FY 27 Local HSIP Webinar

MAY 8, 2025

ILLINOIS DEPARTMENT OF TRANSPORTATION

Introductions

Discussion led by

- IDOT
  - Bureau of Safety Programs and Engineering (BSPE)
  - Bureau of Local Roads (BLRS)

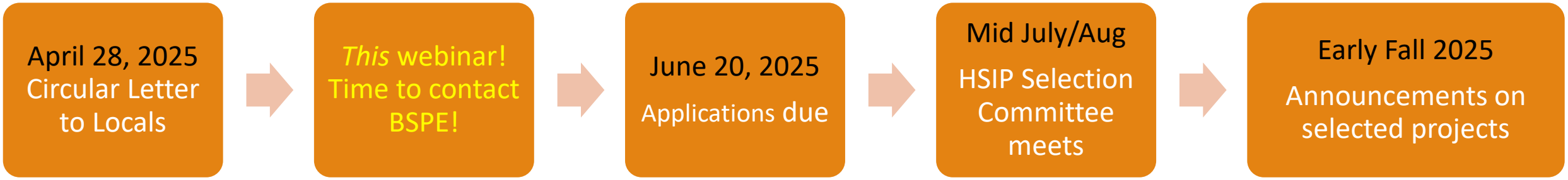
Participants include

- Local DOT agencies
- MPOs
- IDOT Districts

Agenda

- How to Identify Strong Projects
- Countermeasure Selection
- New Application

Local HSIP Solicitation Process



Available funds for FY 27: $32.75 million

How to Identify Strong Projects

2024 Safety Tiers (Excel, GIS)

- For segments and intersections
- Classifies all locations as High, Medium, Low based on crash data
- Crash Characteristic Overrepresented Flags (CCOF)

Local Intersection Initiative List (Excel)

- Developed from CCOF (2023 Tiers)
- VRU, Angle Crashes, Minor Stop Control, Signalized Turning
- Not all counties

Run Off the Roadway Initiative (RORI) Tool (ArcGIS Online link)

- Last updated through 2020 crash data
- Identifies countermeasures for rural roads

