



NORTHWESTERN UNIVERSITY
TRANSPORTATION CENTER

Railroad Safety in the United States

Ian Savage

International Comparisons

	USA	GB	Ratio
Population	320m	63m	5 times

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- No subways, trams etc.

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Fatalities: USA 2014 vs GB 2014/15

	USA	GB
Employees & Contractors	16	3

USA: Rates per 1,000 Employees 2009

	Fatality	Non-fatal Injury
Fishing	8.81	15
<i>Agriculture</i>	0.76	53
Taxi and limousine	0.62	37
Truck transportation	0.29	57
Water transportation	0.24	33
<i>Construction</i>	0.12	47
Pipeline transportation	0.10	15
Rail transportation	0.06	23
Air transportation	0.06	71
<i>Utilities</i>	0.03	31
Bus transportation	0.03	33-48
<i>Manufacturing</i>	0.03	50

Fatalities: USA 2014 vs GB 2014/15

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Passengers on trains	5	0

Fatalities – Passengers on trains

	USA	GB
Passenger Miles (2014)	22 billion	39 billion
Passenger Fatalities (2005-2014)	75	1

USA: Passenger fatalities per billion passenger miles 2000-09

Riding a motorcycle	212.57
Driving or passenger in car and light truck	7.28
Passenger on a local ferry boat	3.17
Passenger on commuter rail and Amtrak	0.43
Passenger on urban mass transit rail	0.24
Passenger on a bus (holding more than 10 passengers – transit, intercity, school, charter)	0.11
Passenger on commercial aviation	0.07

Fatalities: USA 2014 vs GB 2014/15

	USA	GB
Employees & Contractors	16	3
Passengers on trains	5	0
“Non trespassers” incl. Passengers at stations	14	4

Fatalities: USA 2014 vs GB 2014/15

	USA	GB
Motor vehicle users at crossings	168	2
Non-motorized users at crossings	101	8

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Confirmed suicides	218	48
Suspected suicides	n/a	245

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% of all suicides by guns	52%	4%

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Deaths	1,031	332	3 times

Mix of Fatalities

	USA	GB
Employees / contractors / Passengers on and off trains	3.4%	2.1%
Crossing Users	26.1%	3.0%
Trespassers	49.4%	6.6%
Suicides	21.1%	88.3%

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94.9%

Crossings

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Route Miles	140,000	10,000
Crossings per Route Mile	1.5	0.6

Distribution of Crossing Types

	USA	GB
Pedestrian	1%	35%
Private (“user worked”)	38%	37%
Public Highway	61%	28%

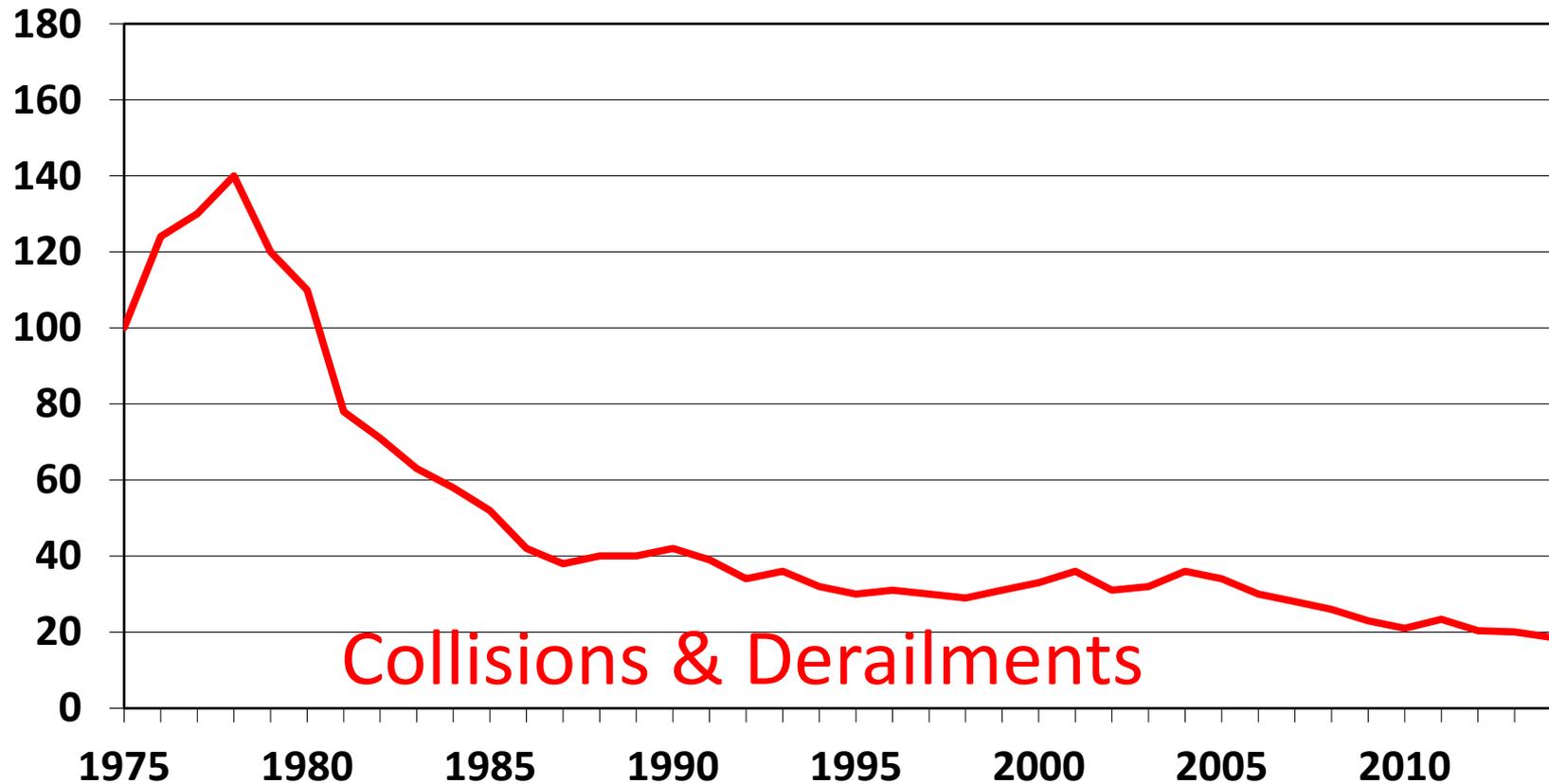
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Warning Devices at Public Highway

