

# 2018-19 My Daily Travel Methods and Final Survey Report



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# Executive Summary

On October 24, 2016 the Chicago Metropolitan Agency for Planning (CMAP) released a Request for Proposals (RFP) seeking bids for the next iteration of the Household Travel Survey (HTS) last conducted in 2007-08. CMAP uses data from HTSs for near and long-term travel model development needs, including for estimating and calibrating the CMAP activity-based model and trip-based model. It is the aim for these models to represent current travel choices made by residents in the region. It is necessary to update the data used in CMAP models regularly in order to capture and represent the continual population, demographic, land-use, and travel behavior changes in the region.

CMAP staff interviewed several prospective teams in December 2016 and selected a consultant in 2017 comprised of Westat, Inc; WSP; Transport Foundry, and Quercus Consulting. The aim was to collect responses from 12,000 households in the region. Work began with a kick-off meeting in March of 2017. The initial project schedule agreed upon called for design and pilot testing to occur from July 2017 through November 2017, then allowing three months for review and adjustments, before a core survey data collection split across a period running from the start of Spring 2018 to the end of Spring 2019.

The initial pilot test applied a method utilized successfully in the 2016 National Household Travel Survey and which had yielded initial response rates in the range of 25 to 30 percent depending on the region. However, in the CMAP region these rates were much lower, even after a second test with modified materials. CMAP and Consultant managers agreed to test another method more similar to the approach applied in the 2007-08 survey. This approach also failed to generate sufficient responses. In both cases, response rates were so low that the entirety of the survey budget would have been spent on printing, mailing, and postage to achieve the required 12,000 completed households.

CMAP managers and the consultant team reached out to another agency in Maricopa County, Arizona (MAG) who had recently encountered similar challenges in their HTS and who elected to apply a non-probability approach to recruitment for their survey. After learning from MAG's experience and further consideration of all options available, the survey team concluded that applying a non-probability methodology would be the best option for this HTS effort.

The new approach was designed during the summer of 2018 and deployed in the following fall. The project team developed tools for tracking recruitment and completion by source and geographic coverage. The team also expanded to include members of the CMAP outreach and communications

staff. The nine-month data collection effort involved regular follow-up with CMAP partner agencies, engagement online by CMAP communications staff, regular release of web-based social media advertising, outreach to traditional media, direct outreach to targeted participants, and coordination with other transportation-related agencies like the Illinois State Toll Highway Authority (ISTHA), Metra, the Chicago Transit Authority (CTA), and the Regional Transportation Authority (RTA).

The final design of the survey was successful in recruiting over 17,000 households to take part in the survey. Of those, 12,660 completed the final stages of the two-stage survey. After review and confirmation, 12,068 households were delivered to CMAP for the final delivery. Additionally, 323 pilot households were also included with the final delivery bringing the total to 12,391. Complete households were distributed in a reasonably representative fashion across the nine counties comprising the CMAP survey area.

WSP applied a weighting and expansion methodology utilizing Multi-Dimensional Balancing (MDB) to generate weights for each household and expand the survey results to estimate the regional travel demand profile. For this report, Westat utilized a jackknife replication method to calculate variance and estimates of the error for each point estimate. These error calculations should be considered whenever analysis of the data is undertaken.

# Pilot Surveys

The initial conception of the survey design adapted an approach deployed in the National Household Travel Survey (NHTS) in 2016-17. In order to ensure that the design would work effectively in the Chicago region, the team planned a pilot survey. Initial returns on the pilot test led the team to try two variations of the design before selecting a final main survey design. This section describes the initial design test, results, and subsequent changes.

## Pilot 1 and 2: Three-stage Design

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### Design and Sampling

The planned data collection strategy developed for the 2017 My Daily Travel Survey leveraged three key concepts identified by Westat survey methodologists:

1. **Likelihood of Participation** – participants are more likely to participate when presented with a low-burden survey that presents questions on a topic **they** find compelling or relevant.
2. **Perception of Burden** – participants are less likely to take part in a survey if they believe they are committing to additional and excessive future burden and if they are presented with too many details regarding the depth and scope of the future effort.
3. **Technology Use and Cooperation** – recent surveys have shown that households who request to be reminded by email, and who use technology in general, are most likely to report their travel.

To this end, the design of the first pilot presented prospective participants with three sequential, relatively low-burden surveys with pre-incentives or incentives offered at each stage. The three surveys are described in the following sections.

### Stage 1: Screener Recruitment

Westat mailed 5,700 invitation packets with a \$2 pre-incentive and a brief mail-back screener questionnaire to engage the household and obtain contact information (email and phone number). A follow-up postcard was sent 14 days after the screener mailing to households that did not respond to the screener with a web response option. Support was also provided via computer-assisted telephone interview (CATI). This survey adopted the first concept of Likelihood of Participation by

presenting a short, focused task that should take no longer than 5 minutes to complete. The screener included transportation-related questions relevant to the Chicago region.

The screener also employed the second concept of managing the Perception of Burden. While mention of other surveys in the program was made, there was no additional burden committed to by completing this first survey.

Finally, the screener leveraged the third concept of Technology Use and Cooperation by collecting email contact right away. The screener requested a phone number and information on whether it was a mobile number, in which case the respondent was informed that the number might be used to contact the household via text messaging.

## **Stage 2: Extended Questionnaire**

After receipt of a completed screener questionnaire, Westat provided continuing engagement with households with multiple contacts by email and text messaging (if provided in the screener) or by phone follow-up. These modes were used to invite screener households to complete Survey 2. A letter of invitation was mailed to non-responding households followed by a reminder postcard. The goal of Survey 2 was to obtain a complete roster of people, vehicles, and other detailed demographic and socio-economic information along with the collection of habitual work and school locations for use in Survey 3 and to reduce respondent burden when reporting mandatory travel. Households were invited to respond by web with support available via CATI.

Upon completion of Survey 2, households were told about the third survey with a variable incentive offered, with higher (\$20-\$30) incentives offered to households whose profiles fall within traditional hard-to-reach categories and experience higher-than-average burden (e.g., large households, lower income, minorities, etc.). A \$10 incentive was offered to households who are typically more-responsive and less-burdened. Incentives were paid in the form of a check. Samples were pre-assigned a base travel period of 1 or 2 days for which travel of all household members five and older would be reported. Each household was also offered the opportunity to use Westat's DailyTravel smartphone app (DailyTravel - <https://dailytravelapp.com/>) to report their travel.

## **Stage 3: Travel/Activity Data Retrieval Questionnaire**

Survey 3 was administered to households that completed Survey 2 to collect the details of each eligible household member's trips and activities during the assigned date(s). It included a mail out of a travel log packet to households that completed Survey 2 and did not elect to use DailyTravel or did not elect to receive all correspondence by email. After traveling and using the paper travel log or

DailyTravel app to record trip and activity details, household members were able to use the survey website (or report via CATI) to provide or confirm details of their travel (including online geocoding of all visited places) and activities during their assigned travel period and finalize Survey 3. Similarly to what was done in the 2007-08 survey, Westat proposed that 50 percent of the sampled households be assigned to collect travel for one weekday (Monday-Friday) while the remaining 50 percent will report travel for two sequential days (see Task 3 for additional details). The final incentive were provided after data are obtained for all household members. Household members using DailyTravel were encouraged to continue reporting their travel for up to seven days, providing the study with a full week of GPS data and travel details.

## Expected Versus Actual Response Rates

Westat expected to achieve a 20-25 percent response rate to the first recruitment survey. This assumed rate was based on the fact that a much more complex screener questionnaire with a generic question set (targeted at a national audience) in the 2016 National Household Travel Survey consistently achieved a 28 percent recruitment rate. In reality, the first pilot achieved only an 8.5 percent response rate for this initial stage.

We expected to achieve a range of response between 65-70 percent in Survey 2 whereas the actual rate amounted to 24.0 percent at this stage. For the final step, a 65-70 percent response was expected, but the final actual rate was for Survey 3 was 52.3 percent. The expected overall final response rate in the range of 8.5-12 percent was actually 1.03 percent. The survey team elected to try a small version of the same design with 1,000 new samples in order to test the effect of emphasizing the agency logo above the project logo in the outreach materials. For this test, 500 samples received the same invitation as before, whereas the other 500 received the modified version with the CMAP logo and letterhead. Table 1 shows the results of all three pilots.

**Table 1. Response Rates for Pilot 1 and 2**

Phase	Pilot 1	Pilot 2-A	Pilot 2-B
Samples	5,700	500	500
Screener Rate	8.5%	9.2%	<b>16.6%</b>
Recruitment Rate	<b>24.0%</b>	13.0%	10.8%
Retrieval Rate	<b>53.9%</b>	33.3%	44.4%
Final Rate	1.1%	0.3%	0.7%

## Pilot 3: Pre-incentive Testing

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### Description of Design and Sampling

After Pilot 1 and 2, a third test was tried with the focus on testing the effects of cash pre-incentives. The team elected to utilize an address-based frame selecting 12,500 addresses which were sent a letter informing them about the survey and inviting them to participate. To test the effects of cash pre-incentives and both stages, the sample was divided into fourths and each group was randomly selected to receive a \$2 cash incentive in the first letter, in the travel log, in both, or in neither. All other aspects of the design remained the same. After review of the results, it was apparent that the pre-incentives had only marginal effects on the response rates. Table 2 shows the response rates for each segment of the sample.

**Table 2. Response Rates by Incentives at each Stage**

Stage	Pre-Incentive Amounts			
	\$0/\$0	\$2/\$0	\$0/\$2	\$2/\$2
Screener	4.25%	9.33%	4.84%	9.04%
Recruit	2.48%	5.58%	2.68%	5.33%
Retrieval	51.28%	52.02%	56.63%	48.21%
Final	0.05%	0.27%	0.07%	0.23%

# Core Survey Design

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As it became clear that the three-survey approach would not work in the Chicago region, the survey team began to research the use of non-probability frames in conducting HTSs. The Phoenix regional MPO had recently encountered similar concerns and response rates and had elected to use a non-probability approach to conduct the survey. The survey team met with members of the Phoenix team to learn best practices from them. After deliberation, it became clear that the only way to achieve a sufficient number of observations in this survey would be to also conduct a non-probability recruitment.

## Lessons from Phoenix

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The Phoenix MPO, or the Maricopa County Association of Governments (MAG), tried several forms of outreach and incentives before reaching their final, successful approach. This included a mixture of social media advertising, survey champion recruitment, and partnering. Champions included the local school districts, politicians, community organizations, and local media.

MAG elected against utilizing any mailed invitations and diverted the mailing and printing budget to offer higher monetary incentives. The final form of this included a \$100 completion incentive. A two-stage design was selected in which the advertisement directed people to a recruitment survey which then assigned a random travel date and provided instructions on travel reporting. MAG staff reported that it was critical to track the source of responses and to have the ability to close off certain channels if particular geographic areas or demographics were over-represented.

## Final Design

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After consulting with MAG, the CMAP team elected to conduct the survey using a non-probability recruitment approach with two stages. In the first stage, participants would be recruited via a variety of media channels and networks, both digital and real. Recruitment materials promised an incentive of \$50 to anyone who participated in the survey to completion. Participants who agreed to participate were asked to provide demographic details for each person living in their home, as well as contact information for receiving reminders and future contacts. At the end of the survey, participants were assigned a random travel date based on the sample flag generated when they began their recruitment.

Participants were then mailed a travel day packet with instructions and memory joggers. These packets contained a \$2 cash pre-incentive as well. Participants were also sent email and text confirmations and reminders a day before their assigned travel date. Instructions for downloading and using the smartphone app were also provided in these messages.

After traveling, participants were able to report their travel via web-survey or telephone interview. Once complete, participants could elect to donate a percentage of their incentive to their local school district. The balance of the incentive was mailed to their home address, generally within two weeks of participating.

## Multimode Survey Approach

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The survey allowed for multi-mode administration. However, the goal was to limit modes offered by stage based on research showing that people are more likely to follow through on a survey if it does not require mode switching. For example, it is more likely that a paper survey invitation will be completed via an offered paper form than that a participant will switch from a paper invitation to a web form. Even offering a web option on the first mode could cause people to hesitate in participating and then ultimately forget to follow through. Similarly, an email invitation is more likely to be completed via the web, especially when the survey can be started from a link in an email.

Despite this finding, the team elected to offer telephone support at every survey stage and provided the option to complete by both web and telephone modes in the final reporting of travel thereby ensuring participants who did not have a computer or web-access were able to participate. This was deemed crucial for including low-income, socioeconomically disadvantaged, and older members of the population.

Finally, Westat offered a smartphone application to any participant, 13 or older (with parental/guardian permission), who was willing to use the app for travel reporting. The app was meant to supplant traditional diary recording of travel and did not stand in as a survey completion mode for an entire household. App users still needed to complete recruitment via CATI or web-based survey, and in most cases needed to complete final travel detail confirmation in one of the same modes.

## Survey Design

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A number of changes were made in an effort to minimize the length and burden of the survey. The 1-day versus 2-day division was eliminated, opting instead to have all reports be for a single 24-hour

period. Results in the pilot showed a steep decline in completions for households in the 2-day cohort. The survey team elected to remove some questions from the main effort, including most attitudinal questions, and some behavioral questions. Some workplace behavior questions were moved from recruitment to retrieval.

## Main Survey Data Collection

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### Schedule and timeline

Data collection for the main study took place from September 2018 to May 2019. This schedule included a break in data collection during the week of Thanksgiving and also during the final full week of December 2018 with data collection resuming after the first partial week on Monday, January the 7th. A final break in travel date assignments occurred during the week of April 14, 2019 to allow for the period when the majority of local schools were on Spring Break. During these break periods no travel reporting days were assigned; however new households were able to complete recruitment to join the survey. The team elected to close out recruitment the week after Spring Break with final recruited households traveling in the weeks of April 28th and May 5th.

### Outreach Plan

During the survey, the project's public website served as a central portal for the public outreach efforts, containing sections with descriptions of the survey, frequently asked questions (FAQs), and news about the survey. The survey team broadened to include CMAP staff from Outreach and Communications. Based on discussions with the Phoenix survey team, several groups of potential advocates were developed. These included local school districts, units of local government, community organizations, and bloggers.

While CMAP had originally created a page on [cmap.illinois.gov](http://cmap.illinois.gov) to promote the survey, the page scope was broadened to serve as both a description of the survey effort to entice participants, and provided two variations of a toolkit for any potential survey advocates. The two variations were tailored, one for school district participants, and the other for community organization partners. The toolkits included suggested text for outreach including social media posts, emails, and newsletters. CMAP communications and outreach staff also worked directly with partners and regional contacts to promote the survey. Informational postcards were distributed at ON TO 2050 public meetings, which included a brief description of the survey and the project's URL.

In order to track the source of the complete sample, the survey team designed a web solution to capture an element from a URL and store it as a ‘source’ variable. For example, a URL like [mydailytravel.com/cmap](http://mydailytravel.com/cmap) would store a value of ‘cmap’ in the survey results to indicate that the participant had come to begin the survey via a link on the main CMAP page. Distinct URLs were provided for school districts, press, and community organizations. Scheduled press releases and social media presence were also developed to increase public awareness and opportunities for recruitment.

## Language Support

Two populations of interest which required accommodation included participants with Limited English Proficiency (LEP) and participants with low literacy. Regarding literacy, all materials were written to allow comprehension with a basic grade-school-level ability to read. People with profound literacy barriers depended on community resources to be made aware of the survey and to understand when they were invited to take part; their participation was supported at every stage of the survey by Westat’s helpdesk staff.

Regarding LEP, Westat’s approach offered the following accommodations. All digital and hardcopy materials provided Spanish translations and a dedicated language-support hotline number. A Spanish version of the public website provided the full English content professionally translated into Spanish; and all online instruments and the smartphone apps were made available in English and Spanish.

The team also provided machine translations of the project’s English-language public website content using the Google Translate API. This service provides proven and effective translations for as many as 100 languages. While the team was comfortable with providing informational content via this service, it was not deemed acceptable for translating the actual instruments. This stemmed from concerns about the quality of machine translated versions of the wording of each question and its answer set. Instead the team included staff to support over-the-line professional interpretation services provided by Bromberg and Associates via telephone. This support was offered in all communications about the survey, including printed and digital media. In addition to these accommodations, CMAP staff developed and distributed Spanish-language materials at public meetings, directing people to a Spanish-language URL for more details about the survey. This holistic approach to language support provided the best opportunity to gain representative participation from the Spanish-speaking communities in the region.

## **Primary School Districts**

As part of the public outreach effort, officials at Chicago region schools were contacted and asked to promote the survey through official school communications - including social media, emails, and newsletters. Households that completed the survey as a result of the school outreach efforts earned their school district a donation of \$10. School District representatives were directed to the CMAP webpage for the survey where they could find various examples of text to use in their efforts. Emails to prospective districts also included exemplar text. Each district was provided with a unique URL containing a district identifier. In total, 1,432 households recruited using the school codes distributed, of these, 960 households completed the survey.

## **Community Partners**

CMAP staff utilized existing contact lists for local community partners, including community colleges, the faith community and local chambers of commerce, to engage survey champions and ask for their aid in sharing the survey details with their constituencies. Organizations were given a URL with a source code of 'orgeml' to use for tracking responses. Of the 17,635 recruited cases, 2,160 came from these sources. Of those, 1,582 completed the survey entirely.

## **Every Door Direct Mail**

At the beginning of the survey, CMAP and Westat agreed to hold some of the original postage and printing budget to be used for targeted mailings with the idea of applying strict controls address-based sample in order to supplement responses in areas identified as deficient. During the course of the data collection period, managers explored the possibility of using a United States Postal Service tool called Every Door Direct Mail (EDDM). This tool allows for marketers to send uniform, unpersonalized materials to every residential address on a delivery sequence or route. The USPS provides some demographic details for these routes, as well as an API to interact with the geographic details of them. Westat used open source GIS tools to join Census data to the routes. CMAP managers then selected routes in areas and with demographics where the overall response from other sources was trailing ACS proportions. Materials were distributed in two mailings with a URL code of 'eddm.' In total, 509 households recruited into the survey, and of these, 354 completed the final stages.

## Intercept Surveys

Quercus Consulting worked with Greencorps Chicago to recruit staff to hand out postcards at selected locations. These included community college campuses and transit stations. Westat designed and produced survey-branded materials and postcards to use in the intercept locations. Examples of the materials and the team at work can be found in Figure 1. The code given to the intercept team was ‘tscard.’ The locations selected for intercept surveys were routes and stations servicing geographic areas with higher proportions of both low income and minority households. The tscard code accounted for 252 recruited households and 111 completed households. As expected, the households from this group represented lower-income and minority households at a significantly higher share than many other sources.

**Figure 1.** Images of Intercept Team at Work



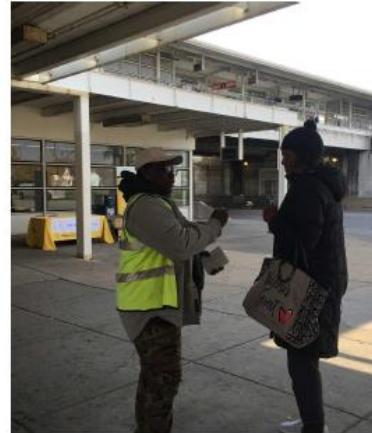
*The display table was set up adjacent to the main entrance for high visibility without impeding traveler circulation.*



*Some passengers paused to learn more about the survey.*



*The team positioned themselves between the bus arrival location and the train entrance and delivered quick, friendly greetings, encouraging travelers to take the postcards.*



## Earned Media

English and Spanish press releases were distributed, and as media coverage of the survey was identified, links to the coverage were posted on the public website. In all, there were four traditional media stories published about the survey. Table 3 shows the news organization, date and details of each outlet that covered the survey recruitment efforts. Outreach staff also posted a shortened version of the release on local news aggregation sites such as Patch and NextDoor. Staff posted survey outreach to the region's largest towns throughout the recruitment window.

**Table 3. List of Earned Media Coverage**

Organization	Date	Details
Chicago Tribune	9/3/2018	Front page article published on print edition on Labor Day. The web version of the article was freely accessible. Resulted in Survey starts increasing from an average of 32 per day to over 1,700 completes the day the article was published.
Daily Herald	9/7/2018	The Daily Herald is a subscription-based local paper and news website. Subscribers had access to the article about the MDT survey.
NBC 5 Chicago	9/7/2018	The web site of the NBC affiliate posted a brief article linking to the Tribune article and the CMAP page.
WBBM Newsradio	9/8/2018	This article discusses CMAP's "My Daily Travel" survey to understand people's transportation habits and regional transportation needs.

## Social Media Overview

Between September 2018 and April 2019, a social media strategy was implemented in support of survey recruitment. Westat implemented a mixed-method campaign to drive awareness of the survey and encourage members of the target audience to participate. This section provides the details of that campaign.

### Campaign Goal & Objectives

The goal of the campaign was to recruit approximately 1,500 participants to complete the survey using digital and social media, and outreach efforts consisting of Facebook, Instagram, and Google advertisements as well as outreach to influencers who were based in the northeastern Illinois and Chicago areas. In the late winter, the digital campaign goal shifted to aim recruitment towards hard-to-reach populations rather than the total volume of 1,500 participants.

The objectives of the campaign were to:

- Reach participants using social media and drive them to take the My Daily Travel web survey;

- Engage them to sign up and log their travel for one day to help improve transportation in the Chicago region.

Social media ads were optimized to drive users to the website and take the survey. Conversion tracking was set up on the My Daily Travel website prior to campaign launch, and unique URL codes were used for each platform to further track performance by mode. We also measured relevant metrics such as click-through-rates, engagement, reach and impressions across all recommended strategies.

## Target Audiences

The main target audience for this campaign were:

- Chicago region residents
- Hispanic/Latino population
- Regional commuters

Later, secondary, hard-to-reach audiences emerged and ads were adapted to reach them:

- Income under \$50,000
- African American
- Ages 65+

## Campaign Strategy by Platform

We used four key social media strategies to reach the target audience with messaging around the My Daily Travel survey. These included Facebook, Instagram, Google and digital influencers. Consistent messaging was used across the digital ad platforms. Ads used imagery that either included a regional landmark in the Chicago area or displayed the demographic that the ad was aiming to reach. Graphics that were being used for the ads were also provided to the influencers for sharing across their social media platforms in order to stay consistent across the campaign and boost brand recognition of the My Daily Travel Survey.

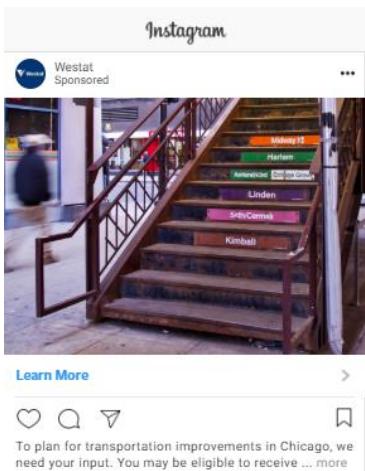
## Facebook and Instagram

Launched on September 6, 2018, ads ran on the Facebook and Instagram News Feed, Stories, Instant Articles, both on desktop and mobile devices until April 19, 2019. Ads targeted Cook and non-Cook County residents in the survey area, English and Spanish speaking residents, Hispanic and African American parents (ages 25-40), and lower income families.

In total, a series of 36 different image-based ads were developed and implemented. The initial set of 12 ads were launched on September 6, 2018 and targeted more broadly. A sample of these can be seen in Figure 2.

**Figure 2. Initial Facebook and Instagram Ad Examples**

**Instagram Post**



**Instagram Story**



**Facebook Mobile Newsfeed**



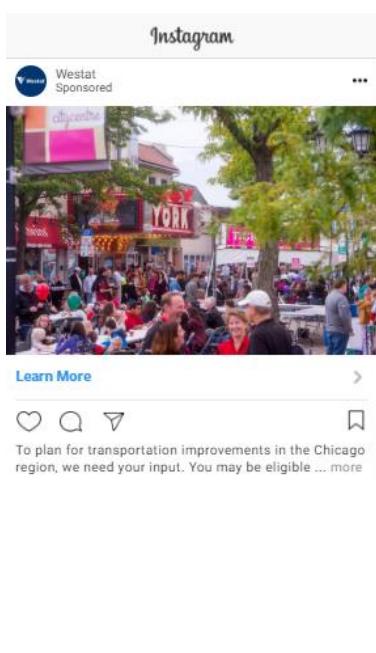
**Facebook Desktop**



On January 10, 2019, 14 additional ads were developed that included several new images which represented several outer counties (i.e. DuPage, Lake, McHenry, Will). A sample of these can be found in Figure 3 below.

**Figure 3. County-specific Facebook and Instagram Ad Examples**

**Instagram Post**



**Instagram Story**



**Facebook Mobile Newsfeed**



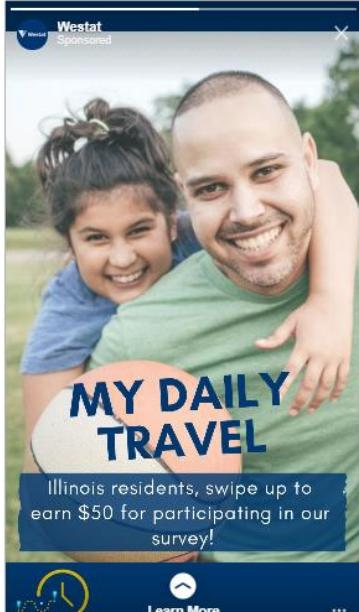
**Facebook Desktop**



Lastly, the team refreshed the suite of ads to include graphics featuring the My Daily Travel branding and logo, as well as graphics that were optimized for Instagram and Facebook stories versus the default story version that can be seen in Figure 3. The new text that was developed to

accompany these ads appeared in English only, and these ads were launched on March 14, 2019. See the 10 redesigned ads in Figure 4.

**Figure 4. Redesigned Facebook and Instagram Ad Examples**

Instagram Post	Instagram Story	Facebook Mobile Newsfeed
		
Facebook Desktop		

For a full list of Facebook and Instagram ad imagery and text, see Appendix A.

## Google Display Network & Search

Between September 6 and October 19, 2018, ads were placed via Google Search and Google Display Network (GDN). The GDN placed banner ads across a series of websites, both desktop and mobile. A series of ads also ran on Google's search engine. This process worked by targeting ads to appear in search results when certain keywords were input by people using Google.com.

The following search terms were used:

- CTA Chicago Transit Authority
- Earn money online survey
- Pace bus
- Carpool Chicago
- transit chicago app
- ctabustracker
- Online travel survey
- My Daily Travel survey
- transit authority chicago
- Metra
- Commuter train
- Bike commuting Chicago
- Chicago transit
- Commute time
- Metra map

To view all GDN and Google Search ads, see Appendix B.

## Paid Influencer Outreach

In addition to advertising across these platforms, Westat worked with The Motherhood to engage a series of Chicago-area online influencers who promoted survey participation to their audiences through a series of Facebook and Twitter posts. Westat vetted 15 Chicago-based influencers identified by The Motherhood who fit at least one of the following criteria and/or reached a relevant audience: parents with multiple kids, low socio-economic status, mix of demographics (especially Hispanic/Latinos), politically or socially active moms, financially savvy moms (such as those who share tips about making money on the side), and/or those who blog about new tech, civic tech, community improvement or local travel. The team aimed to recruit a mix of influencers among these categories based on interest and availability.

Westat crafted several sample social media posts for influencers to publish on Facebook and Twitter:

1. Your opinions and travel habits could help shape Chicago's transportation system! Participate in My Daily Travel to help inform travel in our region. Residents of northeastern Illinois are eligible to earn \$50 for their time. [LINK] #MyDailyTravel
2. Is your commute getting you down? [@ONTO2050](#) (CMAP) is paying residents of northeastern Illinois \$50 to participate in My Daily Travel, a survey about your travel habits. Your info will help build a complete picture of local and regional transportation needs, so

decision-makers can effectively recommend where to make improvements. [LINK] #MyDailyTravel

Influencers' posts were staggered over the month of March 2019 to retain a steady drum beat of content and retain a unique feel, given that several influencers posted similar content. Influencers were also encouraged to craft their own content using the key messaging provided in order to foster authenticity of the post. See Figure 5 below for examples of the most effective sponsored posts.

**Figure 5. Top-Performing Facebook and Twitter Influencer Posts**

The figure displays two social media posts. The left post is a Facebook update by user Lisa (@blm03). It features a photo of three people smiling. The caption reads: "#Chicagoans: Commute getting you down? @ONTO2050 will pay eligible residents of northeastern IL \$50 to participate in #MyDailyTravel, a survey about your travel habits. Info will help shape local & regional transportation needs: mydailytravel.com/signup/mh9014 ad". Below the photo is a call-to-action banner with the text "PARTICIPATE & EARN \$50!" and a small logo. The post has 122 Retweets and 5 Likes. The right post is a Twitter update by user Natasha C. Nicholes (@NatashaCNicholes). It features a photo of a staircase with stops labeled "Midway", "Harlem", "Ashland", "Linden", and "51st/Cermak". A blue banner across the stairs says "SIGN UP TODAY!". The post includes a link to "mydailytravel.com/signup/mh9006". The post has 5 Likes and 4 Comments.

To view a full list of influencers who were engaged in this program, as well as links to their published content, please see Appendix A.

## Social Media Results & Key Findings

Given the campaign's primary goal to drive recruitment, our key performance metrics were recruitment numbers that could be attributed to our digital ads via the aforementioned custom URLs. In this report, partial recruitment indicates that the individual started the initial survey after clicking the ad, completed recruitment means that the participant finished the survey and signed up for the study, and completed retrieval entails that the participant successfully reported their travel on the day assigned by the research team.

Facebook, Instagram, and Google ads were initially optimized around clicks from the ads to the survey landing page; however, this was discontinued in early January 2019 due to security issues on

the CMAP public website. Ads were then optimized around clicks and were automatically optimized to reach audience members who were more likely to click anywhere on the ad.

We also tracked reach, the number of people who saw our ads at least once; and impressions, the number of times the ads were on screen. Another key performance indicator for this campaign was the click-through-rate (CTR), which showed the success of each individual ad by calculating the percentage of people who saw the ad and performed a click. Ad performance by platform and contributions to recruitment results are described below.

## Facebook and Instagram Results

The Facebook and Instagram ads reached 855,228 unique people and garnered over 3.6 million impressions, leading to 25,968 total unique link clicks. This contributed to 10,624 partial recruits, 853 completed recruits, and 1,111 retrieval completes. The average click-through-rate (CTR) was 1.31%, and the average unique CTR was 4%. This was substantially higher than the average CTR across Facebook, which is .9%.

The following Table 4 outlines all Facebook and Instagram campaign results divided across individual ads.

**Table 4. Facebook and Instagram Ad Results**

Ad Name and Language	Date Created	Impressions	Reach	Unique Link Clicks	Total Spent Per Ad	Post Comments	CTR %	Unique CTR %
Metra Stairs (English)	9/6/18	453,267	224,499	6,484	\$3,308.65	58	2.08	3.41
Metra Stairs (Spanish)	9/6/18	396,736	138,328	3,744	\$3,202.20	96	2.05	4.14
People on Bikes (English)	9/6/18	185,833	102,770	1,341	\$2,537.33	26	1.19	1.76
Girl on Metra (English)	9/6/18	235,529	120,088	1,330	\$2,807.66	37	1.14	1.70
Lake County (English)	1/10/19	82,918	36,249	1,244	\$1,112.29	19	2.73	4.82
Woman on Bike (Spanish)	9/6/18	142,536	65,778	961	\$1,857.90	7	0.94	1.82
Financial Lake (English)	1/10/19	57,359	32,844	821	\$852.03	9	2.47	3.50
Hispanic Parents V2 (English)	3/14/19	156,741	30,612	638	\$1,723.20	3	0.80	3.15
AA Parents V2 (English)	3/14/19	131,956	28,074	627	\$1,652.16	2	0.92	3.27
Transport Kayak DuPage (English)	1/10/19	91,029	48,824	717	\$853.74	6	1.29	2.11

Ad Name and Language	Date Created	Impressions	Reach	Unique Link Clicks	Total Spent Per Ad	Post Comments	CTR %	Unique CTR %
Park V2 (English)	3/14/19	62,530	21,230	677	\$1,266.55	3	1.79	4.48
CTA V2 (English)	3/14/19	144,152	30,439	633	\$1,623.53	3	0.90	3.53
Biking Lake (Spanish)	1/10/19	135,796	27,946	642	\$931.63	1	0.70	2.87
Girl on Metra (Spanish)	9/6/18	152,915	57,178	580	\$1,890.21	15	0.91	1.93
Park V1 (English)	3/13/19	76,237	21,544	528	\$853.62	0	1.03	3.07
Social Kayak DuPage (Spanish)	1/10/19	75,735	21,782	541	\$608.94	0	1.17	3.61
Biking Outer Counties (English)	1/10/19	38,978	21,042	518	\$341.25	0	1.48	2.54
Social Kayak DuPage_020 (English)	1/10/19	58,349	35,039	518	\$583.92	2	1.34	2.02
Man in City (Spanish)	9/6/18	111,179	56,412	515	\$1,203.12	1	0.61	1.15
Financial Lake (Spanish)	1/10/19	50,182	16,897	471	\$494.32	4	1.49	3.73
McHenry (English)	1/10/19	79,231	41,222	426	\$625.67	7	1.10	1.72
Dupage (Spanish)	1/10/19	51,660	19,478	408	\$465.17	6	1.50	3.28
Woman Parking (Spanish)	9/6/18	97,878	49,032	423	\$1,149.98	6	0.81	1.40
Man in City (English)	9/6/18	82,697	53,418	419	\$558.31	1	0.58	0.86
AA Parents V1 (English)	3/14/19	77,461	25,987	380	\$893.14	5	0.83	2.12
Hispanic Parents V1 (English)	3/14/19	77,887	25,406	367	\$827.34	1	0.77	2.02
CTA V1 (English)	3/14/19	88,976	25,259	364	\$930.95	5	0.88	2.75
Dupage (English)	1/10/19	39,400	23,048	343	\$479.49	2	1.30	1.94
Woman Parking (English)	9/6/18	62,351	38,456	335	\$824.77	8	1.01	1.40
McHenry (Spanish)	1/10/19	42,693	16,166	214	\$324.32	1	0.88	2.08
Older Couple V2 (English)	3/14/19	24,440	8,336	148	\$211.52	0	0.78	2.09
Older Couple V1 (English)	3/14/19	32,355	7,510	137	\$231.68	0	0.57	2.16
Transport Kayak	1/10/19	14,667	7,563	64	\$206.39	0	0.65	1.18

Ad Name and Language	Date Created	Impressions	Reach	Unique Link Clicks	Total Spent Per Ad	Post Comments	CTR %	Unique CTR %
DuPage (Spanish)								
Bus Couple (English)	9/6/18	4,192	3,221	49	\$54.24	3	1.79	1.92
Biking Outer Counties (Spanish)	1/10/19	9,145	5,087	31	\$122.34	0	0.45	0.71
Bus Couple (Spanish)	9/6/18	3,252	2,342	24	\$30.79	0	0.77	1.07
<b>Total</b>		<b>3,628,242</b>	<b>855,228</b>	<b>25,968</b>	<b>\$37,640.35</b>	<b>337</b>	<b>1.31</b>	<b>4%</b>

## Google GDN and Search Results

In total, the Google campaign had 1,219,818 impressions and nearly 10,000 clicks. The GDN ads contributed to 1,726 partial recruits, but only 2 completed recruits and 4 completed retrievals. The Search ads contributed to 337 partial recruits, 3 completed recruits, and 9 completed retrievals. The Search ads were marginally more successful than GDN.

Table 5 shows all Google ad results divided by type of ad, as well as, the six different GDN ad groups.

**Table 5. Google Ad Results**

Ad Name and Language	Type of Ad	Date Created	Impressions	Clicks	Total Spent	CTR %
Social Good (English)	GDN	9/10/18	537,796	3,149	\$1,101.60	0.59%
Transport Improvement (Spanish)	GDN	9/10/18	349,577	3,481	\$1,319.48	1.00%
Transport Improvement (English)	GDN	9/10/18	99,931	690	\$351.04	0.69%
Social Good (Spanish)	GDN	9/10/18	89,663	536	\$210.33	0.60%
Financial Incentive (English)	GDN	9/10/18	84,056	370	\$161.35	0.44%
Financial Incentive (Spanish)	GDN	9/10/18	35,918	218	\$74.21	0.61%

Ad Name and Language	Type of Ad	Date Created	Impressions	Clicks	Total Spent	CTR %
Google Search (English)	Search	9/10/18	22,877	1,431	\$1,575.23	6.26%
		<b>Total</b>	<b>1,219,818</b>	<b>9,875</b>	<b>\$4,793.24</b>	<b>0.81%</b>

## Paid Influencer Outreach Results

In total, a digital amplification team of 15 influencers published 21 total posts on Facebook, which led to 622,318 impressions and 105 engagements (reactions, comments, and shares). On Twitter, including retweets (e.g. shares), the influencers collectively published a total of 166 posts, contributing to 4,917,905 Twitter impressions and 141 engagements. Although this resulted in over 5.5 million total impressions, only 102 participants were partially recruited, 3 completed recruitment, and 3 participants completed their travel log.

Although the influencer effort garnered the highest number of impressions, it led to the least number of completed recruitments. This is at least partly due to the fact that in March 2019, the study team had a large success rate in recruiting participants via an email invite done by the Illinois State Toll Highway Authority. Therefore, as the influencer campaign launched, the survey began to ramp down; and the team narrowed down study inclusion criteria to only include low-income households, individuals aged 65+, households with zero workers, as well as household sizes greater than four people. The Westat team encouraged influencers to emphasize that participants will need to visit the My Daily Travel website and check their availability to participate.

Furthermore, although all of the selected influencers were based in the Chicago or northeastern Illinois area, not everyone in their audience was guaranteed to live in that geographic location. In future programs that require precise targeting, we recommend using SmartBoost targeting, or paid amplification of influencer content, which allows for more precise targeting and optimizes paid media spend across an influencer's content. Furthermore, influencer efforts typically achieve a higher success rate if they are not restricted to a small geographic location and narrow inclusion criteria.

In total, 1,964 households recruited into the survey from the Facebook channel with 1,111 completing the survey. These households were generally lower income, and more representative of minority or hard-to-reach populations than the other sources for the survey recruitment efforts.

## **Facebook and Instagram**

Overall, Facebook and Instagram ads were the longest running and the most successful recruitment platforms for this effort. In terms of messaging, ads with the best results highlighted the financial incentive of the study with statements such as, “Participate in Chicago’s My Daily Travel Survey and get paid!” Therefore, we recommend consistently including any incentive information at the forefront of each recruitment ad. Other successful ads incorporated an urgency or time component, i.e. “Now through May 2019, we are collecting data that will help improve transportation in your region.” Including a study conclusion allows the audience to recognize that this effort is up-to-date and time sensitive.

The highest overall CTR was attributed to the ad groups targeting the 65+ population and the lower income population with the redesigned ads launched in March 2019, as well as an ad group targeting Lake County. In future efforts, micro-targeting groups of ads to specific populations is the most strategic approach, rather than broadly targeting all zip codes with general messaging about My Daily Travel. Furthermore, we recommend always developing eye-catching but simple graphics branded with the program logo to engage the audience. This helps legitimize the ads, linking them with the study while also allowing ads to stand out amongst competing digital real estate.

Lastly, given the engaging nature of Facebook and Instagram, there was much to glean via ad comments. The team was able to provide technical support to individuals who mentioned that their PIN was not working or answer questions about when to expect their incentive. Providing this kind of support allowed us to keep the participants engaged and quell any concerns from the audience that the study may be a scam. However, given the volume of comments, it is recommended to develop a bank of approved responses prior to launching the ads to avoid any delay in responding to participants. It would have also been beneficial to have a Spanish-speaking team member support responses to Spanish comments, which we were unable to address.

## **Google GDN and Search**

Ads on Google garnered successful CTR and sizable impressions, but only 0.2% of participants who arrived at the survey via GDN and 2.7% via Google Search completed the study. After observing this drop-off, the study team decided to end the Google component of the campaign and divert funds into Facebook and Instagram. In future efforts, we do not recommend using Google ads for this kind of recruitment effort.

## Summary and Recommendations

The digital advertising campaign, across all efforts combined, contributed to 1,127 total individuals completing their travel log on the assigned day, with at least 12,789 participants at least starting the survey. In Table 3 below, we summarize campaign results by platform.

**Table 6. Total Recruitment Results by Digital Ad Platform**

Platforms	Dates	Impressions	Clicks	Total Spent	Recruit Partial	Recruit Complete	Retrieval Complete
Facebook and Instagram	9/6/18 – 4/19/19	3,628,242	25,968	\$37,640.35	10,624	853	1,111
Google Display Network	9/6/18 – 10/19/18	1,196,941	8,444	\$3,218.01	1,726	2	4
Google Search	9/6/18 – 10/19/18	22,877	1,431	\$1,575.23	337	3	9
Paid Influencer Outreach	3/1/19 – 3/31/19	5,540,223	N/A	\$3,000	102	3	3
Total		10,388,283	35,843	\$45,433.59	12,789	861	1,127

# Outreach Summary

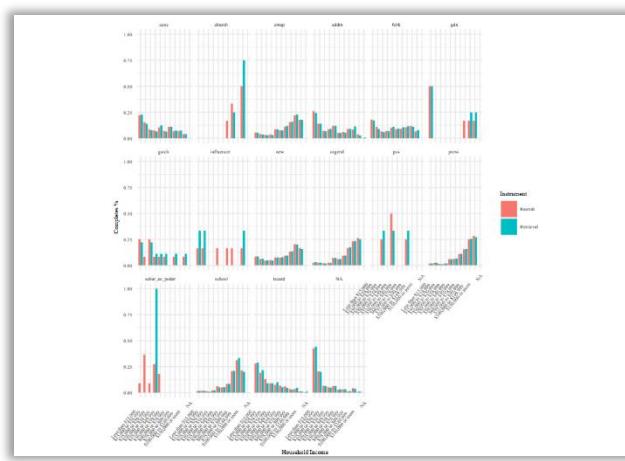
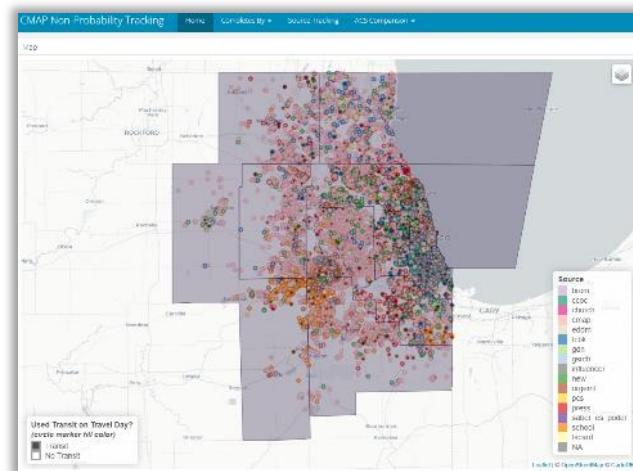
Figure 6. Examples of Source Tracking Tools

Overall, the digital recruitment effort contributed to over 10 million impressions of My Daily Travel, with nearly 36,000 individuals clicking through to the survey website. Although not every site visitor resulted in complete participation, the campaign contributed to higher brand awareness of My Daily Travel in addition to the 1,127 successfully completed recruitments. The social media campaign, coupled with the other sources engaged by CMAP, allowed for the survey team to collect responses from a range of household types and a range of geographies.

Tracking by source allowed the project team to track where recruits were coming from and to react and change strategies as needed. Figure 6 shows a selection of screen shots of tools used to track progress by source.

