THE HIGH COST OF THE 4 A.M. BAR BILL

A cost-benefit analysis of extended alcohol trading hours in Los Angeles

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The High Cost of the 4 A.M. Bar Bill: A Cost-Benefit Analysis of Extended Alcohol Trading Hours in Los Angeles

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ABSTRACT

California State Senator Scott Weiner introduced Senate Bill 58 (SB 58) to the California legislature in December 2018. Senate Bill 58, or the "4 A.M. Bar Bill," was the latest iteration of an oft-reintroduced bill. It would permit licensed establishments to extend last call alcohol serving hours from 2 a.m. to 4 a.m. in a five year trial period. In SB 58's version, ten cities would be allowed to participate in an initial five-year pilot phase: Los Angeles, San Francisco, Oakland, Sacramento, Long Beach, West Hollywood, Coachella, Cathedral City, Palm Springs and Fresno.

Here we estimate the expected costs and benefits of SB 58, focusing on the City of Los Angeles, which represents one-tenth of California's total population and one-third of the residents of the ten SB 58 pilot cities. We discuss costs relative to expected increases in binge drinking, violent crimes, alcohol-related arrests, DUIs, motor vehicle crashes, and ambulance attendances. For the purposes of this cost-benefit analysis, we look at three scenarios of penetration of 4 a.m. bars at 5%, 10% and 20% of all licensees and utilize CDC-sponsored cost per drink studies to calculate marginal costs.

Benefits are defined as expected increases in excise and sales tax revenue from alcoholic beverage sales. We disregard claims about beneficial economic development because the opportunity cost of spending in late night bars comes in the form of entertainment-related and groceries-related discretionary spending that would otherwise generate jobs and profit elsewhere. With the assumptions detailed below, we find that the expected costs generated in the City of Los Angeles would be $88.6–$354.5 million while the additional revenue would be $36.5–$146.1 million in one calendar year if SB 58 were to pass.

Conservatively looking at 5% market penetration of 4 a.m. licenses and conservatively assuming that a late night or early morning drink is no more costly to society than an evening drink, the annual net cost to society for implementation of this bill in Los Angeles is estimated at $52.1 million in 2019 dollars. Over five years, utilizing a net present value discount of 1.7%, the net social cost for Los Angeles implementation will be $266.4 million (2019 dollars). At a market penetration of 20%, late night bars would cost the public $1.066 billion over five years. Social costs of implementation of the 4 A.M. Bar Bill exceed benefits by a 2.3 to 1 ratio.

Social Cost and Public Revenue from 4 am Bars in LA

4 A.M. Bars Market Share	Annual Social Cost	Annual Social Benefit	Annual Net Social Cost	5 year trial Net Social Cost
5%	$ 88,617,001	$ 36,528,951	$ 52,088,050	$ 266,445,148
10%	$177,234,002	$ 73,057,902	$104,176,100	$ 532,890,296
20%	$354,468,004	$146,115,805	$208,352,199	$1,065,780,592

Assumptions: 5%-20% market penetration, conservative social cost estimate, 5 year trial, 1.7% discount rate

Figure 1. Estimates of costs from 4 a.m. last call times by percentage of bars adopting extended hours.

PROBLEM STATEMENT

The expected costs and benefits to society generated by the City of Los Angeles implementing SB 58, the 4 A.M. Bar Bill, are unknown.

METHODOLOGY

Here we calculate expected cost and revenue estimates for the City of Los Angeles for one calendar year using data from state, federal, and local sources, as well as published effect estimates from scientific studies of late night serving hours in the US and internationally. We then expand the same analysis to the full five year trial program.

DATA

Licensed establishments (e.g., bars, restaurants, taverns, nightclubs, "drinking places")

Estimates for the number of establishments were generated by PourSafe.com, an alcohol industry monitoring service, based on March 2019 reports provided by the California Department of Alcoholic Beverage Control (ABC).[1,*] In the City of Los Angeles, there are currently 3,552 establishments licensed to sell alcoholic beverages on-sale. This number includes license types 40, 41, 42, 47, 48, 61, and 75, the most common on-sale licenses. For comparison, Figure 2 shows the license totals for all cities included in the 4 A.M. Bar Bill.

A study of extending last call from 2 a.m. to 3 a.m. in Ontario, Canada showed that 17% of eligible establishments stayed open during late night hours.[2] We estimate a range of costs and revenues assuming that 5%, 10% or 20% of eligible establishments in Los Angeles will stay open until 4 a.m. We project costs and benefits for the 5 year lifetime of the trial project assuming full startup on January 2, 2022, running until January 2, 2027.

Drinks sold/hour

Sales data from the National Alcoholic Beverage Control Association (NABCA) show an average of 500 spirits drinks/day sold per licensed establishment (specifically large bars and nightclubs) over a five-hour period.[3] Assuming sales are uniform through the time period, this means that approximately 100 spirits drinks are sold per hour. Bar and nightclub industry data show that beer and ale represent 42% of the sales; distilled spirits represent another 31%; and wine brings in another 10%.[4] Therefore, spirits drinks represent 3/8 of total alcoholic drinks sold. If 100 spirits drinks are sold per hour, and spirits are 3/8 of sales, then approximately 267 drinks/hour are sold per establishment. This means that extending last call by two hours would lead to an average of 534 additional alcoholic drinks sold per licensed establishment.

