RAMSEY COUNTY
County Manager

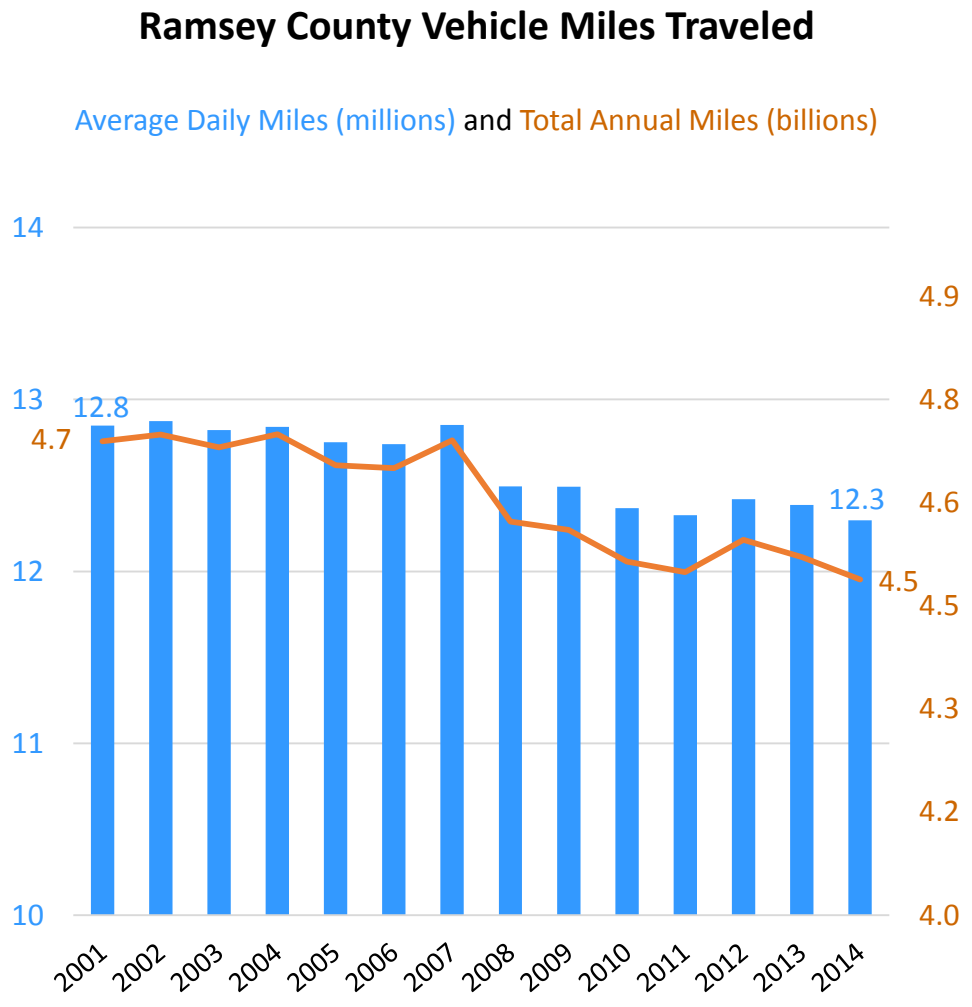
Building an All Abilities Transportation Network

Ramsey County Transportation Data Trends

July 12, 2016

Key Points

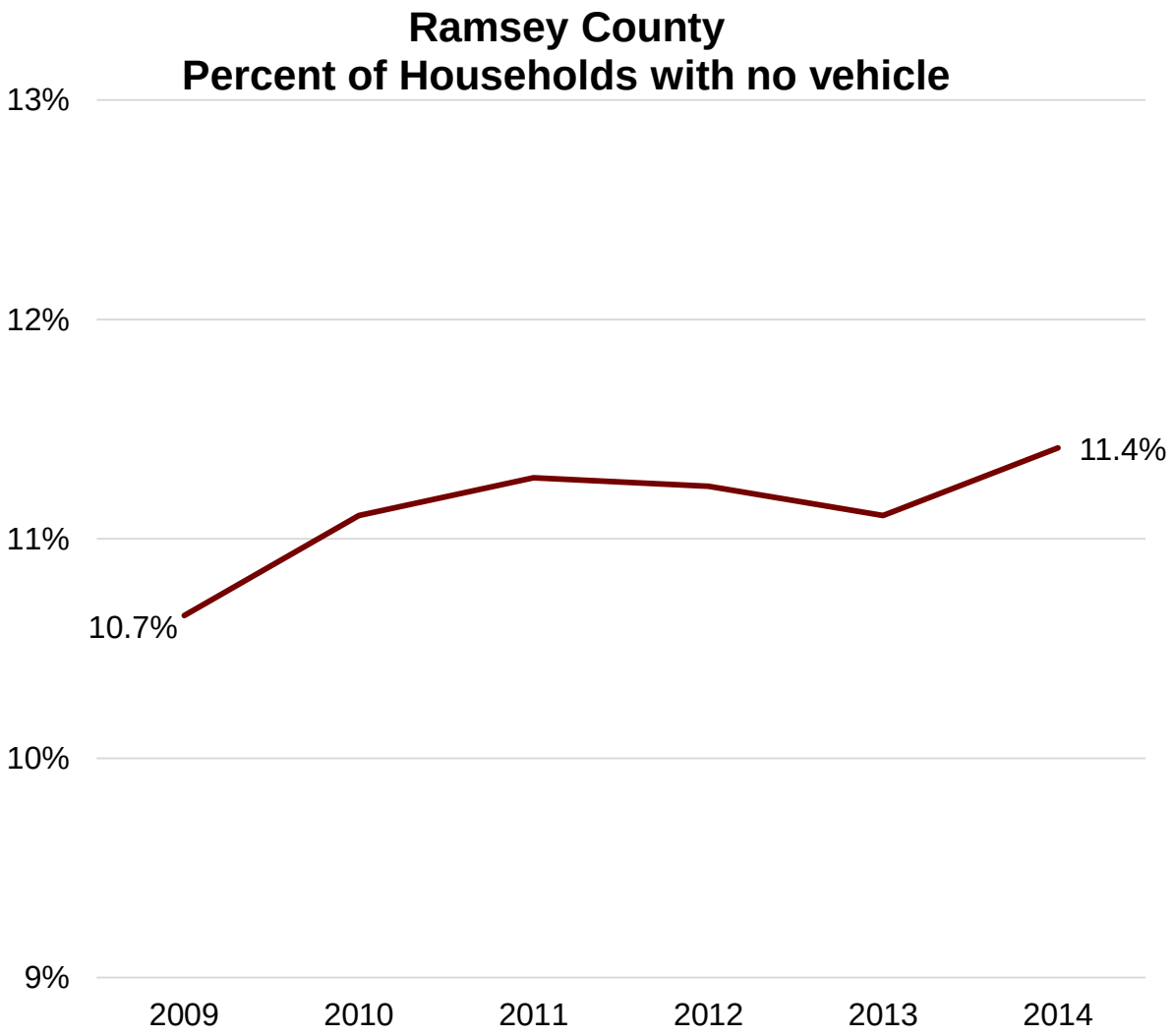
- Regardless of which mode of transportation we use, at some point on our trip **we're all pedestrians.**
- All trips require either a walk or **some use of the pedestrian right of way.**
- **Vehicle travel is on the decline** in Ramsey County.
- Residents are using **more non-motorized transportation options** to get to and from home, work and school.



