



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

Performance Based Driver Training and Testing: *Washington is bringing licensing into the 21st Century*

Johnathon Ehsani, Associate Professor
Health Policy and Management

Daniel Cooke, Administrator
Department of Licensing - Licensing, Endorsements, and Traffic Safety Program

Maximizing
Mobility



Optimizing
Safety

WA Driver Education and Graduated Driver Licensing Requirements

- ▶ Driver Education Components
 - ▶ Classroom education – 30 hours
 - ▶ Behind the wheel instruction – 6 hours

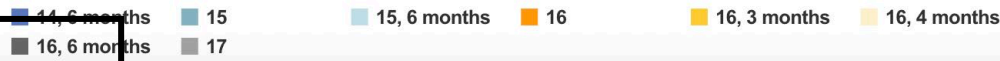
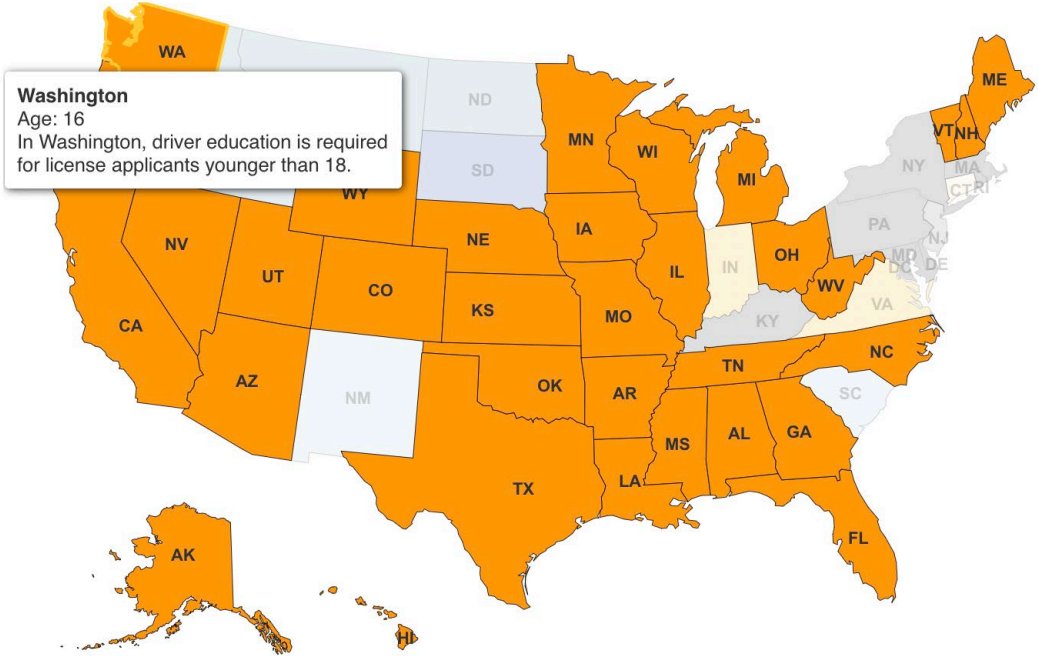
- ▶ Learner License Components
 - ▶ Learner license holding period – 6 months
 - ▶ Supervised driving hours – 40 hours during daytime and 10 hours at night

- ▶ Intermediate License Components
 - ▶ Passenger restriction (no passengers below 20 for the first 6 months)
 - ▶ Nighttime driving restriction (between 1am-5am)