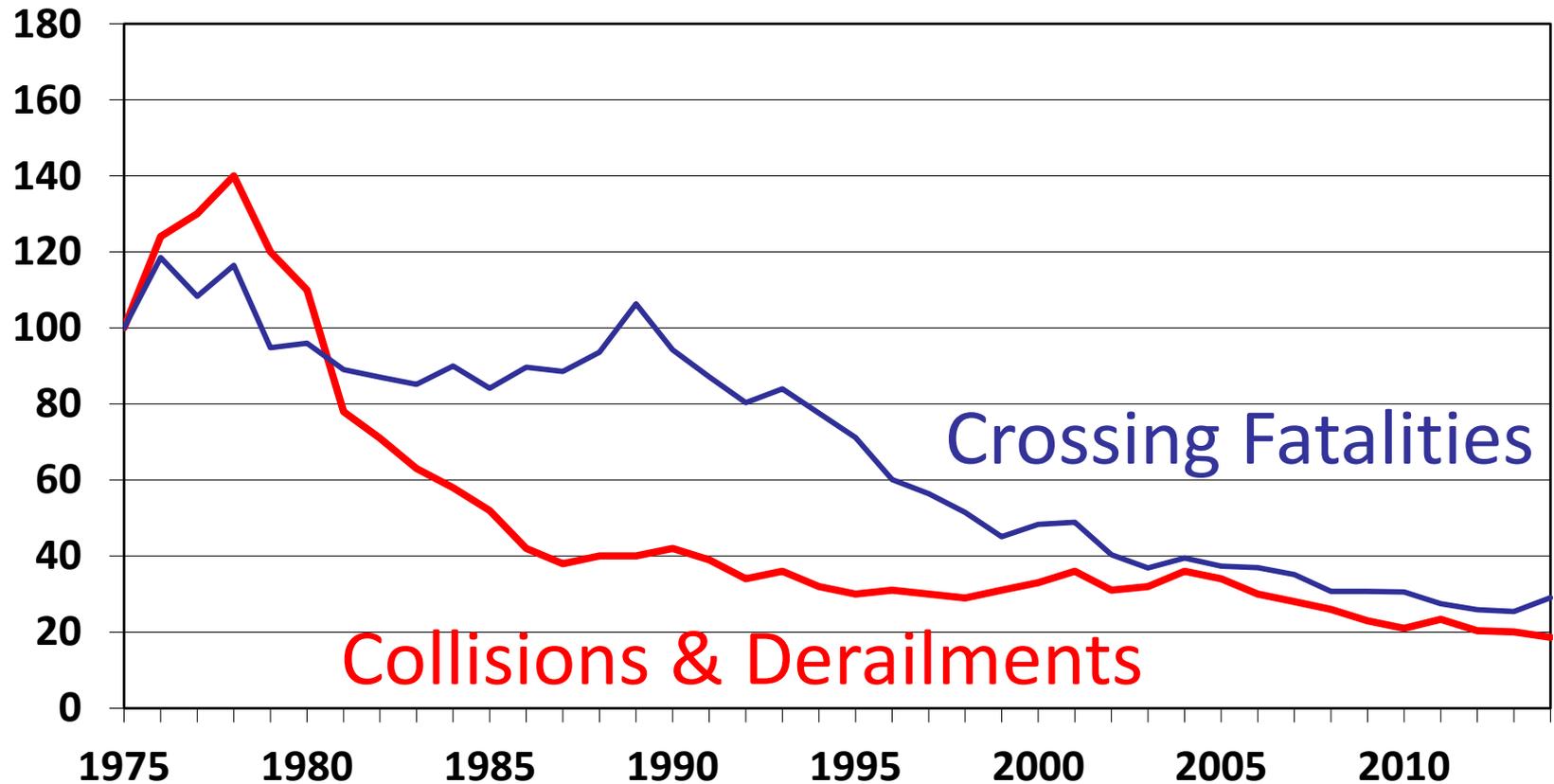
	USA	GB
Passive: Signs	48%	3%
Active: Lights	18%	13%
Active: Lights and gates	34%	84%