Local Comprehensive Action Safety Plan

- If available, not required

Safety Tiers Demo

Sort	CLUSTER_ID	Link To Map	Jurisdiction	District	County	MajorRoadName	MinorRoadName	DisAdvantaged	Urban_Rural	UrbanArea	PeerGroup
1	763	-87.58575652290631;41.7515622171117	1.Illinois Division of Highways	1	Cook	South Chicago Ave;Stony Isla	79th St;South Chicago Ave	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
2	19425	-87.58512163892134;41.7223396118905	1.Illinois Division of Highways	1	Cook	Stony Island Ave	95th St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
3	13703	-87.68414000110607;41.80841999960226	1.Illinois Division of Highways	1	Cook	Western Ave;Western Blvd	47th St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
4	70608	-87.74493030263721;41.87119128287347	1.Illinois Division of Highways	1	Cook	Cicero Ave	Lexington St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
5	183654	-87.72606000150252;41.89539999967885	1.Illinois Division of Highways	1	Cook	Pulaski Rd	Pulaski Rd	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
6	243651	-87.72565000179335;41.88073000029003	1.Illinois Division of Highways	1	Cook	Madison St	Madison St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
7	256274	-87.64138000134024;41.6226099991276	1.Illinois Division of Highways	1	Cook	Sibley Blvd	Halsted St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
8	3205	-87.62051635335469;41.887783996599744	3.Municipality	1	Cook	Lower Wacker Dr;Service Le	Lower Columbus Dr;Service I	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
9	278702	-87.64148839203787;41.66324070337659	1.Illinois Division of Highways	1	Cook	127th St	Halsted St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
10	10797	-87.6440460775176;41.736063011312815	1.Illinois Division of Highways	1	Cook	87th St;GENOA AV;Halsted S	87th St FrRd EB;87th St FrRd	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
11	2438	-87.72475009808747;41.851358302871965	1.Illinois Division of Highways	1	Cook	Cermak Rd;Ogden Ave	Pulaski Rd	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
12	12640	-87.68945007798975;41.838160118781936	3.Municipality	1	Cook	31ST BLVD	31st St;ROCKWELL ST	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
13	239351	-87.64313641666715;41.71418269532856	1.Illinois Division of Highways	1	Cook	Halsted St	99th St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
14	324633	-87.58729016109736;41.5062500977786	1.Illinois Division of Highways	1	Cook	Lincoln Hwy	Woodlawn Ave	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
15	11069	-87.73622500100399;41.909894999821255	1.Illinois Division of Highways	1	Cook	Grand Ave;North Ave	Kostner Ave	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
16	249984	-87.62416000140949;41.73630999924589	2.County	1	Cook	87th St	State St	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
17	283420	-87.62548000080928;41.73630999956587	2.County	1	Cook	87th St	Lafayette Ave	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
18	15201	-87.6241990489501;41.90079408342301	1.Illinois Division of Highways	1	Cook	Lake Shore Dr - Local;Michig	OAK ST;W OAK ST	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
19	248427	-87.66390000088256;41.76852999997501	2.County	1	Cook	Ashland Ave	69th St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
20	327984	-87.74580593123817;41.89500175644699	1.Illinois Division of Highways	1	Cook	Cicero Ave	Chicago Ave	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
21	4993	-87.78767485329728;41.997138935830485	1.Illinois Division of Highways	1	Cook	Devon Ave;Milwaukee Ave	Devon Ave;Nagle Ave	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
22	292295	-87.66380000151153;41.76491999927277	2.County	1	Cook	Ashland Ave	71st St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
23	141267	-87.65524016676115;41.985580470559576	1.Illinois Division of Highways	1	Cook	Sheridan Rd	Hollywood Ave	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
24	215253	-87.7201200011739;41.866249999143385	1.Illinois Division of Highways	1	Cook	Roosevelt Rd	Independence Blvd	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
25	1355	-87.57905006586259;41.79013039351626	1.Illinois Division of Highways	1	Cook	Lake Shore Dr	Science Dr	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
26	20204	-87.6242008313469;41.86744662386288	1.Illinois Division of Highways	1	Cook	Michigan Ave;Roosevelt Rd	25TH ST;Michigan Ave	Not Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
27	45290	-87.60556000079359;41.76587999898678	3.Municipality	1	Cook	71st St	71st St	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized
28	2167	-87.74492655456628;41.87217377069068	1.Illinois Division of Highways	1	Cook	Cicero Ave	Flournoy St;Flournoy St Spur	Disadvantaged	CMA	Chicago	MultiLane Arterials - CMA - Signalized

Readme | Intersections | Segments | Train-Veh High Crash Locations | Veh-Animal High Crash Locations | SPFs - Inte ...

Intersection Initiative Demo

Local Roadways Run Off the Road Initiative

What is the Local Roads Run Off the Road Initiative (RORI)?

The initiative is a statewide run-off-road analysis that uses crash data (2012 to 2018) to target run-off-road crashes on rural two-lane roads on the Illinois roadway networks and identifies logical project bounds for effective implementation of key safety treatments. Corridors identified for safety improvements are to be within existing shoulder to shoulder and can be viewed in GIS.

What are RORI's selected safety treatments?

- Centerline rumble strips
- Shoulder rumble strips
- Centerline pavement markings
- Edgeline pavement markings
- Raised reflective centerline pavement markings
- Add paved shoulder (2 ft.) or (4 ft.)

How do you know implementation of safety measures are effective and eligible for safety funding?

Each of the sites has had an economic cost analysis run based on improvement per mile against the eligible run-off-road crashes per mile. Benefit/Cost (B/C) corridors are shown in color by range of B/C. The economic cost analysis used 2020 unit cost estimates by statewide average. Each range can be queried on the GIS map.

- Low: $1 \leq BC < 10$
- Medium: $10 \leq BC < 50$
- High: $50 \leq BC < 100$
- Very High: $100 \leq BC$

What are the goals of Local Roads RORI initiative?

