

Public Perceptions of Rail Safety in Britain

Mr. John Cartledge

Wednesday, 08 June 2011 - 16:00

Location: Room 163, Skempton (Civil Eng.) Bldg, Imperial College London

Abstract

Travellers' willingness to use a particular mode of transport is affected, inter alia, by their perception of their physical safety in the course of a journey. The perceived level of risk may bear little or no resemblance to the empirical evidence. Following a number of widely reported multi-fatality accidents on the mainline rail network in Britain in the late 1990s and early 2000s, several bodies commissioned studies of the public's awareness of the relative level of risk associated with alternative forms of surface travel, the perceived nature of these risks, the sources of information used in forming these perceptions, and their priorities for remedial action. This talk will provide an overview of the quantitative and qualitative evidence which has emerged from these studies, as the basis for a discussion about the scale of the misperceptions revealed and the policy implications for safety managers in the rail industry.

Biography

John Cartledge is Safety Policy Adviser to both Passenger Focus and London TravelWatch, the official bodies representing rail and bus users in Britain. He has been actively involved with consumer advocacy in the public transport industry for more than 35 years. He has been an advocate at the official inquiries arising from most major railway accidents during that period, including the Kings Cross Underground station fire and the collisions at Clapham Junction, Cannon Street, Cowden, Southall, Ladbroke Grove, Potters Bar and Ufton Nervet. He represents passengers on high-level safety advisory bodies set up by the Office of Rail Regulation, the Rail Safety & Standards Board and the Parliamentary Advisory Council for Transport Safety. He is a graduate of Cambridge University and holds an honorary degree awarded by Plymouth University for his services to rail safety.



Public perceptions of rail safety

John Cartledge

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Transport Studies

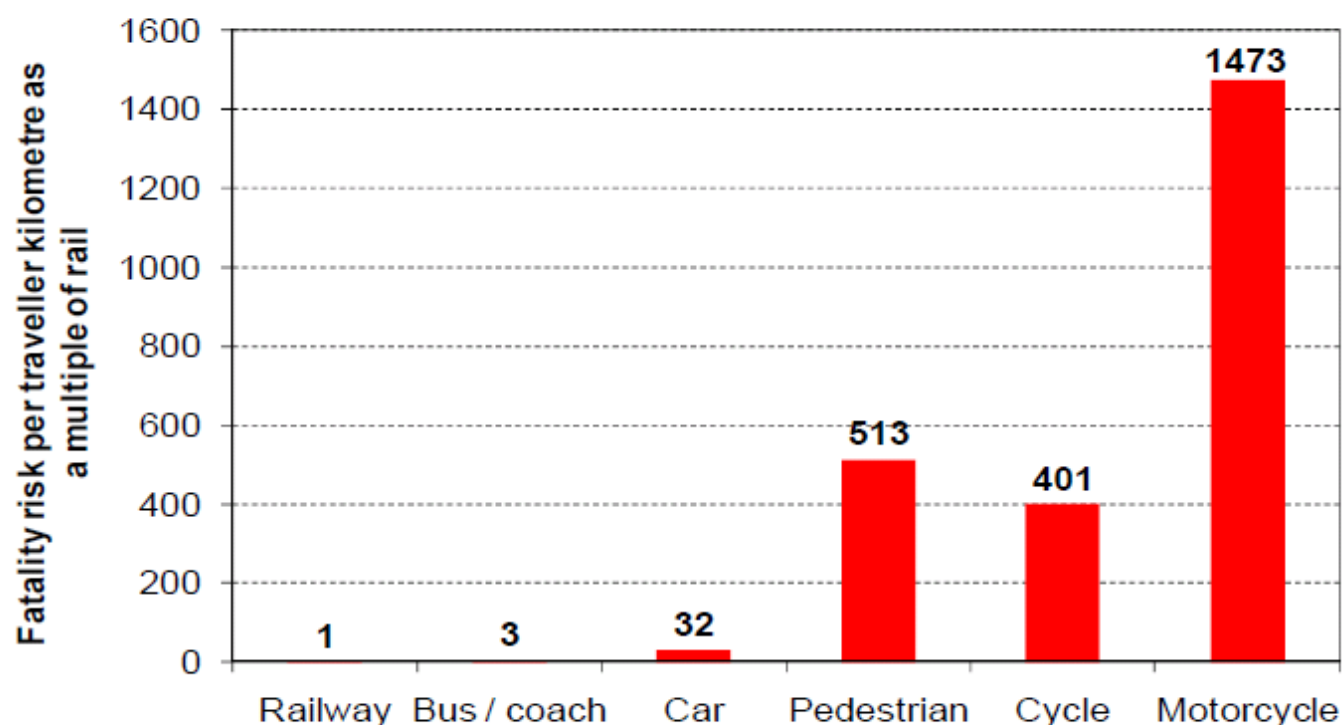
8 June 2011

RSSB 2010

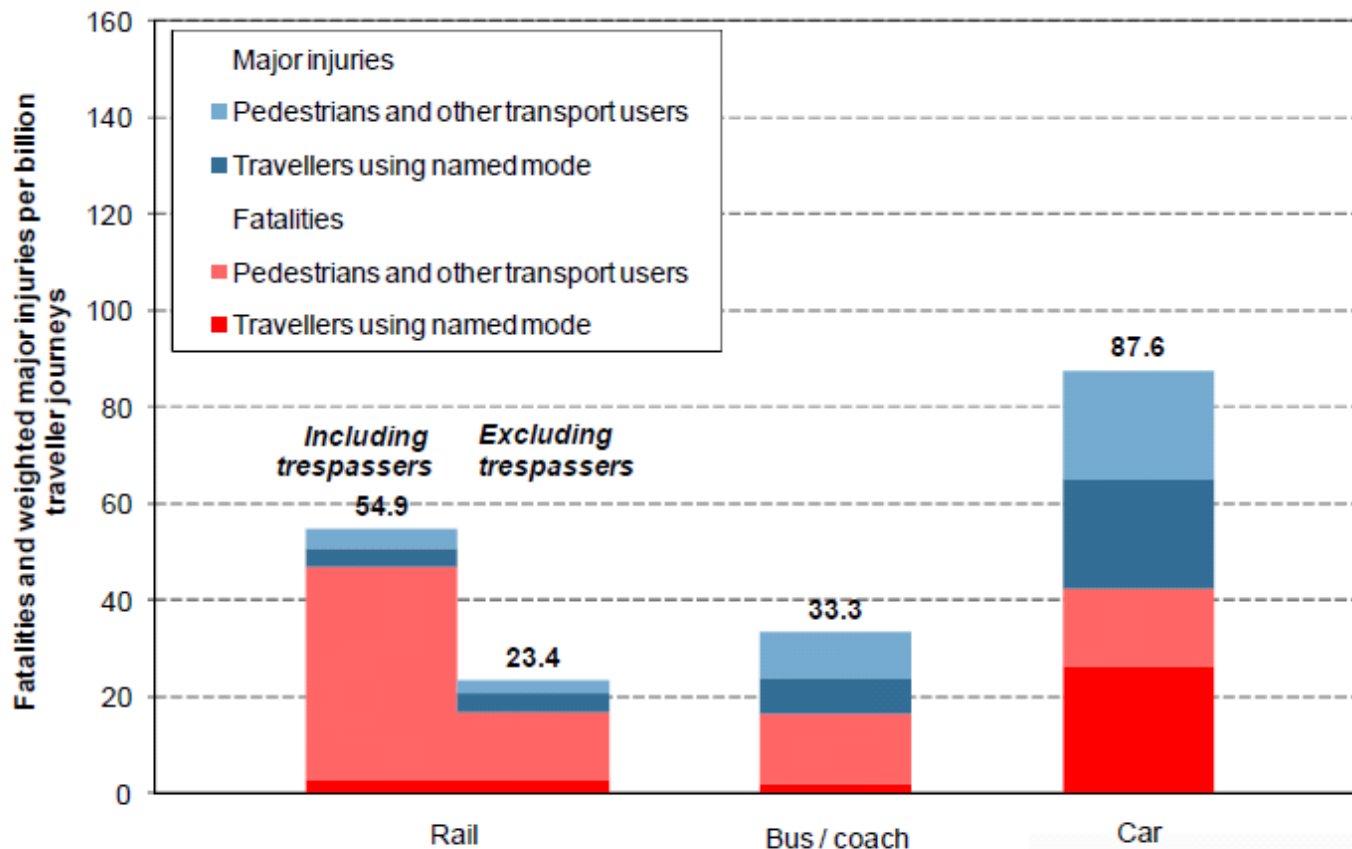


Annual Safety Performance Report 2009/10

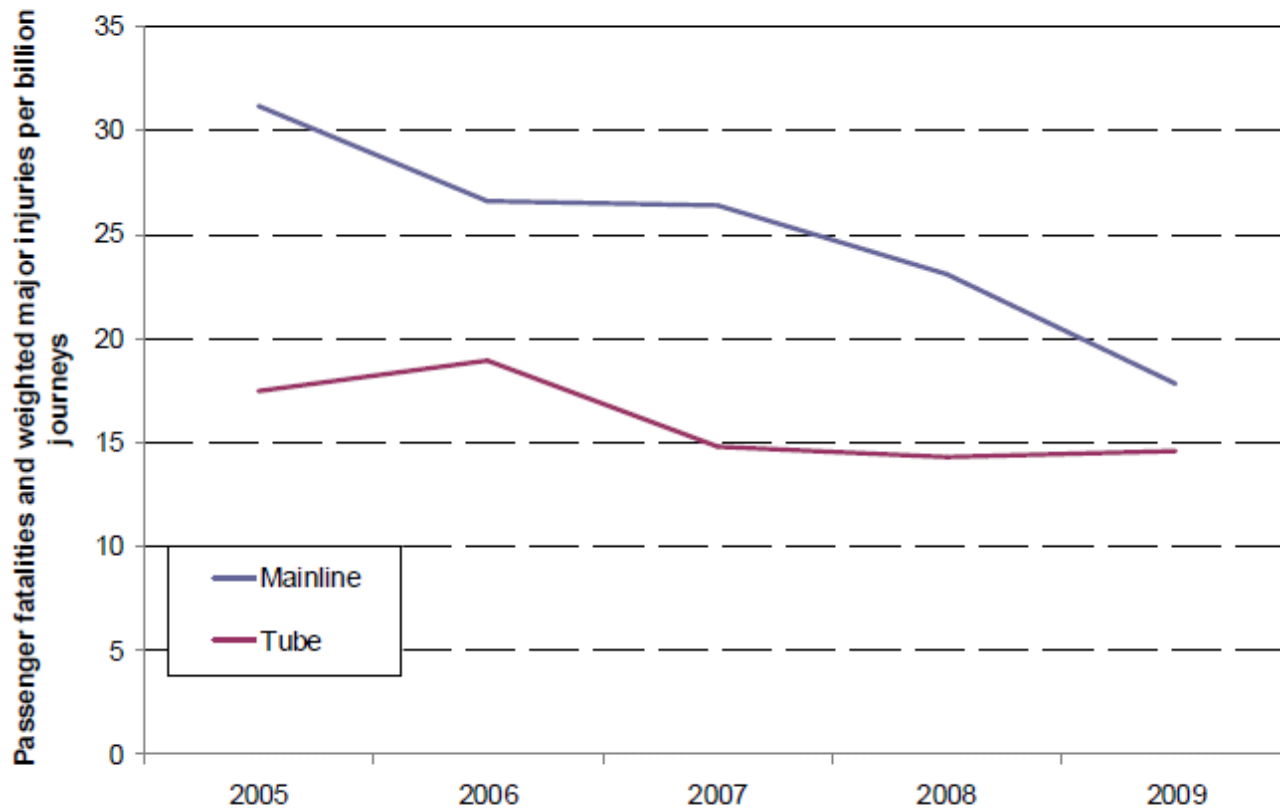
Traveller fatality risk for different modes relative to rail (per km)



