

Farm Labor Transport Related Crashes in Florida: 2013-2021

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INTRODUCTION

- Transportation incidents in agricultural industries account for almost half of the fatal injuries (BLS, 2022).
- Associated with higher risks.
- In Florida, much of the agricultural harvesting is done by migrant workers. Farmworkers usually do not have their own personal vehicle or proper licensing.
- Agricultural employers or farm labor contractors usually provide transportation for migrant and seasonal farm workers for employment-related activities.
- A preliminary literature search suggests there is no research study investigating the prevalence of farm labor transportation vehicle-related roadway crashes in Florida.
- This study investigates crashes related to the transportation of migrant and seasonal farmworkers in relation to event, vehicle, person, and injury variables in Florida from the years 2013-2021.

Problem	• Is there a problem in terms of roadway safety?
Scale	• How big is the problem?
Prevention	• What are the needs for prevention?

Laws and Regulations

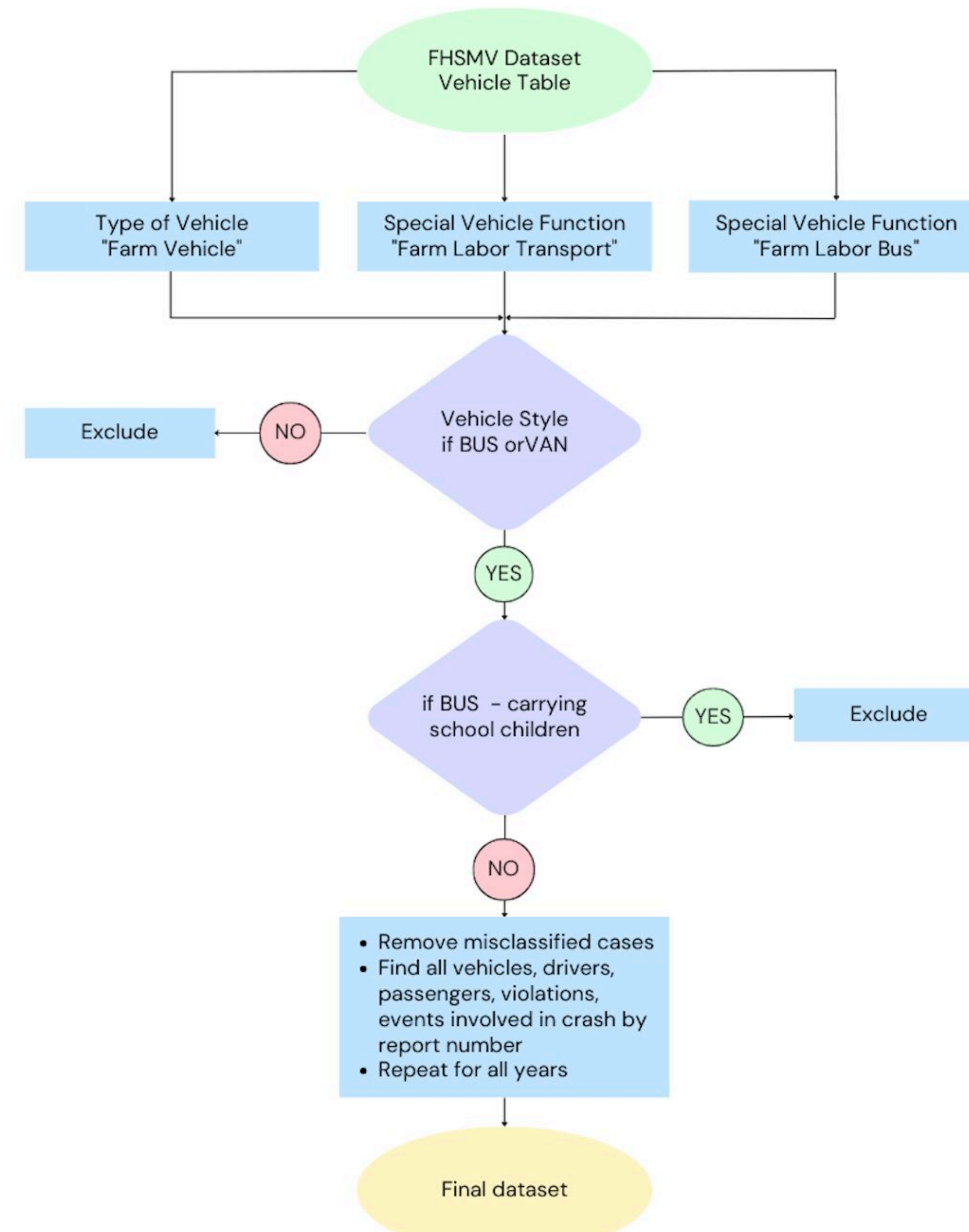
- Farm labor vehicles are any vehicles that are used to transport migrant workers and are defined as any vehicle equipped and used for the transportation of nine or more migrant or seasonal farm workers (in addition to the driver)
- They are required to display on each vehicle used to transport migrant or seasonal farm workers a display sticker issued by the department
- Drivers of farm labor vehicles:
 - (1) At least 21 years of age
 - (2) They must have a Commercial Driver's License (CDL) or Class E license
 - (3) If the vehicle holds more than 15 passengers or exceeds the weight of 26,000 pounds, the driver must possess a CDL

