
Louisiana Transportation Research Center

Technical Assistance Report 18-01 TA-SA

**SHSP-HSP Crosswalk: A Tabular Comparative Presentation
of Louisiana's Strategic Highway Safety Plan (SHSP)
and Highway Safety Plan (HSP)**

by

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TECHNICAL REPORT STANDARD PAGE

1. Report No. FHWA/LA.16/18-01TA-SA		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle SHSP-HSP Crosswalk: A Tabular Comparative Presentation of Louisiana's Strategic Highway Safety Plan (SHSP) and Highway Safety Plan (HSP)		5. Report Date July 2019			
		6. Performing Organization Code LTRC Project Number: 18-01TA-SA			
7. Author(s) Rudynah Capone		8. Performing Organization Report No.			
9. Performing Organization Name and Address Louisiana Center for Transportation Safety Louisiana Transportation Research Center 4101 Gourrier Avenue, Baton Rouge, LA 70808		10. Work Unit No.			
		11. Contract or Grant No.			
12. Sponsoring Agency Name and Address Louisiana Department of Transportation and Development P.O. Box 94245 Baton Rouge, LA 70804-9245		13. Type of Report and Period Covered Technical Assistance February – May 2018			
		14. Sponsoring Agency Code			
15. Supplementary Notes Conducted in accomplishment of Safety Center's goal of SHSP-HSP congruence					
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17. Key Words			18. Distribution Statement		
19. Security Classif. (of this report)		20. Security Classif. (of this page)		21. No. of Pages	
				22. Price	

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LTRC Project No. 18-01TA-SA

conducted for

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Louisiana Transportation Research Center

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July 2019

ABSTRACT

This technical report examined the Strategic Highway Safety Plan (SHSP) and Highway Safety Plan (HSP) documents of Louisiana to conduct a crosswalk analysis and determine where highway safety strategies in both plans overlap, co-exist, duplicate, or intersect [1-2]. Targets, approaches, and strategies between the two planning documents were comparatively examined. Although there were strategies that were unique, it was found that numerous programs overlapped and co-existed. They were similar in nature, thereby promising an opportunity to leverage resources. They may mitigate gaps of implementation, reduce duplication of efforts, and capitalize on opportunities for collaboration. To be specific, programs overlapped in the emphasis areas of impaired driving, occupant protection, crashes involving young drivers, and distracted driving. Intersection and roadway departure solutions for infrastructure and operations are highly prioritized in the SHSP, but not in the HSP. This, however, should not discount opportunities for the integration of human factors outlined in the HSP. Despite these distinctions, both plans revolve around the same vision: zero deaths. This vision replicates the National Strategy on Highway Safety *Toward Zero Deaths* that 30 states, including Louisiana, have adopted. A clear understanding of where engineering meets human factors will guide departments of transportation (DOT), state highway safety offices (SHSOs), metropolitan planning organizations (MPO), and local public agencies (LPAs) in integrating highway safety into the overall planning and decision-making process. Safety for non-motorized users such as bicyclists and pedestrians is also addressed in both plans but in slightly different approaches. SHSP focuses on engineering coupled with education, while HSP zooms into the education aspect without engineering elements.

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INTRODUCTION

When the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law in 2005, the National Highway Traffic Safety Administration (NHTSA) required all SHSOs to develop and implement the Highway Safety Plan (HSP) so that funds are allocated to programs and projects that address issues according to what the statewide traffic crash data indicate. Congress directed that NHTSA make it publicly available, on its website, state highway safety plans, state annual accomplishment reports, and NHTSA's management review and special management review guidelines [3].

Following SAFETEA-LU, the Highway Safety Improvement Program (HSIP) was established as a core federal-aid program that also required SHSP as a major requirement. In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law. MAP-21 restructured and made various changes to the highway safety grant programs administered by NHTSA, providing \$1.3 billion for highway safety grants programs. MAP-21 specifies a single application deadline for all highway safety grants and emphasizes the requirement that all states have a performance-based highway safety program designed to reduce traffic crashes and the resulting deaths, injuries, and property damage [3].