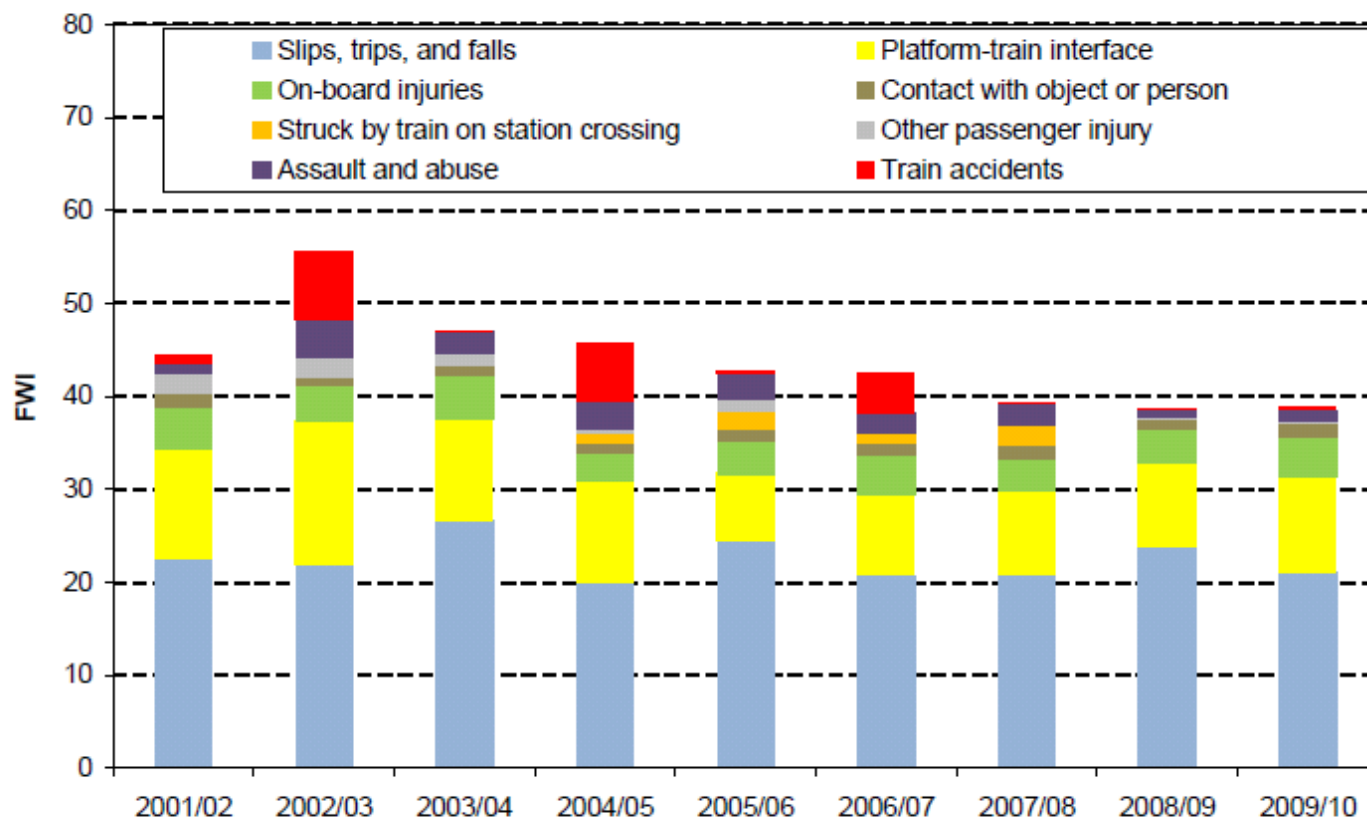
Total risk for different transport modes (per journey)



Rail passengers normalised FWI rate



Rail passenger risk by accident type





The Ladbroke Grove Rail Inquiry

Part 1 Report

Recommendation 60 :

‘comprehensive market research in regard to safety related measures should be carried out in order to take account of the views of informed passengers’



**Commission for
Integrated Transport**

THE CfIT REPORT 2001:

Public Attitudes to Transport in England

MORI 2001

Which one of these, if any, do you think is the safest form of transport in terms of travellers being least likely to be injured in an accident?

Plane	47 %
Car	15 %
Bus	13 %
TRAIN	7 %
Underground	4 %
Bicycle	2 %



Public dialogue on train protection

Prepared by
People Science and Policy Ltd
for the Health and Safety Executive 2003

Dyball and King 2003

“There was a general assumption that the railways provide a safe means of transport

“Safety concerns that emerged spontaneously were usually linked to personal security

“Most participants did not spontaneously voice worries over the possibility of accidents

“The provision of a safe service was expected as part of the contract of buying a ticket”



Rail Safety & Standards Board

Research Programme

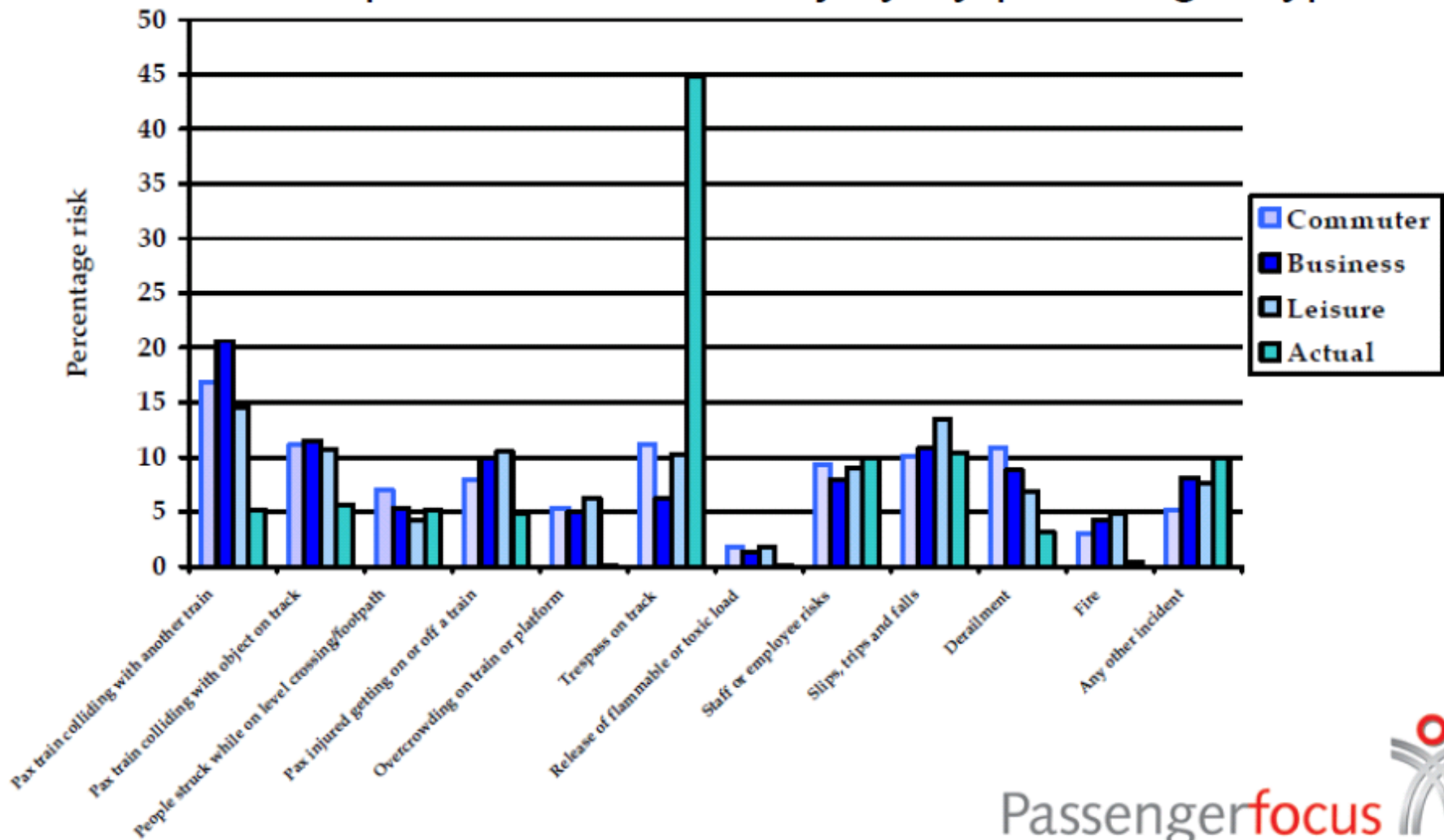
Engineering

Ladbroke Grove Rail Inquiry Part 1 Recommendation

60: Rail passenger survey

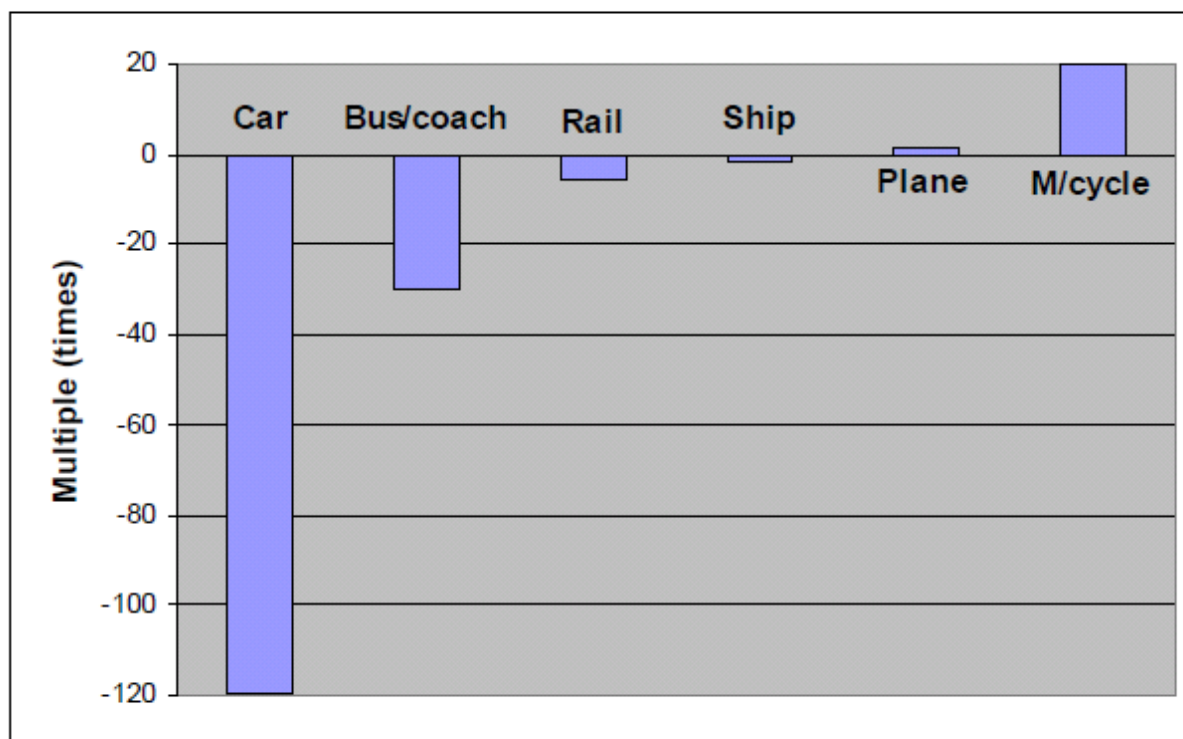
Thomas and Rhind 2004

Actual and perceived risk of injury by passenger type



Thomas and Rhind 2004

Under/over estimation of journeys per fatality



Most reported “incidents and accidents” were

Derailment

Collision

Landslides

Falling from carriage

Injuries due to overcrowding

Thomas and Rhind 2004

Relative safety of modes

Aircraft : Safe because of procedures, staff, maintenance, communication, training (low probability, low survivability, low individual control)

Rail : As safe as air but with more incidents occurring (low probability, high survivability, low individual control)

Car : Causes most fatalities but people feel safe as they are in control (high probability, medium survivability, high individual control)

Thomas and Rhind 2004

“Media mentioned by many participants and play a vital role in perceptions

“Aviation and train accidents are viewed as more serious because of the perceived greater concentration of injuries and fatalities”

