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Transportation Policy as a Key to Upward Mobility

Johnathon Ehsani, Associate Professor
Health Policy and Management


Neighborhood and Built Environment
Health Care and Quality
Social and Community Context
Education Access and Quality
Economic Stability

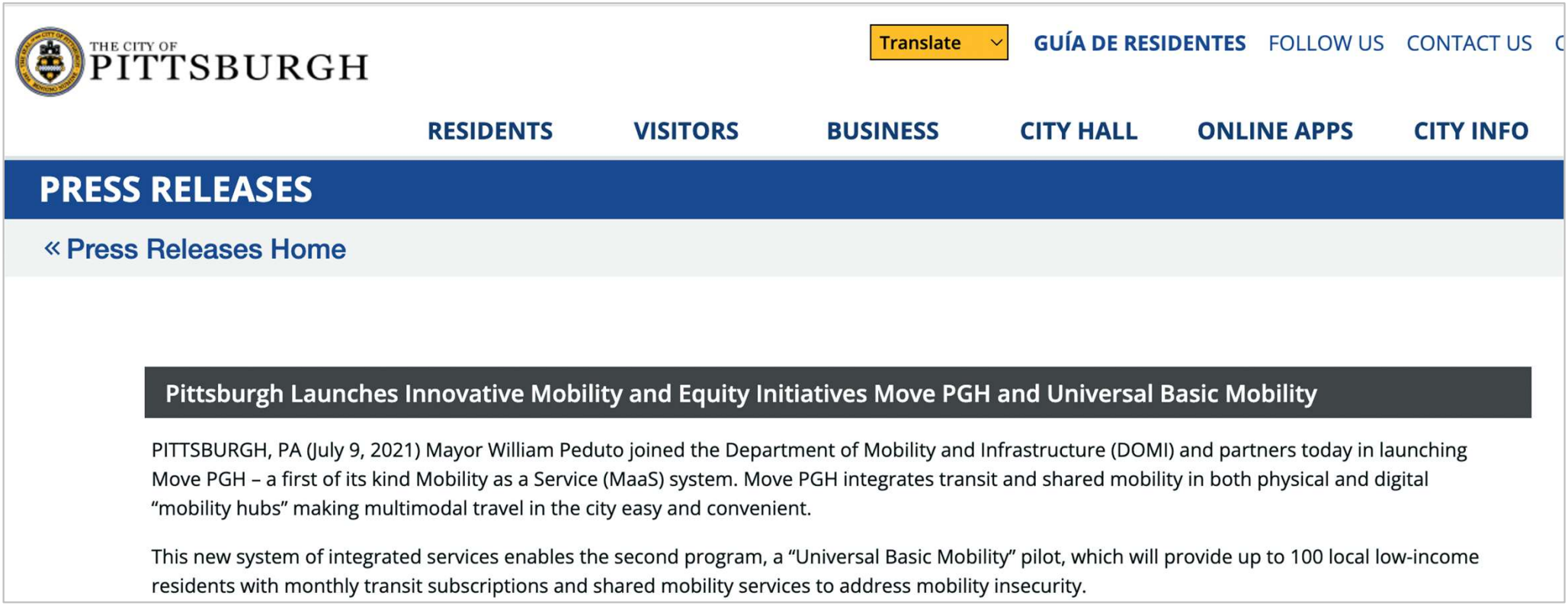
CDC 2024

The Case for Guaranteed Basic Mobility

BY TANGIER BARNES WRIGHT, DEPUTY DIRECTOR OF SHARED MICROMOBILITY

OCTOBER 19, 2022

A number of pilot programs are underway



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Pittsburgh Launches Innovative Mobility and Equity Initiatives Move PGH and Universal Basic Mobility

PITTSBURGH, PA (July 9, 2021) Mayor William Peduto joined the Department of Mobility and Infrastructure (DOMI) and partners today in launching Move PGH – a first of its kind Mobility as a Service (MaaS) system. Move PGH integrates transit and shared mobility in both physical and digital "mobility hubs" making multimodal travel in the city easy and convenient.

