

TASK 1



Research jointly supported by the ESRC and DFID

Instructions

This test was designed to assess your critical thinking, analytic reasoning and problem solving skills. The results of this assessment will be used in a research study, so your work will remain anonymous and will not be seen by anybody at your university. Please try your best! Our results will only be meaningful if you complete the test to the best of your ability.

Test Format

In this assessment, you are asked to imagine that you are in a fictional but realistic situation. You have been given a series of seven documents that represent a range of different types of information, and you will need to use the information in the documents to support your written responses.

You should base your responses *only on the evidence provided in these documents*. Responses that only reference personal experience cannot be assessed!

Test Logistics

In this booklet, you will find a description of the situation, as well as all of the documents. You have also received a second answer booklet where you should write your responses.

Please do not make any notes on this booklet when planning your answers, as we need to use it again. There is extra paper available if you would like to make some notes.

You have 90 minutes to complete this assessment.

The Situation

Imagine that you have started an internship at the Ministry of Transport and Infrastructure. Your role at the Ministry is to assist the chief technical advisor to the Minister.

One of the government's highest priorities is reducing the number of fatal road accidents in Kenya. The president and the Parliament have announced that they plan to reduce the number of road fatalities by 30% by the beginning of next year. If they are successful, Kenya would be the first country in Africa to achieve such a dramatic reduction in road fatalities.

However, the government is suffering from a budget problem. There is not enough money available to implement the entirety of the government's plan to reduce road fatalities. The Parliament is now debating what to do to meet the government's goals.

The Parliamentary Working Group on Road Safety, led by Mr. Joseph Baki, has argued that the money would be best used to hire more police officers to enforce the speed limit on the major roads across the country.

Another group within Parliament, led by Mrs. Grace Odwad, disagrees. They believe that the money should be used on breathalyser tests ("alco blow tests") to monitor drunk driving. This group has argued that speed limits actually lead to more fatalities and claim that the use of breathalyser tests is the best solution for reducing road fatalities in Kenya.

There is a vote scheduled on this issue next week. In advance of the vote, Parliament has asked your supervisor for a report that evaluates the two proposed policies.

Your Task

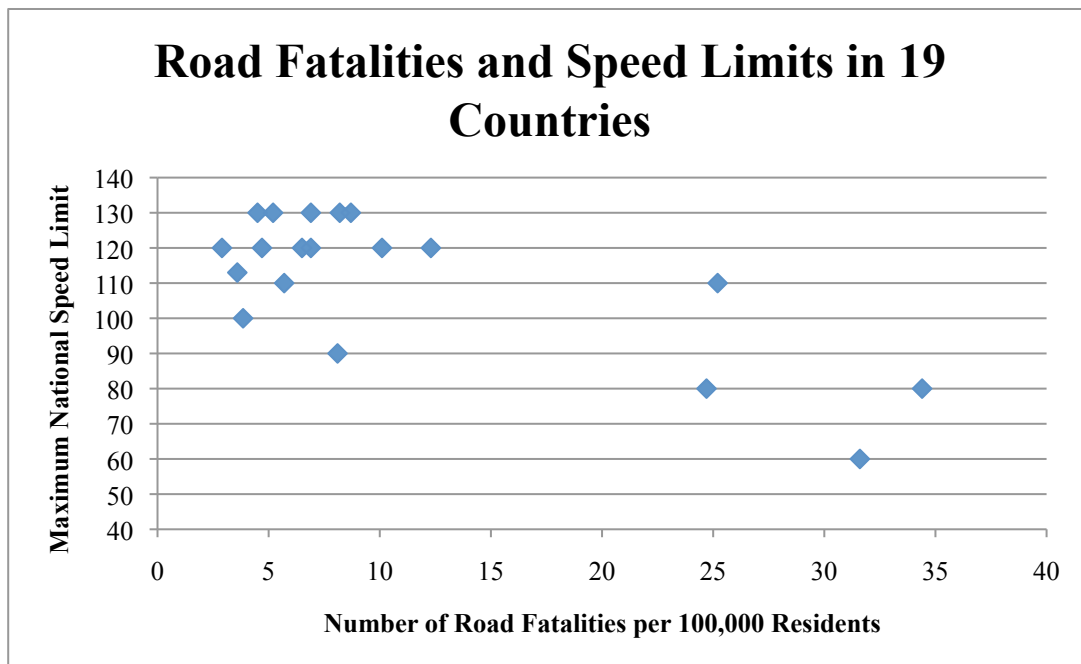
The report must address the strengths and limitations of the two policies proposed by the members of Parliament, so your supervisor has asked you to conduct some research on the two options. You identified seven documents, which are found on the following pages.

Your supervisor has asked you to **spend the next ninety minutes reviewing the documents and responding to a number of questions**. He will use your responses as the basis of his report to Parliament.