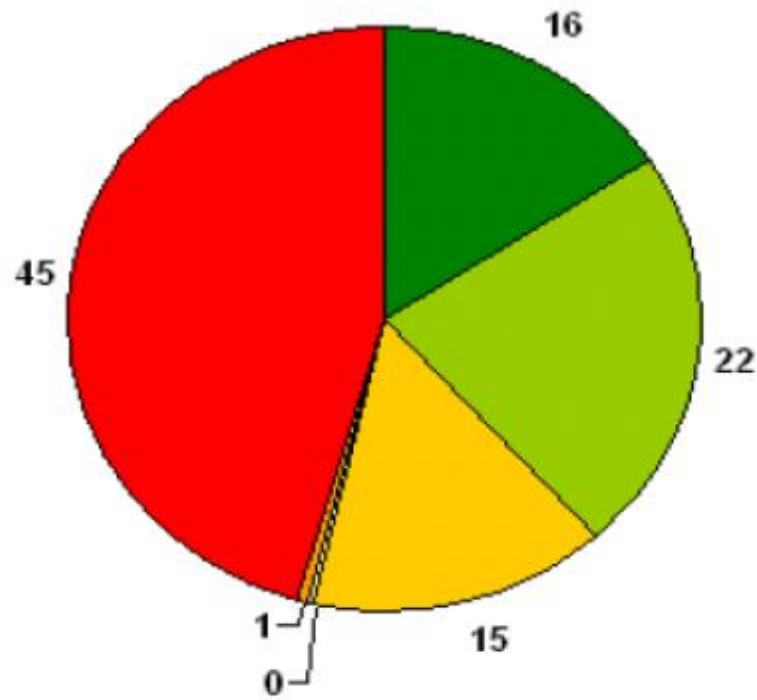
Department for
Transport

Attitudes to car use

ONS Omnibus Survey 2005

Mode considered to be safest in terms of accidents

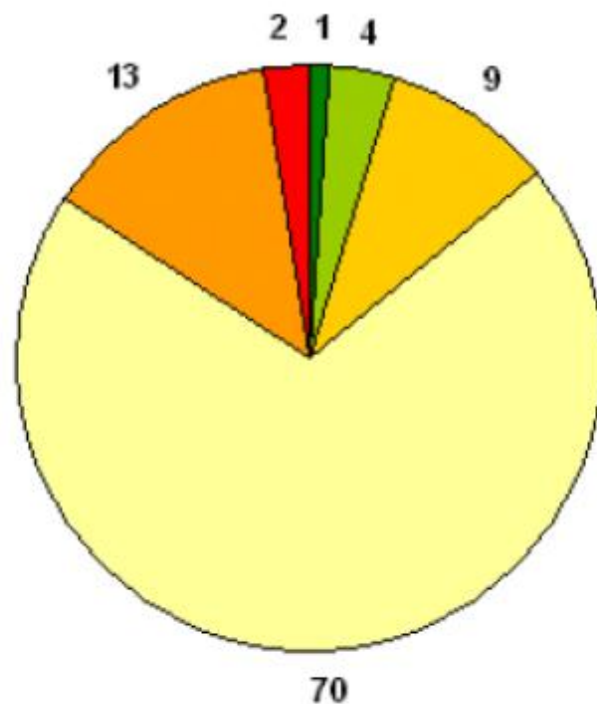
■ Bus ■ Train ■ Car ■ Motorcycle ■ Bicycle ■ Walking



