



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

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Affiliations:

1. CPS Board. Child Passenger Safety Board. <http://www.cpsboard.org/curriculum/>. Accessed May 20, 2019
2. Austin Public HealthSalud Publica de Austin. Health | AustinTexas.gov. <http://austintexas.gov/department/health>. Accessed May 5, 2019

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 2016.

References

1. WISQARS (Web-based Injury Statistics Query and Reporting System) | Injury Center | CDC. *Centers for Disease Control and Prevention*. March 2020.
2. National Highway Traffic Safety Administration. Traffic safety facts, 2017 data: occupant protection. Washington, DC: US Department of Transportation, National Highway Traffic Safety Administration; 2019. Available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812719> external icon

Results

- California, Washington, and Texas have the highest child to technician ratios
- 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

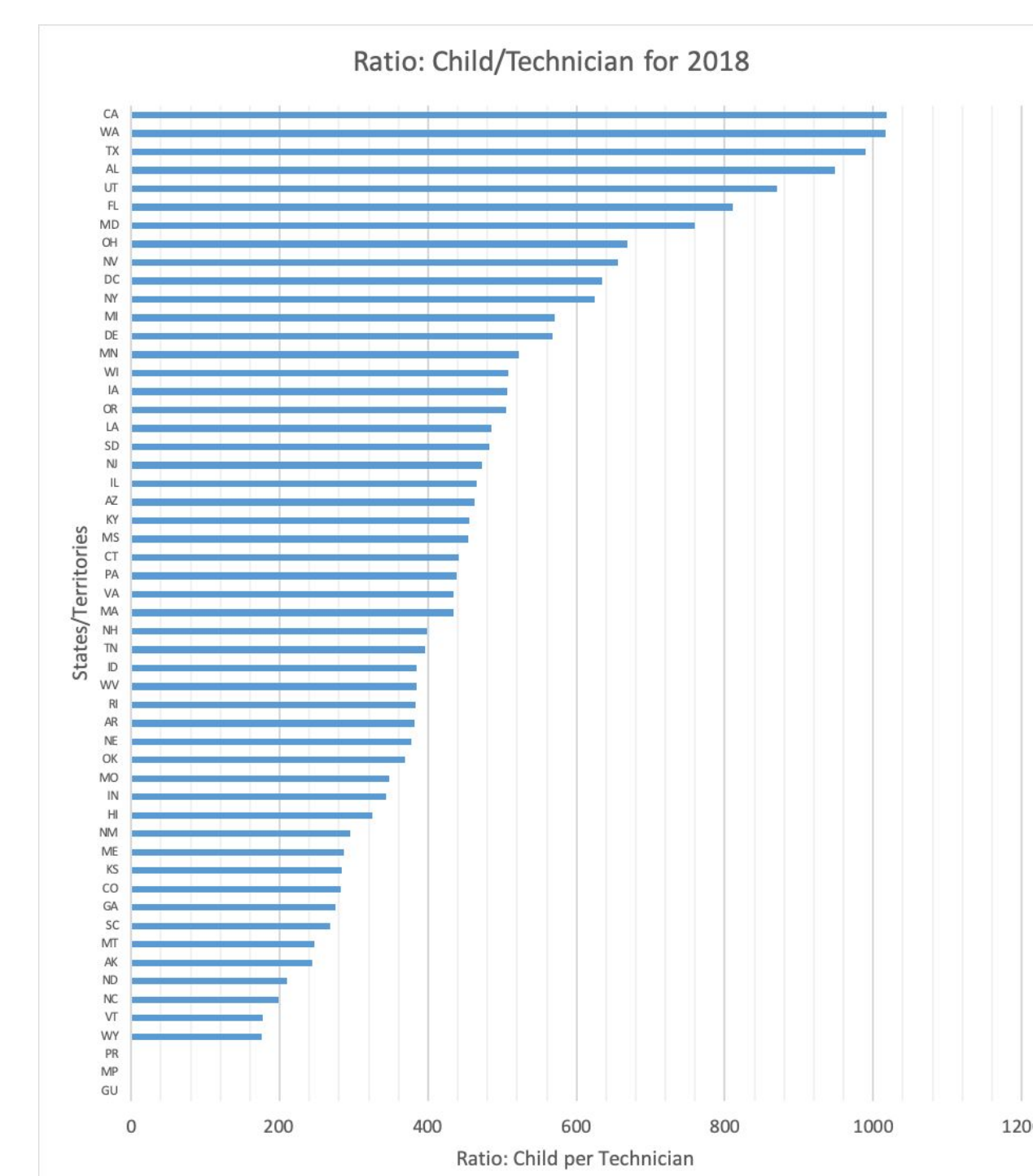


Figure A: A total of 54 states/territories were evaluated by the National Child Passenger Safety Board in 2018 for the ratio of children per technicians. Figure A depicts the ratio for child/technicians from all 54 states/territories from high to low.

