



SAMHSA
Substance Abuse and Mental Health
Services Administration

2021 STATE PERFORMANCE & BEST PRACTICES FOR THE PREVENTION AND REDUCTION OF UNDERAGE DRINKING REPORT



US Department of Health & Human Services

ADMINISTRATION FOR
CHILDREN & FAMILIES

Administration for Children & Families



Centers for Disease Control and Prevention



Indian Health Service



National Institute on Alcohol Abuse and Alcoholism



National Institute on Drug Abuse
Advancing Addiction Science



Agency for Healthcare Research and Quality

OASH | Office of Population Affairs

Office of Population Affairs



Office of Assistant Secretary for Planning and Evaluation



Office of the Surgeon General

SAMHSA

Substance Abuse and Mental Health Services Administration



Federal Trade Commission



US Department of Defense



US Department of Education



US Department of Justice



US Department of Transportation



US Department of the Treasury



Office of National Drug Control Policy



US Department of Homeland Security

ICCPUD

**THE INTERAGENCY COORDINATING COMMITTEE
ON THE PREVENTION OF UNDERAGE DRINKING (ICCPUD)**

STATE PERFORMANCE & BEST PRACTICES FOR THE PREVENTION AND REDUCTION OF UNDERAGE DRINKING REPORT

2021

This *State Performance & Best Practices for the Prevention and Reduction of Underage Drinking Report (SPBP)* is required by the Sober Truth on Preventing (STOP) Underage Drinking Act (Pub. L. 109-422), which was enacted by Congress in 2006 and reauthorized in December 2016 as part of the 21st Century Cures Act (Pub. L. 114-255). The STOP Act directs the Secretary of the Department of Health and Human Services, working with the Interagency Coordinating Committee on the Prevention of Underage Drinking, chaired by the Assistant Secretary for Mental Health and Substance Use, U.S. Department of Health and Human Services, to develop a set of performance measures for evaluating the states' use of best practices in preventing underage drinking.

To meet this requirement, the *SPBP Report* provides an overview of the STOP Act and the multi-faceted effort to address the problem of underage drinking through prevention, intervention, treatment, recovery, enforcement, and research; describes identification, evaluation, and implementation of evidence-based practices; and reviews evidence-based and promising policies, programs, and practices to prevent and reduce underage drinking. Further, it summarizes state and District of Columbia responses to an annual survey about underage drinking enforcement practices, prevention programs, and expenditures. Finally, it includes state and national data on alcohol-related outcomes for nine performance measures.

Time period covered by the 2021 SPBP: State legal data reflect the status of the law as of January 1, 2020. State survey data, collected in 2020, were drawn from the most recent 12-month period in which the states maintained the data. Data presented in the nine performance measures were drawn from the Substance Abuse and Mental Health Administration's National Survey on Drug Use and Health estimates for 2016–19, and from 2019 data from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System .

CONTENTS

CHAPTER 1: INTRODUCTION	1
The STOP Act.....	3
Prevention and the Continuum of Care.....	4
Identifying and Implementing Statewide Policies	6
Framework of State Performance & Best Practices.....	7
CHAPTER 2: POLICIES, PROGRAMS, AND PRACTICES FOR UNDERAGE DRINKING PREVENTION	9
Introduction.....	9
Changes to Alcohol Availability During COVID-19	9
Prevention Policies.....	13
Policies Addressing Underage Possession or Purchase of Alcohol.....	16
Underage Possession, Consumption, and Internal Possession.....	16
Underage Purchase and Attempted Purchase	24
False ID.....	28
Policies Targeting Underage Drinking and Driving	32
Youth BAC Limits (Underage Operators of Non-Commercial Motor Vehicles).....	32
Loss of Driving Privileges for Alcohol Violations by Underage Youth (Use/Lose Laws) ..	36
Graduated Driver’s Licenses.....	39
Policies Targeting Alcohol Availability	45
Furnishing Alcohol to People Under Age 21.....	45
Responsible Beverage Service (RBS) Training.....	50
Minimum Ages for Off-Premises Sellers	55
Minimum Ages for On-Premises Servers and Bartenders.....	58
Distance Limitations Applied to New Alcohol Outlets Near Universities, Colleges, and Primary and Secondary Schools	61
Dram Shop Liability	66
Social Host Liability	70
Hosting Underage Drinking Parties	74
Keg Registration	79
High-Proof Grain Alcoholic Beverages.....	82
Policies Addressing Sales and Delivery to Consumers at Home.....	87
Retailer Interstate Shipments of Alcohol.....	87
Direct Sales/Shipments from Producers to Consumers	90

Home Delivery.....	93
Policies Affecting Alcohol Pricing.....	97
Alcohol Taxes.....	97
Low-Price, High-Volume Drink Specials.....	105
Wholesaler Pricing Restrictions.....	108
Enforcement.....	114
Compliance Check Protocols.....	114
Penalty Guidelines for Sales/Service to Underage Youth.....	119
Intervention.....	122
Treatment.....	122
CHAPTER 3: 2020 STATE SURVEY RESULTS—STATE UNDERAGE DRINKING PREVENTION POLICIES, PROGRAMS, AND PRACTICES.....	125
Introduction.....	125
Programs Targeted to Youth, Parents, and Caregivers.....	125
Collaborations, Planning, and Reports.....	126
State Expenditures on the Prevention of Underage Drinking.....	126
Enforcement Programs.....	127
Comment.....	127
Survey Instrument.....	127
Methods.....	128
Best Practices, Performance Measures, and the <i>Survey</i>	129
Prevention and Treatment Programs.....	129
Enforcement.....	130
Best Practices, Performance Measures, and Institutional Infrastructure.....	131
Results.....	132
Programs Targeted to Youth, Parents, and Caregivers.....	132
Collaborations, Planning, and Reports.....	138
Media Campaigns.....	141
State Expenditures on the Prevention of Underage Drinking.....	142
Enforcement Programs.....	144
Concluding Observations.....	157
CHAPTER 4: STATE PERFORMANCE MEASURES.....	159
Introduction.....	159
Measure 1.....	161
Measure 2.....	162

Measure 3.....	163
Measure 4.....	164
Measure 5.....	166
Measure 6.....	167
Measure 7.....	168
Measure 8.....	169
Measure 9.....	170
REFERENCES.....	172

Chapter 1

Introduction

CHAPTER 1: INTRODUCTION

The harmful consequences of underage drinking are widespread and affect individuals under age 21 as well as their families and their communities. The role of the states in preventing underage drinking is critical, particularly as regulators of the alcohol market. State legislatures adopt laws that regulate, directly or indirectly, underage alcohol use and availability in many ways, including the use of false identification, drivers' licenses for young people, and adult responsibility for underage access. Enforcement of underage drinking laws and regulations takes place at the state and local level. State substance misuse agencies develop and support prevention, intervention, treatment, and recovery programs and activities in communities and schools. In many states and cities, public health agencies are involved in monitoring alcohol and drug use and are helping design and evaluate effective community-based prevention strategies as well.

Congress recognized the essential function that states play in the national efforts to reduce underage drinking when it enacted the Sober Truth on Preventing Underage Drinking (STOP) Act (Pub. Law 109-422; reauthorized in 2016 as part of the 21st Century Cures Act [Pub. Law 114-255]). The Act's preamble includes this statement of the sense of Congress:

Alcohol is a unique product and should be regulated differently than other products by the States and Federal Government. States have primary authority to regulate alcohol distribution and sale, and the Federal Government should support and supplement these State efforts. States also have a responsibility to fight youth access to alcohol and reduce underage drinking. Continued State regulation and licensing of the manufacture, importation, sale, distribution, transportation, and storage of alcoholic beverages are ... critical to ... preventing illegal access to alcohol by persons under 21 years of age.

The STOP Act states that a “multi-faceted effort” and a “coordinated approach” to addressing underage drinking are needed. The key activities included in this approach are prevention, intervention, treatment, recovery, enforcement, and research and are reliant on multiple entities for execution (Exhibit 1.1).

This document—*State Performance & Best Practices for the Prevention and Reduction of Underage Drinking Report (SPBP Report)*—is intended to provide guidance to decision-makers about how to identify and select the intervention(s) that will best serve their state or community, as required by the STOP Act.¹ The STOP Act also requires that the Interagency Coordinating Committee on the Prevention of Underage Drinking include in the report measures of states' use of best practices in preventing underage drinking.

In determining “best practices” to be included in the *SPBP Report*, the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD) has sought to identify evidence-based policies, programs, and practices that are effective in preventing or reducing underage alcohol use. In so doing, ICCPUD has relied upon the expertise of its members and upon reports and recommendations by the Surgeon General, National Institute on Alcohol Abuse and Alcoholism, and the Community Preventive Services Task Force, among others. For additional guidance on the identification of “evidence-based” policies, programs, and practices, ICCPUD is convening an Advisory Committee of experts under the Federal Advisory Committee Act. It is

¹ The material in this report is not intended as legal advice and is not a substitute for the services of a practicing attorney. Those in need of information about the application of law to their circumstances are encouraged to consult a qualified attorney.

possible that the understanding of which interventions are “evidence-based” will change in light of the Advisory Committee’s review and analysis. References to “evidence-based” practices in this report should be read with this possibility in mind.

Exhibit 1.1: STOP Act Multi-Faceted Approach to the Prevention and Reduction of Underage Drinking



Chapter 2 of the document describes evidence-based policies, programs, and practices with varying levels of effectiveness for underage drinking prevention; enforcement of laws regulating access to alcohol; intervention (e.g., screening for alcohol use); and treatment. Chapter 3 presents a summary and analysis of the 2020 STOP Act *Survey of State Underage Drinking Prevention Policies, Programs, and Practices*, including states’ responses to questions about their enforcement and prevention activities, collaboration and best practices, participation in media campaigns, and expenditures on underage drinking prevention. Finally, Chapter 4 provides charts showing state performance as measured by federal data for nine key areas: (1) underage past-month alcohol use, (2) past-month binge alcohol use, (3) perception of risk of excessive alcohol use, (4) prevalence of alcohol use disorder, (5) receipt of treatment for alcohol use disorder, (6) traffic crash fatalities involving underage drivers with a blood alcohol concentration (BAC) greater than zero, (7) participation in alcohol, tobacco or drug prevention program outside of school, (8) seeing drug or alcohol prevention messages in school, and (9) average age of initiation of alcohol use.

The STOP Act

The STOP Act directs the Secretary of the Department of Health and Human Services (HHS), working with ICCPUD, to develop a set of performance measures for evaluating the states' use of best practices in preventing underage drinking (Section 2[c][2]). The Act requires the following categories to be considered in developing such measures:

“(I) Whether or not the State has comprehensive anti-underage drinking laws such as for the illegal sale, purchase, attempt to purchase, consumption, or possession of alcohol; illegal use of fraudulent ID; illegal furnishing or obtaining of alcohol for an individual under 21 years; the degree of strictness of the penalties for such offenses; and the prevalence of the enforcement of each of these infractions.

“(II) Whether or not the State has comprehensive liability statutes pertaining to underage access to alcohol such as dram shop, social host, and house party laws, and the prevalence of enforcement of each of these laws.

“(III) Whether or not the State encourages and conducts comprehensive enforcement efforts to prevent underage access to alcohol at retail outlets, such as random compliance checks and shoulder tap programs, and the number of compliance checks within alcohol retail outlets measured against the number of total alcohol retail outlets in each State, and the result of such checks.

“(IV) Whether or not the State encourages training on the proper selling and serving of alcohol for all sellers and servers of alcohol as a condition of employment.

“(V) Whether or not the State has policies and regulations with regard to direct sales to consumers and home delivery of alcoholic beverages.

“(VI) Whether or not the State has programs or laws to deter adults from purchasing alcohol for minors; and the number of adults targeted by these programs.

“(VII) Whether or not the State has programs targeted to youths, parents, and caregivers to deter underage drinking; and the number of individuals served by these programs.

“(VIII) Whether or not the State has enacted graduated drivers licenses and the extent of those provisions.

“(IX) The amount that the State invests, per youth capita, on the prevention of underage drinking, further broken down by the amount spent on--

“(aa) compliance check programs in retail outlets, including providing technology to prevent and detect the use of false identification by minors to make alcohol purchases;

“(bb) checkpoints and saturation patrols that include the goal of reducing and deterring underage drinking;

“(cc) community-based, school-based, and higher-education-based programs to prevent underage drinking;

“(dd) underage drinking prevention programs that target youth within the juvenile justice and child welfare systems; and

“(ee) other State efforts or programs as deemed appropriate.”

To meet this requirement, the *SPBP Report* describes policies that are deemed known or potential best practices and provides a summary of the current status of adoption of these policies across the states. Further, it summarizes state and District of Columbia (hereinafter collectively

referred to as “the states”) responses to an annual survey about underage drinking enforcement practices, prevention programs, and expenditures.

The STOP Act also requires an annual report on each state’s performance in enacting, enforcing, and creating laws, regulations, and programs to prevent or reduce underage drinking.² To meet this requirement, a report has been created for each of the states; the *2021 State Reports – Underage Drinking Prevention and Enforcement (2021 State Reports)* are available at stopalcoholabuse.gov.

The *SPBP Report* is intended to place the 51 individual *State Reports* in a national context.

Prevention and the Continuum of Care

The provisions of the STOP Act are consistent with a public health approach to addressing substance use disorders, which can be viewed as a biopsychosocial condition, influenced by the various social determinants of health. A public health approach mainly focuses on primary prevention, but also addresses the full impact of substance use within communities. People with substance use disorders can be identified and treated early on, with support provided throughout treatment and recovery. The involvement of families, caregivers, the community, and other stakeholders is expected and supported. Prevention, early intervention, treatment, continuing care, and recovery are expected to occur in partnership with other disciplines, such as mental health services and the primary care system. Data are used to evaluate and monitor problems, measure program progress and successes, and engage in ongoing improvement. This approach, exemplified in models such as the Recovery Oriented Systems of Care (ROSC; SAMHSA, 2010) fits within a broader continuum of care model. Formulated by the Institute of Medicine (IOM),³ the continuum of care model is an integrated system of care that is intended to guide and track patients over time through a comprehensive array of health services covering varying levels of intensity (Evashwick, 1989). When applied to substance use, this model encompasses the following elements (IOM, 1994; National Research Council [NRC] & IOM, 2009; Substance Abuse and Mental Health Services Administration [SAMHSA], 2018):

- **Promotional** strategies to (1) create conditions supportive of behavioral health and (2) reinforce the entire continuum of services for behavioral health (which includes mental health and substance abuse conditions, life stressors and crises, stress-related physical symptoms, and health behaviors; <https://integrationacademy.ahrq.gov/about/integrated-behavioral-health>);
- **Prevention** interventions to prevent or reduce the risk of developing a behavioral health problem;
- **Treatment** services for those diagnosed with a substance use disorder or another disorder; and
- **Recovery** services to support individuals in recovery to live productive lives and to continue abstaining from substance use.

² The STOP Act also requires the Secretary of HHS and ICCPUD to produce an annual *Report to Congress on the Prevention and Reduction of Underage Drinking (RTC)*, which provides national data on underage drinking and describes federal prevention activities. The *2019 RTC* is available at stopalcoholabuse.gov.

³ Now the National Academy of Medicine within the National Academies of Sciences, Engineering, and Medicine.

Implicit in the description of a continuum is the understanding that some elements may overlap. (For example, promotion and prevention strategies may share similar approaches [SAMHSA, 2018; NRC & IOM, 2009; National Academies of Sciences, 2019].) Together, these elements are part of a comprehensive approach to underage alcohol consumption. Further, prevention of underage drinking should be understood as influencing the risk of excessive alcohol use (e.g., binge drinking) and the development of substance use disorders throughout the lifespan. Early initiation of alcohol use is associated with the development of an alcohol use disorder later in life; the use of effective prevention strategies for underage drinking can therefore have a long-term effect on the entire continuum of care. Reductions in the care cycle timeline help reduce the economic cost of excessive alcohol use and related harms in the United States, which was estimated to be \$249 billion (\$2.05 per drink) in 2010 (Hingson & Zha, 2009; Edwards et al., 2015; Flewelling et al., 2013; Sacks et al., 2015; Holder, 2002).⁴

The drinking behavior of adults can also have a substantial effect on the drinking behavior of youth (Nelson et al., 2009; 2005). Drinking by adults is strongly correlated with the drinking behavior of underage youth (e.g., high school students) living in the same state, and the drinking behavior of both youth and adults is strongly influenced by state alcohol control policies (Nelson et al., 2009; Xuan et al., 2015). At an individual level, a recent analysis of a longitudinal study noted that parental attitudes and monitoring of drinking behavior influenced emerging adults' risky drinking behavior (e.g., driving while intoxicated, riding with an intoxicated driver, blackouts from binge drinking). The authors noted that prevention programs focusing on binge drinking and bolstering these parental practices may reduce the likelihood of subsequent alcohol-related health-risk behaviors and their consequences (Vaca et al., 2020). These findings underscore both the influence of parental modeling and parental oversight as well as the need to implement evidence-based alcohol policies that have been found to effectively reduce excessive drinking, which is defined as binge and heavy drinking by adults and any alcohol use by underage people.

Many of the most effective interventions for reducing drinking by those under 21 are universal interventions that also reduce drinking among adults (e.g., increasing alcohol taxes, regulating alcohol outlet density). Therefore, a comprehensive approach to preventing underage drinking that also emphasizes the prevention of excessive drinking by adults is likely to have the greatest impact on reducing underage drinking and related harms (SAMHSA, 2019; *The Guide to Community Preventive Services [The Community Guide]*; www.thecommunityguide.org/alcohol).⁵

⁴ It is estimated that reducing alcohol use among youth ages 12–17 alone could result in an overall savings of \$52.9 billion. This estimate was derived from the product of: (1) the number of high-school-aged youth ages 12–17 years old in 2016 (25.01 million) and (2) the per-participant benefit (from implementing effective nationwide prevention programming for school-aged children and youth) minus cost associated with alcohol use. The estimate was reduced by 25 percent to account for reduced intervention effectiveness as the implementation moves from demonstration to full implementation (Greenwood et al., 1996; Miller and Levy, 2000; Aos et al., 1999). Assumptions: Only savings from existing school-based programs are included in these estimates. Cost savings accrue over a multi-year period. Future costs were converted to present value using a three percent discount rate. Costs due to youth substance misuse decline at the same rate as the number of initiators.

⁵ Excessive alcohol use is defined by the CDC as including binge drinking, heavy drinking, any consumption of alcohol by pregnant women, or consumption by individuals under 21 (<https://www.cdc.gov/chronicdisease/resources/publications/factsheets/alcohol.htm>).

Identifying and Implementing Statewide Policies

Research indicates that effective prevention initiatives must be both multi-level (coordinating efforts among governments and agencies) and multi-faceted (employing both environmental and individual-level approaches; Edwards, 2015; Flewelling et al., 2013; Holder, 2002). Prevention strategies must also be targeted strategically. The IOM describes three categories of prevention interventions: (1) universal (aimed at all members of a given population), (2) selective (aimed at a sub-group determined to be at high risk for substance use), and (3) indicated (targeted to individuals who are already using substances but have not developed a substance use disorder; NRC & IOM, 2009). As noted in the 2016 Surgeon General's Report, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*, "...research has not yet been able to suggest an optimal mix" (HHS, 2016).

As the Surgeon General's Report states (HHS, 2016), the choices as to where to target a strategy are not always clear cut:

Communities may think it is best to direct services only to those with the highest risk and lowest protection or to those already misusing substances. However, a relatively high percentage of substance misuse-related problems come from people at lower risk, because they are a much larger group within the total population than are people at high-risk. This follows what is known as the Prevention Paradox: "a large number of people at a small risk may give rise to more cases of disease than the small number who are at a high risk." By this logic, providing prevention interventions to everyone (i.e., universal interventions) rather than only to those at highest risk is likely to have greater benefits.

Given these complexities, communities and governments wishing to address underage drinking are faced with multiple choices that must be appropriate to the specifics of their community and workable within the limits of their resources. Considerations must include whether specific interventions are culturally appropriate, especially when targeted toward diverse populations, or whether adaptations are necessary. Further, adaptations of an evidence-based intervention must be measured against preservation of the fidelity of the intervention; a strategy is only as effective as its implementation allows (HHS, 2016). Therefore, researchers stress that evaluation of the implementation process is a key component to putting any evidence-based strategies and programs into practice and that both ensuring fidelity and adaptation (when appropriate) are critical to the ultimate effectiveness of the program (Fixsen et al., 2005; HHS, 2016).

Implementation has been defined as a specified set of activities designed to put into practice an activity, policy, or program (Fixsen et al., 2005). It requires "deliberate and strategic efforts to facilitate collaboration, communication, and relationship-building among researchers, implementers, and policymakers" (Sturke et al., 2014). Similarly, sustainable implementation is supported by "a bi-directional model, where researchers work with, and learn from, people on the ground rather than coming to dictate what will be done" (Fogarty International Center, 2013).

Researchers have suggested guidelines for promoting state and national policies to implement transformative practices and programs that are particularly relevant to the best practices discussed in Chapter 2 of this document:

1. Policymakers and planners need to understand how to implement policies and guidelines that impact human services.

2. Governments need to invest in the development and use of implementation strategies and methods that are grounded in research and elaborated through accumulated experience.
3. Successful funding strategies are critical to implementation of well-defined practices and programs (Fixsen et al., 2005).

A significant component of successful policy implementation is the capacity to enforce the policies once they are in effect. Enforcement is the sum total of actions taken by public entities to increase compliance. Laws may or may not specify sanctions or enforcement practices. Further, a law's success in changing behaviors may depend on the extent to which the policy is enforced.

Framework of State Performance & Best Practices

It should be noted that many of the best practices described in the following chapters are environmental. That is, they seek to alter physical, economic, and social environments, which may be focused on entire populations or a sub-population. The main mechanisms for environmental change include state laws and local ordinances and their enforcement, institutional policies, and changing norms. In contrast, individual-level approaches include programs designed to impart knowledge, change attitudes and beliefs, or teach skills to youth and adults. Individual-level best practices for prevention, treatment, and recovery are discussed in the 2016 Surgeon General's Report, as well as environmental-level best practices (HHS, 2016). The *State Reports* also describe many of the individual-level programs being used in each state.

Chapter 2

Policies, Programs, and Practices for Underage Drinking Prevention

CHAPTER 2: POLICIES, PROGRAMS, AND PRACTICES FOR UNDERAGE DRINKING PREVENTION

Introduction

This chapter addresses policies and practices (including programs and interventions) related to underage drinking prevention that have evidence or potential evidence supporting their efficacy.

The general concept of an evidence-based policy, program, or practice is clear: Some form of scientific evidence must support the proposed practice, the practice itself must be practical and appropriate given the circumstances under which it will be implemented and the population to which it will be applied, and the practice must have a significant effect on the outcome(s) to be measured. A best practice, on the other hand, can be defined as “an intervention that has shown evidence of effectiveness in a particular setting and is likely to be replicable to other situations” (Ng & de Colombani, 2015). Such interventions are validated as evidence-based practices (EBPs) through documented scientific testing for efficacy. The gold standard of scientific evidence is the randomized controlled trial, but it is not always possible to conduct such trials, particularly in the policy arena. Many strong, widely used, quasi-experimental designs have produced and will continue to produce credible, valid, and reliable evidence—these should be relied on when randomized controlled trials are not possible.

It is also important to recognize that the science and evidence base for best practices continue to expand and change. One of the key principles of evidence-based policy making evaluation is the ongoing gathering of data on what works, under what circumstances, and at what cost. Accordingly, the recommended policies, programs, and practices for addressing underage drinking will also evolve over time. The Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), through the convening of an Advisory Committee, continues to identify evidence-based policies, programs, and practices in prevention, intervention, treatment, and enforcement.

This chapter describes ICCPUD’s current recommendations of evidence-based and promising (1) underage drinking **prevention** policies; (2) **enforcement** policies; (3) **intervention** best practices; and (4) principles for **treatment** best practices. In many cases, these recommendations draw from resources created by ICCPUD member agencies, including the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse (NIDA), and the Substance Abuse and Mental Health Services Administration (SAMHSA).

Changes to Alcohol Availability During COVID-19

Any 2021 analysis of policies for preventing underage drinking, and in particular for preventing access to alcohol, must take into account recent changes in many state laws loosening restrictions on the ways in which alcohol is sold. In many states, alcohol can now be carried out of restaurants and bars, delivered curbside to consumers in cars, or delivered to homes. Expansion

in alcohol availability for adults typically results in expanded access for youth, according to research (Xuan et al., 2015). These policy changes may, therefore, affect underage use.

Although statutes, regulations, and emergency orders have shifted and continue to shift quickly, NIAAA has conducted research and reported on some key policy changes in the states. Some of this information regarding the accessibility of alcohol to-go or delivery from restaurants and bars is summarized in Exhibit 2.1 below. It should be noted that several of the laws contain exceptions or additional nuances (such as a requirement that food be purchased together with alcohol-to-go or state licensure for third-party delivery vendors) that are not captured in this chart. More detailed information is available at

<https://alcoholpolicy.niaaa.nih.gov/resource/covid-19/98>. States that already allowed to-go/curbside alcohol sales and delivery before the COVID-19 pandemic (Idaho, Illinois, Indiana, Louisiana, Maryland, Nebraska, and New Jersey) are not included in the chart below.

Exhibit 2.1: States that Loosened Restrictions on Alcohol Sales by Bars and Restaurants (On-Premises Locations) During COVID-19 Pandemic (March 2020 through April 15, 2021)

State	Bars and restaurants newly allowed to offer take-out or curbside pick-up of alcohol?	Are loosened restrictions still in place? (as of April 15, 2021)	Bars and restaurants newly allowed to deliver to consumers' homes?	Are loosened restrictions still in place? (as of April 15, 2021)
Alabama	Yes	No	No	N/A
Alaska	Yes	No	Yes	No
Arizona	Yes (for restaurants; bars already allowed pre-COVID)	No	Yes (for restaurants; bars already allowed pre-COVID)	No
Arkansas	Yes (expanded to wine; beer already allowed pre-COVID)	Yes	Yes (expanded to wine; beer already allowed pre-COVID)	Yes
California	Yes (expanded to spirits; beer and wine already allowed pre-COVID)	Yes	Yes (expanded to spirits; beer and wine already allowed pre-COVID)	Yes
Colorado	Yes	Yes	Yes	Yes
Connecticut	Yes (expanded to spirits; beer and wine already)	Yes	Yes (expanded to spirits; beer and wine already)	Yes

State	Bars and restaurants newly allowed to offer take-out or curbside pick-up of alcohol?	Are loosened restrictions still in place? (as of April 15, 2021)	Bars and restaurants newly allowed to deliver to consumers' homes?	Are loosened restrictions still in place? (as of April 15, 2021)
	allowed pre-COVID)		allowed pre-COVID)	
Delaware	Yes	Yes	No	N/A
District of Columbia	Yes	Yes	Yes	Yes
Florida	Yes	Yes	Yes	Yes
Georgia	Yes (expanded to to-go beer and wine; sealed beer and wine already allowed pre-COVID)	Yes	Yes	Yes
Hawaii	Yes (expanded to sealed wine and cocktails; sealed beer and cider already allowed pre-COVID)	Yes	Yes (expanded to sealed wine and cocktails; sealed beer and cider already allowed pre-COVID)	Yes
Iowa	Yes (expanded to wine and cocktails; beer already allowed pre-COVID)	Yes	Yes (expanded to wine and cocktails; beer already allowed pre-COVID)	Yes
Kansas	Yes	Yes	No	N/A
Kentucky	Yes	Yes	Yes	Yes
Maine	Yes	Yes	Yes	Yes
Michigan	Yes	Yes	Yes	Yes
Minnesota	Yes	Yes	No	N/A
Mississippi	Yes	Yes	No	N/A

State	Bars and restaurants newly allowed to offer take-out or curbside pick-up of alcohol?	Are loosened restrictions still in place? (as of April 15, 2021)	Bars and restaurants newly allowed to deliver to consumers' homes?	Are loosened restrictions still in place? (as of April 15, 2021)
Missouri	Yes (expanded to wine and cocktails; beer already allowed pre-COVID)	Yes	Permitted pre-COVID	Yes
Montana	Yes (expanded to cocktails; beer and wine already allowed pre-COVID)	Yes	Yes	Yes
New Hampshire	Yes (beer and wine only)	Yes	Yes (expanded to beer; wine already allowed pre-COVID)	Yes
New Mexico	No	N/A	No	N/A
New York	Yes (expanded to wine and cocktails; beer already allowed pre-COVID)	Yes	Yes	Yes
North Carolina	Yes (expanded to cocktails; beer and wine already allowed pre-COVID)	Yes	Yes (expanded to cocktails; beer and wine already allowed pre-COVID)	Yes
Ohio	Allowed pre-COVID	Yes	Yes	Yes
Oklahoma	Allowed for beer and wine pre-COVID	Yes	Yes	Yes
Pennsylvania	Yes (expanded to cocktails; beer and wine already	Yes	Allowed for beer and wine pre-COVID	Yes

State	Bars and restaurants newly allowed to offer take-out or curbside pick-up of alcohol?	Are loosened restrictions still in place? (as of April 15, 2021)	Bars and restaurants newly allowed to deliver to consumers' homes?	Are loosened restrictions still in place? (as of April 15, 2021)
	allowed pre-COVID)			
Rhode Island	Yes	Yes	No	N/A
Tennessee	Yes	Yes	Allowed pre-COVID at the state level	Yes
Texas	Yes	Yes	Allowed pre-COVID	Yes
Utah	No	N/A	No	N/A
Vermont	Yes	Yes	Yes	Yes
Virginia	Yes	Yes	Yes	Yes
Washington	Yes	Yes	Yes (expanded to cocktails; beer and wine already allowed pre-COVID)	Yes
West Virginia	Yes	Yes	Yes	Yes
Wyoming	Yes	No	No	N/A

Prevention Policies

This section provides detail on underage drinking prevention policies that have been identified as evidence-based, or as promising practices appropriate for ongoing evaluation. These policies, for which there is mixed, promising, or strong evidence of effectiveness, fall into five categories, including those addressing (1) underage possession or purchase of alcohol, (2) underage drinking and driving, (3) alcohol availability, (4) sales and delivery to consumers at home, and (5) alcohol pricing. Two more policies are discussed under “Enforcement Policies” below. Seventeen of these policies were included in the original Sober Truth on Preventing Underage Drinking (STOP) Act legislation or in Congressional report language during the 2009–10 appropriations process. The remaining nine policies were added by ICCPUD following input from various stakeholders and review of the relevant literature.

Each of the underage drinking prevention policies analyzed below was determined to be a best or potential best practice by ICCPUD. Additionally, the majority of these policies were identified as best practices by one or more of the following five sources:

1. Community Preventive Services Task Force (*Guide to Community Preventive Services. Preventing Excessive Alcohol Consumption*; Community Preventive Services Task Force, 2016).
2. The Surgeon General (*The Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking*; Department of Health and Human Services [HHS], 2007).
3. Institute of Medicine (*Reducing Underage Drinking: A Collective Responsibility*; National Research Council [NRC] and IOM, 2004).
4. National Institute on Alcohol Abuse and Alcoholism ([NIAAA] *CollegeAIM: Alcohol Intervention Matrix*, NIAAA).
5. The Surgeon General (*Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health*; HHS, 2016).

The prevention policies are listed in Exhibit 2.2. An “X” indicates that a given policy is identified as a best practice by ICCPUD or by one of the five sources listed above.

Each policy summary describes the policy’s key components, the status of the policy across states, and trends over time. Research citations on each policy’s effectiveness for reducing underage drinking are included after each policy description.

Exhibit 2.2: Underage Drinking Prevention Policies—Best Practices

Source Identifying Policy as a Potential Best Practice						
Underage Drinking Prevention Policies	ICCPUD Determination Based on Input From Stakeholders and Literature Review	Community Preventive Services Task Force ⁶	Surgeon General’s Call to Action	IOM Report, <i>Reducing Underage Drinking: A Collective Responsibility</i>	CollegeAIM (Alcohol Intervention Matrix; NIAAA)	<i>Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs and Health</i>
Policies addressing underage possession or purchase of alcohol						
Possession by underage person	X		X	X	X	
Consumption by underage person	X		X	X	X	
Internal possession by underage person	X					
Purchase or attempt to purchase alcohol by underage person	X		X	X	X	

⁶ The CPSTF provides evidence and findings about community preventive services, programs, and other interventions aimed at improving population health. It has reviewed only a select number of strategies on the prevention of excessive alcohol use.

Source Identifying Policy as a Potential Best Practice						
Underage Drinking Prevention Policies	ICCPUD Determination Based on Input From Stakeholders and Literature Review	Community Preventive Services Task Force ⁶	Surgeon General's Call to Action	IOM Report, Reducing Underage Drinking: A Collective Responsibility	CollegeAIM (Alcohol Intervention Matrix; NIAAA)	Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs and Health
False identification (ID)/Incentives for retailers to use ID scanners or other technology			X	X	X	
Policies targeting underage drinking and driving						
Youth blood alcohol concentration (BAC) limits (zero tolerance)	X		X	X		X
Loss of driving privileges for alcohol violations by people under age 21 (use/lose law)	X					X
Graduated driver's licenses	X		X	X		
Policies targeting alcohol availability						
Furnishing or sale to a person under age 21	X		X	X	X	
Mandatory/voluntary server-seller training (responsible beverage service programs)	X		X	X	X	
Minimum age for off-sale server	X					
Minimum age for on-sale server	X					
Outlet siting near schools ⁷	X					
Dram shop liability	X	X		X	X	X
Social host liability	X			X	X	X
Hosting underage drinking parties	X		X	X	X	X

⁷ Outlet Siting Near Schools was addressed at a more general level by three of the sources: The Community Preventive Services Task Force, the NIAAA *CollegeAIM*, and the 2016 Surgeon General's Report. These sources included restrictions on alcohol outlet density as a best practice without specifically endorsing the reduction of alcohol outlet density near schools.

Source Identifying Policy as a Potential Best Practice						
Underage Drinking Prevention Policies	ICCPUD Determination Based on Input From Stakeholders and Literature Review	Community Preventive Services Task Force ⁶	Surgeon General's Call to Action	IOM Report, <i>Reducing Underage Drinking: A Collective Responsibility</i>	CollegeAIM (Alcohol Intervention Matrix; NIAAA)	<i>Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs and Health</i>
Keg registration	X		X	X	X	
High-proof grain alcoholic beverages	X					
Policies addressing sales and delivery to consumers at home						
Retailer interstate shipment	X					
Direct sales/shipment from producer	X					
Home delivery	X			X		
Policies affecting alcohol pricing						
Increasing alcohol tax rates	X	X		X	X	X
Restrictions on drink specials	X		X	X	X	
Wholesaler pricing provisions	X					

Policies Addressing Underage Possession or Purchase of Alcohol

Underage Possession, Consumption, and Internal Possession

Policy Description

As of January 1, 2020, all states prohibit possession of alcoholic beverages (with certain exceptions) by those under age 21.⁸ In addition, 36 states have statutes that specifically prohibit the consumption of alcoholic beverages by those under age 21.

Nine states have enacted laws prohibiting “internal possession” of alcohol by persons under 21. These provisions typically require evidence of alcohol in the underage drinker’s body but do not require any specific evidence of possession or consumption. Internal possession laws are especially useful to law enforcement in making arrests or issuing citations when breaking up underage drinking parties. Internal possession laws allow officers to bring charges against underage individuals who are neither holding nor drinking alcoholic beverages in the presence of law enforcement officers.

⁸ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

Exceptions

Some states allow exceptions to possession, consumption, or internal possession prohibitions when a family member consents or is present. States vary widely in terms of which relatives may consent or must be present for this exception to apply and in what circumstances the exception applies. Sometimes a reference is made simply to “family” or “family member” without further elaboration.

Some states allow exceptions to possession, consumption, or internal possession prohibitions on private property. States vary in the extent of the private property exception, which may extend to all private locations, private residences only, or in the home of a parent or guardian only.

In some states, a location exception is conditional on the presence or consent of a parent, legal guardian, or spouse (Exhibit 2.3, “Exception for Both Together”). In other states, both family and location exceptions exist and apply separately (Exhibit 2.3, “Both Types of Exceptions”).

With respect specifically to consumption laws, some states prohibit underage consumption on licensed premises only.

Status of Underage Possession Policies

As of January 1, 2020, all states prohibit possession of alcoholic beverages by those under age 21. Nineteen states do not have a family or location exception, 11 have family exceptions only, and 5 have location exceptions only. The remaining states have both types of exceptions, which in some states are conditional on each other and in some states apply separately (Exhibit 2.3).

Trends in Underage Possession Policies

Between 1998–2020, the number of states with family exceptions rose from 23 to 27, the number with location exceptions rose from 20 to 21, and the number of states with neither exception decreased from 21 to 19.

Status of Underage Consumption Policies

As of January 1, 2020, 36 states prohibit consumption of alcoholic beverages by those under age 21. Of those, 15 permit no exception (Exhibit 2.4). Seven states permit only family exceptions; three states permit only location exceptions. Twelve states had both types of exceptions, with 10 of those states permitting underage consumption only if both family and location criteria are met.

Trends in Underage Consumption Policies

Between 1998–2020, the number of states that prohibit underage consumption under at least some circumstances increased from 27 to 36.

Exhibit 2.3: Exceptions to Minimum Age of 21 for Possession of Alcohol as of January 1, 2020

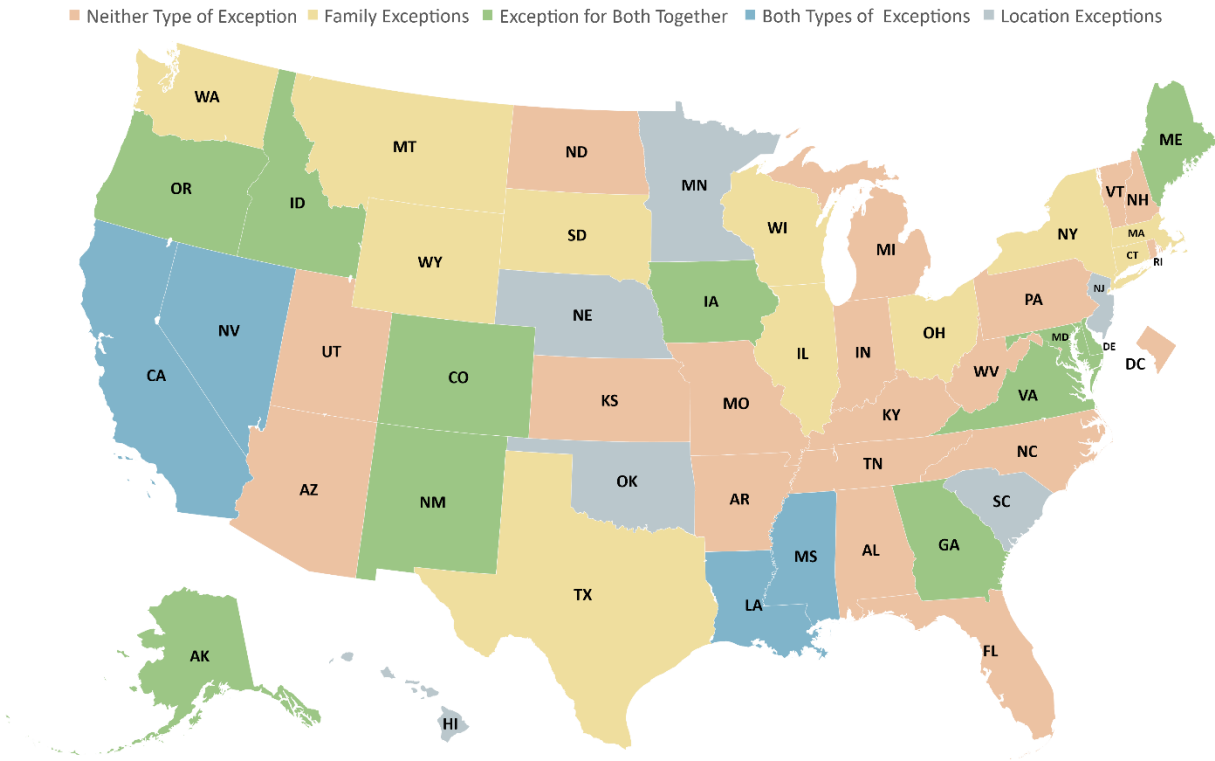
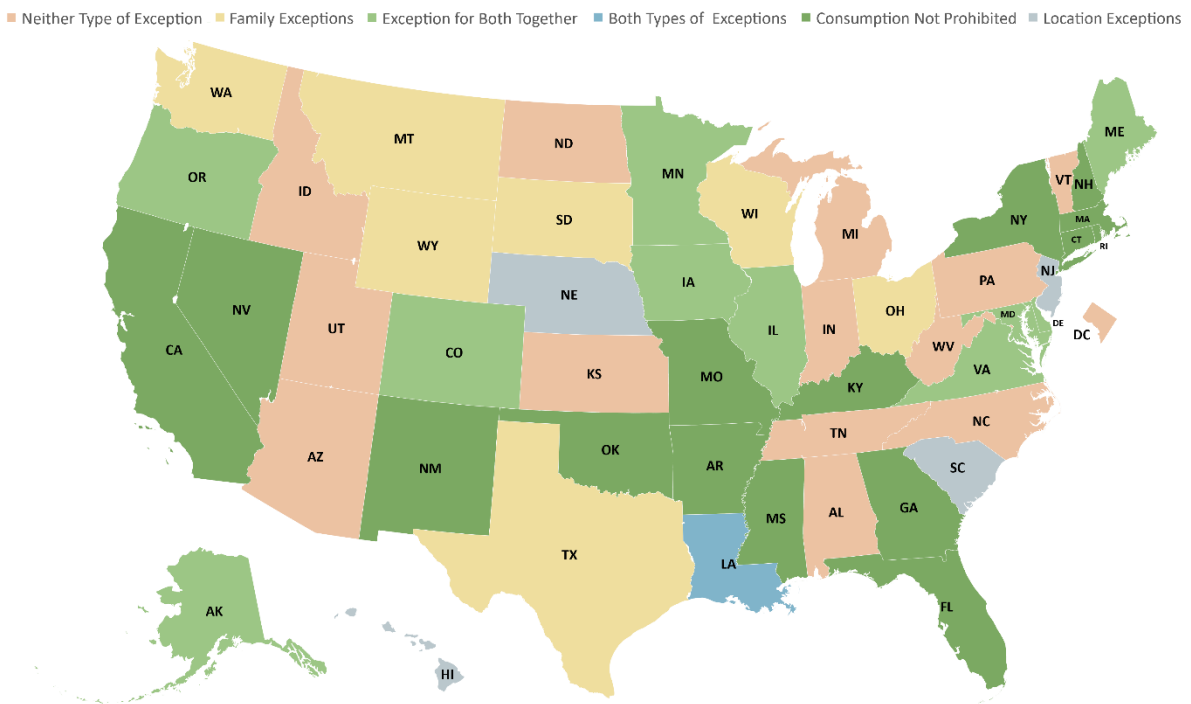


Exhibit 2.4: Exceptions to Minimum Age of 21 for Consumption of Alcohol as of January 1, 2020



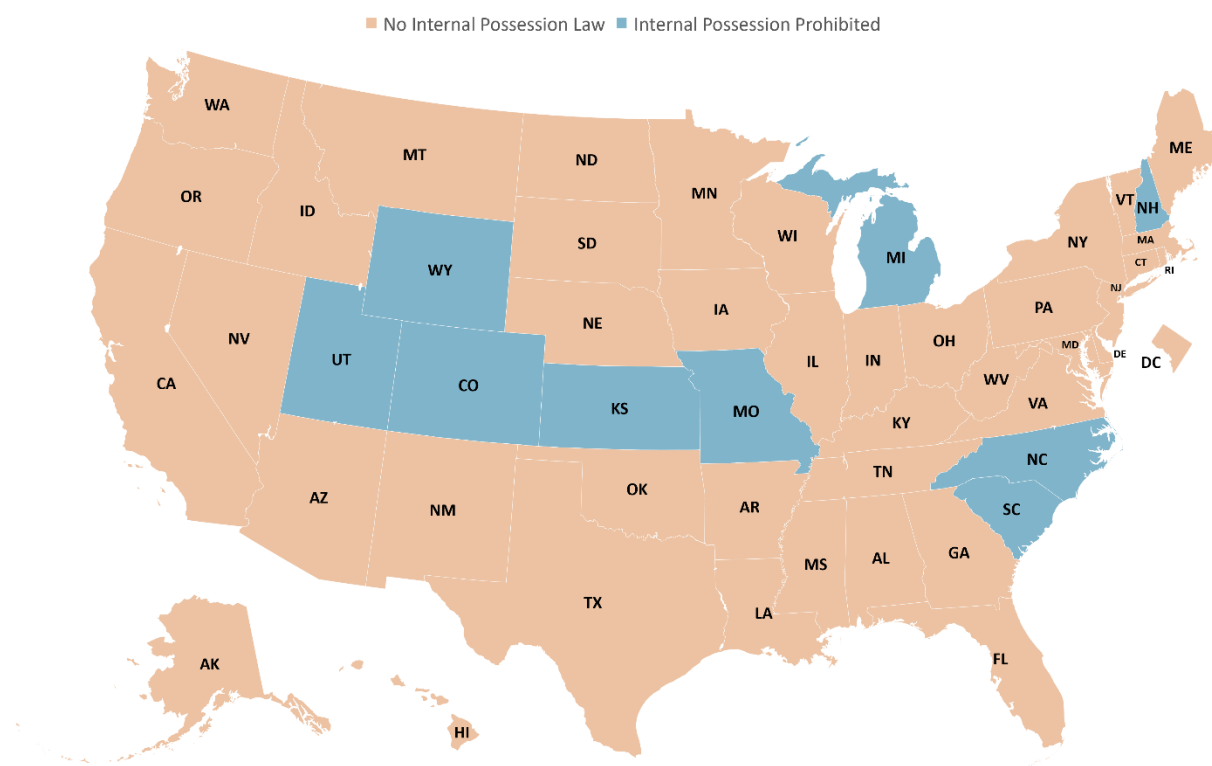
Status of Underage Internal Possession Policies

As of January 1, 2020, nine states prohibit internal possession of alcoholic beverages for anyone under age 21 (Exhibit 2.5). Of the nine states that prohibit internal possession, three make exceptions for presence of family and/or location.

Trends in Underage Internal Possession Policies

Between 1998–2020, the number of states that prohibit underage internal possession grew from two to nine. The most recent state to enact a prohibition on internal possession was Wyoming in 2010.

Exhibit 2.5: Prohibition of Internal Possession of Alcohol by Persons Under Age 21 as of January 1, 2020



Data Sources and Citations

All data for the underage possession, consumption, and internal possession policy topics were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/possessionconsumptioninternal-possession-of-alcohol/42>. APIS provides further descriptions of this set of policies and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in US states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, 81(1), 58–67.

- Carpenter, C., & Dobkin, C. (2011). The minimum legal drinking age and public health. *Journal of Economic Perspectives*, 25(2), 133–156. <https://doi.org/10.1257/jep.25.2.133>
- Carpenter, R. W., & Merrill, J. E. (2021). How much and how fast: Alcohol consumption patterns, drinking-episode affect, and next-day consequences in the daily life of underage heavy drinkers. *Drug and Alcohol Dependence*, 218, 108407.
- Curry, S. J., Krist, A. H., Owens, D. K., Barry, M. J., Caughey, A. B., Davidson, K. W., Doubeni, C. A., Epling, J. W., Kemper, A. R., Kubik, M., Landefeld, C. S., Mangione, C. M., Silverstein, M., Simon, M. A., Tseng, C.-W., & Wong, J. B. (2018). Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults: US preventive services task force recommendation statement. *Journal of the American Medical Association*, 320(18), 1899–1909. <https://doi.org/10.1001/jama.2018.16789>
- Dee, T. (1999). State alcohol policies, teen drinking and traffic fatalities. *Journal of Public Economics*, 72, 289–315. [https://doi.org/10.1016/S0047-2727\(98\)00093-0](https://doi.org/10.1016/S0047-2727(98)00093-0)
- Dee, T., & Evans, W. N. (2001). Behavioral policies and teen traffic safety. *American Economic Review*, 91(2), 91–96. <https://cepa.stanford.edu/content/behavioral-policies-and-teen-traffic-safety>
- Dejong, W., & Blanchette, J. (2014). Case closed: Research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs*, 75(Suppl 17), 108–115. <https://doi.org/10.15288/jsads.2014.75.108>
- Disney, L. D., LaVallee, R. A., & Yi, H. Y. (2013). The effect of internal possession laws on underage drinking among high school students: A 12-state analysis. *American Journal of Public Health*, 103(6), 1090–1095. <https://doi.org/10.2105/AJPH.2012.301074>
- Fairman, B. J., Goldstein, R. B., Simons-Morton, B. G., Haynie, D. L., Liu, D., Hingson, R. W., & Gilman, S. E. (2019). Neighbourhood context and binge drinking from adolescence into early adulthood in a US national cohort. *International Journal of Epidemiology*. <https://doi.org/10.1093/ije/dyz133>
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2008). The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States. *Accident; Analysis and Prevention*, 40(4), 1430–1440. <https://doi.org/10.1016/j.aap.2008.03.006>
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2009). The impact of underage drinking laws on alcohol-related fatal crashes of young drivers. *Alcoholism, Clinical and Experimental Research*, 33(7), 1208–1219. <https://doi.org/10.1111/j.1530-0277.2009.00945.x>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7(1), 28–58. <https://doi.org/10.1002/wmh3.132>

- Ferreira, R. (2019). Gender differences in patterns of alcohol drinking habits among teenagers and young adults, and possible approaches to public health. *Revista de Medicina e Saúde de Brasília*, 8(1).
- Finan, L. J., & Lipperman-Kreda, S. (2020) Changes in drinking contexts over the night course: Concurrent and lagged associations with adolescents' nightly alcohol use. *Alcoholism: Clinical and Experimental Research*, 44(12), 2611–2617.
- Gruenewald, P. J. (2011). Regulating availability: How access to alcohol affects drinking and problems in youth and adults. *Alcohol Research & Health*, 34(2), 248–256. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860569/>
- Hingson, R. (2009). The legal drinking age and underage drinking in the United States. *Archives of Pediatrics & Adolescent Medicine*, 163(7), 598–600. <https://doi.org/10.1001/archpediatrics.2009.66>
- Hingson, R., & White, A. (2014). New research findings since the 2007 Surgeon General's Call to Action to Prevent and Reduce Underage Drinking: A review. *Journal of Studies on Alcohol and Drugs*, 75(1), 158–169. <https://doi.org/10.15288/jsad.2014.75.158>
- Hingson, R., Zha, W., & Smyth, D. (2017). Magnitude and trends in heavy episodic drinking, alcohol-impaired driving, and alcohol-related mortality and overdose hospitalizations among emerging adults of college ages 18-24 in the United States, 1998–2014. *Journal of Studies on Alcohol and Drugs*, 78(4), 540–548. <https://doi.org/10.15288/jsad.2017.78.540>
- Jernigan, D. H., Shields, K., Mitchell, M., & Arria, A. M. (2019). Assessing campus alcohol policies: Measuring accessibility, clarity, and effectiveness. *Alcoholism, Clinical and Experimental Research*, 43(5), 1007–1015. <https://doi.org/10.1111/acer.14017>
- Knopf, Alison. (2020). Underage drinking and the role of parents. *Alcoholism & Drug Abuse Weekly*, 32(6), 6.
- Laixuthai, A., & Chaloupka, F. J. (1993). Youth alcohol use and public policy. *Contemporary Economic Policy*, 11(4), 70–81. <https://doi.org/10.1111/j.1465-7287.1993.tb00402.x>
- Lee, S. U., & Baek, H. (2020) Does parental intervention matter to diminish drinking behaviors among American adolescents? *Substance Use & Misuse*, 55(8), 1300–1308.
- Lipperman-Kreda, S., Finan, L. J., & Grube, J. W. (2018). Social and situational characteristics associated with adolescents' drinking at party and non-party events. *Addictive Behaviors*, 83, 148–153.
- Miller, T. R., Levy, D. T., Spicer, R. S., & Taylor, D. M. (2006). Societal costs of underage drinking. *Journal of Studies on Alcohol*, 67(4), 519–528.
- National Research Council (US) and Institute of Medicine (US) Committee on Developing a Strategy to Reduce and Prevent Underage Drinking. (2004). *Reducing Underage Drinking: A Collective Responsibility* (R. J. Bonnie & M. E. O'Connell, Eds.). National Academies Press (US). <http://www.ncbi.nlm.nih.gov/books/NBK37589/>
- Norberg, K. E., Bierut, L. J., & Grucza, R. A. (2009). Long-term effects of minimum drinking age laws on past-year alcohol and drug use disorders. *Alcoholism, Clinical and Experimental Research*, 33(12), 2180–2190. <https://doi.org/10.1111/j.1530-0277.2009.01056.x>
- Pape, H., Rossow, I., & Brunborg, G. S. (2018). Adolescents drink less: How, who and why? A review of the recent research literature. *Drug and Alcohol Review*, 37 Suppl 1, S98–S114. <https://doi.org/10.1111/dar.12695>
- Patrick, M. E., Terry-McElrath, Y. M., Lanza, S. T., Jager, J., Schulenberg, J. E., & O'Malley, P. M. (2019). Shifting age of peak binge drinking prevalence: Historical changes in normative

- trajectories among young adults aged 18 to 30. *Alcoholism, Clinical and Experimental Research*, 43(2), 287–298. <https://doi.org/10.1111/acer.13933>
- Plunk, A. D., Cavazaos-Rehg, P., Bierut, L. J., & Grucza, R. A. (2013). The persistent effects of minimum legal drinking age laws on drinking patterns later in life. *Alcoholism: Clinical and Experimental Research*, 37(3), 463–469. <https://doi.org/10.1111/j.1530-0277.2012.01945.x>
- Plunk, A. D., Krauss, M. J., Syed-Mohammed, H., Hur, M., Cavzos-Rehg, P. A., Bierut, L. J., & Grucza, R. A. (2016). The impact of the minimum legal drinking age on alcohol related chronic disease mortality. *Alcoholism, Clinical and Experimental Research*, 40(8), 1761–1768. <https://doi.org/10.1111/acer.13123>
- Ponicki, W. R., Gruenewald, P. J., & LaScala, E. A. (2007). Joint impacts of minimum legal drinking age and beer taxes on US youth traffic fatalities, 1975 to 2001. *Alcoholism, Clinical and Experimental Research*, 31(5), 804–813. <https://doi.org/10.1111/j.1530-0277.2007.00363.x>
- Prabhughate, P., Srinivasan, S., Ranga, V., Fritz, K., & Gafos, M. (2020). Normalizing alcohol consumption among youth: Role of peers, media, and access to alcohol in Mumbai. *Health Education and Public Health*, 3(1).
- Rosshiem, M. E., Stephenson, C. J., Thombs, D. L., Livingston, M. D., Walters, S. T., Suzuki, S., Barry, A. E., & Weiler, R. M. (2017). Characteristics of drinking events associated with heavy episodic drinking among adolescents in the United States. *Drug and Alcohol Dependence*, 181, 50–57. <https://doi.org/10.1016/j.drugalcdep.2017.09.018>
- Sacks, J. J., Brewer, R. D., Mesnick, J., Holt, J. B., Zhang, X., Kanny, D., Elder, R., & Gruenewald, P. J. (2020). Practice full report: Measuring alcohol outlet density: An overview of strategies for public health practitioners. *Journal of Public Health Management and Practice*, 26(5), 481. <https://doi.org/10.1097/PHH.0000000000001023>
- Sharmin, S., Kypri, K., Khanam, M., Wadolowski, M., Bruno, R., Attia, J., Holliday, E., Palazzi, K., & Mattick, R. P. (2017). Effects of parental alcohol rules on risky drinking and related problems in adolescence: Systematic review and meta-analysis. *Drug and Alcohol Dependence*, 178, 243–256. <https://doi.org/10.1016/j.drugalcdep.2017.05.011>
- Shrestha, V. (2015). Estimating the price elasticity of demand for different levels of alcohol consumption among young adults. *American Journal of Health Economics*, 1(2), 224–254. https://econpapers.repec.org/article/tpramjhec/v_3a1_3ay_3a2015_3ai_3a2_3ap_3a224-254.htm
- Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., Zaza, S., Sosin, D. M., & Thompson, R. S. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine*, 21(4, Supplement 1), 66–88. [https://doi.org/10.1016/S0749-3797\(01\)00381-6](https://doi.org/10.1016/S0749-3797(01)00381-6)
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One*, 14(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>
- Tael-Öeren, M., Naughton, F., & Sutton, S. (2019). The relationship between parental attitudes and children’s alcohol use: A systematic review and meta-analysis. *Addiction (Abingdon, England)*, 114(9), 1527–1546. <https://doi.org/10.1111/add.14615>
- Toomey, T. L., & Lenk, K. M. (2011). A review of environmental-based community interventions. *Alcohol Research & Health*, 34(2), 163–166. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860574/>

- U.S. Department of Health and Human Services. (2007). *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. HHS, Office of the Surgeon General (US). <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- van Hoof, J. J., & Gosselt, J. F. (2013). Underage alcohol sales—it only takes a minute: A new approach to underage alcohol availability. *Journal of Studies on Alcohol and Drugs*, 74(3), 423–427. <https://doi.org/10.15288/jsad.2013.74.423>
- Vashishtha, R., Livingston, M., Pennay, A., Dietze, P., MacLean, S., Holmes, J., Herring, R., Caluzzi, G., & Lubman, D. I. (2020). Why is adolescent drinking declining? A systematic review and narrative synthesis. *Addiction Research & Theory*, 28(4), 275–288. <https://doi.org/10.1080/16066359.2019.1663831>
- Vidourek, R. A., King, K. A., & Merianos, A. L. (2018). Where do adolescent recent drinkers obtain and use alcohol? *Journal of Substance Use*, 23(2), 136–143. <https://doi.org/10.1080/14659891.2017.1378734>
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking. A review of the recent literature. *Recent Developments in Alcoholism: An Official Publication of the American Medical Society on Alcoholism, the Research Society on Alcoholism, and the National Council on Alcoholism*, 17, 275–297.
- Welsh, J. W., Knight, J. R., & Hadland, S. E. (2017). Adolescent frequent heavy drinking from 1991–2015. *Pediatrics*, 139(6), e20170932. <https://doi.org/10.1542/peds.2017-0932>
- Williams, R. D., Housman, J. M., Woolsey, C. L., & Sather, T. E. (2018). High-risk driving behaviors among 12th grade students: Differences between alcohol-only and alcohol mixed with energy drink users. *Substance Use & Misuse*, 53(1), 137–142. <https://doi.org/10.1080/10826084.2017.1327973>
- Wilson, M. N., Langille, D. B., Ogilvie, R., & Asbridge, M. (2018). When parents supply alcohol to their children: Exploring associations with drinking frequency, alcohol-related harms, and the role of parental monitoring. *Drug and Alcohol Dependence*, 183, 141–149. <https://doi.org/10.1016/j.drugalcdep.2017.10.037>

Underage Purchase and Attempted Purchase

Policy Description

Most states prohibit people under age 21 from purchasing or attempting to purchase alcoholic beverages.⁹ An underage person who purchases alcoholic beverages can be prosecuted for possession because once a sale is completed, there is possession on the part of the purchaser. Purchase and possession are separate offenses. An underage youth who purchases alcoholic beverages could be liable for two offenses in states that have both prohibitions (see the “Underage Possession/Internal Possession/Consumption” policy above for further discussion).¹⁰ A significant minority of youth purchase or attempt to purchase alcohol for themselves, sometimes using falsified ID (see the “False ID” policy below).

Such purchases increase the availability of alcohol to underage persons, which, in turn, increases underage consumption. Prohibitions and associated sanctions on underage alcohol purchases can be expected to depress rates of and attempts to purchase by raising the monetary and social costs of this behavior. These laws provide a primary deterrent (preventing attempted purchases) and a secondary deterrent (reducing the probability that persons sanctioned under these laws will attempt to purchase in the future).

In some states, a person under age 21 is allowed to purchase alcoholic beverages as part of a law enforcement action. Most commonly, these actions are checks on merchant compliance or stings to identify merchants who illegally sell alcoholic beverages to underage buyers. This allowance for purchase in the law enforcement context may exist even though a state does not have a law specifically prohibiting underage purchase.

Status of Underage Purchasing Policies

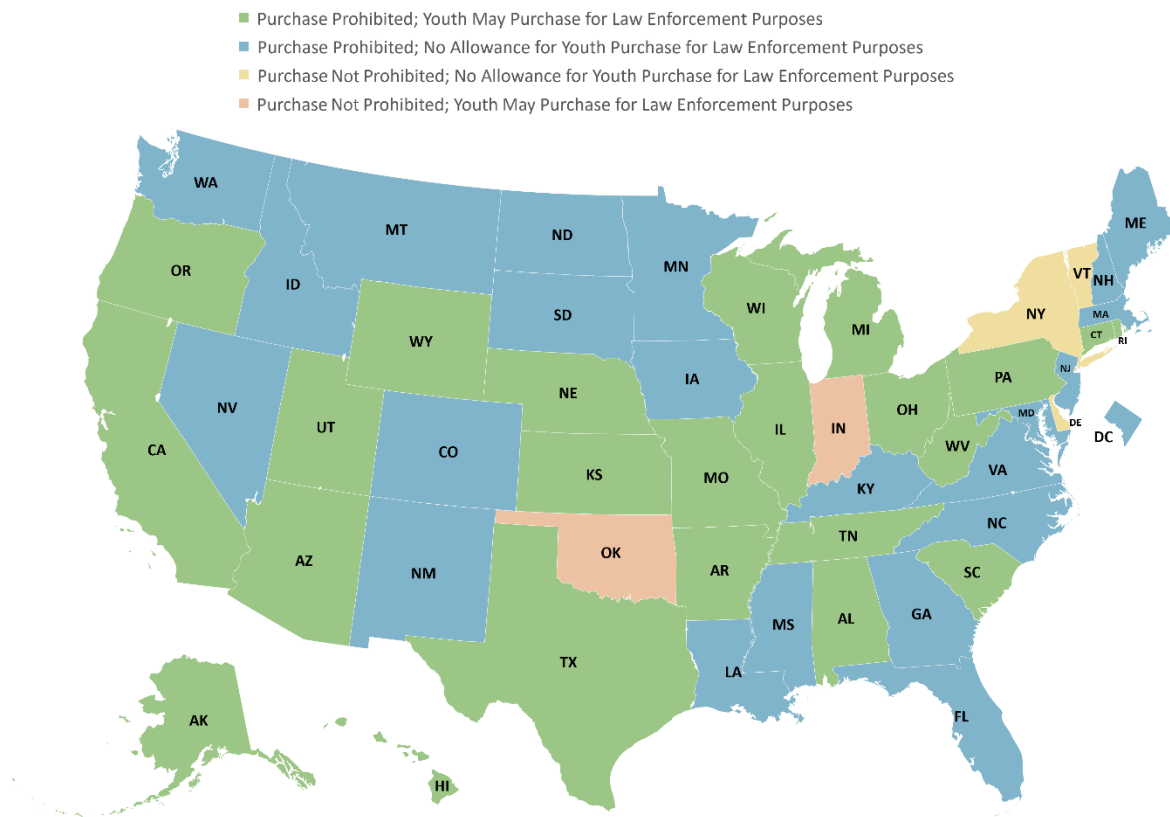
As of January 1, 2020, 46 states prohibit underage purchase or attempted purchase of alcohol; the remaining five states (Delaware, Indiana, New York, Oklahoma, and Vermont) do not (Exhibit 2.6). Underage persons are allowed to purchase alcohol for law enforcement purposes in 25 states including Indiana, even though Indiana does not have an underage purchase statute.

