



Every professional peer-reviewed study demonstrates that a private corporate takeover of the sale of wine and spirits leads to increased negative impacts on society, including spikes in under-age drinking, overall consumption, deaths as a result of drunk drivers, crime, property damage, gang violence, suicides, excessive consumption, violence in relationships, college student drinking and other factors. We encourage you to review this selection of independent research:

- U.S. Centers for Disease Control (CDC), Task Force on Community Preventive Services, April 11, 2011, recommends against further privatization of alcohol sales. *Am J Prev Med* 2012;42(4):428-429  
[http://www.thecommunityguide.org/alcohol/Privatization\\_Recommendation.pdf](http://www.thecommunityguide.org/alcohol/Privatization_Recommendation.pdf)
  - **The U.S. Centers for Disease Control (CDC)'s Task Force on Community Preventive Services announced its decision and rationale for recommending against further privatization of alcohol sales.**
  - **The CDC states: “Based on its charge to identify effective disease and injury prevention measures, the Task Force on Community Preventive Services recommends against the further privatization of alcohol sales in settings with current government control of retail sales, based on strong evidence that privatization results in increased per capita alcohol consumption, a well-established proxy for excessive consumption.”**
- Tabb L, Ballester L, Grubestic H. The spatio-temporal relationship between alcohol outlets and violence before and after privatization: A natural experiment, Seattle, Wa 2010–2013. *Spatial and Spatio-temporal Epidemiology*; 2016; 19; 115-124  
<https://www.sciencedirect.com/science/article/abs/pii/S1877584516300132?via%3Dihub>
  - **“For each additional off-premises and on-premises alcohol outlet in a given census block group, we found a significant increase of 8% and 5% for aggravated assaults and 6% and 5% for non-aggravated assaults, respectively”**
- Myran D, Chen J, et al. The association between alcohol access and alcohol-attributable emergency department visits in Ontario, Canada. *Addiction* 2019; 114;1183-1191  
<https://onlinelibrary.wiley.com/doi/abs/10.1111/add.14597>

- **“Alcohol-attributed ED visits increased 17.8% over the study period: more than twice the rate of increase for all ED visits. Increased hours of operation and numbers of alcohol outlets within an FSA were positively associated with higher rates of alcohol-attributable ED visits. The increase in ED visits attributable to alcohol was 6% (incident rate ratio = 1.06; 95% confidence interval = 1.04–1.08) greater in FSAs that introduced alcohol sales in grocery stores following deregulation compared with FSAs that did not.”**
  - **“Deregulation of alcohol sales in Ontario, Canada in 2015 was associated with increased emergency department visits attributable to alcohol.”**
- Morrison, C, Smith K, et al. Relating off-premise alcohol outlet density to intentional and unintentional injuries. *Addiction* 2016; 111; 56-64  
<https://onlinelibrary.wiley.com/doi/abs/10.1111/add.13098>
  - **“Greater off-premises outlet density is related to greater incidence of traumatic injury, and chain outlets appear to contribute most substantially to traumatic injury risk.”**
- Impact on alcohol-related mortality of a rapid rise in the density of private liquor outlets in British Columbia: a local area multi-level analysis  
*Addiction Research Report*, 2011  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2010.03331.x/abstract>
  - **“The rapidly rising densities of private liquor stores in British Columbia from 2003 to 2008 was associated with a significant local-area increase in rates of alcohol-related death.”**
  - **“There are many reasons for supposing that government liquor stores are better instruments for minimizing public health and safety consequences than private stores. These include greater compliance with laws regarding the sale of alcohol to minors and obviously intoxicated people, shorter trading hours and an absence of price discounting as noted in our introduction.”**
- Rowland B, Toumbourou J, et al. The Association of Alcohol Outlet Density With Illegal Underage Adolescent Purchasing. *Journal of Adolescent Health* 2015; 56; 146-152  
<https://www.sciencedirect.com/science/article/abs/pii/S1054139X14003279>
  - **“Each extra sales outlet per 10,000 population was associated with a significant increase in the risk of **underage** adolescent purchasing. The strongest effect was for club density (odds ratio = 1.22) and packaged (takeaway) outlet density (odds ratio = 1.12).”**
- Privatising Liquor Sales Results in More Alcohol-Related Deaths: New Research  
 University of Victoria Media Release, January 18, 2011

