

## Profile of Rail-Related Injuries for the Dallas–Fort Worth Metropolitan Area

A pedestrian or other road user is involved in a collision with a train every three hours in the U.S., and 1 in 10 of these involves children ages 19 and under.<sup>1,2</sup> These incidents are often deadly, and, most importantly, are preventable. They are primarily the result of two types of incidents:

- **Trespassing injuries** occur when a person is injured while on private railroad property without permission. They are most often pedestrians taking a shortcut across or along tracks, but also include loiterers and those engaging in recreational activities such as hunting or jogging.<sup>1</sup>
- **Railroad crossing injuries** occur when a person or highway user is struck by a train while attempting to cross at a designated crossing where tracks intersect a roadway or walkway at the same level.

This profile describes data reported to the Federal Railroad Administration (FRA) on rail-related injuries occurring in the Dallas–Fort Worth metropolitan area. Data are for years 2011 to 2020 and are combined for the Texas counties of Tarrant, Dallas, Denton, Ellis, Johnson, Wise, Kaufman, Collin, Dallam, Hunt, and Parker (no injuries reported for Rockwall County). Injuries are divided into trespassing injuries and railroad crossing injuries. Data include both fatal and nonfatal rail-related injuries. Excluded from this profile are injuries to rail passengers and rail workers as well as cases of suicides and attempted suicide.

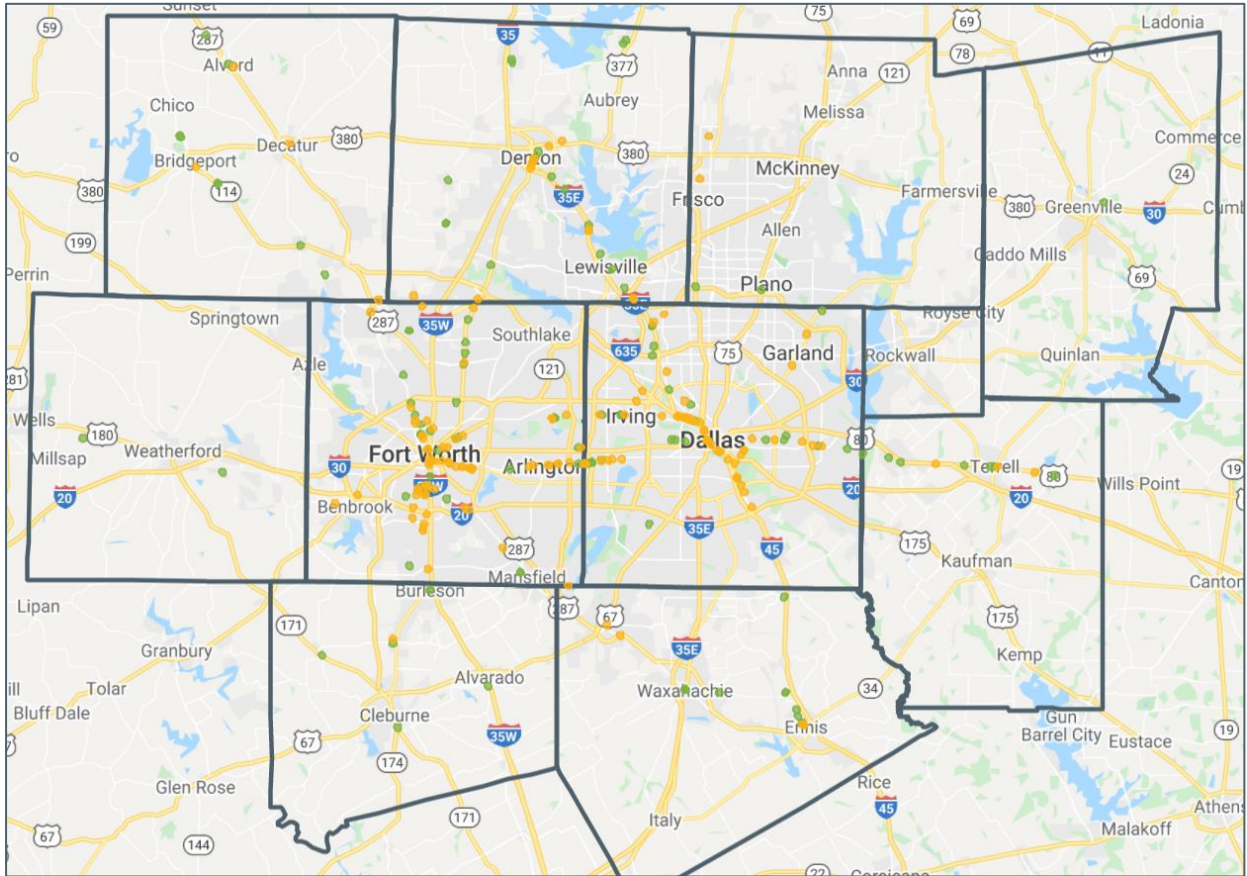
This report and other rail safety resources for families, educators and community partners can be downloaded from the **Safe Kids Rail Safety Station** online hub at [safekids.org/RailSafetyStation](https://safekids.org/RailSafetyStation).

### Summary

- There were 306 rail-related injuries in the Dallas-Fort Worth Metroplex area from 2011 to 2020, 11% of which involved children.
- Most injuries occurred in Tarrant and Dallas Counties. Children ages 19 and under accounted for about 1 in 10 injuries. The 40 to 44 age group had the highest number of injuries.
- Trespassing and railroad crossing incidents accounted for equal proportions of injuries. However, trespassing injuries were more often fatal than were railroad crossing injuries.
- More than 9 in 10 injuries involved on-track equipment; of those, 7 in 10 involved freight trains, and about 1 in 4 involved passenger trains.
- Railroad crossing injuries were most frequent from 12:00 PM to 2:59 PM, while trespassing injuries were most frequent from 3:00 PM to 5:59 PM.
- More than 8 in 10 of those injured at railroad crossings were motor vehicle occupants.
- Going through or around the gates was the activity most associated with injury at railroad crossings.
- Nearly 7 in 10 trespassers who were injured had been struck by on-track equipment, most of whom were on the tracks when they were struck.



**Map 1. Rail-Related Injuries by Incident Type;  
Tarrant, Dallas, Denton, Ellis, Johnson, Wise, Kaufman, Collin, Dallam, Hunt and Parker Counties, TX**



● Railroad crossing injury ● Trespassing injury

See pages 9–32 for county-level maps by incident type and for children versus adults.

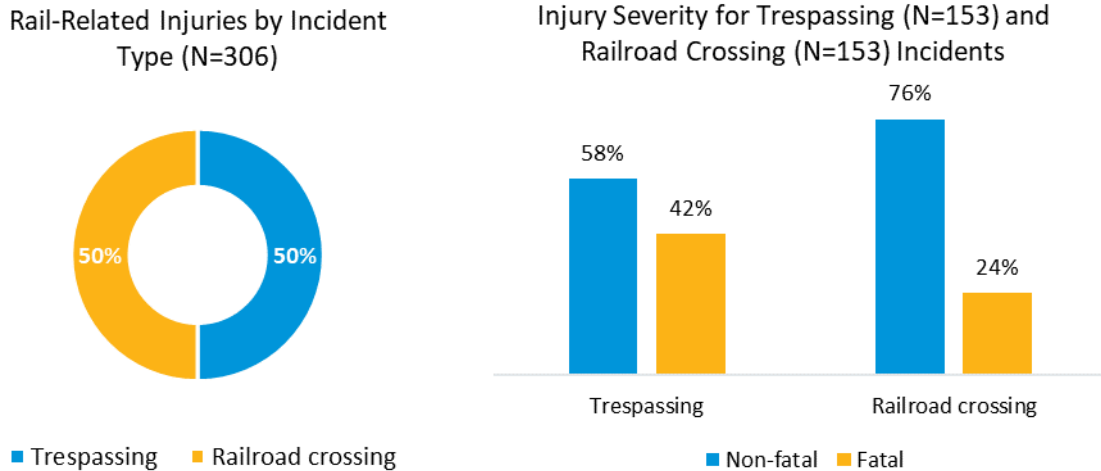


Overview	Distribution of Rail-Related Injuries by County																								
<p>2019 Population<sup>3</sup></p> <p style="font-size: 24pt; color: #0070C0; text-align: center;">7,545,492</p> <p>Number of Railroad Crossings<sup>4</sup></p> <p style="font-size: 24pt; color: #FFC000; text-align: center;">4,106</p> <p>Total Rail-Related Injuries, 2011–2020</p> <p style="font-size: 24pt; color: #008000; text-align: center;">306</p> <p>Injuries per 100,000 People, 2011–2020</p> <p style="font-size: 24pt; color: #0070C0; text-align: center;">0.44</p> <p>Percent Injured that were Ages 0–19 yr.</p> <p style="font-size: 24pt; color: #FF0000; text-align: center;">11%</p>	<p><b>Figure 1. Nearly 4 in 10 injuries occurred in Tarrant Co.*</b></p> <table border="1"> <caption>Data for Figure 1: Distribution of Rail-Related Injuries by County</caption> <thead> <tr> <th>County</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>Tarrant</td><td>37%</td></tr> <tr><td>Dallas</td><td>27%</td></tr> <tr><td>Denton</td><td>12%</td></tr> <tr><td>Ellis</td><td>6%</td></tr> <tr><td>Johnson</td><td>5%</td></tr> <tr><td>Wise</td><td>4%</td></tr> <tr><td>Kaufman</td><td>3%</td></tr> <tr><td>Collin</td><td>3%</td></tr> <tr><td>Dallam</td><td>2%</td></tr> <tr><td>Hunt</td><td>1%</td></tr> <tr><td>Parker</td><td>1%</td></tr> </tbody> </table> <p><i>Red indicates the category with the highest percent.</i></p> <p><small>* Total percent does not equal 100 due to rounding.</small></p>	County	Percentage	Tarrant	37%	Dallas	27%	Denton	12%	Ellis	6%	Johnson	5%	Wise	4%	Kaufman	3%	Collin	3%	Dallam	2%	Hunt	1%	Parker	1%
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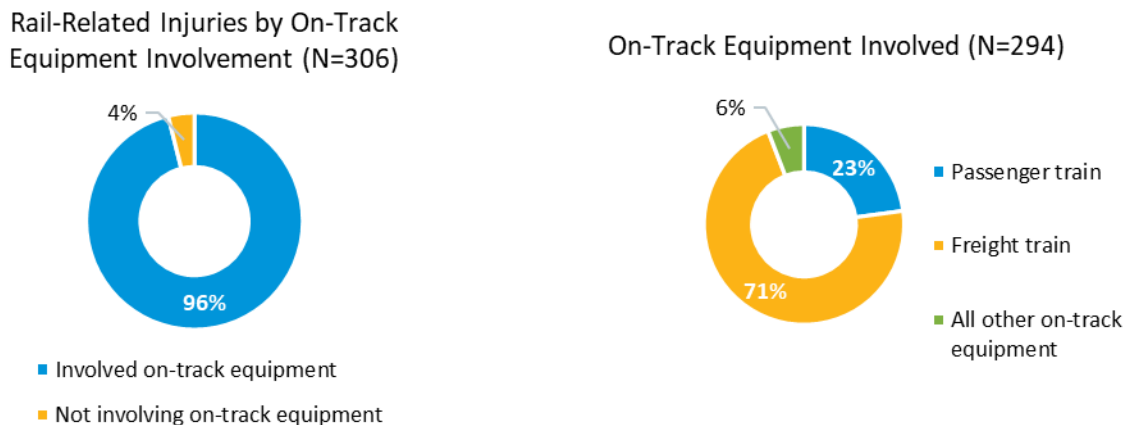
Overall Injuries																																																				
<p><b>Figure 2. On average, there were 31 injuries per year in the decade from 2011 to 2020. The number of injuries in 2019 was the highest in t other years.</b></p> <p style="text-align: center;">Number of Rail-Related Injuries by Year (N=306)</p> <table border="1"> <caption>Data for Figure 2: Number of Rail-Related Injuries by Year</caption> <thead> <tr> <th>Year</th> <th>Number of Injuries</th> </tr> </thead> <tbody> <tr><td>2011</td><td>24</td></tr> <tr><td>2012</td><td>29</td></tr> <tr><td>2013</td><td>29</td></tr> <tr><td>2014</td><td>24</td></tr> <tr><td>2015</td><td>32</td></tr> <tr><td>2016</td><td>29</td></tr> <tr><td>2017</td><td>24</td></tr> <tr><td>2018</td><td>30</td></tr> <tr><td>2019</td><td>48</td></tr> <tr><td>2020</td><td>32</td></tr> </tbody> </table> <p><b>Figure 3. Of those who were injured, about 1 in 10 were children ages 19 and under. The 40 to 44 age group had the highest number of injuries.</b></p> <p style="text-align: center;">Rail-Related Injuries by 5-Year Age Groups (N=289)*</p> <table border="1"> <caption>Data for Figure 3: Rail-Related Injuries by 5-Year Age Groups</caption> <thead> <tr> <th>Age Group</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>0-4</td><td>1%</td></tr> <tr><td>5-9</td><td>0%</td></tr> <tr><td>10-14</td><td>2%</td></tr> <tr><td>15-19</td><td>8%</td></tr> <tr><td>20-24</td><td>11%</td></tr> <tr><td>25-29</td><td>9%</td></tr> <tr><td>30-34</td><td>11%</td></tr> <tr><td>35-39</td><td>10%</td></tr> <tr><td>40-44</td><td>16%</td></tr> <tr><td>45-49</td><td>7%</td></tr> <tr><td>50-54</td><td>8%</td></tr> <tr><td>55-59</td><td>3%</td></tr> <tr><td>60-64</td><td>4%</td></tr> <tr><td>65+</td><td>9%</td></tr> </tbody> </table> <p><i>Red indicates the category with the highest percent.</i></p> <p><small>* Age data missing for 17 cases. Total percent does not equal 100 due to rounding.</small></p>	Year	Number of Injuries	2011	24	2012	29	2013	29	2014	24	2015	32	2016	29	2017	24	2018	30	2019	48	2020	32	Age Group	Percentage	0-4	1%	5-9	0%	10-14	2%	15-19	8%	20-24	11%	25-29	9%	30-34	11%	35-39	10%	40-44	16%	45-49	7%	50-54	8%	55-59	3%	60-64	4%	65+	9%
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**Figure 4. Trespassing and railroad crossing incidents accounted for equal proportions of injuries. However, trespassing injuries were more often fatal than were railroad crossing injuries.**

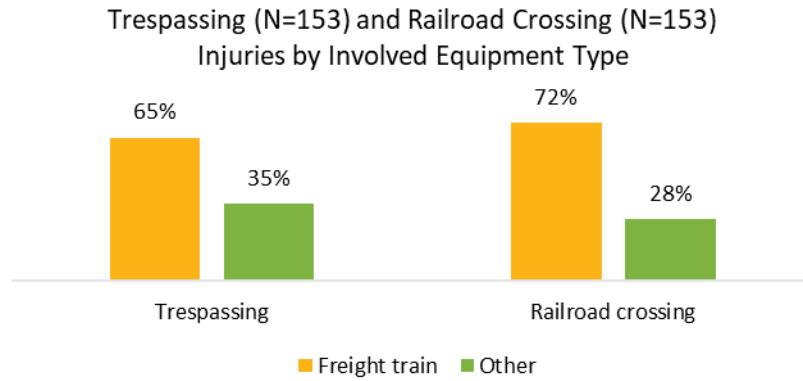


**Figure 5. Nearly all injuries involved on-track equipment,\* which were most often freight trains.**



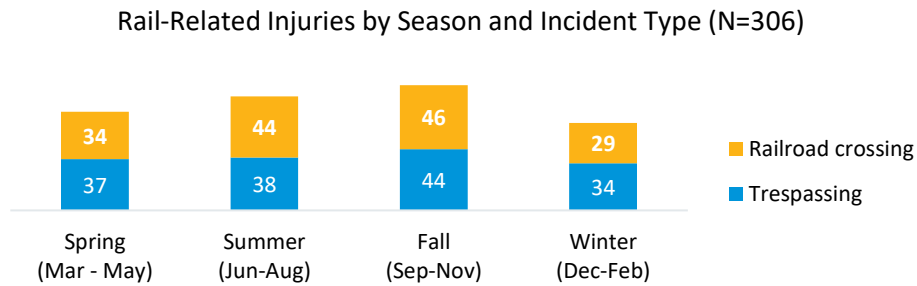
\* On-track equipment includes freight cars and trains, passenger trains and cars, locomotives, inspection vehicles, maintenance of way equipment and other on-track equipment.

