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Drunk Driving Deaths and Illegal Immigration

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Dangerous behavior by illegal immigrants could put Americans at risk of death or serious bodily injury and should therefore affect the allocation of immigration enforcement resources. However, illegal immigrants are much less likely than native-born Americans to be arrested or convicted for violent crimes or property crimes, such as homicide and larceny. In addition to these types of crimes, drunk driving also poses a hazard to the lives of native-born Americans. This brief examines the relationship between drunk driving deaths and the illegal immigrant share of the population at the state and city levels. Nationwide, we find no statistical relationship between higher illegal immigrant population shares and drunk driving deaths.

BACKGROUND

The danger posed by illegal immigrant drunk drivers is a frequent justification for increases in interior immigration enforcement.¹ Former Immigration and Customs Enforcement director Thomas Homan went so far as to label driving under the influence (DUI) and driving while intoxicated (DWI) offenses committed by illegal immigrants as a “public safety threat.”² Indeed, law enforcement officials and immigration authorities alike continue to claim that illegal immigrants are significant DUI and DWI offenders.³

Occasional tragic crimes, such as the 2010 DUI-related felony murder of Benedictine nun Sister Denise Mosier and the 2018 death of Indianapolis Colts linebacker Edwin Jackson, both of whom were killed in car accidents caused by illegal immigrant drunk drivers, seem to justify those warnings.⁴ Meanwhile, the Biden administration has deprioritized deportations of illegal immigrants who are convicted of DUI and DWI offenses.⁵ But neither the occasional death caused by a drunk driving illegal immigrant nor statements by law enforcement officials show that illegal immigrants significantly contribute to drunk driving deaths.

Drunk driving poses a serious hazard to Americans. In 2019, more than 10,000 people were killed in alcohol-impaired-driving accidents, meaning that drunk driving was responsible for almost 28 percent of all traffic deaths.⁶ The National Highway Traffic Safety Administration estimates that in 2019 the absolute number of alcohol-related driving deaths was highest in Texas, California, and Florida—three states with large populations, including large illegal immigrant populations.⁷ However, the absolute number of drunk driving deaths in large states that also have large illegal immigrant populations is unimportant for this analysis. What is important is that if illegal immigrants are more likely to be drunk drivers, places with larger illegal immigrant shares of the population will have more alcohol-related traffic deaths, all else being equal. On a per capita basis, the states of Montana, Wyoming, and South Carolina had the highest rate of drunk

driving deaths. Those three states have low illegal immigrant populations, equal to 0.5 percent, 1.1 percent, and 1.8 percent of their respective populations—well below the nationwide average of 3.5 percent.

There is little research on illegal immigrants and drunk driving. One of the few studies of impaired driving among illegal immigrants surveyed 467 recent Hispanic immigrants to Miami-Dade County, Florida.⁸ Of those 467 respondents, 67 were illegal immigrants. The study found that illegal immigrants drink more than legal immigrants and are less knowledgeable about DUI and DWI laws but that they are much less likely to be involved in DUIs and DWIs because they desire to avoid interactions with law enforcement officers. Another study focusing on DUI and DWI traffic stops near the U.S.-Mexico border found that binge drinking is more common along the border but that DUIs and DWIs are not more common in border counties.⁹ The most comprehensive nationwide study on the topic found that increased illegal immigration is associated with a decrease in DUI and DWI arrests and not significantly associated with drunk driving deaths.¹⁰ Lastly, Andrew Forrester and Alex Nowrasteh of the Cato Institute authored a blog post in 2019 that found no statistically significant relationship between illegal immigrant population shares at the state level and the rate of drunk driving deaths.¹¹

Lower illegal immigrant drunk driving rates are especially surprising compared to the general finding that Hispanics in the United States generally have higher rates of DUI and DWI, which is a crime usually committed by poor people with low levels of education.¹² Illegal immigrants are mostly Hispanic, and they tend to be poorer and less well educated than the other Hispanics or the population at large, so their lower likelihood of drunk driving is likely a result of greater deterrence; illegal immigrants face severe legal penalties from interactions with police officers, including deportation, that others do not.¹³

This brief extends Cato's earlier research on drunk driving deaths to see how the illegal immigrant proportion of the population in the years 2010–2019 at the state and metropolitan statistical area (MSA) levels are related to drunk driving deaths in those localities. We find no statistically significant relationship between drunk driving and the share of the population who are illegal immigrants.