<http://communications.uvic.ca/releases/release.php?display=release&id=1193>

- **“The study found that areas with more stores in private rather than government hands had significantly higher rates of alcohol-related deaths involving local residents. In fact, there was a 27.5 per cent increase in alcohol-related deaths for every extra private liquor store per 1,000 British Columbians.”**
- Alcohol Control Systems and the Potential Effects of Privatization. *Alcohol Research Group, Emeryville, 2007*  
<http://www.usdrinksconference.com/assets/files/download/Privatization%20Pamphlet%20Final.pdf>
  - **“A recent study found that persons living in areas with a high density of off-premise outlets had double the risk of being shot in an assault compared to those in lower outlet density areas.”**
  - **“A recent study of retail stores compliance with minimum purchase age restrictions in Norway and Finland found that state monopoly stores were less likely to sell to minors than private stores.”**
- Campbell CA, Hahn RA, Elder R, et al. The Effectiveness of Limiting Alcohol Outlet Density As a Means of Reducing Excessive Alcohol Consumption and Alcohol-Related Harms. *Am J Prev Med.* 2009;37:556.  
<http://www.thecommunityguide.org/alcohol/EffectivenessLimitingAlcoholOutletDensityMeansReducingExcessiveAlcoholConsumptionAlcohol-RelatedHarms.pdf>
  - **“The regulation of alcohol outlet density may be a useful public health tool for the reduction of excessive alcohol consumption and related harms.”**
- Gruenewald PJ, Remer L. Changes in outlet densities affect violence rates. *Alcoholism: Clinical and Experimental Research* 2006;30(7):1184 –93.  
<http://www.capitolneighborhoods.org/pdf/gruenewald.pdf>
  - **“Ten percent increases in numbers of off-premise outlets and bars were related to 1.67 and 2.06% increases in violence rates across local and lagged spatial areas.”**
  - **“Every 6 outlets accounted for 1 additional violent assault that resulted in at least 1 overnight stay at hospital.”**
- Britt H, Carlin BP, Toomey TL, Wagenaar AC. Neighborhood-level spatial analysis of the relationship between alcohol outlet density and criminal violence. *Environ Ecol Stat* 2005;12:411–26.  
<http://www.springerlink.com/content/up1j76j4q61241w1/>

- **“Our results indicate a significant positive relationship between alcohol outlet density and violent crime”**
- Miller T, Snowden C, Birckmayer J, & Hendrie D. Retail alcohol monopolies, underage drinking, and youth impaired driving deaths. *Accident Analysis & Prevention*, 2006;38(6), 1162-1167.  
<http://www.ncbi.nlm.nih.gov/pubmed/16787633>
  - **“In states with a retail monopoly over spirits or wine and spirits, an average of 14.5% fewer high school students reported drinking alcohol in the past 30 days and 16.7% fewer reported binge drinking in the past 30 days than high school students in non-monopoly states.”**
  - **“Monopolies over both wine and spirits were associated with larger consumption reductions than monopolies over spirits only. Lower consumption rates in monopoly states, in turn, were associated with a 9.3% lower alcohol-impaired driving death rate under age 21 in monopoly states versus non-monopoly states.”**
  - **The study shows that compared to all states and the District of Columbia, Pennsylvania has the seventh lowest rate of drinking by high school students and the seventh lowest rate of binge drinking by high school students.**
  - **“Alcohol monopolies may prevent 45 impaired driving deaths annually.”**
- Flanagan G. Sobering, Result: The Alberta Liquor Retailing Industry Ten Years After Privatization. Calgary: *Canadian Centre for Policy Alternatives and Parkland Institute*. 2003.  
[http://www.policyalternatives.ca/sites/default/files/uploads/publications/National\\_Office\\_Pubs/sobering\\_result.pdf](http://www.policyalternatives.ca/sites/default/files/uploads/publications/National_Office_Pubs/sobering_result.pdf)
  - **“Evidence on the links between alcohol consumption and social ills is overwhelming. Absolute alcohol consumption is high in Alberta relative to the rest of Canada and has begun to climb since 1997. The potential for increased social costs is real.”**
  - **“In 1995-96 (the most recent available), the total federal and provincial tax revenues from liquor were \$3.78 billion, while the social costs were estimated at \$5.25 billion.”**
- Norström T., Miller T., Holder H., Österberg E., Ramstedt M., Rossow I., Stockwell T. Potential consequences of replacing a retail alcohol monopoly with a private license system: Results from Sweden. *Addiction* 2010;105.  
<http://www.ncbi.nlm.nih.gov/pubmed/20809914>
  - **“According to the projections, scenario 1 yields a consumption increase of 17% (1.4 litres/capita), which in turn would cause an additional 770 deaths,**

8500 assaults, 2700 drinking driving offences and 4.5 million sick days per year.”