Source: Minnesota Department of Transportation

Key Points

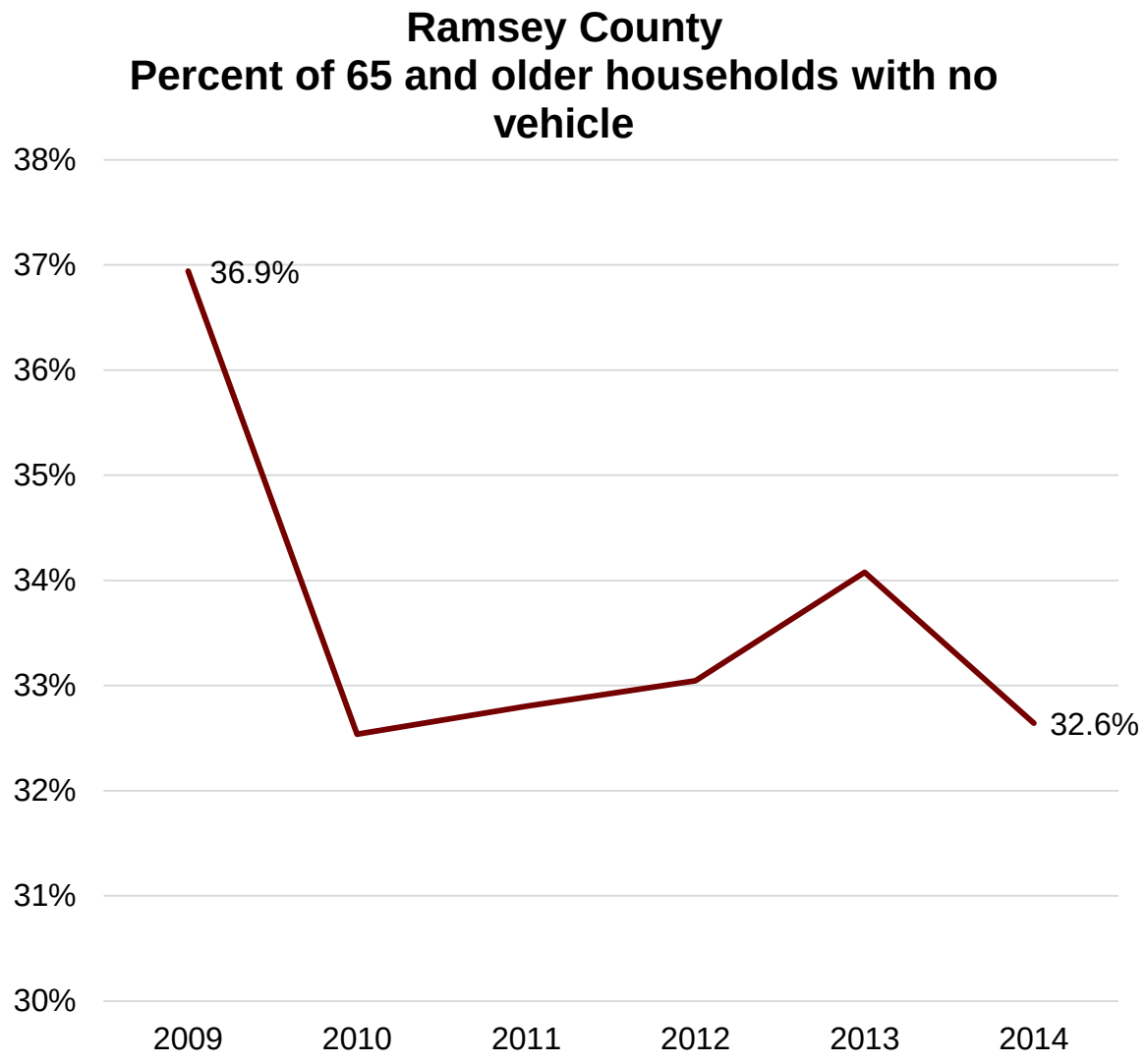
- **11 percent** of households in Ramsey County have no vehicle.
- The **overall share of no vehicle households is expected to continue to increase** as people age and transit systems grow.
- Walking and biking are becoming increasingly popular modes of transportation; nationally nearly a million more people reported walking or biking to work in 2013 than in 2005.



