



**Georgia Alliance for Safe Roads
Partnership for Road Safety Foundation
Annual Report
March 2009 - May 2010**

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1. Executive Summary

The Project Aims:

- **To increase the use of seat belts from 2 percent to 25 percent on urban roads and to 50 percent on highways by 2010.** This report describes activities undertaken by the Partnership for Road Safety Foundation (PFRS) towards achieving this goal. Quantitative research to collect baseline data on the rates of seat belt wearing was conducted in May 2009 and the follow-up research to measure outcome will be conducted in late 2010.
- **To improve road safety education among youth in Georgia.** In the course of the Youth Road Safety Education project, 365 teachers from 100 schools in six towns of Georgia were trained to teach road safety techniques to the 3rd, 4th and 5th grade students. About 25,000 pupils were taught, using special textbooks, leaflets and short movie clips. Several events took place to assist education purposes.

Specific Accomplishments

- Helped pass legislation to double the financial penalties for not wearing seat belts on the highways.
- Two surveys were conducted in the course of the seat belt project: one of them was carried out based on observation methodology to establish the percentage of seat belt users in the capital of Georgia, Tbilisi, and on highways. The second study analyzed the economic costs of not wearing seat belts.
- Three surveys were conducted under the Youth Road Safety Education project: pre- and post-program surveys to determine the change in knowledge of the road safety rules among the 3rd and 4th grade pupils and measure the overall effectiveness of the project, as well as the attitude of parents with regard to the inclusion of road safety in the curriculum.
- The Seat Belt Coalition was established, comprised of 10 private companies whose employees own a total of 500 cars. All coalition member companies mandate that their employees wear seat belts on city roads.
- Media campaigns were conducted in order to change the attitude and behavior of drivers and passengers.

- PFRS created multi-media educational and awareness-raising materials including: three types of brochures, a manual on seat belts for stakeholders, decision makers and organizations, stickers, two TV clips, several radio PSA's and three films addressing the problems of road safety in general and the seat belt wearing in particular. The Manual is the first ever Georgian document concerning seat belts and child restraints.
- PFRS participated in rallies organized by Georgian National Automobile Federation. During the project six auto rallies, door to door campaigns, five school events, five board meetings and an exhibition were carried out as part of the campaign. The public sector was also involved in the campaign aiming to change drivers' and passengers' attitude towards road safety issues. A total of 20 events were carried out during the project.
- PFRS fostered significant political buy-in for its activities in Georgia including gaining the support of the First Lady of Georgia, Mrs. Sandra Elizabeth Roelofs as the chair of the board of the road safety activity.
- In 2010 Georgia will join the UN Decade of Action and launch the Regional Decade of Action in Tbilisi. The conference will be held under the patronage of the First Lady of Georgia and with support from various ministers.
- PFRS closely cooperated with the Ministry of Education and Science. A total of 100 schools and 25,000 primary school children were involved in the project. As a result of the project, the Ministry of Education and Science has included road safety issues into its new Civil Defense and Security Program in 15 schools in Georgia.

2. "Increasing the Seat Belt Use in Georgia" Project



PfRS launched the "Georgia Alliance for Safe Roads" project in order to promote seat belt wearing on urban roads and to introduce road safety education in primary schools. The Alliance, which acts as a steering committee for the activity, comprises the following members: USAID, BP, FIA Foundation, the Ministry of Education and Science, the Embassy of the Kingdom of the Netherlands, the US Embassy in Georgia, the Georgian National Automobile Federation, the AutoBild magazine, the Saimedo Auto TV program.

PRS Management Structure to Support Main Objectives

Under the "Georgia Alliance for Safe Roads" project, PfRS has created the Alliance Management Committee (AMC) and the Alliance Advisory Board (AAB). The AMC is comprised of both the representatives of the management and representatives of partners who provide financial and in-kind contributions. During the project three AMC and two AAB meetings were held by PfRS. The AMC and AAB were created in order to facilitate information sharing and provide suggestions to improve the overall project performance. They also aim to address problems/issues which may hinder the project implementation and thwart the sustainability of outcomes. Yet another goal is to work on the promotion of the seat belt legislation. The AMC includes representatives from:



- The Partnership for Road Safety (management and Board representative)
- USAID
- FIA Foundation for Automobile and Society
- BP Georgia
- The MATRA Program of the Royal Embassy of the Netherlands
- The Ministry of Education and Science
- The U.S. Embassy to Georgia
- The Georgia National Automobile Federation
- The AutoBild Georgia (automobile magazine)

AAB serves as an advisory panel and communication platform for key stakeholders and supporting organizations. The composition of AAB is as follows:

- The Patrol Police Department of the Ministry of Internal Affairs
- The Parliamentary Committee for Healthcare and Social Issues
- The Parliamentary Committee on Legal Issues

- The International Association of Business and Parliament (non-contributing member)
- The Georgian Association of Insurers (non-contributing member)
- The Ministry of Regional Development and Infrastructure
- Health and Social Programs Agency
- The Civil Society Institute

The honorable chairwoman of the AAB is the First Lady of Georgia, Mrs. Sandra Elizabeth Roelofs. She is actively involved in healthcare and social issues and promotes road safety as a prevention of risk to the health and lives of the Georgian people. In February 2008, under the FIA Foundation's Global campaign "Make Road Safe", she became the Ambassador of road safety in Georgia.

Since March 2009, PFRS has been implementing the "Georgia Alliance for Safe Roads" project. Within the framework of the project, an AAB meeting and AMC meeting were held in the Center of Business and Economy. The First Lady chaired these meetings. Two Board meetings have been held so far under the Alliance project. The goal of the meetings was to support the legislation on making seat belt wearing mandatory on urban roads; to prepare the draft law and to initiate the process of adopting the new legislation.

At request of AAB participants such as Chairmen of Health Committee Mr. Toidze and Deputy Speaker Mrs. Kervalishvili, PFRS conducted research in order to establish the economic and social impact of not wearing seat belts.

On April 6, PFRS its second meeting with MPs which was attended by the First Lady, Parliament Deputy Speaker, Mr. Gigi Tsereteli, Parliament Deputy Speaker, Mrs. Rusudan Kervalishvili and representatives from various parliamentary committees. PFRS made a presentation of the research titled "Social and Economic Costs of Not Using Seat Belts". At the end of the meeting the presentation of a new video "Fasten Your Seat Belt for Love" was held. Deputy Speaker Mrs. Kervalishvili agreed to initiate the law during the autumn session.

Supporting the Improvement of the Traffic Safety Legislation

PFRS held several meetings with the following Parliamentary Committees: the Committee on Legal Issues, the Sports Committee, the Committee for the Relations with Compatriots Residing Abroad, the Defense and Security Committee, and the Healthcare and Social Issues Committee.

The main objective was to explore the attitude of MPs towards the seat belt legislation. All MPs understand the importance of the issue but they also realize the expected negative reaction from the society. They will support the initiative in the event of the presence of political will.

The first meeting in Parliament was held with the representatives of the Legal Issues Committee in Spring 2010. During the meeting, the Deputy Head of the Committee, Mrs. Chiora Taktakishvili, promised her support. According to her, the best period for active cooperation would be after the midterm elections which were held in May 2010. As it was promised, in June 2010 the Legal Committee started working on the new initiatives concerning the amendment of the traffic safety legislation, especially on drunk driving, speeding and seat belts. The penalty for failing to wear seat belts on highways has been doubled and now amounts to 40 Gel. The aforementioned law was passed in June 2010 and will be put into force on 1 August. It is expected that the number of seat belt users on highways will increase, which will be reflected in the upcoming research to be conducted at the end of 2010.

The next round of meetings was held in the Budget and Finance Committee, the Education and Science Committee, the Defense and Security Committee and other parliamentary offices. At the meeting with the Defense and Security Committee representatives, the parties discussed the issue of involvement of the patrol police and the enforcement of the law on mandatory seat belt wearing on all

roads of the country. Meetings were held with chairmen of the Sports and Youth Affairs Committee and the Committee for Relations with Compatriots Residing Abroad. Representatives of both committees stressed the importance of public awareness campaigns, in order to prepare the Georgian society for the forthcoming changes to the seat belt law.

According to them, it is necessary to provide media coverage of the issue. They said that the seat belt promotion campaigns should specifically target drivers and aim to provide advice and information that will persuade them to use safety belts. This issue is closely linked to the enforcement by the patrol police, which is another key way of influencing and improving habits of seat belt use.

PfRS held meetings with the representatives of the parliamentary opposition as well. The opposition members too welcomed the initiative and pledged to raise the issue with their colleagues. They promised to support the legislation should it be proposed. They also stressed the importance of a public awareness campaign and of providing the Georgian society with information on the legislative amendments. In addition, they said that the patrol police should ensure stricter enforcement of the law.

In May 2010, PfRS held meetings with the heads of the following parliamentary committees: the Human Rights and Civil Integration Committee, the Education, Science and Culture Committee, the Sector Economy and Economic Policy Committee, the Committee on European Integration, the Legal Issues Committee, the Defense and Security Committee and the Sports and Youth Affairs Committee.

The new initiative on legal amendments, which aims to make wearing seat belts on city roads legally mandatory, was discussed at these meetings. Meanwhile, MPs have expressed their full support to the seat belt law proposal and, most probably, the amendments will be discussed in Parliament during the autumn sessions. It was mentioned that the new initiative has full support from President Saakashvili. He said that he would like to introduce some of New York's laws to Georgia, such as the obligatory use of seat belts in motor vehicles. The President also noted that several times wearing a seatbelt had saved him personally from serious injuries in a car accident.

Meetings with Representatives of the Executive Branch

The Ministry of Economic Development

The Road Safety Strategy and Action Plan were created in 2009 by the Department of Transport at the Ministry of Economic Development. In order to press ahead with the action plan regarding the law on wearing seat belts on urban roads, PfRS met with the Deputy Minister of Economic Development of Georgia, Mr. Giorgi Karbelashvili. The Deputy Minister showed great interest in the projects and activities carried out by PfRS. He expressed willingness to propose the seat belt law on behalf of his agency but, several months later, the Department of Transport was incorporated into the Ministry of Infrastructure, and Mr. Karbelashvili's support did not go beyond airing PfRS's video clips by the Public Broadcaster.

The Patrol Police Department

To discuss the enforcement of the law that would make the use of seat belts mandatory, PfRS arranged a meeting with the head of the Patrol Police Department, Mr. Giorgi Grigalashvili. He said that, should the legislation on the mandatory use of seat belts in the cities be passed, he would start a monthly enforcement campaign. He said his officers would be able to adequately enforce the law. According to him, the mandatory use of seat belts would help his department in its efforts to reduce the number of fatalities and injuries caused by speeding and drunk driving, which are one of the main concerns for the Georgian society.

In order to inform the public about the need for wearing seat belts in the regions, PfRS has called on NGOs to promote road safety in the western part of Georgia, especially in Samegrelo, Ajaria and Imereti regions. The "Traffic Movement Safety Center" is a Samegrelo-based NGO which works in all three of the aforementioned regions. The director of the organization held meetings with representatives of the local municipality as well as the president's representative in the Imereti region. The local government representatives helped with campaigns in Zugdidi schools, as well as in local Saint Lucas Hospital, where publicity material was distributed.

