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1. Introduction

Louisville is a Vision Zero city, with a vision of eliminating roadway deaths on surface streets by 2050. Vision Zero Louisville is the city's transportation safety initiative, which is managed by Louisville Metro Public Works, in partnership with the Kentucky Transportation Cabinet (KYTC). Vision Zero Louisville follows the U.S. Department of Transportation-recommended Safe System Approach, which identifies five complementary pillars to aid in eliminating fatal and serious injury crashes within the transportation system. The Safer Roads pillar involves designing roadway environments to mitigate human mistakes and account for injury tolerances, to encourage safer behaviors, and to facilitate safe travel by the most vulnerable users.

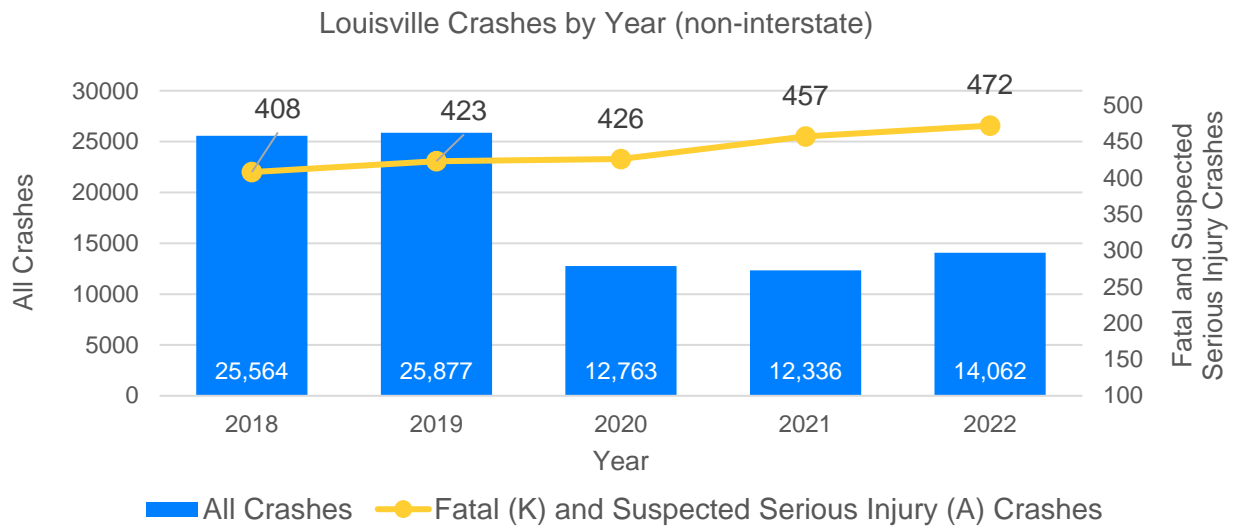


Figure 1: Safe System Approach Principles and Objectives

A High Injury Network (HIN) is a data-driven approach which identifies non-interstate roadway segments that account for a disproportionate amount of a community's fatal and serious injury crashes. Developing an HIN is a national best practice among Vision Zero communities. The HIN allows communities to focus limited resources on improving safety along those high priority, dangerous corridors.

Louisville's roads witness more than one fatal and suspected serious injury crash daily, spread across 3,170 miles of non-interstate routes. The High Injury Network (HIN) provides a data-driven and focused list of corridors where a majority of these fatal and suspected serious injury crashes are occurring. The routes identified in Louisville's HIN will guide the city's Safer Roads strategy, in support of Louisville's vision to eliminate roadway deaths on surface streets by 2050.

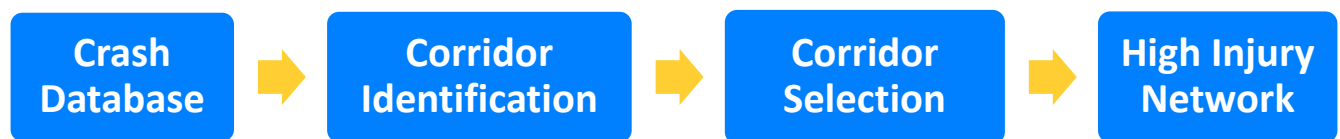
Figure 2: Louisville Crashes by Year (2018 – 2022)



NOTE: The COVID-19 pandemic greatly affected traffic patterns and crash reporting. From March 2020 to November 2022, to minimize potential exposure, the Louisville Metro Police Department adopted a policy of responding only to fatal and injury crashes.

2. Methodology

The overall process in identifying the HIN involves analyzing crash data, integrating GIS information to create a detailed crash database, analyzing and identifying corridors, and selecting corridors with high concentrations of fatal and suspected serious injury crashes.

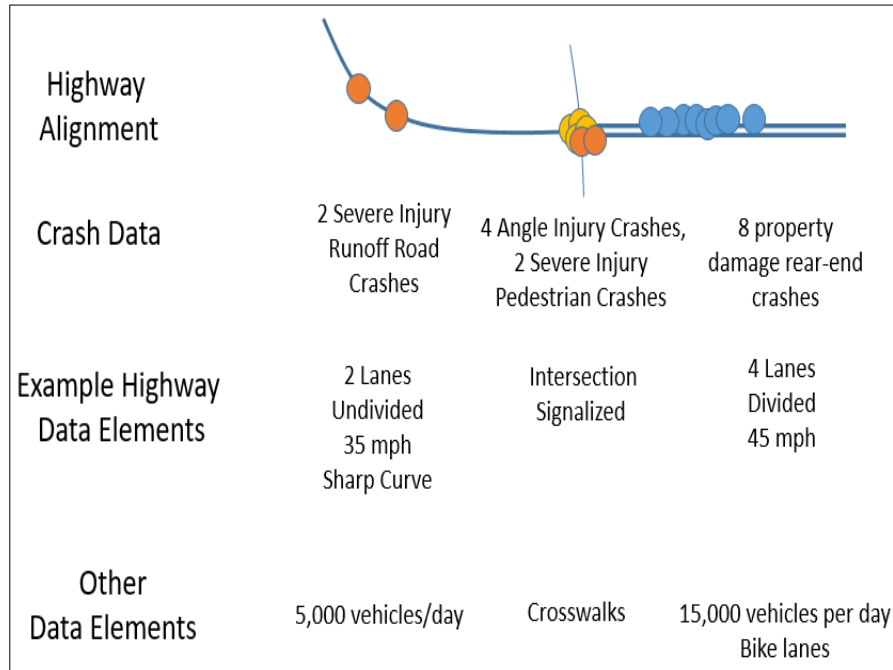


A. Crash Database

The Crash Database was developed using crash data provided by Kentucky Transportation Cabinet (KYTC) through an agreement with the Kentucky State Police (KSP). In Kentucky, state and local police complete detailed collision reports, which includes information on the individuals and vehicles involved, crash location, manner of collision, roadway characteristics, and individual injury severity. The collision reports are then submitted to KSP, reviewed for accuracy, and stored in a secure database managed by KSP. As part of KYTC’s use agreement, the crash data provided in this report does not contain personally identifiable information (PII). Crash data for all of Jefferson County was collected for the five-year study period between January 1, 2018 and December 31, 2022.

