

AnnaLeah & Mary for Truck Safety

Traffic Safety Ombudsman

Project Proposal

January 24, 2017

PROJECT DESCRIPTION:

The Vision of Zero traffic deaths and serious injuries has been increasingly discussed and sought after by those concerned about the tragedies of highway carnage. How and whether such a lofty goal might be attained, however, has been uncertain. In many cases, traffic deaths have been viewed as more of a transportation problem rather than a public health crisis. In addition, the strategies to solve the problem have been fragmented and, therefore, less effective.

Vision Zero asks us to see those traffic deaths like polio or cholera: epidemics that, with an urgent health framing and public response, can be eradicated. . . .

Leilani Schwarcz says, “we should place the same moral standard on safety improvements and counter measures that are proven to save lives.” (<http://tinyurl.com/zwgfufu8> , Carolyn Szczepanski, Vision Zero Network)

Despite the fact that some have acknowledged the problem as a public health crisis, we have yet to acknowledge it as a united nation. It has not been declared a national issue. And the citizens of our country have not been mobilized to become a part of the solution.

Furthermore, when federal traffic safety regulations are being considered, saved lives are too often weighed and found wanting in comparison to societal economic costs. A prime example is override rulemaking, in which questionable cost/benefit analysis conclusions have hindered the advancement of proven safety measures (some of which the industry has since found ways to offer at no additional cost).

A Traffic Safety Ombudsman remedies this by establishing an independent advocate who will serve as a vigilant voice for vulnerable victims of vehicle violence and who will mobilize safety professionals, citizens, and crash survivors, in tactical traffic safety projects with nationwide impact.

There are, in fact, numerous organizations established for the purpose of protecting citizens on the roads of our country, including NHTSA ;FMCSA; Advocates for Highway & Auto Safety; Center for Auto Safety; Truck Safety Coalition; Vision Zero Network ; MADD. Do we really need another?

There are also numerous issue-related groups which focus on a particular crash cause or traffic safety goal, including Families for Safe Streets , Traffic Safety Coalition, many Vision Zero groups across the country, and countless other concerned groups – not to mention government-based transportation-related organizations. Fortunately, the Road to Zero Coalition recently took on the goal of uniting these groups. Nonetheless, the country's strategy suffers from fragmentation.

Have any of these groups, individually or together, taken on the role of being a voice for the victims – and the victims only? Have they taken a comprehensive look at the causes and solutions for traffic tragedies— not simply as a transportation issue but a public health problem? Have they harnessed the energy of survivors of every kind of traffic safety issue and multiplied their efforts and resources by nationwide networking? Have they brought together the various stakeholders, including ordinary citizens, to talk around the table? Have they made sure that rulemaking is focused on safety above all else and that safety

is made a national as well as a community priority? Have they brought about a truly safe road system in our country?

Who is actually acting as a traffic safety ombudsman, an advocate for traffic safety as a cohesive whole? Who has been able to persuade our country's leadership that traffic safety should be addressed as a national priority? And who has been given the role to follow-through and ensure that we will stay on course with that mission?

What is an Ombudsman anyway? Wikipedia suggests that, "An ombudsman or public advocate is usually appointed by the government or by parliament, but with a significant degree of independence, who is charged with representing the interests of the public by investigating and addressing complaints of maladministration or a violation of rights." I am not aware of anyone authorized to act in this way on behalf of victims of vehicle violence.

I've only been involved for three years in this battle for safer roads. Already I am thoroughly aghast at the inhumane way safety issues are at the mercy of a political tug-of-war. Why is it such a struggle to get this country to make saving lives a priority?! Year after year. After year. Life after ended life.

The simple, obvious answer is that the political sway of industry lobby (\$) has power far greater than the voice of those advocating for the victims, or, in this case, advocates trying to prevent people from becoming victims!

Congress did something about that in 1966 with the National Traffic & Motor Vehicle Safety Act. Out of that has come DOT with its agencies like NHTSA and FMCSA. But these too, along with members of Congress, are caught up in the throes of a battle – hardly ever resulting in genuinely safer roads.

There seems to me to be a simple solution to the political tug-of-war over traffic safety: Create an Office of Traffic Safety Ombudsman to oversee traffic safety issues. Why? Because currently no one holds such an unadulterated role.