Sources that were used by the project team included Bromberg, community colleges of Chicago, the CMAP-designed project page, every door direct mail (EDDM), Facebook, Google Display Network, Google Search ads, hired social media influencers, community interest groups and advocates that CMAP knew of, postcards handed out at public meetings, the *Chicago Tribune*, Saber es Poder, Chicago area school districts, and intercept postcards. Sources like Google Ads and the Google Display Network were determined to

Chicago HTS (2019-08-12)		Survey Progress Pivot Table									
Completion Status		Pivot Table									
Recruit Partial											
Common Household Tables											
Household Size by Workers		29	17	17	14	20	11	1	1	1	1
Household Income by Size		11	17	15	10	20	10	1	1	1	1
Household Vehicles by Workers		24	15	15	10	17	10	1	1	1	1
Geographic Tables		17	30	32	12	11	10	1	1	1	1
County by Household Size		17	11	11	10	11	10	1	1	1	1
County by Household Income		4	11	11	10	10	10	1	1	1	1
County by Household Vehicles		29	15	15	10	11	10	1	1	1	1
County by Household Workers		15	10	10	10	11	10	1	1	1	1
County by Gender		15	10	10	10	11	10	1	1	1	1
County by Age		11	15	11	10	11	10	2	3	2	44
County by Race		20	17	11	10	14	11	1	1	1	233
County by Household Size/Households		31	24	15	10	14	11	1	1	2	199
County by Household Income/Vehicles		38	20	11	10	12	10	1	1	1	199
County by Household Workers/Gender		26	15	10	10	11	10	1	1	1	199
County by Household Workers/Workers		21	11	10	10	11	10	1	1	1	199
Other Tables		11	5	5	5	5	5	1	1	2	55
Adult Count by Child Count		21	14	14	10	11	10	1	1	1	85
Home by Household Origin		19	18	15	10	11	14	1	1	1	72
Age by Gender		11	11	10	10	12	10	2	2	2	67
Screeners Comprised by Household		8	20	5	5	2	20	1	1	1	59
		12	11	10	10	11	14	1	1	4	64
		8	11	10	10	6	5	1	1	5	56
		5	10	10	10	5	5	1	1	4	103



be ineffective, so the project team quit investing in them.

The sources that were most effective were the article in the *Chicago Tribune*, Facebook advertisements, emails sent out by the ISTHA to its subscribers, school districts (Addison SD 4, Bloom Township HSD 206, Oswego Community Unit SD 308, Plainfield SD202, and others), and intercepts that were performed at multimodal transit stations and other high traffic locations.

The different sources were added in over the course of the survey. The *Tribune* article was published in early September 2018, with the Facebook ads starting shortly after that. The school invitations went out in early January 2019, Tollway Authority emails were sent out in mid-February 2019, and the intercept was performed in November of 2018 and again in March 2019.

Table 7 shows selected household measures by source and compared to American Community Survey (ACS) 2018 5-year estimates. These comparisons reveal how close or divergent each source was to ACS, with green-shaded cells denoting metrics within a plus/minus range of 15 percentage points. All of the sources skewed younger than the ACS estimates with recruitments from the press (and largely the *Chicago Tribune*) and Tollway Authority being closest to ACS age estimates. The Tollway Authority source was the closest overall to the ACS estimates. The design of the outreach to Facebook and intercept sources skewed towards lower incomes relative to ACS distributions, and this targeting showed up in the results with households from these sources skewing in the same direction. The other three sources skewed towards higher incomes.

**Table 7. Comparison of Selected Sources with 2018 5-Year Estimates**

Sources	Percent White	Percent 4+ Member s	Percent 18-44 Age	Percent 1 Worker	Percent 2 Vehicles	Percent > \$100k
<b>ACS</b>	<b>69.34%</b>	<b>25.62%</b>	<b>38.68%</b>	<b>39.54%</b>	<b>35.61%</b>	<b>30.88%</b>
Press	88.48%	19.14%	51.72%	41.36%	37.22%	52.78%
Facebook	64.72%	15.66%	78.04%	52.75%	15.75%	18.63%
Schools	86.86%	61.00%	58.08%	28.36%	53.49%	53.50%
Illinois Tollway Authority	80.54%	21.40%	50.66%	42.26%	39.19%	40.58%
Intercept	29.73%	23.42%	65.77%	58.56%	15.32%	5.40%

## General Outreach Findings

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Among observations about the process of recruiting in this manner, a few lessons stood out to the team. The most effective engagement with community organizations occurred when a staff member

of the CMAP team leveraged a personal message, and most often to a known contact. General email blasts had some effect, but were generally less likely to yield a supportive response than the responses received in reply to personal outreach.

It was also noteworthy that the volume of support and ensuing sign-ups was difficult to predict for some sources. The tollway authority and earned media coverage in the Chicago Tribune were both much larger than the team was prepared to accept. The dilemma any survey team faces with this approach is that it is difficult to turn away interested parties because the next surge may never come. While the team installed a screening process at the end of the data collection efforts, it would not have been advisable to include such screening at the beginning because it might well have prevented the team from reaching the needed number of observations for the region.

# **Retrieval Process**

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In total, there were 12,660 completed households in the sampled region. Households were encouraged to self-report their data online; however, a telephone interview option was also available.

## **Post-Travel Day Reminder Contacts**

A series of electronic reminders were delivered to recruited households in an attempt to improve response to the retrieval survey. Beginning the day after the travel date, up to five reminder prompts were sent as text messages or emails depending on the contact preference requested by the household. These reminders included the households' PIN and links to the public website.

## **Retrieval Details**

Households were able to begin reporting their travel day trip and activity details by web or CATI beginning the day after the travel day. Households preferring to complete by telephone with an interviewer were called the first day after their assigned travel day. Those preferring to complete by web were also called if the household had not reported their travel by the third day after the travel day.

App users were able to record their travel details on their smartphone in real time on their travel day. Data was synchronized across all survey platforms allowing app users to review, edit, or finish reporting their travel details online or over the phone if so desired. In addition, all shared trips captured in the app were ported to allow access for other household members who may have reported online or over the phone. App users were asked to record their travel for seven days, though only the first day (assigned travel date) was required for completion of the survey.

The retrieval questionnaire data was collected using Westat's TripBuilder WebTM (TBW) web-based software that enabled all participants regardless of response mode to provide travel and activity details while geocoding each reported locations in real-time. TBW uses a built-in mapping interface developed with the Google Maps Application Program Interface (API).

## **Definition of a Complete Survey**

Households where all members five-years-old and above reported travel details for the assigned travel day were considered complete and subsequently included in the final data deliverable file assuming that all edit checks and post processing errors were able to be cleared.

## **Daily Travel Smartphone Application**

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### **Smartphone Methodology**

The travel log letter presented households with the option to record travel using Westat's smartphone application for household travel survey data collection. Use of the smartphone app to record travel day information was offered to all households. All households members 13 years or older were eligible to use the smartphone app.

Households were provided a link to the DailyTravel app website with links to the Apple App Store and the Android Google Play store. They were given instructions to install the app and log in using the household PIN, provided in the invitation letter and all reminders. Once logged in, household members selected themselves on their respective smartphone thereby linking device and data collected on it to the appropriate household member. Reminders were used to encourage participants to opt into using the smartphone app for data collection.

Household members using the smartphone app were asked to use the app to capture GPS locations and confirm place details on the assigned travel date and to continue collecting data for another 6 days, for a total of 7 days of GPS-based travel data. Once the app was installed and authenticated using the PIN, the GPS data was collected regardless of user interaction with the application. However, many participants continued to confirm places and place details throughout the full 7 days.

### **Smartphone App Design**

The DailyTravel app used the iOS and Android geolocation features to automatically capture a participant's travel. This process started following the initialization of the app when the participant connected his or her phone with his or her household record and identified himself/herself to the app. At that point the app captured the phone's last known location, placing an auto-start geofence of 75m around the location. Once the participant left the geofence, the phone woke up the app

triggering the start of a trip. Following the start of the trip the app turned on its GPS and accelerometer to collect a 30 second data capture window.

The app also created a set of auto-stop geofences around known locations (any locations on the travel day that had a name) and asked the phone for notifications if an auto-stop geofence was entered. Because iOS limits the total number of geofences that can be active to 20 the app prioritized the creation of these auto-stop regions based on their proximity to the phone's current location.

During the trip collection the app attempted to record GPS and accelerometer records for 30 seconds at a time. At the end of one of these 30 second intervals the app will turn off the device's GPS and accelerometer and set up a smaller auto-restart geofence of 50 m around the last recorded GPS point's location. The app will also ask the phone for notification of any location updates related to this geofence (e.g. stay inside, exit, re-enter). This is different from the auto-start geofence which only notifies if the phone exits it. If any of these location updates for the auto-restart geofence fired, the app would initiate another 30 second data recording cycle.

During each one of these 30 second data collection slices the app would make multiple attempts (once every 5 seconds) to detect if the current trip had ended. To decide this the app checked the following conditions:

- The phone has moved less than 75 m during the last minute for which GPS data was collected
- The phone has collected at least 15 seconds of location data within 25 m of a known location (any identified place or the household location captured in REC)
- 15 min passed without moving points (all points with a speed < 1 m/s are excluded from this check)

Once the trip ended the app re-examined the collected GPS trace data and looked for breaks along the way that could indicate a short stop. The app created an additional stop (i.e. broke up the trip to the final destination place) using the following criteria:

- A break in the GPS data stream of at least 15 seconds and...
  - The avg speed (distance / delta seconds) over the gap is less than 1 m/s and the resulting split trip is at least 2.5 minutes long (travel time)
    - OR
  - The gap of 15 minutes or longer

The app was tested multiple time by various CMAP staff who contributed feedback which resulted in more aggressive assignment of home as the origin location, and better identification of locations visited.

## App Usage

Using these protocols, a total of 5,411 participants across 4,397 households downloaded and initialized the app and went on to complete their travel reports using the app in whole or in part. Many of these participants also used the app for more than one day. Westat's app collected an extra 3,490 smartphone trips on days 2 through 7.

## DailyTravel App Data Collection and Processing

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As stated before, app users were able to record up to 7 days of travel including the main travel day. The participants were encouraged but not required to report details about app-captured places on the additional 6 days. During this time, the app may have automatically collected places that were not valid stops. Consequently, the data needed to be processed to remove invalid places and impute important travel details. The steps were as follows: First, we identified duplicate locations and combined them into one location record. Next, we attempted to remove two types of invalid trips. Instances where the app captured a stop but the participant was still traveling (common at traffic lights) and instances where the app added a trip but the participant had not left (common for movement on large sites). Finally, we used GPS and Accelerometer data to impute travel mode and trip purpose.

### Combine Duplicate Locations

To combine duplicate locations, we used a density-based clustering algorithm, DBSCAN, to cluster all locations within a household that were close in proximity. If a cluster was identified, we would choose a location within that cluster based on the following priority: Habitual (home, work, or school), whether it had location details, and its horizontal accuracy if it was a GPS collected place.

### Identify and Collapse False Stops

False stops are instances where the participant was actually still traveling, but the app recorded a stop. The most common scenario is heavy traffic or a long stop light. We developed a heuristic to detect these instances by looking at stop duration and gap speed. Gap speed was computed by grabbing the last GPS point before the stop and the first point after the stop and computing the speed. High gap speeds indicated that the participant may not have actually stopped. It was also useful to address whether the stop was “on the way” to the next location as well as looking at the GPS trace upon arrival.

## Identify and Collapse Noise Stops

Noise stops are instances where the app records a trip, but the participant had not left their existing location. This is common at locations like parks, campuses, or large offices where the participant may move around without actually leaving. These were identified using a heuristic-based algorithm as well. Short origin-destination distances with low speeds tended to indicate noise stops. Very compact, circuitous GPS traces were also a common indicator.

## Impute Travel Mode

For travel mode imputation on non-confirmed trips, we moved from the heuristic-based approach to a modeling approach. A recurrent neural network was trained using household-level, person-level, and trip-level data collected from the app on confirmed travel days (confirmed every trip on the day). Trips with user-edited start/arrival times were not used.

For each trip, we aggregated GPS and Accelerometer sensor data over 1 minute windows. We then merged that data household/person-level data. Table 8 shows the full list of features.

**Table 8. Mode Imputation Model Features**

Mode Features
Person Type
Driver Status
Parental Status
Age
Educational Attainment
Gender
Travel Day of Week
Household Income
Traveling to Habitual Location?
Time of Day
Travel Time
GPS Point Count
Circuitry*
Compactness**
Speed (Average, Median, Min, Max, Standard Deviation)
GPS Accuracy (Average, Median, Min, Max)
Magnitude of Acceleration (Average, Median, Min, Max, Standard Deviation, 25th & 75th Percentile)

\*Circuitry is calculated as the connected point distance / straight line distance from the first and last point.

\*\*Compactness is calculated as the connected point distance / distance connecting to diagonal corners of the enclosing bounding box.

The recurrent neural network was trained using 2 Gated Recurrent Unit (GRU) layers using the Keras neural network library. GRUs typically perform well using data with a sequential or time-based component which is why they were chosen for this task. After training, the unconfirmed travel data was then fed into the model and the travel mode yielding the highest predicted probability was used as the imputed mode.

Note that mode categories were collapsed so that the model could make more discrete/unambiguous predictions. These categories included:

- Walk
- Bike
- Train
- Auto
- Other

## Impute Trip Purpose

A recurrent neural network was also used to impute trip purpose on unconfirmed travel days. Similar to mode imputation, the model was trained using data from confirmed travel days. While GPS and accelerometer sensor data is less useful in this context, we derived location-based features such as land-use categories and common purpose clusters to complement the household and person-level data used for the model input. Table 9 shows the full list of features used.

**Table 9. Purpose Imputation Model Features**

Purpose Features
Person Type
Driver Status
Parental Status
Age
Educational Attainment
Gender
Travel Day of Week
Household Income
Traveling to Habitual Location?
Time of Day
Travel Time

Purpose Features
Trip Purpose Clusters*
Activity Duration
First/Last Place indicator
Land-use Category

\*Density-based geospatial clusters were created using confirmed trip purposes to identify common discretionary, shopping, and maintenance areas.

Like the mode imputation model, Gated Recurrent Unit (GRU) layers were used to train the neural network. Unlike mode imputation, however, where sequences were built by stacking aggregates of 1 minute windows over the travel period, the sequences for purpose imputation comprised of trip-level data stacked over a given travel day. After training, data from unconfirmed travel days were fed into the model and the resulting predicted probabilities determined the sequence of imputed purposes.

The purpose categories were also collapsed to reduce model ambiguity:

- Home activities
- Work
- School
- Shopping
- Discretionary
- Change of mode
- Escorting
- Other

## Survey Processing, Data Cleaning, and Data Quality Checks

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### Overview of Survey Processing and Data Cleaning

Data processing and data cleaning were conducted on an ongoing basis throughout the study. Updates were made to key operational variables during the administration of the survey (e.g., the addition of a car that was not originally reported). Variables that did not impact the flow of the survey were updated at the conclusion of data collection (e.g., recoding race based on “Other, specify” responses).

A series of automated edits, range checks, and consistency checks were performed within the survey instrument, and data preparation staff performed frequency reviews and problem resolution to

monitor, correct, and update the data. Automated checks were run to evaluate the validity of reported trip data. The following sections provide more details for each of the data quality checks used.

## Logic Checks

Logic checks were programmed into the recruit and retrieval instruments to ensure that questions were answered as accurately as possible. These included requiring that certain questions be answered (e.g., requiring a response even if “don’t know” or “prefer not to answer”) and forcing the data type (e.g., requiring a number for the question AGE). Data range checks were employed to ensure that the data fell within the expected range for a given question (e.g., 0-112 for AGE). Consistency checks were conducted to confirm data consistency in common variables across data files (e.g., household size or participant age).

## Real-Time Geocoding

Westat’s TBW survey software was used to collect the travel day details in the retrieval portion of the household travel survey. All trip ends were geocoded reporting in real-time using a Google interface during the completion of the trip. Respondents could enter the location’s address or were able to use the Google search engine to locate a specific place (e.g., the CVS drugstore at a specific intersection) when they did not know the address of the location. TBW captured full address information and the matching X/Y coordinate of the location.

## Frequency Reviews

Frequency reviews were conducted in the beginning, middle and end of data collection to ensure that all data were being properly captured in the survey database. A report displaying a frequency table for each survey variable was generated including branching logic, question text and responses. Through the review of these frequency reports, analysts would identify and correct issues with the data as appropriate.

## Edit Checks

Upon completion of retrieval, a series of edit check queries were run on the data to identify potential reporting inconsistencies. If an edit check failed, the data from the household was manually reviewed by an analyst. Edit checks were completed on trip data and non-trip data. Non-trip data

checks were executed as part of the frequency review process described above and included checks of each survey variable at each survey stage (recruit and retrieval).

Trip data was processed through Westat's trip processing system (TPS). TPS includes a series of consistency checks on reported trip data. Table 10 provides a list of the TPS checks performed on these data. When a TPS edit failed, an analyst reviewed the data to determine whether adjustments to the data could be made based on information provided by another household member or if the household needed to be re-contacted to resolve the inconsistency in the data. Whether the data was updated by an analyst or an interviewer as a result of a re-contact with the household, the entire household record was reprocessed through the TPS checks. Cases were continually run through this process until it either cleared TPS without any failures or else was classified as having some exception worth denoting in the final data file, but not sufficient to disqualify the case for final delivery. Households that successfully passed these edits were included in the final dataset. Households with unresolved checks deemed minor were given flags for quality control and identification, and descriptions of the unresolved issues.

**Table 10. Trip Data Checks for Household, Person, and Place Characteristics**

Number	Type	Check Description
1	Household	Household size does not match the number of people.
2	Household	Home location is missing "full address"
3	Household	Home location not named Home
4	Household	Household's completion flag is not set. Please ensure that all participants which can be complete are showing up as `Finished` in TBW.
5	Household	Home location geocoded with bad address street or missing address component.
6	Person	Person missing age information.
7	Person	Person missing schooling information.
8	Person	Person with 0 places.
9	Person	Person has no travel but is missing reason for not travelling (NOGOWHY).
10	Person	Work location geocoded without address
11	Person	School location geocoded without address.
12	Person	Person's first or last place is not their Home location.
13	Person	Driver is too young (under 14 years old)
14	Person	Person's completion flag is not set. Please ensure that all participants which can be complete are showing up as `Finished` in TBW.
15	Place	Place with a person identifier that does not exist.
16	Place	Place with no geocoded location.
17	Place	Place with no associated location.
18	Place	Place is missing travel mode information
19	Place	Place is missing trip purpose information
20	Place	Place with a departure time before or the same as its arrival time.

Number	Type	Check Description
21	Place	Place with an arrival time before or the same as the previous place's departure time.
22	Place	Place where multiple household members went but did not report each other or disagree on the household members in the party.
23	Place	Passenger without driver
24	Place	Place where multiple household members went but persons disagree on the party size.
25	Place	This shared place has more than one driver in the party.
26	Place	Place travel speed too slow for travel mode
27	Place	Place has Other Mode
28	Place	Place lists household member on trip, but not all household members agree on place's exact arrival time or location. While addressing this check, review origin location and departure time for any discrepancies.
29	Place	Person reported traveling alone in an automobile but is under the age of 15
30	Place	Transit trip too short (less than 5 min duration)
31	Place	Place has a high travel time
32	Place	Place speed too fast
33	Place	Location geocoded without address
34	Place	Traveled with a household member but MODE does not match.
35	Place	Traveled with a household member but VEHICLEID does not match.
36	Place	Traveled with a household member but origin (previous ADDR or departure time) does not match.
37	Place	Same vehicle used for (non shared trip)
38	Place	Vehicle number not valid in database.
39	Place	Location's geocode precision is not good enough. Current precision:
40	Place	Place has the same address and/or coordinates as previous place.
41	Place	Travel time less than 1 minute
42	Place	Departure time from last place is not 3 am.
43	Place	Place is suspiciously close to habitual work/school location.
44	Place	Person not at a common work location for work related purpose.
45	Place	Person not at a common school location for school related purpose.

## Upcoding and Cleaning

At the conclusion of the data collection period, open-ended and “other, specify” responses were reviewed and upcoded or aggregated as a new response category as appropriate. Upcoding is the activity of recoding an open-ended response into a categorical response option (e.g., recoding Caucasian to white). The process includes removing the “other, specify” (open-ended) text response.

In addition to coding open-end text into categorical responses, Westat also combined or collapsed other responses that were similar to each other (e.g., misspelling of the response, different letter spacing in the response or capitalization issues). These responses appear in the original dataset as

independent, unique responses but have been corrected and combined in the final dataset for more efficient analysis.

## Data Augmentations and Enhancements

### Tollway Costs

The survey instrument did not ask for each traveler to report on toll costs for every trip. In part, this is because the management team concluded that most toll transponder owners would be unable to calculate an accurate toll cost because their transactions are cashless and any record is likely consumed via monthly statement, if at all. Instead, drivers of personally owned vehicles were asked if they paid any tolls on the day of their assigned travel. For those who said they paid at least one toll, Westat applied a spatial assignment of toll access/egress points and calculated an approximate costs. Details for this process are specified in **Memorandum 7.2 – Toll Data Augmentation**.

### Transit Itineraries

During data collection, travelers were able to use a tool with a Google API which would provide potential transit route sequences whenever a transit trip was reported. About half of users who took transit were able to report in this manner. The other half were reporting on a smartphone or did not select transit use on the trip by mistake, and then reported their transit in a step-by-step fashion. In order to maintain a consistent transit trip reporting framework, cases who did not have a selected itinerary were assigned an imputed itinerary. The rules for itinerary assignment are defined in **Memorandum 7.3 – Collecting Itineraries**.

## Assessment of Survey Data Item Reliability and Applicability

In reviewing the data, an expected amount of item non-response can be observed. Survey logic did not allow participants to skip questions; however, participants could provide a “don’t know” or “prefer not to answer” response to most survey questions. To mitigate non-response, the “don’t know” and “prefer not to answer” options were not initially shown to participants. However, if a participant tried to advance a page without providing a response to a question, a pop-up would appear prompting whether they meant to answer the question, did not know the answer, or would prefer not to answer. If the participant reported that they meant to answer the question, the pop-up was cleared allowing them an opportunity to provide a response. Westat has successfully utilized this non-response strategy in other HTS to limit item non-response. Table 11 and Table 12 present

variables with the highest observed levels of non-response. For households that refused income in the initial, recruitment stage, a follow-up with broader categories was presented in retrieval. This resulted in a reduction of income non-response from 115 to 85 households for a final non-response rate of 0.69 percent.

**Table 11. Item Non-response for Recruitment Questions**

Variable Name	Description	Percent Non-Response	Total Asked	Total Non-Responses
HHINC	Household income	0.93%	12,391	115
HHINC2	Household Income Follow-Up	26.1%	115	30
RACE	Race of household respondent/other household members	0.64%	30,683	196
HISP	Hispanic status of household respondent/other	0.21%	30,683	63
AGE	Age of household respondent/other household members	0.22%	30,683	66
SMODE	Typical travel mode to school	0.01%	8,248	1
EDUC	Current grade level of students	0.10%	30,683	32
RELATE	Relationship of person to household respondent	0.05%	30,683	16
HOMEOWN	Home ownership	0.02%	12,391	2
SEX	Gender of household respondent/other	0.06%	30,683	17

Variable Name	Description	Percent Non-Response	Total Asked	Total Non-Responses
INDUS	NAICS job industry	0.33%	17,639	58
JOBSS	Current number of jobs	0.09%	17,666	16

**Table 12. Item Non-response for Retrieval/Travel Characteristic Questions**

Variable Name	Description	Percent Non-Response	Total Asked	Total Non-Responses
NOGOWHY	Reason for no trips	0.28%	3,558	10
MODE	Travel mode	0.00%	99,727	0
TPURP	Trip purpose	0.03%	128,255	33
TPURP2	Secondary trip purpose	0.05%	128,255	62
TNC_USE	TNC Use	0.70%	22,271	155
TOLLS	Amount paid for tolls on travel day	9.64%	2,366	228

# Data and Results

The following sections provide some additional information on selected descriptive statistics of demographic distributions and travel behavior of the weighted and expanded survey data. It should be noted that the process for weighting this data utilized zonal assignments (with zones drawn to correspond to somewhat homogenous travel behaviors) rather than county-level assignments where the variation in travel habits across the entire county is typically larger. It is anticipated that county-level estimates compared to ACS may be in less agreement than estimates generated for the entire region.

Each table in the following sections, unless otherwise specified, provides the following four columns. The column 'N' represents the raw total of observations in the data files. The column 'Survey' is the row proportion of the total count in column 'N' and should total to 100 percent. The column 'Estimate' provides the population estimate for a given attribute. It represents the share for each row as a proportion of the weighted and expanded total (i.e., the result of applying the weights to all households, persons, or trips for a given level of aggregation and then dividing that total by the sum of all weights in that same category). The final column 'MOE (95%)' is the Margin of Error (MOE) on the estimate at the 95 percent confidence interval. This is generated by utilizing the variance estimates drawn from the replicate weights for a given estimate. It is critical to assess the MOE whenever estimates are compared and claims of significant difference are made.

Appendix E provides a list of variables derived from the raw data files for use in the generation of the tables in the following analysis with logic and the original data used. Please reference it, alongside the data elements to understand each variable presented in the following tables.

## ACS Tables

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This first sub-section provides comparisons of the CMAP Survey Estimate for a range of attributes at the person and household level. These survey estimates were generated by summing the weights developed by WSP. A Margin of Error (MOE) at the 90% confidence interval is also provided. These are calculated using the replicate weights, also provided in the data files and measure the variance in each estimate based on re-assigning weights whenever a single observation is removed from the whole data file. American Community Survey (ACS) estimates and MOE are from the US Census Bureau and are based on 2013-17 5-year estimates.

Table 13 presents the household size estimates for each county compared with ACS estimates. The error in the estimates are highest for counties with smaller populations, especially when crossed with less frequently observed household types (i.e., 1 person or 4+ person households). Generally, the variation between the survey generated estimates and ACS benchmarks are not significantly different at the 90% confidence interval. Data presented in Table 14 through Table 17 shows additional variables using similar County-level comparisons.

**Table 13. Household Size by County (ACS)**

home_county_acs	hhsize_agg_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Cook	1 person	31.09%	1.23%	32.56%	0.40%
	2 person	30.09%	1.23%	29.66%	0.40%
	3 person	15.64%	1.05%	15.04%	0.40%
	4+ person	23.17%	1.29%	22.74%	0.40%
DeKalb	1 person	27.37%	7.67%	26.71%	2.80%
	2 person	39.81%	6.72%	33.68%	2.78%
	3 person	15.57%	6.55%	16.64%	2.82%
	4+ person	17.25%	5.39%	22.97%	2.82%
DuPage	1 person	24.57%	2.18%	25.05%	0.82%
	2 person	32.05%	2.31%	32.20%	0.81%
	3 person	17.30%	2.07%	16.60%	0.82%
	4+ person	26.08%	2.11%	26.15%	0.82%
Grundy	1 person	20.29%	11.39%	21.64%	3.77%
	2 person	40.35%	11.89%	34.87%	3.70%
	3 person	10.60%	7.26%	16.72%	3.79%
	4+ person	28.76%	11.55%	26.78%	3.77%
Kane	1 person	19.00%	3.09%	21.31%	1.42%
	2 person	30.96%	3.11%	30.38%	1.40%
	3 person	16.76%	2.98%	16.48%	1.42%
	4+ person	33.28%	3.75%	31.83%	1.41%
Kendall	1 person	13.53%	4.00%	15.97%	4.06%
	2 person	23.34%	4.12%	31.23%	4.01%
	3 person	20.60%	3.90%	17.19%	4.06%
	4+ person	42.53%	4.62%	35.60%	4.01%
Lake	1 person	21.92%	2.64%	22.24%	1.00%
	2 person	30.01%	2.63%	31.58%	0.99%
	3 person	18.13%	2.56%	17.04%	1.00%
	4+ person	29.95%	2.91%	29.14%	1.00%
McHenry	1 person	24.03%	5.18%	20.26%	1.54%
	2 person	38.18%	5.87%	34.41%	1.52%
	3 person	14.63%	3.71%	17.37%	1.54%
	4+ person	23.15%	4.48%	27.96%	1.54%

<b>home_county_acs</b>	<b>hhszie_agg_acs</b>	<b>CMAP Estimate</b>	<b>CMAP MOE (90%)</b>	<b>ACS Estimate</b>	<b>ACS MOE (90%)</b>
Will	1 person	17.85%	2.70%	20.70%	1.04%
	2 person	30.26%	2.84%	29.95%	1.03%
	3 person	18.28%	2.35%	17.10%	1.04%
	4+ person	33.60%	2.52%	32.26%	1.03%

**Table 14. Number of Household Vehicles by County of Residence (ACS)**

home_county_acs	Household Size	hhveh_agg2_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Cook	1 person	0 vehicles	11.07%	1.09%	10.83%	0.44%
		1 vehicles	19.91%	1.41%	19.42%	0.44%
		2 vehicles	1.26%	0.45%	2.01%	0.44%
		3 vehicles	0.19%	0.16%	0.22%	0.44%
		4+ vehicles	0.06%	0.06%	0.08%	0.44%
	2 person	0 vehicles	4.13%	0.59%	3.90%	0.44%
		1 vehicles	10.65%	1.12%	11.44%	0.44%
		2 vehicles	12.61%	1.41%	12.57%	0.44%
		3 vehicles	1.40%	0.37%	1.47%	0.44%
		4+ vehicles	0.55%	0.26%	0.28%	0.44%
	3 person	0 vehicles	1.29%	0.35%	1.46%	0.44%
		1 vehicles	4.54%	0.81%	4.57%	0.44%
		2 vehicles	6.34%	1.03%	5.83%	0.44%
		3 vehicles	2.36%	0.74%	2.68%	0.44%
		4+ vehicles	0.52%	0.32%	0.50%	0.44%
	4+ person	0 vehicles	1.40%	0.45%	1.54%	0.44%
		1 vehicles	5.07%	0.94%	5.19%	0.44%
		2 vehicles	9.67%	1.34%	9.69%	0.44%
		3 vehicles	4.54%	1.03%	4.01%	0.44%
		4+ vehicles	2.45%	0.71%	2.31%	0.44%
DeKalb	1 person	0 vehicles	5.48%	4.41%	3.30%	3.20%
		1 vehicles	23.90%	7.29%	19.39%	3.19%
		2 vehicles	0.99%	1.18%	3.25%	3.20%
		3 vehicles	0%	0%	0.67%	3.20%
		4+ vehicles	0%	0%	0.11%	3.20%
	2 person	0 vehicles	7.78%	7.40%	1.56%	3.20%
		1 vehicles	6.22%	3.42%	6.62%	3.19%
		2 vehicles	16.72%	7.86%	20.29%	3.18%
		3 vehicles	5.41%	4.99%	4.34%	3.20%
		4+ vehicles	1.19%	1.13%	0.86%	3.20%
	3 person	0 vehicles	0.32%	0.53%	0.72%	3.20%
		1 vehicles	5.86%	6.80%	3.27%	3.20%
		2 vehicles	4.32%	3.74%	6.03%	3.19%
		3 vehicles	7.94%	7.29%	5.35%	3.20%
		4+ vehicles	1.02%	1.02%	1.26%	3.20%
	4+ person	0 vehicles	0.36%	0.31%	0.59%	3.20%
		1 vehicles	0.74%	0.80%	3.17%	3.20%
		2 vehicles	6.24%	5.24%	9.52%	3.19%
		3 vehicles	3.88%	5.12%	6.01%	3.19%

home_county_acs	Household Size	hhveh_agg2_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
		4+ vehicles	1.64%	1.43%	3.68%	3.20%
DuPage	1 person	0 vehicles	2.45%	1.36%	2.78%	0.93%
		1 vehicles	18.93%	2.12%	19.67%	0.92%
		2 vehicles	2.94%	0.94%	2.23%	0.93%
		3 vehicles	0.67%	0.44%	0.30%	0.93%
		4+ vehicles	0.19%	0.21%	0.07%	0.93%
	2 person	0 vehicles	0.64%	0.73%	0.79%	0.93%
		1 vehicles	4.57%	1.32%	6.60%	0.93%
		2 vehicles	21.71%	2.15%	21.16%	0.92%
		3 vehicles	3.09%	1.07%	3.06%	0.93%
		4+ vehicles	1.47%	0.73%	0.59%	0.93%
	3 person	0 vehicles	0.31%	0.52%	0.24%	0.93%
		1 vehicles	1.43%	0.57%	2.39%	0.93%
		2 vehicles	8.77%	1.68%	7.84%	0.93%
		3 vehicles	5.56%	1.79%	5.14%	0.93%
		4+ vehicles	1.28%	0.67%	1.00%	0.93%
	4+ person	0 vehicles	0.02%	0.03%	0.23%	0.93%
		1 vehicles	0.63%	0.34%	2.23%	0.93%
		2 vehicles	12.48%	2.55%	13.68%	0.93%
		3 vehicles	7.41%	2.22%	6.15%	0.93%
		4+ vehicles	5.44%	1.76%	3.86%	0.93%
Grundy	1 person	0 vehicles	0%	0%	2.50%	4.42%
		1 vehicles	14.41%	10.18%	15.13%	4.41%
		2 vehicles	6.84%	8.03%	2.86%	4.42%
		3 vehicles	0%	0%	1.00%	4.42%
		4+ vehicles	0%	0%	0.15%	4.42%
	2 person	0 vehicles	0%	0%	1.15%	4.42%
		1 vehicles	1.52%	2.09%	6.31%	4.42%
		2 vehicles	29.98%	16.19%	20.12%	4.41%
		3 vehicles	1.10%	1.34%	5.63%	4.42%
		4+ vehicles	2.69%	3.56%	1.66%	4.42%
	3 person	0 vehicles	0%	0%	0.21%	4.42%
		1 vehicles	0%	0%	1.76%	4.42%
		2 vehicles	7.18%	8.30%	8.19%	4.42%
		3 vehicles	2.96%	3.02%	4.57%	4.42%
		4+ vehicles	0%	0%	1.98%	4.42%
	4+ person	0 vehicles	0%	0%	0.06%	4.42%
		1 vehicles	0%	0%	2.26%	4.42%
		2 vehicles	19.45%	18.56%	11.78%	4.42%
		3 vehicles	6.56%	6.50%	7.20%	4.42%

home_county_acs	Household Size	hhveh_agg2_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
		4+ vehicles	7.32%	7.24%	5.48%	4.42%
Kane	1 person	0 vehicles	4.16%	3.28%	2.96%	1.67%
		1 vehicles	13.71%	3.17%	15.41%	1.67%
		2 vehicles	2.38%	1.81%	2.40%	1.67%
		3 vehicles	0%	0%	0.36%	1.67%
		4+ vehicles	0.06%	0.10%	0.18%	1.67%
	2 person	0 vehicles	0%	0%	0.72%	1.67%
		1 vehicles	8.61%	3.79%	6.01%	1.67%
		2 vehicles	19.86%	5.02%	19.32%	1.67%
		3 vehicles	4.29%	2.04%	3.47%	1.67%
		4+ vehicles	1.30%	1.09%	0.86%	1.67%
	3 person	0 vehicles	1.02%	1.69%	0.41%	1.67%
		1 vehicles	0.28%	0.14%	2.43%	1.67%
		2 vehicles	8.66%	3.87%	7.40%	1.67%
		3 vehicles	4.44%	2.02%	5.24%	1.67%
		4+ vehicles	0.37%	0.33%	1.00%	1.67%
	4+ person	0 vehicles	0%	0%	0.53%	1.67%
		1 vehicles	0.18%	0.14%	2.80%	1.67%
		2 vehicles	11.37%	4.18%	14.76%	1.67%
		3 vehicles	7.59%	3.60%	7.84%	1.67%
		4+ vehicles	11.72%	4.58%	5.90%	1.67%
Kendall	1 person	0 vehicles	0.52%	0.87%	0.67%	4.66%
		1 vehicles	9.48%	4.01%	11.61%	4.66%
		2 vehicles	2.16%	1.76%	3.10%	4.66%
		3 vehicles	0%	0%	0.34%	4.66%
		4+ vehicles	0%	0%	0.24%	4.66%
	2 person	0 vehicles	0%	0%	0.52%	4.66%
		1 vehicles	5.09%	3.13%	4.62%	4.66%
		2 vehicles	11.49%	3.95%	22.04%	4.64%
		3 vehicles	4.30%	3.52%	3.11%	4.66%
		4+ vehicles	1.22%	1.17%	0.94%	4.66%
	3 person	0 vehicles	0%	0%	0.17%	4.66%
		1 vehicles	2.54%	2.75%	3.18%	4.66%
		2 vehicles	12.01%	4.71%	8.60%	4.66%
		3 vehicles	3.75%	2.22%	3.86%	4.66%
		4+ vehicles	0.21%	0.25%	1.38%	4.66%
	4+ person	0 vehicles	0%	0%	0.44%	4.66%
		1 vehicles	1.88%	1.99%	1.79%	4.66%
		2 vehicles	25.72%	6.72%	17.99%	4.65%
		3 vehicles	11.49%	4.28%	9.87%	4.66%

home_county_acs	Household Size	hhveh_agg2_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
		4+ vehicles	8.13%	4.76%	5.52%	4.66%
Lake	1 person	0 vehicles	4.35%	2.33%	3.06%	1.13%
		1 vehicles	15.54%	2.22%	16.11%	1.13%
		2 vehicles	2.02%	0.83%	2.51%	1.13%
		3 vehicles	0.25%	0.19%	0.43%	1.13%
		4+ vehicles	0.11%	0.18%	0.12%	1.13%
	2 person	0 vehicles	0.54%	0.86%	0.82%	1.13%
		1 vehicles	6.28%	1.76%	6.36%	1.13%
		2 vehicles	17.78%	2.91%	19.56%	1.13%
		3 vehicles	3.84%	1.30%	3.94%	1.13%
		4+ vehicles	2.28%	0.89%	0.89%	1.13%
	3 person	0 vehicles	0.36%	0.60%	0.35%	1.13%
		1 vehicles	1.86%	0.86%	2.72%	1.13%
		2 vehicles	10.52%	2.14%	7.70%	1.13%
		3 vehicles	4.04%	1.25%	5.09%	1.13%
		4+ vehicles	1.16%	0.93%	1.18%	1.13%
	4+ person	0 vehicles	0%	0%	0.46%	1.13%
		1 vehicles	1.06%	0.70%	2.65%	1.13%
		2 vehicles	14.13%	2.70%	14.53%	1.13%
		3 vehicles	7.19%	2.52%	7.13%	1.13%
		4+ vehicles	6.68%	2.55%	4.37%	1.13%
McHenry	1 person	0 vehicles	0.64%	1.07%	2.51%	1.84%
		1 vehicles	19.02%	4.65%	14.56%	1.84%
		2 vehicles	5.21%	3.72%	2.65%	1.84%
		3 vehicles	1.26%	1.16%	0.39%	1.84%
		4+ vehicles	0%	0%	0.15%	1.84%
	2 person	0 vehicles	0%	0%	0.55%	1.84%
		1 vehicles	7.62%	3.59%	6.08%	1.84%
		2 vehicles	21.99%	5.22%	21.71%	1.83%
		3 vehicles	6.32%	2.55%	4.86%	1.84%
		4+ vehicles	2.82%	2.79%	1.21%	1.84%
	3 person	0 vehicles	0%	0%	0.20%	1.84%
		1 vehicles	3.82%	2.97%	1.83%	1.84%
		2 vehicles	4.64%	2.47%	7.17%	1.84%
		3 vehicles	4.09%	1.71%	6.49%	1.84%
		4+ vehicles	0.54%	0.53%	1.66%	1.84%
	4+ person	0 vehicles	0.37%	0.61%	0.37%	1.84%
		1 vehicles	0.29%	0.35%	1.53%	1.84%
		2 vehicles	8.50%	3.24%	13.78%	1.84%
		3 vehicles	5.18%	2.90%	7.56%	1.84%

home_county_acs	Household Size	hhveh_agg2_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
		4+ vehicles	7.68%	5.76%	4.71%	1.84%
Will	1 person	0 vehicles	3.07%	1.81%	2.40%	1.21%
		1 vehicles	14.86%	2.79%	14.52%	1.20%
		2 vehicles	2.21%	1.21%	3.10%	1.21%
		3 vehicles	0.45%	0.75%	0.49%	1.21%
		4+ vehicles	0.05%	0.08%	0.19%	1.21%
	2 person	0 vehicles	0.45%	0.75%	0.61%	1.21%
		1 vehicles	4.97%	1.41%	6.14%	1.21%
		2 vehicles	19.41%	3.31%	18.48%	1.20%
		3 vehicles	3.14%	0.87%	3.89%	1.21%
		4+ vehicles	1.89%	1.18%	0.83%	1.21%
	3 person	0 vehicles	0%	0%	0.25%	1.21%
		1 vehicles	1.30%	0.82%	2.36%	1.21%
		2 vehicles	8.73%	1.99%	7.29%	1.21%
		3 vehicles	6.10%	2.12%	5.77%	1.21%
		4+ vehicles	0.97%	0.83%	1.42%	1.21%
	4+ person	0 vehicles	0%	0%	0.41%	1.21%
		1 vehicles	0.21%	0.12%	2.32%	1.21%
		2 vehicles	12.96%	2.82%	15.33%	1.20%
		3 vehicles	11.33%	2.73%	8.28%	1.21%
		4+ vehicles	7.90%	2.45%	5.93%	1.21%

**Table 15. Household Income by County (ACS)**

home_county_acs	hhinc_binned	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Cook	Less than \$15,000	12.38%	1.29%	12.71%	0.46%
	\$15,000 to \$24,999	8.45%	1.07%	9.70%	0.46%
	\$25,000 to \$29,999	5.40%	0.89%	4.42%	0.46%
	\$30,000 to \$34,999	5.20%	0.80%	4.47%	0.46%
	\$35,000 to \$49,999	11.41%	1.22%	11.90%	0.46%
	\$50,000 to \$59,999	7.70%	0.96%	7.14%	0.46%
	\$60,000 to \$74,999	9.49%	1.21%	9.31%	0.46%
	\$75,000 to \$99,999	11.78%	1.20%	11.99%	0.46%
	\$100,000 to \$149,999	15.19%	1.33%	14.24%	0.46%
	\$150,000 or more	13.01%	1.25%	14.12%	0.46%
DeKalb	Less than \$15,000	30.73%	11.07%	13.07%	3.25%
	\$15,000 to \$24,999	11.23%	6.15%	9.08%	3.25%
	\$25,000 to \$29,999	4.51%	4.97%	4.01%	3.25%
	\$30,000 to \$34,999	3.68%	2.45%	4.65%	3.25%
	\$35,000 to \$49,999	6.17%	5.33%	12.33%	3.25%
	\$50,000 to \$59,999	5.76%	4.15%	8.19%	3.25%
	\$60,000 to \$74,999	8.37%	7.03%	11.31%	3.25%
	\$75,000 to \$99,999	9.26%	5.29%	13.25%	3.25%
	\$100,000 to \$149,999	12.96%	5.64%	15.90%	3.25%
	\$150,000 or more	7.32%	5.57%	8.21%	3.25%
DuPage	Less than \$15,000	6.47%	1.78%	5.87%	0.99%
	\$15,000 to \$24,999	3.61%	1.11%	5.80%	0.99%
	\$25,000 to \$29,999	3.56%	1.29%	3.02%	0.99%
	\$30,000 to \$34,999	3.63%	1.20%	3.49%	0.99%
	\$35,000 to \$49,999	8.21%	1.47%	10.39%	0.99%
	\$50,000 to \$59,999	9.90%	2.24%	6.64%	0.99%
	\$60,000 to \$74,999	9.16%	1.66%	9.26%	0.99%
	\$75,000 to \$99,999	14.70%	2.39%	13.73%	0.99%
	\$100,000 to \$149,999	22.52%	2.47%	19.37%	0.99%
	\$150,000 or more	18.24%	2.41%	22.43%	0.99%
Grundy	Less than \$15,000	0%	0%	8.99%	4.39%
	\$15,000 to \$24,999	15.76%	11.74%	6.78%	4.39%
	\$25,000 to \$29,999	0%	0%	2.91%	4.39%
	\$30,000 to \$34,999	3.36%	4.89%	4.07%	4.39%
	\$35,000 to \$49,999	10.19%	15.64%	11.24%	4.38%
	\$50,000 to \$59,999	16.08%	12.91%	8.70%	4.39%
	\$60,000 to \$74,999	16.03%	14.47%	9.50%	4.39%
	\$75,000 to \$99,999	18.59%	14.18%	15.73%	4.38%
	\$100,000 to \$149,999	16.24%	10.08%	18.99%	4.37%
	\$150,000 or more	3.75%	3.01%	13.09%	4.38%

home_county_acs	hhinc_binned	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Kane	Less than \$15,000	7.72%	3.86%	6.89%	1.76%
	\$15,000 to \$24,999	6.07%	3.45%	7.20%	1.76%
	\$25,000 to \$29,999	2.69%	1.91%	3.51%	1.77%
	\$30,000 to \$34,999	4.34%	2.62%	3.45%	1.77%
	\$35,000 to \$49,999	6.86%	2.32%	11.42%	1.76%
	\$50,000 to \$59,999	11.56%	4.07%	7.51%	1.76%
	\$60,000 to \$74,999	9.95%	2.80%	10.10%	1.76%
	\$75,000 to \$99,999	12.76%	3.94%	13.70%	1.76%
	\$100,000 to \$149,999	20.71%	5.75%	18.95%	1.76%
	\$150,000 or more	17.34%	4.59%	17.26%	1.76%
Kendall	Less than \$15,000	1.74%	1.47%	4.11%	4.83%
	\$15,000 to \$24,999	3.74%	2.86%	3.57%	4.83%
	\$25,000 to \$29,999	0.98%	0.84%	2.48%	4.83%
	\$30,000 to \$34,999	3.07%	2.85%	3.14%	4.83%
	\$35,000 to \$49,999	7.15%	3.09%	9.73%	4.83%
	\$50,000 to \$59,999	9.26%	4.30%	7.83%	4.83%
	\$60,000 to \$74,999	8.28%	3.68%	9.44%	4.83%
	\$75,000 to \$99,999	16.62%	5.48%	17.29%	4.82%
	\$100,000 to \$149,999	34.79%	7.53%	24.12%	4.80%
	\$150,000 or more	14.39%	5.30%	18.29%	4.82%
Lake	Less than \$15,000	7.36%	2.34%	6.61%	1.22%
	\$15,000 to \$24,999	6.46%	2.10%	6.51%	1.22%
	\$25,000 to \$29,999	3.49%	1.84%	3.24%	1.22%
	\$30,000 to \$34,999	3.13%	1.18%	3.36%	1.22%
	\$35,000 to \$49,999	8.07%	1.91%	10.51%	1.22%
	\$50,000 to \$59,999	7.50%	2.11%	6.15%	1.22%
	\$60,000 to \$74,999	8.40%	2.05%	9.55%	1.22%
	\$75,000 to \$99,999	12.48%	2.01%	12.32%	1.22%
	\$100,000 to \$149,999	22.17%	2.91%	17.34%	1.22%
	\$150,000 or more	20.94%	3.09%	24.39%	1.21%
McHenry	Less than \$15,000	3.53%	2.04%	5.23%	1.91%
	\$15,000 to \$24,999	5.98%	3.27%	5.82%	1.91%
	\$25,000 to \$29,999	2.21%	1.91%	3.30%	1.91%
	\$30,000 to \$34,999	2.99%	2.58%	3.63%	1.91%
	\$35,000 to \$49,999	16.14%	5.81%	10.15%	1.91%
	\$50,000 to \$59,999	8.72%	2.83%	7.58%	1.91%
	\$60,000 to \$74,999	13.61%	4.87%	10.15%	1.91%
	\$75,000 to \$99,999	18.37%	5.01%	15.41%	1.91%
	\$100,000 to \$149,999	18.24%	4.51%	20.78%	1.91%
	\$150,000 or more	10.22%	3.39%	17.95%	1.91%
Will	Less than \$15,000	4.42%	1.94%	5.80%	1.26%

home_county_acs	hhinc_binned	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
	\$15,000 to \$24,999	6.16%	2.26%	6.59%	1.26%
	\$25,000 to \$29,999	2.18%	1.37%	3.22%	1.26%
	\$30,000 to \$34,999	6.40%	2.14%	3.40%	1.26%
	\$35,000 to \$49,999	9.26%	2.63%	10.38%	1.26%
	\$50,000 to \$59,999	8.36%	2.46%	7.11%	1.26%
	\$60,000 to \$74,999	10.02%	2.36%	10.16%	1.26%
	\$75,000 to \$99,999	14.47%	2.53%	14.40%	1.26%
	\$100,000 to \$149,999	25.51%	3.55%	20.70%	1.26%
	\$150,000 or more	13.22%	2.57%	18.24%	1.26%

Table 16 shows the distribution of ages reported in the survey compared with ACS counts in five-year bins. For this survey, respondents could refuse to answer the age questions. If they did, a follow-up question was presented asking the respondent to choose a bin to allow the survey to route them through questions about driving age, work, and student status properly. The data in this table does not include an attempt to assign ages to the small percentage of respondents who refused to answer this question (0.21 percent of all asked refused).

