

The impact of Ontario's extended drinking hours on cross-border cities of Windsor and Detroit

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Abstract

Purpose: This study evaluated the cross-border safety impact of extended drinking hours from 1:00 to 2:00 a.m., in licensed establishments in Ontario, Canada.

Methods: This study examined patterns in total and alcohol-related casualties in: (1) Windsor, Ontario, Canada compared to Detroit, Michigan, US with a 2:00 a.m. closing time, and (2) Ontario compared to Michigan for overall trends. The criterion outcome indicators were: (1) monthly motor vehicle casualties (major injuries and fatalities) for the city-regions of Windsor and Detroit and (2) Ontario and Michigan monthly motor vehicle fatalities occurring between 11:00 p.m. and 3:00 a.m. for 4 years pre- and 3 years post-policy change. In order to examine cross-border drinking consequences, data were disaggregated to assess trends of motor vehicle injury collisions involving vehicles with US licence plates and with US drivers aged 16–20 in the Windsor region; similarly trends were assessed for motor vehicle injury collisions involving vehicles with Ontario licence plates in the Detroit region.

Results: The Windsor region total motor vehicle casualty data showed a non-significant pre–post increase, while the Detroit region showed a statistically significant decrease for total motor vehicle casualties. In the Windsor region, a significant increase was found for alcohol-related motor vehicle casualties after the drinking hours were extended. However, the Detroit region showed a statistically significant decrease in alcohol-related motor vehicle casualties concomitant with Ontario's drinking hour extension. No similar trends were found for the province of Ontario and the state of Michigan as a whole. Moreover, a significant decrease was found for injury collisions involving vehicles with Ontario licence plates in the Detroit region but no similar pattern was found for injury collisions involving vehicles with US licence plates and with 16–20-year-old US drivers in the Windsor region.

Discussion: These data seem to support a cross-border impact of the Ontario extended drinking policy. A significant increase in alcohol-related motor vehicle casualties was found in the Windsor region and concomitantly, significant decreases in total and alcohol-related motor vehicle casualties were found in the Detroit region after the extended drinking hours amendment. The Ontario government's belief that the extended drinking hour policy would “reduce the number of patrons who cross the border when Ontario's bars and restaurants close” may have been realized.

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1. Introduction

On 1 May 1996, the provincial government of Ontario amended the *Liquor Licence Act* to extend hours of alcohol sales and service in licensed establishments from 1:00 to 2:00 a.m. The governmental rationale for extending the

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drinking hours was as follows: “We believe that permitting licensed establishments to sell and serve alcohol to 2:00 a.m. will help the tourism and convention industry and the hospitality industry, which loses business when patrons go over the border into New York or Michigan and into Manitoba or Quebec, when Ontario bars and restaurants close. . . Ontario has the earliest hours in Canada and in American states bordering Ontario and we believe this change will reduce the number of patrons who cross the border when Ontario’s bars and restaurants close” (The Honourable Norman Sterling, Minister of Consumer and Commercial Relations, 1996). This amendment made the 2:00 a.m. closing hour consistent with the cross-border jurisdiction of Michigan.

However, Canada’s lower minimum drinking age when compared to the US is an alcohol control policy difference that could encourage US residents to cross the border to drink in Ontario. The minimum drinking age in Ontario is 19 while in all American states it is 21 years of age. An unintended consequence of extending drinking hours in Ontario could be increased availability of alcohol for underage US patrons who cross the border to legally consume alcohol in Canada. The present study aims to examine the effect of the extended drinking hours on the cross-border regions of Windsor and Detroit.

1.1. Hours of sale

As reviewed in Vingilis et al. (2005), most studies on the effects of extended hours of sale have been conducted primarily in Australia and the United Kingdom who have found mixed results. The only recent Ontario evaluation of hours of sale was conducted by Vingilis et al. (2005) who examined the impact of extended drinking hours for the province of Ontario using an interrupted time series, quasi-experimental design with non-equivalent no-intervention control groups. The analyzed data sets were total and alcohol-related, monthly traffic fatalities for Ontario compared to neighbouring regions of New York and Michigan, for the 11:00 p.m. to 4:00 a.m. time windows, for 4 years pre- and 3 years post-policy change. No increases in alcohol-related driver fatalities were observed in Ontario after the amendment to extend drinking hours, even when controlling for overall trends in non-alcohol-related driver fatalities. These findings were supported by data obtained from a survey of licensed establishments conducted as part of this evaluation, which indicated that many licensed establishments did not implement the extended drinking hours and indeed the hours of closing were quite variable among licensed establishments across Ontario.

1.2. Cross-border drinking

To date, only one unpublished study has investigated the impact of cross-border drinking in the Canadian/US context. Krefth (2002) examined the impact of the difference in Michigan and Ontario minimum drinking age laws on the occurrence of motor vehicle fatalities in the Michigan coun-

ties that are nearer to Ontario border crossings for 19–20 years old drivers and drivers of all ages. He found that the closer a Michigan county is to a border crossing, the higher the total and alcohol-related motor vehicle fatalities for all ages of drivers. A larger body of literature has emerged which has examined cross-border drinking in the US/Mexican context. The research indicates that this border region has widely established and problematic alcohol-related behaviours among young adults (Clapp et al., 2001; Lange et al., 1999; Lange and Voas, 2001; Voas et al., 2002a, 2002b). Specifically, an estimated 1000 US San Diegans return from Tijuana, Mexico, every hour between midnight and 5:00 a.m. after drinking (Baker et al., 2000). Tijuana’s popularity is a result of its lower legal drinking age, fewer restrictions on alcohol sales, lower alcohol prices and less law enforcement than is present in the US (Baker et al., 2000). While Mexico does not provide an example of an increase in the hours of sale, the border surveys did demonstrate the impact upon cross-border drinkers of reducing the drinking hours. Voas et al. (2002a), reported a policy change in Juarez, Mexico, across the border from El Paso, US. On 1 January 1999, the all night bars in Juarez were required to close at 2:00 a.m. This resulted in an overall drop in cross-border drinkers: a 92% reduction in the number of cross-border drinkers returning with BACs above .08 after 3:00 a.m. and only a small non-significant reduction in those returning before 3:00 a.m.

Thus, while these findings suggest that in Mexico, cross-border drinking is strongly affected by availability and results in considerable alcohol-related harm, cultural differences between Canada and Mexico preclude firm comparisons regarding whether cross-border drinking is as widespread or problematic in the US/Canadian context. For example, Kuo et al. (2002), comparing college alcohol use in Canada and the US, found that more Canadian (legal drinkers) students drink, but US (illegal drinkers) students drink more; that is, prevalence of life-time and past-year alcohol use was significantly higher among Canadian students than US students but the prevalence of heavy drinking (consuming five or more drinks in a row) was significantly higher for US than Canadian students. Possibly the drinking context in Canadian licensed establishments reduce the incentive for heavy, binge drinking among Canadian students.

The introduction of extended drinking hours provided a natural experiment to evaluate an important alcohol control policy. This cross-border study was part of a larger study investigating the impact of the extended hours amendment in Ontario. Specifically, this study tested whether there was a change in alcohol-related motor vehicle casualties in Windsor and Detroit concomitant with the extended drinking hour amendment. Windsor within the county of Essex, Canada’s southernmost city with a regional population of about 300,000 is situated on the south shore of the Detroit River and Lake St. Clair, at the centre of the Great Lakes basin and directly across from Detroit, Michigan with a regional population of about 5 million. Although the Windsor region

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