

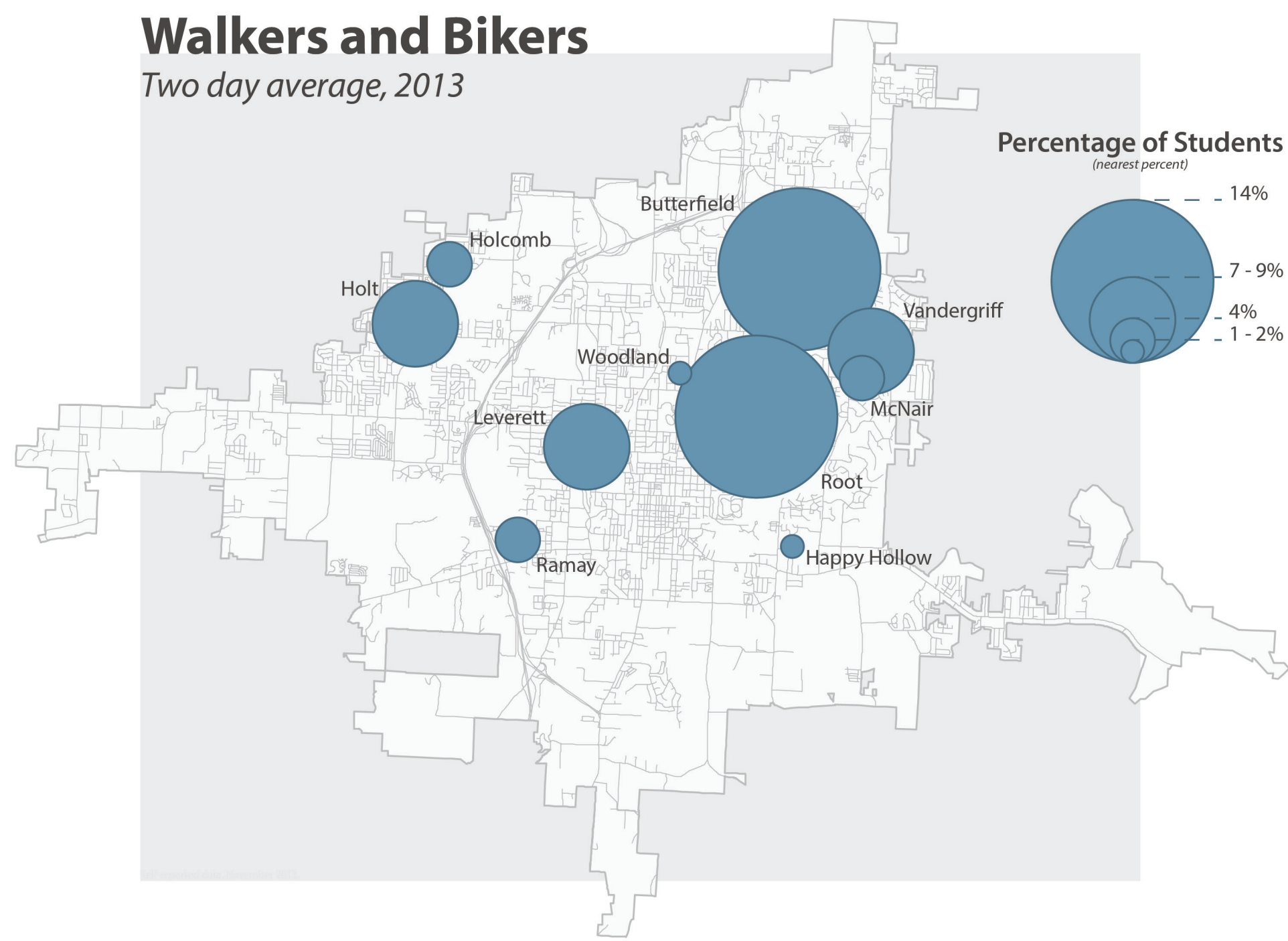
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### The Problem

In recent years, interest in active transportation to and from school has become of increasing interest to policy makers, parents, and schools due to the obvious health benefits and the not as obvious environmental and social benefits. In order to properly plan and implement measures to increase active transportation numbers, it is crucial to have accurate and up-to-date data for the city in question. Recently, there has been a growing interest from Fayetteville Public Schools to get more students to walk or bike to school. Additionally, the Bicycle Coalition of the Ozarks recently recieved a grant from Safe Routes to School, which provides capital, education, and other resources for increasing active transportation numbers in schools, with the hope of having a positive impact on all of Northwest Arkansas. Thus, there is a strong need of baseline information to develop a long-term plan for sustainable growth in Fayetteville's schools.

