

## MEETING HIGHLIGHTS: Motorcycle Safety and E-Scooters

Tuesday, March 19, 2019

9:30 AM – Noon

DVRPC Offices

190 N. Independence Mall West, 8<sup>th</sup> Floor

Philadelphia, PA 19106

All presentations and related meeting handouts are located on the RSTF

Website: [www.dvrpc.org/Committees/RSTF](http://www.dvrpc.org/Committees/RSTF)

### Welcome and Introductions

The meeting was called to order at 9:40 AM by Bill Ragozine, Cross County Connection TMA, and Kevin Murphy, Delaware Valley Regional Planning Commission (DVRPC), who filled the role of co-chair of the meeting in place of Kelley Yemen, City of Philadelphia, who was unable to attend. Mr. Ragozine asked participants to introduce themselves to the group (a complete list of attendees is available at the end of the summary).

Mr. Ragozine requested approval from the RSTF for the December 2018 meeting summary, and it was approved without comment.

### Motorcycle Safety – Presentations

Two featured speakers addressed the meeting on motorcycle safety. Prior to the speakers Mr. Murphy introduced the topic. Mr. Murphy presented first on overall crash trends, including regional crash data for 2013 to 2017. Fatalities and severe injuries (KSI) from crashes reached a seven-year high in the region in 2017, up slightly from 2016. This is a departure from national trends, which saw a slight decrease in fatalities from 2016 to 2017 even as vehicle miles traveled continue to increase. Nationally, motorcycle crashes are down 2% from 2016 and over a third of crashes involved an impaired motorcyclist. NHTSA notes there is a wide disparity in how motorcycle helmet laws are defined across the country. In the DVRPC region, motorcyclist crashes account for a similar number of KSI as crashes involving young drivers, but that KSI is the result of many fewer total crashes showing that motorcyclist crashes as a whole tend to be much more severe. After spiking in 2016, motorcyclist-involved KSI fell in 2017, but remains above the five-year average. A county-by-county analysis found that Bucks and Chester counties experience the highest rate of motorcyclist-involved KSI crashes as a proportion of all KSI crashes. The coincidence ratio analysis found that lane departure occurs disproportionately in motorcyclist crashes. Mr. Murphy then introduced the first featured speaker: Joe Fiocco, Fiocco Engineering and Safe Highway Engineering.

Mr. Fiocco presented on his experience facilitating the Pennsylvania motorcycle safety training course and serving as an expert witness in motorcyclist-involved crash cases. A key element of motorcycle safety is visibility; motorists are not generally on the lookout for motorcyclists. One of the key strategies to address this is maintaining the most-visible lane position. Another key element of motorcycle safety is braking properly and it's influenced by several factors, including stopping distance (a function of speed), engagement of both brakes, the angle of the vehicle, and the potential danger of brakes locking. A final element of crash avoidance in

motorcyclist safety training is to anticipate and avoid conflicts, especially at intersections where they are more prevalent. Mr. Fiocco ended his presentation by walking through a crash reconstruction identifying where the parties involved failed to follow key safety precautions that could have avoided the crash.

Next, Suzanne O’Hearn, New Jersey Division of Highway Traffic Safety (NJDHST), delivered remarks on New Jersey’s approach to motorcycle safety regulations and educational programs. New Jersey’s motorcycle safety education program started in 1992; there are now seventeen trainings offered statewide, all by private operators. In order to receive a motorcyclist endorsement to their license in New Jersey, individuals must either pass a motorcycle safety training course or acquire a permit, practice a minimum number of hours and pass a driving test. During the practice period, motorcyclists are restricted from nighttime driving and driving on limited access facilities (similar to graduated license restrictions).