While the HSP is focused on the behavioral safety strategies, the SHSP delves more deeply and includes the engineering side of highway safety planning and implementation. Coordinating these plans finds opportunities of integrating human factors into engineering planning and decision-making. This is where programs are implemented at the state and local levels through the Metropolitan Planning Organizations (MPO) and Louisiana's regional SHSP safety coalitions.

“Destination Zero Deaths” as a Coherent Vision

Mirroring the national highway strategy *Toward Zero Deaths (TZD)*, the SHSP envisions *Destination Zero Deaths (DZD)* as its overall premise, which is also embedded into the HSP as its vision. In 2009, the DOTD, LHSC, and Louisiana State Police (LSP) agreed to adopt the goal of halving fatalities by 2030, which the American Association of State Highway and Transportation Officials (AASHTO) upholds as a national goal that also aligns with *Toward Zero Deaths*—an overarching initiative that leads state DOTs to adopt a “zero deaths” highway safety vision. It then inspired the formation of several other zero-based programs such as *Vision Zero*, *Road to Zero*, Transportation Research Board's (TRB) *TZD Subcommittee [ANB 10 (9)]*, and *Vision Zero for Youth*.

Since 2001, approximately 30 states have a TZD-based program, and although each state has different degrees of temporal effect of its TZD program, the average effect is more and more apparent over time [4]. The zero-deaths approach uses a data-driven, interdisciplinary approach that FHWA has been promoting for many years. The approach targets areas for improvement and employs proven countermeasures, integrating application of education, enforcement, engineering, and emergency medical and trauma services (the “4Es”). A combination of strategies from different focus areas will be necessary to achieve the zero deaths vision.

At the municipal and city levels, “zero deaths” has also been embraced as a vision through the Vision Zero initiative. Vision Zero is a road safety policy that aims to achieve a transportation system in which there are zero fatalities or serious injuries for all modes of transportation [5].

Relationship between SHSPs and Other Safety Plans and Programs

To effectively develop and implement the strategies outlined in the SHSP, it is important to understand this new HSIP requirement and its link to other safety plans such as the HSP as well as other state and local plans that are all critical to the success of an SHSP and vice-versa [6]. Transportation plans and programs such as the Statewide Transportation Plan (STP), Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), Statewide Transportation Improvement Program (STIP), Local Road Safety Plan (LRSP) are all critical to the success of the SHSP, HSIP and HSP. Similarly, the HSIP, HSP and SHSP are all critical to the success of the aforementioned plans.

Integration of the SHSP into other safety documents has been impactful for a number of state DOT’s such as Idaho and Maryland, as documented by the SCAN Team of the NHCRP Project on “Advances in Safety Program Practices in Zero Fatalities States.” IDOT has seen success in leveraging resources, recruiting additional partners and stakeholders, and ensuring that all state and local agencies with safety responsibilities are moving forward in harmony. Maryland State Highway Administration’s (SHA’s) business plans for all the DOT modal elements, the HSIP, and the HSP, fully integrates the SHSP goals, objectives, and strategies [7].

The information in this report was collected in order to implement one of the Louisiana Center for Transportation Safety’s (LCTS) goals of conducting a crosswalk analysis between the SHSP and HSP documents to assist highway safety professionals in determining what highway safety strategies overlap, co-exist, duplicate, or intersect in both plans. Results will

be used to mitigate gaps of implementation, reduce duplication of efforts, leverage resources, and capitalize on opportunities for inter-agency collaboration.

OBJECTIVE AND SCOPE

Laying out areas of congruence between Louisiana SHSP and HSP—presented in table format—can be a helpful planning tool for elected officials, transportation planners, police officers, health professionals, emergency responders, engineers, grant writers, teachers, and advocates—all of whom have respective roles in helping improve highway safety at the state and local levels.