**Table 16. Person Age Range by County (ACS)**

home_county_acs	age_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Cook	Under 5 years	6.46%	0.85%	6.31%	0.42%
	5 to 9 years	5.62%	0.62%	6.11%	0.42%
	10 to 14 years	6.91%	1.04%	6.21%	0.42%
	15 to 19 years	6.92%	0.90%	6.21%	0.42%
	20 to 24 years	7.97%	0.93%	6.81%	0.42%
	25 to 29 years	6.94%	0.61%	8.31%	0.42%
	30 to 34 years	7.29%	0.64%	8.01%	0.42%
	35 to 39 years	8.23%	0.76%	7.01%	0.42%
	40 to 44 years	5.25%	0.59%	6.51%	0.42%
	45 to 49 years	4.97%	0.57%	6.41%	0.42%
	50 to 54 years	6.66%	0.75%	6.51%	0.42%
	55 to 59 years	7.06%	0.80%	6.41%	0.42%
	60 to 64 years	6.25%	0.82%	5.71%	0.42%
	65 to 69 years	6.31%	0.72%	4.40%	0.42%
	70 to 74 years	3.20%	0.54%	3.20%	0.42%
	75 to 79 years	2.14%	0.51%	2.30%	0.42%
	80 to 84 years	0.79%	0.31%	1.80%	0.42%
	85 years and over	1.03%	0.34%	1.80%	0.42%
DeKalb	Under 5 years	8.33%	5.65%	5.90%	1.27%
	5 to 9 years	6.44%	4.43%	5.80%	1.27%

home_county_acs	age_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
	10 to 14 years	4.89%	4.94%	6.40%	1.27%
	15 to 19 years	7.30%	5.36%	9.20%	1.27%
	20 to 24 years	13.97%	6.62%	14.00%	1.27%
	25 to 29 years	10.71%	4.60%	7.80%	1.27%
	30 to 34 years	4.41%	2.44%	6.20%	1.27%
	35 to 39 years	5.79%	4.23%	5.20%	1.27%
	40 to 44 years	6.12%	3.26%	5.90%	1.27%
	45 to 49 years	7.08%	5.41%	5.60%	1.27%
	50 to 54 years	4.12%	2.15%	5.90%	1.27%
	55 to 59 years	5.27%	3.58%	6.00%	1.27%
	60 to 64 years	5.55%	2.80%	4.60%	1.27%
	65 to 69 years	5.73%	3.13%	3.70%	1.27%
	70 to 74 years	2.23%	1.65%	2.80%	1.27%
	75 to 79 years	1.75%	1.72%	1.80%	1.27%
	80 to 84 years	0.30%	0.51%	1.50%	1.27%
	85 years and over	0%	0%	1.70%	1.27%
DuPage	Under 5 years	6.35%	1.24%	5.90%	0.42%
	5 to 9 years	6.04%	1.28%	6.40%	0.42%
	10 to 14 years	7.10%	1.41%	6.70%	0.42%
	15 to 19 years	6.94%	1.51%	6.80%	0.42%
	20 to 24 years	6.12%	1.20%	6.30%	0.42%
	25 to 29 years	5.17%	1.11%	6.20%	0.42%
	30 to 34 years	6.67%	1.06%	6.50%	0.42%
	35 to 39 years	6.02%	1.27%	6.40%	0.42%
	40 to 44 years	6.62%	1.44%	6.50%	0.42%
	45 to 49 years	6.71%	1.50%	7.00%	0.42%
	50 to 54 years	6.72%	1.26%	7.60%	0.42%
	55 to 59 years	8.38%	1.31%	7.40%	0.42%
	60 to 64 years	7.41%	1.10%	6.30%	0.42%
	65 to 69 years	6.13%	1.00%	4.80%	0.42%
	70 to 74 years	4.42%	0.95%	3.40%	0.42%
	75 to 79 years	1.88%	0.61%	2.20%	0.42%
	80 to 84 years	0.86%	0.37%	1.70%	0.42%
	85 years and over	0.46%	0.35%	1.90%	0.42%
Grundy	Under 5 years	9.36%	9.97%	6.29%	1.74%
	5 to 9 years	9.35%	4.42%	7.19%	1.74%
	10 to 14 years	6.71%	5.21%	7.58%	1.74%
	15 to 19 years	4.74%	3.77%	7.09%	1.74%
	20 to 24 years	6.16%	4.84%	5.79%	1.74%
	25 to 29 years	3.17%	2.85%	5.69%	1.74%
	30 to 34 years	7.95%	6.08%	6.79%	1.74%

home_county_acs	age_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
	35 to 39 years	2.81%	2.27%	6.79%	1.74%
	40 to 44 years	10.92%	8.44%	7.29%	1.74%
	45 to 49 years	5.09%	3.90%	7.09%	1.74%
	50 to 54 years	10.05%	5.98%	7.19%	1.74%
	55 to 59 years	3.86%	3.30%	7.19%	1.74%
	60 to 64 years	1.95%	2.13%	4.99%	1.74%
	65 to 69 years	5.65%	5.32%	4.49%	1.74%
	70 to 74 years	8.65%	7.00%	3.29%	1.74%
	75 to 79 years	0.98%	1.69%	2.30%	1.74%
	80 to 84 years	2.59%	3.31%	1.40%	1.74%
	85 years and over	0%	0%	1.60%	1.74%
Kane	Under 5 years	6.52%	2.45%	6.61%	0.65%
	5 to 9 years	6.98%	2.50%	7.41%	0.65%
	10 to 14 years	7.07%	2.47%	7.91%	0.65%
	15 to 19 years	7.22%	2.21%	7.41%	0.65%
	20 to 24 years	5.59%	1.76%	6.31%	0.65%
	25 to 29 years	6.31%	1.75%	5.81%	0.65%
	30 to 34 years	7.30%	2.62%	6.41%	0.65%
	35 to 39 years	4.59%	1.74%	6.61%	0.65%
	40 to 44 years	6.23%	1.98%	7.11%	0.65%
	45 to 49 years	5.07%	1.72%	7.21%	0.65%
	50 to 54 years	6.67%	2.10%	7.11%	0.65%
	55 to 59 years	7.82%	2.53%	6.41%	0.65%
	60 to 64 years	9.68%	2.71%	5.51%	0.65%
	65 to 69 years	4.98%	1.44%	4.20%	0.65%
	70 to 74 years	5.28%	1.88%	3.10%	0.65%
	75 to 79 years	1.72%	0.87%	2.00%	0.65%
	80 to 84 years	0.40%	0.34%	1.40%	0.65%
	85 years and over	0.59%	0.48%	1.50%	0.65%
Kendall	Under 5 years	6.14%	1.76%	7.30%	1.74%
	5 to 9 years	7.42%	2.28%	9.00%	1.74%
	10 to 14 years	12.76%	2.96%	8.30%	1.74%
	15 to 19 years	11.82%	2.76%	7.20%	1.74%
	20 to 24 years	6.45%	3.16%	5.40%	1.74%
	25 to 29 years	2.23%	1.15%	5.50%	1.74%
	30 to 34 years	5.94%	2.55%	8.00%	1.74%
	35 to 39 years	8.83%	2.70%	8.80%	1.74%
	40 to 44 years	7.66%	2.47%	7.70%	1.74%
	45 to 49 years	10.19%	2.82%	7.60%	1.74%
	50 to 54 years	5.93%	1.87%	6.30%	1.74%
	55 to 59 years	3.58%	1.90%	5.60%	1.74%

home_county_acs	age_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
home_county_acs	60 to 64 years	3.81%	1.59%	4.00%	1.74%
	65 to 69 years	3.07%	1.63%	3.40%	1.74%
	70 to 74 years	2.49%	1.17%	2.70%	1.74%
	75 to 79 years	1.23%	0.69%	1.80%	1.74%
	80 to 84 years	0.35%	0.45%	0.50%	1.74%
	85 years and over	0.12%	0.20%	0.90%	1.74%
Lake	Under 5 years	6.19%	1.19%	5.89%	0.55%
	5 to 9 years	6.81%	1.38%	6.89%	0.55%
	10 to 14 years	7.88%	1.32%	7.49%	0.55%
	15 to 19 years	8.28%	1.90%	7.89%	0.55%
	20 to 24 years	5.21%	1.39%	7.09%	0.55%
	25 to 29 years	4.32%	1.02%	5.39%	0.55%
	30 to 34 years	5.78%	1.48%	5.69%	0.55%
	35 to 39 years	6.33%	1.27%	6.09%	0.55%
	40 to 44 years	6.94%	1.56%	6.69%	0.55%
	45 to 49 years	7.04%	1.61%	7.29%	0.55%
	50 to 54 years	7.47%	1.42%	7.79%	0.55%
	55 to 59 years	7.01%	1.78%	7.09%	0.55%
	60 to 64 years	7.21%	1.33%	5.99%	0.55%
	65 to 69 years	7.46%	1.44%	4.40%	0.55%
	70 to 74 years	3.35%	0.76%	3.10%	0.55%
	75 to 79 years	1.84%	0.61%	2.10%	0.55%
	80 to 84 years	0.58%	0.41%	1.40%	0.55%
	85 years and over	0.29%	0.19%	1.70%	0.55%
McHenry	Under 5 years	3.63%	1.70%	5.61%	0.78%
	5 to 9 years	5.76%	1.90%	6.71%	0.78%
	10 to 14 years	5.71%	1.94%	7.51%	0.78%
	15 to 19 years	8.79%	5.35%	7.31%	0.78%
	20 to 24 years	7.40%	2.93%	6.11%	0.78%
	25 to 29 years	5.88%	2.50%	5.21%	0.78%
	30 to 34 years	7.09%	2.17%	5.71%	0.78%
	35 to 39 years	7.10%	2.25%	6.01%	0.78%
	40 to 44 years	7.18%	2.11%	7.01%	0.78%
	45 to 49 years	2.96%	1.50%	7.91%	0.78%
	50 to 54 years	7.07%	2.43%	8.41%	0.78%
	55 to 59 years	8.22%	2.93%	7.51%	0.78%
	60 to 64 years	9.34%	2.52%	6.21%	0.78%
	65 to 69 years	6.37%	2.31%	4.80%	0.78%
	70 to 74 years	2.57%	1.28%	3.20%	0.78%
	75 to 79 years	2.86%	1.35%	2.10%	0.78%
	80 to 84 years	1.68%	1.23%	1.20%	0.78%

		CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
home_county_acs	age_acs				
	85 years and over	0.40%	0.52%	1.50%	0.78%
Will	Under 5 years	6.13%	1.20%	6.00%	0.55%
	5 to 9 years	5.56%	1.33%	7.20%	0.55%
	10 to 14 years	9.84%	1.91%	8.00%	0.55%
	15 to 19 years	9.83%	1.63%	7.60%	0.55%
	20 to 24 years	6.93%	1.64%	6.40%	0.55%
	25 to 29 years	3.76%	1.02%	5.50%	0.55%
	30 to 34 years	4.88%	1.11%	6.10%	0.55%
	35 to 39 years	5.45%	1.06%	6.70%	0.55%
	40 to 44 years	6.34%	1.06%	7.50%	0.55%
	45 to 49 years	7.57%	1.37%	7.80%	0.55%
	50 to 54 years	7.70%	1.47%	7.60%	0.55%
	55 to 59 years	7.63%	1.54%	6.50%	0.55%
	60 to 64 years	6.61%	1.43%	5.30%	0.55%
	65 to 69 years	6.34%	1.52%	4.20%	0.55%
	70 to 74 years	2.90%	0.95%	3.00%	0.55%
	75 to 79 years	1.29%	0.52%	1.90%	0.55%
	80 to 84 years	0.78%	0.47%	1.40%	0.55%
	85 years and over	0.46%	0.35%	1.30%	0.55%

**Table 17. Person Race by County (ACS)**

home_county_acs	race_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Cook	White	62.39%	2.60%	56.63%	0.24%
	Black or African American	21.97%	2.46%	23.71%	0.26%
	American Indian, Alaskan Native	0.65%	0.27%	0.27%	0.26%
	Asian	5.57%	0.99%	6.99%	0.26%
	Native Hawaiian or Pacific Islander	0.19%	0.20%	0.03%	0.26%
	Some other race	2.74%	0.80%	9.87%	0.26%
	Multiracial	6.49%	1.12%	2.49%	0.26%
DeKalb	White	75.49%	10.25%	84.27%	0.92%
	Black or African American	10.76%	4.36%	7.43%	1.11%
	American Indian, Alaskan Native	0.19%	0.19%	0.06%	1.11%
	Asian	6.06%	5.37%	2.41%	1.11%
	Native Hawaiian or Pacific Islander	0%	0%	0%	1.11%
	Some other race	1.83%	2.30%	3.31%	1.11%
	Multiracial	5.66%	6.89%	2.51%	1.11%
DuPage	White	84.95%	3.35%	78.29%	0.34%
	Black or African American	2.01%	0.89%	4.67%	0.38%
	American Indian, Alaskan Native	0.18%	0.12%	0.20%	0.38%
	Asian	7.72%	2.76%	11.35%	0.38%
	Native Hawaiian or Pacific Islander	0.13%	0.10%	0.03%	0.38%
	Some other race	0.77%	0.53%	2.87%	0.38%
	Multiracial	4.24%	1.78%	2.60%	0.38%
Grundy	White	98.46%	1.64%	94.06%	1.07%
	Black or African American	0%	0%	1.51%	1.36%
	American Indian, Alaskan Native	0%	0%	0.08%	1.36%
	Asian	0%	0%	0.77%	1.36%
	Native Hawaiian or Pacific Islander	0%	0%	0.03%	1.36%
	Some other race	0.87%	1.04%	2.11%	1.36%
	Multiracial	0.67%	1.17%	1.45%	1.36%
Kane	White	86.68%	4.67%	72.11%	0.84%
	Black or African American	2.92%	1.50%	5.62%	0.95%
	American Indian, Alaskan Native	0.23%	0.27%	0.42%	0.95%
	Asian	3.26%	2.52%	3.93%	0.95%

home_county_acs	race_acs	CMAP Estimate	CMAP MOE (90%)	ACS Estimate	ACS MOE (90%)
Kendall	Native Hawaiian or Pacific Islander	0.14%	0.13%	0.03%	0.95%
	Some other race	0.94%	0.68%	15.46%	0.94%
	Multiracial	5.83%	3.16%	2.43%	0.95%
	White	87.21%	6.89%	82.55%	1.60%
	Black or African American	4.81%	4.57%	6.77%	1.87%
	American Indian, Alaskan Native	0.04%	0.05%	0.12%	1.87%
	Asian	1.63%	1.55%	3.24%	1.87%
Lake	Native Hawaiian or Pacific Islander	0.01%	0.02%	0%	1.87%
	Some other race	0.78%	0.82%	4.78%	1.87%
	Multiracial	5.52%	4.64%	2.54%	1.87%
	White	78.24%	4.66%	78.37%	0.47%
	Black or African American	6.04%	1.98%	6.81%	0.54%
	American Indian, Alaskan Native	0.55%	0.65%	0.19%	0.54%
	Asian	5.58%	2.64%	7.16%	0.54%
McHenry	Native Hawaiian or Pacific Islander	0.14%	0.16%	0.06%	0.54%
	Some other race	1.35%	0.65%	4.68%	0.54%
	Multiracial	8.10%	4.15%	2.73%	0.54%
	White	94.40%	2.51%	92.39%	0.48%
	Black or African American	0.57%	0.53%	1.33%	0.56%
	American Indian, Alaskan Native	0.73%	0.78%	0.09%	0.56%
	Asian	0.95%	0.89%	2.69%	0.56%
Will	Native Hawaiian or Pacific Islander	0%	0%	0.03%	0.56%
	Some other race	0.24%	0.30%	1.56%	0.56%
	Multiracial	3.12%	1.93%	1.90%	0.56%
	White	78.34%	4.56%	73.59%	0.54%
	Black or African American	7.89%	2.79%	11.23%	0.61%
	American Indian, Alaskan Native	0.15%	0.14%	0.18%	0.61%
	Asian	5.86%	2.91%	5.24%	0.61%

## Household Tables

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Tables in this section (Table 18 through Table 27) show household level characteristics in total or by county of residence. Table 18 shows the distribution of households by day of week as well as the distribution when weights are applied to represent the population of the region.

**Table 18. Distribution of Completed Households by Day Of Week**

	N	Survey	Estimate	MOE (95%)
<b>Travel day - day of week</b>				
Monday	2,540	20.50%	20.36%	0.86%
Tuesday	2,451	19.78%	19.43%	0.93%
Wednesday	2,531	20.43%	20.59%	0.99%
Thursday	2,433	19.64%	19.39%	0.96%
Friday	2,436	19.66%	20.22%	0.92%

Table 19 shows the total count of households collected by county of home residence compared to the share of households in the region when weights are applied and summed. Taken together with Table 13, it shows that the weighting has had the effect of balancing final distributions across the counties to align closely with ACS distributions.

**Table 19. Completed Households Summary by County**

	N	Survey	Estimate	MOE (95%)
<b>home_county</b>				
Cook	6,796	54.85%	61.98%	1.23%
DeKalb	168	1.36%	1.23%	0.21%
DuPage	1,750	14.12%	10.88%	0.62%
Grundy	59	0.48%	0.36%	0.10%
Kane	646	5.21%	5.81%	0.54%
Kendall	392	3.16%	2.18%	0.28%
Lake	934	7.54%	8.12%	0.57%
McHenry	322	2.60%	2.35%	0.29%
Will	1,324	10.69%	7.10%	0.54%
Total	12,391	1	1	0%

Table 20 below shows the total number of students (defined as any person for whom the question “Are you/is [FNAME] currently enrolled in any type of school, including nursery school, daycare, technical school, or university?” was answered as 1. Yes-Full Time or 2. Yes-Part Time) in households by county of home residence. Table 21 shows the count of households by county of residence, grouped by the count of licensed drivers. Licensed drivers are counted for anyone in a

household 16 or older who answered 'Yes' to the question 'Do you/does [FNAME] have a valid driver's license?'

**Table 20. Number of Household Students by County of Home Residence**

home_county	hhstudent_agg	N	Survey	Estimate	MOE (95%)
Cook	0	4,324	63.63%	59.73%	1.66%
	1	1,424	20.95%	20.54%	1.49%
	2	721	10.61%	11.99%	1.10%
	3+	327	4.81%	7.74%	1.07%
DeKalb	0	73	43.45%	44.55%	8.46%
	1	53	31.55%	29.92%	6.73%
	2	30	17.86%	17.34%	6.53%
	3+	12	7.14%	8.19%	6.23%
DuPage	0	1,046	59.77%	60.23%	2.98%
	1	340	19.43%	19.23%	2.53%
	2	260	14.86%	13.54%	1.76%
	3+	104	5.94%	7.00%	1.70%
Grundy	0	35	59.32%	63.88%	13.77%
	1	11	18.64%	19.43%	11.60%
	2	8	13.56%	9.58%	7.01%
	3+	5	8.47%	7.11%	6.30%
Kane	0	382	59.13%	55.28%	4.24%
	1	129	19.97%	20.80%	3.86%
	2	95	14.71%	14.84%	3.55%
	3+	40	6.19%	9.08%	3.34%
Kendall	0	132	33.67%	38.59%	6.75%
	1	87	22.19%	20.77%	4.59%
	2	110	28.06%	23.99%	4.00%
	3+	63	16.07%	16.65%	4.64%
Lake	0	556	59.53%	54.69%	3.50%
	1	177	18.95%	20.48%	3.19%
	2	132	14.13%	15.03%	2.60%
	3+	69	7.39%	9.80%	2.45%
McHenry	0	206	63.98%	65.32%	6.52%
	1	57	17.70%	16.11%	4.77%
	2	42	13.04%	12.25%	5.09%
	3+	17	5.28%	6.32%	3.66%
Will	0	531	40.11%	52.74%	3.65%
	1	275	20.77%	19.57%	2.83%
	2	351	26.51%	18.08%	2.65%
	3+	167	12.61%	9.61%	1.80%
Total	0	7,285	58.79%	58.12%	1.16%
	1	2,553	20.60%	20.35%	1.11%

home_county	hhstudent_agg	N	Survey	Estimate	MOE (95%)
	2	1,749	14.12%	13.33%	0.81%
	3+	804	6.49%	8.20%	0.78%

**Table 21. Number of Licensed Drivers in Household by County**

home_county	hhdriver_agg	N	Survey	Estimate	MOE (95%)
Cook	0	554	8.15%	8.15%	0.86%
	1	2,598	38.23%	36.52%	1.46%
	2	3,065	45.10%	41.40%	1.48%
	3	431	6.34%	9.89%	1.17%
	4+	148	2.18%	4.04%	0.83%
DeKalb	0	14	8.33%	8.34%	4.68%
	1	57	33.93%	36.74%	8.76%
	2	79	47.02%	43.32%	9.22%
	3	12	7.14%	7.47%	5.13%
	4+	6	3.57%	4.13%	3.52%
DuPage	0	10	0.57%	1.27%	0.79%
	1	422	24.11%	27.99%	2.63%
	2	1,043	59.60%	51.48%	3.08%
	3	186	10.63%	12.33%	2.18%
	4+	89	5.09%	6.93%	1.78%
Grundy	0	0	0%	0%	0%
	1	12	20.34%	28.50%	14.69%
	2	34	57.63%	46.64%	13.37%
	3	7	11.86%	11.65%	9.57%
	4+	6	10.17%	13.21%	10.84%
Kane	0	10	1.55%	3.56%	2.89%
	1	142	21.98%	23.64%	4.19%
	2	399	61.76%	50.54%	5.36%
	3	56	8.67%	11.31%	3.13%
	4+	39	6.04%	10.95%	3.56%
Kendall	0	1	0.26%	0.57%	1.13%
	1	56	14.29%	18.28%	4.81%
	2	254	64.80%	56.32%	5.76%
	3	57	14.54%	16.90%	4.35%
	4+	24	6.12%	7.92%	3.34%
Lake	0	16	1.71%	2.74%	1.53%
	1	247	26.45%	25.79%	3.37%
	2	526	56.32%	52.93%	3.38%
	3	99	10.60%	11.33%	2.67%
	4+	46	4.93%	7.21%	2.11%
McHenry	0	1	0.31%	0.40%	0.80%
	1	80	24.84%	29.90%	6.44%

home_county	hhdriver_agg	N	Survey	Estimate	MOE (95%)
	2	199	61.80%	52.70%	6.94%
	3	28	8.70%	10.13%	3.82%
	4+	14	4.35%	6.88%	3.97%
Will	0	6	0.45%	0.89%	1.01%
	1	224	16.92%	24.39%	3.31%
	2	787	59.44%	51.14%	3.67%
	3	195	14.73%	14.00%	2.88%
	4+	112	8.46%	9.58%	2.56%
Total	0	612	4.94%	5.81%	0.62%
	1	3,838	30.97%	32.53%	1.10%
	2	6,386	51.54%	45.29%	1.14%
	3	1,071	8.64%	10.78%	0.86%
	4+	484	3.91%	5.59%	0.64%

Table 22 through Table 24 are two-way tables showing the number of households in each county of residence along with another variable. Table 22 shows the count of households by the number of children (defined as all enumerated household members younger than 18 years of age). Table 23 shows the count of enumerated vehicles available for use by the household by county of residence. Table 24 shows the total count of workers enumerated in the household (defined as any household member who reported having one or more jobs). Workers in this table are not differentiated according to part-time or full-time status.

Table 25 through Table 27 are three-way tables crossing combinations of two of reported *household workers*, enumerated *household vehicles*, and *household size* with the county of residence. These tables show the number of households represented in rare or small cells. In general, any analysis of characteristics based on a small number of observations should be avoided or undertaken with caution.

**Table 22. Number of Children in Household by County**

home_county	hhchildren_agg	N	Survey	Estimate	MOE (95%)
Cook	0	5,098	75.01%	70.05%	1.63%
	1	764	11.24%	12.86%	1.38%
	2	670	9.86%	10.70%	1.09%
	3	193	2.84%	4.57%	0.82%
	4+	71	1.04%	1.82%	0.56%
DeKalb	0	124	73.81%	74.93%	6.72%
	1	14	8.33%	8.51%	4.32%
	2	21	12.50%	11.30%	5.51%

home_county	hhchildren_agg	N	Survey	Estimate	MOE (95%)
	3	7	4.17%	3.75%	3.12%
	4+	2	1.19%	1.51%	2.38%
DuPage	0	1,136	64.91%	67.82%	2.50%
	1	243	13.89%	13.11%	2.07%
	2	257	14.69%	12.45%	1.65%
	3	91	5.20%	5.11%	1.13%
	4+	23	1.31%	1.51%	0.91%
Grundy	0	40	67.80%	76.31%	10.08%
	1	6	10.17%	9.58%	7.87%
	2	9	15.25%	7.80%	5.35%
	3	3	5.08%	3.79%	4.05%
	4+	1	1.69%	2.52%	5.01%
Kane	0	413	63.93%	60.43%	4.73%
	1	92	14.24%	16.13%	3.62%
	2	105	16.25%	14.94%	3.52%
	3	25	3.87%	5.69%	2.61%
	4+	11	1.70%	2.81%	2.01%
Kendall	0	137	34.95%	42.32%	6.89%
	1	90	22.96%	24.11%	4.70%
	2	102	26.02%	18.28%	3.99%
	3	46	11.73%	10.14%	3.41%
	4+	17	4.34%	5.15%	2.45%
Lake	0	628	67.24%	61.72%	3.46%
	1	123	13.17%	15.69%	2.74%
	2	132	14.13%	15.64%	2.85%
	3	39	4.18%	5.24%	1.74%
	4+	12	1.28%	1.71%	1.01%
McHenry	0	228	70.81%	72.00%	5.88%
	1	31	9.63%	10.00%	3.84%
	2	45	13.98%	12.52%	4.59%
	3	14	4.35%	4.54%	2.91%
	4+	4	1.24%	0.94%	0.95%
Will	0	560	42.30%	59.30%	3.34%
	1	265	20.02%	15.64%	2.49%
	2	352	26.59%	16.88%	2.16%
	3	118	8.91%	6.36%	1.66%
	4+	29	2.19%	1.82%	0.83%
Total	0	8,364	67.50%	67.33%	1.18%
	1	1,628	13.14%	13.62%	1.03%
	2	1,693	13.66%	12.18%	0.75%
	3	536	4.33%	4.98%	0.59%

home_county	hhchildren_agg	N	Survey	Estimate	MOE (95%)
	4+	170	1.37%	1.88%	0.38%

Table 23. Number of Household Vehicles by County

home_county	hhveh_agg2	N	Survey	Estimate	MOE (95%)
Cook	0	1,651	24.29%	17.59%	1.26%
	1	2,968	43.67%	41.36%	1.61%
	2	1,694	24.93%	29.77%	1.55%
	3	355	5.22%	7.81%	1.06%
	4+	128	1.88%	3.47%	0.77%
DeKalb	0	19	11.31%	13.68%	6.27%
	1	57	33.93%	36.26%	8.27%
	2	58	34.52%	30.51%	8.12%
	3	21	12.50%	12.85%	6.24%
	4+	13	7.74%	6.71%	3.76%
DuPage	0	14	0.80%	2.18%	1.11%
	1	439	25.09%	28.17%	2.55%
	2	943	53.89%	47.56%	2.75%
	3	251	14.34%	14.69%	1.88%
	4+	103	5.89%	7.41%	1.76%
Grundy	0	0	0%	0%	0%
	1	8	13.56%	15.77%	11.70%
	2	30	50.85%	51.46%	14.69%
	3	14	23.73%	18.62%	9.96%
	4+	7	11.86%	14.15%	10.82%
Kane	0	7	1.08%	2.70%	2.63%
	1	153	23.68%	26.89%	4.13%
	2	321	49.69%	41.40%	4.36%
	3	116	17.96%	17.88%	3.59%
	4+	49	7.59%	11.13%	3.59%
Kendall	0	1	0.26%	0.57%	1.13%
	1	61	15.56%	20.13%	4.75%
	2	230	58.67%	53.10%	5.26%
	3	76	19.39%	18.23%	4.24%
	4+	24	6.12%	7.96%	3.44%
Lake	0	21	2.25%	4.26%	1.95%
	1	245	26.23%	25.90%	3.41%
	2	456	48.82%	45.80%	3.47%
	3	143	15.31%	16.19%	2.27%
	4+	69	7.39%	7.85%	2.22%
McHenry	0	2	0.62%	0.89%	1.23%
	1	80	24.84%	30.81%	5.86%

home_county	hhveh_agg2	N	Survey	Estimate	MOE (95%)
	2	147	45.65%	39.99%	6.42%
	3	69	21.43%	20.40%	4.68%
	4+	24	7.45%	7.90%	3.62%
Will	0	9	0.68%	1.43%	1.18%
	1	212	16.01%	23.90%	3.44%
	2	677	51.13%	43.90%	3.34%
	3	299	22.58%	20.93%	2.58%
	4+	127	9.59%	9.84%	2.34%
Total	0	1,724	13.91%	11.94%	0.85%
	1	4,223	34.08%	35.73%	1.12%
	2	4,556	36.77%	35.52%	1.16%
	3	1,344	10.85%	11.38%	0.82%
	4+	544	4.39%	5.43%	0.55%

Table 24. Number of Household Workers by County

home_county	hhworker_agg2	N	Survey	Estimate	MOE (95%)
Cook	0	845	12.43%	23.21%	1.65%
	1	3,072	45.20%	41.10%	1.73%
	2	2,572	37.85%	28.01%	1.49%
	3	258	3.80%	6.14%	0.91%
	4+	49	0.72%	1.53%	0.57%
DeKalb	0	31	18.45%	23.67%	7.17%
	1	72	42.86%	44.04%	7.91%
	2	58	34.52%	26.73%	6.84%
	3	5	2.98%	4.70%	4.09%
	4+	2	1.19%	0.86%	1.26%
DuPage	0	213	12.17%	19.80%	2.31%
	1	688	39.31%	36.08%	2.58%
	2	727	41.54%	34.26%	2.35%
	3	97	5.54%	7.66%	1.88%
	4+	25	1.43%	2.20%	0.99%
Grundy	0	7	11.86%	20.59%	14.82%
	1	16	27.12%	29.30%	12.30%
	2	29	49.15%	36.40%	11.65%
	3	4	6.78%	10.40%	10.14%
	4+	3	5.08%	3.31%	3.85%
Kane	0	78	12.07%	18.32%	4.10%
	1	245	37.93%	35.97%	4.80%
	2	274	42.41%	32.43%	4.14%
	3	37	5.73%	9.26%	3.68%
	4+	12	1.86%	4.02%	2.43%

home_county	hhworker_agg2	N	Survey	Estimate	MOE (95%)
Kendall	0	23	5.87%	12.08%	4.76%
	1	106	27.04%	27.49%	5.29%
	2	229	58.42%	47.63%	6.32%
	3	28	7.14%	10.53%	4.60%
	4+	6	1.53%	2.28%	2.07%
Lake	0	136	14.56%	19.19%	3.30%
	1	372	39.83%	35.34%	3.24%
	2	366	39.19%	35.54%	3.13%
	3	51	5.46%	7.75%	2.15%
	4+	9	0.96%	2.18%	1.58%
McHenry	0	46	14.29%	22.57%	5.95%
	1	124	38.51%	36.24%	5.39%
	2	133	41.30%	30.77%	5.23%
	3	11	3.42%	6.87%	3.96%
	4+	8	2.48%	3.55%	3.09%
Will	0	94	7.10%	18.62%	3.48%
	1	417	31.50%	33.97%	3.28%
	2	681	51.44%	35.21%	3.33%
	3	95	7.18%	8.24%	1.82%
	4+	37	2.79%	3.95%	1.67%
Total	0	1,473	11.89%	21.64%	1.09%
	1	5,112	41.26%	38.87%	1.15%
	2	5,069	40.91%	30.58%	1.04%
	3	586	4.73%	6.88%	0.66%
	4+	151	1.22%	2.04%	0.44%

Table 25. Workers by Household Size by County

home_county	hhszie_agg	hhworker_agg2	N	Survey	Estimate	MOE (95%)
Cook	1	0	529	7.78%	14.06%	1.34%
		1	1,820	26.78%	17.03%	1.05%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	243	3.58%	7.12%	1.04%
		1	663	9.76%	11.07%	1.15%
		2	1,471	21.65%	11.90%	0.79%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	3	0	39	0.57%	0.92%	0.34%
		1	282	4.15%	5.89%	0.86%
		2	463	6.81%	5.85%	0.82%
		3	143	2.10%	2.98%	0.58%

home_county	hhszie_agg	hhworker_agg2	N	Survey	Estimate	MOE (95%)
		4+	0	0%	0%	0%
4+		0	34	0.50%	1.11%	0.39%
		1	307	4.52%	7.11%	1.00%
		2	638	9.39%	10.26%	1.05%
		3	115	1.69%	3.16%	0.71%
		4+	49	0.72%	1.53%	0.57%
DeKalb	1	0	16	9.52%	10.79%	5.74%
		1	32	19.05%	16.58%	6.11%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	13	7.74%	11.52%	5.77%
		1	21	12.50%	13.25%	5.24%
		2	33	19.64%	15.04%	5.71%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
4+	3	0	0	0%	0%	0%
		1	6	3.57%	6.52%	5.06%
		2	11	6.55%	6.52%	4.91%
		3	2	1.19%	2.53%	3.50%
		4+	0	0%	0%	0%
	4+	0	2	1.19%	1.36%	2.37%
		1	13	7.74%	7.68%	4.34%
		2	14	8.33%	5.17%	3.44%
		3	3	1.79%	2.17%	2.50%
		4+	2	1.19%	0.86%	1.26%
DuPage	1	0	83	4.74%	9.51%	2.01%
		1	285	16.29%	15.07%	1.84%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	120	6.86%	9.46%	1.77%
		1	179	10.23%	8.81%	1.46%
		2	310	17.71%	13.78%	1.90%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	3	0	7	0.40%	0.55%	0.47%
		1	88	5.03%	4.76%	1.11%
		2	162	9.26%	8.04%	1.50%
		3	52	2.97%	3.94%	1.27%
		4+	0	0%	0%	0%
	4+	0	3	0.17%	0.28%	0.37%
		1	136	7.77%	7.44%	1.38%

home_county	hhszie_agg	hhworker_agg2	N	Survey	Estimate	MOE (95%)
		2	255	14.57%	12.44%	1.66%
		3	45	2.57%	3.72%	1.40%
		4+	25	1.43%	2.20%	0.99%
Grundy	1	0	2	3.39%	8.17%	11.34%
		1	6	10.17%	12.12%	9.72%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	5	8.47%	12.43%	11.27%
		1	4	6.78%	7.36%	7.37%
		2	16	27.12%	20.56%	9.85%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
Kane	3	0	0	0%	0%	0%
		1	2	3.39%	4.20%	6.42%
		2	3	5.08%	4.49%	5.17%
		3	1	1.69%	1.91%	3.80%
		4+	0	0%	0%	0%
	4+	0	0	0%	0%	0%
		1	4	6.78%	5.62%	6.05%
		2	10	16.95%	11.34%	7.26%
		3	3	5.08%	8.49%	9.57%
		4+	3	5.08%	3.31%	3.85%

home_county	hhszie_agg	hhworker_agg2	N	Survey	Estimate	MOE (95%)
Kendall	1	0	9	2.30%	5.82%	3.61%
		1	27	6.89%	7.71%	3.25%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	13	3.32%	5.71%	3.18%
		1	30	7.65%	8.08%	2.69%
		2	46	11.73%	9.55%	2.98%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
3	3	0	1	0.26%	0.56%	1.11%
		1	16	4.08%	4.67%	2.26%
		2	48	12.24%	12.29%	3.65%
		3	6	1.53%	3.08%	2.50%
		4+	0	0%	0%	0%
	4+	0	0	0%	0%	0%
		1	33	8.42%	7.02%	3.12%
		2	135	34.44%	25.79%	4.17%
		3	22	5.61%	7.44%	3.55%
		4+	6	1.53%	2.28%	2.07%
Lake	1	0	64	6.85%	10.03%	2.60%
		1	154	16.49%	11.89%	2.20%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	63	6.75%	7.64%	2.02%
		1	121	12.96%	11.35%	2.18%
		2	147	15.74%	11.02%	1.77%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
3	3	0	5	0.54%	0.93%	0.84%
		1	35	3.75%	4.12%	1.51%
		2	89	9.53%	9.90%	2.13%
		3	20	2.14%	3.17%	1.48%
		4+	0	0%	0%	0%
	4+	0	4	0.43%	0.59%	0.63%
		1	62	6.64%	7.99%	2.21%
		2	130	13.92%	14.61%	2.41%
		3	31	3.32%	4.58%	1.82%
		4+	9	0.96%	2.18%	1.58%
McHenry	1	0	22	6.83%	11.55%	5.25%
		1	44	13.66%	12.47%	3.95%
		2	0	0%	0%	0%

home_county	hhszie_agg	hhworker_agg2	N	Survey	Estimate	MOE (95%)
2	3	0	0	0%	0%	0%
	4+	0	0	0%	0%	0%
	0	22	6.83%	9.97%	4.75%	
	1	45	13.98%	12.33%	4.05%	
	2	70	21.74%	15.88%	3.80%	
	3	0	0%	0%	0%	
	4+	0	0%	0%	0%	
	0	1	0.31%	0.74%	1.45%	
	1	12	3.73%	5.15%	2.90%	
	2	23	7.14%	6.26%	2.81%	
3	3	5	1.55%	2.48%	2.18%	
	4+	0	0%	0%	0%	
	0	1	0.31%	0.31%	0.61%	
	1	23	7.14%	6.28%	2.85%	
	2	40	12.42%	8.63%	3.25%	
4+	3	6	1.86%	4.39%	3.52%	
	4+	8	2.48%	3.55%	3.09%	
	0	39	2.95%	7.45%	2.66%	
	1	117	8.84%	10.41%	2.26%	
	2	0	0%	0%	0%	
Will	3	0	0%	0%	0%	
	4+	0	0%	0%	0%	
	0	43	3.25%	8.75%	2.13%	
	1	110	8.31%	9.92%	2.08%	
	2	168	12.69%	11.59%	2.23%	
	3	0	0%	0%	0%	
	4+	0	0%	0%	0%	
	0	7	0.53%	1.51%	1.09%	
	1	71	5.36%	5.96%	1.74%	
	2	138	10.42%	8.17%	1.69%	
3	3	26	1.96%	2.65%	1.19%	
	4+	0	0%	0%	0%	
	0	5	0.38%	0.92%	0.84%	
	1	119	8.99%	7.67%	1.90%	
	2	375	28.32%	15.46%	1.61%	
4+	3	69	5.21%	5.59%	1.62%	
	4+	37	2.79%	3.95%	1.67%	
	0	789	6.37%	12.05%	0.93%	
	1	2,573	20.77%	15.31%	0.75%	
	2	0	0%	0%	0%	
Total	3	0	0%	0%	0%	
	4+	0	0%	0%	0%	
	0	567	4.58%	7.74%	0.73%	

home_county	hhszie_agg	hhworker_agg2	N	Survey	Estimate	MOE (95%)
3	1	1	1,261	10.18%	10.73%	0.80%
		2	2,387	19.26%	12.10%	0.62%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
		0	62	0.50%	0.88%	0.24%
	2	1	542	4.37%	5.55%	0.61%
		2	984	7.94%	6.77%	0.62%
		3	274	2.21%	3.14%	0.45%
		4+	0	0%	0%	0%
		0	55	0.44%	0.98%	0.27%
4+	3	1	736	5.94%	7.28%	0.69%
		2	1,698	13.70%	11.71%	0.76%
		3	312	2.52%	3.74%	0.52%
		4+	151	1.22%	2.04%	0.44%

