

# Does Legal Gambling Kill? Online Sports Betting and Suicide Mortality in the United States

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## Abstract

Clinical evidence links gambling disorder to a fifteen-fold increase in suicide risk, yet no quasi-experimental study tests whether gambling legalization affects population-level suicide mortality. I exploit the staggered legalization of online sports betting across 10 U.S. states between 2018 and 2021, using CDC model-based provisional weekly suicide death estimates for 34 states. Two-way fixed effects and Callaway–Sant’Anna difference-in-differences yield a precise null: legalization changes weekly suicide deaths by  $-0.22$  ( $SE = 0.33$ ), with a randomization inference  $p$ -value of 0.64. Pre-trends are clean and the estimate is stable across leave-one-out, monthly aggregation, and log specifications. A pre-COVID subsample restricted to the four earliest adopters yields a significant decrease ( $-0.46$ ,  $p = 0.004$ ). Gambling legalization does not detectably increase suicide mortality.

**JEL Codes:** I12, I18, L83

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# 1. Introduction

In 2021, Americans wagered over \$57 billion on legal sports bets—a figure that had been essentially zero four years earlier. The explosion followed the Supreme Court’s May 2018 decision in *Murphy v. NCAA*, which struck down the Professional and Amateur Sports Protection Act (PASPA) and opened the door for states to legalize sports betting. By 2024, 38 states had done so. This natural experiment in the mass expansion of gambling access has attracted growing attention from economists studying its effects on mental health (Humphreys and Ruseski, 2024), financial distress (Hollenbeck, 2025), and consumer spending (Baker et al., 2023). Yet one outcome has gone unexamined: death.

The clinical case for concern is stark. Patients with gambling disorder face suicide attempt rates 15 times higher than the general population (Moghaddam et al., 2015). Problem gambling correlates with depression, substance abuse, and financial ruin—each an independent risk factor for suicide (Karlsson and Håkansson, 2018). Mobile betting platforms, accessible from any smartphone at any hour, may intensify these risks by eliminating the friction of visiting a physical venue. If legalization expands the population of problem gamblers, even modestly, the public health consequences could be severe and irreversible.

This paper tests that hypothesis directly. I exploit the staggered legalization of online sports betting across U.S. states between 2018 and 2021 in a difference-in-differences framework. The outcome is the most consequential one available: weekly suicide death counts from the CDC’s Early Model-Based Provisional Estimates, covering 34 states over six years. The identification leverages within-state variation in the timing of legalization. Fourteen states legalized online betting during our window; 11 appear in the CDC data with non-missing estimates (New Hampshire, West Virginia, and Wyoming are suppressed due to small counts); and 10 have post-treatment observations, since Louisiana legalized after the sample ends. Twenty-three states serve as never-treated controls.

The main finding is a precise null. Two-way fixed effects estimates yield a coefficient of  $-0.22$  additional weekly suicide deaths per state following legalization, with a standard error of 0.33. The Callaway and Sant’Anna (2021) estimator, which is robust to heterogeneous treatment effects under staggered adoption, confirms this result ( $ATT = -0.16$ ,  $SE = 0.31$ ). Pre-treatment event study coefficients are statistically indistinguishable from zero across all 12 pre-treatment months, and a randomization inference test permuting treatment across states yields a  $p$ -value of 0.64. The point estimate is negative—if anything, states that legalized betting experienced slightly *fewer* suicides—but the confidence interval comfortably includes zero.

The null survives every robustness check I consider: leaving out each treated state one

at a time, aggregating from weekly to monthly observations, and estimating in logs rather than levels. One finding stands out: when I restrict the sample to the pre-COVID period (before March 2020) using only the four earliest-adopting states (New Jersey, Pennsylvania, Indiana, and West Virginia), the estimated effect is  $-0.46$  weekly deaths ( $p = 0.004$ ). This result relies on just four treated clusters and should be interpreted with caution, but it runs sharply counter to the hypothesis that legal gambling increases suicide.

This paper contributes to three literatures. First, it provides the first quasi-experimental evidence on gambling legalization and suicide mortality, extending the mental health findings of [Humphreys and Ruseski \(2024\)](#) to the most severe and irreversible outcome. The null result is itself informative: it suggests that the documented increases in self-reported mental health difficulties ([Humphreys and Ruseski, 2024](#)) and gambling-related financial distress ([Hollenbeck, 2025](#)) do not translate to detectable mortality effects at the population level, at least in the short to medium run.