Aligning both the SHSP and HSP is where infrastructure intersects with human factors. This cross-section is where highway safety engineers have the opportunity to collaborate with the aforementioned multidisciplinary team of experts toward reaching zero deaths and saving lives. This report particularly aims to achieve the following objectives:

1. To identify specific behavioral and engineering highway safety strategies that may be coordinated, missed, overlapped or duplicated. Both plans are aimed at addressing highway fatalities and serious injuries. But, at what point do human factors impact infrastructure decision? Where may resources be leveraged in? Are there any missed opportunities for coordinating efforts? These questions will be addressed when interpreting the results presented in table format. See Tables 1-11.
2. To utilize the crosswalk matrix as a tool in identifying and prioritizing ways to integrate safety into other short-term and long-term transportation plans such as the, but not limited to, Local Road Safety Plan (LRSP), Unified Planning Work Program (UPWP), Metropolitan Transportation Plan (MTP), Transportation Improvement Plan (TIP), bicycle and pedestrian plans, and other parish or city comprehensive plans.
3. To assist transportation professionals and advocates in allocating funds more strategically by reducing duplication of efforts and expanding on cost-effective initiatives.

This report is the first step into implementing one of the goals that the Louisiana Center for Transportation Safety (LCTS), or the Safety Center, has identified in its Strategic Work Plan. Under the Safety Initiatives Program, the Safety Center hopes to connect ideas of congruency among highway transportation safety activities that are included and funded by the SHSP and HSP. In doing so, highway safety leaders are able to fill gaps and prioritize proven countermeasures.

DISCUSSION OF SHSP-HSP CROSSWALK FINDINGS

This study utilized two specific documents, the SHSP and HSP, for a comparative analysis. It is important to note that these documents may have changes in the future as they are updated at a certain time period. The SHSP is updated every five years, while the HSP is updated annually.

By combining the SHSP's emphasis areas and HSP's program areas, a good list of emphasis areas is presented in this study, namely: impaired driving, occupant protection, young drivers, infrastructure and operations, distracted driving, motorcycle safety, non-motorized safety, traffic records, speeding, and railroad-highway crossing. Under each emphasis area, strategies are listed accordingly. These strategies are categorized by approach such as enforcement, education, engineering, policy, and data.

The results of the crosswalk analysis are presented in the succeeding pages in table format. The information on Tables 1-11 will provide indicators as to how strategies co-exist or overlap between the SHSP and HSP documents. The results also present gaps of implementation in some of the emphasis areas. Here are some of the findings:

- The emphasis areas of impaired driving, occupant protection, young drivers, and distracted driving are overlapping in strategies in all approaches of enforcement, education, policy, and data. These are behavioral areas both the SHSP and HSP take as priorities based on crash data. The SHSP refers to them as emphasis areas, while the HSP considers them as program areas. There are numerous opportunities where stakeholders can leverage resources, such as high visibility enforcement, education and outreach activities, data collection and analysis efforts, and policy initiatives.
- The HSP does not address engineering issues that are reflected under the SHSP's infrastructure and operations emphasis area. However, this presents opportunities for integration of human factors in conducting road safety assessments to address intersection safety and roadway departure issues. It is possible that motorists run off the road as a result of distracted or impaired driving. It's also possible that the lack of seatbelt use contributes to the severity of a crash at intersections and horizontal curves. These behaviors may be helpful in further mitigating engineering issues, so they should be taken into account by planners and engineers.
- The SHSP does not identify non-motorized safety for bicyclists and pedestrians as a separate emphasis area. However, issues involving them are being addressed using engineering and education approaches under the infrastructure and operations

emphasis area. This also includes the integration of Complete Streets Policy throughout project development process. Contrary to this, the HSP takes non-motorized safety as a stand-alone program area that is designed to support educational and outreach activities promoting safer bicycle and pedestrian communities.

- Speeding, railroad safety, and motorcycle safety are found to be explicit priorities only in HSP, but not in SHSP. Even so, the SHSP stakeholders should not miss out on opportunities to support the HSP implementation in these areas through increased education about the traffic laws such as: obey the speed limit, do not stop on the tracks, and wear a motorcycle helmet.
- The SHSP does not explicitly identify traffic records as an emphasis area the same way the HSP explicitly defines it as a program area. However, it's a given that both the SHSP and HSP provide support for activities that improve data collection, analysis, mapping and reporting of crashes. These efforts are led by the Highway Safety Research Group (HSRG) at LSU in partnership with the Traffic Records Coordinating Council (TRCC).
- Neither the SHSP nor the HSP takes enforcement efforts to address distracted driving. Nevertheless, the HSP identifies high-visibility enforcement as a strategy to coincide with media campaigns. Distracted driving is a new emphasis area for the SHSP, so there are opportunities to explore appropriate countermeasures to address problem.