Graduated Driver Licensing Systems Are Widely Adopted

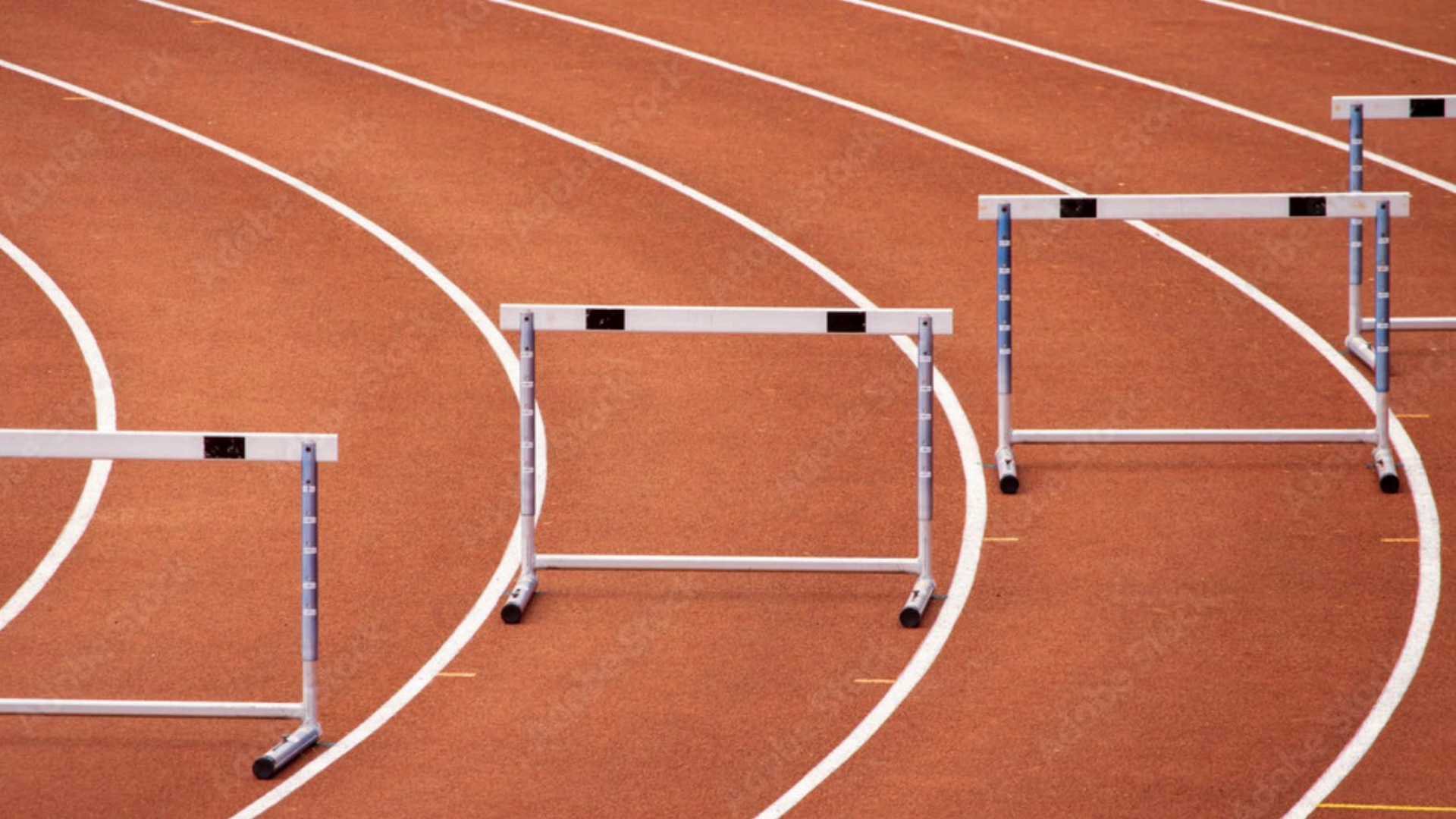
Minimum age for unsupervised driving

Hover over map for more detail.



