

Centering safety at Metropolitan Planning Organizations

Metropolitan Planning Organizations (MPOs) are a big part of our lives and the regional economy through the planning and programming decisions they make. There are 407 MPOs in the U.S., one for each urbanized area with 50,000 or more people. Congress created MPOs to ensure that expenditures of governmental funds for transportation projects and programs are based on continuing, cooperative, and comprehensive planning across a region.

The role of MPOs is receiving increasing attention as more people across the country acknowledge the travesty of preventable loss of lives on our roadway. Last year, according to the [National Safety Council](#), an estimated 40,000 people lost their lives and more than 4 million more were injured on U.S. roadways. And traffic deaths disproportionately affect those in communities of color, low-income communities, youth, the elderly, and those walking and biking.

In communities across the nation, people are stepping up to say “enough is enough” and to shift the paradigms that allow for such tragedy and pain. Cities are adopting the goal and principles of Vision Zero, which works to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. Vision Zero strategies emphasize the

need for political leadership, infrastructure improvements, and data-driven strategies that prioritize preventing fatalities on roadways.

Through regional planning, funding, and policy, MPOs are uniquely positioned to embrace Vision Zero and save lives. This resource provides examples from around the country and six recommendations for MPOs to improve safety outcomes.

PLANNING

A central power of MPOs comes in their ability to stimulate a collaborative process to address issues that no single jurisdiction can tackle alone. A region’s transportation system is the thread that connects other regional priorities, such as economic competitiveness, access to jobs, public health and safety, environmental quality, and development patterns.

Long range transportation plans

Metropolitan transportation plans identify how transportation funds are spent and must consider ten factors including to: “increase the safety of the transportation system for motorized and non-motorized users.” How actively and meaningfully MPOs implement this safety factor in their long-range plan varies.

TRADITIONAL APPROACH

Traffic deaths are **INEVITABLE**

PERFECT human behavior

Prevent **COLLISIONS**

INDIVIDUAL responsibility

Saving lives is **EXPENSIVE**

VISION ZERO

Traffic deaths are **PREVENTABLE**

Integrate **HUMAN FAILING** in approach

Prevent **FATAL AND SEVERE CRASHES**

SYSTEMS approach

Saving lives is **NOT EXPENSIVE**

VS

RECOMMENDATION 1: Working with state and local partners, set specific regional traffic safety goals, and measure and report out progress. Use data, targets and metrics to ensure safety is prioritized regionally.

Safety performance measures

MPOs serve as a regional nexus for crash data, analysis, and performance measurement needed by local jurisdictions to improve transportation safety. Safety performance measures and targets help planners identify the extent to which safety goals and objectives are being met, and where limited resources can be best leveraged.

New federal requirements for evidence-based target setting encourage agencies to adopt and enhance performance-based transportation planning processes, including safety. The 2016 FHWA [MPO Guidebook for Using Safety as a Project Prioritization Factor](#) describes that “projects should increase the safety of the transportation system. It is not enough to simply ‘consider’ safety in the planning process. And most certainly they should not degrade safety, even if they have a primary purpose other than safety.”

In addition, the federal [Safety Performance Management](#) regulation requires states and MPOs to set and track five performance targets:

- Number of Fatalities
- Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
- Number of Serious Injuries
- Rate of Serious Injuries per 100 million VMT
- Number of Non-motorized Fatalities and Non-motorized Serious Injuries

The Federal Highway Administration provides [resources for MPOs](#), including this [Compendium of State and Regional Safety Target Setting Practices](#).

Metro, the MPO for greater Portland in Oregon, created a Regional Transportation Safety Plan in 2012 to respond to concerns over traffic-related crashes and fatalities. Metro set an explicit goal in that plan to reduce the number of pedestrians, bicyclists, and vehicle occupants killed or seriously injured on the region’s roadways by 50 percent by 2035, compared to 2005. (This goal also translates to an annual savings of \$479 million in economic costs to the region, according to their estimates.)

These recommendations and performance goals are reflected within Metro’s overall long-range transportation

EXAMPLE WAYS MPO PLANS INCORPORATE SAFETY:

Chattanooga-Hamilton County Regional Planning Agency Regional Transportation Plan (RTP) embeds safety, including specifying safety countermeasures that address RTP safety emphasis areas.

Alamo Area MPO (San Antonio, Texas) Pedestrian Safety Action Plan includes prioritization criteria, implementation and measurement to accommodate walking as a mainstream, rather than alternative, transportation activity.

The Southeast Florida RTP, for the fourth largest urbanized area in the U.S., emphasizes the need for “a transportation system that is safe to travel”.

Delaware Valley (Philadelphia area) Transportation Safety Action Plan includes a specific section on measuring effectiveness of safety work.

