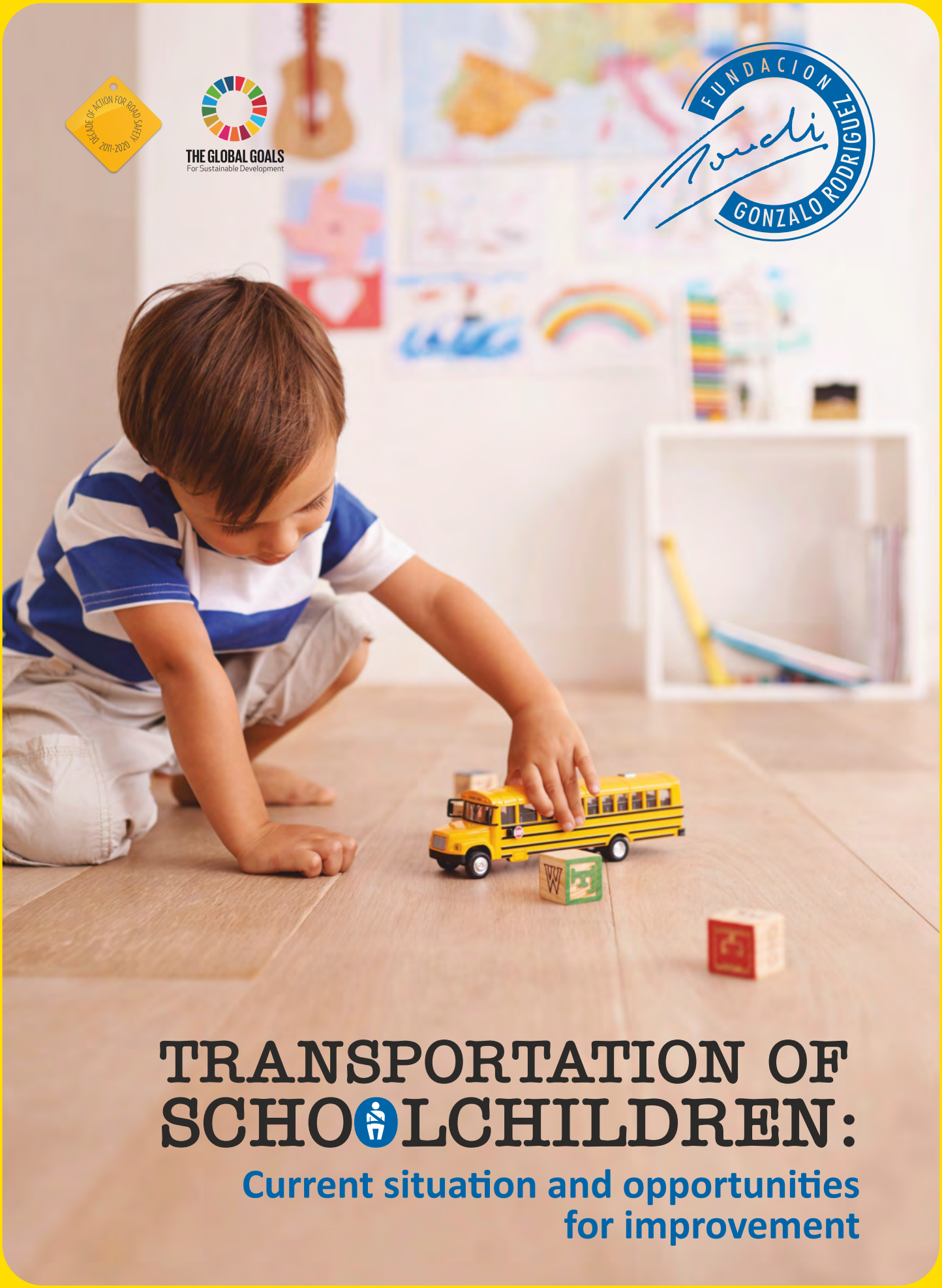

TRANSPORTATION OF SCHOOLCHILDREN:

Current situation and opportunities for improvement

Table of Contents

FUNDACION Gonzalo Rodriguez

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4

1. Executive Summary

This study is intended as an initial step to understanding more about the current status of the transportationation of children on school buses in the most populated cities of ten countries: Buenos Aires, Argentina; Sao Paulo, Brazil; Santiago, Chile; Bogota, Colombia; Mexico City, Mexico; Asuncion, Paraguay; Lima, Peru; Madrid, Spain; Montevideo; Uruguay and New York City, United States.

In order to capture the current situation in these cities, surveys were carried out with qualified informants and an analysis of every country's regulations was conducted. Very few investigations have specifically studied this kind of transportation; in this sense, an approach to the current situation becomes essential to provide data aimed at developing solutions to the problems our societies face in this field.

It is crucial to make sure that children travel safely regardless of their role on the road, as pedestrians, private car occupants, on a motorcycle, in a school vehicle, public transportation and hired buses or long-distance buses. It is therefore vital to know the conditions in which children actually travel during school or intra-school hours, from home to school, school to home and field trips (camps, school visits, sports, etc.).

This report aims to be a tool to use when making strategic decisions to improve current school transportation conditions. The purpose is not to provide specific solutions for each city studied, rather, it is to identify their initial status with a baseline for the development of a safe school transportation system.

Results of this study demonstrate not only difficulties to access systematized information for the comparative analysis and exchange of best practices between countries, but also the pressing need to make progress in the institutional, legal approach to child school transportation that shows very basic levels of regulation.