- **“The corresponding figures for scenario 2 are a consumption increase of 37.4% (3.1 litres/capita) leading to an additional annual toll of 2000 deaths, 20 000 assaults, 6600 drinking driving offences and 11.1 million days of sick leave.”**
- **“Projections based on the research literature suggest that privatization of the Swedish alcohol retail market would significantly increase alcohol consumption and alcohol-related harm.”**
- Wagenaar A. and Holder H. Changes in Alcohol Consumption Resulting from the Elimination of Retail Wine Monopolies: Results from Five U.S. States. *J Stud Alcohol*. Sept 1995; 56(5):566-72.  
<http://www.ncbi.nlm.nih.gov/pubmed/7475038>
  - **“After controlling for both nationwide and state-specific trends, we found significant increases in wine sales after privatization of 42% in Alabama, 150% in Idaho, 137% in Maine, 75% in Montana and 15% in New Hampshire.”**
  - **“We recommend that the social costs associated with increased alcohol use be carefully considered before such major policy changes are contemplated.”**
- Wagenaar A. and Holder H. A Change from Public to Private Sale of Wine: Results from Natural Experiments in Iowa and West Virginia. *J Stud Alcohol*. 1991 Mar; 52(2):162-73.  
<http://www.ncbi.nlm.nih.gov/pubmed/2016877>
  - **“In addition, there was a net increase in absolute alcohol consumed in both states across all beverages (beer, wine and distilled spirits) associated with privatization.”**
- Branas CC, Elliott MR, Richmond TS, Gulhane DP, Wiebe DJ. Alcohol consumption, alcohol outlets, and the risk of being assaulted with a gun. *Alcoholism: Clinical and Experimental Research*, 2009  
<http://www.ups.upenn.edu/ficap/alcohol%20outlets%20safety%20lit.pdf>
  - **“After adjustment, heavy drinkers were 2.67 times as likely to be shot in an assault when compared with nondrinkers (p < 0.10) while light drinkers were not at significantly greater risk of being shot in an assault when compared with nondrinkers.”**
  - **“Regression-adjusted analyses also demonstrated that being in an area of high off-premise alcohol outlet availability significantly increased the risk of being shot in an assault by 2.00 times (p < 0.05).”**

- Rossow I, Karlsson T, Raitasalo K., Old enough for a beer? Compliance with minimum legal age for alcohol purchases in monopoly and other off-premise outlets in Finland and Norway. *Addiction*, September 2008;103(9):1468-1473.  
<http://cat.inist.fr/?aModele=afficheN&cpsidt=20584432>
  - **“The buyers were more likely to be requested to present an ID card and less likely to succeed in purchasing alcohol in monopoly outlets compared to other types of outlets”**
  - **“Monopoly outlets may facilitate compliance with minimum legal age for purchase of alcohol.”**
  
- Holder H, ed. , Agardh E, Högberg P, et al. If retail alcohol sales in Sweden were privatized, what would be the potential consequences? *Stockholm, Sweden: Swedish National Institute of Public Health*; 2007.  
[http://thorgisla.blog.is/users/e8/thorgisla/files/c\\_documents\\_and\\_settings\\_bif2006\\_my\\_documents\\_monopolstudie\\_eng\\_0708.pdf](http://thorgisla.blog.is/users/e8/thorgisla/files/c_documents_and_settings_bif2006_my_documents_monopolstudie_eng_0708.pdf)
  - **“Our best estimates are that privatization of all retail sales of alcohol in Sweden would raise consumption by 14% (approximately 1.4 liters/capita) if sales were restricted to specialty stores or by 29% (approximately 2.8 liters/capita) which would be added to the current estimates of 9.7 liters/capita.”**
  - **“These estimates are, at best conservative, and it is certainly possible that if all alcohol retail sales in Sweden were transferred to private licensing, the increase in total consumption could be even higher.”**
  - **“However, the conservative results presented here are quite important and reflect a significant public health consequence from privatization of all alcohol-retail sales in Sweden.”**
  