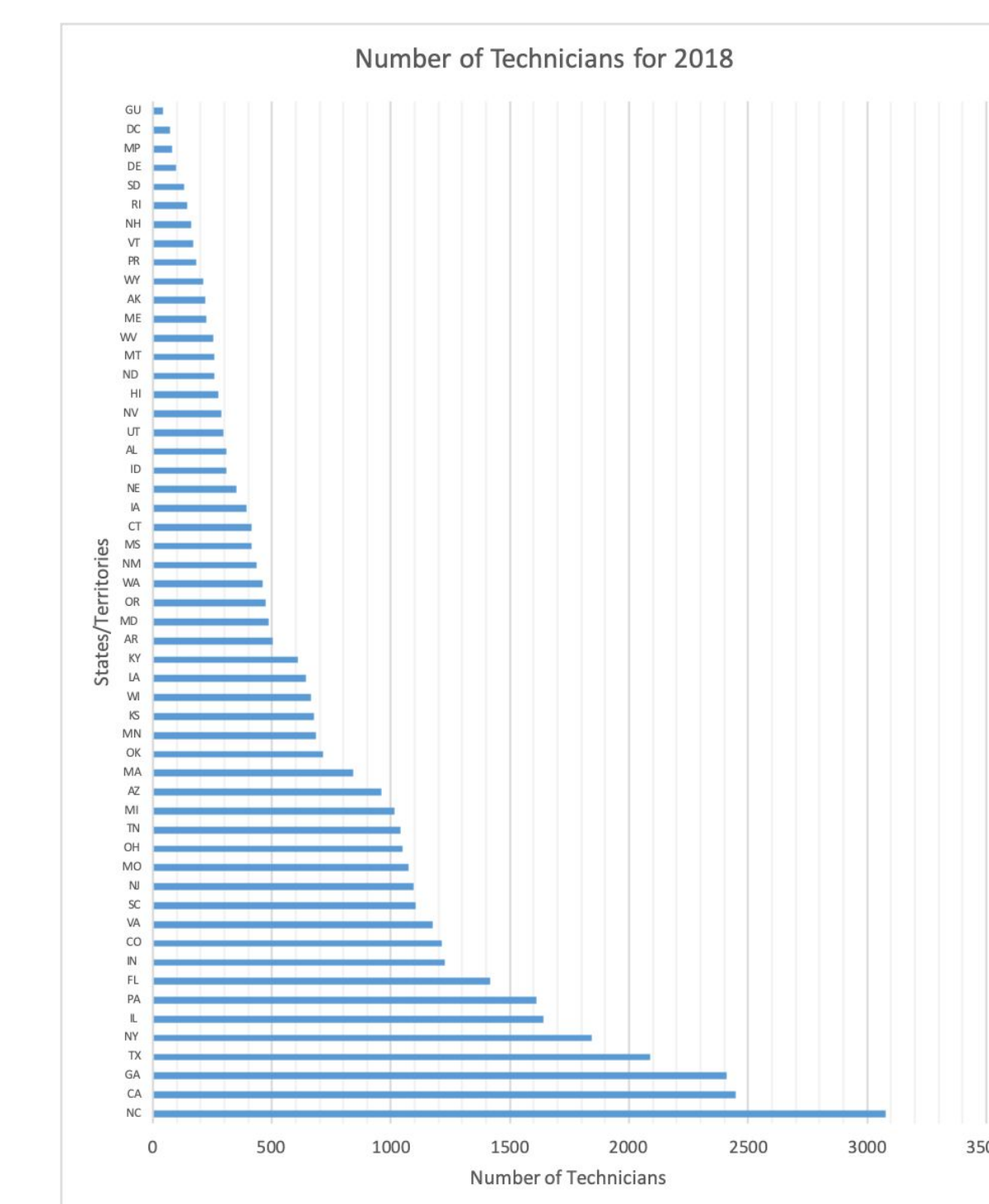


Figure B: A total of 54 states/territories were evaluated by the National Child Passenger Safety Board in 2018 for the number of technicians. Figure B depicts the number of technicians from all 54 states/territories from low to high.

