MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Carjacking and Reckless Driving Task Force

From: Kathleen Brengosz, Fiscal Planning Specialist, x3926

Date: May 24, 2019

Subject: City Assessment for Speed Humps

In response to the Task Force's request for information regarding the current assessment policy for the installation of speed humps in the City of Milwaukee, the Legislative Reference Bureau is providing the following information.

Section 115-43-2 of the Code of Ordinances establishes the recovery rates for assessable improvements. Recovery rates vary between 50% and 90% depending on the project type. The recovery rate for the installation of traffic-calming devices is 90%. Each year, the Department of Public Works determines the assessment rate which will be paid by property owners for each type of project. For 2019, the assessment rate for the installation of speed humps is $6.50 per frontage foot.

The actual percentage of project costs recovered through special assessments varies from project to project. The most notable reason for the variation is the City's assessment policy for corner lots. Properties which have street frontage on two sides are only assessed for projects done on the "short" side of the property. Projects done on the "long" side of the property are non-assessable which increases the City's contribution to project costs. City-wide, approximately 75% of project costs are recovered through special assessments.

If you would like additional information, please do not hesitate to contact me.

LRB174355

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Carjacking and Reckless Driving Task Force

From: Kathleen Brengosz, Fiscal Planning Specialist, x3926

Date: May 24, 2019

Subject: Neighborhood Assessment for Speed Humps

In response to the Task Force's request for information regarding the permissibility of neighborhood-wide assessment of speed hump installation, the Legislative Reference Bureau is providing the following information.

The Milwaukee Code of Ordinances does not specifically prohibit special assessments of non-abutting properties. State statutes also do not prohibit the assessment of non-abutting properties as long as certain requirements are met. The most significant requirement is the need to identify a "special benefit" that will accrue to a property. If a benefit can be substantiated, that benefit could be used as a basis for levying a special assessment to all properties in the area.

Levying a special assessment for traffic-calming devices on non-abutting properties would require changes to the code. Many traffic-calming projects are initiated under s. 115-42.5 of the Code, "Traffic Calming Installations", which provides an alternate process for initiating traffic-calming projects. The assessment of non-abutting properties is not allowed for projects initiated under this code section.

In order to withstand challenges to the permissibility of the non-abutting assessment, the Department of Public Works would need to establish policies and procedures for determining and documenting the neighborhood-wide benefit. The Department would also need to develop a rational and reasonable plan for distributing project costs. It is unclear how extensive documentation would need to be. If before and after traffic studies of each neighborhood are required to justify the basis for the special assessment, the administrative cost of traffic-calming projects may increase significantly.

I have attached a letter, drafted by the City Attorney's Office in March, 2018, explaining in greater detail the technical requirements of the state statutes and the municipal ordinances which could make neighborhood-wide assessment permissible.

If you would like additional information, please do not hesitate to contact me.

LRB174356

Attachment

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Robert G. Donovan

From: Dana J. Zelazny, Legislative Reference Bureau

Date: May 21, 2019

Subject: MILWAUKEE HIT AND RUN FATALITIES AND FATAL CRASHES

This memorandum was prepared in response to your request for an updated report on hit and run crash fatalities and fatal crashes in Milwaukee from January 1 - May 21 in 2016-2019. Data was queried on May 21, 2019, from the WisTransPortal Project (Wisconsin Traffic Operations and Safety Laboratory in partnership with State of Wisconsin Department of Transportation).

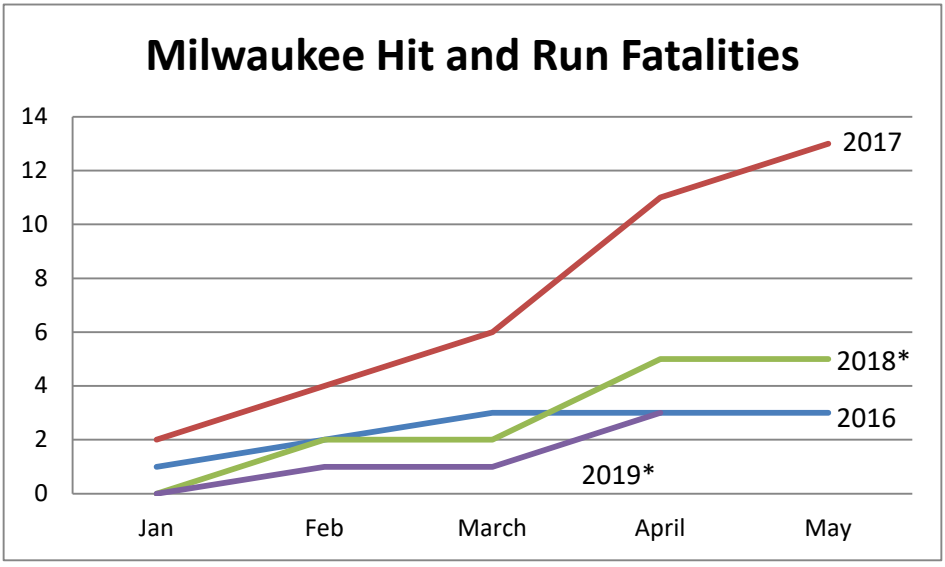
All data from 2018 and 2019 is still considered preliminary, and crash data from 2019 may be incomplete. For example, there are no reported fatal crashes or hit and run fatalities in May 2019. While it is possible that no such crashes have occurred, it is also possible that crash data has not yet been entered into the WisTransPortal database.

Milwaukee Crash Data
January 1 – May 21

	Hit and Run Fatalities	Percentage Change From Prior Year	Fatal Crashes	Percentage Change From Prior Year
2016	3	--	16	--
2017	13	+333%	29	+81%
2018*	5	-62%	19	-34%
2019*	3	-40%	16	-16%

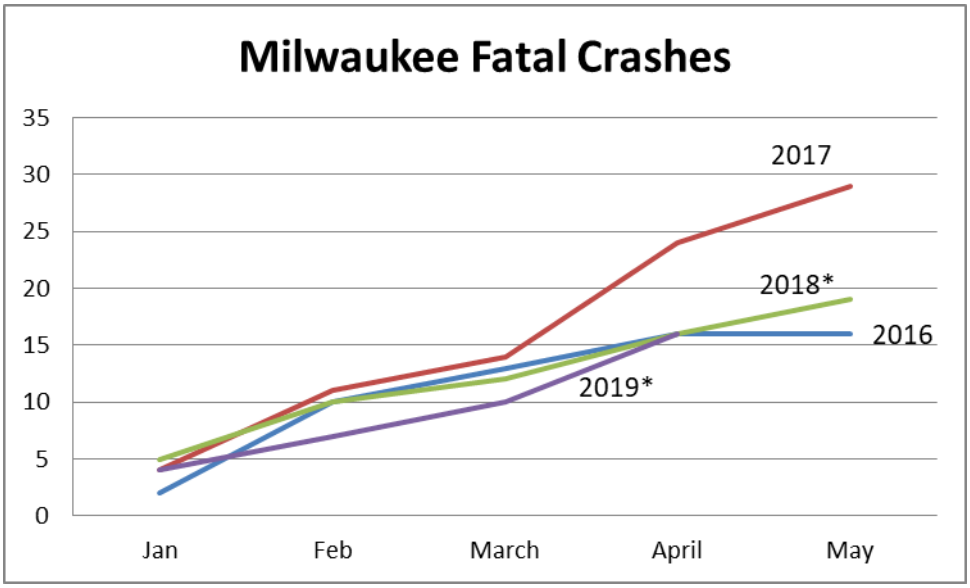
*Preliminary data.

- A hit and run crash on April 9, 2017 (Incident No. J9L0G26N0K), was shown as causing 2 fatalities in a 2017 report on hit and run fatalities and fatal crashes in Milwaukee. However, a more recent query of the state database shows only 1 fatality for the same incident. The discrepancy is likely due to only preliminary data on the crash being available in 2017.



Hit and Run Crash Fatalities, January 1 – May 21 2016-2019

Document Number	Accident Date	Total Fatalities
QQ45767	1/23/2016	1
QPX0S0W	2/22/2016	1
QQ3F0FW	3/26/2016	1
J9L1351TJP	1/20/2017	2
J9L0KSK13P	2/18/2017	1
J9L06FSSFW	2/24/2017	1
J9L1351TJS	3/4/2017	1
J9L0KHWRB7	3/6/2017	1
J9L0G26N0G	4/8/2017	1
J9L0G26N0K	4/9/2017	1
J9L0LCTJNX	4/18/2017	1
J9L0WZH5K9	4/28/2017	1
J9L0B1715X	4/30/2017	1
J9L0WRB01N	5/4/2017	1
J9L0LHJN09	5/10/2017	1
J9L1351TK9	2/4/2018	1
J9L1597RC7	2/14/2018	1
J9L1474SFR	4/18/2018	1
J9L0FMV8XF	4/19/2018	1
J9L13KD6NN	4/30/2018	1
J9L03RKDH7	2/8/2019	1
J9L01JWDCB	4/6/2019	1
J9L0K2BCD0	4/11/2019	1



Fatal Crashes, January 1 – May 21 2016-2019

Document Number	Accident Date	Total Fatalities
QQ3TL6Z	1/18/2016	1
QQ45767	1/23/2016	1
QQ9KFR5	2/1/2016	1
QPWSV5N	2/5/2016	1
QPVT7CR	2/7/2016	2
QQK1W32	2/21/2016	1
QPX0S0W	2/22/2016	1
QQ372N5	2/22/2016	2
QQCPW2Q	2/26/2016	1
QQ4576H	2/26/2016	2
QQ4WFRT	3/4/2016	1
QQG1HZP	3/9/2016	1
QQ3F0FW	3/26/2016	1
QQK1W33	4/2/2016	2
QQK1W34	4/3/2016	1
QQ57SWP	4/11/2016	1
J9L03W8HJP	1/5/2017	1
KRL0B7D6N3	1/19/2017	1
J9L1351TJP	1/20/2017	2
1ML0JDKRBC	1/29/2017	1
J9L1351TJR	2/4/2017	2
J9L03LM7RD	2/16/2017	1
J9L0FV1GFX	2/17/2017	1
J9L0B3P3BL	2/17/2017	1

1ML0N0000K	2/18/2017	1
J9L0KSK13P	2/18/2017	1
J9L06FSSFW	2/24/2017	1
J9L1351TJS	3/4/2017	1
J9L0KHWRB7	3/6/2017	1
J9L0K8HJN5	3/29/2017	1
J9L1474SFD	4/3/2017	2
J9L13KD6N2	4/6/2017	1
J9L0G26N0G	4/8/2017	1
J9L0G26N0K	4/9/2017	1
J9L0KZH5K3	4/15/2017	1
J9L18HJN14	4/15/2017	1
J9L0LCTJNX	4/18/2017	1
J9L0WZH5K7	4/21/2017	1
J9L0WZH5K9	4/28/2017	1
J9L0B1715X	4/30/2017	1
J9L0WRB01N	5/4/2017	1
J9L1351TJT	5/10/2017	1
J9L0LHJN09	5/10/2017	1
J9L13KD6N7	5/17/2017	1
J9L0G0ZLVX	5/17/2017	1
J9L13KD6NK	1/5/2018	1
1ML0LZ42BH	1/9/2018	1
J9L1351TK8	1/21/2018	1
J9L0LF2KRT	1/28/2018	1
J9L1474SFL	1/30/2018	1
J9L1351TK9	2/4/2018	1
J9L1597RC7	2/14/2018	1
J9L02XVN3B	2/15/2018	1
J9L0HNC3BB	2/24/2018	1
J9L1351TKC	2/25/2018	1
J9L0KFFP4K	3/2/2018	1
J9L1351TKH	3/31/2018	2
J9L07SK13P	4/11/2018	1
J9L1474SFR	4/18/2018	1
J9L0FMV8XF	4/19/2018	1
J9L13KD6NN	4/30/2018	1
J9L0KZH5KG	5/5/2018	1
J9L01JWD8X	5/9/2018	1
J9L10K8HKL	5/13/2018	1
J9L0HKW15N	1/7/2019	1
M5L021PTJV	1/7/2019	1

J9L13KD6NZ	1/11/2019	1
M5L0TJN006	1/26/2019	1
J9L0KFFPC1	2/5/2019	1
J9L03RKDH7	2/8/2019	1
1ML0VFSSJ7	2/19/2019	1
1ML0MT1TL2	3/4/2019	1
J9L0KFFPCW	3/22/2019	1
J9L0KX84LP	3/24/2019	1
J9L01JWDCB	4/6/2019	1
J9L0K2BCD0	4/11/2019	1
J9L0K2BCD3	4/15/2019	2
J9L0F68VSK	4/20/2019	1
J9L0KRB153	4/22/2019	1
J9L0V3XHKT	4/30/2019	1

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: May 29, 2019

Subject: City-County Carjacking and Reckless Driving Task Force Enforcement & Accountability Subcommittee – Deterring Juvenile Offenders

This memo is in response to your request for information regarding the following two items:

1. The penalties associated with habitual offenders for carjacking and reckless driving.
2. Methods for preventing juveniles who associate with offenders from offending.

Penalties

In general, the maximum penalty for juveniles if they stay in juvenile court is 5 years in the Department of Corrections under the Serious Juvenile Offender law. Additionally, there is the possibility of waiver to adult court. Reckless driving, specifically, carries a maximum of 2 years in the Department of Corrections, but could possibly run until the juvenile's 18th birthday. Probation for any case has a maximum length of one year.

In adult court, both carjacking (s. 943.23(1g), Wis. Stats.) and armed robbery are class C felonies, which carry a 40-year penalty. The maximum is 20 years of initial confinement and 20 years of extended supervision.

The forfeiture for reckless driving (s. 346.62, Wis. Stats.) is $25-200 for the first offense. The forfeiture of second and subsequent offenses within 4 years of the previous offense is $50-500 and could result in one year in jail. If there are minor injuries, the forfeiture is $300-2,000 and possibly 30 days in jail. Reckless driving causing serious bodily harm is a class I felony, which carries a maximum of 3 ½ years in prison and a maximum fine of $10,000 along with automatic one-year driver license suspension. Homicide by the negligent operation of a vehicle is a class G felony, which carries a 10-year sentence and a maximum forfeiture of $25,000.

Deterrence

According to the U.S. Department of Justice Office of Juvenile Justice and Delinquency Prevention (OJJDP), youth referred to juvenile court before the age of 13 are far more likely to become chronic juvenile offenders than youth whose initial contacts occur at a later age. Children who are involved in the justice system are 2 to 3 times more likely to become serious, violent, and chronic offenders than adolescents whose delinquent behavior begins in their teens. Additionally, youth tend to join gangs at younger ages than in the past, which leads to an increased number of youthful offenders.

According to Youth.gov, a U.S. government website dedicated to youth programs, research shows that early intervention is a cost-effective way to stop the “cradle to prison pipeline.” Research demonstrates that delinquency prevention programs are a good financial investment. A 2001 Washington State Institute for Public Policy study found that the total benefits of effective prevention programs were greater than their costs. Delinquency-prevention programs can save taxpayers 7 to 10 dollars for every dollar invested, primarily due to reductions in the amount spent on incarceration. Reduction in the likelihood of youth becoming serious and violent offenders reduces the burden of crime on society and saves taxpayers billions of dollars.

Programs are most successful when aimed first at preventing persistent disruptive behavior in children, second at focusing interventions on child delinquency, and third at preventing serious and violent juvenile offending. Interventions are more effective when employed early, whether they focus on the individual child, the home and family, or the school and community. Support for prevention and early intervention is generally endorsed by practitioners. Following a public health approach to intervention is recommended, including focus on known risk factors and knowledge of the behavior development of juveniles. Comprehensive public health interventions should focus on changing both the conditions and institutions that influence offending the community.

Effective programs address the 6 domains of work, education, relationships, community, health, and creativity. Two key assets needed by all youth are (1) learning/ doing, and (2) attaching/ belonging. OJJDP recommends the following types of school and community prevention programs be employed:

1. Classroom and behavior management programs.
2. Multi-component classroom-based programs.
3. Social competence promotion curriculums.
4. Conflict resolution and violence prevention curriculums.

5. Bullying prevention programs.
6. After school recreation programs.
7. Mentoring programs.
8. School organization programs.
9. Comprehensive community interventions.

One early intervention program, the Elmira Prenatal/ Early Infancy Project, sent nurses to the homes of pregnant, unmarried women in households with low socioeconomic status. These visits began during pregnancy and continued to the end of the second year after the child's birth. By the time the children were 15 years old, the positive impact of the visits was reflected in a decrease in children's reports of arrests, convictions, violation of probation, consumption of alcohol, sexual activity, and running away from home. This type of program can work in conjunction with a comprehensive training program for parents of Head Start children that includes a focus on social skills and prosocial behavior. The first step toward obtaining effective treatment is to provide families with access to mental health and other services.

Practitioners almost unanimously agree that more coordination among the juvenile justice system, schools, child welfare agencies, and mental health agencies is needed to deal with very young offenders. The following mechanisms are recommended for coordinating and fully integrating a continuum of care and sanctions for child delinquents:

1. A governing body or interagency council that, at minimum, includes representatives from all juvenile justice-related human services organizations and agencies and has the authority to convene these agencies to develop a comprehensive strategy for dealing with child delinquents.
2. A front-end mechanism within the juvenile justice system that can make comprehensive assessments of referred child delinquents, such as Community Assessment Centers that provide a single point of entry.
3. A mechanism to ensure interagency coordination and collaboration in the delivery of services in the post-adjudication phase, such as wraparound services that can be applied to children and families in a flexible and individualized manner.

OJJDP states that policymakers should be concerned about child delinquents and children with persistent disruptive behavior because child delinquents are 2 to 3 times more likely to become tomorrow's serious offenders and because they are expensive to society due to the numerous interventions they receive from different agencies.

OJJDP recommends more consistent tracking of the number of referrals child welfare offices receive from police for children age 12 or younger who have committed delinquent acts. Given the number of agencies that provide services, OJJDP further recommends improved data sharing between agencies, which can avoid duplication of assessments or inconsistent approaches for children who receive services from multiple agencies. Better integration of services will increase effectiveness. Additionally, funding preventive programs that serve high risk children from becoming tomorrow's incarcerated offenders is a more effective expenditure of taxpayer dollars. A more effective balance of resources should be developed so that the roots of serious adolescent delinquency can be better addressed in childhood, while still addressing those children who have become incarcerated as well.

Programs

Across the nation, several programs are aimed at preventing at-risk juveniles from becoming offenders. The programs listed alphabetically below have been evaluated and determined by evidence-based research to be effective in deterring juveniles from offending.

Adolescent Diversion Project (Michigan State University)

This program diverts arrested youth from formal processing in the juvenile system and provides them community-based services. The goal is to prevent future delinquency by strengthening youth's attachment to family and other prosocial individuals, increasing youth's access to resources in the community, and keeping youth from potentially stigmatizing social contexts. The program is a collaboration among Michigan State University personnel from the Ingham County Juvenile Court and members of the community.

The conceptual framework of the program involves 3 theoretical perspectives: social control and bonding, social learning, and social-interactionist theories. Social control theory emphasizes the importance of social bonds in preventing delinquent behavior Social learning theory suggests that delinquency is learned through interactions with family, peers, and others. Finally, social-interactionist theory suggests that it is the labeling of behavior as delinquent that results in further social interactions that intentionally or unintentionally label youth as delinquent.

During an 18-week intervention, caseworkers spend 6 to 8 hours per week with the juveniles in their homes, schools, and community. The caseworkers work one-on-one with juveniles in order to provide them with services tailored to their specific needs. Caseworkers focus on improving juveniles' skills in several areas, including family relationships, school issues, employment, and free-time activities. For example, caseworkers teach youth about resources available in the community so that juveniles can access these resources on their own once the program is over. Additionally, caseworkers assist juveniles in behavioral contracting and advocacy efforts. After the first 12 weeks, caseworkers begin to shift into a consultant role, preparing juveniles to use the techniques and strategies they've learned following the end of the program.

Big Brothers Big Sisters Community-Based Mentoring Program

This program offers one-to-one mentoring in a community setting for at-risk youth between the ages of 6 and 18. The program is associated with a significant reduction in initiating drug and alcohol use and antisocial behavior among mentored youth. Mentored youth had significantly better relationships with parents and emotional support among peers. The goal is to support healthy development of youths by addressing their need for positive adult contact, thereby reducing risk factors for negative behavior and enhancing protective factors for positive behavior.

Youth targeted for this program are at high risk of exposure to violence and trauma at home and in the community. The program is based on the theory of social control, where attachments to prosocial, supportive adults, a commitment to appropriate goals, and a mutually trusting relationship between the mentor and mentee can allow the child to begin to feel more socially accepted and supported. The increased level of support from adults allows youths to view themselves in a more positive light and engage in more constructive behavior. Youth who are more socially bonded have more to lose from misbehavior.

Mentors are typically adults ages 22 to 49. Staff supervision and support are critical to ensuring the mentor and youth meet regularly to build positive relationships. One-to-one mentoring takes place in a community setting. The match between the adult and youth is essential because the pairing can lead to a caring and supportive relationship, which is crucial to at-risk youth. Mentors spend approximately 3 to 5 hours per week, 2 to 4 times per month, for at least one year. Goals are established between the case manager and the parent/ guardian, along with the child. One goal is to develop a relationship that is mutually satisfying, where both mentor and mentee wish to come together freely on a regular basis. Matches engage in developmentally appropriate

social activities, such as going to a movie, shopping, attending a sports event, going to a restaurant, reading books, going on a hike, going to museums, or simply hanging out and sharing thoughts. These activities enhance communication skills, develop relationship skills, and support positive decision-making.

Functional Family Therapy

The Functional Family Therapy program helps adolescents on probation and their families. It is a family-based prevention and intervention program for at-risk youths ages 11 to 18. A family therapist works with the family and helps individual family members see how they can positively motivate change in their home.

The program works in 3 phases. During the first phase, the therapist attempts to break down resistance to therapy and encourages the family to believe that negative communication and interaction patterns can be changed. In the second phase, family members are taught new ways to approach day-to-day situations; they are shown how to change their behaviors and responses to situations. During the third phase, family members are encouraged to move new relational skills into other social situations (school or the workplace, for example).

This program reduces recidivism rates and juvenile delinquency at a low cost. Twelve sessions cost approximately $1/6^{th}$ the cost of detaining a youth for one month. Another positive effect of the program is that the siblings of the youth on parole are less likely to commit crimes because of the help their family has received.

In one study, the treatment group had lower recidivism rates, and when the program was delivered by high-adherent therapists, the results were more significant. The program had a positive effect on youth by reducing risky behavior, increasing strengths, and improving functioning across key life domains. The model of functional family therapy concentrates on decreasing risk factors and increasing protective factors that directly affect adolescents, with particular emphasis on familial factors.

The program consists of 8 to 12 one-hour sessions for mild cases and incorporates up to 30 sessions of direct service for families in more difficult situations. Sessions are generally spread over a 3-months period and can be conducted in clinical settings as outpatient therapy and as a home-based model. The model has 5 specific phases: engagement, motivation, relational assessment, behavior change, and generalization.

In the engagement phase, therapists concentrate on establishing and maintaining a strength-based relationship with clients, demonstrating that therapists will listen to, help, and respect clients. In the motivational phase, therapists concentrate on the relationship between adolescents and their family; the goal is to motivate adolescents and their families to want to continue therapy for lasting change. In the relational assessment phase, the emphasis changes from an individual problem to a relational perspective; therapists work on values, interaction patterns, sources of resistance, and resources. The behavior change phase aims to reduce and eliminate problem behaviors and relational patterns through individual behavior change interventions, including skill training in family communication, parenting, problem solving, and conflict management. The goal of the generalization phase is to increase the family's capacity to adequately use multi-systemic community resources and to engage in relapse prevention. The emphasis is on relationships between family members and on multiple community systems.

Gang Reduction Program

This is a comprehensive multi-year initiative to reduce youth gang crime and violence through a combination of strategies. The program was funded by the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention. It was a targeted multi-year (2003-08) initiative to reduce crime and violence associated with youth street gangs in a select group of cities throughout the United States. The initiative facilitated collaborations among federal agencies, local stakeholders, and communities, and it included primary prevention, secondary prevention, intervention, and gang suppression strategies.

The program is based on the Spergel model of gang interventions, which posits that gang problems result from the interaction of sociological, demographic, economic, and cultural factors along with social instability and lack of economic opportunity. The model focuses on assessing youth needs and providing them with individualized support services and suppression/ control by involving their families, local organizations, and communities. Services were categorized as one of the following 3: (1) prevention, (2) intervention/ reentry, and (3) suppression.

Prevention services included the following:

1. Assistance in setting academic goals and encouraging higher education.
2. Academic enrichment and homework assistance.
3. College preparation and awareness.

4. Leadership development and skills.
5. Crime and violence prevention.
6. Abstinence education.
7. Art as a means of expressing oneself.
8. Prenatal and infancy education, planning, and referrals.
9. Mentoring.
10. Case management.

Intervention/ reentry services included the following:

1. After-school sports and recreation.
2. Case management.
3. Teen court for first-time juvenile offenders.
4. Mentoring.
5. A client referral system.

Suppression services included the following:

1. Coordinated resources in high-crime areas.
2. Presence of law enforcement.
3. Community outreach.
4. Gang injunctions (restraining orders against gang members to prohibit them from engaging in gang activity).
5. Graduated sanctions.

Great Life Mentoring

This one-on-one mentoring program provides support to youth referred from a community mental health agency by adult volunteers who spend 2 to 3 hours weekly on positive community activities. Youth and adults are paired for a period of one year or more. The program is provided to youth aged 7 to 18 years who come from low-income families and have a mental health diagnosis. Mentors provide enhancement to treatment, and youth are expected to continue receiving mental health services. Mentors engage in positive community activities and provide one-on-one support and companionship to youth. Mentors must pass an initial screening and complete a 20-hour, curriculum-based training prior to being matched with a mentee. Mentors document their contacts with mentees in a database that is reviewed by program staff, who follow up as needed. Mentors have monthly in-person meeting with staff of the program throughout their first year, with additional one-on-one meetings and email

contact as needed. Mentors also receive guidance as appropriate from the youth's mental health providers.

Home Visitation by Nurses

Nurses involved in the "Prenatal and Infancy Home Visitation by Nurses" program pay visits to low income, single mothers between their third trimester and the second year of their child's life. During these visits, nurses focus on the health of the mother and child, the support relationships in the mother's life, and the enrollment of the mother and child in Health and Human Services programs. A 15-year follow-up study found that mothers and children involved in the program had had a 79 percent lower child abuse rate, a 56 percent lower child runaway rate, and a 56 percent lower child arrest rate. Maternal behavior problems also dropped significantly in the studied group.