**Table 26. Vehicles by Household Size by County**

home_county	hhszie_agg	hhveh_agg2	N	Survey	Estimate	MOE (95%)
Cook	1	0	1,010	14.86%	10.20%	1.03%
		1	1,265	18.61%	19.70%	1.21%
		2	63	0.93%	1.05%	0.39%
		3	8	0.12%	0.10%	0.09%
		4+	3	0.04%	0.04%	0.06%
	2	0	457	6.72%	4.45%	0.66%
		1	1,030	15.16%	11.51%	1.09%
		2	765	11.26%	12.08%	1.02%
		3	96	1.41%	1.52%	0.36%
		4+	29	0.43%	0.52%	0.24%
3	3	0	116	1.71%	1.45%	0.38%
		1	362	5.33%	5.15%	0.74%
		2	321	4.72%	5.91%	0.96%
		3	107	1.57%	2.48%	0.56%
		4+	21	0.31%	0.65%	0.42%
	4+	0	68	1.00%	1.49%	0.46%
		1	311	4.58%	5.00%	0.66%
		2	545	8.02%	10.73%	1.18%
		3	144	2.12%	3.69%	0.78%
		4+	75	1.10%	2.26%	0.64%
DeKalb	1	0	8	4.76%	4.76%	4.70%
		1	38	22.62%	21.41%	6.95%
		2	2	1.19%	1.19%	1.69%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	6	3.57%	5.47%	4.52%

home_county	hhszie_agg	hhveh_agg2	N	Survey	Estimate	MOE (95%)
Cook	1	1	13	7.74%	9.77%	4.77%
		2	35	20.83%	18.64%	6.23%
		3	9	5.36%	3.90%	3.00%
		4+	4	2.38%	2.04%	2.05%
		3	0	1	0.60%	1.03%
	4+	1	2	1.19%	2.73%	3.80%
		2	6	3.57%	4.16%	3.48%
		3	7	4.17%	5.67%	5.45%
		4+	3	1.79%	1.98%	2.42%
		0	4	2.38%	2.41%	2.73%
DuPage	1	1	4	2.38%	2.35%	2.36%
		2	15	8.93%	6.52%	4.02%
		3	5	2.98%	3.28%	3.22%
		4+	6	3.57%	2.69%	2.38%
		0	9	0.51%	1.42%	0.91%
	2	1	306	17.49%	19.73%	2.38%
		2	41	2.34%	2.67%	0.93%
		3	9	0.51%	0.60%	0.43%
		4+	3	0.17%	0.16%	0.18%
		0	3	0.17%	0.57%	0.65%
Kane	3	1	78	4.46%	5.48%	1.37%
		2	446	25.49%	22.27%	2.34%
		3	62	3.54%	2.85%	0.71%
		4+	20	1.14%	0.89%	0.41%
		0	1	0.06%	0.16%	0.31%
	4+	1	35	2.00%	1.92%	0.74%
		2	171	9.77%	8.64%	1.65%
		3	84	4.80%	5.35%	1.40%
		4+	18	1.03%	1.22%	0.63%
		0	1	0.06%	0.03%	0.06%
Grundy	1	1	20	1.14%	1.04%	0.64%
		2	285	16.29%	13.98%	1.69%
		3	96	5.49%	5.88%	1.48%
		4+	62	3.54%	5.14%	1.66%
		0	0	0%	0%	0%
	2	1	6	10.17%	13.54%	11.44%
		2	2	3.39%	6.75%	9.30%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
		0	0	0%	0%	0%
Will	1	1	2	3.39%	2.23%	3.50%
		2	19	32.20%	31.68%	13.33%
	2	3	2	3.39%	2.65%	3.67%

home_county	hhszie_agg	hhveh_agg2	N	Survey	Estimate	MOE (95%)
3	3	4+	2	3.39%	3.78%	5.36%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	3	5.08%	5.66%	6.93%
		3	3	5.08%	4.95%	5.71%
	4+	4+	0	0%	0%	0%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	6	10.17%	7.37%	6.48%
		3	9	15.25%	11.02%	8.42%
		4+	5	8.47%	10.36%	9.76%
Kane	1	0	6	0.93%	2.18%	2.46%
		1	94	14.55%	15.21%	3.19%
		2	12	1.86%	1.55%	0.94%
		3	0	0%	0%	0%
		4+	1	0.15%	0.06%	0.12%
	2	0	0	0%	0%	0%
		1	44	6.81%	8.41%	2.70%
		2	156	24.15%	16.95%	3.05%
		3	46	7.12%	4.39%	1.58%
		4+	13	2.01%	1.21%	0.79%
	3	0	1	0.15%	0.52%	1.02%
		1	10	1.55%	1.63%	1.34%
		2	46	7.12%	7.67%	2.48%
		3	37	5.73%	6.06%	1.92%
		4+	4	0.62%	0.88%	0.96%
	4+	0	0	0%	0%	0%
		1	5	0.77%	1.64%	1.57%
		2	107	16.56%	15.23%	3.59%
		3	33	5.11%	7.42%	2.95%
		4+	31	4.80%	8.98%	3.13%
Kendall	1	0	1	0.26%	0.57%	1.13%
		1	29	7.40%	10.52%	4.36%
		2	6	1.53%	2.44%	2.18%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	2	0	0	0%	0%	0%
		1	19	4.85%	5.08%	2.53%
		2	52	13.27%	13.72%	3.93%
		3	14	3.57%	3.08%	1.50%
		4+	4	1.02%	1.46%	1.51%
	3	0	0	0%	0%	0%
		1	7	1.79%	2.70%	2.20%

home_county	hhszie_agg	hhveh_agg2	N	Survey	Estimate	MOE (95%)
Lake	4+	2	48	12.24%	12.66%	3.68%
		3	14	3.57%	4.85%	2.68%
		4+	2	0.51%	0.39%	0.54%
		0	0	0%	0%	0%
		1	6	1.53%	1.83%	1.80%
		2	124	31.63%	24.29%	4.13%
		3	48	12.24%	10.30%	3.24%
		4+	18	4.59%	6.12%	3.17%
		0	18	1.93%	3.60%	1.81%
		1	169	18.09%	15.76%	2.69%
McHenry	4+	2	25	2.68%	2.12%	0.91%
		3	5	0.54%	0.32%	0.29%
		4+	1	0.11%	0.12%	0.23%
		0	2	0.21%	0.35%	0.62%
		1	52	5.57%	6.13%	1.78%
		2	208	22.27%	17.87%	2.42%
		3	41	4.39%	3.63%	1.12%
		4+	28	3.00%	2.03%	0.80%
		0	1	0.11%	0.32%	0.62%
		1	14	1.50%	2.42%	1.38%
4+	4+	2	83	8.89%	9.97%	2.31%
		3	43	4.60%	4.46%	1.54%
		4+	8	0.86%	0.96%	0.70%
		0	0	0%	0%	0%
		1	10	1.07%	1.59%	1.04%
		2	140	14.99%	15.84%	2.85%
		3	54	5.78%	7.77%	2.06%
		4+	32	3.43%	4.74%	1.78%
		0	1	0.31%	0.48%	0.96%
		1	51	15.84%	18.84%	5.67%
3	4+	2	9	2.80%	3.22%	2.39%
		3	5	1.55%	1.48%	1.30%
		4+	0	0%	0%	0%
		0	0	0%	0%	0%
		1	20	6.21%	7.48%	3.42%
		2	82	25.47%	21.84%	5.28%
		3	28	8.70%	6.97%	2.52%
		4+	7	2.17%	1.89%	1.35%
		0	0	0%	0%	0%
		1	7	2.17%	3.74%	2.80%
4+	4+	2	13	4.04%	4.24%	2.54%
		3	18	5.59%	5.77%	2.83%
		4+	3	0.93%	0.89%	1.04%

home_county	hhszie_agg	hhveh_agg2	N	Survey	Estimate	MOE (95%)
	4+	0	1	0.31%	0.40%	0.80%
		1	2	0.62%	0.75%	1.12%
		2	43	13.35%	10.70%	3.56%
		3	18	5.59%	6.18%	3.60%
		4+	14	4.35%	5.12%	3.25%
Will	1	0	8	0.60%	1.20%	1.10%
		1	129	9.74%	14.50%	2.86%
		2	17	1.28%	2.03%	1.06%
		3	1	0.08%	0.08%	0.15%
		4+	1	0.08%	0.05%	0.10%
	2	0	1	0.08%	0.23%	0.45%
		1	49	3.70%	5.88%	2.11%
		2	202	15.26%	18.30%	2.81%
		3	55	4.15%	4.51%	1.52%
		4+	14	1.06%	1.35%	0.90%
3	3	0	0	0%	0%	0%
		1	22	1.66%	2.23%	1.20%
		2	133	10.05%	8.55%	1.69%
		3	73	5.51%	6.48%	1.92%
		4+	14	1.06%	1.02%	0.61%
	4+	0	0	0%	0%	0%
		1	12	0.91%	1.30%	0.90%
		2	325	24.55%	15.01%	1.93%
		3	170	12.84%	9.86%	1.64%
		4+	98	7.40%	7.42%	2.02%
Total	1	0	1,061	8.56%	7.06%	0.69%
		1	2,087	16.84%	18.53%	0.91%
		2	177	1.43%	1.51%	0.32%
		3	28	0.23%	0.20%	0.09%
		4+	9	0.07%	0.06%	0.05%
	2	0	469	3.79%	2.93%	0.43%
		1	1,307	10.55%	9.55%	0.76%
		2	1,965	15.86%	14.80%	0.78%
		3	353	2.85%	2.41%	0.30%
		4+	121	0.98%	0.86%	0.19%
	3	0	120	0.97%	0.98%	0.26%
		1	459	3.70%	4.03%	0.51%
		2	824	6.65%	6.91%	0.69%
		3	386	3.12%	3.63%	0.45%
		4+	73	0.59%	0.79%	0.27%
	4+	0	74	0.60%	0.96%	0.29%
		1	370	2.99%	3.62%	0.45%
		2	1,590	12.83%	12.29%	0.83%

home_county	hhsiz_size_agg	hhveh_agg2	N	Survey	Estimate	MOE (95%)
		3	577	4.66%	5.14%	0.61%
		4+	341	2.75%	3.72%	0.46%

**Table 27. Workers by Vehicles by County**

home_county	hhworker_agg2	hhveh_agg2	N	Survey	Estimate	MOE (95%)
Cook	0	0	366	5.39%	7.31%	0.87%
		1	354	5.21%	11.75%	1.40%
		2	104	1.53%	3.46%	0.76%
		3	15	0.22%	0.50%	0.26%
		4+	6	0.09%	0.20%	0.20%
	1	0	951	13.99%	7.68%	0.81%
		1	1,548	22.78%	20.70%	1.27%
		2	479	7.05%	10.43%	1.12%
		3	74	1.09%	1.79%	0.55%
		4+	20	0.29%	0.49%	0.27%
	2	0	305	4.49%	2.11%	0.45%
		1	1,003	14.76%	7.51%	0.70%
		2	1,030	15.16%	14.01%	1.20%
		3	184	2.71%	3.42%	0.64%
		4+	50	0.74%	0.96%	0.32%
	3	0	27	0.40%	0.49%	0.23%
		1	52	0.77%	1.04%	0.35%
		2	71	1.04%	1.61%	0.51%
		3	72	1.06%	1.77%	0.55%
		4+	36	0.53%	1.23%	0.52%
	4+	0	2	0.03%	0.01%	0.01%
		1	11	0.16%	0.35%	0.25%
		2	10	0.15%	0.26%	0.18%
		3	10	0.15%	0.32%	0.24%
		4+	16	0.24%	0.59%	0.41%
DeKalb	0	0	8	4.76%	7.94%	5.16%
		1	13	7.74%	8.11%	5.13%
		2	9	5.36%	6.62%	4.32%
		3	1	0.60%	0.99%	1.96%
		4+	0	0%	0%	0%
	1	0	11	6.55%	5.74%	3.96%
		1	39	23.21%	24.46%	7.24%
		2	14	8.33%	9.27%	5.15%
		3	6	3.57%	3.69%	3.27%
		4+	2	1.19%	0.87%	1.23%
	2	0	0	0%	0%	0%
		1	5	2.98%	3.69%	3.12%
		2	34	20.24%	14.07%	4.87%

home_county	hhworker_agg2	hhveh_agg2	N	Survey	Estimate	MOE (95%)
3	3	3	11	6.55%	5.42%	3.78%
		4+	8	4.76%	3.57%	2.56%
	4+	0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	3	1.79%	2.74%	3.35%
		4+	2	1.19%	1.96%	2.69%
	4+	0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	1	0.60%	0.55%	1.09%
		3	0	0%	0%	0%
DuPage	0	4+	1	0.60%	0.31%	0.62%
		0	9	0.51%	1.38%	0.86%
		1	79	4.51%	8.53%	1.94%
		2	110	6.29%	8.73%	1.76%
		3	12	0.69%	0.91%	0.55%
	1	4+	3	0.17%	0.25%	0.30%
		0	3	0.17%	0.60%	0.71%
		1	319	18.23%	17.12%	2.03%
		2	278	15.89%	13.49%	1.74%
		3	67	3.83%	3.52%	0.96%
2	2	4+	21	1.20%	1.34%	0.74%
		0	2	0.11%	0.19%	0.31%
		1	41	2.34%	2.52%	1.00%
		2	532	30.40%	23.68%	1.97%
		3	114	6.51%	5.61%	1.06%
	3	4+	38	2.17%	2.27%	0.96%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	22	1.26%	1.54%	0.81%
		3	49	2.80%	3.91%	1.40%
4+	4+	4+	26	1.49%	2.21%	0.95%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	1	0.06%	0.12%	0.24%
		3	9	0.51%	0.74%	0.62%
	4+	4+	15	0.86%	1.34%	0.79%
		0	0	0%	0%	0%
		1	2	3.39%	5.37%	9.58%
		2	5	8.47%	15.22%	12.64%
		3	0	0%	0%	0%
Grundy	0	4+	0	0%	0%	0%
		1	0	0%	0%	0%

home_county	hhworker_agg2	hhveh_agg2	N	Survey	Estimate	MOE (95%)
2	1	1	6	10.17%	10.40%	8.17%
		2	8	13.56%	15.75%	11.00%
		3	1	1.69%	0.98%	1.94%
		4+	1	1.69%	2.17%	4.32%
		0	0	0%	0%	0%
	2	1	0	0%	0%	0%
		2	17	28.81%	20.49%	9.59%
		3	11	18.64%	14.30%	8.25%
		4+	1	1.69%	1.61%	3.21%
		0	0	0%	0%	0%
3	3	1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	1	1.69%	1.91%	3.80%
		4+	3	5.08%	8.49%	9.57%
		0	0	0%	0%	0%
	4+	1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	1	1.69%	1.43%	2.85%
		4+	2	3.39%	1.87%	2.67%
		0	5	0.77%	1.67%	2.26%
Kane	0	1	31	4.80%	8.31%	3.11%
		2	32	4.95%	6.03%	2.35%
		3	8	1.24%	1.67%	1.23%
		4+	2	0.31%	0.65%	1.05%
		0	2	0.31%	1.03%	1.43%
	1	1	108	16.72%	15.29%	3.33%
		2	106	16.41%	15.84%	3.50%
		3	23	3.56%	2.82%	1.24%
		4+	6	0.93%	0.98%	0.97%
		0	0	0%	0%	0%
2	2	1	14	2.17%	3.29%	2.38%
		2	176	27.24%	17.63%	3.34%
		3	67	10.37%	8.99%	2.57%
		4+	17	2.63%	2.51%	1.44%
		0	0	0%	0%	0%
	3	1	0	0%	0%	0%
		2	7	1.08%	1.90%	1.93%
		3	14	2.17%	2.81%	1.44%
		4+	16	2.48%	4.55%	2.63%
		0	0	0%	0%	0%
4+	4+	1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	4	0.62%	1.59%	1.79%

home_county	hhworker_agg2	hhveh_agg2	N	Survey	Estimate	MOE (95%)
		4+	8	1.24%	2.44%	1.75%
Kendall	0	0	0	0%	0%	0%
		1	10	2.55%	6.02%	3.50%
		2	10	2.55%	4.68%	2.87%
		3	2	0.51%	0.94%	1.32%
		4+	1	0.26%	0.45%	0.88%
	1	0	1	0.26%	0.57%	1.13%
		1	44	11.22%	11.65%	3.34%
		2	52	13.27%	12.76%	3.53%
		3	7	1.79%	1.67%	1.24%
		4+	2	0.51%	0.83%	1.20%
2	2	0	0	0%	0%	0%
		1	7	1.79%	2.46%	2.18%
		2	164	41.84%	33.67%	5.49%
		3	50	12.76%	10.01%	2.90%
		4+	8	2.04%	1.49%	1.06%
	3	0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	4	1.02%	1.99%	2.23%
		3	16	4.08%	5.21%	3.12%
		4+	8	2.04%	3.33%	2.45%
4+	4+	0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	1	0.26%	0.41%	0.81%
		4+	5	1.28%	1.87%	1.94%
	Lake	0	0	11	2.42%	1.59%
		1	68	7.28%	9.90%	2.38%
		2	41	4.39%	4.95%	1.50%
		3	12	1.28%	1.50%	0.91%
		4+	4	0.43%	0.42%	0.49%
2	1	0	0	9	0.96%	1.20%
		1	166	17.77%	14.15%	2.29%
		2	155	16.60%	15.47%	2.52%
		3	33	3.53%	3.31%	1.10%
		4+	9	0.96%	0.89%	0.59%
	2	0	0	1	0.11%	0.32%
		1	11	1.18%	1.86%	1.22%
		2	247	26.45%	23.38%	2.71%
		3	71	7.60%	6.89%	1.78%
		4+	36	3.85%	3.10%	1.22%
3	3	0	0	0	0%	0%
		1	0	0	0%	0%

home_county	hhworker_agg2	hhveh_agg2	N	Survey	Estimate	MOE (95%)
McHenry	4+	2	12	1.28%	1.79%	1.19%
		3	23	2.46%	3.28%	1.43%
		4+	16	1.71%	2.69%	1.49%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
	4+	2	1	0.11%	0.22%	0.43%
		3	4	0.43%	1.21%	1.17%
		4+	4	0.43%	0.76%	0.83%
		0	0	0%	0%	0%
		1	25	7.76%	13.06%	5.30%
Will	1	2	18	5.59%	8.06%	3.78%
		3	3	0.93%	1.46%	1.65%
		4+	0	0%	0%	0%
		0	2	0.62%	0.89%	1.23%
		1	47	14.60%	14.68%	4.34%
	2	2	54	16.77%	15.08%	3.75%
		3	18	5.59%	4.77%	2.31%
		4+	3	0.93%	0.82%	0.94%
		0	0	0%	0%	0%
		1	8	2.48%	3.08%	2.25%
Will	3	2	74	22.98%	16.11%	3.60%
		3	39	12.11%	8.49%	2.64%
		4+	12	3.73%	3.10%	2.00%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
	4+	2	1	0.31%	0.75%	1.48%
		3	7	2.17%	4.21%	3.18%
		4+	3	0.93%	1.91%	2.24%
		0	0	0%	0%	0%
		1	0	0%	0%	0%
Will	4+	2	0	0%	0%	0%
		3	2	0.62%	1.48%	2.27%
		4+	6	1.86%	2.07%	2.19%
		0	7	0.53%	1.00%	1.04%
		1	41	3.10%	8.55%	2.92%
	1	2	36	2.72%	6.81%	2.01%
		3	9	0.68%	2.04%	1.27%
		4+	1	0.08%	0.22%	0.44%
		0	1	0.08%	0.20%	0.40%
		1	160	12.08%	13.60%	2.82%

home_county	hhworker_agg2	hhveh_agg2	N	Survey	Estimate	MOE (95%)
2	0	0	1	0.08%	0.23%	0.45%
		1	10	0.76%	1.53%	1.04%
		2	440	33.23%	21.15%	2.32%
		3	175	13.22%	9.21%	1.77%
		4+	55	4.15%	3.09%	1.14%
	3	0	0	0%	0%	0%
		1	1	0.08%	0.23%	0.45%
		2	11	0.83%	1.62%	1.17%
		3	57	4.31%	3.88%	1.18%
		4+	26	1.96%	2.51%	1.05%
4+	4+	0	0	0%	0%	0%
		1	0	0%	0%	0%
		2	2	0.15%	0.25%	0.45%
		3	4	0.30%	0.75%	0.73%
		4+	31	2.34%	2.95%	1.23%
Total	0	0	406	3.28%	5.14%	0.60%
		1	623	5.03%	10.66%	0.95%
		2	365	2.95%	4.75%	0.62%
		3	62	0.50%	0.84%	0.25%
		4+	17	0.14%	0.25%	0.15%
	1	0	980	7.91%	5.13%	0.54%
		1	2,437	19.67%	18.63%	0.85%
		2	1,334	10.77%	11.91%	0.82%
		3	283	2.28%	2.48%	0.42%
		4+	78	0.63%	0.71%	0.21%
2	2	0	309	2.49%	1.37%	0.29%
		1	1,099	8.87%	5.55%	0.46%
		2	2,714	21.90%	17.04%	0.87%
		3	722	5.83%	5.00%	0.52%
		4+	225	1.82%	1.62%	0.27%
	3	0	27	0.22%	0.30%	0.14%
		1	53	0.43%	0.66%	0.22%
		2	128	1.03%	1.60%	0.36%
		3	242	1.95%	2.48%	0.44%
		4+	136	1.10%	1.83%	0.37%
4+	4+	0	2	0.02%	0.00%	0.01%
		1	11	0.09%	0.22%	0.15%
		2	15	0.12%	0.22%	0.12%
		3	35	0.28%	0.57%	0.22%
		4+	88	0.71%	1.03%	0.32%

# Person Tables

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The following section covering Table 28 through Table 34 provides summary details of raw survey data totals and weighted and expanded population estimates for person-level characteristics grouped by county. In order, these are:

- **Gender:** asked as ‘Are you male or female?’
- **Age:** binned per the question AAGE which is asked when the numeric age question is refused. Responses to AGE were assigned to appropriate AAGE bins.
- **Hispanic Ethnicity:** asked as ‘Are you of Hispanic, Latino, or Spanish origin?’
- **Person Work Locations:** summed as the count of work locations by county, as reported when the respondent said they work at a regular work location. These are assigned to the county where the work place is located
- **Educational Attainment:** asked only when a person did not report being a student. If a person was a reported student, their grade level was used to assign them to an appropriate category.
- **Person Employment Status:** asked when a person 16 or older reported not having a part time or full time job

Table 28. Person Gender by County of Residence

home_county	Gender	N	Survey	Estimate	MOE (95%)
Cook	<i>I don't know</i>	1	0.01%	0.02%	0.04%
	<i>I prefer not to answer</i>	5	0.03%	0.02%	0.03%
	Male	6,880	45.63%	48.13%	1.04%
	Female	8,192	54.33%	51.83%	1.03%
DeKalb	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	Male	176	45.36%	46.85%	5.35%
	Female	212	54.64%	53.15%	5.35%
DuPage	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	4	0.09%	0.19%	0.38%
	Male	2,198	47.97%	48.78%	1.39%
	Female	2,380	51.94%	51.03%	1.41%
Grundy	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	Male	81	48.80%	47.38%	7.70%
	Female	85	51.20%	52.62%	7.70%
Kane	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	3	0.18%	0.40%	0.72%

		N	Survey	Estimate	MOE (95%)
	Male	846	49.47%	51.22%	2.38%
	Female	861	50.35%	48.39%	2.30%
Kendall	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	Male	650	49.24%	50.87%	2.65%
	Female	670	50.76%	49.13%	2.65%
Lake	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	1	0.04%	0.04%	0.09%
	Male	1,160	48.72%	49.20%	1.71%
	Female	1,220	51.24%	50.76%	1.72%
McHenry	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	Male	400	49.38%	51.44%	2.52%
	Female	410	50.62%	48.56%	2.52%
Will	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	3	0.07%	0.05%	0.08%
	Male	2,075	48.85%	49.43%	1.54%
	Female	2,170	51.08%	50.52%	1.55%
Total	<i>I don't know</i>	1	0.00%	0.01%	0.02%
	<i>I prefer not to answer</i>	16	0.05%	0.07%	0.06%
	Male	14,466	47.15%	48.73%	0.66%
	Female	16,200	52.80%	51.19%	0.66%

**Table 29. Person Age Distribution by County**

home_county	age_binned3	N	Survey	Estimate	MOE (95%)
Cook	<i>I prefer not to answer</i>	2	0.01%	0.03%	0.04%
	Under 5	1,033	6.85%	6.47%	0.55%
	5 - 12	1,226	8.13%	9.65%	0.71%
	13 - 15	468	3.10%	4.09%	0.57%
	16 - 17	269	1.78%	2.41%	0.38%
	18 - 44	7,395	49.04%	39.18%	1.16%
	45 - 64	3,465	22.98%	24.81%	1.16%
	65 or older	1,220	8.09%	13.36%	0.99%
DeKalb	<i>I prefer not to answer</i>	0	0%	0%	0%
	Under 5	30	7.73%	8.27%	3.47%
	5 - 12	34	8.76%	9.04%	3.99%
	13 - 15	13	3.35%	2.09%	1.37%
	16 - 17	10	2.58%	2.41%	1.53%
	18 - 44	179	46.13%	45.50%	4.96%
	45 - 64	86	22.16%	21.23%	5.97%
	65 or older	36	9.28%	11.47%	5.48%
DuPage	<i>I prefer not to answer</i>	4	0.09%	0.19%	0.38%

		N	Survey	Estimate	MOE (95%)
	<i>Under 5</i>	356	7.77%	6.08%	0.86%
	<i>5 - 12</i>	490	10.69%	10.27%	1.29%
	<i>13 - 15</i>	171	3.73%	4.02%	0.93%
	<i>16 - 17</i>	109	2.38%	2.66%	0.67%
	<i>18 - 44</i>	1,604	35.01%	33.95%	1.86%
	<i>45 - 64</i>	1,344	29.33%	28.90%	1.74%
	<i>65 or older</i>	504	11.00%	13.93%	1.67%
Grundy	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Under 5</i>	6	3.61%	3.11%	3.95%
	<i>5 - 12</i>	23	13.86%	10.65%	4.76%
	<i>13 - 15</i>	4	2.41%	1.64%	2.07%
	<i>16 - 17</i>	4	2.41%	2.33%	2.40%
	<i>18 - 44</i>	75	45.18%	39.46%	9.85%
	<i>45 - 64</i>	37	22.29%	26.08%	7.70%
	<i>65 or older</i>	17	10.24%	16.74%	9.76%
Kane	<i>I prefer not to answer</i>	2	0.12%	0.36%	0.71%
	<i>Under 5</i>	121	7.08%	6.79%	1.76%
	<i>5 - 12</i>	206	12.05%	12.43%	2.34%
	<i>13 - 15</i>	56	3.27%	3.83%	1.24%
	<i>16 - 17</i>	39	2.28%	3.08%	1.06%
	<i>18 - 44</i>	574	33.57%	33.63%	2.07%
	<i>45 - 64</i>	517	30.23%	27.39%	2.93%
	<i>65 or older</i>	195	11.40%	12.48%	2.55%
Kendall	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Under 5</i>	109	8.26%	6.56%	1.52%
	<i>5 - 12</i>	235	17.80%	15.12%	2.12%
	<i>13 - 15</i>	107	8.11%	8.13%	1.84%
	<i>16 - 17</i>	50	3.79%	4.60%	1.35%
	<i>18 - 44</i>	486	36.82%	36.04%	2.56%
	<i>45 - 64</i>	269	20.38%	22.11%	2.89%
	<i>65 or older</i>	64	4.85%	7.43%	2.43%
Lake	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Under 5</i>	130	5.46%	6.19%	1.23%
	<i>5 - 12</i>	255	10.71%	11.73%	1.69%
	<i>13 - 15</i>	110	4.62%	4.77%	0.88%
	<i>16 - 17</i>	61	2.56%	2.91%	0.80%
	<i>18 - 44</i>	750	31.50%	33.24%	1.92%
	<i>45 - 64</i>	756	31.75%	28.02%	2.06%
	<i>65 or older</i>	319	13.40%	13.15%	1.94%
McHenry	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Under 5</i>	38	4.69%	4.02%	1.58%
	<i>5 - 12</i>	99	12.22%	10.90%	2.77%
	<i>13 - 15</i>	26	3.21%	3.21%	1.47%

		N	Survey	Estimate	MOE (95%)
	16 - 17	16	1.98%	2.60%	1.63%
	18 - 44	282	34.81%	35.20%	3.97%
	45 - 64	250	30.86%	29.36%	4.89%
	65 or older	99	12.22%	14.72%	3.88%
Will	I prefer not to answer	2	0.05%	0.02%	0.04%
	Under 5	283	6.66%	6.12%	0.93%
	5 - 12	661	15.56%	11.30%	1.44%
	13 - 15	308	7.25%	5.69%	0.94%
	16 - 17	197	4.64%	3.40%	0.65%
	18 - 44	1,430	33.66%	34.44%	1.95%
	45 - 64	1,119	26.34%	27.31%	2.09%
	65 or older	248	5.84%	11.73%	2.23%
Total	I prefer not to answer	10	0.03%	0.06%	0.07%
	Under 5	2,106	6.86%	6.35%	0.37%
	5 - 12	3,229	10.52%	10.38%	0.53%
	13 - 15	1,263	4.12%	4.31%	0.39%
	16 - 17	755	2.46%	2.67%	0.27%
	18 - 44	12,775	41.64%	37.25%	0.82%
	45 - 64	7,843	25.56%	25.90%	0.86%
	65 or older	2,702	8.81%	13.08%	0.73%

Table 30. Person Hispanic Ethnicity by County

home_county	Hispanic, Latino, or Spanish origin	N	Survey	Estimate	MOE (95%)
Cook	I don't know	2	0.01%	0.02%	0.03%
	I prefer not to answer	16	0.11%	0.11%	0.09%
	Yes	1,793	11.89%	14.78%	1.71%
	No	13,267	87.99%	85.09%	1.71%
DeKalb	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Yes	25	6.44%	5.76%	3.82%
	No	363	93.56%	94.24%	3.82%
DuPage	I don't know	1	0.02%	0.06%	0.12%
	I prefer not to answer	9	0.20%	0.24%	0.38%
	Yes	307	6.70%	8.36%	2.16%
	No	4,265	93.08%	91.34%	2.18%
Grundy	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Yes	17	10.24%	5.59%	5.25%
	No	149	89.76%	94.41%	5.25%
Kane	I don't know	0	0%	0%	0%
	I prefer not to answer	7	0.41%	1.16%	1.84%

		N	Survey	Estimate	MOE (95%)
	Yes	178	10.41%	13.24%	4.30%
	No	1,525	89.18%	85.60%	4.34%
Kendall	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	5	0.38%	0.30%	0.47%
	Yes	123	9.32%	12.23%	5.13%
	No	1,192	90.30%	87.47%	5.12%
Lake	<i>I don't know</i>	1	0.04%	0.05%	0.09%
	<i>I prefer not to answer</i>	9	0.38%	0.20%	0.27%
	Yes	197	8.27%	10.92%	2.95%
	No	2,174	91.31%	88.83%	2.97%
McHenry	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	4	0.49%	0.49%	0.96%
	Yes	53	6.54%	9.56%	5.70%
	No	753	92.96%	89.95%	5.73%
Will	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	9	0.21%	0.26%	0.34%
	Yes	401	9.44%	11.25%	2.82%
	No	3,838	90.35%	88.49%	2.87%
Total	<i>I don't know</i>	4	0.01%	0.02%	0.02%
	<i>I prefer not to answer</i>	59	0.19%	0.22%	0.14%
	Yes	3,094	10.08%	13.04%	1.12%
	No	27,526	89.71%	86.72%	1.14%

**Table 31. Person Number of Jobs by County of Residence**

home_county	jobs_binned	N	Survey	Estimate	MOE (95%)
Cook	1	8,179	88.91%	88.25%	1.19%
	2	855	9.29%	9.91%	1.12%
	3	120	1.30%	1.40%	0.36%
	4+	45	0.49%	0.44%	0.20%
DeKalb	1	184	87.20%	87.16%	6.00%
	2	24	11.37%	11.27%	5.97%
	3	2	0.95%	1.12%	1.54%
	4+	1	0.47%	0.46%	0.90%
DuPage	1	2,281	90.02%	89.42%	1.45%
	2	218	8.60%	9.16%	1.43%
	3	28	1.10%	1.02%	0.44%
	4+	7	0.28%	0.40%	0.33%
Grundy	1	87	87.88%	90.72%	6.34%
	2	12	12.12%	9.28%	6.34%
	3	0	0%	0%	0%

home_county	jobs_binned	N	Survey	Estimate	MOE (95%)
	4+	0	0%	0%	0%
Kane	1	862	90.36%	90.44%	2.70%
	2	77	8.07%	8.51%	2.61%
	3	12	1.26%	0.84%	0.55%
	4+	3	0.31%	0.21%	0.31%
Kendall	1	592	87.96%	87.39%	3.38%
	2	72	10.70%	11.35%	3.24%
	3	9	1.34%	1.26%	0.85%
	4+	0	0%	0%	0%
Lake	1	1,175	90.66%	89.67%	2.21%
	2	100	7.72%	9.03%	2.21%
	3	19	1.47%	1.10%	0.53%
	4+	2	0.15%	0.21%	0.31%
McHenry	1	411	90.13%	90.11%	3.85%
	2	40	8.77%	9.00%	3.81%
	3	4	0.88%	0.71%	0.76%
	4+	1	0.22%	0.18%	0.35%
Will	1	1,997	90.08%	89.93%	1.54%
	2	192	8.66%	9.08%	1.46%
	3	22	0.99%	0.77%	0.39%
	4+	6	0.27%	0.23%	0.20%
Total	1	15,768	89.39%	88.80%	0.79%
	2	1,590	9.01%	9.62%	0.75%
	3	216	1.22%	1.22%	0.24%
	4+	65	0.37%	0.36%	0.13%

Table 32. Person Work Locations by County of Work Location

work_county	N	Survey	Estimate	MOE (95%)
Cook	8,789	61.68%	60.31%	1.42%
DeKalb	142	1.00%	0.95%	0.22%
DuPage	2,101	14.74%	14.30%	0.97%
Grundy	49	0.34%	0.30%	0.12%
Kane	645	4.53%	5.43%	0.68%
Kendall	246	1.73%	1.38%	0.24%
Lake	909	6.38%	8.40%	0.78%
McHenry	192	1.35%	1.66%	0.32%
Will	1,043	7.32%	6.19%	0.66%

	N	Survey	Estimate	MOE (95%)
Other	133	0.93%	1.08%	0.24%
Total	14,249	1	1	0%

**Table 33. Educational Attainment by County**

home_county	educ_binned	N	Survey	Estimate	MOE (95%)
Cook	Non-Response	15	0.10%	0.08%	0.06%
	Grade 12 or Less	3,413	22.64%	26.55%	1.21%
	High School Graduate	1,270	8.42%	11.58%	0.97%
	Some College, No Degree	1,590	10.55%	13.59%	0.92%
	Associate/Technical Degree	788	5.23%	6.68%	0.63%
	Undergraduate Degree	4,333	28.74%	22.49%	1.13%
	Graduate Degree	3,668	24.33%	19.02%	1.00%
	Other	1	0.01%	0.01%	0.03%
DeKalb	Non-Response	1	0.26%	0.17%	0.34%
	Grade 12 or Less	92	23.71%	23.68%	5.75%
	High School Graduate	35	9.02%	9.42%	3.75%
	Some College, No Degree	60	15.46%	18.11%	5.81%
	Associate/Technical Degree	48	12.37%	10.62%	3.71%
	Undergraduate Degree	99	25.52%	24.83%	5.42%
	Graduate Degree	53	13.66%	13.17%	4.46%
	Other	0	0%	0%	0%
DuPage	Non-Response	9	0.20%	0.30%	0.41%
	Grade 12 or Less	1,181	25.77%	24.87%	1.79%
	High School Graduate	311	6.79%	9.70%	1.60%
	Some College, No Degree	430	9.38%	11.24%	1.26%
	Associate/Technical Degree	235	5.13%	5.80%	0.89%
	Undergraduate Degree	1,357	29.62%	28.18%	1.91%
	Graduate Degree	1,059	23.11%	19.90%	1.34%
	Other	0	0%	0%	0%
Grundy	Non-Response	0	0%	0%	0%
	Grade 12 or Less	38	22.89%	19.00%	7.14%
	High School Graduate	25	15.06%	18.16%	7.69%
	Some College, No Degree	26	15.66%	20.15%	7.20%
	Associate/Technical Degree	18	10.84%	10.43%	4.69%
	Undergraduate Degree	39	23.49%	21.88%	9.04%
	Graduate Degree	20	12.05%	10.38%	5.20%
	Other	0	0%	0%	0%
Kane	Non-Response	11	0.64%	1.33%	1.53%
	Grade 12 or Less	449	26.26%	28.75%	3.52%
	High School Graduate	159	9.30%	10.73%	2.43%
	Some College, No Degree	212	12.40%	14.04%	2.01%
	Associate/Technical Degree	125	7.31%	7.59%	1.53%

		N	Survey	Estimate	MOE (95%)
	<i>Undergraduate Degree</i>	457	26.73%	22.87%	3.05%
	<i>Graduate Degree</i>	297	17.37%	14.69%	2.27%
	<i>Other</i>	0	0%	0%	0%
Kendall	<i>Non-Response</i>	2	0.15%	0.16%	0.32%
	<i>Grade 12 or Less</i>	524	39.70%	36.52%	3.20%
	<i>High School Graduate</i>	95	7.20%	8.74%	2.26%
	<i>Some College, No Degree</i>	149	11.29%	14.01%	2.84%
	<i>Associate/Technical Degree</i>	94	7.12%	7.23%	1.63%
	<i>Undergraduate Degree</i>	266	20.15%	20.76%	2.52%
	<i>Graduate Degree</i>	190	14.39%	12.58%	2.05%
	<i>Other</i>	0	0%	0%	0%
Lake	<i>Non-Response</i>	0	0%	0%	0%
	<i>Grade 12 or Less</i>	588	24.70%	27.38%	2.35%
	<i>High School Graduate</i>	193	8.11%	9.02%	1.58%
	<i>Some College, No Degree</i>	291	12.22%	13.87%	2.02%
	<i>Associate/Technical Degree</i>	156	6.55%	7.26%	1.36%
	<i>Undergraduate Degree</i>	639	26.84%	23.88%	2.43%
	<i>Graduate Degree</i>	514	21.59%	18.58%	1.86%
	<i>Other</i>	0	0%	0%	0%
McHenry	<i>Non-Response</i>	0	0%	0%	0%
	<i>Grade 12 or Less</i>	190	23.46%	22.72%	4.67%
	<i>High School Graduate</i>	97	11.98%	14.76%	4.09%
	<i>Some College, No Degree</i>	103	12.72%	14.80%	3.10%
	<i>Associate/Technical Degree</i>	77	9.51%	9.55%	2.87%
	<i>Undergraduate Degree</i>	220	27.16%	25.17%	3.65%
	<i>Graduate Degree</i>	123	15.19%	13.00%	2.75%
	<i>Other</i>	0	0%	0%	0%
Will	<i>Non-Response</i>	4	0.09%	0.11%	0.13%
	<i>Grade 12 or Less</i>	1,544	36.35%	29.78%	1.99%
	<i>High School Graduate</i>	353	8.31%	11.86%	1.52%
	<i>Some College, No Degree</i>	467	10.99%	14.92%	1.52%
	<i>Associate/Technical Degree</i>	295	6.94%	9.02%	1.21%
	<i>Undergraduate Degree</i>	935	22.01%	20.96%	1.89%
	<i>Graduate Degree</i>	650	15.30%	13.35%	1.52%
	<i>Other</i>	0	0%	0%	0%
Total	<i>Non-Response</i>	42	0.14%	0.18%	0.11%
	<i>Grade 12 or Less</i>	8,019	26.13%	26.97%	0.86%
	<i>High School Graduate</i>	2,538	8.27%	11.11%	0.63%
	<i>Some College, No Degree</i>	3,328	10.85%	13.61%	0.57%
	<i>Associate/Technical Degree</i>	1,836	5.98%	7.02%	0.44%
	<i>Undergraduate Degree</i>	8,345	27.20%	23.17%	0.81%
	<i>Graduate Degree</i>	6,574	21.43%	17.93%	0.64%
	<i>Other</i>	1	0.00%	0.01%	0.02%

**Table 34. Person Employment Status by County**

home_county	Best describes employment status	N	Survey	Estimate	MOE (95%)
Cook	<i>I don't know</i>	2	0.06%	0.07%	0.12%
	<i>I prefer not to answer</i>	4	0.13%	0.02%	0.02%
	<i>Retired</i>	905	28.73%	35.02%	2.42%
	<i>Volunteer</i>	64	2.03%	2.12%	0.71%
	<i>Homemaker</i>	366	11.62%	10.49%	1.25%
	<i>Unemployed but looking for work</i>	574	18.22%	16.45%	1.87%
	<i>Unemployed, not seeking employment</i>	125	3.97%	4.21%	1.24%
	<i>Student (part-time or full-time)</i>	772	24.51%	21.11%	2.15%
	<i>Disabled non-worker</i>	319	10.13%	10.05%	1.44%
	<i>Something else</i>	19	0.60%	0.49%	0.34%
DeKalb	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Retired</i>	30	30.00%	29.17%	12.01%
	<i>Volunteer</i>	5	5.00%	4.52%	4.20%
	<i>Homemaker</i>	12	12.00%	11.16%	7.83%
	<i>Unemployed but looking for work</i>	20	20.00%	24.47%	12.42%
	<i>Unemployed, not seeking employment</i>	2	2.00%	1.96%	2.70%
	<i>Student (part-time or full-time)</i>	30	30.00%	27.26%	11.74%
	<i>Disabled non-worker</i>	1	1.00%	1.46%	2.90%
	<i>Something else</i>	0	0%	0%	0%
DuPage	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	5	0.49%	0.41%	0.56%
	<i>Retired</i>	434	42.26%	44.86%	4.26%
	<i>Volunteer</i>	27	2.63%	2.54%	1.19%
	<i>Homemaker</i>	207	20.16%	16.58%	2.46%
	<i>Unemployed but looking for work</i>	94	9.15%	9.87%	2.46%
	<i>Unemployed, not seeking employment</i>	22	2.14%	2.13%	0.99%
	<i>Student (part-time or full-time)</i>	197	19.18%	18.23%	2.77%
	<i>Disabled non-worker</i>	38	3.70%	4.97%	2.37%
	<i>Something else</i>	3	0.29%	0.41%	0.49%
Grundy	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Retired</i>	13	38.24%	45.07%	20.80%
	<i>Volunteer</i>	0	0%	0%	0%
	<i>Homemaker</i>	8	23.53%	21.01%	14.39%

		N	Survey	Estimate	MOE (95%)
	<i>Unemployed but looking for work</i>	3	8.82%	7.42%	8.94%
	<i>Unemployed, not seeking employment</i>	0	0%	0%	0%
	<i>Student (part-time or full-time)</i>	7	20.59%	17.28%	15.49%
	<i>Disabled non-worker</i>	3	8.82%	9.22%	10.78%
	<i>Something else</i>	0	0%	0%	0%
Kane	<i>I don't know</i>	2	0.54%	1.03%	2.04%
	<i>I prefer not to answer</i>	4	1.08%	2.79%	5.51%
	<i>Retired</i>	165	44.47%	40.89%	7.09%
	<i>Volunteer</i>	9	2.43%	2.18%	1.73%
	<i>Homemaker</i>	75	20.22%	19.10%	5.27%
	<i>Unemployed but looking for work</i>	25	6.74%	7.38%	3.18%
	<i>Unemployed, not seeking employment</i>	7	1.89%	1.72%	1.69%
	<i>Student (part-time or full-time)</i>	59	15.90%	17.30%	5.86%
	<i>Disabled non-worker</i>	24	6.47%	7.24%	4.39%
	<i>Something else</i>	1	0.27%	0.36%	0.71%
Kendall	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	1	0.51%	0.40%	0.80%
	<i>Retired</i>	51	26.02%	32.75%	9.23%
	<i>Volunteer</i>	1	0.51%	0.46%	0.90%
	<i>Homemaker</i>	32	16.33%	12.57%	4.34%
	<i>Unemployed but looking for work</i>	15	7.65%	7.17%	3.78%
	<i>Unemployed, not seeking employment</i>	4	2.04%	1.58%	1.60%
	<i>Student (part-time or full-time)</i>	83	42.35%	40.06%	9.11%
	<i>Disabled non-worker</i>	8	4.08%	4.87%	4.32%
	<i>Something else</i>	1	0.51%	0.14%	0.29%
Lake	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Retired</i>	239	40.51%	39.19%	5.17%
	<i>Volunteer</i>	14	2.37%	1.86%	1.02%
	<i>Homemaker</i>	89	15.08%	14.39%	2.72%
	<i>Unemployed but looking for work</i>	40	6.78%	7.99%	2.67%
	<i>Unemployed, not seeking employment</i>	14	2.37%	2.43%	1.36%
	<i>Student (part-time or full-time)</i>	148	25.08%	25.36%	4.42%
	<i>Disabled non-worker</i>	43	7.29%	8.42%	2.47%
	<i>Something else</i>	3	0.51%	0.36%	0.45%
McHenry	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%

		N	Survey	Estimate	MOE (95%)
	<i>Retired</i>	87	45.55%	44.71%	8.81%
	<i>Volunteer</i>	4	2.09%	2.06%	2.38%
	<i>Homemaker</i>	36	18.85%	17.05%	6.19%
	<i>Unemployed but looking for work</i>	16	8.38%	9.88%	4.87%
	<i>Unemployed, not seeking employment</i>	8	4.19%	3.37%	2.66%
	<i>Student (part-time or full-time)</i>	27	14.14%	14.42%	6.72%
	<i>Disabled non-worker</i>	13	6.81%	8.50%	4.51%
	<i>Something else</i>	0	0%	0%	0%
<i>Will</i>	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	1	0.13%	0.09%	0.18%
	<i>Retired</i>	225	28.96%	43.03%	5.08%
	<i>Volunteer</i>	8	1.03%	1.61%	1.20%
	<i>Homemaker</i>	147	18.92%	13.69%	2.53%
	<i>Unemployed but looking for work</i>	63	8.11%	9.25%	2.96%
	<i>Unemployed, not seeking employment</i>	20	2.57%	2.14%	1.12%
	<i>Student (part-time or full-time)</i>	268	34.49%	22.40%	3.82%
	<i>Disabled non-worker</i>	41	5.28%	7.07%	2.37%
	<i>Something else</i>	4	0.51%	0.73%	0.84%
<i>Total</i>	<i>I don't know</i>	4	0.06%	0.10%	0.14%
	<i>I prefer not to answer</i>	15	0.23%	0.23%	0.32%
	<i>Retired</i>	2,149	33.39%	37.45%	1.81%
	<i>Volunteer</i>	132	2.05%	2.09%	0.50%
	<i>Homemaker</i>	972	15.10%	12.40%	1.01%
	<i>Unemployed but looking for work</i>	850	13.21%	13.77%	1.34%
	<i>Unemployed, not seeking employment</i>	202	3.14%	3.44%	0.80%
	<i>Student (part-time or full-time)</i>	1,591	24.72%	21.29%	1.46%
	<i>Disabled non-worker</i>	490	7.61%	8.77%	1.01%
	<i>Something else</i>	31	0.48%	0.45%	0.23%

# Travel Behavior Tables

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The tables in this section provide a variety of summations of travel behavior related metrics. These have been grouped generally into topics that include:

- Trip Rates
- Trip Mode
- Average Trip Duration
- Traveling Party
- Trip Duration by Location Type

For clarity, it should be noted that these all represent weekday trips occurring Monday through Friday. The counts of these trips are displayed grouped by day-of-week and county in Table 35. Table 36 shows the primary trip purpose for all trips grouped by county of residence. Further, trips reported in these tables count all trips made by all people enumerated in the households, excepting children under the age of five. A household where two parents take a 6-year-old to the store counts as three trips for the household trip rate calculation. In this example, all three trips would also contribute to the total minutes used to calculate the trip duration in ‘Other’ purposes in Table 48 through Table 52.

