



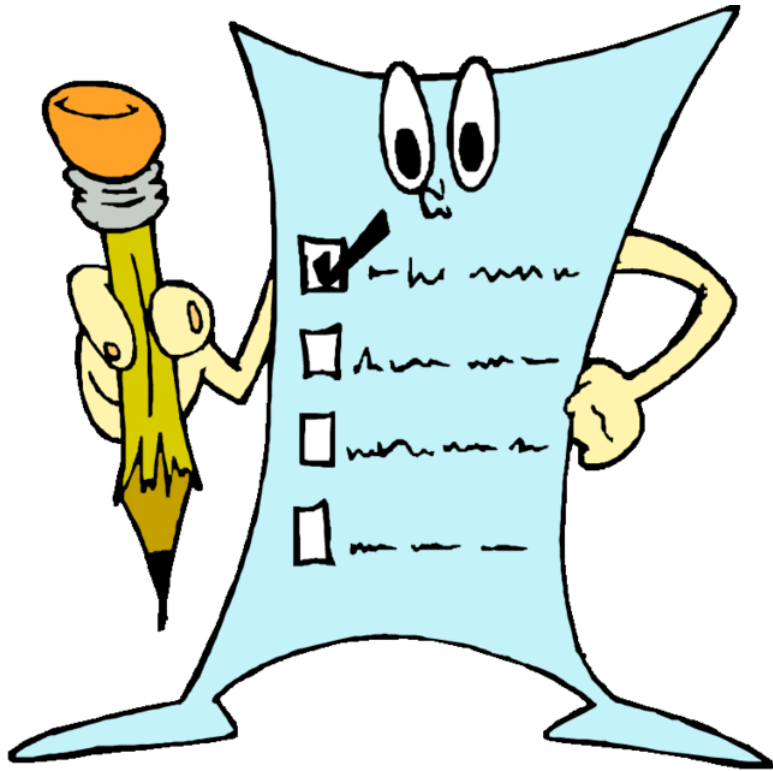
URS



Quad Cities Regional HH Travel Survey

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Transportation Engineer
Bi-State Regional Commission
July 30, 2014

Overview



- Objectives
- Design
- Fielding Results
- Survey Results

OBJECTIVES

Project Overview

- To provide an enhanced foundation for the travel demand model update
 - Updating from vehicle-trips to person-trips
 - Prior model relied on 2001 NHTS add-on data from Des Moines
- Tasks
 - Regional Household Survey
 - Model Guidance

Project Overview

- Regional Household Survey
 - Snapshot of Daily Personal Travel
 - Demographics
 - Origins, Destinations, Time of Day, Travel Mode, and Trip Purpose
 - All HH Members and All Travel Modes



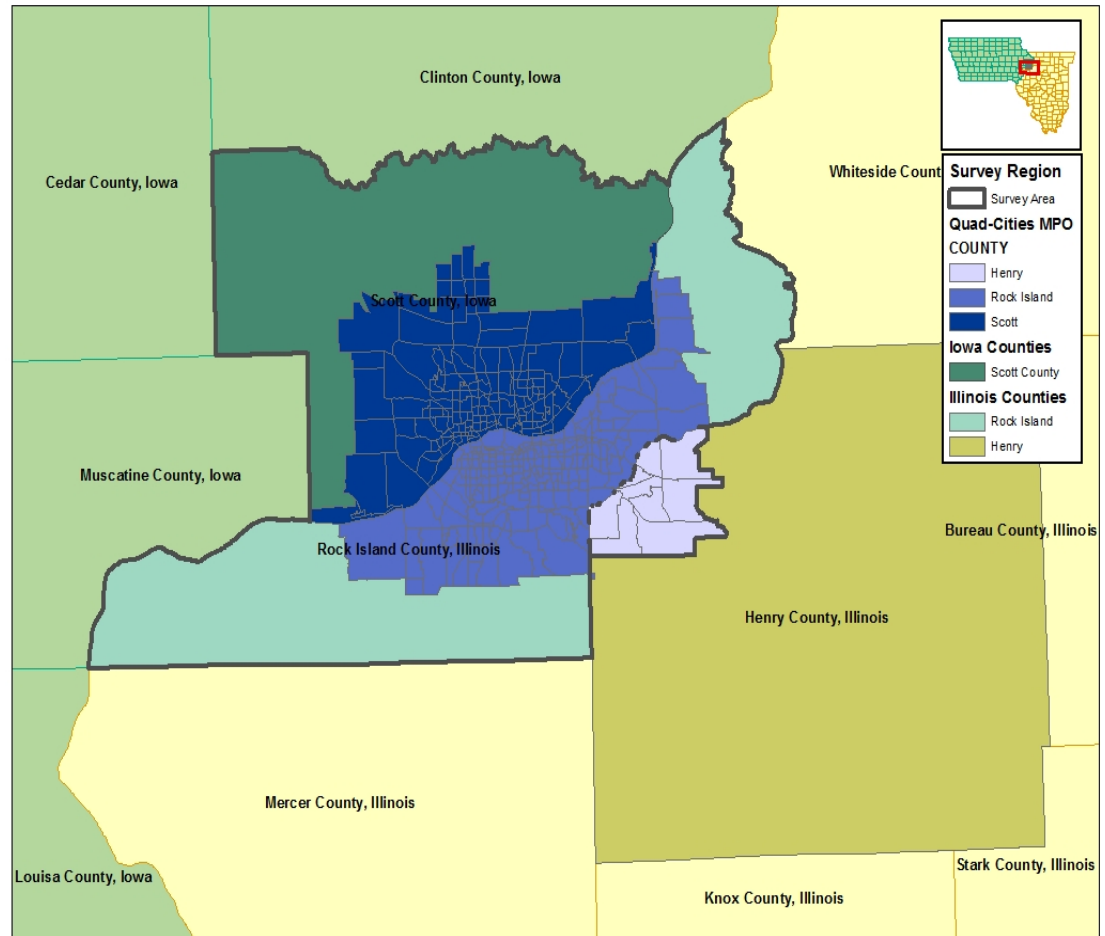
Source: http://en.wikipedia.org/wiki/Quad_Cities

DESIGN

Survey Design Elements

STUDY AREA:

ALL of Rock Island
and Scott Counties +
a portion of Henry
County within MPO
boundaries



Survey Design Elements

- Target Sample Size: 1,500 HH
 - 1% sample
 - Stratified by HH Size and Income, Presence of Workers in the HH
 - Oversample Areas with Transit-Using HH
 - 10% GPS Subsample: Bridge-Crossing Households

