

NHTS Add-on for INRCOG MPO

September 2020 MPO/RPA Quarterly Meeting

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Developing Strong Local Government through Regional Cooperation

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NHTS Add-on for INRCOG MPO

- 1. Long-range, transit, and pedestrian planning**
 - Use as a data source, quick facts
- 2. Comparing NHTS, ACS, and local survey data**
 - Use case: Physical Activity Access project
- 3. Table Designer and Advanced Analytics Tool**
 - Use case: MET Transit route redesign

Long-range, transit, and pedestrian planning

NHTS Add-on for INRCOG MPO



Use in the 2045 LRTP Update

- **Chapter 4: Transit**

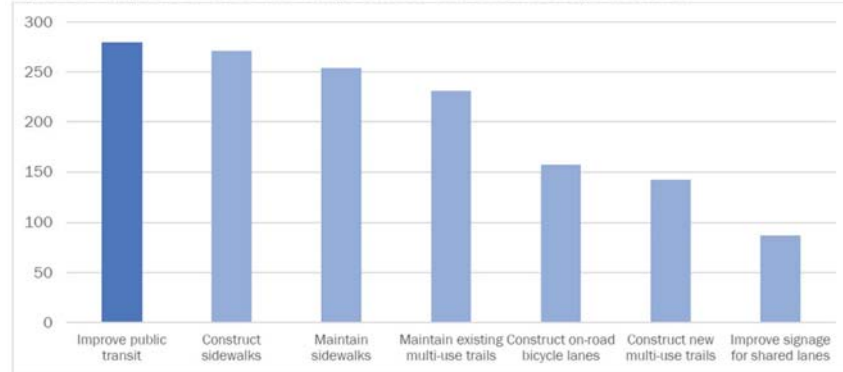
- Between 2,963–5,761 persons in the MPO area have no household vehicles available.
- Between 2,240–4,238 persons have a medical condition that results in them giving up driving.
- Between 14.7–22.6 percent of households have used a bus for travel at least a few times a year.



Use in the 2045 LRTP Update

- Chapter 4: Transit

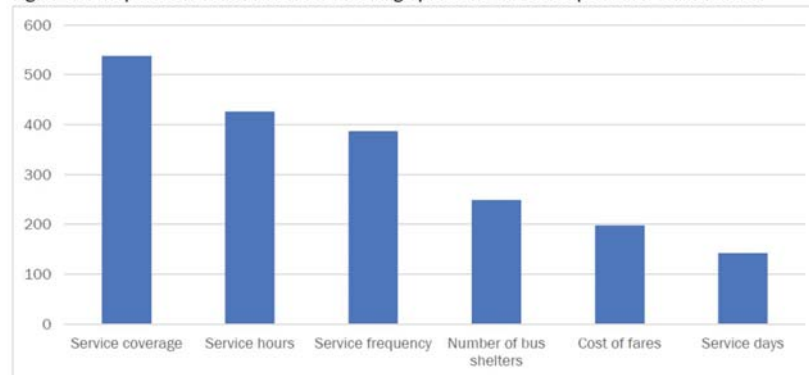
Figure 4.9: Responses to Which One Transportation Investment is Most Important to You



Use in the 2045 LRTP Update

- Chapter 4: Transit

Figure 4.8: Responses to Which Two of the Following Options Would Best Improve MET Transit Service



Use in the 2045 LRTP Update

- Chapter 5: Bicycle and Pedestrian



Use in the 2045 LRTP Update

- Chapter 5: Bicycle and Pedestrian

	Bicycling	Walking
Commute to work ¹	0.5 %	4.6 %
All trips	1.2 %	6.8 %
Annual person trips	1,774,000 trips	10,359,000 trips
Annual trip distance	5,370,000 miles	6,596,000 miles
Average trip distance	3.03 miles	0.64 miles
Average trip duration	22.33 minutes	17.03 minutes
Mode used in past 7 days	9,167 residents	66,290 residents

¹ -U.S. Census American Community Survey data (2012-2016) for Black Hawk County. All other values are from the 2017 NHTS Add-on for the MPO area.