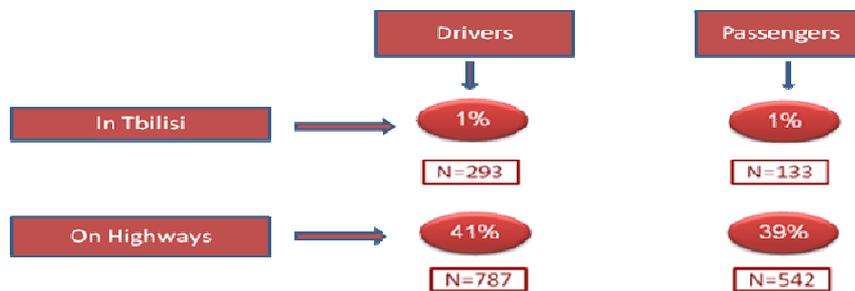
3. Research and Media Campaigns

Research on the Rates of Seat Belt Use

In May 2009, PfRS has contracted the ACT research group to conduct an observational study in order to determine the number of seat belt users on urban roads. The main goal of the survey was to record the use of safety belts by drivers and front passengers in moving vehicles on the highways of Georgia and in Tbilisi. All vehicles on selected observation points, excluding "marshrutkas" and buses, were part of the target group.

The city of Tbilisi, as well as the western and eastern highways, were selected as the areas for the study. The plan was to observe drivers and passengers and thus establish what percentage used safety belts. A total of seven spots on highways and eleven spots in Tbilisi were selected.

On each spot, the observation was conducted by two observers from ACT Research. One of them recorded information about drivers, while the other did the same for front seat passengers. The results of the research were as follows:



Research on the Knowledge of Traffic Rules in Schools

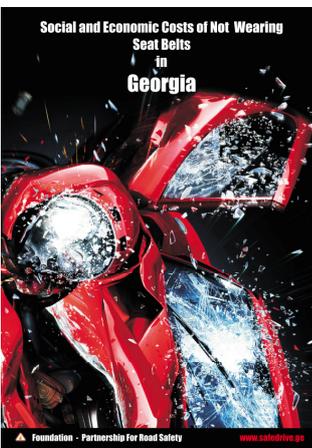
ACT also carried out research on the knowledge level among pupils before and after the implementation of the Youth Road Safety Education program. The research was conducted for the third- and fourth-grade pupils in Tbilisi, Rustavi, Kutaisi, Batumi and Telavi. To measure the effectiveness of the program, tests were conducted in two segments: pilot classes, where road safety was taught, and control classes where road safety was not taught. Before launching the program, the knowledge level among school children of pilot and control classes were almost identical.

After the study course, more than half of the pupils (53 %) of pilot schools demonstrated perfect or high level of knowledge in road safety, which is four times greater than the indicators of control classes. For more information, please see the research report in Annex 1.

Survey on Parents' Attitudes toward Road Safety

In July 2009, PFRS conducted qualitative research on parents' attitude towards the Youth Road Safety Education Program. The qualitative research was conducted through interviews. Parents, whose children studied road safety at pilot schools, were selected as a target group. In order to study parents' attitude towards road safety education, a special questionnaire was created. Tbilisi, Kutaisi, Rustavi, Batumi and Telavi were selected as the research area. Ten parents were questioned in each city, which amounted to the total of 50 respondents who participated in the survey. The research showed that the parents in pilot schools were very well informed about road safety lessons. Their attitude was very positive; they thought that it was very important and necessary to provide children with information about road safety.

Social and Economic Costs of Not Wearing Seat Belts



An independent researcher hired by PFRS conducted analysis on social and economic costs of not wearing seat belts in Georgia. The findings of the research were presented at the meeting with MPs on April 6, 2010. The goal of this research was to calculate the costs of ignoring seat belts by drivers and passengers incurred by the Georgian state and its society. Within the framework of this research, the data from different agencies, including the police, medical institutions, the National Forensics Bureau and insurance companies was obtained and analyzed. According to the research results, due to high fatality rates and serious injuries, the Georgian economy is losing 1.1-1.5 percent of its GDP per annum (it amounted to 290m GEL in 2008 alone). These losses do not include the costs of medium and minor injuries. The number of fatalities per 100 000 population is also very high in Georgia compared to its neighbors and EU countries. About two-thirds of all injuries are head injuries sustained by those who did not wear safety belts, the average age of those who died or were injured is 26-41 (based on hospital

data, the average age of the injured is 31 years old) and two-thirds of them are male. Traffic accident fatalities and injuries tend to be high among children: in 2005-2009, 154 children died and 2,747 received injuries. Please see the research in Annex 3. The research is to be published in the summer 2010 and disseminated among decision makers and stakeholders.

TV Broadcastings

PFRS actively cooperates with the Public Broadcaster which airs seat belt videos three times a day. In order to reach various target groups, PFRS with the support from the First Lady, sent letters to TV companies calling on them to pay more attention to road safety issues and air news and videos on seat belts. The letters had a great impact and TV companies have started to promote the use of seat belts by airing these videos.

PFRS created a new video clip for broadcasting which shows that it is necessary to wear a seat belt and that we should always remind our family members to buckle up before they drive off. The main message of the clip is "Fasten Your Seat Belt for Your Love". The new video is already being broadcast by the Public Broadcaster, the "Saimedo Avto" TV program (TV channel Mze), the Patrol TV program (TV channel Rustavi2).

All year long, the information and broadcast support was provided free of charge by the following companies:

The Georgian Public Broadcaster – covers the entire territory of Georgia and is available via satellite as well; the advertisements were broadcast for three months (a total of 250 broadcasts); informational support was provided by preparing programs on road safety events and topics (10 broadcasts).

The Rustavi-2 TV Company - covers the entire territory of Georgia and is available via satellite as well; the advertisements were broadcast for three months (a total of 40 broadcasts); informational support was provided by preparing programs on road safety events and topics, including road safety issues in popular TV shows (20 broadcasts).

The Imedi TV Company - covers the entire territory of Georgia and is available via satellite as well; the advertisements were broadcast for one month (a total of 84 broadcasts); informational support was provided by preparing programs on road safety events and topics (15 broadcasts).

The Real-TV Company - covers the capital of Georgia and several adjacent districts. Covers the entire territory of Georgia and is available via satellite as well; the advertisements were broadcast for two months (a total of 168 broadcasts); informational support was provided by preparing programs on road safety events and topics (35 broadcasts).

The Mze TV company - Covers the whole of Georgia; the advertisements were included in the Saimedo Auto TV project (the total of 300 broadcasts); the same TV project promotes traffic safety and seat belt wearing.

Radio Programs

In February 2010, on the initiative of PfRS, a new radio project was launched together with Auto Radio to promote the use of seat belts. The "Autorsatsia" radio show is broadcast live twice a week. In this program, current road safety problems, behavior of road traffic participants and other road safety issues are discussed with the representatives of PfRS as well as road safety experts and other stakeholders. The format of the program gives the audience an opportunity to call, ask questions and express their opinion. Within the framework of the project, Auto Radio broadcasts road safety advertisements several times a day. This program is very popular, especially among Georgian drivers who are the main target group of the radio channel.

Films

PfRS has completed work on three films. The first one, "We Observe Traffic Rules", is made for the third, fourth and fifth grade pupils and shows how to behave safely in the street. The film lasts 20 minutes and has been shown in pilot schools during the lessons.

The film was broadcast in the course of the year in the Saimedo Auto program, a resource partner of the Alliance. The film was shown to 25,000 pupils and, in addition to that, to the Saimedo Auto viewers.

The second film - "One Second" - starring famous journalist Nino Giorgobiani, talks about the reasons for and outcomes of traffic accidents. It focuses on what has to be done by road traffic participants to prevent a dramatic increase in road fatalities and injuries. The film lasts about 30 minutes. It has been mainly distributed among the 500 VIP subscribers to the Auto Bild magazine, which include private companies.

In frame of the Youth Road Safety Education project an animation film was made for teenagers. PfRS plans to expand the project to include higher-grade pupils. The film describes the story of a school pupil, who exposes himself, his family and friends to a threat due to his irresponsible behavior. The main character of the film steals his parents' car and, accompanied by his teenage friends, leaves town to have fun. At the end, he is shown giving an account of the trouble he and his friends got into to the police investigator. The film provides children with information about the risks caused by violating traffic safety rules and related hazards. From the next school year, the film will be distributed in the schools of Georgia with a suggestion to include it in the Civil Defense program.

PfRS has created a new brochure for teenagers which includes information not only for drivers and passengers, but also for pedestrians. The brochure will be distributed in schools along with the film.

4. Awareness Raising Campaigns

The Seat Belt Manual



In April-May, PfRS was working on the development of a seat belt manual which aims to provide information to stakeholders, decision makers and organizations working on the road safety issues. The Manual gives a clear picture of the current situation regarding seat belt wearing in Georgia and provides recommendations on what measures to take and how to implement programs in order to raise awareness, improve seat belt wearing rates, and reduce the number of traffic accident fatalities and heavy injuries.

The Manual is the first ever Georgian document concerning seat belts and child restraints. It was prepared on the basis of the "Road Safety Manual for Decision-Makers and Practitioners" jointly prepared by WHO, FIA Foundation, Global Road Safety Partnership and the World Bank. There will be 500 copies of the Manual published in the summer 2010 which will be disseminated among decision makers and stakeholders.

Rallies and Races

The Georgian National Automobile Federation (GNAF) is one of the resource partners of the Alliance. The GNAF arranges rallies whose viewers are mostly teenagers. In the period of March 2009-June 2010, PfRS actively participated in the six rally events and disseminated leaflets, stickers, publicity materials on the benefits of seat belt use among the participants and the public as well as banners were posted. In order to promote the use of seat belts, the BP rollover was used in rally events. The BP rollover is a machine that simulates a car flipping over. Rallies were broadcast live by the Public Broadcaster and the commentator provided the audience with information on traffic safety.

Road Safety Day

PfRS has been marking the European Road Safety Day on October 13th since 2009. The first initiative came from the European Union and, locally, the European Commission was the partner of the event. First Lady of Georgia Sandra Elisabeth Roelofs, USAID Deputy Head of Mission Joakim Parker and EC Ambassador Per Eklund were honorable guests of the event. During the meeting, the film about road safety was presented. The film is called "One Second" and aims at revealing current road safety problems through the stories told by car accident victims. It also suggests ways of fighting this "epidemic".

After the presentation, PfRS launched the Coalition of Seat Belt Users. The Coalition comprises organizations which made seat belt wearing in the city mandatory for their staff. The member organizations are: TBC Bank, Procredit Bank, the Bank of Georgia, the GPI Holding Insurance Company, micro-finance company Crystal, CENN, UNA Georgia, Charity Humanitarian Centre Abkhazeti, Radisson SAS Iveria Hotel Tbilisi, and Toyota Caucasus. In addition, according to the head of the Health and Social Programs Agency, Mr. Vakhtang Surguladze, from November 2009, seat belt wearing will become mandatory for all emergency car drivers and doctors throughout the country.

Tbilisoba

PfRS held a Road Safety event on the "Seat Belt Promotion by Roll Over Equipment", which was organized by the Tbilisi City Hall and the AutoBild magazine during Tbilisoba - a holiday dedicated to the foundation of the city and widely celebrated in the capital. Visitors of the auto show could see special rollover equipment, which imitates a car accident and demonstrates how effectively seat belts protect from serious injuries. Gigi Ugulava, the Mayor of Tbilisi, attended the event and expressed interest in the rollover. He said that the promotion of seat belt use and road safety in general is very important.