* PourSafe uses geomapping to locate every license according to ABC-provided addresses. This compensates for imprecision in the ABC database, and provides a larger license count than that provided by ad-hoc ABC reports.

Outlet City	Type 40 On-Sale Beer - Bar or Tavern	Type 41 On-Sale Beer & Wine - Restaurant	Type 42 On-Sale Beer & Wine - Bar Tavern	Type 47 On-Sale Liquor - Restaurant	Type 48 On-Sale Liquor - Bar or Night Club	Type 61 On-Sale Beer - Bar - Tavern	Type 75 On-Sale General Brew-Pub - Restaurant	Grand Total
CATHEDRAL CITY	2	37		30	8			77
COACHELLA	4	14	2	7	1			28
FRESNO	18	241	14	192	30		1	496
LONG BEACH	15	271	24	146	53		1	510
LOS ANGELES	74	1,805	118	1,310	233	6	6	3,552
OAKLAND	2	326	16	200	60			604
PALM SPRINGS	2	46	8	115	14			185
SACRAMENTO	14	380	11	269	37		1	712
SAN FRANCISCO	21	1,670	68	669	327		18	2,773
WEST HOLLYWOOD	1	48	3	108	15			175
Grand Total	153	4,838	264	3,046	778	6	27	9,112

Figure 2. License counts in 10 California cities eligible for extended last call alcohol serving hours. Source: Poursafe.com.

Price/drink to consumer

NABCA and industry data show that in the US, the average alcoholic beverage costs $8. Assuming that prices are 43% higher in Los Angeles than national averages,[5] then the average price/drink is $11.40, though other sources show average drink prices as high as $14 and as low as $7 for beer. Here we use an average price of $10/drink as a conservative estimate, accounting for the fact that beer represents 42% of drinks sold.

Cost/drink to society – CDC Methodology

A costs study contracted by the Centers for Disease Control and Prevention (CDC) showed that the total costs to society related to excessive drinking in California in 2010 was $35,010,625,000.[6] (See Figure 3.) These costs stemmed from a variety of short- and long-term causes, including: acute and chronic health care needs, as well as mortality; lost productivity and absenteeism; crime, incarceration and criminal justice; and motor vehicle crashes. Analyses from the Alcohol Research Group in collaboration with NABCA showed that average per capita consumption in 2010 in California was 8.15 liters ethanol/person aged 15 years or older.[7] This means that the average cost to society per drink sold in California is $2.56 (adjusted to 2019 dollars, where 2019$ = 1.17 x 2010$). This is slightly lower than the CDC's estimate of $2.85 (adjusted to 2019 dollars), because the CDC uses per capita sales consumption estimates that do not account for variation in alcohol by volume (%ABV) over time and therefore underestimate per capita consumption. The adjustment on 2010$ to 2019$ at 117% conservatively rounds down to an inflation or discount rate of 1.7% annually, which this study uses as the discount rate used in calculating future revenue.

Violent crimes

Violent crimes include assault with deadly weapon on police officers, aggravated assault, simple assault, brandishing a weapon, disturbing the peace, intimate partner assaults, attempted rape, and forcible rape. People who drink in bars tend to be younger, male, single, more impulsive, and take greater risks than the general drinking population;[8] these attributes also describe the sector of the population most associated with violent assaults and driving under the influence (DUI).[9]

Scientific reviews of studies on late night serving hours overwhelmingly show that restricting closing hours leads to significant reductions in homicides, battery, domestic violence and assaults. The effects of serving hour restrictions are also consistent for alcohol-attributable as-