### Walkers and Bikers

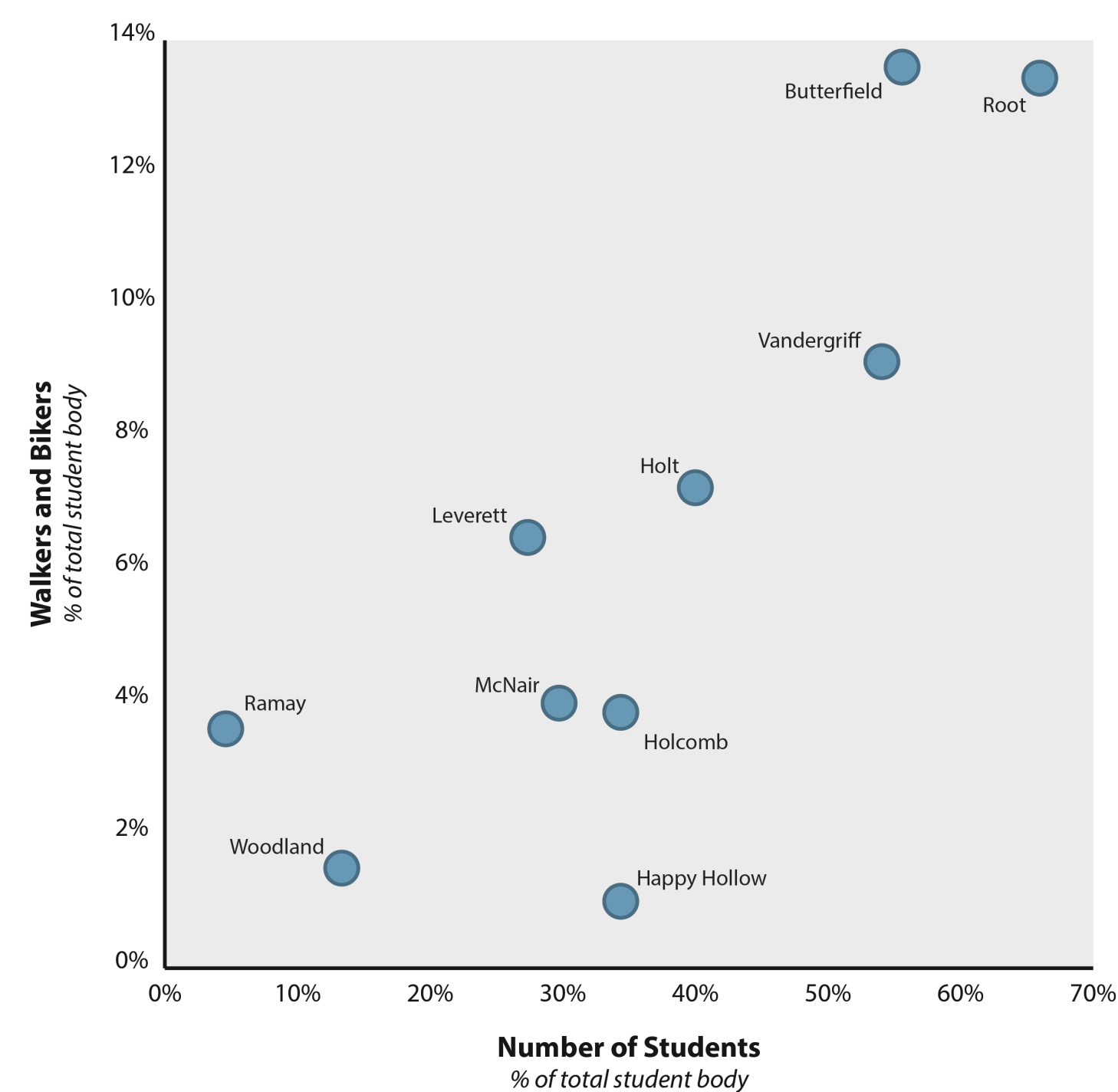
Two day average, 2013



### The Project

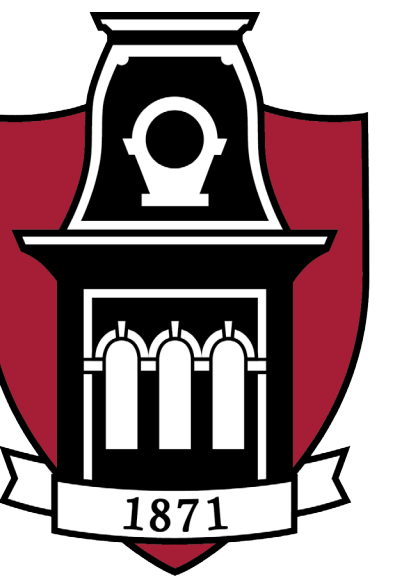
- Using a survey provided by SRTS, tally students at each school to determine current travel modes
- Aggregate this data and normalize for school enrollment
- Collect infrastructure and demographic data for the city
- Based off of previous research, limit investigation to a half-mile around each school(Timperio et al, 2006)