**Table 35. Number of Trips by Day of Week by County**

trip_county	Travel day - day of week	N	Survey	Estimate	MOE (95%)
Cook	Monday	9,601	18.98%	19.21%	1.75%
	Tuesday	10,213	20.19%	19.53%	1.50%
	Wednesday	10,060	19.88%	20.08%	1.76%
	Thursday	10,336	20.43%	19.39%	1.50%
	Friday	10,383	20.52%	21.79%	1.76%
DeKalb	Monday	341	26.52%	27.66%	8.14%
	Tuesday	173	13.45%	17.04%	8.12%
	Wednesday	314	24.42%	22.36%	6.81%
	Thursday	263	20.45%	17.37%	5.44%
	Friday	195	15.16%	15.57%	8.09%
DuPage	Monday	3,332	21.60%	21.37%	2.48%
	Tuesday	3,209	20.81%	20.85%	2.77%
	Wednesday	2,912	18.88%	19.86%	2.92%
	Thursday	2,704	17.53%	17.67%	2.26%
	Friday	3,267	21.18%	20.25%	2.32%
Grundy	Monday	160	31.37%	31.44%	17.57%
	Tuesday	72	14.12%	13.32%	9.79%
	Wednesday	50	9.80%	10.26%	6.80%

		N	Survey	Estimate	MOE (95%)
	<i>Thursday</i>	99	19.41%	21.21%	11.44%
	<i>Friday</i>	129	25.29%	23.78%	13.53%
Kane	<i>Monday</i>	1,164	21.21%	20.20%	4.39%
	<i>Tuesday</i>	1,167	21.26%	22.19%	5.33%
	<i>Wednesday</i>	1,157	21.08%	21.37%	4.16%
	<i>Thursday</i>	926	16.87%	16.85%	4.08%
	<i>Friday</i>	1,075	19.58%	19.39%	4.44%
Kendall	<i>Monday</i>	559	15.39%	14.20%	4.73%
	<i>Tuesday</i>	882	24.28%	27.14%	6.69%
	<i>Wednesday</i>	686	18.88%	17.05%	4.32%
	<i>Thursday</i>	744	20.48%	20.77%	6.28%
	<i>Friday</i>	762	20.97%	20.84%	5.78%
Lake	<i>Monday</i>	1,654	21.30%	20.91%	3.31%
	<i>Tuesday</i>	1,454	18.73%	17.93%	3.43%
	<i>Wednesday</i>	1,482	19.09%	20.28%	3.31%
	<i>Thursday</i>	1,569	20.21%	20.31%	3.39%
	<i>Friday</i>	1,606	20.68%	20.58%	3.74%
McHenry	<i>Monday</i>	473	20.00%	17.72%	5.48%
	<i>Tuesday</i>	533	22.54%	23.96%	7.93%
	<i>Wednesday</i>	364	15.39%	13.38%	4.37%
	<i>Thursday</i>	526	22.24%	22.13%	6.44%
	<i>Friday</i>	469	19.83%	22.81%	6.85%
Will	<i>Monday</i>	2,066	18.33%	21.22%	2.98%
	<i>Tuesday</i>	2,306	20.46%	18.03%	2.78%
	<i>Wednesday</i>	2,283	20.25%	19.98%	3.17%
	<i>Thursday</i>	2,036	18.06%	16.24%	2.65%
	<i>Friday</i>	2,581	22.90%	24.54%	2.96%
Other	<i>Monday</i>	232	16.71%	17.93%	7.70%
	<i>Tuesday</i>	266	19.16%	13.92%	4.69%
	<i>Wednesday</i>	325	23.41%	29.24%	10.99%
	<i>Thursday</i>	295	21.25%	21.76%	9.92%
	<i>Friday</i>	270	19.45%	17.15%	6.26%
Total	<i>Monday</i>	19,582	19.64%	19.80%	1.23%
	<i>Tuesday</i>	20,275	20.33%	19.78%	1.04%
	<i>Wednesday</i>	19,633	19.69%	20.04%	1.29%
	<i>Thursday</i>	19,498	19.55%	18.99%	1.17%
	<i>Friday</i>	20,737	20.79%	21.39%	1.21%

**Table 36. Primary Trip Purpose by County of Destination**

trip_county	tpurp_binned	N	Survey	Estimate	MOE (95%)
Cook	<i>I don't know</i>	12	0.02%	0.02%	0.02%
	<i>I prefer not to answer</i>	4	0.01%	0.01%	0.01%
	<i>Home</i>	16,412	32.44%	34.29%	0.54%
	<i>Work</i>	10,877	21.50%	15.85%	0.64%
	<i>School</i>	2,618	5.17%	6.12%	0.38%
	<i>Volunteer</i>	307	0.61%	0.73%	0.13%
	<i>Social / Recreational</i>	7,196	14.22%	13.60%	0.59%
	<i>Maintenance / Errands</i>	8,866	17.52%	20.26%	0.82%
	<i>Escorting / Mode change</i>	4,159	8.22%	8.83%	0.65%
	<i>Something Else</i>	104	0.21%	0.22%	0.09%
DeKalb	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Home</i>	469	36.47%	36.37%	3.12%
	<i>Work</i>	209	16.25%	15.89%	4.95%
	<i>School</i>	108	8.40%	8.40%	2.24%
	<i>Volunteer</i>	13	1.01%	0.92%	0.62%
	<i>Social / Recreational</i>	166	12.91%	13.20%	2.22%
	<i>Maintenance / Errands</i>	221	17.19%	18.25%	3.35%
	<i>Escorting / Mode change</i>	95	7.39%	6.46%	2.05%
	<i>Something Else</i>	4	0.31%	0.36%	0.38%
DuPage	<i>I don't know</i>	5	0.03%	0.03%	0.03%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Home</i>	5,429	35.20%	33.24%	1.03%
	<i>Work</i>	2,535	16.44%	16.89%	1.11%
	<i>School</i>	842	5.46%	5.47%	0.56%
	<i>Volunteer</i>	128	0.83%	0.99%	0.25%
	<i>Social / Recreational</i>	2,011	13.04%	13.57%	0.66%
	<i>Maintenance / Errands</i>	3,092	20.05%	21.77%	1.30%
	<i>Escorting / Mode change</i>	1,358	8.80%	7.93%	0.74%
	<i>Something Else</i>	20	0.13%	0.11%	0.07%
Grundy	<i>I don't know</i>	0	0%	0%	0%
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Home</i>	199	39.02%	38.46%	4.40%
	<i>Work</i>	77	15.10%	16.75%	5.46%
	<i>School</i>	38	7.45%	6.45%	2.51%
	<i>Volunteer</i>	1	0.20%	0.24%	0.48%
	<i>Social / Recreational</i>	49	9.61%	10.67%	4.06%
	<i>Maintenance / Errands</i>	99	19.41%	18.45%	5.20%
	<i>Escorting / Mode change</i>	41	8.04%	7.75%	3.31%
	<i>Something Else</i>	6	1.18%	1.25%	1.14%
Kane	<i>I don't know</i>	2	0.04%	0.02%	0.03%

		N	Survey	Estimate	MOE (95%)
	<i>I prefer not to answer</i>	0	0%	0%	0%
	<i>Home</i>	1,990	36.25%	36.22%	1.94%
	<i>Work</i>	798	14.54%	13.22%	1.60%
	<i>School</i>	296	5.39%	5.66%	0.82%
	<i>Volunteer</i>	42	0.77%	0.82%	0.33%
	<i>Social / Recreational</i>	753	13.72%	13.81%	1.39%
	<i>Maintenance / Errands</i>	1,104	20.11%	21.20%	1.93%
	<i>Escorting / Mode change</i>	494	9.00%	8.87%	1.78%
	<i>Something Else</i>	9	0.16%	0.17%	0.14%
Kendall	<i>I don't know</i>	2	0.06%	0.03%	0.04%
Kendall	<i>I prefer not to answer</i>	0	0%	0%	0%
Kendall	<i>Home</i>	1,554	42.77%	41.40%	1.94%
Kendall	<i>Work</i>	306	8.42%	8.76%	1.65%
Kendall	<i>School</i>	456	12.55%	10.72%	1.35%
Kendall	<i>Volunteer</i>	23	0.63%	0.59%	0.42%
Kendall	<i>Social / Recreational</i>	324	8.92%	9.70%	1.32%
Kendall	<i>Maintenance / Errands</i>	552	15.19%	18.12%	2.34%
Kendall	<i>Escorting / Mode change</i>	408	11.23%	10.42%	1.87%
Kendall	<i>Something Else</i>	8	0.22%	0.27%	0.22%
Lake	<i>I don't know</i>	1	0.01%	0.00%	0.01%
Lake	<i>I prefer not to answer</i>	0	0%	0%	0%
Lake	<i>Home</i>	2,833	36.48%	35.68%	1.45%
Lake	<i>Work</i>	1,198	15.43%	15.47%	1.64%
Lake	<i>School</i>	487	6.27%	6.60%	0.76%
Lake	<i>Volunteer</i>	55	0.71%	0.76%	0.31%
Lake	<i>Social / Recreational</i>	942	12.13%	11.87%	0.96%
Lake	<i>Maintenance / Errands</i>	1,621	20.88%	21.30%	1.70%
Lake	<i>Escorting / Mode change</i>	608	7.83%	8.09%	0.89%
Lake	<i>Something Else</i>	20	0.26%	0.23%	0.18%
McHenry	<i>I don't know</i>	0	0%	0%	0%
McHenry	<i>I prefer not to answer</i>	0	0%	0%	0%
McHenry	<i>Home</i>	927	39.20%	35.69%	2.88%
McHenry	<i>Work</i>	258	10.91%	11.42%	1.94%
McHenry	<i>School</i>	145	6.13%	5.74%	1.37%
McHenry	<i>Volunteer</i>	26	1.10%	1.47%	1.67%
McHenry	<i>Social / Recreational</i>	307	12.98%	13.96%	1.85%
McHenry	<i>Maintenance / Errands</i>	505	21.35%	23.64%	2.72%
McHenry	<i>Escorting / Mode change</i>	195	8.25%	8.04%	1.69%
McHenry	<i>Something Else</i>	0	0%	0%	0%
Will	<i>I don't know</i>	0	0%	0%	0%
Will	<i>I prefer not to answer</i>	1	0.01%	0.00%	0.01%
Will	<i>Home</i>	4,689	41.60%	37.99%	1.48%
Will	<i>Work</i>	1,258	11.16%	12.98%	1.26%

		N	Survey	Estimate	MOE (95%)
	School	1,012	8.98%	7.20%	0.87%
	Volunteer	57	0.51%	0.47%	0.18%
	Social / Recreational	1,128	10.01%	9.95%	0.93%
	Maintenance / Errands	2,068	18.35%	22.81%	1.77%
	Escorting / Mode change	1,042	9.24%	8.38%	1.02%
	Something Else	14	0.12%	0.16%	0.13%
Other	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Home	251	18.08%	20.79%	3.03%
	Work	334	24.06%	18.09%	4.01%
	School	145	10.45%	12.54%	3.46%
	Volunteer	8	0.58%	0.83%	1.42%
	Social / Recreational	329	23.70%	23.94%	3.71%
	Maintenance / Errands	197	14.19%	15.39%	3.95%
	Escorting / Mode change	115	8.29%	8.10%	2.39%
	Something Else	8	0.58%	0.31%	0.33%
Total	I don't know	22	0.02%	0.02%	0.01%
	I prefer not to answer	5	0.01%	0.00%	0.01%
	Home	34,753	34.85%	34.72%	0.35%
	Work	17,850	17.90%	15.33%	0.44%
	School	6,147	6.16%	6.36%	0.26%
	Volunteer	660	0.66%	0.77%	0.10%
	Social / Recreational	13,205	13.24%	13.25%	0.41%
	Maintenance / Errands	18,325	18.38%	20.70%	0.58%
	Escorting / Mode change	8,515	8.54%	8.60%	0.42%
	Something Else	193	0.19%	0.20%	0.06%

## Trip Rate Tables

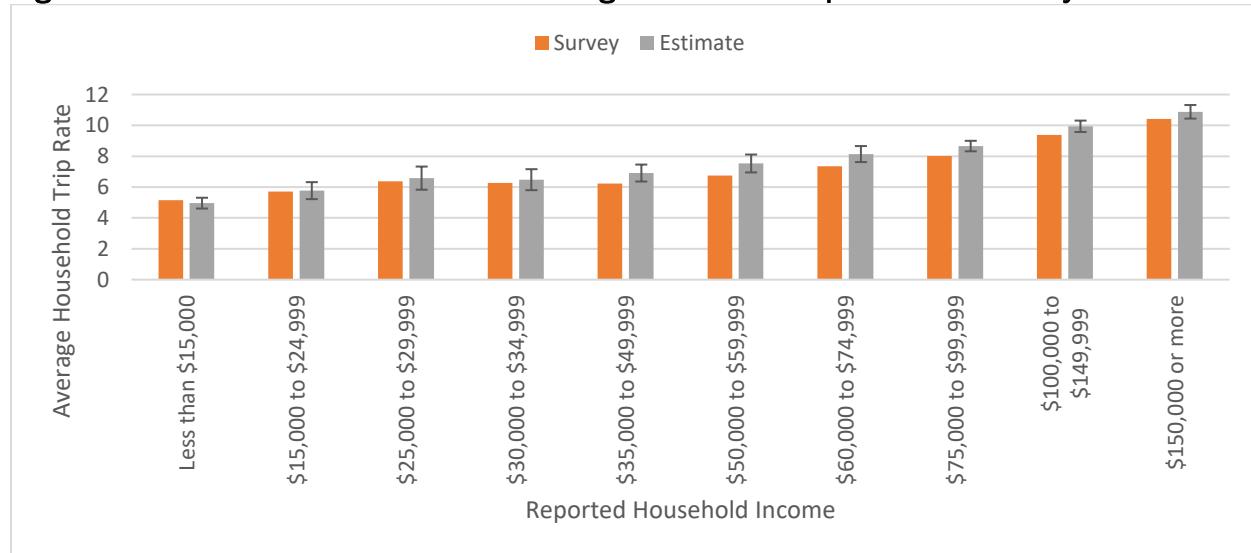
The tables in this section display household and person trip rates grouped by a number of attributes including geographic and demographic. Table 37 shows the count of households surveyed, the average household trip counts in the raw data, and the estimated trip rate with weights applied. The overall average trip rate was  $8.08 \pm 0.13$ .

**Table 37. Household Trip Rates by County**

home_county	N	Survey	Estimate	MOE (95%)
Cook	48,441	7.13	7.51	0.20
DeKalb	1,378	8.20	7.99	1.02
DuPage	15,291	8.74	8.74	0.42
Grundy	611	10.36	9.76	1.70
Kane	5,562	8.61	9.07	0.67
Kendall	4,315	11.01	10.92	1.15
Lake	8,251	8.83	9.23	0.54
McHenry	2,717	8.44	8.56	1.08
Will	13,172	9.95	8.78	0.42
Total	99,738	8.05	8.08	0.13

Table 38 shows trip rates by household size by county of residence. Notably, the lowest trip rate for one person households is  $3.59 \pm 0.48$  in Kane County. This rate exceeds the average person-level rate of  $3.14 \pm 0.05$  found in Table 41. It is likely that one person households have more discretionary trips than households with two or more members. Table 39 aggregates trip rates by number of household workers and county of residence whereas Table 40 groups households according to reported household income. Both tables show that trip rates increase with the number of workers and as incomes rise. Figure 7 illustrates that relationship.

**Figure 7. Household Income and Average Household Trip Rates: Full Study Area**



**Table 38. Household Trip Rates by Household Size by County**

home_county	hhsize_agg	N	Survey	Estimate	MOE (95%)
Cook	1	9,592	4.08	4.07	0.17
	2	16,461	6.93	6.84	0.24
	3	7,956	8.58	8.36	0.49
	4+	14,432	12.63	12.44	0.66
DeKalb	1	221	4.60	4.61	0.97
	2	530	7.91	7.68	1.33
	3	194	10.21	9.99	3.66
	4+	433	12.74	12.22	2.61
DuPage	1	1,551	4.21	4.37	0.35
	2	4,358	7.16	7.18	0.42
	3	2,812	9.10	9.08	0.64
	4+	6,570	14.16	14.57	1.15
Grundy	1	52	6.50	6.41	2.03
	2	185	7.40	7.56	1.70
	3	88	14.67	13.57	6.60
	4+	286	14.30	13.82	4.38
Kane	1	420	3.72	3.59	0.48
	2	1,820	7.03	6.81	0.49
	3	820	8.37	8.14	0.91
	4+	2,502	14.22	14.78	1.36
Kendall	1	152	4.22	4.48	0.86
	2	677	7.61	7.74	1.24
	3	691	9.73	9.73	1.49
	4+	2,795	14.26	15.28	2.23
Lake	1	990	4.54	4.41	0.43
	2	2,457	7.42	7.46	0.65
	3	1,436	9.64	9.61	0.94
	4+	3,368	14.27	14.31	0.98
McHenry	1	296	4.48	4.31	0.81
	2	935	6.82	6.91	0.81
	3	391	9.54	9.11	1.90
	4+	1,095	14.04	15.35	3.11
Will	1	676	4.33	4.20	0.43
	2	2,273	7.08	7.14	0.53
	3	2,109	8.71	8.54	0.89
	4+	8,114	13.41	12.83	0.65
Total	1	13,950	4.15	4.13	0.14
	2	29,696	7.05	6.98	0.17
	3	16,497	8.86	8.64	0.34
	4+	39,595	13.41	13.23	0.39

**Table 39. Household Trip Rates by Number of Household Workers by County**

home_county	hhworker_agg2	N	Survey	Estimate	MOE (95%)
Cook	0	4,404	5.21	5.34	0.32
	1	17,678	5.75	6.60	0.29
	2	22,828	8.88	9.57	0.37
	3	2,795	10.83	10.57	0.90
	4+	736	15.02	15.24	3.20
DeKalb	0	171	5.52	5.61	1.64
	1	521	7.24	7.37	1.50
	2	600	10.34	10.07	1.69
	3	75	15	14.45	5.88
	4+	†11	5.50	4.80	7.19
DuPage	0	1,444	6.78	6.33	0.58
	1	5,066	7.36	7.58	0.61
	2	7,236	9.95	10.31	0.83
	3	1,176	12.12	11.78	1.57
	4+	369	14.76	14.48	2.58
Grundy	0	59	8.43	8.27	2.86
	1	143	8.94	7.61	2.99
	2	313	10.79	10.78	2.67
	3	56	14	14.21	8.80
	4+	40	13.33	12.99	7.89
Kane	0	498	6.38	6.27	1.83
	1	1,752	7.15	8.06	1.10
	2	2,729	9.96	10.62	0.94
	3	398	10.76	10.60	1.78
	4+	185	15.42	14.94	2.30
Kendall	0	190	8.26	7.44	1.87
	1	868	8.19	8.04	1.18
	2	2,756	12.03	12.13	1.18
	3	381	13.61	14.18	5.29
	4+	120	20	23.58	20.63
Lake	0	845	6.21	5.92	0.83
	1	2,794	7.51	8.11	0.75
	2	3,804	10.39	10.96	0.84
	3	658	12.90	12.71	2.07
	4+	150	16.67	15.91	4.88
McHenry	0	295	6.41	5.87	1.44
	1	889	7.17	7.22	1.02
	2	1,256	9.44	9.28	1.23
	3	133	12.09	12.69	3.47
	4+	144	18	25.14	12.76
Will	0	624	6.64	6.73	0.92

		N	Survey	Estimate	MOE (95%)
	1	3,391	8.13	7.41	0.72
	2	7,428	10.91	9.99	0.54
	3	1,202	12.65	11.69	1.68
	4+	527	14.24	13.41	1.84
Total	0	8,530	5.79	5.66	0.26
	1	33,102	6.48	6.99	0.22
	2	48,950	9.66	9.98	0.24
	3	6,874	11.73	11.23	0.66
	4+	2,282	15.11	15.47	1.71

Table 40. Household Trip Rates by Household Income by County

home_county	hhinc_binned	N	Survey	Estimate	MOE (95%)
Cook	I don't know	53	6.62	6.85	3.80
	I prefer not to answer	294	5.88	6.07	1.83
	Less than \$15,000	3,276	5.13	4.88	0.39
	\$15,000 to \$24,999	2,245	5.50	5.61	0.66
	\$25,000 to \$29,999	1,590	6.28	6.47	0.97
	\$30,000 to \$34,999	1,478	5.51	5.51	0.76
	\$35,000 to \$49,999	3,699	5.93	6.75	0.75
	\$50,000 to \$59,999	3,065	5.94	6.90	0.74
	\$60,000 to \$74,999	4,775	6.59	7.72	0.68
	\$75,000 to \$99,999	6,760	7.11	8.44	0.49
	\$100,000 to \$149,999	10,306	8.39	9.34	0.56
	\$150,000 or more	10,891	9.69	10.49	0.63
DeKalb	I don't know	0	0	0	0
	I prefer not to answer	0	0	0	0
	Less than \$15,000	203	5.34	5.47	1.92
	\$15,000 to \$24,999	152	6.61	7.07	2.01
	\$25,000 to \$29,999	40	8	9.47	4.98
	\$30,000 to \$34,999	51	6.38	7.01	2.91
	\$35,000 to \$49,999	57	7.12	7.33	3.27
	\$50,000 to \$59,999	73	8.11	6.38	4.01
	\$60,000 to \$74,999	169	10.56	11.67	4.86
	\$75,000 to \$99,999	195	10.26	11.42	3.51
	\$100,000 to \$149,999	346	11.93	10.99	2.36
	\$150,000 or more	84	7	7.53	2.51
DuPage	I don't know	3	3	3.00	0.00
	I prefer not to answer	200	7.41	7.65	2.59
	Less than \$15,000	198	4.95	4.87	0.98
	\$15,000 to \$24,999	258	6.62	6.55	1.65
	\$25,000 to \$29,999	223	6.97	7.13	1.74
	\$30,000 to \$34,999	233	6.30	6.65	1.36

		N	Survey	Estimate	MOE (95%)
	\$35,000 to \$49,999	753	6.07	6.62	1.10
	\$50,000 to \$59,999	860	7.05	7.83	1.62
	\$60,000 to \$74,999	1,330	7.51	7.88	0.91
	\$75,000 to \$99,999	2,315	8.30	8.75	1.04
	\$100,000 to \$149,999	4,559	9.80	10.70	1.18
	\$150,000 or more	4,347	10.71	11.12	0.77
Grundy	<i>I don't know</i>	0	0	0	0
	<i>I prefer not to answer</i>	0	0	0	0
	Less than \$15,000	0	0	0	0
	\$15,000 to \$24,999	37	7.40	7.38	4.02
	\$25,000 to \$29,999	0	0	0	0
	\$30,000 to \$34,999	12	6	6.30	2.89
	\$35,000 to \$49,999	17	5.67	4.92	2.97
	\$50,000 to \$59,999	91	11.38	10.45	4.64
	\$60,000 to \$74,999	95	10.56	9.81	2.37
	\$75,000 to \$99,999	165	13.75	14.09	6.89
	\$100,000 to \$149,999	126	9	8.73	2.91
	\$150,000 or more	68	11.33	11.08	6.05
Kane	<i>I don't know</i>	0	0	0	0
	<i>I prefer not to answer</i>	52	6.50	8.67	9.85
	Less than \$15,000	93	5.47	5.40	2.38
	\$15,000 to \$24,999	105	5.53	6.26	3.30
	\$25,000 to \$29,999	93	6.20	6.21	2.70
	\$30,000 to \$34,999	147	9.19	9.98	4.40
	\$35,000 to \$49,999	328	7.29	9.05	2.72
	\$50,000 to \$59,999	288	6.70	7.74	1.71
	\$60,000 to \$74,999	651	7.31	8.67	2.39
	\$75,000 to \$99,999	986	8.65	9.13	1.14
	\$100,000 to \$149,999	1,402	9.22	9.95	1.24
	\$150,000 or more	1,417	11.07	11.83	1.41
Kendall	<i>I don't know</i>	0	0	0	0
	<i>I prefer not to answer</i>	6	6	6	0
	Less than \$15,000	39	7.80	7.05	4.01
	\$15,000 to \$24,999	78	8.67	8.70	3.41
	\$25,000 to \$29,999	19	4.75	3.96	5.85
	\$30,000 to \$34,999	72	14.40	13.40	10.32
	\$35,000 to \$49,999	135	6.75	6.37	2.76
	\$50,000 to \$59,999	237	8.78	9.80	2.57
	\$60,000 to \$74,999	386	9.90	9.62	1.95
	\$75,000 to \$99,999	872	10.38	10.01	1.32
	\$100,000 to \$149,999	1,610	12.20	13.13	2.76
	\$150,000 or more	861	13.05	12.67	3.12
Lake	<i>I don't know</i>	0	0	0	0

		N	Survey	Estimate	MOE (95%)
	<i>I prefer not to answer</i>	50	7.14	6.78	2.98
	<i>Less than \$15,000</i>	213	4.63	4.47	1.29
	<i>\$15,000 to \$24,999</i>	264	6.60	6.32	1.89
	<i>\$25,000 to \$29,999</i>	122	6.10	6.38	3.08
	<i>\$30,000 to \$34,999</i>	248	9.19	9.85	4.15
	<i>\$35,000 to \$49,999</i>	427	7.24	8.24	1.87
	<i>\$50,000 to \$59,999</i>	486	9.53	10.46	1.71
	<i>\$60,000 to \$74,999</i>	667	8.13	9.49	1.72
	<i>\$75,000 to \$99,999</i>	1,001	7	7.33	0.83
	<i>\$100,000 to \$149,999</i>	2,245	9.59	10.72	1.06
	<i>\$150,000 or more</i>	2,514	11.22	11.63	1.10
<i>McHenry</i>	<i>I don't know</i>	0	0	0	0
	<i>I prefer not to answer</i>	33	11	10.89	10.09
	<i>Less than \$15,000</i>	35	4.38	4.90	5.18
	<i>\$15,000 to \$24,999</i>	39	3.90	3.30	2.17
	<i>\$25,000 to \$29,999</i>	25	5	5.40	1.53
	<i>\$30,000 to \$34,999</i>	31	4.43	4.05	2.62
	<i>\$35,000 to \$49,999</i>	168	5.79	5.71	1.73
	<i>\$50,000 to \$59,999</i>	158	6.32	6.47	2.06
	<i>\$60,000 to \$74,999</i>	388	9.46	10.89	4.78
	<i>\$75,000 to \$99,999</i>	614	8.41	8.86	1.89
	<i>\$100,000 to \$149,999</i>	636	8.96	9.64	1.62
	<i>\$150,000 or more</i>	590	11.80	13.79	4.23
<i>Will</i>	<i>I don't know</i>	0	0	0	0
	<i>I prefer not to answer</i>	75	7.50	6.94	2.87
	<i>Less than \$15,000</i>	124	6.53	6.82	2.75
	<i>\$15,000 to \$24,999</i>	130	5	5.06	1.74
	<i>\$25,000 to \$29,999</i>	95	7.92	8.21	3.97
	<i>\$30,000 to \$34,999</i>	257	7.79	7.91	1.99
	<i>\$35,000 to \$49,999</i>	662	7.27	6.69	1.05
	<i>\$50,000 to \$59,999</i>	645	8.84	8.85	1.50
	<i>\$60,000 to \$74,999</i>	1,135	8.94	7.91	1.41
	<i>\$75,000 to \$99,999</i>	2,443	10.22	9.88	0.88
	<i>\$100,000 to \$149,999</i>	4,506	10.78	10.06	0.74
	<i>\$150,000 or more</i>	3,080	11.20	10.19	0.69
<i>Total</i>	<i>I don't know</i>	56	6.22	6.80	3.73
	<i>I prefer not to answer</i>	710	6.70	6.80	1.54
	<i>Less than \$15,000</i>	4,181	5.15	4.96	0.35
	<i>\$15,000 to \$24,999</i>	3,308	5.71	5.77	0.55
	<i>\$25,000 to \$29,999</i>	2,207	6.38	6.58	0.75
	<i>\$30,000 to \$34,999</i>	2,529	6.28	6.48	0.68
	<i>\$35,000 to \$49,999</i>	6,246	6.23	6.91	0.55
	<i>\$50,000 to \$59,999</i>	5,903	6.75	7.53	0.58

	N	Survey	Estimate	MOE (95%)
\$60,000 to \$74,999	9,596	7.35	8.14	0.52
\$75,000 to \$99,999	15,351	8.02	8.66	0.34
\$100,000 to \$149,999	25,736	9.38	9.94	0.37
\$150,000 or more	23,852	10.41	10.88	0.44

Table 41 and Table 42 show person-level trip rates by county of residence and age bin as reported on the question AAGE which is asked whenever AGE is refused. For this table, responses to AGE where assigned to the appropriate age bins from AAGE.

**Table 41. Person Trip Rates by County**

home_county	N	Survey	Estimate	MOE (95%)
Cook	48,441	3.21	3.04	0.07
DeKalb	1,378	3.55	3.43	0.43
DuPage	15,291	3.34	3.36	0.12
Grundy	611	3.68	3.71	0.68
Kane	5,562	3.25	3.17	0.16
Kendall	4,315	3.27	3.35	0.28
Lake	8,251	3.47	3.38	0.16
McHenry	2,717	3.35	3.39	0.31
Will	13,172	3.10	3.03	0.13
Total	99,738	3.25	3.14	0.05

**Table 42. Person Trip Rates by Age by County**

home_county	age_binned3	N	Survey	Estimate	MOE (95%)
Cook	I prefer not to answer	6	3	2.54	8.41
	5 - 12	3,361	2.74	2.58	0.17
	13 - 15	1,176	2.51	2.27	0.18
	16 - 17	693	2.58	2.43	0.29
	18 - 44	26,209	3.54	3.33	0.11
	45 - 64	12,803	3.69	3.56	0.14
	65 or older	4,193	3.44	3.42	0.21
DeKalb	I prefer not to answer	0	0	0	0
	5 - 12	96	2.82	2.66	0.84
	13 - 15	31	2.38	2.34	1.11
	16 - 17	21	2.10	2.01	0.59
	18 - 44	677	3.78	3.58	0.61
	45 - 64	403	4.69	4.70	0.82
	65 or older	150	4.17	4.09	1.29
DuPage	I prefer not to answer	2	0.50	0.50	0
	5 - 12	1,484	3.03	3.04	0.33
	13 - 15	483	2.82	2.89	0.54
	16 - 17	356	3.27	3.26	0.45
	18 - 44	5,927	3.70	3.60	0.24
	45 - 64	5,139	3.82	3.75	0.17
	65 or older	1,900	3.77	3.90	0.37
Grundy	I prefer not to answer	0	0	0	0
	5 - 12	62	2.70	2.51	1.37
	13 - 15	24	6	5.90	7.26
	16 - 17	14	3.50	3.24	1.49
	18 - 44	292	3.89	3.75	0.88
	45 - 64	143	3.86	3.86	1.12
	65 or older	76	4.47	4.69	1.29
Kane	I prefer not to answer	5	2.50	2.50	0
	5 - 12	633	3.07	2.97	0.44
	13 - 15	165	2.95	2.70	0.63
	16 - 17	114	2.92	3.00	0.66
	18 - 44	2,033	3.54	3.56	0.33
	45 - 64	2,014	3.90	3.73	0.28
	65 or older	598	3.07	3.01	0.32
Kendall	I prefer not to answer	0	0	0	0
	5 - 12	660	2.81	2.90	0.43
	13 - 15	291	2.72	2.87	0.55
	16 - 17	170	3.40	3.78	1.15
	18 - 44	1,897	3.90	3.67	0.38
	45 - 64	1,055	3.92	3.95	0.52

		N	Survey	Estimate	MOE (95%)
	65 or older	242	3.78	4.08	0.98
Lake	I prefer not to answer	0	0	0	0
	5 - 12	777	3.05	2.97	0.28
	13 - 15	290	2.64	2.58	0.31
	16 - 17	192	3.15	3.15	0.54
	18 - 44	2,781	3.71	3.68	0.27
	45 - 64	2,978	3.94	3.89	0.28
	65 or older	1,233	3.87	3.80	0.32
McHenry	I prefer not to answer	0	0	0	0
	5 - 12	283	2.86	2.71	0.53
	13 - 15	88	3.38	2.88	0.64
	16 - 17	55	3.44	3.23	1.16
	18 - 44	959	3.40	3.45	0.51
	45 - 64	946	3.78	3.78	0.36
	65 or older	386	3.90	4.01	0.67
Will	I prefer not to answer	6	3	3	0
	5 - 12	1,813	2.74	2.76	0.20
	13 - 15	783	2.54	2.42	0.21
	16 - 17	577	2.93	2.84	0.38
	18 - 44	4,951	3.46	3.26	0.22
	45 - 64	4,277	3.82	3.58	0.22
	65 or older	765	3.08	3.27	0.45
Total	I prefer not to answer	19	1.90	1.87	1.99
	5 - 12	9,169	2.84	2.73	0.11
	13 - 15	3,331	2.64	2.45	0.13
	16 - 17	2,192	2.90	2.76	0.21
	18 - 44	45,726	3.58	3.41	0.08
	45 - 64	29,758	3.79	3.66	0.09
	65 or older	9,543	3.53	3.51	0.14

## Trip Mode by Various Attributes Grouped By County

Table 43 through Table 47 summarize trip mode across various purposes, durations, and counts. Personally Owned Vehicles account for the largest proportion of trip making in all counties with 75 percent of trips using the mode. Cook County has the highest share of other modes with 16.82 percent of trips occurring via a walk mode and 7.90 percent of trips by public transit modes. In tables with 'Other' listed under the 'county' column, the other status comes from trips beginning or ending in a county not within the nine-county area.

**Table 43. All Trip Modes by County of Trip Destination**

trip_county	mode_agg2	N	Survey	Estimate	MOE (95%)
Cook	Walk	9,891	19.55%	16.82%	0.94%
	Bike	1,508	2.98%	2.66%	0.39%
	Personally Owned Vehicle	27,102	53.57%	65.90%	1.34%
	Public Transit	7,733	15.28%	7.90%	0.52%
	Other	2,595	5.13%	5.20%	0.55%
DeKalb	Walk	126	9.80%	10.01%	4.20%
	Bike	11	0.86%	0.99%	1.33%
	Personally Owned Vehicle	1,048	81.49%	79.88%	7.55%
	Public Transit	3	0.23%	0.19%	0.22%
	Other	76	5.91%	7.18%	5.68%
DuPage	Walk	625	4.05%	4.40%	1.18%
	Bike	77	0.50%	0.55%	0.28%
	Personally Owned Vehicle	13,676	88.67%	89.44%	1.66%
	Public Transit	208	1.35%	0.81%	0.17%
	Other	642	4.16%	4.25%	0.77%
Grundy	Walk	14	2.75%	3.07%	2.99%
	Bike	0%	0%	0%	0%
	Personally Owned Vehicle	457	89.61%	90.33%	4.99%
	Public Transit	0%	0%	0%	0%
	Other	39	7.65%	6.61%	4.04%
Kane	Walk	180	3.28%	3.72%	1.42%
	Bike	37	0.67%	1.42%	1.46%
	Personally Owned Vehicle	4,912	89.49%	89.78%	2.67%
	Public Transit	64	1.17%	0.39%	0.14%
	Other	279	5.08%	4.49%	1.01%
Kendall	Walk	118	3.25%	3.28%	1.44%
	Bike	8	0.22%	0.37%	0.62%
	Personally Owned Vehicle	3,091	85.08%	86.83%	2.40%
	Public Transit	18	0.50%	0.17%	0.09%
	Other	392	10.79%	9.17%	1.69%
Lake	Walk	332	4.28%	4.42%	1.06%
	Bike	49	0.63%	0.63%	0.38%

		N	Survey	Estimate	MOE (95%)
	Personally Owned Vehicle	6,690	86.16%	86.73%	1.80%
	Public Transit	128	1.65%	0.71%	0.25%
	Other	522	6.72%	7.29%	1.18%
McHenry	Walk	61	2.58%	2.79%	1.37%
	Bike	6	0.25%	0.31%	0.62%
	Personally Owned Vehicle	2,122	89.73%	90.91%	2.58%
	Public Transit	22	0.93%	0.31%	0.14%
	Other	144	6.09%	5.52%	1.80%
Will	Walk	313	2.78%	2.60%	0.57%
	Bike	16	0.14%	0.14%	0.15%
	Personally Owned Vehicle	9,753	86.52%	89.13%	1.32%
	Public Transit	89	0.79%	0.33%	0.09%
	Other	1,057	9.38%	7.58%	1.23%
Other	Walk	329	23.70%	28.26%	7.86%
	Bike	14	1.01%	1.85%	2.23%
	Personally Owned Vehicle	845	60.88%	56.99%	7.82%
	Public Transit	33	2.38%	2.02%	1.22%
	Other	160	11.53%	10.56%	3.91%
Total	Walk	11,989	12.02%	11.67%	0.63%
	Bike	1,726	1.73%	1.80%	0.25%
	Personally Owned Vehicle	69,696	69.89%	75.15%	0.88%
	Public Transit	8,298	8.32%	4.76%	0.28%
	Other	5,906	5.92%	5.61%	0.37%

**Table 44. Mode to School by County of Residence**

home_county	smode_binned	N	Survey	Estimate	MOE (95%)
Cook	Walk	823	22.05%	22.94%	2.19%
	Bike	150	4.02%	3.77%	1.21%
	Personally Owned Vehicle	1,375	36.83%	39.69%	2.78%
	School Bus	351	9.40%	10.55%	1.80%
	Public Transit	867	23.23%	18.17%	1.99%
	Other	167	4.47%	4.89%	1.18%
DeKalb	Walk	34	23.94%	25.39%	9.40%
	Bike	2	1.41%	1.40%	2.12%
	Personally Owned Vehicle	69	48.59%	46.73%	9.40%
	School Bus	23	16.20%	15.12%	7.65%
	Public Transit	13	9.15%	9.98%	8.04%
	Other	1	0.70%	1.38%	2.77%
DuPage	Walk	169	15.02%	13.83%	3.14%
	Bike	14	1.24%	1.01%	0.74%
	Personally Owned Vehicle	628	55.82%	57.34%	5.22%
	School Bus	255	22.67%	23.09%	4.12%

		N	Survey	Estimate	MOE (95%)
	<i>Public Transit</i>	21	1.87%	1.96%	1.11%
	<i>Other</i>	38	3.38%	2.77%	1.23%
Grundy	<i>Walk</i>	2	5.00%	5.27%	7.60%
	<i>Bike</i>	0	0%	0%	0%
	<i>Personally Owned Vehicle</i>	21	52.50%	58.32%	14.76%
	<i>School Bus</i>	16	40.00%	32.92%	15.83%
	<i>Public Transit</i>	0	0%	0%	0%
	<i>Other</i>	1	2.50%	3.49%	7.14%
Kane	<i>Walk</i>	36	8.93%	11.40%	3.83%
	<i>Bike</i>	2	0.50%	0.53%	0.89%
	<i>Personally Owned Vehicle</i>	211	52.36%	54.43%	7.81%
	<i>School Bus</i>	127	31.51%	27.19%	6.98%
	<i>Public Transit</i>	7	1.74%	0.82%	0.76%
	<i>Other</i>	20	4.96%	5.64%	3.95%
Kendall	<i>Walk</i>	51	10.47%	10.57%	3.74%
	<i>Bike</i>	2	0.41%	0.27%	0.38%
	<i>Personally Owned Vehicle</i>	238	48.87%	50.10%	5.90%
	<i>School Bus</i>	167	34.29%	33.51%	5.22%
	<i>Public Transit</i>	4	0.82%	0.56%	0.62%
	<i>Other</i>	25	5.13%	5.00%	2.59%
Lake	<i>Walk</i>	54	8.56%	7.71%	2.93%
	<i>Bike</i>	12	1.90%	1.46%	1.03%
	<i>Personally Owned Vehicle</i>	280	44.37%	45.84%	5.87%
	<i>School Bus</i>	233	36.93%	37.33%	5.64%
	<i>Public Transit</i>	18	2.85%	2.19%	1.34%
	<i>Other</i>	34	5.39%	5.47%	2.61%
McHenry	<i>Walk</i>	12	6.45%	11.36%	7.89%
	<i>Bike</i>	1	0.54%	0.91%	1.81%
	<i>Personally Owned Vehicle</i>	94	50.54%	50.81%	8.13%
	<i>School Bus</i>	68	36.56%	31.29%	9.16%
	<i>Public Transit</i>	1	0.54%	0.43%	0.87%
	<i>Other</i>	10	5.38%	5.19%	3.65%
Will	<i>Walk</i>	117	7.85%	8.06%	2.01%
	<i>Bike</i>	14	0.94%	0.55%	0.37%
	<i>Personally Owned Vehicle</i>	695	46.64%	50.40%	4.77%
	<i>School Bus</i>	579	38.86%	33.78%	4.66%
	<i>Public Transit</i>	30	2.01%	2.34%	1.56%
	<i>Other</i>	55	3.69%	4.87%	1.89%
Total	<i>Walk</i>	1,298	15.76%	18.01%	1.49%
	<i>Bike</i>	197	2.39%	2.59%	0.73%
	<i>Personally Owned Vehicle</i>	3,611	43.84%	44.54%	2.13%
	<i>School Bus</i>	1,819	22.08%	18.57%	1.53%

	N	Survey	Estimate	MOE (95%)
Public Transit	961	11.67%	11.58%	1.17%
Other	351	4.26%	4.72%	0.84%