METHODOLOGY

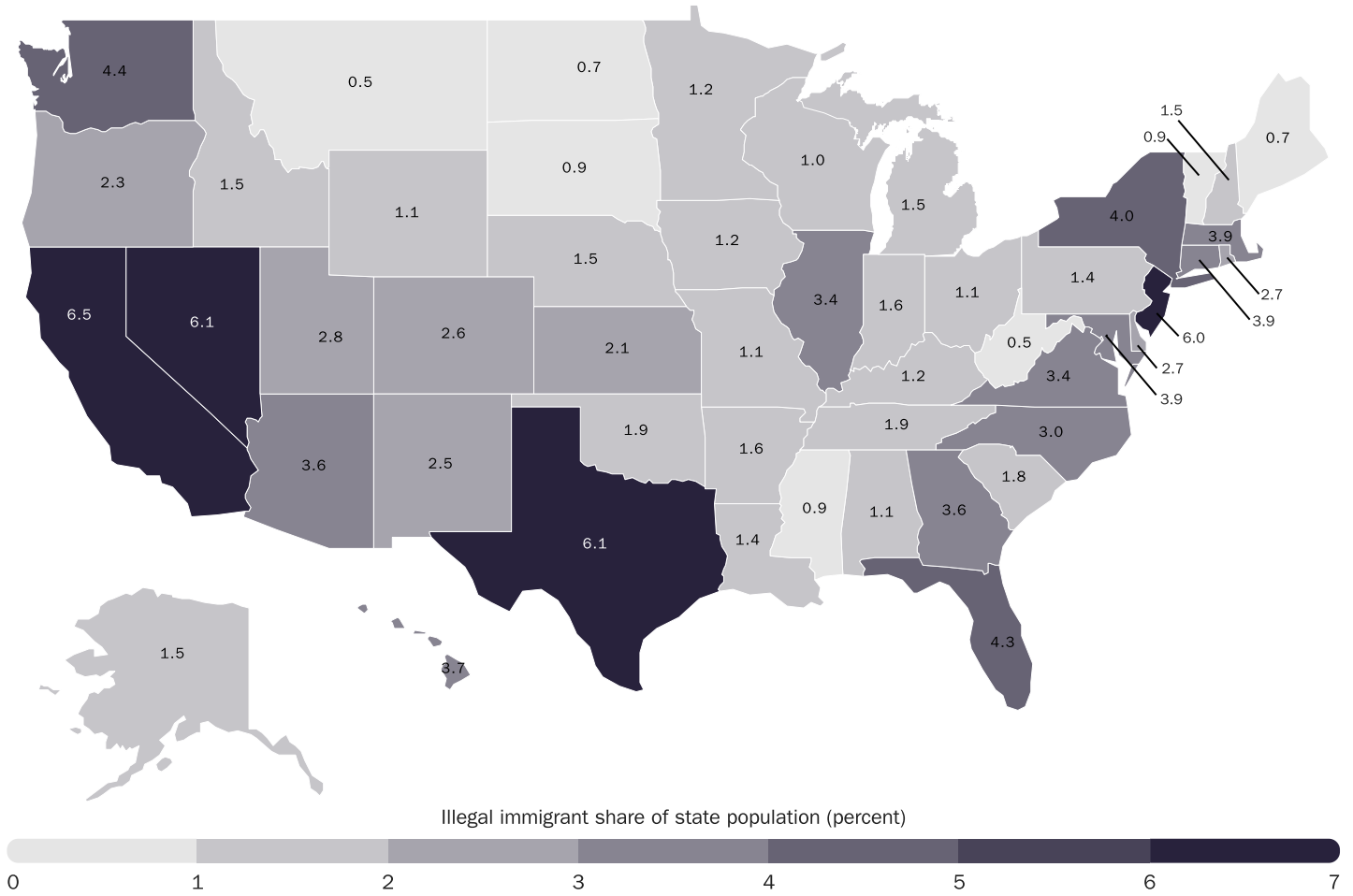
This brief uses two primary data sources. The first source is the raw annual data on traffic deaths at the county level

from the National Highway Traffic Safety Administration Fatality Analysis Reporting System (FARS) database for the 2010–2019 period.¹⁴ The FARS data provide comprehensive records on deaths in motor vehicle crashes, including details on drivers, victims, and the crash. To determine whether deaths were the result of alcohol impairment, we use data on drivers' blood alcohol concentrations and whether the police reported alcohol involvement through FARS. All 50 states and the District of Columbia passed laws setting the legal blood alcohol concentration limit at 0.08 grams per deciliter, so we adopt this same threshold for identifying traffic accidents and deaths involving alcohol.