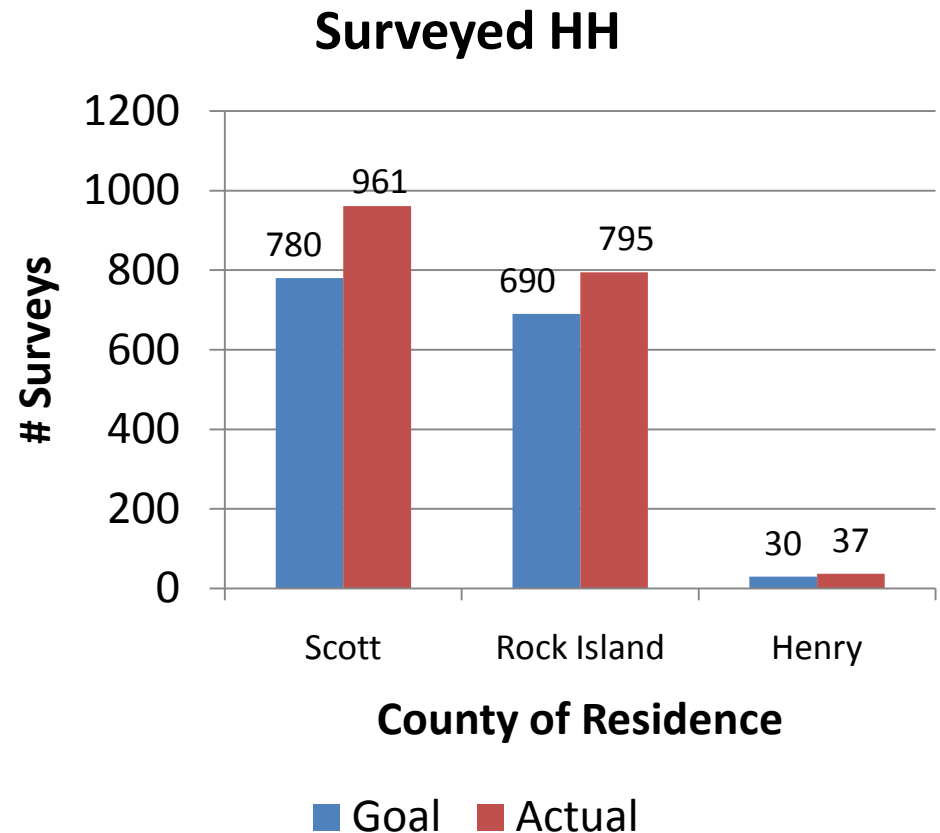
Data Elements

- Demographic Data
 - Household Size, Vehicles, Workers, Income, Housing
 - Age, Gender, Employment and Student Details
- Travel Behavior
 - Origins and Destinations of Travel
 - Time of Day, Trip Purpose, Travel Modes
- Location Data
 - Home, Work and School Locations, Trip Destinations
- GPS Data – Bridge Crossing
 - 168 HH
 - Up to 3 HH Vehicles Equipped
 - 7-day Deployment
 - Second by Second Lat/Long

FIELDING RESULTS

Fielding Results

- N = 1,793 HH
 - 4,100 Persons
 - 3,523 Vehicles
 - 13,803 Trips
- HH File: Statistical Precision at 2.3% (95% CI, +/- 5%)



Home Locations for 1,793 Participating Households

Quad Cities Survey

- HenryHWY
- Major Roadways
- Iowa Primary Roads
- HH Locations
- Regional Waterbodies

MPO Region

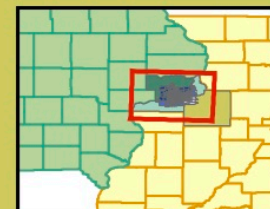
- Henry County
- Rock Island County
- Scott County

Iowa

- Scott

Illinois

- Rock Island
- Henry



Weather Impacts – January 8-9, 2014

- N = 164 HH / 1,793 HH
- 20% of the 164 did not travel
- Trip Rate Comparioson
 - 6.0 Average Daily HH Trip Rate on Cold Weather Days
 - On “typical” day, 8.0 Average Daily HH Trip Rate



Sample Performance

Mailed 9,830 Letters /
Contacted 6,798 HH by Phone

Recruited 2,205 HH (32%)

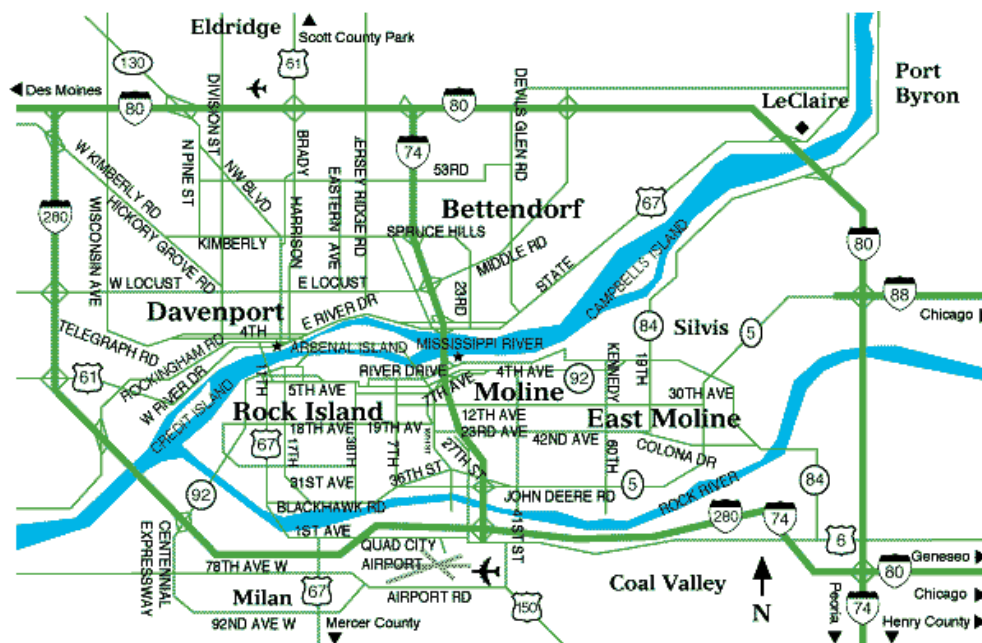
584 Hours

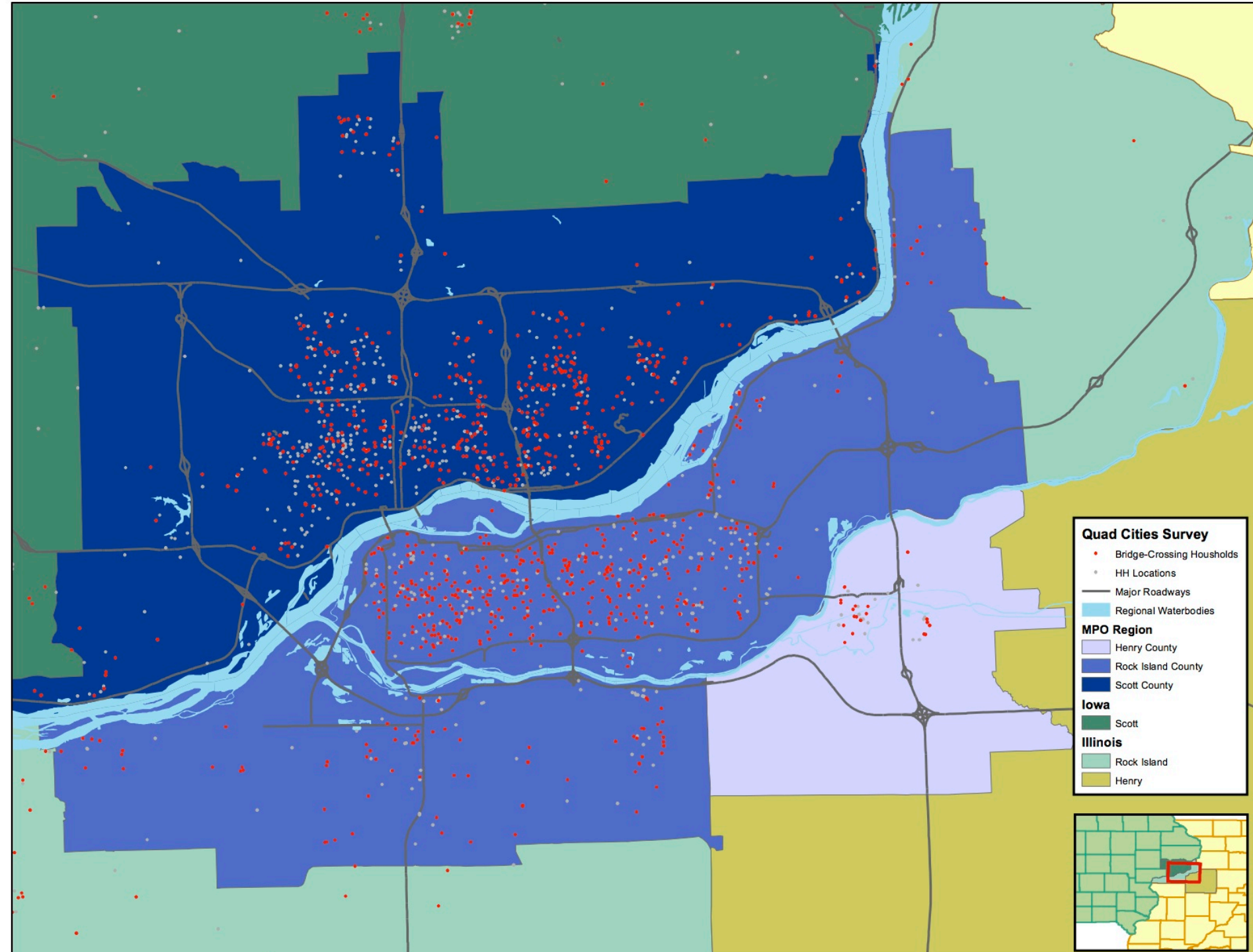
Retrieved 1,793 HH (81%)

