Selected Analyses on Child Passenger Safety Technician Certification Program Data, 2014-2018

Javier Sigala, Captain Randy Chhabra¹, and David Zane²

Introduction

- The National Center for Injury Prevention and Control and the National Highway Traffic Safety Administration report that motor vehicle related accidents are the leading cause of death to children under 12 in the United States.¹
- In 2016, 723 children died and more than 128,000 were injured in a motor vehicle accident.²
- The Child Passenger Safety Technician Program trains Safety Technicians to recognize and provide training such as harnessing procedures, car seat checks, and other hands-on routines to train parents and caregivers.
- This research focuses on presenting the status of the Child Passenger Safety Technician program across 54 states/territories between 2014 to 2018.
- The purpose of this study is to analyze, identify, and depict information on the variables that provide information about the status of the Child Passenger Safety Technician Certification Program and to troubleshoot any problems within the certification technician program.

Methods

- The National Child Passenger Safety Board collected data from every state and territory in the United States between 2014-2018. Variables include: the recertification percentage, number of instructors, number of technicians, technician proxies, child/technician ratio, and technician/instructor ratio.
- These data were then shared with Austin Public Health which solicited a student from The University of Texas at Austin administration and was provided to Austin Public Health.
- Austin Public Health provided the data to the student from The University of Texas at Austin.
- The student analyzed the data for every variable from every state/territory using R-studio version 1.0.153 and Excel version 15.26.
- Figure A depicts the ratio for child/technicians from all 54 states/territories from high to low.
- Figure B depicts the ratio of technicians per one instructor. Figure C depicts the ratio for technician/instructor from all 54 states/territories from high to low.
- Figures D depicts the percent change per state/territory from a negative to positive spectrum. The bar graph color was changed to yellow to make the y-axis more visible.
- The results reflect major improvements within the past four years in regards to percentage change of technician to instructor ratio between 2014 and 2018.
- Overall, this preventative safety training program portrays the improvements and efforts that can help mitigate the severity of the leading cause of death of children under 12 in the United States for 2018.

Results

- California, Washington, and Texas have the highest child to technician ratio.
- North Carolina, California, and Georgia have the highest number of technicians.
- Puerto Rico, North Carolina, and Missouri have the highest technician to instructor ratios.
- Northern Mariana Islands, Maine, and Montana have the greatest percent positive change of technician to instructor ratios from 2014 to 2018.

Acknowledgements

Dr. Marilyn Felkner
Austin Public Health
National Child Passenger Safety Board