KYTC provided geographic information system (GIS) files of roadway and traffic data, known as the Highway Information System (HIS) database. HIS data includes roadway characteristics and traffic data for state-owned roadways. Additional GIS information was collected from the Louisville / Jefferson County Information Consortium (LOJIC), Louisville Metro

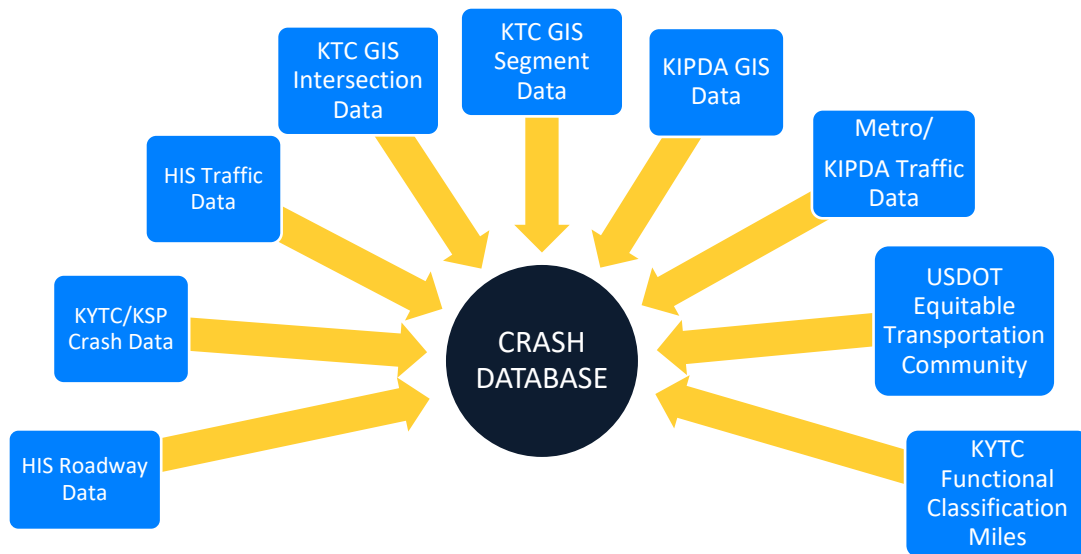
Figure 3: Joining Crash Data with other Factors Influencing Safety



Government, and the Kentuckiana Regional Planning and Development Agency (KIPDA).

The crash data provided was joined with GIS information to create a crash database that facilitated a detailed analysis to identify locations with high concentrations of fatal and suspected serious injury crashes. Upon joining crashes with GIS information, the Crash Database was comprised of information that included route and mile point where each crash occurred, geographic information, roadway functional classification, Justice40 areas, and crash severity.

Figure 4: Crash Database Components



The crash database provided by KYTC utilizes the KABCO Crash Severity Designation. The KABCO scale is recommended as best practice for individual injury reporting per the Model Minimum Uniform Crash Criteria (MMUCC) developed by the National Highway Traffic Safety Administration (NHTSA). The KABCO scale is used by the Kentucky State Police in the field data collection for crashes. The letters represent injury levels:

- K – Fatal Injury;
- A – Suspected Serious Injury;
- B – Suspected Minor Injury;
- C – Possible Injury; and
- O – No Apparent Injury.

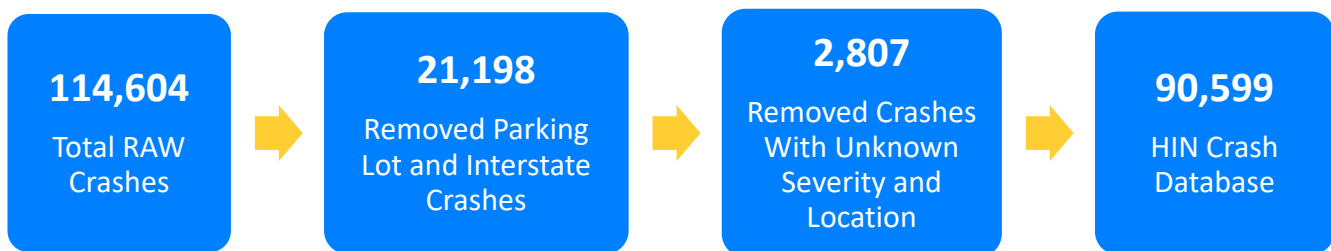
The severity of a crash is based on the greatest severity of injury occurring in the crash. For instance, if someone is killed in a crash, the crash is coded as a “K” or fatal crash.

The following table provides a breakdown of the total crashes by severity.

Table 1: HIN Crashes by Severity

Crash Severity	Number of Crashes	% of Crashes
Fatal (K)	408	<1%
Suspected Serious Injury (A)	1,778	2%
Suspected Minor Injury (B)	8,463	9%
Possible Injury (C)	9,304	10%
No Apparent Injury (O)	70,646	78%
Total	90,599	

a. Study Area



A total of 114,604 crashes were reported in Jefferson County between January 1, 2018 and December 31, 2022. This raw data provided by KYTC included crashes that occurred on the interstate system, in parking lots, and crashes with missing geographic information.