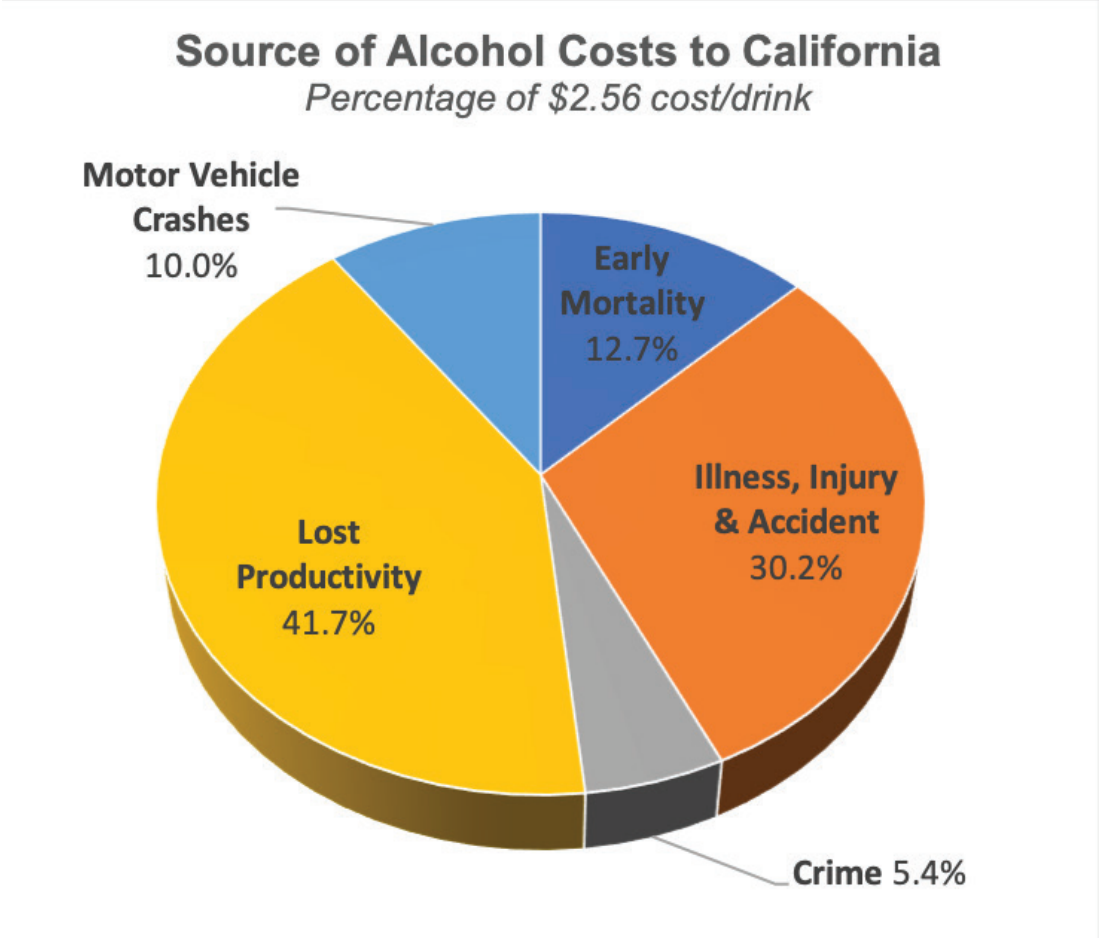


Figure 3. Sources of alcohol harm as a percentage of cost per drink. Source: Sacks et al. 2015

sault injuries.[10] The best-designed studies of late night serving hours show that implementing earlier closing hours can substantially reduce rates of violence. For example, a carefully designed study in Newcastle, New South Wales, Australia, showed that restricting last call by 2 hours was related to a 37% reduction in assaults between 10 p.m. and 6 a.m.[11] These results mirror those from an earlier study showing a 26-32% reduction in assaults in Sydney after alcohol could no longer be sold after 3 a.m.[12]

The positive relationship between late night serving hours and violence found in these Australian studies is supported by a growing body of international research.[13] For example, a study of extending serving hours in 18 Norwegian cities showed a 16% increase in assaults for every extra hour of service.[14] Here we assume Rossow and Norström's lower, conservative estimate of a 16% expected increase in violent crime for each extra hour allowed by SB 58. In Los Angeles, there were 59,169 violent crimes from June 2017 – June 2018. Therefore, we can expect approximately 1.32 x 59,169 = 78,103 total violent crimes, or 18,934 extra violent crimes, if last call were extended from 2 a.m. to 4 a.m.

Alcohol-related arrests

Alcohol-related arrests are defined as breaking a liquor-specific law such as having an open alcoholic beverage in a public place, selling liquor to minors, or being a minor in possession of alcohol. Because there are no published studies estimating the association between serving hours and alcohol-related arrests, we assume the same conservative estimate of a 16% increase in alcohol-related arrests for every additional hour of alcohol service.[15]

In the City of Los Angeles, there were 7,722 alcohol-related arrests from June 2017–June 2018. Therefore, we can expect approximately 1.32 x 7,722 = 10,193 total alcohol-related arrests, or 2,471 extra alcohol-related arrests, if last call were extended from 2 a.m. to 4 a.m.

Motor vehicle crashes

Two-thirds of all motor vehicle fatalities between the hours of midnight and 3 a.m. occurred in alcohol impaired driving crashes, and more than half (55%) of drivers involved in fatal crashes at those hours were alcoholimpaired. Other times of day with especially high percentages of alcohol-impaired driving were 6 p.m. to midnight, and 3 a.m. to 6 a.m.[16]

Studies of extended hours in Ontario, Canada show a temporal shift in alcohol-related harms from peaking after 1 a.m. to peaking after 2 a.m.[17] More specifically, on Sunday–Wednesday nights, the pre-extended hours 12 a.m.–2 a.m. peaks for BAC positive driver fatalities shifted to 2–4 a.m. once hours were extended.[18]

Studies of extended hours in New York State show an increase of 5.78 DUI charges per 100,000 residents for each additional hour of service per week in counties that allow extended hours; neighboring counties without extended hours saw an increase of 5.18 DUI charges per 100,000.[19] These are the only known published effect estimates for increases in DUIs related to serving hours. Applying these numbers to Los Angeles, which has a population of 4 million, means we can expect

an increase of 5.78/100,000 x 4,000,000 x 14 extra serving hours/week = 3,237 extra DUIs per week if serving hours are extended to 4 a.m. In the City of Los Angeles, there were 8,850 DUIs and 2,174 alcohol-related motor vehicle crashes (MVCs) between June 2017 – June 2018, meaning that there are about four times as many DUIs as MVCs. Using this ratio, this means that we can expect an increase of 809 alcohol-related MVCs under SB 58.