- Look for trends that will be useful in future planning decisions, including:
  - Land usage (determined via zoning)
  - Presence of infrastructure
  - Population density of students around each school
  - Road speed limits in the neighborhood around each school

### Students Living Within One Mile of Their School



Jason McCollum

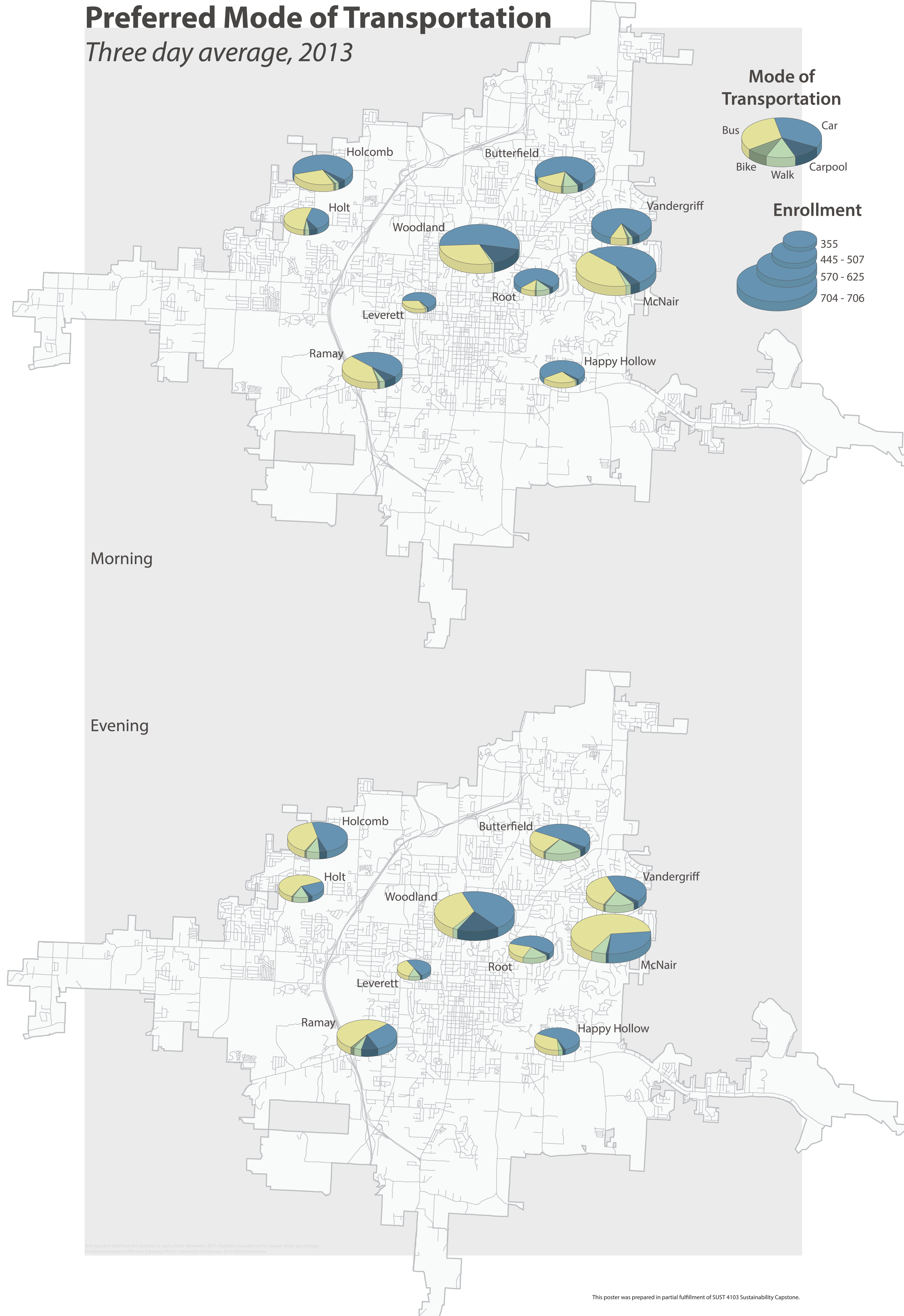
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### Preferred Mode of Transportation