Crashes on expressways, freeways, and interstates (I-64, I-65, I-71, I-264, I-265, and KY-841) were removed from the Crash Database, as they are outside of the scope of Vision Zero Louisville. During the five-year study period, 15,092 crashes (13.2%) were reported

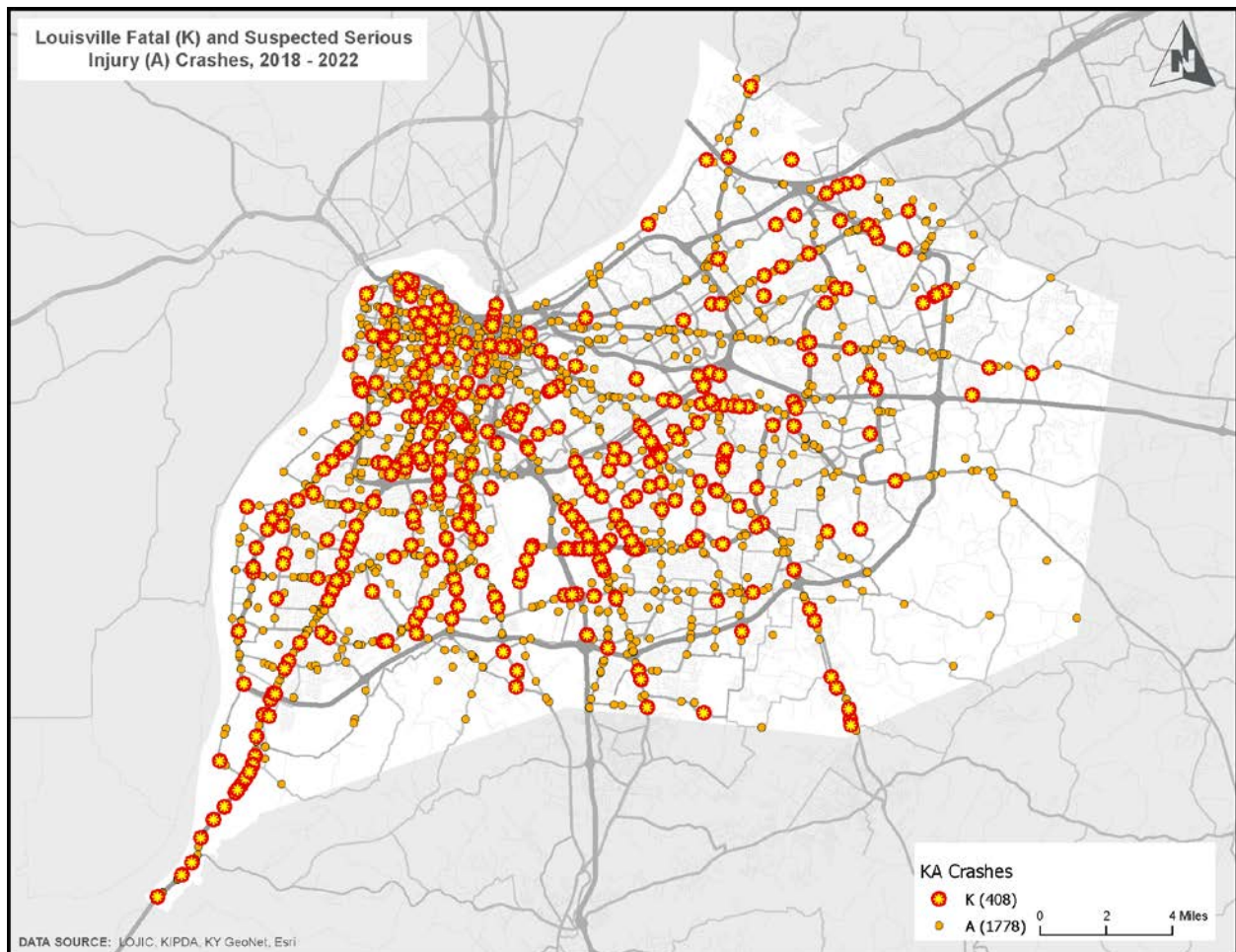
on expressways, freeways, and interstates. Crashes that occurred on interstate ramps near the cross street were assigned to the intersection of the interstate ramp and cross street.

Crashes in parking lots were removed from the Crash Database, as they are privately owned and thus outside of the scope of Vision Zero Louisville. During the five-year study period, 6,106 crashes (5.3%) were reported as having occurred in a parking lot.

Each crash was joined spatially to the GIS network and assigned to a roadway segment or intersection within the roadway network. During the process of spatially joining the crashes to the provided GIS roadway network, 2,807 crashes (2.4%) could not be joined to a roadway due to missing information. This includes 50 fatal and suspected serious injury crashes which accounts for 1.8% of all fatal and suspected serious injury crashes.

The study area for the HIN includes all public streets and roadways in Jefferson County, inclusive of all municipalities, such as home rule cities. During the five-year study period, 90,599 applicable crashes were reported. This includes 408 fatal crashes and 1,778 suspected serious injury crashes, a total 2,186 fatal and suspected injury crashes.

Figure 5: Louisville Fatal (K) and Suspected Serious Injury (A) Crashes, 2018-2022



b. Equivalent Property Damage Only (EPDO)

The final step in the crash database development involved applying the Equivalent Property Damage Only (EPDO) scoring value to each crash, placing emphasis on the severity of the collision and standardizing the crash severity to a comparable level.

The Equivalent Property Damage Only (EPDO) method assigns a value to each crash based on the KABCO injury severity scale and associated comprehensive crash cost. The crash cost is based on research by the Federal Highway Administration (FHWA), which develops national crash costs for use as default crash unit values ([Crash Costs for Highway Safety Analysis](#)). Crash costs are then adjusted to state-specific costs and adjusted for inflation using Consumer Price Index (CPI). The purpose of the score is to provide a method of prioritizing projects based on the combination of crash frequency and severity.

The following table lists the comprehensive crash cost in 2022 dollars.

Table 2: Comprehensive Crash Cost (2022 Dollars)

Crash Severity	Comprehensive Cost (2022 Dollars)
Fatal (K)	\$11,087,806
Suspected Serious Injury (A)	\$642,593
Suspected Minor Injury (B)	\$194,583
Possible Injury (C)	\$122,993
No Apparent Injury (O)	\$11,575

To calculate the total cost for each crash severity, the number of crashes for each severity is multiplied by the comprehensive cost. The weighted average cost, combining Fatal (K) and Suspected Serious Injury Crash (A), is then determined by dividing the total cost by the overall number of crashes. The Weighted Score is computed, assigning an equivalent value of 1 to the No Apparent Injury (O) crash severity. This score is established by dividing the Weighted Average Cost by the No Apparent Injury (O) Weighted Average Cost.