- Rippey, Darren. Off the Wagon: Why ABC Privatization is a Bad Idea. *Virginia Interfaith Study for Public Policy*; August 2010.  
<http://www.virginiainterfaithcenter.org/Portals/1/Communications/abcprivatization.pdf>
  - **“According to the Virginia Department of Health, from 2004 to 2006, in 25.8 percent of all deaths in Virginia resulting from injury, one of the parties involved had a blood alcohol concentration (BAC) of 0.01 percent or greater.”**
  - **“In over 30 percent of homicide deaths, one of the parties involved had a BAC of 0.01 percent or greater. During the same period, 27 percent of all motor vehicle crash deaths were alcohol related (BAC ≥ 0.01 percent).”**

- **“It is likely that substantially reducing the control of spirit sales will disproportionately affect lower-income and minority communities in terms of the social costs associated with the increased availability of distilled spirits.”**
- Paschall, Mallie J. Alcohol Outlet Characteristics and Alcohol Sales to Youth: Results of Alcohol Purchase Surveys in 45 Oregon Communities. *Society for Prevention Research*; 2007.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1933529/>
  - **The proportion of successful purchase attempts was lower in stores participating in Oregon’s state liquor control program (Oregon Liquor Control Commission’s Responsible Vender Program [RVP]).**
  - **“Consistent with expectations, purchases were significantly less likely at RVP outlets (25%) than non-RVP outlets (39%).”**
  - **“Salesclerks asked for the decoys’ age identification at 76% of the outlets, and were significantly more likely to do so at RVP (83%) than non-RVP outlets (72%).”**
- One on every corner: The relationship between off-license density and alcohol harms in young people. *Alcohol Concern*, United Kingdom, July 2011.  
<http://www.alcoholconcern.org.uk/assets/files/Publications/one-on-every-corner.pdf>
  - **“Off-licensed sales are the predominant direct and indirect source of access to alcohol for young people under-18-years-old and growing international evidence links off-license density with various negative alcohol-related consequences.”**
  - **“Our findings suggest that the greater the availability of alcohol, the greater the risk of young people suffering alcohol harm. Therefore, the changing nature of where we buy and consume alcohol may have an impact on the risk of harms to young people.”**
  - **“The analysis showed that nearly 10% of all alcohol specific hospital admissions in England, excluding London, are directly attributable to off-license density; meaning availability rather than any other external factor is the cause of one in ten of such harms...Our research indicates that over 1,900 of those admissions could be directly attributable solely to the density of off-licensed premises in the young person’s local area.”**
- Parker N, Robert. Alcohol availability and youth homicide in the 91 largest US cities, 1984-2006. *Drug and Alcohol Review*, September 2011; 30(5):505-514.  
<http://www.nabca.org/News/Files/Alcohol%20availability%20and%20youth%20homicide%20in%20the%2091%20largest%20US%20cities,.pdf>



- **“Results indicated that net of other variables, several of which had significant impacts on youth homicide, the density of alcohol outlets had a significant positive effect on youth homicide for those aged 13–17 and 18–24.”**
  - **“An important policy implication of these findings is that the reduction of the density of retail alcohol outlets in a city may be an effective tool for violent crime reduction among such youth.”**
- Parker N, Robert. The impact of retail practices on violence: The case of single serve alcohol beverage containers. *Drug and Alcohol Review*, September 2011; 30(5):496-504. <http://onlinelibrary.wiley.com/doi/10.1111/j.1465-3362.2011.00318.x/full>
  - **“Results show that the average proportion of shelf space devoted to single serve containers in the unit of analysis, the US Census Bureau block group, was positively related to violent crime...”**
- Youth Exposure to Alcohol Product Advertising on Local Radio in 75 U.S. Markets, 2009. *John Hopkins University, The Center on Alcohol Marketing and Youth*, September 13, 2011. <http://www.camy.org/bin/g/m/report.pdf>
  - **The alcohol industry has failed its own standards by overexposing youth to alcohol ads on stations where the majority of listeners are ages 12-20.**
  - **Distilled spirits were the most common type of alcohol advertisement to overexpose youth audiences in Portable People Meter (PPM™) markets. The PPM™ is a new method of measuring listening, in which survey participants agree to wear a small device that receives a special signal from each radio station. PPMs™ allow for more precise measurement of actual listening because they do not depend on survey participants’ active recall and do not require them to record their listening behavior in a paper diary.**
  - **“Within the underage group, girls ages 12-20 were more likely than boys ages 12-20 to be exposed to alcohol advertising for alcopops, distilled spirits, and wine in the majority of PPM markets in 2009.”**
- Bouchery, Ellen E. *Economic Costs of Excessive Alcohol Consumption in the U.S.*, 2006 *Am J Prev Med* 2011;41(5):516 –524. [http://www.ajpmonline.org/article/S0749-3797\(11\)00538-1/abstract](http://www.ajpmonline.org/article/S0749-3797(11)00538-1/abstract)
  - **“On a per capita basis, the economic impact of excessive alcohol consumption in the U.S. is approximately \$746 per person, most of which is attributable to**