Trends in Underage Purchasing Policies

The number of states prohibiting underage purchase of alcohol has remained mostly stable over the past 2 decades. Oklahoma repealed its prohibition on underage purchase effective January 1, 2019. The number of states with allowances for underage purchase for enforcement purposes has increased, from eight in 1998 to 25 in 2020.

⁹ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

¹⁰ Some states have laws that specifically prohibit both underage purchase and attempted purchase of alcohol. An attempted purchase occurs when a person under age 21 takes concrete steps toward committing the offense of purchasing, whether or not the purchase is consummated. The two offenses are not treated separately in this report.

Exhibit 2.6: Underage Purchase of Alcohol for Law Enforcement Purposes as of January 1, 2020**Data Sources and Citations**

All data for the “Underage Purchase of Alcohol” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/underage-purchase-of-alcohol/43>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in US states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, *81*(1), 58–67.

Carpenter, C., & Dobkin, C. (2011). The minimum legal drinking age and public health. *Journal of Economic Perspectives*, *25*(2), 133–156. <https://doi.org/10.1257/jep.25.2.133>

Dee, T. (1999). State alcohol policies, teen drinking and traffic fatalities. *Journal of Public Economics*, *72*, 289–315. [https://doi.org/10.1016/S0047-2727\(98\)00093-0](https://doi.org/10.1016/S0047-2727(98)00093-0)

Dee, T., & Evans, W. N. (2001). Behavioral policies and teen traffic safety. *American Economic Review*, *91*(2), 91–96. <https://cepa.stanford.edu/content/behavioral-policies-and-teen-traffic-safety>

Dejong, W., & Blanchette, J. (2014). Case closed: Research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs*, *75*(Suppl 17), 108–115. <https://doi.org/10.15288/jsads.2014.75.108>

- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2008). The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States. *Accident; Analysis and Prevention*, *40*(4), 1430–1440. <https://doi.org/10.1016/j.aap.2008.03.006>
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2009). The impact of underage drinking laws on alcohol-related fatal crashes of young drivers. *Alcoholism, Clinical and Experimental Research*, *33*(7), 1208–1219. <https://doi.org/10.1111/j.1530-0277.2009.00945.x>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, *77*(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism, Clinical and Experimental Research*, *39*(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, *7*(1), 28–58. <https://doi.org/10.1002/wmh3.132>
- Gruenewald, P. J. (2011). Regulating availability: How access to alcohol affects drinking and problems in youth and adults. *Alcohol Research & Health*, *34*(2), 248–256. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860569/>
- Hingson, R., & White, A. (2014). New research findings since the 2007 Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking: A review. *Journal of Studies on Alcohol and Drugs*, *75*(1), 158–169. <https://doi.org/10.15288/jsad.2014.75.158>
- Kenkel, D. S. (1993). Drinking, driving, and deterrence: The effectiveness and social costs of alternative policies. *The Journal of Law and Economics*, *36*(2), 877–913. <https://doi.org/10.1086/467301>
- Laixuthai, A., & Chaloupka, F. J. (1993). Youth alcohol use and public policy. *Contemporary Economic Policy*, *11*(4), 70–81. <https://doi.org/10.1111/j.1465-7287.1993.tb00402.x>
- Milam, A. J., Furr-Holden, C. D. M., Nesoff, E. D., & Trangenstein, P. J. (2021) Evaluation of a local ordinance to prevent any underage purchases in liquor stores: The need for enforcement. *Journal of Studies on Alcohol and Drugs*, *82*(2), 219–227.
- National Research Council (US) and Institute of Medicine (US) Committee on Developing a Strategy to Reduce and Prevent Underage Drinking. (2004). *Reducing Underage Drinking: A Collective Responsibility* (R. J. Bonnie & M. E. O’Connell, Eds.). National Academies Press (US). <http://www.ncbi.nlm.nih.gov/books/NBK37589/>
- Norberg, K. E., Bierut, L. J., & Grucza, R. A. (2009). Long-term effects of minimum drinking age laws on past-year alcohol and drug use disorders. *Alcoholism, Clinical and Experimental Research*, *33*(12), 2180–2190. <https://doi.org/10.1111/j.1530-0277.2009.01056.x>
- Plunk, A. D., Cavazaos-Rehg, P., Bierut, L. J., & Grucza, R. A. (2013). The persistent effects of minimum legal drinking age laws on drinking patterns later in life. *Alcoholism: Clinical and Experimental Research*, *37*(3), 463–469. <https://doi.org/10.1111/j.1530-0277.2012.01945.x>
- Ponicki, W. R., Gruenewald, P. J., & LaScala, E. A. (2007). Joint impacts of minimum legal drinking age and beer taxes on US youth traffic fatalities, 1975 to 2001. *Alcoholism, Clinical and Experimental Research*, *31*(5), 804–813. <https://doi.org/10.1111/j.1530-0277.2007.00363.x>
- Shrestha, V. (2015). Estimating the price elasticity of demand for different levels of alcohol consumption among young adults. *American Journal of Health Economics*, *1*(2), 224–254.

https://econpapers.repec.org/article/tpramjhec/v_3a1_3ay_3a2015_3ai_3a2_3ap_3a224-254.htm

- Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., Zaza, S., Sosin, D. M., & Thompson, R. S. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine*, 21(4, Supplement 1), 66–88. [https://doi.org/10.1016/S0749-3797\(01\)00381-6](https://doi.org/10.1016/S0749-3797(01)00381-6)
- U.S. Department of Health and Human Services. (2007). *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. HHS, Office of the Surgeon General (US). <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- van Hoof, J. J., & Gosselt, J. F. (2013). Underage alcohol sales—it only takes a minute: A new approach to underage alcohol availability. *Journal of Studies on Alcohol and Drugs*, 74(3), 423–427. <https://doi.org/10.15288/jsad.2013.74.423>
- Williams, R. S., & Ribisl, K. M. (2012). Internet alcohol sales to minors. *Archives of Pediatrics & Adolescent Medicine*, 166(9), 808–813. <https://doi.org/10.1001/archpediatrics.2012.265>

False ID

Policy Description

Alcohol retailers are responsible for ensuring that sales of alcoholic beverages are made only to individuals who are legally permitted to purchase alcohol. Inspecting government-issued ID (i.e., driver's license, non-driver ID card, passport, and military ID card) is one major mechanism for ensuring that buyers meet minimum age requirements. In attempting to circumvent these safeguards, underage people may obtain and use apparently valid ID cards that falsely state their age as 21 or over. Age may be falsified by altering the birthdate on a valid ID card, obtaining an invalid ID card that appears to be valid, or using someone else's ID card.

Compliance check studies suggest that underage people who drink may have little need to use false ID because retailers often make sales without any ID inspection. However, concerns about false ID remain high among law enforcement officials, retailers, and government officials. Current technology, including high-quality color copiers and printers, has made false ID cards easier to fabricate, and the Internet provides ready access to a large number of false ID vendors.

All states prohibit use of false ID by underage people to obtain alcohol.¹¹ In addition to basic prohibitions, states have adopted a variety of legal provisions pertaining to false ID for obtaining alcohol. These can be divided into three basic categories:

1. Provisions that target underage youth who possess and use false ID cards to obtain alcohol.
2. Provisions that target those who supply underage youth with false ID cards, either through lending of a valid ID card or production of invalid ("fake") ID cards.
3. Provisions that assist retailers in avoiding sales to potential buyers who present false ID cards. For further discussion of policies pertaining to the purchase of alcohol by people under age 21, see the "Underage Purchase and Attempted Purchase" policy above; for policies that mandate training of servers to detect false ID, see the "Responsible Beverage Service" policy below; and for policies on license suspension or revocation, see the "Loss of Driving Privileges for Alcohol Violations by Underage Youth" policy below.

Status of False ID Policies

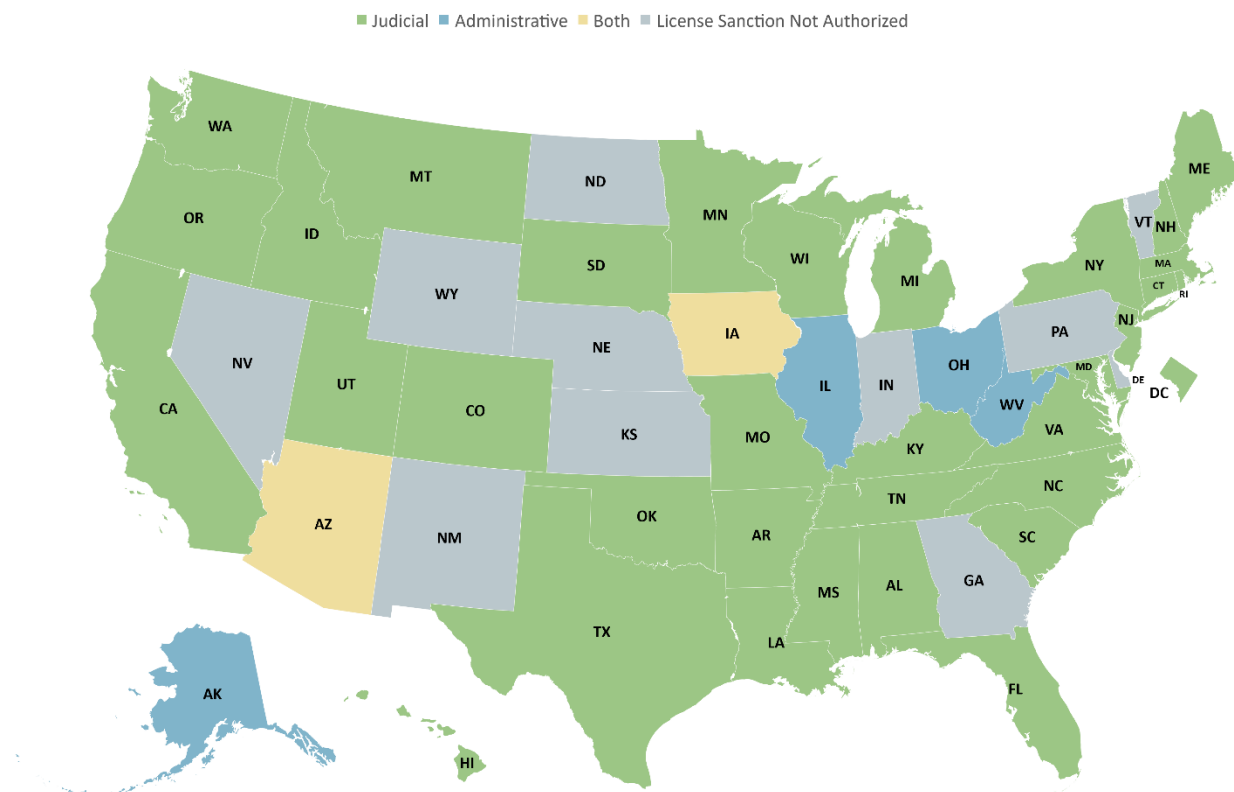
Provisions That Target Underage Youth

As of January 1, 2020, all states prohibit people under age 21 from using false ID cards to obtain alcohol. Forty states authorize suspension of their driver's licenses for using false ID in the purchase of alcohol through judicial proceedings, administrative proceedings, or both (Exhibit 2.7).

Provisions That Target Suppliers

As of January 1, 2020, 25 states have laws that target suppliers of false ID cards; 24 prohibit lending, transferring, or selling false ID cards to underage youth for the purpose of purchasing alcohol; and 13 prohibit manufacturing such IDs.

¹¹ Note that throughout this chapter, "states" refers to the 50 states and the District of Columbia.

Exhibit 2.7: Procedure for Imposing License Sanction for Use of False ID as of January 1, 2020***Provisions That Support Retailers***

Retailer support provisions vary widely across the states. In prosecutions involving an illegal underage alcohol sale, 45 states provide for some type of affirmative defense (e.g., the retailer shows that he/she reached a good faith or reasonable conclusion that the false ID was valid); 42 states have laws requiring distinctive licenses for persons under age 21; 12 states permit retailers to seize apparently false IDs; 11 states provide incentives for the use of scanners; four states (Arkansas, Colorado, South Dakota, and Utah) allow retailers to detain underage youth; and five states (Alaska, New Hampshire, Oregon, Utah, and Wisconsin) permit retailers to sue underage youth for damages.

Trends in False ID State Policies

State false ID policies that target underage youth and suppliers have been relatively stable since 1998. Since then, three states have eliminated their license suspension penalties. Indiana and Georgia did so between 2014-15, and Pennsylvania followed in 2019.

Data Sources and Citations

All data for the “False Identification for Obtaining Alcohol” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/false-identification-for-obtaining-alcohol/39>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

- Egerton-Warburton, D., Gosbell, A., Moore, K., Wadsworth, A., Richardson, D., & Fatovich, D. M. (2018). Alcohol-related harm in emergency departments: A prospective, multi-centre study. *Addiction (Abingdon, England)*, *113*(4), 623–632. <https://doi.org/10.1111/add.14109>
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2008). The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States. *Accident: Analysis and Prevention*, *40*(4), 1430–1440. <https://doi.org/10.1016/j.aap.2008.03.006>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2014). Effectiveness of social host and fake identification laws on reducing underage drinking driver fatal crashes. *Traffic Injury Prevention*, *15*(Suppl 1), S64–73. <https://doi.org/10.1080/15389588.2014.928929>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, *77*(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, *39*(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, *7*(1), 28–58. <https://doi.org/10.1002/wmh3.132>
- Grube, J. W., DeJong, W., DeJong, M., Lipperman-Kreda, S., & Krevor, B. S. (2018). Effects of a responsible retailing mystery shop intervention on age verification by servers and clerks in alcohol outlets: A cluster randomised cross-over trial. *Drug and Alcohol Review*, *37*(6), 774–781. <https://doi.org/10.1111/dar.12839>
- Mafa, P. (2020). Youth alcohol consumption: Context and influences. *Gender & Behaviour*, *18*(3), 16122–16131.
- Martinez, J. A., & Sher, K. J. (2010). Methods of “fake ID” obtainment and use in underage college students. *Addictive Behaviors*, *35*(7), 738–740. <https://doi.org/10.1016/j.addbeh.2010.03.014>
- Maryland Collaborative to Reduce College Drinking and Related Problems. (2014). *High-risk drinking among college students in Maryland: Identifying targets for intervention*. College Park, MD: Center on Youth Adult Health and Development, University of Maryland School of Public Health; Baltimore, MD: Center on Alcohol Marketing and Youth, Johns Hopkins University Bloomberg School of Public Health.
- Morleo, M., Cook, P. A., Bellis, M. A., & Smallthwaite, L. (2010). Use of fake identification to purchase alcohol amongst 15-16-year-olds: A cross-sectional survey examining alcohol access, consumption and harm. *Substance Abuse Treatment, Prevention, and Policy*, *5*, 12. <https://doi.org/10.1186/1747-597X-5-12>
- National Research Council (US) and Institute of Medicine (US) Committee on Developing a Strategy to Reduce and Prevent Underage Drinking. (2004). *Reducing Underage Drinking: A Collective Responsibility* (R. J. Bonnie & M. E. O’Connell, Eds.). National Academies Press (US). <http://www.ncbi.nlm.nih.gov/books/NBK37589/>
- Naudé, G. P., Foster, R. N. S., Bartley, M., Martinetti, M. P., Ayers, L. O., & Reed, D. D. (2020). Predicting adverse consequences of alcohol consumption in underage college students using a novel Fake ID Purchase Task. *Experimental and clinical psychopharmacology*, *28*(6), 669.
- Nesson, Erik, & Vinish Shrestha. *The Effects of False Identification Laws with a Scanner*

- Provision on Underage Alcohol-Related Traffic Fatalities*. No. 2016-17. 2020.
- Nguyen, N., Walters, S. T., Rinker, D. V., Wyatt, T. M., & DeJong, W. (2011). Fake ID ownership in a U.S. sample of incoming first-year college students. *Addictive Behaviors*, *36*(7), 759–761. <https://doi.org/10.1016/j.addbeh.2011.01.035>
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PLoS One*, *14*(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>
- van Hoof, J. J., & Gosselt, J. F. (2013). Underage alcohol sales—it only takes a minute: A new approach to underage alcohol availability. *Journal of Studies on Alcohol and Drugs*, *74*(3), 423–427. <https://doi.org/10.15288/jsad.2013.74.423>
- Wechsler, H., Lee, J. E., Nelson, T. F., & Lee, H. (2003). Drinking and driving among college students: The influence of alcohol-control policies. *American Journal of Preventive Medicine*, *25*(3), 212–218. [https://doi.org/10.1016/S0749-3797\(03\)00199-5](https://doi.org/10.1016/S0749-3797(03)00199-5)
- Yörük, B. K. (2014). Can technology help to reduce underage drinking? Evidence from the false ID laws with scanner provision. *Journal of Health Economics*, *36*, 33–46. <https://doi.org/10.1016/j.jhealeco.2014.03.004>
- Yörük, B. K. (2018). The impact of the false ID laws on alcohol consumption among young adults: New results from the NLSY97. *Journal of Health Economics*, *57*, 191–194. <https://doi.org/10.1016/j.jhealeco.2017.11.005>
- Zheng, E. Y. (2018). Can technology really help to reduce underage drinking? New evidence on the effects of false ID laws with scanner provisions. *Journal of Health Economics*, *57*, 102–112. <https://doi.org/10.1016/j.jhealeco.2017.10.009>

Policies Targeting Underage Drinking and Driving

Youth BAC Limits (Underage Operators of Non-Commercial Motor Vehicles)

Policy Description

Blood alcohol concentration (BAC) limit policies establish the maximum amount of alcohol that underage drivers can have in their bloodstream when operating a motor vehicle. BAC is commonly expressed as a percentage. For instance, a BAC of 0.08 percent means that a person has 8 parts of alcohol per 10,000 parts of blood in the body. State laws generally specify BAC levels in terms of grams of alcohol per 100 milliliters of blood (often abbreviated as grams per deciliter, or g/dL). BAC levels can be detected by breath, blood, or urine tests. The laws of each state specify the preferred or required types of tests used for measurement.¹²

There is strong scientific evidence that, as BAC increases, the cognitive and motor skills needed to operate a motor vehicle are increasingly impaired. BAC statutes establish criteria for determining when the operator of a vehicle is sufficiently impaired to constitute a threat to public safety and is, therefore, violating the law. Currently, 50 states mandate a BAC limit of 0.08 g/dL for drivers over age 21. In 2018, Utah became the first state to lower the BAC limit to 0.05 g/dL.

Underage drivers' ability to safely operate a motor vehicle may be impaired at a lower BAC than that of adults because of lower body mass, lack of physiological development, and lack of driving experience. Partly as a result of financial incentives established by the federal government, all states in the United States have enacted low BAC limits for underage drivers. Laws establishing very low legal BAC limits of 0.02 g/dL or less for drivers under the legal drinking age of 21 are widely referred to as zero-tolerance laws.

A per se BAC statute stipulates that if the operator has a BAC level at or above the per se limit, a violation has occurred without regard to other evidence of intoxication or sobriety (e.g., how well or poorly the individual is driving). In other words, exceeding the BAC limit established in a per se statute is itself a violation.

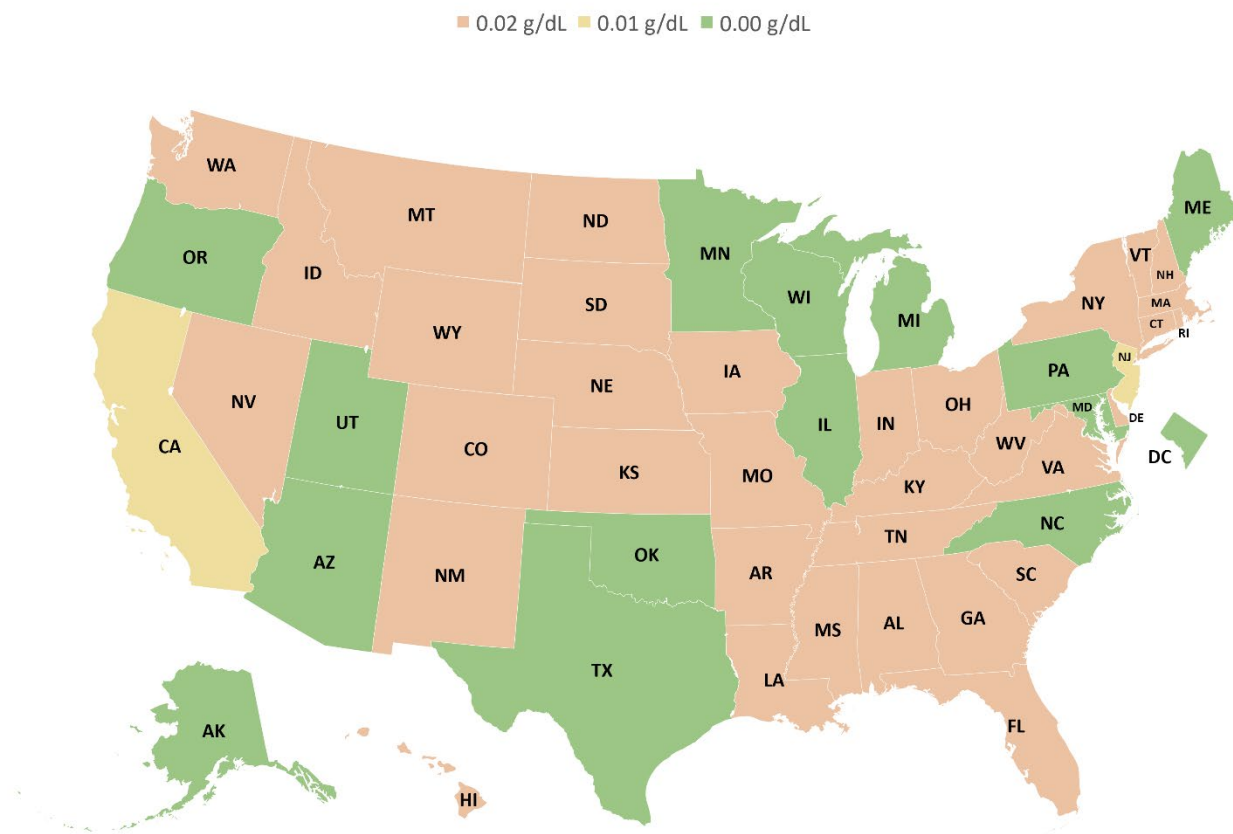
Status of Youth BAC Limit Policies

As of January 1, 2020, all states have per se youth BAC statutes. Thirty-four states set the driving BAC limit for underage persons at 0.02 g/dL (Exhibit 2.8). Fifteen states consider any underage alcohol consumption while driving to be a violation of the law and have set the limit to 0.00 g/dL. Two states (California and New Jersey) have set the underage BAC limit to 0.01 g/dL.

Trends in Youth BAC Limit Policies

Since 1998, all states have had zero tolerance (0.02 g/dL or lower) youth BAC limit laws. In the period between 1999–2020, the number of states mandating specific BAC limits for underage drivers remained constant, with the exception of one state (Maryland), which lowered its underage BAC limit from 0.02 to 0.00 g/dL.

¹² Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

Exhibit 2.8: BAC Limits for Youth Operators as of January 1, 2020

Data Sources and Citations

All data for the “Underage Operators of Non-Commercial Motor Vehicles” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/youth-underage-operators-of-noncommercial-motor-vehicles/13>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, 81(1), 58–67.

Carpenter, C., & Dobkin, C. (2016). The minimum legal drinking age and morbidity in the United States. *The Review of Economics and Statistics*, 99(1), 95–104. https://doi.org/10.1162/REST_a_00615

Chang, K., Wu, C. C., & Ying, Y. H. (2012). The effectiveness of alcohol control policies on alcohol-related traffic fatalities in the United States. *Accident; Analysis and Prevention*, 45, 406–415. <https://doi.org/10.1016/j.aap.2011.08.008>

Dejong, W., & Blanchette, J. (2014). Case closed: Research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs*, 75(Suppl 17), 108–115. <https://doi.org/10.15288/jsads.2014.75.108>

- Fell, J. C. (2019). Approaches for reducing alcohol-impaired driving: Evidence-based legislation, law enforcement strategies, sanctions, and alcohol-control policies. *Forensic Science Review*, 31(2), 161–184.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, James C., Scherer, M., & Voas, R. (2015). The Utility of Including the Strengths of Underage Drinking Laws in Determining Their Effect on Outcomes. *Alcoholism, Clinical and Experimental Research*, 39(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7(1), 28–58. <https://doi.org/10.1002/wmh3.132>
- George, M. D., Holder, R., Shamblen, S., Nienhius, M. M., & Holder, H. D. (2021). Alcohol compliance checks and underage alcohol-involved crashes: Evaluation of a statewide enforcement program in South Carolina from 2006 to 2016. *Alcoholism: Clinical and Experimental Research*, 45(1), 242–250
- Hadland, S. E., Xuan, Z., Blanchette, J., Sarda, V., Swahn, M. H., Heeren, T. C., & Naimi, T. S. (2016). Alcohol policies and motor vehicle injury fatalities among underage youth in the United States. *Journal of Adolescent Health*, 58(2), S13–S14. <https://doi.org/10.1016/j.jadohealth.2015.10.042>
- Hingson, R., Heeren, T., & Winter, M. (1994). Lower legal blood alcohol limits for young drivers. *Public Health Reports*, 109(6), 738–744. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1403574/>
- Hingson, R., & White, A. (2014). New research findings since the 2007 Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking: A review. *Journal of Studies on Alcohol and Drugs*, 75(1), 158–169. <https://doi.org/10.15288/jsad.2014.75.158>
- Johnson, M. B. (2016). A successful high-visibility enforcement intervention targeting underage drinking drivers. *Addiction (Abingdon, England)*, 111(7), 1196–1202. <https://doi.org/10.1111/add.13346>
- Lovenheim, M. F., & Slemrod, J. (2010). The fatal toll of driving to drink: The effect of minimum legal drinking age evasion on traffic fatalities. *Journal of Health Economics*, 29(1), 62–77. <https://doi.org/10.1016/j.jhealeco.2009.10.001>
- Maldonado-Devincci, A. M., Badanich, K. A., & Kirstein, C. L. (2010). Alcohol during adolescence selectively alters immediate and long-term behavior and neurochemistry. *Alcohol (Fayetteville, N.Y.)*, 44(1), 57–66. <https://doi.org/10.1016/j.alcohol.2009.09.035>
- Martinez, D. (2018). *The underage consumption of alcohol and driving while intoxicated by college students*. [Graduate thesis, University of Houston Clear Lake]. Institutional Repository @ UHCL. <https://uhcl-ir.tdl.org/handle/10657.1/894>
- McCartt, A. T., Hellinga, L. A., & Kirley, B. B. (2010). The effects of minimum legal drinking age 21 laws on alcohol-related driving in the United States. *Journal of Safety Research*, 41(2), 173–181. <https://doi.org/10.1016/j.jsr.2010.01.002>
- Peck, R. C., Gebers, M. A., Voas, R. B., & Romano, E. (2008). The relationship between blood alcohol concentration (BAC), age, and crash risk. *Journal of Safety Research*, 39(3), 311–319. <https://doi.org/10.1016/j.jsr.2008.02.030>

- Plunk, A. D., Cavazaos-Rehg, P., Bierut, L. J., & Grucza, R. A. (2013). The persistent effects of minimum legal drinking age laws on drinking patterns later in life. *Alcoholism: Clinical and Experimental Research*, 37(3), 463–469. <https://doi.org/10.1111/j.1530-0277.2012.01945.x>
- Romano, E., Fell, J. C., Li, K., Simons-Morton, B. G., & Vaca, F. E. (2021). Alcohol-and speeding-related fatal crashes among novice drivers age 18–20 not fully licensed at the time of the crash. *Drug and Alcohol Dependence*, 218, 108417.
- Romano, E., Scherer, M., Fell, J., & Taylor, E. (2015). A comprehensive examination of U.S. laws enacted to reduce alcohol-related crashes among underage drivers. *Journal of Safety Research*, 55, 213–221. <https://doi.org/10.1016/j.jsr.2015.08.001>
- Rossheim, M. E., Thombs, D. L., & Treffers, R. D. (2018). High-alcohol-content flavored alcoholic beverages (supersized alcopops) should be reclassified to reduce public health hazard. *The American Journal of Drug and Alcohol Abuse*, 44(4), 413–417. <https://doi.org/10.1080/00952990.2018.1460375>
- Roudsari, B., & Ramisetty-Mikler, S. (2008). Exceptions to the “National Minimum Drinking Age Act” and underage drunk driver death in the U.S.: A state-level comparison. *Annals of Epidemiology*, 18(9), 714.
- Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., Zaza, S., Sosin, D. M., & Thompson, R. S. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine*, 21(4, Supplement 1), 66–88. [https://doi.org/10.1016/S0749-3797\(01\)00381-6](https://doi.org/10.1016/S0749-3797(01)00381-6)
- U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). *Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health*. Washington, DC: U.S. Department of Health and Human Services.
- U.S. Department of Health and Human Services. (2007). *Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- Voas, R. B., Tippetts, A. S., & Fell, J. (2003). Assessing the effectiveness of minimum legal drinking age and zero tolerance laws in the United States. *Accident Analysis and Prevention*, 35(4), 579–587.

Loss of Driving Privileges for Alcohol Violations by Underage Youth (Use/Lose Laws)

Policy Description

Use/lose laws authorize suspension or revocation of driving privileges as a penalty for underage purchase, possession, or consumption of alcoholic beverages. States began enacting these statutes in the mid-1980s to deter underage drinking by imposing a punishment that young people would consider significant: the loss of a driver's license.¹³ In most states, use/lose laws make it mandatory to impose driver's license sanctions in response to underage alcohol violations; other states give discretion to the judge or other decision maker. State laws vary as to the type of violation (purchase, possession, or consumption of alcohol) that leads to these sanctions and how long suspensions or revocations stay in effect.

State laws specific to people under age 21 (purchase, possession, and consumption of alcoholic beverages) are described in the "Underage Purchase of Alcohol" and "Underage Possession/Consumption/Internal Possession of Alcohol" policies.

Status of Loss of Driving Privileges Policies

Thirty-four states have made license suspension or revocation mandatory or discretionary in cases of underage alcohol violations. Seventeen states have no use/lose laws.

Upper Age Limits

Twenty-four states set age 21 as the upper limit for which use/lose laws apply. Nine states set the upper limit at age 18, and one state (Wyoming) set the limit at age 19. In four states (Arkansas, Hawaii, Tennessee, and Virginia), some sanction conditions vary depending on whether the violator is under age 18 or under age 21.

Authority to Impose License Sanctions

In the vast majority of states with use/lose laws (26 states), license suspension or revocation is mandatory (Exhibit 2.9). Eight states have made this a discretionary penalty for such violations. Among all the states with use/lose laws, two states (Arkansas and Hawaii) have a discretionary penalty for youth below age 18 but mandatory for violators ages 18–20.

Trends in Loss of Driving Privileges Policies

Between 1998–2019, the number of states that made license suspension or revocation mandatory in at least some cases of underage alcohol violations increased from 25 to 29. In 2020, the number decreased to 26. (Arkansas and Hawaii are counted as both mandatory and discretionary in this exhibit.) In 2020, Delaware, Florida, and Pennsylvania repealed their use/lose laws.

¹³ Note that throughout this chapter, "states" refers to the 50 states and the District of Columbia.

- Clinical and Experimental Research*, 33(7), 1208–1219. <https://doi.org/10.1111/j.1530-0277.2009.00945.x>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7(1), 28–58. <https://doi.org/10.1002/wmh3.132>
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Plunk, A. D., Cavazaos-Rehg, P., Bierut, L. J., & Grucza, R. A. (2013). The persistent effects of minimum legal drinking age laws on drinking patterns later in life. *Alcoholism: Clinical and Experimental Research*, 37(3), 463–469. <https://doi.org/10.1111/j.1530-0277.2012.01945.x>
- Shrestha, V. (2015). Estimating the price elasticity of demand for different levels of alcohol consumption among young adults. *American Journal of Health Economics*, 1(2), 224–254.
- Sohoni, T., Stringer, R., & Piatkowska, S. (2020). Suspended licenses, suspended lives: the impact of drug-related driver’s license suspensions on traffic fatalities. *Journal of Crime and Justice*, 43(3), 307–322.
- U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). *Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health*. Washington, DC: U.S. Department of Health and Human Services.
- Voas, R. B., Tippetts, A. S., & Fell, J. (2003). Assessing the effectiveness of minimum legal drinking age and zero tolerance laws in the United States. *Accident Analysis and Prevention*, 35(4), 579–587.
- Yellman, M. A., Bryan, L., Sauber-Schatz, E. K., & Brener, N. (2020). Transportation risk behaviors among high school students—Youth risk behavior survey, United States, 2019. *MMWR Supplements*, 69(1), 77.

Graduated Driver's Licenses

Policy Description

Graduated driver licensing (GDL) is a system designed to delay full licensure for teenage automobile drivers, thus allowing beginning drivers to gain experience under less-risky conditions. Teenagers are targeted because they are at the highest risk for motor vehicle crashes, including alcohol-related crashes. In fact, motor vehicle crashes are the leading cause of death among teenagers. By imposing restrictions on driving privileges, GDL reduces fatal crashes among newly licensed teen drivers.

Comprehensive GDL systems are associated with the greatest benefits and have three stages: (1) a minimum supervised learner's period, (2) an intermediate license (once the driving test is passed) that limits unsupervised driving in high-risk situations (e.g., nighttime driving and driving with teen passengers), and (3) a full-privilege unrestricted driver's license after completion of the first two stages. Beginners must remain in each of the first two stages for set minimum time periods.

CDC's Injury Center (<https://www.cdc.gov/phlp/publications/topic/gdl.html>) lists the following seven components that, according to NIH research, are found in the most effective comprehensive GDL systems:

- A minimum age of 16 for a learner's permit
- A mandatory waiting period of at least 6 months before a driver can apply for an intermediate license
- A requirement for 50 to 100 hours of supervised driving before testing for an intermediate license
- A minimum age of 17 for an intermediate license
- Restrictions on nighttime driving
- A limit on the number of teenage passengers allowed in the car
- A minimum age of 18 for a full license

“Primary enforcement” refers to the authority given to law enforcement officers to stop drivers for the sole purpose of investigating potential violations of night-driving or passenger restrictions. Law enforcement officers in states without primary enforcement can investigate potential violations of these provisions only as part of an investigation of some other offense.¹⁴ Primary enforcement greatly increases the chance that violators will be detected.

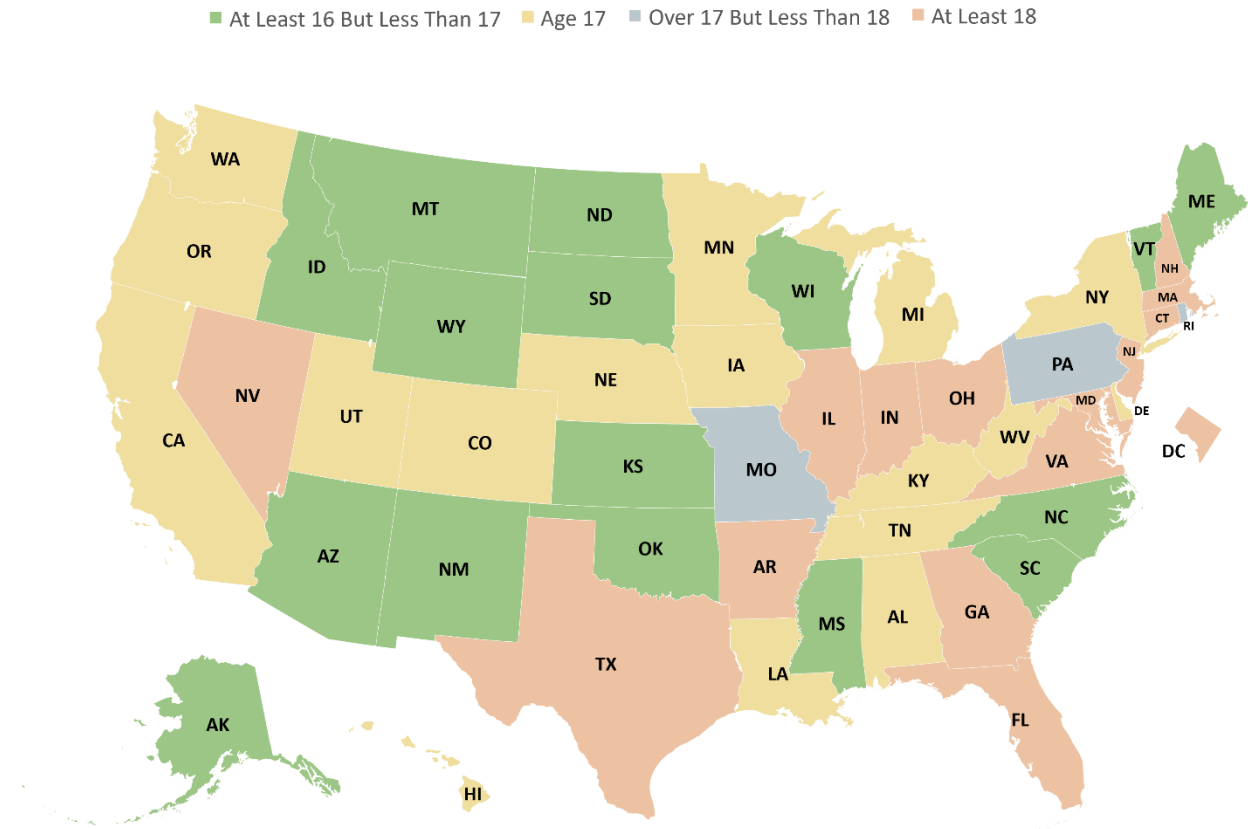
Status of GDL Policies

All 51 states have some form of GDL policy, and all have full three-stage criteria. The minimum age for each stage and the extent to which the other restrictions are imposed vary across states. An important GDL provision related to traffic safety is the minimum age for full licensure. Full licensure is allowed by 15 states on the 18th birthday; 3 states permit full licensure above age 17 but under age 18; and 17 states permit full licensure on the 17th birthday (Exhibit 2.10). The remaining 16 states permit full licensure to those who are under 17 but at least 16 years old. All

¹⁴ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

but one state has night-driving restrictions. However, restrictions beginning at 12:00 a.m. or later provide minimal protection; states could consider expanding restrictions to include earlier nighttime hours (Shults & Williams, 2016). Forty-seven states place passenger restrictions on drivers with less than full licensure.

Exhibit 2.10: Minimum Age of Full Driving Privileges Laws as of January 1, 2020



Trends in GDL Policies

On January 1, 1996, only one state (Maryland) had a three-stage GDL law. However, by 2000, 23 states had enacted three-stage GDL laws, and by 2012, that number had risen to the current level of 51.

Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired by Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. Historical data for the years 1996–2004 were obtained from Chen, Baker, and Li (2006). Data from January 1, 2005 to December 31, 2008,

were obtained from the Insurance Institute for Highway Safety (<https://www.iihs.org/topics/teenagers/graduated-licensing-laws-table>).

- Agent, K. R., Steenbergen, L., Pigman, J., Kidd, P. S., McCoy, C., & Pollack, S. (2001). *Impact of partial graduated license program on teen motor vehicle crashes in Kentucky*. Transportation Research Record 1779: Traffic Safety 2001. Washington, DC: Transportation Research Board.
- Bates, L., Rodwell, D., & Matthews, S. (2019). Young driver enforcement within graduated driver licensing systems: A scoping review. *Crime Prevention and Community Safety*, 21(2), 116–135.
- Bates, L., Somoray, K., & Lennon, A. (2020). Parenting style, young driver compliance and the imposition of additional driving restrictions within graduated driver licensing systems. *Accident Analysis & Prevention*, 144, 105619.
- Bates, L., Scott-Parker, B., Darvell, M., & Watson, B. (2017). Provisional drivers' perceptions of the impact of displaying P plates. *Traffic Injury Prevention*, 18(8), 820–825. <https://doi.org/10.1080/15389588.2017.1322697>
- Cavazos-Rehg, P. A., Houston, A. J., Krauss, M. J., Sowles, S. J., Spitznagel, E. L., Chaloupka, F. J., Gruzca, R., Johnston, L. D., O'Malley, P. M., & Bierut, L. J. (2016). Selected state policies and associations with alcohol use behaviors and risky driving behaviors among youth: Findings from monitoring the future study. *Alcoholism, Clinical and Experimental Research*, 40(5), 1030–1036. <https://doi.org/10.1111/acer.13041>
- Cavazos-Rehg, P. A., Krauss, M. J., Spitznagel, E. L., Chaloupka, F. J., Schootman, M., Gruzca, R. A., & Bierut, L. J. (2012). Associations between selected state laws and teenagers' drinking and driving behaviors. *Alcoholism: Clinical and Experimental Research*, 36(9), 1647–1652. <https://doi.org/10.1111/j.1530-0277.2012.01764.x>
- Centers for Disease Control and Prevention. (2016). *Graduated driver licensing system planning guide*. https://www.cdc.gov/motorvehiclesafety/pdf/teen/gdl_planning_guide-a.pdf.
- Centers for Disease Control and Prevention. *Motor vehicle injuries—Prevention status reports national summary*. <https://wwwn.cdc.gov/psr/NationalSummary/NSMVI.aspx>.
- Chen, L. H., Baker, S. P., Braver, E. R., & Li, G. (2000). Carrying passengers as a risk factor for crashes fatal to 16- and 17-year-old drivers. *Journal of the American Medical Association*, 283(12), 1578–1582.
- Chen, L. H., Baker, S. P., & Li, G. (2006). Graduated driver licensing programs and fatal crashes of 16-year-old drivers: A national evaluation. *Pediatrics*, 118(1), 56–62. <https://doi.org/10.1542/peds.2005-2281>
- Conner, K. A., & Smith, G. A. (2017). An evaluation of the effect of Ohio's graduated driver licensing law on motor vehicle crashes and crash outcomes involving drivers 16 to 20 years of age. *Traffic Injury Prevention*, 18(4), 344–350. <https://doi.org/10.1080/15389588.2016.1209493>
- Curry, A. E., Elliott, M. R., Pfeiffer, M. R., Kim, K. H., & Durbin, D. R. (2015). Long-term changes in crash rates after introduction of a graduated driver licensing decal provision. *American Journal of Preventive Medicine*, 48(2), 121–127. <https://doi.org/10.1016/j.amepre.2014.08.024>
- Curry, A. E., Pfeiffer, M. R., Durbin, D. R., & Elliott, M. R. (2015). Young driver crash rates by licensing age, driving experience, and license phase. *Accident; Analysis and Prevention*, 80, 243–250. <https://doi.org/10.1016/j.aap.2015.04.019>

- Curry, A. E., Pfeiffer, M. R., & Elliott, M. R. (2017). Compliance with and enforcement of graduated driver licensing restrictions. *American Journal of Preventive Medicine*, 52(1), 47–54. <https://doi.org/10.1016/j.amepre.2016.08.024>
- Curry, A. E., Pfeiffer, M. R., Localio, R., & Durbin, D. R. (2013). Graduated driver licensing decal law: Effect on young probationary drivers. *American Journal of Preventive Medicine*, 44(1), 1–7. <https://doi.org/10.1016/j.amepre.2012.09.041>
- Dee, T. S., Grabowski, D. C., & Morrissey, M. A. (2005). Graduated driver licensing and teen traffic fatalities. *Journal of Health Economics*, 24(3), 571–589. <https://doi.org/10.1016/j.jhealeco.2004.09.013>
- DePesa, C., Raybould, T., Hurwitz, S., Lee, J., Gervasini, A., Velmahos, G. C., Masiakos, P. T., & Kaafarani, H. M. A. (2017). The impact of the 2007 graduated driver licensing law in Massachusetts on the rate of citations and licensing in teenage drivers. *Journal of Safety Research*, 61, 199–204. <https://doi.org/10.1016/j.jsr.2017.02.012>
- Ehsani, J. P., Bingham, C. R., & Shope, J. T. (2013). Graduated driver licensing for new drivers: Effects of three states' policies on crash rates among teenagers. *American Journal of Preventive Medicine*, 45(1), 9–18. <https://doi.org/10.1016/j.amepre.2013.03.005>
- Fell, J. C. (2019). Approaches for reducing alcohol-impaired driving: Evidence-based legislation, law enforcement strategies, sanctions, and alcohol-control policies. *Forensic Science Review*, 31(2), 161–184.
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2009). The impact of underage drinking laws on alcohol-related fatal crashes of young drivers. *Alcoholism, Clinical and Experimental Research*, 33(7), 1208–1219. <https://doi.org/10.1111/j.1530-0277.2009.00945.x>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7(1), 28–58. <https://doi.org/10.1002/wmh3.132>
- Foss, R. D., Feaganes, J. R., & Rodgman, E. A. (2001). Initial effects of graduated driver licensing on 16-year-old driver crashes in North Carolina. *Journal of the American Medical Association*, 286(13), 1588–1592.
- Gilpin, G. (2019). Teen driver licensure provisions, licensing, and vehicular fatalities. *Journal of Health Economics*, 66, 54–70. <https://doi.org/10.1016/j.jhealeco.2019.04.003>
- Greenfield, T. K., Cook, W. K., Karriker-Jaffe, K. J., Patterson, D., Kerr, W. C., Xuan, Z., & Naimi, T. S. (2019). The relationship between the U.S. state alcohol policy environment and individuals' experience of secondhand effects: Alcohol harms due to others' drinking. *Alcoholism: Clinical and Experimental Research*, 43(6), 1234–1243.
- Hamann, C., Price, M., & Peek-Asa, C. (2020). Characteristics of crashes and injuries among 14- and 15-year-old drivers, by rurality. *Journal of Safety Research*, 73, 111–118.
- Hingson, R., & White, A. (2014). New research findings since the 2007 Surgeon General's Call to Action to Prevent and Reduce Underage Drinking: A review. *Journal of Studies on Alcohol and Drugs*, 75(1), 158–169. <https://doi.org/10.15288/jsad.2014.75.158>

- Hwang, S. J., & Berry, F. (2019). Deterring drunk driving: Why some states go further than others in policy innovation. *International Journal of Environmental Research and Public Health*, 16(10). <https://doi.org/10.3390/ijerph16101749>
- Masten, S. V., Foss, R. D., & Marshall, S. W. (2011). Graduated driver licensing and fatal crashes involving 16- to 19-year-old drivers. *Journal of the American Medical Association*, 306(10), 1098–1103. <https://doi.org/10.1001/jama.2011.1277>
- Mayhew, D. R., Simpson, H. M., & Pak, A. (2003). Changes in collision rates among novice drivers during the first months of driving. *Accident Analysis & Prevention*, 35(5), 683–691. [https://doi.org/10.1016/S0001-4575\(02\)00047-7](https://doi.org/10.1016/S0001-4575(02)00047-7)
- McCartt, A. T., Shabanova, V. I., & Leaf, W. A. (2003). Driving experience, crashes and traffic citations of teenage beginning drivers. *Accident; Analysis and Prevention*, 35(3), 311–320.
- McKnight, A. J., & McKnight, A. S. (2003). Young novice drivers: Careless or clueless? *Accident; Analysis and Prevention*, 35(6), 921–925.
- Romano, E., Fell, J. C., Li, K., Simons-Morton, B. G., & Vaca, F. E. (2021). Alcohol-and speeding-related fatal crashes among novice drivers age 18–20 not fully licensed at the time of the crash. *Drug and Alcohol Dependence*, 218, 108417.
- Shope, J. T. (2007). Graduated driver licensing: Review of evaluation results since 2002. *Journal of Safety Research*, 38(2), 165–175. <https://doi.org/10.1016/j.jsr.2007.02.004>
- Shope, J. T., Zakrajsek, J. S., Finch, S., Bingham, C. R., Neil, J. O., Yano, S., Wasserman, R., & Simons-Morton, B. (2016). Translation to primary care of an effective teen safe driving program for parents. *Clinical Pediatrics*, 55(11), 1026–1035. <https://doi.org/10.1177/0009922816665086>
- Shults R. A., Williams, A. F. (2016). Graduated driver licensing night driving restrictions and drivers aged 16 or 17 years involved in fatal night crashes—United States, 2009–2014. *MMWR Morb Mortal Wkly Rep*, 65, 725–730. DOI: <http://dx.doi.org/10.15585/mmwr.mm6529a1>
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One*, 14(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>
- Tefft, B. C., Williams, A. F., & Grabowski, J. G. (2014). Driver licensing and reasons for delaying licensure among young adults ages 18-20, United States, 2012. *Injury Epidemiology*, 1(1), 4. <https://doi.org/10.1186/2197-1714-1-4>
- U.S. Department of Health and Human Services. (2007). *Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360>
- Ulmer, R. G., Ferguson, S. A., Williams, A. F., & Preusser, D. F. (2001). Teenage crash reduction associated with delayed licensure in Connecticut. *Journal of Safety Research*, 32(1), 31–41.
- Unni, P., Estrada, C. M., Chung, D. H., Riley, E. B., Worsley-Hynd, L., & Stinson, N. (2017). A multiyear assessment of a hospital-school program to promote teen motor vehicle safety. *Journal of Trauma and Acute Care Surgery*, 83(2), 289–295. <https://doi.org/10.1097/TA.0000000000001521>
- Williams, A. F., McCartt, A. T., & Sims, L. B. (2016). History and current status of state graduated driver licensing (GDL) laws in the United States. *Journal of Safety Research*, 56, 9–15.

Zhu, M., Cummings, P., Zhao, S., Coben, J. H., & Smith, G. S. (2015). The association of graduated driver licensing with miles driven and fatal crash rates per miles driven among adolescents. *Injury Prevention*, 21(0), e23–e27.

Policies Targeting Alcohol Availability

Furnishing Alcohol to People Under Age 21

Policy Description

All states prohibit furnishing alcoholic beverages to underage people by both commercial servers (bars, restaurants, retail sales outlets) and non-commercial servers.¹⁵ However, court rulings may have modified the prohibition in some states. Additionally, most states include one or more exceptions of the types listed below to their furnishing laws.

Most underage persons obtain alcohol from adults, including parents, older siblings, peers, or strangers solicited to purchase alcohol. However, some underage persons purchase alcohol for themselves from merchants who fail to comply with laws prohibiting sale to people under age 21 or by using false ID (see the “False ID” policy). All of these sources increase the availability of alcohol to youth, which, in turn, increases underage consumption. Prohibitions and associated sanctions on furnishing to underage persons can be expected to depress rates of furnishing by raising the monetary and social costs of this behavior. Such laws provide a primary deterrent (preventing furnishing) and a secondary deterrent (reducing the chances of persons sanctioned under these laws furnishing in the future).

Two types of exceptions to underage furnishing laws are discussed in this analysis:

1. Family exceptions permit parents, guardians, or spouses to furnish alcohol to underage people; some states specify that the spouse must be of legal age and others do not.
2. Location exceptions permit furnishing alcohol in specified locations and may limit the extent to which family members can furnish to underage youth. No state has an exception for furnishing on private property by anyone other than a family member.

Some states provide sellers and licensees with one or more defenses against a charge of furnishing alcoholic beverages to a person under age 21. Under these provisions, a retailer who provides alcohol to an underage person will not be found in violation of the furnishing law if he or she can establish one of these defenses. This policy topic tracks one such defense: Some states require that the underage person who initiated a transaction be charged for possessing or purchasing the alcohol before the retailer can be found in violation of the furnishing law (see the “False ID” policy for information on defenses associated with underage youth using false ID). Many states also have provisions that mitigate or reduce the penalties imposed on retailers if they have participated in responsible beverage service (RBS) programs (see the “RBS” policy for further discussion).

In some states, furnishing laws are closely associated with laws that prohibit hosting underage drinking parties. These laws target hosts who allow underage drinking on property they own, lease, or otherwise control (see the “Hosting Underage Drinking Parties” policy for further discussion). Hosts of underage drinking parties who also supply the alcohol consumed or possessed by people under age 21 may be in violation of two distinct laws: (1) furnishing alcohol to underage people and (2) allowing underage drinking to occur on property they control.

¹⁵ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

Also addressed in this chapter are social host liability laws, which impose civil liability on hosts for injuries caused by their underage guests. Although related to party hosting laws, social host liability laws are distinct. They do not establish criminal or civil offenses but instead allow injured parties to recover damages by suing social hosts of events at which underage youth consumed alcohol and later caused injuries. The commercial analog to social host liability laws is dram shop laws, which prohibit commercial establishments—bars, restaurants, and retail sales outlets—from furnishing alcoholic beverages to people under age 21. See the “Social Host Liability” and “Dram Shop Liability” policies for further discussion.

Status of Underage Furnishing Policies

Exceptions to Furnishing Prohibitions

As of January 1, 2020, all states prohibit the furnishing of alcoholic beverages to people under age 21. Twenty states have no family or location exceptions to this prohibition (Exhibit 2.11). Nineteen states have only a family exception. The remaining 12 states have a family exception limited to certain locations, such as any private residence or the parents’ homes.

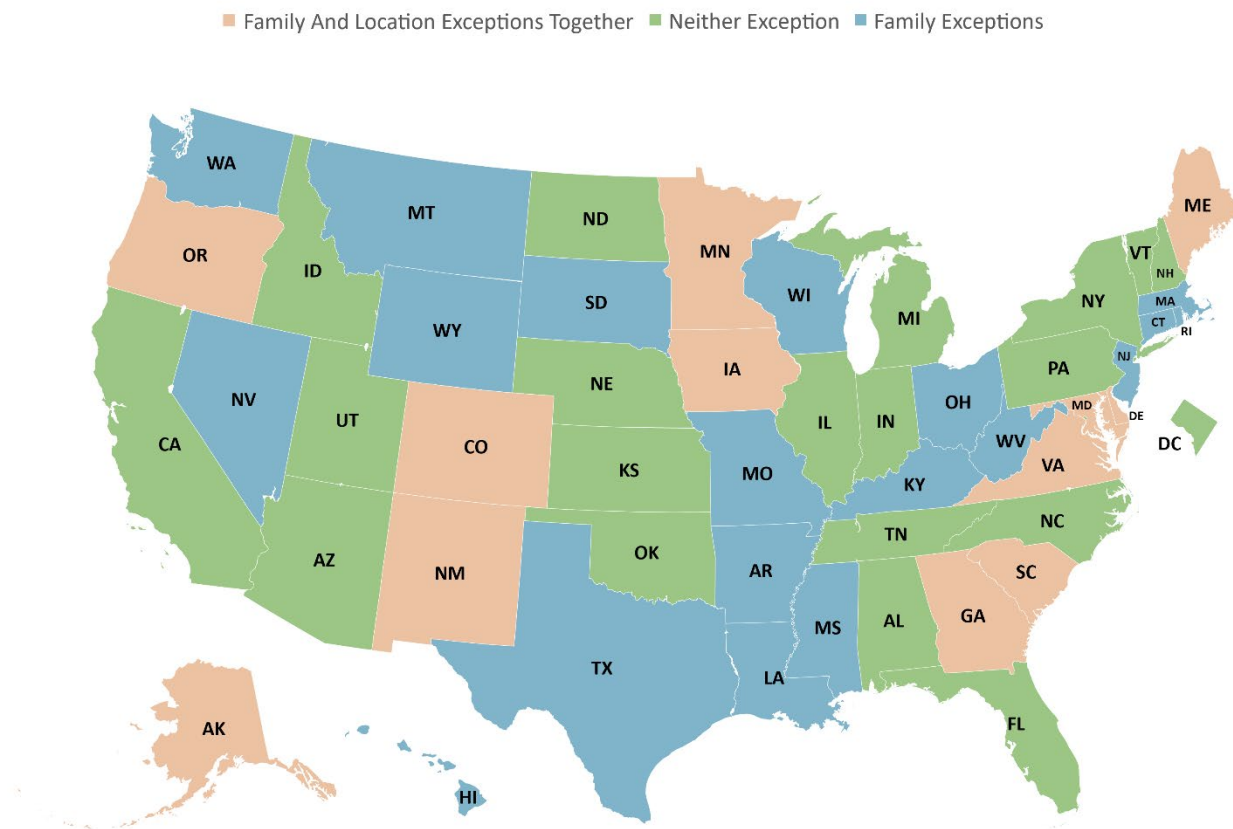
Affirmative Defense for Sellers and Licensees

As of January 1, 2020, the underage furnishing laws of two states (Michigan and South Carolina) include provisions requiring that a seller/licensee be exonerated of charges of furnishing alcohol to an underage person unless the underage person is also charged.

Trends in Underage Furnishing Policies

As of January 1, 1998, all states prohibited underage furnishing and still do so, although a few states have added exceptions since then.

Exhibit 2.11: Exceptions to Prohibitions on Furnishing Alcohol to Persons Under Age 21 as of January 1, 2020



Data Sources and Citations

All data for the “Furnishing Alcohol to People Under Age 21” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/furnishing-alcohol-to-minors/40>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Aiken, A., Clare, P. J., Boland, V. C., Degenhardt, L., Yuen, W. S., Hutchinson, D., Najman, J., McCambridge, J., Slade, T., McBride, N., De Torres, C., Wadolowski, M., Bruno, R., Kypri, K., Mattick, R. P., & Peacock, A. (2020). Parental supply of sips and whole drinks of alcohol to adolescents and associations with binge drinking and alcohol-related harms: A prospective cohort study. *Drug and Alcohol Dependence*, 215, 108204.

Blanchette, Jason G., Marlene C. Lira, Timothy C. Heeren, and Timothy S. Naimi. "Alcohol policies in US states, 1999–2018." *Journal of studies on alcohol and drugs* 81, no. 1 (2020): 58-67.

- Chan, G., Leung, J., Connor, J., Hall, W., & Kelly, A. B. (2017). Parental supply of alcohol and adolescent drinking: a multilevel analysis of nationally representative data. *BMC Public Health, 17*(1), 560.
- Fell, J. C., Scherer, M., Thomas, S., Voas, R. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs, 77*(2), 249–260.
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research, 39*(8), 1528–1537.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy, 7*, 28–58.
- Gosselt, J. F., van Hoof, J. J., & De Jong, M. D. (2012). Why should I comply? Sellers' accounts for (non-)compliance with legal age limits for alcohol sales. *Substance Abuse Treatment, Prevention, and Policy, 7*, 5. <https://doi.org/10.1186/1747-597X-7-5>
- Hingson, R., & White, A. (2014). New research findings since the 2007 Surgeon General's Call to Action to Prevent and Reduce Underage Drinking: A review. *Journal of Studies on Alcohol and Drugs, 75*(1), 158–169. <https://doi.org/10.15288/jsad.2014.75.158>
- Jones-Webb, R., Toomey, T. L., Lenk, K. M., Nelson, T. F., & Erickson, D. J. (2015). Targeting adults who provide alcohol to underage youth: Results from a national survey of local law enforcement agencies. *Journal of Community Health, 40*(3), 569–575. <https://doi.org/10.1007/s10900-014-9973-0>
- Jongenelis, M. I., Johnston, R., & Stafford, J. (2018). Factors associated with parents' belief in the appropriateness of providing alcohol to their child. *Substance Use & Misuse, 1*–10.
- Kaynak, O., Winters, K. C., Cacciola, J., Kirby, K. C., & Arria, A. M. (2014). Providing alcohol for underage youth: What messages should we be sending parents? *Journal of Studies on Alcohol and Drugs, 75*(4), 590–605.
- Lam, T., Fischer, J., Salom, C., Ogeil, R., Wilson, J., Lubman, D. I., Burns, L., Lenton, S., Gilmore, W., Chikritzhs, T., Aiken, A., & Allsop, S. (2020). Safety first: beliefs of older peers supplying alcohol to underage friends. *Health Promotion Journal of Australia.*
- Mattick, R. P., Wadolowski, M., Aiken, A., Clare, P. J., Hutchinson, D., Najman, J., Slade, T., Bruno, R., McBride, N., Degenhardt, L., & Kypri, K. (2017). Parental supply of alcohol and alcohol consumption in adolescence: prospective cohort study. *Psychological Medicine 47*(2), 267–278.
- Morrison, C. N., Byrnes, H. F., Miller, B. A., Wiehe, S. E., Ponicki, W. R., & Wiebe, D. J. (2019). Exposure to alcohol outlets, alcohol access, and alcohol consumption among adolescents. *Drug and Alcohol Dependence, 107*622.
- Paschall, M. J., Grube, J. W., Black, C., & Ringwalt, C. L. (2007). Is commercial alcohol availability related to adolescent alcohol sources and alcohol use? Findings from a multi-level study. *Journal of Adolescent Health, 41*(2), 168–174.
- Plunk, A. D., Cavazos-Rehg, P., Bierut, L. J., & Grucza, R. A. (2013). The persistent effects of minimum legal drinking age laws on drinking patterns later in life. *Alcoholism: Clinical and Experimental Research, 37*, 463–469. <https://doi.org/10.1111/j.1530-0277.2012.01945.x>
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One, 14*(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>

- U.S. Department of Health and Human Services. (2007). *Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- van Hoof, J. J., & Gosselt, J. F. (2013). Underage alcohol sales—it only takes a minute: A new approach to underage alcohol availability. *Journal of Studies on Alcohol and Drugs*, 74(3), 423–427.
- Vidourek, R. A., King, K. A., & Merianos, A. L. (2018). Where do adolescent recent drinkers obtain and use alcohol? *Journal of Substance Use*, 23(2), 136–143.
- Ward, L. M., & Snow, P. C. (2011). Factors affecting parental supply of alcohol to underage adolescents. *Drug and Alcohol Review*, 30(4), 338–343.
- Wilson, M. N., Langille, D. B., Ogilvie, R. & Asbridge, M. (2019). When parents supply alcohol to their children: Exploring associations with drinking frequency, alcohol-related harms, and the role of parental monitoring. *Drug and Alcohol Dependence*, 183, 141–149.

Responsible Beverage Service (RBS) Training

Policy Description

RBS training policies require or incentivize retail alcohol outlets to train licensees, managers, and servers/sellers to effectively implement policies and procedures that prevent alcohol sales and service to underage and intoxicated persons.

Server/seller training focuses on procedures for serving, selling, and checking age ID, along with techniques for recognizing signs of intoxication and intervening with intoxicated patrons. Manager training includes server/seller training, policy and procedures development, and staff supervision. RBS programs typically have distinct training curricula for on- and off-sale establishments because of the differing characteristics of these retail environments. All RBS programs focus on preventing sales and furnishing to people under age 21.

RBS training can be mandatory or voluntary. A program is considered mandatory if state provisions require at least one specified category of individual (e.g., servers/sellers, managers, or licensees) to attend training.¹⁶ States may have either mandatory programs, voluntary programs, or both. For example, a state may make training for new licensees mandatory while also offering voluntary programs for existing licensees. Alternatively, a state may have a basic mandatory program while also offering a more intensive voluntary program that provides additional benefits for licensees choosing to participate in both.

States with voluntary programs usually provide incentives for retailers to participate in RBS training but do not impose penalties for those who decline involvement. Incentives vary by state and include (1) a defense in dram shop liability lawsuits (cases filed by injured persons against retail establishments that provided alcohol to underage or intoxicated persons who later caused injuries to themselves or third parties); (2) discounts for dram shop liability insurance; (3) mitigation of fines or other administrative penalties for sales to underage youth or sales to intoxicated persons; and (4) protection against license revocation for sales to underage or intoxicated persons.

See the “Dram Shop Liability” policy for further discussion. The “Furnishing of Alcohol to People Under Age 21” policy discussion has additional information regarding prevention of alcohol sales to underage people, and the “False ID” policy discussion includes materials related to age ID policies.