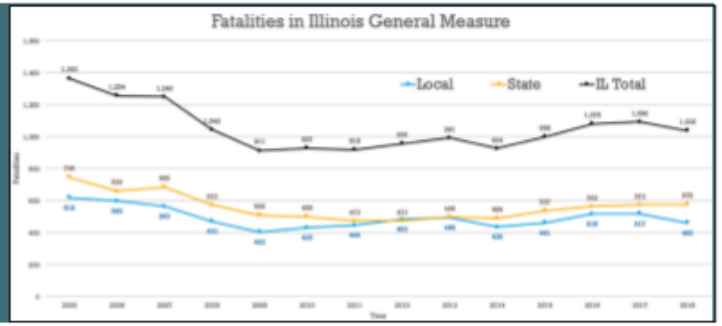
The goal is to reduce fatalities and serious injuries by providing additional safety assistance to local roadway jurisdictions and increase local participation in counties and locations. By providing corridors that meet Highway Safety Improvement Program (HSIP) safety funds eligibility and simplifying the submittal process, more county and local engineers may participate. The Bureau of Safety Programs and Engineering (BSPE) is providing additional funding for systemic safety to support this initiative.

Why the need for a Local Road RORI initiative?

Local Roads jurisdiction accounts for 87% of rural highway miles in the Illinois roadway system, a system with 62% rural roadways. Approximately 57% of all KAB crashes occur on the local system, with 13% on rural roads.

Crash Facts:

- Nearly 65% were roadway departure
- 25% occured on curves
- 40% involved a fixed object
- 40% occurred in darkness



RORI 2022 Updates:

2019 and 2020 crash data added

Curves: delineation, HFST, lighting, overhead beacon

Rural intersections

Sort by BC (high to low)

Can use crash data and maps in application

Still have to calculate and submit own cost

Other Considerations

Vulnerable Roadway Users (VRU)

- Illinois must spend at least 15% of HSIP funds each year
- VRU Dashboard, Safety Tiers

High Risk Rural Roads (HRRR)

- Available on Safety Portal
- Update in the works, but not until after Circular

Think Systemically

- Don’t need a lot of crash data
- Apply applicable proven countermeasure to various similar locations
  - Curves (Kane County 2024 application, Example 3)