World Day of Remembrance for Road Traffic Victims

PfRS marked the World Day of Remembrance for Road Traffic Victims at the Police Academy. The World Health Organization (WHO), based on the UN Resolution, designated the third Sunday of November as the World Day of Remembrance for Road Traffic Victims. During the meeting, representatives of PfRS held a presentation of the "One Second" documentary, which is dedicated to the memory of road traffic victims. The film shows current road safety problems and tells the stories of car accident victims. During the second part of the meeting, the necessity of seat belt wearing was demonstrated by means of the BP rollover.

Valentine's Day

On 14 February, PfRS held another Road Safety Event. Promo girls, stationed by five main traffic lights, were distributing different types of promotional materials such as cards, balloons with a slogan "Fasten Seat Belt for Love" to pedestrians, drivers and passengers on several of the busiest and most crowded streets of the city.

New Billboards



PfRS installed two new billboards in the streets of Tbilisi, reminding the Georgian public to wear seat belts. The billboards say that "the use of safety belts increases the protection of passengers from fatal injuries by 40-60 percent and is the best protection device"

Photo Exhibition on Seat Belts



On April 8th, 2010, a seat belt photo exhibition was held in the Courtyard Marriott Hotel by PfRS. Georgian celebrities and famous politicians such as President of Georgia, Mikheil Saakashvili, First Lady Sandra Elizabeth Roelofs, Parliament Deputy Speaker Gigi Tsereteli, Parliament Deputy Speaker Rusudan Kervalishvili, Head of Patrol Police



Department Giorgi Grigalashvili, Minister of the Health and Social Welfare Alexandre Kvitashvili, Minister of Regional Development and Infrastructure Davit Tkeshelashvili, Tbilisi Mayor Gigi Ugulava and others were photographed buckled up. The exhibition was prepared by the president's personal photographer Irakli Gedenidze, who contacted PfRS and suggested photographing well-known people and various ministers wearing seat belts. He arranged the photo shoot with various ministers and celebrities thus involving them in the project. Finally, 45 photos were presented at the exhibition.

Child Protection Day – "Protect the Unprotected"



On June 1st, which is celebrated in Georgia as child protection day, PfRS held an event called "Protect the Unprotected", which aimed to promote child safety in cars and the importance of child car seats while traveling. Within the framework of the event, 12 newborns in the Tbilisi Guduhsauri hospital received presents, including child restraints and special leaflets. Parents were told why they should transport infants using special restraints.

During the aforementioned event, infants also received presents from Deputy Speaker, Mrs. Rusudan Kervalishvili, the Head of the Parliamentary Committee for Health Protection, Mr. Otar Toidze as well as the representative from the USAID, Mrs. Gillian Kimura.

The director of the "Gudushauri" hospital, Zaza Sinauridze, underlined the importance of safe transportation for children and infants and, as a doctor with vast experience, mentioned that children are frequently injured in vehicles because their parents neglect safety requirements. He thanked the representatives of PfRS for valuable gift of infant car seats and called on parents to fulfill traffic safety rules.

Door to Door Campaigns and Outreach to the Private Sector



As part of the public awareness campaign, PfRS has launched a door to door campaign, targeting various groups of road traffic participants. In the course of the campaign, PfRS visited various companies and organizations, such as: TBC Bank, which has 100 cars, Bank of Georgia with 150 cars, Procredit Bank, Toyota, the Diplomat Georgia Company, the Crystal micro-finance company, the GPI Holding Insurance Company, Radisson SAS Iveria Hotel, UNA Georgia, Charity Humanitarian Centre Abkhazeti, the Caucasus Environmental NGO Network and the Auto Bild magazine.

At these companies and organizations, PfRS held presentations about road safety issues, distributed videos and provided the audience with detailed information on the benefits of seat belt use; various promotional materials such as booklets, fliers, leaflets and a film, were distributed. The aim of the campaign was to oblige private companies' staff members to use seat belts in the city.

PfRS was invited to the meeting held by the American Chamber of Commerce (AmCham) and suggested private companies to join the Seat Belt Users Coalition. At the meeting with the AmCham

MAERSK Line, Diplomat Georgia and other organizations expressed their willingness to join the Coalition and additionally present the film "One Second" to their staff.

As part of the door to door campaign, PfRS started to cooperate with bookstores in Tbilisi. Children's handbooks, films and other promotional materials were distributed, and posters on seat belts were put up in 10 major bookstores of the city.

The regional organization "Traffic Movement Safety Center" has provided training on road safety and seat belt wearing issues to Zugdidi taxi drivers. Leaflets, stickers and other publicity material created by PfRS have been distributed among the participants.

Ministerial Conference in Moscow

In November, the First Global Ministerial Conference on Road Safety was held in Moscow. Ministers from more than 70 countries met in Moscow for the unprecedented Global Summit on the road deaths epidemic. At the top of their agenda was the call to support a "Decade of Action for Road Safety", first proposed by the "Make Roads Safe" campaign, which is led by the FIA Foundation, a member of the Alliance and significant PfRS supporter. More than 150 ministers from different countries discussed current road safety problems and agreed that coordinated international effort is needed for decreasing the number of crashes and fatalities. From Georgia, representative of PfRS attended the conference on the invitation from the World Health Organization. The purpose of the invitation was to introduce representatives from different countries and share experience and views on the issue.

5. "Youth Road Safety Education" Project

Since November 2008, PfRS has been successfully implementing the road safety education project in 48 pilot schools in six cities throughout Georgia in cooperation and with financial assistance from the National Curriculum and Assessment Centre (NCAC) of the Ministry of Education and Science. The Teachers' Handbook, as well as an illustrated book for the third and fourth grade school pupils have been created to support the project. Other publicity material, such as presentation material (colored print road signs and posters) and a 20-minute film for children, showing safe behavior in the street, were created and distributed in the course of the project.

In order to meet educational standards, the handbook for children and the manual for teachers were created under the supervision of the representative of the NCAC. Before starting the lessons, a pre-program survey was conducted in the pilot and control groups of the selected schools.

Prior to starting the program, 365 class teachers were trained in six towns of Georgia (Tbilisi, Kutaisi, Gori, Telavi, Batumi and Rustavi). During three months a total of 14 lessons were given and, according to the post-program research, the knowledge of road safety issues increased by 38 percent. It is noteworthy that the lessons were monitored by the NCAC and PfRS representatives.

The project proved interesting for other schools and, at the beginning of the 2009 school year, more than 50 schools that were not involved in the activities during the first year, expressed their willingness to join the project and improve road safety knowledge among their pupils. Furthermore, PfRS started working on a new book for fifth-graders to be introduced in schools. The project was implemented in 100 schools where lessons on road safety issues were delivered to fifth-graders as well. In total, 25,000 children were educated during these two years.

In order to enhance the road safety education activities, a working meeting was held with Minister of Education and Science Dimitri Shashkin, who stated that civil defense and security classes will start in 15 pilot schools from 2010 school year. The course will teach topics including civil defense, road safety, and medical first aid. Initially, these subjects will be taught in pilot schools but later the course

will be developed and become a mandatory subject. PfRS has provided these schools with all kinds of educational materials. Close cooperation with the Ministry of Education and Science proved very important for the inclusion of road safety topics in the civil defense program.

School Events



Under the "Youth Road Safety Education" project, road safety events were held in the schools of Tbilisi, Kutaisi and Rustavi. Pupils of these schools demonstrated the knowledge that they acquired as a result of the project. In Rustavi, children marched through the streets and distributed their hand-made posters and flyers with road safety messages to the citizens. The events were covered by local TV companies.

In early September 2009, PfRS visited the Youth Camp in Sagarejo, Kakheti region. The goal of the visit was to provide young people with detailed information about road safety. More than 120 children, ages 8 to 12, were in the youth camp on vacation. Representatives of the foundation held presentations on seat belt use and other road safety issues. During the event, books on road safety and various promotional materials were distributed among children.

Within the framework of the "Youth Road Safety Education" project, an event was held at the No 60 Tbilisi Public School, with participation of the third, fourth and fifth-grade pupils. The school yard was decorated and painted as a street especially for that day, and the children gave a performance, staging various traffic situations. They also painted pictures specifically for that day and arranged an exhibition in the school lobby.

The event was attended by the representatives of USAID and the Ministry of Education and Science of Georgia. The children could not conceal their emotions while cutting the presentation cake and pointed out that the process of road safety education and the classes were especially pleasant and memorable for them.

6. The Role of In-kind Partners

The active work carried out by the Alliance backed by First Lady of Georgia messages on the importance of safe driving disseminated by means of TV channels (Mze, Imedi, Rustavi-2), articles in the print media, the involvement of the private sector (when many companies agreed to make seat belt use mandatory for their staff) and other activities have resulted in making the issue of safe driving topical and a priority for the Georgian state.

Interestingly, compared to 2008, in 2009, the number of road accidents decreased by 533, the number of fatalities – by 126, the number of injured people - by 739. This progress, among other things, should be attributed to increased public awareness.

After the meeting with Mayor of New York on April 20, the President of Georgia clearly underscored the importance of safe driving. In June 2010, the Parliament introduced more rigid legal measures to tackle drunk driving, speeding and failure to use seat belts on highways. Respectively, the patrol police started to actively enforce this legislation.

The table below shows monetary contributions made by the Alliance members:

USAID Contribution in USD	184, 563	
Non-USAID Cash Contributions (USD):		115,395
Partners: BP, MATRA, FIA, US. Embassy	115,395	
Non-Federal In-Kind Contribution:		78,420
Partners:		
NCAC (Ministry of Education and Science)	11,700	
GNAF	10,020	
"Saimedo Auto"	28,800	
"Auto Bild Georgia"	27,900	
Total Non-USAID Contributions:		193,815

The Ministry of Education and Science (MoES)

The "Youth Road Safety Education" project would be impossible to implement without tremendous financial as well as moral support from MoES (*the ministry printed textbooks worth GEL 15,000 within the framework of the project*). The ministry was quite positive with regard to the initiative of PFRS from the very beginning and introduced road safety education in more than 100 schools nationwide; as a result, the project covered more than 25,000 pupils. The involvement of the NCAC in the project, specifically, the participation of MoES experts in designing textbooks and other study materials, is of utmost importance and worth mentioning. It is also noteworthy that the aforementioned center issued a positive assessment of the study process and the program in general.

According to the MoES regulations, the road safety education was officially included in the Civil Defence and Security program of the ministry.

The Auto Bild Magazine

A famous magazine in Europe, AutoBild, entered the Georgian market only a few years ago and has already become quite popular. It is a monthly edition issued with a circulation of 10,000 copies. The magazine focuses on automobiles and related issues. Since the beginning of its cooperation with the "Georgia Alliance for Safe Roads", the magazine has dedicated many pages to the issues concerning safe driving. Throughout the year, it has printed six articles about safe driving and road accidents completely free of charge. Moreover, the promotion of safe driving and, especially, the use of seat belts have become one of the major directions at many events and auto-shows arranged by AutoBild (five events during one year). Furthermore, different advertisement videos, films and other visual aids (stickers, flyers, booklets, bracelets, badges, etc.) are periodically distributed during street actions. AutoBild readers get different products enclosed with the magazine copies.