Use in the 2045 LRTP Update

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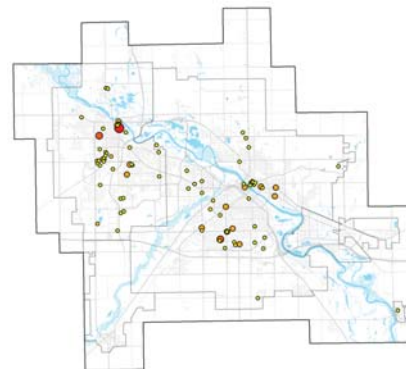
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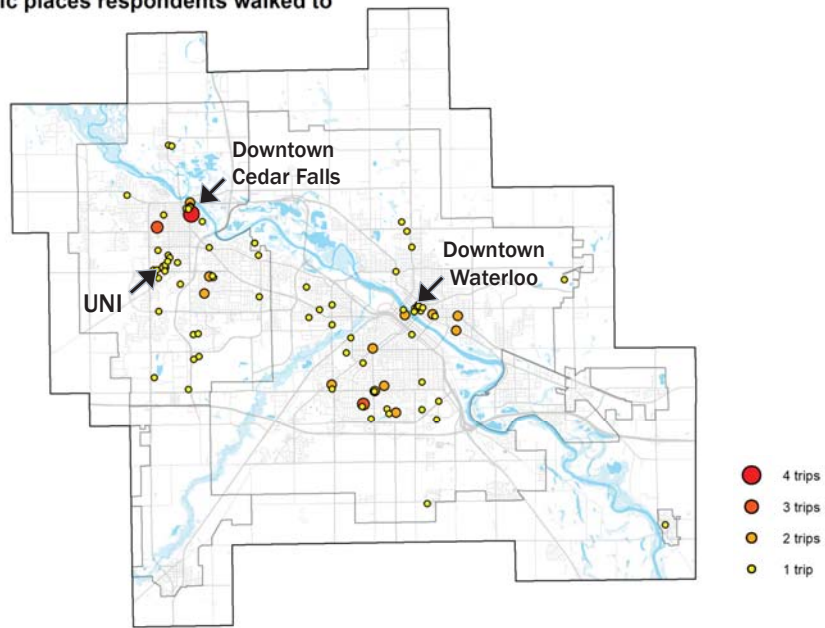
Use in Pedestrian Planning

- NHTS Add-on:

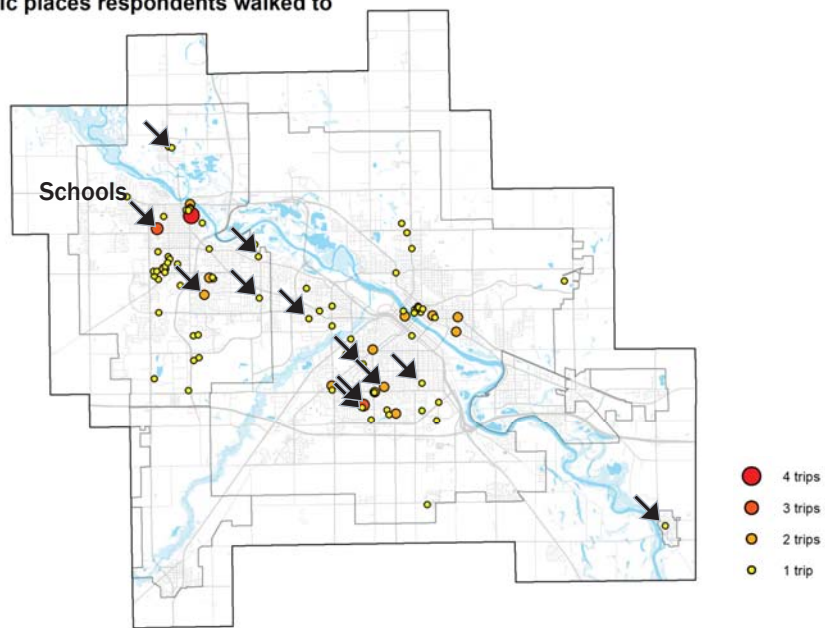
- Survey data
- Trip data



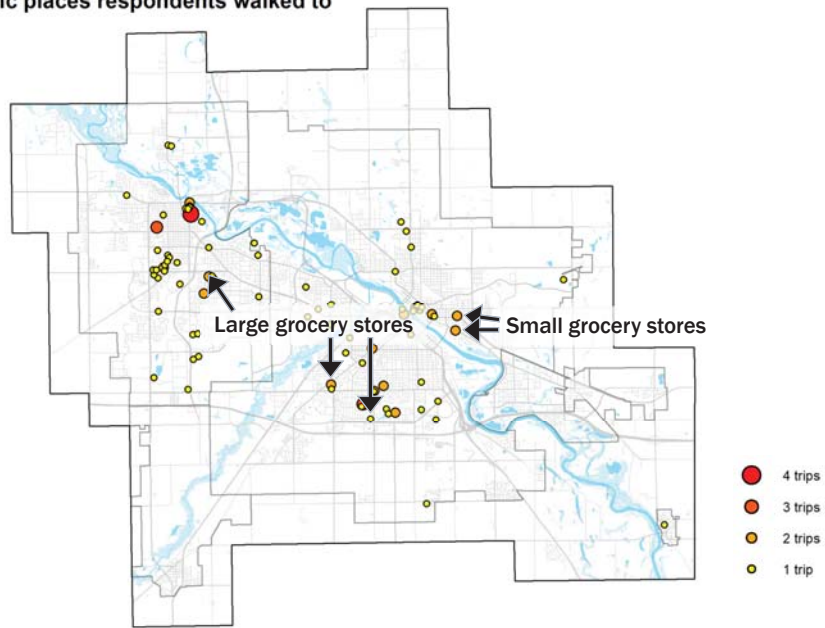
Businesses and public places respondents walked to



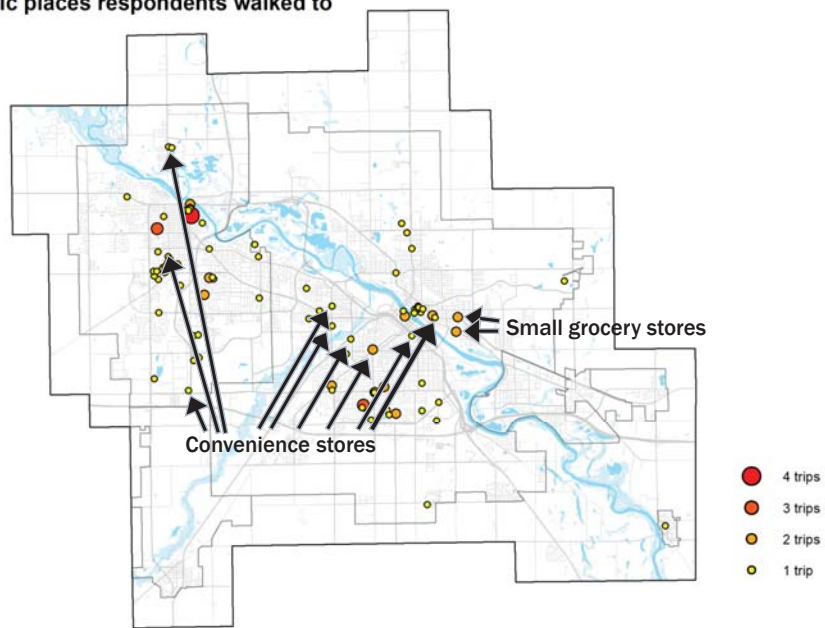
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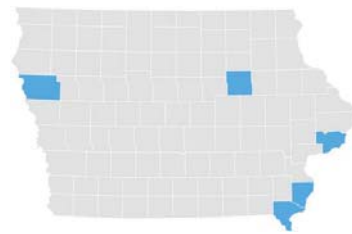
Physical Activity Access Project