Limitations of the current system

- ▶ Time based rather than experience based
- ▶ Non-verifiable, relying on an honor system and parent/guardian certification
- ▶ Applied to 16-17-year-olds in the majority of States
- ▶ Licensing prior to age 18 more likely for teens from higher income households
- ▶ May incentivize licensure delay until age 18 when restrictions no longer apply

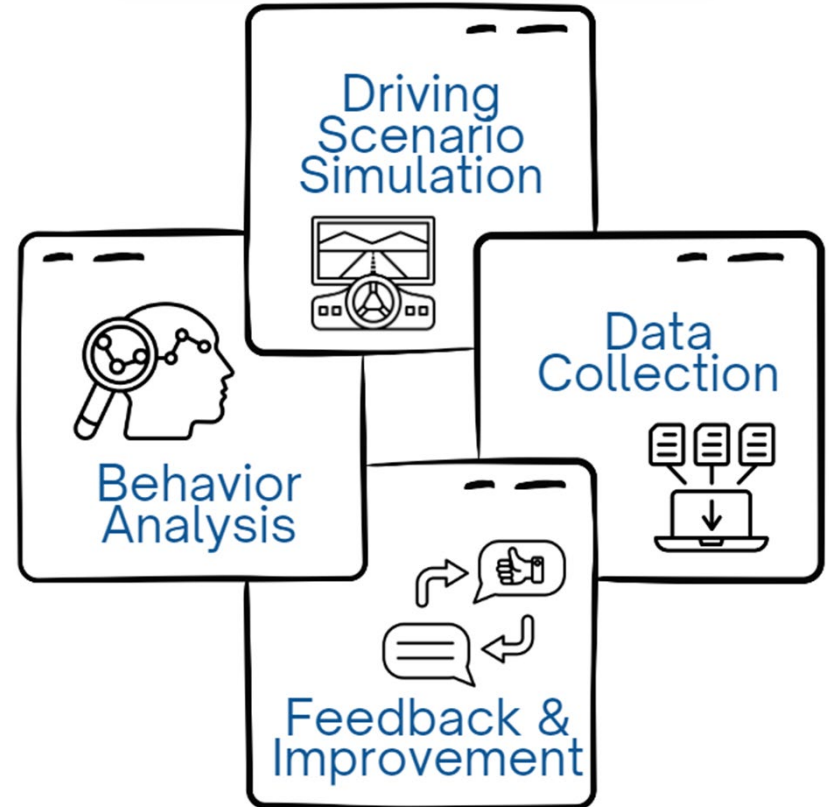


Performance-Based Assessments (PBA)

FEATURE	TRADITIONAL TEST	PBAS
Focus	Knowledge of rules, basic vehicle operation skills	Real-world driving behavior, decision-making, hazard perception, attention maintenance
Assessment Method	Written Exam, Short on-road test	Continuous monitoring of driving data, simulated scenarios, in-vehicle observations
Timeframe	Single point in time (20 min test)	Extended Period (weeks or months)
Real-world relevance	Limited	High

The Benefits Of PBAs

- ▶ Reduce accidents caused by preventable driver behavior
- ▶ Assess real-world skills
- ▶ Prepare drivers for hazards
- ▶ Potentially save lives



BTS-16: Developing Driver Skills Examination and Scoring Guidance

- ▶ The purpose was to update the driver skills examination and scoring to align with the latest scientific evidence.
- ▶ The Risk Awareness and Perception Training (RAPT) program created by Dr. Don Fisher and his team to train novice drivers on hazard anticipation and attention maintenance skills.
- ▶ A body of evidence has shown that RAPT program is effective at improving hazard anticipation and attention maintenance skills across a variety of roadway scenarios.

Instructions:

- This is a view of the scenario from the driver's perspective.
- Please click on the area of the scenario where you see a clue that tells you a hazard may be ahead.



Views

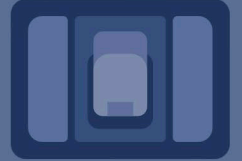


Great Job!

- You correctly identified the clue that a hazard may ahead on the road in this scenario.
- This is an example of a scenario where you need to scan far ahead on the road for information on signs that might indicate hazards are ahead. In this case, the stop sign.