Mentoring

Mentoring is designed to promote healthy development and functioning. The use of mentoring to address the needs of at-risk populations has grown since early research found that mentored youth were less likely to skip school or engage in drinking, drugs, and violence. Mentoring programs can have a prevention or intervention focus and be designed to serve different at-risk populations, such as children living in high-poverty neighborhoods, children of incarcerated parents, children in foster care, abused and neglected youths, youths who have disabilities, pregnant and parenting adolescents, academically at-risk students, and adolescents involved in the juvenile justice system.

Most mentors are volunteers who are matched with a mentee. Occasionally a mentor is matched with a group of mentees. Mentors can be adults or older peers. The goal is to reduce risk factors by enhancing protective factors, such as healthy beliefs, opportunities for involvement, and social and material reinforcement for appropriate behavior.

Mentoring models include informal, formal, community-based, and school-based. Informal mentoring results from frequent, unstructured contacts with an adult or older peer who provides guidance to the younger person. Formal mentoring occurs when programs provide volunteer mentors for at-risk youth. Community-based mentoring matches a carefully screened volunteer with an at-risk youth. The pair meets regularly for at least 4 hours per month for at least one year. The pair engages in activities within the community, such as sports, games, movies, or visiting a library or museum. School-based programs match a younger person with either an adult or an older student. The

pair typically meets at the school in a supervised setting for one hour per week during or after school. The mentoring activities tend to be concentrated on academics, along with social activities. The relationship usually lasts for a school year.

Other mentoring models include group mentoring, wherein one mentor meets with a group of youths; e-mentoring, in which the 2 individuals communicate over the Internet; and peer mentoring, wherein students are used as mentors.

Minneapolis Hot Spots Experiment

This program increased police presence in crime “hot spots” to reduce criminal activity. The program focused on small clusters of high-crime addresses, rather than entire patrol beats or neighborhoods. These were known as “hot spots” of crime, and were identified based on the frequency of calls for service to the area.

Multi-systemic Therapy

Multi-systemic therapy is a family and community-based treatment program for young offenders who have exhibited serious antisocial, problem, and delinquent behaviors. The treatment group had fewer rearrests and spent fewer days incarcerated than a comparison group that received usual services. The program also had a positive impact on family cohesion and social skills for the intervention group. The program requires involvement of the family, who assist in uncovering and assessing the functional origins of adolescent behavioral problems. The target age range is 12 to 17 and focuses on youth who present with serious antisocial and problem behavior with serious criminal offenses. Intervention is used on adolescents and the beginning of their criminal career by treating them within the environment that forms the basis of their problem behavior instead of in custody, removed from their natural ecology.

Therapists work with patients within the home, which reduces barriers that keep families from accessing services. Therapists have small caseloads of 4 to 6 families, work as a team, are available 24 hours a day and 7 days a week, and provide services at times that are convenient to the family. Average length of treatment is 4 months with multiple sessions per week.

The therapy course includes empowering parents and improving their effectiveness by identifying strengths, developing natural support systems, and removing barriers. The family takes the lead in setting treatment goals, and the therapist helps them to accomplish their goals.

In evaluating the effectiveness of the program, researchers found that the treatment group reported significantly higher family cohesion than the comparison groups. The treatment group also reported significantly lower peer aggression than the comparison group. Four years after probation, 26.1 % of the treatment group had been rearrested compared to 71.4 % of the comparison group. Of those who had been arrested from the treatment group, their arrests were for significantly less serious or violent crimes than those of the comparison group. Family functioning also improved, with significant differences found with respect to family cohesion and adaptability.

One Summer Plus Summer Jobs Program

This program served students from some of Chicago's most violent schools. A rigorous randomized controlled trial evaluation found the program to deliver substantial reductions in youth violence, with those benefits realized primarily after program participation ended. Similarly, the Becoming a Man program in Chicago, which offers youth weekly group sessions during the school day and uses cognitive behavioral therapy to help youth deal with high-stakes situations, was found to increase graduation rates and reduce criminal behavior among young men in Chicago Public Schools.

As noted in a policy brief from Urban Institute, Great Lakes cities with serious violence problems could benefit from developing a comprehensive strategy and infrastructure that includes prevention, including supporting school discipline policies that reduce the likelihood of justice involvement. Revisions to school disciplinary criteria may be considered prevention, given that school expulsion is a risk factor for justice involvement. Restorative justice models are increasingly being implemented as an alternative approach to school discipline, particularly in contrast to zero tolerance approaches. For Wisconsin, expanding Medicaid as the other 5 Great Lakes states have done has the potential to increase access to community-based behavioral health services for both justice-involved young adults and low-income young adults generally.

Operation Peacekeeper

Operation Peacekeeper is a community and problem-oriented policing program to reduce gang involvement and violence among urban youth, ages 10 to 18. Youth outreach workers serve as mentors for youth in neighborhood settings. It is modeled after the Ceasefire Initiative by the Boston Police Department, which used detailed information about gang activity to identify problem areas and reduce gang-related violence in the Boston metropolitan area.

Youth outreach workers communicate to youth that they have better options for their lives. These are streetwise young men and women trained in community organizing, mentoring, mediation, conflict resolution, and case management. Working in neighborhood settings where young people are at risk of violence. Youth outreach workers serve as mentors and positive role models for youth. Their role is to make sure youth understand the consequences of violence and that there are positive alternatives to gang membership. Youth outreach workers work in collaboration with government and community-based organizations to provide resources for youths to escape a gang lifestyle. The program also depends on the involvement of the community to help influence criminal justice agencies to construct customized solutions.

Police Foot Patrol (Philadelphia, PA)

This program used a foot patrol to reduce violent crime in hot spots in Philadelphia, PA. Rookie officers patrolled areas (an average of 1.3 miles of streets) during 2 shifts per day. There were significant reductions in reported violent crime, although the effect seemed to fade once officers were removed from their targeted beats.

The program used proactive, nonthreatening, and community-oriented approaches to local policing. The strategy combined these approaches with techniques borrowed from hot spots policing, disseminating foot patrol to specific high-crime locations. The overall goal was to create significant reductions in violent crime by increasing officer presence in high-crime locations, specifically during the summer months.

The strategy concentrated on implementing foot patrol at certain addresses, street segments, and clusters of microspatial units with high levels of violent crime. Police visibility and presence were increased in high-crime locations.

Officers patrolled their areas 5 days per week for about 16 hours a day. Those involved in the foot patrol intervention had recently graduated from the police academy. In each target area, 2 pairs of rookie officers were assigned to engage in intensive foot-patrol policing. Pairs of police officers patrolled the targeted areas for at least 8 hours each day. The officer pairs were assigned to either a morning (10 a.m. to 6 p.m.) or an evening shift (6 p.m. to 2 a.m.) from Tuesday through Saturday nights. The pairs alternated morning and evening shifts every other week. Thus, there were areas were not covered by foot patrols from 2 a.m. to 10 a.m. each day, and from 2 a.m. Sunday through 10 a.m. Tuesday each week. The hot spots targeted by the foot patrols encompassed an average of 1.3 miles of streets and 14.7 intersections.

During the implementation of the strategy, rookie officers engaged in various types of activities while patrolling assigned locations. Some officers engaged in extensive community-oriented work, speaking to community members and visiting child care centers and juvenile hangouts. Other officers took a more crime-oriented approach to their patrol assignment, stopping vehicles at stop signs and intersections, and interviewing pedestrians. In sum, the strategy used a meticulous analysis of the distribution of violent crime across locations, to successfully employ visible presence of officers in the most problematic areas.

The program is based on a combination of criminological theories, including rational choice, routine activities, and environmental criminology. Spatially oriented crime control programs aim to make changes in areas that provide crime opportunities, to create constraints on criminal behavior. The rational choice theory posits that the decision to commit a crime is made rationally by an offender, that it is a deliberate decision made after judging that the potential benefits of the crime outweigh the potential risks. The routine activities theory posits that a criminal act occurs when there is a convergence of a suitable target in the absence of a capable guardian.

The role of place is introduced by environmental criminology, also known as crime pattern theory, which suggests that a reduction in offending will occur if characteristics of an environment are altered to make the location less appealing to criminals. Through a combination of rational choice, routine activities, and environmental criminology, a theory arises that making changes to an environment can have a significant impact on a potential criminal's decision to commit crimes in that area. Therefore, the foot patrol strategy followed from the premise that increasing officer visibility in high-crime locations would render such locations less optimal for criminal offending, leading to a deterrent effect and a reduction in violent crime.

The target areas experienced a relative 23 percent reduction in reported violent crime in comparison with the control areas. While there was some displacement of violent crime to nearby locations, the effects were outweighed by the direct benefits seen in target areas and overall reduction in crime. However, the foot patrol did not have lasting impacts on crime once the officers were removed from the targeted beats.

Recreation Programs

The Department of Education has reported that youths are most likely to commit crimes between 2 p.m. and 8 p.m., with crime rates peaking at 3 p.m. Recreation programs

allow youths to connect with other adults and children in the community. Positive friendships may assist children in later years. Youth programs designed to fit the personalities and skills of different children include sports, dancing, music, rock climbing, drama, karate, bowling, art, and other activities.

Social Decision Making/ Problem Solving Program

This program was developed in 1979 as a collaborative effort among professionals from a wide variety of disciplines, including teachers, school administrators, psychologists, and researchers. The ultimate goal was to prevent violence, substance abuse, and related problem behaviors by teaching social, emotional, and decision-making skills that students would utilize throughout their lives. The program is based on the theory that although a child's behavior and peer acceptance are influenced by numerous factors, there are specific behaviors that can predict acceptance or rejection within a peer group. The program enhances these specific behaviors through the training and practice of important social and decision-making skills throughout the program's curriculum.

The program seeks to alleviate the stress that arises during the elementary to middle school transition. Students are asked to do the following:

1. Focus on their feelings and the feelings of others in problematic situations.
2. Think about their goals and develop solutions to achieve them while keeping potential consequences in mind.
3. Focus on how they would implement their solutions.
4. Develop confidence in their ability to overcome problematic situations, while also understanding that even the best solutions do not always lead to resolutions.

The program takes place during the school year and is structured around a specific curriculum, which includes 3 sets of social problem-solving skills: (1) interpersonal sensitivity, (2) means-ends thinking, and (3) planning and anticipation. Interpersonal sensitivity focuses on an individual's feelings in problematic situations, articulating those feelings, and developing a goal for the situation. Means-ends thinking strives to develop alternate ways to reach an individual's goal in the situation, while also developing consequences for each goal. Finally, planning and anticipation focuses on carrying out the solution, anticipating potential obstacles, and using the knowledge gained from the present situation to plan for the future.

The program is organized into 3 phases: the readiness phase, the instructional phase, and the application phase. The readiness phase focuses on developing students' self-control skills, as well as their group participation and social awareness skills. The instructional phase includes an 8-step problem-solving procedure and stresses the importance of initiative in producing positive resolutions, both of which take place during the first half of the year. Finally, the application phase, which takes place during the second half of the school year, utilizes the skills developed during the instructional phase and integrates them into the students' social and affective realms.

Overall, the program was found to significantly reduce the stressors associated with a student's transition into middle school.

LRB174289

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Carjacking and Reckless Driving Task Force

From: Kathleen Brengosz, Fiscal Planning Specialist, x3926

Date: June 4, 2019

Subject: Stop Stick® Tire Deflation Devices

In response to the Task Force's request for information regarding the use of Stop Stick® tire deflation devices during vehicle pursuits, the Legislative Reference Bureau is providing the following information.

Law enforcement officers use tire deflation devices as a way of disabling target vehicles. The U.S. Department of Homeland Security (DHS) established the System Assessment and Validation for Emergency Responders (SAVER) Program to assist emergency responders in making procurement decisions. In 2006, Texas A&M Engineering conducted a comparative assessment of portable tire deflation devices for the SAVER Program. The assessment included simulated deployment evaluations and operation testing for the systems on concrete pavement at 35 mph and 70 mph. In conjunction with the assessment, subject matter experts from various jurisdictions developed evaluation criteria and recommended possible uses and operational outcomes. The tire deflation devices were assessed based on 5 criteria; affordability, capability, deployability, maintainability and usability. The Stop Stick® tire deflation device received the highest overall rating. A summary of the assessment issued by the DHS is attached to this memo.

Stop Stick was founded in the mid-1990s. Stop Stick products are used by local, state and federal agencies, as well as agencies in Europe. Its leading product is the Stop Stick®, but it also manufactures variations, including the Terminator® and Piranha®.

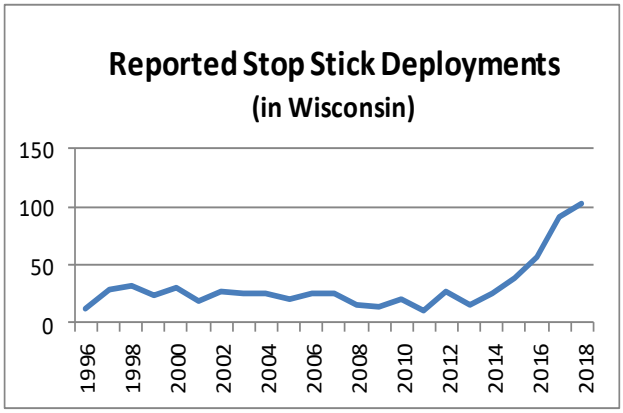
Every Stop Stick® is fitted with hollow, Teflon-tipped, steel quills. The hollow quills create consistently-sized air channels which allow the tire to deflate rapidly, usually within 5 seconds. The controlled exit of air helps prevent tire blowout and helps the driver maintain control of his or her vehicle. The quills are set in an offset pattern to ensure that the device operates as intended regardless of how it lands in the street when deployed. Each quill is 2 5/8 inches long. The quills are designed to deflate any kind of tire, including tires that are designed to self-seal or run flat.

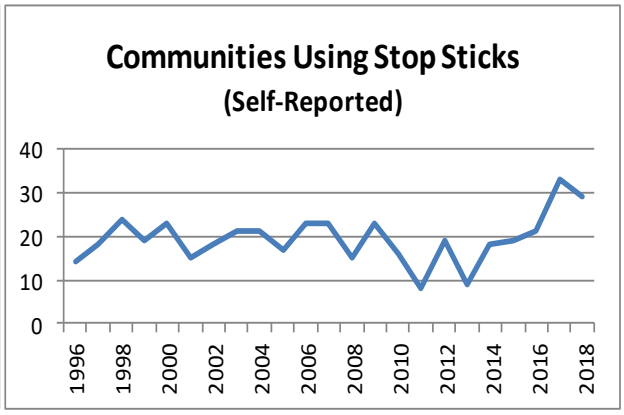
The quills are covered in a plastic housing that compresses when it is run over. Because the quills are not exposed, there is little possibility of injury while handling the device. The Stop Stick® is designed to go from vehicle storage to deployment in under 10 seconds. It is attached to an 80-foot cord, so officers can deploy it while remaining away from the roadway. The cord also allows the device to be removed without entering the roadway.

The Stop Stick® is generally used for high-speed police pursuits. The Terminator® is similar to the Stop Stick® but it is better suited to protecting checkpoints and security bottlenecks, as well as preventing drive-offs during traffic stops. The Piranha® is designed to prevent pursuits from starting in the first place. The Piranha is extremely compact, measuring just three inches long and weighing only five ounces. It is ideal for high-risk and covert settings, such as surveillance or drug raid operations.

To date, Stop Stick has documented over 29,500 successful deployments nation-wide. Because deployment is self-reported, the actual number of deployments is unknown and could be much higher. Reported Stop Stick® usage in Wisconsin was relatively stable from 1996 until 2013. Deployments since 2013 have risen dramatically. Statewide, there have been 750 Stop Stick® deployments since 1996. Over 100 of them occurred in 2018.

The number of communities that reported using a Stop Stick® has also increased. The largest increase in usage has been in Milwaukee County. Thirteen communities in Milwaukee County have reported using Stop Stick® at least once since 2015. These communities include Bayside, Brown Deer, Cudahy, Fox Point, Glendale, Greenfield, Milwaukee (City), Milwaukee (County), Oak Creek, River Hills, Shorewood, Wauwatosa, West Allis and Whitefish Bay. The data reviewed included only communities that reported the deployment of Stop Stick® devices. There may be additional communities whose law enforcement officers are equipped with Stop Stick® devices, but haven't deployed them in the field.





The primary risk associated with tire deflation devices is that the driver of the fleeing vehicle may lose control of the vehicle causing injury or property damage. Loss of control may occur when the tires deflate after striking a Stop Stick® or when a fleeing driver attempts to avoid a Stop Stick® deployed in the roadway. Nationwide, between 1996 and 2017, at least 30 people have been killed in Stop Stick®-related crashes. Twenty-six of the fatalities were law enforcement officers. In September 2012, after several fatal crashes, the Federal Bureau of Investigation issued a bulletin urging law-enforcement agencies to explore other ways to handle chases.

The deployment of Stop Sticks® may cause property damage. Property damage may be crash-related, occurring when suspects lose control of their vehicles and crash into other vehicles, buildings, trees, or poles. Property damage may also be caused when unintended vehicles drive over Stop Sticks®. Unintended vehicles may be innocent passersby or police vehicles involved in the pursuit. Reliable data on property damage related to Stop Stick® use is difficult to find. I was unable to determine or estimate the number or amount of property damage claims related to Stop Stick® devices.

To reduce the risk or injury or property damage, Stop Stick strongly recommends that Stop Stick® devices be deployed by trained officers. Training guidelines provided by the manufacturer state that a Stop Stick® should not be used:

- In areas with heavy traffic
- In populated areas or locations with pedestrians nearby
- Near road construction
- Near steep embankments, curves or obstacles that limit the deploying officer's view of traffic and the approaching pursuit

In addition to the SAVER assessment summary, I have attached information from the manufacturer of Stop Stick® regarding product specifications and training and a list of all Wisconsin jurisdictions which have reported using Stop Stick®.

If you would like additional information, please do not hesitate to contact me.

LRB174408

Attachments

STOP STICK®

Tire Deflation/ Pursuit Termination Device

SAFE

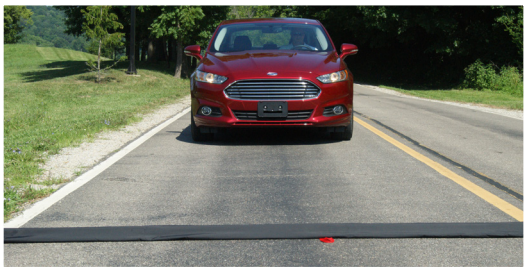
- Plastic housing provides officer safety during deployment and removal from the roadway.
- Deployment sleeve, with attached 80-foot (24m) cord, allows the deploying officer to stand a safe distance from the road.
- Engineered to deflate tires without blowout; hollow Teflon® coated quills act as valves,releasing air at a safe, controlled rate.
- Eliminates the need for time-consuming, costly and potentially hazardous repair to deflation device.
- No debris left on roadway.

SIMPLE

- STOP STICK® offers the fastest deployment of any tire deflation device.
- Sleeved, trunk-mounted STOP STICKS allow for fast, easy access.
- Lightweight construction - just over 1 pound (.516kg) - makes deployment and retrieval virtually effortless.
- In-sleeve deployment allows an officer to throw device from the side of the road and quickly remove it by pulling the cord reel.
- Multi-directional spikes ensure correct deployment (any side can be facing down).
- Simple design is not dependent on complicated and unreliable technology such as wires.

EFFECTIVE

- Deflates tires on virtually all vehicles including cars, buses and tractor-trailers.
- Over 30,000 successful documented deployments.
- Can be used by departments with, or without, pursuit policies.



STOP STICK®

www.stopstick.com

ACCESSORIES

The two items below are included with each rack.
May also be purchased separately.

SLEEVE Double-sewn nylon ripstop construction.

CORD REEL 80 feet (24m) of woven polyester line with comfortable, easy-to-hold handle - an added safety feature for officer deployment.

STORAGE AND MOUNTING OPTIONS

MOUNTING TRAY

- Mountable in Cars, or SUVs, for quick deployment
- Less than one pound
- Dimensions
  - o Length 36 ½ in.
  - o Height 6 ¾ in.

STORAGE BAG

- Can be moved between vehicles as needed
- Less than one pound
- Dimensions
  - o Length 39 in.
  - o Height 9 in.
  - o Depth 9 in.

HOLSTER

- Durable metal enclosure for SUV or Car storage
- Roughly 5 pounds
- Dimensions
  - o Length 37 ½ in.
  - o Height 9 ¼ in.
  - o Depth 4 in.

 • 365 Industrial Dr. Harrison, OH 45030 USA • Phone: 800.537.0102 | 513.202.5500 • Fax: 513.202.0240

Pursuit Prevention / Perimeter Protection

The best way to stop a pursuit. Don't let it start. With Stop Stick, Ltd.'s line of pursuit prevention and perimeter protection products, law enforcement personnel can quickly and easily secure vehicles and venues. Intended for use when a vehicle needs stopped immediately, these devices will deflate tires in 5 seconds or less.

Piranha

At 3 ½ inches in length and with a weight of 5.2 , the Piranha is a compact, easy-to-deploy and effective tire-deflation device. The Piranha provides added control during operations where potential for subject flight is anticipated. Excellent support for SWAT Teams, Tactical Units, Traffic Stops/DUI, Detectives, Surveillance, Drug Raids and more.

Patrol Terminator® + Terminator®

In high-risk stop situations, such as a DUI, or whenever the officer senses the need, the Patrol Terminator® and Terminator® provide a preemptive advantage. Eliminating the subject's ability to flee successfully, it gives officers an edge when they need it most, facilitates better control of high-risk stop situations and helps prevent dangerous pursuits from occurring. Self-righting end caps allow officers to deploy the device without taking their eyes off the situation. At 17 ½ inches and 24 inches in length, these devices offer enough road coverage to ensure a suspect has nowhere to go.

Barracuda

Stop vehicle entry into restricted areas, with Barracuda. Capable of deflating the tires of cars, trucks, buses and tractor-trailers quickly and safely, Barracuda enables fast, easy cordoning of areas to restrict ingress/egress or to control traffic flow. With 3 feet of coverage, Barracuda is excellent for Secured/Gated Area Checkpoints, Sobriety Checkpoints, Border Patrol, Emergency-Site Control, Perimeter Security, Special Events, SWAT Teams.

STOP STICK®

Pursuit Prevention / Perimeter Protection

Piranha

Length	3 1/2 inches	**Quill Diameter**	3/8th inch
Weight	5.2 ounces	**Deflation Time**	3-5 seconds
Quills	2	**Replaceable Cartridges?**	Yes
Quill Length	2 inches	**Roll Over End Caps?**	No

Terminator

Patrol Terminator

Length	24 inches	**Length**	17.5 inches
Weight	2 pounds	**Weight**	1.7 pounds
Quills	7	**Quills**	5
Quill Length	2 inches	**Quill Length**	2 inches
Quill Diameter	3/8 inch	**Quill Diameter**	3/8th inch
Deflation Time	3-5 seconds	**Deflation Time**	3-5 seconds
Replaceable Cartridges?	Yes	**Replaceable Cartridges?**	Yes
Roll Over End Caps?	Yes	**Roll Over End Caps?**	Yes

Barracuda

Length	36/50 inches	**Quill Diameter**	3/8th inch
Weight	3/3.7 pounds	**Deflation Time**	3-5 seconds
Quills	11/15	**Replaceable Cartridges?**	Yes
Quill Length	2 inches	**Roll Over End Caps?**	Yes

STOP STICK®

Guidelines for Use of
STOP STICK

Instructor Lesson Plan

To be completed after reviewing the STOP STICK User Training Video

Issue No. 8
January 2015

365 Industrial Drive Harrison, OH 45030 USA Phone: 513 202 5500 www.stopstick.com

Guidelines For Use of STOP STICK
Instructor Lesson Plan

Student Lesson: *Instructor's Notes:*

Before reading these guidelines, WATCH the STOP STICK User Training Video and READ your agency's Pursuit Policy.

⚠WARNING

Deployment of STOP STICKS in the Deployment Sleeve with the retractable Cord Reel attached is the sole recommended method for deployment of STOP STICKS. Any officer authorized to deploy STOP STICKS must be properly trained in this deployment method.

You or others can be killed or seriously injured if you don't follow safety messages.

Your safety and the safety of others is very important. We have provided many safety messages in this lesson plan. A safety message alerts you to potential hazards and instructs you on how to avoid or reduce the hazard. Each safety message is preceded by a safety alert symbol ⚠. Please carefully read and follow these important messages.

I. INTRODUCTION

STOP STICK is one of a series of law enforcement tools offered by StopTech, Ltd., to assist law enforcement agencies in stopping and preventing vehicle pursuits. In the course of this lesson, you will be instructed on methods of deployment for STOP STICK.

II. LEARNING OBJECTIVES

At the conclusion of this training, each participant should be able to:

1. Describe the basic construction of STOP STICK.
2. State, orally or in writing, the recommended surface for successful deployment of STOP STICK.
3. State, orally or in writing, the primary recommended method of deployment.

INSTRUCTIONS

Depending upon student participation, this lesson should take from **30 to 45 minutes** to complete.

The STOP STICK User Training Video should be utilized in coordination with the Lesson Plan.

Be sure to properly address the information contained in each point of the STUDENT LESSON PLAN. The information that is printed on this portion of the INSTRUCTOR'S LESSON PLAN is meant to assist you in instructing your students.

On the STUDENT LESSON PLAN this portion is blank, and is intended for students to list their personal notes.

TRAINING AIDS

For every 3 students participating in your class, you should have **at least one (1) complete Rack of STOP STICKS** – a complete Rack consists of one (1) tray, three (3) STOP STICKS, one (1) cord reel, and one (1) sleeve.

You will also need:

1. A STUDENT LESSON PLAN for each participant of the class.
2. STOP STICK User Training Video.
3. Copies of your department's or agency's pursuit policy – provide one copy for each student.

4. State, orally or in writing, the safety and tactical considerations when deciding to deploy STOP STICK.
5. State, orally or in writing, the type of vehicles STOP STICKS should NOT be deployed against.

III. OVERVIEW and NOMENCLATURE

STOP STICK is 3 feet (91cm) in length and weighs 1.1 pounds (.516kg). STOP STICK is comprised of the following components and sub-assemblies:

1. 36 Teflon® coated hardened steel QUILLS; 1 7/8 inches (4.76cm) in length, assembled in three rows of 12.
2. 72 Teflon® coated steel SPIKE TIPS, 3/8 inches (.95cm) in length, inserted into each end of all QUILLS.
    a. The TIP and QUILL assemblies are 2 5/8 inches (6.67cm) from tip to tip.
3. A collapsible polymer CORE, to orient the QUILL/SPIKE TIP assemblies.
4. The polymer CORE, is encased in a TARTAN tape glass filament FRAME, to contain the QUILL/SPIKE TIP assemblies during impact.
5. A polypropylene HOUSING, to contain the inner subassemblies and to protect the officer from injury while handling the STOP STICK.
6. Molded polymer male and female END CAPS, which allow multiples of STOP STICK to be linked together.
7. Accessories:
    a. Reusable nylon SLEEVE.
    b. CORD REEL with 80 feet (24m) of 150 pound (68kg) test braided polyester cord.
    c. MOUNTING TRAY, designed for trunk mounting with reflective STOP STICK sticker.
8. Two WARNING LABELS appear on each STOP STICK. Be sure to READ AND FOLLOW all safety messages on-product and in this lesson! If you haven't seen these warnings before, turn to the last page of this lesson plan to read these important messages.