**Figure 6. Freight trains were involved in 7 in 10 railroad crossing injuries and more than 6 in 10 trespassing injuries.\***

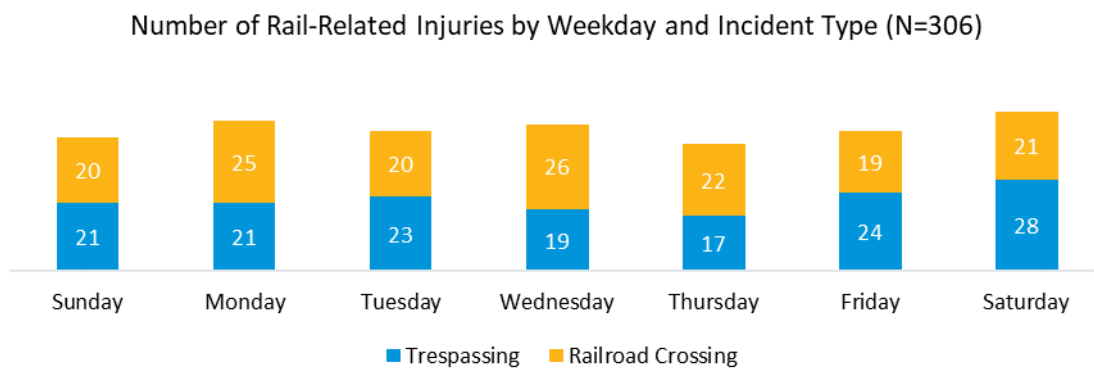


\*On-track equipment includes freight cars and trains, passenger trains and cars, locomotives, inspection vehicles, maintenance of way equipment and other on-track equipment.

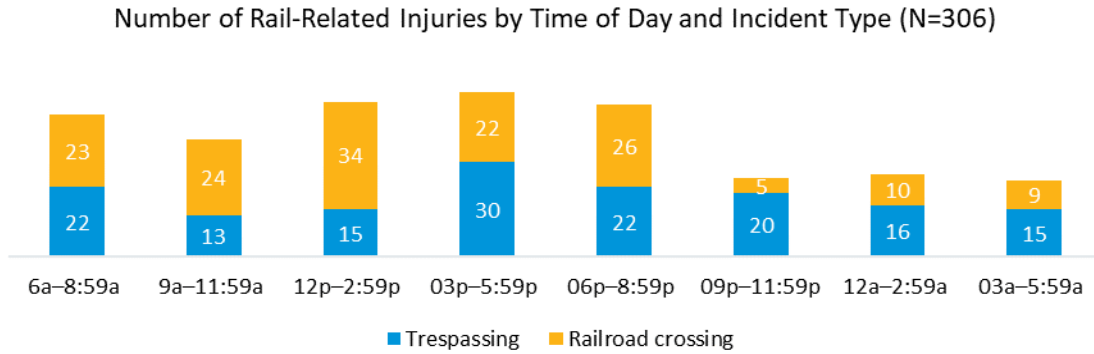
**Figure 7. Overall, injuries were slightly less frequent during winter months.**



**Figure 8. Injuries were relatively evenly distributed by day of week.**

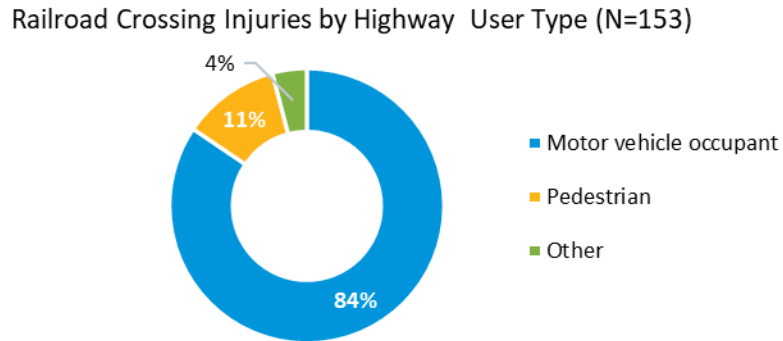


**Figure 9. Railroad crossing injuries were most frequent between 12 PM and 2:59 PM, while trespassing injuries were most frequent between 3 PM and 5:59 PM.**

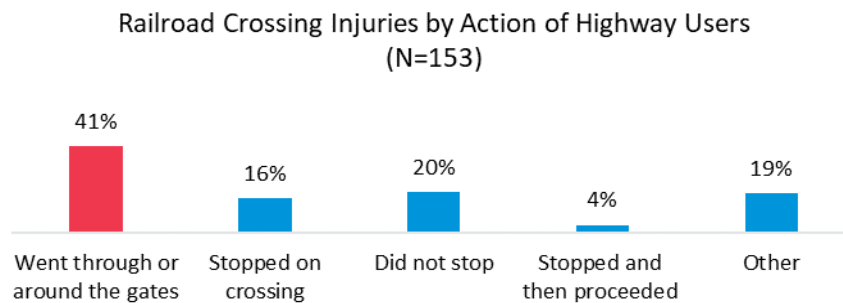


## Railroad Crossing Circumstances

**Figure 10. More than 8 in 10 of those injured at railroad crossings were motor vehicle occupants, and 1 in 10 were pedestrians.**



**Figure 11. Going through or around the gates was the activity most associated with injury at railroad crossings.\***

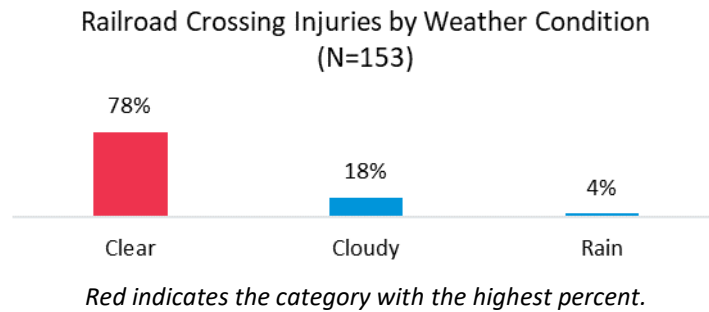


*Red indicates the category with the highest percent.*

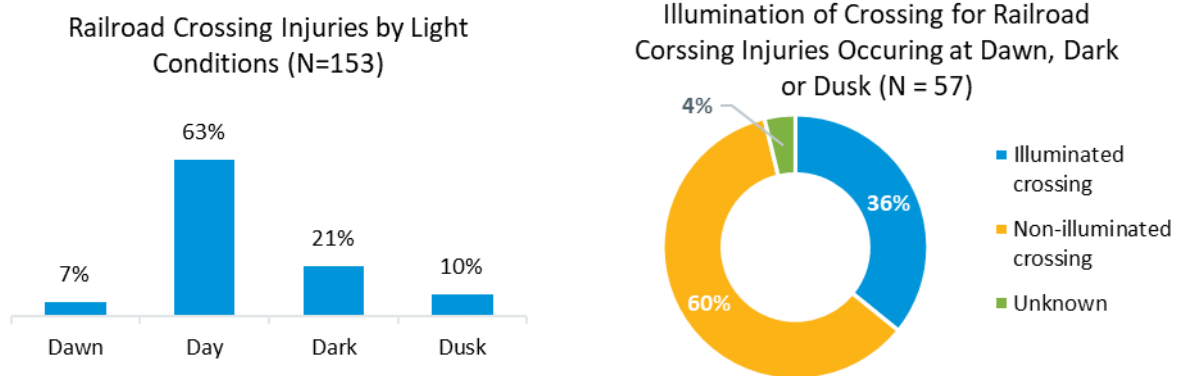
\*Total percent does not equal 100 due to rounding



**Figure 12. Most railroad crossing injuries occurred when the weather was clear.**



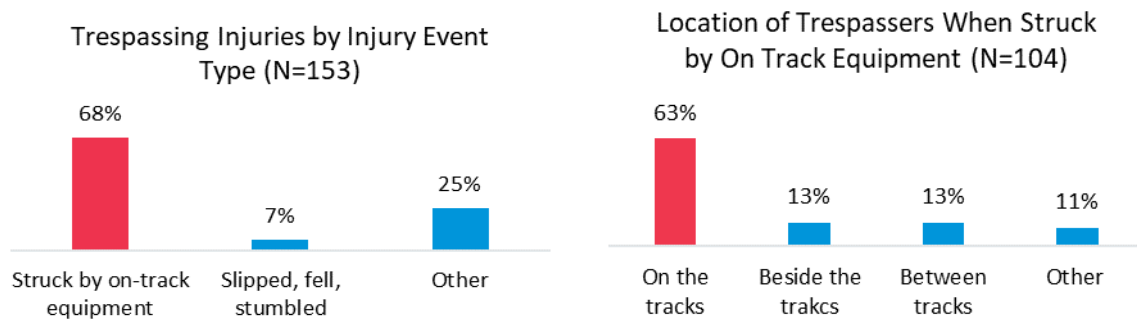
**Figure 13. Nearly 4 in 10 railroad crossing injuries occurred during dark or low-light hours. Of those, 6 in 10 occurred at railroad crossings that were not illuminated by streetlights or special lights \***



\*Total percent does not equal 100 due to rounding

## Trespassing Circumstances

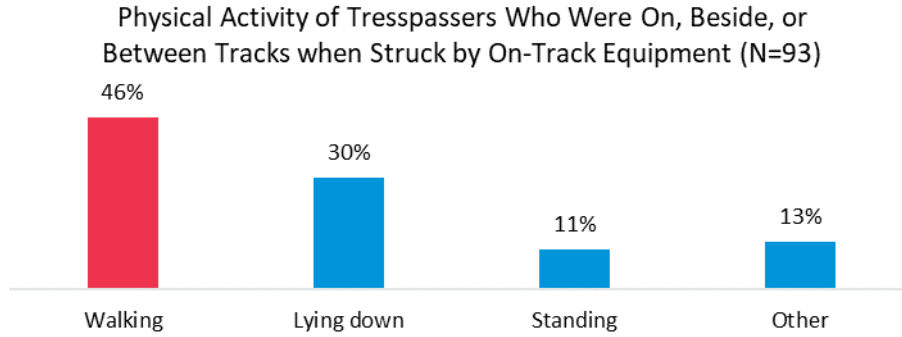
**Figure 14. About 7 in 10 trespassers who were injured had been struck by on-track equipment. Of those, 6 in 10 were on the tracks at the time of impact.**



*Red indicates the categories with the highest percents.*



**Figure 15. Of trespassers who were struck by on-track equipment while on the tracks, 4 in 10 were walking, 1 in 3 were laying and 1 in 10 were standing at the time of impact.**