Ambulance attendances

The number of admissions to the emergency ward for incidents often involving alcohol increased when bars were allowed to stay open all day in Reykjavik, Iceland. Specific examples include admissions due to accidents rising by 23%, admissions due to fighting rising by 34% and DUIs rising by 80%.[20] A study of extending hours in Amsterdam, Netherlands, showed a 34% increase in alcohol-related ambulance attendances in areas where last call was extended;[21] we assume a 34% increase in ambulance attendances based on the study design and replication of this estimate.

In Los Angeles, there were 218,947 ambulance attendances from June 2017 – June 2018. Therefore, we can expect 1.34 x 218,947 = 313,094 total, or 94,147 extra ambulance attendances if last call were extended from 2 a.m. to 4 a.m.

Binge drinking

Studies of late night bar patrons show a strong relationship between participants' expected home time and predicted Blood Alcohol Content (%BAC) at that time. For example, a study in the UK showed that the average %BAC among patrons intending to leave at midnight was 0.09% compared to a predicted 0.21% BAC among those intending to leave at or after 4 a.m.[22] A BAC of 0.21% is related to symptoms such as severe motor impairment, loss of consciousness, and memory blackout. Given the existing data, it is reasonable to assume that individuals who would drink at bars between 2 a.m. and 4 a.m. binge drink. This will contribute to elevated incidence of MVCs as those with a BAC of 0.21% or higher are 300–600 times more likely to get into an accident than those with a BAC of zero or close to zero.[23] In comparison, those with a BAC of 0.08% are approximately nine times more likely to get into an accident than those with a BAC of zero or close to zero.[24]

COSTS ANALYSIS

Total costs to society were calculated assuming that 5%, 10%, and 20% of the 3,552 currently licensed establishments would extend serving hours. Neither the bills authors nor any legislative analysis has ever estimated market penetration of 4 a.m. licenses in any cities, so these percentages are conservative assumptions that could be adjusted if the proponents would be forthcoming. Assuming that each establishment sells 534 drinks between 2 a.m. and 4 a.m. on average, and using

the revised CDC societal cost estimate of $2.56/drink, we find that costs to society would range from $88,617,001–$354,468,004 in 2019 dollars.

REVENUE OR BENEFITS ANALYSIS

Our primary revenue analysis—benefits to society—adds the excise and sales tax revenues from the same scenarios of 5%, 10% and 20% of the 3,552 currently licensed on-sale establishments extending serving hours. We assume that each establishment sells, on average, 534 drinks between 2 a.m. and 4 a.m. at $10 each with a 9.5% sales tax. The federal and state excise tax per standard drink, weighted by beer, wine and spirits sales, is estimated at $0.16. Annual extra tax revenue therefore ranges from $36,528,951-$146,115,805 in 2019 dollars.

Opportunity cost and alleged economic development

We disregard claims about beneficial economic development because the opportunity cost of spending in late night bars comes in the form of discretionary spending that would generate jobs and profit elsewhere. Studies of alcohol policy, consumption and changes in sales show that while increased revenue from alcohol sales is related to increased employment within the alcohol industry, any apparent increases in revenue (or social benefit) are misleading.

Rather than allocating otherwise unspent money to alcohol, consumers are more likely to use money that would have been spent on alcohol on other goods. This spending results in slightly more jobs and economic development. This effect has been convincingly modeled in other U.S. states.[25] This shift, rather than increase, in spending means that there will not necessarily be an overall economic benefit from an increase in net revenue from alcoholic beverage sales. Instead, either no economic gains or economic losses would be expected, depending on the labor-intensiveness of those other goods.

A UK study examining potential macroeconomic impacts of changes in alcohol consumption concluded that it is more likely that households would use the income not spent on alcohol to buy other goods and services, specifically goods related to groceries (e.g., food) and leisure (e.g., entertainment). The assessment of reallocation of spending found that when individuals spend less money on alcohol, there are positive impacts on gross domestic product, even if there are negative impacts on employment. The report also concluded that the approach of conventional industry "impact studies" neglects the possible alternative uses of freed disposable income.[26]

As to SB 58 supporters' claims that enacting their bill would increase tourism and revitalize business districts, they have not provided any evidence from the vast amount of research on tourism economics to support these contentions. Within that research, there is little on the impact of increased nightlife and, to the extent that there is, it mostly features its harmful social and health effects.[27] SB 58 supporters have provided no evidence that enacting the bill would spur significant growth in tourism in any of the 10 cities named in the bill. Specifically, supporters have presented no research that mature tourist destinations like the Bay Area, Los Angeles, and Palm Springs would significantly increase their competitiveness in tourism due to enactment of SB 58 and extending bar times by two hours. Further, supporters have presented no evidence that there is any neighborhood in Sacramento or Fresno that SB 58 would allow to be transformed into an economic motor or tourist magnet.