Ms. O’Hearn also discussed some of NJDHST’s efforts to protect licensed motorcyclists on the roads, noting they are the most vulnerable users of the road system after pedestrians and bicyclists. After NHTSA ended its practice of requiring that states maintain a helmet law to receive motorcycle safety funding, many state laws lapsed, but New Jersey is among eighteen states with full helmet laws. NJDHST runs a robust Share-the-Road campaign funded by NHTSA, encouraging drivers to watch for motorcyclists. Andrew Besold, Montgomery County Planning Commission, noted that NJDHST’s ad campaign had left an impression and could be a model for similar work on behalf of bicyclists. In addition to NJDHST’s efforts, the Motorcycle Coalition, run by the Brain Injury Alliance, produces a Gear Up for Your Ride brochure covering safety advice for motorcyclists. Thanks in part to these efforts, New Jersey’s statewide motorcyclist-involved crash statistics show these crashes are well below national averages.

Questions/Comments:

- Gus Scheerbaum, City of Philadelphia, in response to crash statistics provided by age group, asked about crash *rates* by age group, rather than simply total number of crashes. He also asked if KSI crashes were more common at intersections or on highways. Ms. O’Hearn noted that 50% of motorcyclist-involved crashes are single-vehicle crashes meaning they are likely lane departure crashes and not occurring at intersections.
- Mr. Besold asked about the issue of visibility, particularly that drivers are on the lookout for horizontal objects (other cars), rather than vertical objects (like motorcyclists, bicyclists, and pedestrians), and how we can better address this issue. Ms. O’Hearn emphasized the need for more signage and education programs to better inform drivers.
- Mr. Murphy noted that NHTSA data suggests helmets are 37% effective in averting a KSI crash and wondered what safety benefits are lost in Pennsylvania by not maintaining a stringent helmet law like in New Jersey.
- Lois Goldman, North Jersey Transportation Planning Agency, gave a brief overview of the Motorcycle and Moped Committee of the Transportation Research Board, of which she is a member. The committee is currently looking at medians and barriers and how to design them to be more forgiving to motorcyclists. They are also conducting research into rider protection equipment and how motorcycles will fit into an autonomous vehicle future. Finally, Ms. Goldman noted that the committee is participating in a joint subcommittee looking at emerging low-speed vehicle technology, like e-scooters.

## Developing Action Items

The co-chairs then transitioned from the emphasis area discussion into the next agenda item, developing action items. RSTF members divided themselves into four groups to continue the discussion and work on ways to address motorcycle safety in the region.

### **Education Group:** Mr. Murphy—lead

The education group's discussion focused largely on safety education for drivers on how to behave when sharing the road with motorcyclists to promote safety, as well as on safety education for riders themselves. Two RSTF members volunteered to share information about motorcycle safety events their respective organizations help facilitate: Lori Aguilera, Chester County Highway safety Project, and Shane Ryan, St. Mary Medical Center Trauma Prevention Program. The education group also discussed the possibility of adding a reference library to the RSTF website so that information shared as a result of volunteer action items could be assembled in one place and more easily accessible, both to members of the RSTF and the public.

### **Engineering Group:** Mr. Ragozine—lead

The engineering group discussed a number of issues relating to motorcycle safety, including the importance of promoting existing motorcycle education courses. From an engineering perspective, the group discussed forward warnings and pavement materials. An important area of concern is highway barriers, which are designed to minimize impact to vehicles, but not to motorcyclists. Skid-resistant surface treatments at curves could also improve safety for motorcyclists. PennDOT is currently in the process of reviewing signs at curves. A detailed analysis of crash data would help look at causal factors of motorcycle crashes.

### **Enforcement Group:** Heike Jacob, DVRPC—lead

The enforcement group discussed the various challenges surrounding performing traffic stops on motorcyclists, as motorcycles are able to accelerate faster and are more nimble than other vehicles, which makes them difficult to pursue. Complicating enforcement is the fact that motorcycle license plates are small and often obscured, which makes the use of Automatic License Plate Recognition difficult. Group members also expressed a desire to link NHTSA funding back to helmet laws, and to require the completion of a safety course prior to issuing licenses to motorcyclists. Paul Carafides, DVRPC, volunteered to research other states' requirements or lack thereof for motorcycle licensing. In addition, Larry Bucci, SAFE Highway Engineering, volunteered to use crash data to determine where motorcycle crashes occur in the region and why they occur in order to focus enforcement efforts.