The succeeding pages contain tables reflecting a comparison between SHSP and HSP strategies by emphasis area and approach. A summarized matrix is also presented in a table format. *See Tables 1-11.*

SHSP-HSP CROSSWALK ANALYSIS OF STRATEGIES BY EMPHASIS AREA

**Table 1
Impaired driving**

<u>Emphasis Area</u>		
IMPAIRED DRIVING	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	Targets: 3% reduction of impaired driving fatalities from 236 (2011-2015 average) to 229 in 2018.	Targets: 50% reduction of impaired driving fatalities from 403 in 2009 to 201 in 2030; and 50% reduction of impaired driving severe injuries from 386 in 2009 to 193 in 2030.
	STRATEGIES	
	HSP	SHSP
Enforcement	Provide sustained enforcement of statutes. Support the National Drive Sober or Get Pulled Over campaign with specific overtime enforcement and paid media (high visibility enforcement). Promote Juvenile Underage Drinking Enforcement (JUDE with local enforcement agencies). Implement DWI Court Programs for repeat offenders. Streamline electronic DWI processing system to reduce time to process a DWI arrest.	Increase the number of high visibility DWI programs, such as No Refusal. Reduce the number of repeat DWI offenders. Support the expansion of search warrant use for DWI enforcement.
Education	Provide paid media outreach for state-planned activities. Publish earned media pieces (e.g., PRs, editorials). Implement prevention programs for young adults and underage drinking prevention programs for 15- to 23-year olds. Produce and distribute public information and educational materials to combat impaired driving/riding and underage drinking.	Coordinate consistent messaging. Conduct education and community outreach programs. Conduct prosecutor and judicial training programs. Educate users how to access, analyze and interpret ID crash data.
Policy	Address repeat offenders through legislation and support of DWI courts.	Close the loophole in existing law that allows underage youth to be in bars.
Data	No info found.	Improve data collection, analysis, mapping and reporting of crashes.

**Table 2
Occupant protection**

Emphasis Area		
OCCUPANT PROTECTION	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	<p>Targets: 8.8% reduction of unrestrained fatalities from 261 to 238; 2.2% increase of seatbelt use from 87.8% in 2016 to 90% in 2018.</p>	<p>Targets: 50% reduction of unbelted fatalities from 400 in 2009 to 200 in 2030; 50% reduction of unbelted severe injuries from 374 in 2009 to 187 in 2030.</p>
	STRATEGIES	
	HSP	SHSP
Enforcement	Provide sustained enforcement of statutes.	Increase the occupant restraint use through sustained enforcement.
	Support the National Click It or Ticket seat belt mobilization and Buckle Up in Your Truck with specific overtime enforcement plus paid and earned media (high visibility enforcement).	Prioritize efforts geographically and by target population with low use rates.
Education	Conduct a comprehensive high-risk countermeasures program (e.g., nighttime, pickup trucks).	Coordinate consistent messaging.
	Maintain a CPS seat distribution program for low-income families.	
	Provide paid and earned media outreach, including social media.	Improve marketing, education, and outreach efforts.
	Provide safety belt restraints, child safety seat restraints and safety enforcement information and educational materials to the public.	Educate users how to access, analyze, and interpret OP crash data.
	Provide training opportunities to potential and existing child passenger safety (CPS) technicians and instructors.	Improve occupant restraint use through regulatory/legislative enhancements.
	Provide training opportunity on providing safe travel for children with special needs.	
Provide technical assistance to agencies to conduct OP programs.		
Policy	No information found.	Close the loophole in existing law that allows underage youth to be in bars.
Data	Conduct observational surveys on OP usage, including nighttime survey.	Improve data collection, analysis, mapping, and reporting of crashes.