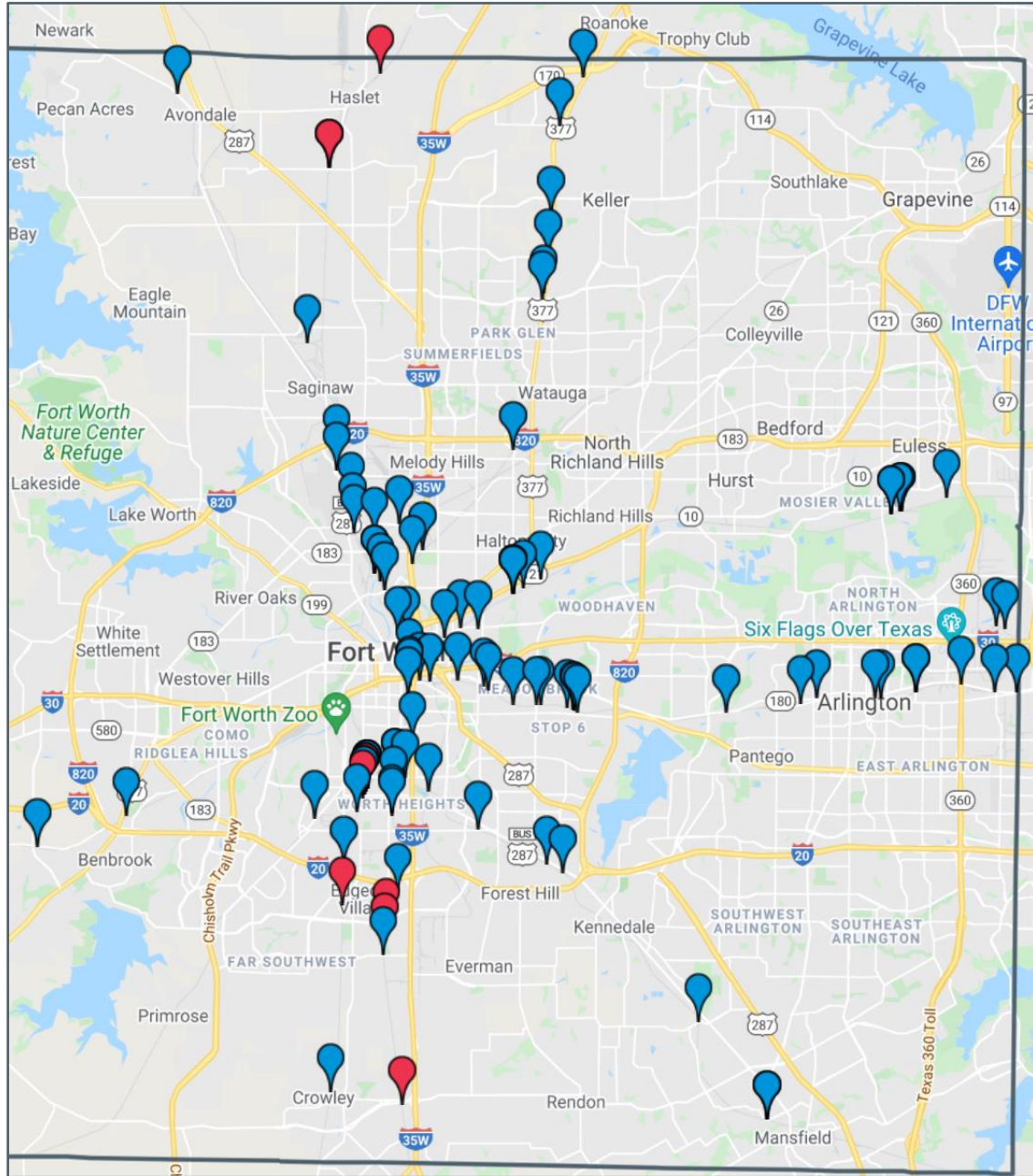


*Red indicates the category with the highest percent.*





Map 2. Tarrant County – Injuries by Age Group

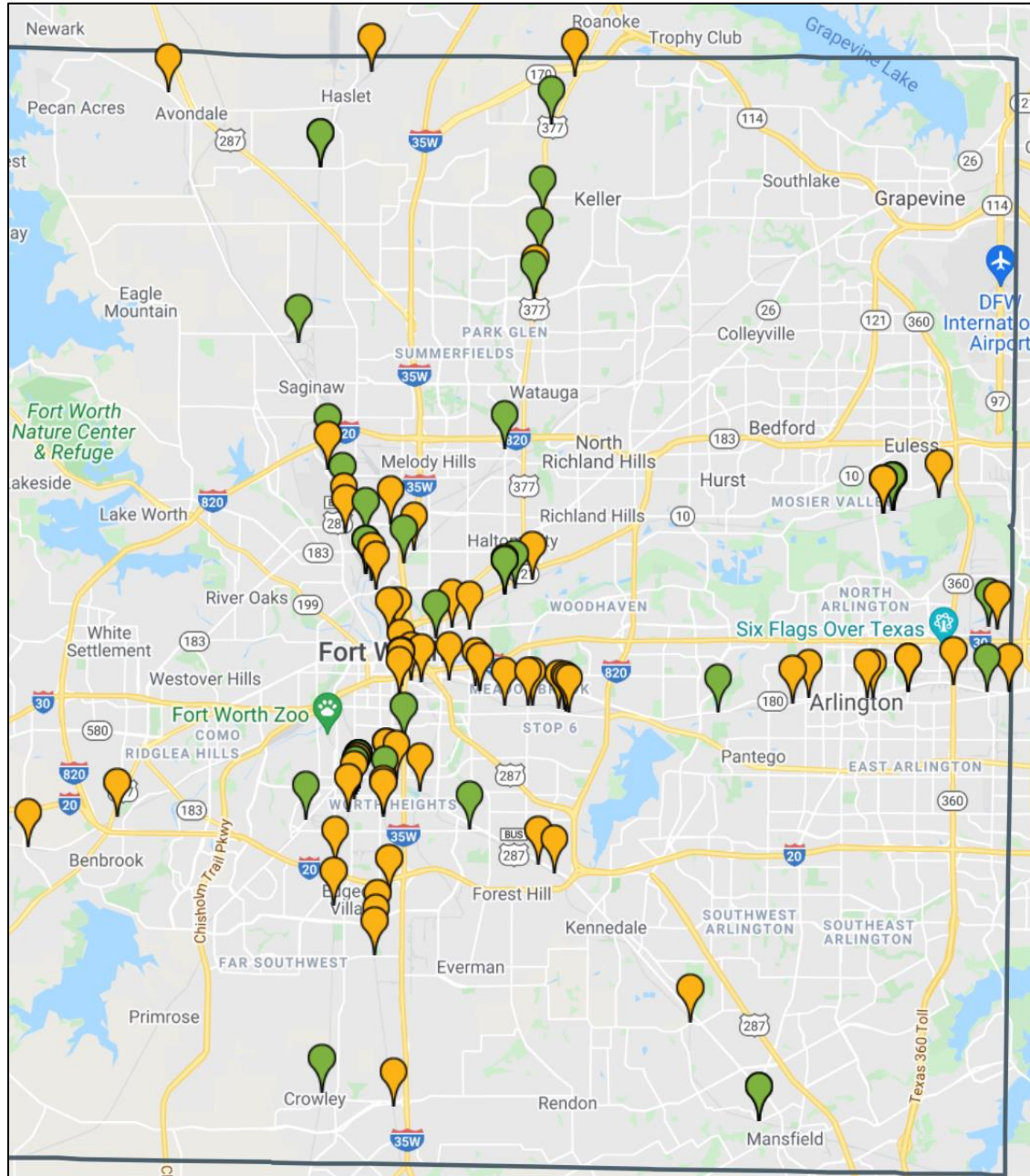


● Adult injury ● Child injury (ages 0-19 years)





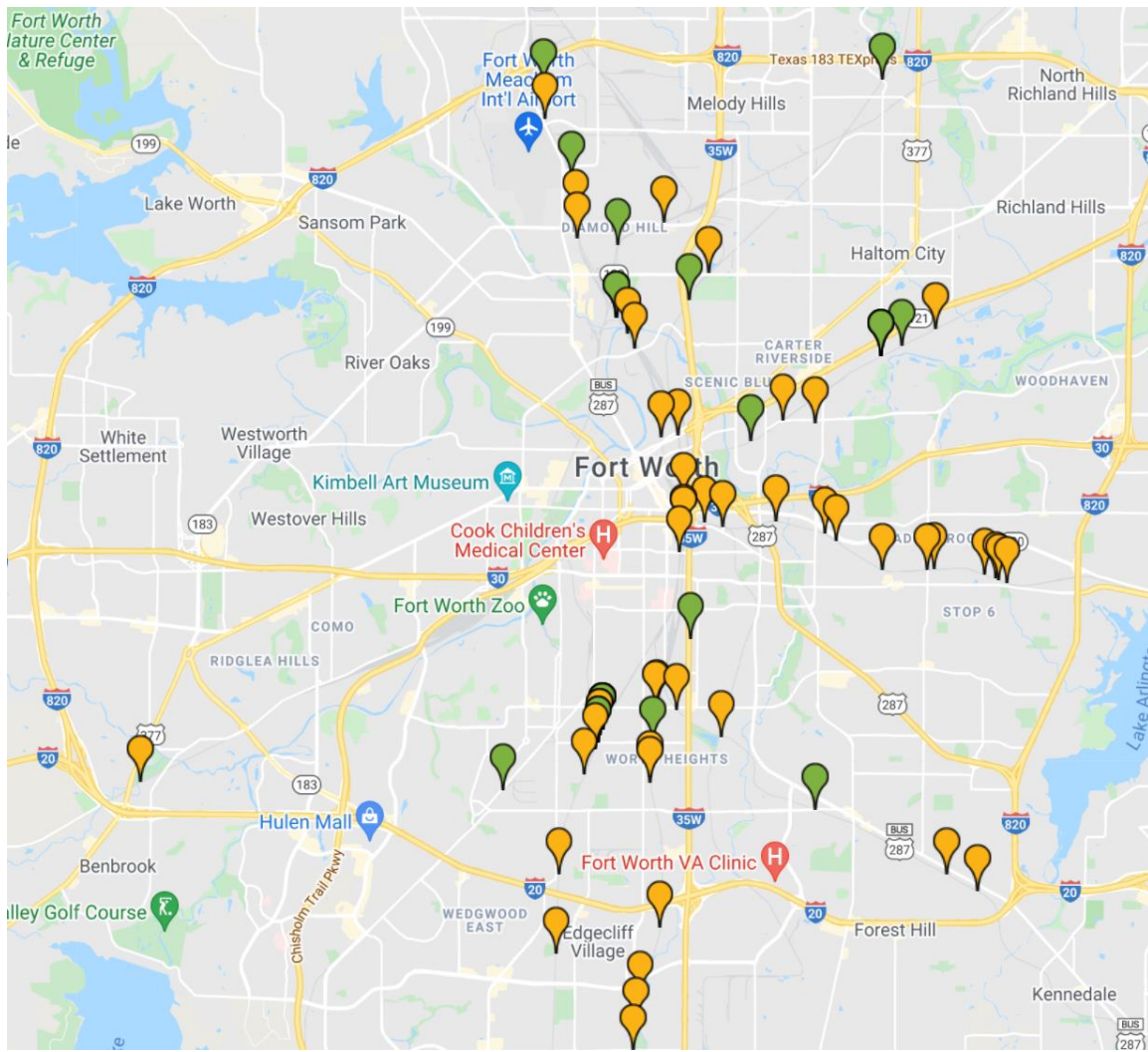
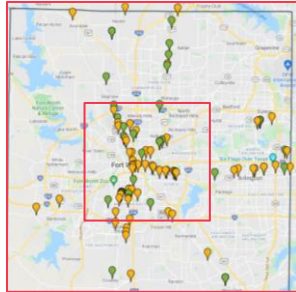
## Map 4. Tarrant County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



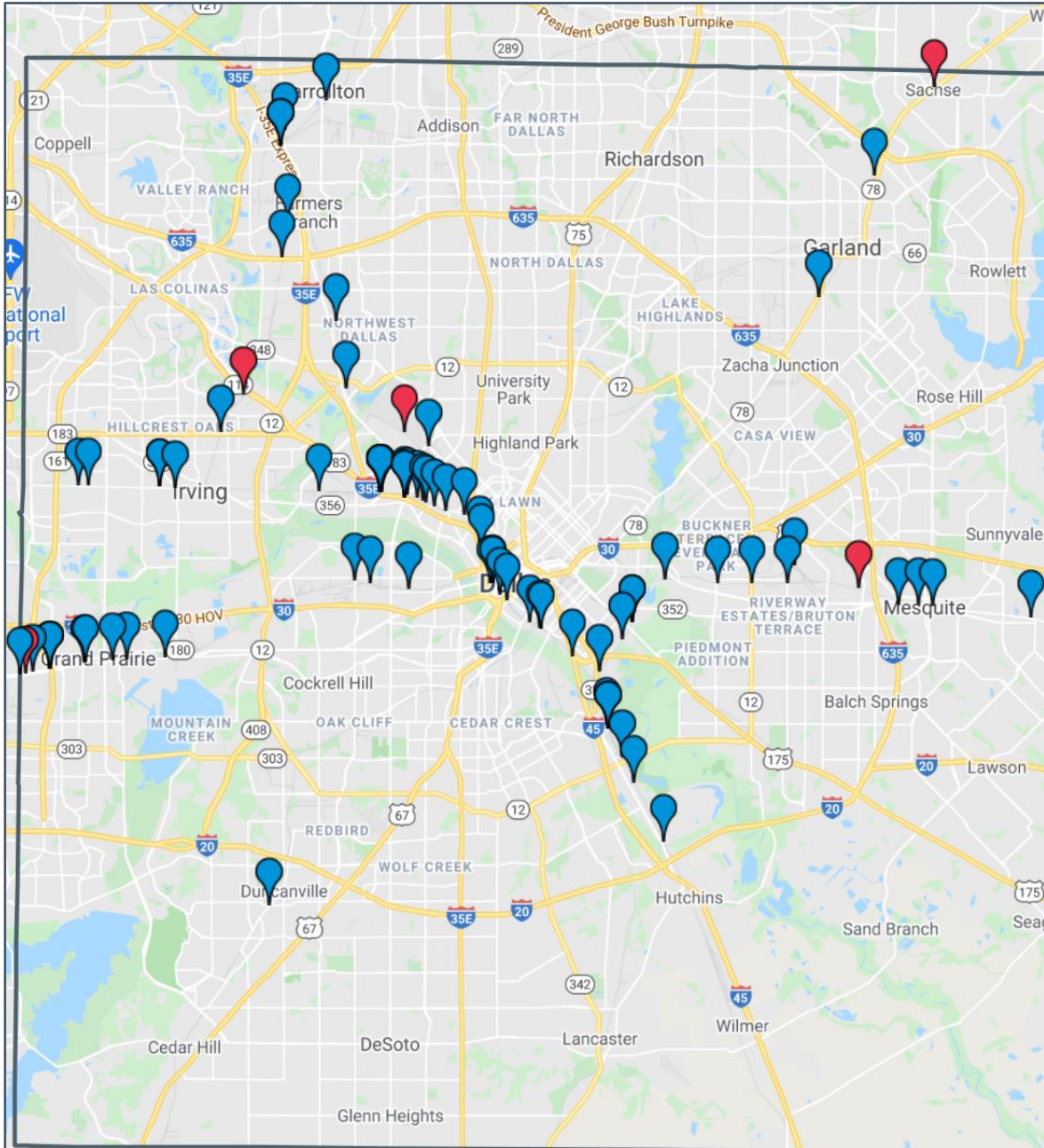
Map 5. Tarrant County – Injuries by Incident Type - Central