TRAINING AIDS (cont'd)

Optional items:

1. Dry erase or chalk board to draw examples of potential deployment circumstances.
2. An automobile for deployment demonstration purposes.
3. TV and VCR or DVD player.

Complete STOP STICK Rack Kit

Complete STOP STICK SUV Kit

As you address points 1 through 8, hold up a STOP STICK for all to see. Depending on the class size, pass around one or more STOP STICKS for the students to handle for themselves.

Student Lesson: *Instructor's Notes:*

IV. DEPLOYMENT OF STOP STICK

⚠ ALWAYS follow the policies and procedures of your Agency when deploying STOP STICK.

STOP STICK training materials are intended to supplement the formal Pursuit Policy of your agency. Stop Stick, Ltd. recommends that these "Guidelines For Use" be incorporated into your agency's written Standard Operating Procedures (SOP). However, the training, policies, and procedures of your agency – including when and how to deploy STOP STICK – supersede any written or verbal instructions from Stop Stick, Ltd.

A. Before Deploying STOP STICK

Before deciding to deploy STOP STICK, many factors must be considered. The following are some important safety and tactical issues to think about.

Safety Considerations:

The circumstances of each pursuit are very different, but safety is always the most important factor. Suspects can abruptly swerve, stop, or otherwise maneuver their vehicle in an unexpected manner while attempting to avoid STOP STICK.

ALWAYS plan ahead for pursuits in your area, Determine the most suitable, and safest, locations for deployment. Then, when a pursuit is necessary, you can proceed to one of these pre-planned locations or direct other officers to where they can best deploy STOP STICK.

Officers should also be prepared to find substantial cover in the location, such as a large tree, guard rail, or other object or sufficient structure capable of stopping an approaching vehicle. **Patrol vehicles are not adequate cover.**

ALWAYS avoid deploying STOP STICK in locations or situations that limit the ability of the fleeing suspect to safely maneuver their vehicle. These situations can endanger you, other officers, the public, and the suspect.

STOP STICK is designed for a controlled release of air from the target vehicle's tires, usually within 20-30 seconds. **However, under some circumstances tire deflation can increase the possibility that a driver may lose control of the vehicle and crash, resulting in SERIOUS or FATAL INJURIES**. NEVER deploy STOP STICK if you believe the location or circumstances of your pursuit make it unsafe to do so!

As you review the safety and tactical considerations for deploying STOP STICK, refer to your agency's pursuit policy. Note any differences and instruct students to ALWAYS follow the policies and procedure of your agency.

Stop Stick Ltd., strongly encourages you to provide each student with a printed copy of your existing pursuit policy, while attending this training session.

Safety Considerations:

This is good time during the training to talk about important safety considerations in using STOP STICK.

Handle STOP STICK with caution.

Always plan ahead.

Avoid deploying STOP STICK:

- in areas with heavy traffic.
- in populated areas or locations with pedestrians nearby.
- near road construction.
- near steep embankments, curves, or obstacles that limit the deploying officer's view of traffic and the approaching pursuit.

Following these precautions (i.e., limiting TRAFFIC and PEDESTRIANS) can reduce the likelihood of injuries – if a driver were to lose control of the vehicle and crash.

Discuss the types of vehicles that STOP STICK **CANNOT** be used against; specifically, any vehicle with less then four (4) wheels.

Student Lesson: | *Instructor's Notes:*

⚠ **LIMIT TRAFFIC on the roadway.** Heavy or congested traffic increases the chance of an accident, resulting in injury or property damage. Whenever possible, limit or isolate traffic from the pursuit or location where STOP STICK is being deployed.

⚠ **RESTRICT PEDESTRIANS.** Bystanders, observers and other pedestrians in the surrounding area are especially vulnerable to injury if they are struck by a vehicle. NEVER deploy STOP STICK with pedestrians in the immediate vicinity.

⚠ **NEVER use STOP STICK on vehicles with fewer than four wheels.** Vehicles such as motorcycles and 3-wheeled ATVs are less stable and persons driving these vehicles are more likely to lose control when their tires deflate.

⚠ **To reduce the risk of serious or fatal injuries resulting from a vehicle crash**

Use EXTREME CAUTION when:

- Pursuits reach **EXCESSIVE SPEEDS**; suspects have an increased risk of losing control of the vehicle if tires are deflated while driving at above normal highway speeds.
- Fleeing suspects appear to be under the influence of **DRUGS** or **ALCOHOL** or similar impairments which may increase the risk of losing control of the vehicle.

⚠ **ONLY deploy STOP STICK when you have a safe location to observe the target vehicle.** You could be struck if suspects unexpectedly swerve, stop, or lose control of their vehicle. You must be able to safely observe the target vehicle and other traffic.

Once you are in a safe location, always advise pursuing units when and where STOP STICK is being deployed. Then look for an escape route in case you need to move away from your present position to a safer location.

Tactical Considerations:

1. Remember that planning ahead for the use of STOP STICK includes determining the best locations for deployment and knowing where protection for the deploying officer exists.
2. For best performance, deploy on dry, hard surfaces such as concrete or blacktop. STOP STICK may fail to puncture the tires of a target vehicle on soft, loose materials such as dirt or gravel roads.

Safety Considerations (cont'd)

Consider that the driver may attempt to continue operating the target vehicle after deployment of STOP STICK and the dangers this poses.

As a class, talk about different scenarios and the circumstances of pursuits that make it dangerous or inappropriate to deploy STOP STICK.

- **Speed** – going too fast can increase the chance a driver will lose control of the vehicle when tires deflate.
- **Reckless and erratic behavior** by the fleeing suspect.
- **Wet surfaces, loose pavement and gravel** may increase the risk a driver will lose control of the vehicle.
- **Weather** – rain, fog, snow, ice, etc. can increase the chance of a driver losing control of their vehicle -- and reduce visibility below safe levels.

ASK: Who could be hurt? Why? What are the potential consequences of a suspect losing control of his vehicle?

Be sure to stress choosing a location that allows for **OFFICER SAFETY** and **MANEUVERABILITY** after deploying STOP STICK, as well as the safety of bystanders, pedestrians and other motorists.

Only deploy STOP STICK when you have a safe location to observe the target vehicle.

Advise pursuing units when STOP STICK is being deployed.

Student Lesson: | *Instructor's Notes:*

⚠ **AVOID deploying STOP STICK on wet surfaces, gravel or loose pavement.** These surfaces may increase the risk a person will lose control of the target vehicle when tires deflate.

3. Regardless of the method of deployment, consider deploying STOP STICK so that a suspect has limited ability to avoid striking the device.
   - Try to deploy STOP STICK at the last possible moment, so that a suspect has limited ability to avoid striking the device by driving the vehicle to either side of the sleeved STOP STICKS.
   - Is it possible to deploy in the middle of a bridge?
   - What types of natural barriers or man-made obstacles would prevent suspects from avoiding STOP STICK?
4. If deploying near an intersection, deploy STOP STICK just before entering the intersection on the road the target vehicle is traveling. Deploy before reaching any driveways or parking lots near the intersection. Deploying just after an intersection, driveway or parking lot allows the target vehicle to turn and avoid STOP STICK.
5. ONLY deploy STOP STICK after you have identified a SAFE LOCATION to observe the pursuit.
   - What makes a good escape route or safe location?
   - What are some safe locations to deploy STOP STCK on your current patrol?

⚠ **ALWAYS move to a SAFE LOCATION after deploying STOP STICK.** The cord reel has 80 ft. (24m) of cord to allow you to move as far as possible from the road so that you can avoid fleeing or pursuing vehicles.

B. Deploying STOP STICK

⚠ **ALWAYS advise pursuing units when and where STOP STICK is being deployed.**

Provide fellow officers with ample warning to avoid striking the device. STOP STICK is an equal opportunity tire deflator, it cannot distinguish police tires from suspect tires.

Tactical Considerations

STRESS THESE KEY POINTS:

- **plan ahead** for best deployment locations
- adequate **line of sight** – for traffic and the approaching pursuit
- "best practices" for deployment near **intersections**
- a **safe location** for the officer – concealment, protection, or escape route if suspect vehicle swerves
- **communication** with other officers – always advise pursuing vehicles when/where STOP STICK is deployed
- deploy STOP STICK at last possible moment so suspect has **limited ability** to avoid the device.

Student Lesson: | *Instructor's Notes:*

Pre-Load is the sole recommended method of deployment. Pre-load three/four unconnected STOP STICKS in the supplied nylon sleeve; with the cord reel attached to the end of the sleeve. Then place the loaded sleeve in the mounting tray until needed.

1. At the time of need, use the red handles to remove the sleeved STOP STICKS from the mounting tray.
2. Unlock the cord reel. When all lanes of traffic are clear, use the red handles to throw the sleeved STOP STICKS to the opposite side of the road.
3. **Communicate to the pursuing officers that the STOP STICKS are in position**.
4. Once the sleeved STOP STICKS are on the opposite side of the road, position yourself in a safe location for the impending deployment, while using your peripheral vision to monitor approaching traffic.
   a. While waiting for the target vehicle to arrive, reel in any slack with the cord reel.
   b. Keep the cord line flat on the road surface; allowing non-target vehicles to drive over the dispensed cord, without interfering with the impending deployment of the sleeved STOP STICKS.
5. Lock the cord reel and hold it by the handle with both hands while awaiting the target vehicle. Never wrap the cord around your hand or any portion of your body.

   ⚠ **NEVER wrap the cord around your hand or any portion of your body.**
6. As the target vehicle approaches, carefully step backward with the cord reel in hand, to pull the sleeved STOP STICKS into the path of the target vehicle.
   a. Before pulling the sleeved STOP STICKS into position, ensure there are no other vehicles between the target vehicle and the point of deployment.

      ⚠ **NEVER rush a deployment.** Allow enough time to correctly deploy sleeved STOP STICKS. As you pull them into the road, turn to watch where you are going and retreat to a safe location.
7. After the sleeved STOP STICKS have been struck, remove them from the roadway by pulling the cord reel with both hands.

Pre-Load is the sole recommended method of deployment because it affords the maximum in **OFFICER SAFETY**, while also containing STOP STICKS after they have been struck. This also allows for **safe, easy and efficient removal** of STOP STICKS from the road by simply pulling them from the road with the attached cord reel.

Remember that on **multi-lane roads**, it may be advisable to have officers deploying from both sides of the roadway.

Allow **all participants** of the class an opportunity to practice "loading" the STOP STICKS into the sleeve; attaching the cord reel to the sleeve; and placing the sleeved STOP STICKS in the tray.

Student Lesson: | *Instructor's Notes:*

⚠ **ALWAYS use caution when removing STOP STICK from the road.** DO NOT enter the roadway if pursuing vehicles have not passed. Handle carefully, STOP STICK may break open exposing sharp spikes after being struck by a vehicle.

8. Always follow the policies and procedures of your agency when deploying STOP STICK. Those policies supersede any written or verbal instructions from Stop Stick, Ltd.

C. After Deploying STOP STICK

If STOP STICK **was struck** by any vehicle:

- the device is no longer fully functional and should be replaced as soon as possible.
- fill out the provided "Pursuit Reporting Form" and fax it to 513 202 0240. Or, this form can be filled out online at www.stopstick.com under "Contact Us".
- if you have any questions about replacement(s), contact Stop Stick, Ltd. at 513 202 5500.

If STOP STICK **was not struck** by any vehicle:

- inspect the sleeved STOP STICKS for damage.
- if undamaged, return sleeved STOP STICKS to the tray for the next deployment situation.

V. CARE AND MAINTENANCE

With reasonable care, your STOP STICK will be ready to aid you in preventing or terminating a pursuit that creates a hazard to you and the public.

Follow these simple guidelines to ensure your STOP STICK is ready for use:

- Periodically inspect STOP STICK to ensure it is undamaged and ready for deployment. This should be part of your pre-shift routine, like inspecting your fire extinguisher.
- When STOP STICK is stored in the tray, be sure other items in the trunk are not loaded too high. Either STOP STICK could be damaged or the STOP STICK could potentially damage an item it impacts.

DO NOT wrap the cord around **ANY PORTION** of your body.

ASK: What could happen if the cord is wrapped around your hand and it becomes entangled with a vehicle?

ASK: What could happen if you are rushed to deploy STOP STICKS?

- **damage to vehicles.**
- **potential injuries –** ways that deploying officers could be hurt.
- **failure to deflate tires.**

Before **STEPPING BACKWARD,** ensure it is safe – officers won't trip or fall into path of pursuit.

STRESS THESE KEY POINTS:

- When pulling STOP STICKS into the path of the target vehicle, keep in mind that the **suspect may take evasive action** to avoid striking STOP STICKS. With that in mind remember, that STOP STICKS cannot be "pushed" back over ground that they have already been "pulled" over.

- Whenever a cord reel is rewound for reuse, rewind the cord by pulling out approximately five feet of cord and place the cord between two fingers with a small amount of tension when rewinding. This process reduces the opportunity for the line to become bound inside the cord reel as it is rewound.

Student Lesson: | *Instructor's Notes:*

VI. CONCLUSION

Installation of STOP STICK in each agency patrol vehicle provides a viable alternative to extended vehicle pursuits that endanger you, the public, and the fleeing suspect.

⚠ IMPORTANT SAFETY REMINDERS

The following warnings appear on every STOP STICK:

⚠ WARNING

Deflating tires increase the risk a driver may lose control of the vehicle resulting in **SERIOUS** or **FATAL INJURIES**

- **DO NOT** use STOP STICK without proper **TRAINING**
- **NEVER** use STOP STICK on **MOTORCYCLES**

Visit www.stopstick.com or call 513-202-5500 for more information

⚠ CAUTION

STOP STICKS contain **SHARP SPIKES**

NEVER bend STOP STICK or push spikes through housing

DO NOT attempt to repair, dismantle or open STOP STICK

Visit www.stopstick.com or call 513-202-5500 for more information
Stop Stick, Ltd. Made in USA
Patent # 5,330,285 5,452,962

Risk Management experts say that the greater risk to our safety and those around us occurs while we are also things we do the least often. But with the use of on-going training, pre-planning and frequent practice, you may be able to decrease the heightened dangers of high risk/low frequency activities.

Practice using STOP STICK so you are ready to deploy it properly when you need to end a pursuit.

ASK: Are there any questions?

Take a moment to answer any questions from the class.

After completing the lesson plan, have all participants go to a controlled area (i.e., parking lot, large room, etc.) to demonstrate their proficiency in safely deploying STOP STICK.

Stop Stick, Ltd., strongly encourages you to take this lesson plan along and ask students about the safety and tactical considerations as they practice!

HANDS-ON-ACTIVITY: Give EVERY participant an opportunity practice throwing sleeved STOP STICKS across the road. The student should be able to consistently throw a set of sleeved STOP STICKS a minimum distance of 36 feet (11m), which is equivalent to the width of three standard traffic lanes.

It is important to note that because sleeved STOP STICKS can be thrown 30-40 feet (9-12m), deploying officers can and should stay a safe distance from the roadway.

Homeland Security
Science and Technology

Summary

U.S. Department of Homeland Security
SAVER
System Assessment and Validation for Emergency Responders

The U.S. Department of Homeland Security (DHS) established the System Assessment and Validation for Emergency Responders (SAVER) Program to assist emergency responders making procurement decisions.

Located within the Science and Technology (S&T) Directorate of DHS, the SAVER Program conducts objective assessments and validations on commercial equipment and systems, and provides those results along with other relevant equipment information to the emergency response community in an operationally useful form. SAVER provides information on equipment that falls within the categories listed in the DHS Authorized Equipment List (AEL).

The SAVER Program is supported by a network of technical agents who perform assessment and validation activities. Further, SAVER focuses primarily on two main questions for the emergency responder community: "What equipment is available?" and "How does it perform?"

For more information on this and other technologies, contact the SAVER Program Support Office.

RKB/SAVER Telephone: 877-336-2752
E-mail: saver@dhs.gov
Web site: https://www.rkb.us/saver

Portable Tire Deflation Devices

(AEL reference number 14SW-01-WALL)

In order to provide emergency responders with information on currently available tire deflation device technologies, capabilities, and considerations, Texas A&M Engineering conducted a comparative assessment of portable tire deflation devices for the System Assessment and Validation for Emergency Responders (SAVER) Program in August 2006. The assessment included both simulated deployment evaluations and operational testing of the systems on concrete pavement at two vehicle speeds: 35 miles per hour (mph) and 70 mph.

Background

Law enforcement officials use tire deflation devices as a way to disable target vehicles. They work by utilizing a row of spikes to pierce tires, effecting a controlled deflation. Tire deflation devices can end road chases without the danger caused by a tire blowout. Tire deflation devices must be capable of safely releasing the air pressure of the tire in a predictable, controlled manner so the vehicle operator can maintain control.

Assessment

Prior to the assessment, 12 law enforcement subject matter experts (SMEs) were chosen from various jurisdictions to participate in a focus group. The focus group's primary assignment was to develop evaluation criteria; however, they were also tasked with recommending possible uses and operational outcomes to support the assessment plan development.

The SAVER Program also conducted a market survey to investigate currently available tire deflation devices. The primary objective of the market survey was to provide an overview of the tire deflation devices available to law enforcement officers as well as their capabilities, features, and considerations.

The tire deflation devices included in the assessment were identified through the market survey conducted by Texas A&M Engineering in April 2006. The following portable tire deflation devices were assessed:

- MagnumSpike!™ fold-out system, purchased through Phoenix International
- MagnumSpike! roll-out system, purchased through Phoenix International
- Stinger Spike System®, purchased through Federal Signal Corporation
- STOP STICK® system, purchased through StopTech, Ltd.

The tire deflation devices were assessed according to the following SAVER criteria: affordability, capability, deployability, maintainability, and usability. Each factor was weighted and given a percentage of importance by the focus group for the purposes of the assessment.

Assessment activities were developed based on input from the focus group. The assessment had a two-phase approach.

Phase I included six law enforcement patrol officers simulating deployment of the systems. The SMEs reviewed the system safety, use, and setup literature provided by the manufacturers, and then used the systems by removing the systems from a trunk compartment, deploying them on asphalt surfaces, and reconfiguring them in storage containers. No spiking of vehicles was included in the Phase 1 assessment.

Phase II included scenario testing of each system on concrete at two speeds (35 mph and 70 mph). Each evolution consisted of "warming" up the tires until their pressure was consistent, then driving a test vehicle over a prepositioned tire deflation device (see figure 1). Six total evolutions per tire deflation device were conducted on the concrete surface: three evolutions with the vehicle driven at 35 mph and three evolutions with the vehicle driven at 70 mph.

Observations on all tire deflation devices assessed in Phase II were obtained from technicians and engineers from Texas A&M Engineering, who also rated the devices.

Assessment Results

The assessment results are a snapshot of the comparative performance of four models of tire deflation devices representing the known market at the time of assessment. Table 1 lists the scores, on a 100-point scale, for the composite rating and the SAVER category ratings based on the devices that were included in the assessment.

The STOP STICK tire deflation device system had the highest overall rating followed by Stinger, the MagnumSpike! roll-out system, and the MagnumSpike! fold-out system.

Assessment results included observations by SMEs and Texas A&M Engineering technicians and engineers. Their ratings, organized by SAVER category, are detailed in the following paragraphs.

SAVER Program Category Definitions

Affordability: This category groups criteria related to life-cycle costs of a piece of equipment or system.

Capability: This category groups criteria related to the power, capacity, or features available for a piece of equipment or system to perform or assist the responder in performing one or more responder-relevant tasks.

Deployability: This category groups criteria related to the movement, installation, or implementation of a piece of equipment or system by responders at the site of its intended use.

Maintainability: This category groups criteria related to the maintenance and restoration of a piece of equipment or system to operational conditions by responders.

Usability: This category groups criteria related to the quality of the responders' experience with the operational employment of a piece of equipment or system. This includes the relative ease of use, efficiency, and overall satisfaction of the responders with the equipment or system.

Table 1. Tire Deflation Devices Assessment Results[1]

System	Composite Score	Affordability (5% Weighting)	Capability (35% Weighting)	Deployability (30% Weighting)	Maintainability (10% Weighting)	Usability (20% Weighting)
STOP STICK®	**77**	54	67	90	61	87
Stinger Spike System®	**68**	70	65	63	88	72
MagnumSpike!™ Roll-Out	**55**	100	63	54	38	38
MagnumSpike! Fold-Out	**53**	86	64	49	38	37

Note:

[1] Scores contained in the report may be listed in a different numerical scale. For the purposes of the SAVER Summary, listed SAVER category scores are unweighted and rounded to the nearest whole number using a 100-point scale.

Figure 1. Vehicle Being Spiked

Affordability. At the time of the assessment, the MagnumSpike! roll-out system had the lowest price followed by the MagnumSpike! fold-out, the Stinger, and the STOP STICK, respectively. The purchase cost for all tire deflation device systems was between $260 and $380.

Capability. Based on feedback from the SMEs in Phase I, the users rated the STOP STICK system higher than the other systems in spike effectiveness and overall system effectiveness.

In Phase II, Texas A&M Engineering technicians and engineers noted that the capability to deflate the tires that were used in the test, as measured by the number of spiked tires per vehicle and by the rate of deflation for spiked tires, was similar for all systems.

Deployability. In Phase I, SMEs rated the STOP STICK system higher than the other systems. Users had positive comments for all aspects of the STOP STICK system's deployability including its storage location in the vehicle and its ease when deploying the system and retrieving the system for redeployment.

All tire deflation devices were prepositioned for the assessment activities; therefore, deployability was not assessed in Phase II.

Maintainability. Based on feedback from the SMEs in Phase I, the users rated the STOP STICK system higher than the other systems. Ratings were based on overall system durability and the maintainability of the spikes and frame.

Observations by Texas A&M Engineering technicians and engineers were based on requirements to rehabilitate tire deflation device systems after the vehicles had encountered them. The Stinger scored higher than the other systems in the Phase II maintainability assessment.

Usability. Based on feedback from the SMEs in Phase I, the users rated the STOP STICK system higher than the other systems in training materials, controls usability, user safety, and overall system usability.

Based on observations by Texas A&M Engineering technicians and engineers, the Stinger scored higher than the other systems based on the number, type, and projection of loose spikes, ease of cleanup, and controllability of spiked vehicles.

Other Assessment Results

Safety. Field tests confirm several safety concerns that were identified for the MagnumSpike! systems during deployment tests. In particular, numerous spikes turned into projectiles after the system was impacted by a vehicle. During MagnumSpike! deployments that resulted in the system being turned over, users were unable to correct problems without putting themselves at risk of being struck by vehicles or failing to accomplish the mission.

Design and Effectiveness. Based on the assessment results, evaluators were not able to identify a difference among manufacturers in how fast the spiked tires deflated. The speed of deflation appears to be mostly due to the total effective size of the hole made in the spiked tires rather than a particular spike design.

Conclusion

Users preferred the STOP STICK system, followed by the Stinger system and then the MagnumSpike! systems. The STOP STICK system benefits preferred most by users were its easy deployability and retrievability, which increased usability.

All reports in this series, as well as reports on other technologies, are available in the SAVER section of the Responder Knowledge Base (RKB) Web site at https://www.rkb.us/saver.

Self-Reported Stop Stick Deployments in Wisconsin

1996 - May 15, 2019

County	Jurisdiction	Total Deployments	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Number of Jurisdictions self-reporting each year			18	29	33	21	19	18	9	19	8	16	23	15	23	23	17	21	21	18	15	23	19	24	18	14
Barron	Stanley	1																								
Bayfield	Washburn	1																								
Brown	Brown County	4																								
	Green Bay	2																								
	Suamico	3																								
	Wrightstown	1																								
Buffalo	Buffalo County	2																								
Calumet	Calumet County	1																								
Chippewa	Bloomer	7																								
	Cadott	1																								
	Chippewa Falls	6																								
	Cornell	2																								
Columbia	Columbus	1																								
Crawford	Crawford County	1																								
	Prairie Du Chien	1																								
Dane	DeForest	1																								
	Fitchburg	5																								
	Middleton	6																								
	Stoughton	2																								
Douglas	Superior	3																								
Eau Claire	Altoona	1																								
	Augusta	1																								
	Eau Claire	5																								
	Eau Claire County	3																								
Florence	Florence County	1																								
Fond Du Lac	Fond Du Lac County	24																								
	Osceola	2																								
	Ripon	7																								
Grant	Grant County	1																								
	Hazel Green	4																								
	Muscoda	2																								
	Platteville	4																								
	Potosi	1																								
	Cuba City	2																								
Green	Green County	3																								
	Monroe	1																								
	Monticello	1																								
	Brodhead	1																								
Iowa	Iowa County	2																								
	Mineral Point	1																								
	Pulaski	1																								
	Ridgeway	1																								

Source: Stop Stick website accessed 5-24-2019

County	Jurisdiction	Total Deployments	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Jefferson	Jefferson County	7																								
	Johnson Creek	3																								
	Jefferson	2																								
Kenosha	Kenosha	1																								
LaCrosse	Onalaska	1																								
Lafayette	Darlington	1																								
	Lafayette County	2																								
Langlade	Antigo	4																								
Lincoln	Merrill	3																								
Manitowoc	Manitowoc	1																								
Marathon	Athens	1																								
	Marathon County	3																								
	Mosinee	3																								
	Spencer	2																								
	Wausau	5																								
	Everest	2																								
Menominee	Menominee County	8																								
Milwaukee	Bayside	6																								
	Brown Deer	5																								
	Cudahy	1																								
	Fox Point	4																								
	Glendale	79																								
	Greenfield	17																								
	Milwaukee	20																								
	Milwaukee County	4																								
	Oak Creek	19																								
	River Hills	6																								
	Shorewood	1																								
	Wauwatosa	23																								
	West Allis	64																								
	Whitefish Bay	16																								
Outagamie/Waupaca	New London	3																								
Ozaukee	Cedarburg	2																								
	Mequon	19																								
	Thiensville	3																								
Polk	Dresser	1																								
	Polk County	1																								
Portage	Portage County	1																								
	Stevens Point	1																								
Price	Price County	9																								
Racine	Mount Pleasant	6																								
Richland	Richland Center	5																								
Rock	Beloit	14																								
	Evansville	1																								
	Janesville	20																								
	Rock County	24																								

Source: Stop Stick website accessed 5-24-2019

County	Jurisdiction	Total Deployments	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Rusk	Rusk County	4																								
Sauk	Baraboo	3																								
	Spring Green	1																								
Sheboygan	Sheboygan	10																								
	Sheboygan County	1																								
St. Croix	Baldwin	11																								
	Hammond	3																								
	Hudson	6																								
	Somerset	3																								
	St Croix County	24																								
Stephenson	Stephenson County	1																								
Superior	Hayward	1																								
Vernon	Genoa	1																								
Walworth	Darien	2																								
	Delavan	5																								
	East Troy	1																								
	Elkhorn	3																								
	Lake Geneva	1																								
	Linn	2																								
	Walworth County	13																								
	Whitewater	1																								
Washara	Hancock	1																								
	Waushara County	2																								
Washburn	Minong	1																								
Washington/Dodge	Hartford	2																								
Waukesha	Brookfield	3																								
	Brookfield (Town)	10																								
	Chenequa	1																								
	Delafield	6																								
	Dousman	1																								
	Hartland	1																								
	Menomonee Falls	15																								
	Muskego	8																								
	New Berlin	17																								
	Pewaukee	4																								
	Summit	3																								
	Waukesha County	26																								
Waupaca	Waupaca County	6																								
	Weyauwega	2																								
Winnebago	Menasha	2																								
	Neenah	7																								
Total		757																								

Source: Stop Stick website accessed 5-24-2019

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: June 6, 2019

Subject: City-County Carjacking and Reckless Driving Task Force Engineering Solutions Subcommittee – Hot Spots, Drones, Engineering Solutions

This memo is in response to your request for information regarding the following three items:

1. National data related to how police resources are allocated for crash hot spots.
2. Use of drones for monitoring speed and issuing tickets.
3. Best practices for use of engineering solutions to address reckless driving.

