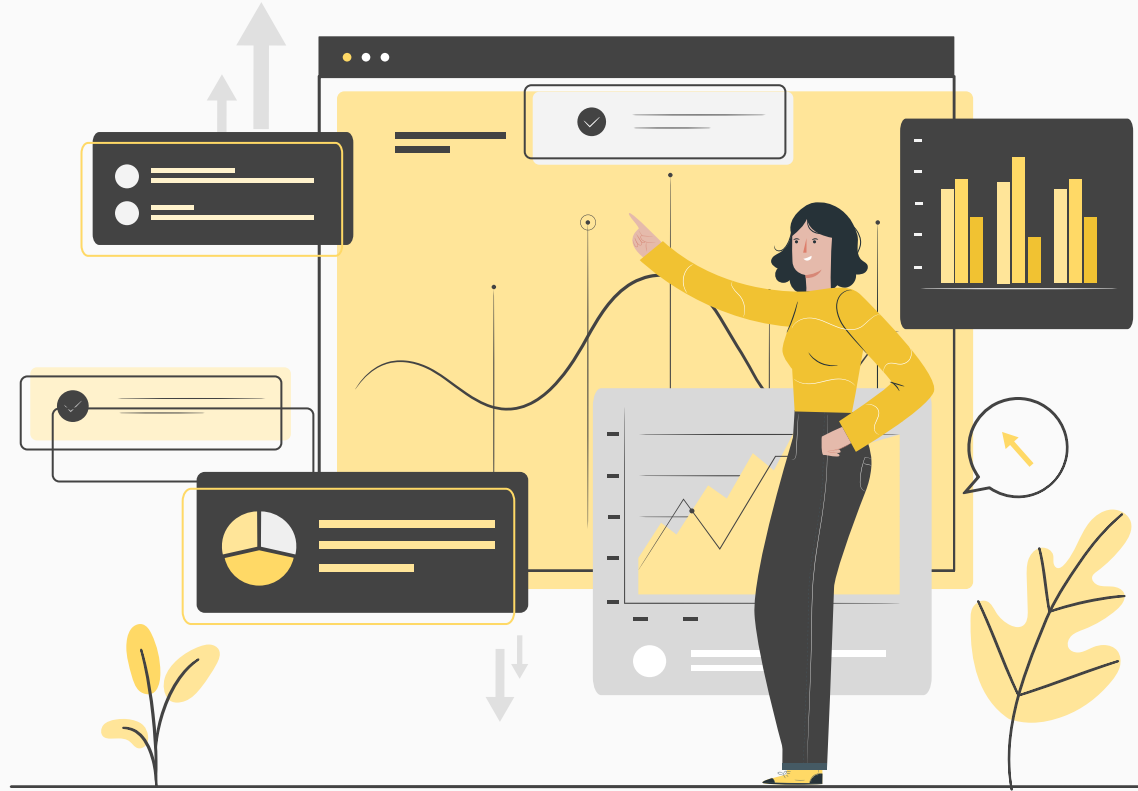
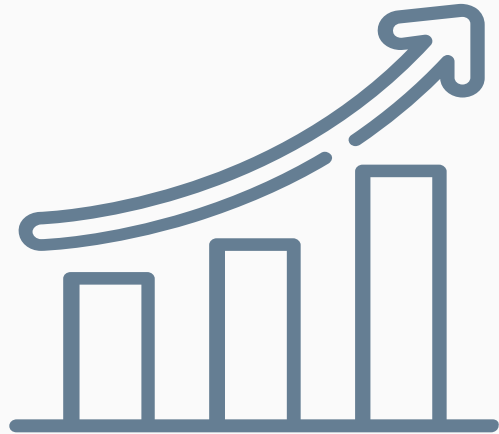


STATISTICS





Dept. of Computer Science of Engineering
Spring-2023, 221-Day, Section-DC
Subject: Economics

Presentation on


A statistical analysis of road accidents in Bangladesh.

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PATTERNS OF ROAD ACCIDENTS

TYPES OF ACCIDENT

- Accident can be categorized in these way
- ✓ Head On
- ✓ Rear End
- ✓ Lost Control
- ✓ Hit object on/off road

PATTERNS OF ROAD ACCIDENTS

➤ Head On



PATTERNS OF ROAD ACCIDENTS

➤ Hitting Object



PATTERNS OF ROAD ACCIDENTS

✓ Lost Control



PATTERNS OF ROAD ACCIDENTS

▪Victims and perpetrators

Victims		Accident types		Perpetrators	
Pedestrians	41%	Hit-and-run	42%	Bus	38%
Bus/car passengers	19%	Head-on collision	19%	Truck	31%
2/3 wheelers riders/passengers	16%	Over-turned	13%	Motor-cycles	12%
Truck/bus drivers/passenger	14%	Rear-end hit	9%	Cars/jeeps	11%
Cyclists	3%	Side swipe	6%	3 wheelers	9%