● Railroad crossing injury ● Trespassing injury



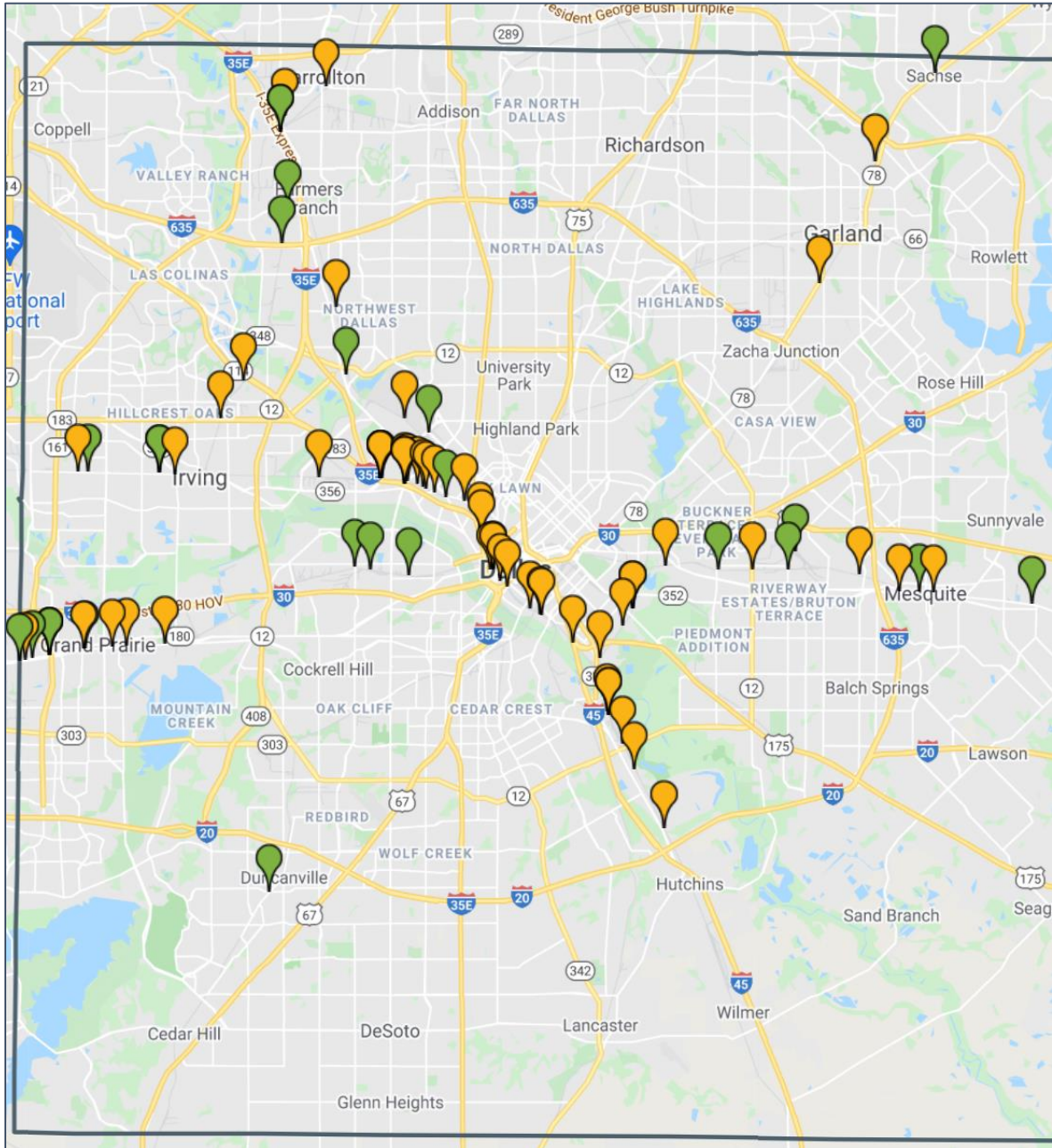
## Map 6. Dallas County – Injury by Age Group



● Adult injury ● Child injury (ages 0-19 years)



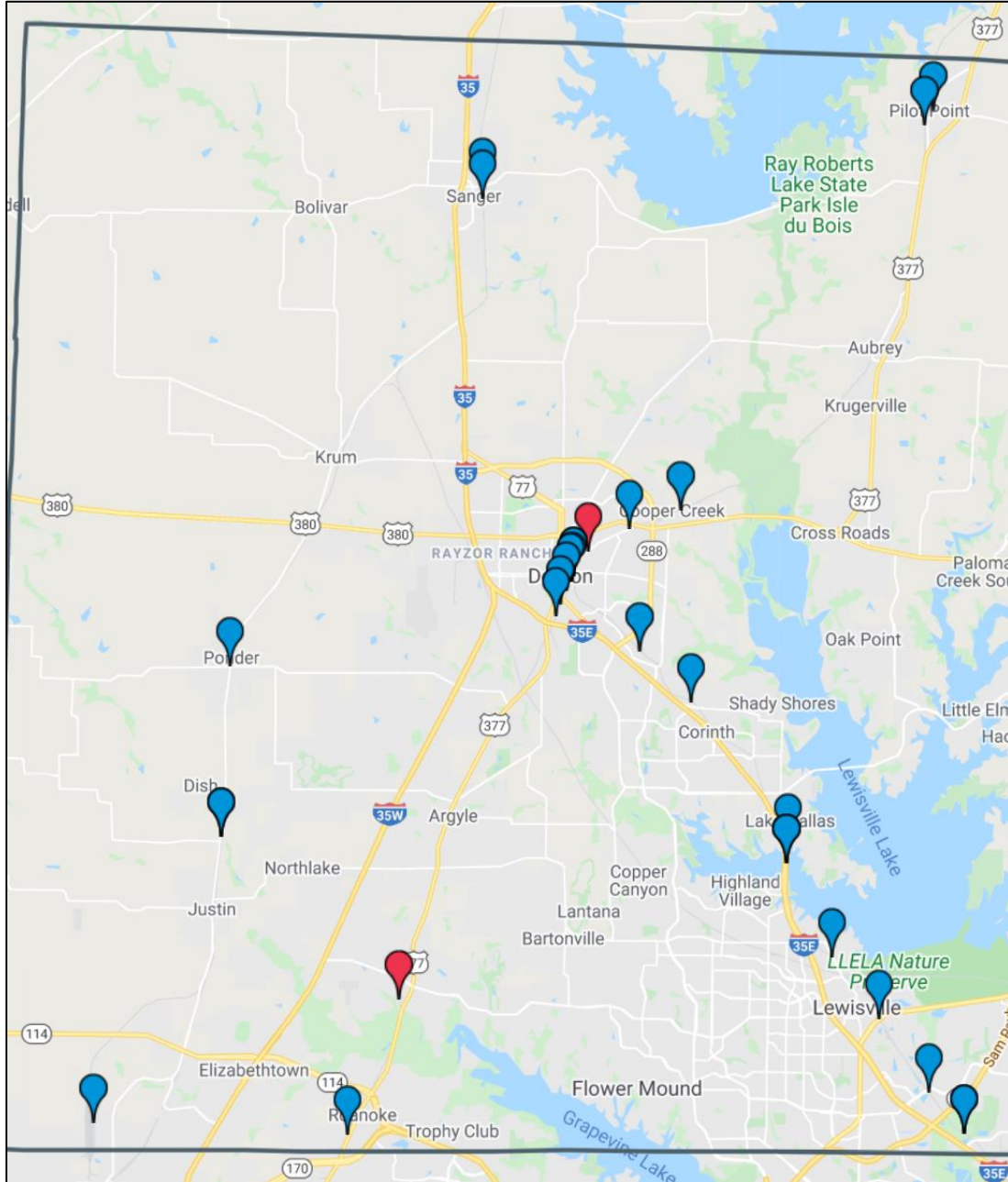
## Map 7. Dallas County – Injury by Incident Type



● Railroad crossing injury ● Trespassing injury



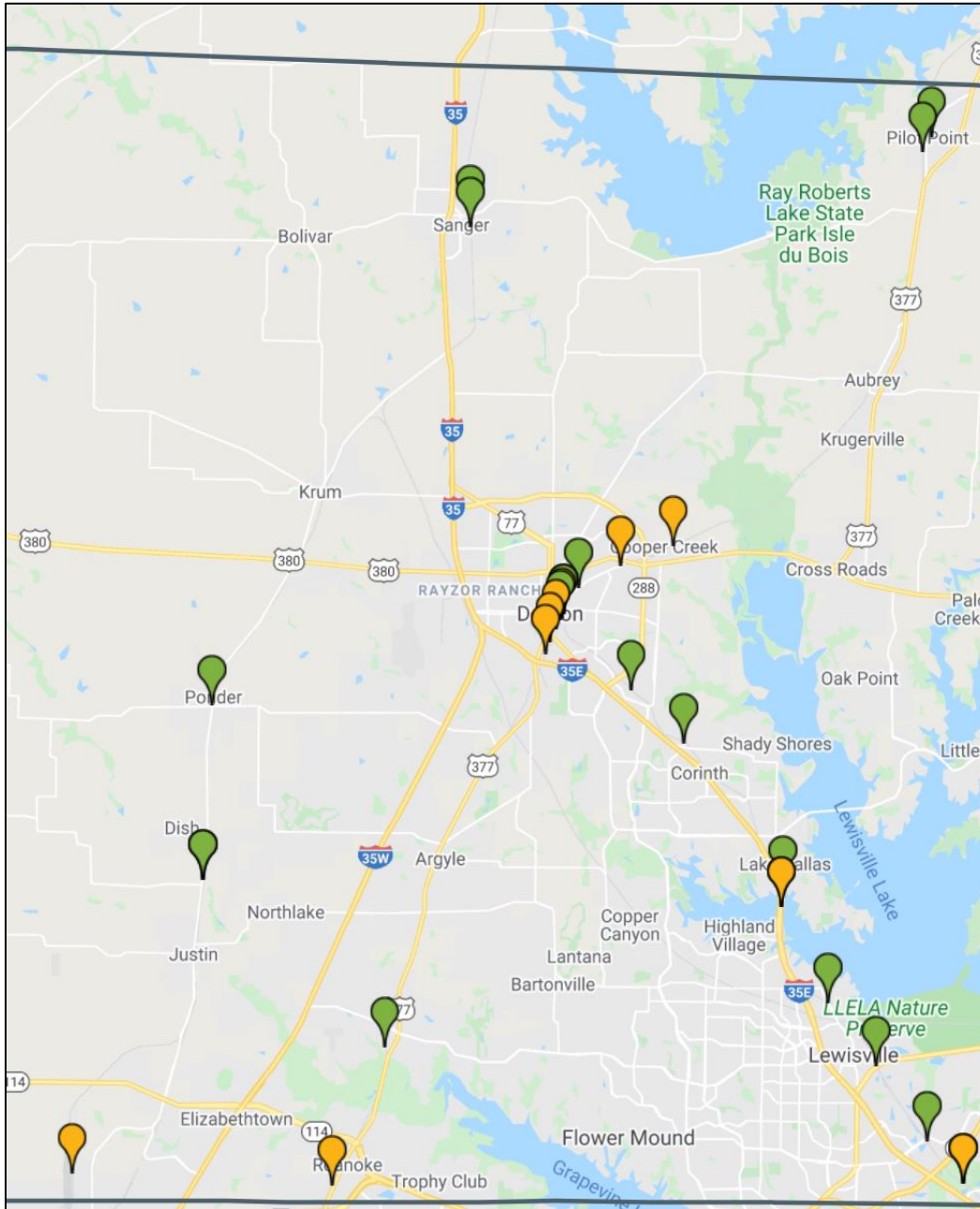
Map 8. Denton County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