The Fundación Gonzalo Rodríguez (FGR) was honored to have the support of FedEx to develop this study. Both organization strongly believe that research and knowledge exchange are essential to take road safety from theory to action. In order to make our societies aware of and to prevent this epidemic from taking more lives, we must ensure the right of children to travel safely. It is necessary for all sectors of society to get involved: governments, schools, non-governmental organizations (NGOs), private companies, drivers, passengers and the entire community. This report attempts to make a contribution in that sense.

2. Background

The FGR is a non-profit, non-governmental organization made up of professionals from different areas. It was founded in Uruguay in 2000 as an initiative of María Fernanda Rodríguez, President of the Board of Directors.

From the very beginning, the FGR was committed to working to improve the quality of life for children in Uruguay and the LAC region. During its first seven years, the main aim was to promote the importance and need for access to sports for every child within formal education, developing the "Sports for All" program in Uruguay. Through this program, the government was stimulated to make sports mandatory in public schools and high schools nationwide.

Once that goal was accomplished, a new stage of work began. The organization started to promote road safety for children, which is now the main focus of its work. Thanks to the interaction between the FGR, several governmental stakeholders and the Uruguayan civil society, the following goals were achieved in the first years of work:

- Year 2010: Implementation of Child Road Safety and Traffic Act N°18,191, regarding school transportation.
- Year 2012: Passing of regulation N°19.061 General Regulations on Road Safety and Traffic that made the use of Child Restraint Systems (CRS), airbags and ABS mandatory.
- Year 2014: Implementation of Act N°10.061 regarding specifications on CRS to be used (according to child´s weight and height) and technical regulations to be complied with.

The FGR, with the support of its partners, has provided technical support to Latin American and Caribbean governments to improve safety regulations for the transportation of children as private vehicle passengers. Moreover, it has conducted several studies whose results have been presented both nationally and internationally in conferences, forums and events and have generated a significant impact on the population through the media and the community. These studies are:[(1)]

- Year 2009
  - Critical situation of children as vehicle occupants. Survey of Safety Equipment in Circulating Vehicles.
  - Observational Study on the Use of Safety Elements in Vehicles in Montevideo, Salto and Paysandú.
  - Exclusive Telephone Survey for Gonzalo Rodríguez´s Plan EDU-CAR.
- Year 2011
  - The FGR presented the "Best Practice Manual: How to Implement Child Occupant Safety,"[(2)] which aimed to disseminate information and raise adults' awareness. This manual was designed for national and regional governments, NGOs, professional staff, enforcers, teachers, health staff, technicians, manufacturers and importers of passive and

[(1)] *All the studies that the FGR has carried out can be downloaded from the organization's webpage: www.gonzalorodrigez.org*

[(2)] *http://www.gonzalorodriguez.org/data/paginas/manual_fgr.pdf*

active safety devices, businesspeople from the private and public sectors and stakeholders.
  - Observational Study on the Use of Child Passive Safety Elements in Private Vehicles in Montevideo.
  - Survey on Behaviors, Opinions and Attitudes towards Traffic - Analysis of Road Crashes Involving Children in Uruguay.
- Year 2012
  - Observational Study of Educational Centers Surroundings, and Children Mobility.
  - Motorcycles and Children. Observational Study of Ways of Traveling and Passive Safety Elements for Children.
  - Survey Study to School Children.
  - Phone Survey Study on School transportation in Uruguay.
- Year 2014
  - Child Restraint Systems in Latin America and the Caribbean. Analysis of Feasibility of Making its Use Mandatory.

With support of national and international organizations, the FGR has provided several public services campaigns, including “Safely Back to Schools.” Since 2011, this public campaign provides information to those responsible for transportationing children at the beginning of the school year, disseminating through different media the importance of the use of seat belts in school vehicles, the need to use Child Restraint Systems with children under the age of 3 according to Montevideo Municipality's regulation and other requirements to ensure the safe transportation of children.[3]

Taking into account the context described above, the FGR started focusing on the study of school transportation in Uruguay. After obtaining excellent results regarding the improvement of regulations and fleet, the Fundación decided to analyze the situation in neighboring countries (mostly middle-income countries), as well as adding two countries from outside the region (both high-income countries) in order to compare and build a theoretical model for countries to follow so that all children can safety travel to school.

This report aims to be a tool for those involved in this topic to use when making strategic decisions to improve current school transportation conditions. The purpose is not to provide specific solutions for each city studied, but to identify their initial status, with a baseline for the development of a safe school transportation system. In this regard, we believe countries included in this study may benefit twice over. On the one hand, due to the lack or limited number of similar studies analyzing the status of school transportation in the cases studied, information provided by this report will represent a baseline to know whether they are on the right path. On the other hand, the comparison of the results obtained in these ten cities will make it possible to exchange best practices between countries and cities to improve the safety standards of child passengers in school vehicles.

[3] *The FGR has obtained the commitment of the national press, which is renewed every year through the publication of FGR news, reports and coverage of activities. All this generates a key alliance for dissemination of our work and reinforces the broadcast made by FGR's public services campaigns.*

3. Objectives

- This study intends to offer a baseline of the situation of school transportation in each of the ten cities studied.
- This report attempts to define a "gold standard for school transportation" in which countries or cities are judged or measured in comparison with others.
- The gold standard may be used to:
  - Identify if the ten places studied meet the "gold standard for school transportation" and, in case some/all of them do not, to analyze how close those countries are on their way to achieving that standard.
  - Advocate for that high-quality standard in the ten places studied and elsewhere.
  - Provide guidance that may help stakeholders advance in their countries' way to achieving the "gold standard for school transportation."