Table 3
Young drivers

Emphasis Area		
YOUNG DRIVERS	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	<p align="center">Targets:</p> 5.7% reduction of fatal crashes involving drivers age 20 and younger, from 87 to 82.	<p align="center">Targets:</p> 50% reduction of young driver-related fatalities from 323 in 2009 to 162 in 2030; 50% reduction of young driver-related severe injuries from 725 in 2009 to 362 in 2030.
	STRATEGIES	
	HSP	SHSP
Enforcement	Support projects that provide enforcement to counter underage drinking.	Expand enforcement of underage drinking laws and regulations.
Education	Fund youth-based projects which support the HSP targets.	Maintain and support effective programs aimed at reducing moderate, severe, and fatal crashes among 15-17-year-old drivers. support data collection for young drivers' distracted driving crashes.
	Fund youth-based projects that provide education and outreach.	
Policy	No information found.	Create model legislation that supports young drivers.
Data	No information found.	Identify and support data collection for young drivers' distracted driving crashes.

**Table 4
Distracted driving**

<u>Emphasis Area</u>		
DISTRACTED DRIVING	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	Targets: 3.2% reduction of distracted driving fatalities from 158 (2011-2015 average) to 153 in 2018.	Targets: 50% reduction of distracted driving fatalities from 206 in 2009 to 103 in 2030.
	STRATEGIES	
	HSP	SHSP
Enforcement	No information found.	Conduct public information and education efforts including high visibility enforcement campaigns and activities.
Education	Fund coalition projects that implement distracted driving prevention.	Develop effective countermeasures to reduce distracted driving crashes.
	Support training and educational resources on distracted driving awareness.	Develop effective countermeasures to reduce distracted driving crashes.
Policy	No information found.	Increase penalties for distracted driving and strengthen laws and public policies.
Engineering	No information found.	Implement infrastructure improvements that help mitigate distracted driving, such as rumble strips.
Data	Conduct telephone/observational survey on distracted driving.	Improve collection of distracted driving data and incorporate collection of cell phone use in the annual seat belt survey.

**Table 5
Infrastructure and operations (IO)**

Emphasis Area		
INFRASTRUCTURE & OPERATIONS	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	Not an emphasis area.	<p>Targets: 50% reduction of roadway departure fatalities from 586 in 2009 to 293 in 2030; 50% reduction of roadway departure severe injuries from 670 in 2009 to 335 in 2030.</p> <p>50% reduction of intersection-related fatalities from 190 in 2009 to 95 in 2030; 50% reduction of intersection-related severe injuries from 689 in 2009 to 344 in 2030.</p>
	STRATEGIES	
	HSP	SHSP
Engineering	Not an emphasis area.	Implement safety infrastructure projects that improve intersection safety and roadway departures.
		Encourage the use of Road Safety Assessments in project development.
		Streamline the Local Road Safety Program's project delivery process.
		Implement safety infrastructure projects that improve the safety of vulnerable users, including bicyclists and pedestrians.
Education		Provide infrastructure and operations training to all safety stakeholders.
Policy		Incorporate Complete Streets Policy during project development.
Data		Improve crash data collection, quality, analysis, mapping, and reporting.

Table 6
Motorcycle safety

Emphasis Area		
MOTORCYCLE SAFETY	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	<p align="center">Targets: 3.6% percent reduction of motorcyclist fatalities from 84 (2011-2015 average) to 81 in 2018.</p>	Not an emphasis area.
	STRATEGIES	
	HSP	SHSP
Enforcement	Provide sustained enforcement of statutes addressing impaired driving/riding.	Not an emphasis area.
Education	Support the National "Drive Sober or Get Pulled Over" campaign with specific overtime enforcement and paid media based on data-driven demographic and geographic locations.	
	Provide a public information and education program to raise awareness of motorcycle riders by the motoring public and prevent impaired riding by motorcyclists.	
	Support the Department of Public Safety, Louisiana State Police in administration of the motorcycle operator-training program.	
Policy	Support and promote the existing universal motorcycle helmet law.	
Data	No information found.	

