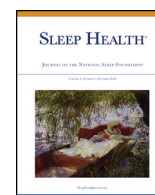




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## Hours of service regulations for professional drivers in continental Latin America<sup>☆</sup>



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### ABSTRACT

**Objectives:** To describe the hours of service provisions in continental Latin America.

**Design:** Information on regulations of service hours was extracted from either the national transportation authorities or ministries of transportation (or the equivalent institution) from each country.

**Setting:** Seventeen sovereign countries in continental Latin America (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela).

**Participants:** N/A

**Intervention (if any):** N/A

**Measurement:** Data on (a) limit on work hours, (b) mandatory daily time off (or rest), (c) overall schedule (mandatory weekly time off), and (d) daily breaks were extracted and summarized.

**Results:** Of the 17 countries surveyed, 9 countries have provisions limiting the daily amount of hours of service for professional drivers. Ten have provisions for mandatory daily rest, but only 5 have explicit provisions limiting the number of continuous working days, with mandatory uninterrupted time off >35 hours. Eight countries have provisions for mandatory breaks that limit the hours of continuous driving (ranging from 3 to 5:30 hours). **Conclusion:** Regulations that govern a population with 6 million injuries and over 100,000 deaths per year due to motor vehicle accidents leave important gaps. A minority, 6, of the countries regulated all 3 aspects; daily hours, breaks, and time off, and 3 regulate none of these. The regulations are less precise and restrictive than those in high-income countries, despite the doubled road injury mortality, and likely expose professional drivers and other road users to an increased risk of fatigue-related accidents.

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### Introduction

Insufficient sleep and circadian misalignment, coupled with long working hours, put truck and bus drivers at an increased risk for

road accidents.<sup>1</sup> In the past 2 decades, new special provisions that regulate work hours for professional drivers have been put in place in high-income countries and have been recently reviewed in the context of sleep and fatigue prevention (Mansfield et al).<sup>2</sup> In the European Union, hours of service provisions allow driving for up to 9 hours per day, whereas in the United States and Canada, provisions allow for up to 11 and 13 hours of driving, respectively.<sup>2</sup> Continental Latin America comprises a region of 17 sovereign Spanish/Portuguese-speaking countries with an estimated population of approximately 569 million people. In this region, there are over 6 million reported injuries and over 100,000 reported deaths as a result of

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motor vehicle accidents per year.<sup>3</sup> Road accidents are not only the leading cause of death for people aged between 15 and 44 in Latin America, its social and economic cost is estimated to account for up to 1.5% of the region's gross domestic product.<sup>3</sup> In this brief report, we identify the current provisions regulating hours of service in continental Latin America and discuss whether these regulations may be effective in preventing fatigue and drowsiness among professional drivers.

## Methods

Information on regulations of service hours was extracted from either the national transportation authorities or ministries of transportation (or the equivalent institution) from each 1 of the 17 sovereign countries included in this study (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela). If no information on current regulations was found, we (a) searched for laws or regulations with provisions that regulate hours of service and (b) contacted local authorities to verify the lack of special regulations on this matter. Data on the regulations were later summarized and entered into Table 1 with the following categories: (a) limit on work hours; (b) mandatory daily time off (or rest); (c) overall schedule (mandatory weekly time off); (d) daily breaks. Table S1 shows the complete list of regulations found in Spanish or Portuguese per country as well as its translation to English.

## Results

Table 1 shows the summary of hours of service provisions per country. The table is color-coded with 3 colors to represent the existence or not of provisions. We colored in green the cells for which regulations existed, in yellow when regulations existed but they were somewhat unclear or too vague, and in red when there were no provisions. Of the 17 countries surveyed, only 9 countries have regulations in place that limit the daily amount of hours of service for professional drivers (Fig. 1). In 3 countries, drivers' maximum allowed driving time is less than 10 hours (Paraguay, Uruguay, and Venezuela). On the other hand, in Argentina, Brazil, Chile, Costa Rica, and Peru, drivers may drive for up to 12 hours daily, whereas in Mexico, drivers may drive for up to 14 hours per day. Of the 8 countries that had no special provisions that limit the daily hours of service, 3 countries at least imposed weekly hour limits (Honduras, Nicaragua, and Ecuador). The remaining 5 countries (Bolivia, Colombia, El Salvador, Guatemala, and Panama) have no special provisions that limit working hours for professional drivers.