4. Methodology

The study was designed as a cross-sectional, quali-quantitative diagnostic with information gathered from two main sources. Firstly, a 29-item school transportation current situation survey questionnaire was delivered to previously contacted qualified informants from the most populated city of the ten countries included in the study. This survey was conducted from April to July 2015. Secondly, from April to October, in order to cross-reference the answers given by many different stakeholders, a second general source of information was consulted. Documented sources, such as legislation (both at national and city level), were used in order to validate the answers given by the participants. Finally, the FGR team reviewed a series of official document regarding school transportation situation, in order to expand the information. These combined efforts helped build representative, up-to-date and error-free answers (see Table N°1).

Based on previous studies on children transportation, and taking into consideration the amount of public information available, eight Latin-American countries were selected. The five most populated nations (Argentina, Brazil, Colombia, Mexico and Peru) were included, making up more than 70% of the total population of this region. Three smaller countries (Chile, Paraguay and Uruguay) were also added in base of other indicators such as the actual and perceived situation of school transportation. Two more countries (Spain and the United States) were incorporated to assess their current school transportation situation. From the very beginning, part of the experience of these two developed nations was considered to propose ideas regarding regulation, but, in any case, improvements were suggested using best practices of any of these ten countries.

Regarding the case selection, in order to facilitate an honest, trustworthy comparison between sub-national entities, we decided

to take into account only the most populated city of the ten countries participating in the study. This was based on the fact that, despite differences in terms of population, economic strength and other aspects, these cities play a similar role inside each country. They tend to concentrate a good portion of the country's wealth, power and important stakeholders in a somewhat reduced physical area. In most of the cases, these stakeholders will have an important role in legislation and awareness of central topics such as road safety as a whole.

Table Nº 1: About the Different Sources of Information Used

Country	Organizations sent surveys*	Other sources consulted
Uruguay	1. Unidad Nacional de Seguridad Vial (UNASEV) 2. Automovil Club del Uruguay (ACU) 3. Fundación Gonzalo Rodríguez 4. Fundación MAPFRE	www.parlamento.gub.uy www.montevideo.gub.uy
Argentina	1. Agencia Nacional de Seguridad Vial (ANSV) 2. Secretaría de transportatione del Gobierno de la Ciudad de Bs. As. 3. Conduciendo a Conciencia 4. FIA Region IV 5. Mamá y Bebé 6. Compromiso 7 - Vial por Úrsula y Carla	www.infoleg.gov.ar www.cedom.gov.ar www.buenosaires.gob.ar
Chile	1. Comisión Nacional de Tránsito (CONASET) 2. Automobile Club of Chile 3. Fundación Emilia	www.leychile.cl www.gobiernosantiago.cl
Brazil	1. Proteste 2. Crianca Segura 3. Vida Urgente	www.denatran.gob.br www.ctbdigital.com.br
Paraguay	1. Consejo Nacional de Seguridad Vial 2. Automovil Club	www.mca.gov.py www.jma.gov.py
Perú	1. Fundación Transitemos 2. Consejo Nacional de Seguridad Vial 3. Ministerio de transportatione y Comunicación	www.mtc.gob.pe www.sat.gob.pe www.munlima.gob.pe
México	1. ST Consejo Nacional para la Prevención de Accidentes 2. Víctimas de Violencia Vial 3. NACE	www.metro.df.gob.mx www.df.gob.mx
Colombia	1. Automovil Club 2. Por la vía, por la Vida 3. Ministerio de transportatione	www.alcaldiabogota.gov.co www.movilidadbogota.gov.co www.bogota.gic.co
Spain	1. STOP Accidentes 2. Fundación MAPFRE 3. RACC 4. IDIADA	www.boe.es www.dgt.es
USA	1. Rincon Family Services 2. FedEx 3. Safe Kids Worldwide 4. NHTSA 5. National Centre for Safe Routes to School 6. Safeguard 7. Pupil transportationation Safety Institute 8. Policy, Planning and Sustainability Administration District Department of transportationation 9. National Association for Pupil transportationation (NAPT)	www.optnyc.org www.ypdcrime.com www.nhtsa.gov

The 29 survey questions previously mentioned were grouped into main categories or dimensions, and then subdivided into several smaller groups of sub-dimensions as shown below. The main grouping was divided into five categories: Cost; Price and use of school transportation; Regulations on school transportation (regarding vehicles, the child inside the vehicle and the caretakers with them such as driver and attendant(s) school surroundings); Regulating bodies (main features of state dependencies in charge of road safety in each country and city selected); and NGOs (see Table N°2).

Table N° 2: Categories, Dimensions and Sub-dimensions

	Dimension	Sub-dimensions
Information	Cost, price and use of School transportation	
	Statistics on road safety	Characteristics
		Transpor
		Child road crashes
	Civil organizations	NGOs related to Road Safety or School transportation
	Tax and trade policies	Tax policies
		Tariff policies
Legislation	Regulations on school transportation	Existence of legislation
		Enforcement of legislation
	Regulating bodies	Existence of regulating bodies
		Dependence
		Reach
		Jurisdictional reach

It is also important to bear in mind technical aspects such as seat belts, child restraint systems, vehicle seats and certifications and school surroundings. Children do not have the same body proportions as adults as their weight distribution increases in the upper body. This is the reason why they have special requirements regarding transportation; school vehicles should cater to these special needs and have suitable technical devices.

Childrens' body structure matures as they grow up. Children need restraint systems specially designed for their developing anatomy and their tolerance for impact. School transportation takes all these features into account by using height-adjustable, three-point seat belts that should be part of seats especially designed for children, ensuring the right placement of the belt over dense areas of the child´s body, pelvis and collarbone and the seat should also perform as a headrest. Both the seat and seat belt should comply with internationally recognized technical standards,[(4)] thus ensuring minimum compliance regarding protection in the event of a crash.