Source: American Community Survey 5-yr estimates

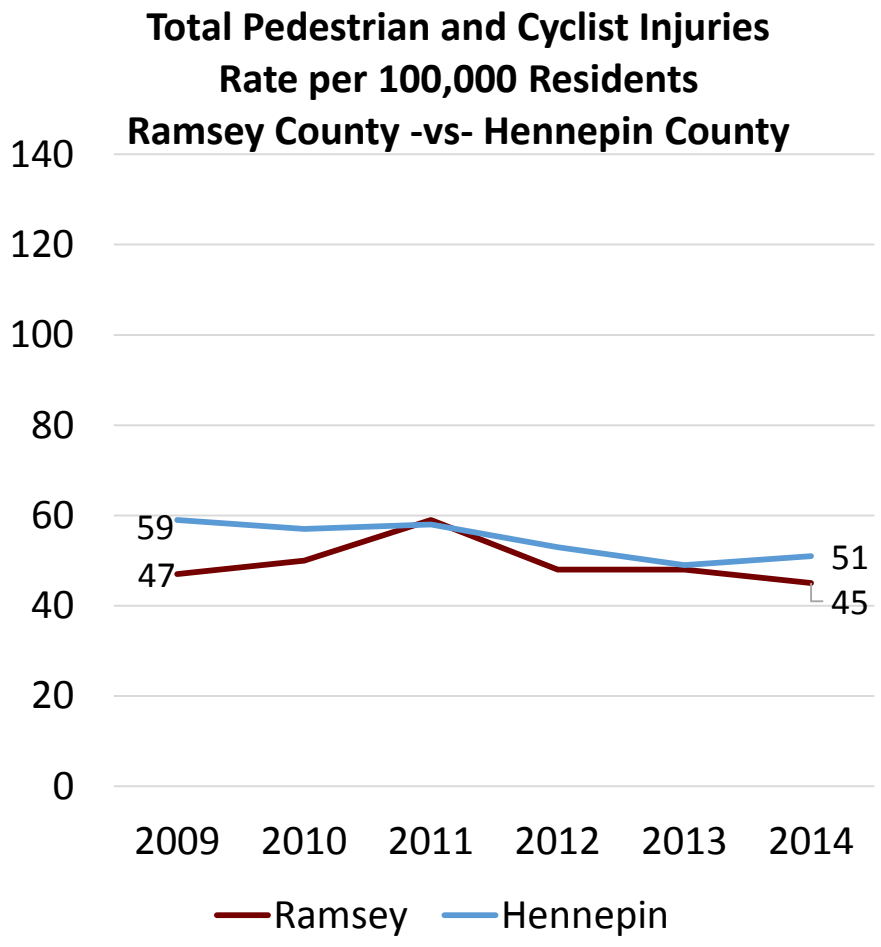
Key Points

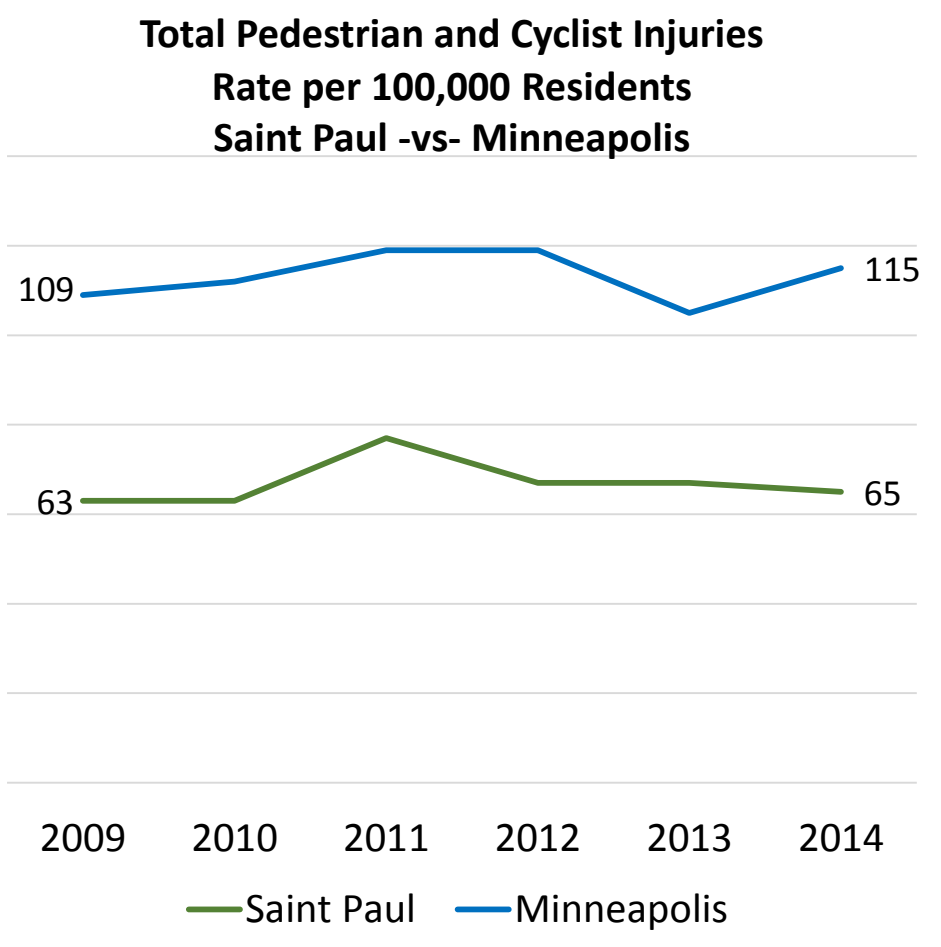
- **One-third** of households with no vehicle are headed by a resident age **65 or older.**
- The 65 and older population **will grow faster** than any other age group and **double by 2040.**
- By 2040, households headed by residents age 65 or older will be **one-third of all Ramsey County households**.
- Prioritizing pedestrians increases **access, mobility and safety** so seniors can age in place.