While it is true that a slight increase in employment might occur within the alcohol industry and alcohol-serving establishments under the 4 A.M. Bar Bill, this could be more than offset by job losses in the rest of the economy as consumers and producers shift their spending away from non-alcohol-related goods and services to alcoholic beverages. Regardless of the impact of increased consumption during 2 a.m. – 4 a.m. hours on revenue, this increased consumption will have negative effects on public health, and will impact the economy negatively in terms of lost productivity, healthcare and other alcohol-related costs. This study therefore does not credit unproven economic development of the party zones as a net social benefit.

This study also excludes additional fees for granting a late night license that ABC will assess. Although the late-night licenses will generate additional revenue, the fees are intended only to cover costs to the department.

Net social cost calculations: pulling it all together

Our primary cost-benefit analysis is intended to be a conservative estimate. We use the CDC-contracted figure for cost per drink even though a binge-drinking consumer at 2 a.m. to 4 a.m. may cause substantially more harm and cost per drink than a drinker having a beer or wine with dinner.

We calculate an annual net social cost (social cost minus social benefit) and then apply that for years 1 to 5 with a discount rate of 1.7% to estimate a total net social cost for implementing the 4 A.M. Bar Bill in Los Angeles. The $2.56 cost per drink has been grown from 2010 costs to 2019 costs already. Looking forward, we assume the same growth rate of 1.7% in social cost, but discount that also by 1.7%, so the cost per drink stays the same as 2019 dollars. That is not the case for the "social benefit," namely excise and sales taxes. Price per drink will inflate (at 1.7%). Excise taxes will remain constant as they have no inflation index, so they need to be discounted by 1.7%. Thus, the total annual marginal benefit decreases each year by 1.7%.

Conservatively looking at 5% market penetration of 4 a.m. licenses and assuming that a late night or early morning drink is no more costly to society than an evening drink, the annual net social cost for implementation of this bill in Los Angeles is estimated at $52.1 million (see Figure 1). Over 5 years, applying the inflation/discount rate of 1.7%, the net social cost for Los Angeles implementation will be $266.5 million. This figure exceeds the projected benefits by a 2.3 to 1 ratio. Some economists calculate a benefit-cost ratio, which in this case is 0.435, where 1.0 is commonly regarded as the "go-ahead" ratio for a project. Estimating a larger 10% market penetration, cost to the public reaches $532.9 million over 5 years. The largest estimated market penetration of 20% late night bars would cost the public $1.066 billion over 5 years.

CONCLUSIONS

Overall, we expect SB 58 implementation in Los Angeles to cost society a minimum of $52.1 million annually, and $266.5 million to $1.066 billion over the five-year trial period. We provide above details of difficult-to-quantify expected marginal increases in violent crimes, alcohol-related arrests, DUIs, motor vehicle crashes, ambulance attendances and binge drinking in the City of Los Angeles for one calendar year. The costs and acute harms to real people would be astronomical if SB 58 were passed and implemented.