Pinellas County (Florida) Long-term RTP embeds safety and commits the MPO to assist the Florida DOT to improve the safety of Florida’s surface transportation system by “achieving a five percent annual reduction in the rate of fatalities and serious injuries”.

Southern California Council of Governments RTP contains [this appendix](#) with detail on time of collisions, types of collisions, suggested intersection treatments to reduce conflicts, and strategies and scenarios for safety.

The Transportation Research Board’s Framework for Institutionalizing Safety in the Transportation Planning Process (NCHRP 811), includes additional methods for addressing safety in the planning process.

plan and other work plans. Metro is currently working with its elected Council and regional partners, including its regional transportation advisory board, to update the safety plan and safety targets with a Vision Zero framework.

Oregon Metro and regional partners have drafted the [Vision Zero target and performance measures](#), shown at right, which will be proposed for adoption in the 2018 RTP.

Measuring progress toward safety and equity

Setting goals is one thing; aligning actions and funding with safety goals and tracking progress are more difficult, yet critical for success. This raises the key question of how to appropriately take action and measure the strategies we expect to yield safety results. How do we assess what steps work best and which do not?

MPOs are uniquely positioned to measure regional safety outcomes and to incentivize this type of evaluation from local jurisdictions within the region.

RECOMMENDATION 2: Measure the causes of serious crashes to track, improve performance, and report on progress. Focus on equitable investments and safety outcomes across communities.

Fortunately, MPOs and cities are already collecting data about street use that can be leveraged for even better safety prioritization. Successful cities and MPOs are using more than overall numbers of fatalities and injuries, tracking and applying data about what causes crashes and the efficacy of street design and safety countermeasures. MPOs should follow the lead of these cities. By measuring how many proven safety strategies are being employed within the region, and tracking the factors in crashes, MPOs can better direct funding to projects that prioritize safety, and report to decision makers and the public regularly.

MPOs also have the important opportunity to use performance measurement to focus on historically marginalized communities. Low-income communities and communities of color have higher rates of obesity and chronic disease, lower levels of car ownership, are more reliant on public transportation, and experience higher traffic risks.

OREGON METRO 2018:

PROPOSED SAFETY PERFORMANCE TARGETS:

By 2035 eliminate transportation related fatalities and serious injuries for all users of the region's transportation system, with a 16% reduction by 2020 (as compared to the 2015 five year rolling average), and a 50% reduction by 2025.

PROPOSED SAFETY SYSTEM EVALUATION MEASURES:

- 1. Safety Infrastructure Investments** – Number, cost and percent of safety projects in the RTP investment packages region-wide and in areas with historically marginalized communities.
- 2. Exposure to Crash Risk** – Approximates the risk of exposure to crashes by identifying whether the package of future transportation investments increases or decreases the sum of all non-freeway vehicle miles traveled in Transportation Area Zones for RTP investment packages region-wide and in areas with historically marginalized communities.

ANNUAL SAFETY MONITORING MEASURES AND TARGETS:

For monitoring purposes, identifies annual targets, based on a five year rolling average of the number of people killed and seriously injured in traffic crashes in the region, by mode, per 100 million vehicle miles traveled, and per 100 thousand people.

APPLYING PERFORMANCE MANAGEMENT TO IMPROVE SAFETY

New York City has measured and acted on variables with significant levels of correlation with pedestrian crashes. Their [2010 Pedestrian Safety Action Plan](#) examined eight years of data about traffic crashes that caused serious injuries or fatalities to pedestrians, and identifies underlying causes to reduce these crashes. Using this information to build a [Vision Zero program](#), New York City reduced traffic fatalities by 23% between 2013 and 2016.

The city of Seattle uses interim performance metrics, including **people killed or severely injured (KSI)** per mile of street, total KSI, and radar speeds. This King County (Seattle) dashboard shows monthly "[preventable accidents](#)

[per million miles](#)". Seattle sets these [safety targets and measures](#), including driver and pedestrian awareness of laws, and change in vehicle speeds.

The Champaign County Regional Planning Commission, an MPO in Illinois, produces this [Long Range Transportation Plan Report Card](#). Its tracking dial, shown below, provides a quick snapshot of system-level performance.



PEDESTRIAN CRASHES

Pedestrian crashes increased 12 percent on average between 2009 and 2013 in Champaign-Urbana. In addition, the number of annual pedestrian fatalities remained consistent during that time period. This Measures of Effectiveness receives a negative rating because the numbers do not support the objective to increase safety for all road users.

Metro's Safety System Evaluation Measures, described above, includes measuring increased investment and reduced crash exposure risk in areas with historically marginalized communities. This U.S. [EPA Guide to Sustainable Transportation Performance Measures](#) includes additional ideas to measure safety and health-promoting active transportation in communities most in need.