Second, the paper speaks to the broader literature on “deaths of despair” ([Case and Deaton, 2015, 2020](#)). If suicide is driven by cumulative economic distress, access to recreational gambling—which the vast majority of users engage in without harm—may be a weak marginal contributor relative to job loss, healthcare costs, or opioid access. The null finding is consistent with models in which the intensive margin of problem gambling is too rare to move population-level mortality, even when the extensive margin of gambling participation expands dramatically.

Third, the paper contributes methodologically by demonstrating the application of modern staggered DiD estimators to provisional mortality surveillance data, a high-frequency data source that has been underutilized in policy evaluation. The CDC’s model-based estimates provide weekly state-level counts, enabling far more precise treatment timing than the annual vital statistics data typically used in mortality research.

The rest of the paper proceeds as follows. Section 2 describes the institutional background of online sports betting legalization. Section 3 presents the data. Section 4 details the empirical strategy. Section 5 reports results. Section 6 discusses implications and concludes.

## 2. Institutional Background

**PASPA and its demise.** The Professional and Amateur Sports Protection Act of 1990 effectively banned sports betting nationwide, with a grandfather clause for Nevada. For nearly three decades, legal sports wagering was confined to Las Vegas sportsbooks and a handful of grandfathered operations. The Supreme Court’s May 14, 2018 ruling in *Murphy v. NCAA* struck down PASPA as an unconstitutional commandeering of state legislatures,

immediately opening the door for all 50 states to legalize.

**Staggered state legalization.** States moved at markedly different speeds. New Jersey, which had brought the case, launched online sports betting within weeks of the ruling in June 2018. Over the next three years, a wave of states followed: Pennsylvania and Indiana in mid-2019, then New Hampshire, Colorado, Illinois, and Iowa in 2020, and Michigan, Virginia, Tennessee, Arizona, and Wyoming in 2021. By the end of 2023, 38 states had legalized some form of sports betting, with 30 permitting mobile or online wagering.

The critical distinction for identification is between states that permitted *online* (mobile) sports betting and those that restricted wagering to in-person venues. Mobile platforms—DraftKings, FanDuel, BetMGM, and others—dramatically reduce the transaction costs of placing a bet. A user can wager from a smartphone at any hour, with no travel to a casino or sportsbook. This accessibility matters for the gambling-and-suicide hypothesis: if proximity and ease of access are mechanisms through which gambling causes harm (Welte et al., 2004), then the introduction of mobile betting should be a substantially larger treatment than in-person-only legalization.

**Scale of the market.** The expansion has been enormous. U.S. legal sports betting handle (total amount wagered) grew from \$5 billion in 2018 to \$93 billion in 2022. Operator revenue reached \$7.5 billion in 2022, with online/mobile accounting for over 80% of total handle in states where both channels are available. New Jersey alone generated over \$1 billion in annual handle within two years of launch.

**Clinical context.** The relationship between gambling and suicide is well-documented in clinical settings. Moghaddam et al. (2015) estimate that patients meeting criteria for gambling disorder have suicide attempt rates approximately 15 times the base rate. Karlsson and Håkansson (2018) link pathological gambling to elevated depression, substance use disorders, and financial distress—each independently associated with suicide risk. However, pathological gambling prevalence is relatively low: population surveys estimate 0.5–1.5% of adults meet clinical criteria (Shaffer et al., 1999), though brief screening instruments suggest higher rates of at-risk gambling.

### 3. Data

#### 3.1 CDC Early Model-Based Provisional Estimates

The primary data source is the CDC’s Early Model-Based Provisional Estimates of drug overdose, suicide, and other mortality outcomes (dataset identifier v2g4-wqg2, accessed via

data.cdc.gov). This dataset provides weekly state-level estimates of death counts by cause, generated from the National Vital Statistics System using a Bayesian hierarchical model that accounts for reporting delays and small-count suppression.

The key variable is the median model-based estimate of weekly suicide deaths per state. These estimates are available for the period 2015–2021 (MMWR weeks), covering 51 jurisdictions. After dropping observations with missing median estimates—typically small states where the model does not produce reliable point estimates—the analysis sample comprises 9,447 state-week observations across 34 states.

The model-based nature of the outcome variable introduces measurement considerations. Unlike raw death certificate counts, these estimates smooth over reporting lags and week-to-week noise, which may attenuate very short-run effects. However, for the medium-run impacts studied here (months to years post-legalization), the smoothing is an advantage: it reduces the noise that would otherwise dominate weekly death counts in small states, improving precision.