NHTS Add-on for INRCOG MPO



Physical Activity Access Project

- Led by the Iowa Dept of Public Health
- Four MPO/RPAs involved
- Focus on low-income seniors
- Funding through SNAP-Ed
 - Nutrition
 - Physical Activity



Iowa counties involved in statewide Physical Activity Access project, 2019-2020



Physical Activity Access Project

- **Surveyed 97 residents of low-income senior housing**
 - Demographic questions (age group, race, English language)
 - Mode share, distance comfortable walking
 - Up to 3 destinations travel to most (a mini travel survey)



Physical Activity Access Project

Bicycling rates

ACS	NHTS Add-on	PAA Project
Commute by bike	Bike a few times a year	Low-income seniors biked in past year
0.6%	41.6%	13.4%



Physical Activity Access Project

Bus ridership

ACS	NHTS Add-on	PAA Project
Commute by bus	Use transit a few times a year	Low-income seniors used transit in past year
0.5%	18.7%	42.3%



Physical Activity Access Project

Car use

ACS	NHTS Add-on	PAA Project
Commute by car	Use car for travel a few times a year	Low-income seniors driven a car in past year
90.5%	97.2%	43.2%



Physical Activity Access Project

Walking rates

ACS	NHTS Add-on	PAA Project
Commute by walking	Walk a few times a week for travel	Low-income seniors walk a few times a week
3.8%	35.4%	46.4%



Table Designer and Advanced Analytics Tool

NHTS Add-on for INRCOG MPO



2017 Table Designer

Explore Your Add-on NHTS Data
Check Out the [Online Customization Browser](#)

Email Address: Optional - Enter email
We'll never share your email with anyone else.

Choose Weight: 5-day 7-day

Analysis Variable: Households
Geography: Entire Region

Statistics:

- Sample Size
- Sum
- Cell percent
- Row percent
- Column percent
- Exclude Missing (e.g., appropriate skip)
- Margin of Error (95% confidence interval)

Report Title: Optional

Row Variable: HHFAMINC - Household income
Select your row variable and weight against your chosen analysis variable. Only relevant parameters are included in this select menu. This will create a one-way result. [Select Category](#)

Column Variable: BUS - Frequency of Bus Use for Travel
Select your column variable and weight against your chosen row and analysis variables. Only relevant parameters are included in this select menu. This will create a two-way result. [Select Category](#)

2017 Table Designer

2017 NHTS
Number of Households
Iowa Northlands Regional COG, 7-day weight
Where HHFAMINC GT '-9' and BUS GT '-9'

Household income	Number of Households					All
	Frequency of Bus Use for Travel					
	Daily	A few times a week	A few times a month	A few times a year	Never	
Less than \$10,000	123	162	552	674	1,864	3,374
\$10,000 to \$14,999	186	144	443	732	1,705	3,210
\$15,000 to \$24,999	215	95	64	642	3,968	4,984
\$25,000 to \$34,999	52	-	18	548	4,119	4,737
\$35,000 to \$49,999	-	-	77	892	5,390	6,359
\$50,000 to \$74,999	51	-	-	822	6,015	6,888
\$75,000 to \$99,999	-	-	-	325	5,317	5,642
\$100,000 to \$124,999	57	-	-	512	2,843	3,412
\$125,000 to \$149,999	-	66	-	193	1,627	1,886
\$150,000 to \$199,999	-	-	-	133	1,307	1,440
\$200,000 or more	-	-	-	47	1,195	1,242
All	684	466	1,154	5,520	35,350	43,175

Source: Federal Highway Administration, 2017 National Household Travel Survey (NHTS)
Tabulation created on the NHTS website at <http://nhts.omni.gov>