**binge drinking. Evidence-based strategies for reducing excessive drinking should be widely implemented.”**

- Zalcman RF, Mann RE. The effects of privatization of alcohol sales in Alberta on suicide mortality rates. *Contemporary Drug Problems* 2007;34(4):589-609.  
<http://heinonline.org/HOL/LandingPage?collection=journals&handle=hein.journals/condp34&div=44&id=&page=>
  - **“The analyses demonstrated that most of the privatization events resulted in either temporary or permanent increases in suicide mortality rates.”**
  - **“These analyses suggest that privatization in Alberta has acted to increase suicide mortality rates in that province.”**
- Chen MJ, Gruenewald PJ, Remer LG. Does alcohol outlet density affect youth access to alcohol? *Journal of Adolescent Health* 2009;44(6):582-9.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2736854/>
  - **“After taking into account individual-level factors and zip code median household income, zip code alcohol outlet density was significantly and positively related to the initial levels of the likelihood and frequency of getting alcohol through various sources including commercial outlets, shoulder tapping, home or family members, and underage acquaintances.”**
  - **“High alcohol outlet densities have been found to be associated with negative youth well-being, including underage drinking and driving, violent assaults, and injuries related to accidents and assaults.”**
- Kypri K, Bell ML, Hay GC, Baxter J. Alcohol outlet density and university student drinking: A national study. *Addiction* 2008;103(7):1131-8.  
<http://www.ncbi.nlm.nih.gov/pubmed/18554346>
  - **“Positive associations exists between alcohol outlet density and individual university student drinking and related problems. Increasing alcohol outlet density, and particularly off-premise licenses (grocery/liquor stores, e.g.), may increase alcohol-related harm in this population.”**
- Paschall MJ, Grube JW, Kypri K. Alcohol control policies and alcohol consumption by youth: A multi-national study. *Addiction* 2009;104(11):1849-55.  
<http://www.ncbi.nlm.nih.gov/pubmed/19832785>
  - **“More comprehensive and stringent alcohol control policies, particularly policies affecting alcohol availability and marketing, are associated with lower prevalence and frequency of adolescent alcohol consumption and age of first alcohol use.”**

- Gorman DM, Speer PW, Gruenewald PJ, Labouvie EW. Spatial dynamics of alcohol availability, neighborhood structure and violent crime. *Journal of Studies on Alcohol* 2001;62(5):628-36.  
[http://www.jsad.com/jsad/article/Spatial\\_Dynamics\\_of\\_Alcohol\\_Availability\\_Neighborhood\\_Structure\\_and\\_Violent\\_Crime/1364.html](http://www.jsad.com/jsad/article/Spatial_Dynamics_of_Alcohol_Availability_Neighborhood_Structure_and_Violent_Crime/1364.html)
  - **Study was done in Camden, NJ.**
  - **“Each type of analysis showed that those areas with high alcohol outlet densities experienced more violent crime than low-density areas, after controlling for neighborhood social structure. In the multivariate regression analysis, alcohol outlet densities explained close to one fifth of the variability in violent crime rates across block groups— more than any one of the neighborhood structural variables included in the analysis.”**
  - **“High alcohol outlet density is associated with high rates of violent crime in this urban community.”**
- Livingston M. Alcohol outlet density and harm: Comparing the impacts on violence and chronic harms. *Drug and Alcohol Review* 2011;30(5):515-523.  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1465-3362.2010.00251.x/abstract>
  - **“The density of off-premise alcohol outlets is related to the rate of alcohol use disorders.”**
  - **“These findings have significant implications for alcohol policies in Victoria, in particular pointing to the significant contribution of packaged alcohol outlets to both acute and chronic alcohol-related harm.”**
- McKinney CM, Caetano R, Harris TR, Ebama MS. Alcohol availability and intimate partner violence among US couples. *Alcoholism: Clinical & Experimental Research* 2009;33(1):169-76.  
<http://www.ncbi.nlm.nih.gov/pubmed/18976345>
  - **“In adjusted analysis, an increase of one alcohol outlet per 10,000 persons was associated with a 1.03-fold increased risk of MFPV (male-to-female partner violence).”**
  - **“Given that MFPV accounts for the majority of injuries related to intimate partner violence, policy makers may wish to carefully consider the potential benefit of limiting alcohol outlet density to reduce MFPV and its adverse consequences.”**