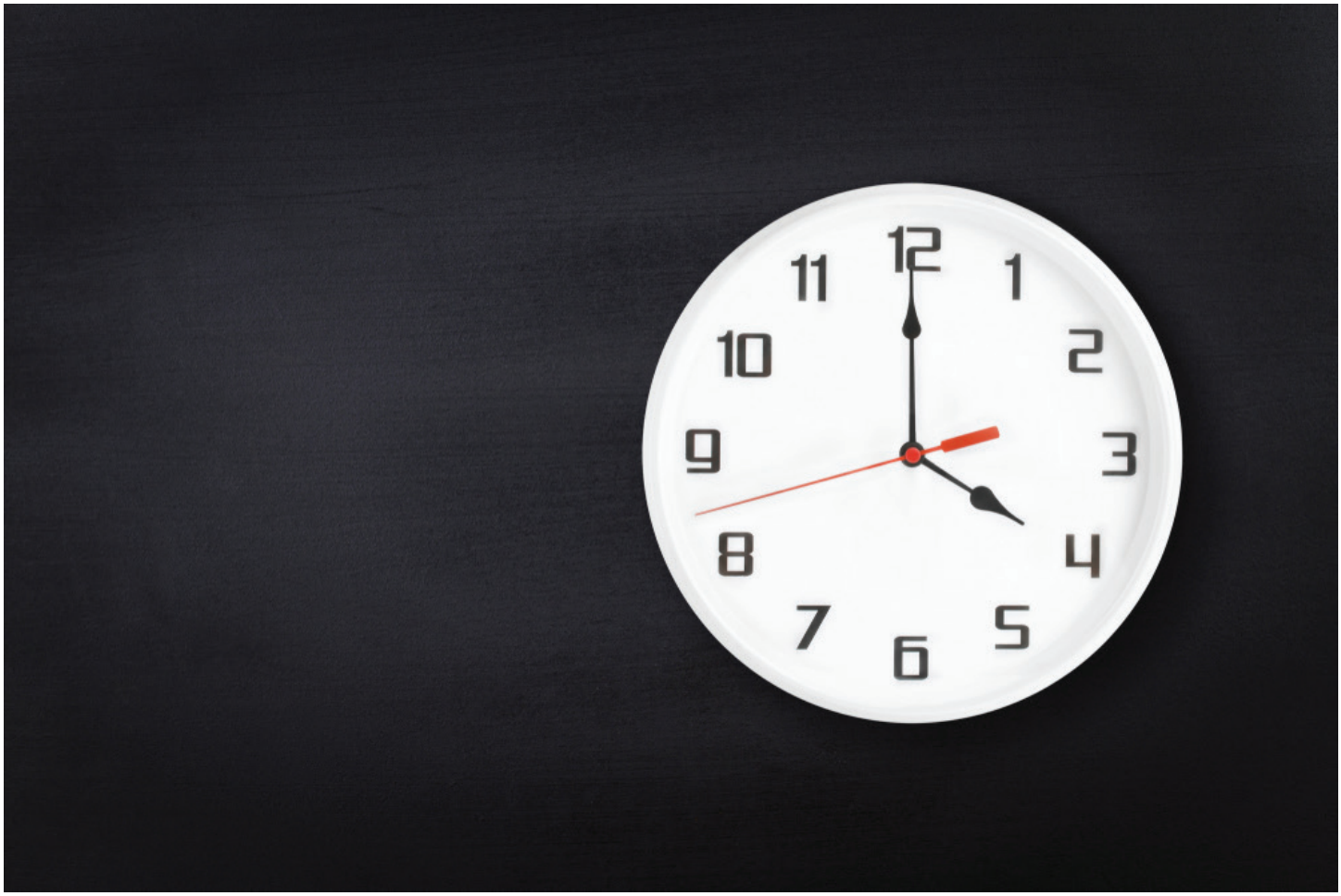
DISCUSSION

The results of the cost-benefit analyses show that for the City of Los Angeles, the costs related to extending last call to 4 a.m. will greatly outweigh the additional revenue generated. While bar, night club, restaurant or hotel owners might profit, those profits would be shifts of income from other entertainment and grocery corporations. The harms calculated would accrue to Los

Social Harm and Cost Considerations

	Annual marginal increases
Violent Crimes	18,934
Alcohol-related Arrests	2,741
DUIs	3,237
Motor Vehicle Crashes	809
Ambulance Attendances	94,147
	BAC levels
Binge Drinking (increase from expected .09% BAC at midnight to .21% BAC at 4 a.m.)	.21% BAC

Figure 4. Social harms and costs from a 4 a.m. last call



Angeles residents and surrounding communities in acute harms such as violence, traffic collisions and poisonings, and long term harms in alcohol-related diseases, lost wages and lost productivity. (Costs are summarized in Figure 1, while other harms are summarized in Figure 4.) The outweighed benefits would accrue to state and federal government through excise taxes and to the state and City of Los Angeles in sales taxes.

From a public health standpoint, the positive relationship between extended late night serving hours and alcohol-related problems (e.g., violent crime) has been demonstrated in countries all over the world, including Australia,[28] Canada,[29] Norway,[30] and Colombia.[31] Furthermore, a review of international alcohol policies ranked 31 different policies that could affect alcohol-related harms according to effectiveness, quality and consistency of evidence, cross-cultural generalizability, and monetary and other costs of implementation and sustainability; this review ranked hours or days of sale third in terms of protecting against alcohol-related harms.[32] We can conclude from the international literature that extended late-night alcohol service hours lead to increased consumption and related harms.[33]

RECOMMENDATIONS

The aggregation of higher-risk customers in on-premise alcohol establishments, combined with excessive drinking during late night hours, will increase the likelihood of public health and safety problems.[34] The costs to society will outweigh the benefits by a factor of 2.3 to 1, totaling $266.5 million–$1.066 billion net social harm to the Los Angeles area. While assumptions and specific estimates are debatable, we recommend using this kind of cost-benefit analysis in the future in debating grandiose and costly deregulation schemes such as 4 a.m. bar closing time proposals. The hundreds of millions of dollars in net social costs we estimate are a valuation of real social harm in lost lives, years of lives lost and lost productivity in Los Angeles and its surroundings.