How to Access

Local Intersection Initiative

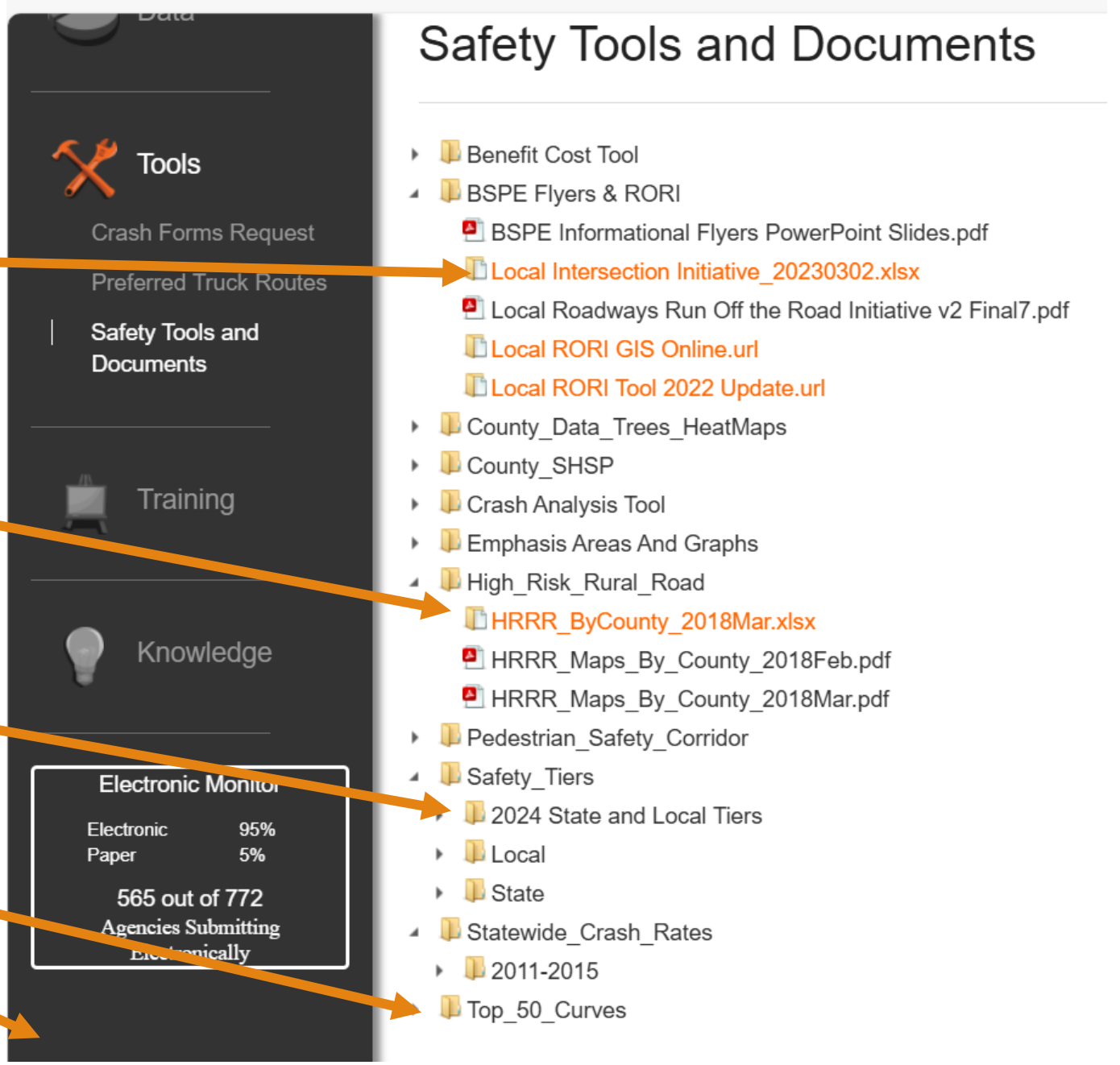
High Risk Rural Road

Safety Tiers

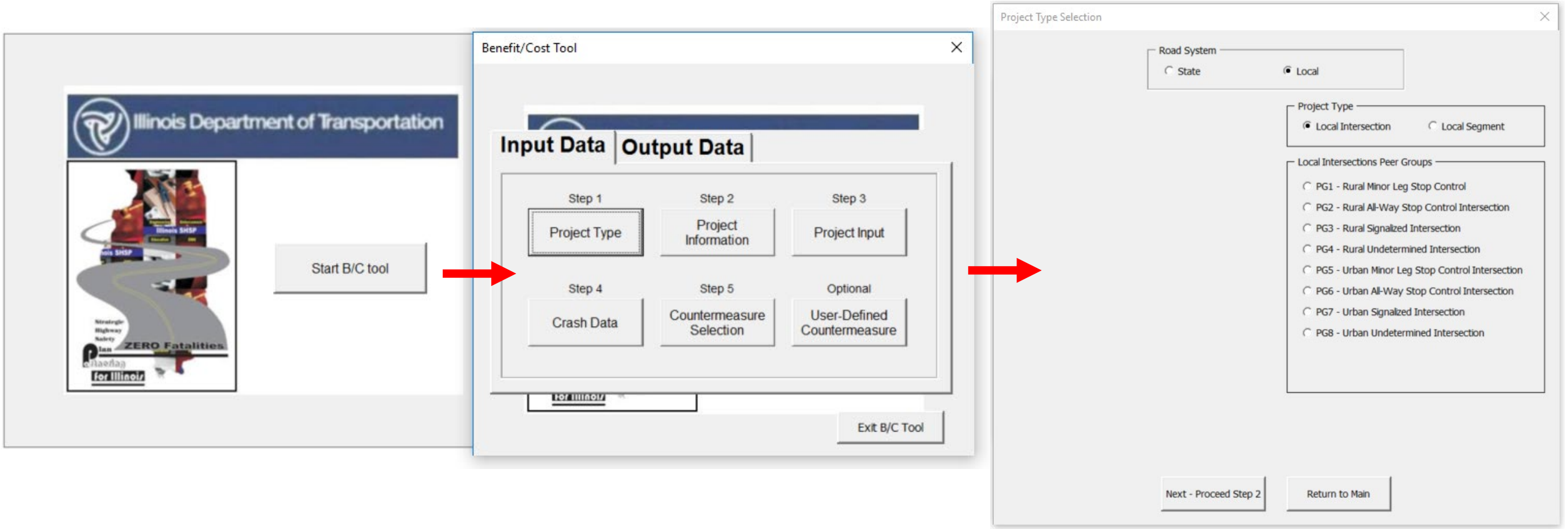
Top Curves

Available on IDOT Safety Portal

Email:
DOT.SafetyPortalHelpDesk@illinois.gov



Illinois Benefit/Cost Tool



http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-opportunities/highway-safety-improvement-program