Status of RBS Training Policies

As of January 1, 2020, 40 states have some type of RBS training provision (Exhibit 2.12). Of these, 14 states have mandatory provisions, 15 states have voluntary provisions, and 11 states have both. The 11 states that have both mandatory and voluntary provisions are California, Colorado, Illinois, Michigan, New Hampshire, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, and Washington.

Of the 25 states with mandatory provisions, some apply their provisions to both on-sale (e.g., bars and restaurants) and off-sale (e.g., liquor stores) establishments, whereas some apply to

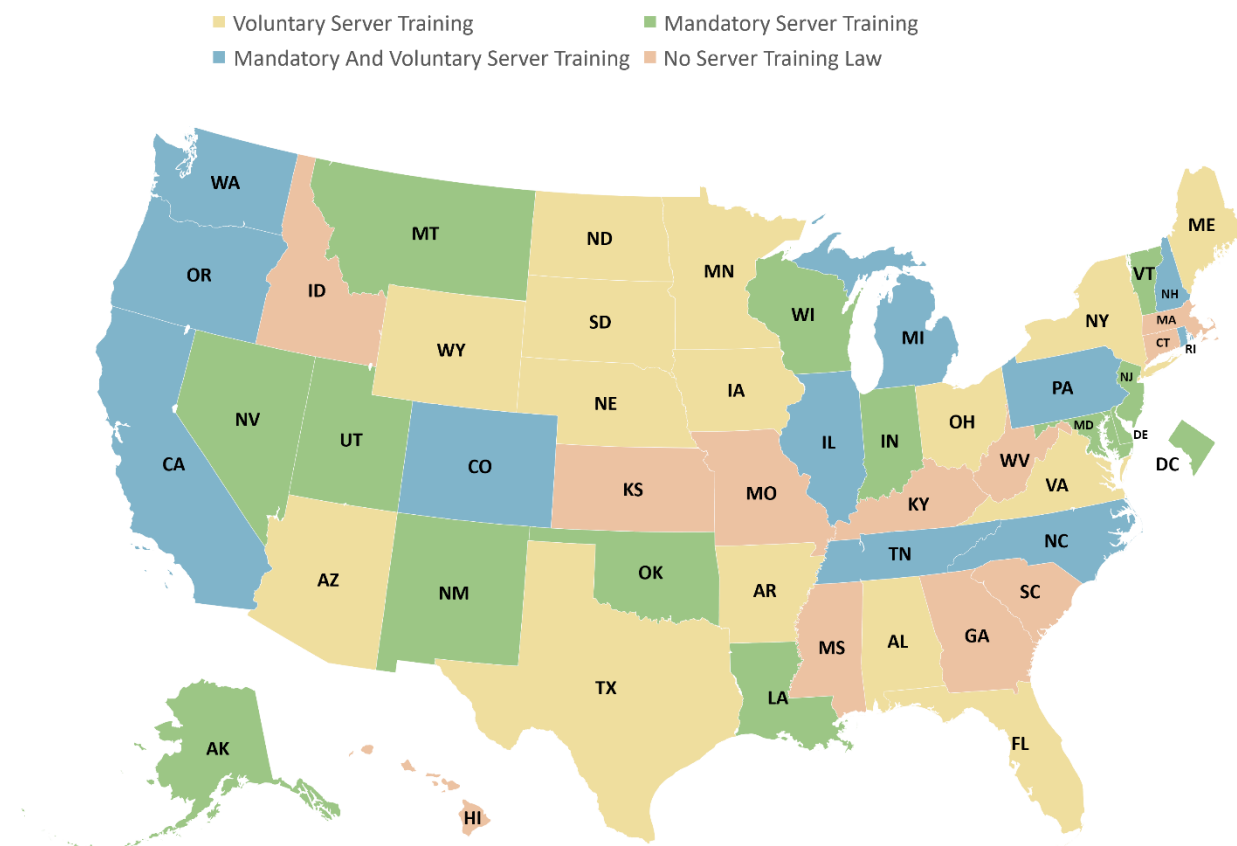
¹⁶ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

either on-sale or off-sale establishments. Some of the mandatory states apply their provisions to both new and existing establishments, whereas others apply them to either existing or new establishments.

Trends in RBS Policies

Between 2003–2020, the number of states with mandatory policies increased from 15 to 25, and the number of states with voluntary policies rose from 17 to 26. The number of states with no RBS training policy decreased from 22 to 11.

Exhibit 2.12: RBS as of January 1, 2020



Data Sources and Citations

All data for the “Beverage Service Training and Related Practices” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/beverage-service-training-and-related-practices/26>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, 81(1), 58–67.

- Buka, S. L., & Birdthistle, I. J. (1999). Long-term effects of a communitywide alcohol server training intervention. *Journal of Studies on Alcohol*, *60*, 27–36.
- Buller, D. B., Woodall, W. G., Saltz, R., Grayson, A., Svendsen, S., & Cutter, G. R. (2020). Sales to apparently alcohol-intoxicated customers and online responsible vendor training in recreational cannabis stores in a randomized trial. *International Journal of Drug Policy*, *83*, 102860.
- Cook, W. K., Li, L., Greenfield, T. K., Patterson, D., Naimi, T., Xuan, Z., & Karriker-Jaffe, K. J. (2020). State alcohol policies, binge drinking prevalence, socioeconomic environments and alcohol's harms to others: A mediation analysis. *Alcohol and Alcoholism*.
- Dresser, J., Starling, R., Woodall, W. G., Stanghetta, P., & May, P. A. (2011). Field trial of alcohol-server training for prevention of fetal alcohol syndrome. *Journal of Studies on Alcohol and Drugs*, *72*(3), 490–496.
- Ecklund, A. M., Nederhoff, D. M., Hunt, S. L., Horvath, K. J., Nelson, T. F., Plum, J. E., & Toomey, T. L. (2017). Attitudes and practices regarding responsible beverage service: Focus group discussions with bar and restaurant management and staff. *Journal of Drug Education*, *47*(3–4), 87–107.
- Fell, J. C., Fisher, D. A., Yao, J., & McKnight, A. S. (2017). Evaluation of a responsible beverage service and enforcement program: Effects on bar patron intoxication and potential impaired driving by young adults. *Traffic Injury Prevention*, *18*(6), 557–565. <https://doi.org/10.1080/15389588.2017.1285401>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, *39*(8), 1528–1537.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, *77*(2), 249–260.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, *7*, 28–58.
- George, M. D., Bodiford, A., Humphries, C., Stoneburner, K. A., & Holder, H. D. (2019). Media and education effect on impaired driving associated with alcohol service. *Journal of Drug Education*, 0047237919859658.
- Gosselt, J. F., van Hoof, J. J., & De Jong, M. D. (2012). Why should I comply? Sellers' accounts for (non-)compliance with legal age limits for alcohol sales. *Substance Abuse Treatment, Prevention, and Policy*, *7*, 5. <https://doi.org/10.1186/1747-597X-7-5>
- Grube, J. W. (1997). Preventing sales of alcohol to minors: Results from a community trial. *Addiction*, *92*(Suppl 2), S251–S260.
- Grube, J. W., DeJong, W., DeJong, M., Lipperman-Kreda, S., & Krevor, B. S. (2018). Effects of a responsible retailing mystery shop intervention on age verification by servers and clerks in alcohol outlets: A cluster randomised cross-over trial. *Drug and Alcohol Review*, *37*(6), 774–781. <https://doi.org/10.1111/dar.12839>
- Holder, H. D., & Wagenaar, A. C. (1994). Mandated server training and reduced alcohol-involved traffic crashes: A time series analysis of the Oregon experience. *Accident Analysis & Prevention*, *26*, 89–97.
- Jernigan, D. H., Shields, K., Mitchell, M., & Arria, A. M. (2019). Assessing campus alcohol policies: Measuring accessibility, clarity, and effectiveness. *Alcoholism: Clinical and Experimental Research*, *43*(5), 1007–1015.

- Lenk, K. M., Erickson, D. J., Nelson, T. F., Horvath, K. J., Nederhoff, D. M., Hunt, S. L., Ecklund, A. M., & Toomey, T. L. (2018). Changes in alcohol policies and practices in bars and restaurants after completion of manager-focused responsible service training. *Drug and Alcohol Review*, 37(3), 356–364.
- Lenk, K. M., Wiens, T., Fabian, L. E. A., & Erickson, D. J. (2020). Practices and policies of marijuana retail stores in the first two US states to legalize recreational marijuana sales. *Drugs: Education, Prevention and Policy*, 1–9.
- Linde, A. C., Toomey, T. L., Wolfson, J., Lenk, K. M., Jones-Webb, R., & Erickson, D. J. (2016). Associations between responsible beverage service laws and binge drinking and alcohol-impaired driving. *Journal of Alcohol & Drug Education*, 60(2), 35–54.
- Rammohan, V., Hahn, R. A., Elder, R., Brewer, R., Fielding, J., Naimi, T. S., Toomey, T. L., Chattopadhyay, S. K., Zometa, C., & Task Force on Community Preventive Services. (2011). Effects of dram shop liability and enhanced overservice law enforcement initiatives on excessive alcohol consumption and related harms: Two community guide systematic reviews. *American Journal of Preventive Medicine*, 41(3), 334–343.
<https://doi.org/10.1016/j.amepre.2011.06.027>
- Saltz, R. F. (1987). The roles of bars and restaurants in preventing alcohol impaired driving: An evaluation of server intervention. *Evaluation & the Health Professions*, 10, 5–27.
- Scherer, M., Romano, E., Caldwell, S., & Taylor, E. (2018). The impact of retail beverage service training and social host laws on adolescents' DUI rates in San Diego County, California. *Traffic Injury Prevention*, 19(2), 111–117.
<https://doi.org/10.1080/15389588.2017.1350268>
- Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., Zaza, S., Sosin, D. M., & Thompson, R. S. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine*, 21(4, Supplement 1), 66–88. [https://doi.org/10.1016/S0749-3797\(01\)00381-6](https://doi.org/10.1016/S0749-3797(01)00381-6)
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One*, 14(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>
- Toomey, T. L., Erickson, D. J., Lenk, K. M., Kilian, G. R., Perry, C. L., & Wagenaar, A. C. (2008). A randomized trial to evaluate a management training program to prevent illegal alcohol sales. *Addiction*, 103(3), 405–413.
- U.S. Department of Health and Human Services. (2007). *Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- Voas, R. B. (2020). 16 vehicle safety features aimed at preventing alcohol-related crashes. *Alcohol, Drugs, and Impaired Driving: Forensic Science and Law Enforcement Issues*.
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism: Alcohol Problems in Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.
- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Preventing youth access to alcohol: Outcomes from a multi-community time-series trial. *Addiction*, 100, 335–345.

Woodall W. G., Starling R, Saltz R. F., Buller D. B., & Stanghetta P. (2018). Results of a randomized trial of web-based retail onsite responsible beverage service training: WayToServe. *Journal of Studies on Alcohol and Drugs*, 79(5), 672–679.

Minimum Ages for Off-Premises Sellers

Policy Description

Most states have laws that specify a minimum age for employees who sell alcoholic beverages in off-premises establishments, such as liquor stores.¹⁷ In some states, the minimum age for sellers is 21. In many states, however, off-premises sellers may be younger than 21, and in a few states no minimum age is specified.

In some cases, persons under 21 may be allowed to sell alcohol only in certain types of off-premises establishments (e.g., grocery stores, convenience stores) or may be allowed to sell only some beverage types (e.g., beer, wine). In some cases, sellers of alcohol must be at least 18, but younger employees may be allowed to stock coolers with alcohol or to bag purchased alcohol.

Several states place conditions on off-premises sellers under 21 years old. These include requirements that a legal-age manager or supervisor be present when the underage person is selling alcoholic beverages.

State laws specifying the minimum age for employees who sell alcoholic beverages for on-premises consumption are described in the “Minimum Ages for On-Premises Servers and Bartenders” policy.

Status of Age of Seller Policies

Minimum Age of Sellers and Types of Beverages

Most states specify the same minimum age for sellers of all types of alcoholic beverages. As of January 1, 2020, seven states specify that off-premises sellers be 21 or older for all beverage types. Two states (Idaho and Indiana) require off-premises sellers to be at least 19 years old for all beverage types. Twenty-nine states have set the minimum age at 18 for at least one beverage. Five states allow all three beverage types to be sold by youth ages 16–17. Ten states do not specify any minimum age for sellers of at least one beverage type. For an example of how these policies affect a specific beverage, please see Exhibit 2.13, showing the minimum allowed age to sell beer by state.

Among states with requirements, the minimum age varies by type of alcohol, with age requirements generally higher for the sale of distilled spirits and lower for beer.

Manager or Supervisor Presence

Fourteen states require that a supervisor or manager be present when an underage seller conducts an alcoholic beverage transaction.

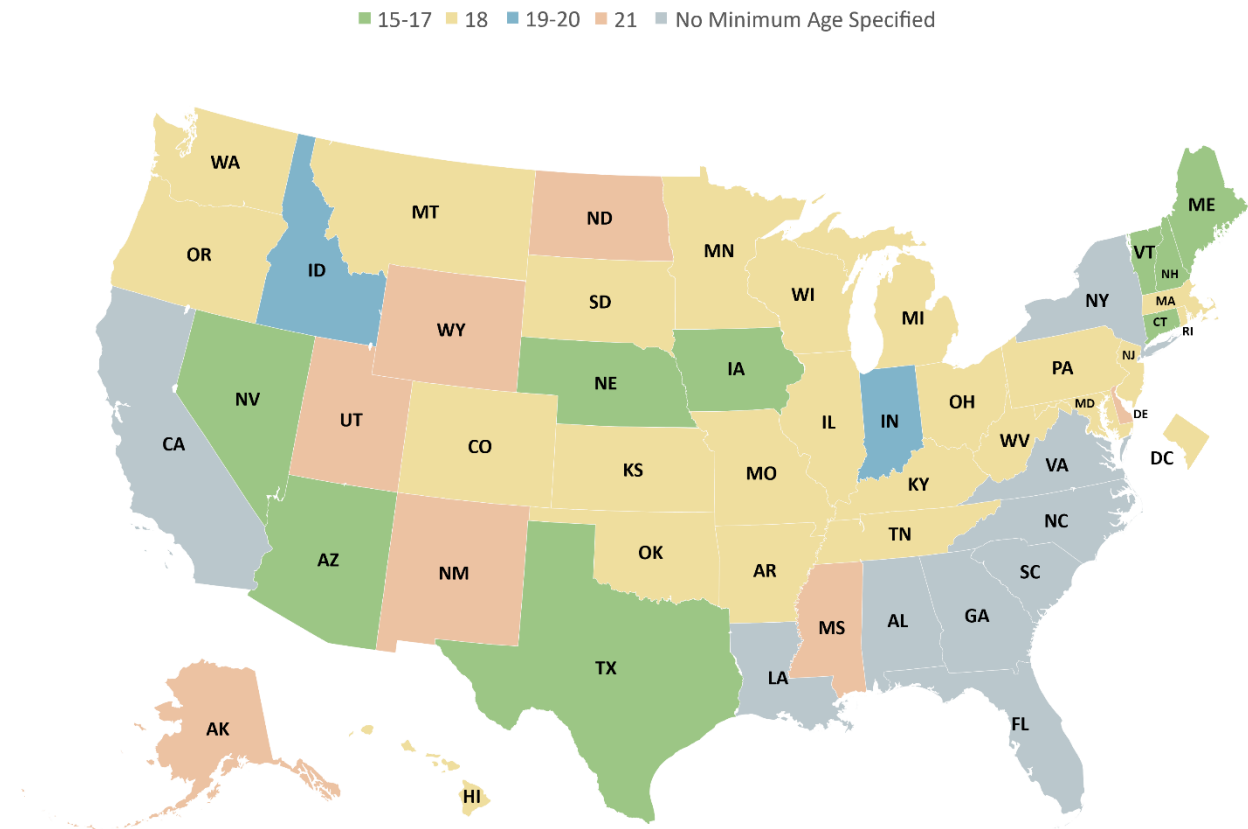
Trends in Age of Seller Policies

There were no changes in age of seller policies across states between 2003–2015. As of June 1, 2016, Connecticut added a “manager or supervisor presence” to their Age of Seller, Off-Premises requirement; Nebraska reduced the minimum age of seller age for beer, wine, and

¹⁷ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

distilled spirits from 19 to 16. As of October 1, 2019, Oklahoma reduced the minimum age to sell beer and wine to 18 years of age. As of January 1, 2019, Colorado reduced the minimum age to sell beer from 21 to 18 years of age, and as of April 1, 2019, Kansas did the same.

Exhibit 2.13: Minimum Age to Sell Beer for Off-Premises Consumption as of January 1, 2020



Data Sources and Citations

All data for the “Minimum Ages for Off-Premises Sellers” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/minimum-ages-for-off-premises-sellers/37>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537.

Fell, J. C., Scherer, M., Thomas, S., & Voas, R. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260.

- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7, 28–58.
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Reboussin, B. A., Song, E. Y., & Wolfson, M. (2011). The impact of alcohol outlet density on the geographic clustering of underage drinking behaviors within census tracts. *Alcoholism: Clinical and Experimental Research*, 35(8), 1541–1549.
- Roodbeen, R. T., Kruize, A., Bieleman, B., Friele, R., Mheen, D. V. D., & Schelleman-Offermans, K. (2020). The right time and place: a new approach for prioritizing alcohol enforcement and prevention efforts by combining the prevalence and the success rate for minors purchasing alcohol themselves. *Journal of Studies on Alcohol and Drugs*, 81(6), 719–724.
- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Complying with the minimum drinking age: Effects of enforcement and training interventions. *Alcoholism: Clinical and Experimental Research*, 29(2), 255–262.
- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Preventing youth access to alcohol: Outcomes from a multi-community time-series trial. *Addiction*, 100(3), 335–345. Available from: <https://doi.org/10.1111/j.1360-0443.2005.00973.x>
- Wechsler, H., Lee, J., Nelson, T., & Lee, H. (2003). Drinking and driving among college students: The influence of alcohol control policies. *American Journal of Preventive Medicine*, 25(3), 212–218.

Minimum Ages for On-Premises Servers and Bartenders

Policy Description

All states specify a minimum age for employees who serve or dispense alcoholic beverages.¹⁸ Generally, the term “servers” refers to waitpersons, and “bartenders” refers to individuals who dispense alcoholic beverages. These restrictions recognize that underage employees, particularly those who are unsupervised, may lack the maturity and experience to adequately verify age and to resist pressure from underage peers to complete illegal sales.

States vary widely in terms of minimum age requirements for servers and bartenders. In some states, the minimum age for both types of employee is 21, but others set lower minimum ages, particularly for servers. No state permits underage bartenders while prohibiting underage servers. Some states permit servers or bartenders younger than 21 to work only in certain types of on-premises establishments, such as restaurants, or to serve only certain beverage types, such as beer or wine. Underage servers and bartenders may be allowed only if legal-age managers or supervisors are present when underage persons are serving alcoholic beverages or tending bar. State laws setting a minimum age for employees who sell alcohol at off-premises establishments are described in the “Minimum Ages for Off-Premises Sellers” policy.

Status of Age of Server Policies

Age of Servers

As of January 1, 2020, Alaska, Nevada, and Utah specify that on-premises alcohol servers of beer, wine, or distilled spirits must be 21 or older. Only one state (Maine) allows 17-year-olds to be servers. Eight states specify that servers be at least 19 or 20, and the remaining 39 states allow 18-year-old servers. For an example of how these policies impact a specific beverage, please see Exhibit 2.14, showing the minimum allowed age to serve beer by state.

Age of Bartenders

Minimum ages for bartenders are generally higher than for servers across the states. Twenty states limit bartending to persons 21 or older. Twenty-six states allow 18-year-olds to bartend for at least some beverage types, whereas only one state (Maine) allows 17-year-olds to bartend. Four states set the minimum age for bartenders at either 19 or 20 years old.

Manager or Supervisor Presence

Nine states require that a supervisor or manager be present when an underage seller conducts an alcoholic beverage transaction.

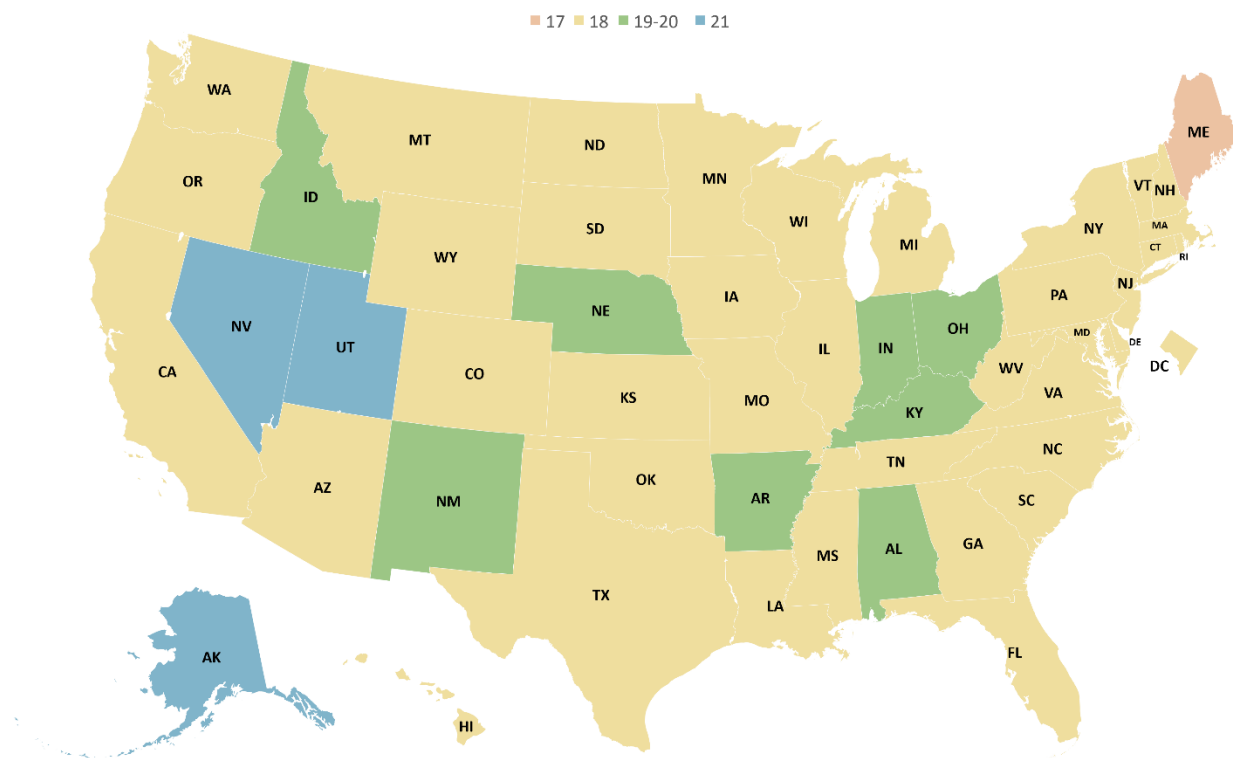
Trends in Age of Server Policies

State policies for ages of servers and bartenders in on-premises establishments have been generally stable over the last decade. Between 2003–2020, Arkansas lowered its minimum age

¹⁸ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

for servers from 21 to 19, and North Dakota, Arizona, and Delaware lowered their age for servers from 19 to 18.

Exhibit 2.14: Minimum Ages for On-Premises Servers (Beer) as of January 1, 2020



Data Sources and Citations

All data for the “Minimum Ages for On-Premises Servers and Bartenders” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/minimum-ages-for-on-premises-servers-and-bartenders/38>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

- Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, 81(1), 58–67.
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7, 28–58.

- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Stout, E., Sloan, A., Liang, L., & Davies, H. (2000). Reducing harmful alcohol-related behaviors: Effective regulatory methods. *Journal of Studies on Alcohol and Drugs*, *61*, 402–412.
- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Complying with the minimum drinking age: Effects of enforcement and training interventions. *Alcoholism: Clinical and Experimental Research*, *29*(2), 255–262.
- Wechsler, H., Lee, J., Nelson, T., & Lee, H. (2003). Drinking and driving among college students: The influence of alcohol control policies. *American Journal of Preventive Medicine*, *25*(3), 212–218.

Distance Limitations Applied to New Alcohol Outlets Near Universities, Colleges, and Primary and Secondary Schools

Policy Description

Policies that limit retail alcohol outlets near colleges and schools are intended to make alcohol less accessible to youth by keeping alcohol sales physically distant from locations where underage people congregate. In addition, such policies aim to reduce the social availability of alcohol by limiting youth exposure to alcohol consumption.

Outlets Near Colleges and Universities

Alcohol outlet density in general is linked to excessive alcohol consumption and related harms according to research collected and evaluated by the Community Preventive Services Task Force and presented in the *Community Guide* (Campbell et al., 2009; Task Force on Community Preventive Services, 2009). The *Community Guide* recommends the use of regulatory authority—for example, through zoning and licensing—to reduce alcohol outlet density.

Limiting the number of retail outlets near colleges and universities, with their high concentrations of underage people, is one way to implement this recommendation in a high-risk setting. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) publication, *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*, also includes limiting alcohol outlet density as an evidence-based, recommended strategy for reducing college drinking (NIAAA, 2002).

Research shows a correlation between underage drinking and retail outlet density near college and university campuses. In a study of eight universities, outlet density was correlated with heavy and frequent drinking among college students, including underage students (Weitzman et al., 2003). Another study found that both on- and off-premises alcohol outlet densities were associated with campus rape offense rates; the effect of on-campus densities was reduced when student drinking levels were considered (Scribner et al., 2010).

A third study examined “secondhand” effects (e.g., noise, vandalism) of drinking on residential neighborhoods near college campuses and concluded that limiting the number of outlets near colleges, particularly those colleges with high rates of binge drinking, could mitigate the secondhand effects (Wechsler et al., 2002). A 1996 study found higher rates of drinking and binge drinking among college students when there were higher numbers of alcohol outlets within one mile of campus (Chaloupka & Wechsler, 1996).

Outlets Near Primary and Secondary Schools

Limiting outlets near primary and secondary schools is another way to reduce alcohol outlet density in a high-risk setting of underage drinking, although there is no nationwide research comparable to that for universities that focuses specifically on the relationship between drinking by K–12 students and the proximity of alcohol outlets to their schools. However, a 2016 study of more than 25,000 Maryland high school students found a positive relationship between the number of alcohol outlets near a school and the perceived availability of alcohol, tobacco, and drugs among girls (Milam et al., 2016). Perceived availability was associated with self-reported substance use.

Types of Outlet Density Restrictions

Outlet density restrictions typically require that alcohol outlets be located a certain distance from a school. Such restrictions may regulate the location of retail outlets near colleges and universities, near primary and secondary schools, or near both categories of schools. Some restrictions limit the sale of alcohol directly on university campuses. Outlet density restrictions may apply to either off- or on-premises retailers or both types of retailers. Restrictions may also apply to the sale of beer, wine, spirits, or some combination of the three.

Distance requirements vary widely, from 100 feet (the distance a primary or secondary school in Illinois must be from an off-premises outlet) to 1.5 miles (the distance a university in California must be from an outlet selling wine or spirits). Restrictions that mandate greater distances are more likely to succeed in keeping alcohol away from underage individuals and reducing their exposure to alcohol marketing.

Distance restrictions apply to the issuance of new licenses, and retail alcohol outlets that were in business prior to the enactment of the restriction may still be allowed to operate within the restricted zone. In these cases, the distance restriction would prevent increased alcohol outlet density without necessarily reducing density or eliminating the presence of retail establishments in the restricted zone.

Status of Outlet Density Restrictions

Colleges and Universities

Twelve states have some type of restriction on outlet density near colleges and universities, whereas 39 states have no restrictions.¹⁹ Of the 12 states with restrictions, 10 have restrictions that apply to both on- and off-premises outlets. Kansas' restriction applies only to off-premises outlets, and Nebraska's restriction applies only to on-premises outlets.

Nearly all of the restrictions apply to beer, wine, and spirits. California's and Mississippi's restrictions apply only to wine and spirits, North Carolina's restriction applies to beer and wine, and West Virginia's applies only to beer. Exhibit 2.15 identifies those states with restrictions on colleges and universities and whether these restrictions apply to off- or on-premises outlets.

Primary and Secondary Schools

Many more states have laws restricting outlet location near primary and secondary schools. Thirty-one states have some restriction, whereas 20 states have none. Of the 31 states restricting outlet location near schools, 23 apply restrictions to both off- and on-premises locations. Restrictions apply only to on-premises locations in six states: Florida, Hawaii, Idaho, Maine, Montana, and Rhode Island. Arkansas and Kansas restrict only off-premises locations.

Most of the restrictions apply to beer, wine, and spirits. Restrictions in Arkansas, Mississippi, New York, and Wisconsin apply to wine and spirits; North Carolina's restrictions apply to beer and wine, whereas West Virginia's restriction applies only to beer. Exhibit 2.16 displays the

¹⁹ Note that throughout this chapter, "states" refers to the 50 states and the District of Columbia.

states with restrictions on primary and secondary schools and identifies whether the restrictions apply to off- or on-premise outlets.

Exhibit 2.15: States With Restrictions on Placement of Retail Outlets Near Colleges and Universities as of January 1, 2020

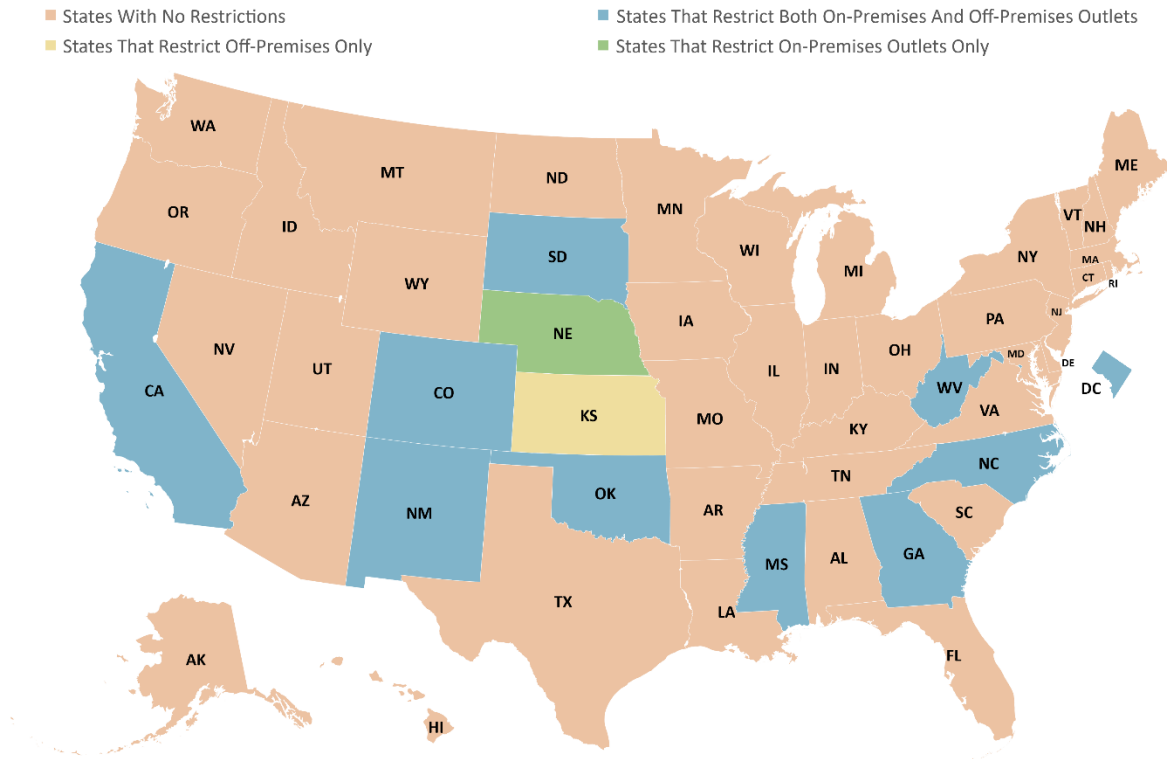
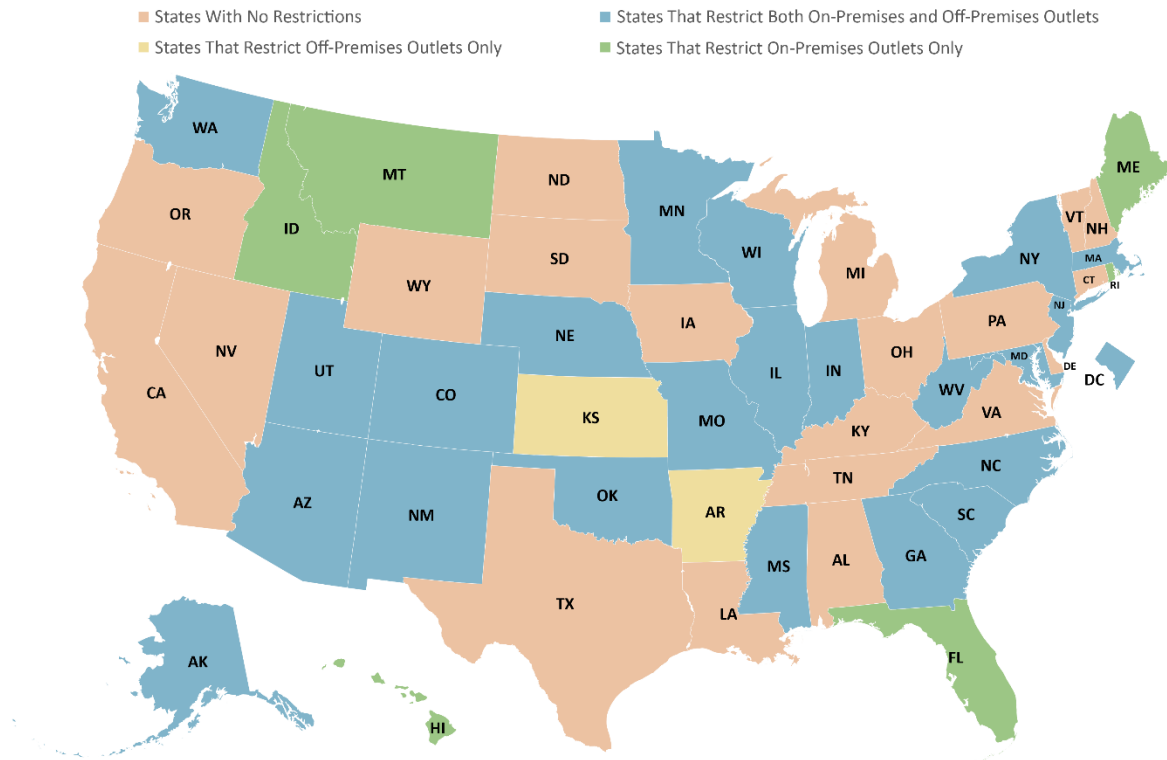


Exhibit 2.16: States With Restrictions on Placement of Retail Outlets Near Primary and Secondary Schools as of January 1, 2020

Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired by Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. For more information, including definitions of the variables for this policy, visit stopalcoholabuse.gov.

Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., Naimi, T. S., Toomey, T., Lawrence, B., Middleton, J. C., & Task Force on Community Preventive Services. (2009). The effectiveness of limiting alcohol outlet density as a means of reducing excessive alcohol consumption and alcohol-related harms. *American Journal of Preventive Medicine*, 37(6), 556–569. <https://doi.org/10.1016/j.amepre.2009.09.028>

Chaloupka, F. J., & Wechsler, H. (1996). Binge drinking in college: The impact of price, availability, and alcohol control policies. *Contemporary Economic Policy*, 14(4), 112–124.

Gmel, G., Holmes, J., & Studer, J. (2016). Are alcohol outlet densities strongly associated with alcohol-related outcomes? A critical review of recent evidence. *Drug and Alcohol Review*, 35, 40–54.

Milam, A. J., Furr-Holden, C. D. M., Cooley-Strickland, M. C., Bradshaw, C. P., & Leaf, P. J. (2014). Risk of exposure to alcohol, tobacco, and other drugs on the route to and from school: The role of alcohol outlets. *Prevention Science*, 15, 12–21.

- Milam, A. J., Lindstrom Johnson, S., Furr-Holden, D. M., & Bradshaw, C. P. (2016). Alcohol outlets and substance use among high schoolers. *Journal of Community Psychology, 44*(7), 819–832.
- Sacks, J. J., Brewer, R. D., Mesnick, J., Holt, J. B., Zhang, X., Kanny, D., Elder, R., & Gruenewald, P. J. (2020). Practice full report: Measuring alcohol outlet density: An overview of strategies for public health practitioners. *Journal of Public Health Management and Practice, 26*(5), 481. <https://doi.org/10.1097/PHH.0000000000001023>
- Scribner, R. A., Mason, K. E., Simonsen, N. R., Theall, K., Chotalia, J., Johnson, S., Schneider, S. K., & DeJong, W. (2010). An ecological analysis of alcohol-outlet density and campus-reported violence at 32 U.S. colleges. *Journal of Studies on Alcohol and Drugs, 71*(2), 184–191. <https://doi.org/10.15288/jsad.2010.71.184>
- Scribner, R., Mason, K., Theall, K., Simonsen, N., Schneider, S. K., Towvim, L. G., & DeJong, W. (2007). The contextual role of alcohol outlet density in college drinking. *Journal of Studies on Alcohol and Drugs, 69*(1), 112–120.
- Snowden, A. J., & Pridemore, W. A. (2013). Alcohol outlets, social disorganization, land use, and violence in a large college town: Direct and moderating effects. *Criminal Justice Review, 38*(1), 29–49.
- Task Force on Community Preventive Services. (2009). Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density. *American Journal of Preventive Medicine, 6*, 570–571.
- Tanumihardjo, J., Shoff, S. M., Koenings, M., Zhang, Z., & Lai, H. J. (2015). Association between alcohol use among college students and alcohol outlet proximities and densities. *Wisconsin Medical Society, 114*(4), 143–147.
- Wechsler, H., Lee, J. E., Hall, A., Wagenaar, A., & Lee, H. (2002). Secondhand effects of student alcohol use reported by neighbors of colleges: The role of alcohol outlets. *Social Science & Medicine, 55*, 425–435.
- Weitzman, E. R., Folkman, A., Folkman, M. P., & Wechsler, H. (2003). The relationship of alcohol outlet density to heavy and frequent drinking and drinking-related problems among college students at eight universities. *Health & Place, 9*(1), 1–6.

Dram Shop Liability

Policy Description

Dram shop liability refers to the civil liability that commercial alcohol providers face for injuries or damages caused by their intoxicated or underage drinking patrons.²⁰ The analysis of this policy topic in this document is limited to alcohol service to underage people. The most common factual scenario in legal cases arising from dram shop liability is a licensed retail alcohol outlet furnishing alcohol to an underage person who, in turn, causes an alcohol-related motor vehicle crash that injures a third party.

In states with dram shop liability, the injured third party (“plaintiff”) may be able to sue the retailer (as well as the underage person who caused the crash) for monetary damages.²¹ Liability is relevant only if an injured private citizen files a lawsuit. The state’s role is to provide a forum for such a lawsuit; the state does not impose a dram shop–related penalty directly. (This distinguishes dram shop liability from the underage furnishing policy, which results in criminal liability imposed by the state.)

Dram shop liability is closely related to the policy on furnishing alcohol to underage people, but the two topics are distinct. Retailers who furnish alcohol to underage youth may face fines or other punishment imposed by the state as well as dram shop liability lawsuits filed by parties injured as a result of the same incident. Dram shop liability and social host liability (presented elsewhere in this report) are identical, except that the former involves lawsuits filed against commercial alcohol retailers and the latter involves lawsuits filed against non-commercial alcohol providers.

Dram shop liability serves two purposes: (1) It creates a disincentive for retailers to furnish to people under age 21 because of the risk of litigation leading to substantial monetary losses, and (2) it enables parties injured as a result of an illegal sale to a person under age 21 to gain compensation from those responsible for the injury. The underage person causing the injury is the primary and most likely party to be sued. Typically, the retailer is sued through a dram shop claim when the underage person does not have the resources to fully compensate the injured party.

Dram shop liability is established by statute or by a state court through “common law.” Common law is the authority of state courts to establish rules by which an injured party can seek redress against the person or entity that negligently or intentionally caused injury. Courts can establish these rules only when the state legislature has not enacted its own statutes, in which case the courts must follow the legislative dictates (unless found to be unconstitutional). Thus, dram shop statutes normally take precedence over dram shop common law court decisions. This analysis includes both statutory and common law dram shop liability for each state. Dram shop liability can be strengthened by expanding it to include adults and by avoiding major limitations (e.g., strong evidentiary requirements, caps on damages, and restrictions on who may be sued).

²⁰ Dram shops were retail establishments that sold distilled spirits by the “dram,” a liquid measure that equals 1 ounce. This form of liability is also known as “commercial host liability.”

²¹ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

A common law liability designation signifies that the state allows lawsuits by injured third parties against alcohol retailers for the negligent service or provision of alcohol to a person under age 21. Common law liability assumes the following procedural and substantive rules:

1. A negligence standard applies (i.e., the defendant did not act as a reasonable person would be expected to act in like circumstances). Plaintiffs need not show that the defendant acted intentionally, willfully, or with actual knowledge of the underage youth's underage status.
2. Damages are not arbitrarily limited. If negligence is established, the plaintiff receives actual damages and can seek punitive damages.
3. Plaintiffs can pursue claims against defendants without regard to the age of the person who furnished the alcohol and the age of the underage person furnished with the alcohol.
4. Plaintiffs must establish only that underage persons were furnished alcohol and that the furnishing contributed to the injury without regard to their intoxicated state at the time of sale.
5. Plaintiffs must establish key elements of the lawsuit via "preponderance of the evidence" rather than a more rigorous standard (e.g., "beyond a reasonable doubt").

A statutory liability designation indicates that the state has a dram shop statute. Statutory provisions can alter the common law rules listed above, restricting an injured party's ability to make successful claims. This analysis includes three of the most important statutory limitations:

1. Limitations on damages: Statutes may impose statutory caps on the total dollar amount that plaintiffs may recover through dram shop lawsuits.
2. Limitations on who may be sued: Potential defendants may be limited to only certain types of retail establishments (e.g., on-premises but not off-premises licensees) or certain types of servers (e.g., servers above a certain age).
3. Limitations on elements or standards of proof: Statutes may require plaintiffs to prove additional facts or meet a more rigorous standard of proof than would normally apply in common law. Statutory provisions may require a plaintiff to:
 - a. Establish that the retailer knew the purchaser was underage or that the retailer intentionally or willfully served an underage person.
 - b. Establish that the underage person was intoxicated at the time of sale or service.
 - c. Provide clear and convincing evidence or evidence beyond a reasonable doubt that the allegations are true.

These limitations can restrict circumstances that can give rise to liability or greatly diminish a plaintiff's chances of prevailing in a dram shop liability lawsuit, thus reducing the likelihood of a lawsuit being filed. Other restrictions may also apply. For example, many states do not allow "first-party claims," which are cases brought by the person who was furnished alcohol for his or her own injuries. These additional limitations are not discussed here.

Some states have enacted RBS affirmative defenses. In these states, a defendant may avoid liability if it can establish that its retail establishment had implemented an RBS program and was adhering to RBS practices at the time of the service to a person under age 21. Texas has enacted a more sweeping RBS defense. There, a defendant licensee can avoid liability if it establishes that: (1) It did not encourage the illegal sale, and (2) it required its staff, including the server in

question, to attend RBS training. Proof that RBS practices were being adhered to at the time of service is not required.

See the “RBS Training” policy topic for more information.

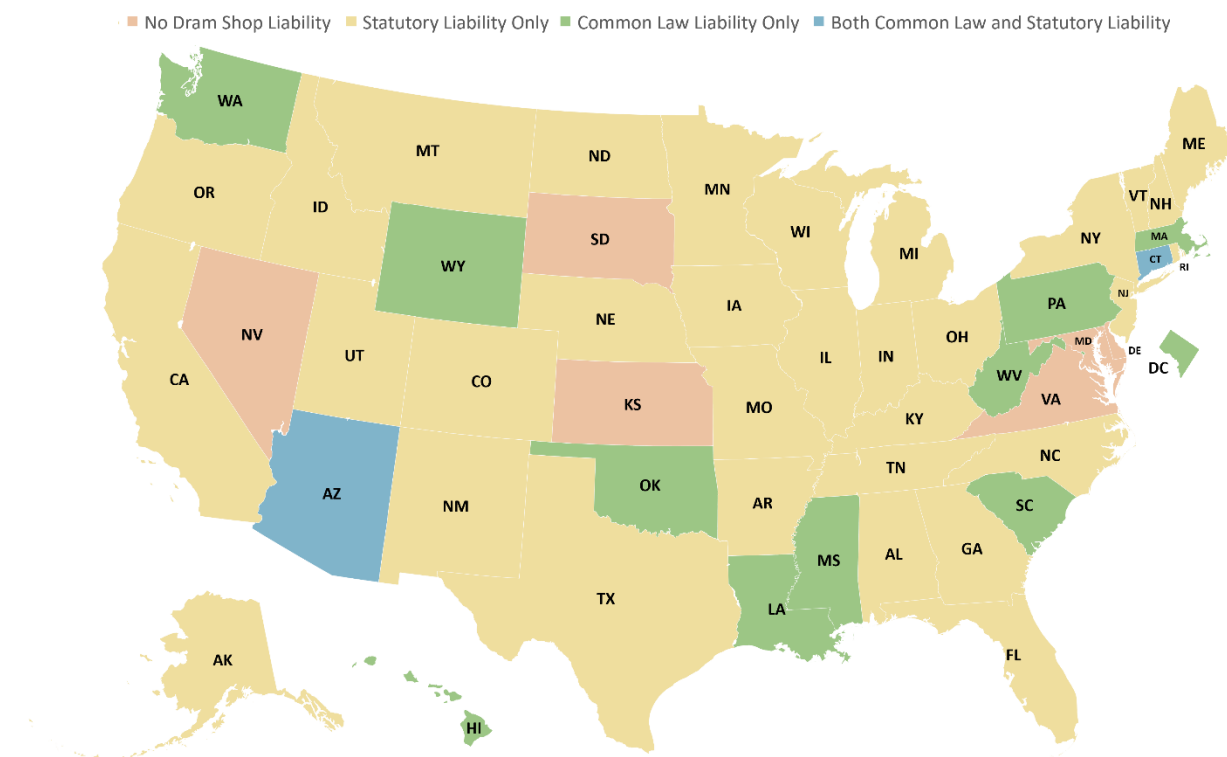
Status of Dram Shop Liability

As of January 1, 2020, 45 states imposed dram shop liability as a result of statutory or common law or both (Exhibit 2.17). Many states with statutory dram shop liability impose one or more limits on liability, including limits on the damages that may be recovered, limits on who may be sued, and stricter standards for proof of wrongdoing than for usual negligence.

Trends in Dram Shop Liability for Furnishing Alcohol to a Person Under Age 21

Between 2009–2020, the number of states that permit dram shop liability has remained constant.

Exhibit 2.17: Common Law/Statutory Dram Shop Liability as of January 1, 2020



Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired by Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. For more information, including definitions of the variables for this policy, visit stopalcoholabuse.gov.

- Blanchette, Jason G., Marlene C. Lira, Timothy C. Heeren, and Timothy S. Naimi. "Alcohol policies in US states, 1999–2018." *Journal of studies on alcohol and drugs* 81, no. 1 (2020): 58–67.
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7, 28–58.
- Holder, H., Janes, K., Mosher, J., Saltz, R., Spurr, S., & Wagenaar, A. (1993). Alcoholic beverage server liability and the reduction of alcohol-involved problems. *Journal of Studies on Alcohol*, 54, 23–36.
- Mosher, J., Boertzel, G. S., Clune, K. P., Clune, J. R., Cohen, H. M., Cohen, M. L., . . . Weinstein, S. S. (2011). *Liquor Liability Law*. Newark, NJ: LexisNexis.
- Mosher, J. F., Cohen, E. N., & Jernigan, D. H. (2013). Commercial host (dram shop) liability: Current status and trends. *American Journal of Preventive Medicine*, 45, 347–353.
- Rammohan, V., Hahn, R. A., Elder, R., Brewer, R., Fielding, J., Naimi, T. S., Toomey, T. L., Chattopadhyay, S. K., Zometa, C., & Task Force on Community Preventive Services (2011). Effects of dram shop liability and enhanced overservice law enforcement initiatives on excessive alcohol consumption and related harms: Two community guide systematic reviews. *American Journal of Preventive Medicine*, 41(3), 334–343. <https://doi.org/10.1016/j.amepre.2011.06.027>
- Romano, E., Scherer, M., Fell, J., & Taylor, E. (2015). A comprehensive examination of U.S. laws enacted to reduce alcohol-related crashes among underage drivers. *Journal of Safety Research*, 55, 213–221.
- Scherer, M., Fell, J. C., Thomas, S., & Voas, R. B. (2015). Effects of dram shop, responsible beverage service training, and state alcohol control laws on underage drinking driver fatal crash ratios. *Traffic Injury Prevention*, 16(Suppl. 2), S59–S65.
- U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC: U.S. Department of Health and Human Services.
- Wagenaar, A. C., & Holder, H. D. (1991). Effects of alcoholic beverage server liability on traffic crash injuries. *Alcoholism: Clinical and Experimental Research*, 15(6), 942–947.
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism: Alcohol Problems In Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.

Social Host Liability

Policy Description

Social host liability refers to the civil liability that non-commercial alcohol providers face for injuries or damages caused by their intoxicated or underage drinking guests. The analysis in this policy topic does not address social host liability for serving adult guests.

The most common factual scenario in legal cases arising from social host liability involves an underage drinking party at which the party host furnishes alcohol to an underage person who, in turn, injures a third party in an alcohol-related incident (often a motor vehicle crash). In states with social host liability, injured third parties (“plaintiffs”) may be able to sue social hosts (as well as the underage person who caused the crash) for monetary damages.²² Liability is triggered only if injured private citizens file lawsuits. The state’s role is to provide a forum for such lawsuits; the state does not impose social host–related penalties directly. (As discussed below, this distinguishes social host liability from underage furnishing and host party policies, which can result in criminal liability imposed by the state and are discussed under “Furnishing Alcohol to Persons Under Age 21” above and “Hosting Underage Drinking Parties” below.)

Social host liability is closely related to the underage furnishing and host party policies, but the three are distinct. Underage furnishing policies and host party policies allow the state to impose fines or other punishment upon social hosts who furnish alcohol to underage youth or allow underage drinking parties on their property. In contrast, social host liability policies allow injured parties to file lawsuits against social hosts for damages stemming from the same conduct. Social host liability and dram shop liability (presented elsewhere in this report) are identical policies except that the former involves lawsuits brought against non-commercial alcohol retailers, and the latter involves lawsuits filed against commercial alcohol providers.

Social host liability serves two purposes: (1) It creates disincentives for social hosts to furnish to underage persons due to the risk of litigation and possible substantial monetary losses, and (2) it allows those injured as a result of illegal furnishing of alcohol to underage youth to gain compensation from the person(s) responsible for their injuries. Underage people causing injuries are the primary and most likely parties to be sued. Typically, social hosts are sued through social host liability claims when the underage persons do not have the resources to fully compensate the injured parties.

Social host liability is established by statute or by a state court through “common law.” Common law refers to the authority of state courts to establish rules by which injured parties can seek redress against persons or entities that negligently or intentionally caused injuries. Courts have the authority to establish these rules only when state legislatures have not enacted their own statutes, in which case the courts must follow legislative dictates (unless found to be unconstitutional). Thus, social host statutes normally take precedence over social host common law court decisions.

Many states require evidence that social hosts furnished alcohol to the underage guest, although others permit liability if social hosts allowed underage guests to drink on the hosts’ property, even if the hosts did not furnish the alcohol. This analysis does not report the states that have

²² Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

adopted this more permissive standard. The analysis includes both statutory and common law social host liability for each state.

A common law liability designation signifies that the state allows lawsuits by injured third parties against social hosts for the negligent service or provision of alcohol to people under age 21 in non-commercial settings. Common law liability assumes the following procedural and substantive rules:

1. A negligence standard applies (i.e., defendants did not act as reasonable persons would be expected to act in similar circumstances). Plaintiffs need not show that defendants acted intentionally, willfully, or with actual knowledge of youths' underage status.
2. Damages are not arbitrarily limited. If successful in establishing negligence, plaintiffs receive actual damages and have the possibility of seeking punitive damages.
3. Plaintiffs can pursue claims against defendants without regard to the age of the person who furnished the alcohol and the age of the underage person furnished with the alcohol.
4. Plaintiffs must establish only that underage persons were furnished with alcohol and that the furnishing contributed to injuries without regard to the underage persons' intoxicated state at the time of the party.
5. Plaintiffs must establish the key elements of lawsuits by "preponderance of the evidence" rather than a more rigorous standard (such as "beyond a reasonable doubt").

A statutory liability designation indicates that a state has a social host liability statute. Statutory provisions can alter the common law rules listed above, restricting an injured party's ability to make successful claims. This analysis includes three of the most important statutory limitations:

1. Limitations on damages: Statutes may impose statutory caps on the total dollar amount that plaintiffs may recover through social host lawsuits.
2. Limitations on who may be sued: Potential defendants may be limited to persons above a certain age.
3. Limitations on elements or standards of proof: Statutes may require plaintiffs to prove additional facts or meet a more rigorous standard of proof than would normally apply in common law. The statutory provisions may require the plaintiff to:
 - a. Establish that hosts had knowledge that youth were underage or prove that social hosts intentionally or willfully served underage youth.
 - b. Establish that the underage youth were intoxicated at the time of service.
 - c. Provide clear and convincing evidence or evidence beyond a reasonable doubt that the allegations are true.

These limitations can limit the circumstances that can give rise to liability or greatly diminish plaintiffs' chances of prevailing in a social host liability lawsuit, thus reducing the likelihood of a lawsuit being filed. Additional restrictions may also apply. For example, many states do not allow "first-party claims," cases brought by the person who was furnished alcohol for his or her own injuries. These additional limitations are not tracked here.

Status of Social Host Liability

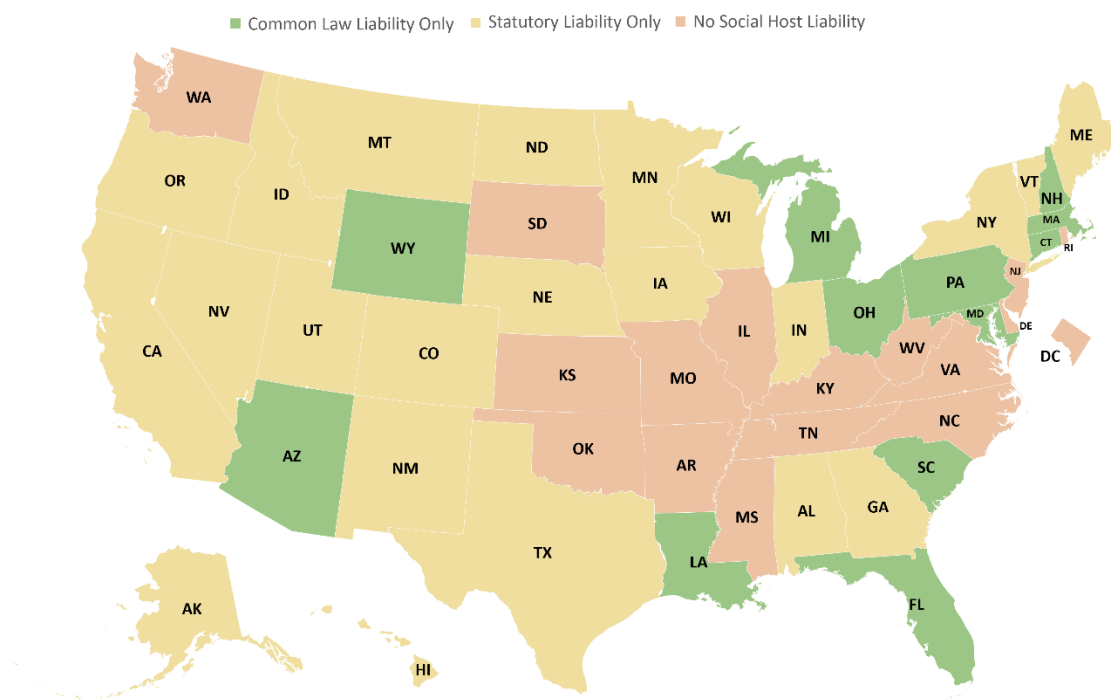
As of January 1, 2020, 34 states impose social host liability through statutory or common law; 15 states do not impose social host liability (Exhibit 2.18). In New Jersey and Rhode Island, there is

no statutory liability, and common law liability is unclear. Fifteen states with statutory social host liability impose one or more limits on liability, including limits on the damages that may be recovered, limits on who may be sued, and standards of proof of wrongdoing that are stricter than usual negligence standards.

Trends in Social Host Liability for Furnishing Alcohol to a Person Under Age 21

In the years between 2009–2020, the number of states that permit social host liability increased by two (California and Maryland).

Exhibit 2.18: Common Law/Statutory Social Host Liability as of January 1, 2020



Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired by Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. For more information, including definitions of the variables for this policy, visit stopalcoholabuse.gov.

- Applied Research Community Health and Safety Institute. (2009). Holding adults accountable for underage drinking at house parties through social host laws. Available from: http://www.publicstrategies.org/PDF/20091015_Social_Host_While_Paper_Final_R3.pdf
- Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, 81(1), 58–67.
- Dills, A. K. (2010). Social host liability for minors and underage drunk-driving accidents. *Journal of Health Economics*, 29(2), 241–249.

- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty-underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2014). Effectiveness of social host and fake identification laws on reducing underage drinking driver fatal crashes. *Traffic Injury Prevention*, 15(Suppl 1), S64–S73.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7, 28–58.
- Friese, B., & Grube, J. W. (2014). Teen parties: Who has parties, what predicts whether there is alcohol and who supplies the alcohol? *Journal of Primary Prevention*, 35(6), 391–396.
- Mosher, J., Boertzel, G. S., Clune, K. P., Clune, J. R., Cohen, H. M., Cohen, M. L., . . . Weinstein, S. S. (2011). *Liquor Liability Law*. Newark, NJ: LexisNexis.
- Paschall, M. J., Lipperman-Kreda, S., Grube, J. W., & Thomas, S. (2014). Relationships between social host laws and underage drinking: Findings from a study of 50 California cities. *Journal of Studies on Alcohol and Drugs*, 75(6), 901–907.
- Stout, E., Sloan, A., Liang, L., & Davies, H. (2000). Reducing harmful alcohol-related behaviors: Effective regulatory methods. *Journal of Studies on Alcohol and Drugs*, 61, 402–412.
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism: Alcohol Problems in Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.
- Wagoner, K. G., Sparks, M., Francisco, V. T., Wyrick, D., Nichols, T., & Wolfson, M. (2013). Social host policies and underage drinking parties. *Substance Use & Misuse*, 48(1–2), 41–53. <https://doi.org/10.3109/10826084.2012.722158>
- Yörük, B. K., & Xu, L. (2021). Keg registration laws, alcohol consumption, and alcohol-related traffic fatalities among adolescents. *Journal of Studies on Alcohol and Drugs*, 82(1), 66–75.

Hosting Underage Drinking Parties

Policy Description

Host party laws establish state-imposed liability against individuals (social hosts) responsible for underage drinking events on property they own, lease, or otherwise control.²³ The primary purpose of these laws is to deter underage drinking parties by raising the legal risk for individuals who allow underage drinking events on property they own, lease, or otherwise control.

Underage drinking parties pose significant public health risks. They are high-risk settings for binge drinking and associated alcohol problems, including impaired driving. Young people who drink are often introduced to heavy drinking behaviors at these events. Law enforcement officials report that, in many cases, underage drinking parties occur on private property, but the adult responsible for the property is not present or cannot be shown to have furnished the alcohol. Host party laws address this issue by providing a legal basis for holding persons responsible for parties on their property whether or not they provided alcohol to underage people.

Host party laws often are closely linked to laws prohibiting the furnishing of alcohol to underage people (analyzed elsewhere in this report), although laws that prohibit hosting underage drinking parties may apply without regard to who furnishes the alcohol. Hosts who allow underage drinking on their property and also supply the alcohol consumed or possessed by underage people may be in violation of two distinct laws: (1) furnishing alcohol to a person under age 21 and (2) allowing underage drinking to occur on property they control.

Two general types of liability may apply to those who host underage drinking parties. The first, analyzed here, concerns state-imposed liability. State-imposed liability involves a statutory prohibition that is enforced by the state, generally through criminal proceedings that can lead to sanctions such as fines or imprisonment. The second, social host liability (analyzed elsewhere in this report), involves an action by a private party seeking monetary damages for injuries that result from permitting underage drinking on the host's premises.

Although related, these two forms of liability are distinct. For example, an individual may allow an underage person to drink alcohol, after which that person causes a motor vehicle crash that injures an innocent third party. In this situation, the social host may be prosecuted by the state under a criminal statute and face a fine or imprisonment for the criminal violation. In a state that provides for social host civil liability, the injured third party could also sue the host for monetary damages associated with the motor vehicle crash.

State host party laws differ across multiple dimensions, including the following:

1. They may limit their application specifically to underage drinking parties (e.g., by requiring a certain number of underage people to be present for the law to take effect) or may prohibit hosts from allowing underage drinking on their property generally, without reference to hosting a party.

²³ Note that throughout this chapter, "states" refers to the 50 states and the District of Columbia.

2. Underage drinking on any of the host's properties may be included, or the laws may restrict their application to residences, out-buildings, or outdoor areas.
3. The laws may apply only when hosts make overt acts to encourage the party, or they may require only that hosts knew about the party or were negligent in not realizing that parties were occurring (i.e., should have known based on the facts available).
4. A defense may be available for hosts who take specific preventive steps to end parties (e.g., contacting police) once they become aware that parties are occurring.
5. The laws may require differing types of behavior on the part of the underage people at the party (possession, consumption, intent to possess or consume) before a violation occurs.
6. States have varying exceptions in their statutes for family members or others, or for other uses or settings involving the handling of alcoholic beverages.

Status of Host Party Laws

As of January 1, 2020, 21 states have general host party laws, 10 have specific host party laws, and 20 have no laws of either sort (Exhibit 2.19). Of the states with host party laws, most apply to both residential and outdoor property, and only four apply to residential property but not outdoor property. Of the 31 states with host party laws, 25 require that the host knew about the party to trigger liability; in the remaining states, the standard varies. Finally, the majority of states with host party laws have family exceptions.

Trends in Host Party Law Policies

Between 1998–2020, the number of states that enacted specific host party laws rose from 5 to 10, and the number that enacted general host party laws rose from 11 to 21. In 1998, there were 16 host party laws of both types; in 2020, there are 31.

- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2014). Effectiveness of social host and fake identification laws on reducing underage drinking driver fatal crashes. *Traffic Injury Prevention, 15*(Suppl. 1), S64–S73.
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research, 39*(8), 1528–1537.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy, 7*, 28–58.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs, 77*(2), 249–260.
- Friese, B., & Grube, J. W. (2014). Teen parties: Who has parties, what predicts whether there is alcohol and who supplies the alcohol? *Journal of Primary Prevention, 35*(6), 391–396.
- Gunn, A., McLeod, J., Chapman, R., Ball, H., Fitzgerald, M., Howard, T., Cameron, P., & Mitra, B. (2018). Effect of the prevent alcohol and risk-related trauma in youth (PARTY) program among senior school students. *Emergency Medicine Australasia, 30*(2), 209–213.
- Imm, P. S., Chinman, M., Kulesza, M., Hunter, S., & Acosta, J. (2018). Evidence-based practices: Community-based interventions to reduce alcohol use and misuse. In C. G. Leukefeld & T. P. Gullotta (Eds.), *Adolescent Substance Abuse: Evidence-Based Approaches to Prevention and Treatment* (333–377). Springer International Publishing. https://doi.org/10.1007/978-3-319-90611-9_14.
- Lipperman-Kreda, S., Finan, L. J., & Grube, J. W. (2018). Social and situational characteristics associated with adolescents' drinking at party and non-party events. *Addictive Behaviors, 83*, 148–153.
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Negussie, Y., Geller, A., Teutsch, S. M., & National Academies of Sciences, Engineering, and Medicine. (2018). Interventions to reduce drinking to impairment. *Getting to Zero Alcohol-Impaired Driving Fatalities: A Comprehensive Approach to a Persistent Problem*. National Academies Press (US), 2018.
- Paschall, M. J., Friese, B., Law, K., & Lebedeff, A. (2018). Increasing parents' awareness of social host laws: A pilot study of coalition efforts. *The Journal of Primary Prevention, 39*(1), 71–77.
- Paschall, M. J., Lipperman-Kreda, S., Grube, J. W., & Thomas, S. (2014). Relationships between social host laws and underage drinking: Findings from a study of 50 California cities. *Journal of Studies on Alcohol and Drugs, 75*(6), 901–907.
- Scherer, M., Romano, E., Caldwell, S., & Taylor, E. (2018). The impact of retail beverage service training and social host laws on adolescents' DUI rates in San Diego County, California. *Traffic Injury Prevention, 19*(2), 111–117. <https://doi.org/10.1080/15389588.2017.1350268>
- Stout, E., Sloan, A., Liang, L., & Davies, H. (2000). Reducing harmful alcohol-related behaviors: Effective regulatory methods. *Journal of Studies on Alcohol and Drugs, 61*, 402–412.
- Thrul, J., Lipperman-Kreda, S. & Grube, J. W. (2018). Do associations between drinking event characteristics and underage drinking differ by drinking location? *Journal of Studies on Alcohol and Drugs, 79*(3), 417–422.

- U.S. Department of Health and Human Services. (2007). *Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- Vidourek, R. A., King, K. A., & Merianos, A. L. (2018). Where do adolescent recent drinkers obtain and use alcohol? *Journal of Substance Use* 23(2), 136-143.
- Wagoner, K. G., Sparks, M., Francisco, V. T., Wyrick, D., Nichols, T., & Wolfson, M. (2013). Social host policies and underage drinking parties. *Substance Use & Misuse*, 48(1-2), 41-53. <https://doi.org/10.3109/10826084.2012.722158>
- Wilson, J., Ogeil, R. P., Lam, T., Lenton, S., Lloyd, B., Burns, L., Aiken, A., Gilmore, W., Chikritzhs, T., Mattick, R., Lubman, D. I., & Allsop, S. (2018). Re-thinking pre-drinking: Implications from a sample of teenagers who drink in private settings. *International Journal of Drug Policy*, 52, 20-24.
- Wolfson, M., Wagoner, K. G., Rhodes, S. D., Egan, K. L., Sparks, M., Ellerbee, D., Song, E. Y., Debinski, B., Terrillion, A., Vining, J., & Yang, E. (2017). Coproduction of research questions and research evidence in public health: The study to prevent teen drinking parties. *BioMed Research International*, 3639596. <https://doi.org/10.1155/2017/3639596>

Keg Registration

Policy Description

Keg registration laws (also called keg tagging laws) require wholesalers or retailers to attach tags, stickers, or engravings with an ID number to kegs exceeding a specified capacity. These laws discourage purchasers from serving underage persons from the keg by allowing law enforcement officers to trace the keg to the purchaser even if he or she is not present at the location where the keg is consumed.

At purchase, retailers are required to record identifying information about the purchaser (e.g., name, address, telephone number, driver's license). In some states, keg laws specifically prohibit destroying or altering the ID tags and provide penalties for doing so.²⁴ Other states make it a crime to possess unregistered or unlabeled kegs.

Refundable deposits may also be collected for the kegs themselves, the tapper mechanisms used to serve the beer, or both. Deposits are refunded when the kegs and tappers are returned with ID numbers intact. These deposits create an incentive for the purchaser to keep track of the whereabouts of the keg, because a financial penalty is imposed if the keg is not returned.

Some states collect information (e.g., location where the keg contents are to be consumed, tag number of the vehicle transporting the keg) to aid law enforcement efforts, further raising the chances that illegal furnishing to people under age 21 will be detected. Some states also require retailers to provide warning information at the time of purchase about laws prohibiting service to underage youth and other laws related to the purchase or possession of the keg.

Disposable kegs complicate keg registration laws. Some of these containers meet the capacity definition for a keg but cannot be easily tagged or traced, as they are meant to be disposed of when empty. Most states do not differentiate disposable from non-disposable kegs, although some have modified keg registration provisions to accommodate this container type.

Status of Keg Registration Policies

Keg Registration Laws

As of January 1, 2020, 30 states require keg registration, and 20 states do not require keg registration (Exhibit 2.20). Minimum keg sizes subject to keg registration requirements range from 2 gallons to 7.75 gallons, with the exception of South Dakota, where the requirements are 8 gallons or 16 gallons. Utah alone prohibits keg sales altogether, making a keg registration law irrelevant.

Prohibited Acts

Separately from requiring retailers to register kegs, some states prohibit anyone from possessing unregistered kegs or destroying keg labels or both. Twenty-seven states prohibit neither act.

²⁴ Note that throughout this chapter, "states" refers to the 50 states and the District of Columbia.

descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

- Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, *81*(1), 58–67.
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2009). The impact of underage drinking laws on alcohol-related fatal crashes of young drivers. *Alcoholism: Clinical and Experimental Research*, *33*(7), 1208–1219.
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, *39*(8), 1528–1537.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, *7*, 28–58.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, *77*(2), 249–260.
- Jernigan, D. H., Shields, K., Mitchell, M., & Arria, A. M. (2019). Assessing campus alcohol policies: Measuring accessibility, clarity, and effectiveness. *Alcoholism, Clinical and Experimental Research*, *43*(5), 1007–1015. <https://doi.org/10.1111/acer.14017>
- Ponicki, W. R., Gruenewald, P. J., & LaScala, E. A. (2007). Joint impacts of minimum legal drinking age and beer taxes on US youth traffic fatalities, 1975 to 2001. *Alcoholism, Clinical and Experimental Research*, *31*(5), 804–813. <https://doi.org/10.1111/j.1530-0277.2007.00363.x>
- Ringwalt, C. L., & Paschall, M. J. (2011). The utility of keg registration laws: A cross-sectional study. *Journal of Adolescent Health*, *48*(1), 106–108.
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PLoS One*, *14*(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>
- Wagenaar, A. C., Harwood, E. M., Silianoff, C., & Toomey, T. L. (2005). Measuring public policy: The case of beer keg registration laws. *Evaluation and Program Planning*, *28*(4), 359–367.
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments In Alcoholism: Alcohol Problems In Adolescents And Young Adults*. New York: Kluwer Academic/Plenum Publishers.
- Wechsler, H., Lee, J., Nelson, T., & Lee, H. (2003). Drinking and driving among college students: The influence of alcohol control policies. *American Journal of Preventive Medicine*, *25*(3), 212–218.
- Yörük, B. K., & Xu, L. (2021). Keg registration laws, alcohol consumption, and alcohol-related traffic fatalities among adolescents. *Journal of Studies on Alcohol and Drugs*, *82*(1), 66–7

High-Proof Grain Alcoholic Beverages

Policy Description

This policy addresses state laws that prohibit or restrict the retail availability of high-proof grain alcoholic beverages as a strategy for reducing underage drinking, particularly underage binge drinking.²⁵

High-proof grain alcoholic beverages, such as Everclear or Gem Clear, represent a type of “neutral spirit” that is odorless, colorless, and contains a high percentage of alcohol. The Federal Alcohol and Tobacco Tax and Trade Bureau (TTB) defines “neutral spirits or alcohol” as “spirits distilled from any material at or above 95 percent alcohol by volume (190 proof), and if bottled, bottled at not less than 40 percent alcohol by volume (80 proof)” (TTB, 2007).²⁶ Grain spirits are neutral spirits distilled from a fermented mash of grain and stored in oak containers.

High-proof grain alcoholic beverages pose particular risks for young people. They have little or no taste, odor, or color and are often added to cocktails, soft drinks, and fruit punch. This can result in an easy-to-consume concoction with very high alcohol content that is difficult to detect, particularly for people inexperienced at drinking, and can lead to binge drinking.

A “serving” of alcohol contains 0.6 ounces of ethanol, per NIAAA. This is the amount of ethanol contained in 1.5 ounces of traditional (40 percent alcohol by volume [ABV]) distilled spirits, 5 ounces of 12 percent ABV wine, and 12 ounces of 5 percent ABV beer. Grain alcohol, by contrast, contains approximately twice as much ethanol as traditional distilled spirits. Thus, an equivalent “serving” of grain alcohol would be 0.6 ounces of 95 percent ABV/190 proof or 0.8 ounces of 75.5 percent ABV/151 proof grain alcohol, respectively. This means there are 42 servings of 95 percent ABV/190 proof or 32 servings of 75.5 percent ABV grain alcohol in a 750 mL bottle compared with only 17 servings in a bottle of other types of distilled spirits (such as vodka) of the same size. Research suggests that young people often “overpour” their drinks, making a strong drink even stronger (White et al., 2005). This practice can therefore be particularly hazardous when high-proof grain alcoholic beverages are involved.

Among 12- to 20-year-olds, 11.1 percent engaged in binge drinking (defined as five or more drinks in a row for males and four or more for females) on at least 1 day in the past 30 days, according to data from the 2019 National Survey on Drug Use and Health (CBHSQ, 2020a). Binge drinking “is associated with drunk driving, risky sexual behavior, physical and sexual assaults, injuries, and suicides” (Naimi et al., 2015).

Research has found that college students often consume grain alcohol when binge drinking. The Maryland Collaborative to Reduce College Drinking and Related Problems created and administered the Maryland College Alcohol Survey in 2014 to 4,209 students from nine schools to measure levels of alcohol use and excessive drinking (Maryland Collaborative, 2014). It found that, among students who had consumed alcohol in the past month, 70 percent reported binge drinking during that time period, with 11.6 percent reporting they consumed grain alcohol.

²⁵ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

²⁶ Proof is a method of measuring the alcohol content of spirits calculated by multiplying the percent of ABV by two.

Among people engaging in high-risk drinking (i.e., those who binge drank 1–4 days during the past month), 10.6 percent reported consuming grain alcohol over the last month. Among people who engage in very high-risk drinking (i.e., those who binge drank 5 or more days during the past month), 22 percent reported consuming grain alcohol over the last month.

Two studies looked at rates of high-proof grain alcoholic beverage consumption among all youth. According to an Internet panel of 1,032 youth ages 13–20, 5.8 percent of all youth reported consuming high-alcohol-content grain alcoholic beverages in the past 30 days (Siegel et al., 2014), and 2.4 percent of youth reported binge drinking such beverages in the past 30 days (Naimi et al., 2015).

Of youth who drank high-alcohol-content grain alcoholic beverages, 35.1 percent reported binge drinking. Naimi and colleagues (2015) also computed a market share ratio, the “proportion of binge reports accounted for by a particular alcohol type ... or category ... divided by its overall market share (i.e., percent of all drinks consumed) among the entire youth sample.” A number greater than 1.0 means “for a particular alcohol type or category, the number of binge drinking reports is disproportionately large relative to its market share.”

The market share ratio for high-proof grain alcoholic beverages was the fifth highest (out of 19 alcohol types or categories), at 1.59. Given the characteristics of this product and given that it is frequently mixed with punch or similar beverages, however, some youth may have consumed it unknowingly, and thus may not have reported consuming it in the studies, so the above statistics may underreport its consumption.

In many states, youth can easily obtain these beverages at low prices. The cost per ounce of ethanol for grain alcohol ranged from \$0.52–\$0.82 in one study. This was substantially lower than beer (\$1.93 per ounce of ethanol), vodka (\$1.85 per ounce of ethanol), or flavored alcoholic beverages (\$2.14 per ounce of ethanol; DiLoreto et al., 2012). At this strength and price, grain alcohol provides one of the cheapest means to obtain a standard drink of alcohol and to engage in binge drinking.

Types of Restrictions on Sale of High-Proof Grain Alcoholic Beverages

Some states prohibit or restrict retail sale of high-proof grain alcoholic beverages. State statutes or regulations may restrict the type of such beverages that can be sold in the state. Control states, where the state government maintains direct control over the distribution and sale of alcoholic beverages at the wholesale and/or retail levels, may also regulate high-proof grain alcoholic beverages through internal policies that are not reflected in statute or regulation (i.e., by determining administratively that the beverages will not be made available at state-run wholesale and/or retail outlets).

States that regulate grain alcohol through internal policy, rather than by statute or regulation, are reported as restricting sales only if their internal policies are published in writing. Counties or municipalities may also regulate the sale of high-proof grain alcoholic beverages by local ordinance. Such restrictions are not included in this report.

Current Status of Sale of High-Proof Grain Alcoholic Beverages

Ten states regulate the sale of high-proof grain alcoholic beverages through statute, regulation, or written policy (Exhibit 2.21). Six of these are license states: Alaska, California, Florida, Maryland, Minnesota, and Nevada. The other four are control states: North Carolina, Pennsylvania, Vermont, and Virginia. Two of the 10 states offer exceptions to the restrictions. Minnesota makes an exception for “spirits aged in wood casks for not less than 2 years.” Pennsylvania makes an exception for products produced by a “limited distillery license.”

Five states define the restrictions in terms of ABV. California prohibits the sale of beverages greater than 60 percent ABV. Alaska prohibits the sale of beverages greater than 76 percent ABV. Minnesota prohibits 80 percent ABV or more, and Nevada restricts grain alcohol with an ABV of over 80 percent. Maryland makes it illegal to sell grain alcohol with 95 percent ABV or more.

Four states define the restriction in terms of proof. Florida law provides that “[a] distilled spirit greater than 153 proof [76.5 ABV] may not be sold or consumed in the state.” The North Carolina ABC Commission has issued a written statement that the highest proof liquor sold in North Carolina ABC stores will be 151 proof (75.5 ABV). Pennsylvania restricts sales of alcohol at 190 (95 ABV) proof or greater to non-potable uses. In 2017, Virginia increased the upper limit of neutral grain spirit or alcohol sold in government stores from a proof of 101 to 151 [75.5 ABV]. Vermont simply restricts the purchase of “pure ethyl or grain alcohol” to non-beverage purposes.

- Maryland Collaborative to Reduce College Drinking and Related Problems. (2014). *High-risk drinking among college students in Maryland: Identifying targets for intervention*. College Park, MD: Center on Youth Adult Health and Development, University of Maryland School of Public Health; Baltimore, MD: Center on Alcohol Marketing and Youth, Johns Hopkins University Bloomberg School of Public Health.
- Naimi, T. S., Siegel, M., DeJong, W., O'Doherty, C., & Jernigan, D. (2015). Beverage- and brand-specific binge alcohol consumption among underage youth. *U.S. Journal of Substance Use*, 20(5), 333–339. <https://doi.org/10.3109/14659891.2014.920054>
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Siegel, M., DeJong, W., Naimi, T. S., Fortunato, E. K., Albers, A. B., Heeren, T., Rosenbloom, D. L., Ross, C., Ostroff, J., Rodkin, S., King, C., Borzekowski, D. L. G., Rimal, R. N., Padon, A. A., Eck, R. H., & Jernigan, D. H. (2013). Brand-specific consumption of alcohol among underage youth in the United States. *Alcoholism, Clinical and Experimental Research*, 37(7), 1195–1203. <https://doi.org/10.1111/acer.12084>
- White, A. M., Kraus, C. L., Flom, J. D., Kestenbaum, L. A., Mitchell, J. R., Shah, K., & Swartzwelder, H. S. (2005). College students lack knowledge of standard drink volumes: Implications for definitions of risky drinking based on survey data. *Alcoholism: Clinical and Experimental Research*, 29, 631–638.

Policies Addressing Sales and Delivery to Consumers at Home

The three policies described below reflect the changing landscape of alcohol sales over the last two decades. The rise of online commerce and large Internet retailers, coupled with a trend in court cases to limit the powers of states to control alcohol sales that cross state lines, may change the way alcohol is purchased by consumers. The relaxing of laws governing the sale of alcohol during the COVID-19 pandemic has accelerated these changes even faster, as described above in the section entitled “Changes to Alcohol Availability During COVID-19.” These changes have unknown but potentially significant effects on the ability of people under age 21 to obtain alcohol. Accordingly, the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD) is in the process of developing a new analysis and summary of state laws governing all of the current methods for selling alcohol to consumers at home.

Retailer Interstate Shipments of Alcohol

Policy Description

This policy addresses state laws that prohibit or permit retailers to ship alcohol directly to consumers located across state lines, usually by ordering alcohol over the Internet.²⁷ It is related to, but distinct from, both the direct shipment policy, which addresses alcohol shipments to consumers by alcohol producers, and the home delivery policy, which involves retailer deliveries to consumers within the same state.

Retailer interstate shipments may be an important source of alcohol for underage people who drink. In a North Carolina study (Williams & Ribisl, 2012), a group of eight 18- to 20-year-old research assistants placed 100 orders for alcoholic beverages using Internet sites hosted by out-of-state retailers. Forty-five percent of the orders were successfully completed, whereas 39 percent were rejected as a result of age verification. The remaining 16 percent of orders failed for reasons believed to be unrelated to age verification (e.g., technical and communication problems with vendors). Most vendors (59 percent) used weak, if any, age verification at the point of order, and, of the 45 successful orders, 23 (51 percent) had no age verification at all. Age verification at delivery was also inconsistently applied.

The North Carolina study reported that there are more than 5,000 Internet alcohol retailers and that the retailers make conflicting claims regarding the legality of shipping alcohol across state lines to consumers. There were also conflicting claims regarding the role of common carriers. The North Carolina study reported that all deliveries were made by such companies, and many Internet alcohol retailers list well-known common carriers on their websites. Yet carriers contacted by the study researchers stated they do not deliver packages of alcohol except with direct shipping permits. This suggests confusion regarding state laws addressing interstate retail shipments. North Carolina prohibits such shipments, which means that at least 43 percent of the retailers in the study appeared to have violated the state law.

The NRC/IOM report on reducing underage drinking recognized the potential for young people to obtain alcohol over the Internet. It recommended that states either ban such sales or require

²⁷ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

alcohol labeling on packages and signature verification at the point of delivery (NRC & IOM, 2004).

Several possible barriers to implementing and enforcing bans on retailer interstate alcohol sales include:

1. States will have difficulty securing jurisdiction over out-of-state alcohol retailers.
2. States may have little incentive to use limited enforcement resources to address in-state alcohol retailers that are shipping out of state because they are not violating state law, taxes are being collected, and any problems occur out of state.
3. Enforcing bans on retailer interstate shipments may prompt online retailers to locate outside the country (many already are foreign based), creating additional jurisdictional and enforcement problems.

Types of Restrictions on Interstate Internet Sales

The restrictions addressed in this policy vary by beverage type (beer, wine, and distilled spirits). Interstate shipments may be prohibited for one beverage type, more than one beverage type, or all three beverage types. Some states place restrictions on interstate Internet sales, including requiring a direct shipping permit and limiting the amount of beverage that may be shipped.

Current Status of Interstate Internet Sales

Thirty-two states (Exhibit 2.22) prohibit retail interstate sales of all three beverage types, seven prohibit sales of two beverage types, and two prohibit sales of one beverage type. Spirits are the most commonly prohibited beverage (41 states), followed by beer (38 states) and wine (33 states). The District of Columbia and Kentucky expressly permit interstate sales of all three beverage types. In eight states, retailer interstate sales laws were deemed not codable for at least one beverage type (beer, wine, and distilled spirits). For purposes of this summary, these states are treated as *not* expressly prohibiting interstate Internet sales for the not codable beverage types.

Direct Sales/Shipments from Producers to Consumers

Policy Description

State proscriptions against direct sales and shipments of alcohol from producers to consumers date back to the repeal of Prohibition.²⁸ The initial reason for the proscriptions was to ensure that the pre-Prohibition-era “tied house system” (under which producers owned or controlled retail outlets directly or both) did not continue after repeal. Opponents of the tied house system argued that producers who controlled retail outlets permitted unsafe retail practices and failed to respond to community concerns. The alternative that emerged was a three-tier production and distribution system with separate production, wholesaling, and retail elements. Thus, producers must distribute products through wholesalers rather than sell directly to retailers or consumers, wholesalers must purchase from producers, and consumers must purchase from retailers.

Modern marketing practices, particularly Internet sales that link producers directly to consumers, have led many states to create laws with exceptions to general mandates that alcohol producers distribute their products only through wholesalers. Some states permit producers to ship alcohol to consumers using a delivery service (usually a common carrier). In some cases, these exceptions are responses to legal challenges by producers or retailers arguing that state law unfairly discriminates between in-state and out-of-state producers. The U.S. Supreme Court has held that state laws permitting in-state producers to ship directly to consumers while barring out-of-state producers from doing so violate the U.S. Constitution’s Interstate Commerce Clause and that this discrimination is neither authorized nor permitted by the 21st Amendment.²⁹

One central concern emerging from this controversy is the possibility that direct sales/shipments (either through Internet sales or sales made by telephone or other remote communication) will increase alcohol availability to underage persons.

Young people may attempt to purchase alcohol through direct sales instead of face-to-face sales at retail outlets because they perceive that detection of their underage status is less likely. These concerns were validated by a study that found that Internet alcohol vendors use weak, if any, age verification, thereby allowing people under age 21 to successfully purchase alcohol online (Williams & Ribisl, 2012). In response to these concerns, several states that permit direct sales/shipments have included provisions to deter youth access. These may include requirements that:

1. Consumers have face-to-face transactions at producers’ places of business (and show valid age ID) before any future shipments to consumers can be made.³⁰
2. Producers/shippers and deliverers verify recipient age, usually by checking recipients’ ID.
3. Producers/shippers and deliverers obtain permits or licenses or be approved by the state.
4. Producers/shippers and deliverers maintain records that must either be reported to state officials or be open for inspection to verify recipients of shipments.
5. Direct shipment package labels include statements that the package contains alcohol and that the recipient must be at least 21 years old.

²⁸ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

²⁹ See, e.g., *Granholm v. Heald*, 544 U.S. 460, 125 S.Ct. 1885 (2005).

³⁰ Laws that require face-to-face transactions for all sales prior to delivery are treated as prohibitions on direct sales/shipments.

Trends in Direct Sales/Shipments Policies

Between January 1, 2009–January 1, 2020, 15 states amended their existing direct shipping policies. Twelve of these states added restrictions on direct shipment, such as requiring labels, collecting purchaser names, or adding age verification requirements, and three states removed restrictions. During the same time period, nine other states (Arkansas, Kansas, Maine, Maryland, New Jersey, Oklahoma, Pennsylvania, South Dakota, and Tennessee) adopted permit systems allowing direct shipment of wine from producers to purchasers.

Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired by Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. For more information, including definitions of the variables for this policy, visit stopalcoholabuse.gov.

Glynn, D. (2011). Comment: Granholm’s ends do not justify the means: The twenty-first amendment’s temperance goals trump free-market idealism. *Journal of Law, Economics & Policy*, 8, 113.

Moramarto, M. (2008). *The Twenty-First Amendment, Granholm, and the Future of the Three-Tier System*. Working Paper, Social Science Research Network, December 13, 2008. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1340198

U.S. Department of Health and Human Services. (2007). *Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>

Williams, R. S., & Ribisl, K. M. (2012). Internet alcohol sales to minors. *Archives of Pediatrics & Adolescent Medicine*, 166(9), 808–813. <https://doi.org/10.1001/archpediatrics.2012.265>

Williams, R. S., & Schmidt, A. (2014). The sales and marketing practices of English-language Internet alcohol vendors. *Addiction*, 109(3), 432–439. <https://doi.org/10.1111/add.12411>

Home Delivery

Policy Description

Home delivery restrictions prohibit or limit the ability of alcohol retailers to deliver alcoholic beverages to customers who are not present at their retail outlet. Delivery of alcohol may increase alcohol availability to youth by increasing opportunities for underage persons to subvert minimum age purchase requirements (Wagenaar et al., 2005). Ordering by phone, fax, or email may facilitate deception. Delivery persons may have less incentive to check purchasers' age ID when they are away from the licensed establishment and cannot be watched by a surveillance camera, the liquor store's management, or other customers.

Research on home delivery of alcohol is limited and dated. A study of the use of home delivery by adult men found that people who drink regularly without a history of alcohol problems were significantly less likely to have had alcohol delivered than people with problem drinking (Fletcher et al., 1996). Another study found similar results for underage individuals who drink. Ten percent of 12th graders and 7 percent of 18- to 20-year-olds in 15 Midwestern communities reported they obtained alcohol through delivery services in the last year. Use of delivery services was more prevalent among young men and among people engaging in more frequent, heavier drinking (Fletcher et al., 2000).

A state home delivery law may:³²

1. Specifically prohibit or permit the delivery of beer, wine, or spirits to residential addresses, hotel rooms, conference centers, and so on.
2. Permit home delivery but with restrictions, including:
 - a. Limits on the quantity that may be delivered.
 - b. Limits on the time of day or days of the week when deliveries may occur.
 - c. A requirement that the retail merchant obtain a special license or permit.

In some states that allow home delivery, local ordinances may restrict or ban home delivery in specific substate jurisdictions.

Status of Home Delivery Policies

Twenty-two states permit home delivery of beer, wine, and spirits, 8 prohibit delivery of all three, and 13 have no law for any beverage. Eight states have differing laws for each of the three beverages. Of the states that permit home delivery, some place restrictions on retailers, including:

1. Requiring a state permit.
2. Restricting the volume that can be delivered.
3. Requiring clearly marked delivery vehicles.

Alaska is the only state that requires that orders must be in writing and that written information on fetal alcohol syndrome accompany the delivered product. Washington requires a special

³² Note that throughout this chapter, "states" refers to the 50 states and the District of Columbia.

license for Internet orders. Exhibits 2.24–2.26 summarize the status of home delivery for beer, wine, and spirits as of January 1, 2020.

Trends in Home Delivery Policies

Between 2010–2020, six states (Kentucky, Louisiana, Michigan, Tennessee, Vermont, and Washington) changed their home delivery policies. Louisiana permitted wine retailers to deliver to consumers in 2011. Washington permitted spirit retailers to deliver to consumers in 2012. In 2014, Tennessee permitted retailers to deliver beer, wine, and spirits. In 2017, Kentucky allowed the home delivery of all three beverage types, Vermont began to permit the home delivery of beer and wine, and Michigan permitted the delivery of spirits.

Exhibit 2.24: Home Delivery of Beer as of January 1, 2020

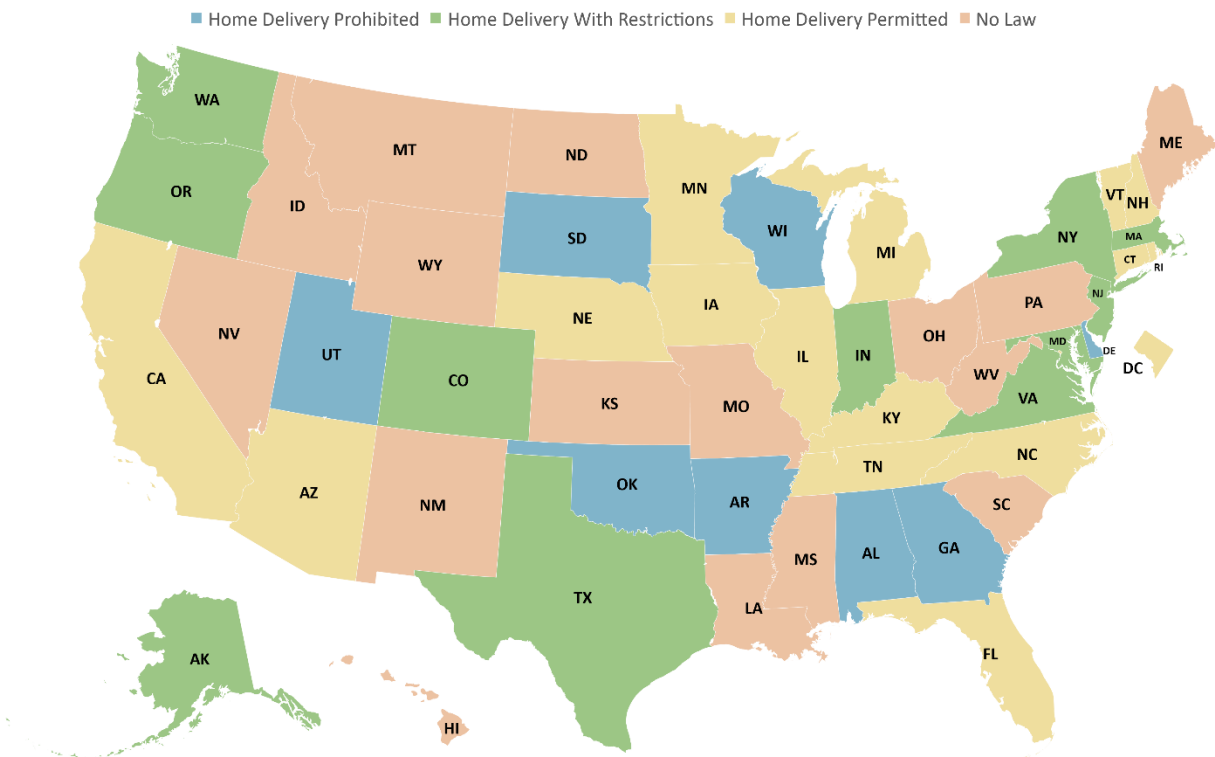


Exhibit 2.25: Home Delivery of Wine as of January 1, 2020

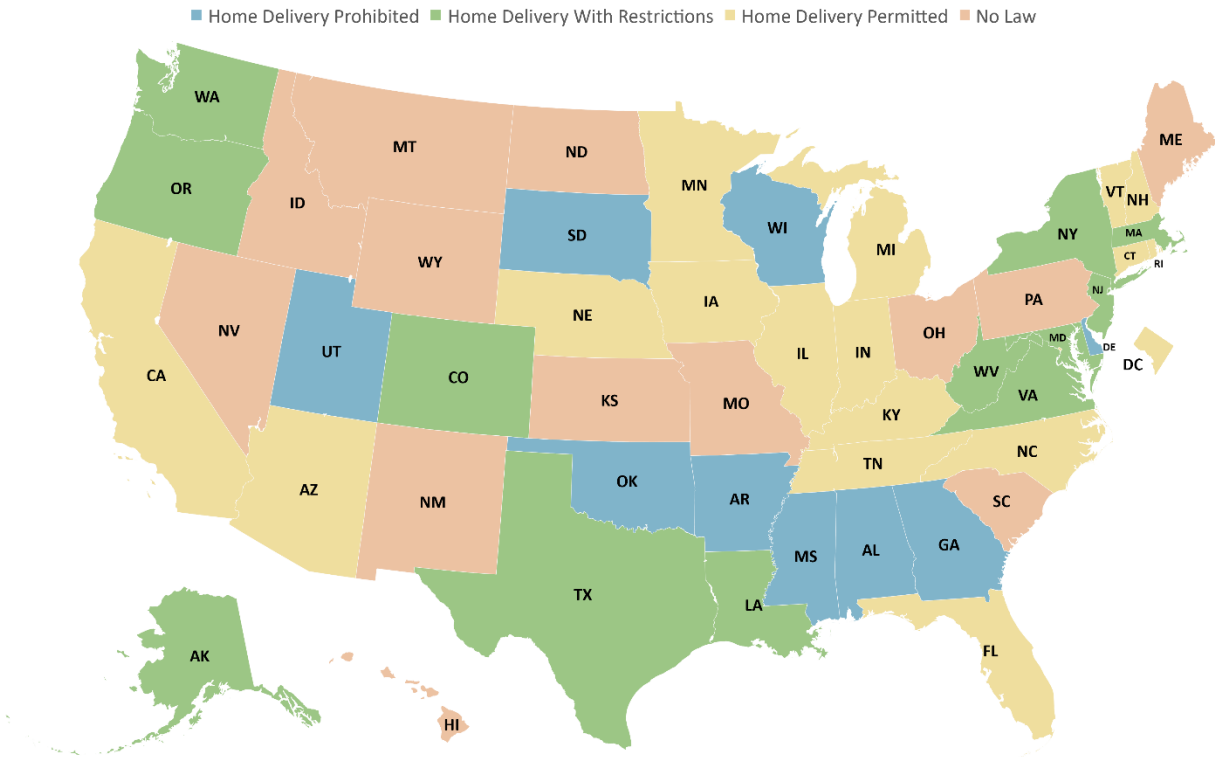
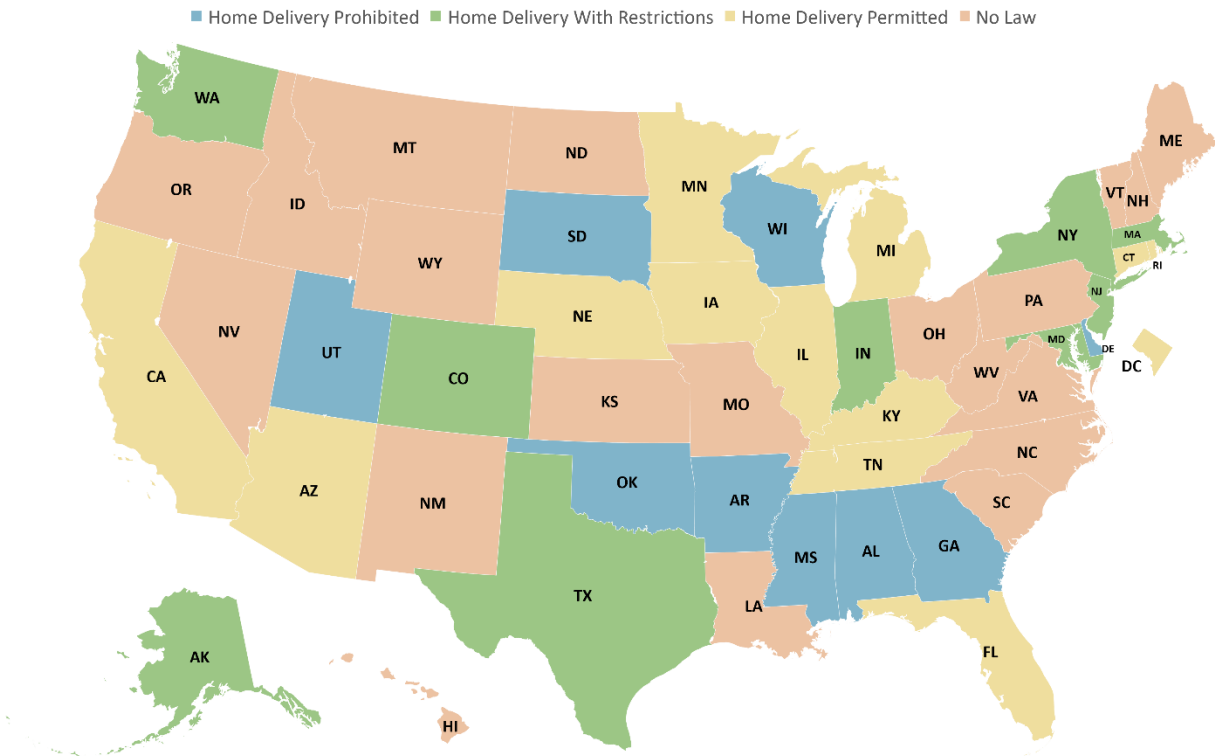


Exhibit 2.26: Home Delivery of Spirits as of January 1, 2020



Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired by Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. For more information, including definitions of the variables for this policy, visit stopalcoholabuse.gov.

- Callinan, S., & MacLean, S. (2020). COVID-19 makes a stronger research focus on home drinking more important than ever. *Drug and Alcohol Review*.
- Fletcher, L. A., Nugent, S. M., Ahern, S. M., & Willenbring, M. L. (1996). The use of alcohol home delivery services by male problem drinkers: A preliminary report. *Journal of Substance Abuse*, 8(2), 251–261.
- Fletcher, L. A., Toomey, T. L., Wagenaar, A. C., Short, B., & Willenbring, M. L. (2000). Alcohol home delivery services: A source of alcohol for underage drinkers. *Journal of Studies on Alcohol*, 61, 81–84.
- Matthay, E. C., & Schmidt, L. A. (2020). Home delivery of legal intoxicants in the age of COVID-19. *Addiction (Abingdon, England)*, 116(4), 691–693
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism: Alcohol Problems in Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.

Policies Affecting Alcohol Pricing

Alcohol Taxes

Policy Description

There is ample evidence that the “economic availability” of alcoholic beverages (i.e., retail price) affects underage drinking and a wide variety of related consequences. The *Surgeon General’s Call to Action* includes economic availability as a strategy in the context of increasing the cost of underage drinking (HHS, 2007). Taxes are a major way that alcohol prices are amended by policymakers, and increasing alcohol taxes has been recommended by the U.S. Community Preventive Services Task Force for effectively reducing excessive drinking, including among adults and underage drinking.³³

The effects of price on reducing underage drinking, college drinking, and binge drinking (including drinking among youth who show signs of alcohol use disorders) are considerable. There are also significant effects on youth traffic crashes, violence on college campuses, and crime among people under 21.

Although alcohol taxes are an imperfect index of retail prices, tax rates are relatively easy to measure and provide a useful proxy for economic availability. Based on this and other research, the 2004 NRC/IOM report, *Reducing Underage Drinking: A Collective Responsibility* (NRC & IOM, 2004), made the following recommendation: “[S]tate legislatures should raise excise taxes to reduce underage consumption and to raise additional revenues for this purpose.” However, alcohol excise taxes have not kept up with inflation, reducing their value since the 1970s because of insufficient tax increases and infrequent tax increases (Blanchette et al., 2020).

This policy addresses beer, wine, and distilled spirits taxes. Although some states have separate tax rates for other alcoholic products (e.g., sparkling wine and flavored alcohol beverages), these account for a small market share and are not addressed.³⁴

Status of Alcohol Taxation

As of January 1, 2020, all license states have a specific excise tax for beer, wine, and spirits. The federal government also levies a specific excise tax of \$0.58/gallon for beer, \$1.07/gallon for wine, and \$13.50/gallon for spirits.³⁵

Like the federal-specific excise tax, state-specific excise taxes are generally highest for spirits and lowest for beer, roughly tracking the alcohol content of these beverages. Beer-specific excise taxes range from \$0.02–\$1.29/gallon, wine-specific excise taxes range from \$0.20–\$2.50/gallon, and spirits-specific excise taxes range from \$1.50–\$14.25/gallon. The states with

³³ *The Guide to Community Preventive Services (The Community Guide)*. (n.d.). Retrieved July 3, 2020, from <https://www.thecommunityguide.org/>

³⁴ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

³⁵ “Spirits are taxed at the rate of \$13.50 on each proof gallon and a proportionate tax at the like rate on all fractional parts of a proof gallon. A proof gallon is one liquid gallon of spirits that is 50 percent alcohol at 60°F. Distilled Spirits bottled at 80 proof (40 percent alcohol) would be 0.8 proof gallons per gallon of liquid and taxed at a rate of \$10.80 per gallon. Distilled Spirits bottled at 30 proof (15 percent alcohol) would be 0.3 proof gallons per gallon of liquid and taxed at a rate of \$4.05 per gallon.”

the highest excise tax for one beverage may not be the states with the highest excise taxes for other beverages. States may control for one, two, or three categories (beer, wine, and spirits).

Exhibits 2.27–2.29 show the levels of excise taxes for beer, wine, and spirits in each state. Beer ad valorem excise tax rates range from 1 percent to 14.95 percent for on- and off-premises sales. Wine rates range from 1.5 percent to 15 percent for on- and off-premises sales. Distilled spirit rates range from 1.5 percent to 37.50 percent for on- and off-premises sales.

Trends in Alcohol Taxes

Exhibit 2.30 shows the number of tax increases or decreases in beer, wine, or spirits excise taxes since 2003. These changes do not reflect increases or decreases in sales tax adjusted ad valorem excise tax rates that were caused only by a state’s change to its general sales tax.³⁶ Changes also do not include the initial tax changes that occurred in 2011 when Washington changed from a control state to a license state. During this period, there have been 42 tax rate increases and 10 decreases across all states. One study noted that, measured in real-dollar terms to account for inflation, state alcohol excise taxes have declined about 30 percent since 1991 and now average about 5 cents per drink (Naimi et al., 2018). As a result, considering all types of taxes on alcohol, total alcohol taxes in 2010 accounted for just one-tenth of the costs due to excessive drinking in the U.S. (Blanchette et al., 2019).

³⁶ The retail ad valorem excise tax minus the sales tax. Applicable only to states in which sales tax does not apply to alcoholic beverages in order to reflect the actual taxation rate.

Exhibit 2.27: Specific Excise Tax Per Gallon on Beer as of January 1, 2020

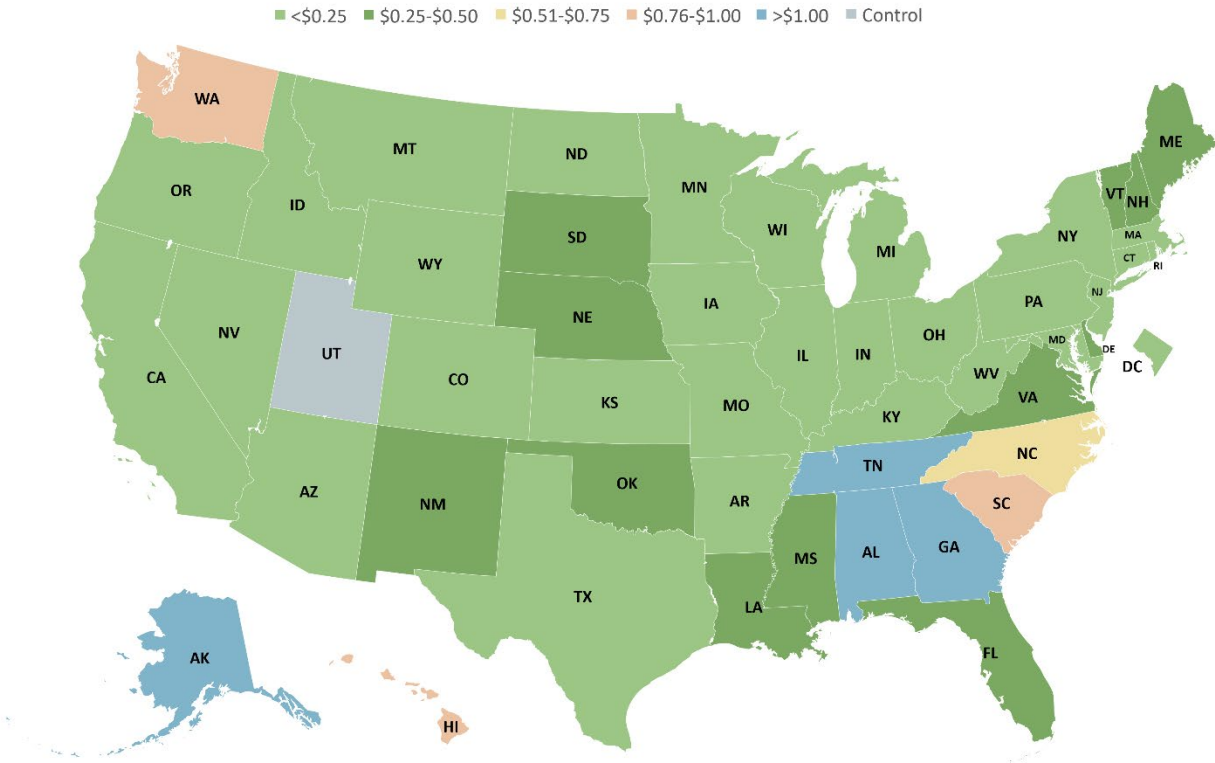


Exhibit 2.28: Specific Excise Tax Per Gallon on Wine as of January 1, 2020

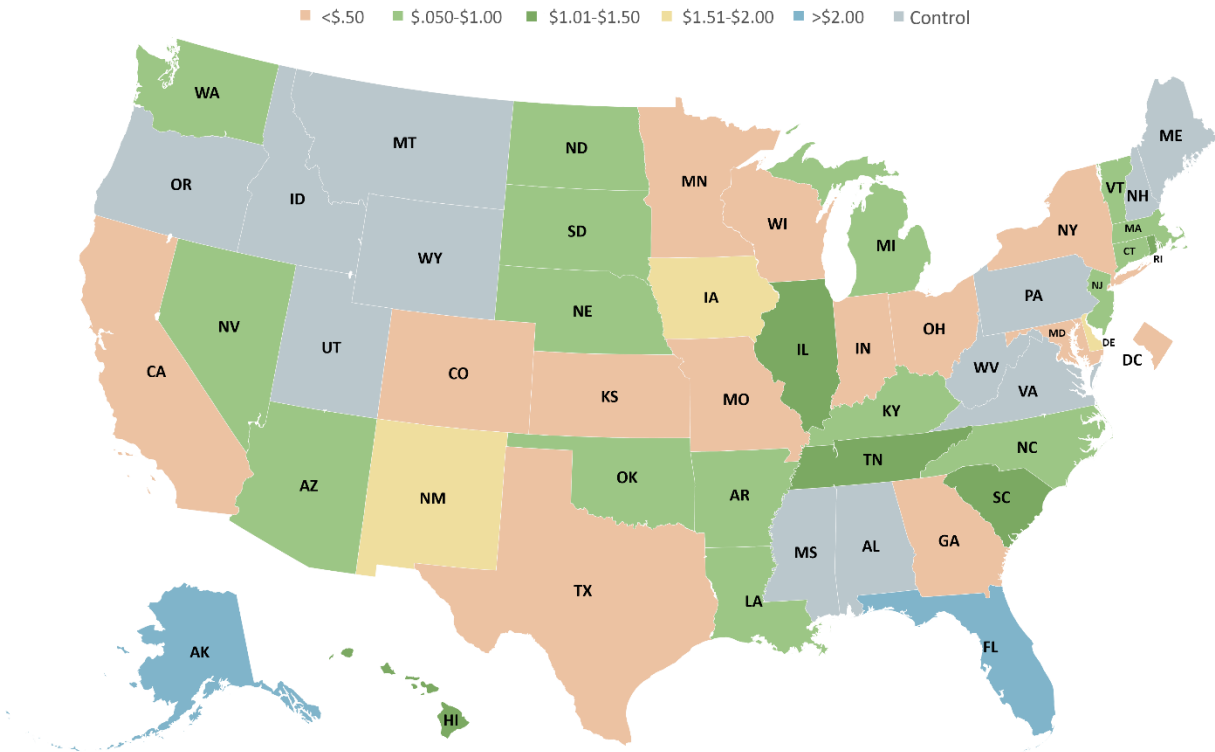


Exhibit 2.29: Specific Excise Tax Per Gallon on Distilled Spirits as of January 1, 2020

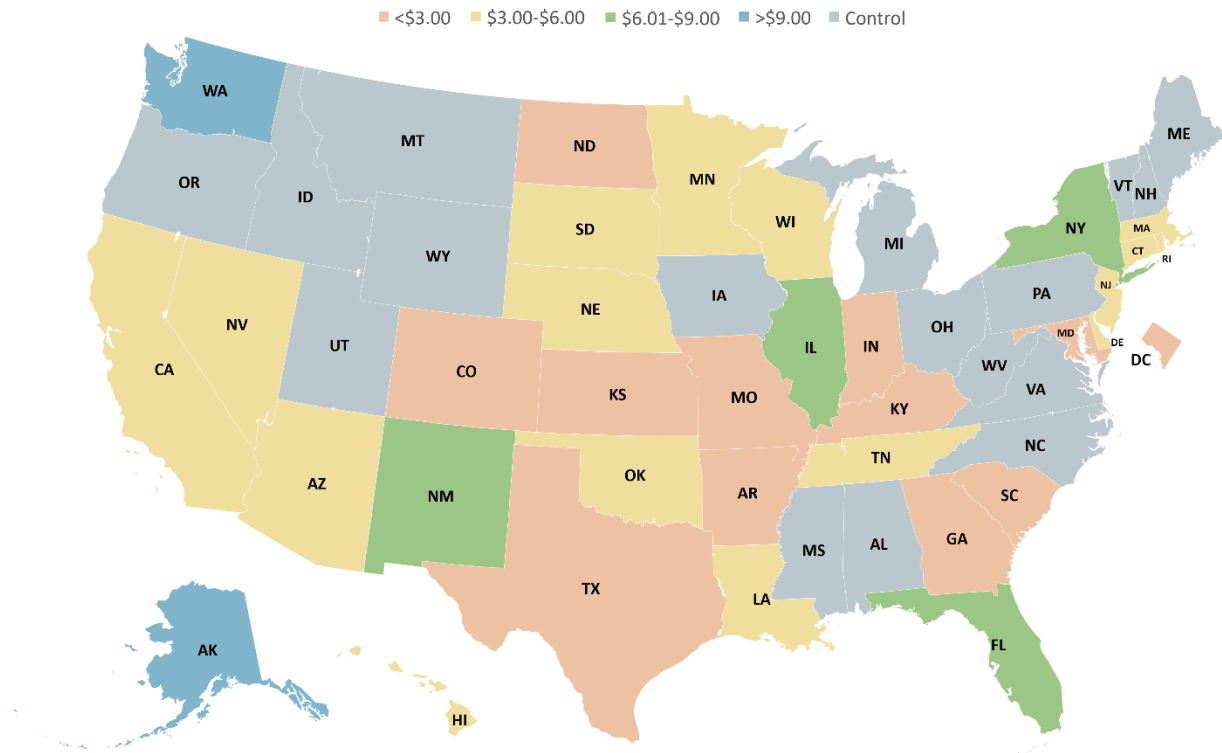


Exhibit 2.30: Alcohol Tax Changes 2003–2020

		Beer		Wine		Spirits		Total Number of Changes
		Specific excise tax	Ad valorem excise tax	Specific excise tax	Ad valorem excise tax	Specific excise tax	Ad valorem excise tax	
Number of states that:	Increased rates	11	7	12	6	10	7	53
	Decreased rates	1	6	0	4	0	2	13

Data Sources and Citations

All data for the three components of the “Alcohol Beverages Taxes” policy were obtained from the APIS websites: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/beer/30>; <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/wine/32>; and <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/distilled-spirits/31>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

- Babor, T. F., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., Grube, J. W., Hill, L., Holder, H., Homel, R., Livingston, M., Österberg, E., Rehm, J., Room, R., & Rossow, I. (2010). *Alcohol: No Ordinary Commodity: Research and Public Policy*. Oxford University Press.
<https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199551149.001.0001/acprof-9780199551149>
- Blanchette, J. G., Chaloupka, F. J., and Naimi, T. S. (2019). The composition and magnitude of alcohol taxes in states: do they cover alcohol-related costs? *Journal of Studies on Alcohol and Drugs*, 80(4), 408–414.
- Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, 81(1), 58–67.
- Blanchette, J. G., Ross, C. S., & Naimi, T. S. (2020). The rise and fall of alcohol excise taxes in U.S. states, 1933–2018. *Journal of Studies on Alcohol and Drugs*, 81(3), 331–338.
<https://doi.org/10.15288/jsad.2020.81.331>.
- Braillon, A. (2018). Effects of a comprehensive pro-alcohol policy in Washington State. *Alcohol and Alcoholism*, 54(1), 119–121.
- Bray, J., & Babor, T. F. (2018). An alcohol policy trifecta: Reduce alcohol problems, save on health care, generate public revenues. *Journal of Studies on Alcohol and Drugs*, 79(1), 5–6.
<https://doi.org/10.15288/jsad.2018.79.5>
- Chaloupka, F. (2004). The effects of price on alcohol use, abuse, and their consequences. In *Reducing Underage Drinking: A Collective Responsibility* (pp. 541–564). Washington, DC: National Academies Press.
- Chaloupka, F. J. (2009). Commentary on Wagenaar et al.: Alcoholic beverage taxes, prices and drinking. *Addiction*, 104, 191.
- Chaloupka, F. J. (2010). Beyond tax: The need for research on alcohol pricing policies. *Addiction*, 105, 397.
- Chaloupka, F., Grossman, M., & Saffer, H. (2002). The effects of price on alcohol consumption and alcohol-related problems. *Alcohol Research & Health*, 26(1), 22–34.
- Chaloupka, F. J., Powell, L. M., & Warner, K. E. (2019). The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption. *Annual Review of Public Health*, 40, 187–201.
- Chang, K., Wu, C. C., & Ying, Y. H. (2012). The effectiveness of alcohol control policies on alcohol-related traffic fatalities in the United States. *Accident Analysis and Prevention*, 45, 406–415.
- Coate, D., & Grossman, M. (1988). Effects of alcoholic beverage prices and legal drinking ages on youth alcohol use. *Journal of Law and Economics*, 31(1), 145–171.
- Cobiac, L. J., Mizdrak, A., & Wilson, N. (2019). Cost-effectiveness of raising alcohol excise taxes to reduce the injury burden of road traffic crashes. *Injury Prevention*, 25(5), 421–427.
- Daley, J. I., Stahre, M. A., Chaloupka, F. J., & Naimi, T. S. (2012). The impact of a 25-cent-per-drink alcohol tax increase. *American Journal of Preventive Medicine*, 42(4), 382–389.
- Davoren, M. P., Cronin, M., Perry, I. J., & O'Connor, K. (2016). Alcohol consumption among university students: A typology of consumption to aid the tailoring of effective public health policy. *British Medical Journal Open*, 6(11). e011815. <https://doi.org/10.1136/bmjopen-2016-011815>.
- Elder, R. W., Lawrence, B., Ferguson, A., Naimi, T. S., Brewer, R. D., Chattopadhyay, S. K., Toomey, T. L., & Fielding, J. E. (2010). The effectiveness of tax policy interventions for

- reducing excessive alcohol consumption and related harms. *American Journal of Preventive Medicine*, 38(2), 217–229. <https://doi.org/10.1016/j.amepre.2009.11.005>
- Esser, M. B., Waters, H., Smart, M., & Jernigan, D. H. (2016). Impact of Maryland's 2011 alcohol sales tax increase on alcoholic beverage sales. *American Journal of Drug and Alcohol Abuse*, 42(4), 404–411. <https://doi.org/10.3109/00952990.2016.1150485>
- Fairman, B. J., Simons-Morton, B. G., Haynie, D. L., Liu, D., Goldstein, R. B., Hingson, R. W., & Gilman, S. E. (2019). State alcohol policies, taxes, and availability as predictors of adolescent binge drinking trajectories into early adulthood. *Addiction*, 114(7), 1173–1182.
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Kenkel, D. S. (1993). Drinking, driving, and deterrence: the effectiveness and social costs of alternative policies. *Journal of Law and Economics*, 36, 877–911.
- Klitzner, M. (2012). Improving the measurement of state alcohol taxes. National Institute on Alcohol Abuse and Alcoholism, Alcohol Policy Information System. Retrieved from http://alcoholpolicy.niaaa.nih.gov/uploads/improving_the_measurement_of_state_alcohol_taxes.pdf
- Klitzner, M., & Hilton, M. (2015). Total tax: A suggested method for calculating alcohol beverage taxes. Retrieved from: https://alcoholpolicy.niaaa.nih.gov/uploads/total_tax_a_suggested_method_for_calculating_alcohol_beverage_taxes.pdf
- Laixuthai, A., & Chaloupka, F. J. (1993). Youth alcohol use and public policy. *Contemporary Policy Issues*, 11(4), 70–81.
- Lavoie, M. C., Langenberg, P., Villaveces, A., Dischinger, P. C., Simoni-Wastila, L., Hoke, K., & Smith, G. S. (2017). Effect of Maryland's 2011 alcohol sales tax increase on alcohol-positive driving. *American Journal of Preventive Medicine*, 53(1), 17–24. <https://doi.org/10.1016/j.amepre.2016.12.011>
- Maldonado-Molina, M. M., & Wagenaar, A. C. (2010). Effects of alcohol taxes on alcohol-related mortality in Florida: Time-series analyses from 1969 to 2004. *Alcoholism: Clinical and Experimental Research*, 34, 1–7.
- McClelland, R. & Iselin, J. (2019). Do state excise taxes reduce alcohol-related fatal motor vehicle crashes? *Economic Inquiry*.
- Mosher, J. F., Adler, S. S., Pamukcu, A. M., & Treffers, R. D. (2017). Review of state laws restricting local authority to impose alcohol taxes in the United States. *Journal of Studies on Alcohol and Drugs*, 78(2), 241–248.
- Mullahy, J., & Sindelar, J.L. (1994). Do drinkers know when to say when? An empirical analysis of drunk driving. *Econ Inq*, 32(3), 383–94
- Naimi, T. S., Blanchette, J. G., Xuan, Z., & Chaloupka, F. J. (2018). Erosion of state alcohol excise taxes in the United States. *Journal of Studies on Alcohol and Drugs*, 79(1), 43–48.
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Ponicki, W. R., Gruenewald, P. J., LaScala, E. A. (2007). Joint impacts of minimum legal drinking age and beer taxes on U.S. youth traffic fatalities, 1975 to 2001. *Alcoholism: Clinical and Experimental Research*, 31(5), 804–813.
- Preusser, D. F., Williams, A. F., & Weinstein, H. B. (1994). Policing underage sales. *Journal of Safety Research*, 25, 127–133.

- Shang, C., Wang, X., & Chaloupka, F.J. (2018). The association between excise tax structures and the price variability of alcoholic beverages in the United States. *PloS One*, *13*(12), e0208509.
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One*, *14*(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>
- Smart, M. J., Yearwood, S. S., Hwang, S., Thorpe, R. J. Jr., & Furr-Holden, C. D. (2017). Impact of alcohol tax increase on Maryland college students' alcohol-related outcomes, substance use & misuse.
- Son, C.H., & Topyan, K. (2011). The effect of alcoholic beverage excise tax on alcohol-attributable injury mortalities. *European Journal of Health Economics*, *12*(2), 103–113.
- Subbaraman, Meenakshi S., Nina Mulia, William C. Kerr, Deidre Patterson, Katherine J. Karriker - Jaffe, and Thomas K. Greenfield. "Relationships between US state alcohol policies and alcohol outcomes: differences by gender and race/ethnicity." *Addiction* *115*, no. 7 (2020): 1285-1294.
- Subbaraman, M. S., Mulia, N., Karriker-Jaffe, K. J., & Kerr, W. C. (2020). Differential effects of beverage-specific taxes on alcohol-related harms across demographic subgroups. In *APHA's 2020 VIRTUAL Annual Meeting and Expo (Oct. 24-28)*. American Public Health Association.
- Tessler, R. A., Mooney, S. J., Quistberg, D. A., Rowhani-Rahbar, A., Vavilala, M. S., & Rivara, F. P. (2019). State-level beer excise tax and firearm homicide in adolescents and young adults. *American Journal of Preventive Medicine*, *56*(5), 708–715.
- Wada, R., Chaloupka, F. J., Powell, L. M., & Jernigan, D. H. (2017). Employment impacts of alcohol taxes. *Preventive Medicine*, *105*, Supplement, S50–S55. <https://doi.org/10.1016/j.ypmed.2017.08.013>
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism Alcohol Problems in Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.
- Wagenaar, A., Tobler, A., & Komro, K. (2010). Effects of alcohol tax and price policies on morbidity and mortality: A systematic review. *American Journal of Public Health*, *100*, 2270–2278.
- Wagenaar, A. C., Livingston, M. D., & Staras, S. S. (2015). Effects of a 2009 Illinois alcohol tax increase on fatal motor vehicle crashes. *American Journal of Public Health*, *105*(9), 1880–1885.
- Wagenaar, A. C., Salois, M. J., & Komro, K. (2009). Effects of beverage alcohol price and tax levels on drinking: A meta-analysis of 1003 estimates from 112 studies. *Addiction*, *104*, 179–190.
- Xuan, Z., Blanchette, J. G., Nelson, T. F., Nguyen, T. H., Hadland, S. E., Oussayef, N. L., Heeren, T. C., & Naimi, T. S. (2015). Youth drinking in the United States: Relationships with alcohol policies and adult drinking. *Pediatrics*, *136*(1), 18–27. <https://doi.org/10.1542/peds.2015-0537>
- Xuan, Z., Chaloupka, F. J., Blanchette, J., Nguyen, T., Heeren, T., Nelson, T. F., & Naimi, T. S. (2014). The relationship between alcohol taxes and binge drinking: Evaluating new tax measures incorporating multiple tax and beverage types. *Addiction*, *110*(3), 441–450. <https://doi.org/10.1111/add.12818>

Xuan, Z., Nelson, T. F., Heeren, T., Blanchette, J., Nelson, D. E., Gruenewald, P., & Naimi, T. S. (2013). Tax policy, adult binge drinking, and youth alcohol consumption in the United States. *Alcoholism: Clinical and Experimental Research*, 37(10), 1713–1719. <https://doi.org/10.1111/acer.12152>

Low-Price, High-Volume Drink Specials

Policy Description

Restrictions on low-price, high-volume drink specials regulate on-premises retailers in their use of various price-related marketing tactics, such as “happy hours,” two-for-one specials, or free drinks, that encourage heavier consumption. These promotions are particularly prevalent in college communities, where large numbers of underage students are present.

Research has examined the effects of on-premises retail drink specials on binge drinking among college students. For example, one study measured self-reported binge drinking rates among college students from 119 colleges, conducted an assessment of marketing practices of on-premises outlets in neighboring communities, and determined whether these communities restricted low-price, high-volume drink specials. Results demonstrated that price-related promotions were significantly correlated with higher binge drinking and self-reported drinking and driving rates among students (Wechsler et al., 2003).

Based on this and other research, the *Surgeon General’s Call to Action* concluded that “increasing the cost of drinking can positively affect adolescent decisions about alcohol use” and recommended “[e]limination of low price, high-volume drink specials, especially in proximity to college campuses, military bases, and other locations with a high concentration of youth” (HHS, 2007).

A state law concerning low-price, high-volume drink specials may prohibit or restrict the following practices:

1. Providing customers with free beverages either as a promotion or on a case-by-case basis (e.g., on a birthday or anniversary, as compensation for poor services).
2. Offering additional drinks for the same price as a single drink (e.g., two-for-ones).
3. Offering reduced-price drinks during designated times of day (happy hours).
4. Instituting a fixed price for an unlimited amount of drinks during a fixed period of time (e.g., “beat the clock” and similar drinking games).
5. Offering drinks with increased amounts of alcohol at the same price as regular-sized drinks (e.g., double shots for the price of single shots).
6. Service of more than one drink to a customer at a time.