Causes of accidents in Bangladesh

Accident causes couldn't be defined so precisely, it may happen due to-

- Faulty Geometry of Road
- Carelessness of Drivers as well as Road Users
- Faulty Intersections
- Overloading
- Poor Road Condition

Causes of accidents in Bangladesh

➤ Overturning



Causes of accidents in Bangladesh

**Poor
Road
Condition**



Causes of accidents in Bangladesh

➤ Over Loading



Causes of accidents in Bangladesh

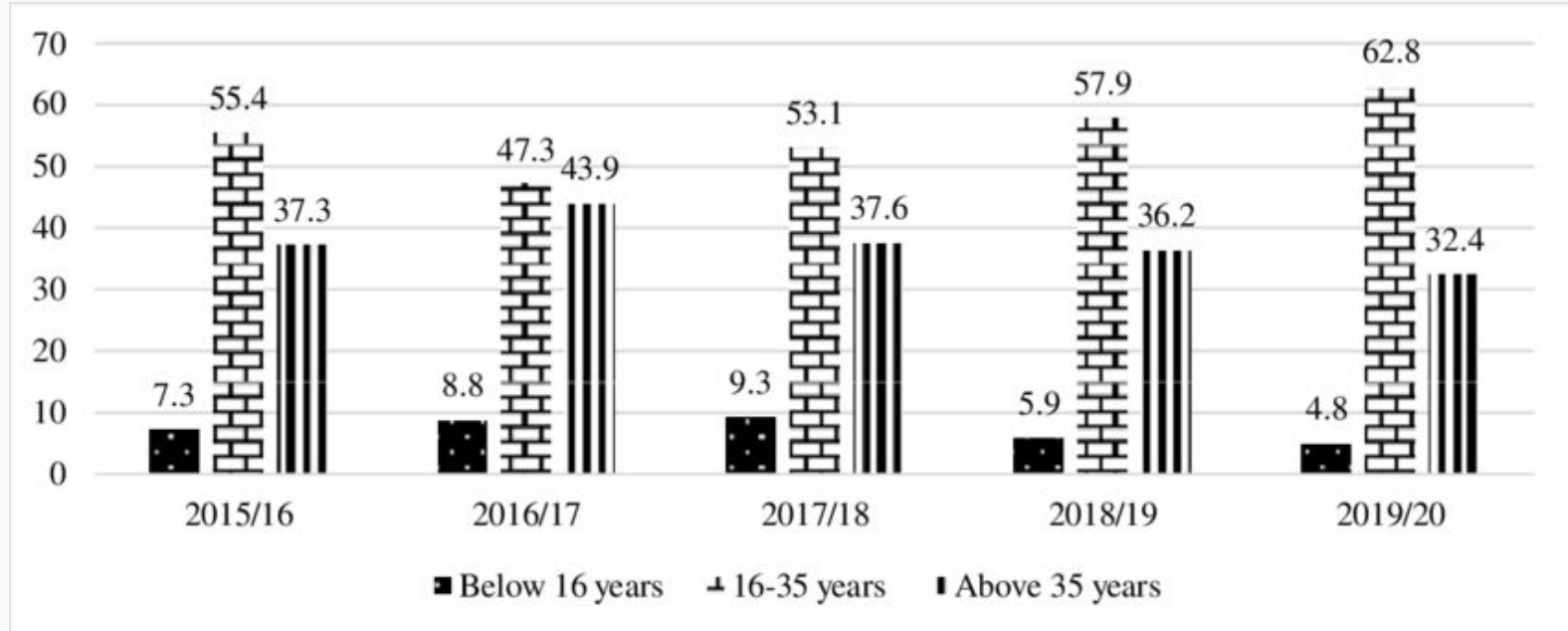
▪Driver characteristics

Characteristic	Finding
License	<ul style="list-style-type: none">• 97% report having license• 20% report obtaining license without test• 92% pay bribe and 54% face severe time delays in obtaining license
Trade union	<ul style="list-style-type: none">• 80% are unionized
Training	<ul style="list-style-type: none">• 81% learnt driving skills through informal process usually with a 'mentor' (ustad)• Learning hours with ustad 1500• Commercial learning hours is 93
Cost of training	<ul style="list-style-type: none">• Informal process: approx. Tk. 4000• Formal process: approx. Tk 6000
Confidence on learning	<ul style="list-style-type: none">• 70% fully confident
Work-load	<ul style="list-style-type: none">• About 20% extremely over-worked with 6-7 days weekly and 13-16 hours daily
Accident penalty	<ul style="list-style-type: none">• 42% faced no penalty in case of accidents• 58% of incurred accidents minor in nature