Selecting Countermeasures

Locate appropriate CMFs

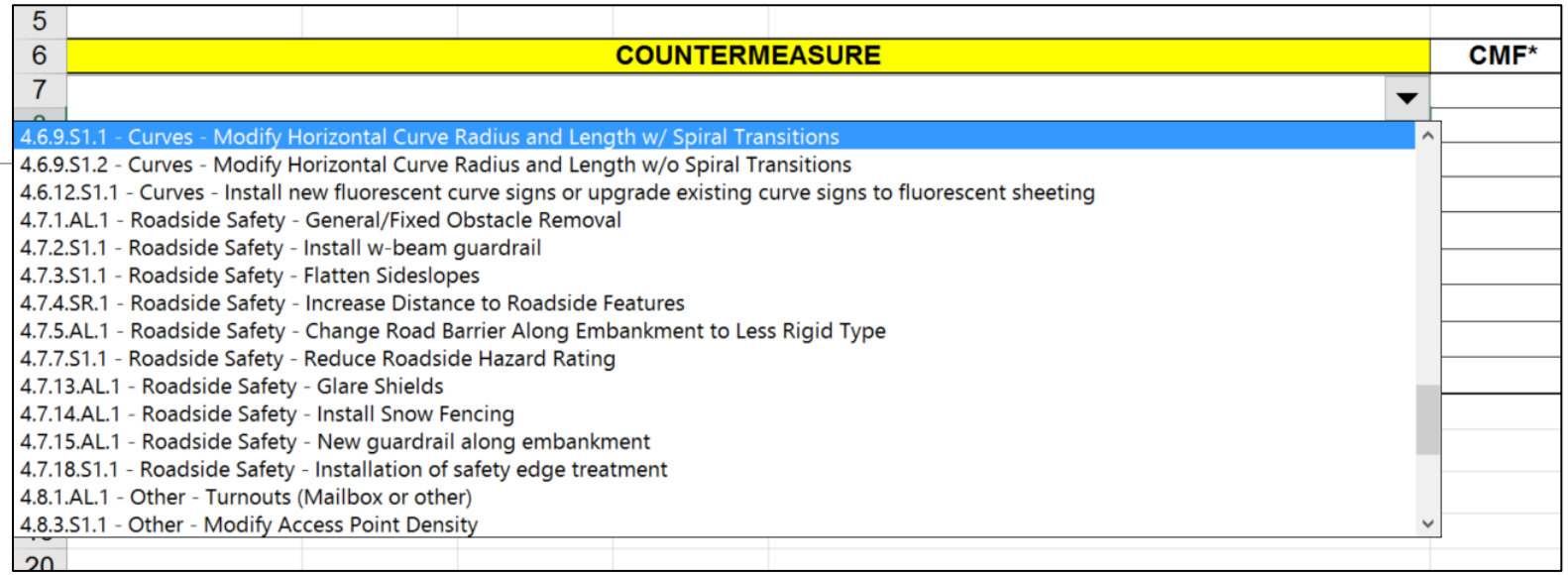
- Illinois Benefit/Cost Tool
- Other sources
  - CMF Clearinghouse
  - Highway Safety Manual