Status of Low-Price, High-Volume Drink Specials Law

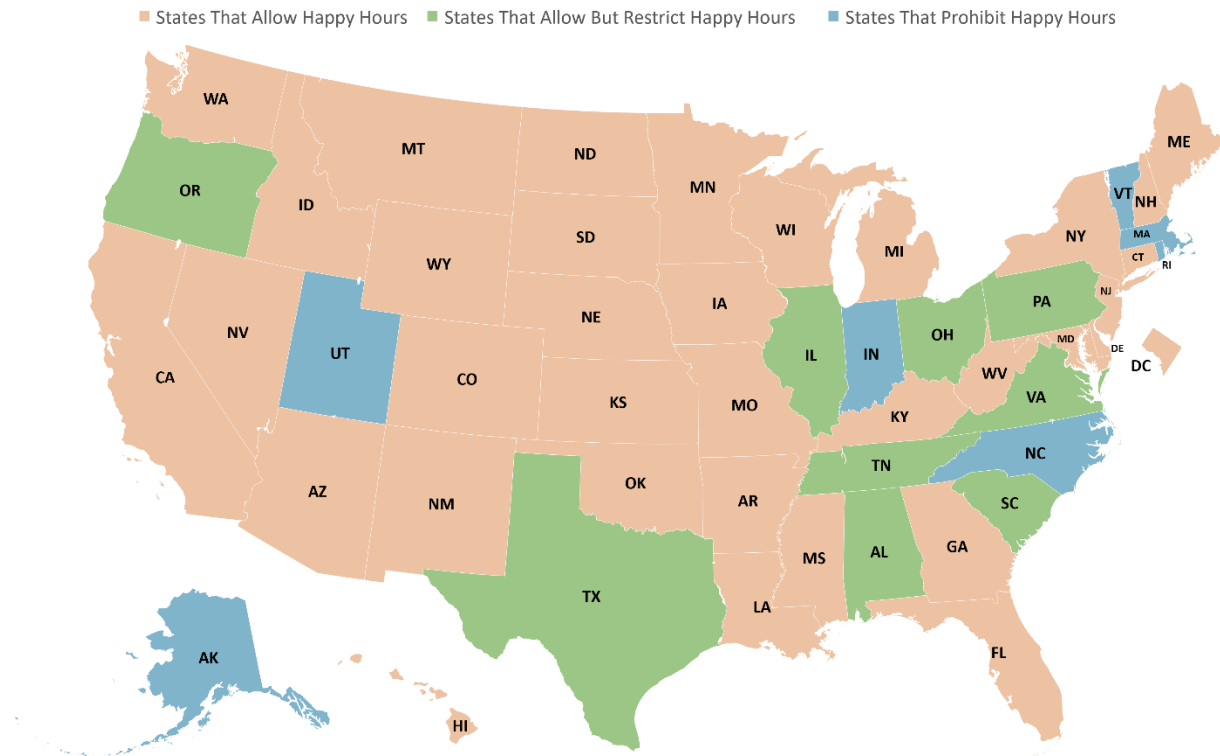
As of January 1, 2020, 14 states prohibit free beverages. Three states prohibit multiple servings at one time. Nineteen states prohibit multiple servings for a single serving price. Twenty-four states prohibit unlimited beverages for a fixed price or period. Ten states prohibit increased volume without increase in price. As shown in Exhibit 2.31, seven states prohibit happy hours (reduced prices). Nine additional states allow happy hours but restrict the hours in which they may be offered.

Trends in Low-Price, High-Volume Drink Specials Law

Since 2011, one state (Pennsylvania) has increased the number of hours during which discounts may be offered. In 2012, Kansas changed its law to allow reduced-price drinks during

designated times of day and increased volume of an alcoholic beverage. In 2015, Illinois changed its prohibition against multiple servings at one time to prohibiting multiple servings for a single serving price. At the same time, Illinois lifted its ban of “happy hour pricing” that prohibited discounting drinks during the day to permitting drink discounts before 10 p.m., provided the discounts do not exceed 4 hours per day and 15 hours per week. As of January 1, 2019, Oklahoma repealed its happy hour ban pertaining to drinks specials.

Exhibit 2.31: Happy Hours as of January 1, 2020



Data Sources and Citations

All data for the “Drink Specials” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/drink-specials/2>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Babor, T. F., Mendelson, J. H., Greenberg, I., & Kuehnle, J. (1978). Experimental analysis of the ‘happy hour’: Effects of purchase price on alcohol consumption. *Psychopharmacology*, *58*, 35–41.

Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, *81*(1), 58–67.

Davoren, M. P., Cronin, M., Perry, I. J., & O’Connor, K. (2016). Alcohol consumption among university students: A typology of consumption to aid the tailoring of effective public health policy. *British Medical Journal Open*, *6*(11), e011815. <https://doi.org/10.1136/bmjopen-2016-011815>

- Kaplan, B. A., & Reed, D. D. (2018). Happy hour drink specials in the Alcohol Purchase Task. *Experimental and Clinical Psychopharmacology*, 26(2), 156–167. <https://doi.org/10.1037/pha0000174>
- Kuo, M., Wechsler, H., Greenberg, P., & Lee, H. (2003). The marketing of alcohol to college students: The role of low prices and special promotions. *American Journal of Preventive Medicine*, 25(3), 1–8.
- Morrell, M. N., Reed, D. D., & Martinetti, M. P. (2021). The behavioral economics of the bottomless cup: The effects of alcohol cup price on consumption in college students. *Experimental and Clinical Psychopharmacology*, 29(1), 36.
- National Highway Traffic Safety Administration. (2005). *Research report: Preventing over-consumption of alcohol—sales to the intoxicated and “happy hour” (drink special) laws*. Springfield, VA: National Technical Information Service, DOT HS 809–878.
- Puac-Polanco, V., Keyes, K. M., Mauro, P. M., & Branas, C. C. (2020) A systematic review of drink specials, drink special laws, and alcohol-related outcomes. *Current Epidemiology Reports*, 1–15.
- Thombs, D. L., O’Mara, R., Dodd, V. J., Hou, W., Merves, M. L., Weiler, R. M., Pokorny, S. B., Goldberger, B. A., Reingle, J., & Werch, C. C. E. (2009). A field study of bar-sponsored drink specials and their associations with patron intoxication. *Journal of Studies on Alcohol and Drugs*, 70(2), 206–214. <https://doi.org/10.15288/jsad.2009.70.206>
- Tutenges, S., & Bøhling, F. (2019). Designing drunkenness: How pubs, bars and nightclubs increase alcohol sales. *International Journal of Drug Policy* 70, 15–21.
- U.S. Department of Health and Human Services. (2007). *Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism: Alcohol Problems in Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.
- Wechsler, H., Lee, J., Nelson, T., & Lee, H. (2003). Drinking and driving among college students: The influence of alcohol control policies. *American Journal of Preventive Medicine*, 25(3), 212–218.

Wholesaler Pricing Restrictions

The 21st Amendment to the Constitution repealed Prohibition and gave states broad authority to regulate alcohol sales within their borders.³⁷ Most states established a three-tier structure: producers, wholesalers, and retailers. Many states included restrictions on wholesaler pricing practices intended to strengthen the three-tier system, reduce price competition among wholesalers and retailers, and combat corruption and crime in the alcohol market.

Research suggests that the specific wholesaler pricing restrictions described below increase the price of alcohol to consumers. Research also shows that underage consumption and problems are strongly influenced by alcohol prices. One study has suggested that restrictions on certain wholesale pricing practices may have as strong an effect on alcohol pricing as alcohol taxes (Chaloupka, 2010).

Some states operate alcohol wholesale operations directly through a state agency, usually limited to distilled spirits, beer with high alcohol content, and wine with high alcohol content. In these cases, the state sets wholesaler prices as part of its administrative function, and statutory provisions are relevant only to that portion of the wholesaler market in the control of private entities. For this policy, an index beverage (defined by alcohol content) has been selected: Beer (5 percent), wine (12 percent), and spirits (40 percent). If the index beverage is controlled, in whole or in part, by the state at the wholesale level, the state is defined as a “control” state. If an index beverage is not controlled by the state at the wholesale level, that state is defined as a “license” state.³⁸ For the purpose of describing wholesale pricing restrictions, a state may be both control and license, depending on the beverage. One state, Utah, is defined as a control state for all three beverage indexes because that state sets wholesaler prices for the index beverage (5 percent alcohol by volume [ABV] for beer).

Types of Wholesaler Pricing Policies

In general, wholesaler pricing policies fall within four types: (1) restrictions on volume discounts, (2) restrictions on discounting practices, (3) price posting requirements, and (4) restrictions on the ability of wholesalers to provide credit extensions to retailers. Policy categories are closely interrelated but may operate independently of each other. Each is described briefly below.

Volume Discounting Restrictions

Large retailers often have an advantage over smaller retailers due to the large volumes they are able to purchase at once. This purchasing power allows them to negotiate lower prices on most commodities and therefore offer items at lower prices to consumers. Many states have imposed restrictions on the ability of wholesalers to provide volume discounts—the same price must be charged for products regardless of the amount purchased by individual retailers. The primary purpose of these laws is to protect small retailers from predatory marketing practices of large-

³⁷ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

³⁸ For a state-by-state review of control state wholesaler systems and further discussion of license systems, see <http://www.apis.niaaa.nih.gov>.

volume competitors and to prevent corruption. They have a secondary effect of increasing retail prices generally by making retail price discounting more difficult.

Minimum Pricing Requirements

States may require wholesalers to establish a minimum markup or maximum discount for each product sold to retailers based on the producer's price for the product, or states may enact a ban against selling any product below cost. These provisions are designed to maintain stable prices on alcohol products by limiting price competition at both retail and wholesale levels. In most cases, this increases the retail price to consumers and thus affects public health outcomes.

Post-and-Hold Provisions

This policy requires wholesalers to publicly “post” prices of their alcohol products (i.e., provide a list of prices to a state agency for review by the public, including retailers and competitors) and hold these prices for a set amount of time, allowing all retailers the opportunity to make purchases at the same cost.

Post-and-hold requirements are typically tied to minimum pricing and price discounting provisions and enhance the states' ability to enforce those provisions. Wholesalers' submissions can be reviewed easily to determine whether they are paying the proper taxes on their products and whether they are providing any illegal price inducements to retailers. Post-and-hold provisions reduce price competition among both retailers and wholesalers because posted prices are locked in for a set amount of time. They also promote effective enforcement of other wholesaler pricing policies. Some states require wholesalers to post prices but have no “hold” requirement—that is, posted prices may be changed at any time. This is a weaker restriction.

Credit Extension Restrictions

Wholesalers often provide retailers with various forms of credit (e.g., direct loans or deferred payment of invoices). Many states restrict alcoholic beverage wholesalers' ability to provide credit to retailers, typically by banning loans and limiting the period of time required for retailers to pay invoices. The primary purpose of the restrictions is to limit the influence of wholesalers on retailer practices. When a retailer is relying on a wholesaler's credit, the retailer is more likely to promote the wholesaler's products and to agree to the wholesaler's demands regarding product placement and pricing. Restrictions have a secondary effect of limiting the retailer's ability to operate on credit, indirectly increasing retail prices.

Federal Court Challenges to State Wholesaler Pricing Restrictions

As noted earlier, in general, states have broad authority under the 21st Amendment to the Constitution to regulate alcohol availability within their boundaries. That authority has been constrained by U.S. Supreme Court and Federal Court of Appeals cases, which have interpreted the Interstate Commerce Clause and Sherman Antitrust Act to prohibit certain state restrictions

on the alcohol market.^{39,40,41} These cases have led to considerable uncertainty regarding the validity of state restrictions on alcohol wholesaler prices, and additional challenges to those restrictions are anticipated. In the meantime, this uncertainty has prompted states to re-examine their alcohol wholesaler practices provisions.

Status of Wholesaler Pricing Restrictions

Federal Law

Federal law addresses restrictions on wholesaler credit practices:

The Federal Alcohol Administration Act provides for regulation of those engaged in the alcohol beverage industry and for protection of consumers (27 U.S.C. § 201 et seq). Under the Act, wholesalers may not induce retailers to purchase beverage alcohol by extending credit in excess of 30 days from the date of delivery (27 U.S.C. § 205(b)(6), 27 C.F.R. § 6.65).

Some states allow wholesalers to extend credit to retailers for a longer period than is permitted under federal law.

State Law as of January 1, 2020

Only two license states (Alaska and Rhode Island) have no wholesaler pricing restrictions. Among the remaining states, bans on extending credit and post-and-hold (excluding post only) are the most common wholesaler pricing restrictions (ranging from about one-fifth to about one-half the states depending on beverage type). Other restrictions range from under 10 percent of the license states to about a quarter of the states depending on beverage type.

Trends in Wholesaler Pricing Restrictions

In 2016, two states modified their post-and-hold provisions. Delaware changed its regulatory requirement from a post-and-hold law of 5 days to a post-only requirement for all three beverage subtypes. Additionally, Michigan reduced the time of its minimum number of days to hold prices from 180 days to 90 days for wholesale pricing of beer. In 2018, Oklahoma eliminated the post-and-hold requirement for beer as it pertains to wholesale pricing. In 2019, South Dakota added a 10-day hold period to its existing post requirement for beer prices.

³⁹ July 2, 1890, Ch. 647, 26 Stat. 209, 15 U.S.C. § 1-7.

⁴⁰ See, for example, *Tenn. Wine & Spirits Retailers Ass'n v. Thomas*, 139 S.Ct. 2449 (2019), finding that Tennessee's 2-year durational residency requirement for retail liquor store license applicants was unconstitutional as it violated the Commerce Clause and was not saved by the 21st Amendment.

⁴¹ Several federal and state courts have addressed the constitutionality of selected wholesaler pricing practices, with conflicting results. For example, in *Costco Wholesale Corp. v. Maleng*, 522 F.3d 874 (9th Cir. 2008), the plaintiff challenged nine distinct Washington state restrictions governing wholesaler practices, including policies in all four categories described above. The court upheld the state's volume discount and minimum markup provisions but invalidated the post-and-hold requirements. In *Manuel v. State of Louisiana*, 982 So.2d 316 (3rd Cir. 2008), a Louisiana appellate court rejected six separate challenges to the Sherman Act, including the ban on volume discounts. It upheld the state's ability to regulate alcoholic beverages within the state and concluded that the Sherman Act had to yield to the state's authority granted under the 21st Amendment. Maryland's post-and-hold law and volume discount ban were challenged in *TFWS, Inc. v. Franchot*, 572 F.3d 186 (4th Cir. 2009), a complicated case involving multiple appeals and re-hearings. On Maryland's fourth appeal, the court upheld its previous decisions to strike down the two policies.

Exhibits 2.32–2.35 present detailed state-by-state information for wholesaler pricing policies for beer.

Exhibit 2.32: Volume Discounts for Beer as of January 1, 2020

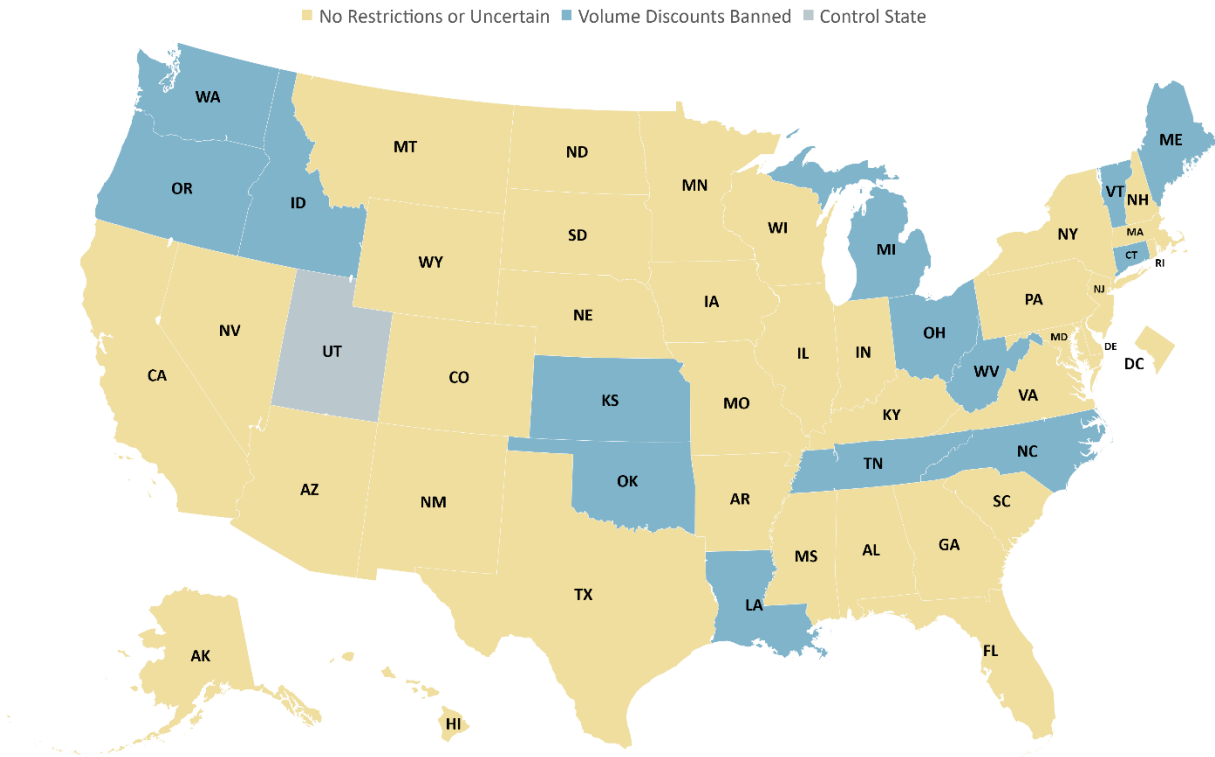


Exhibit 2.33: Minimum Markup, Maximum Discount for Beer as of January 1, 2020

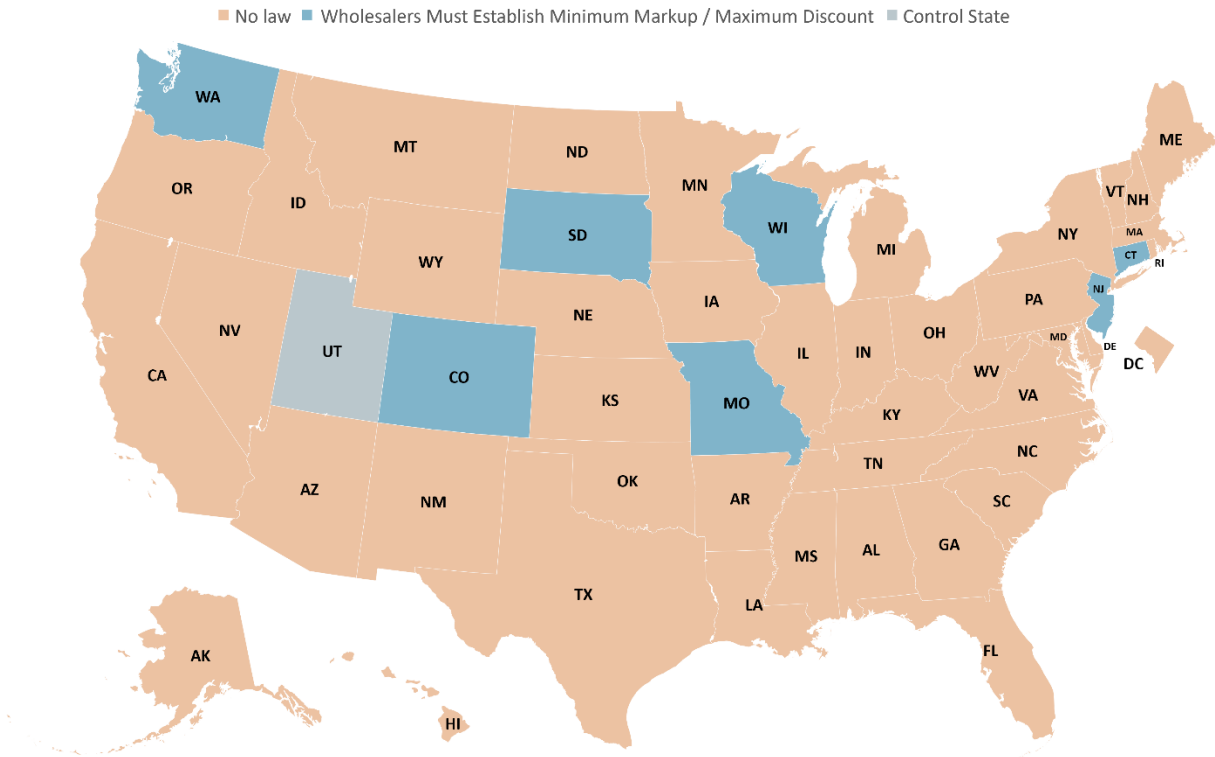


Exhibit 2.34: Post-and-Hold Requirements for Beer as of January 1, 2020

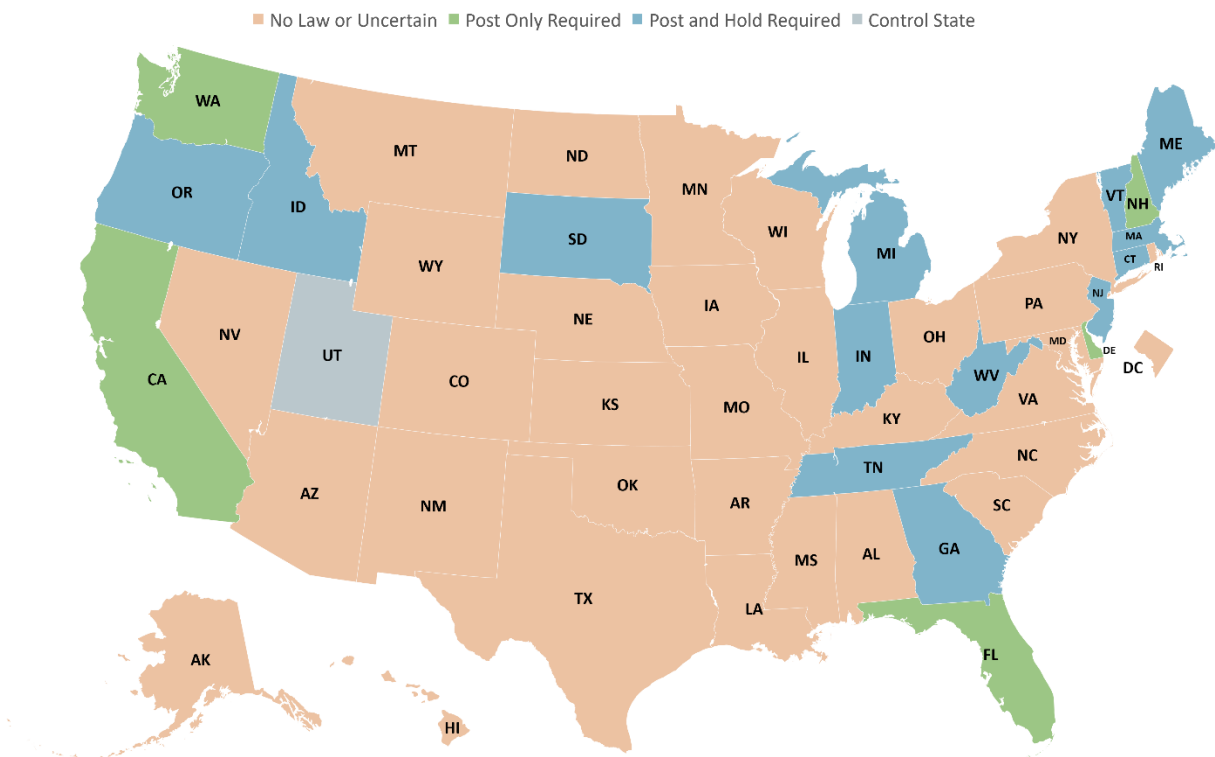
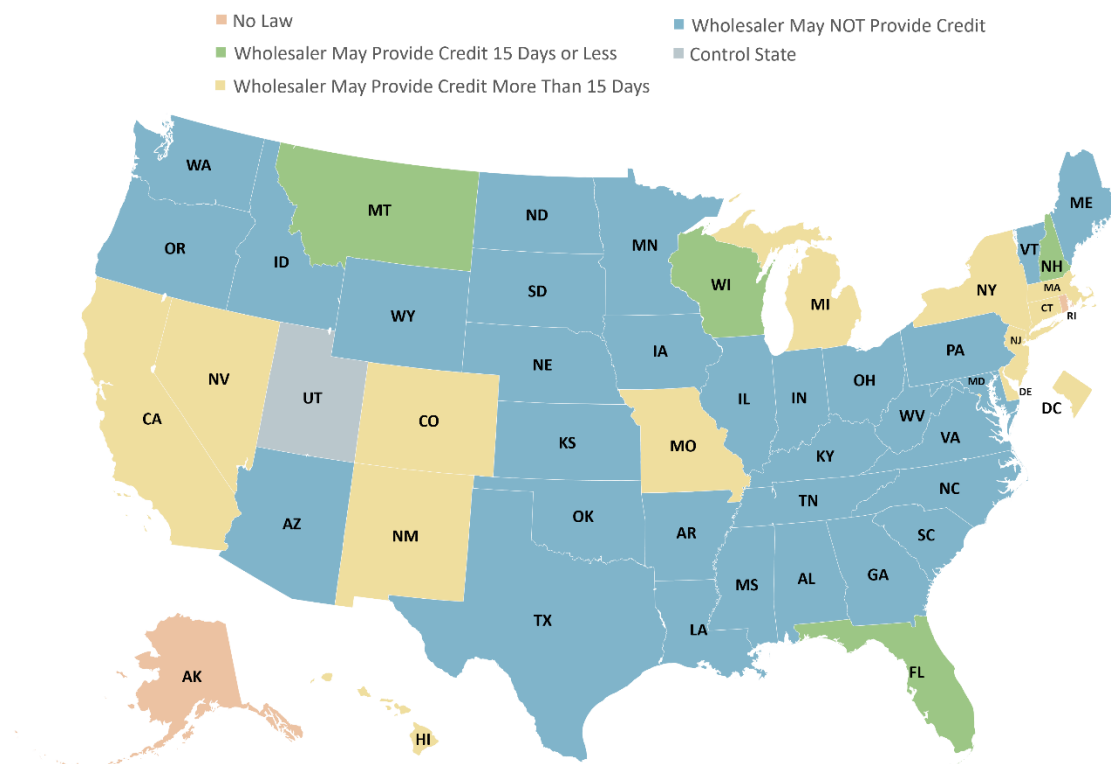


Exhibit 2.35: Retail Credit for Beer as of January 1, 2020

Data Sources and Citations

All data for the “Wholesale Pricing Practices and Restrictions” policy were obtained from the APIS website: <https://alcoholpolicy.niaaa.nih.gov/apis-policy-topics/wholesale-pricing-practices-and-restrictions/3>. APIS provides further descriptions of this policy and its variables, details regarding state policies, and a review of the limitations associated with the reported data.

Chaloupka, F. (2008). Legal Challenges to State Alcohol Control Policy: An Economist’s Perspective. Presentation at the Alcohol Policy 14 Conference, San Diego, CA.

Chaloupka, F. J. (2010). Beyond tax: The need for research on alcohol pricing policies. *Addiction*, 105, 397

Gruenewald, P. J., Ponicki, W. R., Holder, H. D., & Romelsjö, A. (2006). Alcohol prices, beverage quality, and the demand for alcohol: Quality substitutions and price elasticities. *Alcoholism: Clinical and Experimental Research*, 30, 96–105.

National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.

Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One*, 14(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>.

Enforcement

The effectiveness of alcohol control policies depends heavily on how well they are implemented and whether they are enforced. Laws that prohibit sales to minors require strong enforcement to achieve desirable levels of compliance. Two effective enforcement strategies discussed below are (1) conducting compliance checks and (2) a system of administrative penalties, including fines and license suspensions, that increases in severity with repeat offenses.

Compliance Check Protocols

Policy Description

Compliance checks involve an underage operative (a “decoy”)—working either with local law enforcement officials or with agents from the state alcoholic beverage control (ABC) agency—who enters an alcohol retail establishment and attempts to purchase an alcoholic beverage from a server, bartender, or clerk.⁴²

Protocols for these compliance checks vary from state to state but in general follow a similar outline. An underage person (allowable ages vary by state) serves as a decoy. Decoys are generally instructed to act and dress in an age-appropriate manner. The decoy enters an alcohol retail outlet and attempts to purchase a predetermined alcohol product (e.g., a six-pack of beer at an off-sale establishment or a mixed drink at an on-sales establishment). Typically, an undercover enforcement officer from a local police department or the state ABC agency observes the decoy. Audio and video recording equipment may also be used or required. State rules vary regarding a decoy’s use of legitimate ID cards (e.g., driver’s licenses), although a few states allow decoys to verbally exaggerate their age. If a purchase is made successfully, the establishment and the clerk or server may be subject to an administrative or criminal penalty.

Most, but not all, states permit law enforcement agencies to conduct compliance checks on a random basis. A few states permit the checks only when there is a basis for suspecting that a particular licensee has sold alcohol to a person under age 21 in the past. To ensure that state and local law enforcement agencies are following uniform procedures, most states issue formal compliance check protocols or guidelines. If the protocols are not followed, then the administrative action against the licensee may be dismissed. The protocols are therefore designed to ensure that law enforcement actions are fair and reasonable and to provide guidelines to licensees for avoiding prosecution.

Compliance checks of off- and on-premises licensed alcohol retailers are an important community tool for reducing illegal alcohol sales to minors and promoting community normative change. The 2004 National Research Council (NRC)/IOM report, *Reducing Underage Drinking: A Collective Responsibility* (2004), calls for: (1) regular, random compliance checks; (2) administrative penalties, including fines and license suspensions that increase with each offense; (3) enhanced media coverage for the purposes and results of compliance checks; and (4) training for alcohol retailers regarding their legal responsibility to avoid selling alcohol to underage youth. The 2016 *Surgeon General’s Report on Alcohol, Drugs, and Health* found that compliance checks are an effective strategy for reducing alcohol consumption by underage youth

⁴² Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

and can be implemented in conjunction with other population-level alcohol policies (HHS, 2016).

Compliance checks have both educational and behavior change goals:

1. Reinforce social norms that underage drinking is not acceptable by publicizing enforcement efforts.
2. Educate the community—including parents, educators, and policymakers—about the ready availability of alcohol to youth, which many may not consider a major issue.
3. Increase alcohol retailers' perception that violation of sales to underage persons laws will be detected and punished, creating a deterrent effect.
4. Decrease the likelihood that retailers will sell alcohol to people under age 21, thereby reducing youth access to alcohol.

Numerous early studies demonstrated the contribution of compliance checks to reducing underage access to alcohol. For example, Grube (1997) demonstrated that outlets subject to compliance checks were about half as likely to sell alcohol on a post-test purchase survey as outlets in the comparison sites. Similarly, in Concord, New Hampshire, sales to youth decreased from 28 percent to 10 percent after quarterly compliance checks (coupled with increased penalties and a media campaign) at 539 off-premises alcohol establishments (Centers for Disease Control and Prevention, 2004). And in a large study in Minnesota, sales to youth were reduced immediately by 17 percent in alcohol establishments that experienced a check (Wagenaar et al., 2005).

Additional analyses also found that establishments situated near another neighborhood establishment that had been checked within the last 90 days were less likely to sell alcohol to young-looking buyers, but that these effects decay rapidly over time (Erickson et al., 2013).

Status of Compliance Check Protocols

Data for this policy were coded from formal compliance check protocols or guidelines. A total of 38 states have formal, written protocols; the remaining states either do not have these protocols or these protocols are not readily available to the public or were not available at the time the protocols were collected. Compliance check protocols are generally issued by the state police or the state ABC agency. Guidelines vary somewhat in specificity and detail, possibly reflecting differences in the purposes of the checks and the evidentiary standards in each state.

The maximum age of the decoy varies from 18 to 21 (Exhibit 2.36). The minimum age of the decoy ranges from 15 to 19 (only one state lists 15 as the minimum age).

Thirty-three states have guidelines for the decoys' appearance (e.g., appropriately dressed for age, and no hats, excessive makeup, or facial hair). At least one state has a requirement that a panel review the appearance of decoys to ensure that the decoys appear underage. The majority (27) of the states prohibit decoys from verbally exaggerating their age. Decoy training is mandatory in 19 states. Eighteen states require decoys to have valid ID in their possession at the time of the check, whereas five states prohibit decoys from carrying ID with them during a compliance check.

- Elder, R. W., Lawrence, B. A., Janes, G., Brewer, R. D., Toomey, T. L., Hingson, R. W., Naimi, T. S., Wing, S. G., & Fielding, J. (2007). Enhanced enforcement of laws prohibiting sale of alcohol to minors: Systematic review of effectiveness for reducing sales and underage drinking. *Transportation Research Circular, 2007*(E-C123), 181–188.
- Erickson, D. J., Lenk, K. M., Sanem, J. R., Nelson, T. B., Jones-Webb, R., & Toomey, T. L. (2014). Current use of underage alcohol compliance checks by enforcement agencies in the United States. *Alcoholism: Clinical and Experimental Research, 38*(6), 1712–1719.
- Erickson, D. J., Smolenski, D. J., Toomey, T. L., Carlin, B. P., & Wagenaar, A. C. (2013). Do alcohol compliance checks decrease underage sales at neighboring establishments? *Journal of Studies on Alcohol and Drugs, 74*, 852–858.
- George, M., Holder, R., Shamblen, S., & Holder, H. (2018). *Impact of alcohol compliance checks on underage alcohol-involved crashes: Test of a state-wide enforcement program in South Carolina 2006–2016*. Calverton, MD, Pacific Institute for Research and Evaluation.
- George, M. D., Holder, R., Shamblen, S., Nienhius, M. M., & Holder, H. D. (2021). Alcohol compliance checks and underage alcohol-involved crashes: Evaluation of a statewide enforcement program in South Carolina from 2006 to 2016. *Alcoholism: Clinical and Experimental Research, 45*(1), 242–250.
- Grube, J. W. (1997). Preventing sales of alcohol to minors: Results from a community trial. *Addiction, 92*(Suppl 2), S251–S260.
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Pacific Institute for Research and Evaluation. (2007). *Reducing alcohol sales to underage purchasers: A practical guide to compliance investigations*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Paschall, M. J., Grube, J. W., Black, C., Flewelling, R. L., Ringwalt, C. L., & Biglan, A. (2007). Alcohol outlet characteristics and alcohol sales to youth: results of alcohol purchase surveys in 45 Oregon communities. *Prevention Science, 8*(2), 153–159.
- Preusser, D. F., & Williams, A. F. (1992). Sales of alcohol to underage purchasers in three New York counties and Washington, D.C. *Journal of Public Health Policy, 13*(3), 306–317.
- Preusser, D. F., Williams, A. F., & Weinstein, H. B. (1994). Policing underage sales. *Journal of Safety Research, 25*, 127–133.
- Scribner, R., & Cohen, D. (2001). Effect of enforcement on merchant compliance with the minimum legal drinking age law. *Journal of Drug Issues, 31*, 857–866.
- U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). *Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health*. Washington, DC: U.S. Department of Health and Human Services.
- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Preventing youth access to alcohol: Outcomes from a multi-community time-series trial. *Addiction, 100*, 335–345.
- Wagenaar, A., Gehan, J. P., Jones-Webb, R., Toomey, T. L., & Forster, J. L. (1999). Communities mobilizing for change on alcohol: Outcomes from a randomized community trial. *Journal of Community Psychology, 27*, 315–326.
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking: A review of the recent literature. In M. Galanter (Ed.), *Recent Developments in Alcoholism: Alcohol Problems in Adolescents and Young Adults*. New York: Kluwer Academic/Plenum Publishers.

Wagenaar, A. C., & Wolfson, M. (1995). Deterring sales and provision of alcohol to minors: A study of enforcement in 295 counties in four states. *Public Health Report, 110*, 419–427.

Penalty Guidelines for Sales/Service to Underage Youth

Policy Description

An influential report by the Institute of Medicine recommended that “enforcement agencies should issue citations for violations of underage sales laws, with substantial fines and temporary suspension of license for first offenses and increasingly stronger penalties thereafter, leading to permanent revocation of license after three offenses” (NRC & IOM, 2004).

In the majority of states,⁴³ alcohol beverage control (ABC) agencies are responsible for adjudicating administrative charges against licensees, including violations for sales or service to those under age 21. Alcohol law enforcement seeks to increase compliance with laws by increasing the level of perceived risk of detection and sanctions. Such deterrence involves three key components: (1) perceived likelihood that a violation will lead to apprehension and sanction, (2) swiftness with which the sanction is imposed, and (3) severity of the sanction (Ross, 1992).

Although alcohol law enforcement agencies may issue the citations, adjudication of the cases is usually handled by another division or agency. States typically include administrative penalties in their statutory scheme prohibiting sales to people under age 21. Penalty provisions are usually broad, allowing for severe penalties but delegating responsibility for determining actual penalties in particular cases to the ABC agencies or to other agencies responsible for adjudicating the cases. Penalties may include warning letters, fines, license suspensions, a combination of fines and suspensions, or license revocation. Agencies may consider both mitigating and aggravating circumstances as well as the number of violations within a given time period, with repeat offenders usually receiving more severe sanctions.

Many ABC agencies issue penalty guidelines to alert licensees to the sanctions that will be imposed for first, second, and subsequent offenses, providing a time period for determining repeat offenses. The agency may treat the guidelines as establishing a set penalty or range of penalties or may treat them as providing guidance, allowing for deviation at the agency’s discretion.

Penalty guidelines that establish firm, relatively severe penalties (particularly for repeat offenders) can increase the deterrent effect of the policy and its enforcement and can increase licensees’ awareness of the risks associated with violations.

Status of Penalty Guidelines for Sales/Service to People Under Age 21

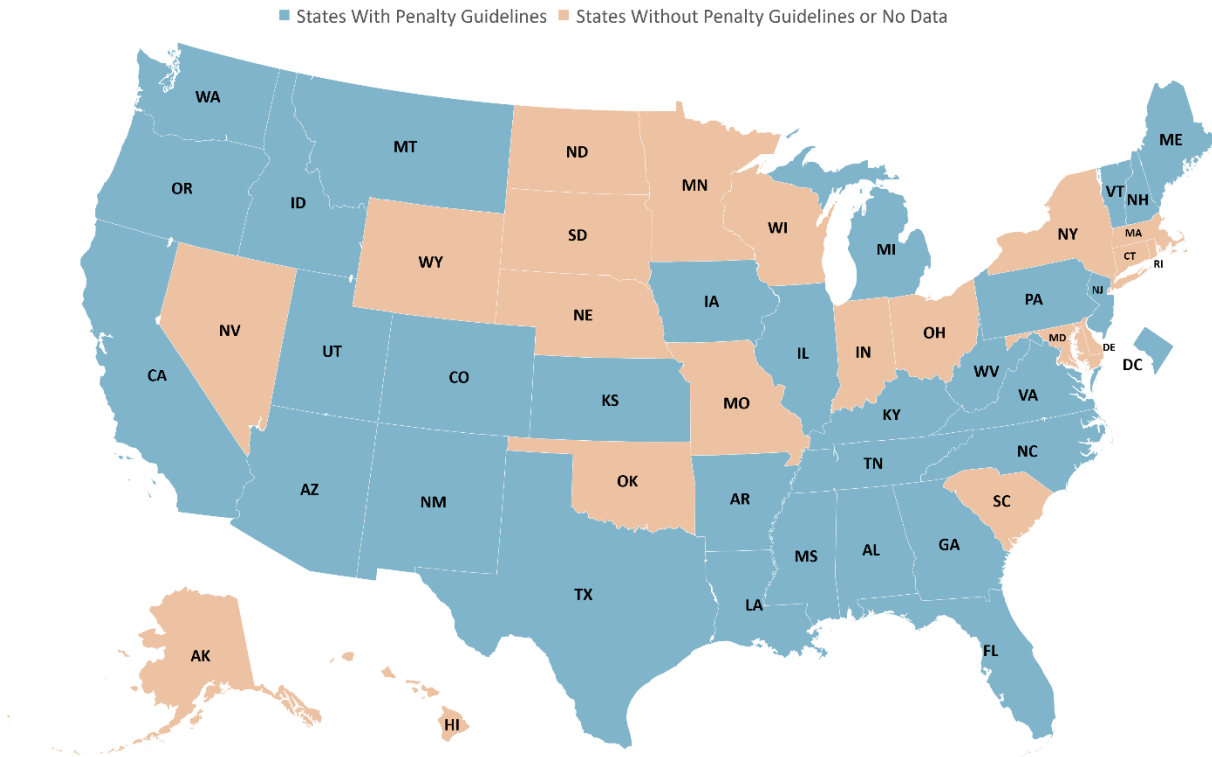
At least 30 states have defined administrative penalty guidelines for licensees that sell alcohol to an underage youth (Exhibit 2.37).⁴⁴ The remaining 21 states either do not have penalty guidelines or do not make them readily available to the public or were not available at the time of

⁴³ Note that throughout this chapter, “states” refers to the 50 states and the District of Columbia.

⁴⁴ Oklahoma has a statute providing that the Alcoholic Beverage Laws Enforcement Commission must revoke the license of an outlet that “knowingly” sells alcohol to a person under age 21. 37A OK Stat § 37A-2-148(E) (2020). There are no penalties specified for sales that occur due to negligence or in circumstances other than “knowingly.” Oklahoma is therefore coded as having no penalty guidelines.

data collection. The guidelines may be based on statute, regulations, and internal policies developed by the agency.

Exhibit 2.37: States with Penalty Guidelines in 2020



Guidelines vary widely across states. For example, although a few states may issue warning letters for first offenses if there are no aggravating circumstances, the majority of states impose fines or suspensions. Minimum fines for a first offense range from \$50 to \$1,500, with more states in the \$500–\$1,000 range. Fines are typically in lieu of suspensions for first offenses, with some states allowing licensees to choose between the two sanctions. Three states (California, Florida, and New Mexico) have adopted the IOM recommendation that licenses should be revoked after three offenses, with an additional six providing the option of revocation. Six states have guidelines that state that licenses are to be revoked for a fourth offense, with Colorado providing the option of revocation.

As an example, Iowa can impose a \$500 fine for a first offense, whereas a second offense within 2 years increases the penalty to a \$1,500 fine and a 30-day suspension. Fines increase to as much as \$9,000 for a second offense in Utah to more than \$30,000 for a fourth offense in the District of Columbia, with license suspension days increasing to as many as 180 days (for a third offense in Idaho). Time periods for defining repeat offenses range from 1 to 5 years.

States also vary in the specificity of their guidelines. Many states list a set penalty or a relatively limited range of penalties. For example, Florida lists a \$1,000 fine and a 7-day suspension for a first offense, whereas Georgia’s guideline provides for penalties ranging from a \$500–\$2,500 fine and up to a 30-day suspension and a 12-month probation for first offenses. See Chapter 3

below for a review of penalties actually imposed by states for selling to and serving people under age 21.

Data Sources and Citations

Legal research for this topic is planned and managed by the Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), chaired Miriam Delphin-Rittmon, Ph.D., Assistant Secretary for Mental Health and Substance Use, and is conducted under contract number 75S20120C00001. For further information, including definitions of the variables for this policy, visit stopalcoholabuse.gov.

- Barry, R. (2004). Enhanced enforcement of laws to prevent alcohol sales to underage persons: New Hampshire, 1999–2004. *MMWR: Morbidity and Mortality Weekly Report*, 53, 452–454.
- National Research Council & Institute of Medicine. (2004). *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press.
- Ross, H. L. (1992). *Confronting drunk driving: Social policy for saving lives*. Binghamton, NY: Vail-Ballou Press.

Intervention

The 2016 reauthorization of the STOP Act provides funding for expanding the use of screening, brief intervention, and referral to treatment (SBIRT) in healthcare settings. The law defines screening as “using validated patient interview techniques to identify and assess the existence and extent of alcohol use in a patient” (Public Law No. 114-255). Brief intervention is defined as “after screening a patient, providing the patient with brief advice and other brief motivational enhancement techniques designed to increase the insight of the patient regarding the patient's alcohol use, and any realized or potential consequences of such use, to effect the desired related behavioral change.”

The U.S. Preventive Services Task Force (USPSTF) recommends screening for unhealthy alcohol use in primary care settings in adults 18 years or older and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use. The USPSTF concluded in 2018 that the evidence was insufficient to assess the balance of benefits and harms of screening and brief behavioral counseling interventions for alcohol use in primary care settings in adolescents ages 12–17 years (United States Prevention Task Force, 2018). However, considerable literature has been published indicating that SBIRT offered by a provider such as a physician, nurse, psychologist, or counselor can be effective in reducing adolescent drinking and related problems (Komro et al., 2017; Scott-Sheldon et al., 2014; Tanner-Smith & Lipsey, 2015). A recent article published in *JAMA Pediatrics* indicated that 5.6 percent of adolescents ages 12–17 developed alcohol use disorder (AUD) within 12 months of their first alcohol use (Volkow et al., 2021).

The American Academy of Pediatrics recommends that pediatricians become familiar with adolescent SBIRT practices and their potential to be incorporated into universal screening and comprehensive care of adolescents (American Academy of Pediatrics, 2016; Committee on Substance Use and Prevention, 2016). NIAAA has developed a screening guide for healthcare providers titled “Alcohol Screening and Brief Intervention for Youth: A Practitioner’s Guide” (NIAAA, 2011). The guide is aimed at healthcare professionals who care for young people ages 9–18 and provides empirically-based advice and recommendations for conducting efficient and effective screening and follow-up.

For educators, the Substance Abuse and Mental Health Services Administration (SAMHSA) offers “Ready, Set, Go, Review: Screening for Behavioral Health Risk in Schools,” which helps schools develop screening processes to identify students with possible mental health and substance use problems so that further assessment, monitoring, and/or support can be provided.

Treatment

The need for adolescent substance use treatment is urgent and ongoing. In 2019, 6.7 percent of adolescents had a substance use disorder involving alcohol, cannabis, and/or illicit other drugs (including misuse of medication), and 3.3 percent of adolescents were diagnosed specifically with alcohol use disorder (NSDUH, 2021). Current substance use intervention and treatment programs are not addressing the needs of the majority of adolescents; 95 percent of adolescents who needed treatment in a specialized facility did not receive this treatment, according to the most recent National Survey on Drug Use and Health (NSDUH) data (NSDUH, 2021). Local

treatment options are frequently unavailable to adolescents, and many individuals have little or no health insurance coverage for their treatment needs. (Winters et al., 2018)

The National Institute on Drug Abuse (NIDA) has created “Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide.” This guide describes 13 key principles of adolescent treatment:

- 1) Adolescent substance use needs to be identified and addressed as soon as possible.
- 2) Adolescents can benefit from a drug abuse intervention even if they are not addicted to a drug.
- 3) A relapse signals the need for more treatment or a need to adjust the individual’s current treatment plan.
- 4) Routine annual medical visits are an opportunity to ask adolescents about drug use.
- 5) Legal interventions and sanctions or family pressure may play an important role in getting adolescents to enter, stay in, and complete treatment.
- 6) Substance use disorder treatment should be tailored to the unique needs of the adolescent.
- 7) Behavioral therapies are effective in addressing adolescent drug use.
- 8) Families and the community are important aspects of treatment.
- 9) Effectively treating substance use disorders in adolescents requires also identifying and treating any other mental health conditions they may have.
- 10) Sensitive issues such as violence and child abuse or risk of suicide should be identified and addressed.
- 11) It is important to monitor drug use during treatment.
- 12) Staying in treatment for an adequate period of time and continuity of care afterward are important.
- 13) Testing adolescents for sexually transmitted diseases like HIV, as well as hepatitis B and C, is an important part of drug treatment.

The guide also includes a section entitled “Evidence-Based Approaches to Treating Adolescent Substance Use Disorders”, which discusses

- Behavioral approaches,
- Family-based approaches,
- Addiction medications, and
- Recovery support services.

CHAPTER 3
2020 *State Survey* Results—
State Underage Drinking
Prevention Policies, Programs, and
Practices

CHAPTER 3: 2020 STATE SURVEY RESULTS—STATE UNDERAGE DRINKING PREVENTION POLICIES, PROGRAMS, AND PRACTICES

Introduction

The 2006 Sober Truth on Preventing Underage Drinking (STOP) Act requires annual reporting of data from the 50 states and the District of Columbia on their performance in enacting, enforcing, and creating laws, regulations, and programs to prevent or reduce underage drinking. The STOP Act *State Survey* was developed to efficiently collect the portions of these data that were not available elsewhere.

Since 2011, the STOP Act *State Survey* has collected data on the following topics:

1. Programs targeted to youth, parents, and caregivers to deter underage drinking.
2. State interagency collaborations and best practices that address underage drinking prevention, including social marketing efforts intended to reduce underage drinking and increase parent/child communications about alcohol consumptions and collaborations with tribal governments.
3. The amount that each state invests in the prevention of underage drinking.
4. Enforcement programs to promote compliance with underage drinking laws and regulations.

A key conclusion from *State Survey* responses is that states are committed to the reduction of underage drinking and its consequences. Evidence of this commitment can be seen by the following: (1) All states completed the 90-question survey, (2) most reported numerous program activities, and (3) in many cases, states provided substantial detail about those activities (see individual state summaries). Finally, the unique challenges presented by the COVID-19 pandemic in 2020 did not deter the states from completing the Survey and continuing the 100 percent response rate that the Survey has elicited for every year of its existence.

Results presented here must be viewed with caution. In many cases, missing data decrease the extent to which a meaningful conclusion can be drawn. Caution must also be exercised in interpreting changes from 2011–2020, given variations in data availability.

Programs Targeted to Youth, Parents, and Caregivers

States reported implementing a wide variety of underage drinking prevention programs for youth, parents, and caregivers. Many well-known programs were reported, including those focused on life skills, refusal skills, media advocacy, community organizing, and environmental change. Forty-five percent of the programs focused on individuals, whereas one in five programs focused on environmental change.

Data on numbers of program participants were limited, owing perhaps to inherent difficulties in estimating program participation for programs focused on entire populations or subpopulations (e.g., environmental change programs). Forty-three percent of the states reported implementing programs to measure or reduce youth exposure to alcohol advertising and marketing.

Evaluation of underage drinking prevention programs is not comprehensive. Forty-eight percent of the programs the states described have been evaluated, and reports are available for 59 percent of these.

Eighty-eight percent of the states reported they had best-practice standards for underage drinking prevention programs. Seventy-three percent of states with best-practice standards reported that a federal agency had contributed to establishing these standards, and 76 percent indicated that their standards were based on guidelines developed by a state agency. Over two-thirds (69 percent) included the Substance Abuse and Mental Health Services Administrations (SAMHSA) or SAMHSA's Center for Substance Abuse Prevention (CSAP) in their list of agencies from which standards were obtained.

Collaborations, Planning, and Reports

Sixty-seven percent of states reported the existence of a state-level interagency body or committee to coordinate or address underage drinking prevention activities. However, of the states with such a committee, only 15 percent included the governor and 9 percent included a representative of the legislature.

Forty-one percent of the states with interagency committees included community coalitions, and 41 percent included college or university administrations, campus life departments, or campus police. Twenty-four percent of the states included local law enforcement, and only 6 percent included youth. Overall, key decisionmakers (e.g., governors, legislatures) were underrepresented on interagency committees.

States were asked whether they had prepared a plan for preventing underage drinking or issued a report on underage drinking in the past 3 years. Forty-nine percent of the states had prepared a plan, and 45 percent had issued a report.

State Expenditures on the Prevention of Underage Drinking

States were asked to estimate state expenditures for two categories of enforcement activities and five types of programs targeted to youth, parents, and caregivers. Responses indicate that the largest expenditure category is for community-based programs, followed by K–12 programs. The median of expenditures for programs targeted to youth, parents, and caregivers (\$183,722) is 10 times that for all enforcement activities (median = \$18,388), and the total dollar amount expended for these non-enforcement programs (\$141,086,470) is 20 times the total dollar amount spent on enforcement (\$7,015,726). Expenditure data reporting on the survey was incomplete, with response rates ranging from 33 percent to 81 percent (median = 63 percent) across the five expenditure categories for programs targeting youth, parents, and caregivers. Thus, these results must be viewed with some caution. However, these data may be difficult for states to assemble, given multiple funding streams and asynchronous fiscal years, among other issues.

It should be noted that the total dollar amount reported in the *State Survey*—for enforcement or other programs—reflects only funds from the state's budget and represents only a relatively small portion of total state spending on substance use prevention. Each state receives substantial federal funding (through block grants and other sources) that is used for underage drinking prevention and treatment as well as substance misuse prevention generally. Each of the 51 *State*

Reports includes a pie chart showing sources of funds spent by the state on substance misuse prevention and treatment.

Enforcement Programs

The majority of states collect data on state compliance checks, minor in possession (MIP) charges, and penalties imposed on retail establishments. However, less than one-third of the states collect data on local enforcement efforts. Thus, the ability to draw conclusions about enforcement activities and effectiveness is limited because underage drinking law enforcement also occurs at the local level. Improvements in state enforcement data systems would increase the accuracy of these analyses in future years.

Overall, enforcement activities appear highly variable across states. Compliance checks and other enforcement activities related to furnishing (i.e., party patrol operations, underage alcohol-related fatality investigations, and enforcement of direct shipment laws) are widely implemented, although not necessarily at both state and local levels. The total number of checks is modest, however. Fifty-seven percent of those states conducting compliance checks test 20 percent or fewer of their licensees. Sanctions for furnishing are predominantly fines, which are about eight times more common than suspensions. Revocations are extremely rare; 91 percent of the states in which license revocation is an option reported revoking one or no licenses.

Data on MIP activities (an index of the enforcement of a variety of laws aimed at deterring underage drinking) revealed medians of 0.25 arrests per 1,000 underage drinking occasions and 268 arrests per 100,000 in a population of 16- to 20-year-olds.

Comment

The data reveal a wide range of activity in the areas studied in the survey, although the activities vary in scope and intensity from state to state. Clearly, all states have areas of strength and areas where improvements can be realized. A recurrent theme is the unavailability of some data requested in the survey, especially that pertaining to local law enforcement and statewide expenditures. Accurate and complete data are essential both for describing current activities to prevent underage drinking and for monitoring progress through future *State Surveys*.

Survey Instrument

The survey instrument consists of approximately 90 questions divided into the four sections described below, consistent with the topics and performance measures described in the STOP Act.⁴⁵

1. Enforcement of underage drinking laws, including:
 - a. The extent to which states implement checks of retail outlets to assess compliance with laws prohibiting the sale of alcohol to minors and the results of these checks.
 - b. The extent to which the states implement other strategies for underage drinking enforcement, including MIP, Cops in Shops, shoulder tap operations, party patrol operations or programs, and underage alcohol-related fatality investigations.

⁴⁵ A copy of the survey instrument can be found on stopalcoholabuse.gov (Supplemental Materials to the *Report to Congress*).

- c. Sanctions imposed for violations (e.g., fines, license suspensions, license revocations).
2. Underage drinking prevention programs targeted to youth, parents, and caregivers, including data on the number of people served by these programs and whether these programs are evaluated.
3. State collaborations on underage drinking prevention and reduction programs, including:
 - a. Collaborations with tribal governments.
 - b. Programs to reduce or prevent youth exposure to alcohol advertising and marketing.
 - c. State support of, and participation in, media campaigns to reduce underage drinking, including the “Talk. They Hear You.®” campaign, a national media campaign required by the STOP Act.⁴⁶
 - d. Implementation of best-practice standards.
 - e. Formation of state interagency coordinating body to address underage drinking prevention.
 - f. Preparation of plans for underage drinking prevention.
4. State funds spent in the following categories, along with descriptions of any dedicated fees, taxes, or fines used to raise funds:
 - a. Compliance checks and provisions for technology to aid in detecting false identifications at retail outlets.
 - b. Checkpoints and saturation patrols.
 - c. Community-based, school-based, and higher education-based programs.
 - d. Programs that target youth within the juvenile justice and child welfare systems.
 - e. Other state efforts as deemed appropriate.

Survey questions are structured to allow states maximum flexibility in deciding which initiatives to describe and how to describe them. Open-ended questions are used whenever possible to allow states to “speak with their own voices.” The survey provides the option to respond “Don’t Know” or “Data Not Available” in those instances where requested information is not accessible.

Methods

State governors and the District of Columbia’s mayor were sent letters requesting confirmation of a designated representative to serve as the contact and be responsible for completing the survey. Designated contacts are typically staff members from state substance misuse program agencies or state alcohol beverage control (ABC) agencies.

The survey was uploaded to a web-based platform in four segments, and designated contacts were sent a link to this platform. They were also sent a copy of the report compiled from their responses to the 2019 survey so that data that remained unchanged between years could be readily copied into the web survey. Designated contacts were given technical instructions for filling out the survey.

The online survey was available for completion by the states in the second week of May 2020. Telephone and online technical support were available to *State Survey* contacts while the survey was in the field.

⁴⁶ Questions about media campaigns were added to the *Survey* in 2019.

As with all STOP Act *State Surveys* since 2011, responses were received from all 50 states and the District of Columbia—a 100 percent response rate. Each state’s response was reviewed, and state contacts were queried when necessary about apparent omissions, ambiguities, or other content issues. Copy edited reports of survey responses were returned to each state by email. States provided any requested clarifications and either approved the proposed copy edits or submitted their own revised text/information.

Best Practices, Performance Measures, and the Survey

The STOP Act *Survey of State Underage Drinking Prevention Policies, Programs, and Practices* fulfills the STOP Act requirement for data collection and measurement of state performance and use of best practices for the prevention and reduction of underage drinking. Many of the *Survey* questions directly address best practice categories that appear in the STOP Act: prevention programs to deter underage drinking and provision of treatment services to youth, exposure of underage persons to alcohol advertising, enforcement of underage drinking laws and penalties for underage drinking offenses, regulation of direct sales, and expenditures on underage drinking prevention.

To best appreciate the Survey results, it is important to briefly review some of the elements of best practices that have been identified through research into the evidence supporting the use of different practices and programs addressed in the Survey.

Prevention and Treatment Programs

Strategies for prevention and treatment programs that have been identified as best practices include:

- School strategies—through student assistance programs designed to reduce risk factors and increase protective factors that impact underage drinking.
- Extracurricular strategies—designed to channel young people’s “discretionary” time into adult-supervised activities.
- Family strategies—supporting and encouraging parental involvement and family interactions as a protective factor against underage alcohol use.
- Community strategies—reducing and preventing underage drinking through environmental strategies, such as policies or other community-wide activities.
- Multi-component strategies—utilizing more than one of these strategies has been shown to increase the impact of the individual approaches (Komro, et al, 2002).

As indicated above, the settings of programs may vary, but effective strategies generally contain one or more of the following components (NIDA, 2003):

- Transmission of information—examples include school-based curricula that provide information about how alcohol affects the body and brain development.
- Skills development—examples include training to reduce risky behaviors by teaching self-management skills, social skills, and alcohol awareness and resistance skills.

- Structural change—examples include environmental programs that produce change among populations (rather than individuals) through the development of policies or programs that encourage change in social norms related to underage drinking.
- Services—examples include counseling, health care, and treatment services.

Finally, effective programs demonstrate an awareness of the target “audience” and encourage interaction with appropriate mentors involved (Komro et al., 2002; NIDA, 2003):

- Programs are designed for a particular audience, taking into account gender, ethnicity, race, and other population characteristics to meet its needs more effectively.
- Programs support family relationships by engaging parents and caregivers in parenting skills and communications training.
- Programs support mentoring relationships by bringing trusted adults together with youth in their communities or by encouraging peer-to-peer activities.

Data collected by the *Survey* provides some measures by which to evaluate the states’ performance in implementing prevention and treatment programs, including:

- Types of programs and their contents.
- Settings in which programs are implemented.
- Populations served.
- Numbers of youth, parents, and caregivers reached by programs; and
- Whether the programs are evaluated, and if evaluation reports are available.
- State expenditures on prevention programs.

Enforcement

Studies that assess enforcement interventions in relation to outcomes (e.g., incidents of drinking and driving and underage drinking parties) make clear that enforcement results in greater compliance and better public health outcomes (Preusser & Williams, 1992; Smith et al., 2014). However, enforcement of underage drinking policies is often uneven, inconsistent, and sporadic, and outcomes generally diminish over time (Ferguson et al., 2000; Forster et al., 1994; Montgomery et al., 2006; Mosher et al., 2002; Preusser & Williams, 1992; Voas et al., 1998; Wagenaar & Wolfson, 1995; Wolfson et al., 1995).

Of all enforcement practices, compliance checks (or decoy operations) have been most frequently studied. These practices, in which trained underage (or apparently underage) operatives (“decoys”) working with law enforcement officials enter retail alcohol outlets and attempt to purchase alcohol, are a way of reducing sales of alcohol to minors. The 2003 National Research Council (NRC)/Institute of Medicine (IOM) report on preventing underage drinking (NRC & IOM, 2004) includes the recommendation that compliance checks be carried out regularly and comprehensively at the state and local levels. The 2016 *Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health* (HHS, 2016) describes the use of compliance checks as “an effective way to reduce alcohol consumption by minors.”

Other underage drinking enforcement interventions may include enhanced enforcement of drinking and driving through roadside stops; the use of party patrol (or party dispersal)

operations to identify underage drinking parties, make arrests, and issue citations; and strategies employed at the point of sale to prevent youth access to alcohol: Cops in Shops and shoulder tap operations.

Best practices for effective compliance checks and other enforcement interventions to reduce underage drinking require the consideration of:

- Consistency—Without regular compliance or other checks, the impact on sales to minors and compliance with underage drinking laws will erode (Erickson et al., 2013; Rutledge et al., 2013; Wagenaar et al., 2005).
- Frequency—Increasing the number of compliance checks or other interventions results in lower rates of sales to minors, and greater compliance with underage drinking laws (Grube, 1997; Centers for Disease Control and Prevention, 2004).
- Perception—When compliance checks and other enforcement interventions are conducted together with a media campaign, this increases public perception of the likelihood that the law will be enforced and violators sanctioned, which can have a deterrent effect on violations (Hingson et al., 1996; Centers for Disease Control and Prevention, 2004; Nagin, 2013).
- Populations impacted by the enforcement—While enforcement actions such as compliance checks or penalties (license suspensions or revocations) target alcohol retailers, many interventions target young consumers of alcohol (minors in possession arrests, party dispersal operations, Cops in Shops). The target population should be considered when evaluating the efficacy of enforcement interventions.

Data collected by the *Survey* provide greater insight into the use of enforcement interventions by states and local jurisdictions, and provide some measures by which to evaluate the states' performance in implementing enforcement of underage drinking laws, including:

- The number of compliance checks conducted by the state and by local law enforcement, and the percentage of all licensed establishments in a state that are checked.
- The failure rate of checks conducted.
- Whether or not compliance checks are conducted randomly.
- The utilization of strategies such as Cops in Shops and shoulder tap operations.
- The number of MIP arrests.
- Data on penalties (fines, license suspensions, revocations) imposed for sales to minor violations.
- The numerical relationship between enforcement targeting youth and enforcement actions targeting alcohol retailers.
- State expenditures on enforcement.

Best Practices, Performance Measures, and Institutional Infrastructure

The best practices and performance measures described above include some discussion of differences or inequalities among populations impacted by the programs, as in the following examples. A best practice for prevention and treatment programs is to design programs that specifically address the needs of the audience, considering gender, race, ethnicity, and other

social or demographic indicators. The frequency of enforcement actions targeting youth are measured in relationship to those taken against retailers. However, a closer examination of institutionalized inequities in the area of underage drinking prevention could inform and expand the definition of best practices and suggest new performance measures.

Studies of institutions that provide behavioral health services to youth or interact with youth in the juvenile justice system illustrate the need for institutional change that considers racial, ethnic, and other disparities among the youth served. The goal of redesigning and reconfiguring of institutional infrastructure should be to “better accommodate best practices” (Nissen & Curry-Stevens, 2012). These expanded best practices should recognize power imbalances and guide programs to redress these inequalities (Burke et al., 2002; Dalrymple & Burke, 1995; Dominelli, 2002).