METHODS

Data source: Florida Department of Highway Safety and Motor Vehicles (FHSMV)

Years: 2013-2021

Selection Criteria: Type of vehicle (farm vehicle) or Vehicle Special Function (farm labor transport or farm labor bus)



RESULTS

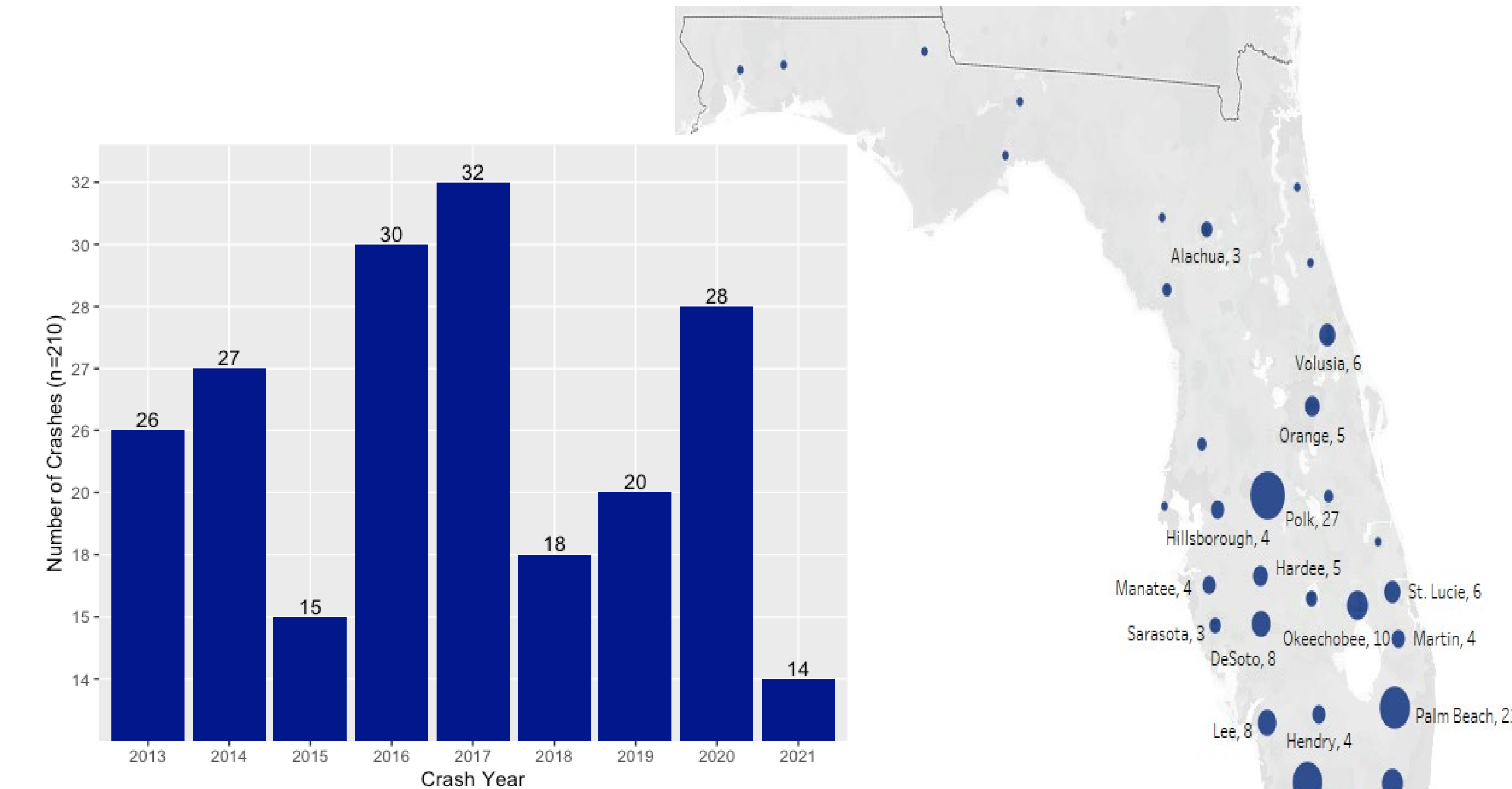
Crashes

- A total of 210 crashes were related to farm labor transport vehicles in the years 2013-2021 involving 423 vehicles and 1,335 individuals.
- The counties with the largest number of crashes were Miami-Dade (n=40, 19%), Polk (n=27, 13%), Palm Beach (n=21, 10%), and Collier (n=10, 9.5%).