2,202 Hours

Bridge Crossing Households

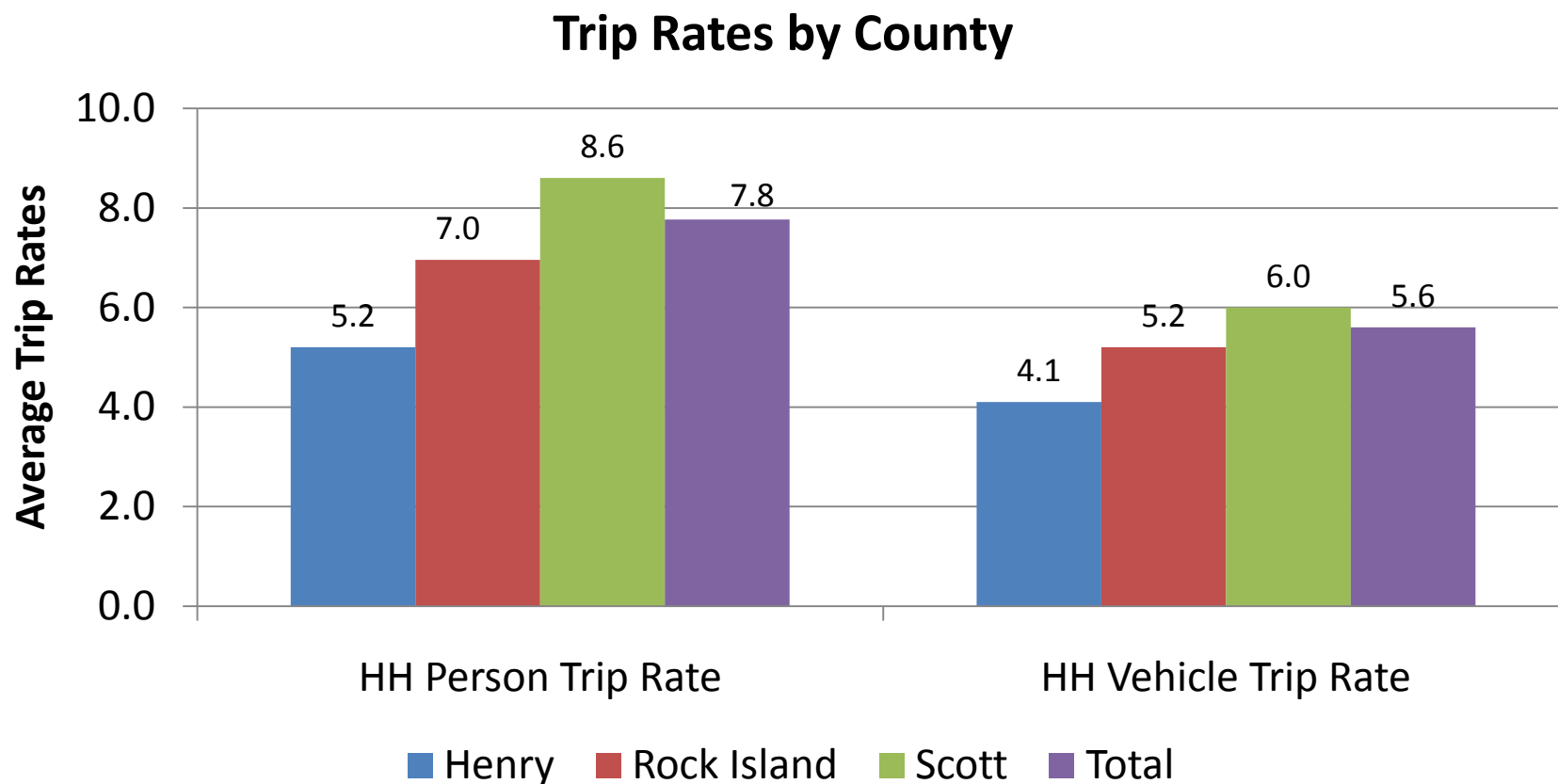
- 1,043 (58%) of HH Reported Bridge Crossing at 1x per Week
- 507 (28%) of HH Reported at Least One Bridge Crossing Trip on Travel Day
- GPS-collected Data for 168 HH