*Throughout the year, the **AutoBild** magazine has printed six articles about safe driving and PFRS projects free of charge. Moreover, different types of advertising products have been enclosed with the magazine copies.*

The Reliable Automobile (Saimedo Auto) TV Project

The Reliable Automobile (Saimedo Auto) TV Project is an integral part of the "Georgia Alliance for Safe Roads" project which actively promotes such issues as the use of seat belts on all types of roads, protection of safe driving norms and others. Reliable Auto has been broadcast by the Mze TV Company for years. It is popular among youth, which are its major audience since young people are always interested in new models of cars and auto sport. The TV program viewers receive different kinds of information on the issues of safe driving. The program invites competent people who give advice on how to drive carefully and safely and what the risks are in different driving situations. The program actively covers the activities carried out within the framework of the "Georgian Alliance for Safe Roads" project.

Throughout the year, the advertisements of PFRS are aired 300 times by the Mze TV Company, specifically, within the framework of the Reliable Auto project.

The Georgian National Automobile Federation

The Georgian National Automobile Federation (GNAF) is one of the most active partners of PFRS. It was established by FIA and mainly deals with the development of auto-sport in Georgia. Public awareness of the GNAF and popularity of autosport in Georgia is growing constantly. GNAF organizes different types of activities which are notable for their great popularity expressed by active attendance. During these events, the GNAF promotes the safe drive norms and the use of seat belts. Professional racers call on the wider audience to wear seat belts. They try to set an example by wearing safety belts on highways as well as on city roads themselves. During the year, the GNAF has held six races and many other amateur tournaments. All these events actively promoted safe driving, distributed flyers, booklets with various visual aids, including T-shirts, bracelets, stickers, badges etc.

GNAF races attended by thousands of people have actively promoted the work of PFRS and safe driving. The total of six races and several amateur tournaments have been conducted.

7. Web blogs

PFRS created accounts on popular web portals, including Facebook, Myvideo.ge, Forum.ge, boke.ge and Forum.interes.ge, with the aim of popularizing road safety topics and promoting the use of seat belts in Georgia. On Facebook, 26 videos (three videos added by the profile fans), 39 links and 120 photos were posted (28 links were posted by fans). The web page www.safedrive.ge has 18,187 registered users. On average, the web page is visited by 80-100 users every day.

At present, there are 85 pieces of news published in different categories (News, World and Auto Sport). Video gallery contains 65 films, photo gallery - 90 pictures, publications - 19 documents, and the audio section - six files. The poll is being held on the page, where 1,277 users have voted and 80 percent of them are for introducing the mandatory use of safety belts on town roads as well as on highways.

On the popular web portal myvideo.ge, 61 videos were posted which have been viewed by 5,058 users. The account of the Foundation is visited by about 200 users every day.

8. Future Plans

With the donors' assistance, PfRS has been able to conduct its activities aimed to improve road safety in Georgia. The attention of the stakeholders and the public has been drawn to the topical problems. The salience of the road safety issues has become much greater since the beginning of the project.

The new road safety strategy has been initiated involving the executive branch. The need for using safety belts on all road types has been acknowledged as crucial for reducing the number of traffic accident fatalities and heavy injuries. The debate on the compulsory use of seat belts on city roads continues and no-one questions its importance, so the corresponding legislative amendments are on the way.

Since July 2010, the fines for traffic laws violations have been increased and the fines for ignoring safety belts on highways have been doubled. The education and information campaigns are addressing different segments of the society, mostly the youth, who represent the most vulnerable group, important to reach at an early age in order to develop proper traffic safety attitudes before they grow up.

PfRS will continue its activities in all the priority areas mentioned in the report. The meetings with stakeholder will continue with the particular stress on meetings with MPs, as the legal framework is recognized to have quite a significant impact on the behavior of traffic participants. Some of the planned activities are listed below:

Cooperation with the Georgian Red Cross

It is planned to enhance cooperation with the Georgian Red Cross organization which is implementing a road safety project "Safe Way to School". PfRS is in the process of elaborating the cooperation activities in order to complement the project and road safety initiatives.

Participation in the Estonian Initiative on Reflectors

The Estonian Government is implementing the project titled "Promotion of Reflectors in Schools", which is conducted by the Estonian and Georgian police organizations. The project aims to introduce and promote the use of reflectors by Georgian pedestrians, in order to improve road safety in Georgia.

Meeting at the Tourism Association

It is planned to have a meeting with the representatives of the Tourism Association in Georgia's Parliament. The association is concerned with the road safety problems in Georgia, as this is one of the factors preventing the development of the tourist sector in Georgia.

Working on Legislative Proposals

PfRS will continue its activities in order to develop the legal basis required to improve road safety in Georgia. In order to serve this goal, meetings with MPs and other stakeholders will be continue actively.

The Road Safety Conference

It is planned to arrange the Road Safety conference on 13 October 2010 - the European Road Safety Day with cooperation of European Commission. It is planned to invite representatives of various

ministries and MPs in order to support the planned legal amendments with arguments on compulsory use of seat belts on all roads in Georgia.

Video Clip

New clip on seat belt will be created and aired on Georgian TV Channels from September. The First Lady expressed her willingness to use her voice in order to show her commitment.

The World Day of Remembrance of Road Traffic Victims

21st of November, 2010 is the World Day of Remembrance of Road Traffic Victims. This day was established by UN in 2005. PFRS is going to mark it and launch the UN Decade of Action in Georgia.

Pedestrians Project

PFRS is starting pedestrians safety project "Be Visible - Be Safe" which is funded by US Embassy to Georgia. The goal of the project is to reduce the number of pedestrian fatalities and injuries by changing the behavior of pedestrians and drivers through the public awareness campaigns and enhanced enforcement of traffic rules.

Our Team



Gela Kvashilava – Head of the Board, Project Consultant is responsible for consultancy of the projects, overall Partnership policy and strategy, organization management and working its' strategic documents, research and development, building partnership and communication with government institutions and other international organizations, performance and impact assessment of the project.



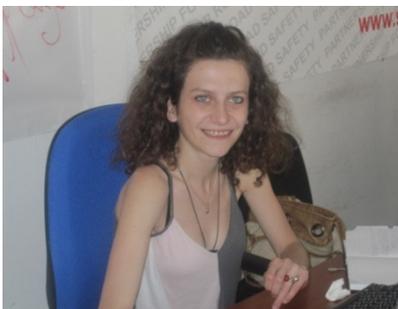
Ekaterine Laliashvili –Director, Project Manager

She is responsible for the management of daily activities of the organization; management of the "Seat Belt" and "Youth Road Safety Education" projects; implementation of campaigns, relationship with local stakeholders, community and advocacy work, financial management and other components of the project.



Tiko Dolidze- PR Manager

She is responsible for media outreach, working with mass media, public awareness campaigns and conducting the related media work, monitoring media campaign.



Shorena Tatishvili- Project Officer

She is responsible for providing translation and interpretation, preparing various documentation, assisting project manager in writing quarterly and yearly reports, evaluations, organizing Board Meetings, coordinating "Youth Road Safety Education" and "Seat Belts" projects, monitoring and evaluating provided lessons and other activities carried out in the frames of the projects.



Irakli Izoria- Project Assistant

Irakli Izoria – Project Assistant; He is responsible for logistical and legal issues; preparing legal documentations, assistance in organising administrative work and public awareness campaigns.



Manana Demetrashvili- Financial Manager

She is responsible for coordinating and controlling budget and its revision; processing accounting documents, transaction entries into INFO accounting program; managing expenditures; preparing financial statements and declarations; making financial reports.

Annex 1

**Youth Road Safety Education
Research 2008-2009**

Contents:

Executive Summary

Research on Youth Road Safety Program Effectiveness

Goals and Objectives

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Study Areal

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Parents Attitude towards Youth Road Safety Education

Executive Summary

In 2008-09, “Youth Road Safety Education” project was implemented in 48 schools throughout the country. The project aimed at teaching road safety to the third and fourth grade school children, as well as forming right attitude towards traffic rules.

The Partnership for the Road Safety Foundation conducted pre and post program research in 5 cities of Georgia such as: Tbilisi, Kutaisi, Rustavi, Batumi and Telavi. In order to find out the level of knowledge of traffic rules in schools and to measure the effects that learning and teaching of traffic rules research was implemented in pilot and control classes.

Quantitative research for schoolchildren was conducted through testing. Tests were composed on the basis of children’s manual.

Testing was conducted in two segments: pilot classes, where road safety was taught and control classes where road safety was not taught. According to post program research the level of knowledge in pilot classes was increased by 38%.

In addition, the PfRS conducted another survey through interviewing parents whose children studied road safety at pilot schools. The research shows parents’ attitude towards Youth Road Safety Education Program.

Ten parents were questioned per town, in total 50 respondents participated in the survey.

1. Research on Youth Road Safety Program Effectiveness

Goals and Objectives

The research aimed at assessing knowledge level of pilot class children and new study course effectiveness.

Objectives of the research were as follows:

- Pilot class children knowledge assessment, before beginning of a new training course
- Pilot class children knowledge assessment after the end of the course. Comparison measurement of Knowledge rate, before and after the course

Research Methodology

- Quantitative research
- Research technique- testing

Target Group

For measurement of the study course effectiveness, testing was conducted in two segments: pilot classes, where road safety was taught and control classes where road safety was not taught.

Children of the 3rd and 4th grades participated in the study.

Study Areal

The study was conducted in five towns, where implementation of the project is planned.

Cities and towns are as follows:

Tbilisi, Telavi, Batumi, Rustavi, Kutaisi.

Selection

Selection was conducted through quota system; selection scope – 457 pupils.

1. Analyzing and interpretation
2. Average index of knowledge level
3. Awareness of specific issues
4. Index of knowledge level
5. Awareness of specific issues

In addition to assessing pupils' general knowledge, a survey was conducted to provide information on pupils' awareness of some specific topics.

The topics were as follows:

1. Traffic and road traffic participants
2. Duties of Pedestrians
3. Duties of Passengers
4. Traffic signs and lines
5. Bicycle and safety

Definition of Knowledge Level Index

Through the research, average index of knowledge level, awareness of specific issues and index of knowledge level was measured.

Definition of Knowledge Level Index is as follows:

1. 15 correct answers from 15 – Absolute index
2. 12, 13, 14 correct answers from 15- High index
3. 9, 10, 11 correct answers from 15 – Medium index
4. 6, 7, 8 correct answers from 15 – Satisfactory index
5. 5 or less correct answers from 15 – Low index.

Pre -Program Survey Results

According to the 15-point scale, research results are as follows:

City/Town	Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
Average index of knowledge level	9.51	8.88	8.98	9.05	9.25

Average index of knowledge level was 9, 12, before the study course. It should be mentioned that schoolchildren of the fourth grades (9, 21) are more informed about road safety, than schoolchildren of the third grades (9, 05).

City/ Town	III Grade	IV Grade	Pilot	Control
Average index of knowledge level	9.05	9.21	9.10	9.16

In addition to assessing pupils' general knowledge, a survey was conducted to provide information on pupils' awareness of some specific topics.

The topics were as follows:

1. Traffic and road traffic participants
2. Duties of Pedestrians
3. Duties of Passengers
4. Traffic signs and lines
5. Bicycle and safety

Children had very little knowledge about traffic signs, traffic lines (0, 50) and duties of pedestrians (0, 57).

Awareness of Specific Topics/ City or Town:

Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
0.79	0.81	0.76	0.71	0.76
0.62	0.57	0.54	0.58	0.56
0.69	0.62	0.66	0.71	0.64
0.51	0.47	0.51	0.47	0.55
0.67	0.64	0.61	0.65	0.69

Comparison of Knowledge level of third and fourth grade schoolchildren:

	III Grade	IV Grade	Pilot	Control
Traffic and road traffic participants	0.78	0.75	0.77	0.76
Duties of Pedestrians	0.57	0.57	0.56	0.59
Duties of Passengers	0.64	0.69	0.68	0.65
Traffic signs and lines	0.49	0.51	0.50	0.51
Bicycle and safety	0.66	0.65	0.65	0.66

15-point scale was used, for assessing knowledge level of pilot class children and new study course effectiveness. According to pre-program research, schoolchildren have satisfactory or medium level of general knowledge. Almost half of children participating in the research received medium index of knowledge level (48%), one third of children received satisfactory index (33%).