The second data source is the American Community Survey (ACS) one-year estimates available through the Integrated Public Use Microdata Series, an individual-level population database. By employing a residual statistical method created by economist Christian Gunadi, we use these data to estimate the illegal immigrant population at the MSA and state levels.¹⁵ Gunadi imputed legal immigrant status and identified those remaining as illegal immigrants. According to Gunadi's methods, people are counted as legal immigrants if they meet any of the following criteria, as recorded in the 2019 American Community Survey: the immigrant arrived after 1980; is a U.S. citizen; received welfare benefits such as Social Security, Supplemental Security Income, Medicaid, Medicare, or military insurance; served in the Armed Forces; worked for the government; resided in public housing or received rental subsidies or was the spouse of someone who resided in public housing or received rental subsidies; was born in Cuba and had a spouse who was a legal immigrant or U.S. citizen; or had occupational licenses. We omit the occupational licensing criteria because of changes in the reporting in this variable for post-2017 census data, but this makes little difference to the final numbers at the state and MSA levels. Illegal immigrants are unevenly distributed across U.S. states (Figure 1).

As a robustness check for our illegal immigrant population estimates, we compute our MSA-level estimates of illegal immigrant population share for the top 20 metropolitan areas in 2016 and compare them to 2016 estimates of the illegal immigrant population for the same metropolitan areas from the Pew Research Center (2016 is the latest year for which the estimates are available).¹⁶ Our estimates run slightly higher than Pew's, but by less than 1–2 percentage points. Furthermore, when aggregated up to the national level, we find illegal immigrants comprise 3.7 percent of the nationwide population, with 61 percent of them residing in the top 20 metropolitan statistical areas—findings that are nearly identical to Pew's (Table 1 and Table 2).

Figure 1
Illegal immigrant share of the population, 2019



Sources: Christian Gunadi, “On the Association between Undocumented Immigration and Crime in the United States,” Oxford Economic Papers 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors’ calculations.

Table 1
Nationwide estimates of illegal immigrant population, 2010–2019

	U.S. population	Illegal immigrant population	Illegal immigrant share of U.S. population
2010	309,320,000	12,944,454	4.2%
2011	311,560,000	12,439,220	4.0%
2012	313,830,000	12,493,196	4.0%
2013	315,990,000	12,473,105	3.9%
2014	318,300,000	12,232,460	3.8%
2015	320,640,000	11,994,469	3.7%
2016	322,940,000	11,883,708	3.7%
2017	324,990,000	12,029,375	3.7%
2018	326,690,000	11,707,328	3.6%
2019	328,240,000	11,350,572	3.5%

Sources: Christian Gunadi, “On the Association between Undocumented Immigration and Crime in the United States,” Oxford Economic Papers 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors’ calculations.

Table 2

Metropolitan statistical area–level estimates of illegal immigrant population, 2019

Metropolitan statistical area	Illegal immigrant share
Atlanta, GA	5.6%
Baltimore, MD	2.5%
Chicago, IL-IN-WI	5.0%
Dallas, TX	8.0%
Detroit, MI	2.6%
Houston, TX	8.9%
Los Angeles, CA	7.8%
Miami, FL	7.0%
New York, NY-NJ-PA	6.4%
Philadelphia, PA-NJ-DE-MD	2.6%
Phoenix, AZ	4.4%
Portland, OR-WA	3.4%
Riverside-San Bernardino, CA	4.9%
Sacramento, CA	3.4%
St. Louis, MO-IL	1.4%
San Diego-Carlsbad, CA	4.8%
San Francisco, CA	7.9%
Seattle, WA	6.4%
Tampa, FL	2.9%
Washington, DC	6.0%

Sources: Christian Gunadi, “On the Association between Undocumented Immigration and Crime in the United States,” *Oxford Economic Papers* 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors’ calculations.