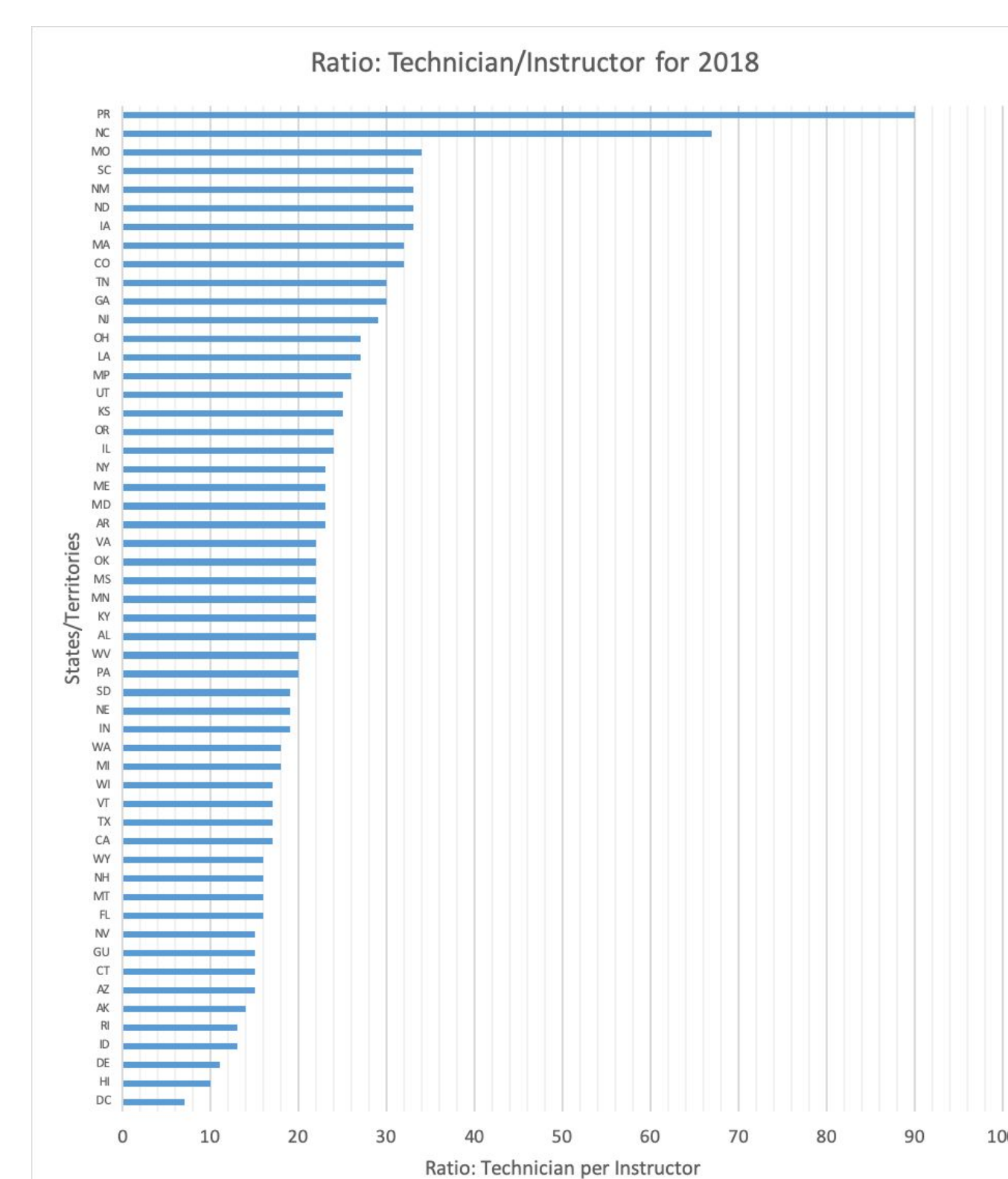


Figure C: A total of 54 states/territories were evaluated by the National Child Passenger Safety Board in 2018 for the ratio of technicians per one instructor. Figure C depicts the ratio for technician/instructor from all 54 states/territories from high to low.