Hot Spots

In 2017, City University of New York's John Jay College of Criminal Justice released a report urging additional consideration for policing crash hotspots. The report studied Indianapolis census blocks over a 36-month period from 2011 to 2013. Results indicated that both violent and property crime are significantly related to vehicle crash counts. Spatiotemporal analysis of crime and crash data can identify places for police intervention and improved evaluation. Research also indicated that disorder, such as motor vehicle crashes, concentrates in small geographies. The research showed a consistent correlation between criminality, disorder, deviance, and traffic violations.

Data-Driven Approaches to Crime and Traffic Safety (DDACTS) is the law-enforcement operational model developed by the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and two agencies of the Department of Justice: The Bureau of Justice Assistance and the National Institute of Justice. DDACTS integrates location-based crime and traffic crash data to determine the most effective methods for deploying law enforcement and other resources. The goal of DDACTS is to reduce crime, crashes, and traffic violations.

According to the National Law Enforcement Liaison Program, DDACTS integrates location-based crime and traffic crash data to establish effective and efficient methods

for deploying law enforcement and other partner resources. By using geo-mapping (software programs providing hot spot analysis include ArcGIS, CrimeStat, and CrimeView 9) to identify areas through temporal and spatial analysis, an agency identifies locations with high incidences of both crime and crashes, then deploys targeted traffic enforcement strategies to those hot spots. By saturating locations with highly visible traffic enforcement, the DDACTS agency can play a dual role of fighting crime and reducing traffic crashes and violations. The goal is to reduce the incidence of crime, crashes, traffic violations, and social harm in communities.

DDACTS relies on seven guiding principles for successful implementation:

1. Identify partners and stakeholders.
2. Collect data.
3. Analyze data.
4. Strategize operations plan.
5. Share information and conduct outreach.
6. Monitor, evaluate, and adjust operations.
    a. Implement plan.
    b. Monitor and evaluate.
    c. Readjust plan and re-implement.
7. Determine and report outcomes.

There are six cities using DDACTS protocols, and most of the efforts have generated positive results. In optimal conditions, crime has decreased by as much as 41%, and motor vehicle crashes have been reduced by 24%. The table below shows how DDACTS has impacted crime and traffic safety in six implementation sites.

Site	**Results**	**Software**
Baltimore, MD	1. Crime: Burglaries decreased by 16.6%, robberies decreased by 33.5%, vehicle thefts decreased by 40.9% 2. Crash: Crash-related injuries decreased by 0.2%, total crashes decreased by 1.2%	ArcMap CrimeStat
Nashville, TN	1. Crime: Uniform Crime Reporting Part 1 crime decreased by 13.9%, and DUI arrests increased by 72.3% 2. Crash: Crash-related injuries decreased by 30.8%, fatal crashes	ArcGIS7 CrimeView9

	decreased by 15.6%	
Rochester, NY	1. Crime: Homicides decreased by 36% and the rate of vehicle theft was the lowest. 2. Crash: Crashes reduced by 6% (374 crashes).	ArcGIS Spatial Analyst
Reno, NV	1. Crime: Burglaries decreased by 21%; vehicle thefts decreased by 8%; assaults decreased by 6% 2. Crash: The observed crash number was too small to analyze.	Unknown
Lafourche Parish, LA	1. Crime: DDACT area saw a lower crime rate (1.6%) than in the other adjusted area (2.3%) 2. Crash: Crash-related injuries decreased by 11% - 14.7% in subarea	Unknown
St. Albans, VT	1. Crime: Vandalism decreased by 27%; fraud decreased by 29%, assaults decreased by 37%, and burglaries decreased by 38% 2. Crash: Crash-related injuries and fatalities decreased by 19% and crash-related incidences of property damage only (PDO) decreased by 21%	Unknown

Crime prevention effectiveness is maximized when police focus their resources on micro-units of geography (hot spots). By allocating resources where crime is highly concentrated, strategies can be tailored to the specific types of crime most frequently occurring in those locations. For example, in Minneapolis, the Hot Spots Patrol Experiment used place-based policing. In Jersey City, NJ, the Drug Market Analysis Program Experiment employed a three-step program: 1) identifying and analyzing problems, 2) developing tailored responses, and 3) maintaining crime control gains. This strategy was used to reduce problems at drug hot spots.

Drones

National Policy

According to a November 2014 report by Gregory McNeal for the Brookings Institution, the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 directed that the FAA must integrate unmanned aircraft systems (drones) into the national airspace by September 2015. A number of organizations, including the American Civil Liberties Union (ACLU), have expressed concern over the possibility of drones crowding the skies, some armed with sophisticated surveillance systems. Key sections of the law direct the Secretary of Transportation and the Administrator of the FAA to draft plans, standards, and rules to ensure that drone integration proceeds in a safe and legal manner, allowing for local government and citizen input.

For the previous 25 years, the law has allowed police to fly aircraft over private property, back yards, factory farms, industrial plants, and any other place where the average citizen may fly a Cessna. The police may make observations from the air, just like a person on a commercial flight inbound to an airport can look down and observe the yards of people below and like a utility worker on a pole can look down into an adjacent yard. Police may use such information to get a warrant to go in on foot and investigate what was previously observed from a lawful vantage point.

Critics of drones raise the concern that the government's collection of aerial imagery will enable pervasive surveillance that allows the government to know what all citizens are doing at all points in time, and will allow government officials to view footage years after its collection, revealing intimate details of people's lives. Accordingly, the Brookings Institution recommends that legislators adopt policies that address collection and retention of information in a way that focuses on information that is collected, how it is stored, and how it is accessed, rather than the particular technology used to collect the information.

According to the Brookings Institution, drone legislation is rarely tailored in such a way to prevent the harm of pervasive surveillance, but, rather, is aimed at use of the technology of drones, themselves, while still allowing use of sophisticated pervasive surveillance technologies from manned aircraft, while disallowing benign use of drones for mundane tasks like accident and crime scene documentation or monitoring of industrial pollution and other environmental harms.

In 2014, Wisconsin passed s. 175.55, Wis. Stats., to address the use of drones by law enforcement. The restricted use of drones statute provides that no law enforcement agency may use a drone to gather evidence or other information in a criminal investigation from a place where an individual has a reasonable expectation of privacy without first obtaining a search warrant. The legislation does not apply to the use of a drone in a public place or to assist in an active search and rescue operation, to locate an escaped prisoner, to surveil a place for the purpose of executing an arrest warrant, or if law enforcement has a reasonable suspicion to believe the use of a drone is necessary to prevent imminent danger to an individual or to prevent imminent destruction of evidence.

Those concerned with privacy contend that the government will be able to engage in widespread pervasive surveillance because drones are cheaper to operate than their manned counterparts. Current technology has not yet reached a level of sophistication to meet those concerns; however, technology continues to evolve.

Accordingly, the Brookings Institution makes the following recommendations with respect to tailoring legislation to balance privacy concerns with government interests in effectively using drone technology. Legislators should do the following:

1. Follow a property rights approach to aerial surveillance. This approach provides landowners with the right to exclude aircraft, persons, and other objects from a column of airspace extending from the surface of their land up to 350 feet above ground level. Such an approach may solve most public and private harms associated with drones.
2. Craft simple, duration-based surveillance legislation that will limit the aggregate amount of time the government may surveil a specific individual. Such legislation can address the potential harm of persistent surveillance, a harm that is capable of being committed by manned and unmanned aircraft.
3. Adopt data retention procedures that require heightened levels of suspicion and increased procedural protections for accessing stored data gathered by aerial surveillance. After a legislatively determined period of time, all stored data should be deleted.
4. Enact transparency and accountability measures, requiring government agencies to publish on a regular basis information about the use of aerial surveillance devices (both manned and unmanned).
5. Recognize that technology such as geofencing and auto-redaction, may make aerial surveillance by drones more protective of privacy than human surveillance.

According to research by the Center for the Study of the Drone at Bard College, as of May 2018, at least 910 state and local public safety agencies have purchased drones (based on Federal Aviation Administration and other records). Of those, 599 are law enforcement agencies. The survey identified the make and model of drones owned by 627 of the 910 agencies.

Drones have been used in pilot programs in various jurisdictions, and some communities have created policies for drone use. A summary of those programs is provided below.

California

The California Highway Patrol's Central Division Air Operations unit uses regular aircraft equipped with the same camera technology used by the military on its predator drones to assist with crimes in progress, such as searching for suspects on foot and in cars. The camera has a mapping system that identifies street names integrated over the image, can zoom in on a suspect or vehicle from 6,000 feet in the air and three miles away, and uses thermal imaging to detect heat sources. The camera is mounted on the plane's belly pod and works extremely well during nighttime because it can even show footprints from the heat trail left by a suspect running.

When patrolling in a given area, the flight officer monitors the traffic of all the agencies in the area to assist wherever needed. For example, the unit has spotted vehicles racing on a country road and notified ground units, which were then able to apprehend suspects. In 2016, the unit assisted with 216 arrests, 13 pursuits, and 472 searches. The unit has also been used to catch speeders, although that use is rare.

Chula Vista, CA

In December 2015, the Chula Vista Police Department formed the Unmanned Aerial Systems Committee to study the use of technology in its public safety operations. Committee members met dozens of times to study best practices, policies, and procedures regarding the use of drone technology in law enforcement. The committee's research efforts focused on addressing concerns of public trust, civil liberties, and the public's right to privacy. Prior to implementing use of drones, the Police Department discussed its plan in the media, public forums, and information posted to the Police Department's website. There were numerous points of contact for public feedback. Out of respect for civil liberties and personal privacy, the Police Department developed a

drone policy that specifically prohibits the use of drone technology for general surveillance or general patrol operations.

The program was launched in the summer of 2017 to support tactical operations by first responders. Drones are used for critical incidents, such as missing persons, crime scenes, traffic collisions, wildfires, or special events. The use of drones by government agencies is subject to federal and state laws as well as the agency's policies.

In June, 2018, the Chula Vista Police Department was selected by the Federal Aviation Administration (FAA0 as one of ten drone-testing sites in the United States that are part of the Unmanned Aircraft System Integration Pilot Program. The program was developed to help FAA create regulations when it comes to low-flying drone use by companies and cities. Missions include international commerce and border security, which involves traffic management and identification of vehicles and vehicle-to-vehicle communications as well as public safety, which involves traffic collisions.

On March 15, 2019, the FAA granted Chula Vista a Certificate of Authorization to fly drones beyond the visual line of sight, which allows police officers to fly drones without maintaining direct eye contact with drones. The FAA granted the Palm Beach Police Department in Florida similar permission to fly beyond the visual line of sight. Since 2018, drones have responded to 328 emergency calls and contributed to 45 arrests in Chula Vista. Drone deployment also negated the use of 38 officers, which allowed them to respond to other emergencies.

Regulations still require the Police Department to have a spotter looking at the airspace the drones are flying in to protect them from obstacles, such as incoming aircraft or light poles. Police data shows that drones respond to emergency calls in less than 2 minutes, which is faster than the department's current response time of more than 6 ½ minutes. Drones help police determine how to respond because live video streams show them the situations they are about to approach.

Grand Junction, CO

The Mesa County Sheriff's Office has been using drones for four years. One is a small helicopter, which can stay airborne for 15 minutes. The other is a fixed-wing aircraft, which can remain aloft for about an hour. The drones are deployed approximately two times per month. The fixed-wing aircraft has been used for search-and-rescue missions, and the helicopter has been used to take aerial photographs at crime and accident

scenes. Photographing accident scenes helps officers determine what occurred by viewing the debris field and skid marks.

Drones are not, however, used for every fender bender. One researcher states it would not be fiscally responsible to use drones for this purpose, as they cost from $25,000 to $175,000. Operating a drone costs approximately $25 per hour.

In locations where aircraft are involved in catching speeders in Mesa County, marks are painted one-quarter mile apart on the side of the road. Officers in the air start a timer when the vehicle reaches the first mark and stop it when it passes the second mark. Then they consult a chart to determine the driver's speed. If the driver has been speeding, they radio a unit on the ground, which stops the vehicle and writes a ticket. Drones cannot get high enough to see the start and stop marks. Additionally, they are not useful for surveillance because the battery life curtails their flight times.

Houston, GA

The Houston County Sheriff's Office debuted a drone in May 2019. The Sheriff stated the drone can help locate missing children and fleeing suspects from traffic stops. Deputies who fly the drone must log when and for what purpose the drone is flown, and a sheriff's incident report is filed for each drone flight.

For traffic stops, the drone would be used, for example, if a suspect ran from the scene. The drone was used before its unveiling. In April, it was used to help search for a suspect in a killing in a wooded area and in searching a capsized boat. The drone may also be used by the Fire Department and surrounding agencies in the County.

Ohio

Ohio State University led a pilot program that used drones for roadway and traffic monitoring along a 35-mile highway stretch between Dublin and East Liberty. Tracking data is sent to the Ohio Department of Transportation's Traffic Management Center to complement data from existing systems. Drones may help spot traffic-disruptions, such as a crash or washed-out road, sooner. The pilot program will also help researchers see what drones can do while finding a way to safely integrate them into crowded airspace. The three-year research project started July 1, 2018 and is partially funded by DriveOhio, which is interested in how drone oversight could help its efforts to boost self-driving and connected cars.

Orange County, CA

The Orange County Sheriff's Department is scheduled to start its drone program in May and June, 2019. The department will start with 5 drones and 24 pilots, 14 of which are civilians. The department's aviation support unit, which controls 5 helicopters, will administer the program. The department will continue to use its other aircraft, and drones will allow for better efficiency in certain circumstances. The department requires drone pilots to undergo a training program and background check that takes approximately 4 to 6 weeks. Civilians are subject to the same standards as sworn officers.

The sheriff's department will use drones when responding to hazardous material spills, bomb squad missions, traffic collisions, search and rescue missions, hostage situations, while serving search warrants, disaster response and recovery, for fire response and prevention, and inspecting county property and facilities. The program will be regulated by the FAA's rules, which address commercial and personal drone use, and it will be accredited by the Public Safety Aviation Commission, which develops standards of accreditation for operations performed by public safety aviation units. The commission works with the National Transportation Safety Board.

The sheriff stated following the FAA's rule book, and accreditation will ensure a higher degree of safety compared to a certification of authorization, which can be used by law enforcement agencies when establishing drone programs. The department addressed privacy concerns in its policy honoring residents' reasonable expectation of privacy. The policy states that a drone may be used "when there is probable cause to believe that (1) the drone may record images of a place, thing, condition or event, and (2) that those images would be relevant in proving that a certain felony had occurred or is occurring, or that a particular person committed or is committing a certain felony and use of the drone does not infringe upon the reasonable expectation of privacy.

Critics are concerned that the policy does not provide for limitation on the use of drones. Additionally, the policy does not address plans to maintain the footage captured by drones.

Polk County, FL

The Polk County Sheriff's Office has one of the biggest drone fleets in law enforcement, with 29 drones. They are able to fly 24 hours a day, 7 days a week and are used to track suspects. Drones used during the day cost approximately $1,600. Night drones

cost approximately $27,000. The Sheriff's Office uses drones during emergencies, and are required to obtain a court order to use them for any other purpose.

Virginia

Virginia changed its law in 2015 to allow law enforcement to use drones. However, the law requires a waiver from the Federal Aviation Administration to monitor traffic conditions. Drones cannot be flown over crowds or moving vehicles without permission from the FAA. The state police do not currently have plans to do so, due to funding. There have been discussions regarding whether there is a benefit to the public, but use of the technology would likely be limited to search and rescue operations.

Engineering Solutions

Tens of thousands of drivers and vehicle occupants die in traffic crashes each year, along with more than 4,000 pedestrians, who are killed by motor vehicles. A 2011 National Highway Traffic Safety Administration (NHTSA) report revealed that pedestrian deaths accounted for 12% of all traffic fatalities and 3% of all people injured in traffic crashes in 2009. When measured per miles drive, the death rate on residential streets is more than twice the highway death rate.

Communities and traffic engineers have developed and employed several types of traffic-calming measures to encourage safe speeds and to increase driver awareness. Summarized below are specific traffic-calming tools, programs that have been created, and community campaigns.

TRAFFIC CALMING TOOLS

Gateway Treatment

A gateway device marks a threshold, such as increased density, where lower speeds are required from drivers. Gateways rely on highly visible markings to capture driver attention, such as the following:

- Large signs conveying the message that it is an entry to a location where pedestrians and other vulnerable road users are about to be encountered in greater numbers.
- Pavement markings to narrow the perceived width of the roadway, including painted central medians for a short distance.

- Large speed limit signs showing the lower speed limit that applies.
- Other pavement markings to indicate clearly that a threshold is being crossed into a different environment.
- Architectural treatments, such as a picket fence or gate, earth mounds, and rock walls.

Markings can also be used to indicate an approach to a pedestrian crossing or other changed traffic conditions where drivers should slow their vehicles in the interest of safety.

Pavement Narrowing

Wider roads invite drivers to travel at higher speeds. Pavement narrowing and engineering treatments at curves tend to slow traffic speeds. Narrowing the roadway for motorized traffic assists in speed reduction. This can be done with painted markings in the roads, creating an optical illusion.

Pedestrian Traffic Signals

Pedestrian traffic signals are installed at intersections or crosswalks to allow pedestrians an opportunity to cross the street safely. Pedestrian activated traffic lights inform pedestrians with a “WALK” or “DON’T WALK” message when it is safe to cross and may include countdown signals. Rapid flashing rectangular beacons, at crosswalks, alert motorists to pedestrians who have manually activated the beacon.

Radar Speed Signs

Radar speed signs (driver feedback signs) alert drivers to their actual speed, remind them of the speed limit, and are scientifically proven to reduce speeding.

Roundabouts

Roundabouts require traffic to deviate from a straight path and slow down to undertake the maneuver. Roundabouts provide a combination of reduced speeds and a decrease in right-angle side-impact crashes due to the geometry of the roundabout, which also results in reduced crash severity. Effective roundabout installation also relies on careful design of approach islands, clearly visible signs and markings, and effective public information campaigns about how they should be navigated by drivers. Care must be taken, however, in addressing pedestrian and bicycle navigation of roundabouts

because drivers tend to concentrate more on the task of navigating the roundabout than watching for pedestrians and cyclists.

Rumble Strips

Lengthy sections of raised materials, sometimes called rumble strips, provide audio and tactile signals when driving over them, which can lower traffic speed.

School Zone Signage and Street Markings

Well-placed signs and pavement markings provide critical information to drivers and students within a school zone. Speed limit signs announce school zone speed limits, which typically range from 15 to 25 mph. School zone advance warning and end school zone signs alert drivers that they are entering or leaving the reduced speed limit area. School crossing signs notify drivers of crosswalks. Flashers may be installed at speed limit signs or crosswalks to call attention to critical traffic points.

An example of an effective educational sign is the following:

Vehicle Speed	Chance of Fatality
40 MPH	80%
30 MPH	40%
25 MPH	20%
20 MPH	5%

Separation of Vulnerable Users

Pedestrians have twice the risk of injury when they are not separated from motor vehicle traffic. Pedestrian fencing is useful for improving road safety of pedestrians by directing larger flows of pedestrians away from random crossing locations to safer crossing points, which may be equipped with treatments such as speed humps or raised platforms in the roadway. Refuge islands and medians can assist pedestrians in crossing the road by allowing a staged crossing and simplifying decision-making. A curb extension can improve pedestrian safety by reducing the crossing distance and the area and time in which the pedestrian is at risk. This is particularly helpful for older and disabled pedestrians who may have difficulty choosing a safe gap in traffic at a conventional crossing point.

Networks of separate pedestrian and bicycle routes connecting to a public transportation system can be crated with sections of footpaths or bicycle paths separate from roads, sections running alongside roads, and particular attention paid to safe crossings at junctions.

Speed Humps and Raised Platforms at Pedestrian Crossings and Intersections

Single raised structures in the roadway (such as speed humps) are effective, especially in urban road environments. Speed humps force drivers to slow down before intersections or pedestrian crossings. A speed hump or raised platform is usually constructed of bituminous concrete, cement concrete, or rubber. Its vertical cross section can be semi-circular or parabolic. Its dimensions should be designed to ensure the safety of vehicles crossing it. At each end of the hump, near the curb, the treatment should ensure that road drainage is not impeded. The road should be clearly marked with signs to warn drivers, and the hump should be painted with reflective markings.

Trapezoidal Humps

The concrete trapezoidal hump is 10 cm high with a ramp on each side that is 1 m long with a corresponding gradient of 1:10. The length of the flat area ranges from 4 m to 7 m, depending on the type of traffic traveling the road. The ramps can be extended to 1.7 m or 2.5 m, depending on the desired vehicle speed. Painted black and yellow stripes on ramps and hump signs ahead of humps warn drivers to lower their speed.

PROGRAMS

Bait Cars

Placing cars in plain view can provide a target for police to observe and catch offenders in the act. Maintaining cars under continuous surveillance is labor-intensive, although technological innovations such as GPS tracking and cars that automatically broadcast to patrol cars when they are broken into have made this easier. Some research has suggested that this type of program might be effective in reducing car crime. This response is more effective when it is known what type of car is most often targeted for theft, or when a particular area is experiencing a very high volume of thefts from cars.

In British Columbia, Canada, police officials have formed a task force of seven provincial and local police agencies that use bait cars which, when stolen, immediately notify dispatchers and transmit their position via GPS tracking. Once police are in place

behind the car, the engine is disabled with the click of a mouse button, allowing apprehension without the concern of a pursuit situation developing.

Centipede Enforcement

Six or more speed-enforcement cars are placed approximately two miles apart to stop speeding drivers who think it is safe to speed up after passing a police officer who has pulled another driver over. Centipede enforcement is useful for apprehending aggressive drivers by distinguishing them from motorists who maintain lower speeds after they pass the initial visible enforcement officer.

Crossing Guards

Crossing guards serve an integral role in school zone safety. They help pedestrians and bicycles cross roadways and remind motorists of their presence. And, just as importantly, they serve as excellent role models for the behaviors required to safely cross the street. From a simple pause to look left, right, and left again to reminding drivers of their role in safety, crossing guards model best practices for students and adults alike.

The following factors must be considered when placing crossing guards in a school zone: the students who will be crossing; the width of the roadway and the number of lanes which will be crossed; the presence of traffic signals, signs and pavement markings; and the speed and volume of traffic on the roadway.

Portable or stationary driver feedback signs, used in conjunction with crossing guards, provide a visual enforcement measure to slow traffic at the most critical path where children are crossing the street. Strategically-placed driver feedback signs can serve as triggers—stimulating drivers to transition from autopilot to attentive. Portable signs can be placed at the side of the road, or in the center line if there is enough room, to assist in slowing traffic prior to the crossing guard entering the crosswalk.

Enforcement Crackdowns

Aggressive driving enforcement crackdowns, properly timed and executed, can be effective. For example, saturation police patrols on congested streets or around aggressive driving hot spots focus enforcement geographically. In addition to enforcing actual aggressive driving violations, enforcing precursors or actions that commonly trigger aggressive driving—such as blocking intersections during rush hour, failing to

yield the right-of-way, and abruptly changing lanes—can also help reduce aggressive driving.

High-Visibility Enforcement

High-visibility enforcement has the effect of calming the driving behavior of a greater number of motorists than those police actually stop. Using marked vehicles can increase visibility, as well as adding magnetic "aggressive driving patrol" signs to enforcement vehicles.

Keep Kids Alive, Drive 25

The Keep Kids Alive, Drive 25 campaign develops traffic safety initiatives in conjunction with law enforcement agencies, neighborhood and civic organizations, city services agencies, and businesses. Communities begin by assembling a traffic safety task force comprised of neighborhood residents, area school officials, businesses in or near the target neighborhood, traffic engineers, law enforcement, and sometimes even city council members. The purpose of the task force is to look at what needs to be done to engage and educate the community.

Most task forces identify speeding and running red lights or stop signs as the most common infractions observed in residential neighborhoods. Results from a Safe Kids-FedEx study showed that less than 30 percent of observed drivers braked correctly at stop signs. The Keep Kids Alive, Drive 25 program implements awareness campaigns that feature messages such as , “Stop. Take 3 to See,” “Be Aware. Drive with Care,” and “It’s Not a Race! Create Space.” Follow-up studies suggest drivers take these messages to heart. In one California pilot project, neighbors placed signs in their yards reminding drivers to slow down, which resulted in a 6 mile-per-hour average speed reduction. In Tucson, AZ, residents, local Boy Scouts, and a public utility company collaborated to fund and launch a trash container decal campaign that resulted in a residential speed decrease to an average of 24 miles per hour.

Public Information Campaigns

Stigmatizing aggressive driving through public information campaigns can be effective. The most promising education approach for educating antisocial drivers involves stigmatizing aggressive driving behaviors in much the same way advertising campaigns transformed social perceptions of drunken driving. Targeted campaigns are more effective than general campaigns.

Sitting in Unmarked Cars

One tactic that has been employed in some communities is having police officers sit in unmarked cars and call ahead the speed and license plates of speeding vehicles to marked cars. The marked cars then pull over the speeding drivers and issue tickets.

Vision Zero

Vision Zero began as an initiative of the Swedish government in 1997. In urban areas, the government built separated bike lanes, lowered speed limits, and created pedestrian-only zones. By 2017, Sweden had one of the lowest traffic fatality rates in the world. Since its inception, nearly two dozen U.S. cities have adopted Vision Zero, including New York City, Los Angeles, Chicago, Seattle, Pittsburgh, and Portland (OR). Emphasis on street design is one of the hallmarks of the program. Instead of attempting to eliminate all crashes, the program's plan is to lessen the severity of crashes.