This new system of integrated services enables the second program, a "Universal Basic Mobility" pilot, which will provide up to 100 local low-income residents with monthly transit subscriptions and shared mobility services to address mobility insecurity.

Case Study : Driver Licensing Policy

Maximizing Mobility

Optimizing Safety

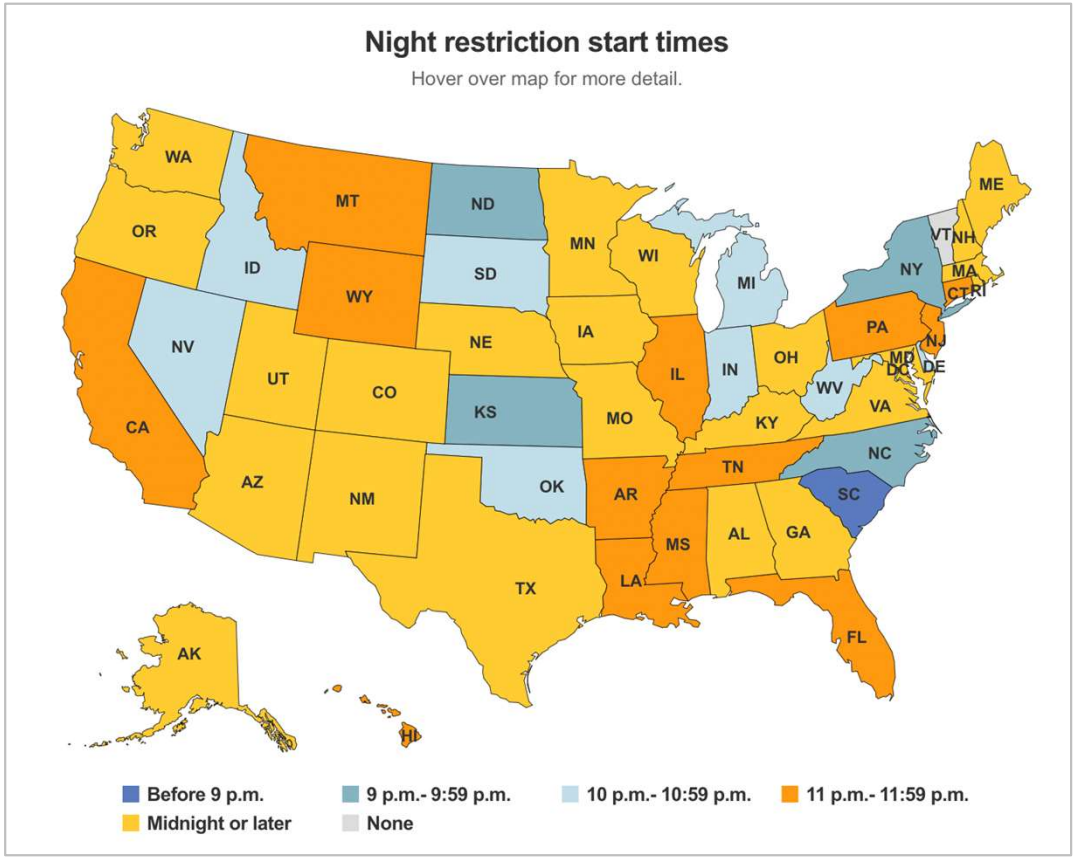
Driver Education and Graduated Driver Licensing Requirements

- Driver Education Components
  - Classroom education (in person, online, or self-paced)
  - Behind the wheel instruction
- Learner License Components
  - Learner license holding period
  - Supervised driving hours
  - Raising the minimum age for the learner license
- Intermediate License Components
  - Passenger restriction
  - Nighttime driving restriction
  - Raising the minimum age for the intermediate license

