In a pragmatic sense, answering the question of whether the youngest drivers crash the most seems fairly straightforward. However, on more critical examination, with a focus on meaningful implications for crash and injury prevention and related policies, the question is not only a provocative one owing to the findings of the study conducted by Walshe et al, but it is also steeped in greater complexity and paradox. Walshe et al set out to address this question by analyzing Ohio state licensing data from 136,643 young novice licensed drivers (age 16-24 years), followed up to 1 year after their licensure. The study found that novice licensed drivers aged 16 and 17 years outperformed their counterparts aged 18 to 24 years on license examinations. Furthermore, adolescents who were licensed to drive when younger than 18 years had significantly lower crash rates at both 2 and 12 months after licensure than those licensed at age 18 years.

So, given the study findings, one might intuitively ask why the study question is provocative and a paradox. First, the findings directly challenge the historical literature and conventional thought that the youngest drivers have poorer driver safety performance measures and crash more than all other drivers. Established knowledge tells us that we should expect the youngest drivers to make more driving-related mistakes and therefore have more crashes. Based on nationally representative US data from 2014 to 2015, the crash rate per 100 million miles driven by individuals aged 16 to 17 years was nearly double that of drivers aged 18 to 19 years, with those aged 16 to 17 years having the highest crash involvement of all age groups. Furthermore, based on what we now know about adolescent neurodevelopment, and framing this information within the context of young drivers, we not only consider inexperience (ie, limited driving exposure), but also look to neurodevelopmental immaturity that typically centers on key behavioral-related constructs, such as attention, working memory, and inhibitory control. Intimately tethered to decision-making and indispensable for young driver safety, limitations in these areas heighten crash risk.

Given the Walshe et al findings that drivers licensed before age 18 years had significantly fewer crashes than those licensed at age 18 years (individuals aged 18 years had the highest crash rates of all licensed drivers younger than 25 years), another question arises related to the strength and confidence experts currently have when considering the role of adolescent neurodevelopment in driver crash risk and safety: are we looking at a paradigm shift in our understanding of what group of young drivers crashes the most? This issue could, in part, be the case, as more experience might mitigate and/or overcome neurodevelopmental vulnerability among some young drivers. Although recent evidence suggests that the outcomes associated with impulsive action can be mitigated by attitudes of safe driving and self-regulation among young and novice drivers, we will have to wait to see what further support studies in this area have to offer real-world prevention.

Intentionally designed and implemented to mitigate and prevent young novice driver crashes across the US, graduated driver licensing (GDL) laws, systematically and in a graduated fashion, usher young drivers through the learning phases of driving and licensure while protecting them. To date, all 50 US states and Washington, DC, have GDL policies that apply to drivers licensed younger than 18 years. These policies have unequivocally been pivotal in reducing young driver injury and fatal crashes. However, recent studies show that more adolescents delay driving licensure, which could have unique implications for the efficacy of GDL and for adolescents seeking licensure for the first time on or after their 18th birthday. The National Highway Traffic Safety Administration reports that the number of US licensed drivers aged 15 to 20 years decreased by 7.3% from 2010 (13.0 million) to 2019 (12.0 million). It is concerning that some adolescents who delay licensure could be essentially
aging out of protections afforded to them by GDL driver restrictions and placing themselves at higher risk for crash involvement when they seek licensure at a later age. The Walshe et al findings appear to realize this concern with evidence that novice drivers licensed at 18 years, presumably having bypassed mandated GDL restrictions and driver education, including behind-the-wheel (BTW) training, exhibited “the highest population-based rates of crashes” in the first-year postlicensure. This finding is one of the first to more explicitly show that delaying licensure, within the scope of GDL, could lead to higher crash rates for young novice drivers.

Minority race and ethnicity status, socioeconomic status, and parent educational levels have been found to be associated with delayed licensure. Among adolescents who are legally qualified for licensure, Latino vs non-Latino White individuals, those with low vs high family affluence, and those whose parents have lower vs higher levels of education were significantly more likely to delay licensure. These findings align with the hypothesis proposed by Walshe and colleagues that professional BTW training and GDL may place a meaningful burden on adolescents of lower SES status that could reduce their ability to obtain licensure through GDL graduation at younger legal ages, practice driving more owing to economic-related limitations, and in turn potentially increase the risk of crash involvement.

Despite the use of a large 1-state sample of young novice drivers that provides informative longitudinal results addressing the question at hand, the Walshe et al study has some key limitations and challenges that should prompt caution in interpretation of the results and require thoughtful consideration, particularly when viewing them through an exposure-based lens. First, this study showed that lower SES groups had worse road safety examination scores as well as more crashes at 2 and 12 months. However, we need to clearly understand that this finding is based on per 1000 drivers and tells us nothing about true exposure (ie, frequency and length) and trip purpose (regarding different socialization/relational factors accounting for risk level for crash involvement).

Although further research will be helpful in providing greater accuracy and clarity regarding the magnitude of driving exposure in driving safety, the study by Walshe et al adds to a body of literature that describes the need for and benefits of GDL, as well as comprehensive driver education for licensure of adolescent novice drivers. Furthermore, the study suggests that mandatory driver education and practice driving may mitigate or attenuate neurodevelopmental vulnerabilities typically considered in younger drivers due to inexperience and immaturity.

In addition, this study provides implications for licensure policies, particularly given the ongoing COVID-19 pandemic. When the COVID-19 pandemic developed in the US, some state licensing jurisdictions cancelled BTW testing and, to date, many states have made and some have retained operational changes, with some considering not reinstituting BTW testing owing to added administrative expense and burden. Here we have to wonder where this will leave us in terms of assurance that pandemic-affected novice adolescent drivers will meet a standardized BTW competence level on licensure. Moreover, we may ask where this will leave the safety of both young novice drivers and the public on our roadways. Based on the findings of the Walshe et al study, the answers to these questions hinge on the necessity to further thoughtfully and critically revisit all components of mandated driver training.

Although it is clear that exposure to driving invites a level of crash involvement risk at any age, the benefits of obtaining licensure are also notable because independent transportation can be beneficial, leading to more opportunity for youth (eg, related to health, education, and employment), particularly during the pivotal lifespan transitional period from adolescence to early adulthood. The study findings by Walshe et al and their implications for future research and policy are apparent within a focus toward youth well-being and crash-injury prevention so that these young novice drivers might flourish throughout early adulthood and beyond.
REFERENCES