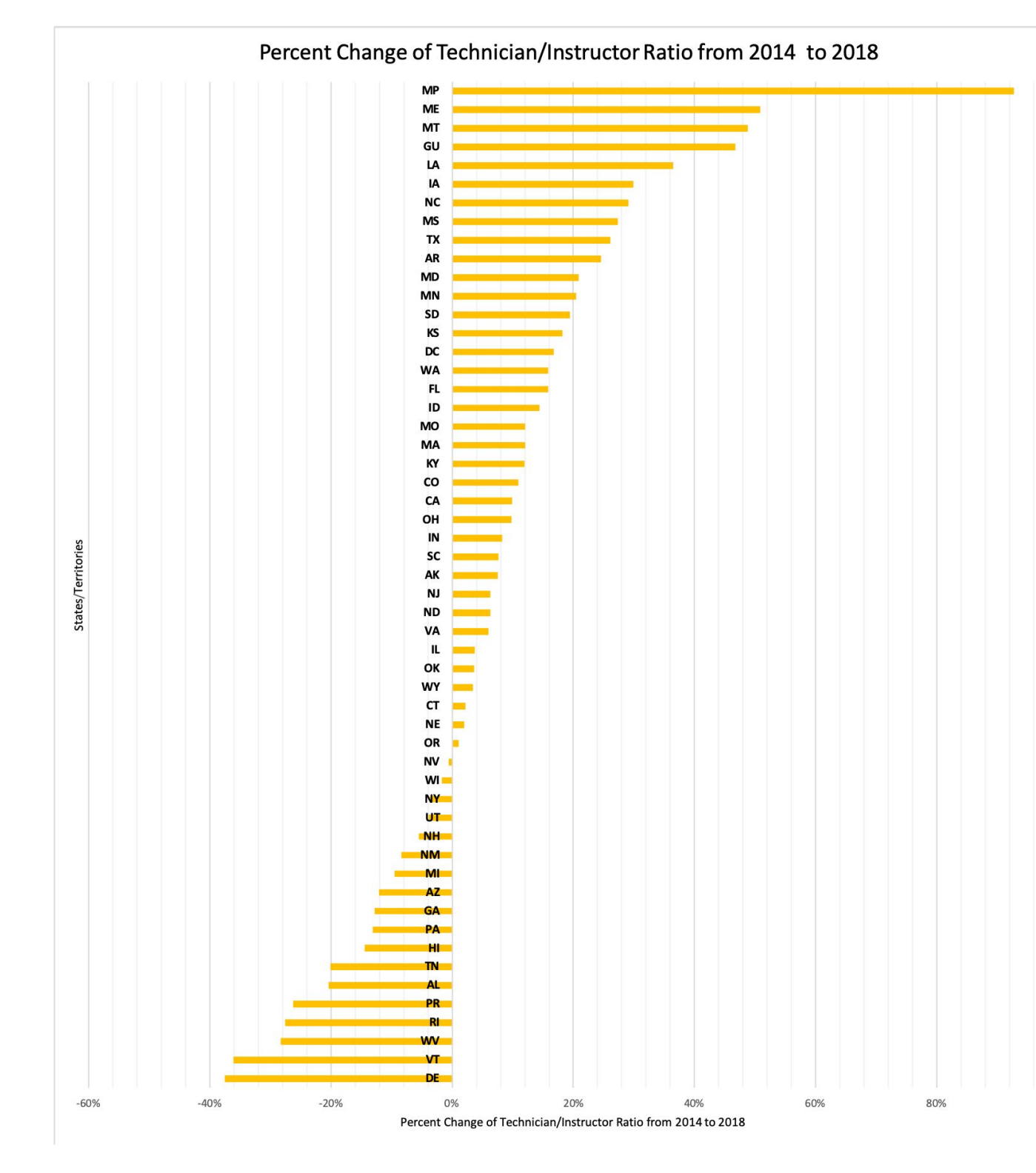


Figure D: A total of 54 states/territories were evaluated by the National Child Passenger Safety Board in 2018 for the change of technician per instructor from 2014 to 2018. Figure D depicts the percent change per state/territory from a negative to positive spectrum. The bar graph color was changed to yellow to make the y-axis more visible.

Table A: Frequency of states/territories that fall within selected groupings for the ratio of children to technicians in 2018

Ratio of Children to Technicians	Number of States/Territories
< 350	18
350 – 599	25
600 >	11
Total	54

Data Source: National Child Passenger Safety Board

Table B: Frequency of states/territories that fall within selected groupings for the number of technicians in 2018

Number of Technicians	Number of States/Territories
< 200	9
200 – 499	19
500 – 1499	19
1500 >	7
Total	54

Data Source: National Child Passenger Safety Board

Table C: Frequency of states/territories that fall within selected groupings for the ratio of technicians to instructors in 2018

Ratio of Technicians to One Instructor States/Territories	Number of States/Territories
< 20	23
20 – 29	20
30 >	11
Total	54

Data Source: National Child Passenger Safety Board

Table D: Frequency of states/territories that fall within selected groupings percent change of technician/instructor ratio from 2018 to 2014

Percent Change of Technician/Instructor Ratio	Number of States/Territories
< 0.0%	18
0.0 – 20%	24
20% >	12
Total	54

Data Source: National Child Passenger Safety Board

Conclusion

- 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.

Acknowledgements

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