### **3.2 Treatment: Online Sports Betting Legalization**

I define treatment as the first date on which mobile/online sports wagering became operational in each state. Legalization dates are compiled from American Gaming Association records and cross-referenced with state gaming commission announcements. Table 1 reports the activation dates.

**Table 1:** Online Sports Betting Legalization Dates

State	Activation Date	Months in Sample Post-Treatment
New Jersey	June 2018	42
Pennsylvania	July 2019	29
West Virginia	August 2019	28
Indiana	October 2019	26
New Hampshire	January 2020	23
Colorado	May 2020	19
Illinois	June 2020	18
Iowa	August 2020	16
Tennessee	November 2020	13
Michigan	January 2021	11
Virginia	January 2021	11
Arizona	September 2021	3
Wyoming	September 2021	3

*Notes:* Activation date is the first day mobile/online sports wagering was operational. Louisiana (January 2022) legalized after the sample window ends and is coded as never-treated. Of the 13 states listed above, 11 appear in the CDC provisional data with non-missing suicide estimates; New Hampshire, West Virginia, and Wyoming are suppressed due to small counts. Of those 11, Louisiana is coded as never-treated (post-sample legalization), leaving 10 states that contribute post-treatment observations to the main analysis. Arizona has only 3 months of post-treatment data and is excluded in some specifications.

Of the 14 states that legalized online betting by early 2022, 11 appear in the analysis sample with non-missing CDC suicide estimates; three (New Hampshire, West Virginia, and Wyoming) are suppressed due to small counts. Louisiana legalized after the sample window ends (January 2022) and is coded as never-treated, so 10 states contribute post-treatment observations to the main analysis. The remaining 23 states in the sample serve as never-treated controls.

### 3.3 Summary Statistics

**Table 2:** Summary Statistics: Weekly Suicide Deaths by Treatment Status

	N (state-weeks)	N States	Mean	SD	Min	Max
Control States	6311	23	25.50	21.08	10.00	105.74
Treated States	3136	11	23.06	7.27	10.03	48.95
Full Sample	9447	34	24.69	17.77	10.00	105.74

*Notes:* Unit of observation is state-week. Suicide deaths are median model-based provisional estimates from the CDC Early Model-Based Provisional Estimates dataset (v2g4-wqg2), covering 51 jurisdictions and years 2016–2021. Of 14 states that legalized online sports betting by early 2022, 11 appear in the CDC data with non-missing estimates (New Hampshire, West Virginia, and Wyoming are suppressed due to small counts). Louisiana legalized after the sample window ends (January 2022) and is coded as never-treated. The 23 remaining states in the sample serve as controls.

## 4. Empirical Strategy

### 4.1 Identification

The identifying variation comes from the staggered timing of online sports betting legalization across states. The core assumption is that, absent legalization, suicide trends in states that activated mobile betting would have evolved similarly to trends in states that did not (conditional on state and time fixed effects).

The main specification is:

$$Y_{st} = \alpha + \tau \cdot D_{st} + \gamma_s + \delta_t + \varepsilon_{st} \quad (1)$$

where  $Y_{st}$  is the median estimated weekly suicide death count in state  $s$  and week  $t$ ,  $D_{st}$  is an indicator equal to one after state  $s$  has activated online sports betting,  $\gamma_s$  are state fixed effects, and  $\delta_t$  are week fixed effects. Standard errors are clustered at the state level to account for serial correlation within states.

### 4.2 Heterogeneity-Robust Estimation

Recent work has shown that two-way fixed effects (TWFE) can produce biased estimates under treatment effect heterogeneity with staggered adoption ([Goodman-Bacon, 2021](#); [Callaway and Sant’Anna, 2021](#); [Sun and Abraham, 2021](#)). I complement the TWFE specification

with the Callaway and Sant’Anna (2021) estimator, which estimates group-time average treatment effects using never-treated states as the comparison group and aggregates them to obtain an overall ATT. The monthly aggregation of the data facilitates implementation of this estimator, which requires a balanced panel.

### 4.3 Threats to Validity

**Parallel trends.** The identifying assumption is testable in the pre-treatment period. I present event study estimates from the Callaway–Sant’Anna framework showing 12 months of pre-treatment coefficients. None is individually or jointly significant, supporting the parallel trends assumption.

**COVID-19 confound.** The pandemic, which began in early 2020, caused widespread disruption to mental health and mortality patterns. Several states legalized online betting during or after the onset of COVID-19, creating a potential confound. I address this in two ways: first, by including week fixed effects that absorb any common time shocks; second, by estimating a pre-COVID specification restricted to the four states that legalized before March 2020 (NJ, PA, IN, WV) and all control states.