Washington Graduated Driver Licensing Requirements

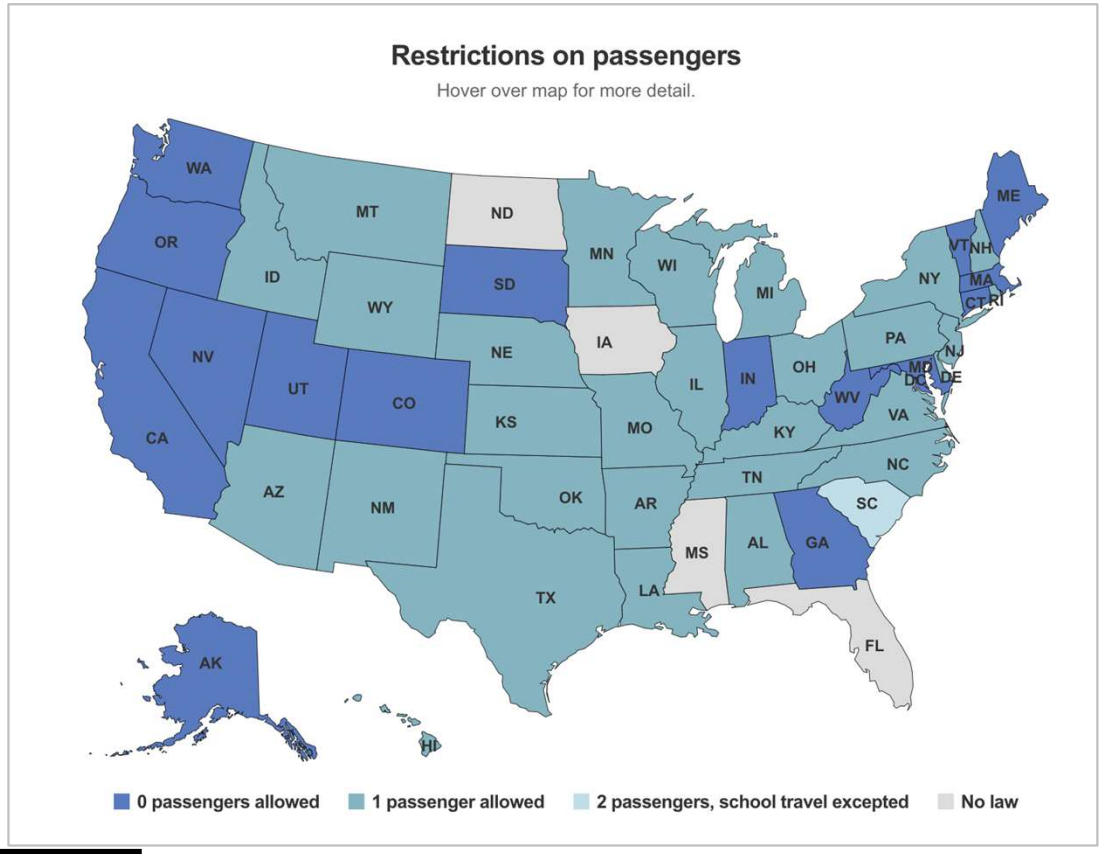
	LEARNER STAGE			INTERMEDIATE STAGE			UNRESTRICTED STAGE	
State	Minimum entry age	Mandatory holding period	Minimum amount of supervised driving	Minimum entry age	Nighttime restrictions	Passenger restrictions (family members excepted unless noted)	Nighttime restrictions may be lifted	Passenger restrictions may be lifted
WA	15[75]	6 months	50 hours, 10 of which must be at night	16[76]	1 a.m.-5 a.m. secondary enforcement	first 6 months—no passengers younger than 20; second 6 months—no more than 3 passengers younger than 20 secondary enforcement	12 months or until age 18, whichever occurs first (min. age: 17)	12 months or until age 18, whichever occurs first (min. age: 17)[77]