Views



Next >

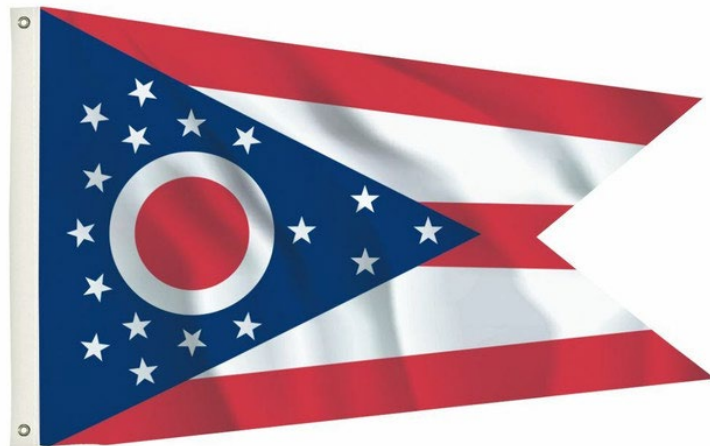
Preliminary Findings

Study Arm	N	DriveStudy N	Mean Distance (km)	Mean Number of Trips	Mean Score
Intervention	841	559	348.5	32	77.54
Control	1235	735	340.2	30	75.93
*pairwise t-test p-value	N/A	N/A	0.712	0.216	0.00956

Future Skills Test Implementation Plan

- ▶ - Phase 1 Research and Analysis (Projected Close Q2 2025)
 - ▶ John Hopkins Study – Pilot concludes Nov 1st, 2024
 - First Quarter of 2025 DOL receives recommendations from John Hopkins Study
- ▶ Phase 2 Design and Development (Projected Close Q2 2026)
- ▶ Phase 3 Statewide Implementation of the New Skills Test (Projected Close Q3 2028)
- ▶ Phase 4 Tracking and Monitoring of Progress and Success (Projected Close Q3 2033)
- ❖ How and When DOL may incorporate telematics into education, testing, and licensing

Washington and Ohio



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Bill Information > SB 5583

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5583

Bill Initiative

2023-2024

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SB 5583 - 2023-24

Improving young driver safety.

Sponsors: Lias, Wilson, C., Kauffman, Valdez, Lovelett, Lovick, Nguyen, Nobles

Bill Status-at-a-Glance See Bill History for complete details on the bill

As of Wednesday, April 5, 2023 06:09 AM

Current Version: Engrossed Substitute - ESSB 5583

Current Status: HRules R

Where is it in the process?



Draft legislation in WA State for the 2023 Regular Legislative Session

1 NEW SECTION. **Sec. 6.** A new section is added to chapter 46.20
2 RCW to read as follows:
3 The department may require any driver's instruction permittee,
4 intermediate licensee, driver's licensee under the age of 25, or
5 high-risk driver as defined in rule to use driver monitoring
6 technology in any vehicle they operate. The department must adopt
7 rules necessary to implement this section, including rules
8 establishing under which circumstances such technology is required,
9 duration of required use, restriction criteria, and revocation and
10 suspension procedures. When adopting such rules necessary, the
11 department must consider the principles of equity, privacy, and
12 impacts to overburdened communities. "Driver monitoring technology"
13 means an in-vehicle telematics sensor linked to an application to
14 track and record real time driving data and have the ability to send
15 summary reports to the department or it's service provider. This
16 technology must be able to measure speeding, abrupt braking, harsh
17 acceleration, hard cornering, and distracted driving.





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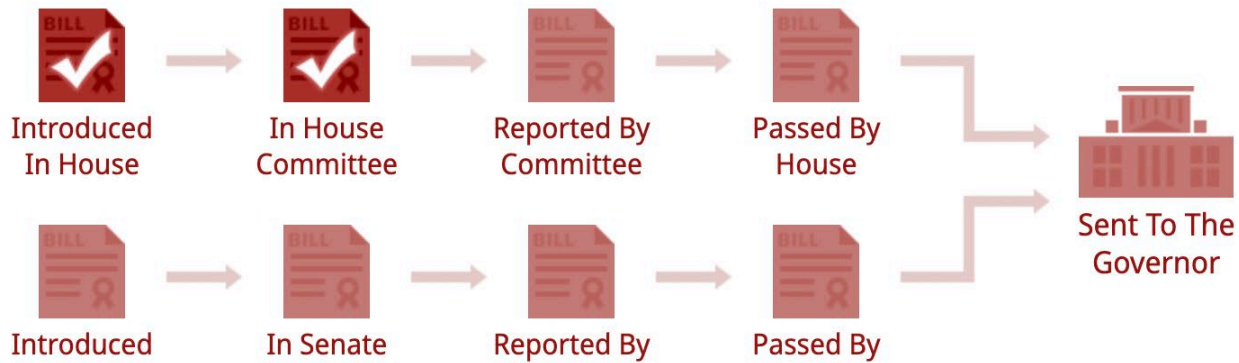
Roy Klopfenstein