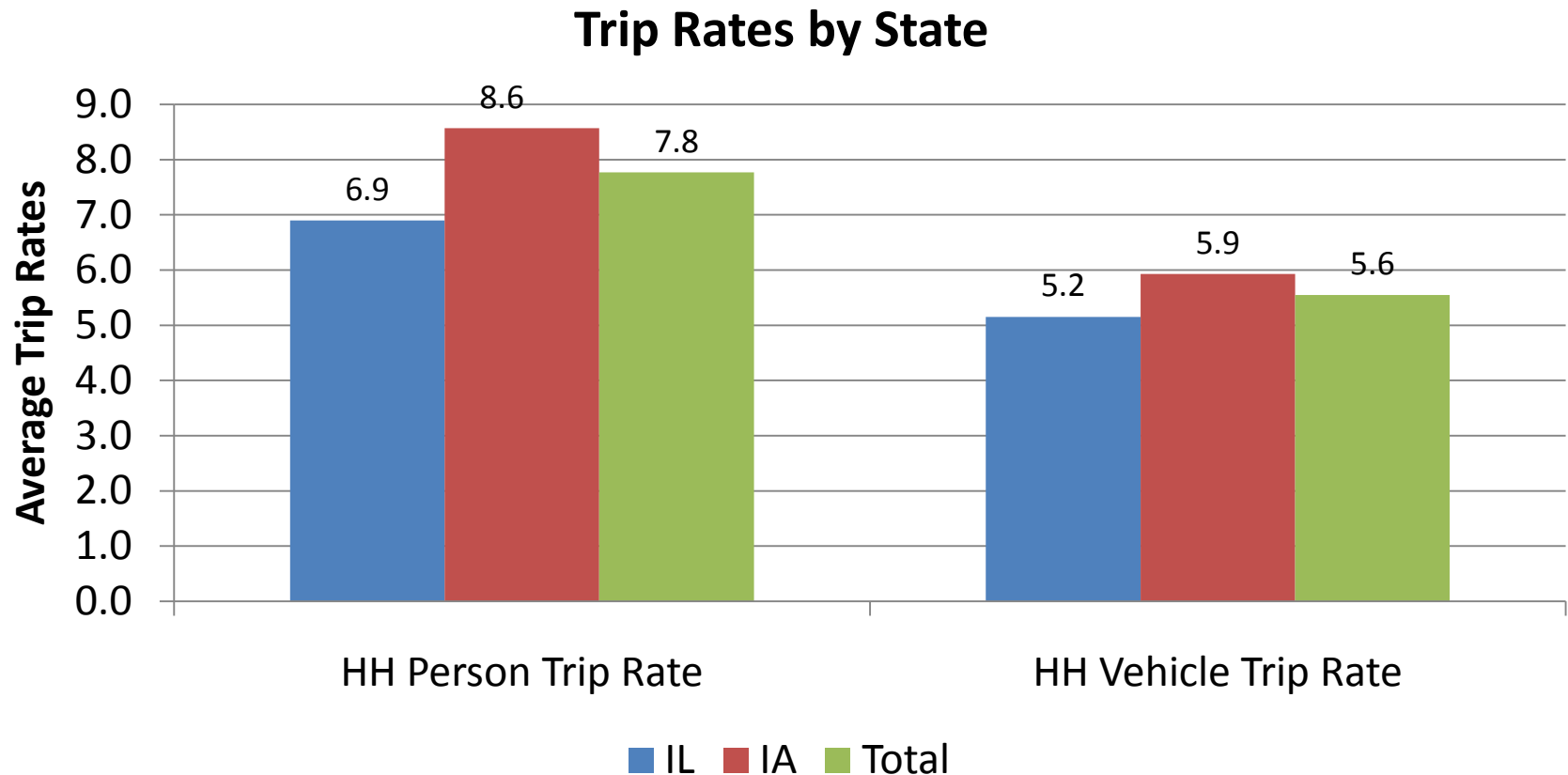


SURVEY RESULTS

Household vs. Vehicle Trip Rates

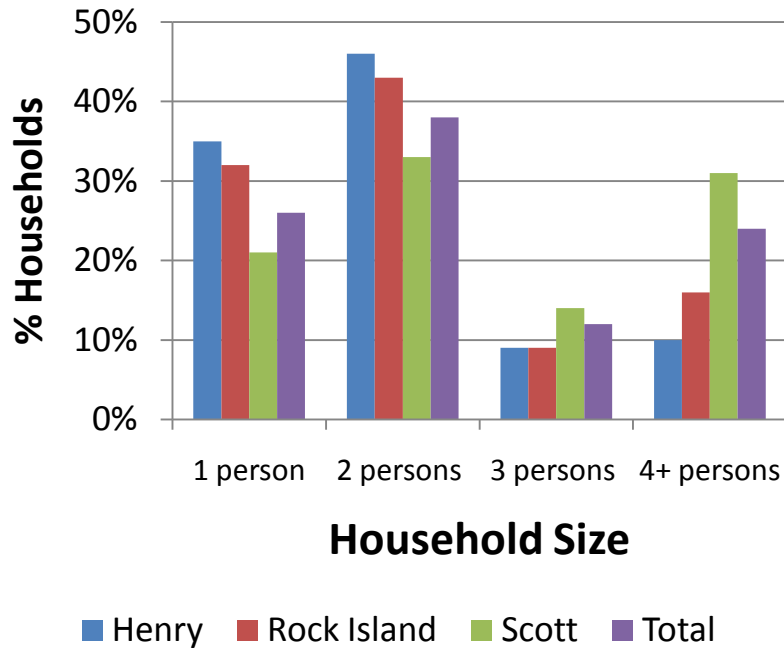


IA/IL HH and Veh trip rates

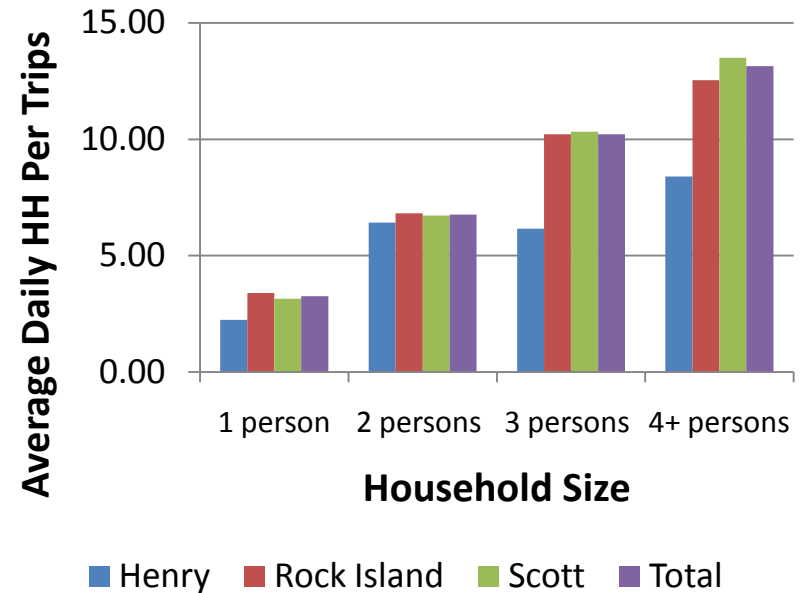


Household Size

HH Size by County

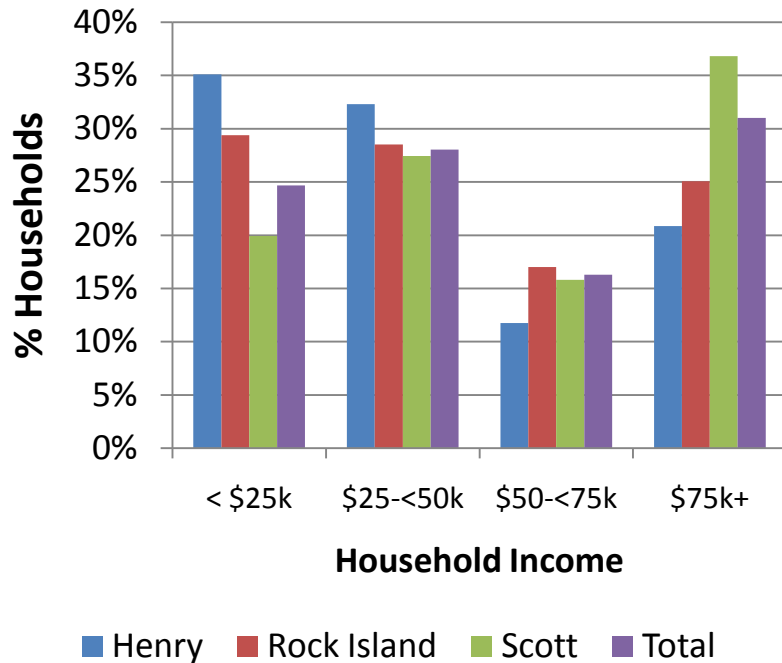


**Trip Rates:
HH Size by County**