REFERENCES

1. PourSafe.com. All 4AM Bill Outlet Counts – ABC Alcohol Licenses and applications in process. Available at: https://no4am.com/abc-licensing. Updated: March 27, 2019. Accessed: June 12, 2019.
2. Vingilis E, McLeod AI, Seeley J, Mann RE, Beirness D, Compton CP. Road safety impact of extended drinking hours in Ontario. *Accid Anal Prev*. 2005;37(3):549-56.
3. National Alcoholic Beverage Control Association. *Statistics for Alcohol Management*. Available at: https://www.nabca.org/sam-data-availability. Accessed June 11, 2019.
4. Tarver E. The economics of owning a bar. In: Investopedia. Available at: https://www.investopedia.com/articles/personal-finance/011216/economics-owning-bar.asp. Updated: October 21, 2018. Accessed: June 11, 2019.
5. PayScale. Cost of living in Los Angeles, CA. Available at: https://www.payscale.com/cost-of-living-calculator/California-Los-Angeles. Accessed June 11, 2019
6. Sacks JJ, Gonzales KR, Bouchery EE, Tomedi LE, Brewer RD. 2010 National and state costs of excessive alcohol consumption. *Am J Prev Med*. 2015:49(5):e73-e79.
7. Martinez P, Kerr WC, Subbaraman MS, Roberts SC. New estimates of the mean ethanol content of beer, wine, and spirits sold in the United States show a greater increase in per capita alcohol consumption than previous estimates. *Alcohol Clin Exp Res.* 2019:43(3):509-21.
8. Gruenewald PJ, Remer LG, LaScala EA. Testing a social ecological model of alcohol use: the California 50-city study. *Addiction*. 2014;109(5):736-45.
9. Lee JP, Pagano A, Morrison C, Gruenewald PJ, Wittman FD. Late night environments: Bar "morphing" increases risky alcohol sales in on-premise outlets. *Drugs (Abingdon Engl).* 2018 3;25(5):431-7.
10. Fitterer JL, Nelson TA, Stockwell T. A review of existing studies reporting the negative effects of alcohol access and positive effects of alcohol control policies on interpersonal violence. *Front Public Health.* 2015;16(3):253.
11. Kypri K, McElduff P, Miller P. Restrictions in pub closing times and lockouts in Newcastle, Australia five years on. *Drug Alcohol Rev*. 2014;33(3):323-6.
12. Wilkinson C, Livingston M, Room R. Impacts of changes to trading hours of liquor licences on alcohol-related harm: a systematic review 2005–2015. *Public Health Res Pract*. 2016;26(4):e2641644.
13. Ibid.
14. Rossow I, Norström T. The impact of small changes in bar closing hours on violence. The Norwegian experience from 18 cities. *Addiction*. 2012;107(3):530-7.
15. Ibid.
16. National Highway Traffic Safety Administration. *Time of Day and Demographic Perspective of Fatal Alcohol-Impaired-Driving Crashes*. Washington, DC: NHTSA's National Center for Statistics and Analysis; 2011. Available at: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811523. Accessed: June 11, 2019.
17. Vingilis E, McLeod AI, Stoduto G, Seeley J, Mann RE. Impact of extended drinking hours in Ontario on motor-vehicle collision and non-motor-vehicle collision injuries. *J Stud Alcohol Drugs*. 2007;68(6):905-11.
18. Vingilis E, McLeod AI, Seeley J, Mann RE, Beirness D, Compton CP. Road safety impact of extended drinking hours in Ontario. *Accid Anal Prev*. 2005;37(3):549-56.
19. Schofield TP, Denson TF. Temporal alcohol availability predicts first-time drunk driving, but not repeat offending. *PLoS One*. 2013;8(8):e71169. Published 2013 Aug 7. doi:10.1371/journal.pone.0071169
20. Ragnarsdóttir T, Kjartansdottir A, Davidsdottir S. Effect of extended alcohol serving-hours in Reykjavik. The effects of Nordic alcohol policies: What happens to drinking and harm when control systems change. In: Room R (ed.) *The Effects of Nordic Alcohol Policies*. Helsinki, Finland: Nordic Council for Alcohol and Drug Research; 2002.
21. Goeij M, Veldhuizen EM, Buster MC, Kunst AE. The impact of extended closing times of alcohol outlets on alcohol-related injuries in the nightlife areas of Amsterdam: A controlled before-and-after evaluation. *Addiction.* 2015;110(6):955-64.
22. Bellis MA, Hughes K, Quigg Z, Morleo M, Jarman I, Lisboa P. Cross-sectional measures and modelled estimates of blood alcohol levels in UK night life and their relationships with drinking behaviours and observed signs of inebriation. *Subst Abuse Treat Prev Policy.* 2010;5(1):5.
23. Zador PL. Alcohol-related relative risk of fatal driver injuries in relation to driver age and sex. *J Stud Alcohol*. 1991;52(4):302-10.
24. Ibid.
25. Wada R, Chaloupka FJ, Powell LM, Jernigan DH. Employment impacts of alcohol taxes. *Prev Med*. 2017;105:S50-5.
26. Connolly, K., Lisenkova, K. and McGregor, P., 2018. *The Economic Impact of Changes in Alcohol Consumption in the UK*. Glasgow, UK: University of Strathclyde; 2018. Available at: https://pure.strath.ac.uk/ws/portalfiles/portal/80224583/FAI_2018_The_economic_impact_of_changes_in_alcohol_consumption.pdf. Accessed June 11, 2019.
27. Cardona JR, Sanchez-Fernandez MD. Nightlife sector from a gender point of view: The case of Ibiza. *Eur J Tourism Hosp Rec.* 2017;8(1):51-64.
28. Kypri K, McElduff P, Miller P. Restrictions in pub closing times and lockouts in Newcastle, Australia five years on. *Drug Alcohol Rev*. 2014;33(3):323-6.
29. Vingilis E, McLeod AI, Stoduto G, Seeley J, Mann RE. Impact of extended drinking hours in Ontario on motor-vehicle collision and non-motor-vehicle collision injuries. *J Stud Alcohol Drugs*. 2007;68(6):905-11.
30. Rossow I, Norström T. The impact of small changes in bar closing hours on violence. The Norwegian experience from 18 cities. *Addiction*. 2012;107(3):530-7.
31. Sánchez AI, Villaveces A, Krafty RT, Park T, Weiss HB, Fabio A, Puyana JC, Gutiérrez MI. Policies for alcohol restriction and their association with interpersonal violence: a time-series analysis of homicides in Cali, Colombia. *Int J Epidemiol.* 2011;40(4):1037-46.
32. Babor TF, Caetano R. Evidence-based alcohol policy in the Americas: Strengths, weaknesses, and future challenges. *Revista Panamericana de Salud Pública*. 2005;18:327-37.
33. Stockwell T, Chikritzhs T. Do relaxed trading hours for bars and clubs mean more relaxed drinking? A review of international research on the impacts of changes to permitted hours of drinking. *Crime Prev Community Safety*. 2009;11(3):153-70.
34. Lee JP, Pagano A, Morrison C, Gruenewald PJ, Wittman FD. Late night environments: Bar "morphing" increases risky alcohol sales in on-premise outlets. *Drugs (Abingdon Engl).* 2018 3;25(5):431-7.