Only 10 countries in continental Latin America have special provisions for mandatory daily rest (or daily time off) for professional drivers (Fig. 2). Of these, 1 country required only 4 hours of rest (Bolivia), and 1 country (Paraguay) had in their provisions an unspecified amount of rest ("sufficient rest"). In the remaining 8 countries, professional drivers are required to have at least 8 hours of uninterrupted daily rest with a relatively small variation among countries (Argentina, Brazil, Chile, Honduras, Mexico, Nicaragua, Uruguay,

**Table 1**  
Summary of current service hours regulations in continental Latin America

Country	Limit on Work Hours	Mandatory Daily Time Off (or Rest)	Overall Schedule [Mandatory Weekly Time Off]	Daily Breaks
Argentina	Daily: 12h Weekly: 44h	Daily: 12h	7-d cycle: 36h off (uninterrupted) 28-d cycle: may work for up to 22 consecutive days (264h) and then take 6 days off	30 minutes for every 5:30h of driving
Bolivia	X	Daily: 4h	X	X
Brazil	Daily: driving 8h (up to 12h with overtime) Weekly: 44h [Waiting time is not computed as work time]	Daily: 11h (8h uninterrupted)	7-d cycle: 35h off (uninterrupted) 7-d cycle: time off could be split into 2 periods one of these periods should be at least 30h (uninterrupted)	60 minutes per day and 30 minutes every 5.5h of driving (for freight) or 30 minutes every 4h of driving (for buses)
Chile	Daily: 12h Monthly: 180h	Daily: 8h	21-d cycle: 180h on duty maximum	24m per hour for a total of 5h of driving
Colombia	X	X	X	X
Costa Rica	Daily: 12h Weekly: None	X	X	90 minutes
Ecuador	Daily: None Weekly: 40h	X	7-d cycle: 48h off (uninterrupted)	Unspecified amount
El Salvador	X	X	X	X
Guatemala	X	X	X	X
Honduras	Daily: None Weekly (daytime driving): 44h Weekly (nighttime driving): 36h	Daily: 10h (uninterrupted)	X	90 minutes (can be divided in up to 3 periods of 30 minutes)
Mexico	Daily: 14h Weekly: None Monthly: None	Daily 8h (if driving 14h)	X	30 minutes for every 5:30h of driving
Nicaragua	Daily: None Weekly: 60h Monthly: None	Daily: 8h (uninterrupted)	X	1h for every 6 hours of driving
Panama	X	X	X	X
Paraguay	Daily: 8h or 5h if driving between 8PM and 6AM Weekly: 48h	Unspecified amount	X	X
Peru	Daily: 12h Weekly: None Monthly: None	X	X	2h break after 5h of (daytime) continuous driving 2h break after 4h of (nighttime) continuous driving
Uruguay	Daily: 9h Weekly: 48h	Daily: 10h (8h uninterrupted)	X	Unspecified duration break after 5h of driving
Venezuela	Daily: 9h (and twice a week 10h) Weekly: 56h Bi-Weekly: 90h	(3 times a week could be reduced to 9h, still averaging 77h of weekly rest)	7-d cycle: 45h off (uninterrupted) 21-d cycle: One weekly rest period of 45h could be divided into 24h, and there maining 21h could be added to the 45h of one of the subsequent 2 week	45 minutes (uninterrupted or in 15 min intervals) for every 4:30h of continuous driving

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