Key Points

- Pedestrian and bicyclists injuries and deaths resulting from collisions with motorists are **preventable through enhancements to engineering, enforcement and education.**
- **Reported injuries and deaths** for non-motorized transportation users have remained relatively stable since 2009.
- **Ramsey County has lower rates of injuries and deaths for non-motorized users than other communities,** but others have seen greater decreases in these figures since 2009 as holistic transportation planning has become a national focus.

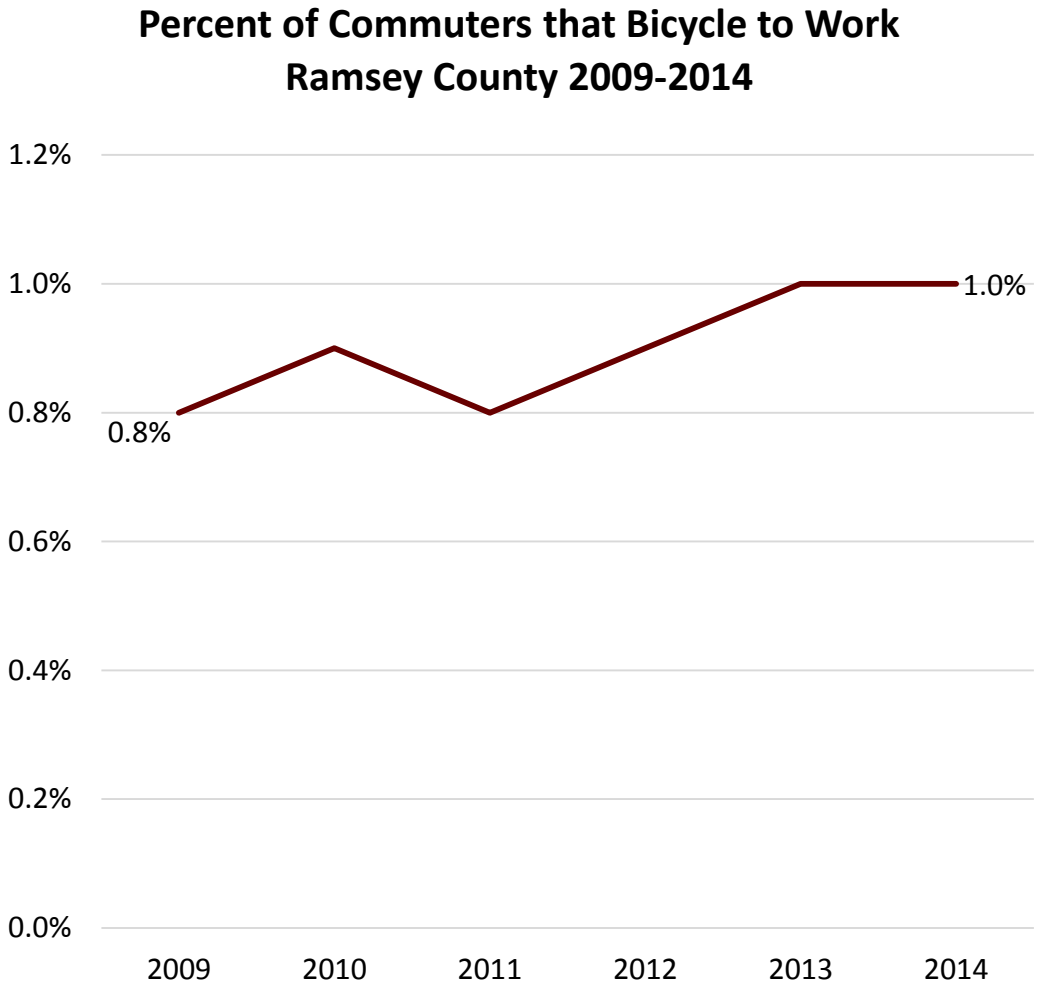




Per resident rates are instructive when trying to normalize and compare across jurisdictions of different population sizes, but they do not include other factors (like overall walking and biking numbers) which would measure the frequency at which pedestrian and cyclist injuries occur within a community.