FUNDING

One of the most important roles MPOs play is to allocate transportation funding – billions of dollars per year across the nation.

The rise of Vision Zero and increased focus on safety across the nation provides MPOs the opportunity to prioritize safety in project solicitation and funding decisions. Certainly, MPOs have mechanisms in place to identify safety priorities, but most could be doing more to integrate safety in all project planning and funding.

RECOMMENDATION 3: Prioritize safety in all funding decisions.

MPOs should elevate the regular consideration of safety priorities within all funding decisions, from project solicitation to project review. Staff and leaders can start by assessing how safety is currently considered and identify where improvements can be made. Regular annual assessments by staff and policy-making board discussions should be used to keep safety centered in funding decisions and priorities.

In short, money talks. MPOs have tremendous opportunity to leverage their powers of the purse to incentivize safety-first projects. Matching criteria to policy goals demonstrates commitment to prioritizing safety, and can speed project implementation while generating cost savings and system efficiencies.

POLICY

MPOs have the ability to bring together key stakeholders and facilitate regional discussion of safety issues, provide safety trainings and to further embed safety in the regional culture. They can use their convening ability to emphasize a safety-first approach in their planning, design, and policy-setting; and [bridge the gap](#) between the state DOT and local transportation agencies.



USING – AND INCREASING – FUNDING FOR SAFETY OUTCOMES

The Mid-America Regional Council (the Kansas City Area MPO) sets and tracks [specific performance measures](#) to increase the percent of federal funds invested in environmental justice.

The Atlanta Regional Commission developed a multi-faceted approach to maximize federal dollars for active transportation and focus spending on safety. ARC's [Transportation Improvement Program](#) includes quantitative measures of safety and equity for roadway asset management as well as bike and pedestrian projects.

The San Francisco Bay Area Metropolitan Transportation Commission employs [benefit-cost assessment](#), including health & safety (collisions, physical activity, and noise), and [equity assessment](#) in project performance assessment for funding.

The Hillsborough County MPO, in designing its 2040 Long Range Plan, utilized [scenario planning](#) to examine how different levels of financial investment would affect performance on key measures, including transit, pedestrian and bicycle level of service; and vehicle, bicycle and pedestrian crashes.

Significant resources exist but are often underutilized. MPOs can provide trainings and further use of design guides such as the National Association of City Transportation Engineers (NACTO) [Urban Street Design Guide](#), which can widen the range of safety-oriented design options for planners and engineers.

RECOMMENDATION 4: Proactively share safety resources with local jurisdictions throughout the region.

The FHWA Office of Safety's [proven safety countermeasures](#) describe proven design tools to improve safety. As the [National Transportation Safety Board](#) reports, speed is a leading cause of fatal and serious injury crashes and is the primary determinant of the severity of injuries in a crash. As such, both the [FHWA](#) and [NACTO](#) provide specific resources on speed. MPOs can more actively support local and state efforts to reduce speeds to appropriate levels.

From Seattle to Denver to Washington D.C. to New York City, cities are doing more to manage speeds within their jurisdictions. While most MPOs don't set speed limits, they provide data to local and state agencies, and they can help local jurisdictions manage speed by supporting policies and legislative actions, and prioritizing funding of this work on safety.

RECOMMENDATION 5: Recommend countermeasures and speed management strategies explicitly in MPO transportation plans and priorities. Support local and state speed management efforts.

The Bay Area Metropolitan Transportation Commission supported a bill in the California Legislature, led by San Francisco and San Jose, which would allow those cities to pilot the proven countermeasure of Automated Speed Enforcement as part of their Vision Zero strategies. Recognizing the importance of such proven technologies, as well as other measures such as lower speed limits and greater flexibility amongst locals to design roadways for lower/safer speeds, MPOs can more actively support policies and legislation often needed at the state level to advance local Vision Zero goals.

MPOs can call out speed management explicitly in transportation plans as well as in funding priorities, as referenced above. For example, [Pennsylvania's Speed Management Plan](#) lists MPOs as a key partner and includes a list of speed management strategies, associated impact areas, and implementation considerations. The Plan encourages identifying "opportunities to integrate speed management into existing plans."



In 2015, there were 586 serious injuries and fatalities due to traffic crashes in the Portland metro area.