Nationwide, we test whether larger illegal immigrant population shares correlate with increased deaths in drunk driving accidents. We run two-way fixed effects regressions that separately regress the log total traffic and drunk driving death rate per 100,000 on the population share of illegal immigrants by state and MSA:

$$\log(\text{Drunk_Driving_Deaths})_{it} = \beta_0 + \beta_1 \text{IllegalShare}_{it} + \text{State}_i + \text{Year}_t + \varepsilon_i \quad (1)$$

$$\log(\text{Traffic_Deaths})_{it} = \beta_0 + \beta_1 \text{IllegalShare}_{it} + \text{State}_i + \text{Year}_t + \varepsilon_i \quad (2)$$

$$\log(\text{Drunk_Driving_Deaths})_{it} = \beta_0 + \beta_1 \text{IllegalShare}_{it} + \text{MSA}_i + \text{Year}_t + \varepsilon_i \quad (3)$$

$$\log(\text{Traffic_Deaths})_{it} = \beta_0 + \beta_1 \text{IllegalShare}_{it} + \text{MSA}_i + \text{Year}_t + \varepsilon_i \quad (4)$$

Geographic fixed effects account for level differences across MSAs and states, such as drinking culture, while year-fixed effects control for national trends affecting all MSAs and states, such as long-term changes in road injuries.¹⁷ Standard errors in each regression are clustered by state and MSA to account for arbitrary autocorrelation in the error term.

RESULTS AND DISCUSSION

We find no statistically significant relationship between the illegal immigrant population on the state level and drunk driving deaths (Table 3 and Figure 2). This means that states with a higher illegal immigrant share of the population did not have more drunk driving deaths during the 2010–2019 period, all else being equal. Similarly, there is no statistically significant relationship between the share of the illegal immigrant population and traffic death rate. This result is very similar to our earlier findings for the 2017–2019 period, which

Table 3

Drunk driving deaths and illegal immigrant share at the state level, 2010–2019

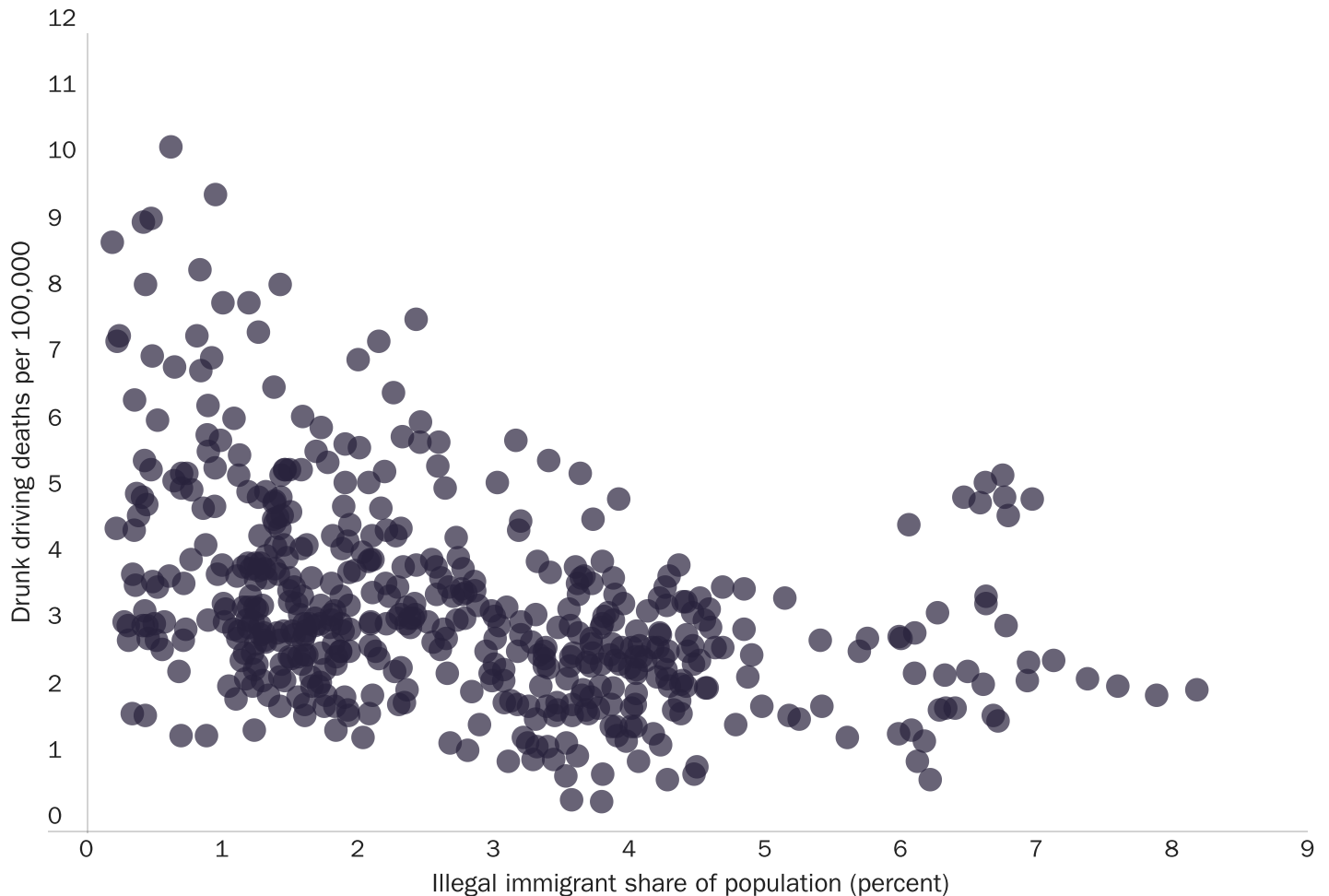
Variables	Log drunk driving deaths per 100,000 people	Log traffic accident deaths per 100,000 people
Percent illegal immigrant	-2.223	-3.353
	(4.966)	(2.739)
Constant	1.285***	2.510***
	(0.143)	(0.0747)
Observations	510	510
R-squared	0.885	0.946