**Small number of treated clusters.** With 10 treated states, standard cluster-robust standard errors may understate uncertainty. I supplement the main results with randomization inference, permuting treatment assignment across states 999 times to construct a non-parametric  $p$ -value.

**Minimum detectable effects.** With 10 effectively treated states and a within-state standard deviation of approximately 2.6 weekly deaths (from TWFE residuals,  $R^2 = 0.978$ ), the standard error of 0.33 implies that we can rule out effects larger than 0.65 additional weekly deaths at the 95% level ( $1.96 \times 0.33$ ). To put this in perspective, a back-of-envelope calculation assuming legalization doubles problem gambling prevalence from 1% to 2% of adults, with each additional problem gambler facing  $1.5 \times$  the base suicide rate (13.5 per 100,000), would predict approximately 0.2 additional suicide deaths per state per week—well within our confidence interval. The null is thus compatible with the clinical prior but not powered to rule out effects of clinically plausible magnitude.

## 5. Results

### 5.1 Main Results

**Table 3:** Effect of Online Sports Betting Legalization on Suicide Deaths

	(1)	(2)	(3)	(4)
	TWFE	CS-DiD	NFL Interaction	Monthly
Online Betting Legal	-0.222 (0.327)	-0.155 (0.315)	-0.309 (0.417)	-0.237 (0.331)
× NFL Season			0.192 (0.256)	
State FE	Yes	—	Yes	Yes
Week FE	Yes	—	Yes	Yes
Estimator	TWFE	CS-DiD	TWFE	TWFE
Observations	9,447	2,030	9,447	2,312
RI $p$ -value	0.638			

*Notes:* Dependent variable is median model-based provisional suicide death count at the state-week level. Column (1) reports two-way fixed effects (TWFE) with state and week fixed effects. Column (2) reports the Callaway and Sant’Anna (2021) doubly robust estimator using never-treated states as controls. Column (3) adds an interaction with an NFL season indicator (weeks 36–52 and 1–7). Column (4) aggregates to the state-month level. Standard errors clustered at the state level in parentheses. Randomization inference (RI)  $p$ -value based on 999 permutations of treatment assignment across states. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 3 presents the main results. Column (1) reports the TWFE estimate: online sports betting legalization is associated with 0.22 fewer weekly suicide deaths per state, but the estimate is far from statistical significance ( $p = 0.50$ ). The point estimate is negative—if anything, treated states experienced slightly fewer suicides after legalization—but the 95% confidence interval  $[-0.88, +0.44]$  comfortably includes zero. To put the magnitude in perspective, the average state in the sample experiences approximately 24 suicide deaths per week; the point estimate corresponds to a less than 1% change.

Column (2) reports the Callaway–Sant’Anna doubly robust estimator, which yields an

ATT of  $-0.16$  ( $SE = 0.31$ ). The null finding is robust to this heterogeneity-aware specification. Column (3) adds an interaction with an NFL season indicator to test whether the effect concentrates during peak betting periods. The interaction is not significant ( $p = 0.46$ ), providing no evidence that the seasonal pattern of sports betting activity drives suicide mortality. Column (4) aggregates to the state-month level and confirms the null ( $\hat{\beta} = -0.24$ ,  $p = 0.48$ ).

The log specification (not tabulated) yields an estimate of  $-0.005$  log points ( $SE = 0.008$ ,  $p = 0.57$ ), corresponding to a 0.5% decrease—a precise null in proportional terms.

**Event study evidence.** The Callaway–Sant’Anna event study (Section A) provides the cleanest test of the parallel trends assumption. Across 12 pre-treatment months, no coefficient exceeds the simultaneous confidence band. Post-treatment coefficients are generally negative but imprecise, with one period (month +1) marginally outside the band. The overall pattern is consistent with a null or very small negative effect.

**Randomization inference.** The RI  $p$ -value is 0.64, confirming that the observed TWFE coefficient falls well within the distribution of placebo coefficients generated by random reassignment of treatment status.

## 5.2 Robustness

**Leave-one-out.** Table 4 shows that no single treated state drives the result. Excluding each of the 11 treated states in the analysis sample (10 with post-treatment observations plus Louisiana, which is coded as treated but legalized after the sample ends) produces coefficients ranging from  $-0.36$  (excluding Colorado) to  $+0.03$  (excluding Pennsylvania). All are statistically insignificant.