### **Policy Group:** Marco Gorini, DVRPC—lead

The policy group focused on the arguments around implementing a primary helmet law in Pennsylvania, like New Jersey has. Members of the group brought up the various tools and players that could encourage or require better rates of helmet use, including government, manufacturers, and insurance companies. The group also discussed how policy could help to increase motorcyclists' visibility with wobble headlights or brighter clothing, although this also has positive and negative impacts. Mr. Besold volunteered to gather research on the efficacy of high visibility clothing in preventing crashes.

## Special Session: E-Scooters

Mr. Ragozine introduced Christopher Puchalsky, City of Philadelphia, to present on the City's position on e-scooters. Mr. Puchalsky explained that the City applies the principles of its recent Connect plan to determine its approach to e-scooters. The current approach boils down to "wait and see."

E-scooters are an extension of the dockless bikeshare systems. The device is a stand-up kick scooter with a motor. It uses an app-based system to activate a ride. The scooter has no seat, but is enabled with brakes. In Pennsylvania, it is illegal to operate a scooter between the curbs; it is also illegal to operate on the sidewalk in Philadelphia.

Mr. Puchalsky explained how e-scooters relate to each principle in the Connect plan. For instance, e-scooters improve opportunity and access by providing mobility. They are also likely sustainable as long as they are replacing car trips. Health is another principle, but it's not clear that scooters have a significant impact on promoting physical activity. Finally, safety is a key principle for the City as it pursues Vision Zero and it is very unclear if e-scooters are safe. Key data points are missing, but there are reports that e-scooters may lead to many injuries. Some research has suggested crash rates may be as much as twenty-five times higher on e-scooters than biking. The key to determining this is exposure rates and they tend to show e-scooters are not as safe as other modes permitted in Philadelphia, though it should be noted that exposure data is not widely available at this time. Until they have a better grasp on these issues, the City's official position is to wait until more data is available.

#### Questions/Comments:

- Jon Dean, Compass Real Estate, asked if the City is considering taxing e-scooter trips. Mr. Puchalsky replied that they are looking at a fee; this would require hiring staff to administer. They are interested in data-sharing agreements like the one Los Angeles has obtained.
- Paul White, Bird, disputed several data points presented by Mr. Puchalsky. The first related to the life-cycle of an e-scooter, which is currently about four months and expected to extend to six months with the newest generation (Mr. Puchalsky cited a Louisville study that found a life-cycle of just one month). Contrary to concerns that e-scooters just replace walk and bike trips, independent surveys have found that trip replacement is as high as 30% from car trips (including both personal vehicles and transportation network companies). Lastly, Mr. White strongly disputed the assertion that e-scooters may lead to as much as twenty-five times more injuries than biking. Mr. White had also reviewed the Consumer Reports article that Mr. Puchalsky drew this data from and did not interpret the data presented in this way. Studies from the Portland Bureau of Transportation and the University of California-Los Angeles Medical Center found that e-scooters are not disproportionately more dangerous than riding a bicycle.
- Nick Zuwiala-Rogers, Clean Air Council, asked how the City could proactively prepare for eventually permitting e-scooters on City streets. Mr. Puchalsky said that working with dockless bike share systems would help to prepare the City for future challenges with e-scooters. In the meantime, they will continue to review literature on e-scooters.

## Member Updates and Open Forum

Paul Carafides, Office of Transportation Operations Management at DVRPC, gave an update on the Incident Management Task Forces' (IMTF) activities – the full update was included in the meeting folder. One part of the update that Mr. Carafides highlighted was the 4-hour training session held by the Bucks County Incident Management Task Force on March 16<sup>th</sup>, titled “Commanding Complex and Large Scale Extractions.” Over 70 first responders were in attendance.