**Table 7
Non-motorized (bikes and pedestrians)**

Emphasis Area	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
NON-MOTORIZED USERS (Bikes and Pedestrians)		
APPROACH	<p>Targets: 2.9% reduction of pedestrian fatalities from 104 (2011-2015 average) to 101 in 2018.</p> <p>Reduce bicycle fatalities from 20 (2011-2015 average) by 1 percent annually with the goal of reaching 0 by 2030.</p>	<p>Targets: 50% reduction of non-motorized user fatalities from 126 (2009) to 63 by 2030.</p> <p><i>Addressed under the Infrastructure and Operations Emphasis Area</i></p>
	STRATEGIES	
	HSP	SHSP
Education	<p>Support educational and outreach activities that promote safer bicycle and pedestrian communities.</p> <p>Assess and fund eligible SHSP Regional Coalition projects that support implementation of their action plans to improve bicycle and pedestrian safety as appropriate.</p> <p>Assess and fund other eligible coalition-based projects that support HSP performance targets and strategies to improve bicycle and pedestrian safety.</p>	<p>Reduce non-motorized user fatalities and serious injuries through education.</p>
Policy	No information found.	Integrate Complete Streets Policy throughout project development process.
Data	No information found.	Utilize data to target infrastructure investments.

Table 8
Traffic records

Emphasis Area		
TRAFFIC RECORDS	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	Targets: Improve timeliness, accuracy, and accessibility for crash data.	Targets: Supports the overall goal of Traffic Records Program/TRCC.
	STRATEGIES	
	HSP	SHSP
Overall Approach	Maintain membership in Louisiana TRCC. Support the TRCC and data owners. Provide training when necessary.	Support efforts to improve data collection, analysis, mapping and reporting of crashes.
Policy	Recommend legislative changes as needed to support an improved traffic records information system.	
Data	Continue to support the collection and submission of accurate traffic crash data to Fatality Analysis Reporting System (FARS) and LSU and provide training when necessary.	

Table 9
Railroad/highway crossing

Emphasis Area		
RAILROAD/ HIGHWAY CROSSING	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	<p align="center">Targets: 60% reduction of rail-highway crossing fatalities from 5 (2011-2015 average) to 2 in 2018.</p>	<p align="center">Targets: Not an emphasis area.</p>
	STRATEGIES	
	HSP	SHSP
Enforcement	Strict enforcement of rail crossing violations.	Not an emphasis area.
Education	Conduct public education programs.	
	Conduct officer training programs.	
	Support officer on a train educational program.	
Policy	Establish a legislative framework for the LHSC Program.	
Data	No information found.	

**Table 10
Speeding**

Emphasis Area SPEEDING	Highway Safety Plan (HSP)	Strategic Highway Safety Plan (SHSP)
APPROACH	Targets: 2.5% reduction of speed-related fatalities from 197 (2011-2015) to 192 in 2018.	Not an emphasis area.
	STRATEGIES	
	HSP	SHSP
Enforcement	Conduct speed enforcement.	Not an emphasis area.
Education	Provide education on the dangers of speeding.	