Figure 6: Total Cost, Weighted Cost, and Weighted Score Equations

$$\text{Total Cost} = \text{Number of Crashes by Crash Severity} \times \text{Comprehensive Cost}$$

$$\text{Total Cost}_{\text{Fatal(K)}} = 408 \text{ crashes} \times \$11,087,806 = \$4,523,824,848$$

$$\text{Total Cost}_{\text{Sus. Serious Injury (A)}} = 1,778 \text{ crashes} \times \$642,593 = \$1,142,530,451$$

$$\text{Weighted Cost}_{AB} = \frac{\text{Total Cost}_A + \text{Total Cost}_B}{\text{Number Crashes}_A + \text{Number Crashes}_B}$$

$$\text{Weighted Cost}_{\text{Fatal}(K)\text{Sus.SeriousInjury}(A)} = \frac{\$4,523,824,848 + \$1,142,530,451}{408 + 1,778} = \frac{\$5,666,355,299}{2,186} = \$2,592,111$$

$$\text{Weighted Score} = \frac{\text{Weighted Cost}}{\text{Cost}_{\text{No Apparent Injury}(O)}}$$

$$\text{Weighted Score}_{\text{Fatal}(K)\text{Sus.SeriousInjury}(A)} = \frac{\$2,592,111}{\$11,575} = 223.9$$

Table 3: EPDO Weighted Score Calculation

Crash Severity	HIN Crashes	Total Cost	Crash Severity	Weighted Average Costs	Weighted Score (Equivalent to O Crash)
K	408	\$4,523,824,848	KA	\$2,592,111	223.9
A	1,778	\$1,142,530,451			
B	8,463	\$1,646,754,701	B	\$194,583	16.8
C	9,304	\$1,144,330,691	C	\$122,993	10.6
O	70,646	\$817,710,120	O	\$11,575	1

The integration of fatal and suspected serious injury crashes into a weighted score addresses the limitation of prioritizing solely based on fatal crashes. Relying solely on fatal crash data might inadvertently downplay the significance of serious injury crashes, which, despite not resulting in fatalities, can have profound, life-altering consequences. By combining both types of crashes, a more comprehensive narrative is told, aligning with the overarching objective of addressing and eliminating severe crash types.

Each crash was assigned an EPDO weighted score value, which was then spatially linked to specific roadway segment and intersection. This methodology allowed for aggregating these scores at each segment and intersection, resulting in a comprehensive EPDO score for each location. This process enabled a data-driven approach in analyzing the road network, for effective prioritization in safety improvement strategies across the study area.

B. Corridor Identification

Following the development of the HIN Crash Database, each unique route was analyzed. All of the segments and intersections along each route were grouped together to provide an overview of where crashes are occurring. All 90,599 crashes were assigned to the 3,267 roadway miles across Louisville. To narrow the focus and align with the goal of eliminating fatal and suspected serious injury crashes, corridors were ranked based on a cumulative EPDO score.

As an initial screen, each route that had a fatal and suspected serious injury crash was evaluated and ranked by overall EPDO score. There were 955 routes in Louisville that experienced at least one fatal and suspected serious injury crash. This includes both the main and secondary routes for crashes that occurred at intersections. This initial screen gave priority to longer corridors, as the longer the corridor, the higher the EPDO score could potentially be. To account for varying corridor lengths, an EPDO/mile metric was added into the evaluation to ensure a fair comparison between routes.

Corridors were further segmented at natural breaks, such as an interchange, changes in roadway operation and characteristics (e.g., one-way traffic, number of travel lanes), and transitions between urban, suburban, or rural settings.

For example, KY 1934 (Greenbelt Hwy, Cane Run Road) is an 11.5-mile roadway in southwestern Jefferson County. This roadway has an overall 2,751 EPDO/mile. Using the breakdown analysis, KY 1934 can be grouped into three segments. The first segment is from KY 841 (Gene Snyder Fwy) to KY 1727 (Terry Road) and is a four-lane divided roadway in an industrial setting with limited access points. The second segment is from KY 1727 (Terry Road) to I-264 and is a suburban five-lane setting with an undivided typical that has numerous access points and higher traffic volumes. The third segment is a two-lane section with lower traffic volumes and is from I-264 to KY 2054 (Algonquin Parkway). Each segment was analyzed, and an EPDO/mile score was calculated individually.

Table 4: Corridor Identification Example: KY 1934

Route	Description	Begin MP	End MP	Length (miles)	Total EPDO	EPDO/mile	KA Crashes
KY-1934	Greenbelt Hwy KY-841 to Terry Road	0.00	7.18	7.182	13,014	1,812	44
KY-1934	Cane Run Road Terry Road to I-264	7.18	10.09	2.912	15,195	5,218	46
KY-1934	Cane Run Road 2 Lane Section	10.09	11.50	1.408	2,661	1,890	9

The EPDO/mile and number of fatal and suspected serious injury crashes is highly concentrated in Segment 2 along KY 1934. This breakdown analysis was completed for the remaining routes in Louisville with two or more fatal and suspected serious injury crashes. Any remaining route with fewer than two fatal and suspected serious injury crashes were outside of the focus area for routes to be included in the High Injury Network based on EPDO scoring. Once the breakdown analysis was complete, corridors were selected to be included on the High Injury Network based on the EPDO/mile prioritization.