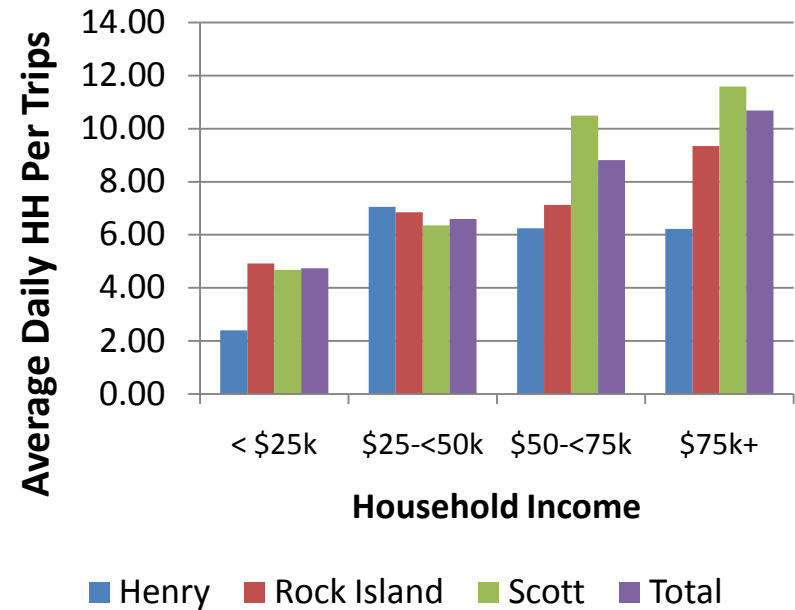


Household Income

HH Income by County

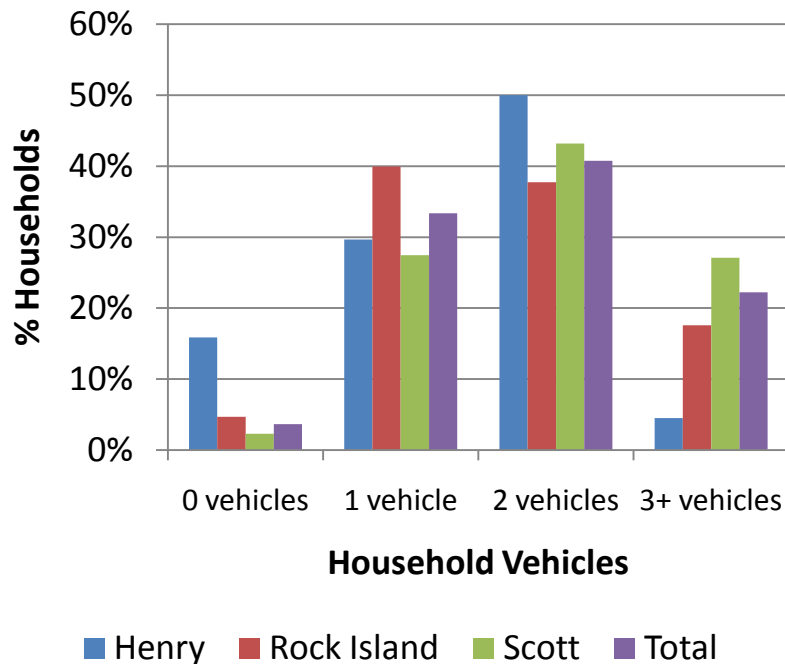


**Trip Rates:
HH Income by County**

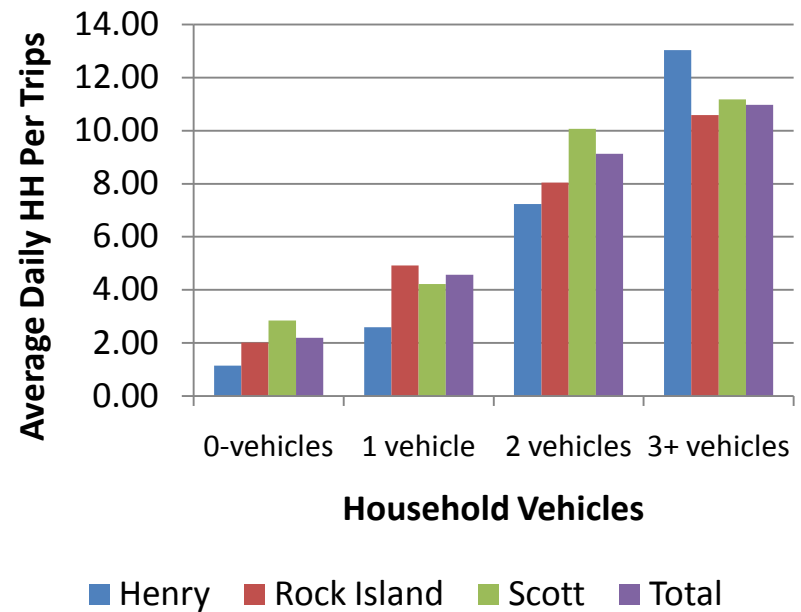


Household Vehicles

HH Vehicles by County

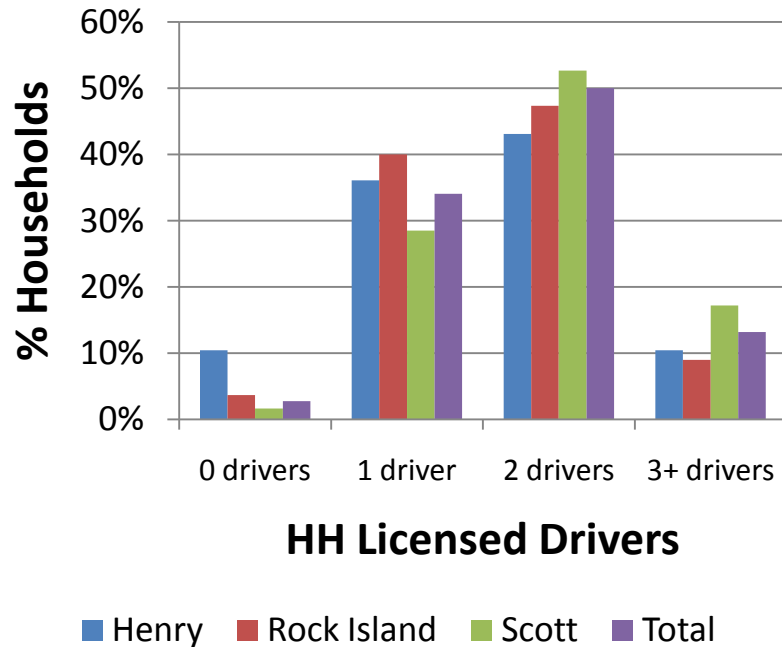


**Trip Rates:
HH Vehicles by County**