Authorize driver training with electronic device or application

[[Show Long Title](#)]

Current Version

[As Introduced](#) [PDF](#)



Draft legislation in Ohio for the 2024 Legislative Session

<u>Code.</u>	9
<u>(B) Notwithstanding section 4508.04 of the Revised Code,</u>	10
<u>an eligible adult may act in lieu of a driver training</u>	11
<u>instructor for the eight hours of actual behind-the-wheel</u>	12
<u>instruction required to complete a student's driver education</u>	13
<u>course, provided all of the following apply:</u>	14
<u>(1) The eligible adult is assisted by an electronic device</u>	15
<u>or application that is programmed to offer mobile and in-vehicle</u>	16
<u>instruction to the student driver.</u>	17

Draft legislation in Ohio for the 2024 Legislative Session

registrar, or either of the following:

31

(a) An affidavit, on a form prescribed by the registrar,
signed by an eligible adult attesting that the person has
acquired at **least fifty hours** of actual driving experience, with
at least ten of those hours being at night;

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(b) An affidavit, on a form prescribed by the registrar,
signed by an eligible adult attesting that the person completed
forty hours of actual driving experience, with at least eight of
those hours being at night, and that the person used an
electronic device or application as authorized under division
(C) of section 4508.041 of the Revised Code for the entire forty
hours of actual driving experience.

36

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T-Mobile 12:54 PM 94%

START DRIVING

START TIME

AVERAGE SPEED MILES / HR

MILES DRIVEN MILES

PROGRESS TO GOAL 8%

5.3 / 60 hours

Please do not switch to other apps during data collection.

T-Mobile 12:55 PM

DRIVE SUMMARY

START TIME	FRIDAY, 3:08 PM
AVERAGE SPEED	34 MILES/HR
MILES DRIVEN	3.6 MILES
TOTAL TIME	6 MINUTES, 21 SECONDS

ROAD TYPES ? Drive Uploaded!

CAR PARK

RESIDENTIAL

INTERMEDIATE

RURAL

COMMERCIAL

HIGHWAY

WEATHER TYPES Drive Uploaded!

WET

DRY

T-Mobile 12:54 PM 93%

PROFILE

USER ID CASSIE
 DRIVER STATUS UNLICENSED

DRIVE REPORT

TOTAL DRIVES ON EACH DAY OF THE WEEK

134 MILES TOTAL	5.4 TOTAL HOURS	83 TOTAL DRIVES
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16 DAYS WITH AT LEAST ONE DRIVE