**Table 45. Mode to Work by County of Residence**

home_county	wmode_binned	N	Survey	Estimate	MOE (95%)
Cook	Walk	454	4.94%	5.18%	0.70%
	Bike	483	5.25%	4.36%	0.64%
	Personally Owned Vehicle	4,039	43.91%	59.28%	1.75%
	Public Transit	3,581	38.93%	22.80%	1.26%
	Other	642	6.98%	8.38%	0.97%
DeKalb	Walk	19	9.00%	9.22%	5.09%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	175	82.94%	83.04%	7.07%
	Public Transit	8	3.79%	3.74%	3.02%
	Other	9	4.27%	4.00%	3.90%
DuPage	Walk	26	1.03%	1.31%	0.55%
	Bike	20	0.79%	0.91%	0.53%
	Personally Owned Vehicle	1,960	77.35%	82.18%	1.77%
	Public Transit	368	14.52%	8.52%	1.07%
	Other	160	6.31%	7.07%	1.35%
Grundy	Walk	1	1.01%	0.77%	1.54%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	93	93.94%	94.48%	4.42%
	Public Transit	0	0%	0%	0%
	Other	5	5.05%	4.75%	4.20%
Kane	Walk	10	1.05%	1.86%	1.69%
	Bike	8	0.84%	1.40%	1.60%
	Personally Owned Vehicle	824	86.37%	85.80%	3.46%
	Public Transit	55	5.77%	3.49%	1.42%
	Other	57	5.97%	7.45%	2.33%
Kendall	Walk	4	0.59%	0.65%	0.70%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	597	88.71%	88.16%	2.88%
	Public Transit	30	4.46%	3.94%	1.96%
	Other	42	6.24%	7.25%	2.44%
Lake	Walk	10	0.77%	0.94%	0.73%
	Bike	11	0.85%	0.87%	0.55%
	Personally Owned Vehicle	1,066	82.25%	84.95%	2.47%
	Public Transit	119	9.18%	5.21%	1.22%
	Other	90	6.94%	8.02%	2.16%
McHenry	Walk	7	1.54%	2.72%	2.12%
	Bike	5	1.10%	1.36%	1.48%

		N	Survey	Estimate	MOE (95%)
	Personally Owned Vehicle	376	82.46%	84.42%	3.87%
	Public Transit	41	8.99%	5.10%	2.28%
	Other	27	5.92%	6.40%	2.43%
Will	Walk	18	0.81%	0.80%	0.48%
	Bike	5	0.23%	0.28%	0.34%
	Personally Owned Vehicle	1,890	85.25%	87.21%	2.03%
	Public Transit	157	7.08%	4.28%	1.01%
	Other	147	6.63%	7.44%	1.63%
Total	Walk	549	3.11%	3.64%	0.42%
	Bike	532	3.02%	2.88%	0.41%
	Personally Owned Vehicle	11,020	62.48%	69.93%	1.14%
	Public Transit	4,359	24.71%	15.63%	0.76%
	Other	1,179	6.68%	7.92%	0.68%

**Table 46. Mode by Household Size by County of Trip Destination**

trip_county	mode_agg2	hhsize_agg	N	Survey	Estimate	MOE (95%)
Cook	Walk	1	2,428	4.80%	3.53%	0.42%
		2	3,602	7.12%	4.79%	0.51%
		3	1,418	2.80%	2.45%	0.41%
		4+	2,443	4.83%	6.05%	0.78%
	Bike	1	397	0.78%	0.66%	0.19%
		2	631	1.25%	0.79%	0.19%
		3	182	0.36%	0.37%	0.16%
		4+	298	0.59%	0.83%	0.28%
	Personally Owned Vehicle	1	3,820	7.55%	9.40%	0.77%
		2	8,617	17.03%	17.96%	1.27%
		3	4,921	9.73%	12.32%	1.29%
		4+	9,744	19.26%	26.22%	1.79%
	Public Transit	1	2,080	4.11%	1.89%	0.20%
		2	2,888	5.71%	2.27%	0.23%
		3	1,249	2.47%	1.38%	0.18%
		4+	1,516	3.00%	2.36%	0.37%
	Other	1	488	0.96%	0.70%	0.14%
		2	762	1.51%	1.20%	0.29%
		3	388	0.77%	0.86%	0.26%
		4+	957	1.89%	2.44%	0.40%
DeKalb	Walk	1	50	3.89%	3.59%	2.02%
		2	29	2.26%	2.02%	1.31%
		3	8	0.62%	1.00%	1.09%
		4+	39	3.03%	3.39%	3.78%
	Bike	1	0	0%	0%	0%

			N	Survey	Estimate	MOE (95%)
Personally Owned Vehicle	Car	2	11	0.86%	0.99%	1.33%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
		1	121	9.41%	9.53%	4.19%
	Van	2	373	29.00%	29.12%	7.91%
		3	171	13.30%	16.74%	9.26%
		4+	383	29.78%	24.50%	9.73%
		1	2	0.16%	0.11%	0.15%
	Public Transit	2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	1	0.08%	0.08%	0.16%
		1	10	0.78%	0.98%	1.38%
Other	Bicycle	2	25	1.94%	2.33%	2.69%
		3	23	1.79%	2.80%	5.17%
		4+	18	1.40%	1.07%	0.91%
		1	65	0.42%	0.55%	0.32%
DuPage	Walk	2	123	0.80%	0.91%	0.39%
		3	106	0.69%	0.70%	0.35%
		4+	331	2.15%	2.25%	1.11%
		1	5	0.03%	0.06%	0.12%
	Bike	2	21	0.14%	0.19%	0.17%
		3	3	0.02%	0.01%	0.01%
		4+	48	0.31%	0.30%	0.17%
		1	1,392	9.02%	10.84%	1.40%
	Personally Owned Vehicle	2	3,974	25.77%	25.30%	2.61%
		3	2,461	15.96%	16.09%	2.09%
		4+	5,849	37.92%	37.20%	2.81%
		1	19	0.12%	0.12%	0.09%
Grundy	Walk	2	67	0.43%	0.26%	0.09%
		3	49	0.32%	0.15%	0.06%
		4+	73	0.47%	0.27%	0.10%
		1	5	0.03%	0.06%	0.10%
	Bike	2	68	0.44%	0.48%	0.31%
		3	95	0.62%	0.53%	0.19%
		4+	474	3.07%	3.18%	0.71%
		1	2	0.39%	0.57%	1.13%
	Public Transit	2	6	1.18%	0.92%	1.28%
		3	0	0%	0%	0%
	Other	4+	6	1.18%	1.58%	2.52%
		1	0	0%	0%	0%
		2	0	0%	0%	0%

			N	Survey	Estimate	MOE (95%)
Personally Owned Vehicle	Walk	1	31	6.08%	8.98%	6.19%
		2	143	28.04%	28.83%	13.67%
		3	61	11.96%	12.23%	8.39%
		4+	222	43.53%	40.28%	15.85%
	Bike	1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
	Public Transit	1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%
Other	Walk	1	0	0%	0%	0%
		2	3	0.59%	0.65%	0.91%
		3	1	0.20%	0.60%	1.21%
		4+	35	6.86%	5.35%	3.82%
	Bike	1	25	0.46%	0.72%	0.77%
		2	56	1.02%	0.87%	0.50%
		3	15	0.27%	0.40%	0.32%
		4+	84	1.53%	1.74%	0.93%
	Public Transit	1	4	0.07%	0.14%	0.20%
		2	5	0.09%	0.04%	0.06%
		3	9	0.16%	0.25%	0.37%
		4+	19	0.35%	0.99%	1.30%
Kane	Walk	1	455	8.29%	9.68%	2.23%
		2	1,532	27.91%	20.68%	3.72%
		3	744	13.55%	13.61%	3.04%
		4+	2,181	39.73%	45.80%	5.78%
	Bike	1	11	0.20%	0.07%	0.08%
		2	21	0.38%	0.12%	0.06%
		3	13	0.24%	0.09%	0.07%
		4+	19	0.35%	0.10%	0.05%
	Public Transit	1	6	0.11%	0.20%	0.25%
		2	58	1.06%	0.93%	0.51%
		3	40	0.73%	0.84%	0.54%
		4+	175	3.19%	2.53%	0.72%
Kendall	Walk	1	3	0.08%	0.15%	0.17%
		2	21	0.58%	0.73%	0.81%
		3	8	0.22%	0.22%	0.27%
		4+	86	2.37%	2.18%	1.11%
	Bike	1	0	0%	0%	0%
		2	0	0%	0%	0%
		3	4	0.11%	0.32%	0.62%

			N	Survey	Estimate	MOE (95%)
		4+	4	0.11%	0.06%	0.08%
	Personally Owned Vehicle	1	139	3.83%	5.86%	2.41%
		2	512	14.09%	15.32%	4.31%
		3	491	13.52%	15.20%	4.66%
		4+	1,949	53.65%	50.45%	7.44%
	Public Transit	1	2	0.06%	0.02%	0.03%
		2	3	0.08%	0.03%	0.03%
		3	3	0.08%	0.03%	0.04%
		4+	10	0.28%	0.10%	0.07%
	Other	1	0	0%	0%	0%
		2	19	0.52%	0.66%	0.55%
		3	34	0.94%	0.98%	0.52%
		4+	339	9.33%	7.53%	1.54%
Lake	Walk	1	56	0.72%	0.88%	0.43%
		2	89	1.15%	0.80%	0.29%
		3	39	0.50%	0.56%	0.51%
		4+	148	1.91%	2.18%	0.87%
	Bike	1	3	0.04%	0.06%	0.07%
		2	13	0.17%	0.16%	0.17%
		3	8	0.10%	0.09%	0.12%
		4+	25	0.32%	0.32%	0.30%
	Personally Owned Vehicle	1	820	10.56%	9.69%	1.87%
		2	2,129	27.42%	23.23%	2.88%
		3	1,168	15.04%	16.94%	3.20%
		4+	2,573	33.14%	36.88%	3.74%
	Public Transit	1	41	0.53%	0.36%	0.22%
		2	43	0.55%	0.18%	0.08%
		3	20	0.26%	0.08%	0.05%
		4+	24	0.31%	0.09%	0.04%
	Other	1	19	0.24%	0.24%	0.20%
		2	20	0.26%	0.21%	0.13%
		3	76	0.98%	1.15%	0.43%
		4+	407	5.24%	5.69%	1.07%
McHenry	Walk	1	5	0.21%	0.20%	0.25%
		2	14	0.59%	0.52%	0.58%
		3	11	0.47%	0.47%	0.61%
		4+	31	1.31%	1.61%	1.14%
	Bike	1	0	0%	0%	0%
		2	6	0.25%	0.31%	0.62%
		3	0	0%	0%	0%
		4+	0	0%	0%	0%

		N	Survey	Estimate	MOE (95%)
<i>Personally Owned Vehicle</i>	1	237	10.02%	10.94%	3.58%
	2	724	30.61%	28.13%	6.63%
	3	333	14.08%	16.00%	4.87%
	4+	828	35.01%	35.84%	7.34%
<i>Public Transit</i>	1	2	0.08%	0.02%	0.03%
	2	11	0.47%	0.16%	0.10%
	3	1	0.04%	0.02%	0.03%
	4+	8	0.34%	0.12%	0.09%
<i>Other</i>	1	4	0.17%	0.25%	0.49%
	2	11	0.47%	0.31%	0.26%
	3	18	0.76%	0.62%	0.42%
	4+	111	4.69%	4.35%	1.68%
Will	<i>Walk</i>	1	11	0.10%	0.19%
		2	39	0.35%	0.45%
		3	39	0.35%	0.43%
		4+	224	1.99%	1.53%
	<i>Bike</i>	1	0	0%	0%
		2	7	0.06%	0.09%
		3	4	0.04%	0.03%
		4+	5	0.04%	0.02%
Personally Owned Vehicle	1	567	5.03%	8.55%	1.69%
	2	1,783	15.82%	22.41%	2.95%
	3	1,557	13.81%	15.91%	2.82%
	4+	5,846	51.86%	42.26%	3.08%
	<i>Public Transit</i>	1	10	0.09%	0.05%
		2	20	0.18%	0.07%
		3	17	0.15%	0.05%
		4+	42	0.37%	0.16%
Other	<i>Other</i>	1	8	0.07%	0.20%
		2	40	0.35%	0.49%
		3	119	1.06%	0.88%
		4+	890	7.90%	6.01%
	<i>Walk</i>	1	21	1.51%	0.50%
		2	28	2.02%	1.10%
		3	55	3.96%	4.82%
		4+	225	16.21%	21.84%
Other	<i>Bike</i>	1	0	0%	0%
		2	4	0.29%	0.66%
		3	2	0.14%	0.03%
		4+	8	0.58%	1.16%

			N	Survey	Estimate	MOE (95%)
Personally Owned Vehicle	1	79	5.69%	4.68%	2.56%	
	2	330	23.78%	19.41%	5.94%	
	3	111	8.00%	6.07%	2.75%	
	4+	325	23.41%	26.83%	7.76%	
Public Transit	1	0	0%	0%	0%	
	2	8	0.58%	0.46%	0.54%	
	3	3	0.22%	0.07%	0.08%	
	4+	22	1.59%	1.49%	1.12%	
Other	1	16	1.15%	0.46%	0.38%	
	2	61	4.39%	3.06%	1.55%	
	3	14	1.01%	0.71%	0.59%	
	4+	69	4.97%	6.33%	3.80%	
Walk	1	2,666	2.67%	2.28%	0.26%	
	2	4,007	4.02%	3.08%	0.30%	
	3	1,699	1.70%	1.69%	0.25%	
	4+	3,617	3.63%	4.61%	0.50%	
	Bike	1	409	0.41%	0.40%	0.11%
		2	698	0.70%	0.53%	0.12%
		3	212	0.21%	0.25%	0.09%
		4+	407	0.41%	0.62%	0.19%
Personally Owned Vehicle	1	7,661	7.68%	9.44%	0.59%	
	2	20,117	20.17%	20.20%	0.98%	
	3	12,018	12.05%	13.66%	1.01%	
	4+	29,900	29.98%	31.84%	1.31%	
Public Transit	1	2,167	2.17%	1.13%	0.11%	
	2	3,061	3.07%	1.37%	0.13%	
	3	1,355	1.36%	0.83%	0.10%	
	4+	1,715	1.72%	1.44%	0.21%	
Other	1	556	0.56%	0.48%	0.09%	
	2	1,067	1.07%	0.95%	0.18%	
	3	808	0.81%	0.86%	0.17%	
	4+	3,475	3.48%	3.31%	0.29%	

Table 47. Trip Duration by Mode by County of Trip Destination

trip_county	travtime_binned	mode_agg2	N	Survey	Estimate	MOE (95%)
Cook	0 - 5	Walk	3,477	6.87%	5.74%	0.54%
		Bike	175	0.35%	0.36%	0.11%
		Personally Owned Vehicle	4,815	9.52%	12.00%	0.86%
		Public Transit	180	0.36%	0.23%	0.07%
		Other	243	0.48%	0.43%	0.15%

			N	Survey	Estimate	MOE (95%)
6 - 10	Walk		2,720	5.38%	4.51%	0.41%
	Bike		295	0.58%	0.54%	0.13%
	Personally Owned Vehicle		5,941	11.74%	14.29%	0.73%
	Public Transit		241	0.48%	0.26%	0.07%
	Other		400	0.79%	0.76%	0.21%
11 - 20	Walk		2,464	4.87%	4.40%	0.42%
	Bike		452	0.89%	0.80%	0.17%
	Personally Owned Vehicle		6,871	13.58%	17.59%	0.83%
	Public Transit		814	1.61%	0.92%	0.14%
	Other		786	1.55%	1.42%	0.21%
21 - 30	Walk		674	1.33%	1.17%	0.17%
	Bike		275	0.54%	0.50%	0.12%
	Personally Owned Vehicle		3,639	7.19%	9.01%	0.55%
	Public Transit		1,340	2.65%	1.46%	0.18%
	Other		529	1.05%	1.08%	0.18%
31 - 45	Walk		310	0.61%	0.59%	0.10%
	Bike		184	0.36%	0.23%	0.06%
	Personally Owned Vehicle		2,888	5.71%	6.55%	0.35%
	Public Transit		2,024	4.00%	1.93%	0.21%
	Other		328	0.65%	0.80%	0.16%
46 - 60	Walk		115	0.23%	0.21%	0.07%
	Bike		74	0.15%	0.11%	0.04%
	Personally Owned Vehicle		1,632	3.23%	3.52%	0.34%
	Public Transit		1,477	2.92%	1.44%	0.14%
	Other		142	0.28%	0.36%	0.09%
61 - 90	Walk		82	0.16%	0.14%	0.05%
	Bike		41	0.08%	0.09%	0.05%
	Personally Owned Vehicle		994	1.96%	2.20%	0.24%
	Public Transit		1,174	2.32%	1.15%	0.13%
	Other		87	0.17%	0.18%	0.06%
91 - 120	Walk		11	0.02%	0.01%	0.01%
	Bike		6	0.01%	0.01%	0.01%
	Personally Owned Vehicle		198	0.39%	0.44%	0.09%
	Public Transit		319	0.63%	0.31%	0.07%
	Other		27	0.05%	0.07%	0.04%
121 or more	Walk		34	0.07%	0.04%	0.02%
	Bike		6	0.01%	0.01%	0.01%

			N	Survey	Estimate	MOE (95%)
		Personally Owned Vehicle	121	0.24%	0.28%	0.07%
		Public Transit	163	0.32%	0.19%	0.05%
		Other	52	0.10%	0.10%	0.04%
DeKalb	0 - 5	Walk	33	2.57%	2.60%	1.23%
		Bike	5	0.39%	0.49%	0.87%
		Personally Owned Vehicle	354	27.53%	24.55%	5.05%
	6 - 10	Public Transit	1	0.08%	0.07%	0.13%
		Other	14	1.09%	1.83%	2.06%
		Walk	33	2.57%	3.02%	2.23%
	11 - 20	Bike	2	0.16%	0.22%	0.31%
		Personally Owned Vehicle	291	22.63%	23.14%	4.75%
		Public Transit	0	0%	0%	0%
	21 - 30	Other	16	1.24%	1.83%	2.51%
		Walk	50	3.89%	3.67%	1.78%
		Bike	4	0.31%	0.28%	0.33%
	31 - 45	Personally Owned Vehicle	215	16.72%	18.65%	4.63%
		Public Transit	0	0%	0%	0%
		Other	17	1.32%	1.37%	1.00%
	46 - 60	Walk	8	0.62%	0.60%	0.50%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	47	3.65%	3.58%	1.65%
	61 - 90	Public Transit	0	0%	0%	0%
		Other	9	0.70%	0.82%	0.68%
		Walk	1	0.08%	0.08%	0.16%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	49	3.81%	3.41%	1.35%
		Public Transit	0	0%	0%	0%
		Other	10	0.78%	0.67%	0.84%
		Walk	1	0.08%	0.04%	0.07%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	45	3.50%	2.96%	1.31%
		Public Transit	0	0%	0%	0%
		Other	5	0.39%	0.31%	0.51%
		Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	33	2.57%	2.55%	1.41%
		Public Transit	0	0%	0%	0%

			N	Survey	Estimate	MOE (95%)
91 - 120	Personally Owned Vehicle	Other	1	0.08%	0.08%	0.15%
		Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Public Transit	4	0.31%	0.18%	0.25%
		Other	0	0%	0%	0%
	Public Transit	Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	10	0.78%	0.86%	0.56%
		Other	2	0.16%	0.12%	0.18%
		Walk	4	0.31%	0.26%	0.36%
DuPage	0 - 5	Walk	233	1.51%	1.61%	0.59%
		Bike	15	0.10%	0.11%	0.10%
		Personally Owned Vehicle	3,030	19.64%	18.60%	1.33%
		Public Transit	12	0.08%	0.04%	0.04%
		Other	56	0.36%	0.40%	0.17%
	6 - 10	Walk	166	1.08%	1.10%	0.33%
		Bike	23	0.15%	0.15%	0.10%
		Personally Owned Vehicle	3,242	21.02%	21.26%	1.39%
		Public Transit	7	0.05%	0.02%	0.01%
		Other	100	0.65%	0.56%	0.19%
11 - 20	11 - 20	Walk	148	0.96%	1.03%	0.38%
		Bike	20	0.13%	0.12%	0.09%
		Personally Owned Vehicle	3,537	22.93%	23.50%	1.33%
		Public Transit	14	0.09%	0.03%	0.02%
		Other	226	1.47%	1.44%	0.31%
	21 - 30	Walk	36	0.23%	0.24%	0.12%
		Bike	7	0.05%	0.04%	0.04%
		Personally Owned Vehicle	1,744	11.31%	12.14%	0.96%
		Public Transit	15	0.10%	0.07%	0.07%
		Other	133	0.86%	0.80%	0.27%
31 - 45	31 - 45	Walk	18	0.12%	0.11%	0.07%
		Bike	6	0.04%	0.02%	0.02%
		Personally Owned Vehicle	1,221	7.92%	8.10%	0.71%
		Public Transit	15	0.10%	0.06%	0.04%
		Other	81	0.53%	0.57%	0.17%
	46 - 60	Walk	7	0.05%	0.08%	0.08%

			N	Survey	Estimate	MOE (95%)
61 - 90	Bike		2	0.01%	0.02%	0.03%
	Personally Owned Vehicle		531	3.44%	3.48%	0.42%
	Public Transit		31	0.20%	0.12%	0.05%
	Other		22	0.14%	0.27%	0.22%
	Walk		10	0.06%	0.08%	0.07%
	Bike		2	0.01%	0.05%	0.10%
	Personally Owned Vehicle		285	1.85%	1.92%	0.29%
	Public Transit		72	0.47%	0.33%	0.12%
	Other		16	0.10%	0.14%	0.10%
	Walk		4	0.03%	0.09%	0.17%
91 - 120	Bike		0	0%	0%	0%
	Personally Owned Vehicle		47	0.30%	0.25%	0.10%
	Public Transit		32	0.21%	0.10%	0.05%
	Other		1	0.01%	0.01%	0.01%
	Walk		3	0.02%	0.05%	0.07%
	Bike		2	0.01%	0.02%	0.04%
	Personally Owned Vehicle		37	0.24%	0.18%	0.07%
	Public Transit		10	0.06%	0.05%	0.04%
	Other		7	0.05%	0.07%	0.08%
Grundy	0 - 5	Walk	7	1.37%	1.65%	2.04%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	130	25.49%	24.87%	8.80%
		Public Transit	0	0%	0%	0%
		Other	0	0%	0%	0%
	6 - 10	Walk	2	0.39%	0.53%	0.84%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	123	24.12%	26.02%	6.52%
		Public Transit	0	0%	0%	0%
		Other	2	0.39%	0.15%	0.21%
11 - 20	Walk		3	0.59%	0.42%	0.63%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	95	18.63%	20.55%	8.09%
		Public Transit	0	0%	0%	0%
		Other	13	2.55%	1.56%	1.25%
	21 - 30	Walk	2	0.39%	0.48%	0.68%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	47	9.22%	7.04%	3.80%

			N	Survey	Estimate	MOE (95%)
31 - 45	Public Transit	Other	0	0%	0%	0%
		Walk	13	2.55%	2.33%	1.77%
		Bike	0	0%	0%	0%
	Personally Owned Vehicle	Personally Owned Vehicle	34	6.67%	6.05%	2.48%
		Public Transit	0	0%	0%	0%
		Other	6	1.18%	0.63%	0.65%
46 - 60	Public Transit	Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	13	2.55%	2.60%	2.05%
	Personally Owned Vehicle	Public Transit	0	0%	0%	0%
		Other	1	0.20%	0.10%	0.19%
		Walk	0	0%	0%	0%
61 - 90	Public Transit	Bike	0	0%	0%	0%
		Personally Owned Vehicle	9	1.76%	2.07%	1.80%
		Other	0	0%	0%	0%
	Personally Owned Vehicle	Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Public Transit	2	0.39%	0.44%	0.63%
91 - 120	Public Transit	Other	0	0%	0%	0%
		Walk	1	0.20%	0.13%	0.26%
		Bike	0	0%	0%	0%
	Personally Owned Vehicle	Personally Owned Vehicle	0	0%	0%	0%
		Public Transit	2	0.39%	0.44%	0.63%
		Other	0	0%	0%	0%
121 or more	Public Transit	Walk	4	0.78%	0.69%	0.83%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	4	0.78%	0.69%	0.83%
	Personally Owned Vehicle	Public Transit	0	0%	0%	0%
		Other	0	0%	0%	0%
		Walk	2	0.39%	0.29%	0.59%
Kane	0 - 5	Bike	70	1.28%	1.51%	1.01%
		Personally Owned Vehicle	9	0.16%	0.46%	0.64%
		Public Transit	892	16.25%	16.86%	1.98%
		Other	4	0.07%	0.03%	0.03%
		Walk	13	0.24%	0.23%	0.28%
	6 - 10	Bike	39	0.71%	1.02%	0.52%
		Personally Owned Vehicle	7	0.13%	0.30%	0.36%
		Public Transit	1,134	20.66%	23.18%	3.05%
		Other	0	0%	0%	0%
		Walk	45	0.82%	0.85%	0.39%

			N	Survey	Estimate	MOE (95%)
	11 - 20	Walk	31	0.56%	0.69%	0.39%
		Bike	13	0.24%	0.50%	0.61%
		Personally Owned Vehicle	1,380	25.14%	23.93%	2.30%
		Public Transit	7	0.13%	0.05%	0.04%
		Other	96	1.75%	1.59%	0.50%
	21 - 30	Walk	28	0.51%	0.34%	0.26%
		Bike	2	0.04%	0.07%	0.12%
		Personally Owned Vehicle	708	12.90%	13.26%	2.14%
		Public Transit	6	0.11%	0.05%	0.04%
		Other	64	1.17%	0.88%	0.29%
	31 - 45	Walk	8	0.15%	0.10%	0.11%
		Bike	2	0.04%	0.01%	0.03%
		Personally Owned Vehicle	444	8.09%	6.94%	1.01%
		Public Transit	6	0.11%	0.04%	0.03%
		Other	42	0.77%	0.61%	0.32%
	46 - 60	Walk	1	0.02%	0.01%	0.02%
		Bike	3	0.05%	0.03%	0.05%
		Personally Owned Vehicle	195	3.55%	3.10%	0.59%
		Public Transit	9	0.16%	0.06%	0.05%
		Other	10	0.18%	0.10%	0.07%
	61 - 90	Walk	2	0.04%	0.04%	0.06%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	115	2.10%	1.94%	0.56%
		Public Transit	8	0.15%	0.05%	0.03%
		Other	5	0.09%	0.09%	0.11%
	91 - 120	Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	27	0.49%	0.34%	0.16%
		Public Transit	19	0.35%	0.11%	0.05%
		Other	2	0.04%	0.08%	0.12%
	121 or more	Walk	1	0.02%	0.01%	0.03%
		Bike	1	0.02%	0.04%	0.07%
		Personally Owned Vehicle	16	0.29%	0.22%	0.15%
		Public Transit	5	0.09%	0.02%	0.03%
		Other	2	0.04%	0.07%	0.11%
Kendall	0 - 5	Walk	44	1.21%	1.13%	0.67%
		Bike	4	0.11%	0.19%	0.31%

		N	Survey	Estimate	MOE (95%)
6 - 10	Personally Owned Vehicle	865	23.81%	25.83%	3.86%
	Public Transit	0	0%	0%	0%
	Other	31	0.85%	0.79%	0.47%
	Walk	21	0.58%	0.69%	0.53%
	Bike	2	0.06%	0.03%	0.06%
	Personally Owned Vehicle	872	24.00%	26.00%	2.25%
11 - 20	Public Transit	0	0%	0%	0%
	Other	46	1.27%	0.91%	0.40%
	Walk	36	0.99%	1.00%	0.55%
	Bike	2	0.06%	0.16%	0.31%
	Personally Owned Vehicle	760	20.92%	20.30%	2.40%
	Public Transit	0	0%	0%	0%
21 - 30	Other	138	3.80%	3.35%	0.98%
	Walk	12	0.33%	0.34%	0.26%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	271	7.46%	7.26%	1.37%
	Public Transit	1	0.03%	0.01%	0.02%
	Other	107	2.95%	2.31%	0.83%
31 - 45	Walk	3	0.08%	0.06%	0.07%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	157	4.32%	3.53%	0.81%
	Public Transit	0	0%	0%	0%
	Other	57	1.57%	1.46%	0.70%
	Walk	1	0.03%	0.02%	0.03%
46 - 60	Bike	0	0%	0%	0%
	Personally Owned Vehicle	82	2.26%	1.95%	0.55%
	Public Transit	1	0.03%	0.01%	0.02%
	Other	8	0.22%	0.22%	0.26%
	Walk	1	0.03%	0.04%	0.08%
	Bike	0	0%	0%	0%
61 - 90	Personally Owned Vehicle	55	1.51%	1.37%	0.45%
	Public Transit	4	0.11%	0.04%	0.04%
	Other	3	0.08%	0.06%	0.08%
	Walk	0	0%	0%	0%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	13	0.36%	0.23%	0.14%
91 - 120	Public Transit	9	0.25%	0.09%	0.06%

			N	Survey	Estimate	MOE (95%)
121 or more		Other	2	0.06%	0.07%	0.10%
		Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	16	0.44%	0.35%	0.24%
		Public Transit	3	0.08%	0.03%	0.03%
		Other	0	0%	0%	0%
Lake	0 - 5	Walk	109	1.40%	1.49%	0.59%
		Bike	6	0.08%	0.05%	0.08%
		Personally Owned Vehicle	1,420	18.29%	19.07%	1.70%
		Public Transit	2	0.03%	0.01%	0.01%
		Other	31	0.40%	0.35%	0.15%
	6 - 10	Walk	99	1.27%	1.15%	0.37%
		Bike	15	0.19%	0.16%	0.14%
		Personally Owned Vehicle	1,582	20.37%	20.51%	1.70%
		Public Transit	4	0.05%	0.01%	0.01%
		Other	67	0.86%	1.01%	0.41%
11 - 20	11 - 20	Walk	71	0.91%	1.03%	0.45%
		Bike	14	0.18%	0.18%	0.17%
		Personally Owned Vehicle	1,801	23.19%	23.48%	1.56%
		Public Transit	10	0.13%	0.08%	0.11%
		Other	165	2.12%	2.32%	0.56%
	21 - 30	Walk	24	0.31%	0.35%	0.18%
		Bike	8	0.10%	0.12%	0.11%
		Personally Owned Vehicle	830	10.69%	11.13%	1.03%
		Public Transit	10	0.13%	0.06%	0.06%
		Other	135	1.74%	1.97%	0.46%
31 - 45	31 - 45	Walk	16	0.21%	0.24%	0.19%
		Bike	3	0.04%	0.05%	0.07%
		Personally Owned Vehicle	586	7.55%	7.09%	0.80%
		Public Transit	12	0.15%	0.10%	0.10%
		Other	91	1.17%	1.21%	0.36%
	46 - 60	Walk	8	0.10%	0.09%	0.09%
		Bike	0	0%	0%	0%
		Personally Owned Vehicle	269	3.46%	3.17%	0.47%
		Public Transit	17	0.22%	0.13%	0.10%
		Other	22	0.28%	0.29%	0.15%
61 - 90		Walk	3	0.04%	0.05%	0.08%

			N	Survey	Estimate	MOE (95%)
91 - 120	91 - 120	Bike	1	0.01%	0.02%	0.04%
		Personally Owned Vehicle	153	1.97%	1.73%	0.38%
		Public Transit	41	0.53%	0.18%	0.08%
		Other	7	0.09%	0.09%	0.08%
		Walk	1	0.01%	0.00%	0.01%
	121 or more	Bike	0	0%	0%	0%
		Personally Owned Vehicle	28	0.36%	0.29%	0.14%
		Public Transit	24	0.31%	0.09%	0.04%
		Other	3	0.04%	0.04%	0.06%
		Walk	1	0.01%	0.01%	0.02%
McHenry	0 - 5	Bike	2	0.03%	0.04%	0.05%
		Personally Owned Vehicle	21	0.27%	0.27%	0.14%
		Public Transit	8	0.10%	0.04%	0.03%
		Other	1	0.01%	0.01%	0.01%
		Walk	26	1.10%	1.19%	0.60%
	6 - 10	Bike	1	0.04%	0.05%	0.10%
		Personally Owned Vehicle	399	16.87%	18.14%	3.90%
		Public Transit	0	0%	0%	0%
		Other	4	0.17%	0.26%	0.33%
		Walk	15	0.63%	0.79%	0.67%
11 - 20	6 - 10	Bike	0	0%	0%	0%
		Personally Owned Vehicle	533	22.54%	22.94%	2.68%
		Public Transit	0	0%	0%	0%
		Other	12	0.51%	0.52%	0.44%
		Walk	8	0.34%	0.34%	0.38%
	11 - 20	Bike	0	0%	0%	0%
		Personally Owned Vehicle	636	26.89%	28.78%	2.95%
		Public Transit	1	0.04%	0.02%	0.03%
		Other	47	1.99%	1.76%	0.95%
		Walk	8	0.34%	0.25%	0.31%
21 - 30	11 - 20	Bike	2	0.08%	0.10%	0.21%
		Personally Owned Vehicle	247	10.44%	10.20%	1.79%
		Public Transit	0	0%	0%	0%
		Other	53	2.24%	2.05%	1.13%
		Walk	2	0.08%	0.10%	0.14%
	21 - 30	Bike	3	0.13%	0.16%	0.31%
		Personally Owned Vehicle	132	5.58%	5.04%	1.19%
		Public Transit	0	0%	0%	0%
		Other	53	2.24%	2.05%	1.13%
		Walk	2	0.08%	0.10%	0.14%
31 - 45	21 - 30	Bike	3	0.13%	0.16%	0.31%
		Personally Owned Vehicle	132	5.58%	5.04%	1.19%

			N	Survey	Estimate	MOE (95%)
46 - 60	Personally Owned Vehicle	Public Transit	0	0%	0%	0%
		Other	20	0.85%	0.68%	0.36%
		Walk	2	0.08%	0.11%	0.16%
	Bike	Bike	0	0%	0%	0%
		Personally Owned Vehicle	93	3.93%	3.15%	0.80%
		Public Transit	0	0%	0%	0%
61 - 90	Personally Owned Vehicle	Other	5	0.21%	0.16%	0.16%
		Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
	Public Transit	Personally Owned Vehicle	60	2.54%	1.93%	0.65%
		Other	9	0.38%	0.13%	0.08%
		Walk	0	0%	0%	0%
91 - 120	Bike	Bike	0	0%	0%	0%
		Personally Owned Vehicle	15	0.63%	0.56%	0.47%
		Public Transit	9	0.38%	0.12%	0.09%
	Walk	Other	1	0.04%	0.05%	0.10%
		Walk	0	0%	0%	0%
		Personally Owned Vehicle	0	0%	0%	0%
121 or more	Public Transit	Personally Owned Vehicle	7	0.30%	0.18%	0.17%
		Other	9	0.38%	0.12%	0.09%
		Walk	0	0%	0%	0%
	Other	Bike	0	0%	0%	0%
		Personally Owned Vehicle	3	0.13%	0.04%	0.05%
		Walk	2	0.08%	0.04%	0.05%
Will	0 - 5	Walk	110	0.98%	0.82%	0.36%
		Bike	4	0.04%	0.03%	0.06%
		Personally Owned Vehicle	2,294	20.35%	19.20%	1.52%
	6 - 10	Public Transit	0	0%	0%	0%
		Other	56	0.50%	0.34%	0.13%
		Walk	76	0.67%	0.46%	0.20%
6 - 10	Bike	Bike	7	0.06%	0.08%	0.12%
		Personally Owned Vehicle	2,372	21.04%	20.71%	1.34%
		Public Transit	2	0.02%	0.01%	0.01%
	11 - 20	Other	118	1.05%	0.75%	0.25%
		Walk	77	0.68%	0.64%	0.24%
		Bike	3	0.03%	0.02%	0.03%
11 - 20	Personally Owned Vehicle	Personally Owned Vehicle	2,671	23.70%	24.32%	1.58%
		Public Transit	3	0.03%	0.04%	0.06%
		Other	442	3.92%	2.93%	0.63%

			N	Survey	Estimate	MOE (95%)
21 - 30	Personally Owned Vehicle	Walk	27	0.24%	0.40%	0.29%
		Bike	0	0%	0%	0%
		Public Transit	4	0.04%	0.01%	0.01%
		Other	281	2.49%	2.04%	0.40%
		Walk	10	0.09%	0.12%	0.09%
	Personally Owned Vehicle	Bike	1	0.01%	0.01%	0.02%
		Public Transit	0	0%	0%	0%
		Other	110	0.98%	1.06%	0.48%
		Walk	9	0.08%	0.12%	0.10%
		Bike	1	0.01%	0.00%	0.01%
31 - 45	Personally Owned Vehicle	Public Transit	4	0.04%	0.01%	0.02%
		Other	29	0.26%	0.26%	0.24%
		Walk	10	0.09%	0.12%	0.09%
		Bike	1	0.01%	0.01%	0.02%
		Public Transit	0	0%	0%	0%
	Personally Owned Vehicle	Other	110	0.98%	1.06%	0.48%
		Walk	9	0.08%	0.12%	0.10%
		Bike	1	0.01%	0.00%	0.01%
		Public Transit	4	0.04%	0.01%	0.02%
		Other	29	0.26%	0.26%	0.24%
46 - 60	Personally Owned Vehicle	Walk	3	0.03%	0.03%	0.04%
		Bike	0	0%	0%	0%
		Public Transit	213	1.89%	2.25%	0.45%
		Other	28	0.25%	0.10%	0.05%
		Walk	9	0.08%	0.12%	0.10%
	Personally Owned Vehicle	Bike	1	0.01%	0.01%	0.02%
		Public Transit	29	0.26%	0.26%	0.24%
		Other	14	0.12%	0.16%	0.15%
		Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
61 - 90	Personally Owned Vehicle	Public Transit	44	0.39%	0.51%	0.22%
		Other	38	0.34%	0.13%	0.04%
		Walk	14	0.04%	0.03%	0.04%
		Bike	0	0%	0%	0%
		Public Transit	28	0.25%	0.10%	0.05%
	Personally Owned Vehicle	Other	14	0.12%	0.16%	0.15%
		Walk	0	0%	0%	0%
		Bike	0	0%	0%	0%
		Public Transit	44	0.39%	0.51%	0.22%
		Other	38	0.34%	0.13%	0.04%
91 - 120	Personally Owned Vehicle	Walk	1	0.01%	0.01%	0.02%
		Bike	0	0%	0%	0%
		Public Transit	44	0.39%	0.51%	0.22%
		Other	38	0.34%	0.13%	0.04%
		Walk	0	0%	0%	0%
	Personally Owned Vehicle	Bike	0	0%	0%	0%
		Public Transit	44	0.39%	0.51%	0.22%
		Other	38	0.34%	0.13%	0.04%
		Walk	1	0.01%	0.01%	0.02%
		Bike	0	0%	0%	0%
121 or more	Personally Owned Vehicle	Public Transit	32	0.28%	0.34%	0.16%
		Other	10	0.09%	0.03%	0.02%
		Walk	3	0.03%	0.01%	0.01%
		Bike	0	0%	0%	0%
		Public Transit	32	0.28%	0.34%	0.16%
	Personally Owned Vehicle	Other	10	0.09%	0.03%	0.02%
		Walk	1	0.01%	0.01%	0.02%
		Bike	0	0%	0%	0%
		Public Transit	32	0.28%	0.34%	0.16%
		Other	3	0.03%	0.01%	0.01%
Other	Personally Owned Vehicle	Walk	65	4.68%	5.03%	3.47%
		Bike	0	0%	0%	0%
		Public Transit	134	9.65%	9.31%	3.55%
		Other	0	0%	0%	0%
		Walk	14	1.01%	1.58%	1.85%
	6 - 10	Bike	86	6.20%	6.49%	1.99%
		Public Transit	0	0%	0%	0%
		Other	14	1.01%	1.58%	1.85%
		Walk	86	6.20%	6.49%	1.99%
		Bike	0	0%	0%	0%

		N	Survey	Estimate	MOE (95%)
11 - 20	Personally Owned Vehicle	101	7.28%	7.24%	2.64%
	Public Transit	5	0.36%	0.38%	0.42%
	Other	20	1.44%	1.44%	1.02%
	Walk	136	9.80%	14.19%	6.45%
	Bike	8	0.58%	0.91%	1.75%
	Personally Owned Vehicle	153	11.02%	12.92%	5.03%
21 - 30	Public Transit	9	0.65%	0.46%	0.51%
	Other	23	1.66%	1.48%	0.98%
	Walk	28	2.02%	1.59%	1.10%
	Bike	2	0.14%	0.28%	0.55%
	Personally Owned Vehicle	88	6.34%	5.68%	2.12%
	Public Transit	6	0.43%	0.38%	0.41%
31 - 45	Other	14	1.01%	0.74%	0.50%
	Walk	10	0.72%	0.66%	0.54%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	81	5.84%	4.75%	1.64%
	Public Transit	2	0.14%	0.16%	0.24%
	Other	17	1.22%	0.93%	0.68%
46 - 60	Walk	2	0.14%	0.26%	0.42%
	Bike	4	0.29%	0.66%	1.31%
	Personally Owned Vehicle	52	3.75%	2.74%	1.24%
	Public Transit	5	0.36%	0.44%	0.55%
	Other	7	0.50%	0.24%	0.23%
	Walk	0	0%	0%	0%
61 - 90	Bike	0	0%	0%	0%
	Personally Owned Vehicle	99	7.13%	6.31%	2.29%
	Public Transit	1	0.07%	0.03%	0.05%
	Other	8	0.58%	0.31%	0.26%
	Walk	1	0.07%	0.02%	0.05%
	Bike	0	0%	0%	0%
91 - 120	Personally Owned Vehicle	43	3.10%	2.43%	1.18%
	Public Transit	2	0.14%	0.06%	0.08%
	Other	9	0.65%	0.58%	0.56%
	Walk	1	0.07%	0.02%	0.04%
	Bike	0	0%	0%	0%
	Personally Owned Vehicle	93	6.70%	5.58%	2.40%
121 or more	Public Transit	3	0.22%	0.12%	0.17%

			N	Survey	Estimate	MOE (95%)
		Other	48	3.46%	3.27%	1.38%
Total	0 - 5	Walk	4,174	4.19%	3.93%	0.35%
		Bike	219	0.22%	0.27%	0.07%
		Personally Owned Vehicle	14,333	14.37%	14.94%	0.58%
		Public Transit	199	0.20%	0.14%	0.04%
		Other	462	0.46%	0.44%	0.10%
	6 - 10	Walk	3,257	3.27%	3.08%	0.25%
		Bike	351	0.35%	0.37%	0.08%
		Personally Owned Vehicle	16,191	16.24%	17.30%	0.55%
		Public Transit	259	0.26%	0.16%	0.04%
		Other	826	0.83%	0.78%	0.13%
	11 - 20	Walk	3,024	3.03%	3.11%	0.26%
		Bike	516	0.52%	0.54%	0.11%
		Personally Owned Vehicle	18,119	18.17%	20.03%	0.52%
		Public Transit	858	0.86%	0.55%	0.08%
		Other	1,953	1.96%	1.68%	0.15%
	21 - 30	Walk	847	0.85%	0.82%	0.10%
		Bike	296	0.30%	0.31%	0.07%
		Personally Owned Vehicle	8,725	8.75%	9.86%	0.41%
		Public Transit	1,382	1.39%	0.86%	0.10%
		Other	1,338	1.34%	1.23%	0.12%
	31 - 45	Walk	378	0.38%	0.40%	0.06%
		Bike	199	0.20%	0.15%	0.04%
		Personally Owned Vehicle	6,283	6.30%	6.71%	0.26%
		Public Transit	2,059	2.06%	1.12%	0.11%
		Other	762	0.76%	0.83%	0.11%
	46 - 60	Walk	146	0.15%	0.15%	0.04%
		Bike	84	0.08%	0.07%	0.03%
		Personally Owned Vehicle	3,244	3.25%	3.39%	0.21%
		Public Transit	1,544	1.55%	0.86%	0.08%
		Other	251	0.25%	0.31%	0.07%
	61 - 90	Walk	101	0.10%	0.10%	0.03%
		Bike	44	0.04%	0.06%	0.04%
		Personally Owned Vehicle	2,016	2.02%	2.14%	0.16%
		Public Transit	1,337	1.34%	0.73%	0.07%
		Other	142	0.14%	0.15%	0.05%
	91 - 120	Walk	17	0.02%	0.02%	0.02%

		N	Survey	Estimate	MOE (95%)
121 or more	Bike	6	0.01%	0.00%	0.01%
	Personally Owned Vehicle	421	0.42%	0.42%	0.06%
	Public Transit	452	0.45%	0.22%	0.04%
	Other	50	0.05%	0.07%	0.03%
	Walk	41	0.04%	0.03%	0.01%
	Bike	11	0.01%	0.02%	0.01%
	Personally Owned Vehicle	357	0.36%	0.35%	0.06%
	Public Transit	207	0.21%	0.13%	0.03%
	Other	121	0.12%	0.13%	0.04%

## Average Trip Duration for Trips to Work, School, and Other Locations

Data in this section covering Table 48 through Table 52 displays the average time it takes to travel to a work, school, or 'Other' location type from the prior place and groups the data by demographics including Household Income (using three bins), Race, County of Residence, Gender, and Age. Differences in estimates may appear to be significant but the margin of error should be used in the assessment before drawing conclusions about these data. Table 48 shows trip durations grouped according to the location type of the destination and across three income bins. The survey recorded more trips in higher income groups regardless of the location type visited. The weighted results reduce the average duration when compared with the raw survey data.