2017 Table Designer

2017 NHTS
 Number of Households
 Iowa Northlands Regional COG, 7-day weight
 Where HHFAMINC GT '-9' and BUS GT '-9'

Household income	Number of Households (Sample Size)					All
	Frequency of Bus Use for Travel					
	Daily	A few times a week	A few times a month	A few times a year	Never	
Less than \$10,000	3	3	6	8	34	54
\$10,000 to \$14,999	3	1	5	12	43	64
\$15,000 to \$24,999	2	2	2	17	104	127
\$25,000 to \$34,999	1	-	1	11	109	122
\$35,000 to \$49,999	-	-	2	17	153	172
\$50,000 to \$74,999	1	-	-	20	162	183
\$75,000 to \$99,999	-	-	-	11	134	145
\$100,000 to \$124,999	1	-	-	12	86	99
\$125,000 to \$149,999	-	1	-	7	36	44
\$150,000 to \$199,999	-	-	-	3	31	34
\$200,000 or more	-	-	-	2	32	34
All	11	7	16	120	924	1,078

Source: Federal Highway Administration, 2017 National Household Travel Survey (NHTS)
 Tabulation created on the NHTS website at <http://nhts.oml.gov>

2017 Table Designer

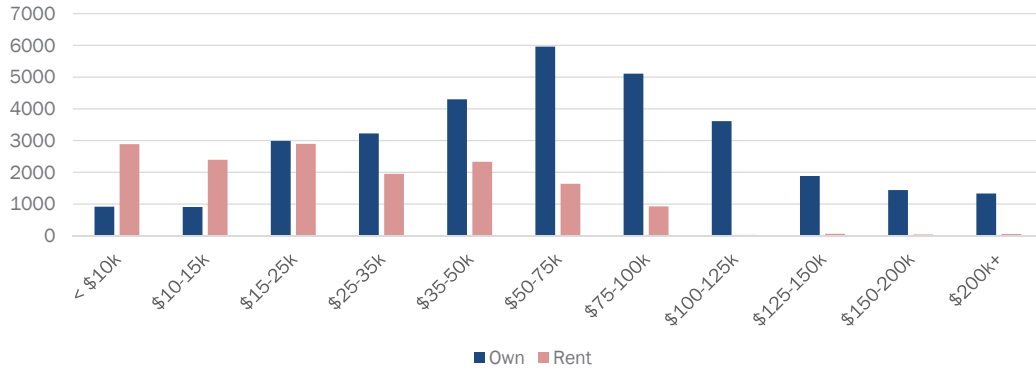
2017 NHTS
 Number of Households
 Iowa Northlands Regional COG, 7-day weight
 Where HHFAMINC GT '-9' and HOMEOWN GT '-9'

Household income	Number of Households			All
	Home Ownership			
	Own	Rent	Some other arrangement	
Less than \$10,000	918	2,886	-	3,805
\$10,000 to \$14,999	907	2,393	178	3,478
\$15,000 to \$24,999	2,990	2,895	-	5,885
\$25,000 to \$34,999	3,225	1,953	-	5,178
\$35,000 to \$49,999	4,299	2,334	67	6,700
\$50,000 to \$74,999	5,958	1,639	-	7,597
\$75,000 to \$99,999	5,109	925	28	6,062
\$100,000 to \$124,999	3,613	27	-	3,639
\$125,000 to \$149,999	1,883	63	-	1,946
\$150,000 to \$199,999	1,411	39	-	1,449
\$200,000 or more	1,332	57	-	1,389
All	31,644	15,211	274	47,129

Source: Federal Highway Administration, 2017 National Household Travel Survey (NHTS)
 Tabulation created on the NHTS website at <http://nhts.oml.gov>