Three core functions make up the Vison Zero design standard: (1) discourage speeding by design, (2) encourage walking, biking, and/or public transportation use, and (3) provide accessibility to all, regardless of age or physical ability. There are 10 essential elements:

1. ADA accessibility. Design sidewalks to meet full ADA compliance and enable pedestrian access by people of all abilities.
2. Public amenities. Install amenities like wayfinding, benches, bus stops and shelters, greenery, and bioswales to enhance the public realm.
3. Protected bike lanes. Install Class 1 Protected Bicycle Paths to reduce speeding and protect people on bicycles.
4. Narrow vehicle lanes. Reduce road lane width to 10 or 10.5 feet to reduce speeding – the driving behavior most likely to injure or kill.
5. Pedestrian islands. Install pedestrian islands of at least 5 feet on all 2-way multilane streets to provide safe harbors for people walking. Crosswalks leading to and from them should have high visibility.
6. Wide sidewalks. Expand sidewalks to offer no less than 8 feet of unobstructed width in order to encourage walking and reduce speeding.
7. Dedicated mass transit facilities. Prioritize mass transit riders and efficient surface transit operations to encourage public transit use.

8. Signal-protected pedestrian crossings. Give pedestrians exclusive crossing time to reduce turning conflicts. Consider hardened centerlines and slow-turn wedges to calm turning traffic.
9. Dedicated unloading zone. Make commercial curb regulation business-friendly with dedicated unloading zones, which reduce double-parking and the disruption it causes.
10. Signal retiming. Retime traffic signals for a 25 mph speed limit.

By employing the core functions and essential elements of Vision Zero, cities have employed the following strategies in street design:

1. Reduce the width of travel lanes. Wide lanes send a message to drivers to speed up.
2. Make crosswalks and bike lanes more visible. Elevate them above street grade, mark them with bright, wide swaths of paint.
3. Separate bike lanes on busy streets. Protected bikes lanes increase bike commuting.
4. Shorten crosswalks. A shorter trip across an intersection is a safer one. This is done by extending the sidewalk out into the intersection (known as a curb extension or bump-out).
5. Add raised median islands in the middle of busy streets. This creates a refuge for crossing pedestrians and has been shown to reduce traffic accidents by 56%.
6. Give pedestrians and bicyclists a head start at traffic lights. Five seconds will allow pedestrians and bicyclists to enter the intersection first and be more visible to motorists.
7. Ban right-on-red turns at busy intersections. Drivers, busy watching for other cars, often do not see pedestrians and bicyclists crossing the street on green lights.
8. Keep the turning radius 90 degrees at intersections. Rounded street corners tempt drivers to turn without stopping or looking for walkers and bikers.
9. Install traffic circles, roundabouts, speed humps, raised crosswalks, bike lanes, and other traffic-calming devices, which help motorists drive safely and be more aware of pedestrians and bicyclists.
10. Convert one-way streets to two-way, encouraging safer, slower driving.
11. Pay close attention to road designs at bus stops. Pedestrians often rush across the street to catch a bus, not paying attention to oncoming traffic.
12. Create pedestrian streets, bridges, and underpasses in busy areas where other measures are not feasible. These help minimize conflict with traffic and make walking and biking more convenient.

13. Strictly enforce laws against speeding, failure to yield to pedestrians, drunk driving, and reckless driving. Injuring or killing people with a car is no less tragic than doing it with a gun.
14. Install red-light cameras and other means of photo enforcement. Washington, D.C., now uses cameras to detect and fine drivers who fail to yield right-of-way to pedestrians as well as those who speed or run red lights.
15. Establish safe routes to school. This promotes walking and biking to school.
16. Set up training programs about pedestrian safety for traffic engineers, transportation planners, police, city officials, citizens, and children.

COMMUNITY CAMPAIGNS

Massachusetts

The Massachusetts State Police use an aggressive driving team of troopers who are assigned to the team for one year. The team uses marked and unmarked patrol vehicles as well as unmarked or non-traditional vehicles, typically seized from drug or criminal cases. They equip vehicles with video cameras, radar units, and emergency lights. A uniformed officer assigned to the unmarked vehicle works in conjunction with two more marked patrol vehicles. The unmarked or non-traditional vehicles work in areas that have been identified as aggressive driving problem areas, such as areas of high incidences of crashes, congestion, or fatalities. When they observe a violation, the officer in the unmarked or non-traditional vehicle positions the vehicle so the driving behavior can be videotaped. The officer gives the marked patrol vehicle the location. The unmarked vehicle maintains contact with the violator until the marked unit is behind the violator and a stop is initiated. The officer in the unmarked or non-traditional vehicle may also initiate a traffic stop if the driving behavior is egregious. When the unmarked vehicle is following an aggressive driver, the deck lights are activated, which provides other surrounding drivers with notice to slow down and avoid collision. The use of videotapes has also decreased court time for troopers. Boxing-in a violator until a marked police vehicle can make the traffic stop allows the State Police to maintain control of the stop. The concern of the public of stopping for an unmarked police vehicle is reduced because a marked law enforcement vehicle makes the traffic stop.

Seattle (WA)

To implement traffic-calming measures in Seattle, residents with traffic complaints are asked to complete a request-for-service application that identifies the location and nature of the traffic problem Applicants must select the calming devices or services

desired from a list of options that includes speed humps and cushions, radar speed signs, traffic circles, and speed monitoring. If a complaint is suitable for consideration, the applicant is invited to enroll in the Seattle Traffic Calming Program. A minimum of 4 neighbors must sign the enrollment form. Applicants are encouraged to attend a regularly-scheduled neighborhood traffic safety meeting to discuss the traffic calming options and to be trained to use a radar speed gun.

Neighborhood speed monitoring is the next step in the process. Resident volunteers use the radar device to collect and document vehicle speeds on their street. City staff sends letters to drivers, whose speed was measured at more than 30 miles per hour. Staff reviews data from the radar device and uses it to determine the approximate traffic volume and to calculate the speed at which 85% of drivers are traveling. Based on these findings, the department works with residents to develop appropriate community-oriented traffic-calming measures, which may include signage, parking management, driver awareness campaigns, and other tools.

One popular measure is the use of street murals. Street murals send the message to drivers that residents take pride in their neighborhood, which, in turn, results in drivers responding by taking care when driving through the neighborhoods. Seattle's "street art" residential safe driving program is being replicated nationwide.

St. Petersburg, FL

The St. Petersburg Police Department developed a program called "Where's Jockers?" It was based on the children's book, *Where's Waldo?* The children's book has several pages of thousands of faces, and the reader is supposed to find Waldo. Patrol Officer Mike Jockers developed and initiated a program whereby he was equipped with a radar gun and hand-held radio and sat in a variety of non-traditional city vehicles to observe traffic and call ahead to marked patrol vehicles to take enforcement action. Locations he used included riding lawn mowers, bus benches, and road construction vehicles. Initially, the Police Department did not advise the media of the special enforcement efforts. The effort soon gained media attention, however, which raised public awareness. By working with the media, the Police Department was able to employ education about aggressive driving as well as information about enforcement measures.

LRB174326

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

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To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: June 4, 2019

Subject: City-County Carjacking and Reckless Driving Task Force Education and Prevention Subcommittee – National Best Practices

This memo is in response to your request for information regarding national best practices for education and prevention of reckless driving and carjacking.

RECKLESS DRIVING

In 2007, the National Institutes of Health (NIH) funded a report released by the National Center for Biotechnology Information, U.S. National Library of Medicine and authored by the National Research Council, Institute of Medicine, and Transportation Research Board Program Committee for a Workshop on Contributions from the Behavioral and Social Sciences in Reducing and Preventing Teen Motor Crashes.

The NIH report provided strategies for improving road safety, placing particular focus on teenage drivers as those who cause the greatest proportion of reckless driving-related crashes. The strategies were placed in two categories: driver education and the legal structure of testing and licensure.

Recommendations for improving driver education programs include addressing safety skills in new ways, by addressing teens' tendency toward risk-taking and overconfidence and by increasing parental involvement. Programs could make a distinction between developing the manual skills that are necessary to operate complex vehicles and acquiring the expertise and judgment to recognize hazards and to exercise caution when driving under risky conditions. The National Highway Traffic Safety Administration (NHTSA) is reviewing opportunities for improvement and is considering new curriculum guidelines as well as standards for teachers. Additionally, NHTSA is developing a national and international review to identify instructional tools, training methods, and curricula that are consistent with best practices in selected states and other countries.

Many states have adopted some form of graduated driver licensing, which is a means of slowing down the process of obtaining a license, controlling the circumstances under which teens drive while they are learning, and increasing their exposure to higher risk conditions, such as nighttime driving and driving with teen passengers, in a controlled way. The process has three phases: (1) extended supervised practice for teens possessing learners' permits, (2) a provisional licensure stage during which restrictions are imposed, and (3) full licensure. The most effective legislation has at least five of the following seven elements:

- A minimum age of 16 for the learner's permit.
- A restriction requiring a young driver to have a learner's permit for at least 6 months.
- A requirement for 50 to 100 hours of supervised driving.
- A minimum age of 17 for an intermediate stage license.
- Restrictions on driving at night.
- A limit on the number of teenage passengers allowed in the car.
- A minimum age of 18 for a full-privilege license.

No state has adopted all of the features of graduated licensing that are viewed as constituting best practice. One study has shown an 11% decrease in fatal crashes among 16-year-olds in states that have some form of graduated driver licensing, with larger decreases occurring in states that have the most comprehensive programs. In Wisconsin, there was a 14% reduction in fatal crashes after adoption of graduated driver licensing. However, these programs would be more effective if enforcement by parents and law enforcement were more stringent. Graduated driver licensing depends on parents to enforce many of its provisions, both in the form of supervising the required number of driving hours and in monitoring adherence to passenger and night-driving restrictions.

A program called Checkpoints was developed by researchers at the National Institute of Child Health and Human Development. The program provides a structure in which parents can work with their teens to reduce risk conditions during the first 12 months of driving. The program uses a combination of tools, including persuasive communications (videos and newsletters), written agreements between parents and children, and limits on high-risk driving privileges. The written agreement establishes a "checkpoint" at one month. At that point, parents and teens assess the new drivers' comfort level with driving on local roads in different situations. In the first checkpoint, these include situations in daylight, when roads are dry, and with no other passenger in the car. After each additional checkpoint, the parents agree to remove restrictions as long as the

teens demonstrate good driving judgment. In addition, the parents commit to providing the teens rides as needed until all of the checkpoints are achieved.

The program is based on the goals of changing parents' and teens' perception of their risk as well as their expectations regarding reasonable limitations in order to decrease risky driving, traffic violations, and crashes. Research shows that in families where parents impose stricter limits, teens are less likely to exhibit risky driving behavior.

The role of public health agencies in addressing the risks of teen driving, as well as opportunities to promote responsible driving practices were also identified in the NIH report as deserving further attention. Driving is a public health issue, and it should also be addressed in the healthcare setting. Driving safety is not a prominent topic during medical students' training in pediatrics. However, healthcare providers should be prepared to provide counseling about alcohol, drugs, and automobiles in their examinations of adolescent patients. In particular, specific threats to adolescent health include the risk of having passengers in the car and night driving, and healthcare professionals should familiarize themselves with their states' graduated driver licensing laws. Additionally, providers should be prepared to discuss whether patients have conditions that may increase driving risk, such as attention deficit hyperactivity disorder, type 1 diabetes, epilepsy, or substance abuse. Teens with these conditions should be counseled about how their diagnosis may affect driving.

The U.S. Department of Health and Human Services National Institutes of Health, Eunice Kennedy Shriver National Institute of Child Health and Human Development provides the following information regarding road safety. Some strategies are designed specifically for young drivers to limit exposure to risk while they are developing good judgment and safe driving habits.

Road Safety Strategies Specific for Teenage Drivers:

- Graduated licensing laws
- Checkpoints program

Road Safety Strategies for All Drivers:

- Preventing distracted driving
- Countering speeding and risky driving
- Use of safety belts
- Preventing drinking and driving

Inattention is a leading cause of crashes. Anything that takes a driver's attention from the road, including dialing, texting, and adjusting a cell phone and any other electronic device, increases the risk of a car crash. In addition to laws regulating the use of cell phones and other electronic devices, improvements to the driving environment can reduce crash rates. Public information campaigns on enforcement are effective as well.

Public information campaigns may include safety tips for lawful drivers to follow that can help them avoid collisions with reckless drivers. Some of those tips include the following:

- Always steer clear of any cars that look dangerous. Upon seeing a car weaving in and out of traffic, tailgating too closely, or speeding excessively, move over and get out of the way.
- Report dangerous drivers. Call local police upon seeing a driver operating his or her vehicle recklessly. If the vehicle has an employer's phone number on it, call that number to report the vehicle.
- Always wear seat belts and encourage passengers to do the same.
- Plan ahead, leave early, and allow plenty of time to reach the destination.
- Never drive distracted. Do not talk, text, or eat while driving, and put passengers in charge of the radio and navigation.
- Stay alert and aware, and never drive tired or under the influence of a drug or alcohol.

Another strategy is to stage a mock car crash with first responders for high school students. In some municipalities, the Fire Department used high school students as actors in a demonstration showing a deadly car crash caused by reckless driving. The Fire Department's messaging includes the concept that no text message or phone call is so important that it cannot wait for the driver to come to a complete stop.

A 2018 research paper in the Journal of Social Marketing by Linda Lemarie, et. al., titled "Reckless Driving Promotion and Prevention: Priming Effects" discusses the ways reckless driving in action movies affects young male drivers' perception of reckless drivers and proposes a targeting social marketing strategy to counteract this effect. Social marketers working in the field of road safety can improve the efficacy of their social marketing programs by taking into consideration the positive image of reckless drivers promoted by the media. Accordingly, practitioners should develop interventions and targeted messages that help young drivers cultivate a less idealized and masculine social image of reckless drivers.

A 2008 Harvard Medical School, Mental Health Letter titled “Preventing Driving Accidents Involving Teenagers” discusses behavioral strategies that parents can use to reduce their children’s risk of injury or death. The paper discusses the fact that the prefrontal cortex, which contains the neural mechanisms of self-control, is one of the last parts of the brain to mature. As a result, teenagers are prone to risk-taking, impulsive behavior, and sensation-seeking – all of which can lead to reckless driving behaviors. The Institute of Medicine convened a panel of experts to identify behavioral and cognitive strategies to prevent motor vehicle accidents involving teenagers. The experts’ findings included the following:

- Specialized driver education classes that emphasize practice in skid control and other emergency maneuvers may actually increase risk of crashes, especially for young men, possibly because of excess confidence or a desire to “show off” skills for friends.
- Parents who provide supervised driving may restrict practice time to relatively safe conditions, such as driving during the day on a side road, rather than exposing novice drivers to more complicated situations, such as driving at night or in snow. Parents may also inadvertently act as co-drivers, by helping to watch for other cars and checking “blind spots.” As a result, teenagers may not acquire the skills they need to drive by themselves.
- Research shows that only by driving alone do teenagers develop the complex skills they need to be safe on the road.
- Research suggests it may be better for parents to impose strict limits on risk conditions because teenagers are less likely to become risky drivers or get involved in motor vehicle crashes in the first year after earning their licenses.
- Teenagers under 18 years of age should not drive past 9 p.m., regardless of what state law says.
- Even one teenage passenger increases risk of a crash, but the risk increases with each additional passenger. Teenagers should drive alone until age 18.
- Teenagers are less likely than people of other age groups to use seat belts while driving, which increases fatality in crashes.
- Sleep deprivation in teenage drivers contributes to lack of attention, impaired judgment, greater risk-taking, more susceptibility to alcohol intoxication, and increased aggression and impulsivity.
- Teenagers and parents should review the rules of road together. It helps clarify rules, expectations, and conditions for earning increased driving privileges by writing them down.

A 2018 Centers for Disease Control and Prevention paper, “Teen Drivers: Get the Facts” emphasizes the importance of making young drivers aware of the leading causes of teen crashes, which are as follows:

- Driver inexperience
- Driving with teen passengers
- Nighttime driving
- Not using seat belts
- Distracted driving
- Drowsy driving
- Reckless driving
- Impaired driving

CARJACKING

Several articles discussed strategies for education and prevention of carjacking. Those strategies are summarized below.

License Plate Readers

A January 8, 2019, article by Matt Masterson, “Chicago Police Adding 200 Plate Reader Vehicles to Help Combat Carjackings,” stated that the Chicago Police Department announced an expanded rollout of license plate reader-equipped squad vehicles in an effort to prevent carjackings and recover stolen vehicles. The department’s goal is to bring the total of plate readers to 244. At full deployment, each of the city’s 25 police districts will have at least 6 license plate reader vehicles. The readers can match license plates against a list of stolen vehicles and vehicles involved in crimes. The lists are updated daily by the City’s Office Emergency Management and Communications. If the system identifies a stolen vehicle, police officers are automatically alerted so they can investigate.

Public Service Announcements

Teenagers with Running Rebels in Milwaukee created a public service announcement (PSA), which they published on social media, addressing carjacking. They filmed the PSA near 13th and Fond du Lac Avenue. People taking part in the project say it is about sending a message for teens to think about future consequences for their actions.

Information Campaigns

Public information campaigns are useful in creating awareness and educating the public. Campaigns can include information on the following topics included in the U.S. Department of Transportation National Highway Traffic Safety Administration Report: Vehicle Theft Prevention.

Top 10 stolen vehicles in 2017:

Honda Civic
Honda Accord
Chevrolet Silverado
Toyota Camry
Ford F150
Nissan Altima
Toyota Corolla
Ford F250
Ford Ecoline
Honda CR-V

NHTSA makes the following recommendations to residents:

- Take your vehicle's key; do not leave it in your vehicle.
- Close and lock all windows and doors when you park.
- Park in well-lit areas, if possible.
- Never leave valuables in your vehicle, especially if they can be seen from outside the vehicle.

Some of the most popular vehicle parts or valuable items stolen from vehicles include:

- Doors
- Engines
- Transmissions
- Air bags
- Radios
- GPS units
- Cell phones
- iPads
- Laptops
- Purses

Technology can deter thieves or assist in locating vehicles. Audible and visible devices, such as a horn alarm, deter theft by bringing attention to an unauthorized attempt to seal or enter a vehicle. A visible device, such as a steering-wheel lock also serves as a

deterrent. Immobilizing devices prevent thieves from bypassing vehicles' ignition systems and hot-wiring the vehicles. Some incorporate computer chips in ignition keys, which disable the flow of electricity or fuel to the engine. Vehicle recovery systems use electronic transmission technology that helps law enforcement reveal the location of stolen vehicles.

NHTSA recommends that victims of a vehicle theft follow these steps:

- Contact police immediately and file a stolen vehicle report.
- Contact the insurance company to file a claim within 24 hours of the vehicle being stolen.
- If one finds his or her vehicle before authorities do, contact the police and insurance company immediately.

LRB174450

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Chantia Lewis

From: Kathleen Brengosz, Fiscal Planning Specialist, x3926

Date: July 9, 2019

Subject: Cost of Addressing Crash "Hotspots" with Curb Extensions

In response to your request for information regarding the average construction cost of curb bump-outs at intersections and the investment required to address crashes at hotspots throughout the City, the Legislative Reference Bureau is providing the following information.

The University of North Carolina Highway Safety Research Center participated in a study in 2013 to determine costs for pedestrian and bicycle infrastructure improvements. The study collected actual cost information for over 30 different types of infrastructure and determined average, median, minimum and maximum costs for each type of infrastructure. Cost information was obtained from 40 states. The greatest amount of cost information was from Ohio, California, Minnesota, Massachusetts and Wisconsin.

It is important to understand that costs were taken from various sources across the country and that costs may vary by region and also by the quantity purchased. Costs per unit may vary widely depending on the size of the order, with larger quantities usually leading to lower per-unit costs. There are also non-geographic factors that influence the variability of costs, such as economies of scale and the resulting non-linearity of costs. Fixed project costs will have a disproportional effect unit costs for small projects.

The table below shows the cost for curb extensions as listed in the study and updated to 2019 dollars. Because of the many potential roadway configurations, costs are calculated for each curb extension. To completely retro-fit a typical four-leg intersection would require the installation of 8 curb extensions. The study did not differentiate between curb extensions constructed at intersections and those constructed mid-block.

Table 1: Nation-wide Costs for Curb Extension Installation

Year	Median	Average	Minimum	Maximum	Unit
2013	$10,150	$13,000	$1,070	$41,170	Each
2019	$11,048	$14,150	$1,165	$44,811	Each

The study found a wide range between the minimum and maximum costs. Some of the variance is related to regional cost differences. Much of the cost variance for curb extensions is the result of site specific conditions such as drainage requirements. Curb extensions must be constructed to ensure that storm water is directed to inlets. If site conditions require that additional drainage structures be installed to prevent the ponding of storm water in the

roadway, project costs can rise rapidly. Design choices such as the addition of decorative paving treatments, landscaping or street furniture also add to project cost.

The Department of Public Works has identified a number of recent curb extension projects (see table below). When adjusted for the number of curb extensions included in each project, the average unit cost for Milwaukee projects is approximately $3,000 higher than the national average. All of the Milwaukee projects were constructed at intersections. The average cost for each intersection is $55,000.

Table 2: Recent City of Milwaukee Curb Extension Projects

Year	Location	Estimated Cost
2014	S. 6th St. @ W. Hayes Av.	$59,300
2017	E. North Av. @ N. Palmer St. and @ N. Buffum St.	$82,400
2017	S. Howell Av. @ E. Montana St.(south) and @ E. Dewey Pl.	$113,600
2018	W. State St. @ N. 54th St.	$55,000
2018	N. Lake Dr. @ N. Downer Av.	$76,500

The Milwaukee Pedestrian Plan identified corridors throughout the City which have a high-risk for pedestrian-related crashes. There are over 350 intersections located along the corridors. If the construction of curb extensions was appropriate at all intersections, and assuming an average cost of $55,000 for each intersection, an investment of $19.7 million would be necessary to address the streets which have the highest pedestrian crash rates.

Table 3: Corridors with High Crash Rates

Street	Limits			
E./W. Capitol Dr.	from	N. Holton St.	to	N 76th St.
N 27th St.	from	W. Walnut St.	to	W. Capitol Dr.
N 35th St.	from	W. Vliet St.	to	W. Capitol Dr.
N 76th St.	from	W. Burleigh St.	to	N. Industrial Rd.
N 91st St.	from	W. Appleton Av.	to	W. Silver Spring Dr.
N. Teutonia Av.	from	W. Atkinson Av.	to	W. Silver Spring Dr.
S, 27th St.	from	W. National Av.	to	W. College Av.
W. Fond Du Lac Av.	from	N. 27th St.	to	N. Sherman Blvd.
W. Layton Av.	from	I-94	to	S. 27th St.
W. National Av.	from	S. 16th St.	to	S. 44th St.
W. Oklahoma Av.	from	S. 76th St.	to	S. 92 St.
W. Silver Spring Dr.	from	W. Appleton Av.	to	N. Teutonia Av.

If you would like more information, please do not hesitate to contact me.

LRB 174598

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Chantia Lewis

From: Kathleen Brengosz, Fiscal Planning Specialist, x3926

Date: July 12, 2019

Subject: Traffic Signal Coordination

In response to your request for information regarding how traffic signal coordination affects driver compliance, the Legislative Reference Bureau is providing the following information.

The City maintains approximately 780 traffic signals. Their purpose is to facilitate the safe movement of vehicles and pedestrians through intersections. This is done by using phases (typically red, yellow and green) to assign the right of way alternately to conflicting flows of traffic. The total time required for a signal to sequence through all of the phases is called the cycle. The majority of City-operated traffic signals have a cycle between 60 and 90 seconds.

The timing of a traffic signal refers to the portion of time given to each phase. There is no standard timing for traffic signals. The length of each phase is determined by the classification of the roadways, traffic volume, the configuration of the intersection, and other safety considerations. When properly timed, traffic signals may increase the traffic-handling capacity in an intersection, improving efficiency and safety for vehicular and pedestrian traffic.

Traffic signal coordination refers to the relationship between traffic signal operation at adjacent intersections. Offset is the time from a reference point (such as the start of a green phase) at one intersection to the same reference point at another intersection. The offset is used to allow vehicles moving at the proper speed to advance from intersection to intersection without stopping. A well-coordinated signal system maximizes progressive movement through the system.

There are many factors which limit traffic signal coordination. Most constraints fall into 3 general categories: institutional constraints, physical constraints and temporal or time constraints. Institutional constraints pertain to the allocation of resources, jurisdictional relationships and political climate. Physical constraints are barriers to efficiency such as close signal-spacing, irregular intersection geometry, inadequate turn lanes, and mid-block access points. Temporal constraints are associated with competing simultaneous demands, such as conflicting movements, fluctuating demand patterns, and differences in clearance times. Traffic signal prioritization and preemption for emergency vehicles, mass transit and railroad operations are also temporal constraints.

The City's current traffic signal system allows for coordination. In establishing signal timing, consideration has been given to maximizing traffic flows, especially during the morning and afternoon peak demand periods. The Department of Public Works has begun

installing newer technology which enables more sophisticated coordination and allows greater responsiveness to changes in traffic patterns and roadway conditions. The Department uses a variety of strategies to upgrade intersections. Some traffic signals are included in paving projects. Others are completed as stand-alone projects. When equipment is damaged in the field, the Department attempts to incorporate an equipment upgrade into the repair. The Department has applied for and received several federal grants to help offset costs. Approximately 200 intersections have been upgraded so far. It is anticipated that 500 intersections will be completed by 2022. The average cost per intersection is $20,000.

If traffic signal equipment supports coordination, signals can be retimed to maximize efficiency. Retiming signals is a complex and extended procedure. An initial survey is required to identify system information and collect field observations of current traffic conditions. The initial study should include traffic and pedestrian volume, vehicle classifications, and counts of turning and through movements. Collision records need to be reviewed. After collected data are processed, analyzed and calibrated, the model is adjusted to determine optimum signal timing. The new timing is implemented at the affected intersections. The new timing is evaluated and final adjustments are made. Travel time and delay studies must be conducted to document improvements in traffic flow.

Ideally, retiming should be done every 3 to 5 years or more frequently if traffic conditions change. In practice, many jurisdictions postpone or disregard signal retiming due to financial or staffing constraints. Although the cost of signal timing projects can vary widely, a 2004 article in the Institute of Transportation Engineers Journal estimated that the cost of retiming an intersection was between $2,500 and $3,500. When updated by the Consumer Price Index to 2019, the estimated cost for each intersection is between $3,400 and $4,700.

Most of the literature regarding traffic signal coordination examines the economic and environmental impact of improved coordination. Generally, improved signal coordination reduces traffic delays, which reduces fuel costs. Less fuel consumption results in fewer emissions and improved air quality. Although it is widely accepted in the traffic engineering field that motorist frustration can be reduced by providing coordinated flow through traffic signals, no studies which examined the relationship between uncoordinated signals and driver compliance were found.