However, to be effective, there needs to be awareness, action and collaborative efforts at many levels. A National Ombudsman without input from multiple voices across the country would be less-informed, without the whole picture and the vital support of the very people the Ombudsman is working to protect.

On the other hand, even if there are vast numbers of frustrated, cognizant victims, if their outcries are not coalesced into a combined voice, they are much less likely to be heard and heeded. Though, if you bring them all together, each one may be competing to get their cause supported and, in the fray of political positioning, the foundational issues and long-term goals might be compromised. An effective spokesperson is needed to champion their cause.

Therefore, the Traffic Safety Ombudsman will be empowered with a unique office of authority and service to accomplish the mission of advocating for vulnerable victims of vehicle violence.

PROBLEM SOLUTION:

I. Nationwide Network of Road to Zero/Vision Zero/Traffic Safety Community Action Groups

A. Description: In order to go beyond the current solutions, the Traffic Safety Ombudsman (TSO) will catalyze the active participation of victim family members and crash survivors – who are often possessed with a tenacity and energy borne from grief and frustration – in meaningful and impactful ways. The TSO will also seek to unify efforts nationwide to be more effective.

To this end, the TSO will organize and facilitate a nationwide network of RTZ/Traffic Safety/Vision Zero

community action/advocacy groups through the development of a pilot project for a state-based Road to Zero Coalition which would reproduce its efforts through and support the development of RTZ groups in local communities throughout the state.

The TSO will make important connections with existing traffic safety advocacy groups and harness that energy and knowledge into a more effective, united effort.

Former U.S. President John F. Kennedy launched the Peace Corps as a result of the seed of an idea suggested to University of Michigan students during a campaign stop. Let's follow that example and harness the energy of today's college graduates to mobilize the citizens of this country to be personally involved in this battle against the Goliath who is slaying our loved ones through Death by Motor Vehicle.

B. Action Plan

1. Develop a pilot project for a state-based RTZ Coalition network of local RTZ community action groups.

2. Develop an action plan for organizing a community chapter/branch of the state-based network. To consist of:

- * a chapter director
- * staff training
- * a local board with committees (meeting schedule)
- * setting up an office
- * a budget
- * volunteer training
- * communications plan
- * newsletter and social media
- * advocacy strategy plan
- * volunteer training

3. Write an Americorps VISTA (Volunteers In Service To America) grant proposal to train and staff 50 state RTZ Coalition networks through a corps of VISTA Volunteers/Community Organizers, who will develop these grassroots traffic safety advocacy groups by mobilizing community members and college student volunteers/interns.

4. Establish collaborative relationships with safety professionals and other safety organizations in each state.

5. Develop a training program for State RTZ Ombudsmans.

II. Interactive RTZ Crash Map Tool

A. Description: Even though many have shared their tragic stories on The Hill and at DOT countless times over the years, still the battle for effective safety regulations continues unabated. One participant quoted Joseph Stalin in order to describe the attitude that seems to prevail, "A Single Death is a Tragedy; a Million Deaths is a Statistic." Fortunately, people are moved when they are faced with the reality and intensity of personal crash stories – especially told by those who have most been impacted by these tragedies.

To capitalize upon this, as well as to allow survivors a measure of healing, the TSO will develop an interactive Vision Zero map website — with pages devoted to information intended to influence driver

and decision-maker actions, including crash details and personal crash stories. This will include pages or links to crash maps which highlight specific crash causes or factors, e.g., the National Speed Fatality Map recently launched by the National Coalition for Safer Roads and the Vision Zero Network.

B. Action Plan:

1. Identify website specifications desired.
2. Draft the web pages to be included.
3. Design a webpage form/tool for personal crash stories.
4. Contract with a web developer.
5. Develop a plan for reaching crash victims/survivors.
6. Implement plans.

III. Address Truck Safety Issues Comprehensively

A. Description: “The consequences to human life of a crash involving a truck are more severe than a comparable collision with a personal automobile. . . . The design of large trucks itself presents inherent safety challenges.” (Szczepanski) Because of this, addressing truck safety issues provides an opportunity to reduce many of the 30,000+ crash fatalities, as there are on average 4,000 truck crash fatalities each year.