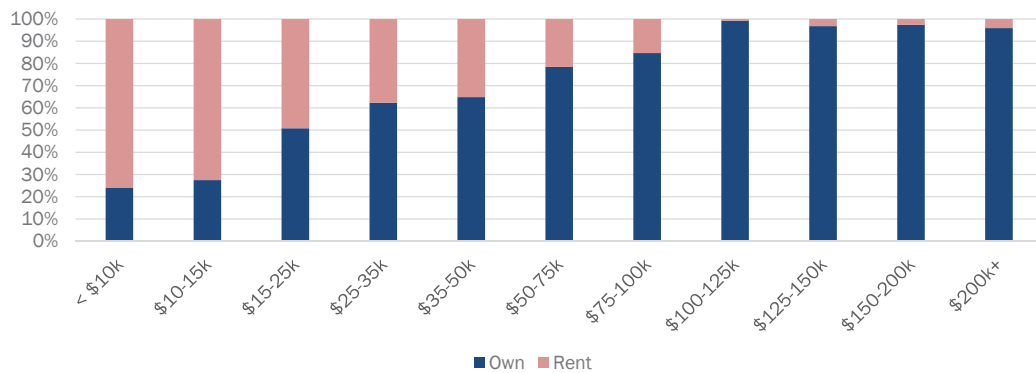
2017 Table Designer

Household home ownership by household income in Black Hawk County MPO



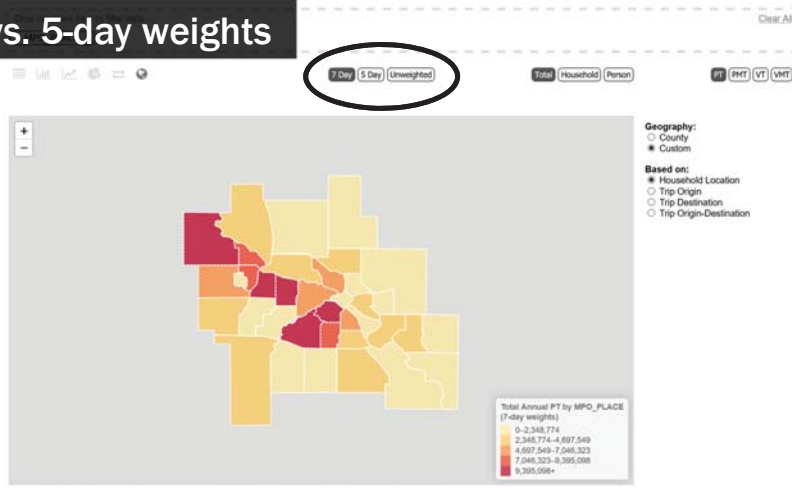
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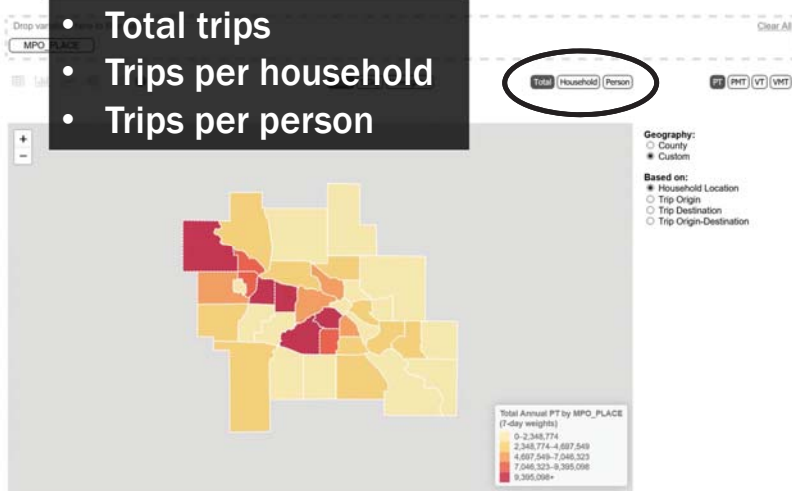
Advanced Analytics Tool