DOCUMENT A

Road Fatality Statistics by Country: 2012

The figure below shows the relationship between the maximum speed limit and the number of road fatalities in the 19 countries that participated in the International Road Safety Conference in May 2012.





Local company succeeds in obtaining International Road Safety Institute approval for breathalyser tests

The International Road Safety Institute has announced it will add the Nairobi-made *Alco-blow* breathalyser test to their list of approved devices. The Institute's acceptance of *Alco-blow* is a significant achievement for Kenya, as it represents the first time that an African company has succeeded in producing a locally-made breathalyser test that meets international standards.

Alco-blow is manufactured by IKNU, a Kenyan chemical engineering company that has been in business since 2001. The company's president, Mr. Robert Odwad, is the husband of Mrs. Grace Odwad, who has served as a Member of Parliament since 2007.



AMERICAN INSTITUTE FOR TRANSPORT SAFETY
Research Brief

Study shows breathalyzer tests help to reduce road fatalities

A recent study sponsored by the American Institute for Transport Safety has found that breathalyzer tests can help to dramatically reduce deaths due to road accidents.

The study was carried out in the city of Anytown, U.S.A. Last year, the city decided to increase its use of breathalyzer tests in an attempt to reduce the number of fatal road accidents in the city.

The number of road accidents has dropped dramatically since the initiative began. Last year, there were 525 road accidents (41 fatal) in Anytown. This year, there were 500 accidents in Anytown but only 17 were fatal. This represents a 60% reduction in road fatalities since the department increased the use of the breathalyzer tests.

Research has shown that road accidents are often caused by drunk driving. By keeping drunk drivers off the streets, Anytown has taken control of its road fatality problems.

OUR NATION, OUR ROADS

Kenya's foremost road safety blog

Another One for the Road?

By Joyce Oanda

In November, the traffic police introduced the breathalyser test – commonly known as the ‘alcoblow test’ – which is used to test for alcohol levels in drivers of cars and buses. The instrument was introduced due to the persistent increase of road accidents and fatalities that police attribute to the influence of alcohol. Between February and March last year alone, according to police records, some 1913 accidents occurred in Kenya. Statistics from the Nairobi Hospital show that more than 60 per cent of those involved in road accidents were found to have been under the influence of alcohol. Among them, 241 are reported to have died.

Sharif Odinga, a *mutatu* manager in the main taxi park agreed that in urban centers, such as Nairobi, some drivers drink too much and yet have to drive all day or night. “Night times are particularly dangerous because of the excess speed resulting generally from alcohol consumption,” he says.

Some drivers say in rural areas, where roads are in a far worse condition than those in urban centers, speed levels are slower.

George Ndegwa, a doctor from the hospital, was consulted about the new technique. He said that the system was very good and that it will contribute positively to reducing accidents in this country.

DOCUMENT E



KENYA ROAD SAFETY COMMISSION

Traffic fatalities and alcohol abuse in Kenya

The two tables below present data about traffic accidents in Kenya. The information found in Table 1 is presented in chart format in Document F.

TABLE 1: ROAD FATALITY STATISTICS BY REGION

Region	Percentage of residents who frequently drink alcohol ¹	Number of road fatalities	Total population	Number of road fatalities per 100,000 residents
Nairobi City	5%	349	3,138,369	11.12
Central Kenya	15%	956	6,383,743	14.98
Eastern Kenya	12%	782	5,668,123	13.8
Western Kenya, Nyanza & the Rift Valley	14%	790	17,783,798	4.44
Northeastern Kenya & the Coast	8%	493	5,636,064	8.75

TABLE 2: DEMOGRAPHIC CHARACTERISTICS BY REGION

Province	Percentage of residents who frequently drink alcohol	Percentage of adult residents in the region who are employed
Nairobi City	5%	72%
Central Kenya	15%	85%
Eastern Kenya	12%	84%
Western Kenya, Nyanza & the Rift Valley	14%	85%
Northeastern Kenya & the Coast	8%	90%