- Parker RN, Luther K, Murphy L. Availability, gang violence and alcohol policy: Gaining support for alcohol regulation. *Contemporary Drug Problems* 2007;34(4):611-633. [http://www.parliament.wa.gov.au/intranet/libpages.nsf/WebFiles/ITS+-+alco+article+Parker+07/\\$FILE/alco+article+parker+07.pdf](http://www.parliament.wa.gov.au/intranet/libpages.nsf/WebFiles/ITS+-+alco+article+Parker+07/$FILE/alco+article+parker+07.pdf)
  - **“Alcohol outlet density had a significant independent and positive effect on gang violence, resulting in increased gang violence where more alcohol outlets were found.”**
  - **“A way to enhance gang prevention and intervention efforts would be to use alcohol policy levers to limit outlet density.”**
- Treno AJ, Johnson FW, Remer LG, Gruenewald PJ. The impact of outlet densities on alcohol-related crashes: a spatial panel approach. *Accident Analysis & Prevention* 2007;39(5):894-901. <http://www.ncbi.nlm.nih.gov/pubmed/17275773>
  - **“Controlling for cross-sectional differences between zip code areas, changes in numbers of licensed alcohol retail establishments, especially bars and off-premise outlets, affect rates of car crashes and related injuries.”**
- Treno AJ, Gruenewald PJ, Johnson FW. Alcohol availability and injury: the role of local outlet densities. *Alcoholism: Clinical & Experimental Research* 2001;25(10):1467-71. <http://onlinelibrary.wiley.com/doi/10.1111/j.1530-0277.2001.tb02148.x/abstract>
  - **“Our analyses indicated an association between both on-premise and off-premise individual-level outlet densities and self-reported injuries.”**
- Cameron MP, Cochrane W. Alcohol outlet density is related to police events and motor vehicle accidents in Manukau City, New Zealand. *Aust N Z Public Health*. 2012 Dec;36(6):537-42. <http://www.ncbi.nlm.nih.gov/pubmed/23216494>
  - **“All three outlet density measures were significantly associated with a range of police events, but only off-licence density was significantly associated with motor vehicle accidents. An additional off-licence outlet in a given area was associated with 85.4 additional police events and 10.3 additional motor vehicle accidents.”**
- Toomey TL, Erickson DJ. Is the density of alcohol establishments related to nonviolent crime? *Journal of Studies on Alcohol and Drugs*. 2012, 73(1):21-25 <http://europepmc.org/abstract/MED/22152658/reload=0;jsessionid=1f9GC1c4WgQH5GwOtcZY.14>
  - **‘We estimated that a 3.3%-10.9% increase across crime categories would result from a 20% increase in neighborhood establishment density.’**

- **“Our results indicate that communities should consider the potential increase in nonviolent crime associated with an increase in the number of alcohol establishments within neighborhoods.”**
- White Garland, Gainey Randy. Alcohol Outlets and Neighborhood Crime: A Longitudinal Analysis. *Crime & Delinquency*. 2012, December 6.
  - **“The cross-sectional analysis revealed a strong relationship between the number of alcohol outlets and the number of street crimes for on-premises and off-premises outlets.”**
  - **“All three panels showed significant relationships between the number of alcohol outlets and the number of street crime events controlling for prior levels of crime, socioeconomic disadvantage, population size, and a spatial lag.”**