## Map 9. Denton County – Injuries by Incident Type

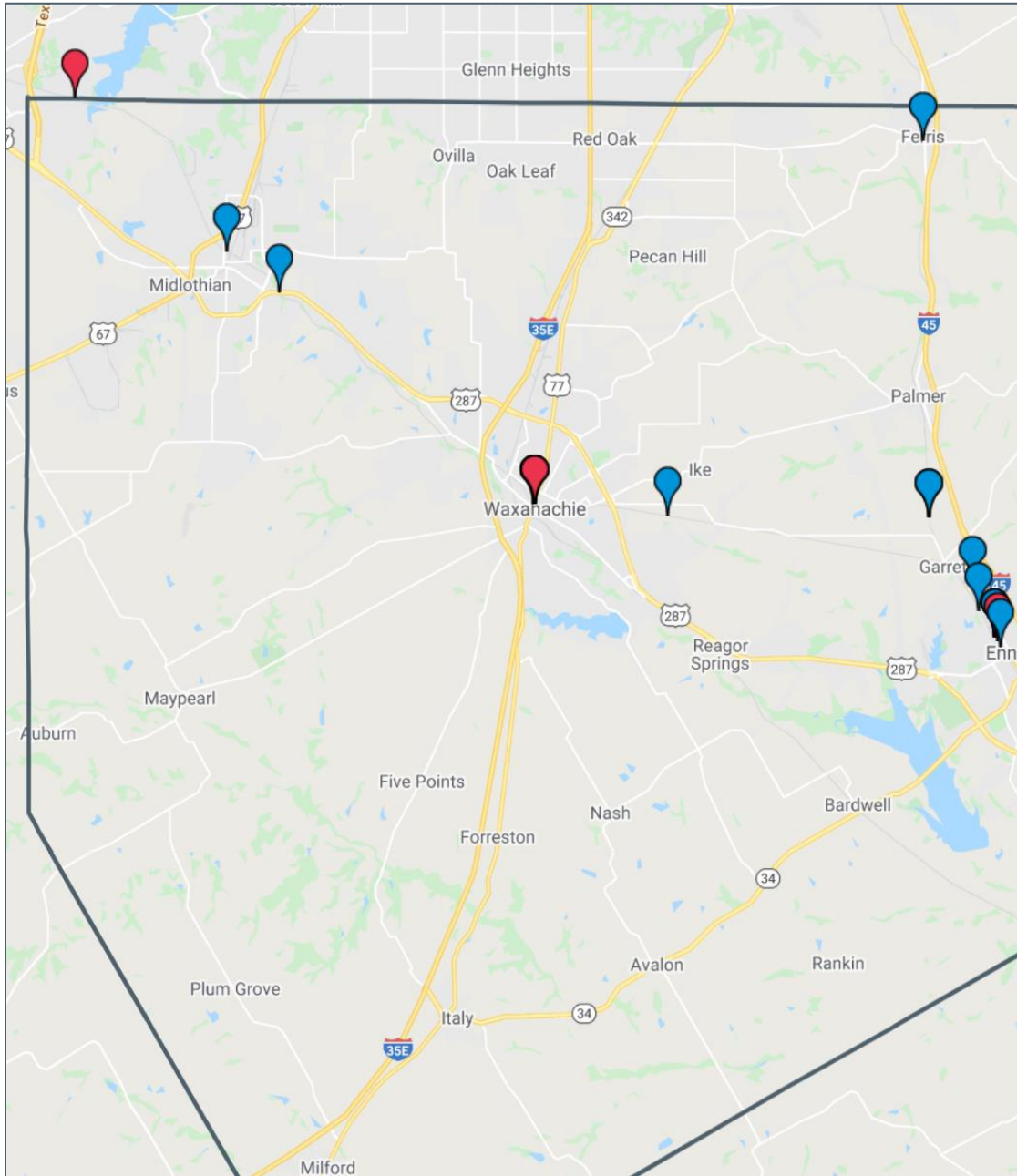


● Railroad crossing injury ● Trespassing injury





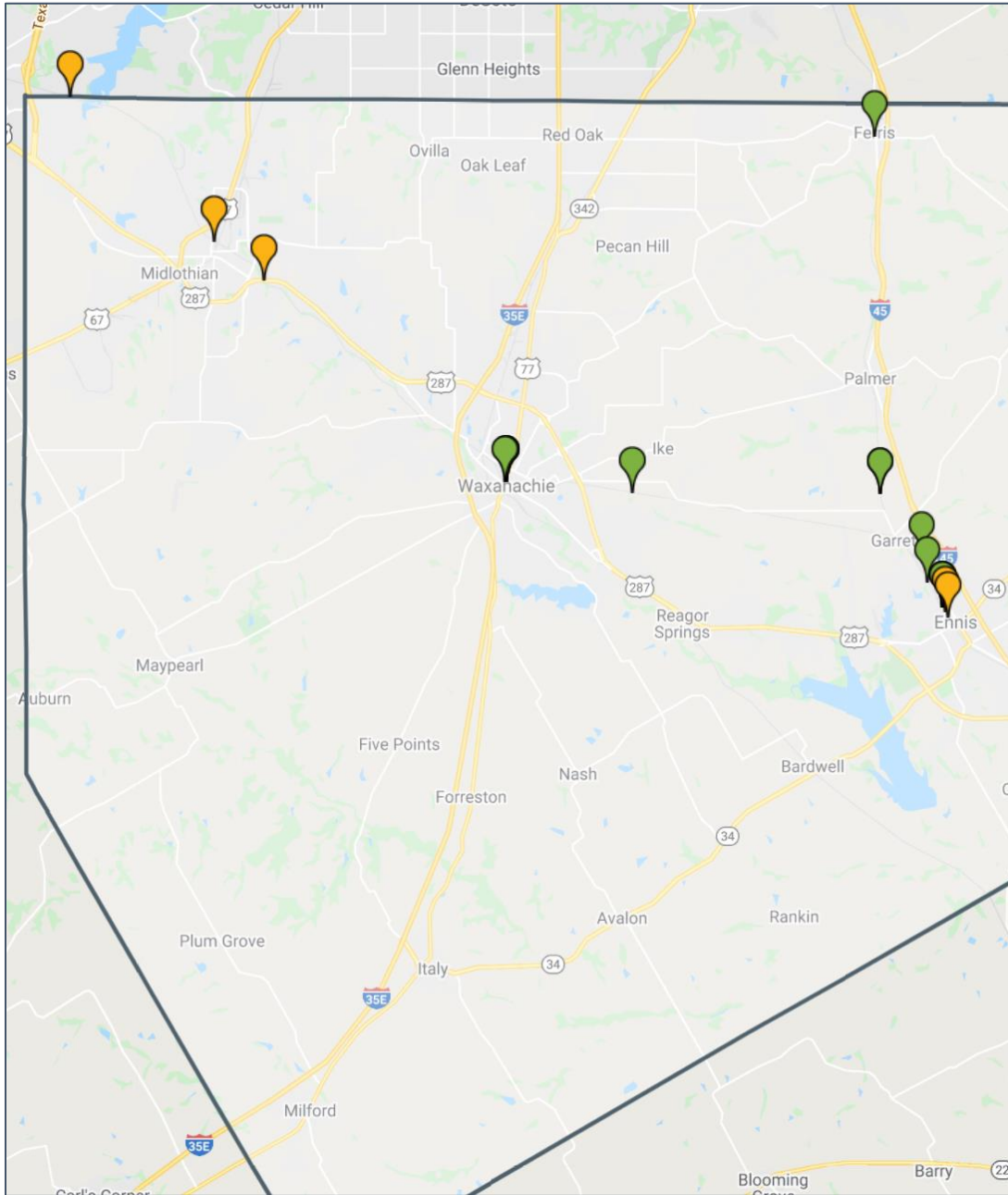
Map 10. Ellis County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



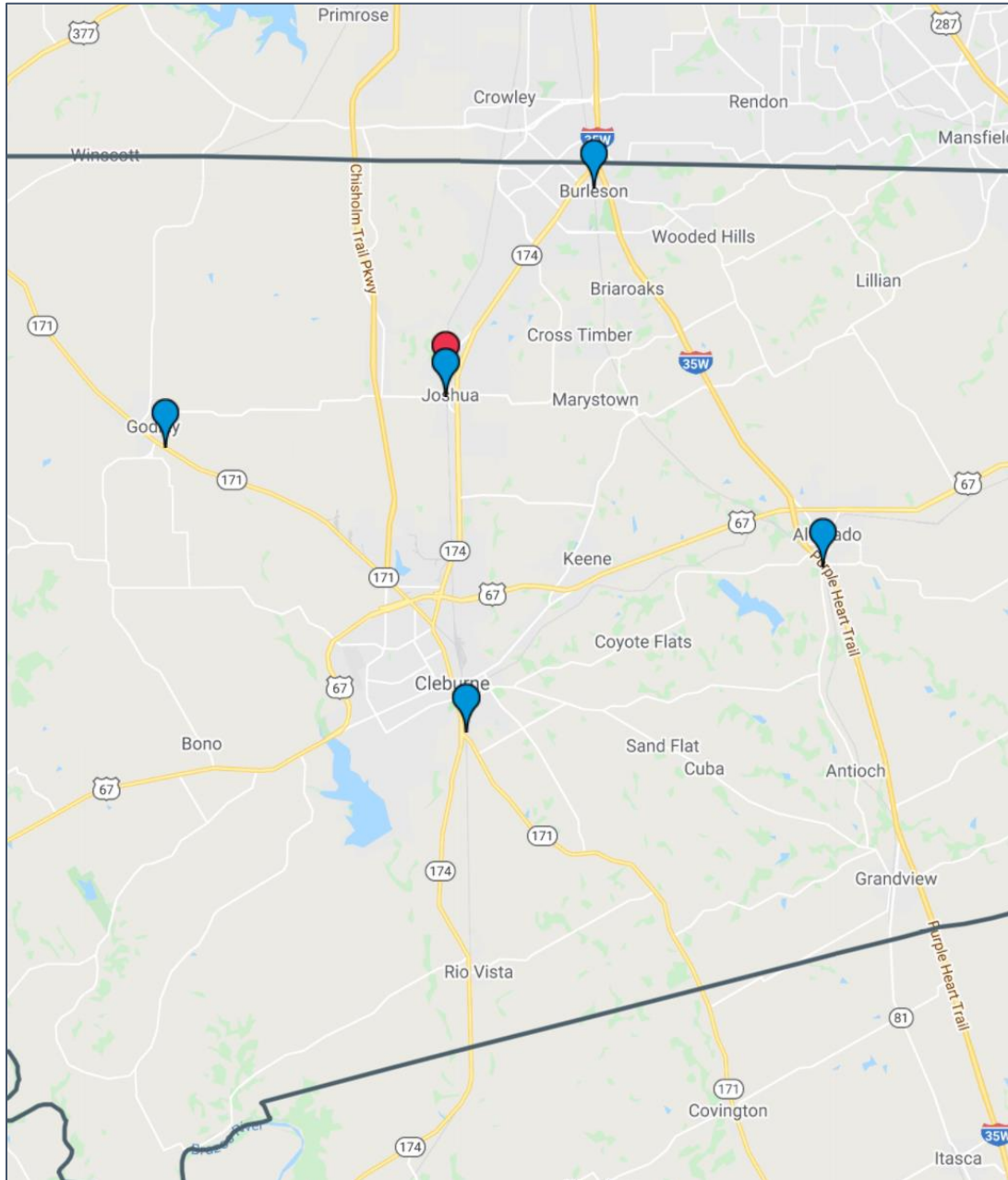
## Map 11. Ellis County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



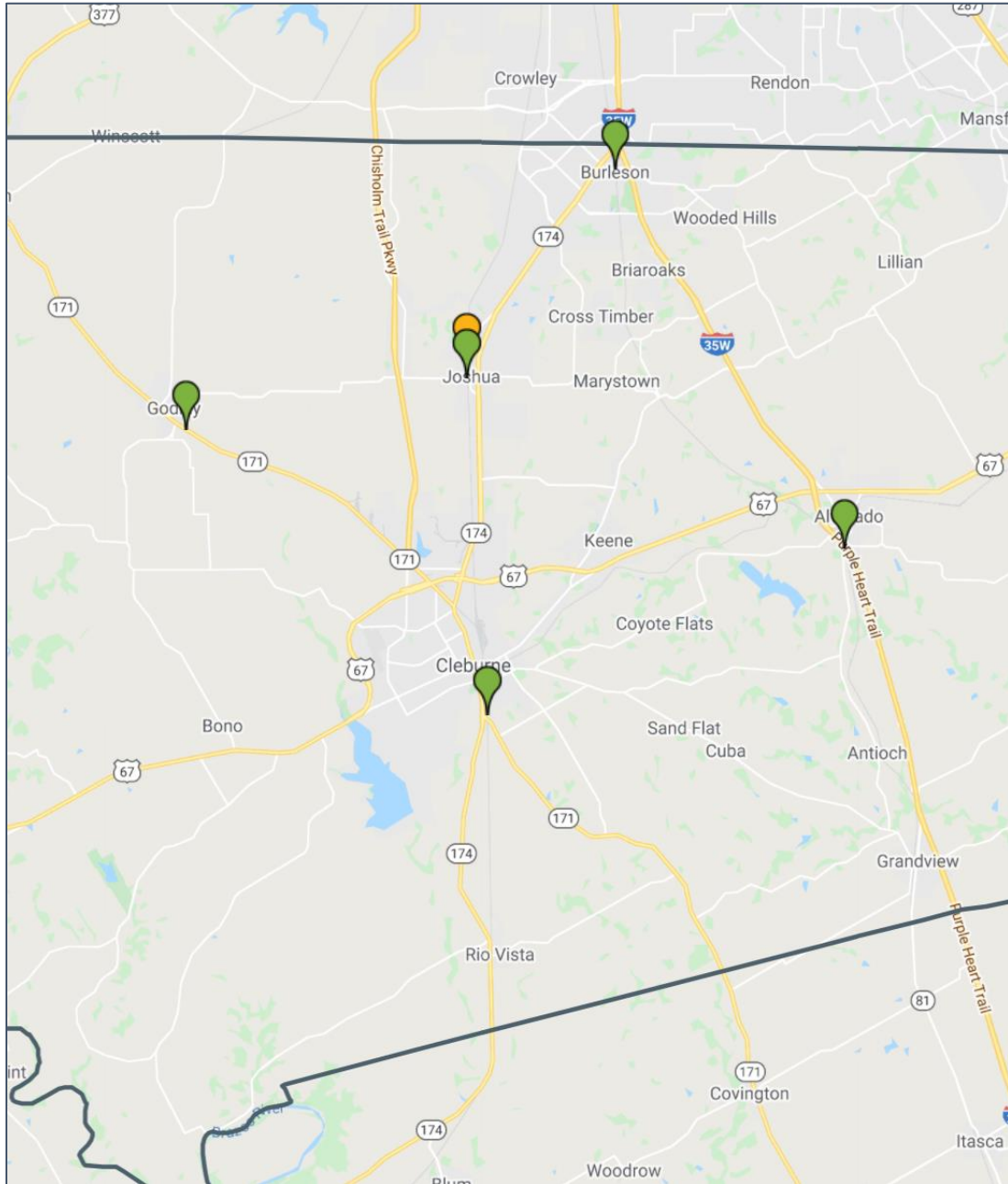
Map 12. Johnson County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



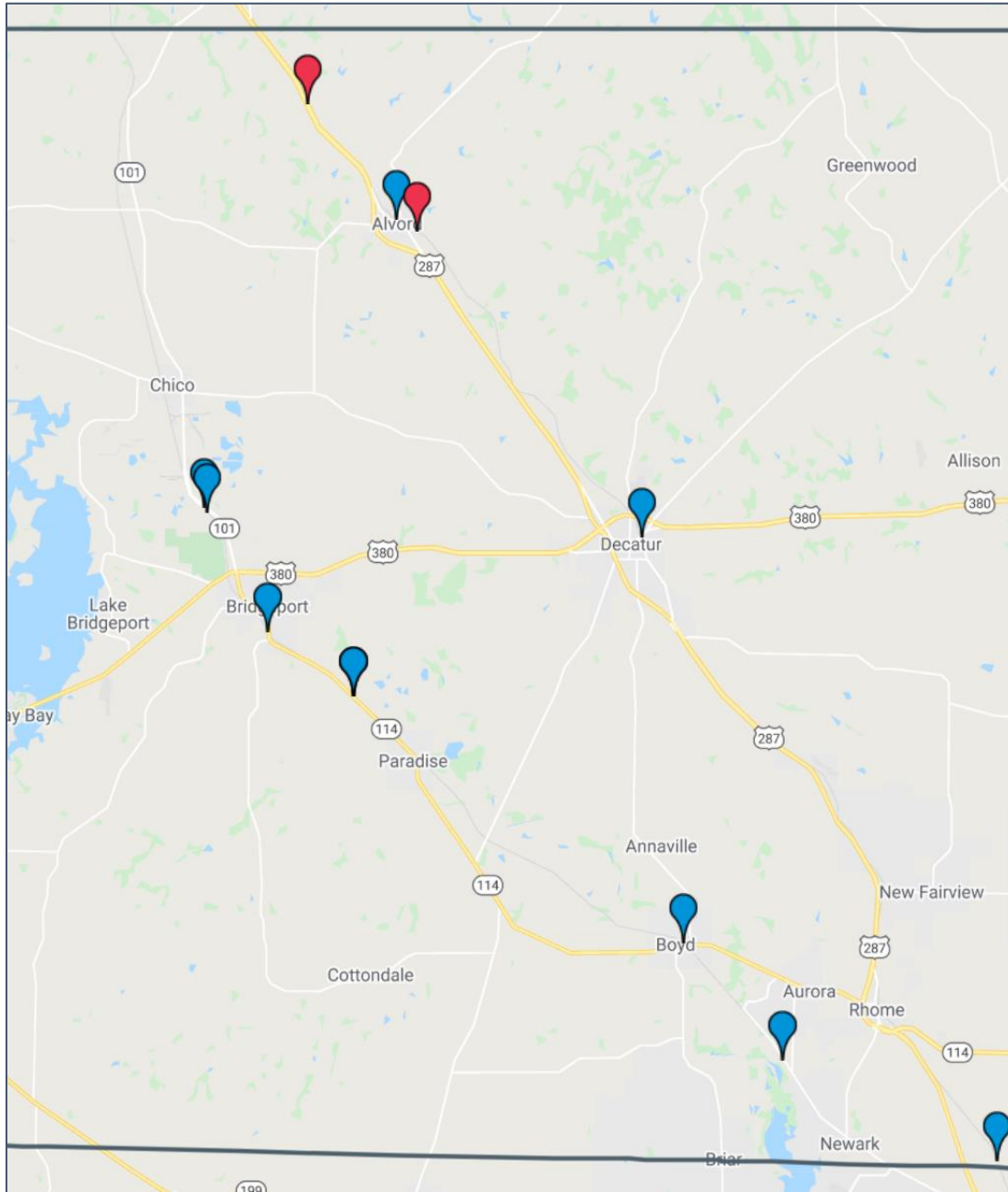
Map 13. Johnson County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