Ensure that the selected countermeasure(s) addresses the problem description

- Use CMFs that apply to *your* project
- Star rating → at least three stars

User Submitted CMF allowed, but must have documentation

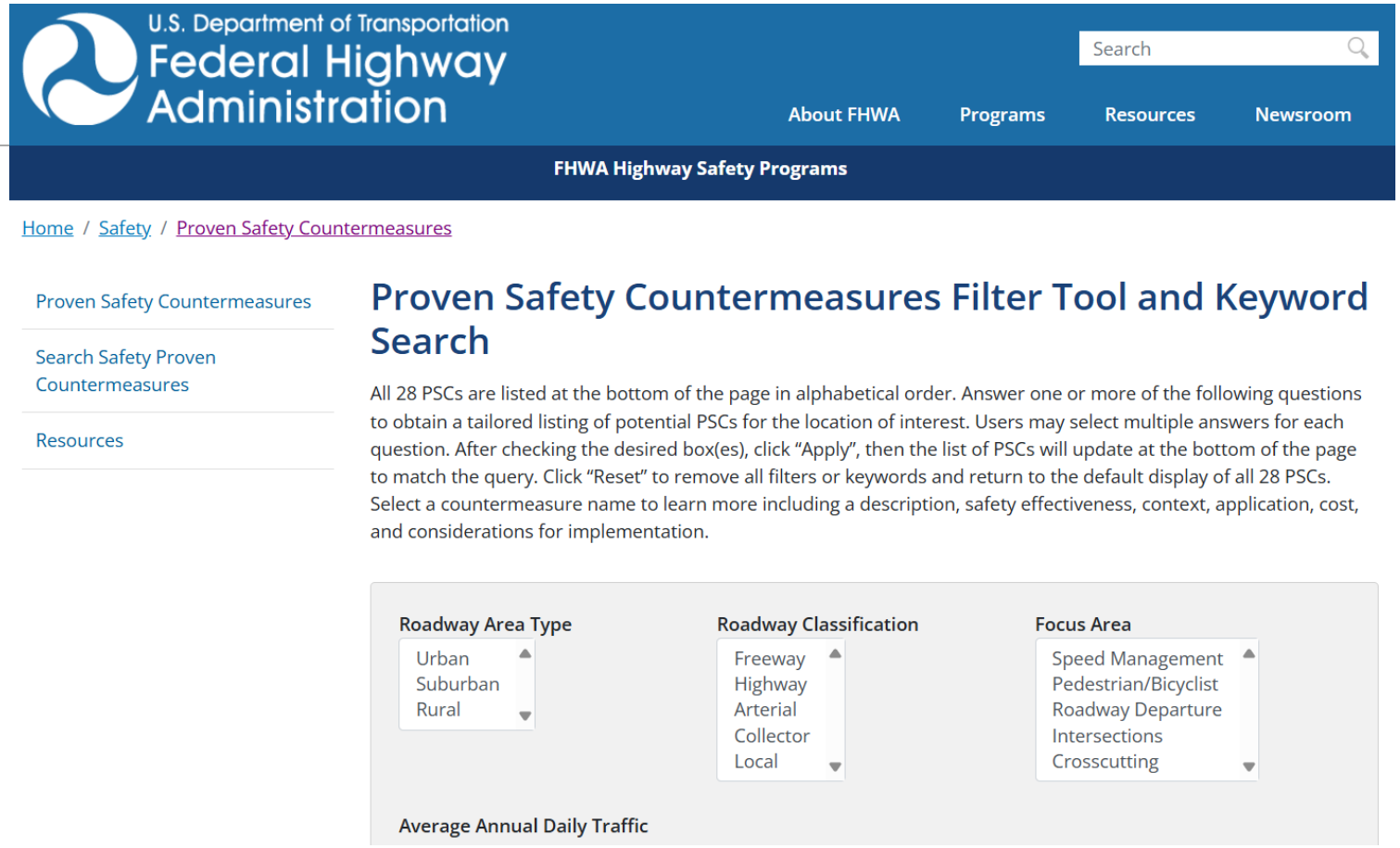
If have questions on which to use or newer, ask BSPE



Other Sources

FHWA Proven Safety Countermeasures

- https://highways.dot.gov/safety/proven-safety-countermeasures/search



Countermeasure Consideration

Quality of **Crash Analysis**

- **Target Crashes Identified**
- **Pattern of Crashes Identified**

✓ **Direction of Vehicles** (Vehicle One, Vehicle Two)

✓ Vehicle Types

✓ **Vehicle Movement** (Turning Left, Straight Ahead, Slow/Stop)