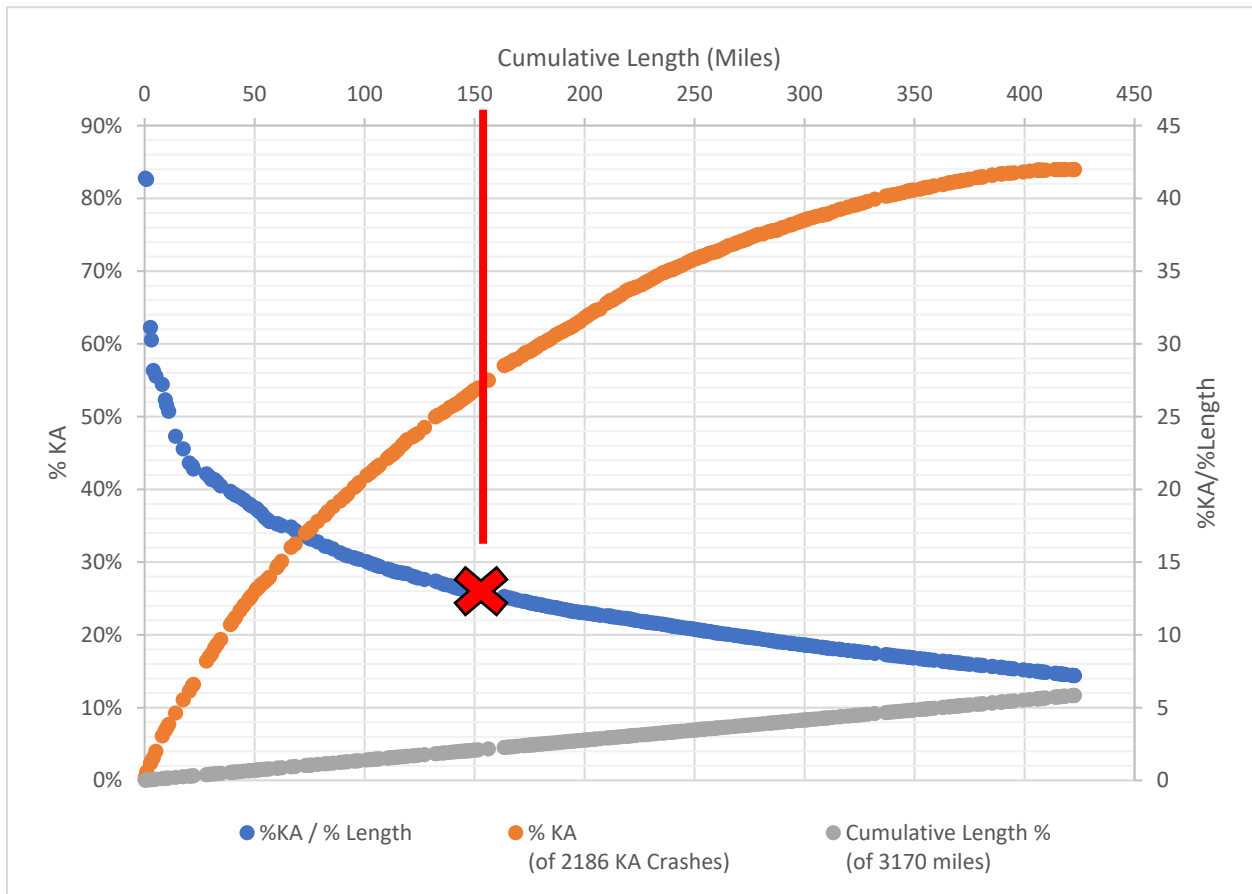
C. Corridor Selection

Following the corridor identification and breakdown of routes with the highest concentration of fatal and suspected serious injury crashes, there were 423 miles of roadway on 84 various routes. To select the corridor segments to be included as part of the High Injury Network, a data analysis was performed to determine a cutoff of miles that would yield the highest concentration of fatal and suspected serious injury crashes on the fewest miles of roadways.

The segments for each route was ranked by EPDO/mile. Segments ranged from 8,904 EPOD/mile down to 22 EPDO/mile for segments with minimum crashes. This ranking focused the mileage based on EPDO prioritization with the largest EPDO/mile segments also experiencing a high number of fatal and suspected serious injury crashes. To determine the segments to be included in the High Injury Network, the following chart was created.

Each breakdown segment was sorted by EPDO/mile, highest to lowest. The following data was plotted to identify the appropriate cutoff of miles to be included in the HIN.

Figure 7: Corridor Selection - EPDO Ranking by Length and KA Crashes



- *Cumulative Length % (grey):*
 - Provides the cumulative length as a percent with respect to the entire roadway network length of 3,170 miles.
- *% KA (orange):*
 - Provides the cumulative percent of fatal (K) and suspected serious injury (A) crashes for the study total by cumulative length. As mileage is added to the analysis, the slope of the %KA line decreases.
- *%KA / %Length (blue):*
 - Provides the slope value of %KA and %Length by cumulative length. As expected, the segments with the highest EPDO/mile results in a higher %KA / %Length slope value.

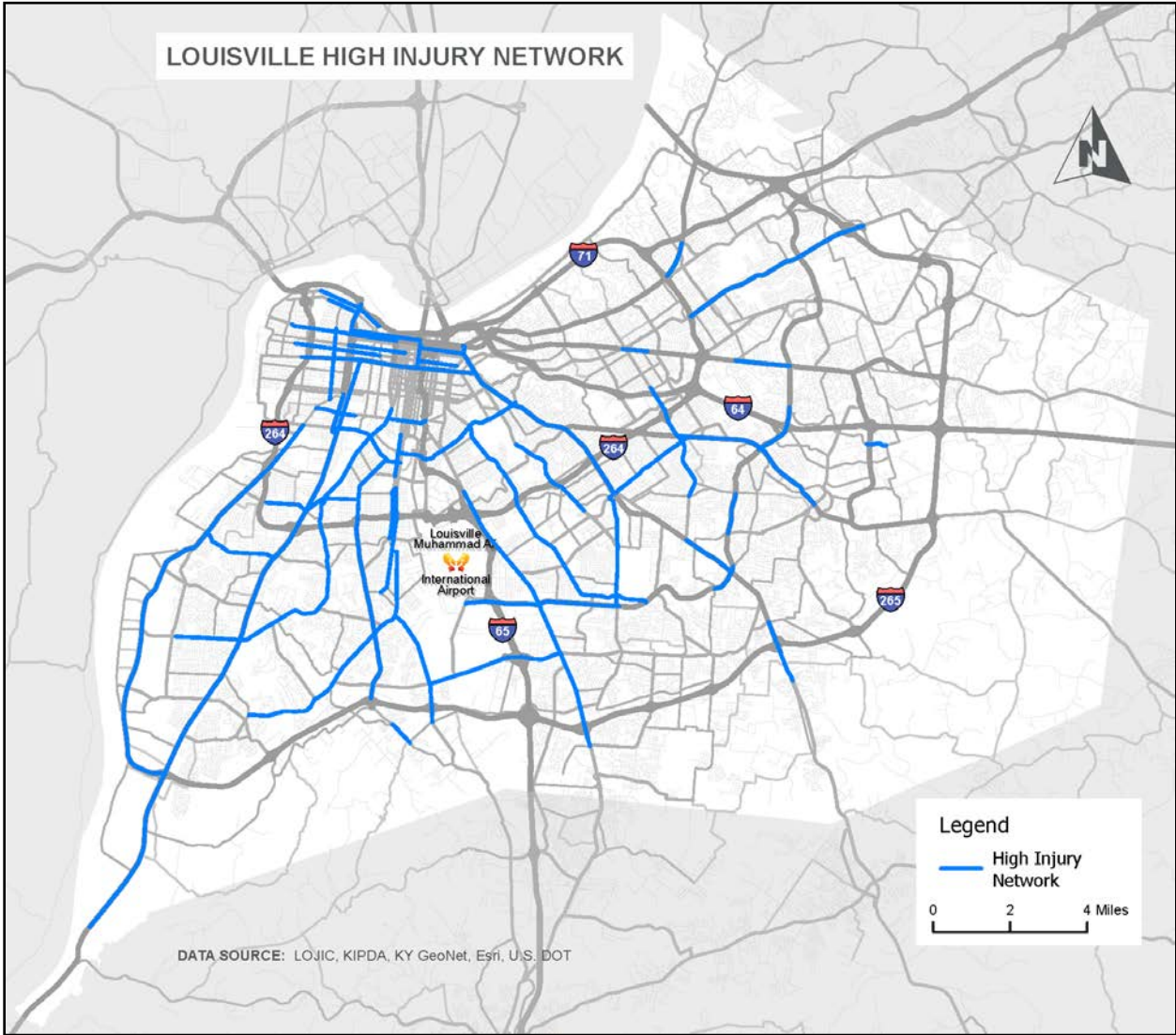
As miles are added to the analysis, the %KA / %Length slope values lessen and the plotted data begins to create a constant linear slope. The point where this data begins to form a constant slope is just over 150 miles of length and is considered the point of diminishing return. Therefore, the top 152 miles with the highest EPDO/mile ranking were selected for the High Injury Network.