Graduated Driver Licensing Systems Are Widely Adopted



IIHS 2023

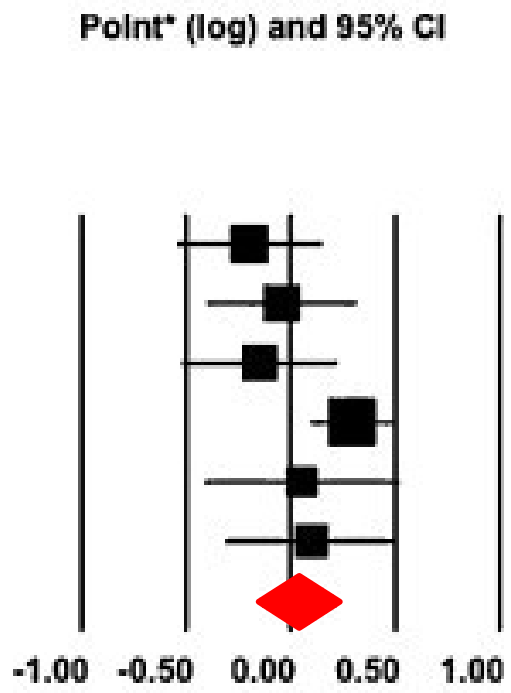
Graduated Driver Licensing Systems Are Widely Adopted



IIHS 2023

Pooled effect of required supervised driving hours on 16- and 17-year-old driver fatal crash rates

Jurisdiction	Point* (log)	Lower limit	Upper limit
Arizona	-0.20	-0.54	0.15
Kentucky	-0.04	-0.40	0.31
Maine	-0.15	-0.52	0.22
Minnesota	0.29	0.09	0.49
New Hampshire	0.05	-0.41	0.52
Rhode Island	0.10	-0.31	0.51
Overall	0.04	-0.15	0.22



*Change in 16- and 17-year-old driver fatal crash rates

1. Square area around the point estimates corresponds to the weighting of the state in the overall model
2. Diamond represents the pooled point estimate with 95% confidence interval

Ehsani et al., *AAP*, 2013

Driver Education Associated with Licensure Delay

	Licensed at age ≤ 16	Licensed at age 17	Total licensed before age < 18[b]	Licensed at age 18+	Not yet licensed	N
	Row % (Weighted)					
All	40.8	19.4	60.3	27.9	11.9	1,399
Census region						
Northeast	22.3	33.4	55.8	29.4	15.0	289
Midwest	54.9	15.3	70.4	21.2	8.6	393
South	46.9	17.3	64.2	23.6	12.2	394
West	32.2	15.8	48.2	39.7	12.3	324
Urbanicity						
Country	49.3	14.8	64.1	22.7	13.2	143
Small town	39.5	23.4	63.0	26.3	10.9	312
Mid-sized town	40.9	24.4	65.6	22.2	12.5	417
Small city	45.3	13.0	58.4	29.8	12.0	305
Large city	32.6	17.2	49.9	38.6	11.6	221
State minimum age for licensing						
<16 years	47.2	16.9	64.1	26.9	9.0	75
16 years	44.8	16.2	61.1	28.6	10.4	951
16 ¼ – 16 ⅓	43.1	20.2	63.3	17.6	19.1	109
16 ½ – 17	23.9	31.7	55.6	28.7	15.8	265
State driver education requirement						
None	41.6	24.1	65.8	23.8	10.5	707
Required for ages < 18 only	39.6	15.5	55.3	33.4	11.5	553
Required for ages ≥ 18	41.1	14.7	56.3	26.7	17.5	139

- About 2/5 of teens get licensed at or before age 16 regardless of the driver education requirement in their state.
- Of those not licensed at age ≤16:
  - Half get licensed at age 17 and about half get licensed at 18+
  - More teens were licensed at age 18+ vs. at 17 in states with a driver education requirement

Masten et al 2011

GDL Associated with Higher Fatality Rates among 18 Year-olds

ORIGINAL CONTRIBUTION

Graduated Driver Licensing and Fatal Crashes Involving 16- to 19-Year-Old Drivers

Scott V. Masten, PhD
Robert D. Foss, PhD
Stephen W. Marshall, PhD

Context In the United States, graduated driver licensing (GDL) systems allow full, unrestricted licensure for drivers younger than 18 years only after an initial period of supervised driving and an intermediate period of unsupervised driving that limits driving at night, transporting multiple young passengers, or both.