California Alcohol Policy Alliance

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MISSION

The California Alcohol Policy Alliance (CAPA) shall unite diverse organizations and communities in California to protect health and safety, and prevent alcohol-related harm through statewide action.

PLATFORM

- Raise the price of alcohol through taxes and fees, supporting the "Charge for Harm" concept that the industry should pay for treatment, prevention and all other costs to government.
- Limit alcohol advertising in all media, especially on government-controlled property and where children or targeted populations are exposed.
- Make the California Department of Alcoholic Beverage Control effective, efficient, transparent, and accountable to public health and safety concerns of the community, and not to cater to industry profits and license expediency, through policies that reduce alcohol outlet density and increase funding for alcohol control, regulation, and enforcement.
- Eliminate product lines (such as alcopops and malt liquors) oriented to underage youth and vulnerable or targeted populations.
- Reduce the allowable blood alcohol content for drivers as "Point .05 Saves Lives".
- Improve labeling and out-of-home advertising of all alcohol products to ensure a) no marketing to youth, b) no indications of unsubstantiated health claims, c) display of alcohol content by volume and percentage and d) display of harms.

STEERING COMMITTEE

Asian American Drug Abuse Program, Inc.
Behavioral Health Services, Inc.
Koreatown Youth and Community Center
Paso por Paso
Pueblo y Salud
Tarzana Treatment Centers, Inc.
The Wall Las Memorias Project
United Coalition East Prevention Project/Social Model
Women Against Gun Violence
Institute for Public Strategies
Mountain Communities Family Resource Center
Project SAFER
Reach Out
San Marcos Prevention Coalition
Santee Solutions
ADAPT San Ramon Valley
Center for Human Development
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Alcohol Justice
California Council on Alcohol Problems
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ABOUT THE ALCOHOL RESEARCH GROUP

The Alcohol Research Group (ARG), a program of the Public Health Institute, is a multidisciplinary research center whose focus is to conduct research on alcohol use patterns and associated problems and disseminate research findings. Our research team is comprised of epidemiologists, psychologists, economists and researchers in other disciplines. ARG is also home to the NIAAA-funded National Alcohol Research Center and training program.

ABOUT THE AUTHORS

Meenakshi Sabina Subbaraman, PhD, is a biostatistician and Co-Director of Statistical and Data Services at the Public Health Institute's Alcohol Research Group (ARG). Her primary research interests are statistical methods for understanding causal mechanisms, treatment and recovery from substance use disorders, and how drug and alcohol policies affect substance use. Dr. Subbaraman's current work focuses on cannabis and alcohol co-use, substitution of cannabis and alcohol, and the impacts of alcohol and cannabis availability and taxes on substance use.

William C. Kerr, PhD, is a senior scientist and Center Director at ARG. Since joining ARG in 2001, Dr. Kerr has pursued research in the areas of alcohol policy; the methodology of alcohol use pattern measurement; the decomposition of trends in U.S. alcohol consumption with a focus on age, period and cohort modeling; and the relationship between alcohol use patterns and health and mortality outcomes. Dr. Kerr is currently an assistant editor for the journal Addiction and a member of the editorial board of the journal Contemporary Drug Problems.

ABOUT ALCOHOL JUSTICE

Alcohol Justice promotes evidence-based public health policies and organizes campaigns with diverse communities and youth against the alcohol industry's harmful practices.

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The High Cost of the 4 A.M. Bar Bill:
A Cost-Benefit Analysis of Extended Alcohol Trading Hours in Los Angeles

A report from the Alcohol Research Group
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