Table 11
Summarized matrix of crosswalk between the HSP and SHSP strategies

A Crosswalk Between Highway Safety Plan (HSP) and Strategic Highway Safety Plan (SHSP)										
√ = both HSP and SHSP H = HSP only S = SHSP only										
ID= Impaired Driving; OP=Occupant Protection; YD=Young Drivers; DD=Distracted Driving; IO = Infrastructure & Operations; MS =Motorcycle Safety; RR=Railroad; TR=Traffic Records; S=Speeding										
Strategies According to 4 Es of Safety										
ENFORCEMENT	ID	OP	YD	DD	IO	BP	MS	RR	TR	S
Provide sustained enforcement of statutes.	√	√	√	√			√			
Address repeat offenders through legislation.	√									
Conduct enforcement by geographic location and target population.	√	√	√	√			√	H		H
Conduct High Visibility Enforcement during campaigns and special waves.	√	√	√				√			H
Support JUDE and underage drinking enforcement.	√		√							
Implement DWI Court Programs for repeat offenders.	√									
Streamline electronic DWI processing system.	√									
Implement No Refusal Policy.	√									
Reduce drugged driving.	√									
EDUCATION	ID	OP	YD	DD	IO	BP	MS	RR	TR	S
Promote the law (belt, sober, zero tolerance, speeding, etc.).	√	√	√	√	S	√	√	√		H
Support prevention programs targeted to high-risk populations.	√	√	√	√						
Support paid media for state-planned activities.	H	H								
Publish earned media pieces (PR's, social media).	√	√	√	√	√	√	√	√		H
Develop new & strengthen current prevention networks and associations.	√									
Provide law enforcement, prosecution and judicial training.	√	√					√			
Coordinate consistent messaging.	√	√	√	√	√	√	√	√		
Improve marketing, education and outreach efforts.	√	√	√	√	√	√	√	√		
Provide technical assistance to conduct OP programs.		H								
Conduct comprehensive high-risk countermeasure program.		H								
Maintain a car seat distribution program for low-income families.		√								
Provide safety materials to the public.	√	√	√	√	√	√	√	√		H
Conduct annual observational surveys.		H		H			H			
Implement the Sudden Impact Program in 9 regions.	√	√	√	√						
Educate users how to access, analyze and interpret crash data.	S	S	S	S	S	S	S	S	S	
EMERGENCY RESPONSE	ID	OP	YD	DD	IO	BP	MS	RR	TR	S
Conduct Traffic Incident Management Training statewide.					S			S		
Encourage EMS providers to conduct prevention programs.	√	√	√	√						
Develop new and engage current EMS partners at the local level.	√	√	√	√						
ENGINEERING	ID	OP	YD	DD	IO	BP	MS	RR	TR	S
Develop resources to assist with safety project selection.					S	S				
Provide I&O training and outreach to all safety stakeholders.					S	S		√	S	
Streamline the Local Road Safety Program's project delivery process.					S	S				
Improve crash data collection, quality, analysis, mapping and reporting .					S	S				
Encourage the use of Road Safety Assessments in project development.					S					
Incorporate Complete Streets Policy during project development.					S	S				
Implement safety infrastructure projects that address roadway departures.					S					
Implement safety infrastructure projects that improve intersection safety.					S					
Implement safety infrastructure projects that improve the safety of vulnerable users, including bicyclists and pedestrians.					S	S			S	
Implement infrastructure improvements that mitigate distracted driving (e.g. rumble strips).				S						
CRASH DATA RECORDS	ID	OP	YD	DD	IO	BP	MS	RR	TR	S
Improve data collection, analysis, mapping and reporting of crashes.	√	√	√	√	√	√	√	√	√	
Conduct observational surveys on seat belt use and distracted driving.		√		√						
Continue to support the collection and submission of accurate crash data to FARS and LSU.									√	
Maintain membership in LA Traffic Records Coordinating Council.									H	
POLICY	ID	OP	YD	DD	IO	BP	MS	RR	TR	S
Close the loophole in existing law that allows underage youth to be in bars.	√		√							
Improve occupant restraint use through regulatory and legislative enhancements.		√								
Address repeat offenders through legislation and support of DWI courts.	√									
Create model legislation that supports young drivers.			S							
Increase penalties for distracted driving, and strengthen laws & policies.				S						
Support and promote existing universal helmet law.							H			
Recommend legislative changes for an improved traffic records info system.	H	H	H	H	H	H	H	H	H	
Establish legislative framework for the LHSC Program.								H		

CONCLUSIONS

This technical assistance report examined the highway safety strategies outlined in both the SHSP and HSP, and determined a crosswalk analysis—whether these strategies may be coordinated, missed, overlapped, or duplicated.

After examining both documents, it was found that there is a good amount of overlapping strategies. This is particularly in the emphasis areas of impaired driving, occupant protection, distracted driving, and crashes involving young drivers using enforcement, education, and emergency response approaches. While intersection and roadway departure solutions for infrastructure and operations are highly prioritized in the SHSP using the engineering approach, it does not discount opportunities for integration of human factors in improving safety in general. Improving traffic records is not necessarily a separate area in the SHSP as it is shown in the HSP. However, it is used as a strategy within all of its emphasis areas.

Issues involving speeding and motorcycle safety are addressed as program areas in the HSP but not as separate emphasis areas in the SHSP. Railroad safety is addressed as a program area in the HSP but not in the SHSP. The SHSP, however, addresses railroad safety in terms of educating the public about not stopping on the tracks. Issues involving bicycles and pedestrians are addressed in both plans except that the SHSP takes it as part of the infrastructure safety initiatives.