A 2018 article in the Journal of Transportation Research explored the ways that traffic signal coordination could create or limit speeding opportunities on bidirectional urban arterials. The author found that it may be possible to limit speeding opportunities with little or no increase in vehicular delay. It is important to note that the author defined “opportunity” in relation to the spacing and speed of other vehicles on the road. The article did not consider drivers’ deliberate disregard of traffic signals. The article is attached to this memo.

If you would like further information, please do not hesitate to contact me.

LRB 174598

Attachment

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: January 14, 2020

Subject: Vision Zero

This memo is responsive to your request regarding the measures required to become a Vision Zero city. Several community members and organizations, including Wisconsin Bike Fed and Milwaukee Safe & Healthy Streets, have recommended that the Task Force make a commitment to Vision Zero.

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. Key priorities are managing speed, centering equity, and engaging the community. Vision Zero starts with the ethical belief that everyone has the right to move safely in their communities and that system designers and policy makers share the responsibility to ensure safe systems for travel. The road system and related policies should be designed to ensure that inevitable driving mistakes do not result in severe injuries or fatalities. Additionally, because many factors contribute to safe mobility – including roadway design, speeds, behaviors, technology, and policies – Vision Zero sets clear goals to achieve the shared goal of zero fatalities and severe injuries.

First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe, and is gaining momentum in major American Cities, including Chicago. There are nine components to a strong Vision Zero Commitment, including the following:

1. Political commitment.

   The highest-ranking local officials make an official and public commitment to a Vision Zero goal to achieve zero traffic fatalities and severe injuries among all road users (drivers, walkers, bicyclist, transit users) within a set timeframe.

2. Multi-disciplinary leadership.

   An official city Vision Zero Taskforce is created and charged with leading the planning effort for Vision Zero. The Taskforce should include high-ranking representatives from the Office of the Mayor, Police, Transportation, and Health.

3. Action plan.

   A Vision Zero action plan is created within one year of commitment and is implemented with clear strategies, owners of each strategy, interim targets, timelines, and performance measures.

4. Equity.

   City stakeholders commit to both an equitable approach to Vision Zero by establishing inclusive and representative processes as well as equitable outcomes by ensuring measurable benchmarks to provide safe transportation for all road users.

5. Cooperation and collaboration.

   A commitment is made to encourage meaningful cooperation and collaboration among relevant government agencies and community stakeholders to establish a framework for multiple stakeholders to set shared goals and focus on coordination and accountability.

6. System-based approach.

   City leaders commit to and prioritize systems-based approaches to Vision Zero as well as adopting messaging that emphasizes that these traffic losses are preventable.

7. Data-driven.

   City stakeholders commit to gather, analyze, utilize, and share reliable data to understand traffic safety issues and prioritize resources based on evidence of the greatest needs and impact.

8. Community engagement.

   Opportunities are created to invite meaningful community engagement.

9. Transparency.

   The City's process is transparent to stakeholders and the community, including regular updates on the progress of the Action Plan and performance measures, and a yearly report (at minimum) to the local governing board.

A Vision Zero Community is one that meets the following minimum criteria:

- A clear goal of eliminating traffic fatalities and severe injuries has been set.
- The mayor has publicly, officially committed to Vision Zero.
- A Vision Zero plan or strategy is in place, or the mayor has committed to doing so in a clear time frame.
- Key departments (including police, transportation, and public health) are engaged.

LRB174091-13

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: January 14, 2020

Subject: Institutional Partners

This memo is responsive to your request regarding possible institutional partners for the City-County Carjacking and Reckless Driving Task Force.

The Task Force seeks an institutional partner for the purpose of following up on Task Force Recommendations. Possible institutional partners include the following:

- The Mayor's Office
- The Safety and Civic Commission
- The Department of Public Works
- The Milwaukee Police Department
- Milwaukee Public Schools
- The Health Department
- Starting a City-run Department of Transportation (DOT), discussed briefly below.

With respect to a City-run DOT, cities including Oakland, CA; Atlanta, GA; and Denver, CO, have created DOTs to help organize transportation planning, design, and programming. While the DOT does not necessarily address the enforcement or education components, cities have found that their DOTs can be proactive in addressing traffic safety and mobility problems. Cities that have adopted multi-faceted approaches to addressing traffic safety, such as Vision Zero programs, have found that these programs are most effective when administered at the mayoral level, with collaboration across city departments.

LRB174091-12

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: January 28, 2020

Subject: City-County Carjacking and Reckless Driving Task Force Metrics

This memo is responsive to your request for information regarding possible metrics the City-County Carjacking and Reckless Driving Task Force could consider adding to the Report, which would provide the institutional partner with a basis for measuring the effectiveness of the outcomes from implementing Task Force recommendations.

1. Vision Zero's goal of zero fatalities as a result of reckless driving.

2. A measurable percentage of decrease in the numbers of the following:

    a. Fatalities due to reckless driving (broken down by type: pedestrian, bicycle, passenger, speed-related, etc. and demographic information of drivers and victims) for example, 25% decrease after 1 year, 50% decrease after 5 years, etc.
    b. Collisions.
    c. Hit and run citations.
    d. Suspended licenses.
    e. Stolen vehicles.
    f. Citations issued relative to reckless driving – failure to stop at stop sign, endangering safety by reckless driving, unreasonable and imprudent speed, etc.
    g. Police pursuits and non-pursuits, maximum speed of pursuits, pursuits resulting in injury.
    h. Health outcomes – life expectancy and accidental deaths.

3. A measurable percentage of increase in the following:

    a. Participation in driver's education classes.
    b. Hits on social media for public information campaigns (going "viral").

c. Public transportation ridership.
d. Driver's licenses recovered.
e. Percentage of DPW projects that include complete streets design elements.
f. Percentage of DPW projects in the Pedestrian High Injury Network.
g. Percentage of bikeway network considered "low stress."
h. Perceptions of walking, biking, and transit.
i. Shared mobility intersection user counts

LRB174091-16

I. RECOMMENDATIONS

As a result of its outreach, research, and discussions, the City-County Carjacking and Reckless Driving Task Force developed recommendations for making the streets in the city and county of Milwaukee safer for all residents. These recommendations are summarized below.

A. Prevention and Education Subcommittee

1. Conduct public information campaigns.

Education and information campaigns, public service announcements, and community outreach provide comprehensive messaging to the public regarding law enforcement consequences of reckless driving, distracted driving, and carjacking. The Police Department plans to conduct a public relations campaign stating it will crack down on reckless driving behavior. Public information campaigns need to include some or all of the following elements:

a. Notable Milwaukee "celebrities," such as Brewers and Bucks players, the coroner, perpetrators, etc.

b. Provide information on laws and regulations, Warrant Withdrawal days, victim impact statements, etc.

c. Place on radio, TV, streaming sites (podcasts), social media, buses, etc.

d. Make the campaigns youth-led.

e. Campaign: Safe is Cool.

f. Walking and biking are cool.

g. Public transportation is cool.

h. Come up with a catchy tagline/ slogan (such as "Pedestrian Lives Matter" or "Slow down. Life matters.") Hold a community contest to come up with a tagline or slogan.

i. Campaign at gas stations and corner stores.

j. Place digital signage showing the number of people who have been killed due to reckless driving.

k. Grassroots slow down campaign that involves community organizations.

l. Conduct “safe streets” events at sites of fatalities.

m. Show real consequences of reckless driving.

n. Use public health messaging.

o. Steps to take when a driver hits another driver, a bicyclist, or a pedestrian.

p. Updates and road rules refreshers.

q. Effects of drugs and alcohol on driving, need for seat belts, causes of reckless driving, etc.

r. Documentary about the consequences of violating traffic laws causing injury and death.

s. Documentary about what happens to offenders.

2. **Increase Milwaukee Area Technical College driver safety courses.**

   Reach out to Milwaukee Area Technical College to increase the number and availability of courses it offers to the public. Determine what level of funding is needed.

3. **Increase driver safety programming and funding for driver education programs in Milwaukee Public Schools.**

   Reach out to children at a much younger age regarding driving safety and consequences of carjacking and reckless driving. Provide additional materials to teachers regarding driver safety and passenger safety for students in elementary and middle school health classes. Conduct town hall meetings with influential people who can inspire students to drive safely. Expand MPS Drive into all schools, and make it a required course. Include driver safety education in core curriculum.

4. Make driver education classes free, sliding scale, or otherwise accessible to all income levels.

5. Extend driver education classes to suburban communities in Milwaukee County.

6. **Fund existing programs and implement nationally-recognized programs.**

   Programs, such as the Credible Messenger, Roca, and UCAN are effective in addressing the root cause of the behaviors that lead to reckless driving and carjacking. Funding these programs is a more effective use of taxpayer dollars, as every dollar spent reduces the need for incarceration funding by $7-10.

7. **Create a video game app that teaches safe driving skills.**

   A group of students are working on coding and designing an app targeted toward the youth demographic which is designed to improve positive driving behaviors and gives uses of the app the opportunity to practice driving skills.

8. **Increase funding for driver's license recovery programs.**

   The Wisconsin Community Services Center for Driver's License Recovery and Employability, in collaboration with partner agency Legal Action of Wisconsin and Milwaukee Area Technical College, works with low-income Milwaukee County residents to obtain a valid driver's license.

9. Increase availability of public transportation.

   Increase funding for public transportation to increase routes, options, availability, and affordability. Create partnerships with businesses to provide incentives for using public transportation. Make public transportation cool.

10. Provide diversion alternatives.

    Increase availability of community centers, recreation centers, and places for youth to go. Provide adventure programming, community work opportunities, and jobs.

11. Identify the root cause of reckless driving.

    Conduct a study that involves interviewing reckless drivers to learn their motivation for doing so. Identify irresponsible behaviors and what causes them. Identify specific characteristics of a reckless driver and a carjacker.

12. Conduct police outreach in schools.

    By conducting programming in schools, police officers and youth would have the opportunity to encounter each other as human beings and to develop trust.

Programming could involve the youth and address accountability and trauma. Officers could share videos about reckless driving and carjacking and bring victims to share their stories.

13. Provide an amnesty program.

14. Adopt Vision Zero.

    Adopting Vision Zero includes developing strategic goals, creating a timeline for reaching zero traffic fatalities, and involving residents in active participation.

15. Obtain input from the Equal Rights Commission, the Mayor's Bike and Pedestrian Task Force, the Office of African American Affairs, and Coalition for Safe Driving before sending the report to the Common Council for further action.

16. Lobby for a change in State law to do the following:

    a. Make driver education classes a requirement for all drivers before obtaining a license, regardless of age.

    b. Require all drivers who have lost their driver's license to take and pass a driver education class before reinstating the driver's license.

B. Engineering Solutions Subcommittee

Guiding principles for all engineering recommendations:

a. Design streets for lower speeds.

b. Decrease the speed limit in conjunction with design changes.

c. In the multimodal transportation plan, make streets less car-centric and friendlier to other modes of transportation.

d. Prioritize safety over speed.

1. Primary Recommendations.

The following recommendations are proven countermeasures to reduce speeding and crashes and should be considered throughout the City as opportunities and funding allows. These recommendations are specific to collector or arterial streets and should be prioritized in areas of known speeding or crash problems.

a. Coordinate traffic signals.

Traffic-signal coordination allows motorists traveling at a certain speed to make the least amount of stops as possible. Signals should be coordinated at or below the speed limit to reduce the opportunities and incentive for speeding. However, effective signal coordination can be expensive and time-consuming if new signal equipment is required.

b. Pavement narrowing / reclamation.

Pavement narrowing removes excess pavement previously used for driving and converts it to other uses such as sidewalk space, plaza space, bikeway space, or landscaping. Narrowing streets has been shown to reduce traffic speeds and crashes. Whenever streets are reconstructed, opportunities for pavement narrowing should be considered.

c. Road diets.

Road diets are a proven, cost effective way of reducing traffic speeds and crashes. A road diet typically involves restriping a street from four lanes to two or three lanes by reallocating space to better bike accommodations, new turn lanes, or revised parking configurations.

d. Lane narrowing.

Lane narrowing has been proven to reduce traffic speeds. In urban environments, lane widths of 10 feet are proven to have a positive impact on a street's safety without impacting traffic operations. Lane widths of 11 feet may be appropriate on higher speed streets with heavy truck traffic, but lanes wider than 11 feet should not be installed.

e. Pedestrian refuge islands / curb extensions.

Pedestrian safety treatments such as refuge islands and curb extensions visually and physically narrow streets. These improvements create safer streets for people walking, can reduce vehicle speeds, and prevent illegal passing on the right.

f. Separation of vulnerable users.

Providing separate and protected space for people walking and biking often requires narrowing of motor vehicle lanes or reclaiming pavement, which reduces speeds and crashes for all users. Create substantial barriers for protected bike lanes.

2. Spot-Specific Recommendations.

The following are spot-specific recommendations that may reduce speeding or crashes when applied, but may have limited applicability in Milwaukee or may not be appropriate for collector or arterial streets where crashes and speeding are more likely to occur.

g. Install pedestrian traffic signals.

Pedestrian traffic signals have been shown to increase driver compliance of yielding to pedestrians in crosswalks. Examples of pedestrian traffic signals include Rectangular Rapid Flash Beacons (RRFB), Pedestrian Hybrid Beacons, or Pedestrian Beacons.

h. Roundabouts.

Roundabouts can lessen the severity of crashes and are generally safer for pedestrians because traffic is only approaching from one direction. Roundabouts may require the acquisition of land because they tend to be larger than traditional intersections. Roundabouts have limited applicability in the City of Milwaukee, specifically on high-volume streets where most crashes and speeding occurs.

i. Deploy speed humps, trapezoidal humps, and raised platforms at pedestrian crossings and intersections.

Speed humps and tables can reduce speeds on residential streets. By installing speed humps on a neighborhood-wide basis, instead of just a single street, the neighborhood can avoid issues with drivers choosing alternative routes through a neighborhood. The goal is to eliminate speeding rather than to move it to the next street. Although important, these treatments are most applicable on residential streets where crashes and speeding are not as big of an issue.

3. Additional Community Recommendations.

    a. Create bus lanes that are separate from bike lanes.

    b. Pedestrian traffic signal timing with additional phasing of signals.

    c. Raised sidewalks, trapezoidal sidewalks.

    d. Increase visibility at intersections.

C. Increase funding for the multimodal unit of DPW to fully implement the pedestrian plan.

C. Accountability and Enforcement Subcommittee

1. Advocate for State legislative changes.

a. Increasing the penalties for adults for reckless driving gives a signal to offenders that there are serious consequences for endangering the public.

b. The level of felony offense for fleeing an officer needs to be increased, and graduated penalties must be provided for repeat offenders.

c. A change in legislation is required to allow a serious juvenile offender disposition for all felony offenses, leaving discretion to the judge.

d. Red light cameras have proven an effective deterrent and enforcement tool in other jurisdictions.

e. Provide for alternative penalties, including:

(1) Impound unregistered vehicles that have been involved in a reckless driving incident.

(2) Boot vehicles.

(3) Send offenders to a military-like boot camp.

(4) Community service in communities most impacted by reckless driving.

(5) Road trash pickup or cleanup after collisions.

(6) Pay offenders wages for their work, but place all earned wages directly into a restitution account for victims or use those wages to fund driver education classes.

(7) Require mediation.

(8) Require anger management classes.

(9) Require substance abuse classes.

(10) Require driver education classes.

1. Discontinue suspension of licenses for nonpayment. Instead, driver's license suspension should only be done for safety reasons.
2. Require insurance companies to consider a driver's driving record as the primary criteria for setting liability limits.
3. Impound any vehicle involved in reckless driving for a minimum of 72 hours. After 72 hours, the vehicle owner would be required to pay applicable towing and storage fees, outstanding vehicle citations, and provide evidence of vehicle registration and insurance coverage.
4. Prohibit cell phone use while driving for all drivers, not just those on probationary license.
5. Lower the density of window tint on public vehicles.
6. Expand owner liability for all reckless driving violations.

b. Enforce related driving violations.

Police need to increase enforcement measures, including targeting dangerous driving, such as speeding and swerving through traffic. Increased enforcement should also focus on existing traffic regulations and tinted windows. The Police Department could seek grants to fund more overtime for officers, particularly the Motorcycle Unit, to increase traffic enforcement. Police could be required to respond in a timely manner, to fulfill quotas, and to focus on hotspots.

c. Institute standard operating procedures.

The Police Department can institute a standard operating procedure that requires officers to bring juveniles caught in stolen or fleeing vehicles to detention (as opposed to writing tickets or ordering the cases in). This decreases the time for review and charging to 24 hours.

d. Consider charges.

Prosecutors need to consider charging offenders for recklessly endangering safety when prosecuting reckless driving and fleeing cases. Additionally, reckless driving criminal charges can be levied instead of tickets when an offender is driving in a dangerous manner.

e. Provide diversion alternatives.

When charging a case, prosecutors can provide diversion alternatives for first-time offenders of reckless driving. Target the early intervention stages of youth who engage in reckless driving behavior with resources that are specific to their risk and need factors. Effective strength-based interventions should continue for an adequate length of time without extending the probation or supervision period, during which court-imposed sanctions can be imposed for typical behaviors of youth, such as curfew violations.

f. Mandate sentencing.

Circuit and Municipal Court should include mandating driving safety classes when sentencing offenders.

g. Increase data sharing.

Increased cooperating and data-sharing among all agencies allows for better treatment integration for juveniles and more appropriate sentencing for adult offenders.

h. Conduct victim impact panels.

Victim impact panels for carjacking and reckless driving convictions can deter offenders from repeating the offense. Facing the consequences of their actions has a rehabilitating effect on offenders and reduces recidivism.

i. Increase police presence.

Increase police presence in neighborhoods where rolling drug cars operate and at intersections with higher incidents of reckless driving. Patrol main streets with radar guns, place empty squad cars in strategic locations, and incorporate speed traps.

j. Create a 24-hour hotline, central e-mail, web address, or app to report reckless drivers and nuisance vehicles.

Crime Stoppers could be augmented and promoted as a hotline for reporting reckless driving and carjacking.

k. Hold parents accountable.

Parents could be held accountable for their children upon first offense. Additionally, police could enforce curfew laws, fining parents if their children are on the streets or caught doing criminal acts after 11:00 p.m.

l. Place digital speed signs in hotspot locations.

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: March 5, 2020

Subject: Protected Bike Lanes

This memo in response to your request for information relating to protected bike lanes.

Researchers at the University of Colorado Denver and the University of New Mexico, Wesley E. Marshall and Nicholas N. Ferenchak, conducted a study conducted over the course of 13 years in 12 communities, which was published in 2019 in the *Journal of Transport and Health*. Their research produced the following findings:

- A network of protected, separated bike lanes was one of the biggest factors associated with lower fatalities and injuries for all road users.
- Cities with protected, separated bike lanes have 44% fewer deaths than cities without them.
- Bike infrastructure, particularly physical barriers that separate bikes from speeding cars as opposed to shared or painted lanes, significantly lowers fatalities.
- Painted bike lanes provide no improvement of road safety, and it is actually safer to have no bike markings at all than to have bike symbols painted in the middle of the lane.

The National Association of City Transportation Officials (NACTO)'s *Urban Street Design Guide* charts the principles and practices of the nation's foremost engineers, planners, and designers working in cities today. It provides a blueprint for designing 21st century streets and includes tools and tactics for making streets safer, more livable, and more economically vibrant. Street design elements include guidelines on lane width, sidewalks, curb extensions, vertical speed control elements, transit streets, and storm water management. Additionally, recommendations include networks of protected, separated bike lanes.

LRB174091-19

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: April 15, 2019

Subject: Success Stories in Other Jurisdictions: Reducing Reckless Driving

This memo is in response to your request for information regarding cities that have faced problems similar to Milwaukee with respect to carjacking and reckless driving and have seen some improvement. The National Highway Traffic Safety Administration (NHTSA) conducted a study of countermeasures employed to reduce speeding in Philadelphia, PA. In addition to this in-depth case study, NHTSA has conducted various national and international studies on reckless driving, which contain brief examples of reduction in reckless driving in other cities. The first part of this memo contains information about Philadelphia specifically. The second part of this memo contains examples from other cities and national and international studies.

Philadelphia

According to NHTSA, speeding is one of the most prevalent factors contributing to traffic crashes. Researchers developed and pilot-tested a program in Philadelphia called *Drive CarePhilly -- Heed the Speed*, a neighborhood-based combination of enforcement, education, and engineering designed to reduce vehicle speeds to benefit pedestrian safety.

The study involved four steps:

1. Selecting a test jurisdiction sufficiently large to support a crash-based evaluation.
2. Working with the City to determine where to apply interventions.
3. Selecting and developing countermeasures.
4. Implementing and evaluating the program.

The Philadelphia Streets Department planned a safe-driving campaign that mainly targeted reducing speeding. Efforts focused on engineering countermeasures in six target police districts, as well as elsewhere if speeding had been highlighted by a

resident complaint or if notice was received from another City agency. The engineering program consisted of the following elements:

1. Verifying that speed limit signs were accurate and in place where needed.
2. Installing *DriveCarePhilly* 25 mph speed limit signs with a secondary message of *Watch Children* in the six target police districts.
3. Installing *DriveCarePhilly* 25 mph speed limit signs with a secondary message of *Heed the Speed* in six target police districts.
4. Installing plain 25 mph speed limit signs with a secondary *Heed the Speed* message.
5. Installing 42 sets of solid-sheet three-dimensional road markings in three police districts.

The study attempted to increase speed enforcement in six selected police districts by purchasing 24 Speed Tracker units that were installed and calibrated in four police cars in each of six police districts. Trained officers used the Speed Tracker-equipped vehicles. Two problems arose: (1) vehicles equipped with Speed Tracker units became disabled when those vehicles were involved in crashes, and (2) trained officers were not always available to use the equipped vehicles. Personnel shortages and the problem with maintaining the units in district vehicles failed to meet an expected increase in enforcement. To counterbalance these problems, funding was increased to provide 300 hours of overtime enforcement.

Additionally, speeds were measured by pneumatic counters and radar traffic counters. Crash data was accessed from the Philadelphia Police crash records. The Police Department has a crash tracking system that can geocode crashes to create “pin maps” of pedestrian crashes.

The project had no budget for paid media. Publicity was primarily in the form of presentations conducted by the Pennsylvania Department of Transportation and media generated out of press releases.

The only real change in issued speeding citations that can be attributed to this project was a dramatic increase in citations in one of the districts for the third quarter of 2009, when the project used paid overtime for enforcement.

Of the 24 measurement locations, 17 showed some form of speed reduction after the official start of the countermeasure deployment in July 2008. Many sites showed substantial increases in the percentage of vehicles traveling the speed limit or less, and

many showed decreases in average speeds. Six of the seven roadways with 3-D materials showed speed reduction. Overall, there was at least some speed reduction in the test districts. In particular, the 3-D locations consistently showed reduced speeds after countermeasure deployment.

The test districts did not show a reduced frequency of crashes relative to the implementation of the *Drive CarePhilly-Heed the Speed* program. The results suggest any program aimed at meaningfully reducing fatalities would need to involve citywide treatment.

A survey conducted at driver licensing centers showed little awareness of the project's media, education, engineering, or enforcement efforts. Only one licensing center showed an increase in awareness of police activities. However, that center was not near any of the target districts – it was near an intersection where a separate speed enforcement initiative was underway. There were no meaningful changes in perceived strictness of police enforcement or perceptions of reduced speeds in neighborhoods.

Other Jurisdictions

Albuquerque, NM. The Safe Streets program involved saturation patrols, follow-up patrols, freeway speed enforcement, and sobriety checkpoints. The program was developed after determining 27 of 33 high-crash locations were in only four genera geographic areas, all four were also high-crime areas. The results were as follows: 9% decline in property damage crashes, 18% decline in injury crashes, 20% decline in driving while impaired crashes, 34% decline in fatal crashes, 29% decline in homicides, 17% decline in kidnapping, and 10% decline in assaults.

Indianapolis, IN. The Police Department increased traffic enforcement in eight patrol beats over a six-week period resulting in decreases in burglaries and vehicle thefts. Lower crime also occurred in contiguous beat areas.

National. The effects of maximum speed limits on speeds, crashes, and casualties have been studied extensively over the past 30 years. In 1974, the 55 mph National Maximum Speed Limit (NMSL) was enacted to conserve fuel. Travel decreased, speeds decreased on roads where the speed limit was lowered to 55 mph, and total traffic fatalities decreased by 9,100 from 1973. The slower and more uniform speeds due to the 55 mph limit are judged to have saved between 3,000 and 5,000 lives in 1974. As fuel became plentiful again, travel increased in compliance with the 55 mph speed limit decreased. In 1987 Congress allowed states to raise speed limits to 65 mph on rural

interstate highways, and in 1995, Congress repealed NMSL. Increased speed limits produced increases in speeding and in traffic fatalities.

International. Red-light camera effectiveness has been studied extensively. Summary reviews conclude they increase rear-end crashes, reduce side-impact crashes, and reduce overall injury crashes by as much as 25 percent. Speed cameras have also been studied, though not in the United States. Studies show speed cameras reduce crashes substantially. A British study of speed and red-light cameras found a 33 percent reduction in crashes as camera sites. At speed camera sites, vehicle speeds decreased by 7 percent and the number of vehicles exceeding the speed limit decreased by 32 percent.

LRB174091-2

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: April 12, 2019

Subject: Carjacking and Reckless Driving

The following information was requested from the Legislative Reference Bureau for the City-County Carjacking and Reckless Driving Task Force to consider:

1. The most recent Fire and Police Commission Vehicle Pursuit Report.
2. Wisconsin carjacking and reckless driving statutes, policy changes, and recently-passed related legislation.
3. Data for the last four years on the number of people ticketed/arrested/charged with carjacking and reckless driving offenses in Milwaukee, including juveniles and demographic data.
4. A national survey of the best practices in enforcement, education and traffic engineering solutions to carjacking and reckless driving.
5. Steps MPS has been taking to address these issues, including the funding/operation/results of driver's education programming.
6. The City's expenditures on traffic humps and other traffic-calming engineering responses.

Task Force members have been provided with in-depth information regarding the above-listed matters. For the purpose of this presentation, I will very briefly summarize some of the main points.

I. FIRE AND POILCE COMMISSION REPORT

Members have been provided with the 2017 Fire & Police Vehicle Pursuit Report. David Gelting is here from the Fire & Police Commission to discuss the report in further detail.

II. WISCONSIN CARJACKING AND RECKLESS DRIVING STATUTES

In the past year, there have been three pieces of legislation that in some way amended the statutes on carjacking and reckless driving.

Carjacking

Wis. 943.23 – Operating vehicle without owner's consent

This Wisconsin state statute specifies the degree of felony to be assigned to different methods of carjacking, the use of force, operating a vehicle without the owner's consent, etc.