At this point, RSTF members were invited to provide any updates that they wished to share with the group. Kelvin MacKavanagh, DVRPC Goods Movement Task Force, reminded the group of the upcoming TransAction conference, which will be taking place in Atlantic City, NJ on April 16<sup>th</sup> and April 17<sup>th</sup>, 2019. Charlotte Castle, City of Philadelphia, announced that the City has selected pilot locations for the Slow Zone Program, a part of Vision Zero Philadelphia. The pilots are located in the Fairhill and Kensington neighborhoods.

### **Additional Updates and Conclusion**

This meeting was Mr. Ragozine's last meeting as co-chair, as he is retiring from the CCCTMA. Mr. Murphy thanked Mr. Ragozine for his service as co-chair and presented him with a plaque to commemorate his service. Warren Strumpfer, member of the Camden County Highway Traffic Safety Task Force, also thanked Mr. Ragozine for his service as both Executive Director of CCCTMA and as co-chair of the RSTF.

Mr. Gorini also reported on action item updates from the previous RSTF meeting. Rebecca DeMuth, Delaware County Planning Commission, reported back on her action item from December, which was to research precedents for how design guides for transit shelters can incorporate age-friendly design. In her conversations with township engineers, Ms. DeMuth found that there is currently no streamlined process for who installs or maintains local bus shelters.

The next RSTF meeting is scheduled for Wednesday, June 19, 2019 and will be a joint meeting with the Futures Group with a focus on the safety implications of autonomous vehicles.

RSTF Goal: *To reduce roadway crashes and eliminate serious injuries and fatalities from crashes in the Delaware Valley*

**Connect With Us! @DVRPC #RSTF #VisionZero**

### March 19, 2019 RSTF Meeting Attendees List

Lori	Aguilera	Chester County Highway Safety Project
Matt	Anderson	PennDOT
Andrew	Besold	Montgomery County Planning Commission
Michael	Boyer	DVRPC
Elise	Bremer-Nei	NJDOT
Robyn	Briggs	PennDOT
Corey	Brown	Delaware County Planning Department
Larry	Bucci	SAFE Highway Engineering, LLC
Jeneen	Callahan	NJM
Paul	Carafides	DVRPC
Charlotte	Castle	City of Philadelphia
Sam	Cooper	Bird
Aileen	Daney	Atlanta Regional Commission
Jon	Dean	Compass Real Estate
Rebecca	DeMuth	Delaware County Planning Department
Maureen	Donnelly	Safe Kids Southern NJ/Children's Regional Hospital at Cooper
Brian	Donovan	Chester County Planning Commission
Charles	Feggans	NJDHTS
Joe	Fiocco	SAFE Highway Engineering, LLC
Will	Fraser	Clean Air Council
Lois	Goldman	North Jersey Transportation Planning Authority
Marco	Gorini	DVRPC
Amory	Hillengas	Philadelphia Department of Public Health
Heike	Jacob	DVRPC
Mohammad	Jalayer	Rowan University
David	Kanthor	City of Philadelphia
Meijun	Liu	DVRPC
Randy	LoBasso	Bicycle Coalition of Greater Philadelphia
Kelvin	MacKavanagh	DVRPC Goods Movement Task Force
Sharang	Malaviya	PennDOT

Violet	Marrero	NJM
Betsy	Mastaglio	DVRPC
Darrell	Merritt	PennDOT District 6-0
Kevin	Murphy	DVRPC
Suzanne	O'Hearn	NJDHTS
Patricia	Ott	MBO Engineering, LLC
Amanda	Pezick	Chester County Highway Safety Project
Jim	Philbin	Atlas Flasher
Chris	Puchalsky	City of Philadelphia
Angela	Quevedo	NJDOT
Bill	Ragozine	Cross County Connection TMA
Christian	Regosch	BCPC
Andrew	Ross	Citizen
Shane	Ryan	St. Mary Medical Center Trauma Prevention Program
Gus	Scheerbaum	City of Philadelphia
Richard	Simon	NHTSA
Warren	Strumpfer	Citizen
Andrew	Thompson	Urban Engineers, Inc.
Paul	White	Bird
Nick	Zuwiala-Rogers	Clean Air Council