As expected, none of the schoolchildren received absolute index of knowledge level in the pre-program testing. However, one from ten pupils (13%) is quite well informed about road safety.

They provided 12 correct answers out of 15 and therefore received high indexes.

According to the research, average index of knowledge is almost similar in all cities and towns, involved in the research, but some difference in indexes of knowledge level was still observed:

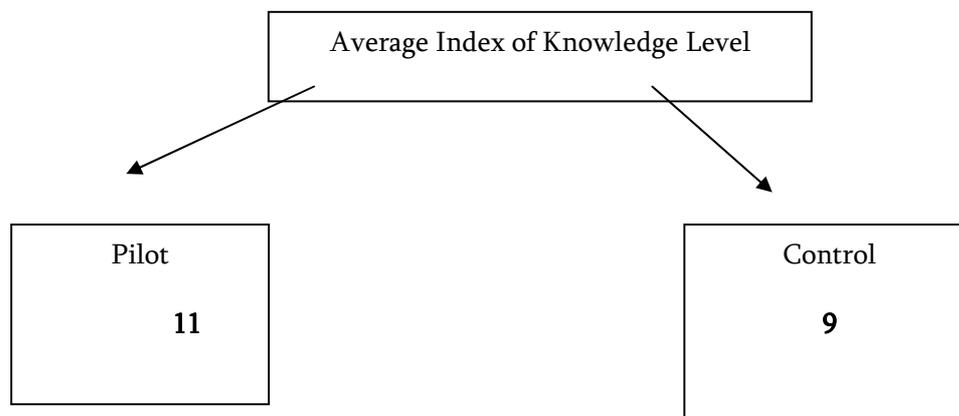
Index of Knowledge	Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
Absolute	0%	0%	0%	0%	0%
High	24%	9%	12%	10%	12%
Medium	42%	50%	44%	47%	56%
Satisfactory	27%	33%	39%	38%	26%
Low	7%	8%	5%	5%	6%

Before launching the program, knowledge level of schoolchildren of pilot and control classes were almost similar as well.

Index of Knowledge	III Grade	IV Grade	Pilot	Control
Absolute	0%	0%	0%	0%
High	12%	14%	15%	11%
Medium	48%	48%	47%	49%
Satisfactory	34%	31%	31%	35%
Low	6%	7%	7%	5%

Post - Program Results

Post program research show that, index of knowledge level of pilot class pupils, is higher than knowledge level of control class children.



According to 15-point scale, 0 point means – has no information about road safety, 15 points mean – is well informed about road safety.

If we compare indexes of knowledge level before and after the program, the outcome is as follows:

	Pilot	Control
Before the program	9,1	9,16
After the program	11,41	9,17
Changes in the indexes	+2,31	+0,01

After the course, average index of knowledge level in pilot schools is 11, 4, which is 2, 31 more than it was before the course. These data shows that program was carried out successfully in pilot schools.

As for the control schools, here index of knowledge level is the same, meaning that knowledge level in pilot schools was increased.

In addition, knowledge level by cities and towns was studied. The research shows that due to road safety lessons, knowledge level of pupils of pilot classes has significantly increased in Tbilisi and Rustavi.

Additionally, average Indexes of knowledge level before and after the program was compared.

Pilot	Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
Before the	9.72	8.96	8.88	8.79	9.17

course					
After the course	11.98	11.94	11.41	10.68	10.79
Changes in the indexes	2.26	2.98	2.53	1.89	1.62

According to research, study course produced the most effective results in Rustavi schools, as before the course knowledge level of pupils in Rustavi was much lower than in the rest of towns, but after the program, this index has increased with 2, 98 points.

Research shows that knowledge level has not increased in control classes:

Control	Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
Before the course	9.28	8.78	9.12	9.28	9.39
After the course	8.87	8.45	9.55	10.20	8.56
Changes in the indexes	-0.41	-0.33	0.43	0.92	-0.83

Comparative analysis was conducted for pilot and control classes. The study course turned out to be most effective for pupils of the third grade. Before the study course they were less informed about road safety, than pupils of the fourth grade.

Pilot	III Grade	IV Grade
Before the course	8.83	9.50
After the course	11.37	11.46
Changes in the indexes	2.54	1.96

As for the control schools, as expected, average index of knowledge level has not changed.

Control	III Grade	IV Grade
Before the course	9.46	8.96
After the course	8.89	9.41
Changes in the indexes	-0.57	0.45

As for the assessment of pupils' awareness of specific issues, after the study course children were given the same tests, they had passed before the course. Their knowledge was measured with the same scale.

Pupils of pilot classes were much more informed about bicycle and safety than about traffic signs, lines, and other issues.

If we compare pupils' awareness before and after the study course we will see, that after the study course, pupils of pilot schools learnt much more about duties of pedestrians than about other issues.

Pilot	Traffic and road traffic participants	Duties of pedestrians	Duties of passengers	Traffic signs and lines	Bicycle and safety
Before the course	0.77	0.56	0.68	0.50	0.65
After the course	0.82	0.76	0.82	0.65	0.83

Changes in the indexes	0.05	0.2	0.14	0.15	0.18
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Awareness of the same issues was assessed in control classes as well. As expected, no significant changes were observed.

Control	Traffic and road traffic participants	Duties of pedestrians	Duties of passengers	Traffic signs and lines	Bicycle and safety
Before the course	0.76	0.59	0.65	0.51	0.66
After the course	0.75	0.58	0.68	0.47	0.72
Changes in the indexes	-0.01	-0.01	0.03	-0.04	0.06

Additionally, awareness of specific issues in Pilot classes was studied.

	Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
Traffic and road traffic participants	0.81	0.88	0.85	0.80	0.73
Duties of pedestrians	0.76	0.76	0.76	0.69	0.88
Duties of passengers	0.82	0.87	0.85	0.79	0.76
Traffic lines and signs	0.78	0.69	0.60	0.59	0.58
Bicycle and safety	0.88	0.89	0.87	0.80	0.65

Pupils of the third grades turned out to be more informed about traffic and road traffic participants and duties of pedestrians as compared with pupils of the fourth grade. On the other, pupils of the fourth grade knew more about the rest of the topics.

	III Grade	IV Grade
Traffic and road traffic participants	0.85	0.79
Duties of pedestrians	0.79	0.74
Duties of passengers	0.79	0.86
Traffic signs and lines	0.64	0.66
Bicycle and safety	0.80	0.87

Additionally, index of knowledge level after the course was assessed (criteria were the same, as before the course). After the sturdy course, more than half of pupils (53 %) of pilot schools demonstrated absolute or high level of knowledge in road safety, which is four times more compared with the indexes of control classes. After the study course, number of pupils, demonstrating absolute or high level of knowledge in road safety, has significantly increased (38 %).

Pilot	Absolute	High	Medium	Satisfactory	Low
Before the course	0%	15%	47%	31%	7%
After the course	6%	47%	37%	9%	1%
Changes in the indexes	6%	32%	-10%	-22%	-6%

It should be mentioned that knowledge these indexes almost have not change in control classes.

Control	Absolute	High	Medium	Satisfactory	Low
Before the course	0%	11%	49%	35%	5%
After the course	0%	12%	55%	27%	5%
Changes in the indexes	0%	1%	6%	-8%	0%

Absolute and medium indexes in pilot schools:

Index of knowledge level	Tbilisi	Rustavi	Kutaisi	Batumi	Telavi
Absolute	10%	10%	2%	2%	3%
High	52%	55%	49%	39%	36%
Medium	33%	27%	39%	43%	48%
Satisfactory	2%	8%	10%	14%	9%
Low	2%	0%	0%	2%	3%

As for knowledge level by classes, indexes are almost equal in the third and fourth grades, though third grade pupils turned out to be more informed compared with the fourth grade pupils.

Index of knowledge	III Grade	IV Grade
Absolute	5%	7%
High	50%	44%
Medium	34%	42%
Satisfactory	11%	6%
Low	1%	2%

2. Parents Attitude towards Youth Road Safety Education

Brief Summary

The forthcoming survey was carried out by the Partnership for the Road Safety Foundation in July- August 2009 and shows parents' attitude towards Youth Road Safety program. The survey aimed at studying the attitude of those people, whose children were involved in the Youth Road Safety program.

Goals and objectives of the research

Objectives are as follows:

- Studying the attitude of pupils, towards the program
- Studying the attitude of parents, towards the program
- Identifying benefits of the program
- Parents' general preferences

Method and Tools/ Target Group

Qualitative research was conducted through interviewing of parents, whose children studied road safety at pilot school, were selected as target group. In order to study parents' attitude towards road safety education, special questionnaire was created.

Tbilisi, Kutaisi, Rustavi, Batumi and Telavi were selected as research area. Ten parents were questioned per town, in total 50 respondents participated in the survey.

Outcome of the Survey, Analysis, Interpretation

Pupil's attitude towards study course

Outcome of qualitative research shows that, pupils have very positive attitude towards road safety lessons. According to parents, children actively discuss road safety issues with their family members at home. They try to share their knowledge about road safety to their parents and other family members and at the same time get similar information from them. There were cases when children were so much interested in road safety, that they sought additional information in internet to expand their knowledge.

It should be noted that, according to the participants of qualitative research, male participants show more interest towards road safety. This fact is very natural, for in Georgia generally, men take more interest in driving. In parents' opinion, Children's grate interest towards road safety is caused by their age, as well as innovative method of teaching road safety and interesting educational materials, such as videos, illustrated books etc. Children are happy to participate in various road safety events, held in the framework of the program.

Parents' Attitude towards Road Safety

Quantitative research shows that parents of pilot schools are very well informed about road safety lessons. Their attitude is very positive; they think that this it is very important and necessary to provide children with information about road safety.

Like pupils, parents have very positive attitude towards methods of teaching and educational materials. Parents also welcome the fact, that in some cases, road safety is taught through various games and children get very important and necessary information.

Benefits of Study Course

According to parents, one of the most important benefits of the course is that this program gives children opportunity to learn more about road safety. In addition, this program has many benefits, for instance: those children, who take road safety lessons at schools, acquire self-confidence and they have opportunity to put this knowledge into practice in their daily life.

Knowing that their children are well informed about road safety and traffic rules, parents feel calmer and are not afraid of letting their children out of the house.

On the basis of qualitative research, it can be said that, as a result of the study course, children actively put their knowledge into practice. They follow traffic rules, cross the streets and safely ride the bicycles.

It should be noted that, pupils of pilot schools, not only follow traffic rules themselves, but also call on their parents, family members and friends to follow traffic rules and they get upset, when they violet the rules.

General Preferences of Parents

Qualitative research shows that, parents welcome the initiative of teaching road safety in schools. Some of them think that, road safety should be taught during the whole study program. They think that gradually road safety lessons should become more complex. It should be noted that this is not only their wish; this is what they expect from the program. Parents of pilot schools also suggest that, in the framework of the “Youth Road Safety Education Program” pupils should be given practical lessons together with theoretical one.

According to them practical lessons will help children to face existing dangers and realize importance of road safety.