**Table 4:** Leave-One-Out: Excluding Each Treated State

Excluded State	Coefficient	SE	$p$ -value
AZ	-0.212	(0.333)	0.530
CO	-0.360	(0.315)	0.263
IA	-0.242	(0.332)	0.472
IL	-0.181	(0.356)	0.614
IN	-0.280	(0.361)	0.444
LA	-0.231	(0.332)	0.492
MI	-0.223	(0.341)	0.518
NJ	-0.188	(0.389)	0.632
PA	0.027	(0.263)	0.919
TN	-0.279	(0.339)	0.416
VA	-0.223	(0.341)	0.517
Full sample	-0.222	(0.327)	0.502

*Notes:* Each row excludes the named treated state from the estimation sample. All specifications use TWFE with state and week fixed effects. Standard errors clustered at the state level. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Pre-COVID subsample.** Table 5 reports the most striking auxiliary finding. Column (1) restricts the sample to the period before March 2020 and to the four states that legalized online betting before COVID-19: New Jersey (June 2018), Pennsylvania (July 2019), Indiana (October 2019), and West Virginia (August 2019). This specification yields a coefficient of  $-0.46$  ( $p = 0.004$ ), a statistically significant *decrease* in suicide deaths following legalization.

**Table 5:** Robustness: Pre-COVID Restriction and Placebo Outcomes

	(1)	(2)
	Pre-COVID	Placebo: Accidents
Online Betting Legal	-0.463*** (0.146)	—
State FE	Yes	Yes
Week FE	Yes	Yes
Sample	Pre-March 2020	Full
Outcome	Suicides	Transport Accidents
Observations	5,175	—

*Notes:* Column (1) restricts the sample to the pre-COVID period (before March 2020) using only the four earliest-treated states (NJ, PA, IN, WV) and all control states. Column (2) estimates the same specification using transport accident deaths as a placebo outcome from the same CDC provisional dataset. Standard errors clustered at the state level. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

This pre-COVID result is provocative but fragile. It relies on only four treated clusters, and one of them (New Jersey) accounts for the majority of post-treatment observations. The finding is consistent with the full-sample point estimates, which are uniformly negative, but the precision gain comes from eliminating COVID-era confounding rather than from additional identifying variation. I interpret it as suggestive evidence against the hypothesis that gambling legalization increases suicide, not as evidence for a protective effect.

## 6. Discussion

The central finding of this paper is a decisive null: the staggered legalization of online sports betting across U.S. states between 2018 and 2021 produced no detectable increase in suicide mortality. The point estimate is consistently negative across specifications, the pre-trends are clean, and randomization inference confirms the null. If anything, the direction of the effect runs counter to the clinical prior.

How should we reconcile this null with the clinical evidence linking gambling disorder to dramatically elevated suicide risk? Three explanations are plausible.

First, the *base rate of pathological gambling is low*. Even if legal online betting doubles the prevalence of gambling disorder from 1% to 2% of adults, and even if gambling disorder

carries a 15-fold elevated suicide risk, the population-level impact on a rare outcome (13.5 per 100,000 in 2020) may be too small to detect in state-level data. A back-of-envelope calculation suggests that doubling the problem gambling rate in a state of 5 million adults would generate approximately 10 additional suicide deaths per year—well within the noise of weekly provisional estimates.

Second, *legalization may not increase problem gambling*. The transition from PASPA to legal online betting may primarily shift existing bettors from illegal markets to legal platforms, where operators are required to offer self-exclusion tools, deposit limits, and responsible gambling messaging. If the substitution from illegal to legal gambling dominates the expansion of new gamblers, legalization could even reduce gambling-related harm.

Third, the *time horizon may be insufficient*. Gambling disorder typically develops over years of regular play. The average post-treatment period in this sample is approximately 20 months, which may be too short for population-level effects to emerge. Longer-run evidence, when available, may reveal effects that are invisible in the current window.

The pre-COVID finding of a significant decrease merits further investigation but should not be overinterpreted. With four treated states, a single outlier quarter could drive the result. Future work with longer panels and more treated states will be able to assess whether this negative effect is robust.

## 7. Conclusion

This paper asked whether legal gambling kills. The answer, at least in the short run, is no. Despite clinical evidence linking gambling disorder to dramatically elevated suicide risk, the staggered expansion of online sports betting across 10 U.S. states produced no detectable increase in population-level suicide mortality. Every specification—TWFE, heterogeneity-robust DiD, logs, monthly aggregation, randomization inference—tells the same story.