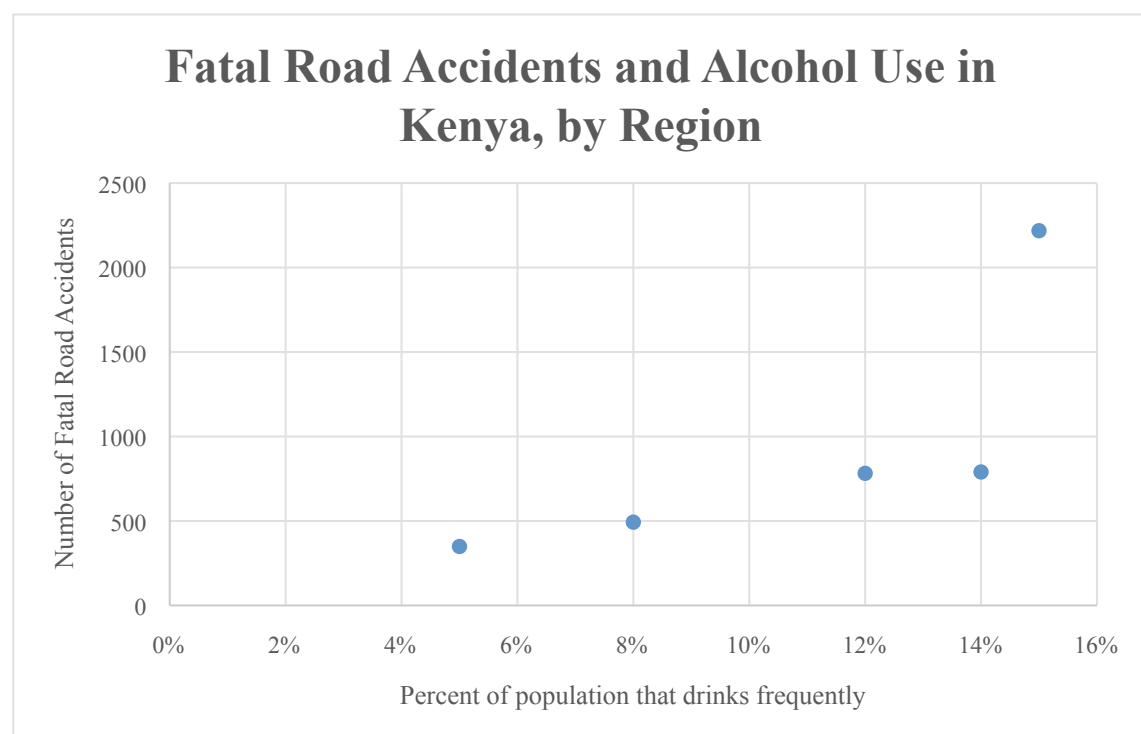
¹ The percentage of residents who drink alcohol was obtained from a survey. In the survey, “frequent use” was defined as more than five drinks per week.



**KENYA ROAD SAFETY
COMMISSION**

Traffic fatalities and alcohol use in Kenya: Chart

This chart is based on the data found in Document E.



DOCUMENT G

Results of Online Search for Research Studies



Breathalyzer and decreased road accidents

Search

Potential error in breathalyzer readings

D Smith – Drug and Alcohol Review, 2001 – JSTOR

...In this analysis, Smith examines a number of studies of breathalyzer accuracy in determining blood alcohol content. Overall, the studies included in the analysis suggest that breathalyzer tests often underestimate the blood alcohol content of examinees. Factors such as gender, body mass and recent physical exertion were found to impact the results of breathalyzer tests, suggesting that the tests are not 100% accurate in determining blood alcohol content....

Can breathalyzer tests make a difference? The case of Uganda

J Busingye – African Affairs, 2005 – Social Science Research Database

...This study aims to analyze the effectiveness of using breathalyzer tests to reduce road accidents in Uganda. Individuals arrested for speeding or reckless driving were given a breathalyzer test before completing an in-depth interview with the research team. Results of the study indicate that alcohol was the cause of only some of the dangerous driving. Many of the drivers reported other potential causes in their interviews, such as sleeplessness, anger, road conditions or vehicle maintenance problems...

Your Supervisor's Questions

Now that you have reviewed the documents, you must respond to your supervisor's questions:

1. The group of politicians led by Mrs. Odwad has argued that lower speed limits will not help the problem, because lower speed limits actually cause an *increase* in road fatalities. They have referred to Document A as proof of their argument.
 - a. Based on the evidence in Document A only, do you think it is reasonable to claim that lower speed limits cause an increase in road fatalities? Please explain the reasons for your answer.
2. Mrs. Odwad's group has argued that spending the available money on alcoblow tests will allow the government to reduce road fatalities in Kenya by the desired 30%.
 - a. Based on the evidence available in all of the documents, do you agree with Mrs. Odwad's argument? Explain your answer in terms of the strengths and limitations of her position.
3. You have been asked by the Minister to prepare an alternative solution to Mrs. Odwad's option (the alco-blow tests), to be used in the Ministry's consultations. The alternative can be the option proposed by Mr. Baki (hiring more police officers), or it can be a different solution entirely.
 - a. Please outline your alternative solution, explaining why you consider it to be the best option, based on the evidence in the documents.

Your responses should include **all of the relevant evidence** necessary to support your positions.

Please explain and justify the reasons for your conclusions by referring only to the information included in the documents.

Please be explicit about which document you are discussing and explain why you selected to reference the evidence that you selected.

Your response will be assessed on the accuracy of the information you provide and the strength of your argument.

Please write your answers in the answer booklet provided.

Thank you very much for your assistance with this study!