Louisville’s High Injury Network includes 152 roadway miles (5% of Louisville’s non-interstate miles) and accounts for 1,213 fatal and suspected serious injury crashes (55% of Louisville non-interstate KA crashes).

Table 5: Louisville High Injury Network Summary

	Louisville Total	High Injury Network Total
Fatal and Suspected Serious Injury Crashes	2,186	1,213 (55% of total)
Roadway Miles	3,170	152 (5% of total)

Figure 8: Louisville High Injury Network



3. High Injury Network Routes

Priority Ranking	Corridor Route	Corridor Name	Begin Location	Begin MP	End Location	End MP	Length (Miles)	Total EPDO	EPDO /mile	Total KA crashes	% Justice40	Ownership
1	US-150	Broadway	S 22nd St (US 31W-001)	0.741	Baxter Ave (US 31E)	4.094	3.353	19,419	5,792	48	100%	KYTC
2	CS-1011F	S 7th St	Algonquin Pkwy (KY 2054)	0.000	Split to S 9 th St	0.928	0.928	5,224	5,629	15	100%	METRO
3	CS-1021F	W Broadway	S 22nd St (US 31W-001)	0.000	S 35 th St (north leg)	1.190	1.190	6,262	5,262	19	100%	METRO
4	US-60A	7th Street Rd / Berry Blvd / Taylor Blvd / Winkler Ave	Dixie Hwy (US 31W)	0.000	S 3rd St (KY 1020)	3.157	3.157	13,771	4,362	37	100%	KYTC
5	KY-1865	Taylor Blvd / New Cut Rd	Gene Snyder Fwy (KY 841)	0.920	Berry Blvd (US 60A)	6.193	5.273	20,222	3,835	51	86%	KYTC
6	US-60	Shelbyville Rd	Lexington Rd (US 60A)	3.482	Thierman Ln	4.120	0.638	2,413	3,782	7	0%	KYTC
7	US-31E	Bardstown Rd	Captain Place	3.909	Beulah Church Rd / Seatonville Rd (KY 1065)	5.561	1.652	6,005	3,635	16	0%	KYTC
8	US-31W	S 22nd St / Bernheim Ln	Dixie Hwy	17.510	Dumesnil St	18.655	1.145	4,100	3,581	11	100%	KYTC
9	KY-61	Preston Hwy	Cooper Chapel Rd / Commerce Crossings Dr (KY 6299)	1.401	Hart Ave	8.903	7.502	25,969	3,462	77	65%	KYTC
10	US-31W	Dixie Hwy	Depot Lane	2.974	Bernheim Ln (US 31W)	17.510	14.536	49,906	3,433	150	87%	KYTC
11	KY-1020	S 2nd St	W Broadway (US 150)	12.097	W Market St (US 31E/31W)	12.724	0.627	2,102	3,352	4	100%	KYTC
12	KY-2049	Crums Ln	Cheviot Drive	0.618	Dixie Hwy (US 31W)	1.720	1.102	3,658	3,319	11	100%	KYTC
13	KY-2054	Algonquin Pkwy	S 22nd St (US 31W)	1.504	Winkler Ave (US 60A)	3.266	1.762	5,639	3,200	15	100%	KYTC
14	KY-2051	Rockford Ln	Dixie Hwy (US 31W)	0.000	Cane Run Rd (KY 1934)	1.975	1.975	6,318	3,199	20	100%	KYTC
15	US-150	N 22nd St	Northwestern Pkwy	0.000	W Main St (US 31W-001)	0.741	0.741	2,292	3,093	6	66%	KYTC
16	US-31E	Beuchel Byp / Bardstown Rd / Baxter Ave	Hikes Ln (KY 2052)	10.974	E Main St (US 31E)	16.774	5.800	17,471	3,012	41	32%	KYTC
17	CS-1002H	Bluegrass Pkwy	Kentucky Mills Dr	2.397	Tucker Station Rd / Lakefront Pl	2.927	0.530	1,578	2,977	5	0%	JEFFERSONTOWN
18	KY-1447	Westport Rd	I-264	1.960	Chamberlain Ln	7.038	5.078	14,916	2,937	45	0%	KYTC