Compare the safety record in truck tragedies increase of 15% in U.S. with E.U. progress in reduced truck tragedies of 23%. Clearly, we have major room for improvement. This Traffic Safety Ombudsman project has specific action plans to address this public health crisis in innovative ways.

<http://trucksafety.org/truck-crash-fatalities-united-states-european-union-2009-2015/>

B. Action Plan #1: Organize a Tired Trucker Roundtable.

“The NTSB cites driver fatigue as a contributing factor in as many as 30 to 40% of all heavy truck crashes. Truckers who have not yet found a fatigue management routine are likely going to end up with their rig upside down and/or through a guard rail. Inevitably, the trucker ends up in the hospital and in the news. Tired truckers also can find themselves facing jail time for causing a vehicular homicide.” (Andy Young, <http://www.gobytrucknews.com/wake-up-the-tired-truckers/123>)

Like the underride issue, the matter of truck driver fatigue has been a tug-of-war political game in which nothing has been effectively resolved for far too long. This project will bring together diverse stakeholders in one meeting to work toward a better solution which will aid both truck drivers and victims of tired truckers.

1. Identify Roundtable goals.
2. Contact potential co-sponsors.
3. Identify host facility.
4. Develop a Roundtable agenda/schedule.
5. Develop a list of potential presenters/speakers.
6. Develop PR plan.
7. Set date.
8. Arrange lodging options.
9. Arrange food services.
10. Arrange AV/technology.

11. Contact media.
12. Contact vendors.
13. Integrate with FORS plan.

C. Action Plan #2: Currently, the U.S. does not have an effective means of monitoring and motivating the trucking industry to be as safe as humanly possible. In fact, there has been ongoing debate about the FMCSA's CSA program,

CSA stands for Compliance, Safety, Accountability, and is an FMCSA initiative that was introduced to improve the overall safety of commercial motor vehicles. Launched in December 2010, it is a safety enforcement program based on carrier performance and driven by the data collected on them. The CSA program is meant to allow the FMCSA to put a more intense focus on companies that pose the highest safety risks on the roads. <https://blog.bigroad.com/blog/so-what-are-these-csa-scores-all-about>

This project aims to kick-start a more effective strategy to achieve safer trucking.

The TSO will coordinate the development of a national comprehensive truck safety certification program -- modeled after FORS:

Fleet Operator Recognition Scheme, Transport for London's "publicly funded, three-level voluntary certification program aimed at making sure freight companies have safe, sustainable working practices." http://visionzeronetnetwork.org/wp-content/uploads/2016/10/CaseStudy_LargeVehicle_Final.pdf)

1. Research London's FORS program.
2. Create a truck certification program model unique to the U.S.
3. Identify and convene a FORS Task Force.
4. Develop the nuts & bolts of the program.
5. Plan a conference to launch the program.
6. Develop a long-term plan.

D. Action Plan #3: Side Underride Prevention Research

The tragic Tesla fatal crash on May 7, 2016, highlights a real and present highway danger -- cars sliding underneath large trucks when vehicles collide. No matter what caused the Tesla crash, the driver might have lived if the truck had had side guards.

U.S. & Canadian safety advocates are calling for an end to preventable truck underride tragedies. Hundreds of people die every year when pedestrians, cyclists, motorcyclists, and passenger vehicles go underneath trucks.

It can happen to anyone -- even if their car has a 5-Star Crash Rating. It can happen anywhere. It happened to AnnaLeah (17) & Mary Karth (13), when their car went under the rear of a semi-trailer on May 4, 2013, in Georgia. And it happened to Jessica Holman-Price (21) when she went under the side of a truck as a pedestrian on December 19, 2005, in Canada.

U.S. regulators have debated for decades about how to stop the tragedy of underride deaths -- including, since 1969, the possibility of requiring underride protection to be added to the sides of large trucks. But they have not done so, even though engineers have already found ways to solve this problem.

The work that we have done has actually put us into contact with others working on the underride guards. One such person is Aaron Kiefer who is currently an accident research specialist in North Carolina. He

has designed a guard that can be retro-fitted onto current truck guards to improve their strength and reduce underride. He has crash tested it successfully and now needs to do further research to refine the design to be ready for the industry.