Objective To estimate the association of GDL programs with involvement in fatal crashes among 16- to 19-year-old drivers.

Design, Setting, and Participants Pooled cross-sectional time series analysis of quarterly 1986-2007 incidence of fatal crashes involving drivers aged 16 to 19 years for all 50 states and the District of Columbia combined.

Main Outcome Measures Population-based rates of fatal crash involvement for 16-, 17-, 18-, and 19-year-old drivers. Rate ratios and 95% CIs comparing state-quarters with stronger (restrictions on both nighttime driving and allowed passengers) or weaker (restrictions on either nighttime driving or allowed passengers) GDL programs with state-quarters without GDL.

Results Fatal crash incidence among teen drivers increased with age, from 28.2 per 100 000 person-years (16-year-old drivers) to 36.9 per 100 000 (17-year-olds), before reaching a plateau of 46.2 per 100 000 (18-year-olds) and 44.0 per 100 000 (19-year-olds). After adjusting for potential confounders, stronger GDL programs were associated with lower incidence of fatal crashes for 16-year-old drivers, compared with programs having none of the key GDL elements (rate ratio, 0.74 [95% CI, 0.65-0.84]). However, stronger GDL programs were associated with higher fatal crash incidence for 18-year-old drivers (rate ratio, 1.12 [95% CI, 1.01-1.23]). Rate ratios for 17-year-olds (0.91 [95% CI, 0.83-1.01]), 19-year-olds (1.05 [95% CI, 0.98-1.13]), and 16- to 19-year-olds com-

MOTOR VEHICLE CRASHES are the leading cause of death in the United States for teenagers.[1] From 2000-2008, more than 23 000 drivers and 14 000 passengers aged 16 to 19 years were killed.[2] Crashes are more common among 18- and 19-year-olds, but adjusted for miles driven, rates are highest among younger teens.[3] The fatal crash rates per mile driven for 16- and 17-year-olds are 150% and 90% greater, respectively, than those for 18- and 19-year-olds.[2,4]

Graduated driver licensing (GDL) systems have now been adopted in all 50 states and the District of Columbia to reduce crashes among teenaged drivers. Graduated driver licensing is struc-

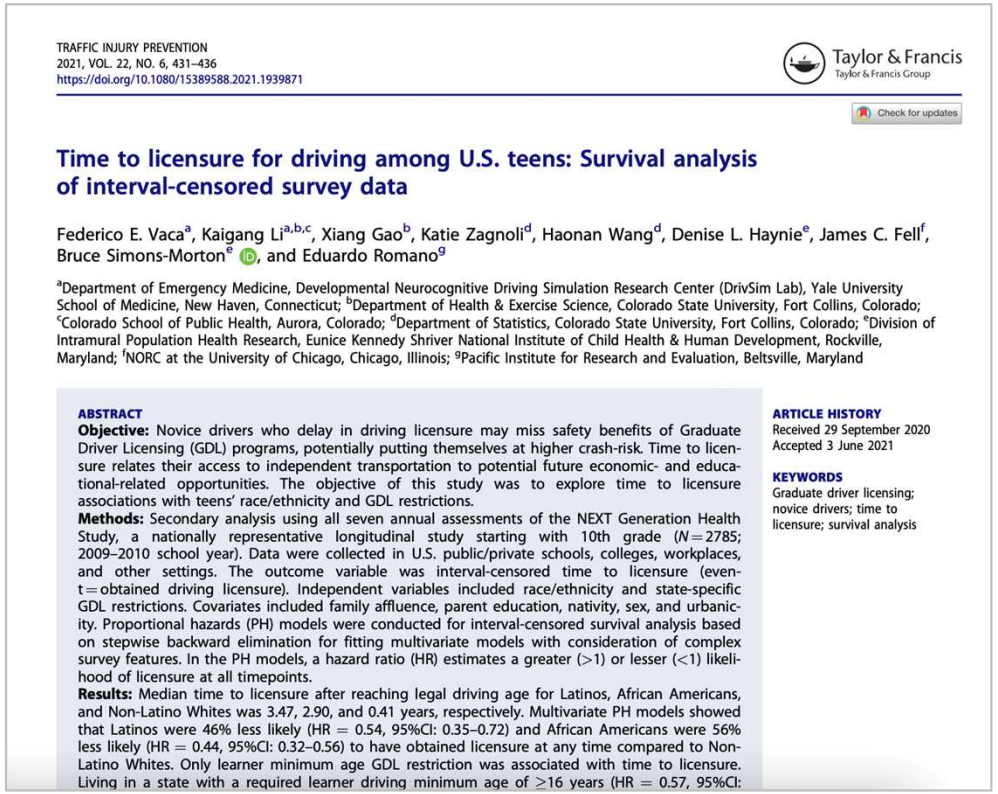
- Stronger GDL programs were associated with lower incidence of fatal crashes for 16-year-old drivers (rate ratio, 0.74 [95% CI, 0.65-0.84]).
- However, stronger GDL programs were associated with higher fatal crash incidence for 18-year- old drivers (rate ratio, 1.12 [95% CI, 1.01-1.23]).