ONS Omnibus Survey 2005

Mode considered to be least safe in terms of accidents

■ Bus ■ Train ■ Car ■ Motorcycle ■ Bicycle ■ Walking

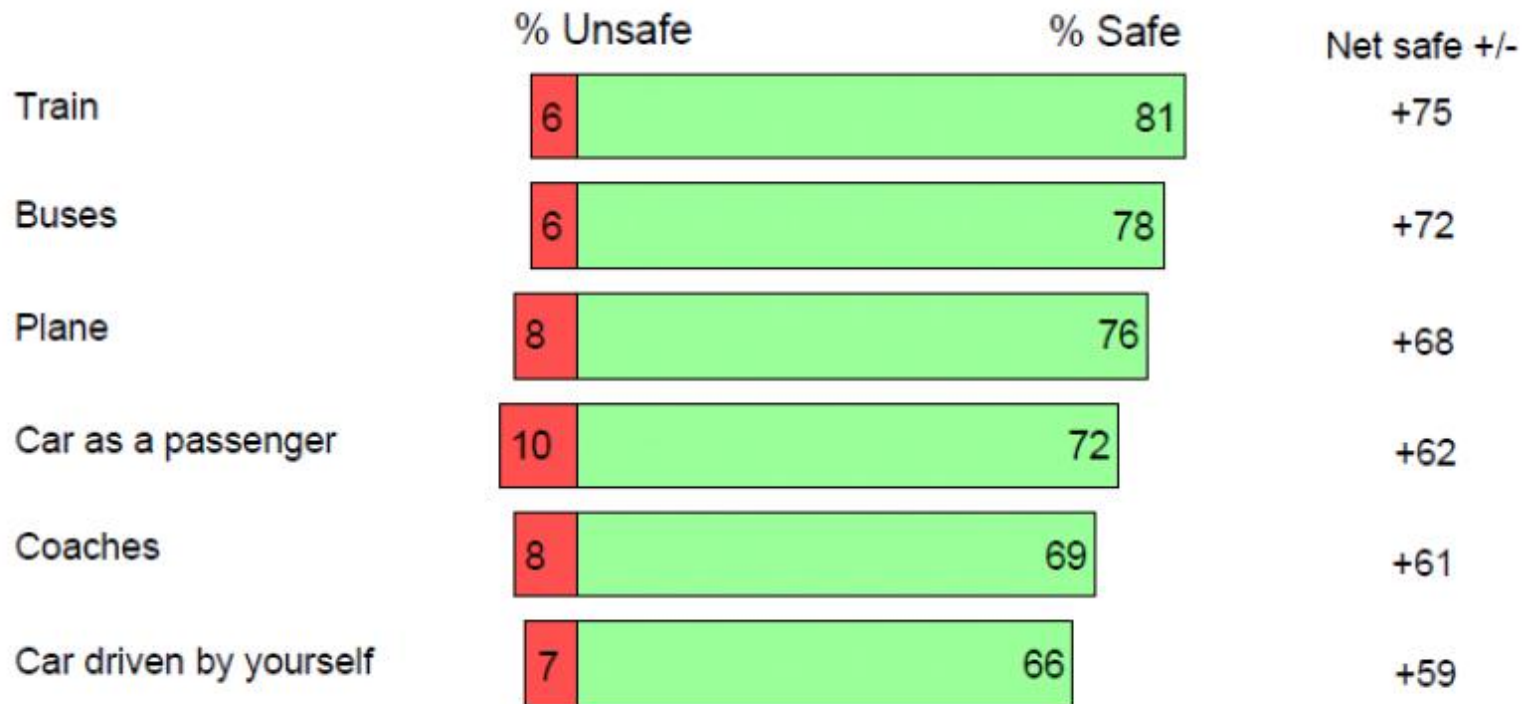


Public Attitudes to Safety on the Railways

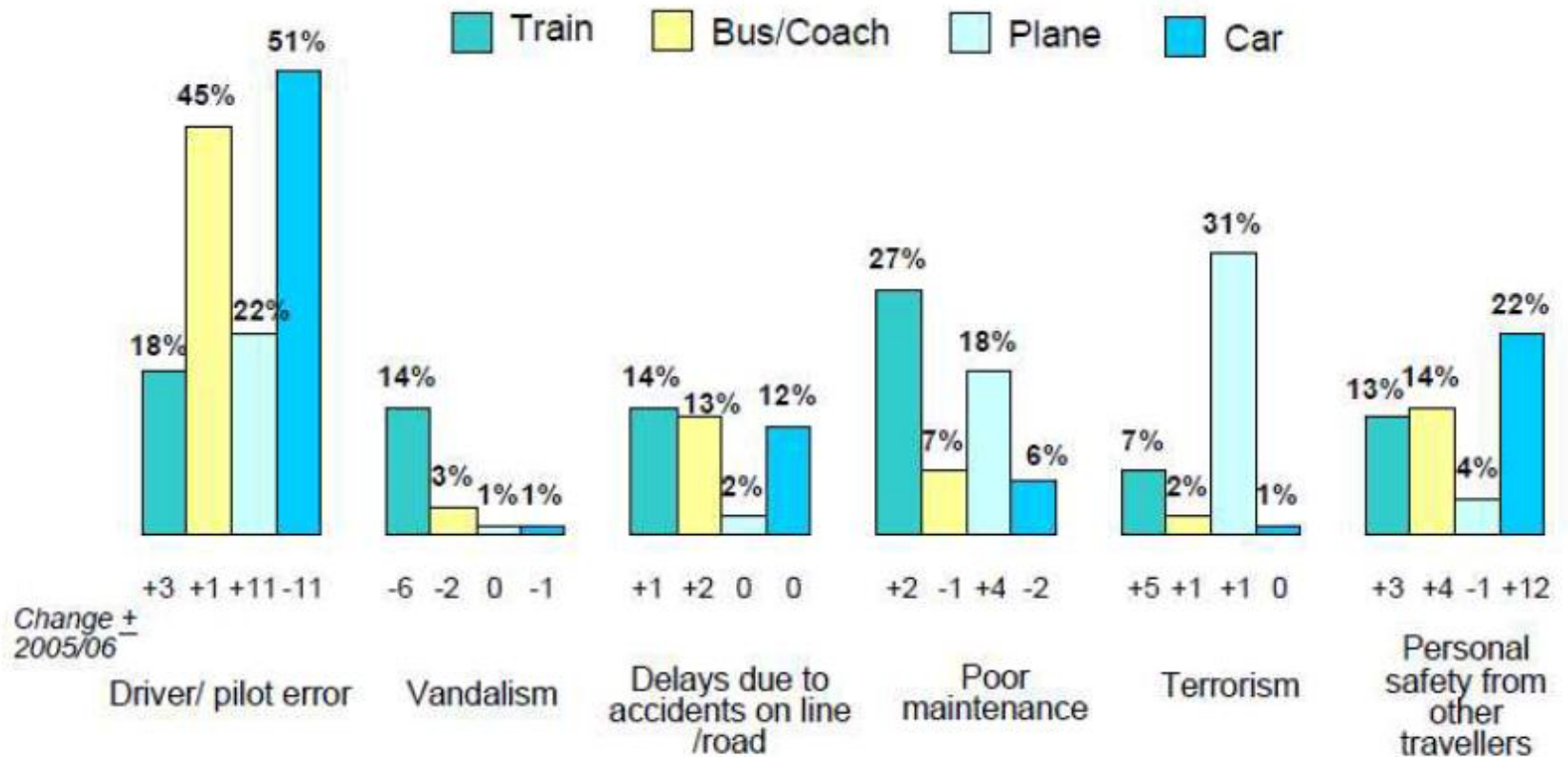


Rail Safety & Standards Board

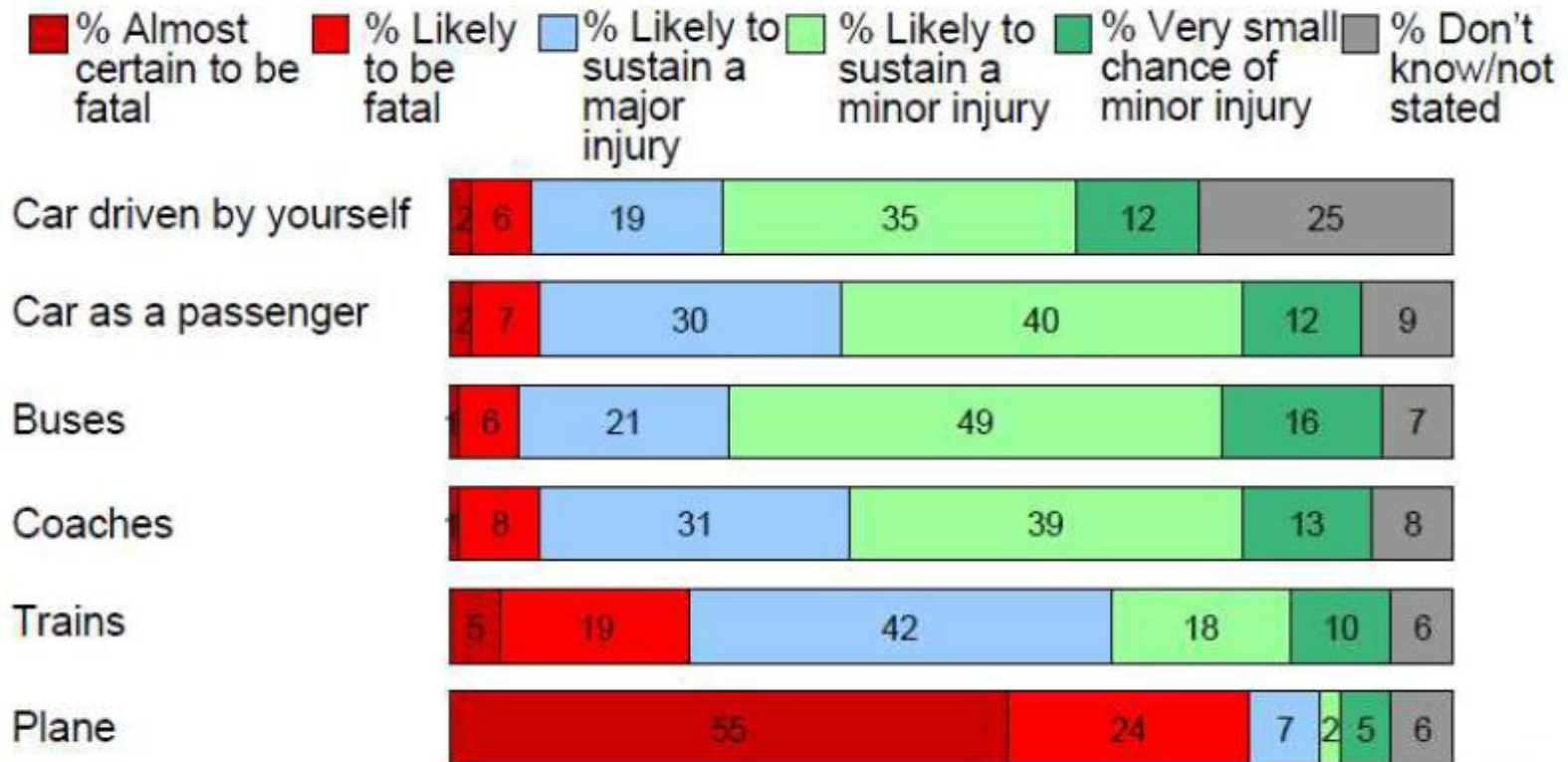
Likelihood of being in an accident



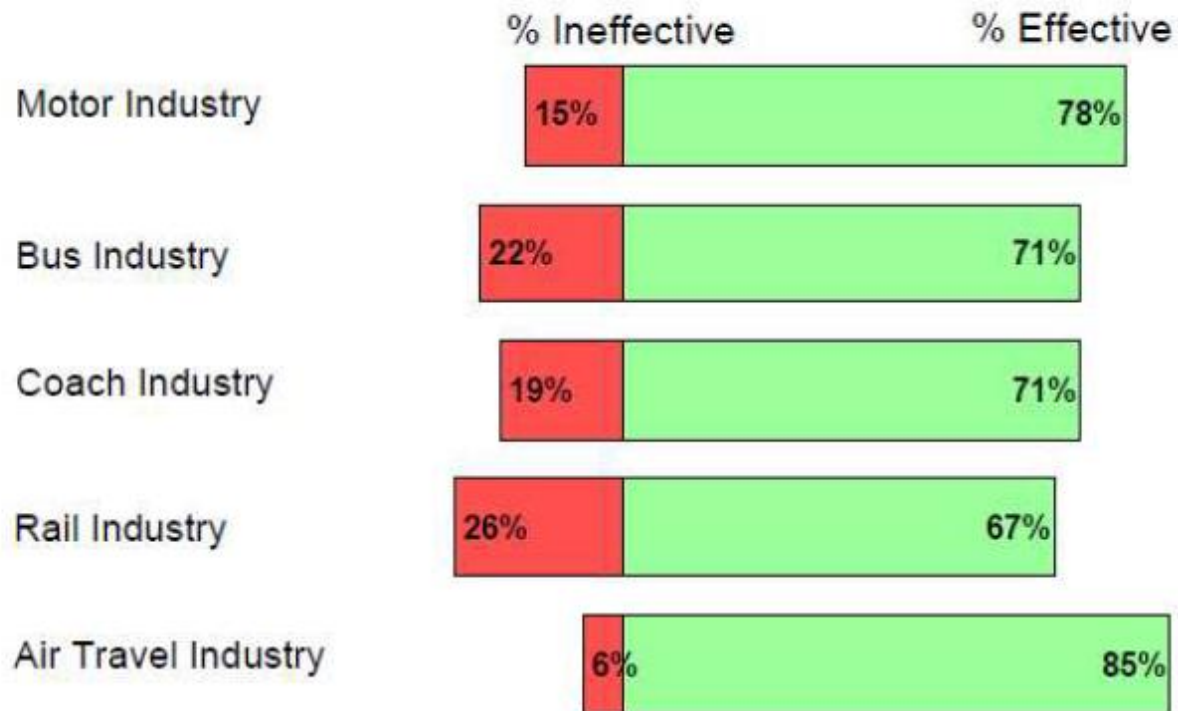
Main risks associated with modes



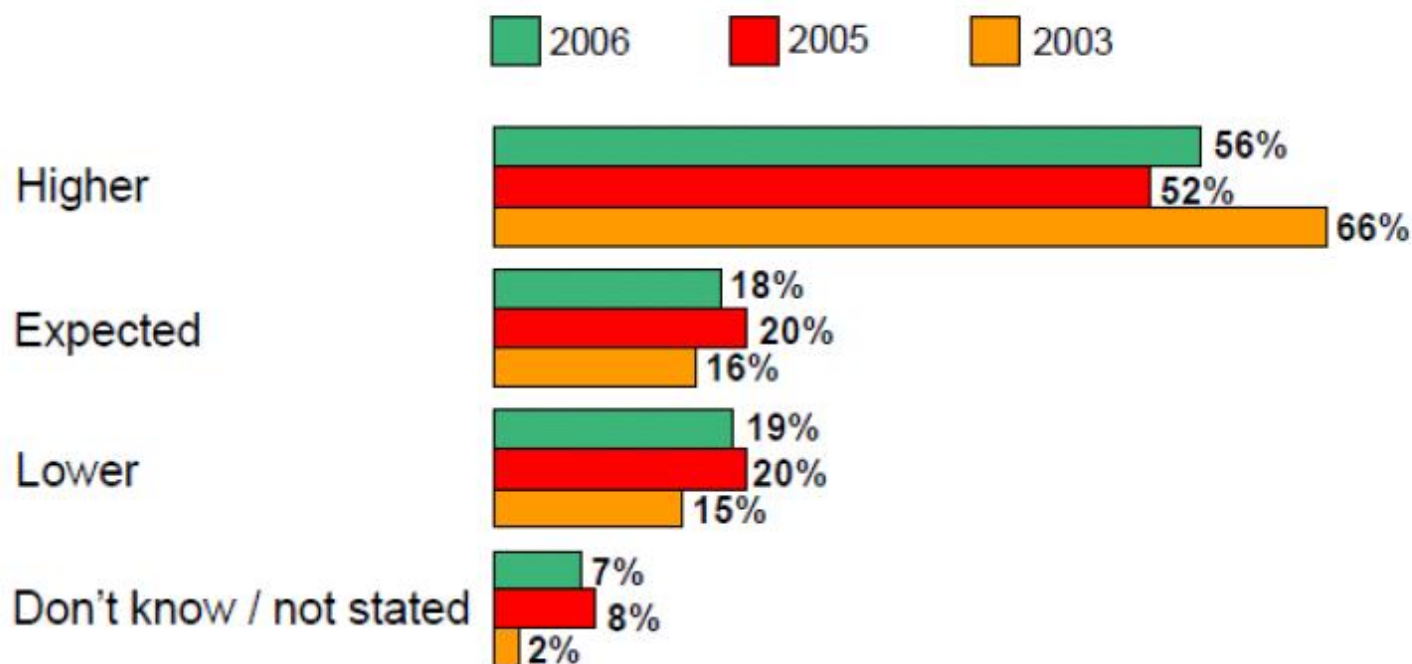
Likely severity of accident



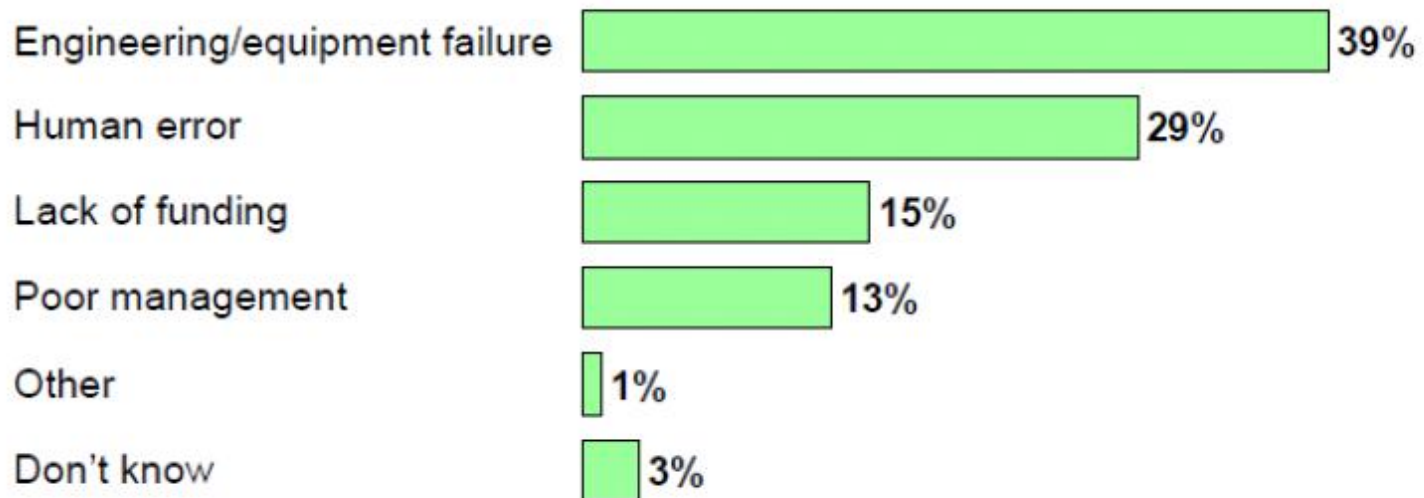
Effectiveness of industries in implementing safety measures



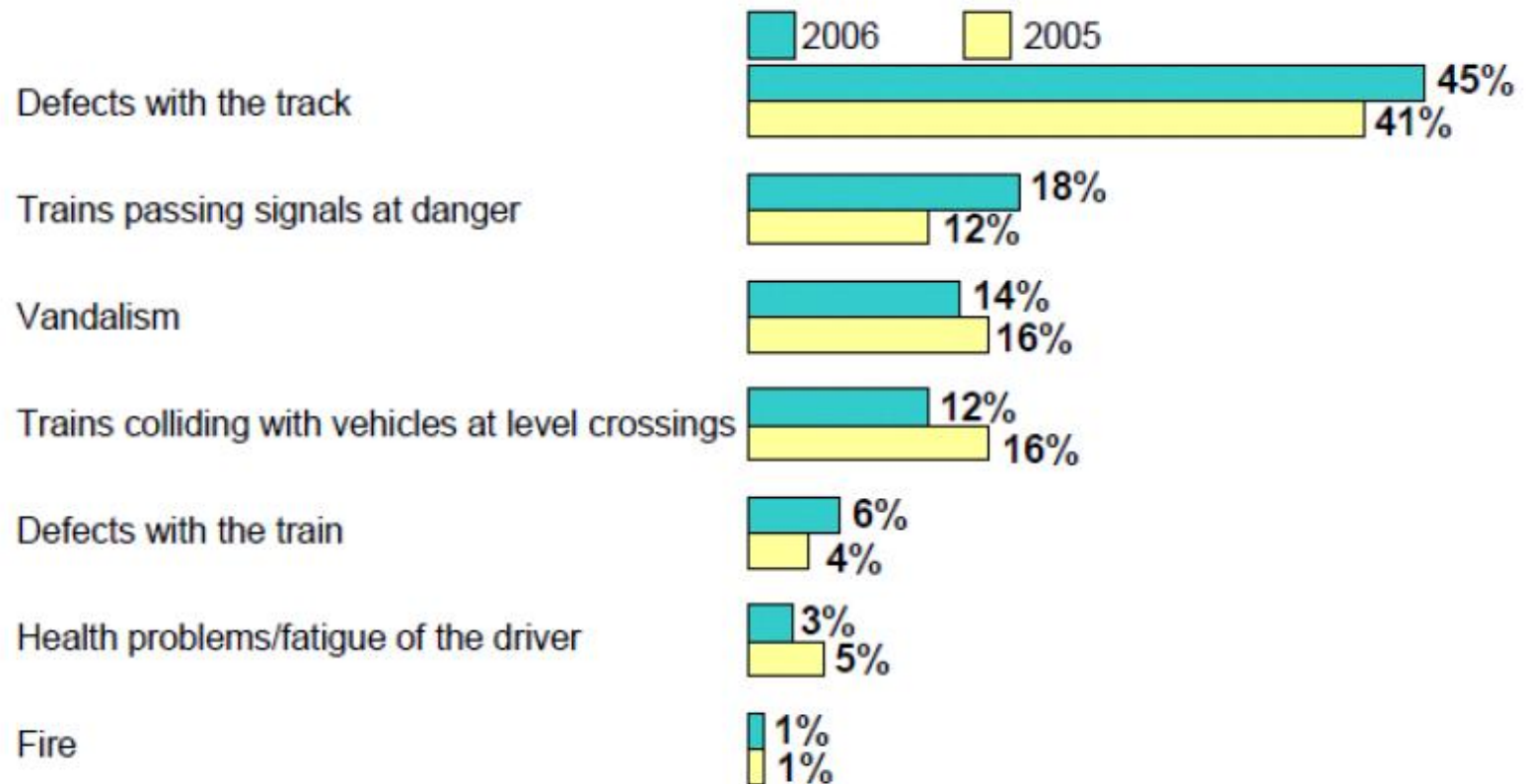
Expectation that annual train accident fatalities +/- 7