road accident and demographic factors

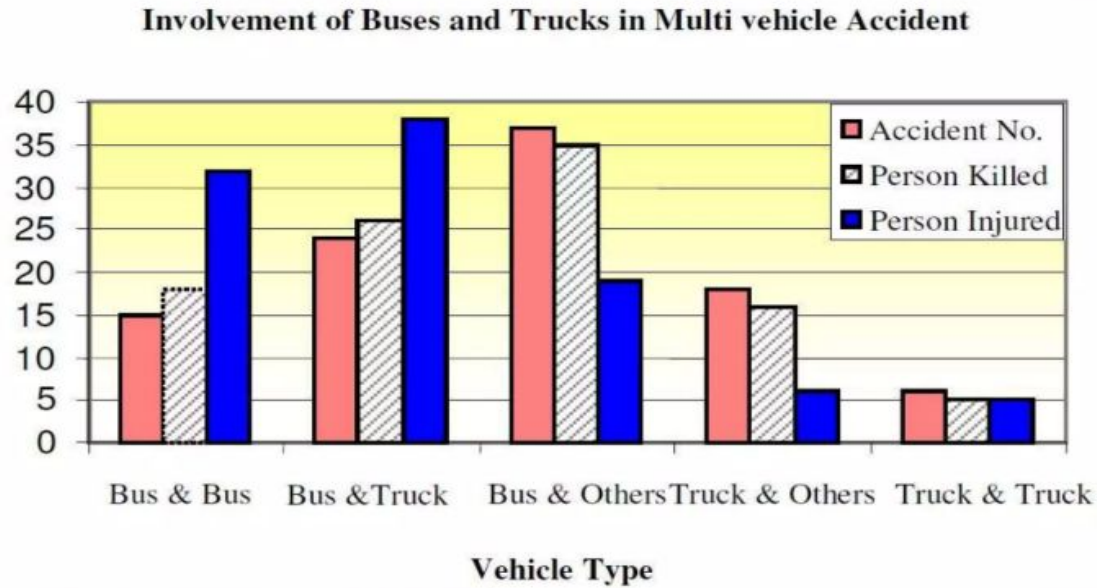
Fiscal year	Road traffic deaths				Total	Sex ratio
	Male		Female			
	n	%	n	%		
2015/16	130	78.3	36	21.7	166	361
2016/17	121	66.5	61	33.5	182	198
2017/18	147	75.8	47	24.2	194	312
2018/19	196	77.2	58	22.8	254	337
2019/20	83	79.0	22	21.0	105	377

road accident and demographic factors



common vehicles involved in road accidents

• Involvement Of Buses and Trucks in Multi vehicle Accident



Trends of accident & fatality rates.

Year	No. of registered vehicles	No. of accidents	No. of accidents per 10,000 motor vehicles	No. of fatalities	No. of fatalities per 10,000 motor vehicles
1995	409,215	3,346	82	1,653	40
1996	455,734	3,730	82	2,041	45
1997	488,017	5,448	112	3,162	65
1998	519,498	4,769	92	3,085	59
1999	552,001	4,916	89	3,314	60
2000	583,105	4,357	75	3,430	59
2001	623,275	4,091	66	3,109	50
2002	624,696	4,918	79	3,398	54
2003	736,417	4,749	64	3,289	45
2004	758,571	3,917	52	2,968	39
2005	785,370	3,955	50	3,187	41
2006	812,858	3,794	47	3,193	39
2007	841,308	4,869	58	3,749	45

Trends of accident & fatality rates.



Weather condition and road accident .

- ➡ Weather conditions such as rain, snow, fog, ice, and strong winds can create hazardous driving conditions.
- ➡ slippery roads during rain or snow can lead to skidding, while reduced visibility in fog can result in collisions.
- ➡ the relationship between weather conditions and road accidents helps in developing appropriate safety measures like warning systems, speed restrictions, and improved road maintenance.

Road conditions and road accident .



potholes, uneven surfaces, debris, lack of road markings, and inadequate signage can contribute to accidents.