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Sources: Christian Gunadi, "On the Association between Undocumented Immigration and Crime in the United States," Oxford Economic Papers 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors' calculations.

Figure 2

Drunk driving deaths and illegal immigrant share at the state level, 2010–2019

Sources: Christian Gunadi, "On the Association between Undocumented Immigration and Crime in the United States," Oxford Economic Papers 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors' calculations.

is evidence that those results were not a fluke but were instead representative of the general relationship between illegal immigration and the drunk driving death rate (Table 2).¹⁸

Next, we examine whether the illegal immigrant share of the population at the MSA level is correlated with the drunk driving death rate in the 20 largest metropolitan statistical areas, and we find no statistically significant relationship between the illegal immigrant share of the population and the drunk driving death rate (Figure 3 and Table 4). We also find no correlation between the death rate in all traffic accidents and the illegal immigrant share of the population.

All drivers who are guilty of DWI or DUI offenses should be punished according to the law, regardless of their immigration status. The lack of a statistical relationship between illegal immigrant population shares and drunk driving deaths does not mean that illegal immigrants who commit DUIs or DWIs should be let off the hook. Furthermore, any deaths or injuries that occur from drunk driving should also

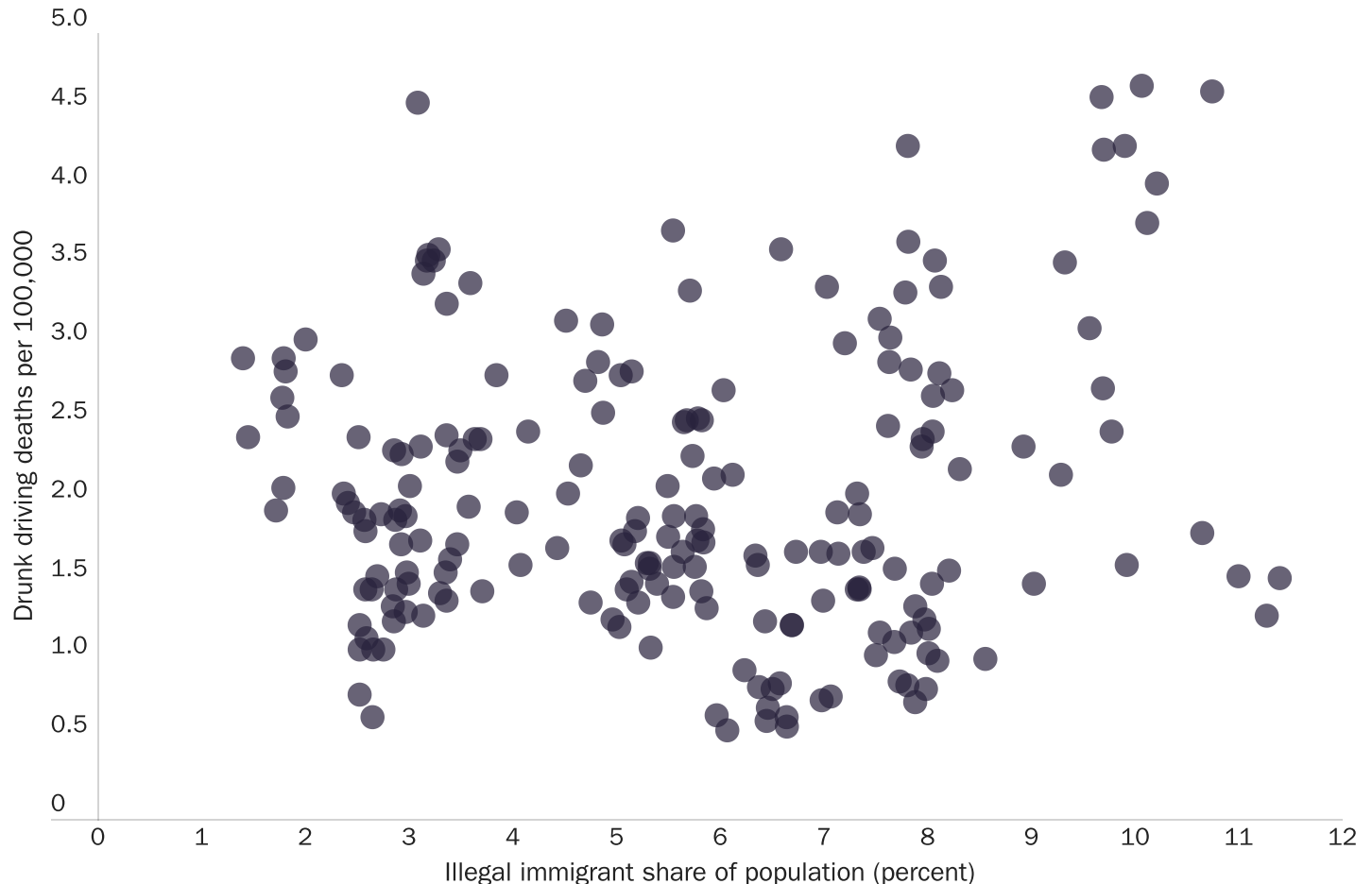
be punished according to the law. The findings of this brief merely show that the illegal immigrant share of the population is likely not related to drunk driving deaths.