Results

Individual *State Reports* (see individual state summaries on stopalcoholabuse.gov) present all survey data submitted by each state. This section provides summary information about all variables amenable to quantitative analysis. It is important to keep in mind that each state determined how much information to provide and that the range of information respondents provided was highly variable. Comparisons of some datasets over the 10-year period of the survey are provided for general topic areas when significant or otherwise noteworthy. In all cases, where numerical estimates are reported, the reporting period is the most recent 12-month period for which complete data were available to the state. Average values are reported as medians.⁴⁷

Results are grouped under five broad headings:

1. Programs Targeted to Youth, Parents, and Caregivers
2. Collaborations, Planning, and Reports
3. Media Campaigns
4. State Expenditures on the Prevention of Underage Drinking
5. Enforcement Programs

Programs Targeted to Youth, Parents, and Caregivers

In keeping with the STOP Act’s requirement that prevention performance measures be collected on “[w]hether or not the State has programs targeted to youths, parents, and caregivers to deter underage drinking; and the number of individuals served by these programs,” states were asked to list general prevention programs that have underage drinking as one objective and are funded or operated directly by the state. The survey provided space for detailed descriptions of up to 10 programs plus additional space to briefly list any other programs that the states wanted to highlight.

States were also asked:

⁴⁷ The median is the numerical value separating the higher half of a sample from the lower half and is the best representation of the “average” value when (as is often the case with *State Survey* responses) the data include outliers (a data point that is widely separated from the main cluster of data points in a dataset).

1. The number of youth, parents, and caregivers served by each program (if the program was aimed at a specific, countable population).
2. Whether the program has been evaluated.
3. Whether an evaluation report is available and where the report can be found.

Specific populations served were defined as follows:

- **Youth:** People younger than 21 years old.
- **Parents:** People who have primary responsibility for the well-being of a minor (e.g., biological and adoptive parents, grandparents, foster parents, extended family).
- **Caregivers:** People who provide services to youth (e.g., teachers, coaches, healthcare and mental healthcare providers, human services and juvenile justice workers).

In addition to program descriptions, states were asked whether they had programs to measure and reduce youth exposure to alcohol advertising and marketing and best-practice standards for selecting or approving underage drinking programs.

Program Content

States varied widely in the number of programs described, in part because some states provided detailed information on local variations of some program types (e.g., community coalitions) whereas others described umbrella programs. Many well-known programs were reported, including those focused on life skills, refusal skills, media advocacy, community organizing, and environmental change. Prevention initiatives developed by individual states were also well represented.

The types of programs states are implementing were coded into one of four categories:

1. **Programs focused on individuals**—Including programs designed to impart knowledge, change attitudes and beliefs, or teach skills. These programs focus on individual youths or adults (usually parents) but are almost always conducted with groups (e.g., classrooms, Boys & Girls Clubs, parent–teacher associations, members of a congregation). Also in this category are programs for offenders (e.g., youth charged with MIP or driving while intoxicated). Certain kinds of education and skills development were considered part of the environment, including training for alcohol sellers and servers, healthcare workers, public safety personnel, and others whose activities affect large numbers of people.
2. **Programs focused on the environment**—Including programs that seek to alter physical, economic, and social environments which may be focused on entire populations (e.g., everyone in a state or community) or a subpopulation (e.g., underage people, youth who drive). The main mechanisms for environmental change include state laws and local ordinances and their enforcement; institutional policies (e.g., enforcement priorities or prosecutorial practice, how alcohol is to be served at public events, carding everyone who looks younger than 35 years old, alcohol screening of all emergency room injury admissions); and changing norms. These changes are generally designed to decrease physical availability of alcohol (e.g., home delivery bans, retailer compliance checks), raise economic costs (e.g., drink special restrictions, taxation), and limit social availability (e.g., policies that affect the extent to which alcohol and alcohol users are visible in the community, such as banning alcohol in public places and at community events or banning outdoor alcohol advertising).

- 3. **Mixed**—Includes programs where both individual and environmental approaches are a substantive part of the effort. Comprehensive prevention programs are a relevant example. Comprehensive prevention programs involve the achievement of multiple goals while engaging the community, family, and social environment.
- 4. **Media campaigns**—Includes campaigns conducted through television, radio, social media, and websites to provide information about underage drinking, promote social norms that discourage underage drinking, and increase awareness of underage drinking policies (e.g., social host laws). Media campaigns are often directed to specific audiences, including parents or college students, as well as to the general public.

In total, 294 programs (89 percent of all programs) were described in sufficient detail to allow coding. Results are presented in Exhibit 3.1. As shown, programs focused on individuals were over twice as common as programs focused on the environment. States tended to adopt either individual or environmental approaches in the programs they described, and 49 percent of the states that reported any programs that could be coded focused exclusively on one or the other.

Exhibit 3.1: Types of Programs Implemented by States

Program category	Percentage of programs implemented
Focused on individuals	50
Focused on the environment	23
Mixed focus	18
Media campaigns	9

Source: STOP Act State Survey, 2020

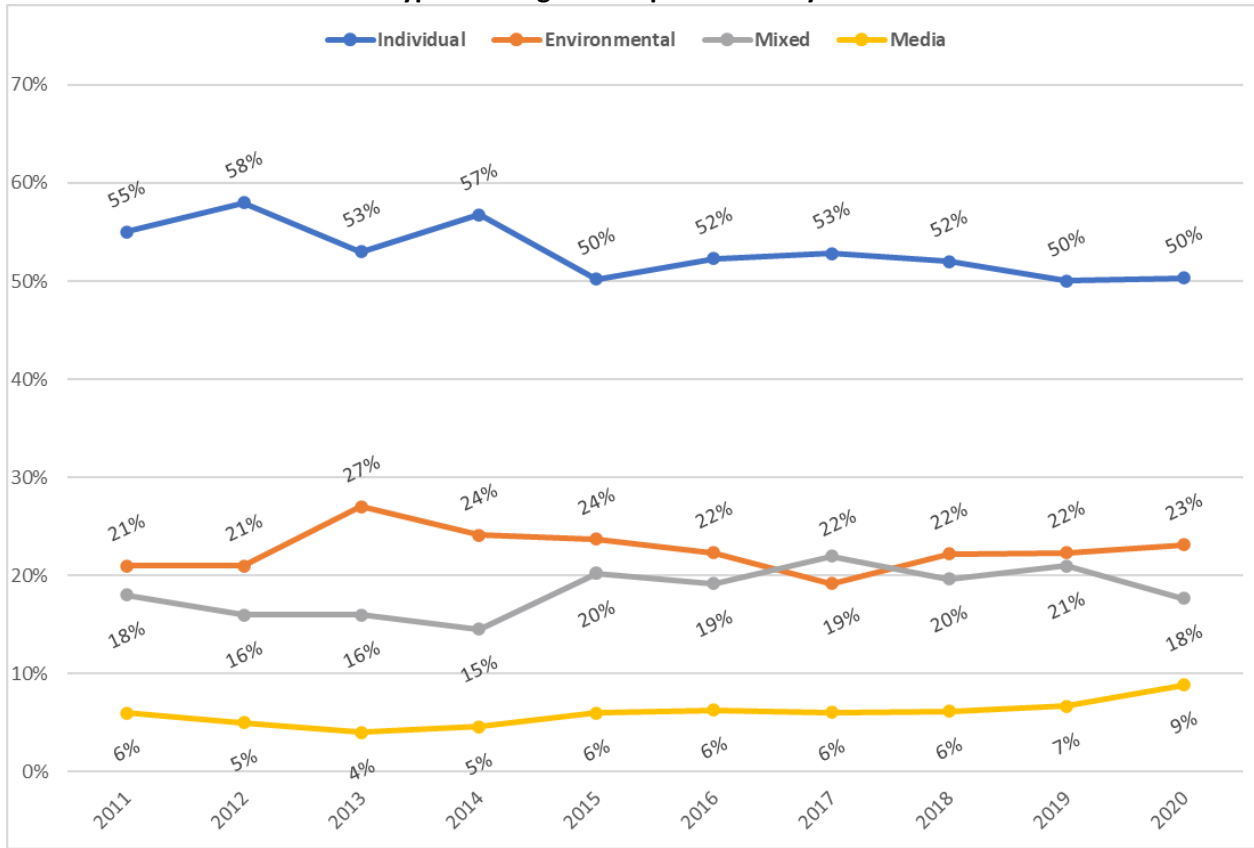
Prevention Program Types 2011–2020

As noted above, programs focused on individuals were far more common than programs focused on the environment. This pattern has remained consistent throughout the 10-year history of the survey as shown in Exhibit 3.2. Throughout the years, media campaigns have represented the smallest percentage of reported programs.

Numbers Served

States were asked to estimate the number of youths, parents, and caregivers served by programs aimed at specific populations. These data were incomplete, with 65 percent of the states (n=33) providing data for at least one program for youths served; 41 percent (n=21) for parents served; and 25 percent (n=13) for caregivers served. These data may be difficult for certain types of programs to estimate. In particular, the target populations for programs focused on the environment may be entire populations or subpopulations. Estimating the actual numbers reached is therefore problematic. Exhibit 3.3 provides the reported number of youths, parents, and caregivers served across all states that reported data.

Exhibit 3.2: Types of Programs Implemented by States 2011–20



Source: STOP Act State Survey, 2011–2020

Exhibit 3.3: Reported Numbers of Youths, Parents, and Caregivers Served

	Youths served	Parents served	Caregivers served
Median	16,969	0	0
Minimum	0	0	0
Maximum*	2,883,248	6,834,234	22,590,000

*Maximum numbers served are high in those instances where states reported that a program served the entire state population or in those instances in which individuals may be served by the program multiple times.

Source: STOP Act State Survey, 2020

Evaluation Data

For each program, states were asked whether the program had been evaluated and if an evaluation report was available. Summary data for these questions appear in Exhibit 3.4. (Note: Data should be viewed with the caveat that evaluation data were not reported for 23 percent of all programs.)

Exhibit 3.4: Evaluation of Underage Drinking–Specific Programs

	Percentage of state programs evaluated	Percentage of evaluated programs with reports available
Median	50	50
Minimum	0	0
Maximum	100	100

Source: STOP Act State Survey, 2020

Programs to Measure and Reduce Youth Exposure to Alcohol Advertising and Marketing

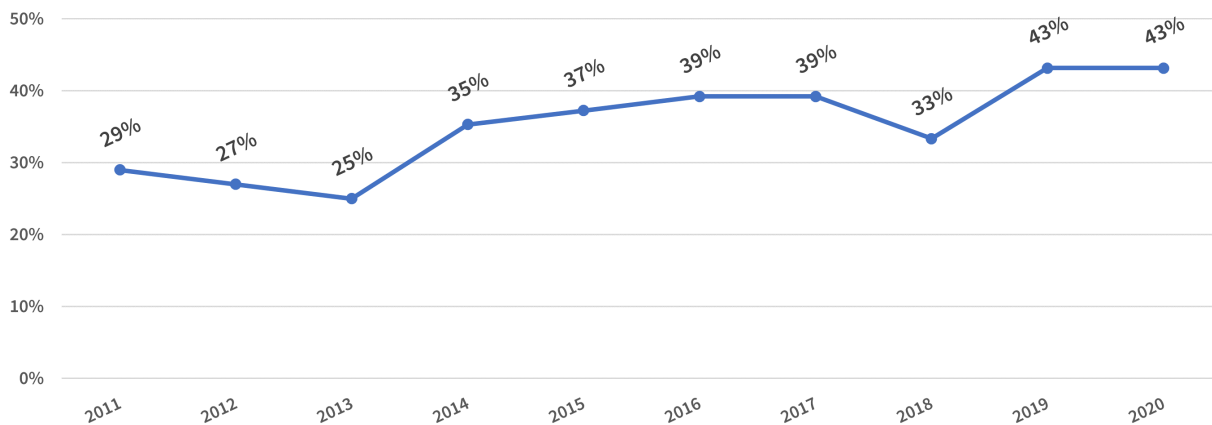
States were asked whether they have programs to measure or reduce youth exposure to alcohol advertising and marketing. Forty-three percent (n=22) of the states reported they had such programs, which tend to implement four approaches:

1. Environmental scans to assess the degree of youth exposure to alcohol advertising.
2. Counter-advertising initiatives.
3. Eliminating environmental advertising aimed at youth.
4. Social marketing.

Programs to Measure and Reduce Youth Exposure to Alcohol Advertising and Marketing 2011–2020

The number of states reporting that they had these programs has increased over the 10 years of the survey, as show in Exhibit 3.5:

Exhibit 3.5: Percentage of States with Alcohol Advertising and Marketing Programs 2011–20



Source: STOP Act State Survey, 2011–2020

Best-Practice Standards

States were asked whether they have adopted or developed best-practice standards for underage drinking prevention programs and, if so, the type of agency or organization that established the standards. Eighty-eight percent (n=45) reported they had best-practice standards. As shown in Exhibit 3.6, state agencies play a significant role in their establishment, followed by federal agencies. Sixty-two percent of those states with best-practice standards reported that more than

one type of agency was responsible for their establishment. Over two-thirds (69 percent) included SAMHSA and CSAP in their list of agencies.

Exhibit 3.6: Agencies Establishing Best-Practice Standards

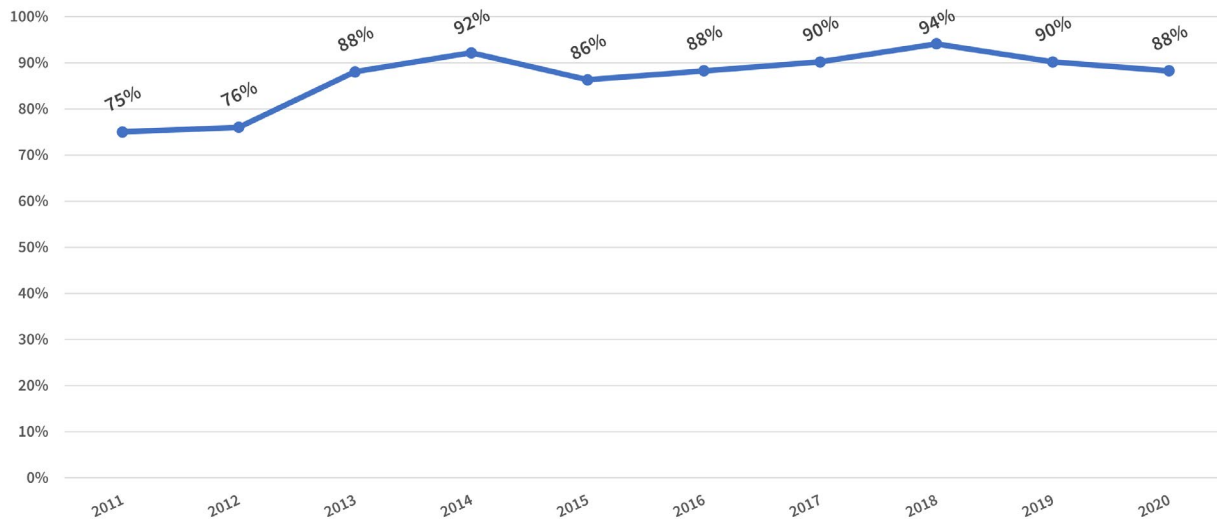
Type of agency establishing best practice standards	Percentage of states adhering to best practice standards
Federal (n=33)	73
State (n=34)	76
Non-governmental (n=10)	22
Other (n=11)	24

Source: STOP Act State Survey, 2020

Best-Practice Standards 2011–2020

The number of states reporting the adoption of best-practice standards has remained high over the years, as shown in Exhibit 3.7. State and federal agencies consistently play a significant role in the development of these standards, as shown in Exhibit 3.8.

Exhibit 3.7: Percentage of States with Best-Practices Standards 2011–20



Source: STOP Act State Survey, 2011–2020

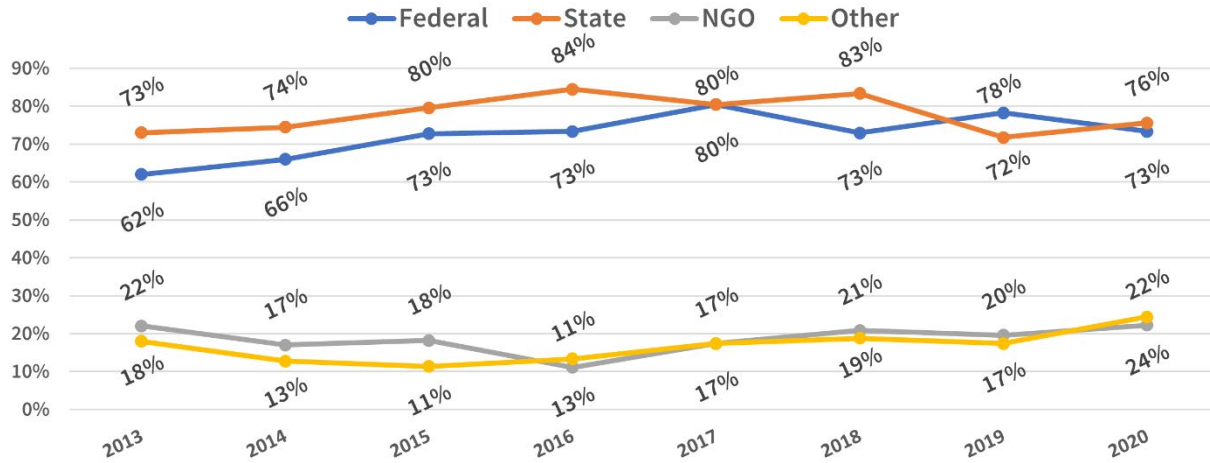
Collaborations, Planning, and Reports

The STOP Act State Survey included two questions about collaborations. The first question asked whether states collaborated on underage drinking issues with federally recognized tribal governments (if any). Fifty-one percent (n=26) said they did collaborate, 18 percent said they did not collaborate, and the remainder reported no federally recognized tribes in their states.

The second question asked whether states had a state-level interagency body or committee to coordinate or address underage drinking prevention activities. Sixty-seven percent of the states reported that such a committee exists, although the composition of the committee varied somewhat from state to state. Most states’ interagency committees included a variety of state agencies directly involved in underage drinking prevention policy implementation and enforcement, as well as educational and treatment program development and oversight. These

include the states’ departments of health and human services and alcohol beverage control, their substance misuse agency, and their state police/highway patrol.

Exhibit 3.8: Agencies Establishing Best-Practice Standards 2011—2020



Source: STOP Act State Survey, 2013–2020⁴⁸

Of interest is the extent to which the committees included representatives from the governor’s office, state legislature, and office of the attorney general, given that these individuals and offices are so critical in setting priorities, providing funding, and generating political and public support. Exhibit 3.9 shows that 15 percent of the states with a committee included the governor, 9 percent included a legislative representative, and less than one in five included an attorney general.

Exhibit 3.9: Composition of the Interagency Group—State Government Entities

	Office of the Governor	Legislature	Attorney General
Percentage of states with a committee (n=34)	15	9	18

Source: STOP Act State Survey, 2020

Exhibit 3.10 shows the extent to which the interagency committee included relevant entities and constituencies outside of state government. Forty-one percent of the states with interagency committees included college/university administrations, campus life departments, or campus police, and 41 percent included community coalitions or concerned citizens. About one in four states included local law enforcement, and 6 percent included youth.

States were asked whether they had prepared a plan for preventing underage drinking or issued a report on underage drinking in the past 3 years. Forty-nine percent of the states had prepared a

⁴⁸ Detailed data on this topic were collected starting with the 2013 State Survey.

plan, and 45 percent had issued a report. The majority of states provided a source for obtaining the plans or reports (see individual *State Reports*)⁴⁹.

Exhibit 3.10: Composition of the Interagency Group—Other Entities

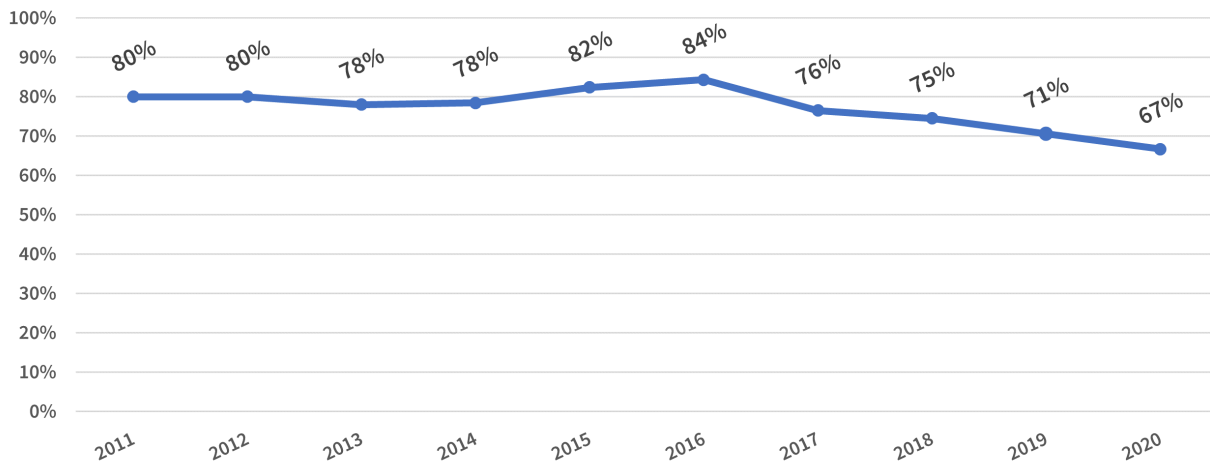
	Local law enforcement	College/university administration, campus life department, campus police	Community coalitions/ Concerned citizens	Youth
Percentage of states with a committee (n=34)	24	41	41	6

Source: STOP Act State Survey, 2020

State Interagency Committees to Address Underage Drinking Prevention: 2011–2020

The number of states reporting the presence of a state interagency committee has been in decline for the last 4 years, as shown in Exhibit 3.11. While there has been some variation in the composition of these groups, some patterns remain consistent during the 10 years of the survey, as shown in Exhibits 3.12 and 3.13. The office of the state attorney general has been represented on more state committees than other state government entities, and colleges and community coalitions are represented more often than local law enforcement or youth.

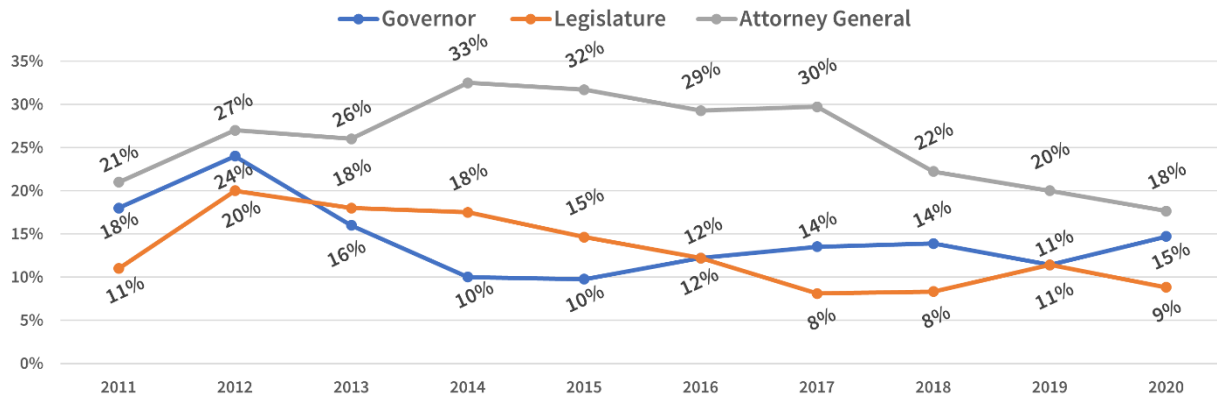
Exhibit 3.11: Percentage of States Reporting the Presence of an Interagency Committee 2011–20



Source: STOP Act State Survey, 2011–2020

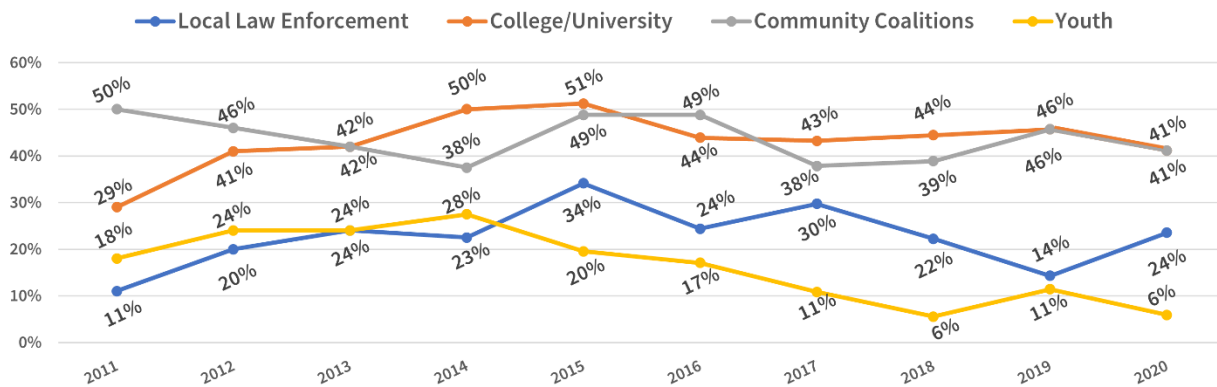
⁴⁹ These and other related reports can be found on www.stopalcoholabuse.gov.

Exhibit 3.12: Composition of the Interagency Committee—State Government Entities 2011–2020



Source: STOP Act State Survey, 2011–2020

Exhibit 3.13: Composition of the Interagency Committee—Other Entities 2011–2020



Source: STOP Act State Survey, 2011–2020

Media Campaigns

The survey contains a series of questions about state participation in media campaigns and other social marketing efforts intended to reduce underage drinking and increase parent–child communications about alcohol consumption. Media campaigns have been shown to enhance efforts to reduce underage drinking and increase perception of the enforcement of underage drinking laws. States were asked whether or not they participated in or collaborated with a media campaign to prevent underage drinking. Eighty percent of the states indicated that they did participate in such a campaign. When asked what types of media campaign the states participated in, regional and local campaigns were the most popular, followed by federal campaigns (Exhibit 3.14).

States were specifically asked about their participation in SAMHSA’s national media campaign, “Talk. They Hear You.®” (TTHY). Seventy-six percent responded that they did, indicating that they may think of it as more of a state campaign once adopted rather than as a federal campaign. States participating in TTHY were asked to describe how they participated and which resources they devoted to the TTHY campaign. As indicated in Exhibit 3.15, the majority of states

forward TTHY materials to local areas. However, approximately one-third (35 percent) of these states indicated that they procure funding for TTHY (Exhibit 3.16).

Exhibit 3.14: Type of Media Campaigns

Media Campaigns State Collaborates With/Participates In (n=41)	
Federal campaigns	59%
Regional and local media campaigns	78%
Local school district efforts	24%
Other	34%

Source: STOP Act State Survey, 2020

Exhibit 3.15: Participation in TTHY

How State Participates in TTHY Media Campaign (n=31)	
State officially endorses TTHY efforts	35%
State commits state resources for TTHY	10%
State forwards TTHY materials to local areas	81%
Other	39%

Source: STOP Act State Survey, 2020

Exhibit 3.16: Procuring Funding for TTHY

How State Procures Funding for TTHY (n=26)*	
Pro bono	12%
Donated airtime	4%
Earned media	0%
Other	31%
State does not procure funding for TTHY	65%

*Five states that reported participating in the TTHY campaign did not respond to questions about funding.

Source: STOP Act State Survey, 2020

State Expenditures on the Prevention of Underage Drinking

States were asked to estimate state expenditures for two categories of enforcement activities and five types of programs targeted to youth, parents, and caregivers.⁵⁰ Exhibit 3.17 provides the data in \$1,000 units reported for: (1) enforcement activities, (2) program activities, and (3) other activities. An entry of zero in the “Minimum reported” row means that at least one state that maintains data reported no expenditures in that category.

⁵⁰ The *State Survey* asks about expenditures only from state budget sources. Federal block grants and other federal funds make up approximately 80 percent of state substance misuse prevention expenditures.

Exhibit 3.17: Twelve-Month Expenditures (in \$1,000 Units) for Enforcement Activities; Programs Targeted to Youths, Parents, and Caregivers; and Other Programs†

	Enforcement activities		Programs targeted to youths, parents, and caregivers					Other programs
	Compliance checks	Checkpoints and saturation patrols	Community-based programs	K–12 programs	College/University programs	Juvenile justice system programs	Child welfare system programs	
Number of states providing data	22	6	27	17	16	9	9	18
Median expenditure*	\$20	\$0	\$827	\$412	\$43	\$0	\$0	\$239
Minimum reported	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maximum reported	\$1,400	\$4,214	\$32,872	\$39,368	\$2,500	\$301	\$325	\$14,698
Percentage of states providing data that invest in this category	77	33	81	76	63	33	33	89

†These data must be viewed cautiously. Response rates ranged from 33 percent to 89 percent. Thus, the extent to which some of these data reflect national trends is unclear.

*The median is zero if more than half the responses are zero.

Source: STOP Act State Survey, 2020

The largest expenditure category is for community-based programs, followed by K–12 school programs. The median of expenditures for programs targeted to youth, parents, and caregivers (\$183,722) is 10 times that for all enforcement activities (median = \$18,388), and the total dollar amount expended for these nonenforcement programs (\$141,086,470) is 20 times the total dollar amount spent on enforcement (\$7,015,726).

States were also asked whether funds dedicated to underage drinking are derived from taxes, fines, and fees. Seventy-eight percent of the states provided data for these questions. The use of these funding sources for underage drinking prevention activities is limited (Exhibit 3.18).

Exhibit 3.18: Sources of Funds Dedicated to Underage Drinking Prevention

Source	Number of states providing data	Percentage reporting yes*
Taxes	39	26
Fines	39	31
Fees	39	26

*Percentages reflect only those states that provided data for these questions.

Source: STOP Act State Survey, 2020

Enforcement Programs

The STOP Act calls for the development and reporting of state enforcement performance measures. To fulfill this requirement, the *State Survey* requested enforcement data in four areas:⁵¹

1. State enforcement efforts to prevent underage access to alcohol at retail outlets, such as compliance checks and shoulder tap operations.
2. Local enforcement efforts to prevent underage access to alcohol.
3. Enforcement of selected state laws aimed at deterring underage drinking (e.g., MIP laws and laws prohibiting Internet sales and direct shipment of alcohol).
4. Penalties (i.e., fines, license suspensions, and revocations) imposed on retail establishments for violation of these laws.

Exhibit 3.19 shows the percentage of states that collect data on compliance checks, MIP charges, and penalties levied against retail establishments for furnishing alcohol to minors. As illustrated in Exhibit 3.19, a majority of states collect this data. However, the number of states that collect data on local enforcement efforts is limited. Thus, it is likely that the enforcement statistics provided here underestimate the total amount of underage drinking enforcement occurring in the states.

Exhibit 3.19: Percentage of Jurisdictions that Reported Enforcement Data Collection at the State and Local Levels

	State collects data on compliance checks		State collects data on MIP arrests/citations	State collects data on MIP, including arrests/citations by local law enforcement agencies	State collects data on penalties imposed on retail establishments		
	State-conducted	Locally conducted			Fines	License suspensions	License revocations
Percentage	73	25	71	31	75	76	80

Source: STOP Act *State Survey*, 2020

Compliance Checks

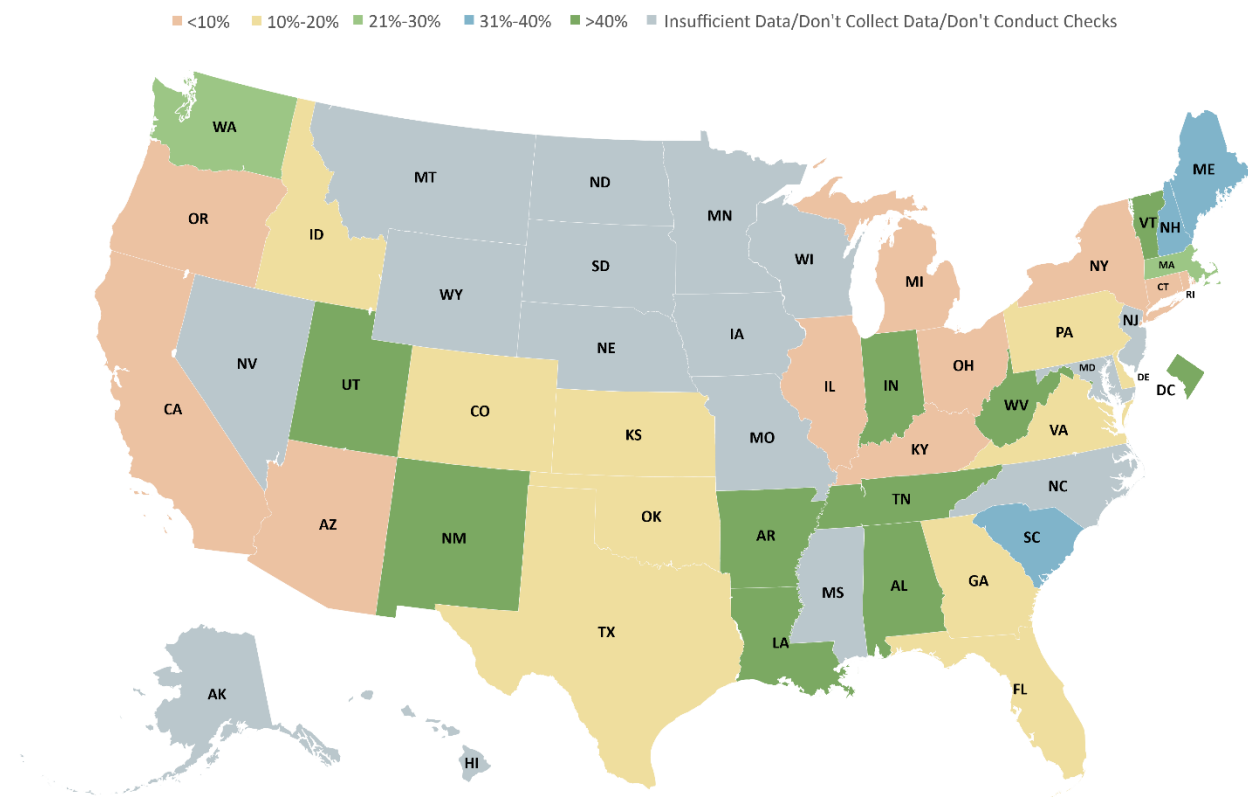
Compliance checks (or decoy operations) are defined as those enforcement actions in which trained underage (or apparently underage) operatives (“decoys”)—working with law enforcement officials—enter retail alcohol outlets and attempt to purchase alcohol. States were asked to provide an estimate of the total number of retail licensees in their state so that the percentage of licensees checked annually could be measured. A median of 17 percent of

⁵¹ For charts showing individual state responses to all enforcement program questions on the 2020 *State Survey*, see the Supplementary Materials available on stopalcoholabuse.gov.

licensed establishments are checked across all 35 states that conduct compliance checks and collect associated data.⁵²

Exhibit 3.20 provides a state-by-state picture of the percentage of licensees checked. Fifty-seven percent of those states conducting checks tested 20 percent or fewer of their licensees, indicating that checking is generally not comprehensive. The majority (89 percent) of states reported that checks were conducted at both on- and off-premises establishments.

Exhibit 3.20: Percentage of Licenses Checked by State



Source: STOP Act State Survey, 2020

In addition to questions about the number of state checks and the number of outlets that failed the checks, states were asked whether they conduct random compliance checks. Of the 37 states that conduct and collect data on compliance checks, 86 percent indicated that some or all of the checks conducted were done randomly, as opposed to being conducted in response to a complaint or as part of a convenience sample. For 55 percent of the states that report conducting random checks, all state checks were conducted randomly.

Exhibit 3.21 compares the number and failure rates of all state compliance checks, those state checks conducted randomly, and local compliance checks. Thirteen states also collected data on compliance checks conducted by local law enforcement. Nine states report conducting and

⁵² Two additional states indicated that they conducted state compliance checks and collected data but did not provide sufficient information to be included in this calculation.

collecting data for *both* state and local compliance checks; 41 states conduct and collect data on either state or local compliance checks; and 10 states conduct neither state nor local checks. As shown in Exhibit 3.21, the number of licensees checked, and licensee failures varies widely.

Exhibit 3.21: Compliance Checks

	Number of licensees on which checks were conducted		Percentage of licensees on which checks were conducted that failed the checks	
State agencies—all checks (n=37)	Median for those that collect data	1,787	Median for those that collect data	11
	Minimum	6	Minimum	0
	Maximum	10,398	Maximum	36
State agencies—random checks only (n=22)	Median for those that collect data	1,636	Median for those that collect data	11
	Minimum	6	Minimum	0
	Maximum	5,250	Maximum	30
Local agencies (n=11)	Median for those that collect data	953	Median for those that collect data	8
	Minimum	9	Minimum	0
	Maximum	4,387	Maximum	21

Note: The “n” figures in this exhibit differ from the total numbers of states that answered “yes” to collecting and conducting state, random, and local compliance checks because some states provided incomplete data.

Source: STOP Act *State Survey*, 2020

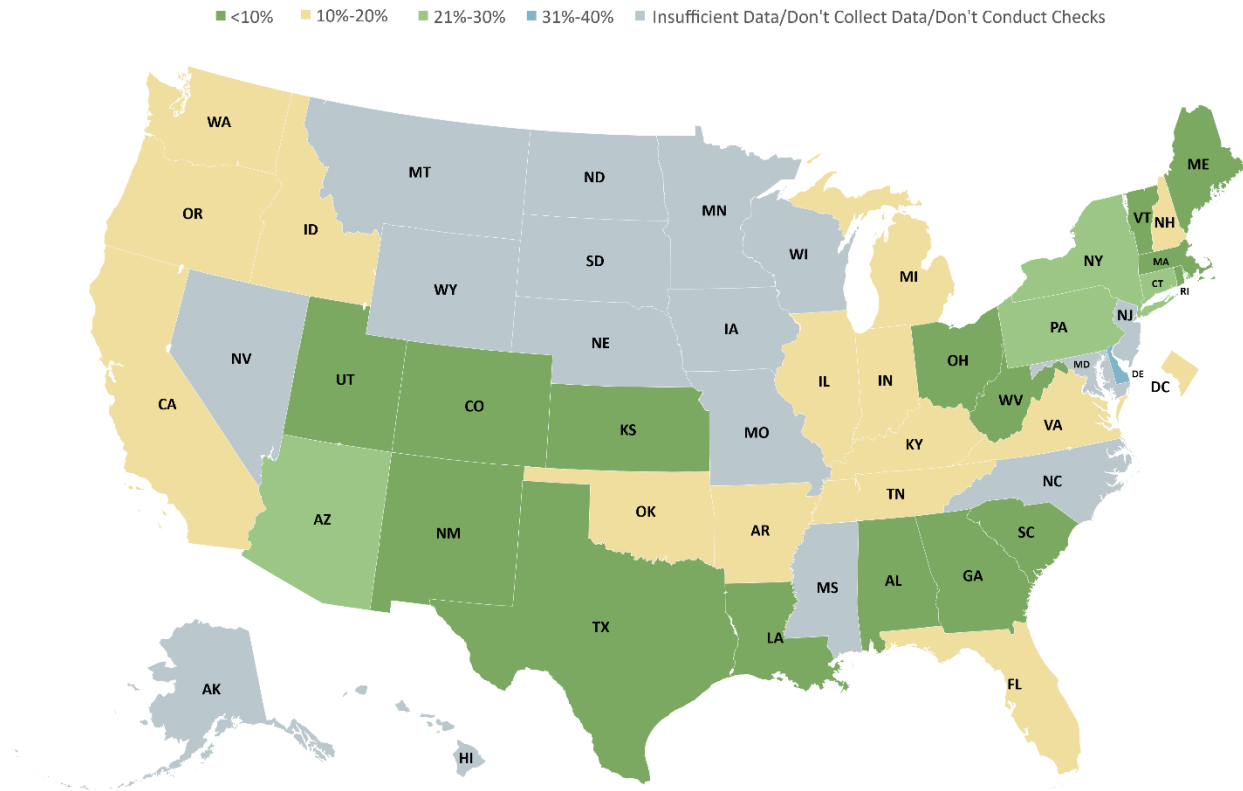
Exhibits 3.22 and 3.23 provide state-by-state licensee failure rates for all compliance checks conducted by state and local agencies based on data reported by the states. Most state-level checks report failure rates of 20 percent or less, with five states reporting higher rates.

Exhibit 3.23 highlights the lack of data on local compliance checks for most states. Only 11 states reported any data, and 91 percent of those states reported failure rates of 20 percent or less.

As noted above, there is great variation among the states in the percentage of the total number of outlets checked during this period. Some states indicated that they make multiple checks on single outlets during the year in question, and this may be true of other states. Compliance check protocols also vary by state. For example, states use differing procedures and requirements for choosing underage decoys (see Compliance Check Protocols, Chapter 2).

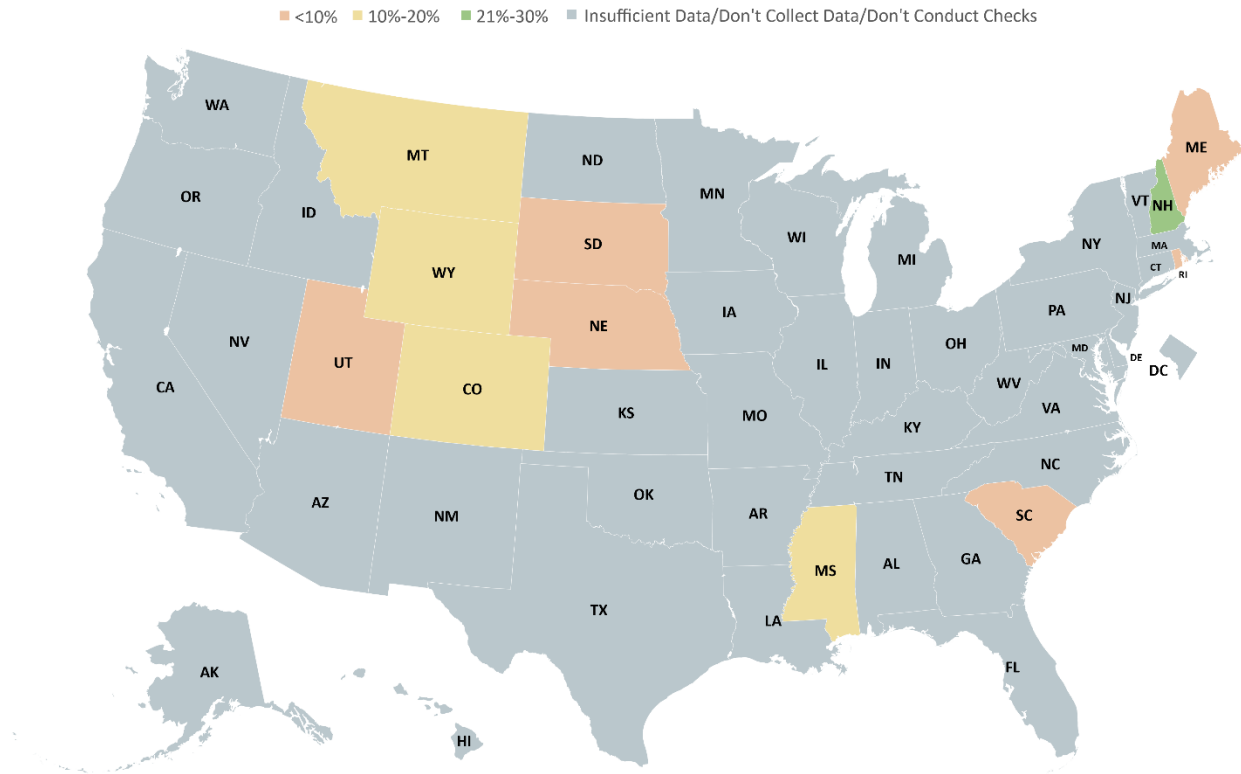
States may also conduct compliance checks randomly in response to complaints or as a result of a previous compliance check failure. Hence, differences in compliance check protocols may affect the number of outlets checked, the frequency of checks at a particular establishment, and the failure rates.

Exhibit 3.22: State Compliance Checks Failure Rate



Source: STOP Act State Survey, 2020

Exhibit 3.23: Local Compliance Checks Failure Rate



Source: STOP Act State Survey, 2020

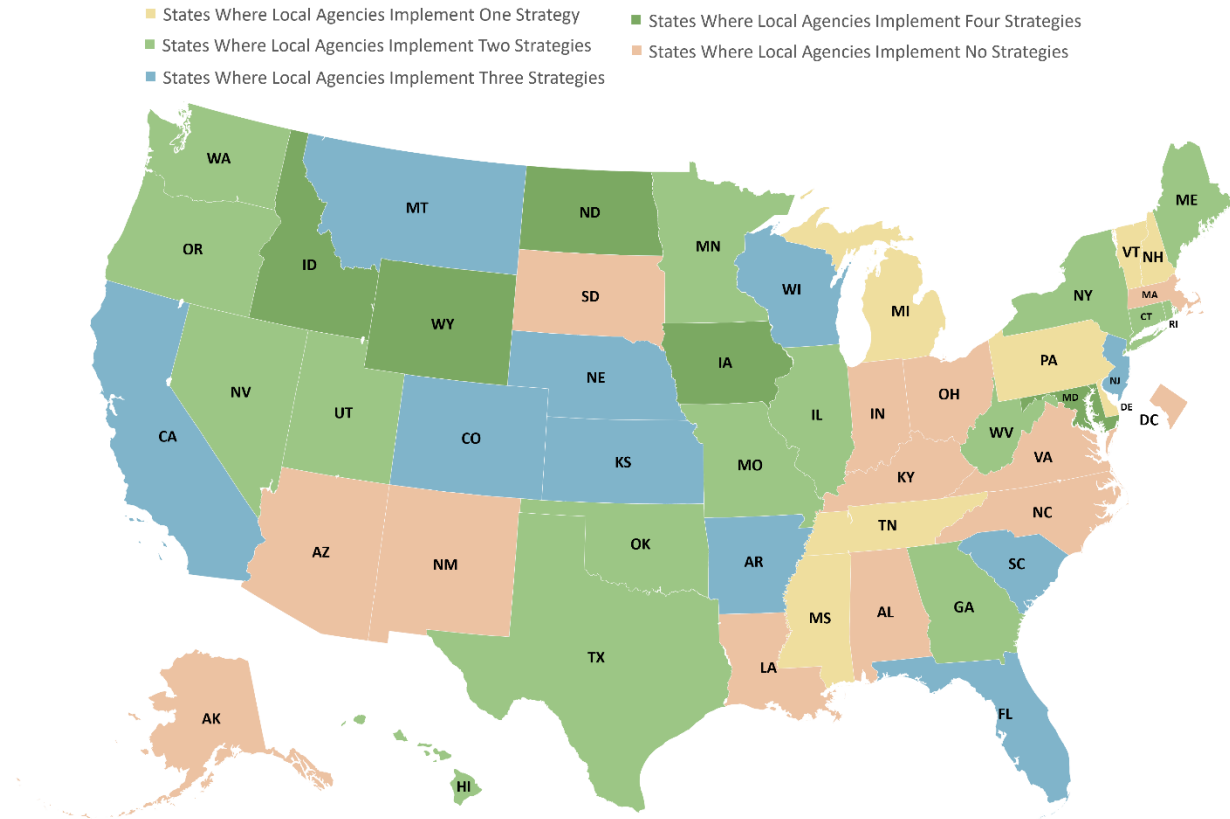
Other Enforcement Strategies

States were asked to report on four other state and local strategies to enforce underage drinking laws: Cops in Shops, shoulder tap operations, party patrol operations or programs, and underage alcohol-related fatality investigations. Definitions of these enforcement strategies follow.

1. **Cops in Shops:** A well-publicized enforcement effort in which undercover law enforcement officers are placed in retail alcohol outlets.
2. **Shoulder tap operations:** Trained young people (decoys) approach individuals outside of retail alcohol outlets and ask them to make an alcohol purchase.
3. **Party patrol operations or programs:** Operations that identify underage drinking parties, make arrests and issue citations, and safely disperse participants.
4. **Underage alcohol-related fatality investigations:** Investigations to determine the source of alcohol ingested by fatally injured minors.

As shown in Exhibit 3.24, the most common enforcement activities at both state and local levels are party patrol operations or programs and underage alcohol-related fatality investigations.

Exhibit 3.26: Number of Enforcement Strategies Implemented by Local Law Enforcement Agencies



Source: STOP Act State Survey, 2020

All states regulate or prohibit direct sales and direct shipment of alcohol from producers to consumers, typically through Internet orders and delivery by common carriers. (Note: These laws do not address home delivery or Internet sales by retailers.) States were asked whether they have a program to investigate and enforce direct sales or direct shipment laws and whether these laws are also enforced by local law enforcement agencies. Exhibit 3.27 shows that 73 percent of the states report having direct shipment enforcement programs, but only 16 percent confirmed that local law enforcement enforces these laws.

Exhibit 3.27: Enforcement of Direct Shipment Laws

	State has a program to investigate and enforce direct sales/shipment laws (%)	Laws are also enforced by local law enforcement agencies (%)
Yes	73	16
No	10	35
Don't know/No answer	18	20

Source: STOP Act State Survey, 2020

Sanctions Imposed on Retail Establishments for Violations

The State Survey requested information on penalties imposed on retail establishments for furnishing to minors (Exhibits 3.28 to 3.32; note that the “n” figures in these exhibits differ from

the total number of states that answered “yes” to collecting data on fines, suspensions, and revocations because some states provided incomplete data).

As would be expected, fines are the most common sanction, imposed about eight times as often as suspensions. However, revocations are rare. Of the states that collect data on revocations, 91 percent revoked one or no licenses. Ninety-seven percent of the states revoked fewer than six licenses.

Exhibit 3.28: Fines Imposed on Retail Establishments for Furnishing to Minors

Number of outlets fined for furnishing (n=29)		Total amount of fines in dollars across all licensees (n=30)
Median for those that collect data	159	\$127,731
Minimum	2	\$520
Maximum	1,298	\$811,700

Source: STOP Act State Survey, 2020

Exhibit 3.29: Lowest and Highest Fines Imposed on Retail Establishments for Furnishing to Minors

Lowest fine imposed	Dollar amount of fines across all licenses
Median for those that collect data (n=31)	\$500
Minimum	\$0
Maximum	\$2,500
Highest fine imposed	Dollar amount of fines across all licenses
Median for those that collect data (n=30)	\$2,050
Minimum	\$260
Maximum	\$80,000

Source: STOP Act State Survey, 2020

Exhibit 3.30: License Suspensions Imposed on Retail Establishments for Furnishing to Minors

Number of outlets suspended for furnishing (n=31)		Total days of suspension across all licensees (n=24)
Median for those that collect data	7	135
Minimum	0	0
Maximum	248	2,450

Source: STOP Act State Survey, 2020

Exhibit 3.31: Shortest and Longest License Suspensions Imposed on Retail Establishments for Furnishing to Minors

Shortest suspension imposed	Number of days across all licenses
Median for those that collect data (n=27)	3
Minimum	0
Maximum	50
Longest suspension imposed	Number of days across all licenses
Median for those that collect data (n=27)	25
Minimum	0
Maximum	182

Source: STOP Act State Survey, 2020

Exhibit 3.32: License Revocations Imposed on Retail Establishments for Furnishing to Minors

Number of outlets revoked for furnishing	
Median for those that collect data (n=34)	0*
Minimum	0
Maximum	39

*The median will be zero if more than half the responses are zero.

Source: STOP Act State Survey, 2020

The survey asked states to report the lowest and highest fine imposed and the shortest and longest number of suspension days. Exhibits 3.28–3.31 illustrate the great variation among the states in the amount of fines and the length of license suspensions imposed.

Sanctions for furnishing to minors can be put into perspective by considering rates per 100,000 drinking occasions among youth who are 16–20 years old. Exhibit 3.33 presents these rates for 26 states that collect complete sanctions data (i.e., fines, suspensions, and revocations).

Exhibit 3.33: Retailer Sanctions for Furnishing to Minors

Sanctions per 100,000 drinking occasions	
Median for those that collect data (n=26)	6.57
Minimum	0.16
Maximum	36.64

Source: STOP Act State Survey, 2020

Minor in Possession Offenses

States were also asked to provide statistics on MIP offenses. As noted earlier, arrest data for MIP offenses provide an index of the enforcement of laws designed to deter underage persons from drinking. Some states reported data that included arrests/citations issued by local law enforcement agencies; others did not.

The first three rows of Exhibit 3.34 present the number of MIP arrests/citations reported by all states that collect such data. These data may not provide an accurate picture of MIP enforcement as much of this enforcement is conducted at the local level and, therefore, is not represented in state data. The last three rows of Exhibit 3.34 present data only from those states that collect both state and local MIP data. When only those states that collect local data are considered, the median number of arrests/citations increases by 60 percent, highlighting the importance of local enforcement efforts and data.

Exhibit 3.34: Number of Minors Found in Possession of (or Having Consumed or Purchased per State Statutes) Alcohol

	Number of arrests/citations
Median for all states that collect data (n=34)	263
Minimum	0
Maximum	9,451
Median for states that collect both state and local data (n=16)	655
Minimum	4
Maximum	9,451

Source: STOP Act State Survey, 2020

To explore the meaning of these data, two indices were calculated for states with both state and local MIP enforcement (Exhibit 3.35). The first index compares the rates of MIP arrests/citations with an estimate of yearly drinking occasions among 16- to 20-year-olds.⁵³ The second index reflects arrests per 100,000 youth in each state who are 16–20 years old.

Exhibit 3.35: State and Local Arrests/Citations for Minors in Possession: 16- to 20-Year-Olds

	Number of arrests/citations	Arrests/Citations per 1,000 drinking occasions	Arrests/Citations per 100,000 population 16–20
Median for those that collect data (n=16)	655	0.25	268.13
Minimum	4	0.00	2.01
Maximum	9,451	3.04	3,280

Source: STOP Act State Survey, 2020

Sanctions Against Youth Versus Sanctions Against Retailers

A comparison of the rates of MIP arrests versus the rates of retailer sanctions (i.e., totals of fines, suspensions, and revocations) highlights enforcement priorities. Seventeen states provided the complete dataset needed for this analysis (Exhibit 3.36).

⁵³ This estimate is based on the calculations of Wagenaar and Wolfson (1994). Using *Monitoring the Future* data, they estimated a rate of 90 drinking occasions per 100 youth per month. To maintain consistency of analysis over the years, this formula is used in every year’s survey analysis.

Exhibit 3.36: Ratio of State and Local MIP Arrests to Retailer Sanctions

	MIP arrests per retailer sanctions
Median for those that collect data (n=17)	2
Minimum	0.03
Maximum	325

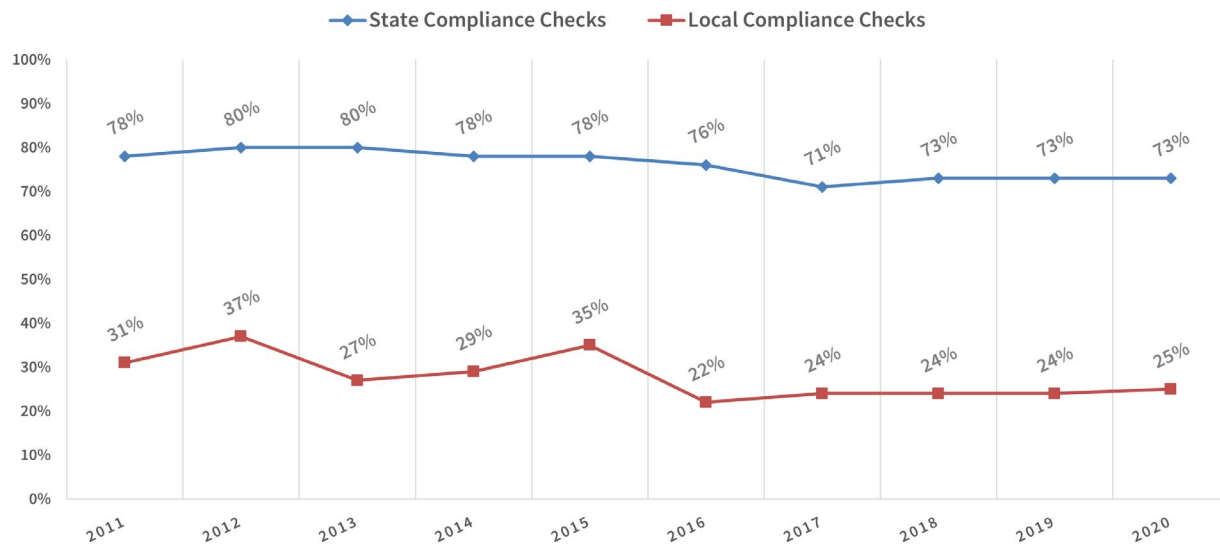
Source: STOP Act State Survey, 2020

In most states, MIP arrests greatly outnumber retailer sanctions, indicating that priority is given to individual arrests over enforcement at the retail level. The ratio of MIP arrests to retailer sanctions (indicating a priority on retailer enforcement) was less than one in only three states.

Enforcement Data Collection Patterns 2011–2020

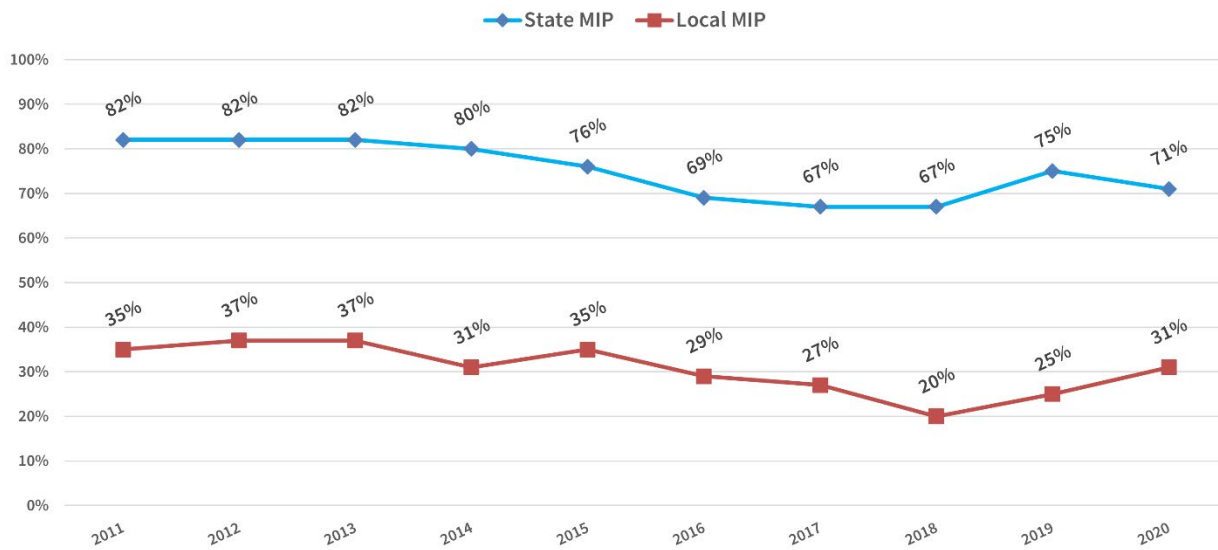
Data collection and reporting of enforcement data vary greatly from year to year among the states, so it is not possible to compare all states over these 10 years. These figures should be viewed with the caveat that numbers reported are impacted by variations in the availability and collection of data. Exhibits 3.37 and 3.38 demonstrate the variability in data collection on key enforcement variables by all states between 2011 and 2020. Fewer states reported that they collected state and local compliance check and MIP arrest data in the 2020 survey than in the 2011 survey. By contrast, collection of sanctions data (i.e., fines, suspensions, and revocations) has remained relatively consistent, ranging from about 70 percent to 80 percent, as shown in Exhibit 3.39.

Exhibit 3.37: State and Local Compliance Checks: Percentage of States Collecting Data 2011–2020



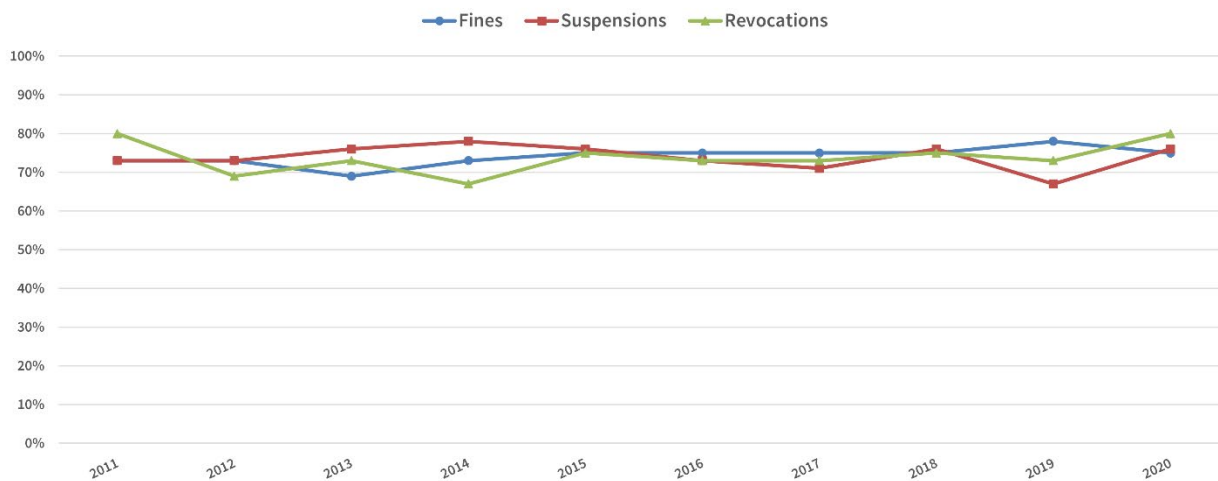
Source: STOP Act State Survey, 2011–2020

Exhibit 3.38: State and Local Minor in Possession Arrests: Percentage of States Collecting Data 2011–2020



Source: STOP Act State Survey, 2011–2020

Exhibit 3.39: Sanctions Imposed on Retail Establishments for Furnishing Alcohol to Underage Persons: Percentage of States Collecting Data 2011–2020



Source: STOP Act State Survey, 2011–2020

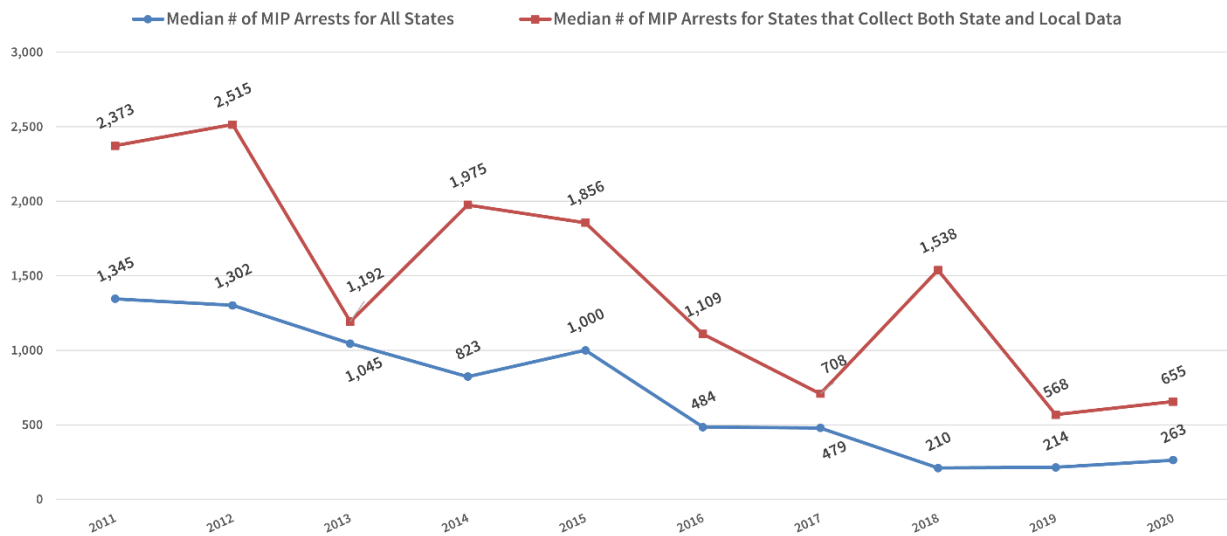
Minors in Possession Data: 2011–2020

As an indication of the inconsistency of data collection, only sixteen percent of the states provided MIP data over all 10 years. Therefore, caution is warranted when interpreting these data.