Masten et al 2011

GDL Associated with Licensure Delay for Latino, African American Youth

Median time to licensure after reaching legal driving age:

- Latinos - 3.47 yrs.
- African Americans - 2.90 yrs.
- Non-Latino Whites - 0.41 yrs.



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2021, VOL. 22, NO. 6, 431–436
https://doi.org/10.1080/15389588.2021.1939871

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Time to licensure for driving among U.S. teens: Survival analysis of interval-censored survey data

Federico E. Vaca[a], Kaigang Li[a,b,c], Xiang Gao[b], Katie Zagnoli[d], Haonan Wang[d], Denise L. Haynie[e], James C. Fell[f], Bruce Simons-Morton[e], and Eduardo Romano[g]

[a]Department of Emergency Medicine, Developmental Neurocognitive Driving Simulation Research Center (DrivSim Lab), Yale University School of Medicine, New Haven, Connecticut; [b]Department of Health & Exercise Science, Colorado State University, Fort Collins, Colorado; [c]Colorado School of Public Health, Aurora, Colorado; [d]Department of Statistics, Colorado State University, Fort Collins, Colorado; [e]Division of Intramural Population Health Research, Eunice Kennedy Shriver National Institute of Child Health & Human Development, Rockville, Maryland; [f]NORC at the University of Chicago, Chicago, Illinois; [g]Pacific Institute for Research and Evaluation, Beltsville, Maryland

ABSTRACT

Objective: Novice drivers who delay in driving licensure may miss safety benefits of Graduate Driver Licensing (GDL) programs, potentially putting themselves at higher crash-risk. Time to licensure relates their access to independent transportation to potential future economic- and educational-related opportunities. The objective of this study was to explore time to licensure associations with teens' race/ethnicity and GDL restrictions.

Methods: Secondary analysis using all seven annual assessments of the NEXT Generation Health Study, a nationally representative longitudinal study starting with 10th grade ($N = 2785$; 2009–2010 school year). Data were collected in U.S. public/private schools, colleges, workplaces, and other settings. The outcome variable was interval-censored time to licensure (event = obtained driving licensure). Independent variables included race/ethnicity and state-specific GDL restrictions. Covariates included family affluence, parent education, nativity, sex, and urbanicity. Proportional hazards (PH) models were conducted for interval-censored survival analysis based on stepwise backward elimination for fitting multivariate models with consideration of complex survey features. In the PH models, a hazard ratio (HR) estimates a greater (>1) or lesser (<1) likelihood of licensure at all timepoints.