7-day vs. 5-day weights

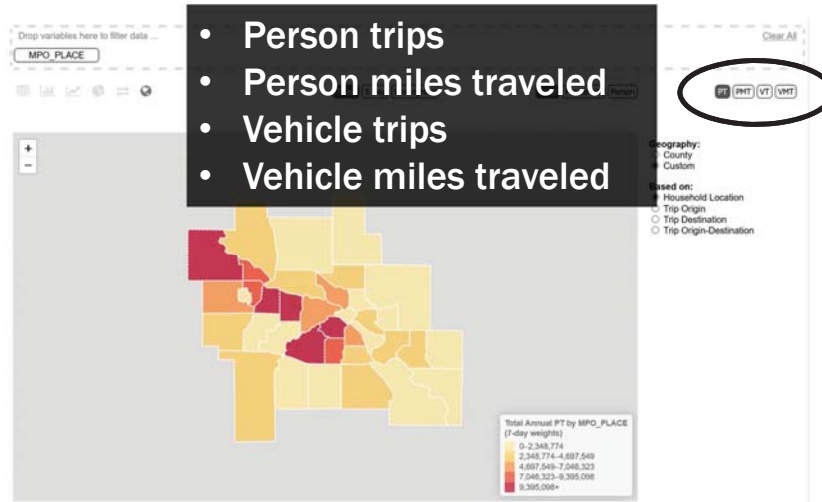


Advanced Analytics Tool

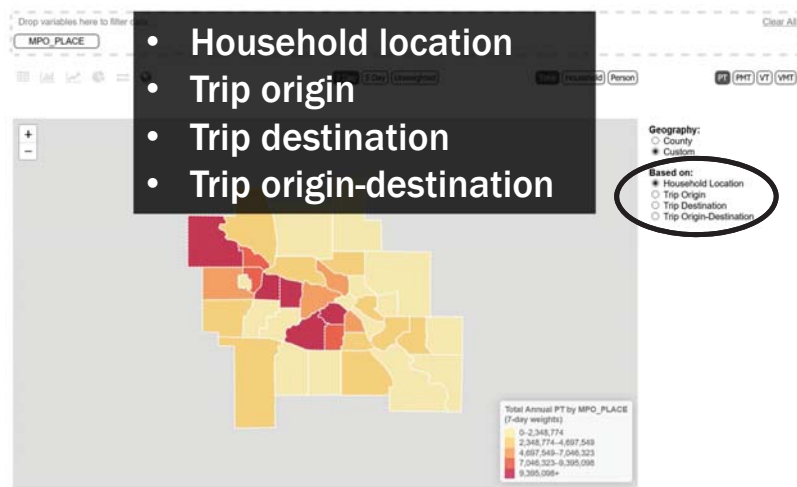
- Total trips
- Trips per household
- Trips per person