Key Points

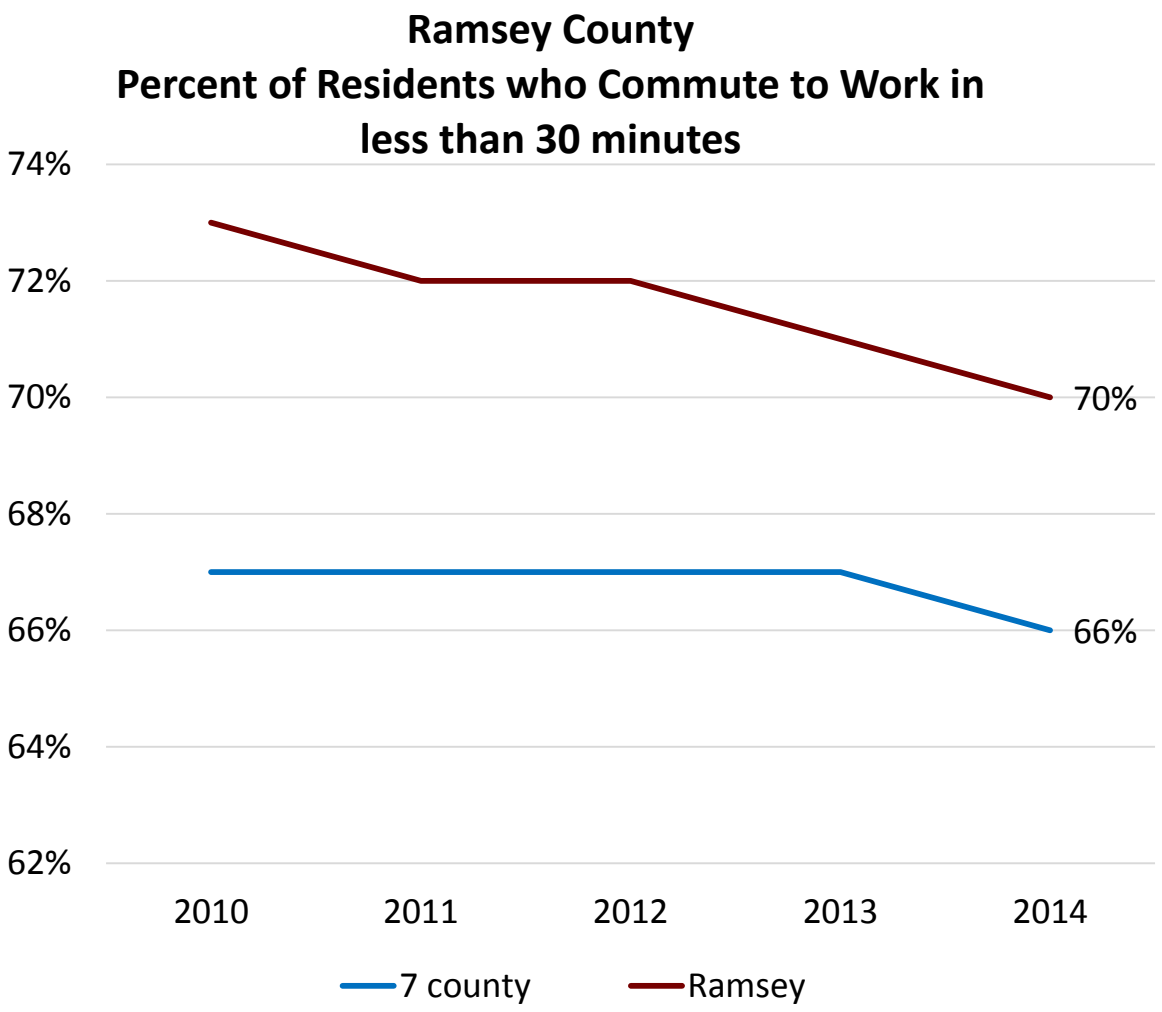
- **1%** of Ramsey County workers who commute currently use bicycles to get to work.
- **1.4%** of Saint Paul workers commute to work on a bicycle.
- **The most stable increases** in bike commutership have been in the county's urban center.
- There is a **positive correlation between bicycle facilities and bicycle commute share** (as well as overall recreational bike use); the communities with the best bike infrastructure have the highest percentages of bike commuters.



Source: American Community Survey 5-yr

Key Points

- **Commute times continue to grow** overall in Ramsey County.
- **The region as a whole is projected to become more congested** as the population grows, meaning transit options, biking and walking will become increasingly important to regional mobility.
- Home values nationally and regionally demonstrate that **walkable and transit connected neighborhoods are more resilient** than "car dependent" neighborhoods