We also believe school vehicles should have authorization certificates issued by relevant authorities, guaranteeing users that said vehicles have undergone a vehicle technical inspection and are authorized to carry out this type of activity.

School surroundings also play a safety role by reducing the possibility of an accident by, placing school signs setting parking areas for the exclusive use of school transportation vehicles, installing traffic lights and/or other elements that allow traffic management and setting speed limits within an area previously analyzed by authorities to reduce the risk of a crash within school surroundings. These elements are crucial for safety once the school transportation is working.

[(4)] *A technical standard is a document approved by a recognized body that defines technical specification based on experience and technological development results that is to be complied with by certain products, processes and services.*

5. Status Report and Regulations

As a general introduction, it is important to say that all the participant countries - and particularly the main cities inside them - had the following common features:

- The school transportation service is provided by third-party driver-held enterprises;
- Price is, in general, not subject to state regulations;
- There are no tax exemptions for subsidizing the service;
- transportation used from/to school and, in certain cases, sport-related, cultural and/or recreational events, within school time are considered as 'school time';
- Regulations are, generally, about maximum speed, maximum capacity, seats and seatbelts/CRS and, in specific cases, to verify vehicle certification and the existence of an emergency exit; and
- Drivers and attendants may have/not have specific training regarding children safety.

In the majority of the cases, school surroundings were mandated (or at least suggested) to be properly marked for children to get on and off the school transportation.

5a. Status in the Ten Countries Studied

Tables below provide a summary of regulations for school transportation in the ten countries and cities studied.
Table N°3 provides information on the existence of national legislation regarding school transportation, the source of the legislation and whether there is any regulation.

Most of the countries studied have some kind of regulation on school transportation; exceptions are Paraguay, Peru, and Mexico, which do not have any kind of regulation.

In addition, all countries are subject to some kind of regulating body; these are of different kinds and function in different institutional contexts, having different powers, autonomy and resources. While Argentina, Colombia, the United States and Uruguay have road safety agencies, Chile, Peru and Mexico have inter-institutional commissions. In Brazil, Paraguay and Spain there are administrative units of State Secretariats linked to transportation or similar activities.

Table N°3: Country Child Transportation Standards and Regulations

Country	Country School transportation Regulations (y/n)	Legislation	Road Safety Regulating Body (y/n)	Name of Road Safety Regulating Body
Uruguay	Yes	Act Nº 18.346	Yes	Road Safety National Agency (UNASEV)
Argentina	Yes	Act Nº 24.449	Yes	Road Safety National Agency (ANSV)
Brazil	Yes	Brazilian National Traffic Code, Articles Nº 136 to 139	Yes	National Traffic Department (DENATRAN)
Chile	Yes	Act Nº 18290 Act Nº 19831 Decree 38	Yes	National Traffic Safety Commission (CONASET)
Paraguay	No	-	Yes	National Department of Traffic (DINATRAN)
Perú	No	-	Yes	National Committee for Road Safety (CNSV)
México	No	-	No	
Colombia	Yes	Decree 805/ 2008	Yes	Ministry of transportation National Road Safety Agency
Spain	Yes	Royal Decree 443 and 894	Yes	Traffic General Department
USA	Yes	Act Nº 18290 Act Nº 19831 Decree 38	Yes	NHTSA

Table Nº4 provides more details on the existing standards and regulations regarding school transportation. Generally speaking, national regulations make reference to seat belts, vehicle certification and general aspects regarding safety (such as “School” signs, among others). As can be seen in the table, Spain has the most complete national regulations on school transportation (all items detailed are considered in the Spanish legislation) followed by Chile. In the use of CRS, however, only Brazil follows Spain in its mandatory use.

Madrid sets the standard in many aspects. In this city, regulations do not allow vehicles to be older than 16 years and they should include school transportation signs at the front and back. An annual technical inspection should be included in the documentation when the vehicle is less than five years old, with a bi-annual inspection for older vehicles. Other aspects to be included in the documentation are mandatory and complementary insurance for civil liability against damages and a special authorization for school transportation. Also, regulations require special seats for passengers with special needs; vehicle floor should be anti-slip; steps should have a colored edge; there should be bars at the doors to help passengers get on and off; and seats in front of stairwell or those not protected by seat backs should have a fixed protection device. If passengers in these seats are between 5 and 11 years old, they should use three-point seat belts and booster seats. It is also specified that travel time in any direction should not exceed one hour.

The situation is critical in Paraguay, Peru and Mexico, where there are no regulations. None of these countries regulate the aspects considered in the table. Uruguay is close behind them since it has no specific regulations and only regulates seat belts.

It is important to highlight that United States regulations in the Federal Standards are exhaustive regarding technical aspects for vehicle safety.

Table N° 4: Country School Child Transportation Standards and Regulations

Country	General Safety (y/n)	Speed Max. Capacity (y/n)	Seat Belts (y/n)	Seats (y/n)	CRS (y/n)	Vehicle Certification (y/n)	Emergency Exit (y/n)	Universal Accessibility (y/n)	School Surroundings	Other
Uruguay	No	No	Yes	No	No	No	No	No	No	No
Argentina	Yes	No	No	No	No	No	Yes	Yes	Yes	No
Brazil	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Chile	Yes	No	Yes	Yes	No	Yes	No	No	No	Yes
Paraguay	No	No	No	No	No	No	No	No	No	No
Perú	No	No	No	No	No	No	No	No	No	No
México	No	No	No	No	No	No	No	No	No	No
Colombia	Yes	No	No	No	No	Yes	No	No	No	Yes
Spain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
USA	Yes	NDA[5]	Yes	Yes	Yes	NDA	Yes	NDA	NDA	Yes

5b. Situation in Most Populated Cities

Tables below summarize the school transportation regulations in the most populated cities of the participating countries.
Table N°5 shows school transportation-regulated aspects by sub-national regulations (district, provincial, etc.). With the exception of Mexico City, all the other cities have regulations on school transportation. National Acts already mentioned in the previous section apply in Madrid and Santiago.