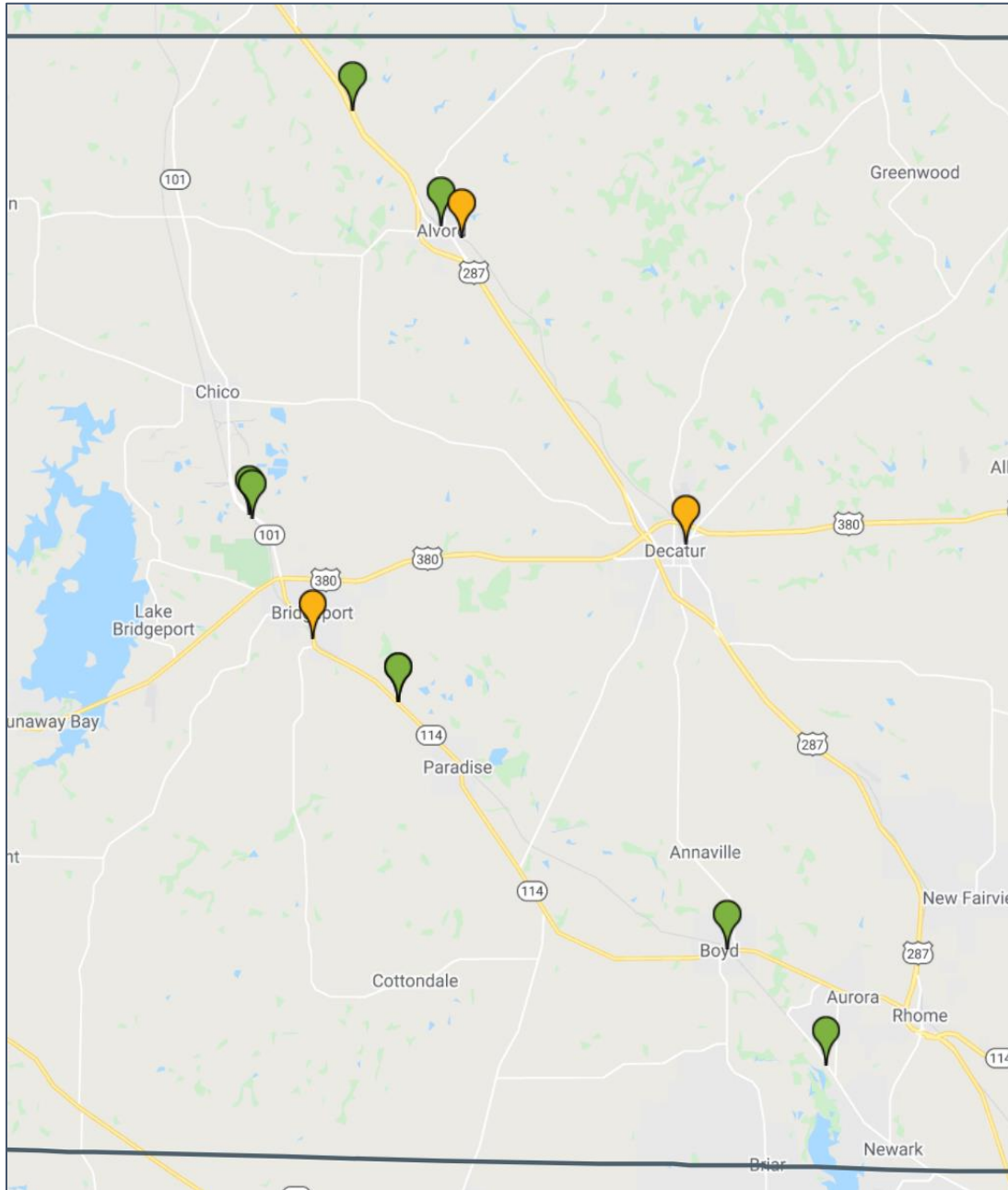
Map 14. Wise County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



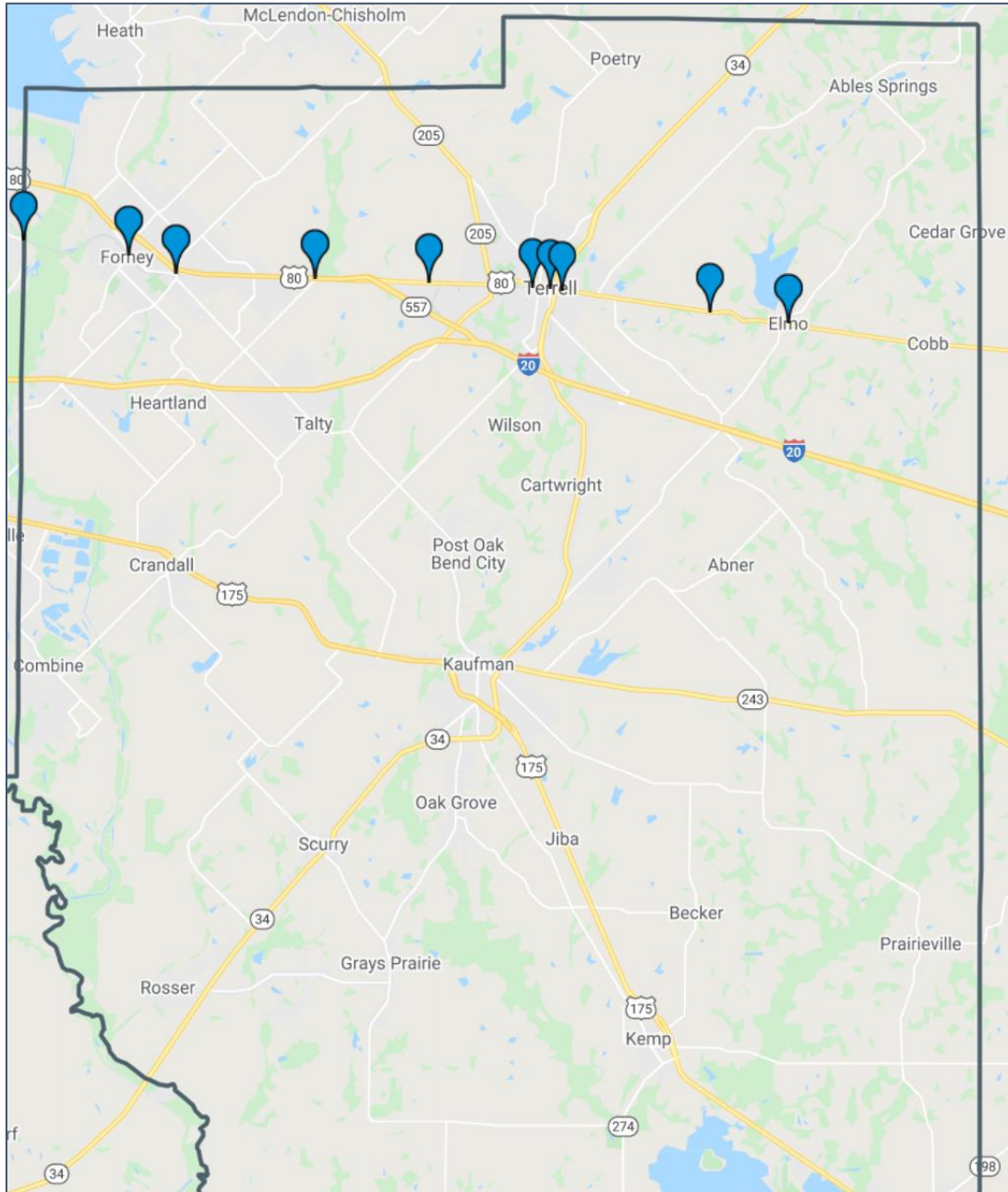
Map 15. Wise County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



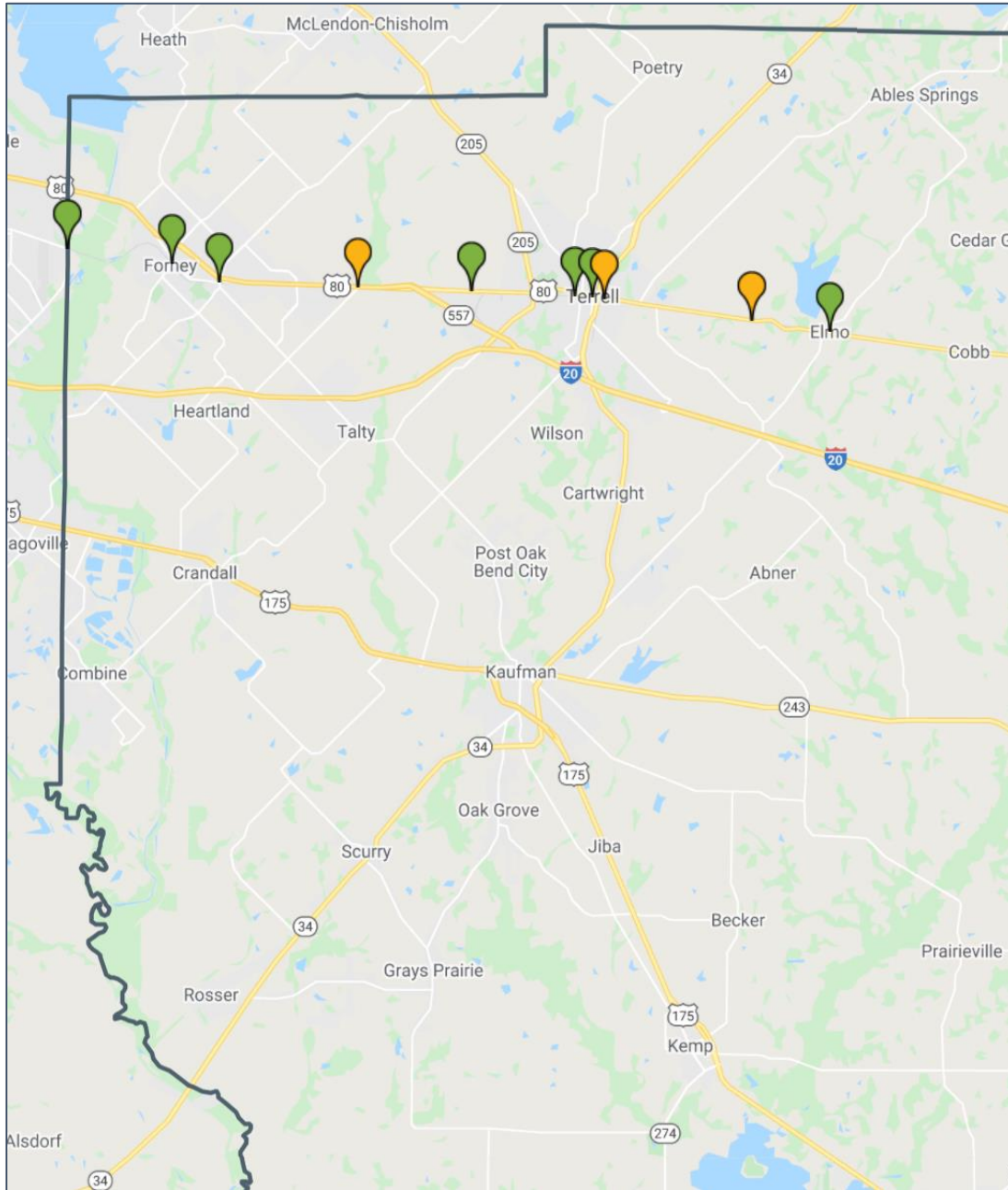
Map 16. Kaufman County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