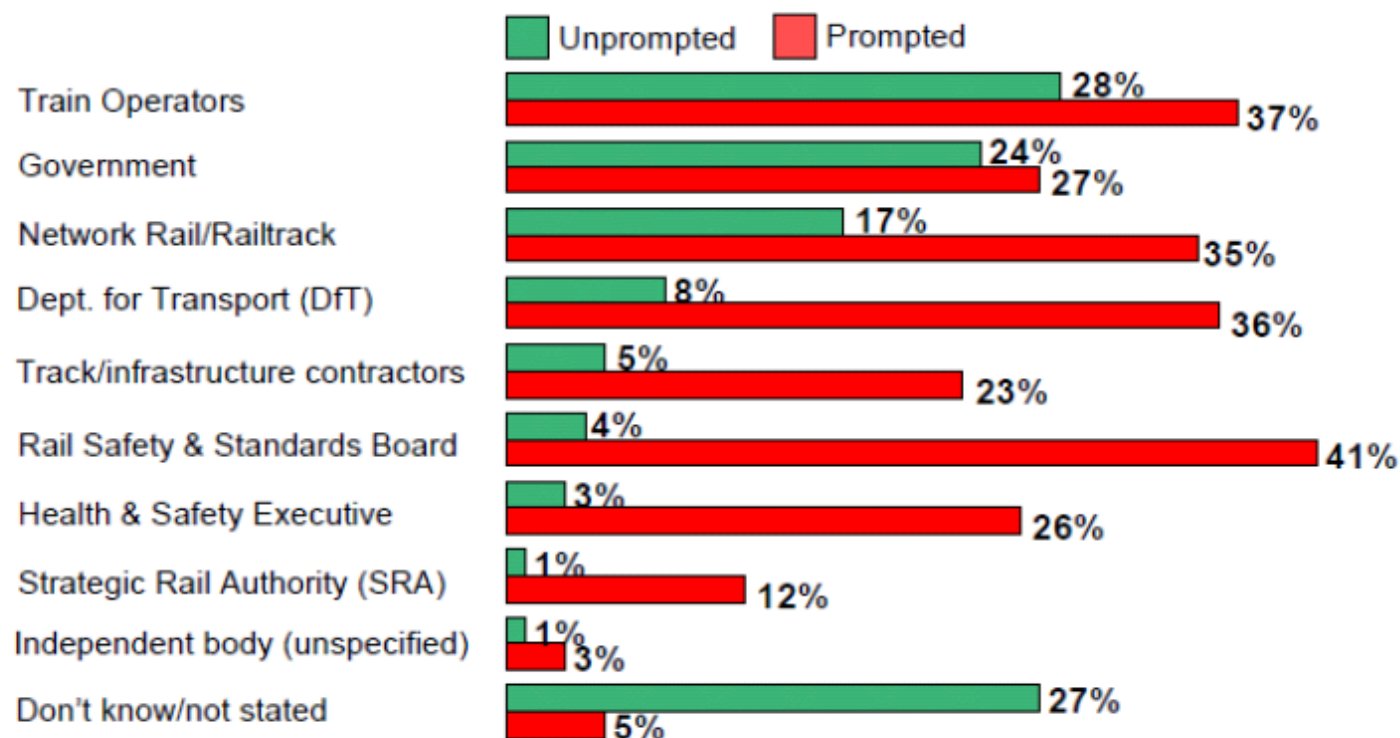
Most significant contributor to rail accident risk



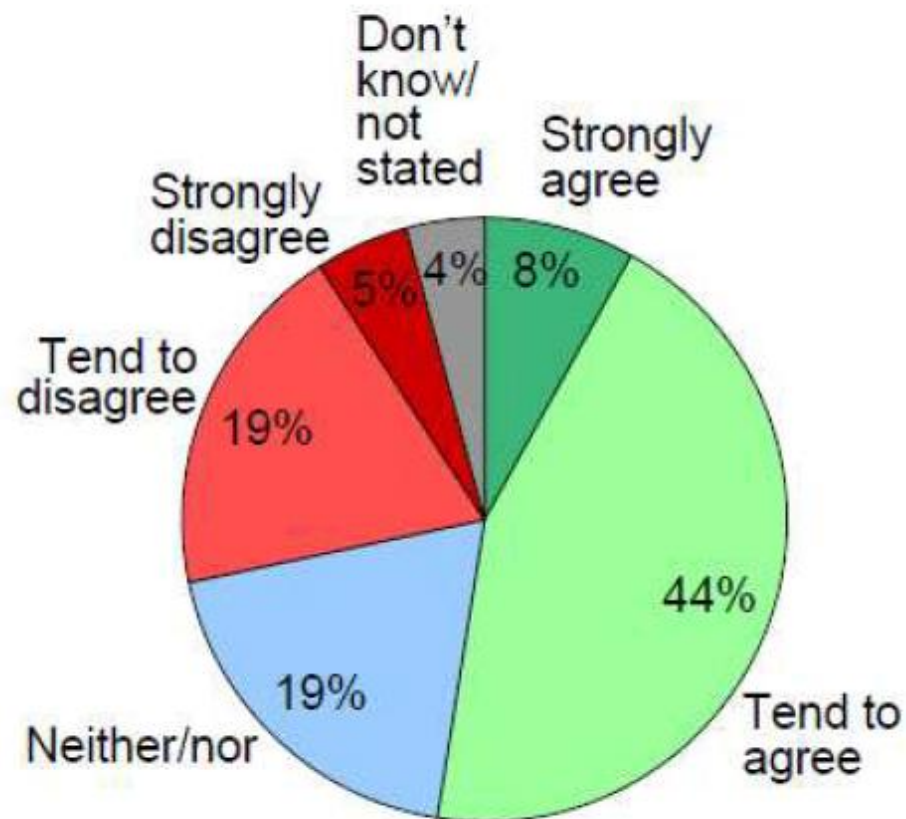
Most likely cause of rail accidents



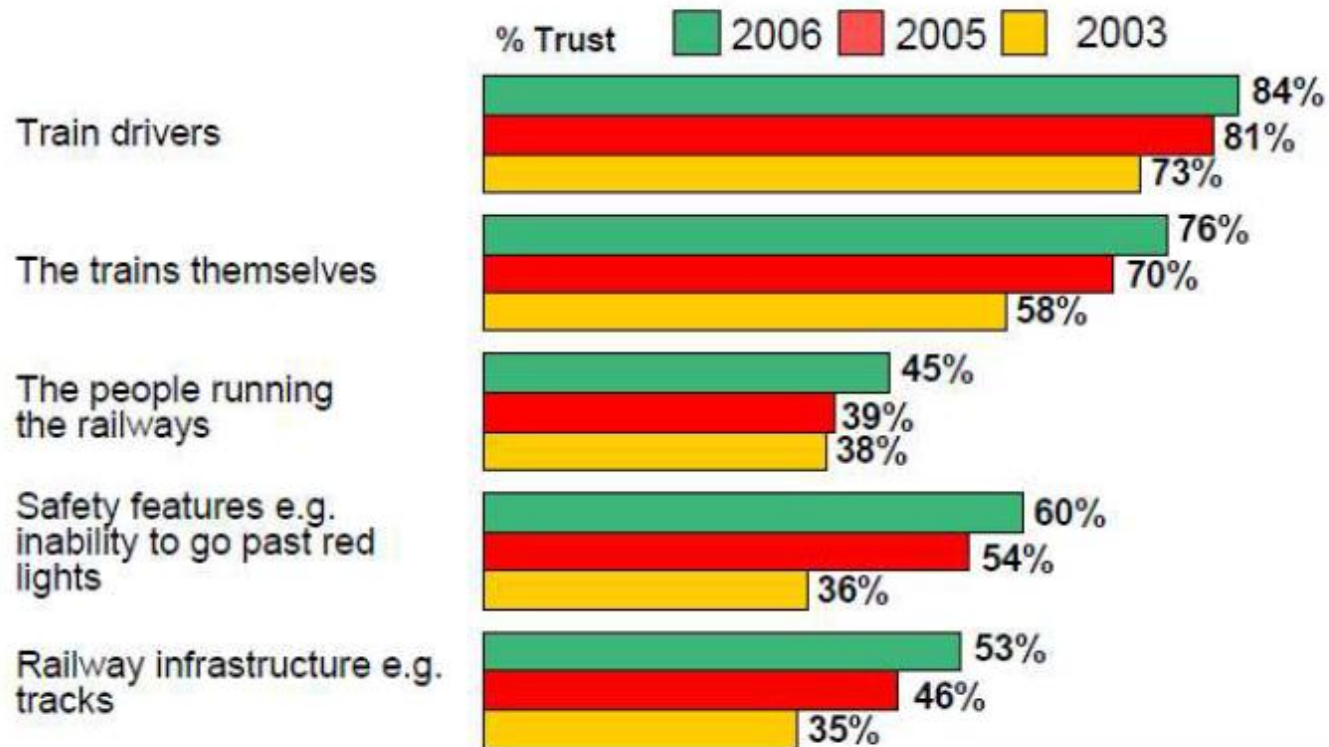
Responsibility for rail safety



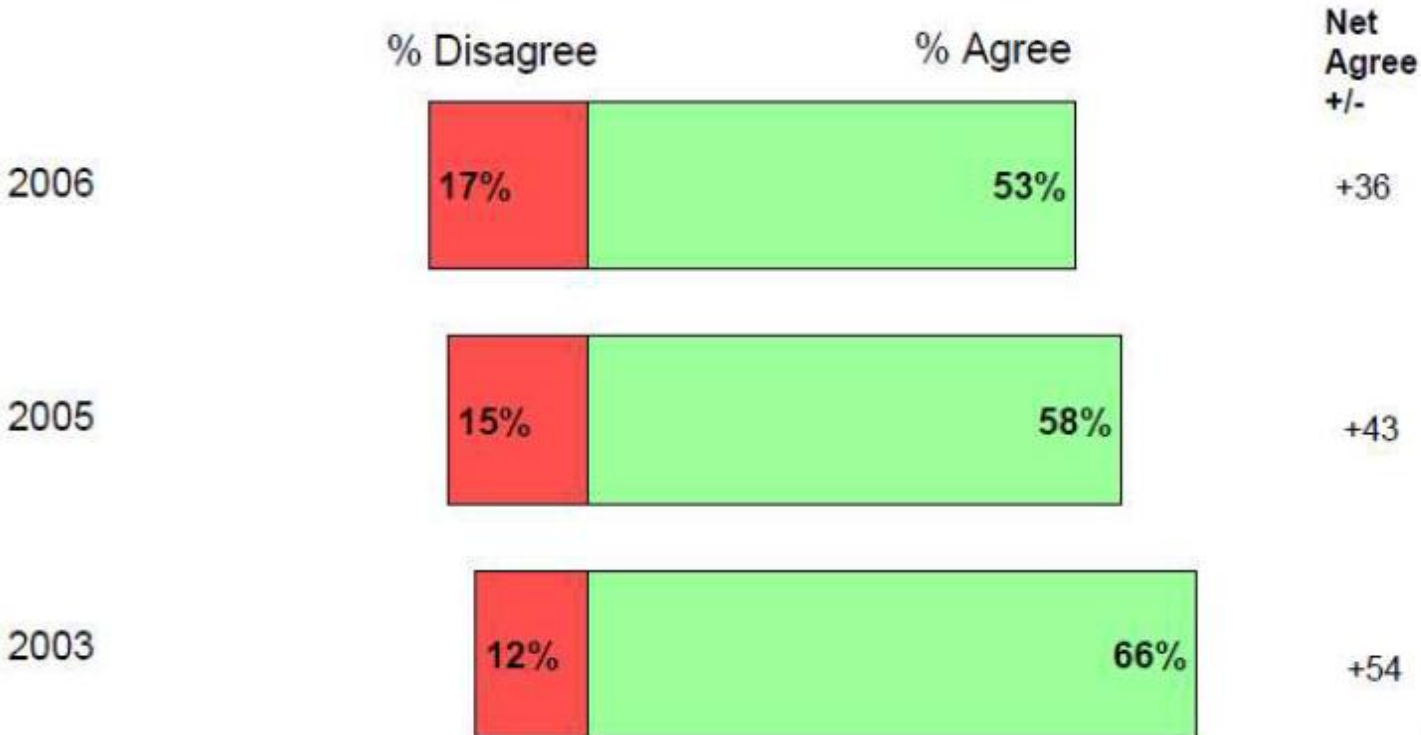
Trust in the rail industry to deliver a safe system