Act 309
Passed on February 24, 2017

This act altered Wisconsin's legal definition of "serious violent crime" to include carjacking, as well as many other offenses. Under prior law, if a person had one or more convictions for a serious violent crime or a crime punishable by life imprisonment and subsequently committed a serious violent crime, the court was required to impose a bifurcated sentence that included a mandatory minimum period of confinement of three years and six months. Not only does this act expand the definition of serious violent crime to include many other crimes, it also increases the mandatory minimum period of confinement to five years.

The act went into effect on April 18, 2018.

Act 311
Passed on February 21, 2017

This act created a new carjacking offense, the crime of intentionally taking by the use of force, or by the threat of the use of force, a vehicle without the consent of the owner, as a Class E felony, punishable by a fine not to exceed $50,000 or imprisonment not to exceed 15 years, or both. The act also increased the penalty for repeat carjacking offenses, taking a driving a vehicle without the owner's consent, and driving or operation a vehicle without the owner's consent.

This act went into effect on April 18, 2018.

Act 287
Passed on May 19, 2017

This act increased the felony classification for taking and driving any vehicle without the consent of the owner or driving or operating any vehicle without the consent of the owner if the vehicle is a commercial vehicle. The act also makes stealing property with a

value that exceeds $100,000 a Class F felony and requires a person who causes damage to a commercial vehicle to pay restitution.

The act went into effect on April 18, 2018.

Reckless Driving

Wis. 346.62 – Reckless driving

This Wisconsin state statute defines the specific scenarios that qualify as “reckless driving” – all of which are instances of endangering the safety of any person or property by the negligent operation of a vehicle. This statute has not been amended since 1998.

Below is a list of other state statutes that while not specifically called reckless driving, many would consider to be endangering to the public.

Charge	Description
346.57(5)	Exceeding Speed Zones/Posted Limits
346.37(1)(c)1	Violate Red Traffic Light
346.46(1)	Fail to Stop at Stop Sign
346.04(2)	Fail to Obey Traffic Officer/Signal
346.63(1)(a)	Operating While Intoxicated
346.57(2)	Unreasonable and Imprudent Speed
346.89(1)	Inattentive Driving
346.63(1)(b)	Operating While Intoxicated - Blood Alcohol Content .1%+
346.675(1)	Vehicle Owner Liability - Hit and Run
346.57(4)(e)	Speeding on City Highway
346.39(1)	Fail to Stop for Flashing Red Signal

Summary

The statutory changes made in the last year were, for the most part, bundled in a series of measures to expand and toughen legal responses to criminal behavior. The definition of “serious violent crime” was expanded, and the felony classification for carjacking crimes was elevated.

III. CARJACKING AND RECKLESS DRIVING DATA (including JUVENILE data)

Data was provided to LRB by the Milwaukee Police Department, Milwaukee County District Attorney’s Office, and Milwaukee Municipal Court for arrests, citations, and charges.

Arrests

The Milwaukee Police Department provided data regarding arrests for carjacking and reckless driving related offenses from 2015 to 2018.

Over that four-year time period, the average number of arrests for “Operating a vehicle without owner’s consent” (s. 943.23 (3), Wis. Stats.) was 538.

- The most common age range for this offense was 17-21

The average number of arrests for other offenses included:

- 365 for “Operating a vehicle without owner’s consent, passenger” (s. 943.23(4m), Wis. Stats.)
- 153 for “Take and drive vehicle without owner’s consent” (s. 943.23(2), Wis. Stats.)
- 42 for “Carjacking” (s. 943.23(2), Wis. Stats.)

The average number of arrests for “Reckless driving” (ss. 346.62(2) to 346.62(4), Wis. Stats.) was 21.

- The most common age range for this offense was 17-21

Citations

The average number of citations over the last two years for “Exceeding the speed zone” (s. 346.57(5), Wis. Stats) was 10,355.

- The most common age range for this offense was 22-26

The average number of citations for other related offenses were:

- 444 for “Unreasonable and imprudent speed” (s. 346.57(2), Wis. Stats.)
- 401 for “Speeding on city highway” (s. 346.57(4)(e), Wis. Stats.)
- 273 for “Reckless driving” (ss. 346.62(2) to 346.62(4), Wis. Stats.)
    - The most common age range for this offense was 17-21

Criminal Charges

The Milwaukee County District Attorney’s office provided data for carjacking and reckless-driving-related offenses within the past four years.

The average number of charges for “Operating without owner’s consent” (s. 943.23(3), Wis. Stats.) was 198.

- The most common age range for this offense was 16 years and younger

The average number of charges for other related offenses were:

- 122 for “Operate vehicle without owner’s consent, passenger” (s. 943.23(4m), Wis. Stats.)
- 116 for “Take and drive vehicle without owner’s consent” (s. 943.23(2), Wis. Stats.)
- 9 for “Carjacking” (s. 943.23(1g), Wis. Stats.)
    - The most common age range for this offense was 17-21

The average number of charges for “Reckless driving, causing bodily harm” (s. 346.62(3), Wis. Stats.) and “Reckless driving, causing great bodily harm” (s. 346.62(4), Wis. Stats.) was 11.

- The most common age range for this offense was 17-21

Non-Criminal Charges

The Milwaukee Municipal Court provided data for carjacking and reckless-driving related offenses within the past four years.

The average number of charges for “Exceeding the speed zone” (s. 346.57(5), Wis. Stats.) was 7,569.

- The most common age range for this offense was 22-26

The average number of charges for other related offenses were:

- 394 for “Unreasonable and imprudent speed” (s. 346.57(2), Wis. Stats.)
- 234 for “Speeding on city highway” (s. 346.57(4)(e), Wis. Stats.)
- 210 for “Reckless driving, endangering safety” (s. 346.62(2), Wis. Stats.)
    - The most common age range for this offense was 17-21

IV. NATIONAL SURVEYS

The Task Force Members have been provided with the Vehicle Crimes Committee Auto Theft Educational Awareness Report by International Association of Chiefs of Police, May 2017. The report recommends some of the following measures for addressing vehicle crimes:

- A good and accurate definition of “vehicle crimes”
- Data collection
- Education and training for law enforcement executives
- Public relations campaigns

Other pertinent national studies related to best practices in enforcement, education, and traffic engineering solutions to carjacking and reckless driving include the following:

1. Safety Study: Reducing Speeding-Related Crashes Involving Passenger Vehicles by National Transportation Safety Board, July 25, 2017.
2. Street Racing: Guide No. 28 by Kenneth J. Peak & Ronald W. Glensor for Arizona State University Center for Problem-Oriented Policing, 2004.
3. Aggressive Driving: Guide No. 61 by Colleen Laing for Arizona State University Center for Problem-Oriented Policing, 2010.
4. Motor Vehicle Theft: A Relationship to Other Crimes by Robert D. Force for International Association of Chiefs of Police, July 19, 2016.

V. MILWAUKEE PUBLIC SCHOOLS

During the 2017-18 school year, 1,813 students received driver’s education through the Milwaukee Public Schools Drivers Education Special Purpose Account (MPS Drive) at 12 locations. Driver education classes were offered at:

- Bradley Tech
- James Madison Academic Campus
- Milwaukee High School of the Arts
- Milwaukee Marshall
- North Division
- Obama School of Career and Technical Education
- Pulaski
- Riverside
- Ronald Reagan
- Rufus King
- South Division
- Washington

The program model allows any MPS high school student between the ages of 15 ½ and 17 ½ to enroll in the program at any location it is offered – enrollment is not restricted to students that attend a particular MPS school during the day.

- Of the 1,813 served in the program, 1,791 (99%) passed the permit test, and 1,657 (91%) have received their temporary permits.
- More than 1,130 students have received their drivers' licenses through MPS Drive since the program pilot in the Spring of 2016.
- The $50,000 support from the City funded the participation of 161 students.
- In 2018-19, MPS expanded to four more locations to increase program accessibility:
    - Bay View
    - Hamilton
    - Milwaukee School of Languages
    - Vincent
- There is currently a funding gap of $216,000 for the 2018-19 school year, which extends beyond MPS funds, contributions made by the City of Milwaukee, and private grants received to date.

VI. CITY EXPENDITURES ON TRAFFIC CALMING MEASURES

Kathleen Brengoz of the LRB provided information regarding the Department of Public Works installation of speed humps and speed tables as traffic-calming measures. Pertinent details include the following:

- DPW began installing speed humps in 2007
- From 2007 to 2018, 422 speed humps have been installed
- The trend increased slowly from 2007 to 2015 with a significant increase starting in 2016
- More than 100 speed humps were installed each year in 2017 and 2018
- The majority of speed humps are found in 6 aldermanic districts:
    - 114 in the 6th District
    - 60 each in 4th, 7th, and 15th Districts
    - 40 each in the 1st and 8th Districts
    - Fewer than 5 each in the 3rd, 5th, and 13th Districts
    - None in the 9th and 11th Districts
    - Speed tables are located in the 4th, 9th, and 14th Districts
- Since 2007, just over $2 million has been expended on speed hump projects

The Neighborhood Traffic Management Program (NTMP) in the Department of Public Works helps residents deal with traffic safety problems on residential side streets.

- The program allows residents to request a traffic study by filling out an application and collecting signatures from at least 50% of the residents on the impacted block.

- The Traffic Engineering Division conducts the study and then works with residents to determine the best options for addressing traffic concerns.
- There are two phases for addressing issues:
    - Phase 1 includes
        - Signage
        - Pavement markings
        - Temporary placement of digital speed trailers and targeted enforcement
    - Phase 2 includes
        - Physical changes to the roadway
- Aldermanic and property owner approval is required for construction of speed humps or other traffic calming measures.

LRB174091-1

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: July 25, 2019

Subject: Additional Models Addressing Car Jacking and Reckless Driving

This memo is in response to your request for information regarding additional models and programs that were brought to the Task Force's attention by engaged and active citizen input. In particular, this memo addresses the following programs:

1. Boston Ceasefire
2. Roca
3. Driver's License Recovery Programs
4. Prevention and Advocacy in Schools
5. Credible Messenger Justice Center – Arches Impact

Although the programs seek to address problems that differ from carjacking and reckless driving, some of the techniques employed may be applicable to the issues the Task Force is studying.

Boston Ceasefire

Boston's Operation Ceasefire is a problem-solving police strategy that seeks to reduce gang violence, illegal gun possession, and gun violence in the community. It combines aggressive law enforcement and prosecution efforts aimed at recovering illegal handguns, prosecuting dangerous felons, increasing public awareness, and promoting public safety and antiviolence. The goals of the program are to carry out a comprehensive strategy for apprehending and prosecuting offenders who carry firearms, to put others on notice that offenders face certain and serious punishment for carrying illegal firearms, and to prevent youths from following the same criminal path.

As a deterrence strategy, the intervention is based on the assumption that crime can be prevented when the cost of committing a crime are perceived by the offender to outweigh the benefits of committing a crime. The program targets high-risk youths as well as serious and violent juvenile offenders. Violence prevention is addressed by making gang members believe that severe consequences will follow from violence and

gun use, in an attempt to persuade them to change their behavior. A key element is informing gang members what kind of behavior will provoke a particular response and what that response will be. The deterrence message is applied to a small audience (all gang-involved youths) rather than to a general audience (all youths in Boston). This way, the Ceasefire intervention targets those gangs who are engaged in violent behavior rather than expending resources on those who are not.

The strategy involves reaching out directly to gangs, saying explicitly that violence will not be tolerated, and following every legally available route when violence occurs. Simultaneously, service providers, probation and parole officers, and church and other community groups offer gang members services and other kinds of help. The deterrence message is a guarantee to gang members that violent behavior will evoke an immediate and intense response. When gang violence occurs, Ceasefire agencies address the violent group or groups involved, drawing from all possible legal levers. For instance, authorities could disrupt street drug activity, aim police attention toward low-level street crimes such as trespassing and public drinking, serve outstanding warrants, seize drug proceeds and other assets, request stronger bail terms (and enforce them), and turn potentially severe federal investigative and prosecutorial attention toward gang-related drug activity. Strategies can be customized to the particular individuals and characteristics of the gang in question.

Roca

Roca is a nonprofit organization with the mission to disrupt the cycle of incarceration and poverty by helping young people transform their lives. The program's intervention model is designed to serve high-risk young people who are not yet ready, willing, or able to change. It uses a four-year model that includes relentless outreach, transformational relationships, stage-based programming, engaged institutions, and performance-based management, which involve the following strategies:

1. **Relentless outreach**. Knock on doors, engage and re-engage young people, and never give up. Outreach is conducted by youth workers who are trained to find high-risk youth, knock on their doors, and bring them to programming. They are trained to handle rejection and keep coming back, even when it's difficult. Over time, consistent attempts have the power to build trust. When relapses occur, relentless outreach is used again.
2. **Transformational relationships**. Build meaningful relationships with young people for the purpose of behavior change. Roca staff build relationships with high-risk young people for the purpose of behavior change. It is only within the context of a relationship that change occurs. Long-term relationships with staff

members help young people stop destructive behaviors and start advancing themselves. This practice is based on an intensive form of case management conducted by youth workers. Youth workers are trailed to gain participants' trust and advance the relationship built, using a range of techniques, including motivational interviewing and cognitive behavioral therapy. Youth workers maintain their relationships with the young people during periods of success and relapse alike, helping the young people understand they can fail in safety and recover. Consistency, mutual respect, openness, sense of responsibility and shared experiences are key parts of the relationships between participants and Roca staff.

3. **Stage-based programming**. Tailored to meet young people where they are, cognitively and behaviorally. Programming is designed to withstand the comings and goings of high-risk young people who have failed in traditional learning environments. Accordingly, programming is offered in various informal and formal structures, from repeat drop-in sessions to full certificate courses. This allows young people at varying stages of readiness to learn critical skills as they progress through the intervention model. Even by taking a single class, young people start experiencing what it is like to do an action that advances them. These experiences help them gradually move from not contemplating change to planning for change and acting toward it. Over time, stage-based programming expands participants' skill sets and keeps them moving forward. Programming focuses on three core areas: education, like skills, and employment.
4. **Engaged institutions**. Strategically engage systems and organizations in young people's change process. Roca collaborates with an array of leaders and institutions in the criminal justice field and beyond. It works closely with police and probation and builds key partnerships with government agencies, businesses, and community-based organizations. Partnerships result in information-sharing, forums that address issues such as gang activity and drug abuse, trainings, joint projects, referrals between organizations, and streamlining effective intervention. The ultimate goal is to create systemic improvements in the way society addresses crime, poverty, and over-incarceration of young people. Roca aims to create a "safety net" around young people, which serves not only them, but society as a whole.
5. **Performance-based management**. Rigorously track data and continuously evaluate strategies and outcomes. Roca tracks and evaluates data regarding participant progress and staff performance on a weekly, monthly, quarterly, and annual basis. It uses the data to ensure continuous improvement. The internal data system is based on Social Solutions' Efforts to Outcomes platform. The database captures every effort to contact a young person and every hour spent in programming, as well as intake information, progress of the transformational

relationship between each youth worker and a young person, and overall program and staff performance.

Driver's License Recovery Programs

Legal Action of Wisconsin helps low-income people reinstate or get their drivers' licenses so they can get do and from work. Two lawyers are placed at Milwaukee's Center for Drivers License Recovery and Employability at the Milwaukee Area Technical College downtown campus. The Center is public-private partnership that includes Legal Action, Wisconsin Community Services, Milwaukee Area Technical College, and the City of Milwaukee.

The Wisconsin Community Services Center for Driver's License Recovery and Employability, in collaboration with Legal Action of Wisconsin, works with low-income Milwaukee County residents to obtain a valid driver's license by resolving active suspensions and/or revocations. The program provides free case management and legal services to qualified individuals with suspended or revoked Wisconsin licenses.

Qualifications for admission to the program include:

- Wisconsin Class D driver's license must be suspended or revoked.
- No current OWI charges or OW-related suspensions/ revocations.
- If no valid license in the past 8 years, must have completed the DMV written test within the past 12 months.
- Must be a Milwaukee County resident of at least 18 years of age.
- Must meet 200% of federal poverty level.
- Former clients of the program may not be readmitted.

Prevention and Advocacy in Schools

Impact Teen Drivers is a program offered in many schools nationwide. It is an education program that reveals the dangers and consequences of distracted and reckless driving. The program focuses on connecting with teens and parents on an emotional or visceral level. It does not use graphic or gory details, as research has shown that connecting with teens on an emotional level makes long-term attitude and behavior change.

The program offers education in high schools, middle schools, and elementary schools, employing the following strategies:

High schools:

- School assemblies, workshops for teens and parents, training for teachers, community members, and school resource officers.
- Professional videos with an effective mix of facts, humor, and real stories of teens who lost their lives to distracted driving.
- Teen-hosted webisodes with a fun slant on serious distraction issues and common habits that become deadly.
- Discussion questions for group dialogue or individual projects.
- Peer-to-peer messaging on posters, t-shirts, wheels, and more.
- Teen website with discussion board, videos, and contests.

Middle schools:

- Personal story video educating tweens about being good passengers.
- Discussion questions for thought-provoking dialogue as passengers.
- Interactive activities to add visuals and fun to the facts.
- Posters and Wheel of Death to emphasize danger of common habits.
- Suggestions for being a good passenger so the driver can drive.

Elementary schools:

- Passenger power curriculum with superhero “Captain Power” and his Passenger Pets.
- Activity pages and coloring sheets to teach good behavior in a vehicle.
- Role-playing activities to identify what is right vs. wrong car behavior.
- Question-and-answer outlines to empower young passengers.

In Nassau County, NY, the District Attorney provides the Choices and Consequences program as an interactive high school presentation designed to combat drunk, drugged, and reckless driving. The 90-minute program is based on a “reality TV” model that relies on real causes, real evidence, and real people from cases to break through natural teenage invincibility to teach life-saving lessons. The program is divided into three segments:

1. Educate the students about criminal law, the social host law, safe driving techniques, toxicology, and licensing issues using real cases and real evidence.
2. Skit where student volunteers re-enact a driving situation in which passengers encourage the driver to drink and engage in other reckless driving. A Nassau County Police Officer responds to the scene of the “crash” and explains the

police procedures and the tests conducted. The student “driver” performs coordination tests wearing “Fatal Vision” goggles which simulate intoxication. At the conclusion, students are informed the skit is based on a real case in which the driver’s cousin was killed as a result of the crash and the fact he had not been wearing a seat belt.

3. Young DWI and driving crime defendants are sentenced to speak at the programs as part of their community service. The District Attorney believes that experience for young defendants and the audience presents a win/win situation. The defendant faces the reality of what he or she has done, and, hopefully, the student audience identifies with the speaker and realizes how easily they could make these mistakes. Victims or their families also explain the heartache they have suffered at the hands of drunk or reckless drivers.

Credible Messenger Justice Center – Arches Impact

The Credible Messenger Justice Center’s Arches Impact program is a mentoring program that aims to reduce recidivism and improve the outcomes of young people under probation supervision. The program is grounded in principles of positive youth development and relies on a model of government-community partnership. It works with young adults in their own neighborhoods, connecting them with “credible messenger” mentors, whose life experiences, including their own criminal justice involvement, help them to engage and motivate justice-involved young people in ways that other system stakeholders, alone, cannot. Mentors equip young people with tools to change their lives while providing them with living examples of hope and transformation.

Mentors run group sessions using a cognitive behavioral intervention and are available at all times for one-on-one support. Working alongside probation officers, mentors help young people make better and safer decisions, pursue their goals, repair relationships with family and community, and connect to educational, work readiness, and employment opportunities.

Arches aims to change the life trajectory of youth at high risk for future justice system involvement, promoting economic mobility for participants, while also increasing community safety.

A study of the program showed that it significantly reduced recidivism for young adults on probation in New York City.

LRB174091-3

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: City-County Carjacking and Reckless Driving Task Force

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: July 26, 2019

Subject: Success Rates for Boston's Ceasefire program and Roca

This memo is in response to your request for additional information regarding success rates for Boston's Ceasefire program and Roca.

Boston Ceasefire

A simple comparison study found a statistically significant decrease in the monthly number of youth homicides in Boston following implementation of Operation Ceasefire. There was a 63 percent reduction in the average monthly number of youth homicide victims. Additionally, there was a 25 percent decrease in the monthly number of citywide gun assaults, with a 44 percent decrease in the monthly number of youth gun assaults in particular district; there was a 32 percent reduction in the monthly number of citywide shots-fired calls for service; and there was a decrease in the number of new handguns recovered citywide.

A full report on Boston's Operation Ceasefire from the U.S. Department of Justice Office of Justice Programs National Institute of Justice is attached for your review.

Roca

In 2018, Roca served 942 high-risk young men. Of those, 298 enrolled in transitional employment, 267 were placed in a job, and 66 percent held jobs for more than 6 months. Of the participants, 88% had no new arrests and 78% stayed with the program.

Roca's Fiscal Year 2017 High Risk Young Men Performance Benchmarks and Outcomes Report is attached for your review.

LRB174091-3
attachments

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: August 19, 2019

Subject: Carjacking and Reckless Driving – List of Recommendations

This memo provides a list of recommendations for addressing carjacking and reckless driving, as compiled from Legislative Reference Bureau memos and City-County Carjacking and Reckless Driving committee and subcommittee meetings. The ideas presented below are not listed in any particular order.

ACCOUNTABILITY AND ENFORCEMENT

1. Increase penalties.
2. Encourage prosecutors to look at what charges can be brought and what facts would help to increase the penalty.
3. Charge reckless driving offenses as criminal rather than civil, and look at charges for unrelated offenses.
4. Police offers could aim enforcement measures at more drivers than just those who are fleeing, to include drivers who are swerving and using excessive speed.
5. In the court system, judges could mandate driving safety classes for all traffic convictions.
6. The City could lobby for state legislation to allow for red light cameras, which have some proven success in other jurisdictions.
7. Those convicted of carjacking and reckless driving offenses could be required to complete victim impact panels.
8. The Police Department could pilot a program where they make it part of standard operating procedure to bring all passengers into the station when they are caught in a stolen car or a car with a reckless driver.
9. Decrease the amount of time between intake and charging from 20 days to 24 hours.
10. Immediately enroll first offenders into a diversion program.
11. Change legislation regarding police bringing minors home.
12. Seek legislative change to add any felony to serious juvenile offender classification in order to increase options for the most dangerous kids.

13. Look closely at the data regarding what works best and what is most effective after sentencing. Inspect whether there is a tipping point where the system is doing more harm than good, and what is actually best in the long run. At times, being locked up can do more harm than good, so determine which interventions are the most effective.
14. Determine who needs the most restrictive treatment.
15. Use more intelligence-based prosecution.
16. Invest more early and often, looking at outcomes of community-based programs. Look at the data for intelligence-informed interventions.
17. Change sentencing to allow for a juvenile's sentence to extend into his or her 20's.
18. Improve information sharing.
19. Fund diversion programs. Budgets could change to fully fund diversion programs, which are proven successful when they have sufficient funding.
20. DDACTS (Data-Driven Approaches to Crime and Traffic Safety): law enforcement model developed by the Department of Transportation's National Highway Traffic Safety Administration.
21. Bait cars.
22. Centipede enforcement.
23. Crossing guards.
24. Enforcement crackdowns.
25. High-visibility enforcement.
26. Keep Kids Alive, Drive 25.
27. Officers in unmarked cars.
28. Vision Zero.
29. A governing body or interagency council that includes representatives from all juvenile justice-related human services organizations and agencies and has the authority to convene these agencies to develop a comprehensive strategy for dealing with child delinquents.
30. A front-end mechanism within the juvenile justice system that can make comprehensive assessments of referred child delinquents, such as Community Assessment Centers, that provide a single point of entry.
31. A mechanism to ensure interagency coordination and collaboration in the delivery of services in the post-adjudication phase, such as wraparound services that can be applied to children and families in a flexible and individualized manner.
32. Consistent tracking of the number of referrals child welfare offices receive from police for children age 12 or younger who have committed delinquent acts.

33. Data sharing between agencies, which can avoid duplication of assessments or inconsistent approaches for children who receive services from multiple agencies. Better integration of services to increase effectiveness.

ENGINEERING SOLUTIONS

1. Traffic signal coordination.
2. License plate readers.
3. Stop Stick tire deflation devices.
4. Drones.
5. Gateway treatment.
6. Pavement narrowing.
7. Pedestrian traffic signals.
8. Radar speed signs.
9. Roundabouts.
10. Rumble strips.
11. School zone signage and street markings.
12. Separation of vulnerable users.
13. Speed humps and raised platforms at pedestrian crossings and intersections.
14. Trapezoidal humps.
15. Vision Zero.
16. Red light cameras.

EDUCATION AND PREVENTION

1. Educate the public regarding the law enforcement consequences of reckless driving.
2. The Task Force could reach out to Milwaukee Area Technical College to discuss its driver safety course.
3. Public relations campaign from police department stating it will crack down on reckless driving behavior.
4. Reach out to children at a much younger age regarding driving safety and consequences.
5. Graduated driver licensing:
    a. Minimum age of 16 for learner’s permit.
    b. Restriction requiring a young driver to have a learner’s permit for at least 6 months.
    c. Requirement for 50 to 100 hours of supervised driving.
    d. Minimum age of 17 for intermediate stage license.

    e. Restrictions on driving at night.
    f. Limit on the number of teenage passengers allowed in the car.
    g. Minimum age of 18 for full-privilege license.
6. Checkpoints program (written agreement between parents and children providing limits on driving privileges).
7. Distracted driving education campaign.
8. Public service announcements and information campaigns, community campaigns, Where's Jockers?
9. Deterrence programs :
    a. Classroom and behavior management programs.
    b. Multi-component classroom-based programs.
    c. Social competence promotion curriculums.
    d. Conflict resolution and violence prevention curriculums.
    e. Bullying prevention programs.
    f. After school recreation programs.
    g. Mentoring programs.
    h. School organization programs.
    i. Comprehensive community interventions.
10. Early intervention programs – starting with prenatal care, neonatal nursing visits.
11. Coordination among the juvenile justice system, schools, child welfare agencies, and mental health agencies.
12. Funding preventive programs that serve high-risk children from becoming incarcerated offenders:
    a. Adolescent diversion program (Michigan State University) .
    b. Big Brothers Big Sisters community-based mentoring program.
    c. Functional family therapy.
    d. Gang reduction program.
    e. Great Life Mentoring.
    f. Home visitation by nurses.
    g. Mentoring.
    h. Minneapolis hot spots experiment.
    i. Multi-systemic therapy.
    j. One Summer Plus Summer Jobs program.
    k. Operation Peacekeeper.
    l. Police foot patrol.
    m. Recreation program.
    n. Social decision making/ problem solving program.
13. Boston Ceasefire.
14. Roca.

15. Driver’s license recovery programs.
16. Prevention and advocacy in schools.
17. Credible Messenger Justice Center – Arches Impact.
18. Drive CarePhilly.
19. Safe Streets.

LRB174091-5

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: August 27, 2019

Subject: Carjacking and Reckless Driving: Additional Resident Feedback

This memo is in response to your request for information regarding a letter from resident Samantha Kearney. The letter raised the following issues:

1. Recommendation to conduct a public awareness campaign regarding vehicle design.
2. Traffic-calming measures.
3. Community service as a penalty for traffic violations.

