



2.3 Safety

Base and future crash rates on segments of US 31 were compared to the average statewide crash rates for rural principal arterials (the primary functional classification for US 31). Traffic crash data utilized for this project was provided by INDOT and contained statistics for the three-year period from 1997 to 1999. Traffic crash data available for analysis at any time period is generally a couple of years behind the time that the analysis is being performed. Traffic crash statistics for the three-year period from 1997 to 1999, the most recent data available at the time that the Purpose and Need for the project was developed, for US 31 between Plymouth and South Bend were analyzed and compared to Indiana statewide average crash rates for rural principal arterial roadways. The analysis found that US 31 through the corridor has accident rates above Indiana statewide averages on comparable facilities for both injury accidents and fatal accidents. These findings reveal that crash rates on US 31 exceed those of comparable facilities throughout the state. Table 2.3.3 below shows the contrast between crash rates for US 31 and both the average rates for rural principal arterials in Indiana and rural principal arterials nationwide.

Route	Injury Crashes (1997-1999)	Injury Crash Rate*	Fatal Crashes ** (1997-1999)	Fatal Crash Rate*
US 31 Plymouth-South Bend	204	50.39	9	2.22
Indiana Rural Principal Arterials	8,485	47.15	353	1.96
U.S. Rural Principal Arterials ¹	349,047	50.87	15,128	2.12

Notes: * Per 100 million annual vehicle-miles of travel; the crashes used in this chart are investigated crashes only. Fatal Crash Rate reflects the number of fatal crashes, not the number of fatalities.

** Total number of fatal crashes, not the number of fatalities.

Source: For US 31, Bernardin, Lochmueller & Associates, Inc. analysis of INDOT Division of Program Development Crash Location Report for St. Joseph and Marshall counties; for Indiana and U.S. Rural Principal Arterials, INDOT Division of Program Development Indiana Motor Vehicle Fatalities and Injuries, 1997-1999. Averages were revised January 22, 2002.

Crash rates are equal to fatal and personal injury crashes plus property damage only (PDO) crashes per 100 million annual vehicle-miles of travel. Fatal crashes represent the number of fatal crashes and not the number of fatalities. The statewide average crash rate for rural principal arterials is 186.57 accidents per 100 million annual vehicle miles of travel. Base and future total crash rates on US 31 exceed the statewide average from US 6 through La Paz, through Lakeville, and from Lakeville to US 20 as shown in Table 2.3.4. Figure 2.3.2 shows the areas of US 31 where crash rates on comparable facilities exceed the statewide rates for the years 1997-1999 and are projected for 2030.

¹ National injury crash data estimated based on 1997 data alone, as 1998 and 1999 data is unavailable.



Table 2.3.4: Crash Rate Comparison of US 31 Segments ²								
Segments	Injury Crashes*	Injury Crash Rate**	Fatal Crashes*	Fatal Crash Rate**	PDO Crashes*	PDO Crash Rate**	Total Crashes*	Total Crash Rate**
Existing Conditions (averaged annually) for Years 1997 to 1999								
US 30 to LaPaz	8	17.33	0.7	1.51	33	75.34	42	94.17
through LaPaz	1	45.60	0.3	11.40	6	193.81	7	250.82
LaPaz to Lakeville	2	8.76	0.0	0.00	10	36.28	12	45.04
through Lakeville	11	120.60	0.0	0.00	30	335.43	41	456.04
Lakeville to US 20	46	86.69	2.0	3.77	79	149.52	127	239.98
Rural Principal Arterials	2,828	47.15	118	1.96	8,244	137.45	11,190	186.57
Future Conditions in Year 2030***								
US 30 to LaPaz	12	17.33	1.1	1.51	50	75.34	64	94.17
through LaPaz	1	45.60	0.4	11.40	9	193.81	11	250.82
LaPaz to Lakeville	3	8.76	0.0	0.00	15	36.28	18	45.04
through Lakeville	17	120.60	0.0	0.00	47	335.43	64	456.04
Lakeville N to US 20	70	86.69	3.1	3.77	121	149.52	194	239.98
Rural Principal Arterials	3,791	47.15	158	1.96	11,052	137.45	15,002	186.57
Notes: * Average annual number of crashes for the three year period studied. ** Per 100 million annual vehicle-miles of travel; the crashes used in this chart are investigated crashes only. Shading denotes rates exceeding Indiana statewide average for rural principal arterials. *** Future crashes were projected by the application of existing rates to projected vehicle-miles of travel. Source: For US 31, Bernardin, Lochmueller & Associates, Inc. analysis of INDOT Division of Program Development Crash Location Report for St. Joseph and Marshall counties; for Indiana Rural Principal Arterials, INDOT Division of Program Development Indiana Motor Vehicle Fatalities and Injuries, 1997-1999 Averages, revised January 22, 2002.								