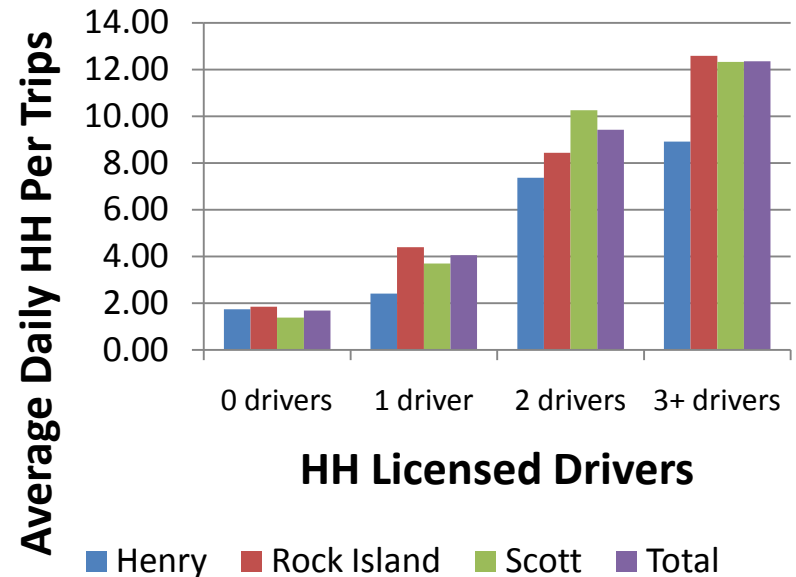


HH Licensed Drivers

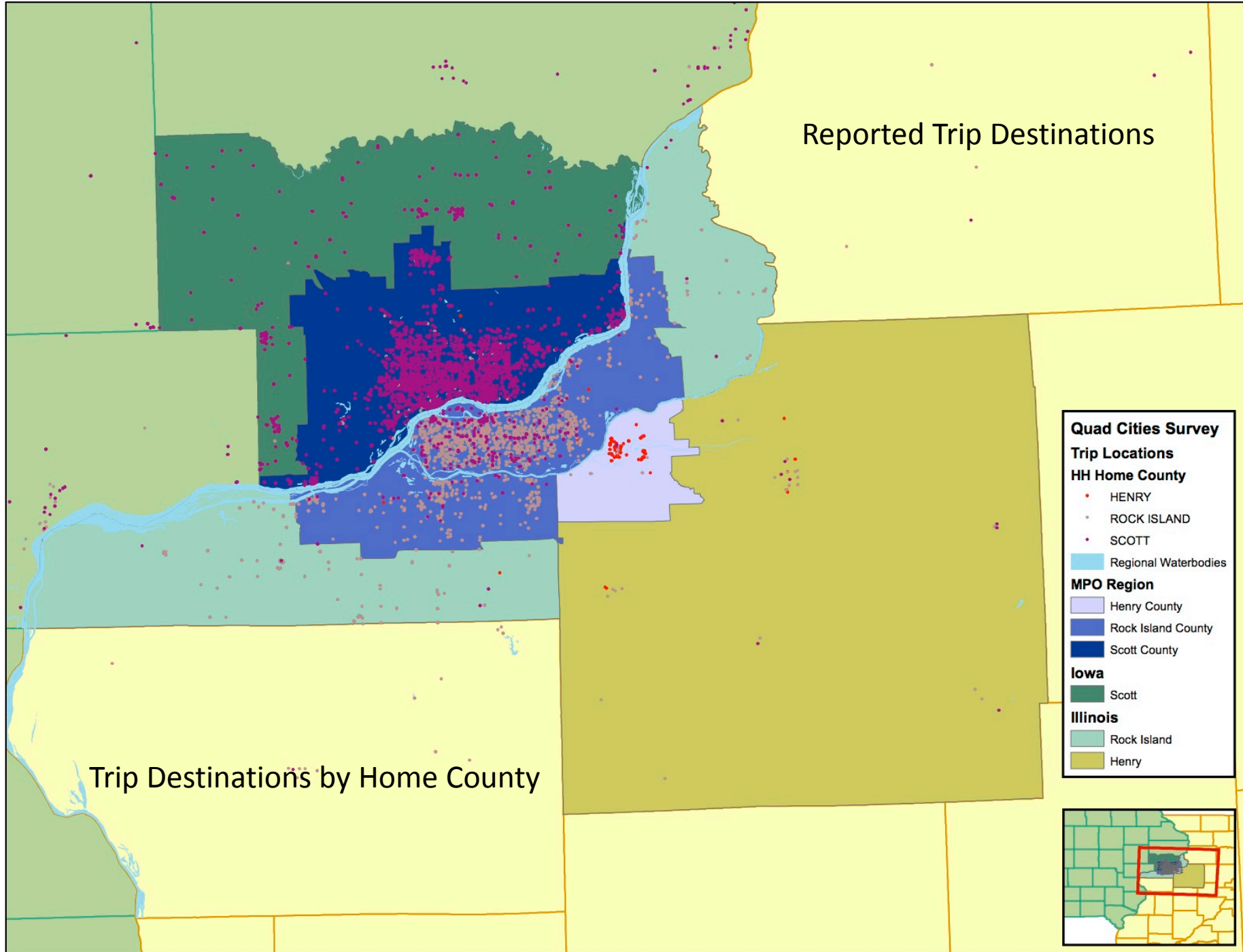
HH Lic'd Drivers by County



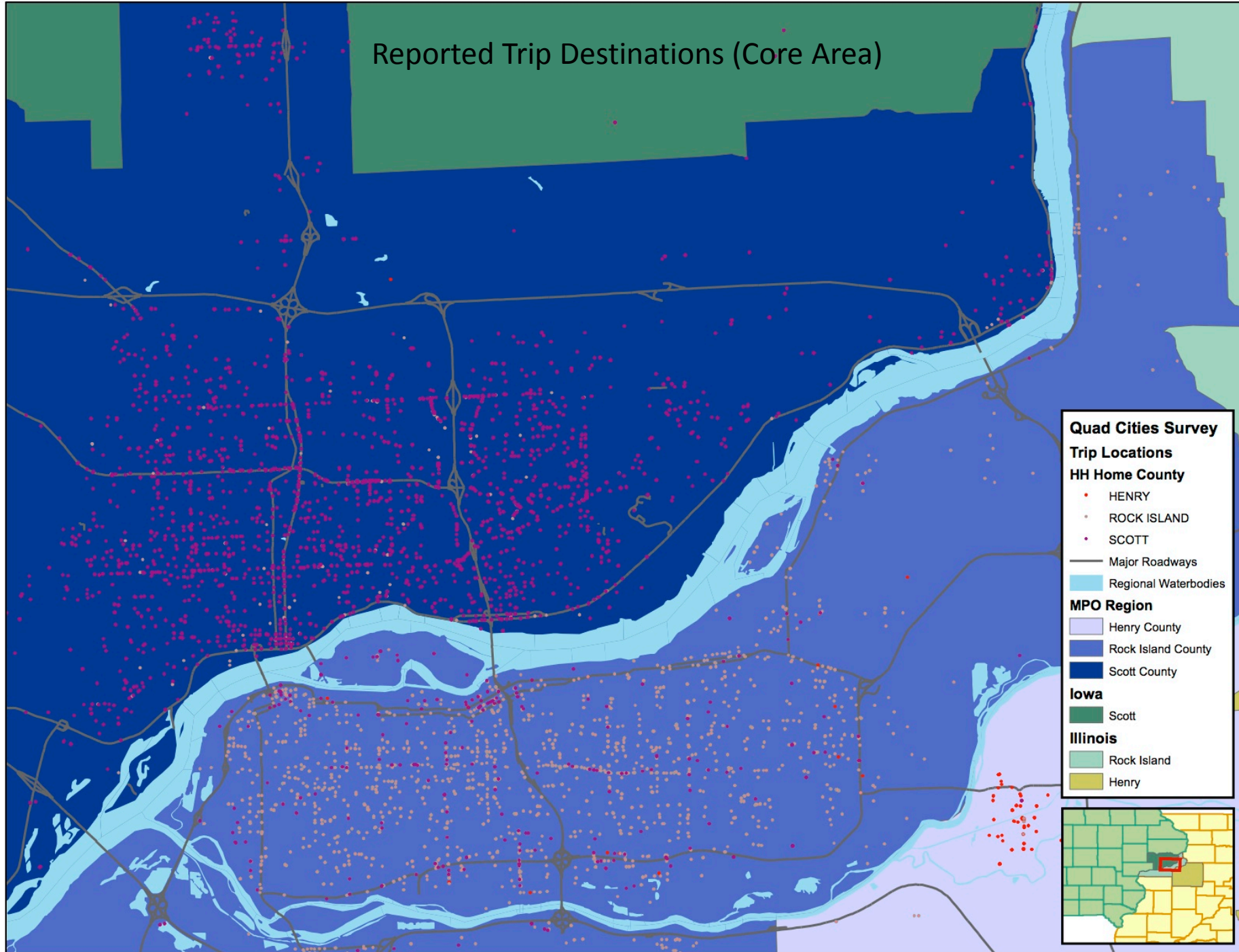
**Trip Rates:
HH Lic'd Drivers by County**



Reported Trip Destinations

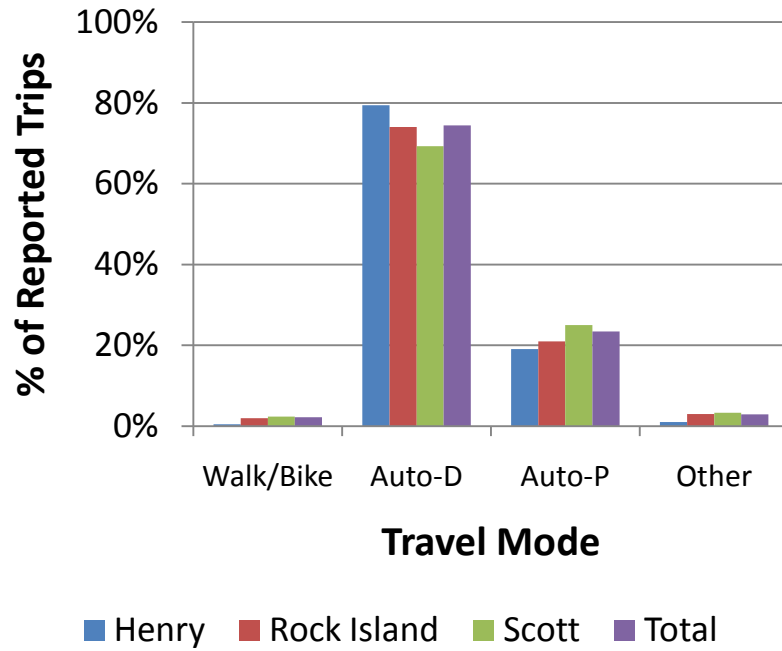


Reported Trip Destinations (Core Area)