In some cases, including Madrid, New York and Santiago, national regulations can be applied to cities. In most cases, however, regulations are set by sub-national units, as in Asuncion, Bogota, Buenos Aires, Lima, Montevideo and Sao Paulo.

[5] *No data available.*

Table N°5: Most Populated City School Transportation Regulations

City	Most Populated City School transportation Regulations (y/n)	Legislation	Road Safety Regulating Body (y/n)	Name of Road Safety Regulating Body
Montevideo	Yes	Provincial Decree Nº 206	Yes	Traffic and transportation Department Municipality of Montevideo
Autonomous City of Buenos Aires	Yes	Act Nº 1665	Yes	Road Safety Department Undersecretariat of Autonomous City of Buenos Aires
Sao Paulo	Yes	Act Nº 10.154/86 Decrees Nº 23.123 and 23.747	Yes	Municipality of Sao Paulo
Santiago of Chile	Yes	Act Nº 18290 Act Nº 19831 Decree Nº 38	Yes	National Commission on Traffic Safety (CONASET)
Asunción	Yes	Ordinance Nº 67/02 and 76/03	Yes	Municipality Traffic Department
Lima	Yes	Ordinance Nº 1681	Yes	Metropolitan Municipality
Mexico City	No	-	Yes	Federal District
Bogotá	Yes	Agreement Nº 331 Decrees Nº 319 and 339	Yes	Department of Road Safety and Behavior in Traffic Mobility Secretariat Bogota D.C.
Madrid	Yes	Royal Decree Nº 443 and 894	Yes	Traffic Department
New York City	Yes	A-801	Yes	Office of Pupil transportationation

Finally, Table N°6 below shows the same ten specific topics analyzed in the previous section for each of the cities studied. The mandatory use of seat belts and vehicle certification are the most regulated aspect in the most populated cities. Speed limits, universal accessibility and school surroundings are the topics least addressed by the different regulations.[6]

The situation found in Spain is not different from the one in its capital, Madrid, the city with the most complete school transportation regulations. All topics specified in the table are taken into account by regulations on child road safety in Madrid. This European city is followed by Montevideo, with seven of the topics regulated, Buenos Aires and Santiago with six and New York with five. On the other hand, Mexico City does not regulate any of the topics studied, and Lima only regulates one; Asuncion and Bogota each regulate two.

[6] *It is important to highlight that since we could not have access to Sao Paulo´s complete regulations we considered those aspects included in the Brazilian Traffic Code.*

Table N° 6: Country School Child Transportation Standards and Regulations

City	General Safety (y/n)	Speed Max. Capacity (y/n)	Seat Belts (y/n)	Seats (y/n)	CRS (y/n)	Vehicle Certification (y/n)	Emergency Exit (y/n)	Universal Accessibility (y/n)	School Surroundings	Other
Montevideo	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Autonomous City of Buenos Aires	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes
Sao Paulo	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes
Santiago of Chile	Yes	No	Yes	Yes	No	Yes	No	No	No	Yes
Asunción	No	Yes	No	Yes	No	Yes	No	No	No	Yes
Lima	No	No	No	No	No	No	No	No	No	Yes
Mexico City	No	No	No	No	No	No	No	No	No	No
Bogotá	No	No	Yes	No	No	Yes	No	No	No	Yes
Madrid	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
New York City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes


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6. Elements to be Improved

6a. An Analysis Tool

This study aims to build a baseline on the status of each of the ten cities and countries studied, describing their current status regarding school transportation regulations and regulating bodies. It also aims to compare the status of school transportation in those ten cities, to provide elements for them to identify their situation and to understand improvements to make progress towards standards of excellence that ensure child passenger safety in school vehicles.

A “Gold Standard” is presented specifying elements to be taken into consideration by any jurisdiction providing safe school transportation services. This study focuses on cities, but the parameter aims to be valid for whole countries or sub-national sections.
Table Nº8 shows elements considered and dimensions to define the status of each city/country and to easily understand improvements to be made to reach the Gold Standard. To reach the Gold Standard, it is necessary to check the following five aspects: A) There should be a specific regulation on school transportation for the whole national territory; B) Said regulations should comprehensively regulate all aspects related to definitions of school transportation, passive safety, vehicle conditions, drivers´ certifications, mandatory presence of an attendant and signs in school surroundings; C) There should be a specialized body regulating road safety (Pillar 1 defined by the World Health Organization - WHO); D) There should be a road safety enforcing body; E) There should be non-governmental organizations in the civil society working on child road safety and; F) Information referred to school transportation crashes should be recorded in a single form for its systematization.

This “five star” model, where the five aspects mentioned are taken into consideration and follow the proposed “Gold Standard,” should be the objective of any society concerned about child passenger safety in school vehicles. All countries, cities or any other territorial jurisdictions that do not contemplate the model´s aspects will not receive five stars, thus obtaining four, three, two, one or zero, depending on each case.