Three day average, 2013



### Systems of Sustainability

#### Built

- Identify areas in need of infrastructure improvements
- Reach the whole community, not just students, with new infrastructure
- Help establish long-term solutions for active transportation

#### Social

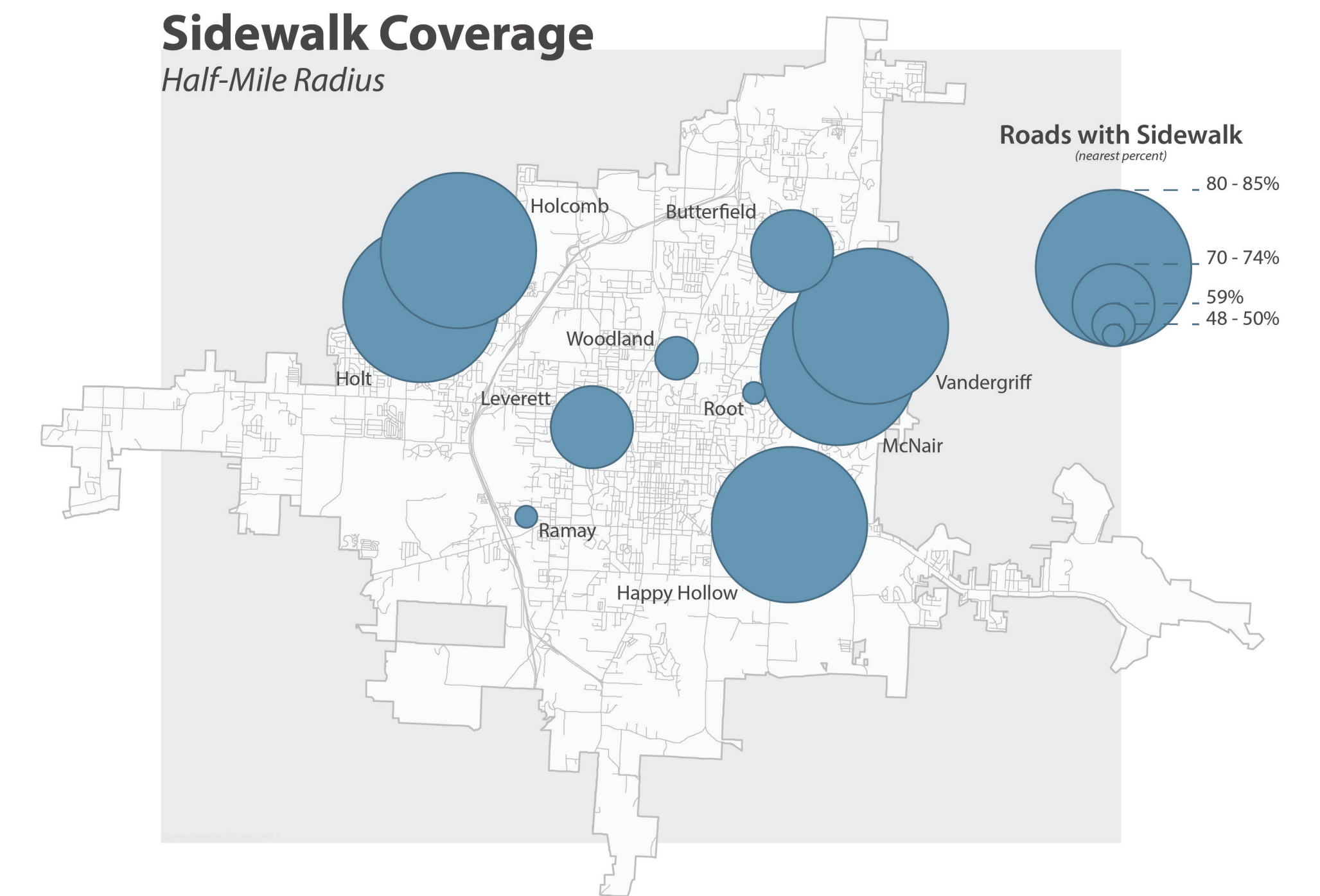
- Walking together builds friendships among students
- Build a sense of community and trust among students and non-students who regularly see each other
- Create lasting, positive ideas of walking and biking
- Improve the health of students by ensuring regular exercise

#### Natural

- Reduce emissions by reducing the number of students that are regularly driven to school
- Connect students with nature and create an appreciation for it