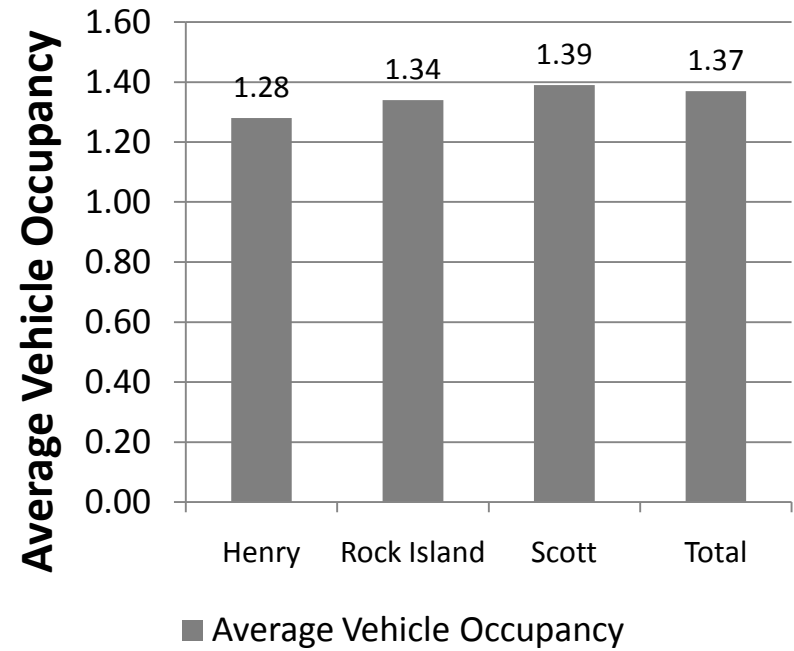


Travel Mode

Travel Mode by County

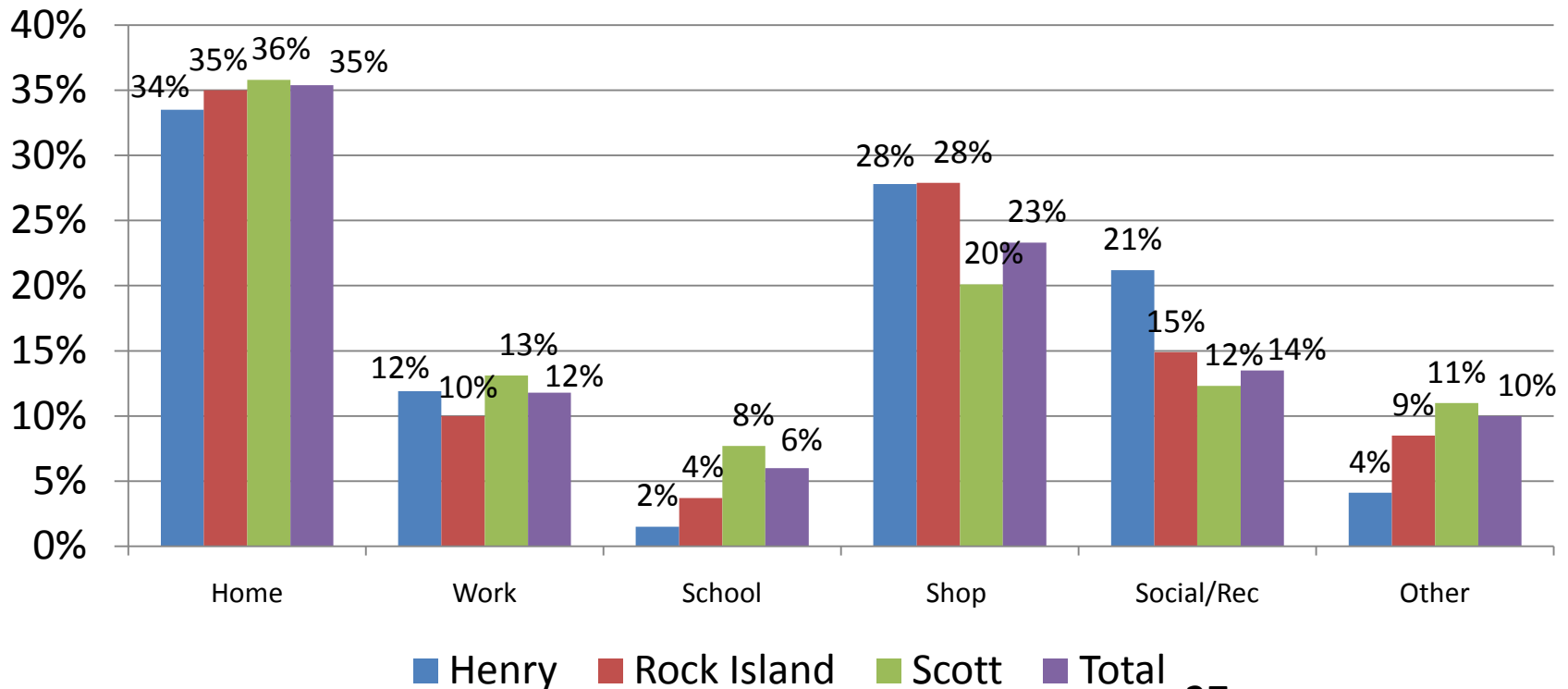


Average Vehicle Occupancy

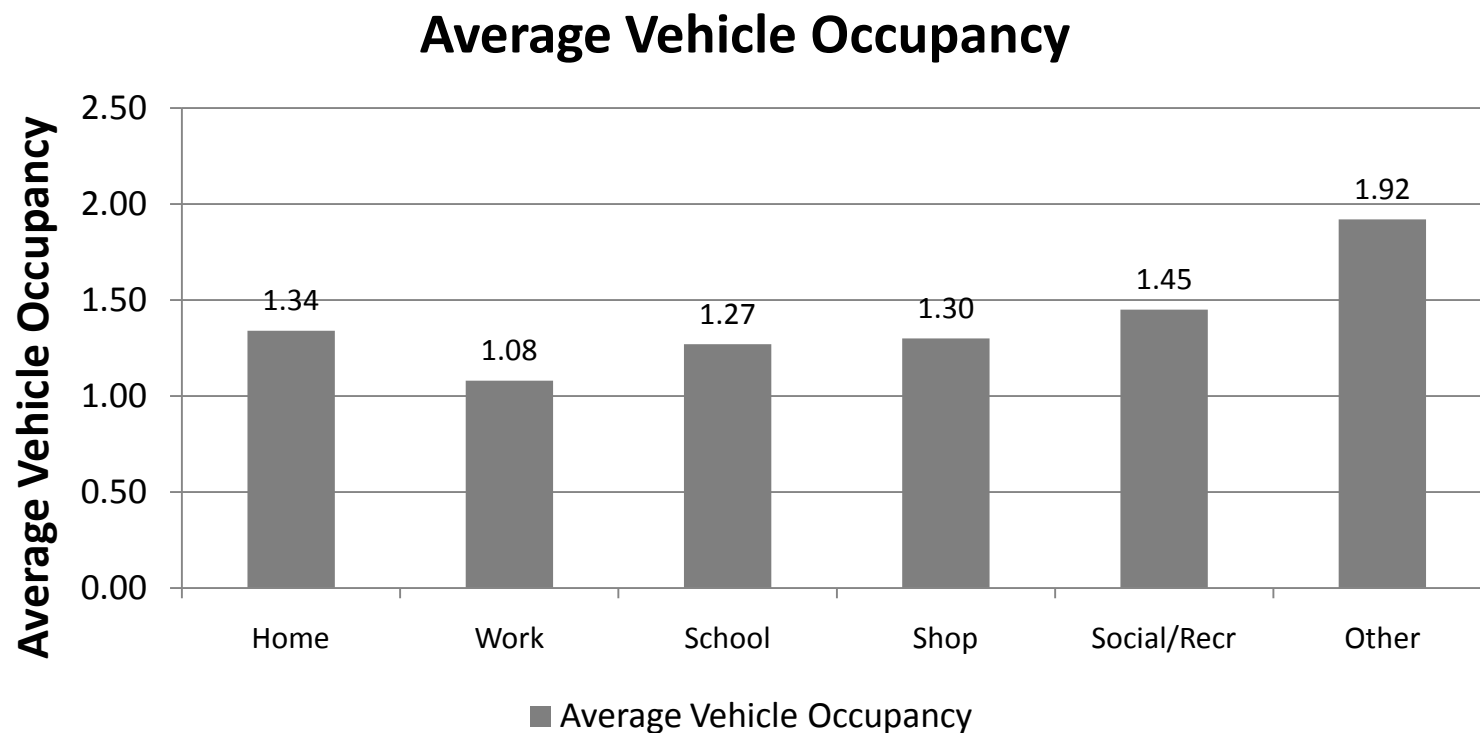


Trip Purpose at Destination

Trip Purpose by County

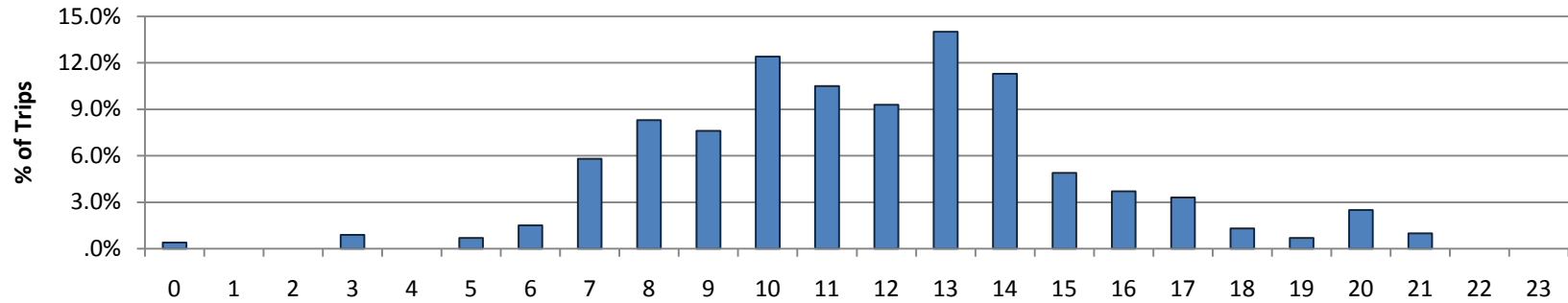


