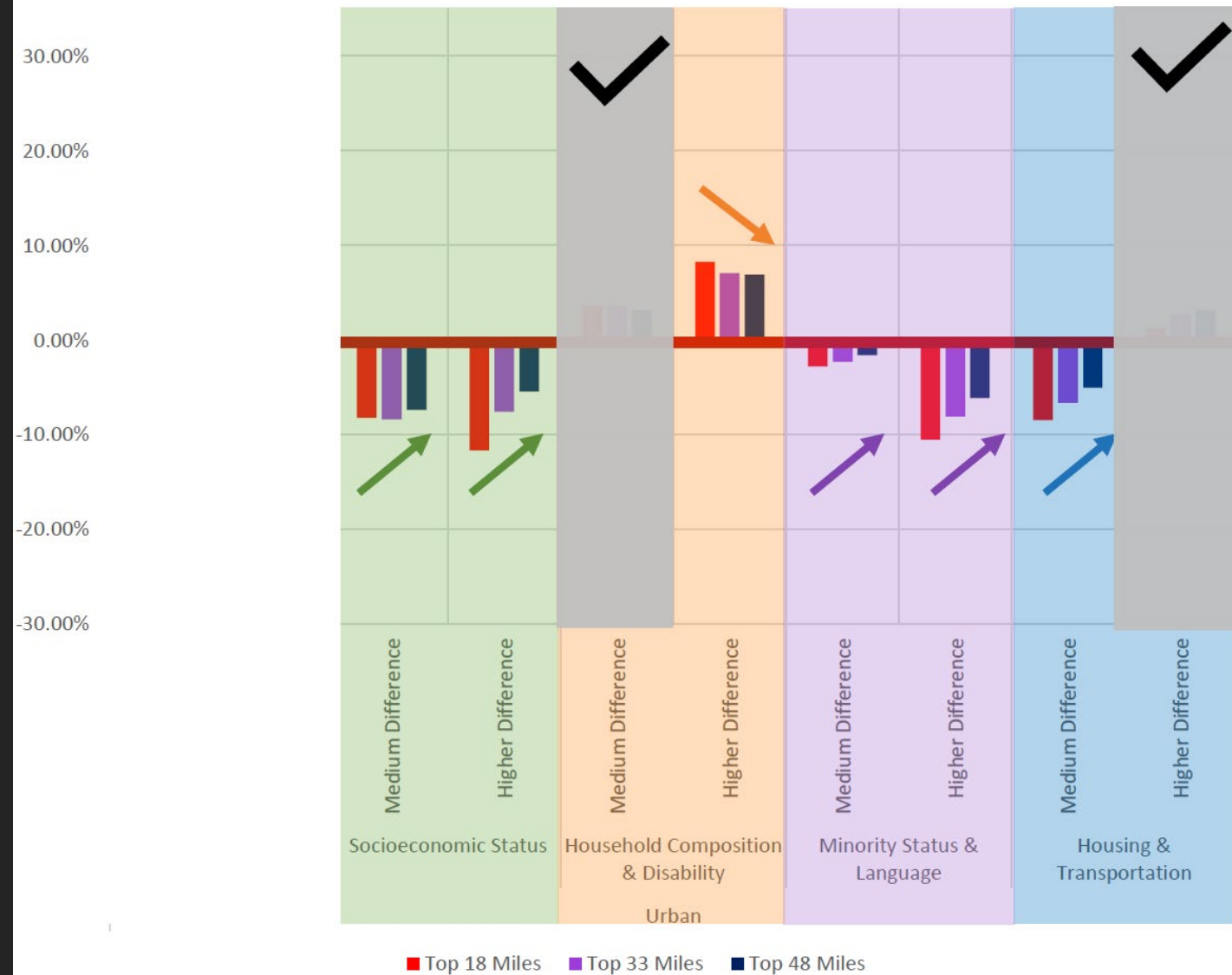
# Average Completion Percentage Difference Applied