Below are the necessary conditions to achieve the Gold Standard:

Table N°7: "5 Stars Gold Standard"

Number of stars	Regulation		Bodies			Information
5	Specific regulation for school transportation[7]	All ST aspects are thoroughly regulated[8]	There is a special road safety agency (Pillar 1 WHO)	There is an enforcing body	There is an NGO on child road safety	Single form for ST road crashes record and data collection
4	Specific regulation for school transportation (ST)	Regulates most aspects related to ST	There is a special road safety agency or a single-mission body	There is an enforcing body	There is an NGO on road safety	No form for ST road crashes record and data collection
3	Specific regulation for traffic or transportation in which school transportation in mentioned/included	Regulates at least three aspects	Regulating traffic and transportation	There is an enforcing body	There is an NGO on road safety	No form for ST road crashes record and data collection
2	Traffic regulation that mentions child passengers	Only regulates seat belt use	Regulating traffic and transportation	There is an enforcing body	There are no NGOs	No form for ST road crashes record and data collection
1	General traffic regulation	Does not cover	Regulating traffic and transportation	There is an enforcing body	There are no NGOs	No form for ST road crashes record and data collection
0	Poor traffic regulation	Does not cover	Regulating traffic and transportation	There is an enforcing body	There are no NGOs	No form for ST road crashes record and data collection

5 stars: Gold Standard

It is important to mention that the Gold Standard proposed is an ideal model resulting from this exploratory study and from the experience gained through the Uruguayan case. It is expected that from the proposed baseline and analysis presented in this report, future research will improve the model and will be adapted to the different contexts studied. We believe that this approach may be very useful for those interested clearly identifying the current situation of their cities, states or even countries. The study will work as a guide for actions to be taken to make school transportation safer.

4 stars:

Jurisdictions with four stars have specific regulations on school transportation, but need to make it more detailed, regulating more aspects. Also, they should have accurate and systematized data regarding crashes in school transportation.

3 stars:

The main challenge for jurisdictions with three stars is to improve existing regulations. In this sense, they need to work on regulatory aspects and on institutionalizing road safety regulations.

2 stars:

Those jurisdictions with two stars should work hard to improve regulations and road safety institutionalization. They need to promote the creation of units specialized in road safety.

[7] *For the whole territory of reference*

[8] *Definitions of school transportation, passive safety, vehicle conditions, driver´s certification, presence of attendant, and school surroundings.*

1 or no star:
Any territorial jurisdiction in this level has a lot of work to do, from the creation of a specialized unit in road safety to the passing of regulations of children school transportation and all other aspects required by the "Gold Standard."
Table N°7 ranks cities according to the "Gold Standard" model detailed in the table below.

Table N°8: Detailed information by city

City	Specific Regulations Exist	Aspects Regulated	Regulating Body	Enforcing Body	NGO Exists	Standard Form / Data Collected	Number of Stars
NYC	Yes	• Passive Safety Vehicles • Driver´s Certifications • Steward • School Surroundings	NHTSA and Office Pupil of transportationation	Yes	Child Road Safety	Yes / Yes	5
Montevideo	Yes	• Passive Safety • Vehicle Driver´s Certifications • Steward • School Surroundings	Traffic and transportation	Yes	Child Road Safety	Yes /No	4
Autonomous City of Buenos Aires	Yes	• Definitions • Passive Safety • Vehicle • Driver´s Certifications • Attendant	Road Safety	Yes	Road Safety	Yes / No	4
Santiago of Chile	Yes	• Definitions • Passive Safety • Vehicle Driver´s Certifications • Attendant	CONASET	Yes	Road Safety	Yes / No	4
Madrid	Yes	• Definitions • Passive Safety • Vehicle Driver´s Certifications • Attendant • School Surroundings	Traffic	Yes	Road Safety	Yes / Yes	4
Sao Paulo	Yes	• Vehicles • Passive Safety • Driver´s Certifications	Municipality	Yes	Road Safety	No / No	3
Bogotá	Yes	• Vehicles • Passive Safety • School Surroundings	Road Safety	Yes	Road Safety	Yes / No	3
Asunción	No	• Vehicles • Attendant • School Surroundings	Traffic	Yes	Road Safety	No / No	2
Lima	No	• Definition • Vehicles	General	Yes	Road Safety	Yes / No	2
Mexico City	No	None	General	Yes	Road Safety	No / No	1

6b. General Recommendations

Results of this study reveal not only existing difficulties regarding access to systematized information for comparative analysis and exchange of best practices between countries, but also the pressing need to make progress in the legal-formal and institutional approach of an aspect of road safety for children that is still in very basic developmental stages.

Based on the findings of this research, the following recommendations are made with the strong belief that their implementation could improve child road safety in school transportation in the cities studied, while setting a frame for action for its countries.

We believe that the ten countries studied should make more efforts to achieve school transportation regulations that apply to all national territory:[9]

- Clearly define and establish school transportation regulating and enforcing bodies, defining roles and powers for each of them with a relevant role as well as technical autonomy.
- Clearly establish the definition of school transportation regulation in each country as a way of setting the limits for regulations (enforcement, control, authorizations, etc.).
- Regulate passive safety systems used in school transportation, including making the use of child restraint systems mandatory for children ages 0-3 years and requiring vehicles to have proper seats complying with international standards (e.g., equipped with three-points seat belts with adjustable height).
- Regulate school transportation vehicle conditions: age, speed limits, certification, maximum capacity, mandatory insurance and special requirements (e.g., floor, colors, stairs, doors, seats, emergency exit, and universal access.).
- Require school transportation drivers to have at least a professional driving license.
- Require the presence of a trained attendant to help the driver in case it is needed.
- Carry out specific courses/workshops on child road safety for the different stakeholders involved (particularly drivers and attendants); this should be included in regulations
- To make progress in the educational centers surrounding areas where children get on/off school buses. Making school surroundings properly signaled and adding specific parking areas are suggested. It is advisable to have this point included in the regulation in order to make the surroundings as safe as possible.
- Systematically develop or strengthen existing information systems to capture information related to road safety in general and school transportation in particular, in order to have reliable data when monitoring progress in school transportation safety.