Vehicle Occupancy by Trip Purpose

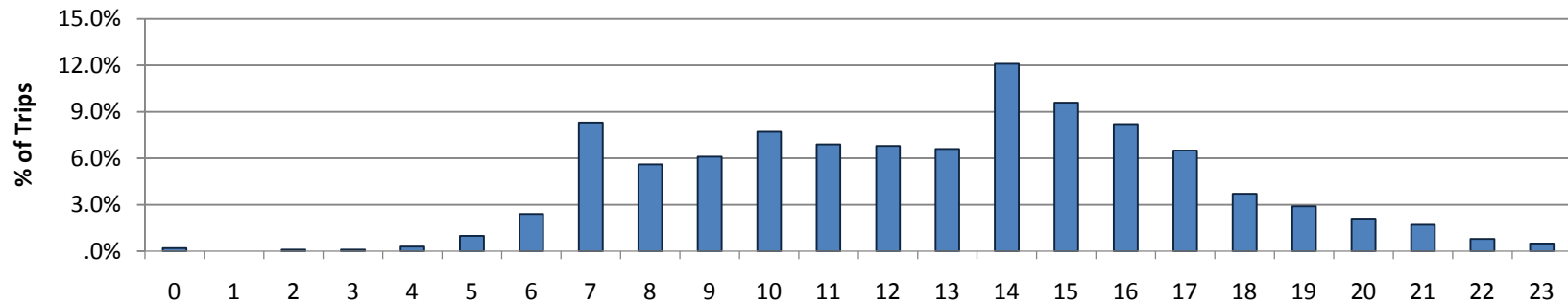


Time of Day of Travel

Henry County

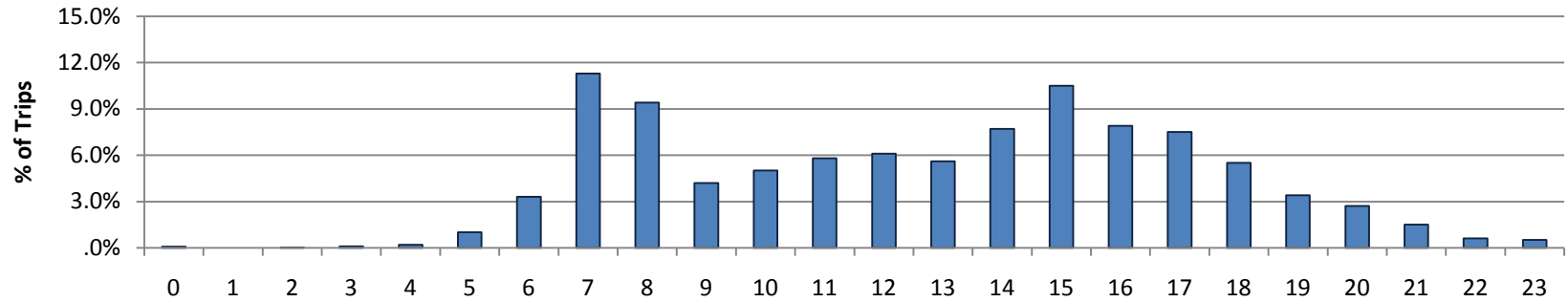


Rock Island County

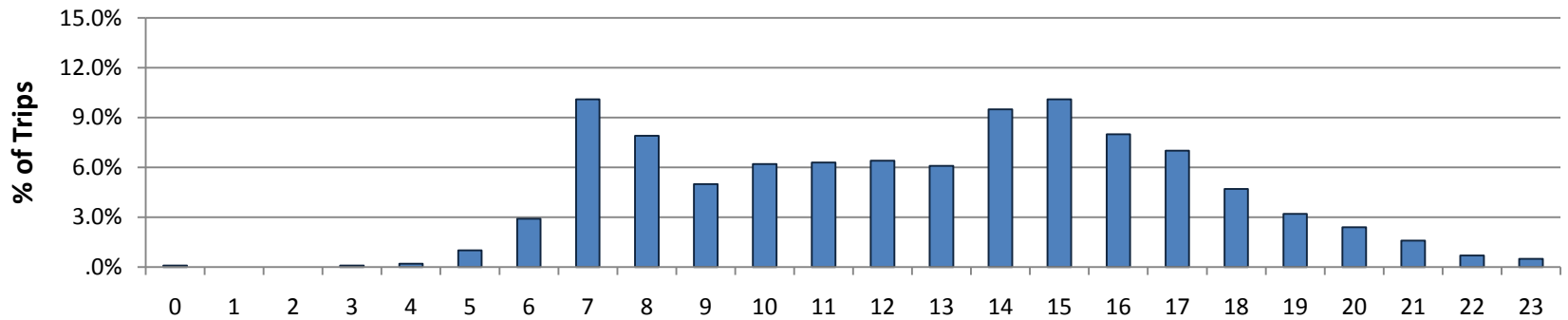


Time of Day of Travel

Scott County



Total



QUESTIONS OR COMMENTS?