# Findings – Urban/Suburban

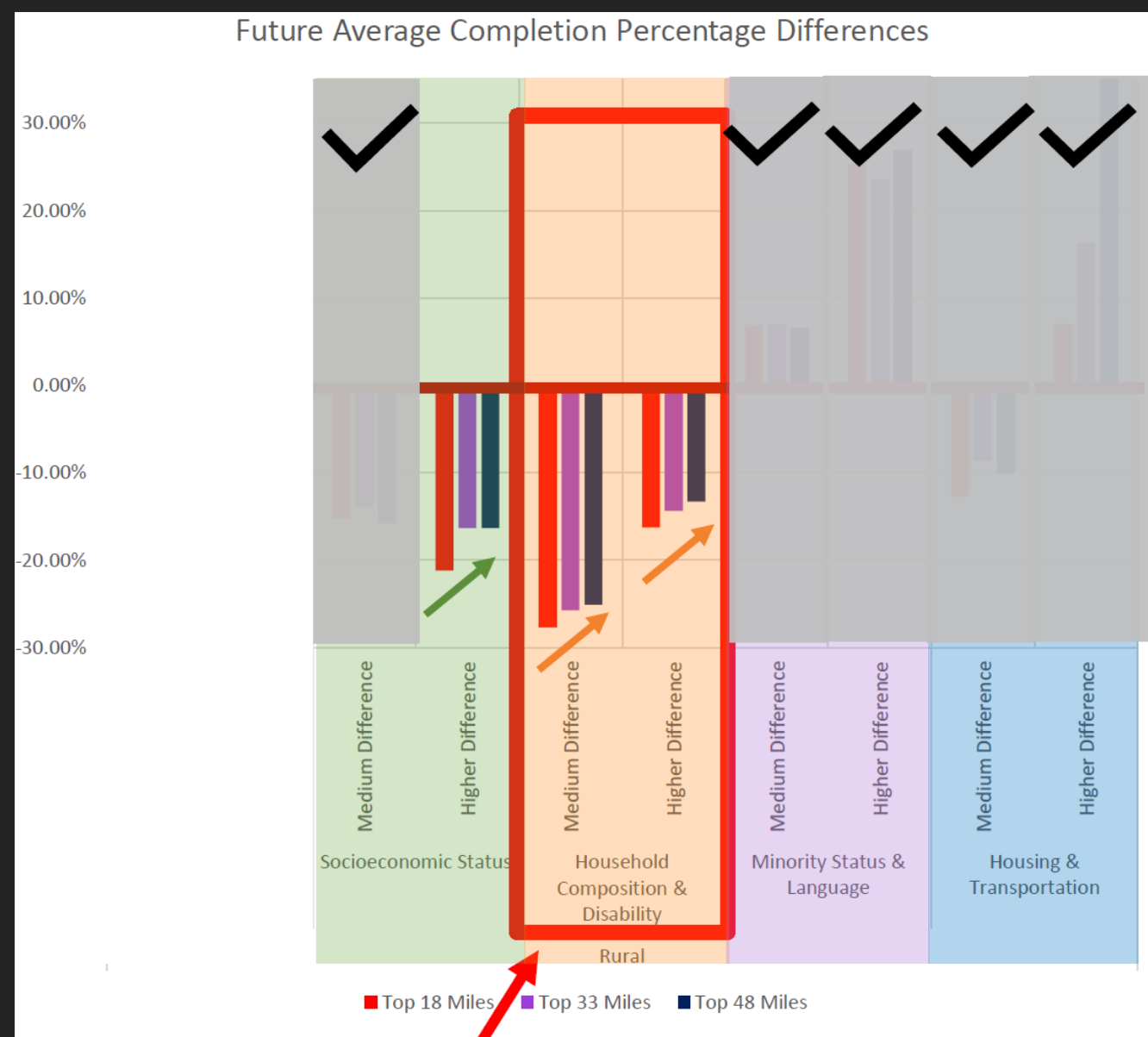
- Goal: Average Completion Percentage Differences are all zero or positive
- For all themes and SVI Groups the new prioritization reduces Average Completion Percentage Differences

Future Average Completion Percentage Differences



# Findings – Rural

- Goal: Average Completion Percentage Differences are all zero or positive
- Most improvement is in the Household Composition & Disability theme



# Conclusion

- Existing Network
  - Countywide: Slight preference for socially vulnerable
  - Opportunities for improving equity
- First 23 Projects
  - Improves service delivery but opportunities for improvement remain
- Incorporating average completion percentage differences accelerates infrastructure investments close to socially vulnerable census tracts while serving areas of greatest access opportunity