Results: Median time to licensure after reaching legal driving age for Latinos, African Americans, and Non-Latino Whites was 3.47, 2.90, and 0.41 years, respectively. Multivariate PH models showed that Latinos were 46% less likely (HR = 0.54, 95%CI: 0.35–0.72) and African Americans were 56% less likely (HR = 0.44, 95%CI: 0.32–0.56) to have obtained licensure at any time compared to Non-Latino Whites. Only learner minimum age GDL restriction was associated with time to licensure. Living in a state with a required learner driving minimum age of ≥16 years (HR = 0.57, 95%CI:

ARTICLE HISTORY
Received 29 September 2020
Accepted 3 June 2021

KEYWORDS
Graduate driver licensing; novice drivers; time to licensure; survival analysis

Vaca et al 2012

Unintended Consequence: Impact on Social Determinants of Health

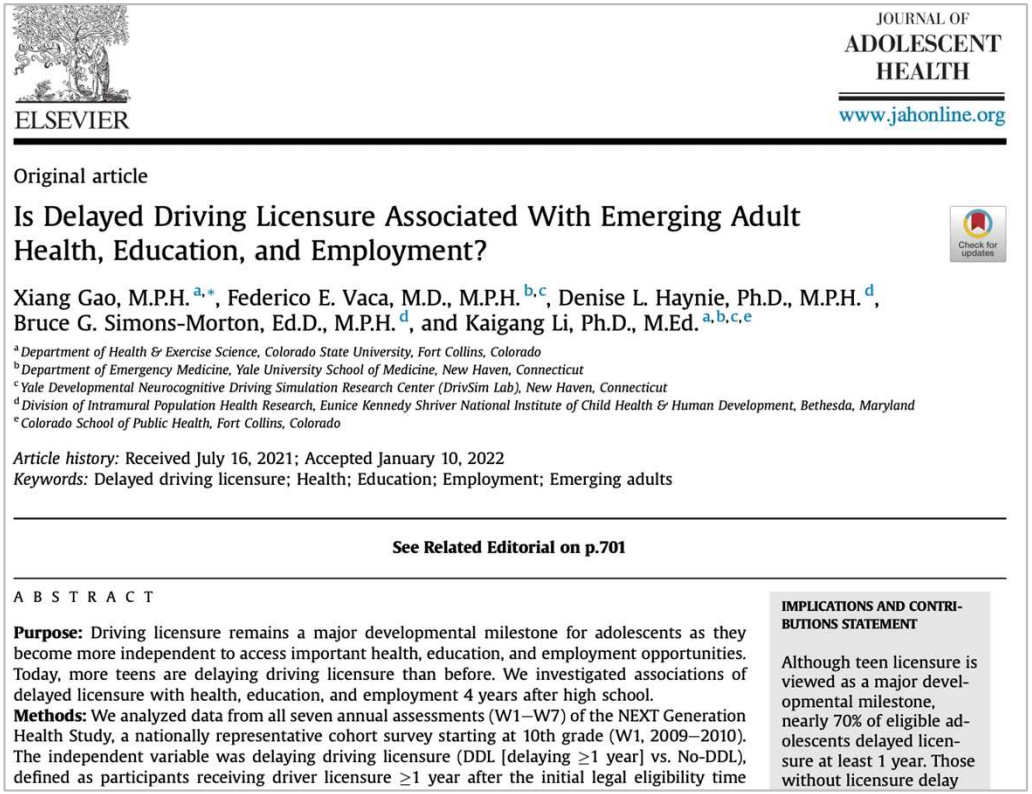
Licensing timing matters

No delay compared to delay was associated with a higher likelihood of:

Self reported health (excellent, good, fair) vs poor.

Completing college/graduate school/community college compared with high school or less.

Working compared with not working.



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Original article

Is Delayed Driving Licensure Associated With Emerging Adult Health, Education, and Employment?