DRIVE LOG

FRIDAY, January 15, 2021
 START TIME: 3:08 PM
 TOTAL DRIVE TIME: 00:06:22 SUMMARY

FRIDAY, January 15, 2021
 START TIME: 3:31 PM
 TOTAL DRIVE TIME: 00:00:00 SUMMARY

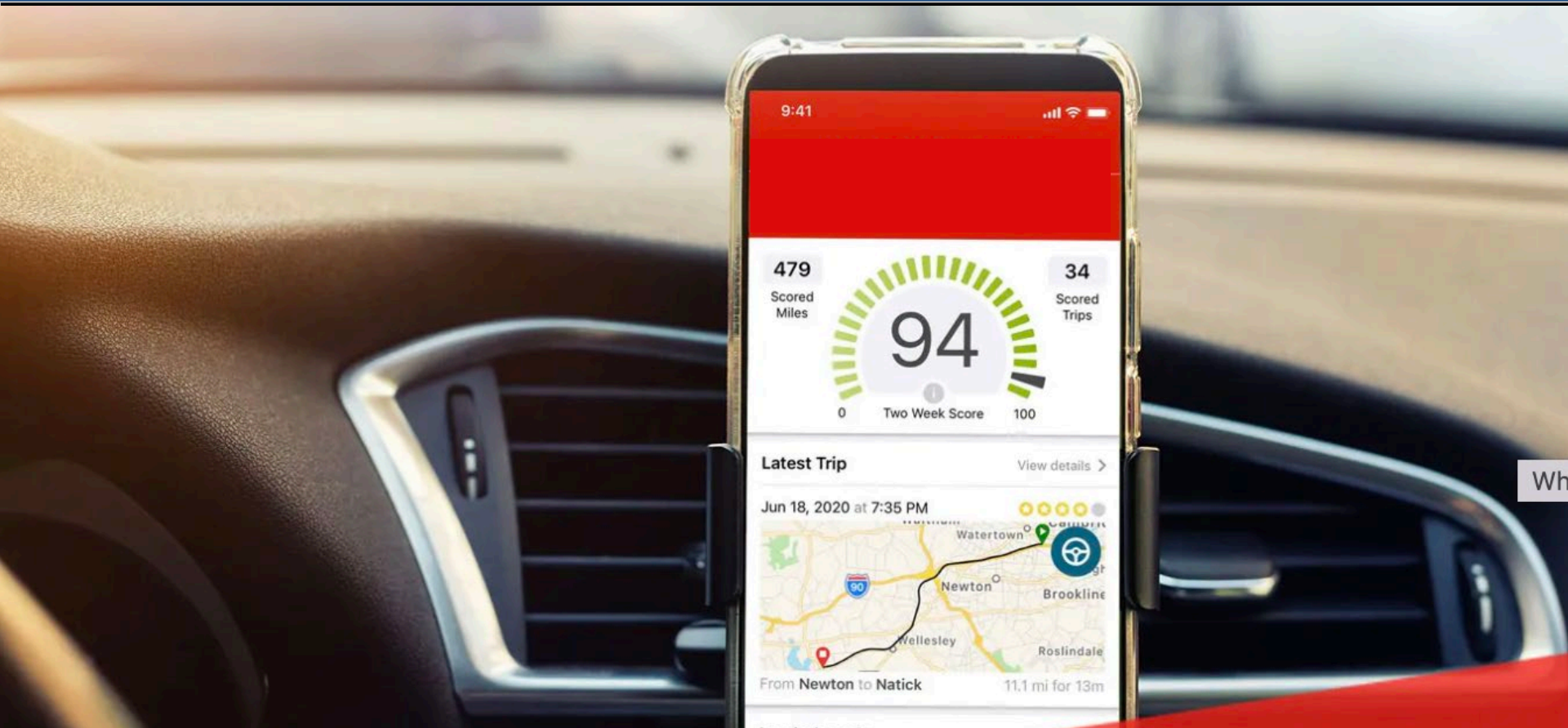
Challenges

- ▶ **Costs:** Integrating technology can be expensive, particularly for widespread adoption.
- ▶ **Equity:** Ensuring equitable access for all drivers, regardless of socioeconomic background or geographic location, is crucial.
- ▶ **Privacy:** Collecting and storing driving data raises concerns about privacy and data security that need to be addressed carefully

Research and Collaboration Needed for Success

- ▶ **Develop cost-effective solutions:** Explore innovative technologies and approaches that make PBAs more accessible and affordable for a wider range of drivers (e.g. smartphone-based assessments and data collection)
- ▶ **Establish standardized guidelines:** Research is needed to create clear and consistent criteria for evaluating driving performance to ensure fairness and reduce subjectivity.
- ▶ **Prioritize privacy protection:** Implement robust data security measures and ensure transparency in how personal driving data is collected, used, stored, and deleted.

This is already happening in another context



Wh

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Thank you

- ▶ Please email me with your suggestions and comments:
- ▶ Johnathon.Ehsani@jhu.edu
- ▶ DCooke@dol.wa.gov