² All crash rates are given per 100 million annual vehicle-miles of travel. Crash totals and rates reflect investigated crashes only. US 31 is classified as a rural principal arterial on all of the segments except from north of Miller Road to the US 20 Bypass, where US 31 is classified as an urban principal arterial.

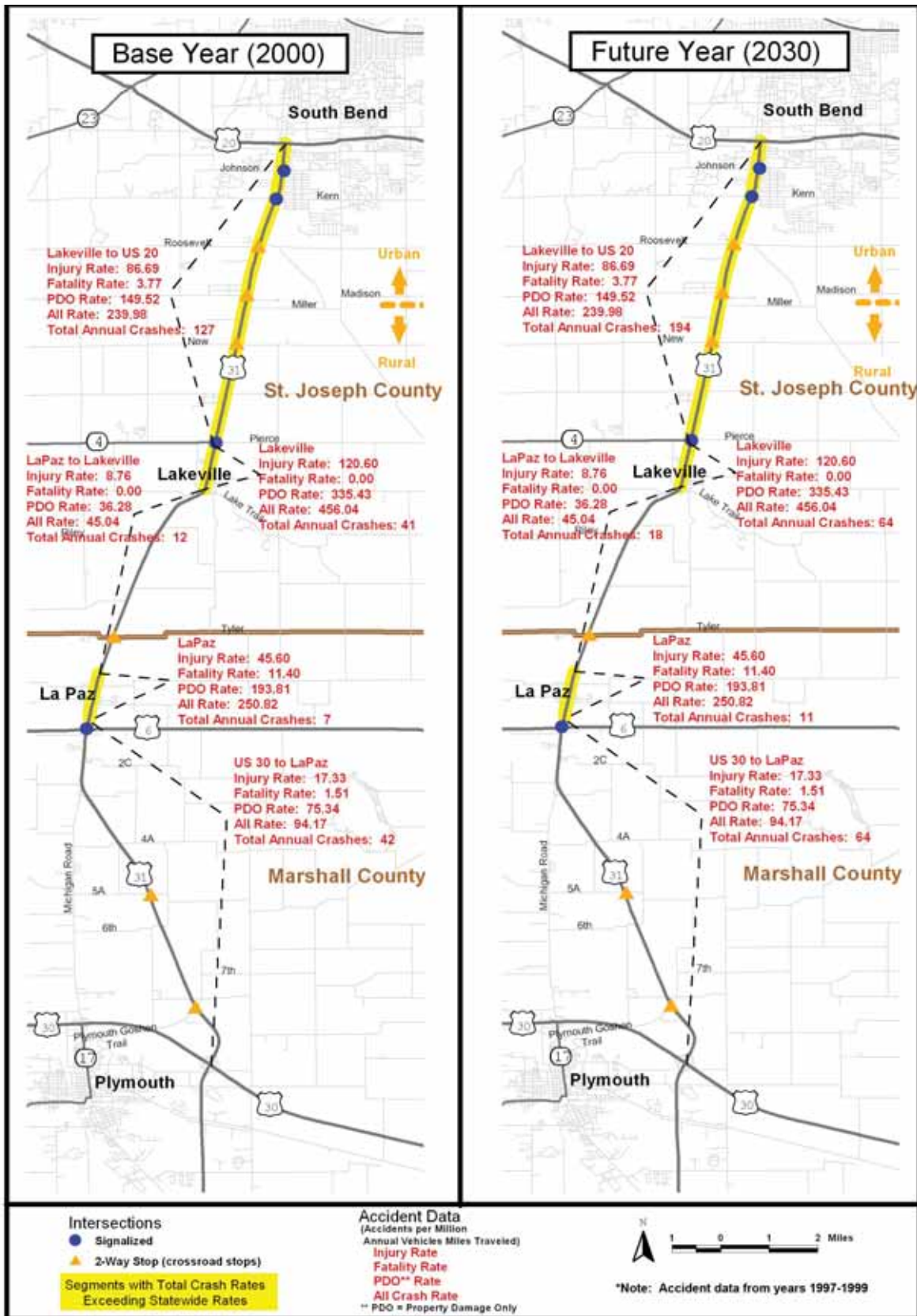


Figure 2.3.2: US 31 Segments with Crash Rates Exceeding Statewide Rates (Assuming no improvements to US 31)