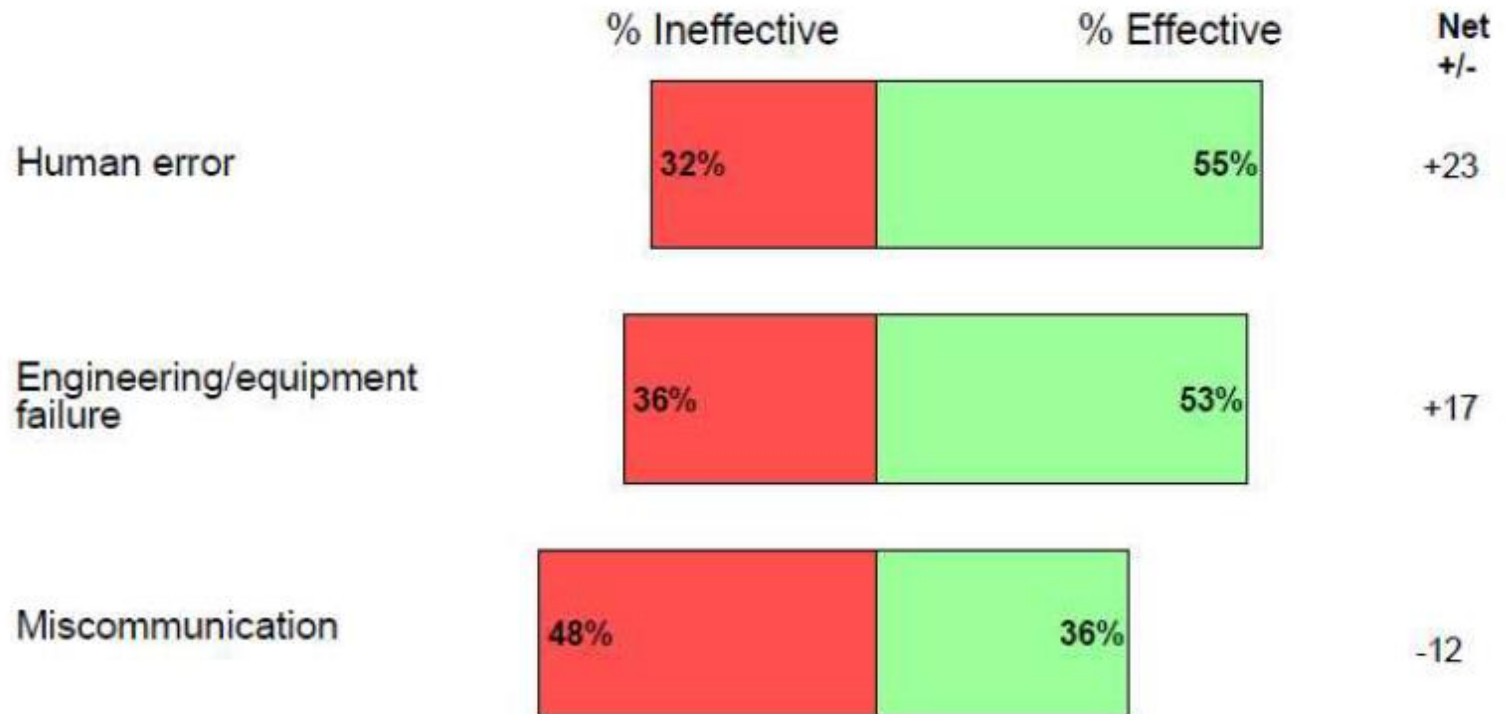
Trust in rail industry elements to keep passengers safe



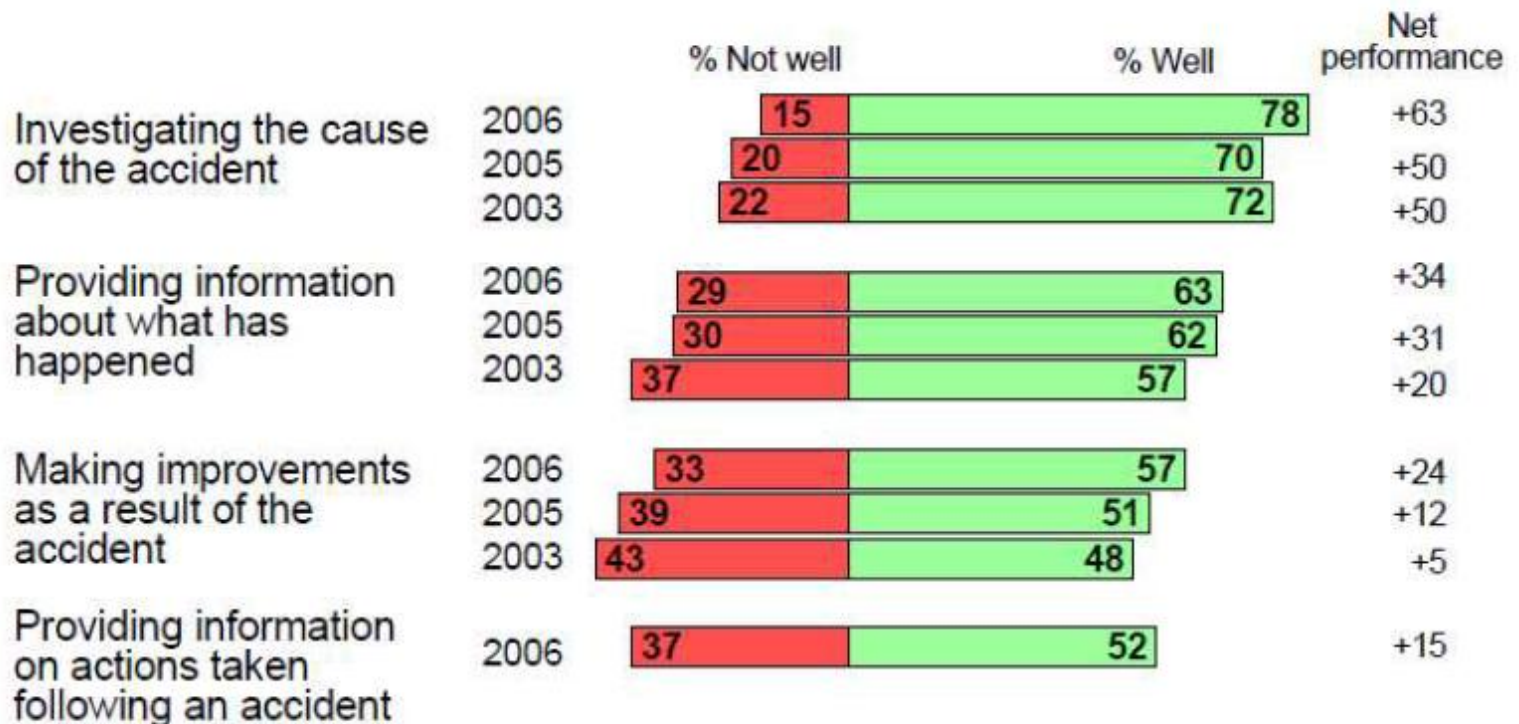
“Privatisation has increased rail accident risk”



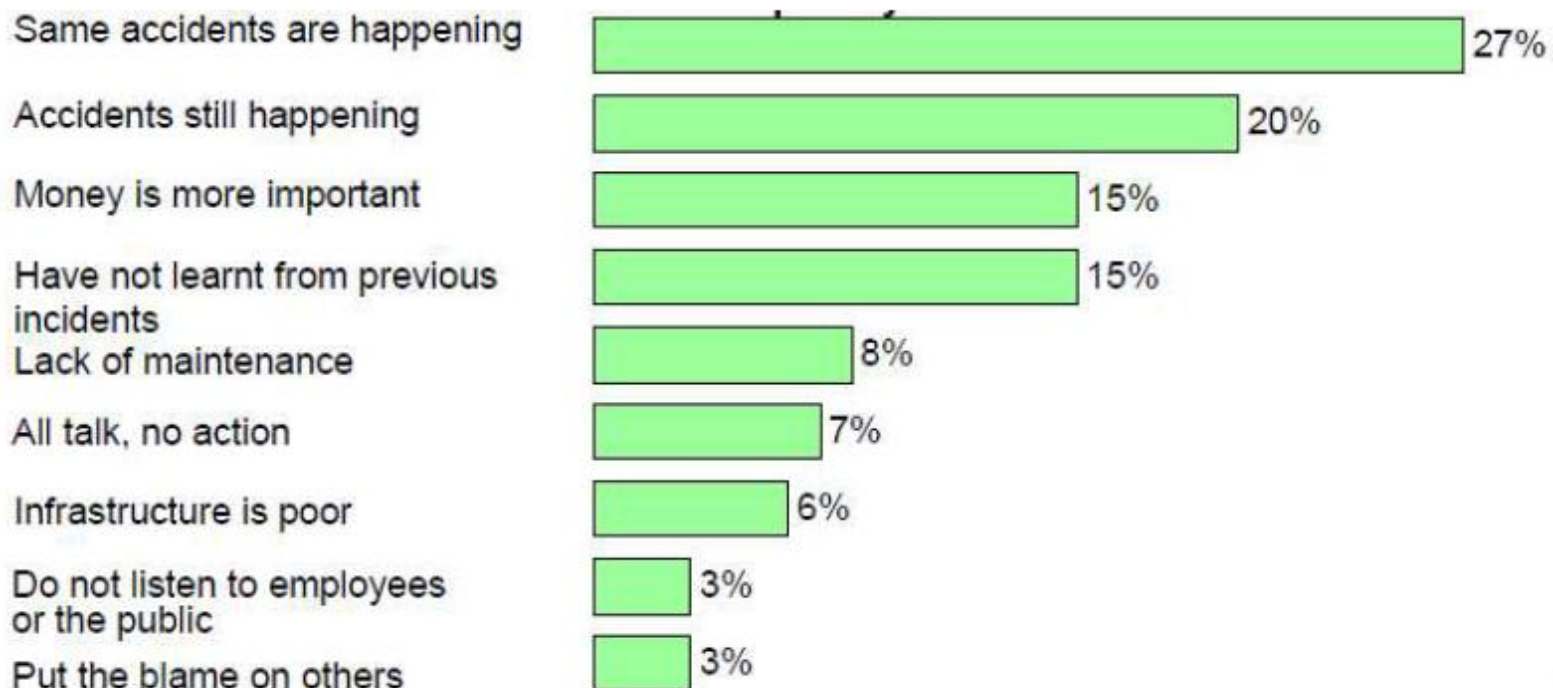
Rail industry's effectiveness in managing potential risks



Performance of rail industry in responding to accidents



Reasons for lack of confidence in rail industry's ability to learn from accidents



Rail industry's willingness to listen to public opinion

...only listens to public opinion when forced to do so by pressure groups



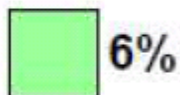
...usually ignores public opinion



The rail industry usually listens to public opinion when it makes decisions that affect the travelling public

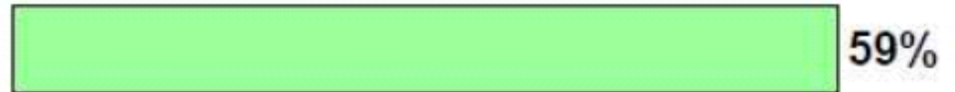


Don't know / not stated



Rail industry's willingness to act on public opinion

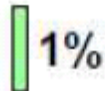
The rail industry takes too little account of the opinions of the public



The rail industry takes sufficient account of the public's opinion when making decisions