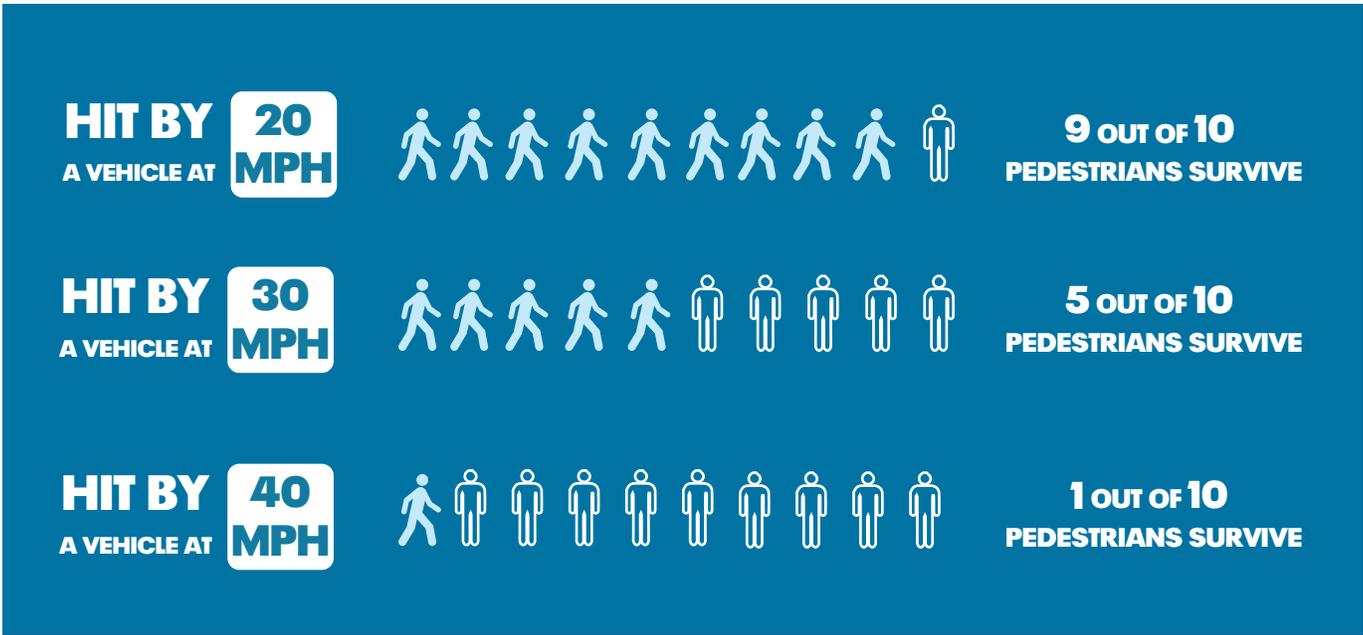
What do you think is a good goal for the region?

Training and culture

MPOs around the country are taking part in the "What's Your Goal" campaign started by the Federal Highway Transportation Agency. Oregon Metro is using the ["What's Your Goal"](#) campaign, shown above, to build public support for safety.

RECOMMENDATION 6: Publicize commitment to safety and equity; offer trainings for staff throughout the region on safety countermeasures and performance management.

The Utah Department of Transportation and Utah MPOs have rewritten their goal of transportation safety as a specific safety target: Zero Fatalities. [Utah's example](#) of a clear strategic direction reflects a significant cultural evolution and promotes a more concrete understanding of the role and impact of safety. As the fatality numbers continue to decrease, staff are increasingly supportive and convinced that Zero Fatalities is achievable. Safety outcomes are also a component of Utah DOT staff leader performance evaluations. Training workshops for staff and others are devoted to issues related to speed, including speed management countermeasures.



MPOs play a key role in Vision Zero

More than 85 percent of Americans live in metro areas, and MPO work to plan ways for people and goods to safely move within our communities is more critical than ever – through funding, planning and policy.

Broward MPO applies this multi-pronged approach to safety:

- Funding implementation, allocating \$120 million for bicycle and pedestrian projects in the Broward region; and working with partners to strategically identify projects with a focus on complete streets, Vision Zero, and safety.
- Partnering with the Florida Department of Transportation and serving as a bridge between the locals and the state to design and construct these projects.
- Providing technical resources and assistance for partners including, providing crash prediction models in their Urban Traffic Count Program, and hosting an annual Safe Streets Summit.

The loss of lives on U.S. roadways is preventable. The above examples show ways MPOs are stepping up to leverage their regional roles for greater safety on our roadways. We hope that the embedded links and examples of MPO policy leadership, funding, measurement, and planning we share here will inspire and inform even greater efforts in this area.

ACKNOWLEDGEMENTS

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The Vision Zero Network is a nonprofit project committed to advancing Vision Zero in the U.S. We are proud to support the life-saving efforts of the dedicated policymakers, implementers, and community leaders working toward safe mobility for all.

Learn more and find additional resources at www.visionzeronetwork.org