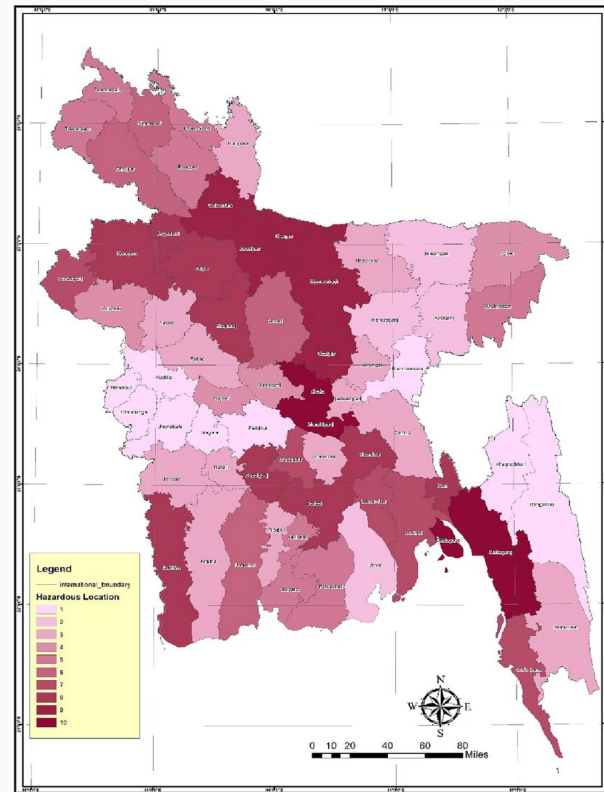


Poorly maintained roads can affect vehicle stability and maneuverability, increasing the risk of collisions.



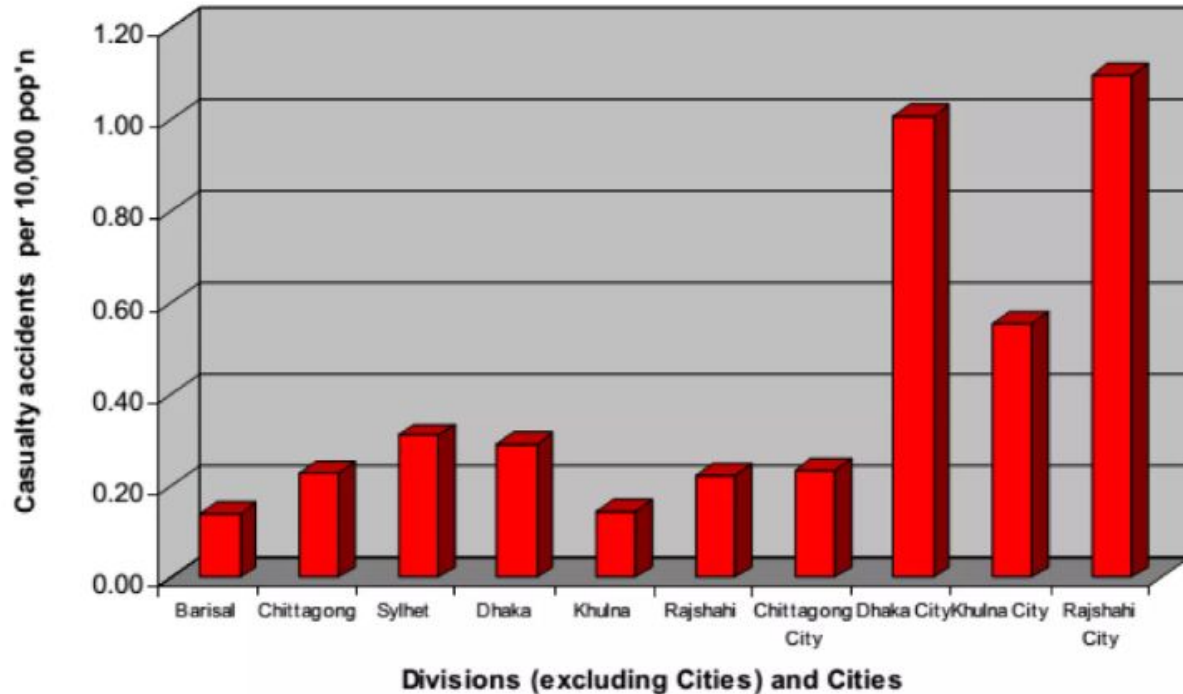
Regular road inspections, timely repairs, and proper signage can mitigate accidents caused by road conditi

hotspots or areas with higher accident rates.



hotspots or areas with higher accident rates.

ACCIDENTAL DATA



STEPS TO REDUCE ROAD ACCIDENTS

➔ Strict Enforcement of Traffic Laws.



➔ Improve Driver Education and Licensing.



STEPS TO REDUCE ROAD ACCIDENTS

➡ Enforce Seat Belt and Helmet Usage



➡ Increase Pedestrian Safety



STEPS TO REDUCE ROAD ACCIDENTS

➡ Improve Emergency Response



➡ Promote Community Involvement



Thank you