CONCLUSION

We find no statistically significant evidence to suggest that people who live in states or metropolitan statistical areas with higher illegal immigrants shares of the population are more at risk for drunk driving deaths. Of course, there are individual instances to the contrary and those illegal immigrants who are guilty of DUIs or DWIs or who inflict death or injury while driving drunk should be punished according to the law. However, the mere presence of illegal immigrants does not appear to affect the overall drunk driving death rate. Although our regression results are correlative and not causal in nature, they suggest that illegal immigrants do not affect overall drunk driving deaths.

Figure 3

Drunk driving deaths and illegal immigrant share at the metropolitan statistical area level, 2010–2019



Sources: Christian Gunadi, "On the Association between Undocumented Immigration and Crime in the United States," *Oxford Economic Papers* 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors' calculations.

Table 4

Drunk driving deaths and illegal immigrant share at the metropolitan statistical area level, 2010–2019

Variables	Log drunk driving deaths per 100,000 people	Log traffic accident deaths per 100,000 people
Percent illegal immigrant	-1.374	1.721
	3.301	(1.500)
Constant	0.764***	1.787***
	(0.225)	(0.0918)
Observations	200	200
R-squared	0.916	0.962

Robust standard errors in parentheses

***p<0.01, **p<0.05, *p<0.1

Sources: Christian Gunadi, "On the Association between Undocumented Immigration and Crime in the United States," *Oxford Economic Papers* 73, no. 1 (January 2021): 200–24; American Community Survey, 2019; and authors' calculations.

NOTES

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