**Table 48. Average Trip Duration to Work, School, and “Other” by Income**

loctype_agg	hhinc_agg	N	Survey	Estimate	MOE (95%)
Work	I don't know	3	50	54.54	28.52
	I prefer not to answer	12	26.42	26.88	11.81
	Less than \$30,000	721	36.65	33.45	6.23
	\$30,000 to \$59,999	2,035	30.54	28.50	2.92
	\$60,000 or more	10,765	31.60	28.88	0.82
School	I don't know	2	37	37.00	0.00
	I prefer not to answer	12	20.50	15.11	21.78
	Less than \$30,000	882	28.46	24.88	4.31
	\$30,000 to \$59,999	986	21.60	20.51	3.44
	\$60,000 or more	7,399	15.93	16.05	0.70
Other	I don't know	13	50.54	43.52	27.33
	I prefer not to answer	141	22.95	18.98	2.99
	Less than \$30,000	8,192	27.02	23.72	1.39
	\$30,000 to \$59,999	11,729	22.32	20.52	0.81
	\$60,000 or more	56,768	21.70	20.80	0.44

Data in Table 49 shows duration of trips to work, school and other location types grouped by the race of the traveler. There are some clear differences to note, including for trips to discretionary locations between White (averaging 20 minutes for such trips) and African American residents (who average almost 27 minutes). At first glance, it appears that African Americans have much longer trips to work locations ( $39.24 \text{ minutes} \pm 6.72$  on average) than White residents ( $27.52 \text{ minutes} \pm .60$ ) but the  $t$  value does not exceed the critical value of 1.96 and cannot be deemed statistically significant at  $p \leq .05$ . Data summarized in Table 50 through Table 52 show similar results grouped by county, gender and age.

**Table 49. Average Trip Duration to Work, School, and “Other” by Race**

loctype_agg	Race	N	Survey	Estimate	MOE (95%)
Work	I don't know	18	29.78	25.16	8.75
	I prefer not to answer	52	40.77	36.98	10.60
	White	11,249	30.40	27.52	0.60
	African American, Black	903	43.04	39.24	6.72
	Asian	633	35.69	30.41	4.15
	American Indian, Alaskan Native	59	33.93	37.73	24.49
	Native Hawaiian or Pacific Islander	22	76.14	159.06	252.89
	Multiracial	420	31.70	27.81	2.61
	Some other race	184	34.03	34.47	6.16
School	I don't know	15	17.07	19.06	18.96
	I prefer not to answer	33	34.61	29.28	15.93
	White	7,207	16.26	16.80	1.06
	African American, Black	801	26.96	23.21	2.65
	Asian	482	18.99	17.94	3.88
	American Indian, Alaskan Native	32	22	21.71	9.78
	Native Hawaiian or Pacific Islander	8	28.25	48.88	53.71
	Multiracial	584	20.21	20.36	5.91
	Some other race	121	20.76	19.62	6.05
Other	I don't know	82	31.43	30.86	9.21
	I prefer not to answer	389	24.45	20.71	3.32
	White	62,155	21.34	20.15	0.38
	African American, Black	6,768	29.97	26.62	1.83
	Asian	3,157	24.01	22.56	1.82
	American Indian, Alaskan Native	351	30.48	27.29	10.85
	Native Hawaiian or Pacific Islander	95	27.12	27.25	8.52
	Multiracial	3,027	21.91	20.03	1.44
	Some other race	876	26.12	26.63	5.41

**Table 50. Average Trip Duration to Work, School, and “Other” by County**

home_county	loctype_agg	N	Survey	Estimate	MOE (95%)
Cook	Work	7,219	32.15	29.94	1.19
	School	4,022	20.48	19.80	1.55
	Other	37,189	24.29	22.48	0.63
DeKalb	Work	179	23.75	22.47	6.23
	School	119	14.48	16.92	4.76
	Other	1,080	20.56	19.46	3.84
DuPage	Work	1,932	31.32	27.64	1.59

		N	Survey	Estimate	MOE (95%)
Grundy	School	1,429	14.31	15.35	2.13
	Other	11,929	20.16	19.11	0.75
	Work	85	20.67	17.99	3.79
Kane	School	39	14.59	12.84	5.22
	Other	487	18.80	18.28	3.91
	Work	719	32.44	29.84	7.57
Kendall	School	479	15.33	13.59	2.31
	Other	4,361	20.88	18.99	1.14
	Work	530	28.93	25.92	2.92
Lake	School	578	13.60	13.18	1.80
	Other	3,207	19.02	17.63	1.64
	Work	1,024	30.89	28.90	5.20
McHenry	School	739	17.57	17.06	1.84
	Other	6,488	20.11	18.98	0.90
	Work	338	34.50	29.14	4.51
Will	School	201	19.54	18.72	4.44
	Other	2,178	22.22	19.19	1.68
	Work	1,514	32.25	29.04	1.63
Total	School	1,677	16.32	17.23	1.28
	Other	9,981	21.38	21.84	1.27
	Work	13,540	31.71	29.21	0.99
	School	9,283	17.73	18.08	0.97
	Other	76,900	22.36	21.21	0.39

Table 51. Average Trip Duration to Work, School, and “Other” by Gender

loctype_agg	Gender	N	Survey	Estimate	MOE (95%)
Work	I prefer not to answer	1	30	30	0.00
	Male	6,623	33.24	30.59	1.68
	Female	6,916	30.25	27.85	1.06
School	I prefer not to answer	5	26	41.69	76.20
	Male	3,979	18.37	18.70	1.42
	Female	5,299	17.24	17.56	1.24
Other	I prefer not to answer	24	19.50	19.46	14.93
	Male	34,861	24.06	22.62	0.54
	Female	42,015	20.96	20.01	0.48

Table 52. Average Trip Duration to Work, School, and “Other” by Age

loctype_agg	age_binned3	N	Survey	Estimate	MOE (95%)
School	I prefer not to answer	3	53.33	59.45	48.27
	5 - 12	2,834	15.17	15.36	1.08
	13 - 15	1,052	20.30	22.06	3.95

		N	Survey	Estimate	MOE (95%)
	16 - 17	698	18.45	20.18	1.77
	18 - 44	3,561	19.69	19.25	1.42
	45 - 64	1,097	14.78	15.67	1.96
	65 or older	38	23.16	18.77	5.73
Other	<i>I prefer not to answer</i>	16	25.81	27.63	34.66
	5 - 12	6,229	16.22	17.07	1.42
	13 - 15	2,248	18.68	18.72	1.52
	16 - 17	1,436	18.87	20.17	2.13
	18 - 44	34,115	23.55	22.38	0.69
	45 - 64	23,910	23.43	21.61	0.57
	65 or older	8,946	20.72	20.25	0.89
Work	<i>I prefer not to answer</i>	0	0	0	0
	5 - 12	106	26.31	44.63	50.62
	13 - 15	30	17.83	20.98	22.04
	16 - 17	57	21.21	18.15	4.28
	18 - 44	8,042	31.58	28.85	1.02
	45 - 64	4,748	32.25	29.72	1.48
	65 or older	557	31.84	28.08	2.28

## Traveling Party on Trips by County

The tables below show the party sizes on trips grouped by the destination county. The first table shows the counts of trips grouped by total party, household members on the party, and non-household members. Rows are only shown for combinations with data. Table 54 through Table 56 show the totals for each separately. Table 57 shows the responses to the follow-up question posed when no travel was recorded on the assigned day.

**Table 53. Party by Household Party by Non-Household Count**

			N	Survey	Estimate	MOE (95%)
party_binned	hhparty_binned	nonhhcount_binned				
1	1	0	62,819	1	1	0%
2	1	1	6,833	29.75%	30.42%	1.73%
	2	0	16,136	70.25%	69.58%	1.73%
3	1	2	1,404	16.38%	15.64%	2.06%
	2	1	1,448	16.89%	19.20%	2.98%
	3	0	5,722	66.74%	65.16%	3.63%
4+	1	3	517	9.62%	7.75%	1.54%
		4+	524	9.75%	7.87%	1.52%
	2	2	304	5.65%	5.37%	1.33%
		3	95	1.77%	1.51%	0.70%
		4+	103	1.92%	1.66%	1.04%
	3	1	618	11.50%	11.05%	2.35%
		2	100	1.86%	2.95%	3.22%
		3	33	0.61%	0.36%	0.35%
		4+	20	0.37%	0.22%	0.28%
	4+	0	2,690	50.04%	53.51%	4.93%
		1	308	5.73%	6.95%	3.34%
		2	40	0.74%	0.46%	0.41%
		3	16	0.30%	0.30%	0.49%
		4+	8	0.15%	0.03%	0.07%

**Table 54. Total Persons Traveling on Trip by County**

trip_county	party_binned	N	Survey	Estimate	MOE (95%)
Cook	1	33,492	66.20%	62.14%	1.47%
	2	10,824	21.39%	23.21%	1.16%
	3	3,831	7.57%	8.78%	0.86%
	4+	2,446	4.83%	5.88%	0.83%
DeKalb	1	837	65.09%	64.11%	6.82%
	2	275	21.38%	22.29%	6.03%
	3	99	7.70%	6.78%	2.82%

		N	Survey	Estimate	MOE (95%)
	4+	75	5.83%	6.82%	5.32%
DuPage	1	9,554	61.94%	62.64%	2.31%
	2	3,673	23.81%	23.86%	1.53%
	3	1,390	9.01%	8.36%	1.13%
	4+	807	5.23%	5.14%	1.10%
Grundy	1	314	61.57%	60.87%	11.56%
	2	118	23.14%	28.18%	10.45%
	3	28	5.49%	4.92%	2.88%
	4+	50	9.80%	6.04%	7.47%
Kane	1	3,182	57.97%	55.47%	3.77%
	2	1,390	25.32%	27.57%	3.01%
	3	555	10.11%	9.76%	2.35%
	4+	362	6.60%	7.20%	3.02%
Kendall	1	1,885	51.89%	52.61%	4.23%
	2	974	26.81%	27.71%	2.99%
	3	456	12.55%	12.21%	3.44%
	4+	318	8.75%	7.47%	2.23%
Lake	1	4,840	62.33%	60.01%	2.78%
	2	1,875	24.15%	25.62%	2.17%
	3	695	8.95%	9.79%	1.61%
	4+	355	4.57%	4.58%	1.52%
McHenry	1	1,397	59.07%	58.24%	5.35%
	2	649	27.44%	28.36%	4.02%
	3	182	7.70%	7.44%	3.13%
	4+	137	5.79%	5.96%	3.75%
Will	1	6,414	56.90%	58.28%	2.65%
	2	2,914	25.85%	26.70%	2.66%
	3	1,260	11.18%	9.38%	1.54%
	4+	684	6.07%	5.64%	1.81%
Other	1	899	64.77%	62.07%	6.51%
	2	277	19.96%	19.85%	5.25%
	3	75	5.40%	8.24%	5.16%
	4+	137	9.87%	9.84%	5.71%
Total	1	62,814	62.99%	60.99%	0.98%
	2	22,969	23.03%	24.23%	0.81%
	3	8,571	8.59%	8.93%	0.57%
	4+	5,371	5.39%	5.85%	0.58%

Table 55. Household Members Traveling on Trip by County

trip_county	hhparty_binned	N	Survey	Estimate	MOE (95%)
Cook	1	38,505	76.11%	71.91%	1.53%
	2	8,063	15.94%	17.98%	1.02%

		N	Survey	Estimate	MOE (95%)
	3	2,717	5.37%	6.42%	0.98%
	4+	1,308	2.59%	3.69%	0.74%
<i>DeKalb</i>	1	959	74.57%	73.93%	7.06%
	2	191	14.85%	15.66%	4.93%
	3	109	8.48%	8.09%	4.70%
	4+	27	2.10%	2.32%	2.65%
<i>DuPage</i>	1	10,890	70.60%	71.58%	2.40%
	2	3,010	19.52%	19.48%	1.57%
	3	1,047	6.79%	6.12%	1.16%
	4+	477	3.09%	2.81%	0.86%
<i>Grundy</i>	1	352	69.02%	70.09%	12.38%
	2	98	19.22%	21.92%	10.63%
	3	32	6.27%	4.49%	4.03%
	4+	28	5.49%	3.50%	4.15%
<i>Kane</i>	1	3,686	67.15%	65.26%	4.14%
	2	1,119	20.39%	21.88%	2.68%
	3	453	8.25%	8.11%	2.42%
	4+	231	4.21%	4.75%	2.42%
<i>Kendall</i>	1	2,175	59.87%	61.29%	4.48%
	2	901	24.80%	24.54%	3.22%
	3	395	10.87%	10.30%	3.15%
	4+	162	4.46%	3.88%	1.88%
<i>Lake</i>	1	5,552	71.50%	69.84%	2.89%
	2	1,450	18.67%	20.21%	2.29%
	3	526	6.77%	7.13%	1.46%
	4+	237	3.05%	2.82%	1.34%
<i>McHenry</i>	1	1,596	67.48%	67.62%	4.95%
	2	551	23.30%	23.54%	3.79%
	3	131	5.54%	5.09%	2.29%
	4+	87	3.68%	3.75%	3.20%
<i>Will</i>	1	7,228	64.12%	66.79%	2.73%
	2	2,537	22.51%	21.80%	2.72%
	3	1,066	9.46%	7.72%	1.46%
	4+	441	3.91%	3.69%	1.60%
<i>Other</i>	1	1,147	82.64%	80.68%	7.78%
	2	166	11.96%	11.46%	5.22%
	3	13	0.94%	2.62%	4.98%
	4+	62	4.47%	5.24%	4.91%
<i>Total</i>	1	72,090	72.29%	70.67%	1.08%
	2	18,086	18.14%	19.08%	0.77%
	3	6,489	6.51%	6.67%	0.63%
	4+	3,060	3.07%	3.58%	0.53%

**Table 56. Non-Household Members Traveling on Trip by County**

trip_county	nonhhcount_binned	N	Survey	Estimate	MOE (95%)
Cook	0	44,280	87.52%	86.95%	1.06%
	1	4,636	9.16%	9.86%	0.92%
	2	949	1.88%	1.99%	0.45%
	3	369	0.73%	0.61%	0.12%
	4+	359	0.71%	0.58%	0.12%
DeKalb	0	1,122	87.25%	86.20%	6.05%
	1	124	9.64%	10.09%	3.74%
	2	17	1.32%	1.44%	1.21%
	3	7	0.54%	0.57%	0.67%
	4+	16	1.24%	1.70%	1.72%
DuPage	0	13,540	87.79%	87.17%	1.22%
	1	1,454	9.43%	10.08%	1.20%
	2	267	1.73%	1.63%	0.39%
	3	88	0.57%	0.64%	0.28%
	4+	75	0.49%	0.48%	0.21%
Grundy	0	436	85.49%	86.39%	7.43%
	1	42	8.24%	9.15%	5.14%
	2	16	3.14%	2.62%	2.53%
	3	16	3.14%	1.84%	3.48%
	4+	0%	0%	0%	0%
Kane	0	4,783	87.14%	86.02%	2.40%
	1	554	10.09%	11.34%	2.20%
	2	87	1.58%	1.67%	0.86%
	3	31	0.56%	0.42%	0.23%
	4+	34	0.62%	0.55%	0.30%
Kendall	0	3,131	86.18%	86.42%	3.54%
	1	327	9.00%	9.39%	2.65%
	2	113	3.11%	2.72%	1.12%
	3	31	0.85%	0.77%	0.46%
	4+	31	0.85%	0.70%	0.42%
Lake	0	6,818	87.80%	86.54%	2.06%
	1	768	9.89%	11.06%	2.01%
	2	106	1.37%	1.50%	0.47%
	3	35	0.45%	0.48%	0.26%
	4+	38	0.49%	0.42%	0.22%
McHenry	0	2,078	87.86%	87.06%	2.81%
	1	219	9.26%	9.97%	2.63%
	2	45	1.90%	2.26%	1.51%
	3	12	0.51%	0.44%	0.32%
	4+	11	0.47%	0.27%	0.27%
Will	0	10,078	89.41%	87.99%	1.90%

		N	Survey	Estimate	MOE (95%)
	1	904	8.02%	9.98%	1.80%
	2	196	1.74%	1.51%	0.42%
	3	52	0.46%	0.29%	0.13%
	4+	42	0.37%	0.23%	0.11%
Other	0	1,091	78.60%	77.69%	5.88%
	1	178	12.82%	13.02%	3.94%
	2	52	3.75%	5.10%	3.24%
	3	19	1.37%	1.18%	0.86%
	4+	48	3.46%	3.01%	3.00%
Total	0	87,357	87.60%	86.79%	0.69%
	1	9,206	9.23%	10.14%	0.62%
	2	1,848	1.85%	1.91%	0.27%
	3	660	0.66%	0.58%	0.09%
	4+	654	0.66%	0.57%	0.09%

Table 57. Reason for No Trips on Travel Day by County

home_county	Reason for not traveling on travel day	N	Survey	Estimate	MOE (95%)
Cook	I don't know	8	0.46%	0.45%	0.43%
	I prefer not to answer	2	0.11%	0.13%	0.21%
	Personally sick	331	18.86%	18.11%	2.63%
	Vacation or personal day	183	10.43%	11.35%	2.01%
	Caretaking	106	6.04%	5.89%	1.54%
	Home-bound elderly or disabled	127	7.24%	9.08%	1.99%
	Worked at home (for pay)	242	13.79%	9.39%	1.91%
	Not scheduled to work	226	12.88%	12.55%	2.04%
	Worked around home (not for pay)	135	7.69%	8.90%	2.06%
	Out of area	76	4.33%	3.84%	1.08%
	No transportation available	36	2.05%	2.29%	0.98%
	Something else	283	16.13%	18.03%	3.30%
DeKalb	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	14	26.92%	28.31%	15.62%
	Vacation or personal day	7	13.46%	15.75%	15.76%
	Caretaking	3	5.77%	4.98%	5.72%
	Home-bound elderly or disabled	3	5.77%	4.52%	5.85%
	Worked at home (for pay)	3	5.77%	4.10%	5.08%
	Not scheduled to work	9	17.31%	19.03%	12.27%
	Worked around home (not for pay)	5	9.62%	7.34%	6.42%
	Out of area	1	1.92%	3.19%	6.39%
	No transportation available	1	1.92%	0.50%	1.00%

		N	Survey	Estimate	MOE (95%)
	Something else	6	11.54%	12.27%	11.11%
DuPage	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	76	14.73%	14.08%	4.13%
	Vacation or personal day	22	4.26%	3.57%	1.68%
	Caretaking	33	6.40%	6.26%	2.99%
	Home-bound elderly or disabled	39	7.56%	8.26%	3.44%
	Worked at home (for pay)	63	12.21%	10.22%	2.73%
	Not scheduled to work	61	11.82%	13.30%	4.83%
	Worked around home (not for pay)	87	16.86%	19.05%	4.29%
	Out of area	35	6.78%	6.75%	3.03%
	No transportation available	6	1.16%	1.39%	1.22%
	Something else	94	18.22%	17.11%	4.64%
Grundy	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	5	25.00%	30.19%	26.38%
	Vacation or personal day	3	15.00%	16.14%	20.42%
	Caretaking	3	15.00%	11.30%	13.00%
	Home-bound elderly or disabled	2	10.00%	11.03%	17.23%
	Worked at home (for pay)	2	10.00%	5.74%	8.61%
	Not scheduled to work	1	5.00%	1.85%	3.82%
	Worked around home (not for pay)	2	10.00%	12.98%	18.84%
	Out of area	0	0%	0%	0%
	No transportation available	1	5.00%	7.16%	14.74%
	Something else	1	5.00%	3.61%	7.45%
Kane	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	30	15.38%	17.41%	7.92%
	Vacation or personal day	12	6.15%	5.47%	4.11%
	Caretaking	9	4.62%	3.37%	2.83%
	Home-bound elderly or disabled	21	10.77%	12.51%	6.77%
	Worked at home (for pay)	31	15.90%	11.43%	5.58%
	Not scheduled to work	18	9.23%	8.23%	4.60%
	Worked around home (not for pay)	27	13.85%	12.75%	5.36%
	Out of area	5	2.56%	4.45%	4.28%
	No transportation available	3	1.54%	0.82%	1.14%
	Something else	39	20.00%	23.57%	8.88%
Kendall	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	29	20.86%	18.63%	8.40%

		N	Survey	Estimate	MOE (95%)
	Vacation or personal day	14	10.07%	10.07%	7.90%
	Caretaking	7	5.04%	4.19%	3.30%
	Home-bound elderly or disabled	4	2.88%	2.17%	2.43%
	Worked at home (for pay)	15	10.79%	9.43%	4.85%
	Not scheduled to work	17	12.23%	12.62%	6.62%
	Worked around home (not for pay)	13	9.35%	12.62%	6.08%
	Out of area	7	5.04%	5.62%	5.48%
	No transportation available	1	0.72%	0.93%	1.84%
	Something else	32	23.02%	23.73%	10.01%
Lake	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	38	14.62%	14.08%	5.28%
	Vacation or personal day	18	6.92%	7.56%	4.84%
	Caretaking	14	5.38%	4.77%	2.62%
	Home-bound elderly or disabled	20	7.69%	6.36%	3.39%
	Worked at home (for pay)	41	15.77%	14.78%	4.84%
	Not scheduled to work	29	11.15%	12.62%	5.87%
	Worked around home (not for pay)	37	14.23%	12.72%	4.57%
	Out of area	15	5.77%	6.90%	4.96%
	No transportation available	6	2.31%	2.24%	1.95%
	Something else	42	16.15%	17.99%	6.92%
McHenry	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	13	13.68%	16.54%	9.63%
	Vacation or personal day	6	6.32%	9.26%	9.08%
	Caretaking	9	9.47%	7.25%	5.05%
	Home-bound elderly or disabled	5	5.26%	8.00%	7.95%
	Worked at home (for pay)	15	15.79%	12.88%	9.37%
	Not scheduled to work	13	13.68%	13.89%	8.46%
	Worked around home (not for pay)	11	11.58%	10.75%	6.73%
	Out of area	3	3.16%	2.61%	3.36%
	No transportation available	2	2.11%	2.05%	3.36%
	Something else	18	18.95%	16.76%	7.57%
Will	I don't know	0	0%	0%	0%
	I prefer not to answer	0	0%	0%	0%
	Personally sick	71	13.50%	12.64%	4.13%
	Vacation or personal day	37	7.03%	7.14%	2.96%
	Caretaking	29	5.51%	4.57%	2.10%
	Home-bound elderly or disabled	29	5.51%	8.68%	3.96%
	Worked at home (for pay)	69	13.12%	12.85%	3.51%

		N	Survey	Estimate	MOE (95%)
	<i>Not scheduled to work</i>	61	11.60%	12.87%	3.74%
	<i>Worked around home (not for pay)</i>	48	9.13%	11.56%	3.77%
	<i>Out of area</i>	22	4.18%	4.53%	2.56%
	<i>No transportation available</i>	8	1.52%	1.31%	1.09%
	<i>Something else</i>	152	28.90%	23.85%	5.12%
<i>Total</i>	<i>I don't know</i>	8	0.22%	0.29%	0.28%
	<i>I prefer not to answer</i>	2	0.06%	0.08%	0.13%
	<i>Personally sick</i>	607	17.06%	17.08%	1.87%
	<i>Vacation or personal day</i>	302	8.49%	9.65%	1.32%
	<i>Caretaking</i>	213	5.99%	5.59%	1.06%
	<i>Home-bound elderly or disabled</i>	250	7.03%	8.75%	1.54%
	<i>Worked at home (for pay)</i>	481	13.52%	10.27%	1.44%
	<i>Not scheduled to work</i>	435	12.23%	12.46%	1.60%
	<i>Worked around home (not for pay)</i>	365	10.26%	10.70%	1.55%
	<i>Out of area</i>	164	4.61%	4.42%	0.87%
	<i>No transportation available</i>	64	1.80%	2.00%	0.66%
	<i>Something else</i>	667	18.75%	18.72%	2.34%

# Appendix A. Facebook Ad Images and Text

## Initial Ads

### Transportation System Improvement



#### *English*

**Headline:** YOUR opinions and travel habits could help shape Chicago's transportation system!

**Text:** We need your input to help us spend our transportation dollars wisely. Participate in My Daily Travel to help inform travel in our region.

**News Feed Link Description:** Click here to visit the website and participate. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

#### *Spanish*

**Headline:** ¡SUS opiniones y hábitos de viaje pueden ayudar a mejorar el sistema de transporte de Chicago!

**Text:** Necesitamos su aporte para que nos ayude a gastar nuestros dólares para el transporte sabiamente. Participe en My Daily Travel para ayudar a informar sobre viajes en nuestra región.

**News Feed Link Description:** Haga clic aquí para visitar el sitio web y participar. como residente de la región de Chicago, tiene derecho a ganar \$50 por su tiempo.

### Financial Incentive



#### *|English*

**Headline:** Participate in Chicago's My Daily Travel Survey and get paid!

**Text:** To plan for transportation improvements in Chicago, we need your input. You may be eligible to receive \$50 just by telling us about your daily travel habits in our region.

**News Feed Link Description:** Click here to visit the website and participate!

*Spanish*

**Headline:** ¡Participe en la encuesta My Daily Travel de Chicago y reciba un pago!

**Text:** Para planificar las mejoras de transporte en Chicago, necesitamos su aporte. Tiene derecho a recibir \$50 solo por contarnos sobre sus hábitos de viaje de cada día en nuestra región.

**News Feed Link Description:** ¡Haga clic aquí para visitar el sitio web y participar!

**Social Good**



*English*

**Headline:** Let's work together to make YOUR commute better!

**Text:** Help us improve travel in the Chicago metropolitan region by participating in My Daily Travel, an online survey about your commute and travel habits.

**News Feed Link Description:** Your opinions matter. Click here to get started. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

*Spanish*

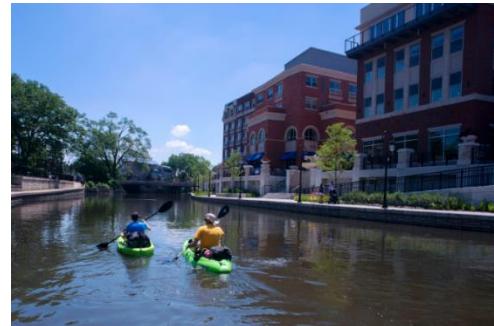
**Headline:** Let's work together to make YOUR commute better!

**Text:** Help us improve travel in the Chicago metropolitan region by participating in My Daily Travel, an online survey about your commute and travel habits.

**News Feed Link Description:** Your opinions matter. Click here to get started. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

## County-Specific Ads

### Transportation System Improvement – Outer Counties



*English*

**Headline:** YOUR opinions and travel habits could help shape our region's transportation system!

**Text:** We need your input to help us spend our transportation dollars wisely. Participate in My Daily Travel to help inform travel in our region. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

**News Feed Link Description:** Click here to visit the website and participate.

*Spanish*

**Headline:** ¡SUS opiniones y hábitos de viaje pueden ayudar a mejorar el sistema de transporte de Chicago!

**Text:** Necesitamos su aporte para que nos ayude a gastar nuestros dólares para el transporte sabiamente. Participe en My Daily Travel para ayudar a informar sobre viajes en nuestra región. Como residente de la región de Chicago, tiene derecho a ganar \$50 por su tiempo.

**News Feed Link Description:** Haga clic aquí para visitar el sitio web y participar.

### Financial Incentive – Outer Counties



*English*

**Headline:** Participate in the Chicago-area My Daily Travel Survey and get paid!

**Text:** To plan for transportation improvements in the Chicago region, we need your input. You may be eligible to receive \$50 just by telling us about your daily travel habits in our region.

**News Feed Link Description:** Click here to visit the website and participate!

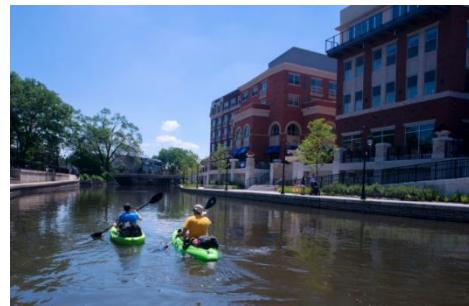
*Spanish*

**Headline:** ¡Participe en la encuesta My Daily Travel de Chicago y reciba un pago!

**Text:** Para planificar las mejoras de transporte en Chicago, necesitamos su aporte. Tiene derecho a recibir \$50 solo por contarnos sobre sus hábitos de viaje de cada día en nuestra región.

**News Feed Link Description:** ¡Haga clic aquí para visitar el sitio web y participar!

**Social Good – Outer Counties**



*English*

**Headline:** Let's work together to make YOUR commute better!

**Text:** Help us improve travel in the Chicago metropolitan region by participating in My Daily Travel, an online survey about your commute and travel habits. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

**News Feed Link Description:** Your opinions matter. Click here to get started.

*Spanish*

**Headline:** ¡Trabajemos juntos para mejorar SUS viajes diarios al trabajo!

**Text:** Ayúdenos a mejorar el viaje en la región metropolitana de Chicago participando en My Daily Travel, una encuesta en línea sobre sus viajes diarios al trabajo y sus hábitos de viaje. Como residente de la región de Chicago tiene derecho a recibir \$50 por su tiempo.

**News Feed Link Description:** Sus opiniones importan. Haga clic aquí para empezar.

**Lake County Ads**



*English*

**Headline:** YOUR opinions and travel habits could help shape Lake County's transportation system!

**Text:** We need your input to help us spend our transportation dollars wisely. Participate in My Daily Travel to help inform travel in our region. As a resident of Lake County, you are eligible to earn \$50 for your time.

**News Feed Link Description:** Click here to visit the website and participate.

*Spanish*

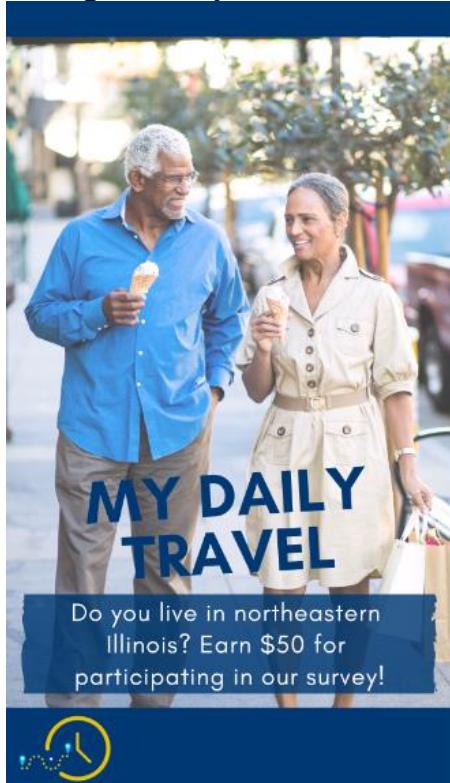
**Headline:** ¡SUS opiniones y hábitos de viaje pueden ayudar a mejorar el sistema de transporte de Chicago!

**Text:** Necesitamos su aporte para que nos ayude a gastar nuestros dólares para el transporte sabiamente. Participe en My Daily Travel para ayudar a informar sobre viajes en nuestra región. Como residente de la región de Chicago, tiene derecho a ganar \$50 por su tiempo.

**News Feed Link Description:** Haga clic aquí para visitar el sitio web y participar.

**Redesigned Ads**

**Instagram Story**



**Facebook Desktop Newsfeed**



**Facebook Desktop Newsfeed**



### Instagram Post



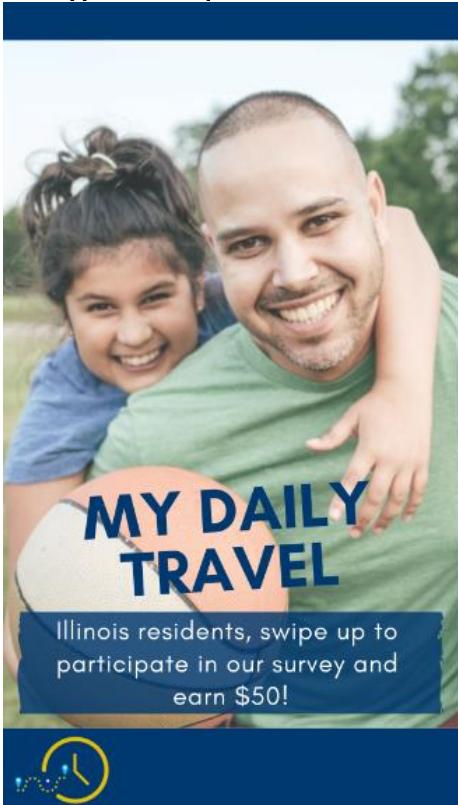
**Headline:** Share your travel habits, get paid!

**Text:** Help us spend our transportation dollars wisely by participating in our online survey, My Daily Travel. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

→ <https://mydailytravel.com/signup/fcbk>

**Link Description:** Participate now through May 2019!

### Instagram Story



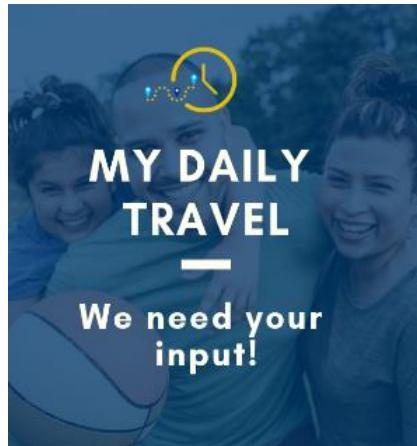
### Facebook Desktop Newsfeed



### Facebook Desktop Newsfeed



### Instagram Post



**Headline:** Participate in My Daily Travel!

**Text:** Whether it's taking the kids to school or going to work, your commute could always be better. Take the My Daily Travel survey, earn \$50, and help inform transportation planning in our region! → <https://mydailytravel.com/signup/fcbk>

**Link Description:** Now through May 2019.

Instagram Story



Facebook Desktop Newsfeed



Facebook Desktop Newsfeed



### Instagram Post



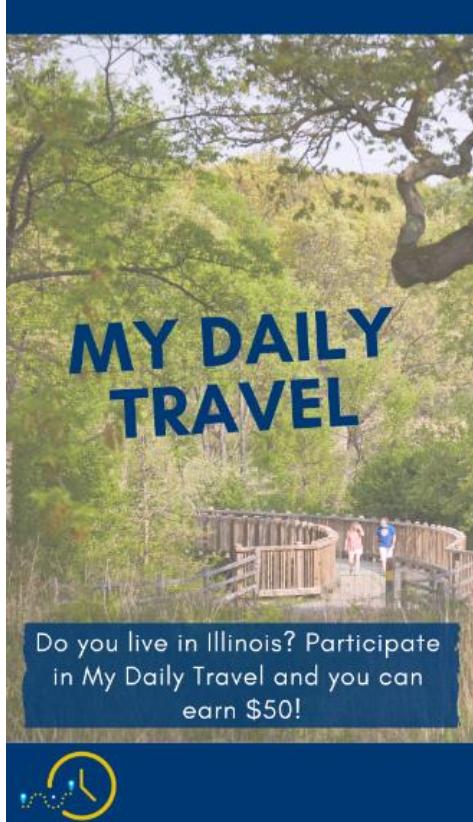
**Headline:** Help us make YOUR commute better!

**Text:** Participate in My Daily Travel, an online survey about your commute and travel habits. As a resident of the Chicago region, you are eligible to earn \$50 for your time.

→ <https://mydailytravel.com/signup/fcbk>

**Link Description:** Visit our website to participate.

### Instagram Story



### Facebook Desktop Newsfeed



### Facebook Desktop Newsfeed



### Instagram Post



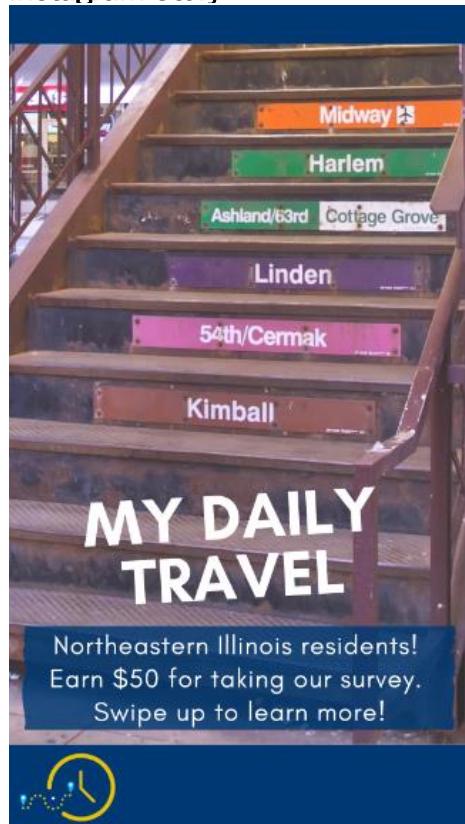
**Headline:** Your input can shape local travel in Illinois!

**Text:** Participate in My Daily Travel to help inform travel in our region. All survey responses are confidential, you are eligible to earn \$50 for your time.

→ <https://mydailytravel.com/signup/fcbk>

**Link Description:** Click here to visit the website and participate.

Instagram Story



Facebook Desktop Newsfeed



Facebook Desktop Newsfeed



### Instagram Post



**Headline:** Visit My Daily Travel today!

**Text:** Now through May 2019, we are collecting data that will help improve transportation in your region. Participate in our survey and you may be eligible to receive \$50 just by telling us about your daily travel habits.

→ <https://mydailytravel.com/signup/fcbk>

**Link Description:** Click the link to sign up!

# Appendix B. Google Ad Images and Text

## Google Display Network

### Ad Set 1: Transportation System Improvement

*English*

The image shows two side-by-side Google Display Network ads. Both ads feature a woman riding a bicycle in an urban setting with a bridge in the background. The top ad has a blue header with white text: "Help us shape the future of Chicago's transportation system!". Below the image is a yellow bar with black text: "Tell us how you get from place to place in our region via the My Daily Travel Survey". At the bottom is a blue bar with white text: "Take Survey" and a clock icon. The bottom ad has a similar layout but with slightly different text: "Help us shape the future of Chicago's transportation system!" and "Tell us how you get from place to place in our region via the My Daily Travel Survey". Both ads include a "Take Survey" button and a clock icon.

The image shows two side-by-side Google Display Network ads. Both ads feature a woman riding a bicycle in an urban setting with a bridge in the background. The top ad has a blue header with white text: "Help us shape the future of Chicago's transportation system!". Below the image is a yellow bar with black text: "Tell us how you get from place to place in our region via the My Daily Travel Survey". At the bottom is a blue bar with white text: "Take Survey" and a clock icon. The bottom ad has a similar layout but with slightly different text: "Help us shape the future of Chicago's transportation system!" and "Tell us how you get from place to place in our region via the My Daily Travel Survey". Both ads include a "Take Survey" button and a clock icon.

*Spanish*

The image shows two side-by-side Google Display Network ads. Both ads feature a woman riding a bicycle in an urban setting with a bridge in the background. The top ad has a blue header with white text: "¡Ayúdenos a configurar el futuro del sistema de transporte en Chicago!". Below the image is a yellow bar with black text: "Cuéntenos cómo se desplaza de un lugar a otro en nuestra región por medio de la encuesta My Daily Travel Survey.". At the bottom is a blue bar with white text: "Participe en la encuesta" and a clock icon. The bottom ad has a similar layout but with slightly different text: "¡Ayúdenos a configurar el futuro del sistema de transporte en Chicago!" and "Cuéntenos cómo se desplaza de un lugar a otro en nuestra región por medio de la encuesta My Daily Travel Survey.". Both ads include a "Participate in the survey" button and a clock icon.

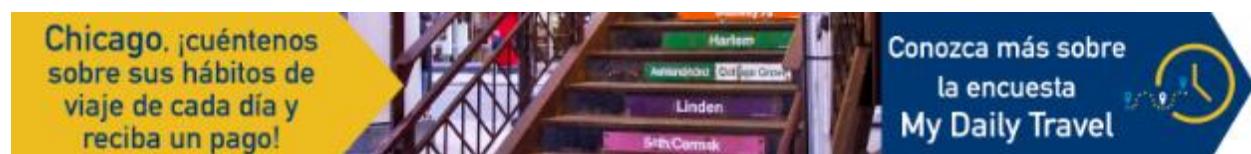
The image shows two side-by-side Google Display Network ads. Both ads feature a woman riding a bicycle in an urban setting with a bridge in the background. The top ad has a blue header with white text: "¡Ayúdenos a configurar el futuro del sistema de transporte en Chicago!". Below the image is a yellow bar with black text: "Cuéntenos cómo se desplaza de un lugar a otro en nuestra región por medio de la encuesta My Daily Travel.". At the bottom is a blue bar with white text: "Participate in the survey" and a clock icon. The bottom ad has a similar layout but with slightly different text: "¡Ayúdenos a configurar el futuro del sistema de transporte en Chicago!" and "Cuéntenos cómo se desplaza de un lugar a otro en nuestra región por medio de la encuesta My Daily Travel.". Both ads include a "Participate in the survey" button and a clock icon.

## Ad Set 2: Financial Incentive

English



Spanish

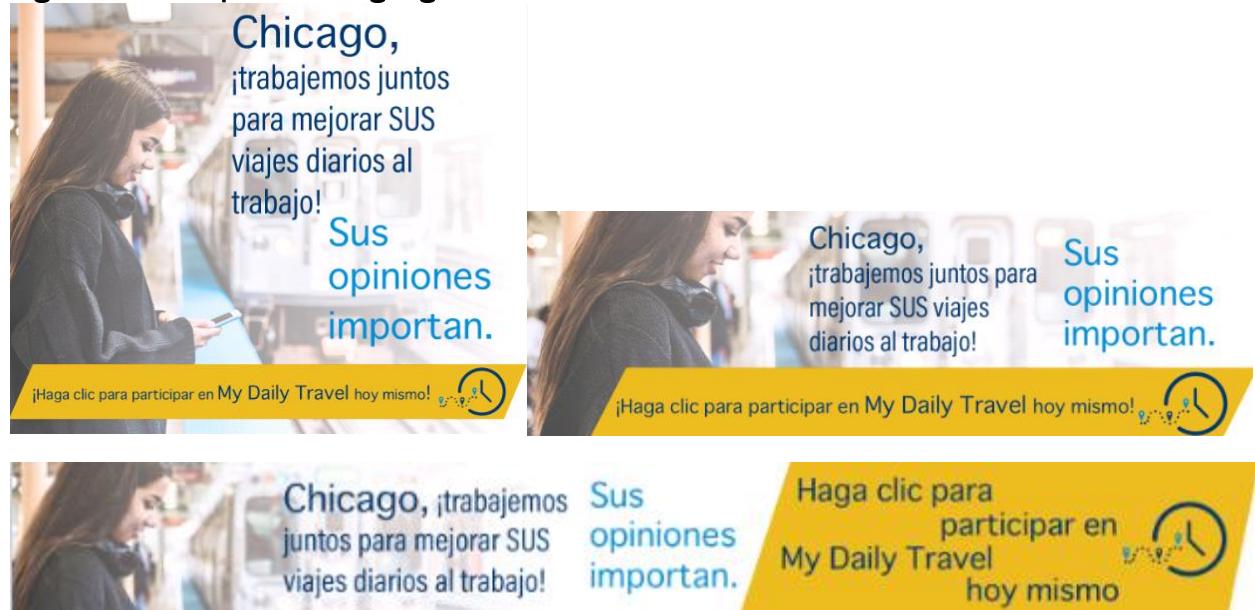


## Ad Set 3: Social Good

Figure 8. English Versions of Ad Set 3



Figure 9. Spanish Language Version of Ad Set 3



## Google Search

### Ad Set 1: Transportation System Improvement

Headline: Survey Participants Needed | My Daily Travel

Text: Take part in My Daily Travel to help inform travel in our region. Earn \$50!

**Ad Set 2: Financial Incentive**

Headline: Looking to make extra cash? | Participate in our survey

Text: We need your input on transportation in Chicago. Visit our site to learn more!