Annex 3

Social and Economic Costs of Not Wearing Seat Belts in Georgia

1. Introduction

The introduction of western values, creation of democratic institutions and implementation of social and political norms is of the highest importance for the development of modern Georgia. This process also implies the improvement of traffic safety on the roads and highways of the country. The use of safety belts is one of the most effective ways of reducing the number of road accident fatalities and severe injuries in developed countries. Special programs are under way in European countries that aim to increase the seat-belt wearing rate up to 90 percent by 2012, which will result in decreasing the fatality and severe injury rates by half¹. Unfortunately, the seat-belt wearing culture in Georgia is very low, and the current legislation is partially responsible for this.

The goal of this research is to calculate the costs of ignoring seat-belts by drivers and passengers incurred by the Georgian state and its society. Within the framework of this research, the data from different agencies, including the police, medical institutions, the National Forensics Bureau and insurance companies was obtained and analyzed. The paper incorporates the reports and publications produced on the initiative of different public, non-governmental and international organizations.

2. International Practice of Seat-Belt Wearing

3.

According to the information obtained by the World Health Organization, about 1.2 million people die in traffic accidents and about 50 million receive various injuries throughout the world. The fatality rates in low- and middle-income countries are significantly higher (on average 12.5-19.5 fatalities per 100, 000 population every year) compared to high-income states (on average 10.3 fatalities per 100, 000 population). Despite the fact that only 48 percent of the world's vehicles are registered in low- and middle-income countries, 90 percent of car accident fatalities surprisingly take place precisely in these countries².

The losses caused by traffic accidents in these states amount to 1-3 percent of their GDP. Added to this is the emotional trauma and financial problems caused as a result of citizens' death or injuries and experienced not only by the victims but also by their families, relatives and the society at large.

¹ Timmo Janitzek, Franziska Achterberg (2007), Seat Belt Reminders: Implementing Advanced Safety Technology in Europe's cars; European Transport Safety Council.

² Global status report on road safety: time for action. Geneva, World Health Organization, 2009.

The international practice shows that it is possible to avoid traffic accidents and reduce the costs of their consequences. Developed countries design and implement various programs to deal with this challenge and, correspondingly, the results are becoming evident: on average, the number of fatalities decreased by 2 percent in 2000-2006; during the same period of time, the number of fatalities in Georgia increased by 3 percent (see Annex 1).

Programs targeting traffic accidents to reduce losses pay special attention to the issue of wearing safety belts. The current rate of seat-belt wearing in European countries varies between 70-95 percent. According to different studies, if 99 percent of drivers and passengers wore seat-belts, the number of fatalities in the EU countries would fall by 50 percent.³

In 2007, The European Transport Safety Council published a research paper on the effectiveness of wearing seat-belts. The study showed that seat-belts reduced driver fatalities by the average of 40.9 percent. In European countries, this indicator varies between 32 percent and 48 percent (see Annex 2)⁴. The effectiveness of seat-belt wearing is described in the Manual published by the FIA Foundation, according to which safety belts:⁵

- reduce the risk of contact with the interior of the vehicle or reduce the severity of injuries as such;
- distribute the strength of a crash over the strongest parts of the human body;
- prevent the occupant from being ejected from the vehicle in an impact;
- prevent other occupants from being injured (for example in a frontal crash, unbelted rear-seated passengers can be catapulted forward and hit other occupants).
- If airbags are activated (airbags deploy at 300 km/h), the occupants are protected from contact with them and injuries related to such contacts are reduced.

According to different studies, the unbelted injured drivers seek help in hospitals three times as often as those who wore them. Unprotected drivers and passengers receive fatal injuries seven times more often than those who were protected. The table below describes how seat-belts can reduce the trauma severity for both drivers and passengers:⁶

³ Seat-belts and child restraints: a road safety manual for decision-makers and practitioners; London, FIA Foundation for the Automobile and Society, 2009.

⁴ Road Safety Performance Index (PIN), published by European Transport Safety Council. www.etsc.be/PIN (last visited 22.03.2010).

⁵ Seat-belts and child restraints: a road safety manual for decision-makers and practitioners; London, FIA Foundation for the Automobile and Society, 2009.

⁶ Ibid.

Table1. Effects of seat-belts on the probability of personal injury in all types of collisions (individual effects).⁷

Injury severity	Percentage change in number of injuries	
	Best estimate	95% confidence interval
<i>Drivers of light vehicles</i>		
Killed	-50	(-55;-45)
Serious injuries	-45	(-50;-40)
Minor injuries	-25	(-30;-20)
All personal injuries	-28	(-33;-23)
<i>Front seat passengers in light vehicles</i>		
Killed	-45	(-55;-25)
Serious injuries	-45	(-60;-30)
Minor injuries	-20	(-25;-15)
All personal injuries	-23	(-29;-17)
<i>Back seat passengers in light vehicles</i>		
Killed	-25	(-35;-15)
Serious injuries	-25	(-40;-10)
Minor injuries	-20	(-35;-5)
All personal injuries	-21	(-36;-6)

Generally, one of the preconditions for improving seat-belt wearing rates is enforcing the legal procedures which require both front- and rear-seat occupants to wear safety belts. At present, the law obliges only front-seat occupants to wear safety belts and only on highways. The Law of Georgia “On Traffic Safety” was put into effect in 1999 and did not envisage wearing belts at all. On 23 June 2005, the law was amended to require wearing safety belts on highways (where the speed limit is 80km/h)⁸. There are very few road sections of this kind in Georgia; correspondingly, safety belts are ignored on most roads, which results in catastrophic consequences in the event of a traffic accident.

Table 2 shows that legislation has a tremendous effect on the behavior of drivers and passengers.

Table2. Increases in front seat-belt wearing rates in selected countries after the implementation of legislation and campaigns:⁹

⁷ 95% confidence interval means that results are statistically significant.

⁸ Georgia’s Administrative Code, 118¹ article.

⁹ Seat-belts and child restraints: a road safety manual for decision-makers and practitioners; London, FIA Foundation for the Automobile and Society, 2009

Country	Wearing rates (%) prior to legislation and campaigns	Wearing rates (%) after legislation and campaigns
Australia	25	95
Austria	30	70
Denmark	5	94
Great Britain	25	91
Spain	25	86
India	0.5	50
Japan	37	84
Costa Rica	24	82
Netherlands	15	86
Norway	10	94
Finland	40	93
South Africa	33	81
Sweden	20	90
Czech Republic	20	60
Croatia	50	80

4. Research Design, Information Sources and Methodology

The goal of this research is to determine the consequences of ignoring safety belts by vehicle occupants in Georgia.

The research question: what is the social and economic effect of not wearing safety belts by vehicle occupants on the Georgian state and its society?

Hypothesis 1. A more intensive use of safety belts by vehicle occupants will significantly reduce the number of fatalities and heavy injuries when traffic accidents take place.

Hypothesis 2. A more intensive use of safety belts by vehicle occupants will significantly reduce the country's economic losses.

In order to address the aforementioned concerns, the data and information have been obtained from several institutions.

Police Statistics

The information received from the police was used in the descriptive part of the research and aims to explain the traffic accident trends in Georgia, as well as the trends of fatalities and injuries and their age

distributions. The police do not process statistics on safety belts use, they are not legally required to systematize such data.

Data from the National Forensics Bureau

One of the objectives of the research was to collect information on the causes of fatalities due to traffic accidents and to find out how many of the deceased wore safety belts. A visit to the Tbilisi Forensics Bureau was paid in order to obtain this information. It was established that the experts' conclusions do not state whether or not a deceased person wore a safety belt. The reason for it is that there is no legal act that requires forensic experts to formalize findings on seat-belt wearing. Furthermore, at the moment, it is impossible to separate conclusions on traffic accidents from those on other accidents (if a special commission is not called for special cases) as it does not specify the circumstances in which fatal injuries were received. Given the aforementioned information, it is impossible to distinguish traffic fatalities from the fatalities caused by any other incident. As the bureau representatives told us, should they be tasked with processing such statistics, recording the data would not be a problem.

Information from Medical Facilities

As it turned out, medical facilities represent the only source of information, albeit partial, on seat-belt wearing.

For research purposes, data was collected at the N. Qipshidze Central University Clinic (the so-called Republican Hospital), where patient records concerning wearing seat-belts are being registered since the second half of 2007, and at the N. Ghudushauri National Medical Center, where similar information is being registered since May 2009. It is worth mentioning that hospitals are not formally required to register such data and it was the decision of the hospital management to do so. Hospitals in the regions do not register the data on seat-belt wearing at all.

During the research, patient charts were obtained from the reception desks of these hospitals and data for 34 months was processed; the information was more or less complete for 831 patients¹⁰. According to the Ghudushauri hospital representatives, they are not officially required to provide information and statistics on road accidents, the charts of patients who were injured in such accidents have been kept together with other trauma patients' histories for several years now. This shows a lack of interest in this issue and can be explained by the lack of financial resources. For example, unlike traffic accident related traumas, oncological and contagious diseases are better researched and, since they are adequately financed, it is possible to find quite comprehensive statistics about them. The research and prevention of traffic accidents is not funded by donors at all.

¹⁰ There were cases when personal data and indicators needed to calculate RTS were missing from the charts which is why all 831 charts could not be used in the analytical model and only those with complete data were included.

Information from Insurance Companies

The information available to insurance companies was obtained from Georgia's Insurance Association. Insurance companies provide reports on land transport accidents and related losses to the Association, however, the data on deaths and injuries caused by traffic accidents and related damages is not processed separately. The use of aggregate data was considered inexpedient for the research purposes. On the other hand, in the practice of the Association, minor injuries are covered in the amount of 1,500-2,000 lari, which made it possible for us to calculate the damages caused by this kind of traumas.

Methodology

One of the most difficult tasks of the research was the definition of trauma severity. Three types of indicators are used in international practice: ISS – Injury Severity Score, MAIS - Maximum Abbreviated Injury Scale and RTS - Revised Trauma Score¹¹. With the exception of a few cases, patient histories contain no record of severity and quality of traumas; they are not categorized according to ISS and MAIS indicators either. Fortunately, the data registered in histories allowed us to calculate the Revised Trauma Score. This indicator reflects the physiological condition with high inter-rater reliability and demonstrated accuracy in predicting deaths. It varies between 0 and 7.8408. The higher is the score, the higher is the probability of survival. If the indicator is below 4, traumas are considered to be serious¹².

The method we used to calculate the material damage caused by deaths and injuries that occurred as a result of traffic accidents is the one developed by Dahdah and McMahon and tested by the World Bank.¹³ The method was designed based on the empirical studies that were conducted using examples from several countries. The method allows calculating the losses incurred by the state per one deceased person. According to the formula, the losses incurred by the country's economy per one deceased person equal GDP per capita multiplied by 70. According to the same publication, the costs of severe injuries amount to 10 percent of fatality costs. In order to calculate the losses, the annual publication produced by the National Statistics Office of Georgia was used in this research.

¹¹ P. Jennings, *A critical appraisal of the Revised Trauma Score*, Journal of Emergency Primary Health Care (JEPHC), col.2, Issue 1-2, 2004;

Knud Jorgensen, *Use of Abbreviated Injury Scale in a hospital emergency room*. Acta orthop. scand. **52**, 273-277, 1981;

J.Thomas, *Road traffic accidents before and after seatbelt legislation – study in a district General Hospital*. Journal of royal Society of Medicine, vol 83, February 1990.