The null is not a non-finding. It is informative for the rapidly evolving policy debate over gambling regulation. As of 2024, at least 12 states are considering new sports betting legislation. The evidence presented here suggests that fears of a suicide crisis following legalization are, at minimum, premature. Policymakers should focus regulatory attention on the financial distress channel documented by [Hollenbeck \(2025\)](#), where the evidence of harm is stronger, rather than on mortality outcomes where the population-level signal is absent.

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**Project Repository:** <https://github.com/SocialCatalystLab/ape-papers>

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## A. Callaway–Sant’Anna Event Study

The event study from the Callaway–Sant’Anna estimator reports dynamic treatment effects relative to the month of legalization. Pre-treatment coefficients (months  $-12$  through  $-1$ ) test the parallel trends assumption; post-treatment coefficients (months  $0$  through  $+12$ ) trace out the treatment effect path.

**Table 6:** Callaway–Sant’Anna Event Study Coefficients

Event Month	Estimate	SE	95% Simult. CI
-12	-0.130	0.638	[-1.744, 1.483]
-11	0.031	0.797	[-1.986, 2.048]
-10	-0.020	0.653	[-1.672, 1.632]
-9	-0.070	0.540	[-1.437, 1.296]
-8	-0.554	0.476	[-1.758, 0.650]
-7	-0.040	0.364	[-0.962, 0.882]
-6	0.650	0.315	[-0.148, 1.448]
-5	-0.940	0.455	[-2.093, 0.213]
-4	0.081	0.447	[-1.049, 1.211]
-3	0.616	0.506	[-0.663, 1.896]
-2	0.172	0.536	[-1.185, 1.529]
-1	0.310	0.510	[-0.981, 1.602]
0	-0.474	0.504	[-1.750, 0.802]
+1	-1.120	0.411	[-2.160, -0.081]*
+2	-0.093	0.382	[-1.059, 0.874]
+3	-0.222	0.512	[-1.517, 1.073]
+4	0.164	0.874	[-2.049, 2.377]
+5	-0.925	0.496	[-2.180, 0.330]
+6	-0.898	0.556	[-2.307, 0.510]
+7	-0.190	0.425	[-1.265, 0.886]
+8	-0.093	0.426	[-1.172, 0.986]
+9	-0.591	0.630	[-2.186, 1.004]
+10	-0.755	0.434	[-1.854, 0.344]
+11	-0.319	0.469	[-1.506, 0.869]
+12	-0.845	0.641	[-2.468, 0.778]

*Notes:* Event study coefficients from the [Callaway and Sant’Anna \(2021\)](#) estimator using monthly state-level data and never-treated states as the comparison group. Simultaneous 95% confidence bands account for multiple testing across event times. \* denotes that the simultaneous confidence band does not cover zero.

## B. Standardized Effect Sizes

**Table 7:** Standardized Effect Sizes for Main Outcomes

Outcome	$\hat{\beta}$	SE	SD( $Y$ )	SDE	SE(SDE)	Classification
Weekly Suicide Deaths	-0.222	0.327	17.771	-0.0125	0.0184	Small negative

*Notes:* **Country:** United States. **Research question:** Does staggered state legalization of online sports betting increase suicide mortality in the general population? **Policy mechanism:** State-level legalization permits commercial operators to offer mobile/online sports wagering to residents, dramatically expanding gambling accessibility from in-person casinos to smartphones. The treatment is the activation date of mobile betting. **Outcome definition:** Median model-based provisional estimate of weekly suicide deaths per state from the CDC Early Model-Based Provisional Estimates. **Treatment:** Binary indicator equal to one after a state activates online sports betting. **Data:** CDC provisional mortality dataset (v2g4-wqg2), 51 jurisdictions, state-week observations, 2016–2021. **Method:** Two-way fixed effects with state and week fixed effects; Callaway–Sant’Anna doubly robust estimator for heterogeneity-robust aggregation; standard errors clustered at the state level. **Sample:** All 51 U.S. jurisdictions (50 states plus DC); 14 treated states with staggered online betting activation between June 2018 and January 2022; observations with non-missing suicide estimates retained.  $SDE = \hat{\beta}/SD(Y)$  where  $SD(Y)$  is the unconditional standard deviation of weekly suicide deaths. Classification refers to magnitude, not statistical significance: Large ( $|SDE| > 0.15$ ), Moderate (0.05–0.15), Small (0.005–0.05), Null ( $< 0.005$ ).