**Ad Set 3: Social Good**

Headline: Chicago Transportation | Help Improve Your Commute

Text: Your opinions matter. Click to visit our website and participate and earn \$50!



## Appendix C. Paid Influencer Outreach

Facebook		
Alicia	Making Time For Mommy	<a href="https://www.facebook.com/MakingTimeForMommy/posts/10157082984249096">https://www.facebook.com/MakingTimeForMommy/posts/10157082984249096</a>
Alli	Dancing Through The Rain	<a href="https://www.facebook.com/DanceTTR/photos/a.384660696130/10156808558436131">https://www.facebook.com/DanceTTR/photos/a.384660696130/10156808558436131</a>
Bonnie	ChiIL Mama/ ChiIL Live Shows	<a href="https://www.facebook.com/ChiILMama/posts/10157240130152074">https://www.facebook.com/ChiILMama/posts/10157240130152074</a> <a href="https://www.facebook.com/ChiILMama/posts/10157244493692074">https://www.facebook.com/ChiILMama/posts/10157244493692074</a> <a href="https://www.facebook.com/photo.php?fbid=10158018659422580&amp;set=a.36247087579">https://www.facebook.com/photo.php?fbid=10158018659422580&amp;set=a.36247087579</a> <a href="https://www.facebook.com/ChiILMama/posts/10157242175937074">https://www.facebook.com/ChiILMama/posts/10157242175937074</a> <a href="https://www.facebook.com/kenazmara/posts/10158016055917580">https://www.facebook.com/kenazmara/posts/10158016055917580</a>
Cherise	Mom and More	<a href="https://www.facebook.com/MomandMore/posts/10157000438079780">https://www.facebook.com/MomandMore/posts/10157000438079780</a>
Erica	Erica Finds	<a href="https://www.facebook.com/EricaFinds/posts/1221702374658541">https://www.facebook.com/EricaFinds/posts/1221702374658541</a> <a href="https://www.facebook.com/EricaFinds/photos/a.145018122326977/1219160334912745">https://www.facebook.com/EricaFinds/photos/a.145018122326977/1219160334912745</a>
Jen	My Crafty Life	<a href="https://www.facebook.com/mycraftylife/posts/2163647890325026">https://www.facebook.com/mycraftylife/posts/2163647890325026</a>
Keyonda	A Real Urban Mom	<a href="https://www.facebook.com/204241543070118/posts/1258858674275061">https://www.facebook.com/204241543070118/posts/1258858674275061</a>
Kris	Little Tech Girl	<a href="https://www.facebook.com/story.php?story_fbid=2306183696069856&amp;id=131791230175791">https://www.facebook.com/story.php?story_fbid=2306183696069856&amp;id=131791230175791</a>
Lindsay	It's Simply Lindsay	<a href="https://www.facebook.com/itssimplylindsay/photos/a.1469492646674665/2105752333048690">https://www.facebook.com/itssimplylindsay/photos/a.1469492646674665/2105752333048690</a>
Lisa	My Thoughts, Ideas and Ramblings	<a href="https://www.facebook.com/MyThoughtsIdeasandRamblings/posts/2139890172713497">https://www.facebook.com/MyThoughtsIdeasandRamblings/posts/2139890172713497</a>
Michelle	Honest & Truly	<a href="https://www.facebook.com/photo.php?fbid=2058969324180659&amp;set=a.345323142211961">https://www.facebook.com/photo.php?fbid=2058969324180659&amp;set=a.345323142211961</a>
Natasha	Houseful of Nichols	<a href="https://www.facebook.com/natasha.nicholes/posts/10157188301842210">https://www.facebook.com/natasha.nicholes/posts/10157188301842210</a>
Sarah	Toddling Around Chicagoland	<a href="https://www.facebook.com/177403375635667/posts/2670573756318604">https://www.facebook.com/177403375635667/posts/2670573756318604</a>
Shelley	A Magical Mess	<a href="https://www.facebook.com/AMagicalMess/posts/10157291742633701">https://www.facebook.com/AMagicalMess/posts/10157291742633701</a>
Tricia	The Night Owl Mama	<a href="https://www.facebook.com/thenightowlmama/photos/rpp.178907191898/10156044914136899">https://www.facebook.com/thenightowlmama/photos/rpp.178907191898/10156044914136899</a>

Twitter		
Alicia	Making Time For Mommy	<a href="https://twitter.com/aliciamarie112/status/1106572303507304448">https://twitter.com/aliciamarie112/status/1106572303507304448</a> <a href="https://twitter.com/aliciamarie112/status/1106602638282510336">https://twitter.com/aliciamarie112/status/1106602638282510336</a>
Alli	Dancing Through The Rain	<a href="https://twitter.com/DanceTTR/status/1110547221316059137">https://twitter.com/DanceTTR/status/1110547221316059137</a>
Bonnie	ChiIL Mama/ ChiIL Live Shows	<a href="https://twitter.com/ChiILMama/status/1106321682455822338">https://twitter.com/ChiILMama/status/1106321682455822338</a> <a href="https://twitter.com/ChiILMama/status/1106322706813857799">https://twitter.com/ChiILMama/status/1106322706813857799</a> <a href="https://twitter.com/ChiILMama/status/1106611587715133452">https://twitter.com/ChiILMama/status/1106611587715133452</a> <a href="https://twitter.com/ChiILMama/status/1105906844046888961">https://twitter.com/ChiILMama/status/1105906844046888961</a>
Cherise	Mom and More	<a href="https://twitter.com/mamasmoney/status/1108070589074468864">https://twitter.com/mamasmoney/status/1108070589074468864</a> <a href="https://twitter.com/mamasmoney/status/1108461454984970245">https://twitter.com/mamasmoney/status/1108461454984970245</a>
Erica	Erica Finds	<a href="https://twitter.com/EAGran/status/1110259117250232322">https://twitter.com/EAGran/status/1110259117250232322</a> <a href="https://twitter.com/EAGran/status/1111656924309803008">https://twitter.com/EAGran/status/1111656924309803008</a>
Jen	My Crafty Life	<a href="https://twitter.com/craftymomof3/status/1106648504879980551">https://twitter.com/craftymomof3/status/1106648504879980551</a> <a href="https://twitter.com/craftymomof3/status/1106647247427641344">https://twitter.com/craftymomof3/status/1106647247427641344</a>
Keyonda	A Real Urban Mom	<a href="https://twitter.com/arealurbanmom/status/1110257227364007936">https://twitter.com/arealurbanmom/status/1110257227364007936</a>
Kris	Little Tech Girl	<a href="https://twitter.com/LittleTechGirl/status/1109486501035950080">https://twitter.com/LittleTechGirl/status/1109486501035950080</a>
Lindsay	It's Simply Lindsay	<a href="https://twitter.com/itssimplylinds/status/1106183597889912832">https://twitter.com/itssimplylinds/status/1106183597889912832</a>
Lisa	My Thoughts, Ideas and Ramblings	<a href="https://twitter.com/blm03/status/1110642166219591681">https://twitter.com/blm03/status/1110642166219591681</a>
Michelle	Honest & Truly	<a href="https://twitter.com/honestandtruly/status/1107688881917431814">https://twitter.com/honestandtruly/status/1107688881917431814</a>
Natasha	Houseful of Nichols	<a href="https://twitter.com/NatashaNicholes/status/1107845712589537280">https://twitter.com/NatashaNicholes/status/1107845712589537280</a>
Sarah	Toddling Around Chicagoland	<a href="https://twitter.com/ToddlingChicago/status/1113114492160958464">https://twitter.com/ToddlingChicago/status/1113114492160958464</a>
Shelley	A Magical Mess	<a href="https://twitter.com/MagicalSiblings/status/1105190053058396170">https://twitter.com/MagicalSiblings/status/1105190053058396170</a> <a href="https://twitter.com/MagicalSiblings/status/1105925361626423297">https://twitter.com/MagicalSiblings/status/1105925361626423297</a> <a href="https://twitter.com/MagicalSiblings/status/1106199158246031361">https://twitter.com/MagicalSiblings/status/1106199158246031361</a>
Tricia	The Night Owl Mama	<a href="https://twitter.com/Nightowlmama/status/1109942765796900866">https://twitter.com/Nightowlmama/status/1109942765796900866</a> <a href="https://twitter.com/Nightowlmama/status/1109591205980057600">https://twitter.com/Nightowlmama/status/1109591205980057600</a>



## **Appendix D. List of all Technical Memoranda**

The following memoranda were delivered to CMAP during the course of the project. These mostly served to document processes for various tasks on the project.

- Tech Memo 2.1 – Data Collection Strategy
- Tech Memo 2.2 – Public Outreach
- Tech Memo 2.4 – Final Web+CATI Recruit Script
- Tech Memo 2.5 – Final Web+CATI Retrieval Script
- Tech Memo 2.6 – Final Respondent Materials
- Tech Memo 3.1 – Sampling Plan
- Tech Memo 5.1 – Intercept Survey Procedures
- Tech Memo 5.2 – Non-Probability Methodology
- Tech Memo 6.1 – Weighting Review
- Tech Memo 7.1 – Transit Trip Collapsing
- Tech Memo 7.2 – Toll Data Augmentation
- Tech Memo 7.3 – Collecting Transit Itineraries
- Tech Memo 7.4 – Final Report
- Tech Memo 8.1 – Defining a Recurrent Survey Framework

## Appendix E. List and Specifications for Derived Variables

The table in this appendix describes all variables derived from the source data files and can be used to understand how data have been grouped for display in the tables in this report. The logic in the DOMAIN field below is written for the R DataSummarize Package delivered with the final data files.

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhworke r_agg	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 0]	0	0
hhworke r_agg	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 1]	1	1
hhworke r_agg	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 2]	2	2
hhworke r_agg	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers >= 3]	3	3+
hsize_a gg	household	character	as.numeric(hsize) == 1	1	1
hsize_a gg	household	character	as.numeric(hsize) == 2	2	2
hsize_a gg	household	character	as.numeric(hsize) == 3	3	3
hsize_a gg	household	character	as.numeric(hsize) >= 4	4	4+
hveh_a gg	household	character	as.numeric(hveh) == 0	0	0
hveh_a gg	household	character	as.numeric(hveh) == 1	1	1

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhveh_a gg	household	character	as.numeric(hhveh) == 2	2	2
hhveh_a gg	household	character	as.numeric(hhveh) >= 3	3	3+
Pertype	person	character	empty_ask == 1 & as.numeric(wrkhrs) >= 30 & as.numeric(wrkhrs) < 900 & stude %in% c(3,-7,-8) & as.numeric(age) >= 18 & as.numeric(age) <= 900	1	Full-Time Worker
Pertype	person	character	empty_ask == 1 & as.numeric(wrkhrs) <= 29 & stude %in% c(3,-7,-8) & as.numeric(age) >= 18 & as.numeric(age) <= 900	2	Part-Time Worker
Pertype	person	character	stude %in% c(1,2) & as.numeric(age) >= 18 & as.numeric(age) <= 900	3	University Student
Pertype	person	character	empty_ask %in% c(2,-7,-8) & wkstat %in% c(2,3,4,5,6,7,-7,-8) & stude %in% c(3,-7,-8) & as.numeric(age) >= 18 & as.numeric(age) <= 900	4	Non-Worker
Pertype	person	character	empty_ask %in% c(2,-7,-8) & wkstat == 1 & stude %in% c(3,-7,-8) & as.numeric(age) >= 18 & as.numeric(age) <= 900	5	Retiree
Pertype	person	character	as.numeric(age) >= 16 & as.numeric(age) <= 17	6	Driving-Age Child
Pertype	person	character	as.numeric(age) >= 5 & as.numeric(age) <= 15	7	Pre-Driving-Age Child
pertype 2	person	character	empty_ask == 1 & as.numeric(wrkhrs) >= 30 & as.numeric(wrkhrs) < 900 & stude %in% c(3,-7,-8) & (as.numeric(age) >= 18   as.numeric(aage) >= 5) & as.numeric(age) <= 900	1	Full-Time Worker
pertype 2	person	character	empty_ask == 1 & as.numeric(wrkhrs) <= 29 & stude %in% c(3,-7,-8) & (as.numeric(age) >= 18   as.numeric(aage) >= 5) & as.numeric(age) <= 900	2	Part-Time Worker

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
pertype 2	person	character	stude %in% c(1,2) & (as.numeric(age) >= 18   as.numeric(aage) >= 5) & as.numeric(age) <= 900	3	University Student
pertype 2	person	character	empty_ask %in% c(2,-7,-8) & wkstat %in% c(2,3,4,5,6,7,97,-7,-8) & stude %in% c(3,-7,-8) & (as.numeric(age) >= 18   as.numeric(aage) >= 5) & as.numeric(age) <= 900	4	Non-Worker
pertype 2	person	character	empty_ask %in% c(2,-7,-8) & wkstat == 1 & stude %in% c(3,-7,-8) & (as.numeric(age) >= 18   as.numeric(aage) >= 5) & as.numeric(age) <= 900	5	Retiree
pertype 2	person	character	as.numeric(age) >= 16 & as.numeric(age) <= 17	6	Driving-Age Child
pertype 2	person	character	as.numeric(age) >= 5 & as.numeric(age) <= 15	7	Pre-Driving-Age Child
pertype 2	person	character	as.numeric(age) >= 0 & as.numeric(age) <= 4	8	Preschool Child
hhworke r_agg2	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 0]	0	0
hhworke r_agg2	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 1]	1	1
hhworke r_agg2	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 2]	2	2
hhworke r_agg2	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers == 3]	3	3
hhworke r_agg2	household	character	data\$data\$person[, list(workers = sum(as.numeric(jobs) > 0)), keyby = list(sampno)][workers >= 4]	4	4+
hhveh_a gg2	household	character	as.numeric(hhveh) == 0	0	0

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhveh_a gg2	household	character	as.numeric(hhveh) == 1	1	1
hhveh_a gg2	household	character	as.numeric(hhveh) == 2	2	2
hhveh_a gg2	household	character	as.numeric(hhveh) == 3	3	3
hhveh_a gg2	household	character	as.numeric(hhveh) >= 4	4	4+
wmode_ agg	person	character	wmode == '1'	1	Walk
wmode_ agg	person	character	wmode == '2'	2	Bike
wmode_ agg	person	character	wmode == '3'	3	Motorcycle/ moped
wmode_ agg	person	character	wmode == '4'	4	Driver
wmode_ agg	person	character	wmode == '5'	5	Passenger
wmode_ agg	person	character	wmode == '6'	6	Carpool/van pool
wmode_ agg	person	character	wmode %in% c('8','9','10')	7	Public transit
wmode_ agg	person	character	!wmode %in% c('1','2','3','4','5','6','8','9','10','-' '1')	8	Something else
wmode_ actual_a gg	person	character	data\$data\$trip[grep('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual == '101'	1	Walk
wmode_ actual_a gg	person	character	data\$data\$trip[grep('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno,	2	Bike

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
			perno)][data\$data\$person]\$wmode_actual %in% c('102','103','104')		
wmode_actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual == '201'	3	Motorcycle/ moped
wmode_actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual == '202'	4	Driver
wmode_actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual == '203'	5	Passenger
wmode_actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual == '301'	6	Carpool/van pool
wmode_actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual %in% c('501','505','506')	7	Public transit

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
wmode_ actual_a gg	person	character	!data\$data\$trip[grep!('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual %in% c('101','102','103','104','201','202','203','301','501','505','506',NA)]	8	Something else
smode_ agg	person	character	smode == '1'	1	Walk
smode_ agg	person	character	smode == '2'	2	Bike
smode_ agg	person	character	smode == '4'	3	Driver
smode_ agg	person	character	smode == '5'	4	Passenger
smode_ agg	person	character	smode == '6'	5	Carpool/van pool
smode_ agg	person	character	smode == '7'	6	School bus
smode_ agg	person	character	smode %in% c('8','9','10')	7	Public transit
smode_ agg	person	character	!smode %in% c('1','2','4','5','6','7','8','9','10','-1')	8	Something else
smode_ actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '101']	1	Walk
smode_ actual_a gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual %in% c('102','103','104')]	2	Bike

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
smode_actual_a_gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '202'	3	Driver
smode_actual_a_gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '203'	4	Passenger
smode_actual_a_gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '301'	5	Carpool/van pool
smode_actual_a_gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '401'	6	School bus
smode_actual_a_gg	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual %in% c('501','505','506')	7	Public transit
smode_actual_a_gg	person	character	!data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual %in% c('101','102','103','104','401','401','202','203','301','501','505','506',NA)	8	Something else
homeown_agg	household	character	homeown %in% c('0','1','2')	1	Own

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
homeow_n_agg	household	character	homeown %in% c('3')	2	Rent
homeow_n_agg	household	character	homeown %in% c('4')	3	Occupied without payment of rent
homeow_n_agg	household	character	homeown %in% c('97')	4	Some other arrangement
homeow_n_agg	household	character	homeown %in% c('-7','-8')	5	Don't Know/Refused
wmode_ agg2	person	character	wmode %in% c('1','2')	1	Walk/Bike
wmode_ agg2	person	character	wmode == '4'	2	Driver
wmode_ agg2	person	character	wmode %in% c('5','6')	3	Passenger/ Carpool
wmode_ agg2	person	character	wmode %in% c('8','9','10')	4	Public transit
wmode_ agg2	person	character	!wmode %in% c('1','2','4','5','6','8','9','10','-1')	5	Something else
wmode_ actual_a gg2	person	character	data\$data\$trip[grep1('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual %in% c('101','102','103','104')]	1	Walk/Bike
wmode_ actual_a gg2	person	character	data\$data\$trip[grep1('^[0-9]{4}2\$', locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual == '202'	2	Driver

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
wmode_ actual_a gg2	person	character	data\$data\$trip[grep!(^[0-9]{4}2\$, locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual %in% c('203','301')	3	Passenger/ Carpool
wmode_ actual_a gg2	person	character	data\$data\$trip[grep!(^[0-9]{4}2\$, locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual %in% c('501','505','506')	4	Public transit
wmode_ actual_a gg2	person	character	!data\$data\$trip[grep!(^[0-9]{4}2\$, locno) & perno == substr(locno, 1, 1), list(wmode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$wmode_actual %in% c('101','102','103','104','202','203','301','501',' 505','506',NA)	5	Something else
smode_ agg2	person	character	smod %in% c('1','2')	1	Walk/Bike
smod_ agg2	person	character	smod == '4'	2	Driver
smod_ agg2	person	character	smod %in% c('5','6')	3	Passenger/ Carpool
smod_ agg2	person	character	smod == '7'	4	School bus
smod_ agg2	person	character	smod %in% c('8','9','10')	5	Public transit
smod_ agg2	person	character	!smod %in% c('1','2','4','5','6','7','8','9','10','-' 1')	6	Something else

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
smode_actual_a_gg2	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual %in% c('101','102','103','104')]	1	Walk/Bike
smode_actual_a_gg2	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '202'	2	Driver
smode_actual_a_gg2	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == c('203','301')]	3	Passenger/ Carpool
smode_actual_a_gg2	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual == '401'	4	School bus
smode_actual_a_gg2	person	character	data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual %in% c('501','505','506')]	5	Public transit
smode_actual_a_gg2	person	character	!data\$data\$trip[grep!('^[0-9]{4}3\$', locno) & perno == substr(locno, 1, 1), list(smode_actual = mode[1]), by = list(sampno, perno)][data\$data\$person]\$smode_actual %in% c('101','102','103','104','401','402','202','203','301','501','505','506',NA)]	6	Something else
hhtrips2	household	character	as.numeric(hhtrips) == 0	1	0
hhtrips2	household	character	as.numeric(hhtrips) %in% 1:5	2	1-5 Trips

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhtrips2	household	character	as.numeric(hhtrips) %in% 6:10	3	6-10 Trips
hhtrips2	household	character	as.numeric(hhtrips) %in% 11:15	4	11-15 Trips
hhtrips2	household	character	as.numeric(hhtrips) %in% 16:20	5	16-20 Trips
hhtrips2	household	character	as.numeric(hhtrips) %in% 21:max(as.numeric(hhtrips))	6	21 or more
mode_a_gg	trip	character	mode %in% c('101','102','103','104')	1	Walk/Bike
mode_a_gg	trip	character	mode == '202'	2	Driver
mode_a_gg	trip	character	mode %in% c('203','301')	3	Passenger/ Carpool
mode_a_gg	trip	character	mode %in% '401'	4	School bus
mode_a_gg	trip	character	mode %in% c('501','505','506')	5	Public transit
mode_a_gg	trip	character	!mode %in% c('101','102','103','104','401','202','203','301',' 501','505','506',NA)	6	Something else
hhinc_a_gg	household	character	hhinc2 %in% c('8')	1	I don't know
hhinc_a_gg	household	character	hhinc2 %in% c('7')	2	I prefer not to answer
hhinc_a_gg	household	character	hhinc %in% c('1','2','3')   (hhinc %in% c('8','7') & hhinc2 %in% c('1'))	3	Less than \$30,000
hhinc_a_gg	household	character	hhinc %in% c('4','5','6')   (hhinc %in% c('8','7') & hhinc2 %in% c('2'))	4	\$30,000 to \$59,999
hhinc_a_gg	household	character	hhinc %in% c('7','8','9','10')   (hhinc %in% c('8','7') & hhinc2 %in% c('3','4','5'))	5	\$60,000 or more
hhstude_nt_agg	household	character	data\$data\$person[, list(students= sum(stude %in% c('1','2'))), keyby = list(sampno)][students == 0]	0	0
hhstude_nt_agg	household	character	data\$data\$person[, list(students= sum(stude %in% c('1','2'))), keyby = list(sampno)][students == 1]	1	1

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhstude nt_agg	household	character	data\$data\$person[, list(students= sum(stude %in% c('1','2'))), keyby = list(sampno)][students == 2]	2	2
hhstude nt_agg	household	character	data\$data\$person[, list(students= sum(stude %in% c('1','2'))), keyby = list(sampno)][students >= 3]	3	3+
hhdriver _agg	household	character	data\$data\$person[, list(drivers= sum(lic %in% c('1'))), keyby = list(sampno)][drivers == 0]	0	0
hhdriver _agg	household	character	data\$data\$person[, list(drivers= sum(lic %in% c('1'))), keyby = list(sampno)][drivers == 1]	1	1
hhdriver _agg	household	character	data\$data\$person[, list(drivers= sum(lic %in% c('1'))), keyby = list(sampno)][drivers == 2]	2	2
hhdriver _agg	household	character	data\$data\$person[, list(drivers= sum(lic %in% c('1'))), keyby = list(sampno)][drivers == 3]	3	3
hhdriver _agg	household	character	data\$data\$person[, list(drivers= sum(lic %in% c('1'))), keyby = list(sampno)][drivers >= 4]	4	4+
jobs_bin ned	person	character	as.numeric(jobs) == -8	-8	I don't know
jobs_bin ned	person	character	as.numeric(jobs) == -7	-7	I prefer not to answer
jobs_bin ned	person	character	as.numeric(jobs) == -1	-1	Appropriate Skip
jobs_bin ned	person	character	as.numeric(jobs) == 0	0	0
jobs_bin ned	person	character	as.numeric(jobs) == 1	1	1
jobs_bin ned	person	character	as.numeric(jobs) == 2	2	2
jobs_bin ned	person	character	as.numeric(jobs) == 3	3	3
jobs_bin ned	person	character	as.numeric(jobs) >= 4	4	4+
hhinc_bi nned	household	character	hhinc %in% c('9')	1	NA

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhinc_binned	household	character	hhinc %in% c('‐8')	2	I don't know
hhinc_binned	household	character	hhinc %in% c('‐7')	3	I prefer not to answer
hhinc_binned	household	character	hhinc %in% c('1')	4	Less than \$15,000
hhinc_binned	household	character	hhinc %in% c('2')	5	\$15,000 to \$24,999
hhinc_binned	household	character	hhinc %in% c('3')	6	\$25,000 to \$29,999
hhinc_binned	household	character	hhinc %in% c('4')	7	\$30,000 to \$34,999
hhinc_binned	household	character	hhinc %in% c('5')	8	\$35,000 to \$49,999
hhinc_binned	household	character	hhinc %in% c('6')	9	\$50,000 to \$59,999
hhinc_binned	household	character	hhinc %in% c('7')	10	\$60,000 to \$74,999
hhinc_binned	household	character	hhinc %in% c('8')	11	\$75,000 to \$99,999
hhinc_binned	household	character	hhinc %in% c('9')	12	\$100,000 to \$149,999
hhinc_binned	household	character	hhinc %in% c('10')	13	\$150,000 or more
workstate_binned	person	character	empty_ask %in% c('1') & wplace %in% c('1') & work_state %in% c('KS')	1	KS
workstate_binned	person	character	empty_ask %in% c('1') & wplace %in% c('1') & work_state %in% c('MO')	2	MO
workstate_binned	person	character	empty_ask %in% c('1') & wplace %in% c('1') & !work_state %in% c('KS','MO')	3	Other

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
state_binned	trip	character	state %in% c('KS')	1	KS
state_binned	trip	character	state %in% c('MO')	2	MO
state_binned	trip	character	!state %in% c('KS','MO')	3	Other
hhchildren_agg	household	character	data\$data\$person[, list(children = sum(as.numeric(age) %in% 0:17   aage %in% 1:4)), keyby = list(sampno)][children == 0]	0	0
hhchildren_agg	household	character	data\$data\$person[, list(children = sum(as.numeric(age) %in% 0:17   aage %in% 1:4)), keyby = list(sampno)][children == 1]	1	1
hhchildren_agg	household	character	data\$data\$person[, list(children = sum(as.numeric(age) %in% 0:17   aage %in% 1:4)), keyby = list(sampno)][children == 2]	2	2
hhchildren_agg	household	character	data\$data\$person[, list(children = sum(as.numeric(age) %in% 0:17   aage %in% 1:4)), keyby = list(sampno)][children == 3]	3	3
hhchildren_agg	household	character	data\$data\$person[, list(children = sum(as.numeric(age) %in% 0:17   aage %in% 1:4)), keyby = list(sampno)][children >= 4]	4	4+
party_binned	trip	character	as.numeric(party) == 1	1	1
party_binned	trip	character	as.numeric(party) == 2	2	2
party_binned	trip	character	as.numeric(party) == 3	3	3
party_binned	trip	character	as.numeric(party) >= 4	4	4+
hhparty_binned	trip	character	hhparty == '1'	1	1
hhparty_binned	trip	character	hhparty == '2'	2	2

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhparty _binned	trip	character	hhparty == '3'	3	3
hhparty _binned	trip	character	hhparty >= '4'	4	4+
nonhhco unt_bin ned	trip	character	nonhhcount == '0'	0	0
nonhhco unt_bin ned	trip	character	nonhhcount == '1'	1	1
nonhhco unt_bin ned	trip	character	nonhhcount == '2'	2	2
nonhhco unt_bin ned	trip	character	nonhhcount == '3'	3	3
nonhhco unt_bin ned	trip	character	nonhhcount >= '4'	4	4+
age_bin ned3	person	character	as.numeric(age) %in% c('18')	1	I don't know
age_bin ned3	person	character	as.numeric(age) %in% c('17')	2	I prefer not to answer
age_bin ned3	person	character	as.numeric(age) %in% 0:4   aage == '1'	3	Under 5
age_bin ned3	person	character	as.numeric(age) %in% 5:12   aage == '2'	4	12-May
age_bin ned3	person	character	as.numeric(age) %in% 13:15   aage == '3'	5	13 - 15
age_bin ned3	person	character	as.numeric(age) %in% 16:17   aage == '4'	6	16 - 17
age_bin ned3	person	character	as.numeric(age) %in% 18:44   aage == '5'	7	18 - 44

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
age_bin_ned3	person	character	as.numeric(age) %in% 45:64   aage == '6'	8	45 - 64
age_bin_ned3	person	character	as.numeric(age) %in% 65:max(as.numeric(age))   aage == '7'	9	65 or older
tpurp_a_gg2	trip	character	tpurp %in% c('3')	1	Work
tpurp_a_gg2	trip	character	tpurp %in% c('6')	2	School
tpurp_a_gg2	trip	character	tpurp %in% c('1','2','4','5','7','8','9','10','11','12','13','14','15','16','17','18','19','20','21','22','23','24','25','26','27','28','97')	3	Other
loctype_ agg	trip	character	loctype %in% c('2')	1	Work
loctype_ agg	trip	character	loctype %in% c('3')	2	School
loctype_ agg	trip	character	loctype %in% c('1','4','97','100')	3	Other
hhinc_bi_nned2	household	character	hhinc %in% c('1')	1	I don't know
hhinc_bi_nned2	household	character	hhinc %in% c('2')	2	I prefer not to answer
hhinc_bi_nned2	household	character	hhinc %in% c('3')	3	Less than \$30,000
hhinc_bi_nned2	household	character	hhinc %in% c('4')	4	\$30,000 to \$59,999
hhinc_bi_nned2	household	character	hhinc %in% c('5')	5	\$60,000 or more
travtime _binned	trip	character	as.numeric(travtime) %in% 0:5	1	0 - 5
travtime _binned	trip	character	as.numeric(travtime) %in% 6:10	2	10-Jun
travtime _binned	trip	character	as.numeric(travtime) %in% 11:20	3	20-Nov

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
travtime_binned	trip	character	as.numeric(travtime) %in% 21:30	4	21 - 30
travtime_binned	trip	character	as.numeric(travtime) %in% 31:45	5	31 - 45
travtime_binned	trip	character	as.numeric(travtime) %in% 46:60	6	46 - 60
travtime_binned	trip	character	as.numeric(travtime) %in% 61:90	7	61 - 90
travtime_binned	trip	character	as.numeric(travtime) %in% 91:120	8	91 - 120
travtime_binned	trip	character	as.numeric(travtime) %in% 121:max(as.numeric(travtime))	9	121 or more
mode_a_gg2	trip	character	mode %in% c('101')	1	Walk
mode_a_gg2	trip	character	mode %in% c('102','103','104')	2	Bike
mode_a_gg2	trip	character	mode %in% c('201','202','203')	3	Personally Owned Vehicle
mode_a_gg2	trip	character	mode %in% c('501','502','503','504','505','506')	4	Public Transit
mode_a_gg2	trip	character	mode %in% c('301','401','601','701','702','703','704','705','801','997')	6	Other
wmode_binned	person	character	wmode %in% c('1')	1	Walk
wmode_binned	person	character	wmode %in% c('2')	2	Bike
wmode_binned	person	character	wmode %in% c('3','4','5')	3	Personally Owned Vehicle
wmode_binned	person	character	wmode %in% c('8','9','10','11','12','13')	4	Public Transit

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
wmode_binned	person	character	wmode %in% c('7','8','6','7','14','15','16','17','18','97')	5	Other
wmode_binned	person	character	wmode %in% c('1','-9')	6	NA/AS
smode_binned	person	character	smode %in% c('1')	1	Walk
smode_binned	person	character	smode %in% c('2')	2	Bike
smode_binned	person	character	smode %in% c('3','4','5')	3	Personally Owned Vehicle
smode_binned	person	character	smode %in% c('7')	4	School Bus
smode_binned	person	character	smode %in% c('8','9','10','11','12','13')	5	Public Transit
smode_binned	person	character	smode %in% c('7','8','6','14','15','16','17','18','97')	6	Other
smode_binned	person	character	smode %in% c('1','-9')	7	NA/AS
tpurp_binned	trip	character	tpurp %in% c('8')	1	I don't know
tpurp_binned	trip	character	tpurp %in% c('7')	2	I prefer not to answer
tpurp_binned	trip	character	tpurp %in% c('1','2')	3	Home
tpurp_binned	trip	character	tpurp %in% c('3','4','5')	4	Work
tpurp_binned	trip	character	tpurp %in% c('6')	5	School
tpurp_binned	trip	character	tpurp %in% c('7')	6	Volunteer
tpurp_binned	trip	character	tpurp %in% c('17','18','19','20','21','22','23','24','25')	7	Social / Recreationa l

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
tpurp_binned	trip	character	tpurp %in% c('8','9','10','11','12','13','14','15','16')	8	Maintenance / Errands
tpurp_binned	trip	character	tpurp %in% c('26','27','28')	9	Escorting / Mode change
tpurp_binned	trip	character	tpurp %in% c('97')	10	Something Else
home_county_acs	household	character	home_county_fips == '031'	31	Cook County, Illinois
home_county_acs	household	character	home_county_fips == '037'	37	DeKalb County, Illinois
home_county_acs	household	character	home_county_fips == '043'	43	DuPage County, Illinois
home_county_acs	household	character	home_county_fips == '063'	63	Grundy County, Illinois
home_county_acs	household	character	home_county_fips == '089'	89	Kane County, Illinois
home_county_acs	household	character	home_county_fips == '093'	93	Kendall County, Illinois
home_county_acs	household	character	home_county_fips == '097'	97	Lake County, Illinois
home_county_acs	household	character	home_county_fips == '111'	111	McHenry County, Illinois
home_county_acs	household	character	home_county_fips == '197'	197	Will County, Illinois

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhinc_ac_s	household	character	hhinc %in% c('‐8')	1	I don't know
hhinc_ac_s	household	character	hhinc %in% c('‐7')	2	I prefer not to answer
hhinc_ac_s	household	character	hhinc %in% c('1','2')	3	Less than \$10,000
hhinc_ac_s	household	character	hhinc %in% c('3')	4	\$10,000 to \$14,999
hhinc_ac_s	household	character	hhinc %in% c('4')	5	\$15,000 to \$19,999
hhinc_ac_s	household	character	hhinc %in% c('5')	6	\$20,000 to \$24,999
hhinc_ac_s	household	character	hhinc %in% c('6')	7	\$25,000 to \$29,999
hhinc_ac_s	household	character	hhinc %in% c('7')	8	\$30,000 to \$34,999
hhinc_ac_s	household	character	hhinc %in% c('8')	9	\$35,000 to \$39,999
hhinc_ac_s	household	character	hhinc %in% c('9')	10	\$40,000 to \$44,999
hhinc_ac_s	household	character	hhinc %in% c('10')	11	\$45,000 to \$49,999
hhinc_ac_s	household	character	hhinc %in% c('11')	12	\$50,000 to \$59,999
hhinc_ac_s	household	character	hhinc %in% c('12')	13	\$60,000 to \$74,999
hhinc_ac_s	household	character	hhinc %in% c('13')	14	\$75,000 to \$99,999
hhinc_ac_s	household	character	hhinc %in% c('14')	15	\$100,000 to \$149,999
hhinc_ac_s	household	character	hhinc %in% c('15')	17	\$150,000 to \$199,999
hhinc_ac_s	household	character	hhinc %in% c('16')	18	\$200,000 or more

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
age_acs	person	character	as.numeric(age) %in% 0:4	1	Under 5 years
age_acs	person	character	as.numeric(age) %in% 5:9	2	5 to 9 years
age_acs	person	character	as.numeric(age) %in% 10:14	3	10 to 14 years
age_acs	person	character	as.numeric(age) %in% 15:19	4	15 to 19 years
age_acs	person	character	as.numeric(age) %in% 20:24	5	20 to 24 years
age_acs	person	character	as.numeric(age) %in% 25:29	6	25 to 29 years
age_acs	person	character	as.numeric(age) %in% 30:34	7	30 to 34 years
age_acs	person	character	as.numeric(age) %in% 35:39	8	35 to 39 years
age_acs	person	character	as.numeric(age) %in% 40:44	9	40 to 44 years
age_acs	person	character	as.numeric(age) %in% 45:49	10	45 to 49 years
age_acs	person	character	as.numeric(age) %in% 50:54	11	50 to 54 years
age_acs	person	character	as.numeric(age) %in% 55:59	12	55 to 59 years
age_acs	person	character	as.numeric(age) %in% 60:64	13	60 to 64 years
age_acs	person	character	as.numeric(age) %in% 65:69	14	65 to 69 years
age_acs	person	character	as.numeric(age) %in% 70:74	15	70 to 74 years
age_acs	person	character	as.numeric(age) %in% 75:79	16	75 to 79 years
age_acs	person	character	as.numeric(age) %in% 80:84	17	80 to 84 years

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
age_acs	person	character	as.numeric(age) %in% 85:max(as.numeric(age))	18	85 years and over
age_acs	person	character	as.numeric(age) %in% c('7','8')	19	Don't know/Refus ed
educ_binned	person	character	educ %in% c('7','8','9')	1	Non- Response
educ_binned	person	character	educ == '1'	2	Grade 12 or Less
educ_binned	person	character	educ == '2'	3	High School Graduate
educ_binned	person	character	educ == '3'	4	Some College, No Degree
educ_binned	person	character	educ == '4'	5	Associate/T echnical Degree
educ_binned	person	character	educ == '5'	6	Undergradu ate Degree
educ_binned	person	character	educ == '6'	7	Graduate Degree
educ_binned	person	character	educ == '97'	97	Other
tnc_purp_binne d	person	character	tnc_purp %in% c('8')	1	I don't know
tnc_purp_binne d	person	character	tnc_purp %in% c('7')	2	I prefer not to answer
tnc_purp_binne d	person	character	tnc_purp %in% c('1')	3	Entire work commute

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
tnc_pur p_binne d	person	character	tnc_purp %in% c('2')	4	Partial work commute
tnc_pur p_binne d	person	character	tnc_purp %in% c('3')	5	Work-related during business hours
tnc_pur p_binne d	person	character	tnc_purp %in% c('4')	6	Non-work/perso nal during business hours
tnc_pur p_binne d	person	character	tnc_purp %in% c('5')	7	Personal outside of business hours
tnc_pur p_binne d	person	character	tnc_purp %in% c('1','9')	8	Other
tnc_use _binned	person	character	as.numeric(tnc_use) %in% 1:max(as.numeric(tnc_use))	1	At least once in the past week
tnc_use _binned	person	character	as.numeric(tnc_use) %in% c('0','-7','-8')	2	Didnt use
tnc_use _binned	person	character	as.numeric(tnc_use) %in% c('1','-9')	3	Other
hhsize_a gg_acs	household	character	as.numeric(hhsize) == 1	1	1 person
hhsize_a gg_acs	household	character	as.numeric(hhsize) == 2	2	2 person
hhsize_a gg_acs	household	character	as.numeric(hhsize) == 3	3	3 person

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhsize_a	household	character	as.numeric(hhsize) >= 4	4	4+ person
gg_acs					
hhveh_a	household	character	as.numeric(hhveh) == 0	0	0 vehicles
gg2_acs					
hhveh_a	household	character	as.numeric(hhveh) == 1	1	1 vehicles
gg2_acs					
hhveh_a	household	character	as.numeric(hhveh) == 2	2	2 vehicles
gg2_acs					
hhveh_a	household	character	as.numeric(hhveh) == 3	3	3 vehicles
gg2_acs					
hhveh_a	household	character	as.numeric(hhveh) >= 4	4	4+ vehicles
gg2_acs					
race_acs	person	character	race %in% c('7','8')	1	Don't know/Refused
race_acs	person	character	race %in% c('1')	2	White
race_acs	person	character	race %in% c('2')	3	Black or African American
race_acs	person	character	race %in% c('4')	4	American Indian, Alaskan Native
race_acs	person	character	race %in% c('3')	5	Asian
race_acs	person	character	race %in% c('5')	6	Native Hawaiian or Pacific Islander
race_acs	person	character	race %in% c('97')	7	Some other race
race_acs	person	character	race %in% c('6')	8	Multiracial
hhveh_a	household	character	as.numeric(hhveh) < 0	1	Non-Response
gg3					

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
hhveh_a_gg3	household	character	as.numeric(hhveh) == 0	2	0
hhveh_a_gg3	household	character	as.numeric(hhveh) >= 1	3	1+
body_la_bels	vehicle	character	body == '-7'	1	I prefer not to answer
body_la_bels	vehicle	character	body == '1'	2	Automobile /Car/Station Wagon
body_la_bels	vehicle	character	body == '2'	3	Van (Mini/Cargo /Passenger)
body_la_bels	vehicle	character	body == '3'	4	SUV (Santa Fe, Tahoe, Jeep, etc.)
body_la_bels	vehicle	character	body == '4'	5	Pickup Truck
body_la_bels	vehicle	character	body == '5'	6	Other Truck
body_la_bels	vehicle	character	body == '6'	7	RV (Recreational Vehicle)
body_la_bels	vehicle	character	body == '7'	8	Motorcycle/Motorbike
vehyear__agg	vehicle	character	as.numeric(vehyear) %in% c('-8')	1	I don't know
vehyear__agg	vehicle	character	as.numeric(vehyear) %in% c('7')	2	I prefer not to answer
vehyear__agg	vehicle	character	as.numeric(vehyear) %in% 0:1999	3	Before 2000
vehyear__agg	vehicle	character	as.numeric(vehyear) %in% 2000:2004	4	2000 - 2004
vehyear__agg	vehicle	character	as.numeric(vehyear) %in% 2005:2009	5	2005 - 2009

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
vehyear	vehicle	character	as.numeric(vehyear) %in% 2010:2014	6	2010 - 2014
_agg					
vehyear	vehicle	character	as.numeric(vehyear) %in% 2015	7	2015
_agg					
vehyear	vehicle	character	as.numeric(vehyear) %in% 2016	8	2016
_agg					
vehyear	vehicle	character	as.numeric(vehyear) %in% 2017	9	2017
_agg					
vehyear	vehicle	character	as.numeric(vehyear) %in% 2018	10	2018
_agg					
vehyear	vehicle	character	as.numeric(vehyear) %in% 2019	11	2019
_agg					
hh_retm ode	household	character	data\$data\$household[sampno %in% data\$data\$household[data\$data\$person[, list(web = sum(retmode == 2)), keyby = list(sampno)][web == as.numeric(hhszie)], sampno], ]	1	Web
hh_retm ode	household	character	data\$data\$household[sampno %in% data\$data\$household[data\$data\$person[, list(cati = sum(retmode == 3)), keyby = list(sampno)][cati == as.numeric(hhszie)], sampno], ]	2	CATI
hh_retm ode	household	character	data\$data\$household[sampno %in% data\$data\$person[retmode==2, sampno] & sampno %in% data\$data\$person[retmode==3, sampno], ]	3	Both
hh_retm ode	household	character	data\$data\$household[sampno %in% data\$data\$person[retmode==1, sampno], ]	4	Smartphon e
home_c ounty	household	character	home_county_fips == '031'	31	Cook
home_c ounty	household	character	home_county_fips == '037'	37	DeKalb
home_c ounty	household	character	home_county_fips == '043'	43	DuPage

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
home_c ounty	household	character	home_county_fips == '063'	63	Grundy
home_c ounty	household	character	home_county_fips == '089'	89	Kane
home_c ounty	household	character	home_county_fips == '093'	93	Kendall
home_c ounty	household	character	home_county_fips == '097'	97	Lake
home_c ounty	household	character	home_county_fips == '111'	111	McHenry
home_c ounty	household	character	home_county_fips == '197'	197	Will
work_co unty	person	character	work_county_fips == '031'	31	Cook
work_co unty	person	character	work_county_fips == '037'	37	DeKalb
work_co unty	person	character	work_county_fips == '043'	43	DuPage
work_co unty	person	character	work_county_fips == '063'	63	Grundy
work_co unty	person	character	work_county_fips == '089'	89	Kane
work_co unty	person	character	work_county_fips == '093'	93	Kendall
work_co unty	person	character	work_county_fips == '097'	97	Lake
work_co unty	person	character	work_county_fips == '111'	111	McHenry
work_co unty	person	character	work_county_fips == '197'	197	Will
work_co unty	person	character	!work_county_fips %in% c(-1,- 9,'031','037','043','063','089','093','097','111', 197')	200	Other

NAME	TABLE	TYPE	DOMAIN	VALUE	LABEL
work_county	person	character	work_county_fips %in% c('-1','-9')	201	NA/AS
trip_county	trip	character	county_fips == '031'	31	Cook
trip_county	trip	character	county_fips == '037'	37	DeKalb
trip_county	trip	character	county_fips == '043'	43	DuPage
trip_county	trip	character	county_fips == '063'	63	Grundy
trip_county	trip	character	county_fips == '089'	89	Kane
trip_county	trip	character	county_fips == '093'	93	Kendall
trip_county	trip	character	county_fips == '097'	97	Lake
trip_county	trip	character	county_fips == '111'	111	McHenry
trip_county	trip	character	county_fips == '197'	197	Will
trip_county	trip	character	!county_fips %in% c('-1','-'9','031','037','043','063','089','093','097','111','197')	200	Other
trip_county	trip	character	county_fips %in% c('-1','-9')	201	NA/AS