R. Rutledge et al. *Cost of not wearing Seat Belts: a comparison of outcome in 3396 patients*. Annals of surgery, vol.217, no2 122-127. 1993

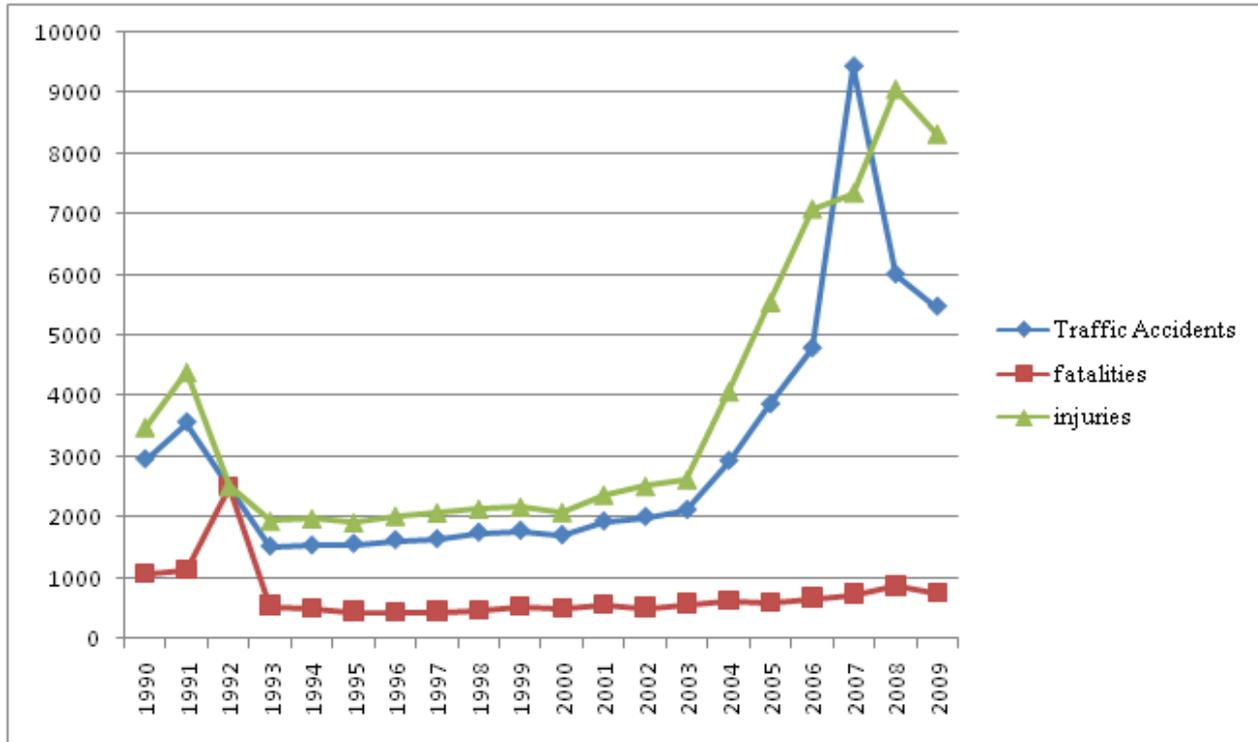
¹² RTS consists Glasgow Coma Scale, Systolic Blood Pressure and Respiratory Rate. For details see: Journal of Emergency Primary Health Care (JEPHC), col.2, Issue 1-2, 2004 and <http://www.trauma.org/archive/scores/rts.html> (accessed on: 19.03.2009).

¹³ Dahdah S, McMahon K (2008). *The true cost of road crashes: valuing life and the cost of a serious injury*. International Road Assessment Programme, World Bank Global Road Safety Facility.

4. Traffic Accident Trends in Georgia

The Ministry of Internal Affairs of Georgia has been processing the traffic accident statistics since 1990. The chart below shows the trends of traffic accidents, fatalities and injuries from 1990 until 2009.

Chart 1. Traffic accidents, fatalities and injuries in Georgia 1990-2009.



The chart shows that, since 1990, the number of traffic accidents and injuries caused by them have increased by several times (there was some decrease at one point). Despite this, the number of fatalities has not been rising as drastically, even though the increasing trend has prevailed. The significant jump-up becomes noticeable from 2003. This could be the result of improved registration of crimes since 2003. For further analysis, the data since 2004 will be used.

5. The review of traffic accidents since 2004

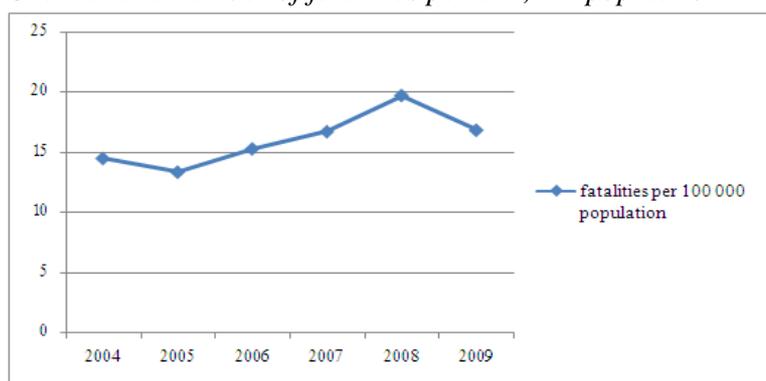
The number of registered vehicles in Georgia has been increasing since 2004 along with the traffic accident statistics. Since 2004, the number of vehicles in Georgia has almost doubled.

In 2004-2009 the number of fatalities caused by traffic accident increased by 2.48 percent on average. The chart below shows the changes in the number of fatalities per 100,000 population.

Table 3. The number of registered vehicles in Georgia 2004-2009.

Year	2004	2005	2005/2004 increase	2006	2006/2005 increase	2007	2007/2006 increase	2008	2007/2008 increase
total	319,461	358,142	12%	415,291	16%	508,041	22%	613,116	21%
Categories	2004	2005	2005/2004	2006	2006/2005	2007	2007/2006	2008	2008/2007
Light	256,153	285,623	12%	327,747	15%	375,954	15%	501,209	33%
Transport	24,274	27,256	12%	32,005	17%	35,611	11%	41,811	17%
Trucks	33,341	38,831	16%	47,502	22%	54,034	14%	58,381	8%

Chart 2. The number of fatalities per 100,000 population in 2004-2009.



The chart shows that the lowest fatality rate was recorded in 2005, which is higher than the average rate of OECD countries for the same period of time (10.3). The indicator for Georgia is higher than those for Armenia (7.7), Azerbaijan (9.6) or Estonia; on the other hand, it is much lower than that of Russia (23.7) which has the highest indicator in Europe¹⁴. In Georgia, the highest mortality rate (19.7 percent) was registered in 2009.

Table 4. Number of fatalities caused by traffic accidents per 100,000 population in several countries, 2005.

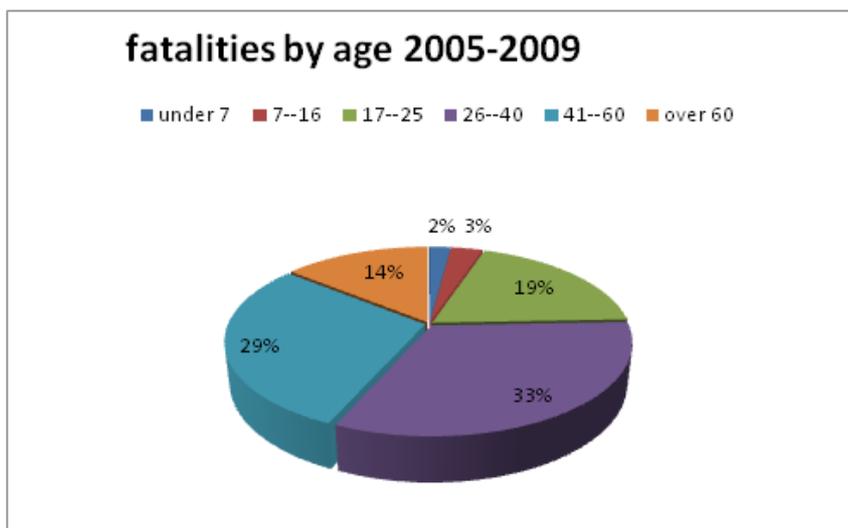
Country	Number of fatalities per 100,000 population
Azerbaijan	9.6
Armenia	17.4
Estonia	12.4

¹⁴ OECD and ITF (International Transport Forum). 2008. —Towards Zero. Ambitious Road Safety Targets and Safe System Approach. OECD, Paris.

Moldova	9.3
Russia	23.7
Ukraine	15.3
Armenia	7.7
Georgia	13.4

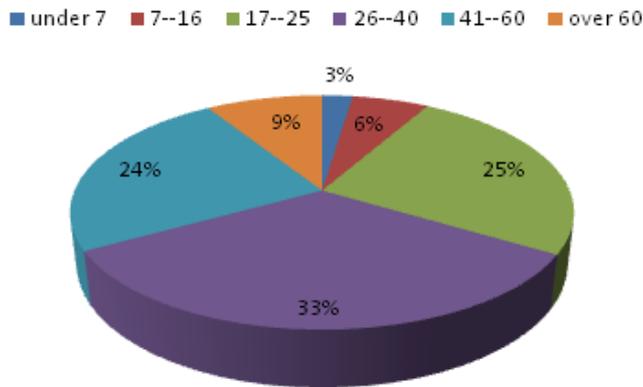
It is interesting to look at the age distribution of those deceased or injured in traffic accidents. The largest number of fatalities and injuries (33 percent) fall under the age category 26-40. According to the data obtained from hospitals, the average age of injured persons in 2008-2009 was 31 years, (which is consistent with the data provided by MoIA). Some 23 percent of injured are female, 67 percent are male. The most alarming of these indicators is the high rate of injured and deceased among children. In 2005-2009, 154 children died and 2,747 sustained injuries of different degrees. About 300 cases of children being injured in traffic accidents are registered every year by the Iashvili Clinic alone; this is caused by the fact that parents usually ignore safety belts and child restraints when they transport their children.¹⁵

Charts 3-4. The age distribution of traffic accident fatalities and injuries in Georgia, 2005-2009.



¹⁵ The special broadcast from the Iashvili Clinic by the Moambe program on Channel 1 of the Georgian Public Broadcaster, March 19, 2010.