The first two points have been addressed in some measure in previous memos for the Task Force, and the third point will be discussed further below. Regarding the first point, while vehicle design has not been addressed specifically, public awareness campaigns have been addressed. Ms. Kearney raises interesting points with respect to the content for such campaigns, and it would be useful to attach her letter to the file. The second point has been discussed at great length in previous memos.

Regarding the third point, Sheldyn Himle stated that community service in lieu of payment of a fine is generally not used for traffic offenses, although judges do have some discretion. Branch 3, specifically, has started to allow community service for traffic offense in some individual cases. Generally, the judges use driver's license suspension as a consequence because they have deemed it more relevant to the offense. However, community service is not precluded as a penalty.

LRB174091-6

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

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LRB174091-6

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: November 11, 2019

Subject: Carjacking and Reckless Driving: Buying a Car without a Driver's License

This memo is in response to your request for information regarding the pros and cons of requiring a driver's license to purchase a vehicle.

Although there is no law prohibiting a person from buying a vehicle without a driver's license, there are other barriers making it very difficult to operate a vehicle one has purchased without a driver's license, such as registering the vehicle and insuring it – both of which often require a driver's license. Given the lack of legislation requiring a driver's license to purchase a vehicle, the Legislative Reference Bureau is unable to provide research showing either positive or negative outcomes from such a law.

However, there are some circumstances that may lead a person to purchase a vehicle without a driver's license, including the following examples:

1. A disabled person needs a car for a caregiver to drive, but wants full ownership of the vehicle.
2. A business owner needs a vehicle for licensed employees to drive.
3. A person wants to buy a gift for a loved one who has a driver's license.
4. A parent or guardian has an underage child or dependent who is licensed but cannot legally finance the vehicle.
5. A person wants a collectible automobile he or she has no intentions of driving.
6. A person has a driver or chauffeur who will operate the vehicle for him or her.

LRB174091-7

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: November 15, 2019

Subject: Carjacking and Reckless Driving: Driver's License Suspension

This memo is in response to your request for information regarding driver's license suspension. Specifically, the questions asked were as follows:

1. Is the City still funding driver's licenses recovery through a block grant?
2. What is the number 1 reason people lose their license?
3. How many people use the driver's license recovery program?
4. How difficult is the process to recover a license?

Block Grant

The City is currently funding the driver's license recovery program with a block grant in the amount of $150,000.

Reasons

According to the municipal court, there are two reasons that a driver's license gets suspended:

1. A person does not pay a fine they received as a juvenile.
2. An adult does not pay a fine for a traffic charge. For the purposes of traffic charges, juveniles are considered as adults.

Additionally, please see the attached statistics from the Department of Transportation regarding driver's license revocations and suspensions by reason of conviction.

Number of Users

Difficulty of Recovery Process

In order to reinstate a suspended license, the driver must appear in court. Challenges with the process include lack of transportation, childcare, ability to take time off from work, knowledge of court process, and lack of funds to pay fines.

LRB174091-8
Attachment

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

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LRB174091-8
Attachment

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: November 21, 2019

Subject: Carjacking and Reckless Driving: Citizen Dashboard Cameras

This memo is in response to your request for information regarding the use of dashboard video cameras in reporting reckless drivers based on a recommendation from a resident to either develop an app or create a hotline for reporting reckless drivers with use of dashboard camera footage.

According to Nick DeSiato, the State of Wisconsin does not have an owner's liability statute. Accordingly, the use of dashboard camera footage would not be useful to police officers in issuing tickets to reckless drivers because such footage lacks a positive identification of the driver of the vehicle. The police are precluded from issuing a citation to the vehicle itself (or the owner of the vehicle) without such positive identification. In order to issue a citation, a police officer requires the identity of the driver and a lawful stop. A stop must be based on reasonable suspicion observed by the officer.

Given the complex legal implications involved with reasonable suspicion law and video camera evidence, the City Attorney's Office is best-suited to provide a more thorough response to this request. Please let the Legislative Reference Bureau know whether you would like a letter to the City Attorney's Office drafted on your behalf requesting a legal opinion on this issue.

LRB174091-9

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: December 19, 2019

Subject: Carjacking and Reckless Driving: Community Recommendations

This memo presents recommendations along with feedback and comments to the Task Force provided by residents in the community meetings held on November 12, 2019, at South Division High School, and on November 25, at Rufus King High School.

The recommendations are grouped by subcommittee and presented in the order of most-to-least frequently recommended (recommendations that have been recommended the same number of times are presented in no particular order). The number in parenthesis preceding the text of a recommendation indicates the number of times that recommendation was provided. Feedback and comments follow the recommendations in each section.

Accountability & Enforcement

Recommendations

1. (17) Increase penalties for offenders (reckless driving / lack of DL, registration, insurance) (regardless of owner of vehicle):
    a. Impound vehicle.
    b. Boot the vehicle.
    c. Send to military-like boot camp for reckless drivers.
2. (14) Increase penalties (in general):
    a. Length of time/ duration.
    b. Dollar amount.
    c. Severity.
    d. Graduated – increase for each subsequent offense.
3. (14) Penalties instead of forfeiture for driving convictions:
    a. Require community service.
    b. Require road trash pickup/ cleanup after collisions.
    c. Community service in communities most impacted by reckless driving.

    d. Pay wages for work, but all money goes directly to restitution for damage or injury to victims or to fund driver education classes.
    e. Instead of suspension, offer mediation, anger management, or substance abuse classes.
    f. Driver education classes.
4. (14) Increase police presence:
    a. In neighborhoods where rolling drug cars operate – those are the same drivers that are reckless.
    b. At intersections with higher incidents of reckless driving.
    c. Patrol main streets with radar guns.
    d. Place empty squad cars in strategic locations.
    e. Speed traps.
5. (12) Increase enforcement:
    a. Require police to respond in a timely manner.
    b. Require quotas.
    c. Hotspots.
6. (12) Red light cameras:
    a. Running red lights.
    b. Speeding.
    c. Use money collected from forfeitures to fund education at schools near the highest injury rates, youth recreation programs, libraries, safer streets.
7. (10) Create a 24-hour hotline, central e-mail, web address, or app to report reckless drivers and nuisance vehicles. (Crime Stoppers)
8. (8) Hold parents accountable:
    a. For their kids when they first offend.
    b. Enforce curfew laws: fine parents of kids if they are on the streets or caught doing criminal acts after 11 p.m.
9. (8) Restorative justice – victim impact panels / require offenders to hear victim impact statements.
10. (6) Abolish driver's license suspensions for nonpayment. Instead, suspend license for safety reasons.
11. (5) Do not increase penalties:
    a. Give people jobs.
    b. Create a jobs program for youth to keep them off the street.
    c. Grant amnesty to drivers whose license was suspended due to nonpayment.
12. (5) No high-speed chases, or abandon the chase after a certain time or length of pursuit.
13. (4) Implement "quality-of-life" policing:

    a. Pull over cars that have tinted windows because rolling drug cars have tinted windows.
    b. Pull over cars that have bumpers ripped off, no license plate.
    c. Pull over cars that have temporary plates because those drivers do not have valid licenses. Impound the car and send the person to jail.
14. (4) Hold dealerships accountable for selling cars to people who do not have a driver's license.
15. (4) Require drivers to have car insurance, license, registration, and license plates.
16. (4) Unmarked police cars / "spy cops" (undercover, plainclothes, plain vehicle) so people consider themselves always in "danger" of getting caught.
17. (3) Create a Standard Operating Procedure regarding youth and reckless driving.
18. (3) Create stricter consequences for minors: charge minors as adults for reckless driving and carjacking.
19. (2) Require drivers who have received citations to place a "restricted" sticker on the license plate as a form of a "scarlet letter."
20. (2) Make it a felony to use a weapon in stealing a car, prohibit anyone convicted of the felony from ever driving again.
21. (2) Fleeing from a collision/ hit-and-run:
    a. Charge as a felony crime.
    b. Charge passengers with a crime as well.
22. (2) Stop giving felonies for no monitoring of streets, especially Fond du Lac, Capitol, Appleton, Center, North, and Sherman. No felonies unless homicides or major injuries. Hold companies accountable for selling tint – fine them, revoke their business license, etc.
23. (2) Hold vehicle owners accountable when their cars have been used in a reckless manner.
24. (2) Use available technology to track reckless driving. For example, install live feed cameras to decrease police pursuits. Officers can watch the cameras at a central command center and send a squad to the location of the reckless driver, thereby eliminating the need for a chase.
25. (2) Bring in the National Guard/ institute martial law to help the police.
26. (2) Place a device on offenders' cars restricting their speed to only go 40 mph.
27. (2) Hold judges accountable for letting people off the hook.
28. (2) Require drivers under age 25 to show a certificate of completion for driver education classes in order to get a driver's license and in order to purchase a vehicle.
29. (2) Community cooperation:

    a. Encourage residents to submit to police their dash cam video, surveillance video, and Ring surveillance.
    b. Provide free Ring cameras city-wide in or in specific areas like main thoroughfares so there is video evidence.
30. “Slow Down MKE” Pledge to end reckless driving, subcommittee of Safety & Civic Commission:
    a. Follow speed limit.
    b. Do not enter bike line.
    c. Yield for pedestrians.
31. Require permanent registration of car at the time of purchase – no temporary plates at all – and mandatory license check at time of car purchase.
32. Require sellers of vehicles to have proper documentation.
33. Bail needs to be higher than $500 for hit-and-run causing great bodily harm.
34. Attach car insurance to a vehicle’s VIN.
35. Create “hooptie” laws.
36. No stopping in traffic.
37. Add a fee to fund rapid response tow trucks, which will free up officers more quickly.
38. No red light cameras.
39. Increase the length of time for a probationary license.
40. Abolish mandatory minimum sentencing.
41. Retain judicial discretion.
42. Retain juvenile law.
43. The City must be accountable for data analytics on responsiveness to all traffic accidents and property damage.
44. Hold the Task Force accountable for implementing these recommendations: provide updates on progress.
45. Require elected officials to provide the proper response.
46. A task force needs to be on the roads 24/7 period for driving.
47. Create a different task force for different penalties.
48. Require insurance companies to consider driving record as the primary criteria for setting liability insurance rates.
49. Change legislation to require insurance to register a vehicle.
50. Change legislation to catch up with technology, i.e. phones being used in cars.
51. Pass fees along to drivers.
52. Mandate insurance check by police for all traffic stops.
53. Use license plate readers.
54. Require police to set an example by driving the speed limit and following road rules in non-emergency situations.

55. Place a stop stick in front of the car during every traffic stop.
56. Prioritize violations.
57. Repeat offenders:
    a. Increase monitoring/ follow-up.
    b. Require re-education or continuing education.
58. Promote the positive.
59. Institute fair and equitable enforcement that targets behavior and not people or places.
60. Promote self-accountability.
61. Drive within 5.
62. Allow police to drive vehicles home so neighbors can see that an officer lives there.
63. Enforce vehicle equipment regulations.
64. Increase data sharing among departments and jurisdictions.
65. Advocate for state legislative changes, like graduated penalties and red lights.
66. Consider charges.
67. Create a separate detention facility for drivers. Use the vacant AO Smith building.
68. Create an app called “Exposed” for people to use their own phones to show video of people driving recklessly. Do it live-time and allow it to show the drivers’ faces. Pay a reward for catching the driver.
69. Absolutely no drones.
70. Address offenders who have never taken driver’s education differently from those who have taken it, and get them into class.
71. Repeat offenders should undergo psychiatric evaluation and be routed to mental health treatment.
72. Signs showing drivers how fast they are driving.

Feedback and Comments

1. (2) There needs to be a sense of urgency; implement these changes now.
2. Reckless drivers appear to have a complete disregard for potential tickets.
3. Reckless drivers appear to have no regard for family safety.
4. How can we be more proactive?
5. The implementation of these recommendations should not operate in silos.
6. What are some alternatives to traditional enforcement?
7. In advocating for State legislative changes:
    a. There is concern regarding punitive measures.
    b. There needs to be an incorporation of police-community relations regarding traffic enforcement.

    c. There is concern regarding disproportionate impact on communities of color.
    d. There should be inclusion of the Safety & Civic Commission.
8. There is a difference between the role of standard operating procedures and the larger recommendations of the Task Force, including charging.
9. There is a lack of representation of other municipalities.
10. Operation Take it EZ messaging should have inclusivity.
11. The timing of community sessions should take into account alternative scheduling so more people can attend.
12. Carjacking appears to be omitted from the report and recommendations.
13. Related driving violations should be enforced:
    a. There is concern regarding incentivizing pursuits.
    b. Standard Operating Procedure outlines when to pursue.
    c. Resource allocation should be addressed, including when and why there are multijurisdictional surges of enforcement.
    d. Enforcement should comply with the ACLU lawsuit requirements.
14. Is there a decrease in municipal court violations?
15. Mindsets are changing.
16. Concern regarding funding and fiscal impact of enacting recommendations.
17. Strike the Standard Operating Procedure language.
18. Place real citizens on the Task Force.
19. Defendants should not be allowed to use the court system to avoid accountability.
20. Maximum jail – Huber 30-60 days.
21. There is support for considering charges.
22. Will red light cameras be effective? Some of the worst offenders are driving recklessly when they are not at an intersection.
23. Owner occupants are more invested.
24. We should not be reactionary with legislation and enforcement.
25. Youth have nowhere to go – no recreation centers, etc. Give them somewhere to go.
26. Do not want to destroy families with enforcement; that is not the goal.
27. Distracted driving.
28. Can we get paid for our suggestions?
29. How do we resolve this issue equitably?
30. Demographics: “who” are these drivers? No license to lose, no insurance, no diploma, no job, no responsibility, nothing to lose – this is a thrill.
31. When will all these laws be enforced? Date, please.

32. No good drivers should take pictures of reckless drivers unless they are not driving.
33. What are the root causes? How do you address the root causes?
34. The problem is not just kids.

Engineering Solutions

Recommendations

1. (11) Create barriers to slow traffic down:
    a. More speed bumps (everywhere, side streets, especially schools).
    b. More stop signs (every six blocks or fewer).
    c. More traffic lights.
2. (7) Protected bike lanes with substantial barriers.
3. (3) Create bus lanes (that are separate from bike lanes).
4. (3) Lane narrowing:
    a. Smaller steps to reduce lanes.
    b. Use lane congestion on large streets.
5. (2) Coordinate traffic signals.
6. (2) Pedestrian traffic signal timing with additional phasing of signals.
7. (2) Raised sidewalks, trapezoidal sidewalks.
8. (2) Pedestrian plan:
    a. Increase funding for the multimodal unit of DPW to fully implement.
    b. Connect with the pedestrian plan.
9. Proactive installation of pedestrian safety infrastructure.
10. More information and advertisement of process for requesting projects.
11. Improve visibility and sight lines at intersections.
12. Prioritize projects that evaluate equity.
13. Review use of one-way streets.
14. Use reverse diagonal parking to narrow lanes.
15. Lower the speed limit.
16. Design streets for lower speeds.
17. More rapid response projects.
18. Use old tires for protected lanes (or other alternate material), couple with public art projects.
19. Use clear signage so everyone is aware in advance of lane narrowing and speed humps.
20. Use money collected from tickets to fund engineering projects.
21. Make smoother streets.

22. Do parking studies to assess the amount of street parking. May be able to remove or move parking from one side to accommodate a protected bike lane.
23. Flashing red beacons are essential; DPW needs to do this more and hire more people.
24. Install blinking light/ orange light to give drivers a cautionary time limit to watch out for drivers who may blow/ disregard traffic signals.
25. Install speed strips to alert drivers.
26. Multi-modal transportation: Make roads less car-centric and friendlier to other users (pedestrians, bikes, buses, streetcar, etc.)
27. Physically prevent people from passing on the right.
28. Create bump-outs at bus stops; if no bus stop, put it mid-block on both sides of intersection (near and far side).
29. Start in areas that have the most accidents.
30. Install temporary lane dividers at turn lanes.
31. Roundabouts.
32. Install better lighting at intersections.

Feedback and Comments

1. Support for various solutions depends upon the location where they are implemented.
2. Road diet should be done in conjunction with physical barriers.
3. Group the recommendations by the root cause of the behavior:
    a. Distracted
    b. Untaught
4. Get input from the disability community.
5. Abandon lane narrowing projects. With narrow lanes, people just drive on the sidewalks and there is nowhere to escape other cars running you down.
6. Get rid of bike lanes: No one uses them except cars. No one will risk their lives using a bicycle in a bike lane.
7. Why do we have bike lanes when people don't use them?
8. What was the thinking behind bike lanes? People bike the wrong way to avoid getting hit.
9. Afraid to bike because it is unsafe.
10. Inexpensive barriers are a short-term solution.
11. Get more community input for reconstruction design.
12. I have lived in places where the sidewalks are raised. It's great for the people crossing with strollers, etc. (no curb cut) and it slows down the car.

13. There are poles that go up when you need to block cars, down when the emergency vehicles need to go through. We are not that advanced yet, but I hope we can be now.
14. Why do roundabouts have limited applicability in Milwaukee, specifically on high-volume streets? Roundabouts can accommodate high-volume roads.
15. How do you get roundabouts in your neighborhood?
16. Do we have money?
17. How are they paid for? Assessments can be unaffordable.
18. Smaller steps to reduce lanes can change behavior.
19. I would rather have my commute time increase in order to increase safety.
20. Some repaid implementation suggestions are not robust enough.
21. School district must be considered.
22. Do more in school zones.
23. How do you prioritize?
24. Are there grants available to help?

Prevention & Education

Recommendations

1. (26) Driver's education classes:
    a. Increase funding to increase availability.
    b. More opportunities, including community organizations as partners.
    c. Expand MPS Drive into all schools and make it a required course.
    d. Expand MATC driver education classes/ availability.
    e. Provide driver education for all ages (and start earlier).
    f. Include driver safety education in core curriculum.
    g. Mandatory. Required for all students. Required for all drivers before obtaining a license, regardless of age.
    h. Mandatory refresher course: all drivers who have received a license in the last three years must take a class about reckless driving.
    i. Required for all drivers who have lost their license.
    j. Make classes free, sliding scale, or cost-effective.
2. (19) Public Information Campaigns/ Public Service Announcements:
    a. Include notable Milwaukee "celebrities" such as Brewers and Bucks players, coroner, perpetrators
    b. Provide information on laws and regulations, Warrant Withdrawal days, victim impact statements, etc.

    c. Place on radio, TV, streaming sites (podcasts), social media, on buses, etc.
    d. Make the campaigns youth-led.
    e. Campaign: Safe is Cool.
    f. Walking and biking are cool.
    g. Make public transportation cool.
    h. Come up with a catchy tagline/ slogan (such as “Pedestrian Lives Matter” or “Slow down. Life Matters.”)
    i. Campaign at gas stations and corner stores.
    j. Place digital signage showing the number of people who have been killed due to reckless driving.
    k. Grassroots slow down campaign that involves community organizations.
    l. Conduct “safe streets” events at sites of fatalities.
    m. Show real consequences of reckless driving.
    n. Use public health messaging.
    o. Steps to take when you hit someone.
    p. Provide updates / refresher on road rules.
    q. Effects of drugs and alcohol on driving, need for seat belts, causes of reckless driving, etc.
3. (10) Public transportation:
    a. Increase public transportation options and availability
    b. Provide incentives for using public transportation.
    c. Make public transportation cool.
    d. Make public transportation affordable.
    e. Increase funding.
4. (5) Provide diversion alternatives:
    a. Community centers.
    b. Recreation centers.
    c. Places for youth to go.
    d. Community work.
    e. Adventure programming.
    f. Jobs.
5. (4) Driver’s license recovery:
    a. Increase funding.
    b. Require driver education class and re-take test in order to get license back.
6. (4) Identify root cause:
    a. Interview reckless drivers to learn their motivation for doing so.
    b. Identify irresponsible behaviors and what causes them.

    c. Identify specific characteristics of a reckless driver and a carjacker.
7. (3) Conduct police outreach in schools:
    a. Involve youth.
    b. Address accountability and trauma.
    c. Share videos about reckless driving and carjacking.
    d. Bring victims to share their stories.
    e. Give police officers and youth an opportunity to encounter each other as human beings to develop trust.
8. (2) Partner with insurance companies (investment) for:
    a. Incentive-based premiums
    b. To underwrite driving classes.
    c. Reduce insurance premium for taking driver's education.
9. (2) Hire a liaison between community churches and the Police Department:
    a. Retired police can and community leaders can train the liaison.
    b. Neighborhood resources, liaisons, and churches can offer job training and mental health resources.
10. (2) Create a video documentary (movie) about:
    a. The consequences of violating traffic laws causing injury and death.
    b. What happens to offenders?
11. (2) Increase respect for others, respect for life, and common courtesy to instill a sense of community. Use peace circles in grade schools and implement community parenting.
12. (2) Parental involvement: Provide education to parents for tools they need to educate their kids regarding reckless driving.
13. (2) Create a new program that helps people with insurance, registration, and license plates.
14. (2) Public art:
    a. Sculpture/ installation that uses car pieces from wrecks.
    b. Competition (to gain community buy-in, engagement) to make music and art to raise awareness regarding safe driving.
15. Update the required driving test to include both written and road.
16. Require testing for elderly drivers.
17. Require road driving test for license, regardless of age.
18. Require all drivers to re-take the driving test for renewal.
19. Create a safe driving tax to pay for driver's education classes.
20. Ask surrounding county businesses to pay for driver's education classes as an incentive to bring them workers.
21. Require people who work for the City to live in the city.
22. Use vacant school buildings for job training and mental health education.

23. Hold monthly crime and safety meetings to provide residents with an update on hit and run data.
24. Provide education to all violators of traffic laws along with punitive measures.
25. Create an attractive video game to teach the rules of the road.
26. Look at programs used to deal with DUI and make it mandatory.
27. Provide wraparound care to those who have lost their license to determine why they are driving that way in order to properly treat the problem.
28. Get more input from:
    a. Youth.
    b. Parents.
29. Fund existing programs.
30. Create a driver mentorship program with adults teaching youth.
31. Create a community service program.
32. Recruit car dealerships to be part of the solution.
33. Provide jobs connected to driving and cars.
34. Provide education around drug and substance abuse.
35. Provide counseling on a 1:1 or other small ratio.
36. Invite the community and lay people to be involved with counseling (with appropriate training) modeled after programs such as Urban Underground, We Got This, and Program the Parks.
37. Conduct youth forums: gather youth to talk about reckless driving and why it is happening.
38. Create an app where people can submit incidents (and stories) associated with locations as a way to “humbly observe.”
39. Add traffic reporting to the 311 app.
40. Educate drivers on how to use roundabouts.

Feedback and Comments

1. Concern regarding fiscal amount of prevention and outreach such as MATC classes.
2. What happened to Take it EZ?
3. Why can’t the wheel tax be used to pay for this?
4. Recommendations are proactive and long-term.
5. Recommendations are not adequate to meet the current urgent needs.
6. The public must drive defensively.
7. Is there accountability for funds?
8. There should be a different approach altogether to address reckless driving vs. speeding.

9. Get more input from youth.
10. We must be the change. It starts with us.
11. Stop saying “just kids.”
12. A video game app will not do enough – there is too much competition.
13. It is better for youth to hear from other youth.
14. Respect for authority (from home, school, jobs, law, etc.), lack of morals.
15. Some kids would rather be in the detention centers because they get more love, food, and attention than they get at home. They actually tell us that. Understand “why” not “how.”
16. Some kids are just looking for a thrill, but they do not have enough programs to get that rush.
17. We appreciate all the people who work with the youth and show them the love they need to keep on the straight and narrow.
18. When I was growing up, the cops were like secondary parents, you legitimately were afraid of their reprimand, not of getting killed.
19. Everybody is afraid of getting killed, which makes enforcement more dangerous. We need more opportunities for officers and young people to encounter each other as human beings and develop trust.
20. How are other cities handling prevention and education?
21. What is creating a reckless driving culture?
22. People do not understand rules of the road and right-of-way issues.
23. Need to educate.

LRB174091-10

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: February 24, 2020

Subject: Virtual Reality of Crash Sites to Teach Youth about Reckless Driving

This memo in response to your request for information regarding whether virtual reality is being used in the United States to teach youth about reckless driving.

The use of Virtual Reality simulators as a teaching tool to prevent distracted driving has been widespread throughout the United States for several years. Programs offered include private companies and public-private partnerships. Following is a brief summary of some of the programs that have been used.

In Massachusetts, an organization called Teen D.R.I.V.E. allows high school-aged youth to use a virtual reality distracted driving simulator. The program travels between schools in the state. Toyota sponsors a similar program called Teen Drive 365 and uses an Oculus Rift virtual reality simulator.

Seattle has adopted Vision Zero, and as part of their platform, the Seattle Department of Transportation partnered with AT&T and Seattle Public Schools to present a driving safety demonstration that included a virtual reality driving simulator. The campaign started in 2010 as an effort to reduce texting while driving.

The California Highway Patrol worked with Impact Teen Drivers to bring AT&T's "It Can Wait" program to California and to provide virtual reality simulation in schools and community events across the state. Students also received Google boxes that can be paired with a cell phone to recreate the virtual reality experience through the ItCanWait.com/VR app.

The Provo City School District uses Virtual Driver Interactive to train approximately 300 students per year on the system. The instructor is able to change the driving conditions to provide an interactive experience for the students.

In Wisconsin, Omro High School's Students Against Destructive Decisions group helped bring the "Arrive Alive" virtual reality simulator to the school. More than 150 students participated in the demonstration.

LRB174091-18

MEMORANDUM

LEGISLATIVE REFERENCE BUREAU

WWW.MILWAUKEE.GOV/LRB

To: Ald. Michael J. Murphy

From: Tea Norfolk, Legislative Fiscal Analyst – Lead

Date: January 30, 2020

Subject: State Legislative Bill Regarding Reckless Driving and Carjacking

This memo is responsive to your request for information regarding the proposed State legislative bill LRB-5506: The Car Theft and Reckless Driving Prevention Act sponsored by Senators Chris Kapenga and Dale Kooyenga and Representatives Rob Hutton, Joe Sanfelippo, and Dan Knodl. Specifically, this memo addresses the penalties for felony levels. The penalties for felony levels are as follows:

Class D

A fine not to exceed $100,000 or imprisonment not to exceed 25 years, or both.

Class E

A fine not to exceed $50,000 or imprisonment not to exceed 15 years, or both.

Class F

A fine not to exceed $25,000 or imprisonment not to exceed 12 years and 6 months, or both.

Class G

A fine not to exceed $25,000 or imprisonment not to exceed 10 years, or both.

Class H

A fine not to exceed $10,000 or imprisonment not to exceed 6 years, or both.

Class I

A fine not to exceed $$10,000 or imprisonment not to exceed 3 years and 6 months, or both.

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