This will include the following expenses: aluminum extrusions for the rear reinforcement attachments (\$28,000) and an aluminum side guard slide to allow for truck driver functionality in pre-trip inspections of tires (\$18,000); development of a prototype for a system at the trailer front, which will allow the side guard to flare up 20-30 degrees when the air brakes are turned off, and back down when the brakes are turned on (\$23,000) – again to aid in pre-trip inspections and changing tires; and crash testing to validate and verify the effectiveness of the TrailerGuard System (\$43,000). Total Costs for Side Guard Research & Development = \$112,000 – a project and cost which is currently not being taken up by the trucking industry. When Aaron's work is completed, the underride protection system would be ready for a manufacturer to produce and sell to the trucking industry.

E. Action #4: A collision between the back of a commercial motor vehicle and a passenger vehicle too often results in underride in which the occupants of the smaller vehicle experience horrific injuries usually leading to tragic death. For too many decades, the question of under what circumstances this can be prevented has been left unanswered and the industry solutions have been mostly weak and ineffective.

While the crash testing conducted by the IIHS and our own efforts in recent years to change this have brought about some improvement in rear underride guards, the question has still not been definitively addressed. As Bill Graves, the former president of the American Trucking Associations (ATA) said in a 2011 ABC article,

“It doesn't provide the kind of underguard protection that clearly is called for. . .’ Graves said, though, that the right barrier design is a 'complicated puzzle to solve. . . That's the question the federal government has been wrestling now for many years, is what's the strength we want,' he said. 'What's too much? And what's not enough?’” (<http://abcnews.go.com/Business/road-warning-death-big-rig-guillotine/story?id=13026797> Lisa Stark, March 1, 2011)

Because side underride has received less countermeasure effort, and is not currently being addressed by the trailer manufacturing industry itself, this project will also organize a collegiate design competition to challenge engineering students to design affordable and effective side underride protection for large trucks.

Collaborative, interdisciplinary research teams from various universities will identify the outer limits of effective side underride protection, i.e., ascertain the optimum levels of energy absorption and rigidity both to prevent underride and also to result in survivable (and without life-altering injuries) deceleration forces at the maximum speed possible (at various angles).

Two student teams (up to ten students on each team) will be selected by IIHS to receive funding from the grant for their project expenses (up to \$15,000, as needed). The two teams will each meet with IIHS early in the process to define the single demonstration crash test that will be performed on the winning design.

The two teams will, also, be expected to provide four written reports (mid-Fall Semester, end of Fall Semester, mid-Spring Semester, and end of academic year) – including a report on their design's capabilities using computer simulation. They will also be expected to make a final group presentation at an event scheduled at the IIHS Vehicle Research Center in Ruckersville, Virginia, at the end of the academic year.

One team's project will be selected, by a group of 6 judges, for crash testing at this event. The Traffic

Safety Ombudsman will oversee this project and recruit 5 judges in addition to the judge from the IIHS.

In addition, each team must include students and/or consult with professionals in relevant fields of study/research/expertise, including but not limited to mechanical engineering, biomedical engineering, injury prevention, collision reconstruction, trailer manufacturing, marketing, and law (to do a law review of the cost/benefit analysis in underride rulemaking as well as manufacturer liability issues in this matter).

(See the excellent work done by a Virginia Tech Senior Design Team in the 2015/16 academic year: <http://tinyurl.com/j9rl3kw>)

PROJECT EVALUATION:

In order to evaluate the success of the Traffic Safety Ombudsman project, the TSO will measure progress by several means:

1. First, there will be a monthly report completed which will identify what activities were completed in order to re-assess the projects' short and long-term goals and shape the action plans for the coming month.
2. Second, a short questionnaire will be created which will be sent to all organizations and individuals with whom the TSO comes in contact in order to evaluate the helpfulness of the interaction.
3. When there are events or meetings organized by the TSO, participants will be asked to complete a short evaluation form.
4. Results of these evaluations will be tabulated, analyzed, and discussed with objective third parties.

REACH:

This project will benefit all road users – especially those impacted by trucking – and will also make special outreach to victims of vehicle violence. The project is expected to have national reach and, by developing a network of citizens concerned about traffic safety, the project is likely to continue to expand its impact.