Source: American Community Survey 5-yr estimates

Looking through a Lens of Concentrated Financial Poverty

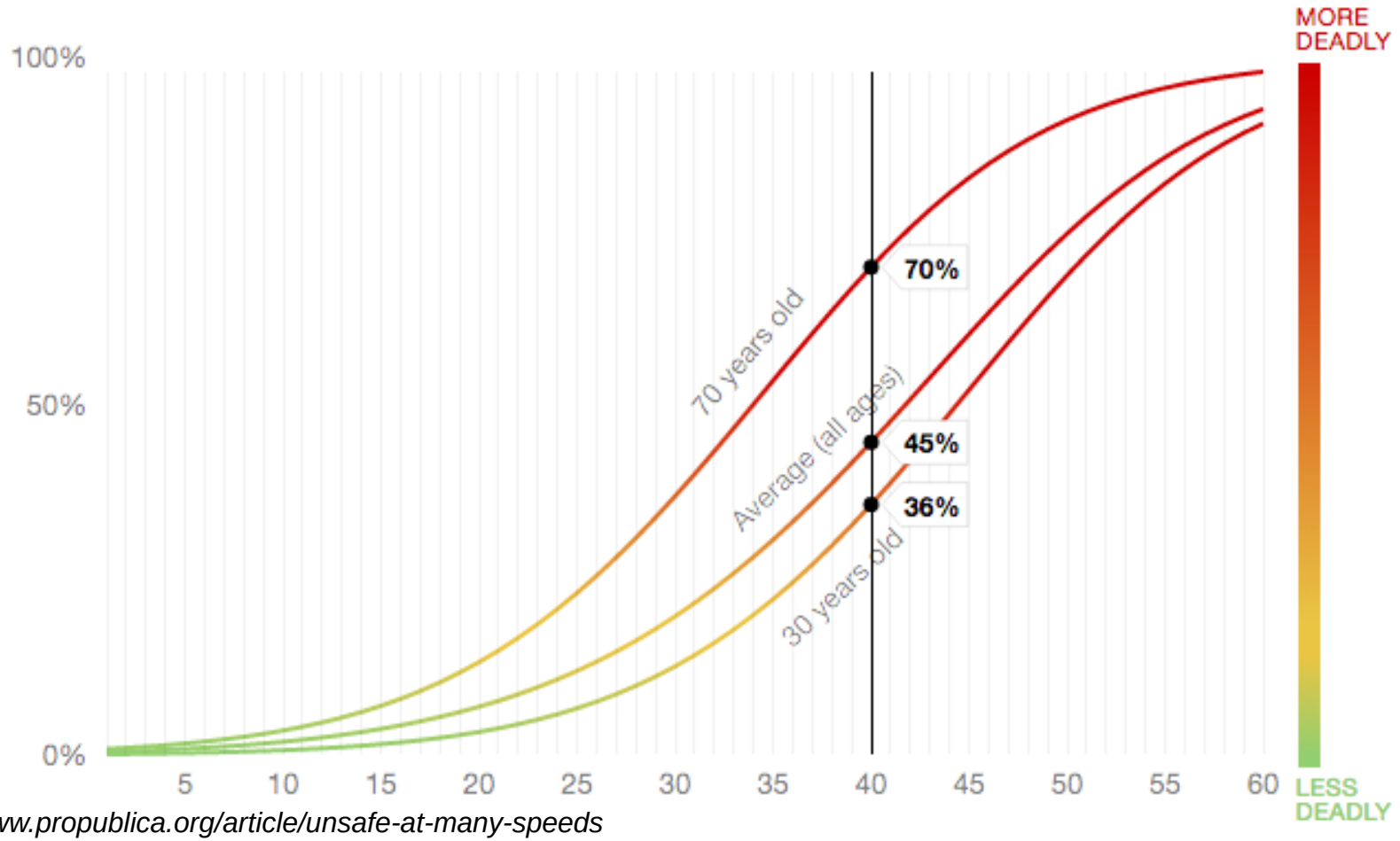
- While the majority of households travel to their primary food store using their own car, **about 35% of those receiving SNAP benefits, as well as those living below the poverty line but not on SNAP, use some other means**—either borrowing someone else's car or using another mode (transit, bike, walking, etc.).

- **Food insecure households are more than three times as likely to walk, bike, or take transit to their primary food retailer** as households making more than 185% of FPL. Food security status was determined based on a series of 10 questions from USDA's 30-day Adult Food Security Survey.

- **Most households, even those in the lowest income categories, choose to do their primary grocery shopping at a location nearly twice as far from home** as their nearest supermarket due to considerations such as price, selection, or other factors.

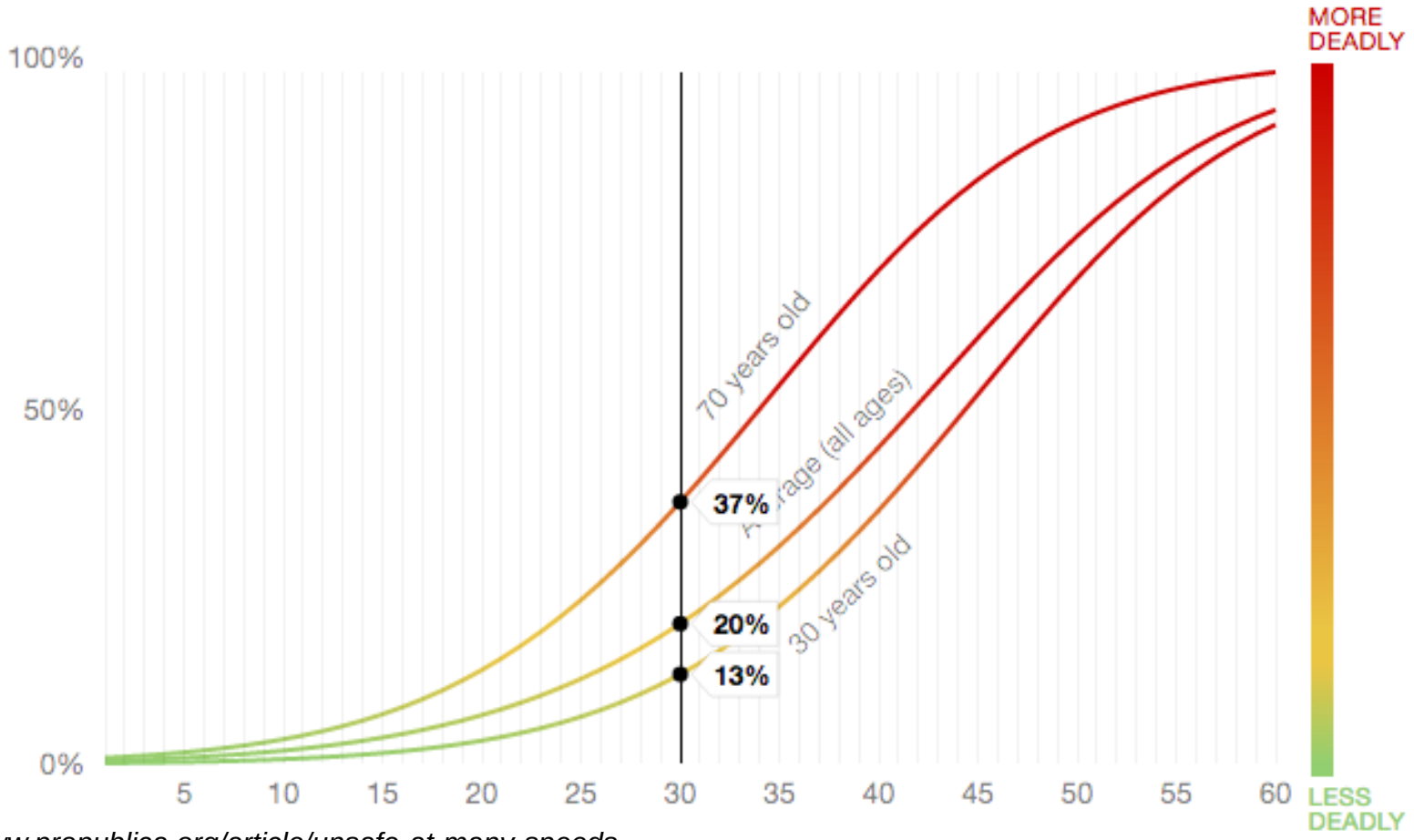
USDA March 2015 Nationwide Study.
Results at: http://www.ers.usda.gov/publications/eib-economic-information-bulletin/eib138.aspx