Farm labor transport vehicle driver (n=204)	Other vehicle driver (n=196)
<ul style="list-style-type: none"> • Do not have driver's license (n = 9) • Do not have the proper class of driver's license (n=14) • Younger than the age of 21 (n=1) • Distracted (n=1) • Inattentive (n=7) 	<ul style="list-style-type: none"> • Do not have driver's license (n = 5) • Distracted (n=6) • Inattentive (n=8) • Fatigued or asleep (n=2) • Under the influence of alcohol (n=2)

Poisson Regression Results:

- Revealed that Miami-Dade, Palm Beach, and Polk counties are associated with 13.3, 7.0, and 9.3 increased odds of farm labor transport crashes, respectively.
- The months of June – September are associated with a decrease in crashes by a factor of 0.41
- The months of October-December are associated with a decrease in crashes by a factor of 0.55.



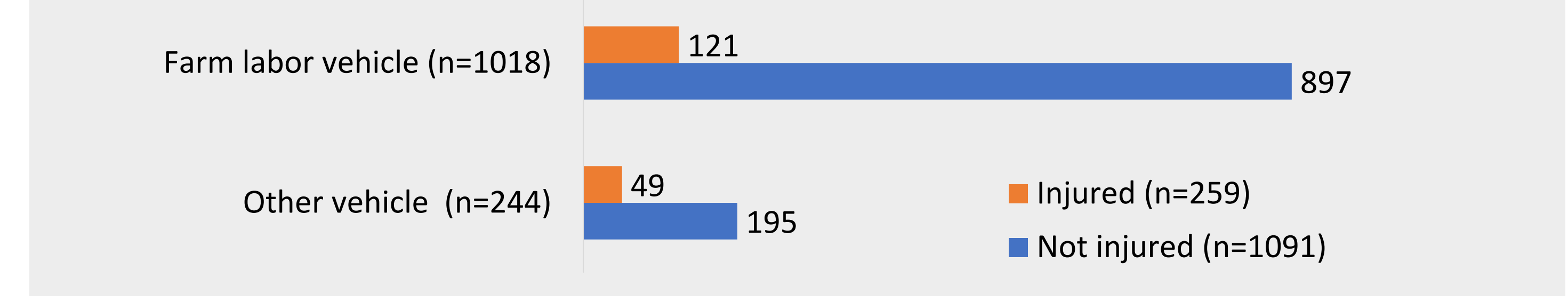
Vehicles

- Farm labor transportation vehicles: Bus (128), van (84)
- Other vehicles: Passenger car (95), others (116)

People

- 1074 (80%) of the individuals were farm labor transport vehicles' occupants
- Children occupants in farm labor transportation vehicle: one 5-year-old child

- A total of 170 individuals were injured in these crashes.
- The proportion of injured occupants in other vehicles was higher than for farm labor vehicle occupants (20% vs 12%) ($\chi^2=11.34$, $df=1$, $P<0.001$)



CONCLUSIONS

- This study has enabled us to understand the prevalence of farm labor transportation-related roadway crashes not previously explored.
- The results of this study show that approximately 11% of the drivers of farm labor transport vehicles involved in crashes do not have the proper licensing. The drivers that did not have the proper licensing, do not have the proper training to operate the farm labor transport vehicles. Thus, resulting in unsafe conditions for the employees.
- Educating the farm employers on the proper licensing could benefit the safety of the employees.
- Recommendations of additional farm labor transport driver safety education can be made in Miami Dade, Palm Beach, and Polk county.
- The future direction of this study will explore contributing driver actions, identify the vehicle and environmental/roadway factors, and identify responsible units.

References:
BLS, 2022. Fatal occupational injuries by industry and event or exposure, all United States, 2020. Available at <https://www.bls.gov/iif/oshwc/cfoi/cftb0340.htm>
The Florida Statutes (2018). 316.622, Farm Labor Vehicles. Available at <https://www.flstate.gov/laws/statutes/2018/316.622>