Xiang Gao, M.P.H. [a,*], Federico E. Vaca, M.D., M.P.H. [b,c], Denise L. Haynie, Ph.D., M.P.H. [d], Bruce G. Simons-Morton, Ed.D., M.P.H. [d], and Kaigang Li, Ph.D., M.Ed. [a,b,c,e]

[a] Department of Health & Exercise Science, Colorado State University, Fort Collins, Colorado
[b] Department of Emergency Medicine, Yale University School of Medicine, New Haven, Connecticut
[c] Yale Developmental Neurocognitive Driving Simulation Research Center (DrivSim Lab), New Haven, Connecticut
[d] Division of Intramural Population Health Research, Eunice Kennedy Shriver National Institute of Child Health & Human Development, Bethesda, Maryland
[e] Colorado School of Public Health, Fort Collins, Colorado

Article history: Received July 16, 2021; Accepted January 10, 2022
Keywords: Delayed driving licensure; Health; Education; Employment; Emerging adults

See Related Editorial on p.701

A B S T R A C T

Purpose: Driving licensure remains a major developmental milestone for adolescents as they become more independent to access important health, education, and employment opportunities. Today, more teens are delaying driving licensure than before. We investigated associations of delayed licensure with health, education, and employment 4 years after high school.
Methods: We analyzed data from all seven annual assessments (W1–W7) of the NEXT Generation Health Study, a nationally representative cohort survey starting at 10th grade (W1, 2009–2010). The independent variable was delaying driving licensure (DDL [delaying ≥1 year] vs. No-DDL), defined as participants receiving driver licensure ≥1 year after the initial legal eligibility time

IMPLICATIONS AND CONTRIBUTIONS STATEMENT

Although teen licensure is viewed as a major developmental milestone, nearly 70% of eligible adolescents delayed licensure at least 1 year. Those without licensure delay

WASHINGTON STATE DEPARTMENT OF

LICENSING

The Role of Law and Policy in Achieving Mobility and Transportation Equity

The How: A Case Study in Washington State

Building Political Will and Implementing Equitable Policy for Mobility

Dan Cooke | Administrator | WADOL Licensing, Endorsements, and Traffic Safety

dcooke@dol.wa.gov

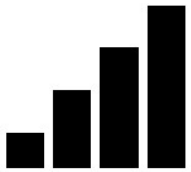
"The Why" Revisited: Novice Drivers & Inequities

Mobility as a key social determinant of health.

Novice driver licensing law as a double-edged sword: a pathway to independence and a potential barrier to equity.

Delayed licensure disproportionately impacts marginalized communities.

Legislation is Only Half the Battle



HB 1125 (2023): $2M appropriation for to support driver's license assistance for low-income immigrant and refugee women in King County. Continued and expanded funding statewide in 2025.

ESHB 1878 (2025): Expanded driver education requirements AND opportunities. Required driver education for young adults. Created a voucher program for low-income residents. Partnerships with tribal communities.

The Journey to Change: Building Political Will

It didn't happen overnight. This was a multi-year effort.

Building a Coalition: Community-based organizations public health advocates, legislators, and state agencies.

The Power of Data and Lived Experience: Blending quantitative data on crashes with qualitative stories from the community.

Framing the Issue: Shifting the narrative from "driver licensing as a bureaucratic process" to "mobility as a public health imperative."

The "How" of Implementation: Engaging the Community

Legislation provides the framework, but **implementation determines the outcome.**

Quick and cheap is easy; good is hard.

Example: Changes to motorcycle endorsement process.

The Driver Licensing Assistance (DLA) Program: A tangible example of partnership and success.

ESSB 5583 / Improving Young Driver Safety

Special Plate: "Historical Throwback" License Plate

Washington will create a black and white "Historical Throwback" license plate, similar to an early 20th-century design.

Proceeds from this special plate will be placed in the Driver Education Safety Improvement Account, further supporting our programs.

Law and policy create the enabling environment.

Community engagement and innovative programs are the engine of change.

Mujer al Volante.

“Helping every Washington resident
LIVE, WORK, DRIVE, AND THRIVE.”

QUESTIONS AND COMMENTS

Dan Cooke | Administrator | WADOL Licensing, Endorsements, and Traffic Safety

dcooke@dol.wa.gov