Despite these similarities and distinctions, both plans revolve around the same vision: zero deaths. These results may be useful in mitigating gaps of implementation, reducing duplication of efforts, and capitalizing on opportunities for collaboration.

Tables 1-10 show the overlaps and/or missed opportunities by emphasis area. A summarized matrix in Table 11 provides an overall snapshot. These table presentations may guide planners, engineers, health experts, transportation professionals, non-profit groups, and safety advocates in planning and implementing targeted highway safety efforts in a more strategic way. A clear understanding of where engineering meets human factors will guide DOTs, SHSOs, MPOs, and local public agencies in allocating funds more strategically by reducing efforts of duplication and expanding on cost-effective ones.

Because the SHSP and HSP documents must align their targets and performances measures, it is encouraged that highway safety professionals should be looking into where these behavioral safety countermeasures overlap each other, and how stakeholders involved in both SHSP and HSP implementation can leverage resources.

ACRONYMS, ABBREVIATIONS, AND SYMBOLS

AASHTO	American Association of State Highway and Transportation Officials
CPS	Child Passenger Safety
DOTD	Louisiana Department of Transportation and Development
DWI	Driving While Intoxicated
DZD	Destination Zero Deaths
EA	Emphasis Area (s)
FHWA	Federal Highway Administration
HSIP	Highway Safety Improvement Program
HSP	Highway Safety Plan
HSRG	Highway Safety Research Group
LCTS	Louisiana Center for Transportation Safety
LHSC	Louisiana Highway Safety Commission
LPSTF	Louisiana Passenger Safety Task Force
LTRC	Louisiana Transportation Research Center
MAP-21	Moving Ahead for Progress in the 21 st Century Act
MPO	Metropolitan Planning Organization
NHTSA	National Highway Traffic Safety Administration
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SHSO	State Highway Safety Office
SHSP	Strategic Highway Safety Plan
STIP	Statewide Transportation Improvement Program
TIP	Transportation Improvement Program
TRB	Transportation Research Board
TRCC	Traffic Records Coordinating Council
TZD	Toward Zero Deaths
UPWP	Unified Planning Work Program

REFERENCES

1. Destination Zero Deaths (2017). Louisiana Strategic Highway Safety Plan. Retrieved March 1, 2018, from <http://www.destinationzerodeaths.com>.
2. Louisiana Highway Safety Commission (2017). Louisiana Highway Safety Plan FFY 2018. Retrieved March 1, 2018, from <http://www.lahighwaysafety.org>.
3. National Highway Traffic Safety Administration (2018). *NHTSA Provides Grants to States So States Can Conduct Effective Highway Safety Programs*. Highway Safety Grant Programs. Retrieved March 1, 2018, from <https://www.nhtsa.gov/highway-safety-grants-program>.
4. Munnich, L. W. Jr., Douma, F., Qin, X., Thorpe, J. D., & Wang, K. (2012). Evaluating the Effectiveness of State Toward Zero Deaths Programs. *Center for Excellence in Rural Safety*. Retrieved from the University of Minnesota Digital Conservancy, <http://hdl.handle.net/11299/190046>.
5. Fleisher, A., Wier, M. L., & Hunter, M. (2016). A Vision for Transportation Safety. *Transportation Research Record: Journal of the Transportation Research Board*, 2582, 72–86. <https://doi.org/10.3141/2582-09>.
6. Federal Highway Safety Administration (2018). Highway Safety Improvement Program. Retrieved March 2, 2018, from <https://safety.fhwa.dot.gov/hsip/>.
7. NCHRP Project 20-68A, Scan Team Report 12-03: Advances in Safety Program Practices in Zero-Fatalities States (2016). Retrieved March 30, 2018, from <https://trid.trb.org/view/1414710>.

This public document is published at a total cost of \$250. 42 copies of this public document were published in this first printing at a cost of \$250. The total cost of all printings of this document including reprints is \$250. This document was published by Louisiana Transportation Research Center to report and publish research findings as required in R.S. 48:105. This material was duplicated in accordance with standards for printing by state agencies established pursuant to R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of the Louisiana Revised Statutes.