Priority Ranking	Corridor Route	Corridor Name	Begin Location	Begin MP	End Location	End MP	Length (Miles)	Total EPDO	EPDO /mile	Total KA crashes	% Justice40	Ownership
19	KY-1747	S Hurstbourne Pkwy	Taylorsville Rd (KY 155)	10.991	Linn Station Rd	12.467	1.476	4,274	2,896	7	0%	KYTC
20	KY-1747	S Hurstbourne Pkwy	S Watterson Trl	6.847	Stony Brook Dr	7.636	0.789	2,254	2,857	5	0%	KYTC
21	KY-1934	Greenbelt Hwy / Cane Run Rd	Gene Snyder Fwy (KY 841)	0.000	Algonquin Pkwy (KY 2054)	11.502	11.502	31,389	2,729	100	80%	KYTC
22	CS-1001A	W Muhammad Ali Blvd	S 6th St	0.455	S 22nd St (US 31W-001)	1.909	1.454	3,943	2,712	9	100%	METRO
23	KY-2055	W Manslick Rd	Fairdale Rd	1.333	W Manslick Rd (KY 2055) / Brown Austin Rd	1.997	0.664	1,795	2,703	7	0%	KYTC
24	KY-1931	Greenwood Rd / St. Andrews Church Rd / Manslick Rd / 7th Street Rd	Terry Rd (KY 1727)	1.470	Algonquin Pkwy (KY 2054)	10.530	9.060	24,325	2,685	73	78%	KYTC
25	Multiple	W Hill St (CS-1016F) / E Hill St (CS-1259F)	S Preston St	-	S 7th St	-	1.021	2,714	2,658	6	100%	METRO
26	KY-1747	Fern Valley Rd	Grade Ln	0.000	Shepherdsville Rd (KY 2052)	4.046	4.046	10,717	2,649	29	86%	KYTC
27	CS-1038F	S 26th St	W Main St	0.000	Wilson Ave	1.846	1.846	4,784	2,592	10	100%	METRO
28	Multiple	W Chestnut St (CS-1004A) / River Park Dr (CS-1016A)	S 37th St	-	S 13th St	-	2.220	5,742	2,586	13	100%	METRO
29	CS-1030F	Dixie Hwy	W Broadway (US 150)	0.000	Bernheim Ln (US 31W)	2.008	2.008	5,174	2,577	13	100%	METRO
30	KY-1703	Newburg Rd	Bluegrass Park Dr	1.250	Bellarmine Blvd	3.843	2.593	6,511	2,511	18	41%	KYTC
31	CS-1001F	S 4th St	W Cardinal Blvd	2.498	Central Ave	3.587	1.089	2,717	2,495	5	100%	METRO
32	CS-1071G	E Chestnut St	S 1st St	0.000	Chestnut Street Connector (KY 864)	0.928	0.928	2,306	2,485	5	100%	METRO
33	Multiple	W Market St (US 31W / CS-1006A)	S 40th St	-	Roy Wilkins Ave	-	2.629	6,500	2,472	18	100%	KYTC (US 31W) METRO (CS1006A)
34	Multiple	S 3rd St (CS-1013F / KY 1020)	Southern Pkwy (KY 1020)	-	W Kenwood Dr	-	2.797	6,840	2,445	19	100%	KYTC (KY 1020) METRO (CS1013F)
35	KY-1020	Southern Pkwy	W Woodlawn Ave	7.837	S 3rd St	9.150	1.313	3,174	2,417	11	100%	KYTC
36	CR-1002G	Hikes Ln	Buechel Byp (US 31E)	0.797	Taylorsville Rd (KY 155)	3.196	2.399	5,776	2,408	15	8%	METRO
37	KY-1932	Breckenridge Ln	Six Mile Ln	1.129	Milford Lane Connector	4.318	3.189	7,558	2,370	17	0%	KYTC
38	US-31E	Bardstown Rd	S Hurstbourne Pkwy (KY 1747)	7.245	Breckenridge Ln (KY 1932)	8.663	1.418	3,289	2,319	9	0%	KYTC

Priority Ranking	Corridor Route	Corridor Name	Begin Location	Begin MP	End Location	End MP	Length (Miles)	Total EPDO	EPDO /mile	Total KA crashes	% Justice40	Ownership
39	KY-2052	Shepherdsville Rd	Fern Valley Rd (KY 1747)	1.214	Hikes Lane (KY 2052)	4.122	2.908	6,742	2,318	20	100%	KYTC
40	US-60A	Eastern Pkwy	S 3rd St (KY 1020)	3.409	Willow Ave (US 60A)	6.932	3.523	8,026	2,278	22	33%	KYTC
41	KY-864	Poplar Level Rd	Fern Valley Rd (KY 1747)	6.596	Eastern Pkwy (US 60A)	13.713	7.117	16,064	2,257	44	66%	KYTC
42	KY-1065	Outer Loop	National Turnpike (KY 1020)	2.514	Preston Hwy (KY 61)	6.045	3.531	7,853	2,224	20	94%	KYTC
43	CS-1014B	E Jefferson St	Baxter Ave (US 31E)	0.000	S 1st St	1.050	1.050	2,331	2,220	6	100%	METRO
44	US-42	Brownsboro Rd	I-264	5.810	Seminary Dr (KY 22C)	6.795	0.985	2,172	2,205	7	0%	KYTC
45	US-31W	W Main St	N 22nd St (US 150)	20.345	S 2nd St	22.096	1.751	3,743	2,138	10	100%	KYTC
46	Multiple	Portland Ave (KY 3064 / CS-1053A)	N 15th St	-	N 33 rd St / Northwestern Pkwy	-	1.796	3,836	2,136	13	100%	KYTC (KY 3064) METRO (CS1053A)
47	KY-1747	S Hurstbourne Pkwy	Watterson Trl	8.519	Six Mile Ln	9.583	1.064	2,196	2,064	5	0%	KYTC
48	KY-155	Taylorsville Rd	Watterson Trl	9.350	Breckenridge Ln (KY 1932)	13.590	4.240	8,629	2,035	22	0%	KYTC
49	KY-1020	National Turnpike	Fairdale Rd	2.669	Southside Dr (KY 907)	5.700	3.031	6,130	2,022	18	100%	KYTC
50	Multiple	3rd Street Rd (KY 907) / Southside Dr (KY 907/KY 1020)	E Pages Ln / Highcrest Ave	-	W Tenny Ave (KY 1020)	-	6.582	13,188	2,004	41	65%	KYTC
51	CS-1016F	W Hill St	S 17th St	1.527	Wilson Ave	2.561	1.034	2,010	1,944	5	100%	METRO
52	KY-3082	Bank St	N 30th St	0.716	N 22nd St (US 150)	1.538	0.822	1,575	1,916	5	100%	KYTC
53	US-60	Shelbyville Rd	Whipps Mill Rd	6.435	Hurstbourne Pkwy (KY 1747)	7.848	1.413	2,682	1,898	8	0%	KYTC

4. Justice40

The Justice40 initiative, stemming from Executive Order 14008, is a pivotal component in the U.S. Department of Transportation's (DOT) strategy to rectify historical underinvestment. By providing decision-makers with tools to assess community challenges and pinpoint projects that mitigate or reverse them, the initiative aims to enhance quality of life and economic prosperity nationwide.