Exhibit 3.40 shows the median number of MIP arrests reported by all states over the 10-year period, contrasting the median number of arrests reported by those states that included local arrest data with data from all states. The median number of arrests for those states including

local data remained consistently higher than for that of all states, again demonstrating the importance of local enforcement efforts and data.

Exhibit 3.40: Median Number of MIP Arrests: With and Without Local Data 2011–20

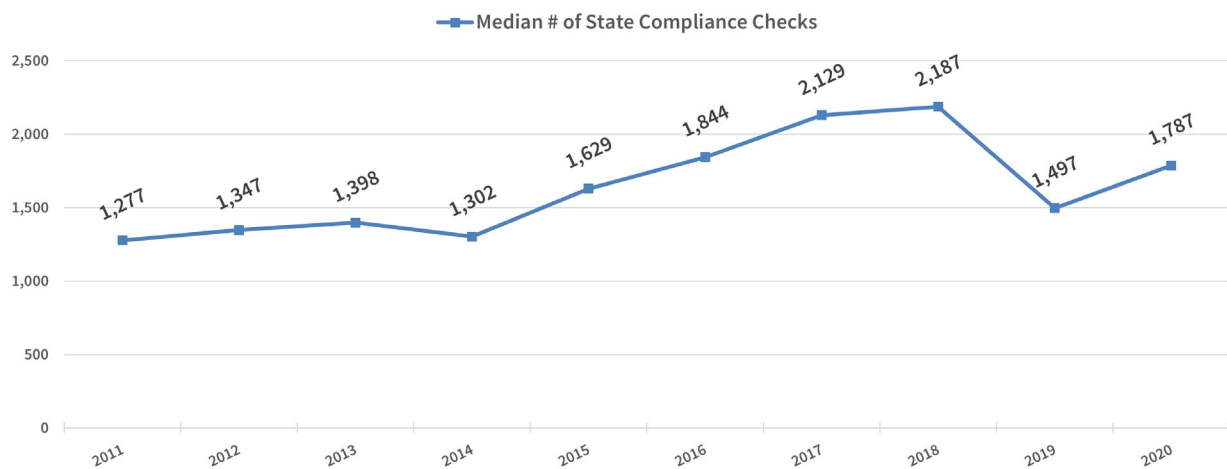


Source: STOP Act State Survey, 2011-20

State Compliance Checks Data: 2011–2020

Reporting of compliance check data has been more consistent over the years than any other enforcement data category. Forty-five percent of the states reported these data over all 10 years. Exhibit 3.41 shows the median number of state compliance checks reported by all states over the 10-year survey period. The reduction in the number of states reporting compliance checks data over all 9 years indicates that these data should still be viewed with caution.

Exhibit 3.41: Median Number of State Compliance Checks 2011–2020

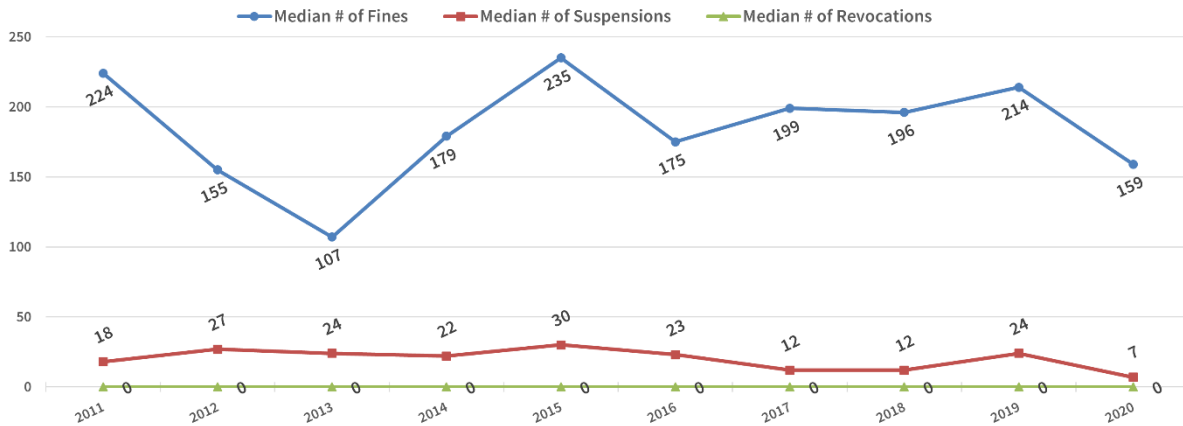


Source: STOP Act State Survey, 2011–2020

Retailer Sanctions Data: 2011–2020

Exhibit 3.42 shows the median number of sanctions reported by all states between 2011 and 2020. Fines are the most common sanction, and revocations are rare. As with the dataset above, the revocations median remains zero across all years; most states report one or zero revocations each year.

Exhibit 3.42: Median Retailer Sanctions for Furnishing Alcohol to Underage Persons 2011–2020



Source: STOP Act State Survey, 2011–2020

Concluding Observations

A key conclusion from the STOP Act *State Survey* results is that all 50 states and the District of Columbia have demonstrated a commitment to the reduction of underage drinking and its consequences. This commitment is evident in the fact that all states completed the survey, reported numerous program activities, and in many cases provided substantial detail about those activities (see individual state summaries in stopalcoholabuse.gov).

Completion of the lengthy survey requires the cooperation of multiple state agencies, including those charged with enforcement of underage drinking laws and policies and those involved in prevention of underage consumption. The 100 percent response rate over the 10 years of the survey's existence shows the states' dedication to the task of preventing underage drinking. In particular, the unique challenges presented by the COVID-19 pandemic in 2020 did not deter 100 percent of the states from completing the *Survey*.

Although data provided by the *State Survey* are informative and useful, it should be noted that variability in data collection and availability is a concern. For example, data on numbers of youths, parents, and caregivers served by prevention and other programs are often not reported. Data on state expenditures on underage drinking prevention are frequently described as being unavailable. Enforcement data are limited by the difficulty of obtaining data on local enforcement activities. These challenges should be met with greater coordination between state and federal agencies, and collaboration among states and state agencies.

CHAPTER 4

State Performance Measures

CHAPTER 4: STATE PERFORMANCE MEASURES

Introduction

This chapter shows how the states compare to national averages for nine key measures:

1. Percentage of 12- to 20-year-olds who used alcohol in the last month.
2. Percentage of 12- to 20-year-olds who binge drank alcohol in the last month.
3. Percentage of 12- to 20-year-olds who perceived great risk from having five or more drinks of an alcoholic beverage once or twice a week.
4. Percentage of 12- to 20-year-olds meeting the criteria for a *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV)⁵⁴ alcohol use disorder in the past year.
5. Percentage of 12- to 20-year-olds needing but not receiving treatment for an alcohol use disorder at a specialty facility in the past year.
6. Percentage of traffic crash deaths involving a 15- to 20-year-old driver in which that driver had a blood alcohol content (BAC) of 0.01 or higher.
7. Percentage of 12- to 17-year-olds who participated in an alcohol, tobacco, or drug prevention program outside of school in the past year.
8. Percentage of 12- to 17-year-olds indicating drug or alcohol prevention messages were seen or heard in school in the past year.
9. Mean age of initiation of alcohol use among youth and young adults aged 12–20 years.

These measures are intended to assist in the evaluation of progress in underage drinking prevention. Each measure is based on data collected by the federal government.

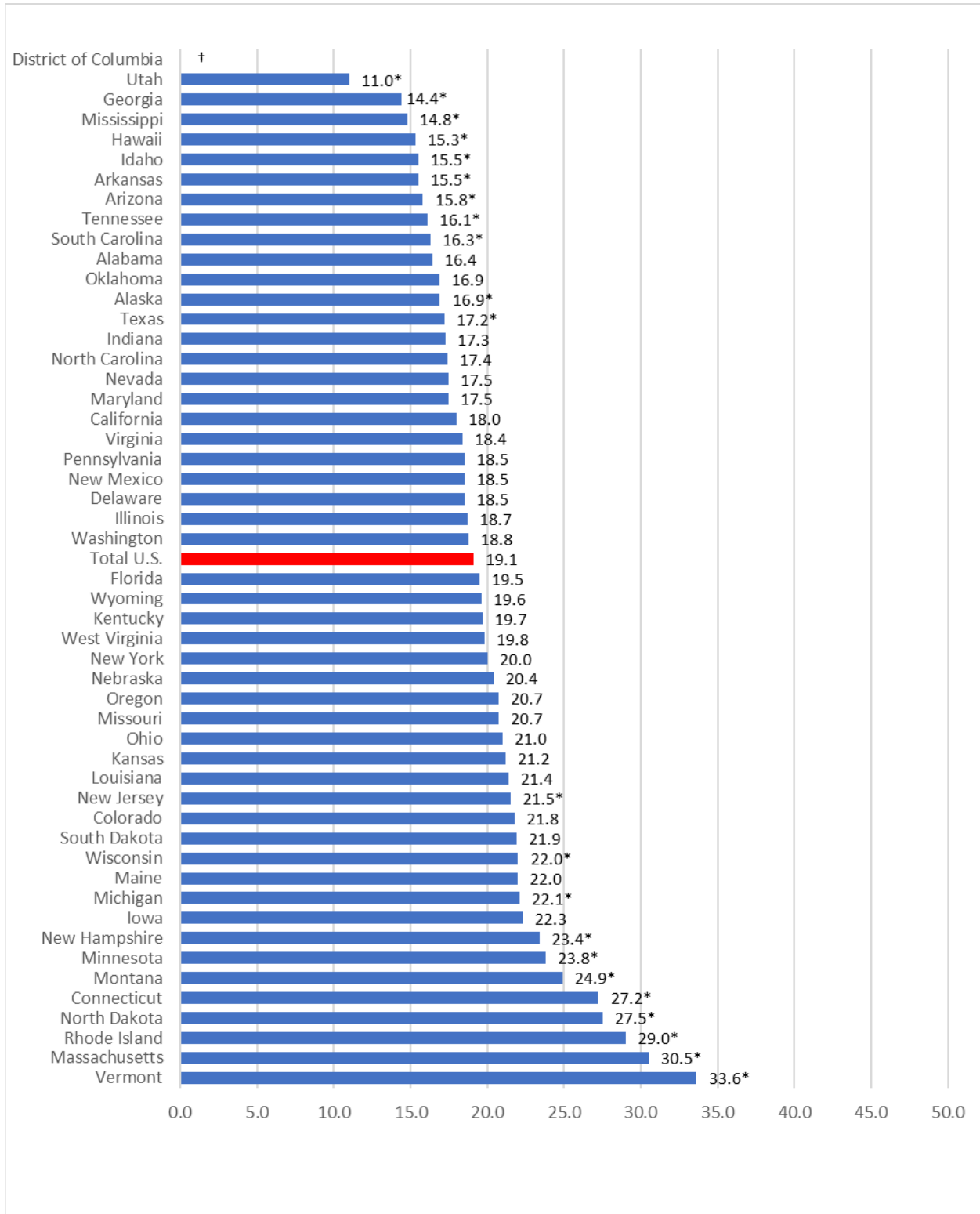
Measures 1–5 and 7–9 incorporate state-specific data from the Substance Abuse and Mental Health Services Administration’s National Survey on Drug Use and Health (NSDUH) on past-month underage alcohol use and binge use. All NSDUH-based measures in this chapter are based on combined data from 2016 through 2019 with the exception of Measure 5, which utilizes 10 years of data, ensuring a greater sample size in order to provide more accurate estimates by state. Data for Measure 6 comes from the National Highway Transportation Safety Administration’s Fatality Analysis Reporting System (FARS) for 2019.

This chapter is not intended to provide a comprehensive ranking of the states’ performance in addressing underage drinking. Caution should be used in interpreting these charts, as a wide variety of factors may influence the data for a given state. In some cases, the total number of cases was low—for example, traffic crash fatalities in low-population states. When available, calculations were performed to determine whether a state’s variation from the national average was statistically significant. These nine measures may provide a useful starting point for state officials and engaged community members who seek to improve outcomes and wish to engage in planning for effective interventions.

⁵⁴ DSM-IV criteria for alcohol use disorder are used in the NSDUH for adolescents, which is the source of the data for this performance measure.

Measures

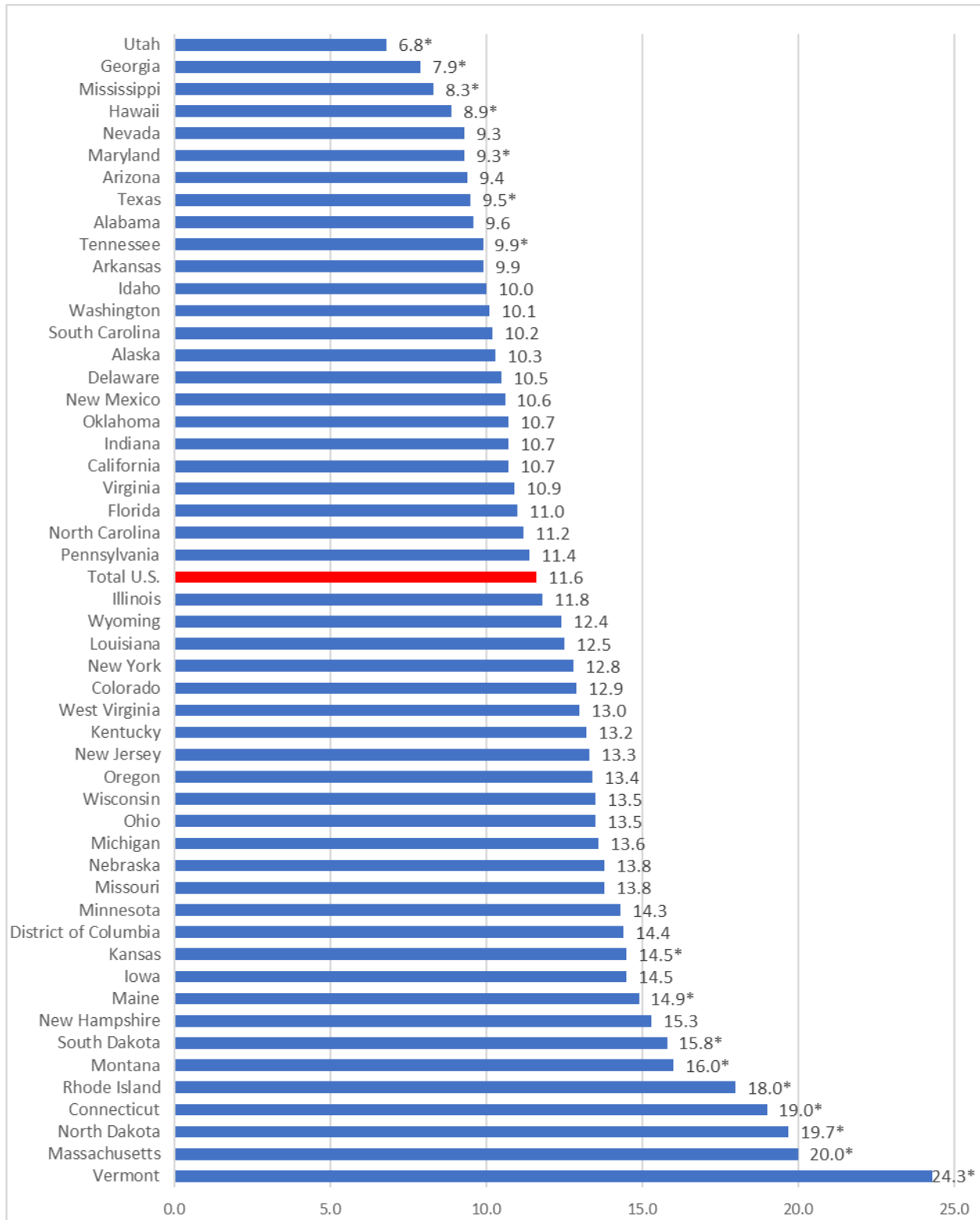
Measure 1: Annual Average Percentage of 12- to 20-Year-Olds Who Used Alcohol in the Past Month (2016–2019 Combined NSDUH Data); (Center for Behavioral Health Statistics and Quality [CBHSQ], 2021)



†Low precision; no estimate provided

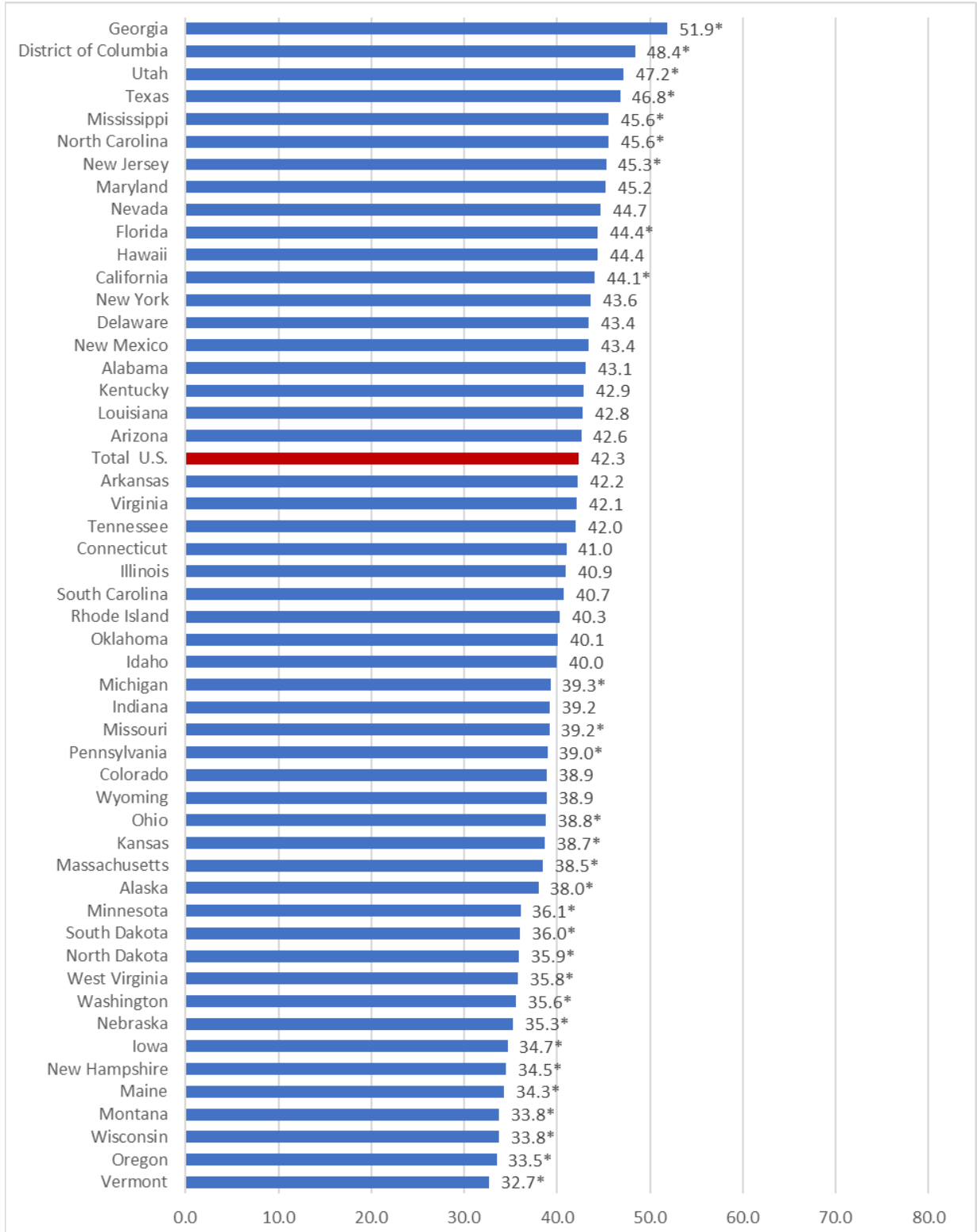
*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

Measure 2: Annual Average Percentage of 12- to 20-Year-Olds Who Binge Drank (Four to Five or More Drinks on the Same Occasion) in the Past Month (2016–2019 Combined NSDUH Data; CBHSQ, 2021)



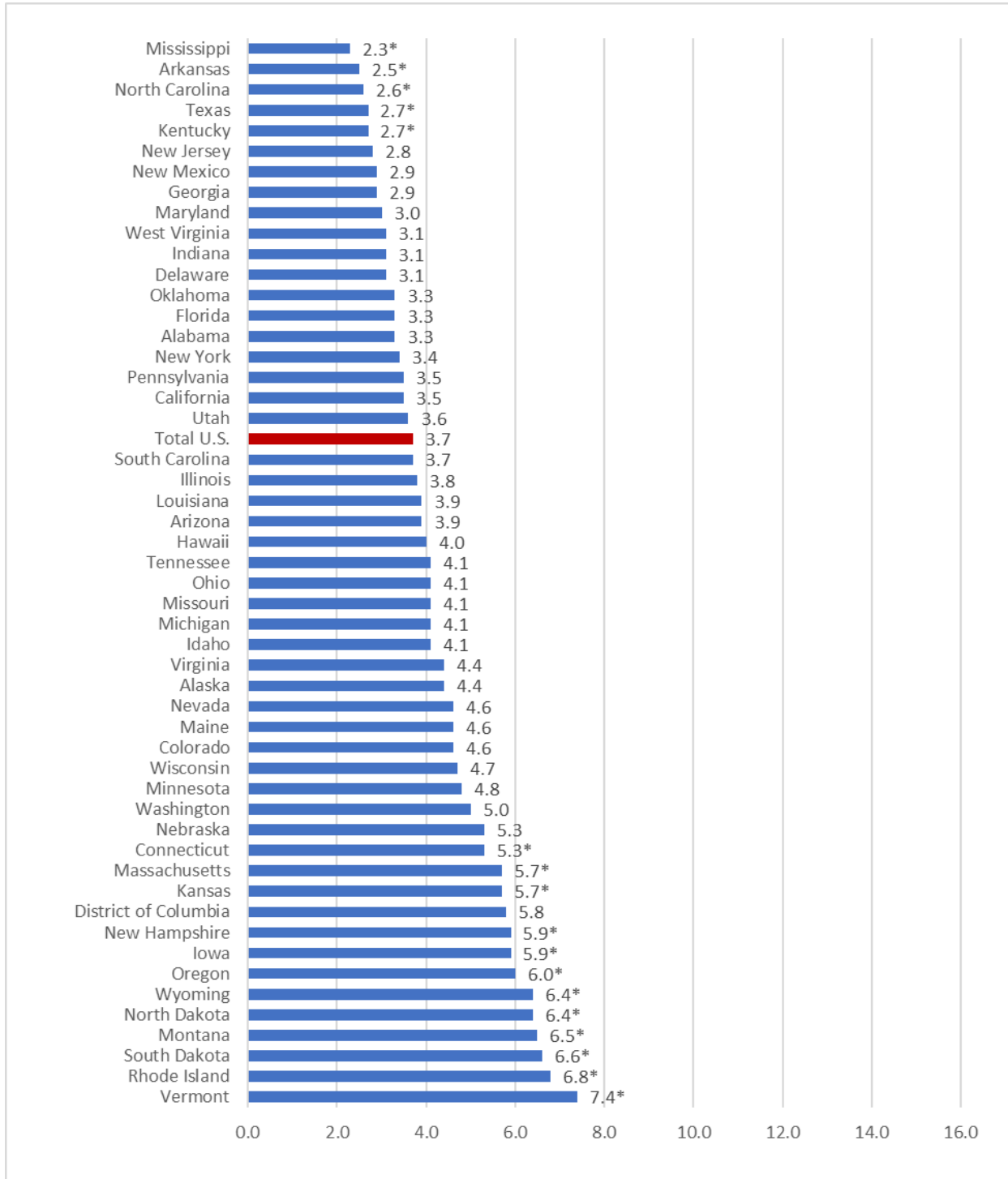
*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

Measure 3: Annual Average Percentage of 12- to 20-Year-Olds Who Perceived Great Risk from Having Five or More Drinks of an Alcoholic Beverage One or Two Times Per Week (2016–2019 Combined NSDUH Data; CBHSQ, 2021)



*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

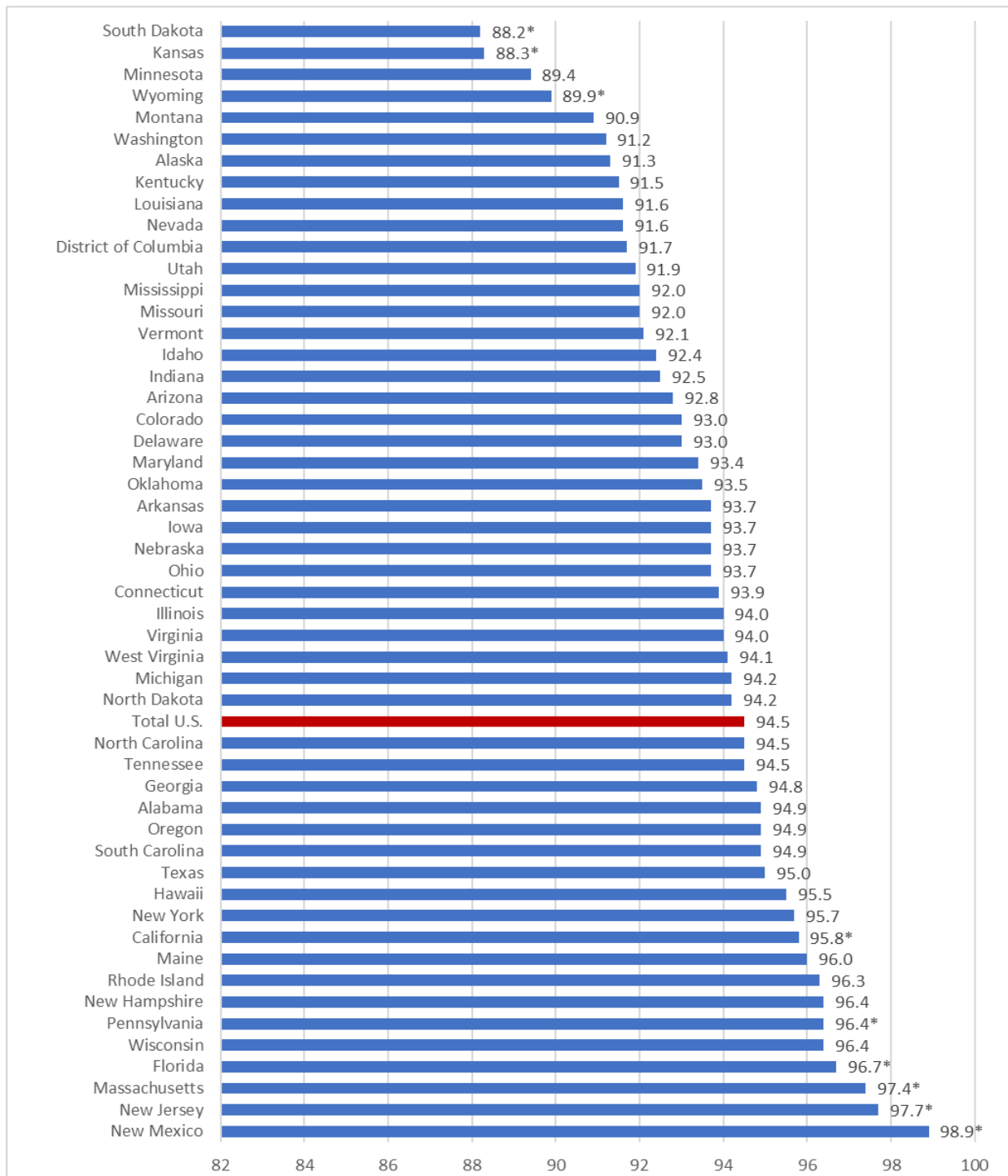
Measure 4: Annual Average Percentage of 12- to 20-Year-Olds with DSM-IV Alcohol Use Disorder⁵⁵ (2016–2019 Combined NSDUH Data; CBHSQ, 2021)



*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

⁵⁵ Alcohol use disorder in adolescents was defined as meeting criteria in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV), for either dependence or abuse for alcohol.

Measure 5: Annual Average Percentage⁵⁶ of 12- to 20-Year-Olds Needing But Not Receiving Treatment at a Specialty Facility for Alcohol Use⁵⁷ in the Past Year (2010–2019 Combined NSDUH Data; CBHSQ, 2021)

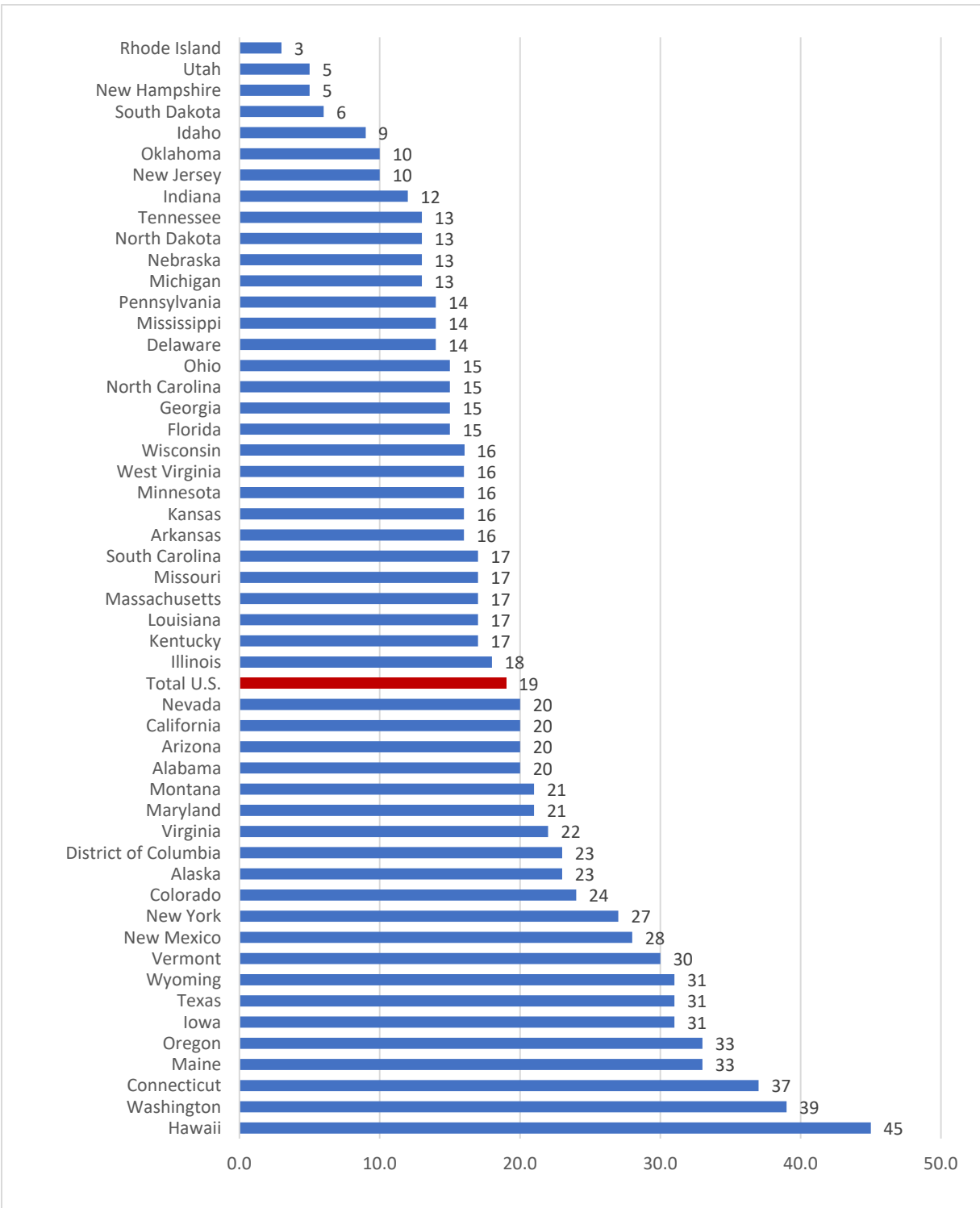


*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

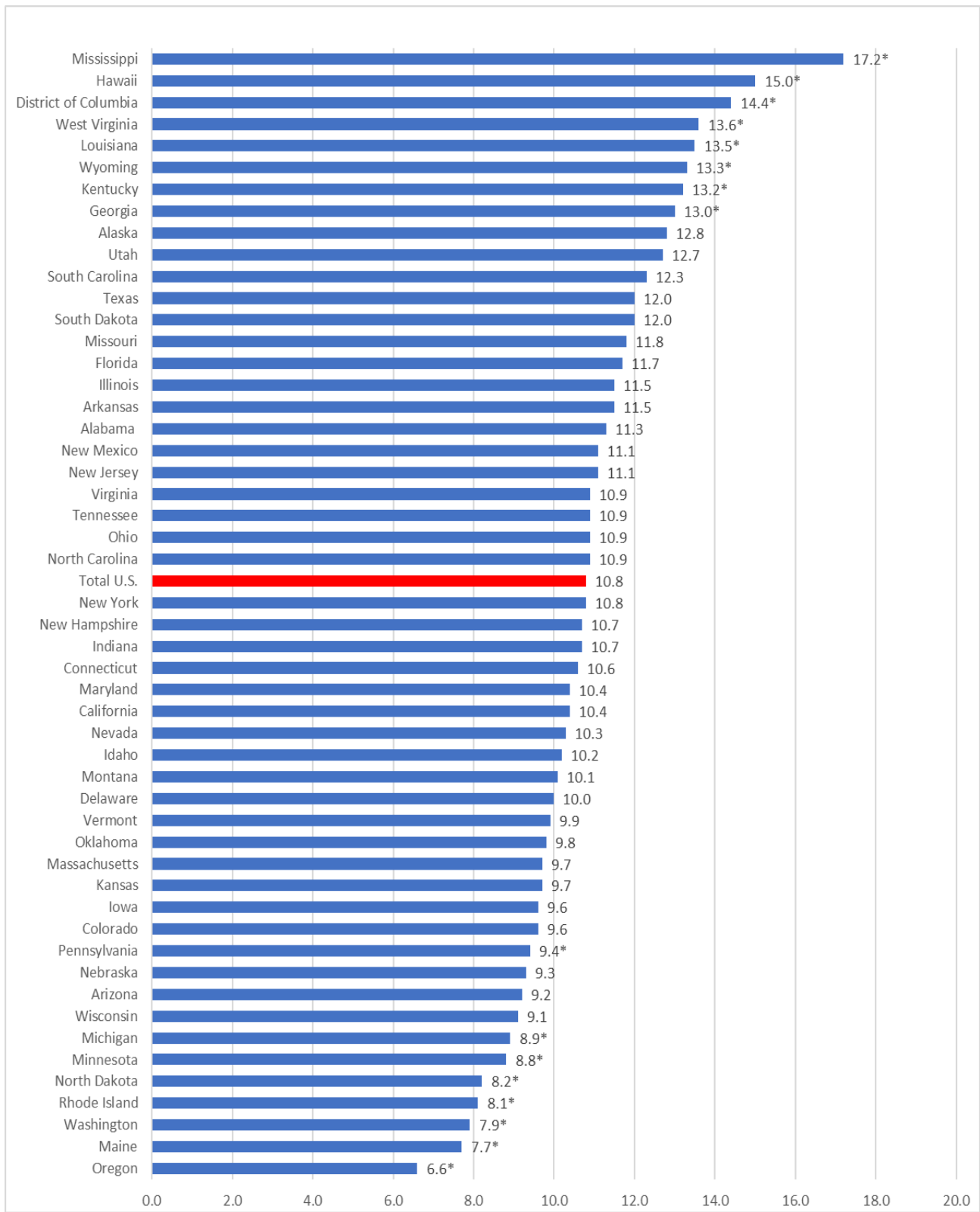
⁵⁶ Among people ages 12–20 classified as needing alcohol use treatment

⁵⁷ Respondents were classified as needing alcohol use treatment if they met criteria for an alcohol use disorder or received treatment for alcohol use at a specialty facility (i.e., drug and alcohol rehabilitation facility [inpatient or outpatient], hospital [inpatient only], or mental health center) as defined in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).

Measure 6: Percentage of Traffic Crash Deaths Involving a 15- to 20-Year-Old Driver With a BAC of 0.01 or Higher (2019 FARS Data; NHTSA, 2021)

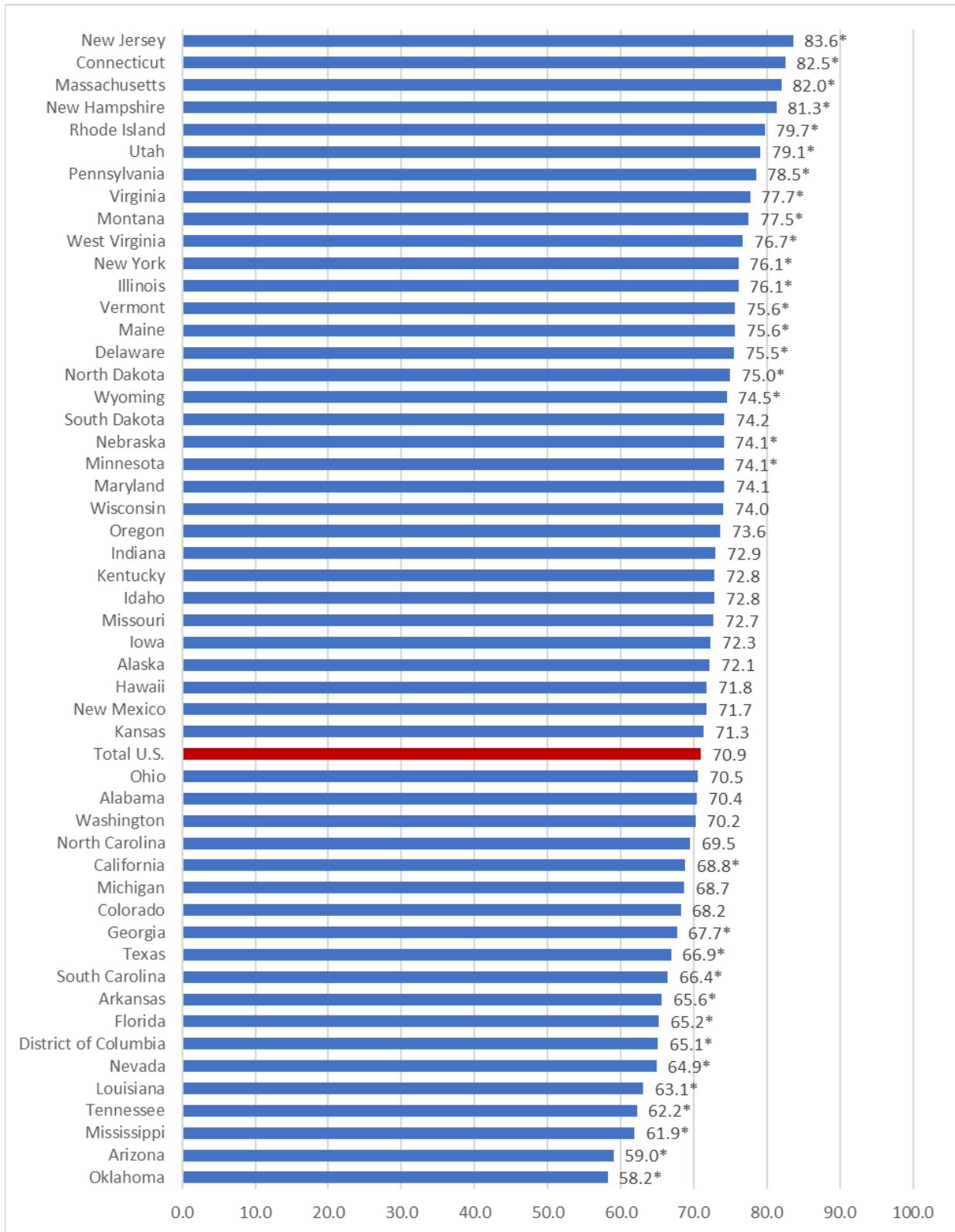


Measure 7: Annual Average Percentage of 12- to 17-Year-Olds Who Participated in an Alcohol, Tobacco, or Drug Prevention Program in the Past Year Outside of School (2016–19 Combined NSDUH Data; CBHSQ, 2021)



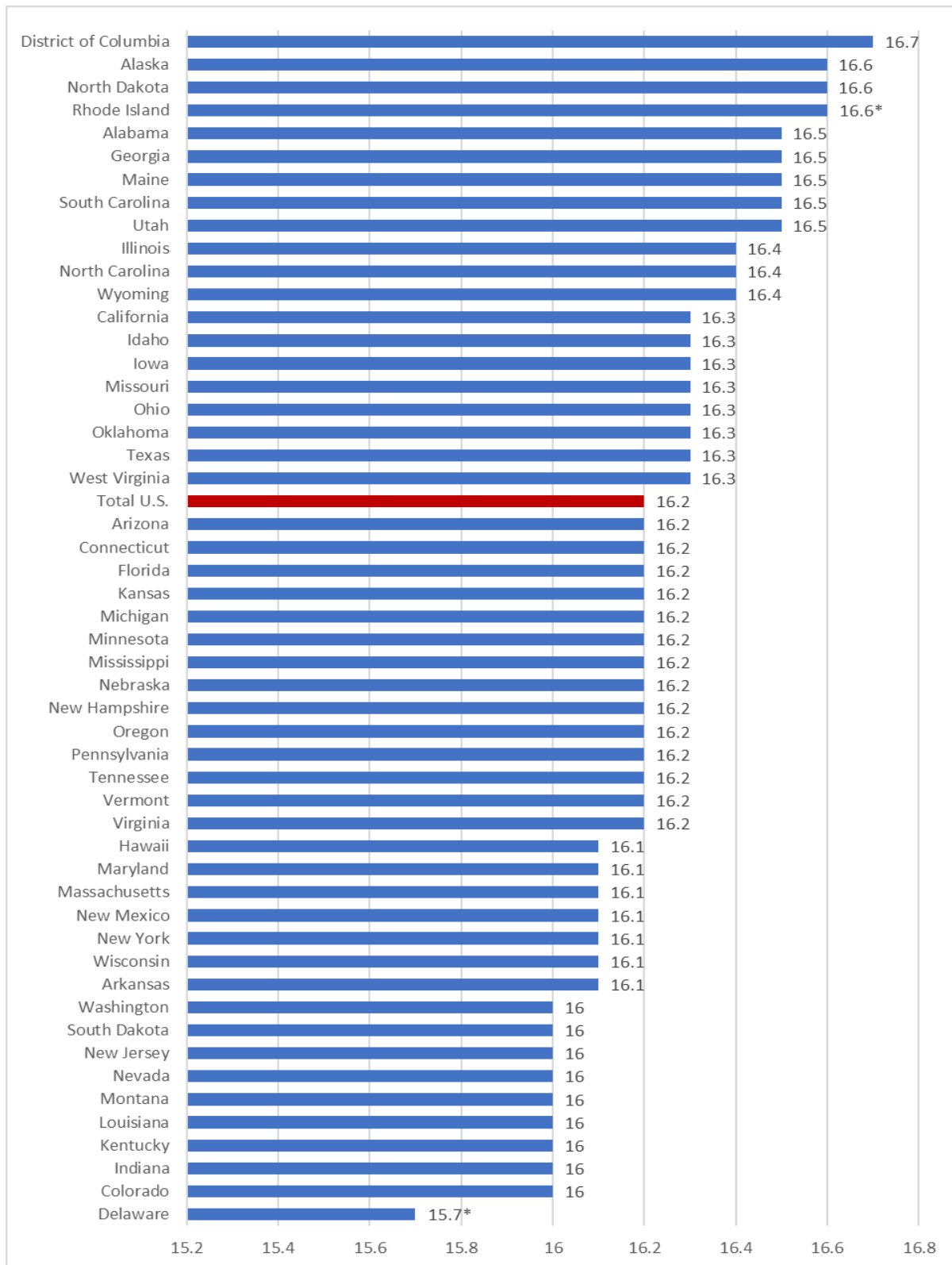
*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

Measure 8: Annual Average Percentage of 12- to 17-Year-Olds Indicating Drug or Alcohol Prevention Messages Were Seen or Heard in School in the Past Year (2016–2019 Combined NSDUH Data; NSDUH, 2021)



*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

Measure 9: Mean Age of Initiation of Alcohol Use Among Past Year Initiates: Youth and Young Adults Ages 12–20 Years (2016–2019 Combined NSDUH Data; CBHSQ, 2021)



*The difference between the state estimate and the U.S. estimate is statistically significant at the .05 level

References

REFERENCES

- Alcohol and Tobacco Tax and Trade Bureau. (2007). Chapter 4: Class and type designation. In *The beverage alcohol manual (BAM): A practical guide. Basic mandatory labeling information for distilled spirits (Vol. 2, p. 4-2)*. Retrieved from <http://www.ttb.gov/spirits/bam/chapter4.pdf>
- Applied Research Community Health and Safety Institute. (2009). Holding adults accountable for underage drinking at house parties through social host laws. Available from: http://www.publicstrategies.org/PDF/20091015_Social_Host_While_Paper_Final_R3.pdf
- Agent, K. R., Steenbergen, L., Pigman, J., Kidd, P. S., McCoy, C., & Pollack, S. (2001). *Impact of partial graduated license program on teen motor vehicle crashes in Kentucky*. Transportation Research Record 1779: Traffic Safety 2001. Washington, DC: Transportation Research Board.
- Aiken, A., Clare, P. J., Boland, V. C., Degenhardt, L., Yuen, W. S., Hutchinson, D., Najman, J., McCambridge, J., Slade, T., McBride, N., De Torres, C., Wadolowski, M., Bruno, R., Kypr, K., Mattick, R. P., & Peacock, A. (2020). Parental supply of sips and whole drinks of alcohol to adolescents and associations with binge drinking and alcohol-related harms: A prospective cohort study. *Drug and Alcohol Dependence*, 215, 108204.
- Aos, S., Phipps, P., Barnoski, R., & Lieb, R. (1999). *The Comparative Costs and Benefits of Programs to Reduce Crime: A Review of National Research Findings with Implications for Washington State*. Olympia, WA: Washington State Institute for Public Policy.
- Babor, T. F., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., Grube, J. W., Hill, L., Holder, H., Homel, R., Livingston, M., Österberg, E., Rehm, J., Room, R., & Rossow, I. (2010). *Alcohol: No Ordinary Commodity: Research and Public Policy*. Oxford University Press.
<https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199551149.001.0001/acprof-9780199551149>
- Babor, T. F., Mendelson, J. H., Greenberg, I., & Kuehnle, J. (1978). Experimental analysis of the ‘happy hour’: Effects of purchase price on alcohol consumption. *Psychopharmacology*, 58, 35–41.
- Barry, R. (2004). Enhanced enforcement of laws to prevent alcohol sales to underage persons: New Hampshire, 1999–2004. *MMWR: Morbidity and Mortality Weekly Report*, 53, 452–454.
- Bates, L., Rodwell, D., & Matthews, S. (2019). Young driver enforcement within graduated driver licensing systems: A scoping review. *Crime Prevention and Community Safety*, 21(2), 116–135.
- Bates, L., Somoray, K., & Lennon, A. (2020). Parenting style, young driver compliance and the imposition of additional driving restrictions within graduated driver licensing systems. *Accident Analysis & Prevention*, 144, 105619.
- Bates, L., Scott-Parker, B., Darvell, M., & Watson, B. (2017). Provisional drivers’ perceptions of the impact of displaying P plates. *Traffic Injury Prevention*, 18(8), 820–825.
<https://doi.org/10.1080/15389588.2017.1322697>
- Blanchette, J. G., Chaloupka, F. J., & Naimi, T. S. (2019). The composition and magnitude of alcohol taxes in states: Do they cover alcohol-related costs? *Journal of Studies on Alcohol and Drugs*, 80(4), 408–414.

- Blanchette, J. G., Lira, M. C., Heeren, T. C., & Naimi, T. S. (2020). Alcohol policies in U.S. states, 1999–2018. *Journal of Studies on Alcohol and Drugs*, *81*(1), 58–67.
- Blanchette, J. G., Ross, C. S., & Naimi, T. S. (2020). The rise and fall of alcohol excise taxes in U.S. states, 1933–2018. *Journal of Studies on Alcohol and Drugs*, *81*(3), 331–338. <https://doi.org/10.15288/jsad.2020.81.331>.
- Braillon, A. (2018). Effects of a comprehensive pro-alcohol policy in Washington State. *Alcohol and Alcoholism*, *54*(1), 119–121.
- Bray, J., & Babor, T. F. (2018). An alcohol policy trifecta: Reduce alcohol problems, save on health care, generate public revenues. *Journal of Studies on Alcohol and Drugs*, *79*(1), 5–6. <https://doi.org/10.15288/jsad.2018.79.5>
- Buettner, C. K., Khurana, A., & Slesnick, N. (2011). Drinking at college parties: Examining the influence of student host-status and party-location. *Addictive Behaviors*, *36*(12), 1365–1368.
- Buka, S. L., & Birdthistle, I. J. (1999). Long-term effects of a communitywide alcohol server training intervention. *Journal of Studies on Alcohol*, *60*, 27–36.
- Buller, D. B., Woodall, W. G., Saltz, R., Grayson, A., Svendsen, S., & Cutter, G. R. (2020) Sales to apparently alcohol-intoxicated customers and online responsible vendor training in recreational cannabis stores in a randomized trial. *International Journal of Drug Policy*, *83*, 102860.
- Burke, B., Geronimo, J., Martin, D., Thomas, B., & Wall, C. (2002) *Education for Changing Unions*. Toronto, ON: Between the Lines.
- Callinan, S., & MacLean, S. (2020). COVID-19 makes a stronger research focus on home drinking more important than ever. *Drug and Alcohol Review*.
- Calvert, C., Toomey, T., Lenk, K., Joshi, S., Nelson, T., & Erickson, D. (2020). Variation in alcohol policy enforcement across urban and nonurban communities. *The Journal of Rural Health*, *36*(2), 240–246.
- Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., Naimi, T. S., Toomey, T., Lawrence, B., Middleton, J. C., & Task Force on Community Preventive Services. (2009). The effectiveness of limiting alcohol outlet density as a means of reducing excessive alcohol consumption and alcohol-related harms. *American Journal of Preventive Medicine*, *37*(6), 556–569. <https://doi.org/10.1016/j.amepre.2009.09.028>
- Carpenter, C., & Dobkin, C. (2011). The minimum legal drinking age and public health. *Journal of Economic Perspectives*, *25*(2), 133–156. <https://doi.org/10.1257/jep.25.2.133>
- Carpenter, C., & Dobkin, C. (2016). The minimum legal drinking age and morbidity in the United States. *The Review of Economics and Statistics*, *99*(1), 95–104. https://doi.org/10.1162/REST_a_00615
- Carpenter, R. W., & Merrill, J. E. (2021). How much and how fast: Alcohol consumption patterns, drinking-episode affect, and next-day consequences in the daily life of underage heavy drinkers. *Drug and Alcohol Dependence*, *218*, 108407.
- Cavazos-Rehg, P. A., Houston, A. J., Krauss, M. J., Sowles, S. J., Spitznagel, E. L., Chaloupka, F. J., Grucza, R., Johnston, L. D., O'Malley, P. M., & Bierut, L. J. (2016). Selected state policies and associations with alcohol use behaviors and risky driving behaviors among youth: Findings from monitoring the future study. *Alcoholism, Clinical and Experimental Research*, *40*(5), 1030–1036. <https://doi.org/10.1111/acer.13041>
- Cavazos-Rehg, P. A., Krauss, M. J., Spitznagel, E. L., Chaloupka, F. J., Schootman, M., Grucza, R. A., & Bierut, L. J. (2012). Associations between selected state laws and teenagers'

- drinking and driving behaviors. *Alcoholism: Clinical and Experimental Research*, 36(9), 1647–1652. <https://doi.org/10.1111/j.1530-0277.2012.01764.x>
- Center for Behavioral Health Statistics and Quality. (2021). Results from the 2010-2019 National Survey on Drug Use and Health: [Special Data Analyses].
- Centers for Disease Control and Prevention. (2004). Enhanced enforcement of laws to prevent alcohol sales to underage persons—New Hampshire, 1999–2004. *Morbidity and Mortality Weekly Report*, 53(21), 452–454.
- Centers for Disease Control and Prevention. (2016). *Graduated driver licensing system planning guide*. https://www.cdc.gov/motorvehiclesafety/pdf/teen/gdl_planning_guide-a.pdf
- Centers for Disease Control and Prevention. Motor vehicle injuries—Prevention status reports national summary. <https://wwwn.cdc.gov/psr/NationalSummary/NSMVI.aspx>.
- Chaloupka, F. (2004). The effects of price on alcohol use, abuse, and their consequences. In *Reducing Underage Drinking: A Collective Responsibility* (pp. 541–564). Washington, DC: National Academies Press.
- Chaloupka, F. (2008, January). Legal Challenges to State Alcohol Control Policy: An Economist’s Perspective. Presentation at the Alcohol Policy 14 Conference, San Diego, CA.
- Chaloupka, F. J. (2009). Commentary on Wagenaar et al.: Alcoholic beverage taxes, prices and drinking. *Addiction*, 104, 191.
- Chaloupka, F. J. (2010). Beyond tax: The need for research on alcohol pricing policies. *Addiction*, 105, 397.
- Chaloupka, F. J., Grossman, M., & Saffer, H. (2002). The effects of price on alcohol consumption and alcohol-related problems. *Alcohol Research & Health*, 26(1), 22–34.
- Chaloupka, F.J., Powell, L.M., & Warner, K.E. (2019). The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption. *Annual Review of Public Health*, 40, 187–201.
- Chaloupka, F. J., & Wechsler, H. (1996). Binge drinking in college: The impact of price, availability, and alcohol control policies. *Contemporary Economic Policy*, 14(4), 112–124.
- Chan, G., Leung, J., Connor, J., Hall, W., & Kelly, A. B. (2017). Parental supply of alcohol and adolescent drinking: a multilevel analysis of nationally representative data. *BMC Public Health*, 17(1), 560.
- Chang, K., Wu, C. C., & Ying, Y. H. (2012). The effectiveness of alcohol control policies on alcohol-related traffic fatalities in the United States. *Accident; Analysis and Prevention*, 45, 406–415. <https://doi.org/10.1016/j.aap.2011.08.008>
- Chen, L. H., Baker, S. P., Braver, E. R., & Li, G. (2000). Carrying passengers as a risk factor for crashes fatal to 16- and 17-year-old drivers. *Journal of the American Medical Association*, 283(12), 1578–1582.
- Chen, L. H., Baker, S. P., & Li, G. (2006). Graduated driver licensing programs and fatal crashes of 16-year-old drivers: A national evaluation. *Pediatrics*, 118(1), 56–62. <https://doi.org/10.1542/peds.2005-2281>
- Chinman, M., Ebener, P., Burkhart, Q., Osilla, K. C., Imm, P., Paddock, S. M. & Wright, P. A. (2014). Evaluating the impact of getting to outcomes—underage drinking on prevention capacity and alcohol merchant attitudes and selling behaviors. *Prevention Science*, 15(4), 485–496.
- Coate, D., & Grossman, M. (1988). Effects of alcoholic beverage prices and legal drinking ages on youth alcohol use. *Journal of Law and Economics*, 31(1), 145–171.