[9] *Regardless of the fact that some of the countries mentioned in this study may or may not be federal in nature, it is crucial to have nationwide regulations on school transportation, or sub-national regulations to be applied in the different territories (states, provinces, departments, municipalities, etc.) in which the political map of said countries is divided.*

6c. Specific Recommendations by City

Taking into account the Gold Standard and using information collected in this study, recommendations for each of the studied cities are made to improve the current situation for school transportation.

4 star cities

Buenos Aires

- Although National Act Nº 24.449 requires school transportation drivers to have a professional license, it is necessary for these drivers to get specific training on child road safety.
- It is advisable to regulate school surroundings, specifically appropriate signaling and parking spaces, taking into account the process of getting on/off the vehicle.
- School transportation regulation should include seats and child restraint systems, among others.

Santiago de Chile

- Regulations on school surroundings should be developed, stating the conditions for the process of getting on/off the bus, among others.
- Taking into account the provision of required safety measures, it is necessary to define the maximum number of children that may travel on one school transportation vehicle.
- The school transportation regulation should include maximum speed and child restraint systems, among others.

Montevideo

- It is advisable to require specific training for school transportation drivers.
- In order to guarantee compliance with technical standards, it is advisable to make progress in defining school transportation to establish the object of regulation.

Madrid

- Regulations in this city are exhaustive regarding vehicles and aspects guaranteeing children´s safety. However, progress can be made with the establishment of a lead agency on road safety involving partners from a range of sectors, as recommended by WHO in the Plan of the UN Decade of Action for Road Safety

3 star cities

São Paulo

- It is important to clearly define school transportation to establish the object of regulation.
- It is advisable to regulate school surroundings, specifically appropriate signaling and parking spaces, taking into account the process of getting on/off the vehicle.
- It would be necessary to regulate the mandatory presence of an attendant on the school transportation vehicle. Based on research findings, we believe the attendant to be fundamental to guarantee the safety of children on the vehicle.

...3 star cities

- The school transportation regulation should include maximum speed and emergency exit.

Bogotá

- The school transportation regulation should include maximum speed and emergency exit.
- It is important to clearly define school transportation to establish the object of regulation.
- Analysis of regulations show there is no requirement for attendants on school transportation vehicles. Based on research findings, we believe the attendant to be fundamental to guarantee the safety of children on the vehicle.
- The school transportation regulation should include maximum speed, seats, child restraint systems and emergency exits.

2 star cities

Asunción

- It is important to clearly define school transportation to establish the object of regulation. Also, it is necessary to regulate technical aspects, restraint systems and other aspects that guarantee the child passenger´s safety. The school transportation regulation should include seat belts, seats, child restraint systems and emergency exits.
- There is a need for training on child road safety for the school transportation driver and the attendant.

Lima

- Analysis of regulations show there is no requirement for attendants on school transportation vehicles. Based on research findings, we believe the attendant to be fundamental to guarantee the safety of children on the vehicle.
- There is a need to regulate training on child road safety, both for the school transportation driver and the attendant, as well as other safety aspects that guarantee child safety on the vehicle.
- The school transportation regulation should include maximum speeds, seat belts, seats, child restraint systems, vehicle certification and emergency exits.

1 star cities

Mexico City

- It is advisable to regulate the school transportation. Specifically, that regulation should include maximum speeds, seat belts, seats, child restraint systems, vehicle certification and emergency exits.
- It is advisable to regulate school surroundings, specifically appropriate signaling and parking spaces, taking into account the process of getting on/off the vehicle.
- Taking into account the provision of required safety measures, it is necessary to define maximum authorization periods for school transportation vehicles. This guarantees that technical requirements mentioned as necessary in regulations are always in effect.

7. Learned Lessons and Study Limitations

It is important to highlight the difficulties faced by the FGR research team when conducting the study. Among the most difficult tasks was to have the questionnaires answered by the identified qualified respondents and having access to digital versions of school transportation regulations in the different cities and countries. In addition, there was very little information on transportation, school transportation and accidents in general. On several occasions, information provided by respondents (in all cases stakeholders involved in road safety) did not agree with existing legislation in the country or city the respondent was from. In some cases, different respondents from the same country would provide conflicting answers to questions related to legislation and current situation in their countries.

Another difficulty was the fact that there are many national and sub-national regulations co-existing in the same country. In this regard, all government levels were considered.

As stated in the methodology, this study is mainly based on statements by qualified respondents by country. Data sent were checked and missing information in answers was completed when possible. This was not possible for all cases.

Another limitation to the methodological decision of this study was the impossibility of checking answers and secondary sources with actual practice; for example, checking whether enforcement is carried out or not.

It is also important to mention that, according to survey responses, there were evident differences regarding the level of interpretation of regulations by qualified respondents in the same country. When these cases were detected, secondary sources were used for definitions. This represents another limitation of the study, since the final score is based on the understanding by those processing data. For example, there were discrepancies regarding existence of effective enforcement of compliance with technical requirements, use of restraint systems and powers of national road safety body; among others.

On the other hand, this finding is considered important since it may affect the comprehensive approach to child road safety by each respondent.

Access to information in these countries and cities remains varied, with this aspect the main limitation to the research. Access to regulations and qualified respondents´ answers (both methodologies used in this study) have limiting factors which do not allow a comprehensive approach to the reality of these countries. Not all regulations are available in digital format and are constantly being changed and updated, which makes analysis difficult.