Map 17. Kaufman County – Injuries by Incident Type

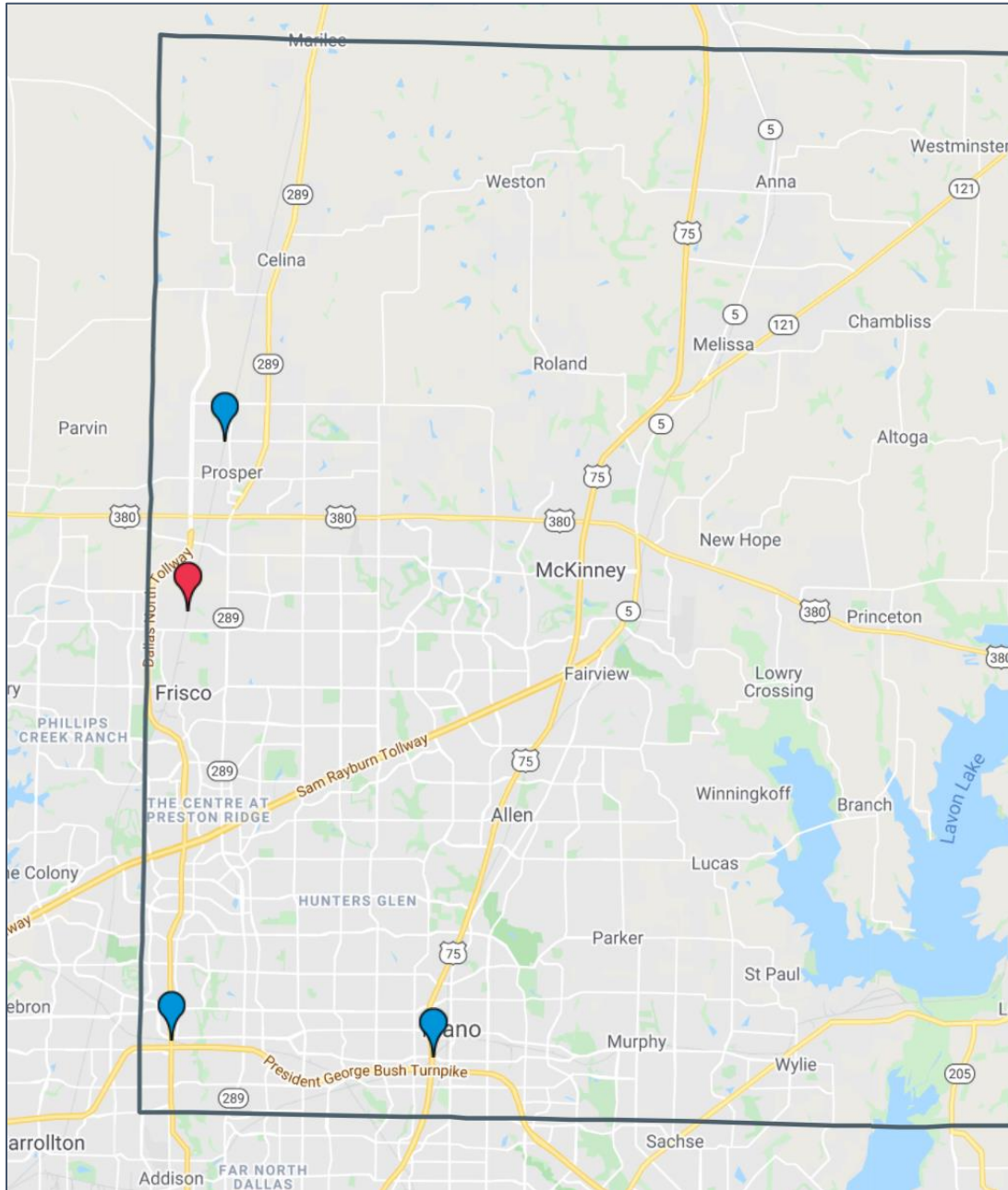


● Railroad crossing injury ● Trespassing injury





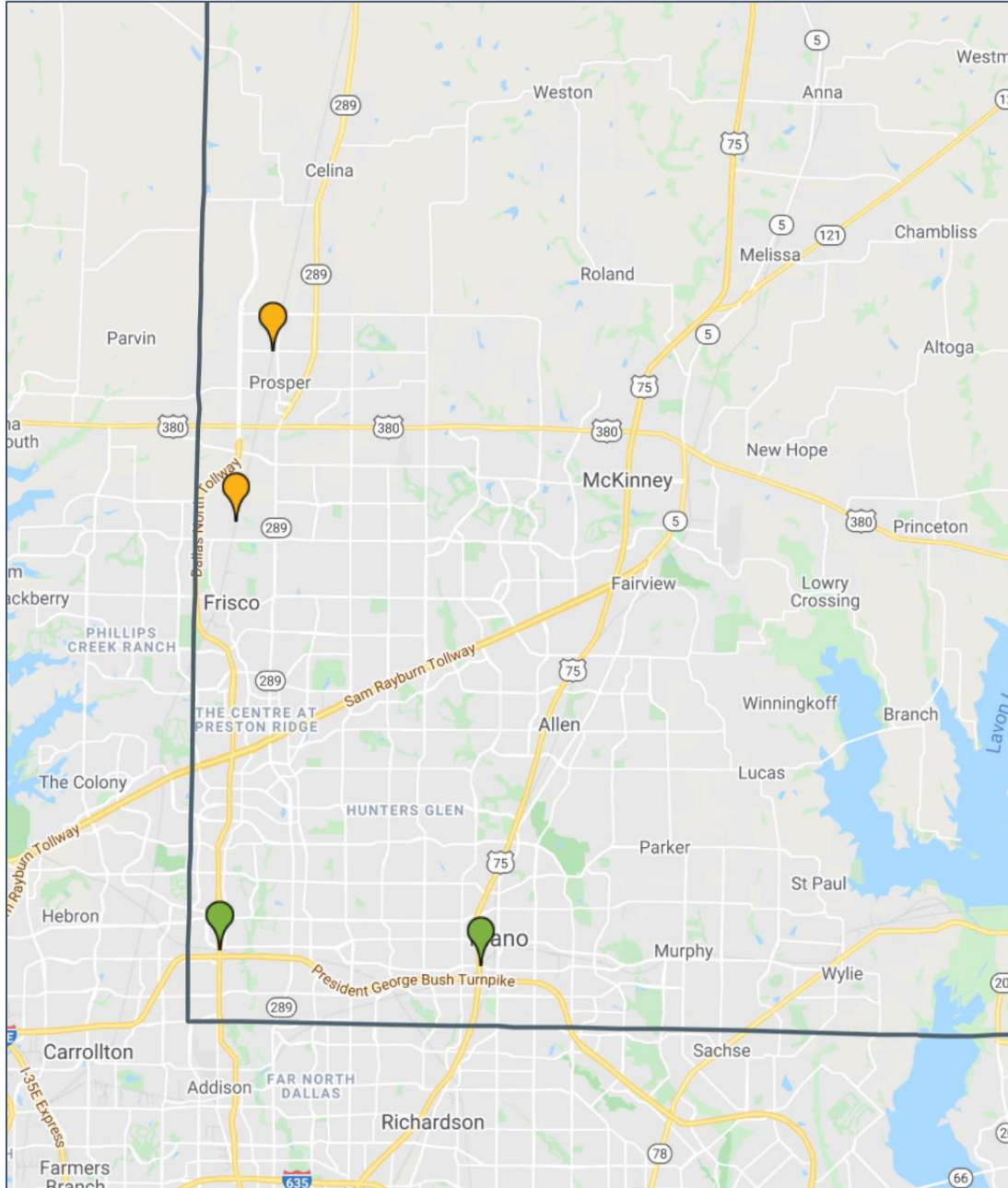
Map 18. Collin County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



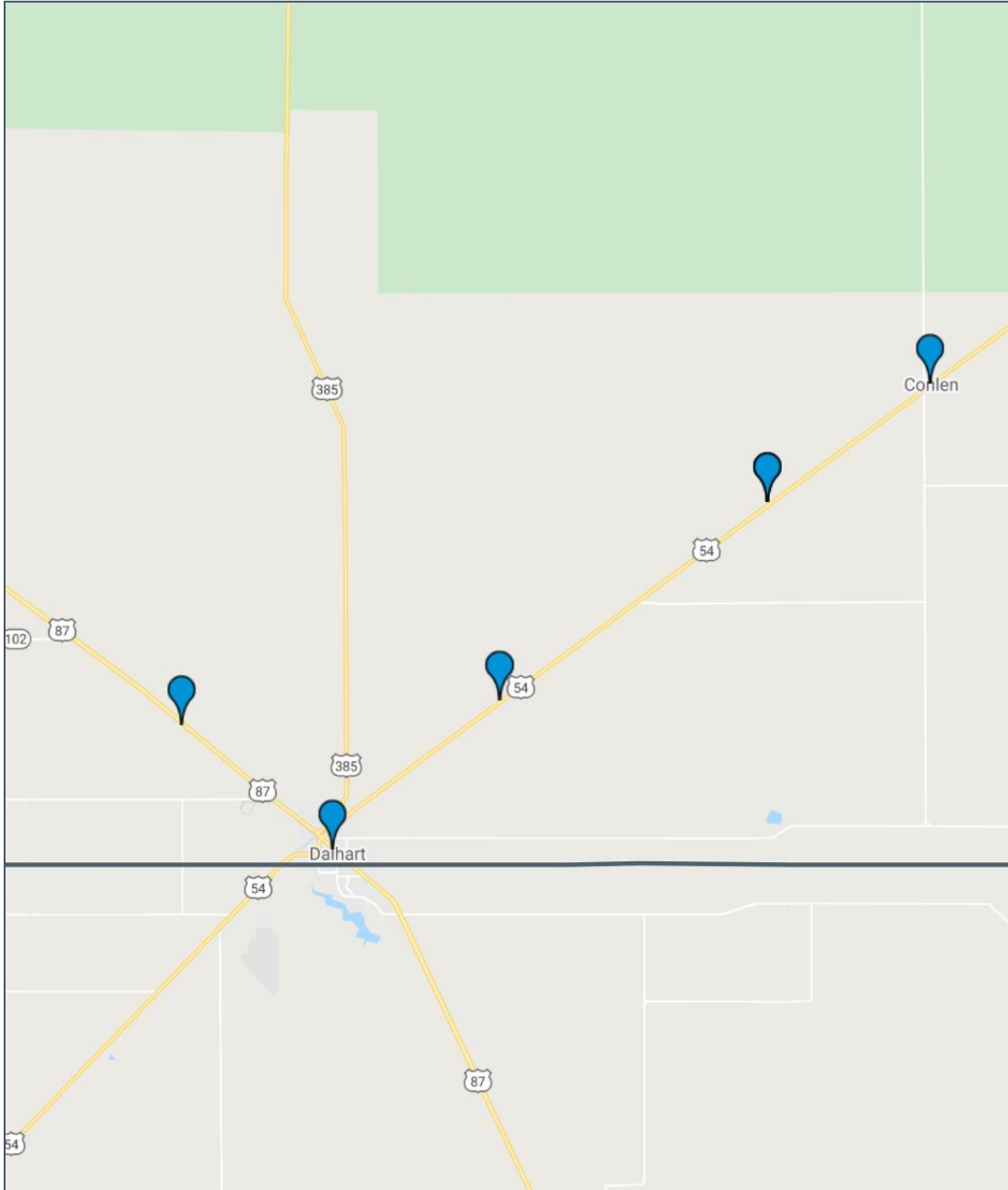
## Map 19. Collin County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



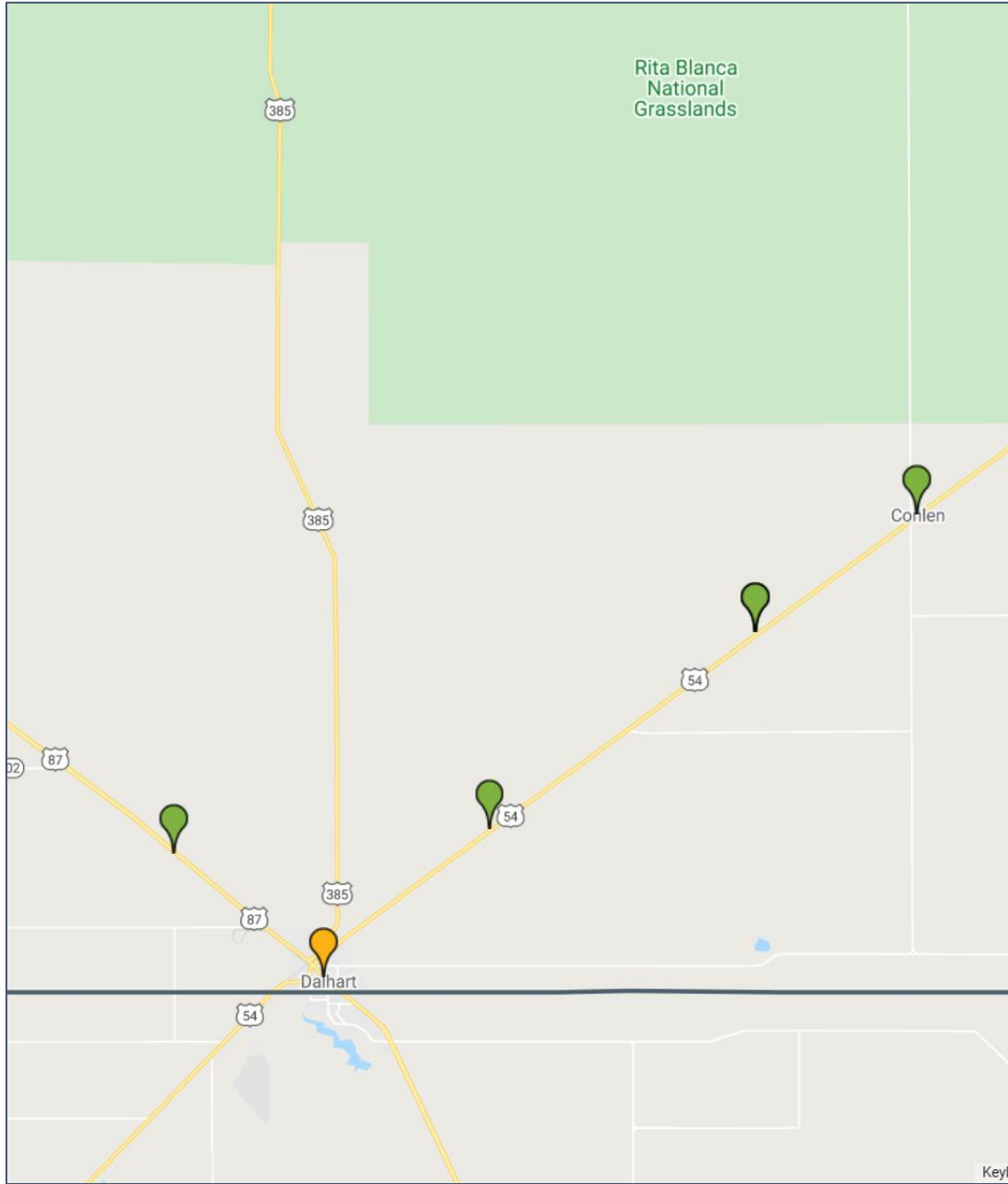
Map 20. Dallam County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



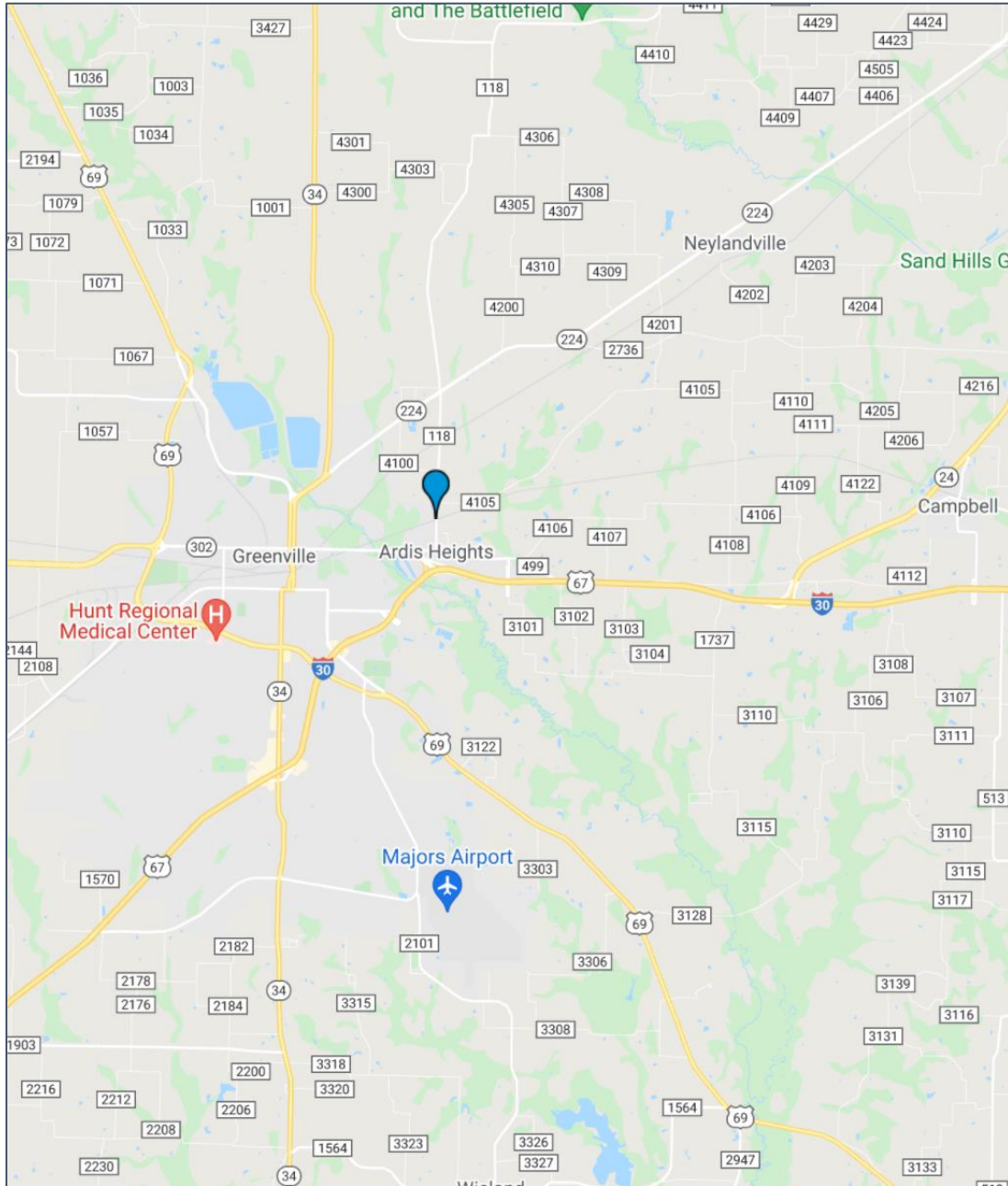
Map 21. Dallam County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