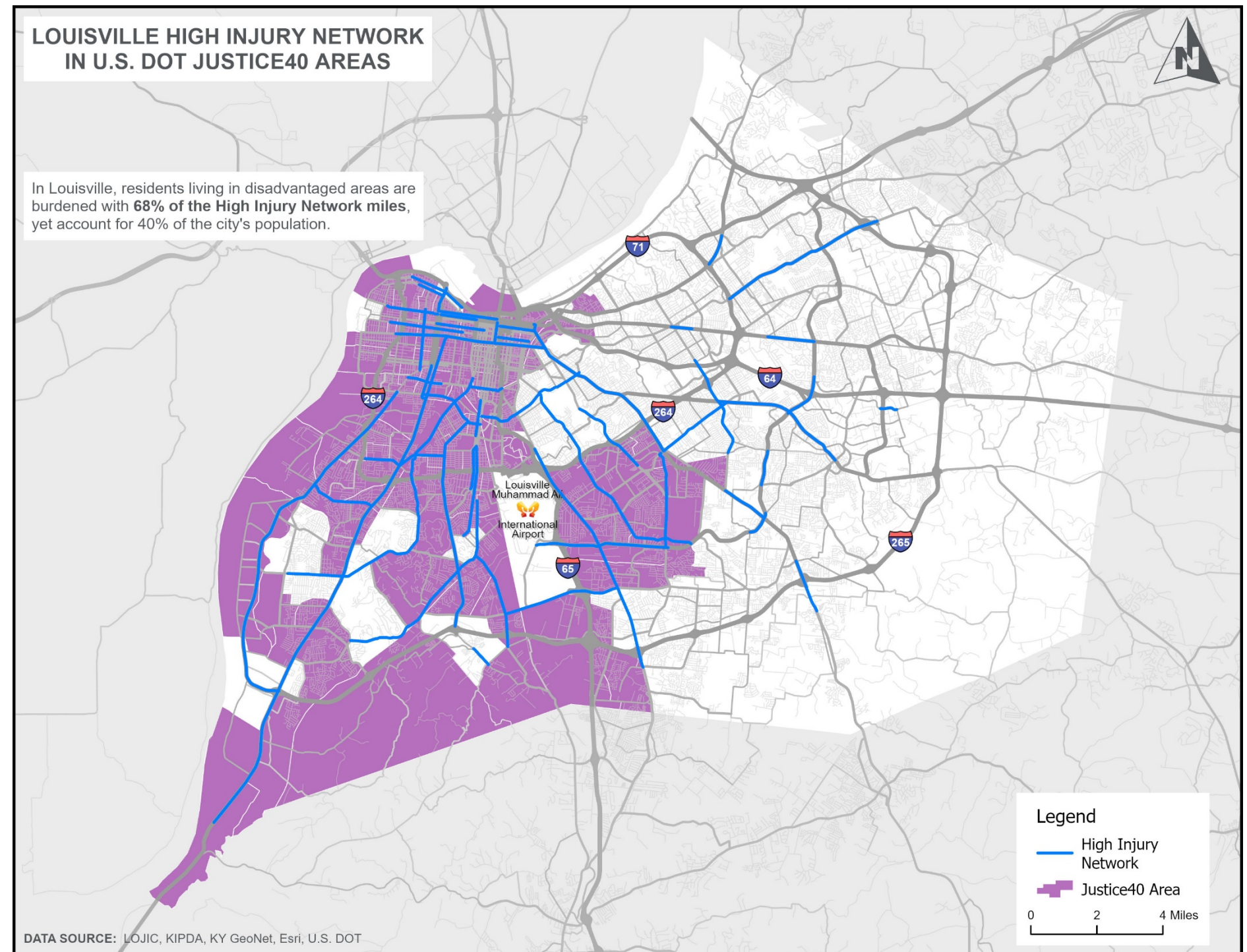
U.S. DOT developed the Equitable Transportation Community (ETC) Explorer ([USDOT Equitable Transportation Community \(ETC\) Explorer \(arcgis.com\)](https://arcgis.com)), an interactive web application that uses 2020 Census Tracts and data. Disadvantaged Census Tracts were identified using an algorithm and composite score, which includes data on climate and disaster risk burden, environmental burden, health and social vulnerability, and transportation insecurity. Census Tracts identified by the ETC Explorer as disadvantaged were used to calculate the percentage of Louisville's HIN in Justice40 areas.

In Louisville, residents living in disadvantaged areas are burdened with 68% of the High Injury Network miles and 75% of the High Injury Network fatal and suspected serious injury crashes, yet account for 40% of the city's population.

Table 6: Louisville High Injury Network in U.S. DOT Justice40 Areas

	High Injury Network Total	Justice40 Total
Fatal and Suspected Serious Injury Crashes	1,213	905 (74.6% of HIN)
Roadway Miles	152	104 (68.1% of HIN)

Figure 9: Louisville High Injury Network and U.S. DOT Justice40 Areas



5. Roadway Ownership

High Injury Network routes in Louisville are owned by three agencies: Kentucky Transportation Cabinet (KYTC), Louisville Metro Government, and City of Jeffersontown.

Table 7: Louisville High Injury Network and Roadway Ownership

	High Injury Network Miles	High Injury Network KA Crashes
Kentucky Transportation Cabinet	130 miles (85% of HIN)	1,054 KA (87% of HIN)
Louisville Metro Government	22 miles (15% of HIN)	154 KA (13% of HIN)
City of Jeffersontown	0.5 miles (<1% of HIN)	5 KA (<1% of HIN)

Figure 10: Louisville High Injury Network and Roadway Ownership