### Sidewalk Coverage

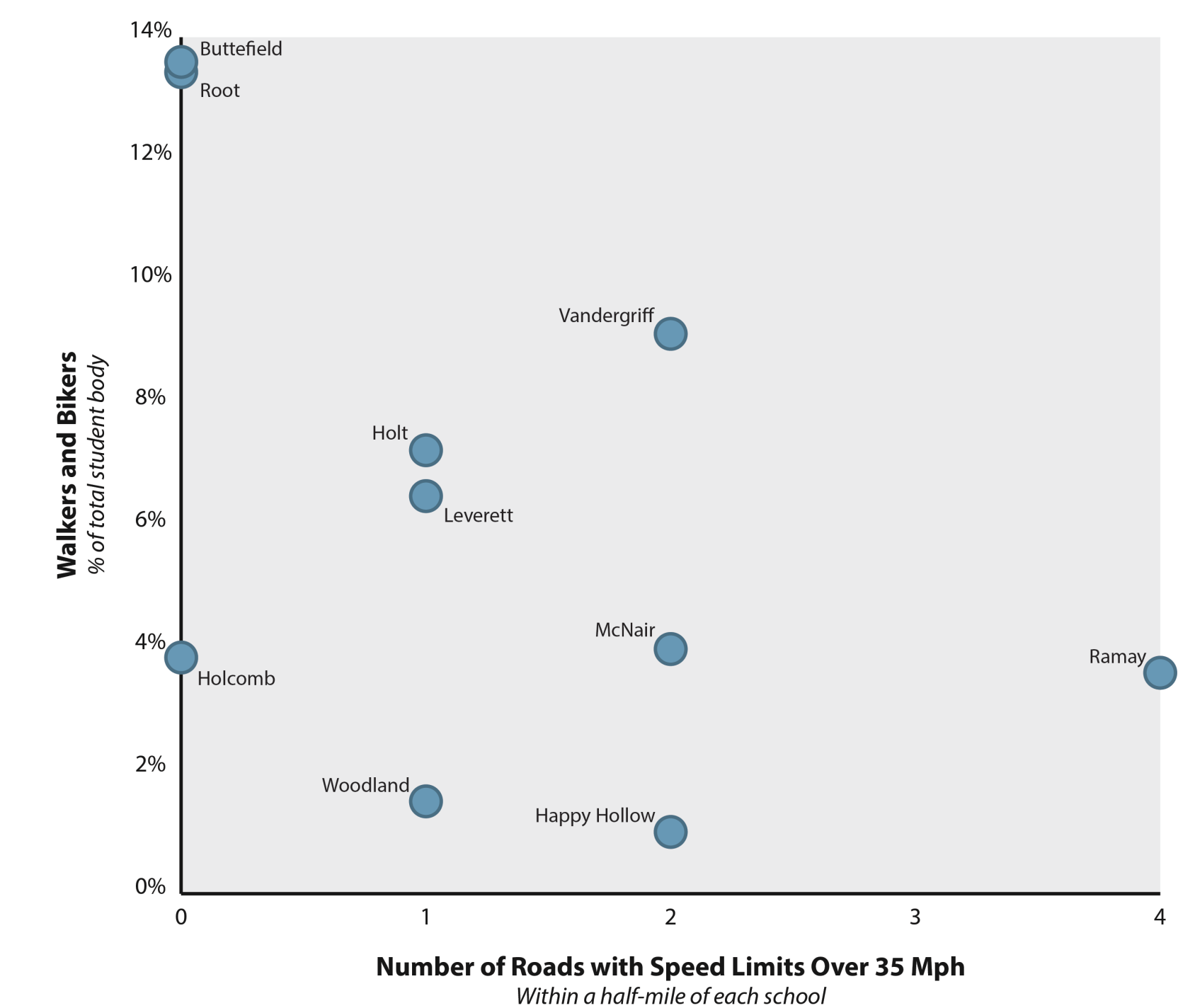
Half-Mile Radius



### Closing Remarks

This project has provided crucial information to both Fayetteville Public Schools and the Bicycle Coalition of the Ozarks and is the first step in formulating long-term solutions to increase active transportation in Fayetteville. Additionally, this project provided me with valuable work experience for future analysis and planning that goes far beyond the knowledge that one gains in the classroom. Hands-on experience is crucial in solving future issues regarding sustainability in a practical manner and seeing the project move forward immediately makes the work that much more rewarding. Furthermore, this project has provided new and valuable information to a growing topic of interest that is in need of more quantitative data.

### High-Speed Roads vs Active Transportation



This poster was prepared in partial fulfillment of SJST 4103 Sustainability Capstone.