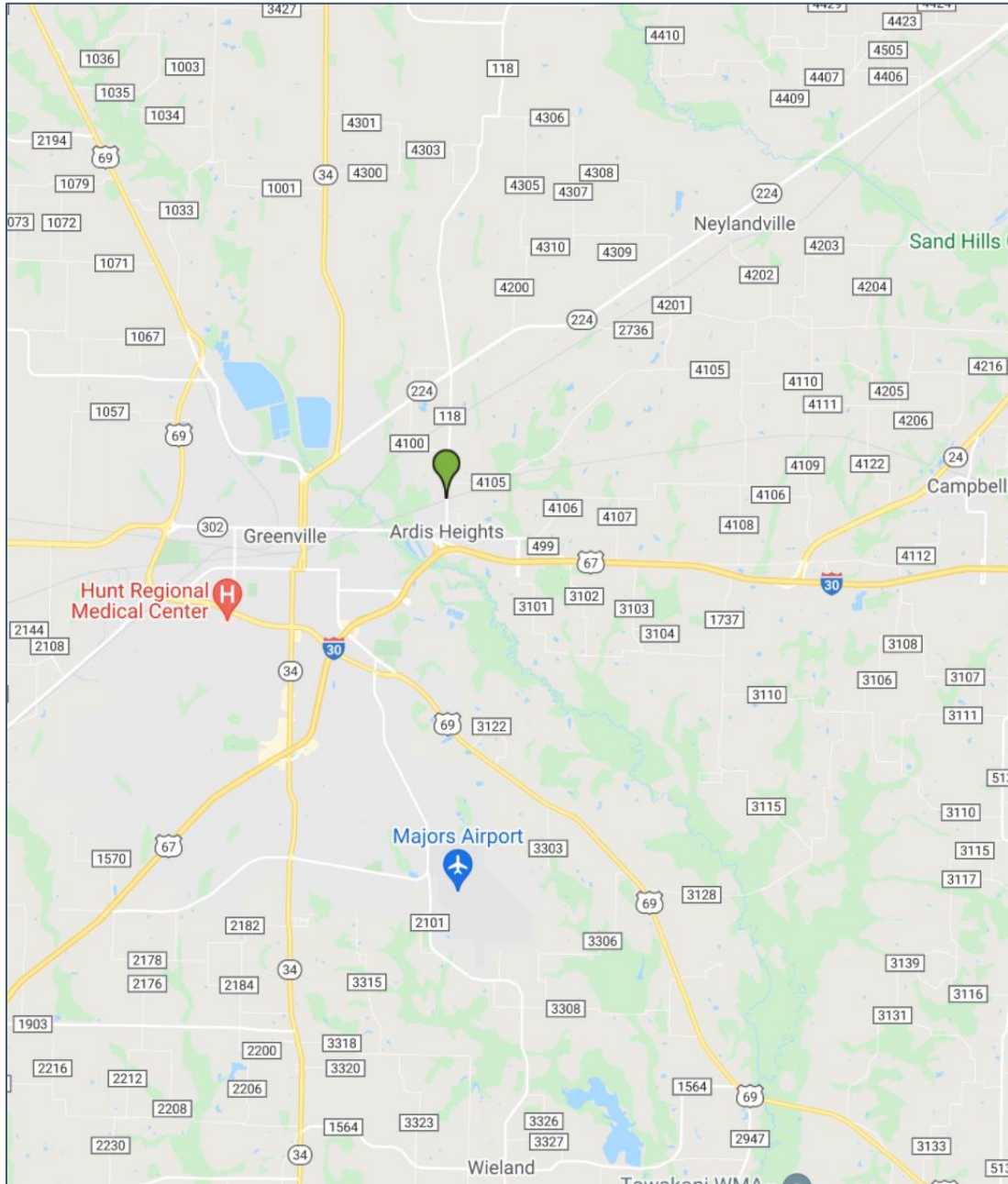
Map 22. Hunt County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



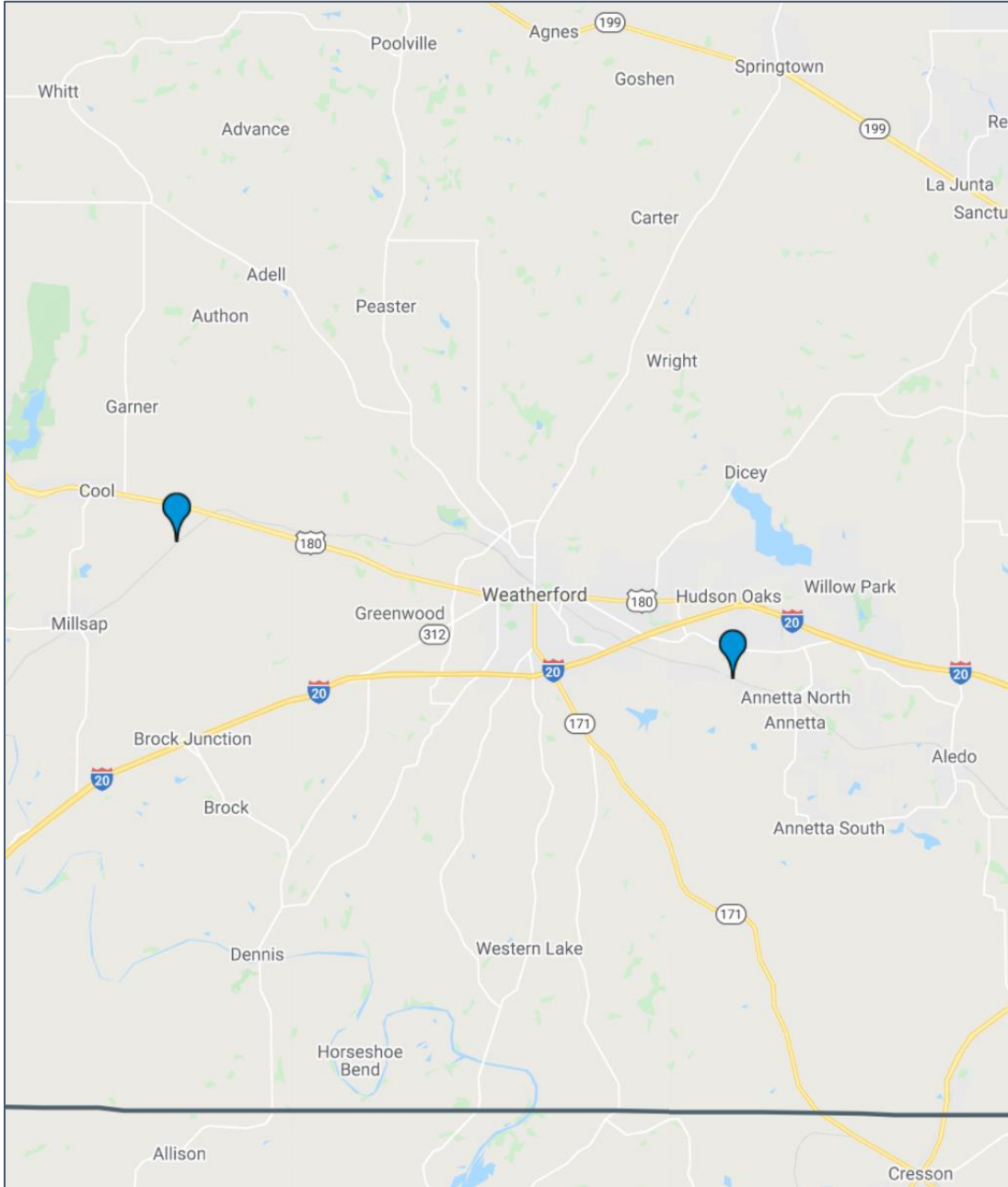
## Map 23. Hunt County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury



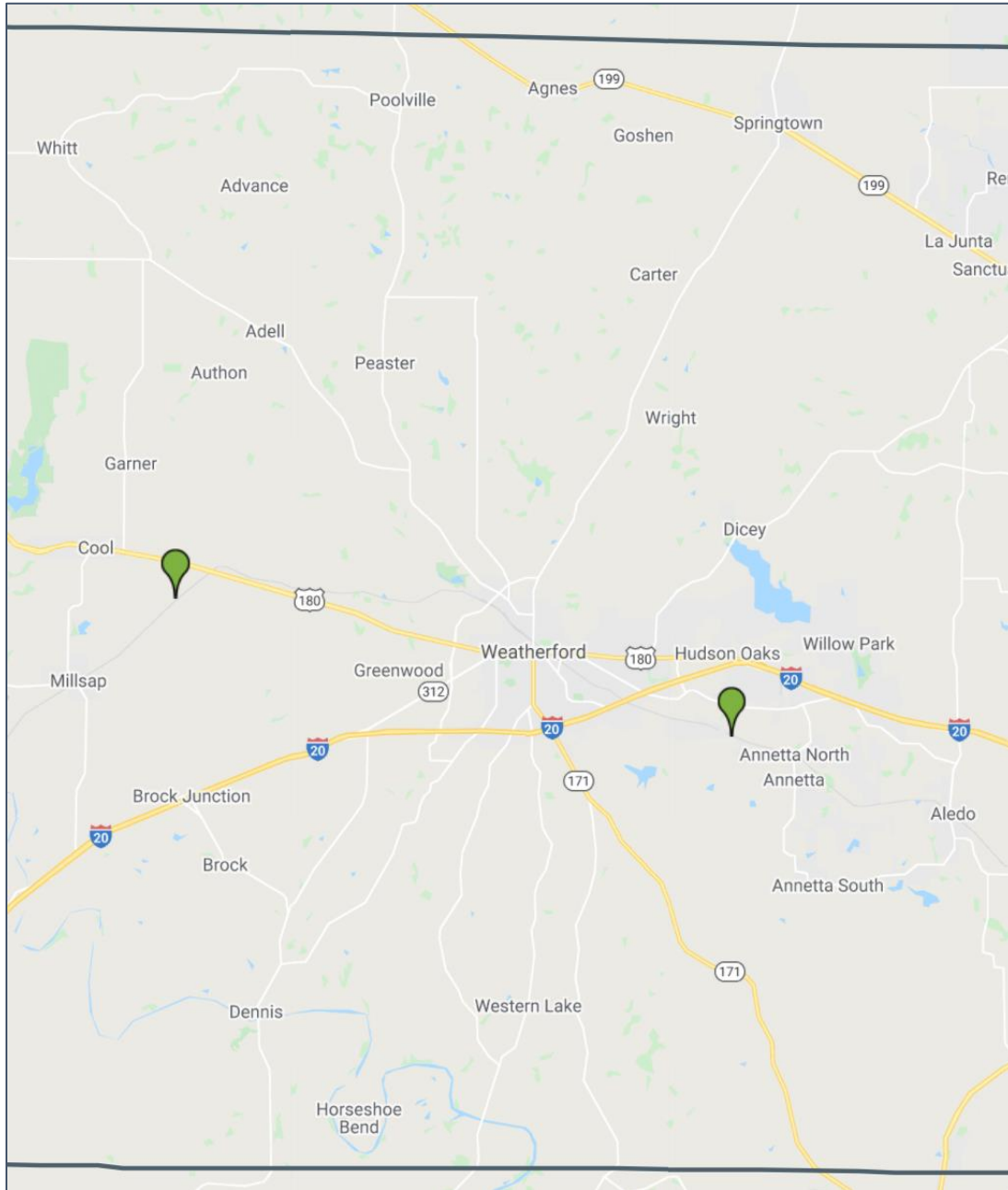
Map 24. Parker County – Injuries by Age Group



● Adult injury ● Child injury (ages 0-19 years)



Map 25. Parker County – Injuries by Incident Type



● Railroad crossing injury ● Trespassing injury





## Notes

**Data source**

Data on rail-related injuries presented in this profile were obtained from the Federal Railroad Administration's (FRA) Safety Railroad Casualties (form 6180.55A) and Highway Rail Accidents (form 6180.57) databases for years 2011–2020. Excluded were rail workers and rail passengers as well as cases of suicide or attempted suicide. Maps reflect locations of injuries where longitude and latitude data are provided in each case file.

**References**

1. Federal Railroad Association. Fact Sheet - Highway Rail Crossing & Trespassing. 2016. Available from: <https://railroads.dot.gov/sites/fra.dot.gov/files/2019-10/rrx-fact-sheet-final12716.pdf>. Accessed August 26, 2021.
2. Federal Railroad Association. Accident Data as Reported by Railroads 2009-2018. Available from: [https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/on\\_the\\_fly\\_download.aspx](https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/on_the_fly_download.aspx). Accessed August 26, 2021.
3. U.S. Census Bureau. Quick Facts. Available from: <https://www.census.gov/quickfacts>. Accessed August 26, 2021.
4. Current Crossing Data for State of Texas. 2021. Available from: <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/DownloadCrossingInventoryData.aspx>. Accessed August 31, 2021.

This profile and other rail safety resources can be downloaded via the **Safe Kids Rail Safety Station** at <https://www.safekids.org/RailSafetyStation>.

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