The rail industry takes too much account of the opinions of the public



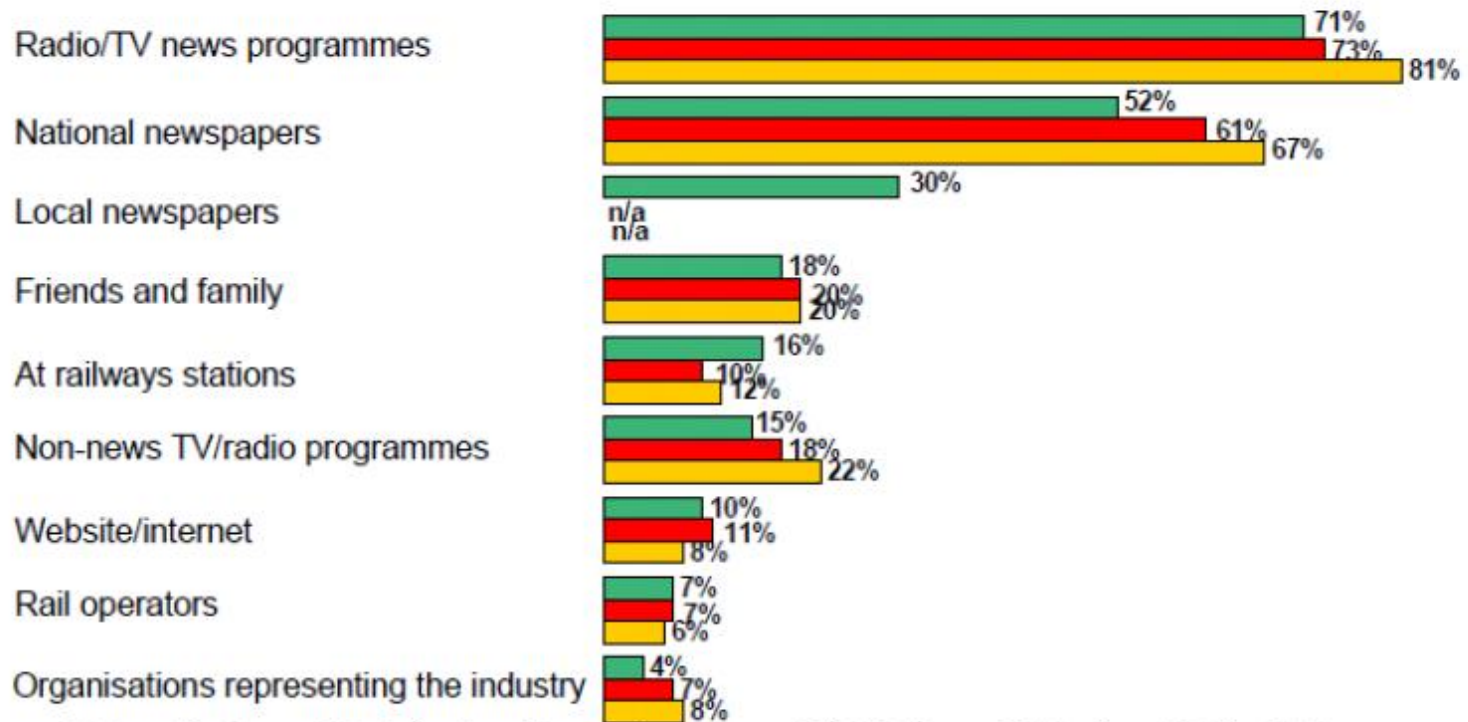
Don't know / not stated



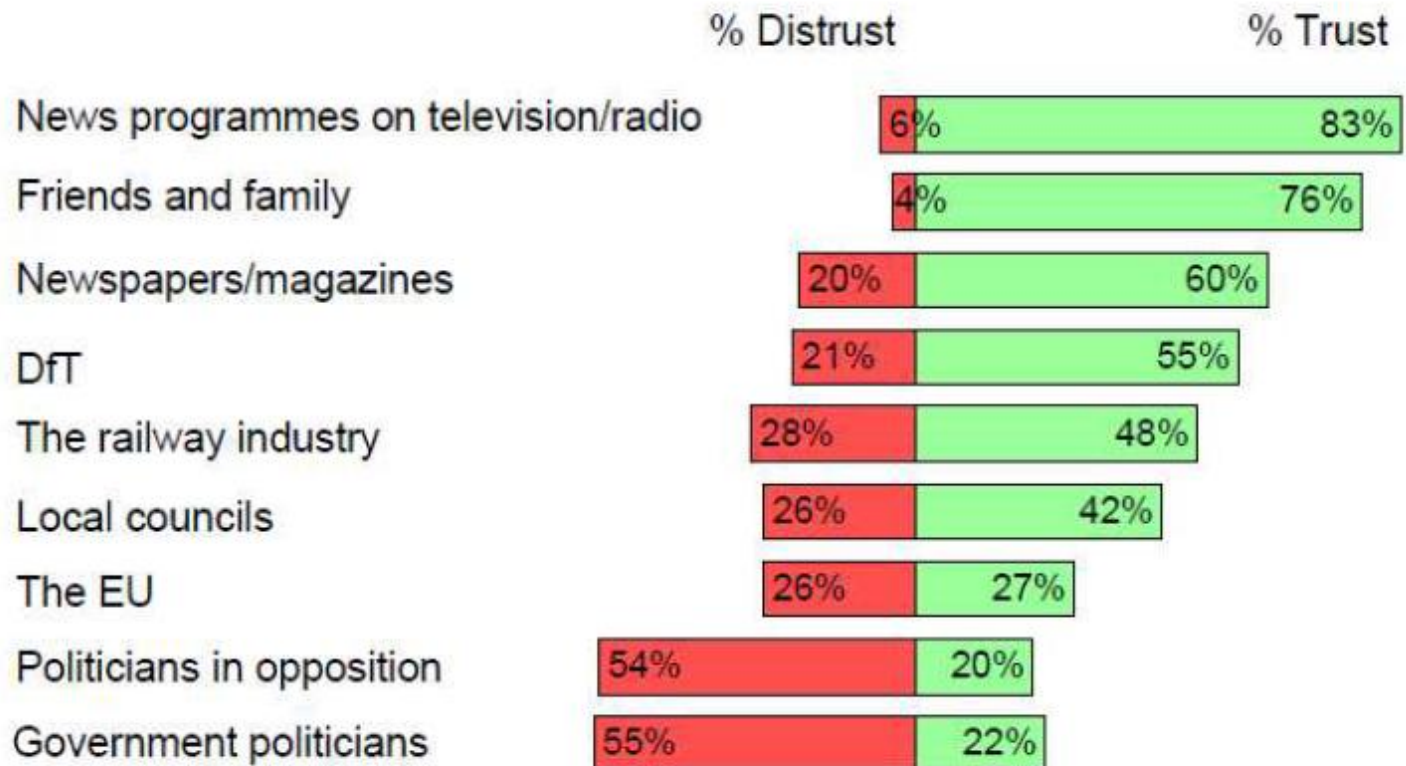
Confidence that necessary rail safety investment being made



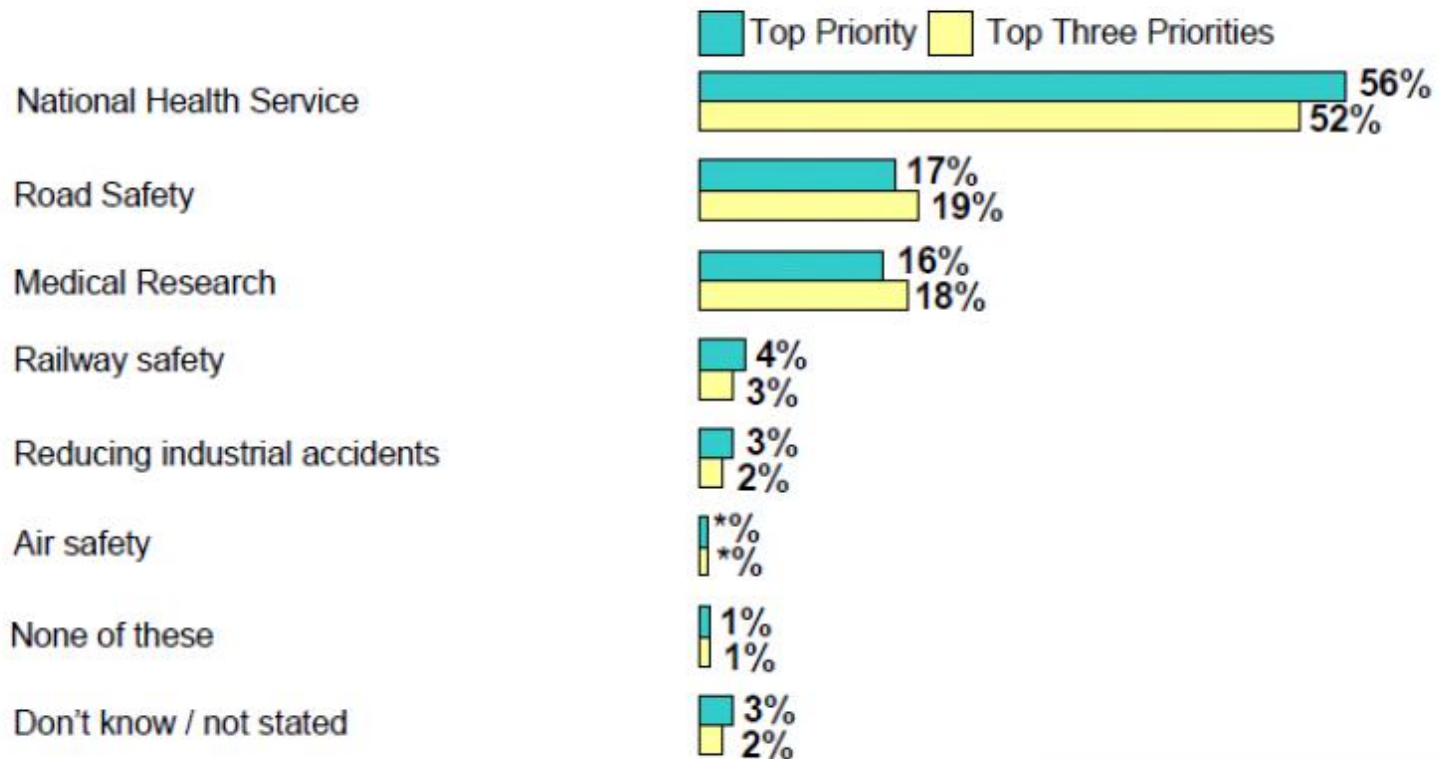
Sources of information about rail safety



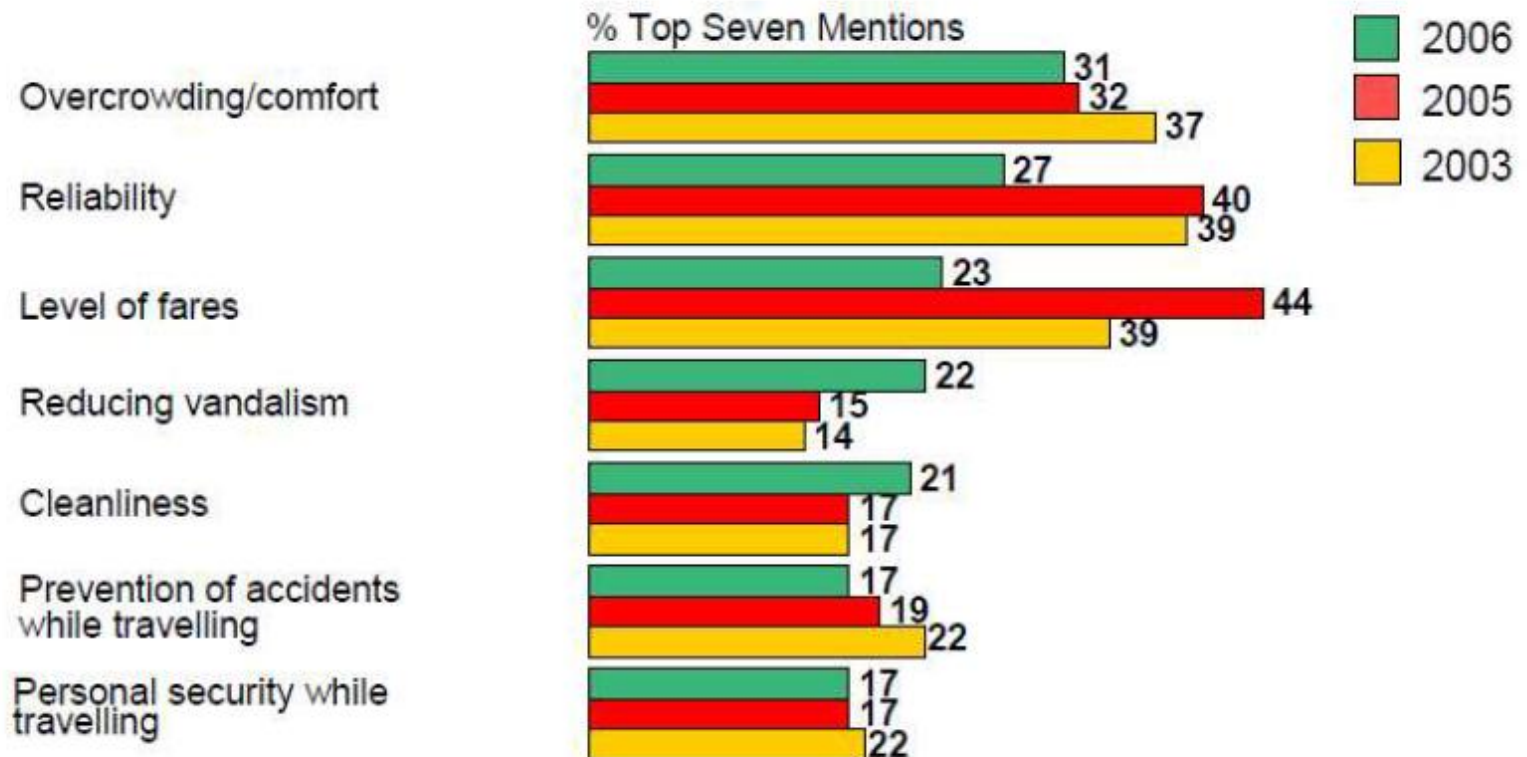
Trust in sources of information about rail safety