USA: Railroad safety per train mile (index with 1975=100)

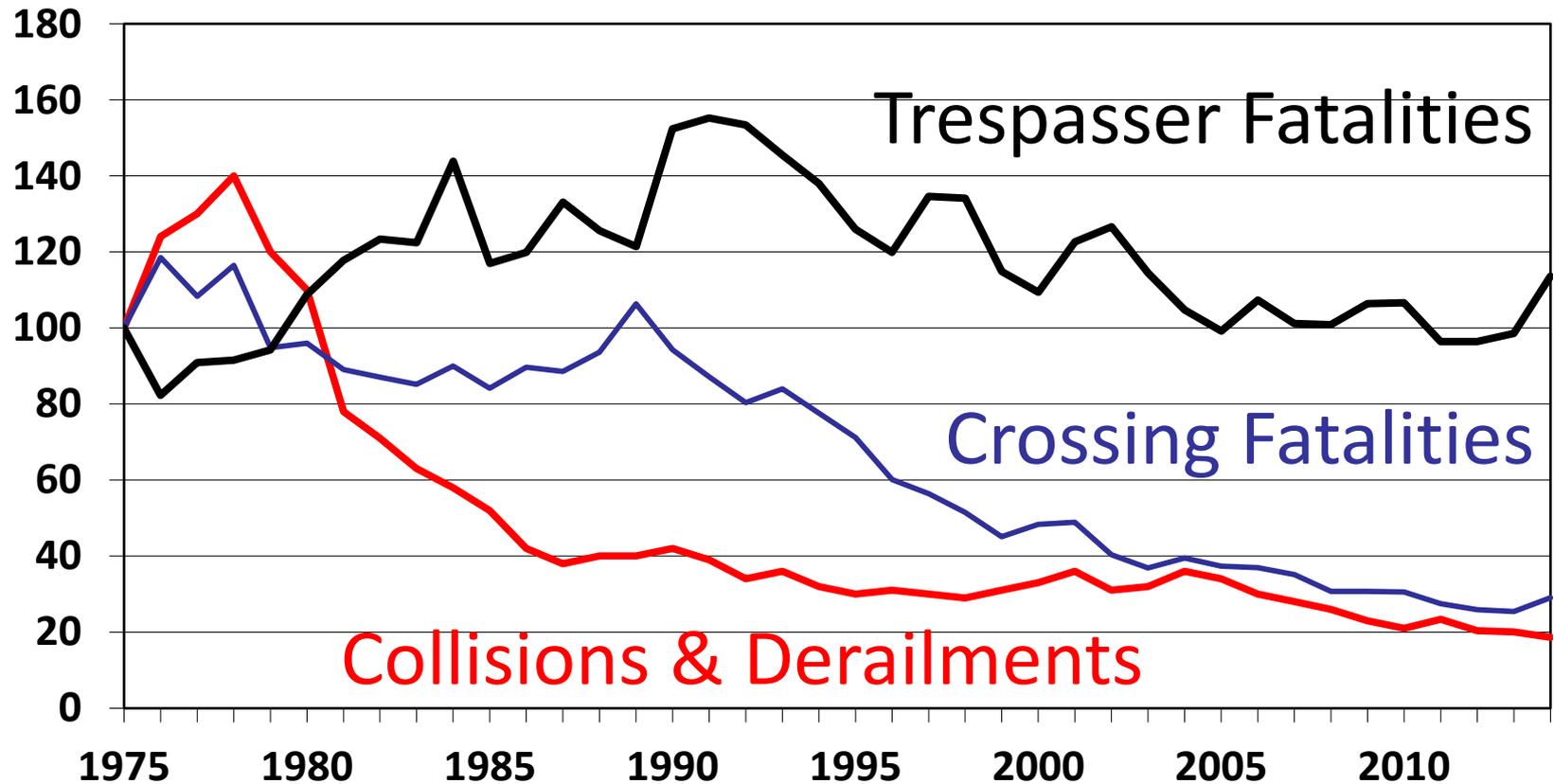


Collisions & Derailments

USA: Railroad safety per train mile (index with 1975=100)



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Contact Information . . .

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