The Chance of Being Killed by a Car Going 40 mph



https://www.propublica.org/article/unsafe-at-many-speeds

The Chance of Being Killed by a Car Going 30 mph



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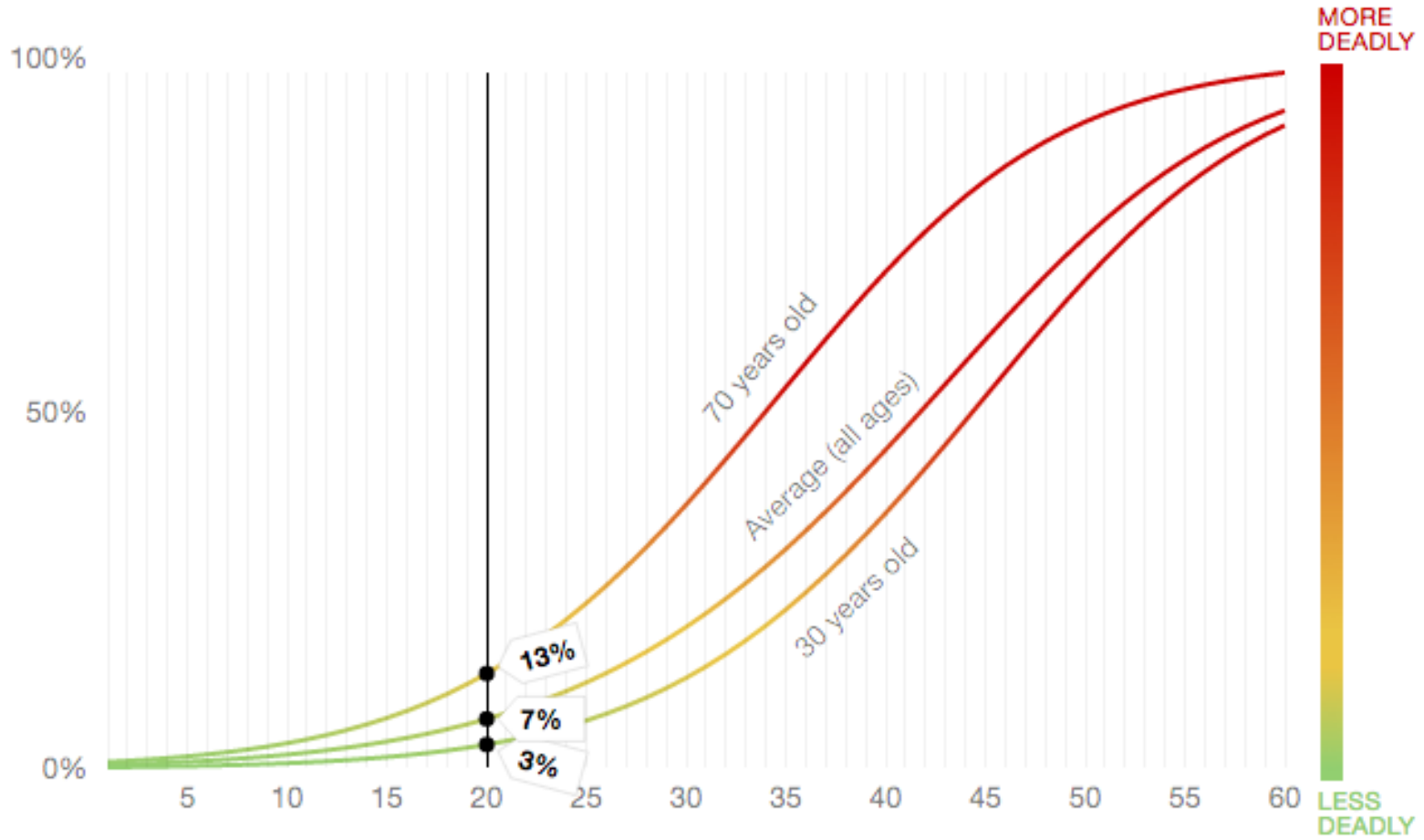
The Chance of Being Killed by a Car Going 20 mph



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Other Key Sources of Transportation Information

Note: This information repository is only an example of the excellent literature and research available to guide the development of an All Abilities Transportation Network guiding document for Ramsey County. It is anticipated that the list of documents will continue to expand during future years.

Other Key Documents to Guide Future Ramsey County Work

2013. **"Bike Walk Twin Cities 2013 Count Report."** *Transit for Livable Communities.* U.S. Department of Transportation – Federal Highway Administration.

Summary: Annual counts at 43 benchmark locations in the Twin Cities metro indicate that bicycling increased 78 percent and walking 16 percent between 2007 and 2013. Overall, active transportation (bicycling and walking together) rose by 45 percent from 2007 to 2013. Between 2012 and 2013, bicycling increased 13 percent, walking decreased 6 percent, and active transportation increased 4 percent. The findings are based on manual 2-hour counts conducted by specially-trained volunteers at locations encompassing a broad range of street types and facilities and representing all areas of Minneapolis and several adjacent communities. The 2013 counts are the highest ever recorded for bicycle trips, and the second highest ever recorded for pedestrian trips (down slightly from the record high of 2012).