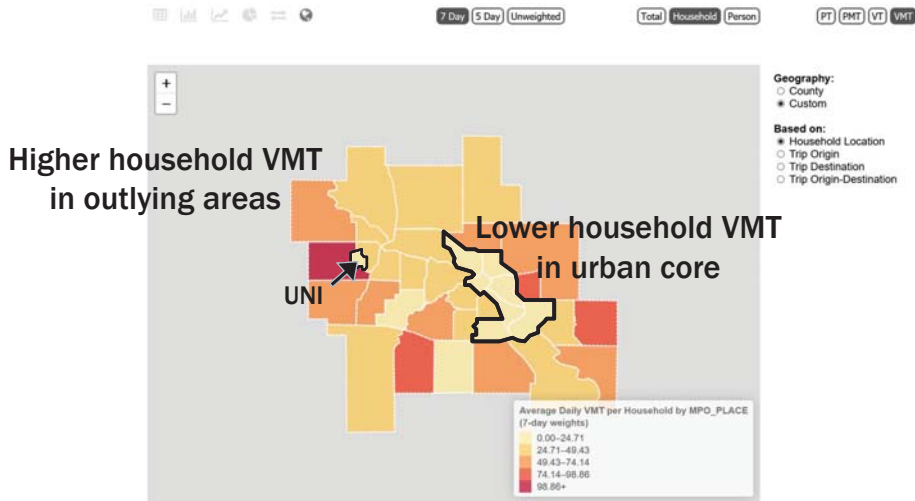
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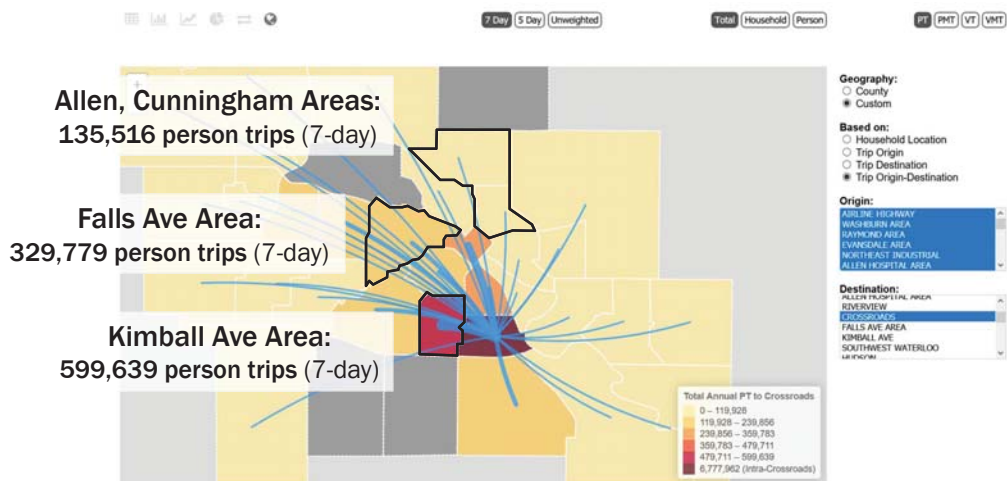
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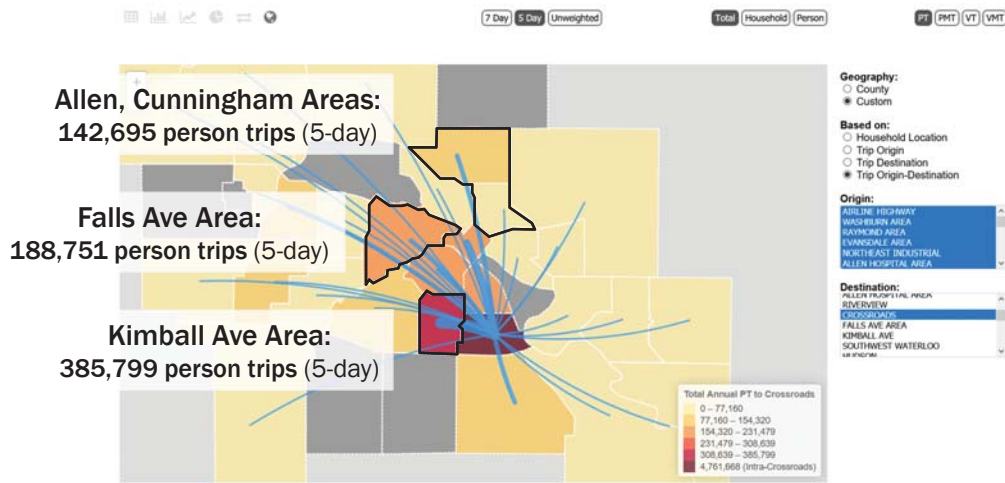
Total annual VMT by household location



Origin-Destination to Crossroads Mall Area



Origin-Destination to Crossroads Mall Area



Person Trips to Crossroads Mall Area

	7-day	5-day	Relative weekend demand
Falls Ave Area	329,779	188,751	+ 74.7%
Kimball Ave Area	599,639	385,799	+ 55.4%
Allen, Cunningham Areas	135,516	142,695	- 5.0%



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