Statistics offices were consulted regarding available information on the different countries where a wide range of web sites was found. There were cases such as Paraguay, where there is not much information and it is

difficult to access, to the case of Colombia, where there is a lot of easily reached information. To compensate these differences, the World Bank database was consulted.

However, there is little information regarding transportation and crashes. This is why the Ibero-American Road Safety Observatory is a key source of information.

8. Conclusions

Through the collection and systematization of information, the findings presented in this report sought to provide a baseline to identify the current status of school transportation in ten cities: Asuncion, Bogota, Buenos Aires, Lima, Madrid, Mexico City, Montevideo, New York, Santiago and São Paulo. This study focused on getting to know more about one of road safety for children least known aspects in Latin America. Research aimed to identify the existing legislation in the cities and countries studied to promote the implementation of safety measures necessary to improve travel conditions of school transportation users.

This can be due to problems in the dissemination of the information, or due to the little relevance the subject has at national level.

In the search for further information, statistics offices were consulted. A wide range of web sites were found; there were cases, such as Paraguay, where there is not much information and it is difficult to access to the data available, and there were other cases, such as Colombia, where there is a lot of easily reached information. To compensate these differences, the World Bank database was consulted. The Ibero-American Road Safety Observatory offered a key source of information as well.

With regard to the findings of this study, regulatory differences related to school transportation, emerged as the most notorious distinction among the ten cities and countries analyzed.

The cities which obtained the highest results in the comparative analysis were Madrid, Montevideo and New York. This shows the existence of regulations which are consistent with the aim of improving child road safety. On the contrary, in Asuncion and São Paulo, only limited aspects of school transportation are regulated and enforced.

All the countries involved in this study have a road safety national body, but, roles and powers change in each country. There are clear differences in figures for road crashes and transportation in general. Asuncion and Sao Paulo are the cities which need to improve the most in terms of quality and quantity of information and regulations, starting by systematizing and positioning the agency and also by

improving the availability of specific information.

Concerning NGOs' role in the child road safety debate, with the exception of Peru, there is an incipient participation of at least one civil organization per country, speaking for those without a voice - the children.

Although analysis and research of regulations was meant to be exhaustive, this was not always achieved in the present research. Even when the team in charge made great effort to find all school transportation regulations in the countries and cities studied, some of them may not be included. This can be explained due to difficulties in access or similar issues.

From the experience gained in this study, and taking into account difficulties to access required information, we believe that future research following this line of work should focus on fewer cases (five cities, provinces or countries instead of ten). This would allow more time and resources for each case. Another possibility would be to coordinate efforts with organizations working in those countries, sharing the analysis with different teams familiar with the city, province or country reality.

The Fundación Gonzalo Rodríguez (FGR) strongly believes that research and knowledge exchange are essential to take road safety from theory to action. In order to make our societies aware and to prevent this epidemic from taking more lives, we should all ensure the right of children to travel safely. It is necessary for all sectors of society to get involved: governments, schools, non-governmental organizations (NGOs), private companies, drivers, passengers and the entire community. This report attempts to make a contribution in that sense.

9. Glossary

In order to standardize traffic language among countries, the following glossary is a list of words with definitions for all those words that have different meanings in different countries or those which are not ordinary or could lead to confusion.

School transportation: means to transportation children to school or educational center (kindergarten and primary). It makes specific reference to:

- Authorized transportation such as "School transportation".
- Authorized transportation such as "School transportation", hired by school parents to transportation children from and to school.
- transportation hired by the school to transportation children during outings, school activities, etc.

"School transportation" DOES NOT mean public transportation (bus, train, underground), private cars, motorcycles, rented cars, taximeters, etc.

Tariff: tax imposed on imported or exported goods.

Maximum capacity: for these purposes, the maximum number of children to be transportationed in a School transportation vehicle.

Steward / Attendant: A person that assist the driver with the children during the trip and to get on and get off to school transportation vehicle.

School surrounding: the zone around the schools.

Vehicle certification: procedures to official regulators to qualify and control the vehicles used for school transportation CRS (Child Restraint System): device especially designed to prevent injuries to the user (child/adolescent) in the event of a collision or sudden deceleration of the vehicle by limiting body movements of the user (child/adolescent).

Regulations: set of written formal rules, regarding a specific thing or activity defined by the Public Administration with rank and force of law. This report attempts to make a contribution in that sense.

Country	Identification
Argentina	National Act - Regulation
Brazil	Act - Decrees
Chile	Act - Decrees
Colombia	Agreement - Decree
México	Act - Regulation
Paraguay	Act - Ordinance
Peru	Act - Decree
Spain	Act - Decree
Uruguay	Act - Provincial Decrees
USA	Standard

Joint management: for these purposes, jointly administration of a service by the public and private sectors.

Primary information: original data collected initially immediately after a given event (a road crash, in this case). E.g.: medical information regarding the victim/s, traveling conditions, events triggering the crash, weather conditions, etc.

Enforcer: person in charge of monitoring (enforcement) compliance with ongoing regulation in a specific jurisdiction.

Jurisdiction: territory (state, province, municipality, region, country, etc.) upon which the government (national or sub-national) exercises its powers. Below multiple sub-national governments of countries studied are presented.

Country	Identification
Argentina	Federal States, Autonomous City, Municipalities
Brazil	Federal States, Municipalities
Chile	Regions, provinces, communes
Colombia	Departments, Provinces, Municipalities, Districts
México	Federal States
Paraguay	Departments
Peru	Departments, provinces, districts
Spain	Municipalities
Uruguay	Provinces, Municipalities
USA	Federal Sates, counties, cities, municipalities

Technical standard: document specifying conditions an element or device should fulfill to increase the probability of its correct performance in certain situations.

NGO: non-governmental organization.

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