Injuries by age 2005-2009

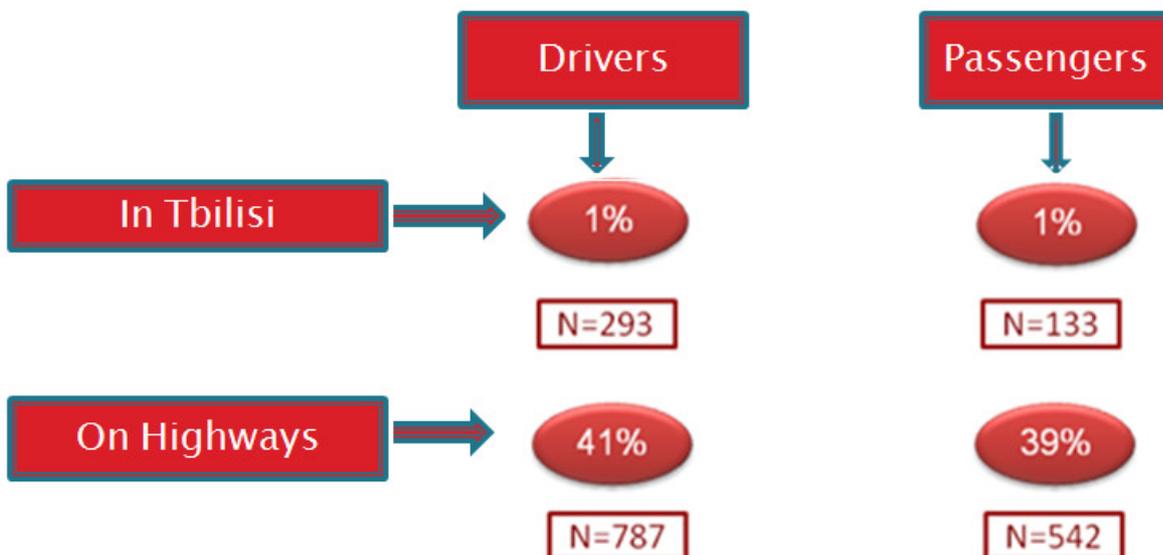


The seat-belt practice in Georgia

The legislation of Georgia requires only front-seat passengers to wear safety belts on highways. The official statistics of seat-belt wearing habits in the country are nonexistent. The only official data available is the amount of fines imposed by the patrol police officers on those who failed to wear seat-belts on highways. The amount of fines since 2007 is as follows: 2007 – 21,246 GEL, 2008 - 9,088 GEL, 2009 - 811 GEL. It is hard to say what the reason was for such a decrease in the amount of registered fines: a more intensive use of safety-belts by drivers or a more lenient administration of the law on the part of the police.

The chart below demonstrates the results of research conducted for the Partnership for Road Safety NGO; it describes the situation for May 2009 as follows:

Chart 5 . Seat-belt use rates in Georgia, 2009



The chart above shows that the seat-belt wearing rates in Georgia are quite low, especially in Tbilisi. The situation is better on highways, which once again proves that things will improve significantly if wearing seat-belts becomes obligatory in cities as well as on highways. According to the quantitative research conducted by the same organization, a large part of the population would wear seat-belts if they are required to do so by the law (70 percent on city roads, 54 percent on highways).

6 The Analysis of Hospital Data

Review of trauma types

The manual on the use of seat-belts says that the failure to wear them results in extremely severe injuries to the head, chest and abdomen, while neck and backbone traumas frequently result in disability. Those car occupants who ignore safety belts receive head injuries more often than those who are belted.¹⁶

During the research, the histories of 831 patients were studied in two largest hospitals in Tbilisi, which mainly service those injured in Tbilisi, Rustavi or adjacent areas, but also receive injured people from the regions (4-5 percent). From 831 patients 577 were unbelted, 34 wore belts, and in 220 histories the belt status was not mentioned at all, which usually means that an injured person was unbelted. Nevertheless, it would be difficult to claim with certainty that the person was unbelted. In the table below, a separate column is allocated for the patients whose belt status is unknown. This factor was taken into consideration during the analysis. It would be interesting to categorize drivers, front-seat passengers and back-seat passengers to identify how trauma severity is distributed among them, but, unfortunately, such data was rarely reflected in histories, preventing us from establishing these trends. The chart below points out how the trauma types were distributed among those injured who were belted, unbelted or whose belt status is unknown.

Table 5. The distribution of patients according to injured area of their bodies.

Injured Areas	belt	no belt	unknown
Head soft tissues	35.29%	49.39%	30.45%
Head bones	41.17%	62.91%	46.36%
Neck	0	11.26%	46.36%
Thorax	14.7%	21.14%	20.9%
Abdomen	2.94%	9.87%	6.81%
Ribs	2.94%	6.75%	3.18%
Backbone	0	7.45%	2.72%
Upper limbs	17.64%	15.25%	15.45%
Lower limbs	14.7%	17.15%	22.27%

¹⁶ Seat-belts and child restraints: a road safety manual for decision-makers and practitioners; London, FIA Foundation for the Automobile and Society, 2009;

As we can see from Tables 5 and 6, the passengers who wore seat-belts never incurred life-threatening injuries (score below 4) and traumas of medium severity are also quite few. They never received neck or backbone traumas. The head traumas too are 20 percent less frequent among those injured who wore seat-belts compared to those who were unbelted. As for trauma severity, average RTS for belted patients is 7.166, while for the unbelted ones it is 6.376. The chart below reflects RTS distribution according to categories:

Table 6. RTS distribution between belted and unbelted patients and patients whose belt status was unknown.

RTS	belt	no belt	unknown
7.841	8	34	8
7.108	21	214	125
6-6.9	5	165	53
5-5.9	0	56	2
4-4.9	0	28	1
3-3.8	0	19	0
2-2.9	0	6	2
1.465	0	2	0
0.291	0	4	0
total	34	528	191

In order to measure the effect of safety belts on trauma severity, the data has been processed using the SPSS software statistics model, in particular by using the bivariate regression method. The results of the analysis (see Annex 3) show that using seat belts, on average, cause a 1.508 coefficient change in RTS and the change is positive. When we have maximum RTS of 7.84, the coefficient 1.508 can be approximated to 20 percent. The coefficient is statistically significant, but the model's R^2 indicator is 0.98, which means that the model can explain only 10 percent of changes in dependent variable (RTS). If we consider the fact that belted patients comprise only 5 percent of overall data, we can assume that the effect on the population is much higher than shown by the model.

It has to be mentioned that, for ethical reasons, the researchers did not record the names of the patients to ensure the anonymity of their identities. An important trend, however, was noticed: about one third of those who wore seat belts were foreigners, and this paints a grim picture.

7. Material loss as a consequence of ignoring safety belts

Human life and health are invaluable but fatalities and injuries caused by traffic accidents, along with other consequences, have a material dimension as well. The material losses caused by traffic accidents in different

countries amount to 1-3 percent of their respective GDP. It is calculated in the chart below, how great were the losses incurred by Georgia's economy due to traffic accident fatalities and heavy injuries in 2004-2008. The calculations are made according to the method developed by Dahdah and Mac Mahon, using the data published by the National Statistics Office of Georgia.¹⁷

Table 7. The economic dimension of traffic accident fatalities and heavy injuries. The indicators are in million GEL, current prices, 2004-2008.

Year	Loss caused by fatalities	Loss caused by heavy injuries	Total loss
2004	99,9	9,9	109,8
2005	109,3	10,9	120,2
2006	148,1	14,8	162,9
2007	199,5	19,95	219,5
2008	264,2	26,5	290,7

As we can see from the chart above, the losses caused by traffic accidents were significant and tend to increase. Since 2004, the losses caused by traffic accidents have ranged between 1.1 and 1.5 percent of GDP.¹⁸

Table 8. The material costs of traffic accident fatalities and injuries, as a percentage of GDP, 2004-2008

year	2004	2005	2006	2007	2008
Loss as % of GDP	1,1	1,2	1,18	1,3	1,5

The research plan envisaged the collection of information on the costs of patients' treatment (e.g. duration of treatment, the need for surgery, surgery type etc), which would allow us to calculate the total amount of treatment costs for all patients. It has been found that hospital reception sections do not register this kind of information: when patients are moved to other departments, their charts are changed, and new ones are created when the next treatment stage begins. It is thus impossible to group the causes of injuries, treatment costs and outcomes. With unified patient files containing complete information, even if they are not in a computerized format (in developed countries, patient histories are computerized and allow monitoring the entire treatment process and its details), similar studies would have more comprehensive sources for analysis and would facilitate the development of mechanisms for monitoring the implementation of different programs.

¹⁷ Dahdah S, McMahon K (2008). The true cost of road crashes: valuing life and the cost of a serious injury. International Road Assessment Programme, World Bank Global Road Safety Facility.

¹⁸The macroeconomic data for 2009 was published by the National Statistics Office partially –for three quarters only. Final indicators are planned to be published by October 2010. For details visit www.geostat.ge.

8. Conclusion

Due to high fatality rates and serious injuries, the Georgian economy is losing 1.1-1.5 percent of its GDP per annum (it amounted to 290 m GEL in 2008 alone). These losses do not include medium and minor injuries. In developed countries, where seat-belt wearing rates are much higher, the number of fatalities and heavy injuries are correspondingly lower, and so is the amount of losses measured as percentage share of GDP (1 percent on average).

The largest number of deceased and injured persons are aged between 26 and 40 (according to the research conducted in hospitals, the average age of the injured is 31). Two-thirds of those injured are male. It has to be considered that this is the category that is most active economically and most capable of contributing to the country's future.

The statistics of child fatalities and injuries are alarming: 154 children died and 2,747 were injured in traffic accidents in 2005-2009. In the Iashvili clinic alone, every fourth patient injured in a car accident is a child, which adds up to about 300 per year.

According to the results of the research conducted in Tbilisi hospitals, the safety belts significantly reduce trauma severity and help avoid serious injuries to head and other organs. It has been found that 63 percent of unbelted patients sustained head injuries that were on average 20 percent more serious, which is alarming and requires immediate attention.

The international practice shows that, when the legislation is put into effect and the administration of this legislation is carried out in an appropriate manner, the seat-belt use rate increases significantly within one year, while trauma severity is reduced.¹⁹ As we can see from the results of the research, in the event of implementing radical changes in Georgia, the trauma severity and fatalities resulting from car accidents will be reduced by 20-40 percent, which will save about 170 lives every year, if we consider the rates of 2008.

The improvement of safety standards is directly related to the implementation of legal amendments. Wearing seat-belts must be made compulsory for drivers and all passengers of vehicles, regardless of whether it is within city limits or on highways.

At the same time, it is important to enact the effective monitoring mechanisms in order to accurately measure the rate of implementation of different campaigns and legal changes or programs. At present, the

¹⁹ J.Thomas, *Road traffic accidents before and after seatbelt legislation – study in a district General Hospital*. Journal of Royal Society of Medicine, vol 83, February 1990.
Seat-belts and child restraints: a road safety manual for decision-makers and practitioners; London, FIA Foundation for the Automobile and Society, 2009;

systematization of data on traffic accidents is not satisfactory. The annual publication by the National Statistics Office of Georgia does not provide as much as a separate category for those who sought help in hospitals due to injuries sustained in traffic accidents; they are included in the aggregate number with all injuries sustained as a result of accidents or poisoning. None of the public agencies of the country processes information on how many persons wore safety belts in traffic accidents, how many of the injured were drivers, front-seat or back-seat passengers, whether airbags were activated etc. Hospitals do not assess trauma severity according to the international standards; the data on traumas are scattered in different departments, which make the approximation of treatment costs impossible. Most hospitals in the country do not register information on the use of seat-belts at all.

Our research and international practice suggest that the use of safety belts will save the resources which can be used for other needs in the country. At the same time, the reduced number of traffic accident fatalities and heavy injuries is immensely important for the society and every single family.

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10. Annexes.

Annex 3. The Bivariate regression model output and descriptive statistics of data collected in 2 largest hospitals of Tbilisi.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	9,3489	0,388		24,065	.000
BELT	1,508	0,199	0,305	7,585	.000
R ²	0.98				
Adjusted R ²	0.97				
N:	562				

a. Dependent Variable: RTS

b. Independent Variable: BELT

c. *Descriptive Statistics*

	N	Minimum	Maximum	Mean	STD. Deviation
RTSBELT	34	6.171	7.841	7.166	.467
RTSUNKNOWN	191	2.930	7.841	6.850	.618
BELT	528	.291	7.841	6.376	1.194
RTSNOBELT					