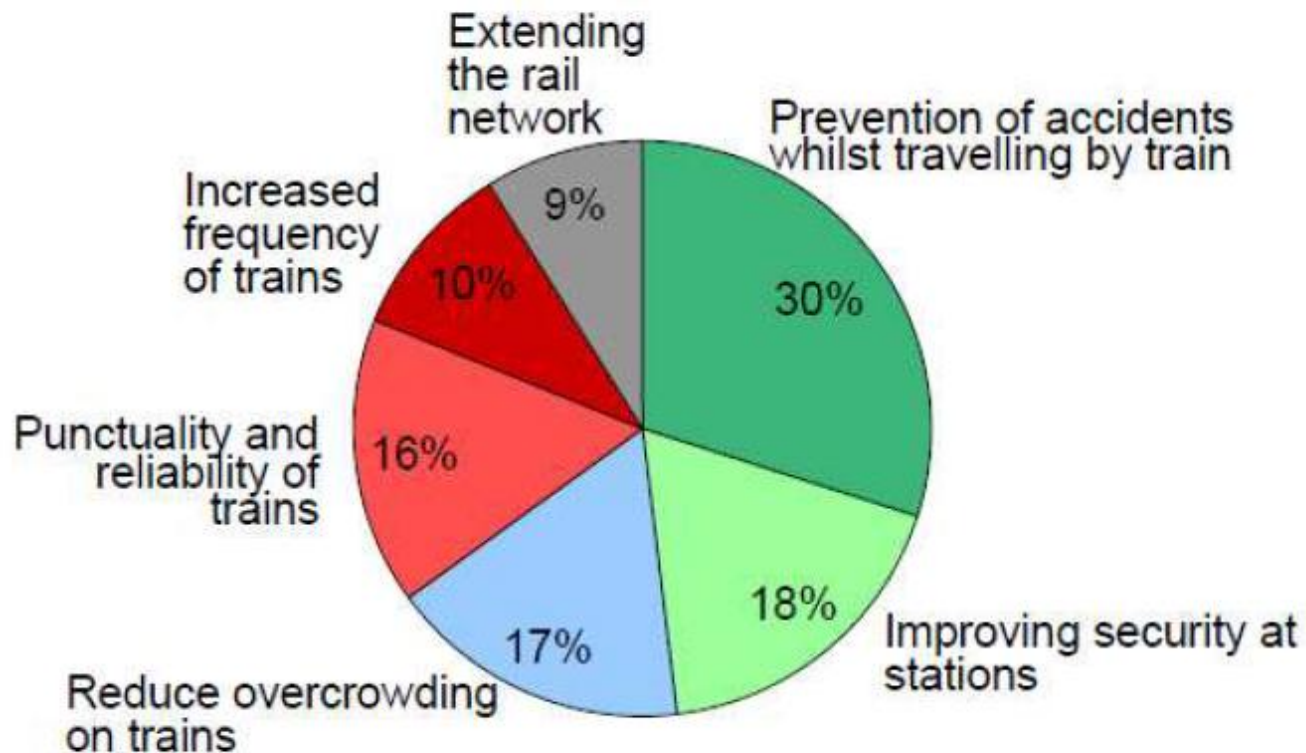
Priority for spending government money to reduce death rates



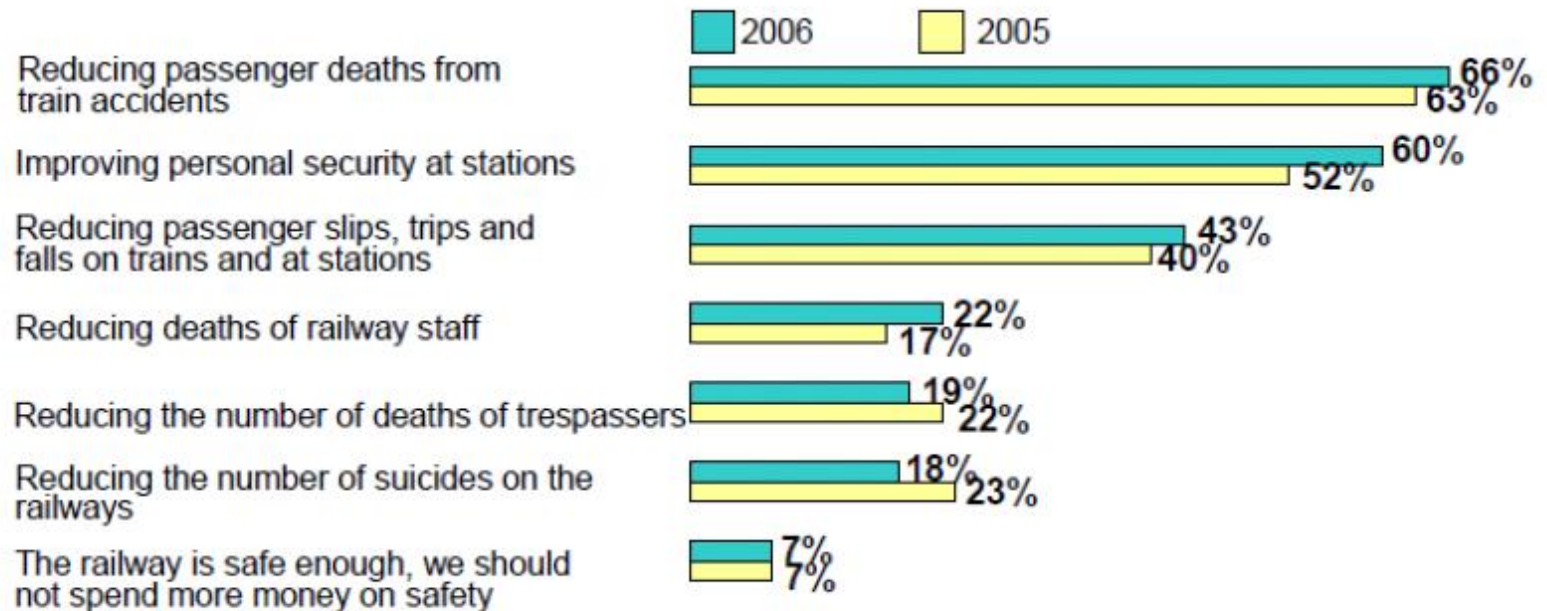
Priorities for improving rail travel



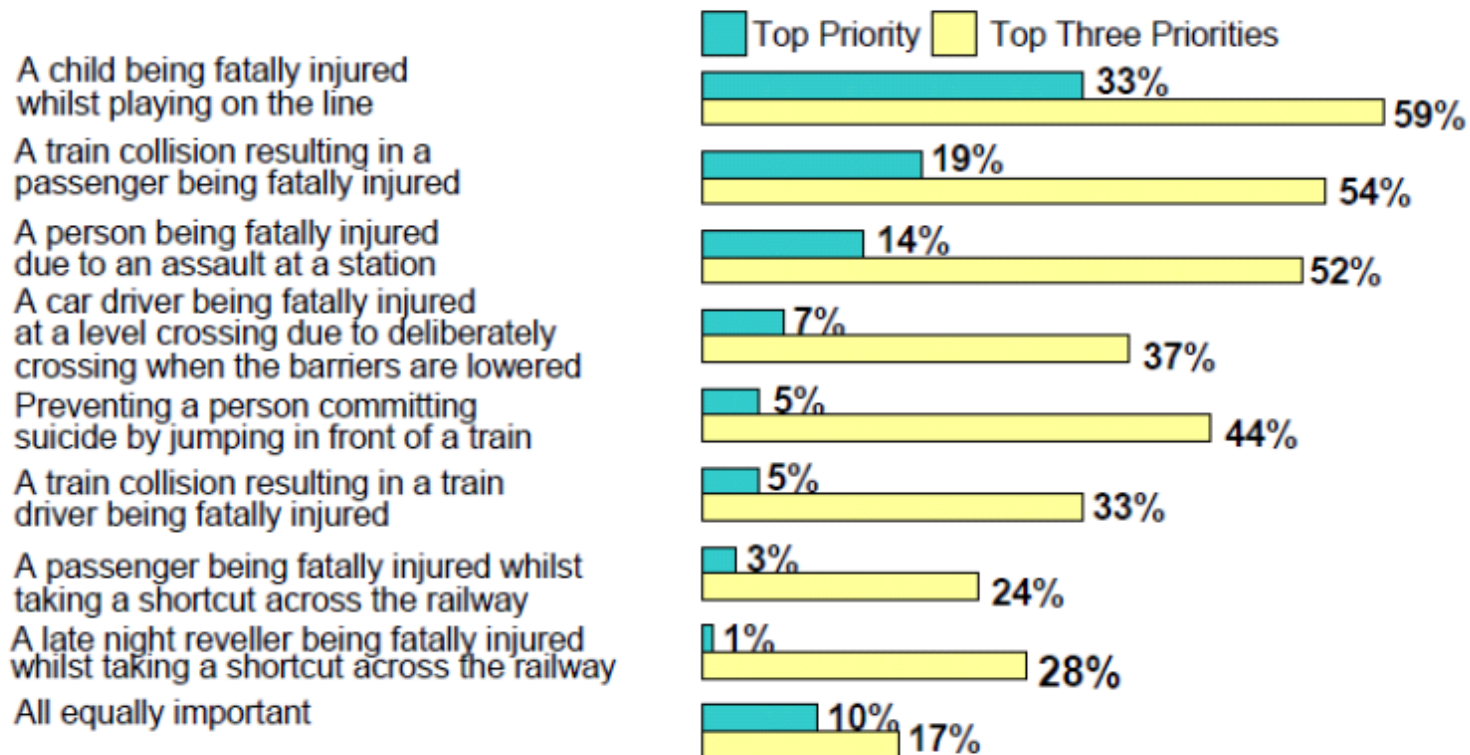
Priorities for spending on rail improvements



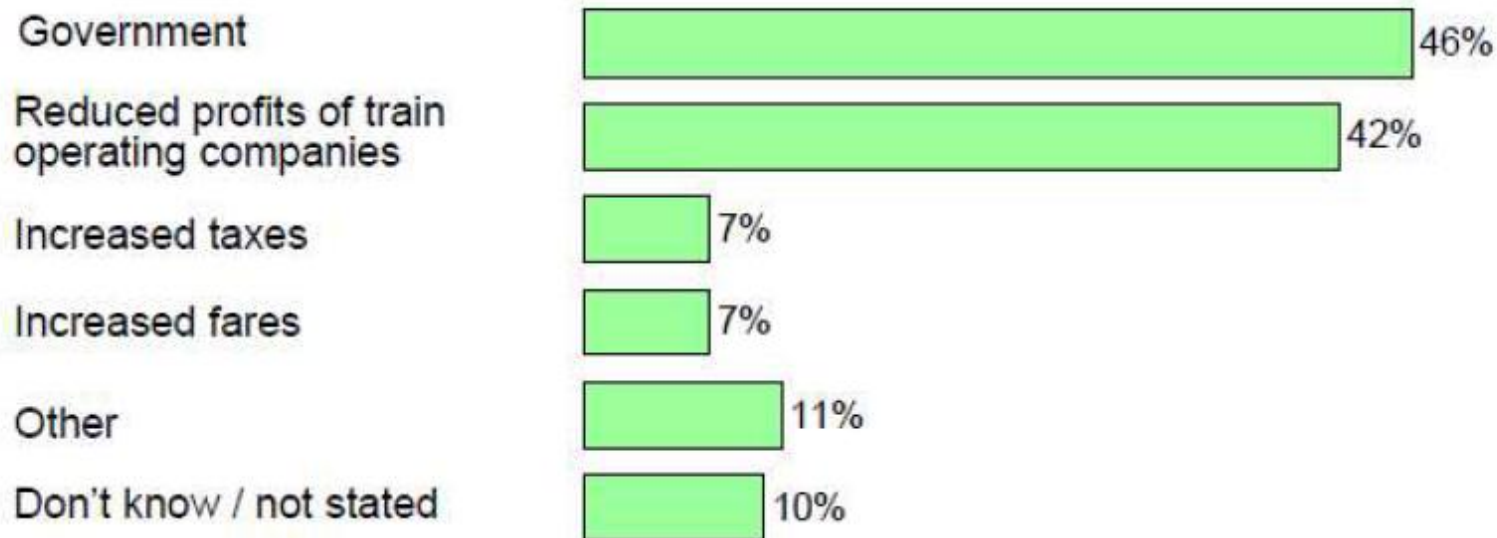
Priorities for spending to improve rail safety



Priorities for investment to prevent accidents



Who should pay for eliminating risk on rail?



Priorities for Rail Improvements & Environmental Issues Research



Perceptions of safety on the railway

Although goes without saying that most important issue, often far from top of mind, even within context of major rail incident

Most feel fatalities on railway more likely to occur from trespassing than train / rail malfunction

Cannot keep determined trespassers/vandals out just with fencing

Thus, more education of offenders required

Perceptions of safety on the railway

However, some specific safety concerns highlighted

Overcrowding on trains, level crossings with no barriers, desire for more info on what to do in case of emergency

Not given huge amount of consideration despite research happening just after Virgin derailment

In fact, more reassurance than fear from this incident and perception that there has been much investment in safety recently

Reactions to statistics

Information on fatalities not felt to be interesting or meaningful in the context of rail travel being viewed as inherently safe

Consistent reduction since 1950s and comparison of fatalities by mode broadly seen as expected

Railway being 10% safer seen as meaningless target - implies rail is unsafe currently

Many want target of 100% relating to safety, or zero tolerance - perception that government targets on safety therefore meaningless

Thank you.