✓ Time of Day

✓ Weather and road conditions

- Contributing Factors (Field Investigation)

✓ **Visibility of Roadway**, Signs and Other Vehicles

✓ **Roadway Geometry** and Roadway Environment

✓ Roadway Hazards (shoulder drop off, potholes, hazards in clear zone)

✓ **Driver Behavior and Operational Interaction**

Countermeasure Consideration

Quality of **Countermeasure**

- **Target Crashes Match with the Countermeasures CMF**
- **Pattern, Contributing Factors and Location of Crashes addressed by Location of the Countermeasure**
- Research Quality of CMF
- Countermeasure matches up with Area Type, Roadway Type
- User Defined Countermeasure CMF

✓ Why State Listed CMF was not used

✓ How this CMF matches with Crash Analysis Findings

✓ Research Supporting Data, Quality of Star Rating

✓ VRU Countermeasures

- ✓ Pedestrian Countdowns
- ✓ Leading Pedestrian Interval (LPI)
- ✓ Crosswalks
- ✓ Refuge Islands
- ✓ RRFB's

Countermeasure Consideration

Benefit Cost Calculation

- **How well Crashes match with Countermeasure matters more than a number.**
- Large Number does not mean a superior analysis.

✓ Fatal Crashes are rare often with contributing factors

✓ Would the B/C still be above one if Fatal was an A injury in B/C Calculation?

✓ **Fatal with no other pattern of crashes**?

- Grouping of Multiple CMFS of different cost values checked.
- "All Crashes" CMF make sure only Injury crashes that apply to the specific location of the CMF are used. Not All Crashes within the intersection or roadway segment.

Best Practices

Use most recently completed, consecutive 5-years of crash data

- Only go beyond 5 years to establish pattern of crashes, do NOT use in actual B/C Tool
- 2024 currently not finalized
- Can use previous years/unfinalized crash data in narrative

Must include a Project Location map/aerial and site specific photos of existing conditions

- Only include enough to provide an understanding of the existing issues
- RORI Location Map may be used to simplify the process

Include a ‘diagram’ showing the desired improvements

- Provide the review committee an idea of what you are intending to do
- “Final Plans” not needed!

Include a fairly detailed cost estimate of all potential items

Best Practices

IL Benefit/Cost Tool evaluation

- Include both crash type and corresponding crash injury severity

If not using CMFs from IL Benefit/Cost tool, source the CMF's used

- CMF Clearinghouse: stars, CMF ID, same application/environment
- User-defined? Reasonable?
- RORI Attribute Table may be used to simplify the Process

Confirm the countermeasure(s) selected addresses the crash contributing factor(s) supported by data

Questions on choosing a project or countermeasure? Contact BSPE and BLRS BEFORE application deadline! We can't provide feedback after.

Things to Avoid

Selecting specific crash years that have the most KAB crashes to ‘pad’ the B/C Tool ratio

Omitting items on cost estimate

- Engineering/design, construction, shoulder grading, installation, ROW, etc.
- All associated costs should be included on the B/C tool analysis
- Ratio (Actual Estimate of Cost/RORI Estimate) may be used to help determine B/C in submittal

Submitting numerous ‘random’ files to the review committee

- One single PDF that has: Table of Contents, page numbers, descriptions/captions on photos, etc.

Using a user-defined CMF that is exaggerated, unreasonable, not justified

- CMF Clearinghouse lists many CMFs including those not in the B/C Tool (or contact BSPE!)

Submitting an HSIP application for projects that does not address safety needs based on crash history

If changing a fatal crash to an A-Injury crash in the B/C Tool greatly reduces the B/C, then it’s most likely not the best countermeasure/project to choose

Systemic Guardrail is Low Priority

New Application: BSPE HS1 – Local Highway Safety Improvement Proposal

Previous application/HSIP Policy old enough to drive and vote (2006)

New HSIP Site launched June 2024

- Only seen by IDOT staff
- Application updated

Needed new application to match new site

3 pages in Adobe

Added fields, removed unused fields

Instructions includes on HSIP website:

https://idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-programs/hsip.html

Contact if you have questions!

Discussion

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