2016. Sandt, L. *et al.* "**Pursuing Equity in Pedestrian and Bicycle Planning."** *Pedestrian and Bicycle Information Center.* US Department of Transportation Federal Highway Administration.

Summary: Enhancing the mobility of traditionally underserved populations to travel by nonmotorized modes can potentially lead to improved public health and safety outcomes including neighborhood ties, better access to health care services, reduced exposure to vehicular collisions and lowered health care costs.

2015. Fleming, Susan. *et al.* "**Pedestrians and Cyclists: Cities, States and DOT Are Implementing Actions to Improve Safety.**" *US Government Accountability Office.*

Summary: An evaluation of city, state and federal actions taken to help improve pedestrian and cyclist safety focused on trends in pedestrian and cyclist fatalities and injuries from 2004 to 2013. The report examined pedestrian and cyclist safety efforts implemented by the US Department of Transportation and selected states and cities. The report outlined various factors that may contribute to pedestrian and cyclist safety and implementation insights from state and city officials.

Other Key Documents to Guide Future Ramsey County Work

2013. Kirk, Kaydee. *et al.* "**Minnesota Toward Zero Deaths (TZD): 10 Years of Progress**" *Center for Transportation Studies.*

Summary: The Minnesota Departments of Public Safety, Transportation, and Health in 2003 established the Toward Zero Deaths (TZD) program to integrate safety programs designed to reducing traffic crashes, injuries, and deaths on Minnesota roads. The report highlights the TZD program's key accomplishments over the last decade in those areas that have contributed most to the decline in road fatalities and injuries.

2013. Marti, M. *et al.* "**Complete Streets Implementation Resource Guide for Minnesota Local Agencies**." *Minnesota Department of Transportation Office of Policy Analysis, Research & Innovation.* Local Road Research Board

Summary: Complete streets is a transportation network approach that provides safe access for all street users, regardless of age or ability, which is gaining implementation momentum as communities desire to increase physical activity and use a variety of transportation modes, including transit, bicycles and walking.

2013. Swenson, S. *et al.* "**Street Design Manual**." *City of Saint Paul*

Summary: The Saint Paul Street Design Manual articulates recent policy commitments the city of Saint Paul has made to develop a more balanced and complete transportation system that enhance neighborhoods by providing guidance for accommodating safe, efficient multi-modal transportation, highlights opportunities for green infrastructure and the integration of public art.

Other Key Documents to Guide Future Ramsey County Work

1997. Rivara FP, *et al.* "**Epidemiology of bicycle injuries and risk factors for serious injury**". *Injury Prevention.* v3. pgs. 110-114

Summary: Research designed to determine risk factors for serious injury to bicyclists other than helmet use. Using data from seven hospital emergency departments and two county medical examiner's offices researchers found that serious bicycle injuries could not be avoided by helmet use alone and that ***motor vehicle involvement was an important predictor of both severe bicycle injury and fatality***. Further, the authors suggested that separating bicycles from the roadway may not be a solution because of increased risk of collision at intersections of bike paths and sidewalks with roads.

2013. Tian, Z. "**Speed-accident relationship at urban signalized intersections**". *Procedia – Social and Behavioral Sciences.* v96. pgs. 1383-1388.

Summary: Investigates the relationship between speed characteristics and accidents at urban signalized intersections and finds that ***vehicle speed and accident frequency are positively correlated*** – not only for absolute speed but for relative speed as well.

2015. Harvey, C and Lisa Aultman-Hall. "Urban Streetscape Design and Crash Severity". *Transportation Research Record.* Transportation Research Board.

Summary: Logistic regression models demonstrate that crash severity was affected by streetscape size and enclosure variables based on the massing of surrounding buildings and trees. Crashes were less likely to be severe if they occurred in smaller more enclosed neighborhood streetscapes.

Other Key Documents to Guide Future Ramsey County Work

2015. Lantry, K. *et al.* "**Saint Paul Bicycle Plan: An Addendum to the Saint Paul Comprehensive Plan**." *City of Saint Paul*

Summary: Provides a framework for the development of a bicycle network that allows all Saint Paul residents and visitors to safely and comfortably ride bicycles. The plan also provides a policy framework to aid in bicycle planning and development of facilities, provides recommendations regarding end-of-trip facilities such as bicycle parking and showers, and briefly outlines other bicycle programs.

2012. Dihn, D. and Hisashi Kubota. "**Profile-speed data-based models to estimate operating speeds for urban residential streets with 30 km/h speed limit**". *International Association of Traffic and Safety Sciences.* v36. pgs. 115-122

Summary: A study on the relationship between driving speeds and street features based on their influence on the desired driving speeds. The investigation attempts to develop a model linking the influence of various roadway and roadside characteristics on operating speeds on urban street sections with posted speed limits. The research findings suggest that attention should be paid to the selection of ***street section length***, the allocation of ***cross-sectional elements***, and the ***characteristics of intersections*** in order to obtain ***desired driving speeds***.

2014. Knapp, Keith. *et al.* "**Road Diet Informational Guide."** *Federal Highway Administration Office of Safety.* US Department of Transportation

Summary: By converting existing four-lane undivided roadway segments to three-lane segments consisting of two through lanes and a center two-way left turn lane, a Road Diets improve safety by including a protected left-turn lane for mid-block left-turning motorists, reducing crossing distances for pedestrians, and reducing travel speeds which in turn reduce crash severity.