- Cobiac, L. J., Mizdrak, A., & Wilson, N. (2019). Cost-effectiveness of raising alcohol excise taxes to reduce the injury burden of road traffic crashes. *Injury Prevention, 25*(5), 421–427.
- Committee on Substance Use and Prevention (2016). Substance use screening, brief intervention, and referral to treatment. *Pediatrics, 138*(1), e20161210. <https://doi.org/10.1542/peds.2016-1210>
- Conner, K. A., & Smith, G. A. (2017). An evaluation of the effect of Ohio's graduated driver licensing law on motor vehicle crashes and crash outcomes involving drivers 16 to 20 years of age. *Traffic Injury Prevention, 18*(4), 344–350. <https://doi.org/10.1080/15389588.2016.1209493>
- Cook, W. K., Li, L., Greenfield, T. K., Patterson, D., Naimi, T., Xuan, Z., & Karriker-Jaffe, K. J. (2020). State alcohol policies, binge drinking prevalence, socioeconomic environments and alcohol's harms to others: A mediation analysis. *Alcohol and Alcoholism*.
- Cox, M. J., Egan, K. L., Suerken, C. K., Reboussin, B. A., Song, E. Y., Wagoner, K. G., & Wolfson, M. (2019). Social and situational party characteristics associated with high-intensity alcohol use among youth and young adults. *Alcoholism, Clinical and Experimental Research*. <https://doi.org/10.1111/acer.14143>
- Cox, M. J., Sewell, K., Egan, K. L., Baird, S., Eby, C., Ellis, K., & Kuteh, J. (2019). A systematic review of high-risk environmental circumstances for adolescent drinking. *Journal of Substance Use, 24*(5), 465–474. <https://doi.org/10.1080/14659891.2019.1620890>
- Curry, A. E., Elliott, M. R., Pfeiffer, M. R., Kim, K. H., & Durbin, D. R. (2015). Long-term changes in crash rates after introduction of a graduated driver licensing decal provision. *American Journal of Preventive Medicine, 48*(2), 121–127. <https://doi.org/10.1016/j.amepre.2014.08.024>
- Curry, A. E., Pfeiffer, M. R., Durbin, D. R., & Elliott, M. R. (2015). Young driver crash rates by licensing age, driving experience, and license phase. *Accident; Analysis and Prevention, 80*, 243–250. <https://doi.org/10.1016/j.aap.2015.04.019>
- Curry, A. E., Pfeiffer, M. R., & Elliott, M. R. (2017). Compliance with and enforcement of graduated driver licensing restrictions. *American Journal of Preventive Medicine, 52*(1), 47–54. <https://doi.org/10.1016/j.amepre.2016.08.024>
- Curry, A. E., Pfeiffer, M. R., Localio, R., & Durbin, D. R. (2013). Graduated driver licensing decal law: Effect on young probationary drivers. *American Journal of Preventive Medicine, 44*(1), 1–7. <https://doi.org/10.1016/j.amepre.2012.09.041>
- Curry, S. J., Krist, A. H., Owens, D. K., Barry, M. J., Caughey, A. B., Davidson, K. W., Doubeni, C. A., Epling, J. W., Kemper, A. R., Kubik, M., Landefeld, C. S., Mangione, C. M., Silverstein, M., Simon, M. A., Tseng, C.-W., & Wong, J. B. (2018). Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults: US preventive services task force recommendation statement. *Journal of the American Medical Association, 320*(18), 1899–1909. <https://doi.org/10.1001/jama.2018.16789>
- Daley, J. I., Stahre, M. A., Chaloupka, F. J., & Naimi, T. S. (2012). The impact of a 25-cent-per-drink alcohol tax increase. *American Journal of Preventive Medicine, 42*(4), 382–389.
- Dalrymple, J., & Burke, B. (1995). *Anti-Oppressive Practice: Social Care and the Law*. Philadelphia, PA: Open University Press.
- Davoren, M. P., Cronin, M., Perry, I. J., & O'Connor, K. (2016). Alcohol consumption among university students: A typology of consumption to aid the tailoring of effective public health

- policy. *British Medical Journal Open*, 6(11), e011815. <https://doi.org/10.1136/bmjopen-2016-011815>.
- Dee, T. (1999). State alcohol policies, teen drinking and traffic fatalities. *Journal of Public Economics*, 72, 289–315. [https://doi.org/10.1016/S0047-2727\(98\)00093-0](https://doi.org/10.1016/S0047-2727(98)00093-0)
- Dee, T., & Evans, W. N. (2001). Behavioral policies and teen traffic safety. *American Economic Review*, 91(2), 91–96. <https://cepa.stanford.edu/content/behavioral-policies-and-teen-traffic-safety>
- Dee, T. S., Grabowski, D. C., & Morrissey, M. A. (2005). Graduated driver licensing and teen traffic fatalities. *Journal of Health Economics*, 24(3), 571–589. <https://doi.org/10.1016/j.jhealeco.2004.09.013>
- Dejong, W., & Blanchette, J. (2014). Case closed: Research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs*, 75(Suppl 17), 108–115. <https://doi.org/10.15288/jsads.2014.75.108>
- DePesa, C., Raybould, T., Hurwitz, S., Lee, J., Gervasini, A., Velmahos, G. C., Masiakos, P. T., & Kaafarani, H. M. A. (2017). The impact of the 2007 graduated driver licensing law in Massachusetts on the rate of citations and licensing in teenage drivers. *Journal of Safety Research*, 61, 199–204. <https://doi.org/10.1016/j.jsr.2017.02.012>
- Diloreto, J. T., Siegel, M., Hinchey, D., Valerio, H., Kinzel, K., Lee, S., Chen, K., Shoaff, J. R., Kenney, J., Jernigan, D. H., & Dejong, W. (2012). Assessment of the average price and ethanol content of alcoholic beverages by brand-United States, 2011. *Alcoholism: Clinical and Experimental Research*, 36(7), 1288–1297. <https://doi.org/10.1111/j.1530-0277.2011.01721.x>
- Dills, A. K. (2010). Social host liability for minors and underage drunk-driving accidents. *Journal of Health Economics*, 29(2), 241–249.
- Disney, L. D., LaVallee, R. A., & Yi, H. Y. (2013). The effect of internal possession laws on underage drinking among high school students: A 12-state analysis. *American Journal of Public Health*, 103(6), 1090–1095. <https://doi.org/10.2105/AJPH.2012.301074>
- Dominelli, L. (2002) *Anti-oppressive social work theory and practice*. New York: Palgrave Macmillan.
- Dresser, J., Starling, R., Woodall, W. G., Stanghetta, P., & May, P. A. (2011). Field trial of alcohol-server training for prevention of fetal alcohol syndrome. *Journal of Studies on Alcohol and Drugs*, 72(3), 490–496.
- Egerton-Warburton, D., Gosbell, A., Moore, K., Wadsworth, A., Richardson, D., & Fatovich, D. M. (2018). Alcohol-related harm in emergency departments: A prospective, multi-centre study. *Addiction (Abingdon, England)*, 113(4), 623–632. <https://doi.org/10.1111/add.14109>
- Ehsani, J. P., Bingham, C. R., & Shope, J. T. (2013). Graduated driver licensing for new drivers: Effects of three states' policies on crash rates among teenagers. *American Journal of Preventive Medicine*, 45(1), 9–18. <https://doi.org/10.1016/j.amepre.2013.03.005>
- Ecklund, A. M., Nederhoff, D. M., Hunt, S. L., Horvath, K. J., Nelson, T. F., Plum, J. E., & Toomey, T. L. (2017). Attitudes and practices regarding responsible beverage service: Focus group discussions with bar and restaurant management and staff. *Journal of Drug Education*, 47(3–4), 87–107.
- Edwards, J., Stein-Seroussi, A., Flewelling, R., Orwin, R., & Zhang, L. (2015). Sustainability of state-level substance abuse prevention infrastructure after completion of the SPIF

- SIG. *Journal of Primary Prevention*, 36(3), 177–186. <http://dx.doi.org/10.1007/s10935-015-0382-7>.
- Elder, R. W., Lawrence, B., Ferguson, A., Naimi, T. S., Brewer, R. D., Chattopadhyay, S. K., Toomey, T. L., & Fielding, J. E. (2010). The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. *American Journal of Preventive Medicine*, 38(2), 217–229. <https://doi.org/10.1016/j.amepre.2009.11.005>
- Elder, R. W., Lawrence, B. A., Janes, G., Brewer, R. D., Toomey, T. L., Hingson, R. W., Naimi, T. S., Wing, S. G., & Fielding, J. (2007). Enhanced enforcement of laws prohibiting sale of alcohol to minors: Systematic review of effectiveness for reducing sales and underage drinking. *Transportation Research Circular*, 2007(E-C123), 181–188.
- Erickson, D. J., Lenk, K. M., Sanem, J. R., Nelson, T. B., Jones-Webb, R., & Toomey, T. L. (2014). Current use of underage alcohol compliance checks by enforcement agencies in the United States. *Alcoholism: Clinical and Experimental Research*, 38(6), 1712–1719.
- Erickson, D. J., Smolenski, D. J., Toomey, T. L., Carlin, B. P., & Wagenaar, A. C. (2013). Do alcohol compliance checks decrease underage sales at neighboring establishments? *Journal of Studies on Alcohol and Drugs*, 74, 852–858.
- Esser, M. B., Waters, H., Smart, M., & Jernigan, D. H. (2016). Impact of Maryland's 2011 alcohol sales tax increase on alcoholic beverage sales. *American Journal of Drug and Alcohol Abuse*, 42(4), 404–411. <https://doi.org/10.3109/00952990.2016.1150485>
- Evashwick, C. (1989). Creating the continuum of care. *Health Matrix*, 7(1), 30–39.
- Fairman, B. J., Goldstein, R. B., Simons-Morton, B. G., Haynie, D. L., Liu, D., Hingson, R. W., & Gilman, S. E. (2019). Neighbourhood context and binge drinking from adolescence into early adulthood in a US national cohort. *International Journal of Epidemiology*. <https://doi.org/10.1093/ije/dyz133>
- Fairman, B. J., Simons-Morton, B. G., Haynie, D. L., Liu, D., Goldstein, R. B., Hingson, R. W., & Gilman, S. E. (2019). State alcohol policies, taxes, and availability as predictors of adolescent binge drinking trajectories into early adulthood. *Addiction*, 114(7), 1173–1182.
- Fell, J. C. (2019). Approaches for reducing alcohol-impaired driving: Evidence-based legislation, law enforcement strategies, sanctions, and alcohol-control policies. *Forensic Science Review*, 31(2), 161–184.
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2008). The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States. *Accident: Analysis and Prevention*, 40(4), 1430–1440. <https://doi.org/10.1016/j.aap.2008.03.006>
- Fell, J. C., Fisher, D. A., Voas, R. B., Blackman, K., & Tippetts, A. S. (2009). The impact of underage drinking laws on alcohol-related fatal crashes of young drivers. *Alcoholism, Clinical and Experimental Research*, 33(7), 1208–1219. <https://doi.org/10.1111/j.1530-0277.2009.00945.x>
- Fell, J. C., Fisher, D. A., Yao, J., & McKnight, A. S. (2017). Evaluation of a responsible beverage service and enforcement program: Effects on bar patron intoxication and potential impaired driving by young adults. *Traffic Injury Prevention*, 18(6), 557–565. <https://doi.org/10.1080/15389588.2017.1285401>
- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2014). Effectiveness of social host and fake identification laws on reducing underage drinking driver fatal crashes. *Traffic Injury Prevention*, 15(Suppl 1), S64–73. <https://doi.org/10.1080/15389588.2014.928929>

- Fell, J. C., Scherer, M., Thomas, S., & Voas, R. B. (2016). Assessing the impact of twenty underage drinking laws. *Journal of Studies on Alcohol and Drugs*, 77(2), 249–260. <https://doi.org/10.15288/jsad.2016.77.249>
- Fell, J. C., Scherer, M., & Voas, R. (2015). The utility of including the strengths of underage drinking laws in determining their effect on outcomes. *Alcoholism: Clinical and Experimental Research*, 39(8), 1528–1537. <https://doi.org/10.1111/acer.12779>
- Fell, J. C., Tanenbaum, E., & Chelluri, D. (2018). Evaluation of a combination of community initiatives to reduce driving while intoxicated and other alcohol-related harms. *Traffic Injury Prevention*, 19(1) S176–S179.
- Fell, J. C., Thomas, S., Scherer, M., Fisher, D. A., & Romano, E. (2015). Scoring the strengths and weaknesses of underage drinking laws in the United States. *World Medical & Health Policy*, 7(1), 28–58. <https://doi.org/10.1002/wmh3.132>
- Ferguson, S. A., Fields, M., & Voas, R. B. (2000). Enforcement of zero tolerance laws in the United States. *Proceedings of the 15th International Conference on Alcohol, Drugs, and Traffic Safety*.
- Ferreira, R. (2019). Gender differences in patterns of alcohol drinking habits among teenagers and young adults, and possible approaches to public health. *Revista de Medicina e Saúde de Brasília*, 8(1).
- Finan, L. J., & Lipperman-Kreda, S. (2020) Changes in drinking contexts over the night course: Concurrent and lagged associations with adolescents' nightly alcohol use. *Alcoholism: Clinical and Experimental Research*, 44(12), 2611–2617.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231). <http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=ED54BFDBAE20BBE1040BCA13DA2D8882?doi=10.1.1.610.6226&rep=rep1&type=pdf>
- Fletcher, L. A., Nugent, S. M., Ahern, S. M., & Willenbring, M. L. (1996). The use of alcohol home delivery services by male problem drinkers: A preliminary report. *Journal of Substance Abuse*, 8(2), 251–261.
- Fletcher, L. A., Toomey, T. L., Wagenaar, A. C., Short, B., & Willenbring, M. L. (2000). Alcohol home delivery services: A source of alcohol for underage drinkers. *Journal of Studies on Alcohol*, 61, 81–84.
- Flewelling, R. L., Grube, J. W., Paschall, M. J., Biglan, A., Kraft, A., Black, C., Hanley, S. M., Ringwalt, C., Wiesen, C., & Ruscoe, J. (2013). Reducing youth access to alcohol: Findings from a community-based randomized trial. *American Journal of Community Psychology*, 51(1–2), 264–277.
- Fogarty International Center, NIH (2013, March/April). Scientists must transfer findings to practice. *Global Health Matters*, 12(2). <https://www.fic.nih.gov/News/GlobalHealthMatters/march-april-2013/Documents/fogarty-nih-global-health-matters-newsletter-march-april-2013.pdf>
- Forster, J. L., McGovern, P. G., Wagenaar, A. C., Wolfson, M., Perry, C. L., & Anstine, P. S. (1994). The ability of young people to purchase alcohol without age identification in northeastern Minnesota, USA. *Addiction*, 89, 699–705. <https://doi.org/10.1111/j.1360-0443.1994.tb00956.x>

- Foss, R. D., Feaganes, J. R., & Rodgman, E. A. (2001). Initial effects of graduated driver licensing on 16-year-old driver crashes in North Carolina. *Journal of the American Medical Association*, 286(13), 1588–1592.
- Friese, B., & Grube, J. W. (2014). Teen parties: Who has parties, what predicts whether there is alcohol and who supplies the alcohol? *Journal of Primary Prevention*, 35(6), 391–396.
- George, M. D., Bodiford, A., Humphries, C., Stoneburner, K. A., & Holder, H. D. (2019). Media and education effect on impaired driving associated with alcohol service. *Journal of Drug Education*: 0047237919859658.
- George, M., Holder, R., Shamblen, S., & Holder, H. (2018). *Impact of alcohol compliance checks on underage alcohol-involved crashes: Test of a state-wide enforcement program in South Carolina 2006-2016*. Calverton, MD, Pacific Institute for Research and Evaluation.
- George, M. D., Holder, R., Shamblen, S., Nienhius, M. M., & Holder, H. D. (2021). Alcohol compliance checks and underage alcohol-involved crashes: Evaluation of a statewide enforcement program in South Carolina from 2006 to 2016. *Alcoholism: Clinical and Experimental Research*, 45(1), 242–250
- Gilpin, G. (2019). Teen driver licensure provisions, licensing, and vehicular fatalities. *Journal of Health Economics*, 66, 54–70. <https://doi.org/10.1016/j.jhealeco.2019.04.003>
- Glynn, D. (2011). Comment: Granholm's ends do not justify the means: The twenty-first amendment's temperance goals trump free-market idealism. *Journal of Law, Economics & Policy*, 8, 113.
- Gmel, G., Holmes, J., & Studer, J. (2016). Are alcohol outlet densities strongly associated with alcohol-related outcomes? A critical review of recent evidence. *Drug and Alcohol Review*, 35, 40–54.
- Gosselt, J. F., van Hoof, J. J., & De Jong, M. D. (2012). Why should I comply? Sellers' accounts for (non-)compliance with legal age limits for alcohol sales. *Substance Abuse Treatment, Prevention, and Policy*, 7, 5. <https://doi.org/10.1186/1747-597X-7-5>
- Greenfield, T. K., Cook, W. K., Karriker-Jaffe, K. J., Patterson, D., Kerr, W. C., Xuan, Z., & Naimi, T. S. (2019). The relationship between the US state alcohol policy environment and individuals' experience of secondhand effects: Alcohol harms due to others' drinking. *Alcoholism: Clinical and Experimental Research*, 43(6), 1234–1243.
- Greenwood, P. W., Model, K. E., Rydell, C. P., & Chiesa, J. (1996). *Diverting Children from a Life of Crime: Measuring Costs and Benefits*. Santa Monica, CA: Rand.
- Grube, J. W. (1997). Preventing sales of alcohol to minors: Results from a community trial. *Addiction*, 92(Suppl 2), S251–S260.
- Grube, J. W., DeJong, W., DeJong, M., Lipperman-Kreda, S., & Krevor, B. S. (2018). Effects of a responsible retailing mystery shop intervention on age verification by servers and clerks in alcohol outlets: A cluster randomised cross-over trial. *Drug and Alcohol Review*, 37(6), 774–781. <https://doi.org/10.1111/dar.12839>
- Gruenewald, P. J. (2011). Regulating availability: How access to alcohol affects drinking and problems in youth and adults. *Alcohol Research & Health*, 34(2), 248–256. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860569/>
- Gruenewald, P. J., Ponicki, W. R., Holder, H. D., & Romelsjö, A. (2006). Alcohol prices, beverage quality, and the demand for alcohol: Quality substitutions and price elasticities. *Alcoholism: Clinical and Experimental Research*, 30, 96–105.

- Gunn, A., McLeod, J., Chapman, R., Ball, H., Fitzgerald, M., Howard, T., Cameron, P., & Mitra, B. (2018). Effect of the prevent alcohol and risk-related trauma in youth (PARTY) program among senior school students. *Emergency Medicine Australasia*, *30*(2), 209–213.
- Hadland, S. E., Xuan, Z., Blanchette, J., Sarda, V., Swahn, M. H., Heeren, T. C., & Naimi, T. S. (2016). Alcohol policies and motor vehicle injury fatalities among underage youth in the United States. *Journal of Adolescent Health*, *58*(2), S13–S14. <https://doi.org/10.1016/j.jadohealth.2015.10.042>
- Hamann, C., Price, M., and Peek-Asa, C. (2020). Characteristics of crashes and injuries among 14- and 15-year-old drivers, by rurality. *Journal of Safety Research*, *73*, 111–118.
- Hingson, R. (2009). The legal drinking age and underage drinking in the United States. *Archives of Pediatrics & Adolescent Medicine*, *163*(7), 598–600. <https://doi.org/10.1001/archpediatrics.2009.66>
- Hingson, R., Heeren, T., & Winter, M. (1994). Lower legal blood alcohol limits for young drivers. *Public Health Reports*, *109*(6), 738–744. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1403574/>
- Hingson, R., McGovern, T., Howland, J., Heeren, T., Winter, M., & Zakocs, R. (1996). Reducing alcohol-impaired driving in Massachusetts: The Saving Lives Program. *American Journal of Public Health*, *86*(6), 791–797. <https://doi.org/10.2105/AJPH.86.6.791>
- Hingson, R., & White, A. (2014). New research findings since the 2007 Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking: A review. *Journal of Studies on Alcohol and Drugs*, *75*(1), 158–169. <https://doi.org/10.15288/jsad.2014.75.158>
- Hingson, R. & Zha, W. (2009). Age of drinking onset, alcohol use disorders, frequent heavy drinking, and unintentionally injuring oneself and others after drinking. *Pediatrics*, *123*(6), 1477–1484.
- Hingson, R., Zha, W., & Smyth, D. (2017). Magnitude and trends in heavy episodic drinking, alcohol-impaired driving, and alcohol-related mortality and overdose hospitalizations among emerging adults of college ages 18–24 in the United States, 1998–2014. *Journal of Studies on Alcohol and Drugs*, *78*(4), 540–548. <https://doi.org/10.15288/jsad.2017.78.540>
- Holder, H., Janes, K., Mosher, J., Saltz, R., Spurr, S., & Wagenaar, A. (1993). Alcoholic beverage server liability and the reduction of alcohol-involved problems. *Journal of Studies on Alcohol*, *54*, 23–36.
- Holder, H. D., & Wagenaar, A. C. (1994). Mandated server training and reduced alcohol-involved traffic crashes: A time series analysis of the Oregon experience. *Accident Analysis & Prevention*, *26*, 89–97.
- Holder, H. D. (2002). Prevention of alcohol and drug “abuse” problems at the community level: What the research tells us. *Substance Use & Misuse*, *37* (8–10), 901–921. <http://dx.doi.org/10.1081/JA-120004158>.
- Hwang, S. J., & Berry, F. (2019). Deterring drunk driving: Why some states go further than others in policy innovation. *International Journal of Environmental Research and Public Health*, *16*(10). <https://doi.org/10.3390/ijerph16101749>
- Imm, P. S., Chinman, M., Kulesza, M., Hunter, S., & Acosta, J. (2018). Evidence-based practices: Community-based interventions to reduce alcohol use and misuse. In C. G. Leukefeld & T. P. Gullotta (Eds.), *Adolescent Substance Abuse: Evidence-Based Approaches to Prevention and Treatment* (333–377). Springer International Publishing. https://doi.org/10.1007/978-3-319-90611-9_14.

- Institute of Medicine (U.S.) Committee on Prevention of Mental Disorders. (1994). P. J. Mrazek & R. J. Haggerty (Eds.). *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research*. Washington, DC: National Academies Press.
- Jernigan, D. H., Shields, K., Mitchell, M., & Arria, A. M. (2019). Assessing campus alcohol policies: Measuring accessibility, clarity, and effectiveness. *Alcoholism, Clinical and Experimental Research*, 43(5), 1007–1015. <https://doi.org/10.1111/acer.14017>
- Johnson, M. B. (2016). A successful high-visibility enforcement intervention targeting underage drinking drivers. *Addiction (Abingdon, England)*, 111(7), 1196–1202. <https://doi.org/10.1111/add.13346>
- Jones-Webb, R., Toomey, T. L., Lenk, K. M., Nelson, T. F., & Erickson, D. J. (2015). Targeting adults who provide alcohol to underage youth: Results from a national survey of local law enforcement agencies. *Journal of Community Health*, 40(3), 569–575. <https://doi.org/10.1007/s10900-014-9973-0>
- Jongenelis, M. I., Johnston, R., & Stafford, J. (2018). Factors associated with parents' belief in the appropriateness of providing alcohol to their child. *Substance Use & Misuse*, 1–10.
- Kaplan, B. A., & Reed, D. D. (2018). Happy hour drink specials in the alcohol purchase task. *Experimental and Clinical Psychopharmacology*, 26(2), 156–167. <https://doi.org/10.1037/pha0000174>
- Kaynak, O., Winters, K. C., Cacciola, J., Kirby, K. C., & Arria, A. M. (2014). Providing alcohol for underage youth: What messages should we be sending parents? *Journal of Studies on Alcohol and Drugs*, 75(4), 590–605.
- Kenkel, D. S. (1993). Drinking, driving, and deterrence: The effectiveness and social costs of alternative policies. *The Journal of Law and Economics*, 36(2), 877–913. <https://doi.org/10.1086/467301>
- Klitzner, M. (2012). Improving the measurement of state alcohol taxes. National Institute on Alcohol Abuse and Alcoholism, Alcohol Policy Information System. Retrieved from http://alcoholpolicy.niaaa.nih.gov/uploads/improving_the_measurement_of_state_alcohol_taxes.pdf.
- Klitzner, M., & Hilton, M. (2015). Total tax: A suggested method for calculating alcohol beverage taxes. Retrieved from https://alcoholpolicy.niaaa.nih.gov/uploads/total_tax_a_suggested_method_for_calculating_alcohol_beverage_taxes.pdf.
- Knopf, Alison. (2020). Underage drinking and the role of parents. *Alcoholism & Drug Abuse Weekly*, 32(6), 6.
- Komro, K. A., Livingston, M. D., Wagenaar, A. C., Kominsky, T. K., Pettigrew, D. W., & Garrett, B. A. (2017). Multilevel Prevention Trial of Alcohol Use Among American Indian and White High School Students in the Cherokee Nation. *American Journal of Public Health*, 107(3), 453–459. <https://doi.org/10.2105/AJPH.2016.303603>
- Komro, K.A., & Toomey, T.L. (2002). Strategies to prevent underage drinking. *Alcohol Research & Health* 26(1), 5–14.
- Kuo, M., Wechsler, H., Greenberg, P., & Lee, H. (2003). The marketing of alcohol to college students: The role of low prices and special promotions. *American Journal of Preventive Medicine*, 25(3), 1–8.
- Laixuthai, A., & Chaloupka, F. J. (1993). Youth alcohol use and public policy. *Contemporary Economic Policy*, 11(4), 70–81. <https://doi.org/10.1111/j.1465-7287.1993.tb00402.x>

- Lam, T., Fischer, J., Salom, C., Ogeil, R., Wilson, J., Lubman, D. I., Burns, L., Lenton, S., Gilmore, W., Chikritzhs, T., Aiken, A., & Allsop, S. (2020). Safety first: beliefs of older peers supplying alcohol to underage friends. *Health Promotion Journal of Australia*.
- Lavoie, M. C., Langenberg, P., Villaveces, A., Dischinger, P. C., Simoni-Wastila, L., Hoke, K., & Smith, G. S. (2017). Effect of Maryland's 2011 alcohol sales tax increase on alcohol-positive driving. *American Journal of Preventive Medicine*, 53(1), 17–24. <https://doi.org/10.1016/j.amepre.2016.12.011>
- Lee, S. U., & Baek, H. (2020) Does parental intervention matter to diminish drinking behaviors among American adolescents? *Substance Use & Misuse*, 55(8), 1300–1308.
- Lenk, K. M., Erickson, D. J., Nelson, T. F., Horvath, K. J., Nederhoff, D. M., Hunt, S. L., Ecklund, A. M., & Toomey, T. L. (2018). Changes in alcohol policies and practices in bars and restaurants after completion of manager-focused responsible service training. *Drug and Alcohol Review*, 37(3), 356–364.
- Lenk, K. M., Wiens, T., Fabian, L. E. A., & Erickson, D. J. (2020) Practices and policies of marijuana retail stores in the first two US states to legalize recreational marijuana sales. *Drugs: Education, Prevention and Policy*, 1–9.
- Linde, A. C., Toomey, T. L., Wolfson, J., Lenk, K. M., Jones-Webb, R., & Erickson, D. J. (2016). Associations between responsible beverage service laws and binge drinking and alcohol-impaired driving. *Journal of Alcohol & Drug Education*, 60(2), 35–54.
- Lipperman-Kreda, S., Finan, L. J., & Grube, J. W. (2018). Social and situational characteristics associated with adolescents' drinking at party and non-party events. *Addictive Behaviors*, 83, 148–153.
- Lipperman-Kreda, S., Gruenewald, P. J., Bersamin, M., Mair, C. F., & Grube, J. W. (2017). Adolescent drinking in different contexts: What behaviors do parents control? *Addictive Behaviors Reports*, 6, 39–44. <https://doi.org/10.1016/j.abrep.2017.05.003>
- Lovenheim, M. F., & Slemrod, J. (2010). The fatal toll of driving to drink: The effect of minimum legal drinking age evasion on traffic fatalities. *Journal of Health Economics*, 29(1), 62–77. <https://doi.org/10.1016/j.jhealeco.2009.10.001>
- Mafa, P. (2020). Youth alcohol consumption: Context and influences. *Gender & Behaviour*, 18(3), 16122-16131.
- Maldonado-Devincci, A. M., Badanich, K. A., & Kirstein, C. L. (2010). Alcohol during adolescence selectively alters immediate and long-term behavior and neurochemistry. *Alcohol (Fayetteville, N.Y.)*, 44(1), 57–66. <https://doi.org/10.1016/j.alcohol.2009.09.035>
- Maldonado-Molina, M. M., & Wagenaar, A. C. (2010). Effects of alcohol taxes on alcohol-related mortality in Florida: Time-series analyses from 1969 to 2004. *Alcoholism: Clinical and Experimental Research*, 34, 1–7.
- Martinez, D. (2018). *The underage consumption of alcohol and driving while intoxicated by college students*. [Graduate thesis, University of Houston Clear Lake]. Institutional Repository @ UHCL. <https://uhcl-ir.tdl.org/handle/10657.1/894>
- Martinez, J. A., & Sher, K. J. (2010). Methods of “fake ID” obtainment and use in underage college students. *Addictive Behaviors*, 35(7), 738–740. <https://doi.org/10.1016/j.addbeh.2010.03.014>
- Maryland Collaborative to Reduce College Drinking and Related Problems. (2014). *High-risk drinking among college students in Maryland: Identifying targets for intervention*. College Park, MD: Center on Youth Adult Health and Development, University of Maryland School

- of Public Health; Baltimore, MD: Center on Alcohol Marketing and Youth, Johns Hopkins University Bloomberg School of Public Health.
- Masten, S. V., Foss, R. D., & Marshall, S. W. (2011). Graduated driver licensing and fatal crashes involving 16- to 19-year-old drivers. *Journal of the American Medical Association*, *306*(10), 1098–1103. <https://doi.org/10.1001/jama.2011.1277>
- Mattick, R. P., Wadolowski, M., Aiken, A., Clare, P. J., Hutchinson, D., Najman, J., Slade, T., Bruno, R., McBride, N., Degenhardt, L., & Kypri, K. (2017). Parental supply of alcohol and alcohol consumption in adolescence: prospective cohort study. *Psychological Medicine* *47*(2), 267–278.
- Matthay, E. C., & Schmidt, L. A. (2020). Home delivery of legal intoxicants in the age of COVID-19. *Addiction (Abingdon, England)*, *116*(4), 691–693
- Mayhew, D. R., Simpson, H. M., & Pak, A. (2003). Changes in collision rates among novice drivers during the first months of driving. *Accident Analysis & Prevention*, *35*(5), 683–691. [https://doi.org/10.1016/S0001-4575\(02\)00047-7](https://doi.org/10.1016/S0001-4575(02)00047-7)
- McCartt, A. T., Hellinga, L. A., & Kirley, B. B. (2010). The effects of minimum legal drinking age 21 laws on alcohol-related driving in the United States. *Journal of Safety Research*, *41*(2), 173–181. <https://doi.org/10.1016/j.jsr.2010.01.002>
- McCartt, A. T., Shabanova, V. I., & Leaf, W. A. (2003). Driving experience, crashes and traffic citations of teenage beginning drivers. *Accident; Analysis and Prevention*, *35*(3), 311–320.
- McClelland, R. & Iselin, J. (2019). Do state excise taxes reduce alcohol-related fatal motor vehicle crashes? *Economic Inquiry*.
- McKnight, A. J., & McKnight, A. S. (2003). Young novice drivers: Careless or clueless? *Accident; Analysis and Prevention*, *35*(6), 921–925.
- Milam, A. J., Furr-Holden, C. D. M., Cooley-Strickland, M. C., Bradshaw, C. P., & Leaf, P. J. (2014). Risk of exposure to alcohol, tobacco, and other drugs on the route to and from school: The role of alcohol outlets. *Prevention Science*, *15*, 12–21.
- Milam, A. J., Furr-Holden, C. D. M., Nesoff, E. D., & Trangenstein, P. J. (2021) Evaluation of a local ordinance to prevent any underage purchases in liquor stores: The need for enforcement. *Journal of Studies on Alcohol and Drugs*, *82*(2), 219–227.
- Milam, A. J., Lindstrom Johnson, S. L., Furr-Holden, D. M., & Bradshaw, C. P. (2016). Alcohol outlets and substance use among high schoolers. *Journal of Community Psychology*, *44*(7), 819–832.
- Miller, T. R., & Levy, D. T. (2000). Cost-outcome analysis in injury prevention and control: Eighty-four recent estimates for the United States. *Medical Care*, *38*(6), 562–582. <https://www.jstor.org/stable/3767165>
- Miller, T. R., Levy, D. T., Spicer, R. S., & Taylor, D. M. (2006). Societal costs of underage drinking. *Journal of Studies on Alcohol*, *67*(4), 519–528.
- Montgomery, J. M., Foley, K. L., & Wolfson, M. (2006). Enforcing the minimum drinking age: State, local and agency characteristics associated with compliance checks and Cops in Shops programs. *Addiction*, *101*, 223–231. doi.org/10.1111/j.1360-0443.2006.01328.x
- Moramarto, M. (2008). *The Twenty-First Amendment, Granholm, and the Future of the Three-Tier System*. Working Paper, Social Science Research Network, December 13, 2008. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1340198
- Morleo, M., Cook, P. A., Bellis, M. A., & Smallthwaite, L. (2010). Use of fake identification to purchase alcohol amongst 15-16-year-olds: A cross-sectional survey examining alcohol

- access, consumption and harm. *Substance Abuse Treatment, Prevention, and Policy*, 5, 12. <https://doi.org/10.1186/1747-597X-5-12>
- Morrell, M. N., Reed, D. D., & Martinetti, M. P. (2021). The behavioral economics of the bottomless cup: The effects of alcohol cup price on consumption in college students. *Experimental and Clinical Psychopharmacology*, 29(1), 36.
- Morrison, C. N., Byrnes, H. F., Miller, B. A., Wiehe, S. E., Ponicki, W. R., & Wiebe, D. J. (2019). Exposure to alcohol outlets, alcohol access, and alcohol consumption among adolescents. *Drug and Alcohol Dependence*, 107622.
- Mosher, J. F., Adler, S. S., Pamukcu, A. M., & Treffers, R. D. (2017). Review of state laws restricting local authority to impose alcohol taxes in the United States. *Journal of Studies on Alcohol and Drugs*, 78(2), 241–248.
- Mosher, J., Boertzel, G. S., Clune, K. P., Clune, J. R., Cohen, H. M., Cohen, M. L., . . . Weinstein, S. S. (2011). *Liquor Liability Law*. Newark, NJ: LexisNexis.
- Mosher, J. F., Cohen, E. N., & Jernigan, D. H. (2013). Commercial host (dram shop) liability: Current status and trends. *American Journal of Preventive Medicine*, 45, 347–353.
- Mosher, J. F., Toomey, T. L., Good, C., Harwood, E., & Wagenaar, A. C. (2002). State laws mandating or promoting training programs for alcohol servers and establishment managers: An assessment of statutory and administrative procedures. *Journal of Public Health Policy*, 23, 90–113. <https://doi.org/10.2307/3343120>
- Mullahy, J., Sindelar, J. L. (1994). Do drinkers know when to say when? An empirical analysis of drunk driving. *Econ Inq*, 32(3), 383–394.
- Nagin, D. (2013). Deterrence in the twenty-first century. *Crime and Justice*, 42(1), 199–263. Available from: <https://doi.org/10.1086/670398>
- Naimi, T. S., Blanchette, J. G., Xuan, Z., & Chaloupka, F. J. (2018). Erosion of state alcohol excise taxes in the United States. *Journal of Studies on Alcohol and Drugs*, 79(1), 43–48.
- Naimi, T. S., Siegel, M., DeJong, W., O’Doherty, C., & Jernigan, D. (2015). Beverage- and brand-specific binge alcohol consumption among underage youth, *U.S. Journal of Substance Use*, 20(5), 333–339. <https://doi.org/10.3109/14659891.2014.920054>
- National Academies of Sciences, Engineering, and Medicine. (2019). *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25201>
- National Highway Traffic Safety Administration. (2005). *Research report: Preventing over-consumption of alcohol—sales to the intoxicated and “happy hour” (drink special) laws*. Springfield, VA: National Technical Information Service, DOT HS 809 878.
- National Institute on Drug Abuse (NIDA). (2003). *Preventing Drug Use Among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition*. Retrieved on July 7, 2021 from <https://files.eric.ed.gov/fulltext/ED521530.pdf>.
- National Research Council (US) and Institute of Medicine (US) Committee on Developing a Strategy to Reduce and Prevent Underage Drinking. (2004). *Reducing Underage Drinking: A Collective Responsibility* (R. J. Bonnie & M. E. O’Connell, Eds.). National Academies Press (US). <http://www.ncbi.nlm.nih.gov/books/NBK37589/>
- National Research Council and Institute of Medicine. (2009). *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*. Washington, DC: The National Academies Press. Available from: <https://doi.org/10.17226/12480>.
- National Research Council and Institute of Medicine (2004). *Reducing Underage Drinking: A*

- Collective Responsibility*. Committee on Developing a Strategy to Reduce and Prevent Underage Drinking, Richard J. Bonnie and Mary Ellen O'Connell, Editors. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Naudé, G. P., Foster, R. N. S., Bartley, M., Martinetti, M. P., Ayers, L. O., & Reed, D. D. (2020). Predicting adverse consequences of alcohol consumption in underage college students using a novel Fake ID Purchase Task. *Experimental and clinical psychopharmacology*, 28(6), 669.
- Negussie, Y., Geller, A., Teutsch, S. M., & National Academies of Sciences, Engineering, and Medicine. (2018). Interventions to reduce drinking to impairment. *Getting to Zero Alcohol-Impaired Driving Fatalities: A Comprehensive Approach to a Persistent Problem*. National Academies Press (US), 2018.
- Nelson, D. E., Naimi, T. S., Brewer, R. D., & Nelson, H. A. (2009). State alcohol-use estimates among youth and adults, 1993–2005. *American Journal of Preventive Medicine*, 36(3), 218–224. Available from: <https://doi.org/10.1016/j.amepre.2008.10.018>
- Nelson, T. F., Naimi, T. S., Brewer, R. D., & Wechsler, H. (2005). The state sets the rate: The relationship among state-specific college binge drinking, state binge drinking rates, and selected state alcohol control policies. *American Journal of Public Health*, 95, 441–446. doi: 10.2105/ajph.2004.043810
- Nesson, Erik, & Vinish Shrestha. *The Effects of False Identification Laws with a Scanner Provision on Underage Alcohol-Related Traffic Fatalities*. No. 2016-17. 2020.
- Ng, E., & de Colombani, P. (2015). Framework for Selecting Best Practices in Public Health: A Systematic Literature Review. *Journal of Public Health Research*, 4(577), 157–170. doi: 10.4081/jphr.2015.577.
- Nguyen, N., Walters, S. T., Rinker, D. V., Wyatt, T. M., & DeJong, W. (2011). Fake ID ownership in a U.S. sample of incoming first-year college students. *Addictive Behaviors*, 36(7), 759–761. <https://doi.org/10.1016/j.addbeh.2011.01.035>
- Nissen, B.L., & Curry-Stevens, A. (2012). Evolving on purpose: Results of a qualitative study to explore how public youth system reform advocates apply anti-oppressive practice frameworks in a collaborative training and action process. *Action Research*, 10(4), 406–443
- Norberg, K. E., Bierut, L. J., & Grucza, R. A. (2009). Long-term effects of minimum drinking age laws on past-year alcohol and drug use disorders. *Alcoholism, Clinical and Experimental Research*, 33(12), 2180–2190. <https://doi.org/10.1111/j.1530-0277.2009.01056.x>
- Pacific Institute for Research and Evaluation. (2007). *Reducing alcohol sales to underage purchasers: A practical guide to compliance investigations*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Pape, H., Rossow, I., & Brunborg, G. S. (2018). Adolescents drink less: How, who and why? A review of the recent research literature. *Drug and Alcohol Review*, 37 Suppl 1, S98–S114. <https://doi.org/10.1111/dar.12695>
- Paschall, M. J., Friese, B., Law, K., & Lebedeff, A. (2018). Increasing parents' awareness of social host laws: A pilot study of coalition efforts. *The Journal of Primary Prevention*, 39(1), 71–77.
- Paschall, M. J., Grube, J. W., Black, C., Flewelling, R. L., Ringwalt, C. L., & Biglan, A. (2007). Alcohol outlet characteristics and alcohol sales to youth: Results of alcohol purchase surveys in 45 Oregon communities. *Prevention Science*, 8(2), 153–159.

- Paschall, M. J., Grube, J. W., Black, C., & Ringwalt, C. L. (2007). Is commercial alcohol availability related to adolescent alcohol sources and alcohol use? Findings from a multi-level study. *Journal of Adolescent Health, 41*(2), 168–174.
- Paschall, M. J., Lipperman-Kreda, S., Grube, J. W., & Thomas, S. (2014). Relationships between social host laws and underage drinking: Findings from a study of 50 California cities. *Journal of Studies on Alcohol and Drugs, 75*(6), 901–907.
- Patrick, M. E., Terry-McElrath, Y. M., Lanza, S. T., Jager, J., Schulenberg, J. E., & O'Malley, P. M. (2019). Shifting age of peak binge drinking prevalence: Historical changes in normative trajectories among young adults aged 18 to 30. *Alcoholism, Clinical and Experimental Research, 43*(2), 287–298. <https://doi.org/10.1111/acer.13933>
- Peck, R. C., Gebers, M. A., Voas, R. B., & Romano, E. (2008). The relationship between blood alcohol concentration (BAC), age, and crash risk. *Journal of Safety Research, 39*(3), 311–319. <https://doi.org/10.1016/j.jsr.2008.02.030>
- Persaud, R. (2020). Addressing the “tomorrow arguments” unanswered by Tennessee wine: The future for virtual retailers in the marketplace for wines and spirits. *Tenn. JL & Pol'y, 15*, 317.
- Plunk, A. D., Cavazaos-Rehg, P., Bierut, L. J., & Grucza, R. A. (2013). The persistent effects of minimum legal drinking age laws on drinking patterns later in life. *Alcoholism: Clinical and Experimental Research, 37*(3), 463–469. <https://doi.org/10.1111/j.1530-0277.2012.01945.x>
- Plunk, A. D., Krauss, M. J., Syed-Mohammed, H., Hur, M., Cavzos-Rehg, P. A., Bierut, L. J., & Grucza, R. A. (2016). The impact of the minimum legal drinking age on alcohol related chronic disease mortality. *Alcoholism, Clinical and Experimental Research, 40*(8), 1761–1768. <https://doi.org/10.1111/acer.13123>
- Ponicki, W. R., Gruenewald, P. J., & LaScala, E. A. (2007). Joint impacts of minimum legal drinking age and beer taxes on US youth traffic fatalities, 1975 to 2001. *Alcoholism, Clinical and Experimental Research, 31*(5), 804–813. <https://doi.org/10.1111/j.1530-0277.2007.00363.x>
- Prabhughate, P., Srinivasan, S., Ranga, V., Fritz, K., & Gafos, M. (2020). Normalizing alcohol consumption among youth: Role of peers, media, and access to alcohol in Mumbai. *Health Education and Public Health, 3*(1).
- Preusser, D. F., & Williams, A. F. (1992). Sales of alcohol to underage purchasers in three New York counties and Washington, D.C. *Journal of Public Health Policy, 13*(3), 306–317.
- Preusser, D. F., Williams, A. F., & Weinstein, H. B. (1994). Policing underage sales. *Journal of Safety Research, 25*, 127–133.
- Puac-Polanco, V., Keyes, K. M., Mauro, P. M., & Branas, C. C. (2020) A systematic review of drink specials, drink special laws, and alcohol-related outcomes. *Current Epidemiology Reports, 1*–15.
- Rammohan, V., Hahn, R. A., Elder, R., Brewer, R., Fielding, J., Naimi, T. S., Toomey, T. L., Chattopadhyay, S. K., Zometa, C., & Task Force on Community Preventive Services (2011). Effects of dram shop liability and enhanced overservice law enforcement initiatives on excessive alcohol consumption and related harms: Two community guide systematic reviews. *American Journal of Preventive Medicine, 41*(3), 334–343. <https://doi.org/10.1016/j.amepre.2011.06.027>
- Reboussin, B. A., Song, E. Y., & Wolfson, M. (2011). The impact of alcohol outlet density on the geographic clustering of underage drinking behaviors within census tracts. *Alcoholism: Clinical and Experimental Research, 35*(8), 1541–1549.

- Ringwalt, C. L., & Paschall, M. J. (2011). The utility of keg registration laws: A cross-sectional study. *Journal of Adolescent Health, 48*(1), 106–108.
- Romano, E., Fell, J. C., Li, K., Simons-Morton, B. G., & Vaca, F. E. (2021). Alcohol-and speeding-related fatal crashes among novice drivers age 18–20 not fully licensed at the time of the crash. *Drug and Alcohol Dependence, 218*, 108417.
- Romano, E., Scherer, M., Fell, J., & Taylor, E. (2015). A comprehensive examination of U.S. laws enacted to reduce alcohol-related crashes among underage drivers. *Journal of Safety Research, 55*, 213–221. <https://doi.org/10.1016/j.jsr.2015.08.001>
- Roodbeen, R. T., Kruize, A., Bieleman, B., Friele, R., Mheen, D. V. D., & Schelleman-Offermans, K. (2020). The right time and place: a new approach for prioritizing alcohol enforcement and prevention efforts by combining the prevalence and the success rate for minors purchasing alcohol themselves. *Journal of Studies on Alcohol and Drugs, 81*(6), 719–724.
- Ross, H. L. (1992). *Confronting drunk driving: Social policy for saving lives*. Binghamton, NY: Vail-Ballou Press.
- Rosshem, M. E., Stephenson, C. J., Thombs, D. L., Livingston, M. D., Walters, S. T., Suzuki, S., Barry, A. E., & Weiler, R. M. (2017). Characteristics of drinking events associated with heavy episodic drinking among adolescents in the United States. *Drug and Alcohol Dependence, 181*, 50–57. <https://doi.org/10.1016/j.drugalcdep.2017.09.018>
- Rosshem, M. E., Thombs, D. L., & Treffers, R. D. (2018). High-alcohol-content flavored alcoholic beverages (supersized alcopops) should be reclassified to reduce public health hazard. *The American Journal of Drug and Alcohol Abuse, 44*(4), 413–417. <https://doi.org/10.1080/00952990.2018.1460375>
- Roudsari, B., & Ramisetty-Mikler, S. (2008). Exceptions to the “National Minimum Drinking Age Act” and underage drunk driver death in the U.S.: A state-level comparison. *Annals of Epidemiology, 18*(9), 714.
- Rutledge, P., Lenk, K., Jones-Webb, R., Nelson, T. F., Toomey, T. L., & Erickson, D. J. (2013, November). *Development of comprehensive measures of alcohol-policy enforcement*. Presentation at the 141st American Public Health Association Annual Meeting and Exposition, Boston, MA.
- Sacks, J. J., Brewer, R. D., Mesnick, J., Holt, J. B., Zhang, X., Kanny, D., Elder, R., & Gruenewald, P. J. (2020). Practice full report: Measuring alcohol outlet density: An overview of strategies for public health practitioners. *Journal of Public Health Management and Practice, 26*(5), 481. <https://doi.org/10.1097/PHH.0000000000001023>
- Sacks, J. J., Gonzales, K. R., Bouchery, E. E., Tomedi, L. E., & Brewer, R. D. (2015). 2010 national and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine, 49*(5), e73–79.
- Saltz, R. F. (1987). The roles of bars and restaurants in preventing alcohol impaired driving: An evaluation of server intervention. *Evaluation & the Health Professions, 10*, 5–27.
- Scherer, M., Fell, J. C., Thomas, S., & Voas, R. B. (2015). Effects of dram shop, responsible beverage service training, and state alcohol control laws on underage drinking driver fatal crash ratios. *Traffic Injury Prevention, 16*(Suppl. 2), S59–S65.
- Scherer, M., Romano, E., Caldwell, S., & Taylor, E. (2018). The impact of retail beverage service training and social host laws on adolescents’ DUI rates in San Diego County, California. *Traffic Injury Prevention, 19*(2), 111–117. <https://doi.org/10.1080/15389588.2017.1350268>

- Scott-Sheldon, L. A. J., Carey, K. B., Elliott, J. C., Garey, L., & Carey, M. P. (2014). Efficacy of alcohol interventions for first-year college students: a meta-analytic review of randomized controlled trials. *Journal of Consulting and Clinical Psychology, 82*(2), 177–188. <https://doi.org/10.1037/a0035192>
- Scribner, R., & Cohen, D. (2001). Effect of enforcement on merchant compliance with the minimum legal drinking age law. *Journal of Drug Issues, 31*, 857–866.
- Scribner, R., Mason, K., Theall, K., Simonsen, N., Schneider, S. K., Towvim, L. G., & DeJong, W. (2007). The contextual role of alcohol outlet density in college drinking. *Journal of Studies on Alcohol and Drugs, 69*(1), 112–120.
- Scribner, R. A., Mason, K. E., Simonsen, N. R., Theall, K., Chotalia, J., Johnson, S., Schneider, S. K., & DeJong, W. (2010). An ecological analysis of alcohol-outlet density and campus-reported violence at 32 U.S. colleges. *Journal of Studies on Alcohol and Drugs, 71*(2), 184–191. <https://doi.org/10.15288/jsad.2010.71.184>.
- Shang, C., Wang, X., & Chaloupka, F. J. (2018). The association between excise tax structures and the price variability of alcoholic beverages in the United States. *PloS One, 13*(12), e0208509.
- Sharmin, S., Kypri, K., Khanam, M., Wadolowski, M., Bruno, R., Attia, J., Holliday, E., Palazzi, K., & Mattick, R. P. (2017). Effects of parental alcohol rules on risky drinking and related problems in adolescence: Systematic review and meta-analysis. *Drug and Alcohol Dependence, 178*, 243–256. <https://doi.org/10.1016/j.drugalcdep.2017.05.011>
- Shope, J. T. (2007). Graduated driver licensing: Review of evaluation results since 2002. *Journal of Safety Research, 38*(2), 165–175. <https://doi.org/10.1016/j.jsr.2007.02.004>
- Shope, J. T., Zakrajsek, J. S., Finch, S., Bingham, C. R., Neil, J. O., Yano, S., Wasserman, R., & Simons-Morton, B. (2016). Translation to primary care of an effective teen safe driving program for parents. *Clinical Pediatrics, 55*(11), 1026–1035. <https://doi.org/10.1177/0009922816665086>
- Shrestha, V. (2015). Estimating the price elasticity of demand for different levels of alcohol consumption among young adults. *American Journal of Health Economics, 1*(2), 224–254. https://econpapers.repec.org/article/tpramjhec/v_3a1_3ay_3a2015_3ai_3a2_3ap_3a224-254.htm
- Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., Zaza, S., Sosin, D. M., & Thompson, R. S. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine, 21*(4, Supplement 1), 66–88. [https://doi.org/10.1016/S0749-3797\(01\)00381-6](https://doi.org/10.1016/S0749-3797(01)00381-6)
- Shults R. A., Williams, A. F. (2016). Graduated driver licensing night driving restrictions and drivers aged 16 or 17 years involved in fatal night crashes—United States, 2009–2014. *MMWR Morb Mortal Wkly Rep, 65*, 725–730. DOI: <http://dx.doi.org/10.15585/mmwr.mm6529a1>
- Siegel, M., DeJong, W., Naimi, T. S., Fortunato, E. K., Albers, A. B., Heeren, T., Rosenbloom, D. L., Ross, C., Ostroff, J., Rodkin, S., King, C., Borzekowski, D. L. G., Rimal, R. N., Padon, A. A., Eck, R. H., & Jernigan, D. H. (2013). Brand-specific consumption of alcohol among underage youth in the United States. *Alcoholism, Clinical and Experimental Research, 37*(7), 1195–1203. <https://doi.org/10.1111/acer.12084>
- Silver, D., Macinko, J., Giorgio, M., & Bae, J. Y. (2019). Evaluating the relationship between binge drinking rates and a replicable measure of U.S. state alcohol policy environments. *PloS One, 14*(6), e0218718. <https://doi.org/10.1371/journal.pone.0218718>

- Smart, M. J., Yearwood, S. S., Hwang, S., Thorpe, R. J. Jr., & Furr-Holden, C. D. (2017). Impact of alcohol tax increase on Maryland college students' alcohol-related outcomes, substance use & misuse.
- Smith, D. T., Kelly, A. B., Chan, G. C. K., Toumbourou, J. W., Patton, G. C., & Williams, J. W. (2014). Beyond the primary influences of parents and peers on very young adolescent alcohol use: Evidence of independent community associations. *The Journal of Early Adolescence*, 34(5), 569–584. <https://doi.org/10.1177/0272431613498647>
- Snowden, A. J., & Pridemore, W. A. (2013). Alcohol outlets, social disorganization, land use, and violence in a large college town: Direct and moderating effects. *Criminal Justice Review*, 38(1), 29–49.
- Sohoni, T., Stringer, R., & Piatkowska, S. (2020). Suspended licenses, suspended lives: the impact of drug-related driver's license suspensions on traffic fatalities. *Journal of Crime and Justice*, 43(3), 307–322.
- Son, C. H., & Topyan, K. (2011). The effect of alcoholic beverage excise tax on alcohol-attributable injury mortalities. *European Journal of Health Economics*, 12(2), 103–113.
- Stout, E., Sloan, A., Liang, L., & Davies, H. (2000). Reducing harmful alcohol-related behaviors: Effective regulatory methods. *Journal of Studies on Alcohol and Drugs*, 61, 402–412.
- Sturke, R., Harmstone, C., Simones, R. J., Mofenson, L. M., Silberry, G. K., Watts, D. H., McIntyre, J., Anand, N., Guay, L., Castor, D., Brouwers, P., & Nagel, J. (2014). A multi-disciplinary approach to implementation science: The NIH-PEPFAR PMTCT Implementation Science Alliance. *Journal of Acquired Immune Deficiency Syndromes*, 67, S163–S167. doi: 10.1097/QAI.0000000000000323
- Subbaraman, M. S., Mulia, N., Kerr, W. C., Patterson, D., Karriker-Jaffe, K. J., & Greenfield, T. K. (2020). Relationships between U.S. state alcohol policies and alcohol outcomes: differences by gender and race/ethnicity. *Addiction*, 115(7), 1285–1294.
- Subbaraman, M. S., Mulia, N., Karriker-Jaffe, K. J., & Kerr, W. C. (2020). Differential effects of beverage-specific taxes on alcohol-related harms across demographic subgroups. In *APHA's 2020 VIRTUAL Annual Meeting and Expo (Oct. 24-28)*. American Public Health Association.
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). *Recovery-Oriented Systems of Care (ROSC) Resource Guide—Working Draft*. Retrieved on July 7, 2021, from the Substance Abuse and Mental Health Services Administration's website. [Recovery-Oriented Systems of Care \(ROSC\) Resource Guide, September 2010 \(samhsa.gov\)](https://www.samhsa.gov/rosc)
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). *Prevention of Substance Abuse and Mental Illness*. Available from: <https://www.samhsa.gov/prevention>.
- Tael-Öeren, M., Naughton, F., & Sutton, S. (2019). The relationship between parental attitudes and children's alcohol use: A systematic review and meta-analysis. *Addiction (Abingdon, England)*, 114(9), 1527–1546. <https://doi.org/10.1111/add.14615>
- Tanumihardjo, J., Shoff, S. M., Koenings, M., Zhang, Z., & Lai, H. J. (2015). Association between alcohol use among college students and alcohol outlet proximities and densities. *Wisconsin Medical Society*, 114(4), 143–147.
- Task Force on Community Preventive Services. (2009). Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density. *American Journal of Preventive Medicine*, 6, 570–571.

- Tefft, B. C., Williams, A. F., & Grabowski, J. G. (2014). Driver licensing and reasons for delaying licensure among young adults ages 18-20, United States, 2012. *Injury Epidemiology*, 1(1), 4. <https://doi.org/10.1186/2197-1714-1-4>
- Tessler, R. A., Mooney, S. J., Quistberg, D. A., Rowhani-Rahbar, A., Vavilala, M. S. & Rivara, F. P. (2019). State-level beer excise tax and firearm homicide in adolescents and young adults. *American Journal of Preventive Medicine*, 56(5), 708–715.
- Thombs, D. L., O'Mara, R., Dodd, V. J., Hou, W., Merves, M. L., Weiler, R. M., Pokorny, S. B., Goldberger, B. A., Reingle, J., & Werch, C. C. E. (2009). A field study of bar-sponsored drink specials and their associations with patron intoxication. *Journal of Studies on Alcohol and Drugs*, 70(2), 206–214. <https://doi.org/10.15288/jsad.2009.70.206>
- Thrul, J., Lipperman-Kreda, S. & Grube, J. W. (2018). Do associations between drinking event characteristics and underage drinking differ by drinking location? *Journal of Studies on Alcohol and Drugs*, 79(3), 417–422.
- Toomey, T. L., Erickson, D. J., Lenk, K. M., Kilian, G. R., Perry, C. L., & Wagenaar, A. C. (2008). A randomized trial to evaluate a management training program to prevent illegal alcohol sales. *Addiction*, 103(3), 405–413.
- Toomey, T. L., & Lenk, K. M. (2011). A review of environmental-based community interventions. *Alcohol Research & Health*, 34(2), 163–166. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860574/>
- Tutenges, S., & Böhling, F. (2019). Designing drunkenness: How pubs, bars and nightclubs increase alcohol sales. *International Journal of Drug Policy*, 70, 15–21.
- Ulmer, R. G., Ferguson, S. A., Williams, A. F., & Preusser, D. F. (2001). Teenage crash reduction associated with delayed licensure in Connecticut. *Journal of Safety Research*, 32(1), 31–41.
- United States Prevention Task Force (2018). Unhealthy alcohol use in adolescents and adults: Screening and behavioral counseling interventions. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/unhealthy-alcohol-use-in-adolescents-and-adults-screening-and-behavioral-counseling-interventions#bootstrap-panel--12>
- Unni, P., Estrada, C. M., Chung, D. H., Riley, E. B., Worsley-Hynd, L., & Stinson, N. (2017). A multiyear assessment of a hospital-school program to promote teen motor vehicle safety. *Journal of Trauma and Acute Care Surgery*, 83(2), 289–295. <https://doi.org/10.1097/TA.0000000000001521>
- U.S. Department of Health and Human Services. (2007). *Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: Office of the Surgeon General. <http://www.ncbi.nlm.nih.gov/books/NBK44360/>
- U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC: U.S. Department of Health and Human Services.
- Vaca, F. E., Li, K., Luk, J. W., Hingson, R. W., Haynie, D. L., & Simons-Morton, B. G. (2020). Longitudinal associations of 12th-grade binge drinking with risky driving and high-risk drinking. *Pediatrics*, 145(2). <https://doi.org/10.1542/peds.2018-4095>
- van Hoof, J. J., & Gosselt, J. F. (2013). Underage alcohol sales—it only takes a minute: A new approach to underage alcohol availability. *Journal of Studies on Alcohol and Drugs*, 74(3), 423–427. <https://doi.org/10.15288/jsad.2013.74.423>

- Vashishtha, R., Livingston, M., Pennay, A., Dietze, P., MacLean, S., Holmes, J., Herring, R., Caluzzi, G., & Lubman, D. I. (2020). Why is adolescent drinking declining? A systematic review and narrative synthesis. *Addiction Research & Theory, 28*(4), 275–288. <https://doi.org/10.1080/16066359.2019.1663831>
- Vidourek, R. A., King, K. A., & Merianos, A. L. (2018). Where do adolescent recent drinkers obtain and use alcohol? *Journal of Substance Use, 23*(2), 136–143. <https://doi.org/10.1080/14659891.2017.1378734>
- Voas, R. B. (2020). 16 vehicle safety features aimed at preventing alcohol-related crashes. *Alcohol, Drugs, and Impaired Driving: Forensic Science and Law Enforcement Issues*.
- Voas, R. B., Lange, J. E., & Tippetts, A. S. (1998). Enforcement of the zero tolerance law in California: A missed opportunity? 42nd Annual Proceedings: Association for the Advancement of Automotive Medicine, 369–383.
- Voas, R. B., Tippetts, A. S., & Fell, J. (2003). Assessing the effectiveness of minimum legal drinking age and zero tolerance laws in the United States. *Accident Analysis and Prevention, 35*(4), 579–587.
- Volkow, N. D., Han, B., Einstein, E. B., & Compton, W. M. (2021). Prevalence of substance use disorders by time since first substance use among young people in the US. *JAMA Pediatrics, 175*(6), 640–643.
- Wada, R., Chaloupka, F. J., Powell, L. M., & Jernigan, D. H. (2017). Employment impacts of alcohol taxes. *Preventive Medicine, 105*, S50–S55. <https://doi.org/10.1016/j.ypmed.2017.08.013>
- Wagenaar, A., Gehan, J. P., Jones-Webb, R., Toomey, T. L., & Forster, J. L. (1999). Communities mobilizing for change on alcohol: Outcomes from a randomized community trial. *Journal of Community Psychology, 27*, 315–326.
- Wagenaar, A. C., Harwood, E. M., Silianoff, C., & Toomey, T. L. (2005). Measuring public policy: The case of beer keg registration laws. *Evaluation and Program Planning, 28*(4), 359–367.
- Wagenaar, A. C., & Holder, H. D. (1991). Effects of alcoholic beverage server liability on traffic crash injuries. *Alcoholism: Clinical and Experimental Research, 15*(6), 942–947.
- Wagenaar, A. C., Livingston, M. D., & Staras, S. S. (2015). Effects of a 2009 Illinois alcohol tax increase on fatal motor vehicle crashes. *American Journal of Public Health, 105*(9), 1880–1885.
- Wagenaar, A. C., Lenk, K. M., & Toomey, T. L. (2005). Policies to reduce underage drinking. A review of the recent literature. *Recent Developments in Alcoholism: An Official Publication of the American Medical Society on Alcoholism, the Research Society on Alcoholism, and the National Council on Alcoholism, 17*, 275–297.
- Wagenaar, A. C., Salois, M. J., & Komro, K. (2009). Effects of beverage alcohol price and tax levels on drinking: A meta-analysis of 1003 estimates from 112 studies. *Addiction, 104*, 179–190.
- Wagenaar, A., Tobler, A., & Komro, K. (2010). Effects of alcohol tax and price policies on morbidity and mortality: A systematic review. *American Journal of Public Health, 100*, 2270–2278.
- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Complying with the minimum drinking age: Effects of enforcement and training interventions. *Alcoholism: Clinical and Experimental Research, 29*(2), 255–262.

- Wagenaar, A. C., Toomey, T. L., & Erickson, D. J. (2005). Preventing youth access to alcohol: Outcomes from a multi-community time-series trial. *Addiction, 100*, 335–345.
- Wagenaar, A. C., & Wolfson, M. (1995). Deterring sales and provision of alcohol to minors: A study of enforcement in 295 counties in four states. *Public Health Report, 110*, 419–427.
- Wagoner, K. G., Sparks, M., Francisco, V. T., Wyrick, D., Nichols, T., & Wolfson, M. (2013). Social host policies and underage drinking parties. *Substance Use & Misuse, 48*(1–2), 41–53. <https://doi.org/10.3109/10826084.2012.722158>
- Ward, L. M., & Snow, P. C. (2011). Factors affecting parental supply of alcohol to underage adolescents. *Drug and Alcohol Review, 30*(4), 338–343.
- Wechsler, H., Lee, J. E., Hall, A., Wagenaar, A., & Lee, H. (2002). Secondhand effects of student alcohol use reported by neighbors of colleges: The role of alcohol outlets. *Social Science & Medicine, 55*, 425–435.
- Wechsler, H., Lee, J. E., Nelson, T. F., & Lee, H. (2003). Drinking and driving among college students: The influence of alcohol-control policies. *American Journal of Preventive Medicine, 25*(3), 212–218. [https://doi.org/10.1016/S0749-3797\(03\)00199-5](https://doi.org/10.1016/S0749-3797(03)00199-5)
- Welsh, J. W., Knight, J. R., & Hadland, S. E. (2017). Adolescent frequent heavy drinking from 1991–2015. *Pediatrics, 139*(6), e20170932. <https://doi.org/10.1542/peds.2017-0932>
- Weitzman, E. R., Folkman, A., Folkman, M. P., & Wechsler, H. (2003). The relationship of alcohol outlet density to heavy and frequent drinking and drinking-related problems among college students at eight universities. *Health & Place, 9*(1), 1–6.
- White, A. M., Kraus, C. L., Flom, J. D., Kestenbaum, L. A., Mitchell, J. R., Shah, K., & Swartzwelder, H. S. (2005). College students lack knowledge of standard drink volumes: Implications for definitions of risky drinking based on survey data. *Alcoholism: Clinical and Experimental Research, 29*, 631–638.
- Williams, A. F., McCart, A. T., & Sims, L. B. (2016). History and current status of state graduated driver licensing (GDL) laws in the United States. *Journal of Safety Research, 56*, 9–15.
- Williams, R. D., Housman, J. M., Woolsey, C. L., & Sather, T. E. (2018). High-risk driving behaviors among 12th grade students: Differences between alcohol-only and alcohol mixed with energy drink users. *Substance Use & Misuse, 53*(1), 137–142. <https://doi.org/10.1080/10826084.2017.1327973>
- Williams, R. S., & Ribisl, K. M. (2012). Internet alcohol sales to minors. *Archives of Pediatrics & Adolescent Medicine, 166*(9), 808–813. <https://doi.org/10.1001/archpediatrics.2012.265>
- Williams, R. S., & Schmidt, A. (2014). The sales and marketing practices of English-language Internet alcohol vendors. *Addiction, 109*(3): 432–439.
- Wilson, J., Ogeil, R. P., Lam, T., Lenton, S., Lloyd, B., Burns, L., Aiken, A., Gilmore, W., Chikritzhs, T., Mattick, R., Lubman, D. I., & Allsop, S. (2018). Re-thinking pre-drinking: Implications from a sample of teenagers who drink in private settings. *International Journal of Drug Policy, 52*, 20–24.
- Wilson, M. N., Langille, D. B., Ogilvie, R., & Asbridge, M. (2018). When parents supply alcohol to their children: Exploring associations with drinking frequency, alcohol-related harms, and the role of parental monitoring. *Drug and Alcohol Dependence, 183*, 141–149. <https://doi.org/10.1016/j.drugalcdep.2017.10.037>
- Winters, K. C., Botzet, A. M., Stinchfield, R., Gonzales-Castaneda, R., Finch, A. J., Piehler, T. F., Ausherbauer, K., Chalmers, K., & Hemze, A. (2018). Adolescent Substance Abuse

- Treatment: A Review of Evidence-Based Research. In C. G. Leukefeld & T. P. Gullotta (Eds.), *Adolescent Substance Abuse* (pp. 141–171). Springer International Publishing.
- Wolfson, M., Wagenaar, A. C., & Hornseth, G. W. (1995). Law officers' views on enforcement of the minimum drinking age: a four-state study. *Public Health Reports*, *110*(4), 428–438. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1382152/>
- Wolfson, M., Wagoner, K. G., Rhodes, S. D., Egan, K. L., Sparks, M., Ellerbee, D., Song, E. Y., Debinski, B., Terrillion, A., Vining, J., & Yang, E. (2017). Coproduction of research questions and research evidence in public health: The study to prevent teen drinking parties. *BioMed Research International*, 3639596. <https://doi.org/10.1155/2017/3639596>
- Woodall W. G., Starling R, Saltz R. F., Buller D. B., & Stanghetta P. (2018). Results of a randomized trial of web-based retail onsite responsible beverage service training: WayToServe. *Journal of Studies on Alcohol and Drugs*, *79*(5), 672–679.
- Xuan, Z., Blanchette, J. G., Nelson, T. F., Nguyen, T. H., Hadland, S. E., Oussayef, N. L., Heeren, T. C., & Naimi, T. S. (2015). Youth drinking in the United States: Relationships with alcohol policies and adult drinking. *Pediatrics*, *136*(1), 18–27. <https://doi.org/10.1542/peds.2015-0537>
- Xuan, Z., Chaloupka, F. J., Blanchette, J., Nguyen, T., Heeren, T., Nelson, T. F., & Naimi, T. S. (2014). The relationship between alcohol taxes and binge drinking: Evaluating new tax measures incorporating multiple tax and beverage types. *Addiction*, *110*(3), 441–450. <https://doi.org/10.1111/add.12818>
- Xuan, Z., Nelson, T. F., Heeren, T., Blanchette, J., Nelson, D. E., Gruenewald, P., & Naimi, T. S. (2013). Tax policy, adult binge drinking, and youth alcohol consumption in the United States. *Alcoholism: Clinical and Experimental Research*, *37*(10), 1713–1719. <https://doi.org/10.1111/acer.12152>
- Yellman, M. A., Bryan, L., Sauber-Schatz, E. K., & Brener, N. (2020). Transportation risk behaviors among high school students—Youth risk behavior survey, United States, 2019. *MMWR Supplements*, *69*(1), 77.
- Yörük, B. K. (2014). Can technology help to reduce underage drinking? Evidence from the false ID laws with scanner provision. *Journal of Health Economics*, *36*, 33–46. <https://doi.org/10.1016/j.jhealeco.2014.03.004>
- Yörük, B. K. (2018). The impact of the false ID laws on alcohol consumption among young adults: New results from the NLSY97. *Journal of Health Economics*, *57*, 191–194. <https://doi.org/10.1016/j.jhealeco.2017.11.005>
- Yörük, B. K., & Xu, L. (2021). Keg registration laws, alcohol consumption, and alcohol-related traffic fatalities among adolescents. *Journal of Studies on Alcohol and Drugs*, *82*(1), 66–75.
- Zheng, E. Y. (2018). Can technology really help to reduce underage drinking? New evidence on the effects of false ID laws with scanner provisions. *Journal of Health Economics*, *57*, 102–112. <https://doi.org/10.1016/j.jhealeco.2017.10.009>
- Zhu, M., Cummings, P., Zhao, S., Coben, J. H., & Smith, G. S. (2015). The association of graduated driver licensing with miles driven and fatal crash rates per miles driven among adolescents. *Injury Prevention*, *21*(0), e23–e27.



**THE INTERAGENCY COORDINATING COMMITTEE
ON THE PREVENTION OF UNDERAGE DRINKING (ICCPUD)**