The side guard research has the potential to save 1,534 lives in the next ten years. (Per the NHTSA Truck Underride Statistics Chart, 1994-2014: <http://annaleahmary.com/wordpress/wp-content/uploads/2016/08/Truck-Underride-Deaths-by-TYPE-1994-2014.pdf>)

PROJECT MANAGEMENT:

The project will have one staff person, the Traffic Safety Ombudsman. But it is expected to aid in fundraising for state coordinators of mobilized citizens.

Relationships have already been developed with many other individuals and organizations involved in traffic safety efforts. These will be built upon. In particular, NC (North Carolina) Vision Zero has expressed interest in working with this project to develop pilot programs which can later be shared with other states.

It is, also, expected that there will continue to be working relationships with IIHS, Truck Safety Coalition, engineering students and professionals, DOT, trucking organizations, legislators, media representatives, and others as appropriate for carrying out the projects -- including numerous crash survivors, truckers, safety advocates, and concerned citizens.

PROJECT TIMELINE:

Traffic Safety Ombudsman

12-month Project Plan Timeline

Month 1

1. Identify short & long-term goals for each project.
2. Order business cards.
3. Make contact with partner organizations.
4. Issue collegiate competition RFP.
5. Meet with Matt Brumbelow at IIHS.
6. Set up meetings with NC Vision Zero.
7. Meet with consultant on crash story map.
8. Write monthly progress report EACH MONTH.

Month 2

1. Identify short & long-term goals for each project.
2. Contact Transport London re: FORS.
3. Meet with NC Vision Zero.
4. Work on Tired Trucker Roundtable.
5. Develop VZ nationwide network.

Month 3

1. Identify short & long-term goals for each project.
2. Recruit FORS Task Force members.
3. Meet with NC Vision Zero.
4. Write VISTA grant proposal for VZ state coordinators.

Month 4

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.
4. Identify future funding sources.

Month 5

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call. Develop U.S. Model.
3. Meet with NC Vision Zero.
4. Recruit 5 judges for student design competition.

Month 6

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Month 7

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Month 8

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Month 9

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Month 10

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Month 11

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Month 12

1. Identify short & long-term goals for each project.
2. FORS Task Force Conference Call.
3. Meet with NC Vision Zero.

Please note: The Project Timeline/Plan will be further delineated when funding is obtained and adjusted to the academic year and timeframe for scheduling the events and projects.

Budget Item	Annual	Monthly	Total
Salary for Traffic Safety Ombudsman	\$52,593.00		
Travel: <ul style="list-style-type: none"> • Quarterly Trips to Washington, DC for RTZ Coalition meetings@\$600/trip (via Amtrak, 2 nights hotel, taxis, food) \$2400 • Tired Trucker Roundtable \$500 • Underride Roundtable \$500 • Collegiate Competition \$500 • FORS research travel to London and the Commercial Vehicle Show in Birmingham \$5,000 	\$8,900.00		
Office Supplies <ul style="list-style-type: none"> • printing paper • postage • printer cartridges 	\$600.00	50	
Technology <ul style="list-style-type: none"> • laptop or chromebook • website fees for domain name, etc. • internet 	\$1,000.00		
Consulting Fees Website Design	\$5,000.00		
Underride Research <ul style="list-style-type: none"> • Collegiate Design Competition Grants to Student Teams 2 x \$15,000 = \$30,000; • Side Guard Research \$125,000 <ol style="list-style-type: none"> 1. aluminum extrusions (\$30,000); aluminum side guard slide to (\$20,000); development of a prototype for a system at the trailer front (\$23,000); 2. crash testing to validate TrailerGuard System (\$50,000). 	\$30,000.00 \$125,000		
TOTAL	\$223,093.00		

**Traffic Safety Ombudsman
12-month Project Plan Timeline**

<p>Month 1</p> <ol style="list-style-type: none"> 1. Identify short & long-term goals for each project. 2. Order business cards. 3. Make contact with partner organizations. 4. Issue collegiate competition RFP. 5. Meet with Matt Brumbelow at IIHS. 6. Set up meetings with NC Vision Zero. 7. Meet with consultant on crash story map. 8. Write monthly progress report EACH MONTH. 	<p>Month 7</p> <ol style="list-style-type: none"> 1. Identify short & long-term goals for each project. 2. FORS Task Force Conference Call. 3. Meet with NC Vision Zero.
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