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Section D: Case Study in Mortality

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Motor Vehicle Occupant Fatalities in Germany

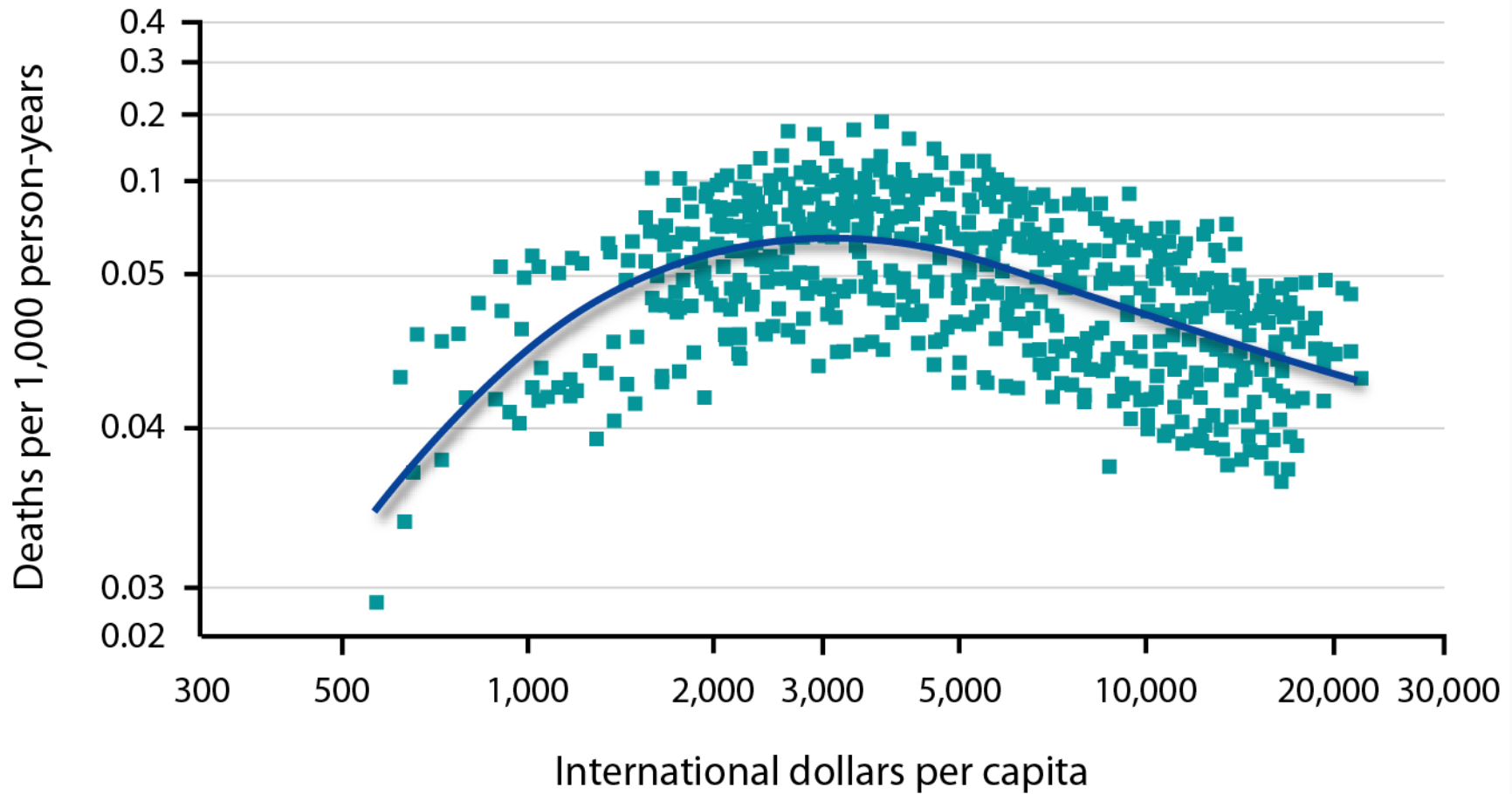


Background

- In the developed world, motor vehicle crashes are the leading cause of injury mortality among people 1–44 years old
- It is the 4th–5th cause for all ages
- Motor vehicle crashes are an emerging cause of death throughout the world

Background

Motor Vehicle Fatalities and Area Economy Are Correlated



Adapted by CTLT from Source: van Beeck et al. (2000).

The Question

- Does sudden wealth affect motor vehicle fatality rates?

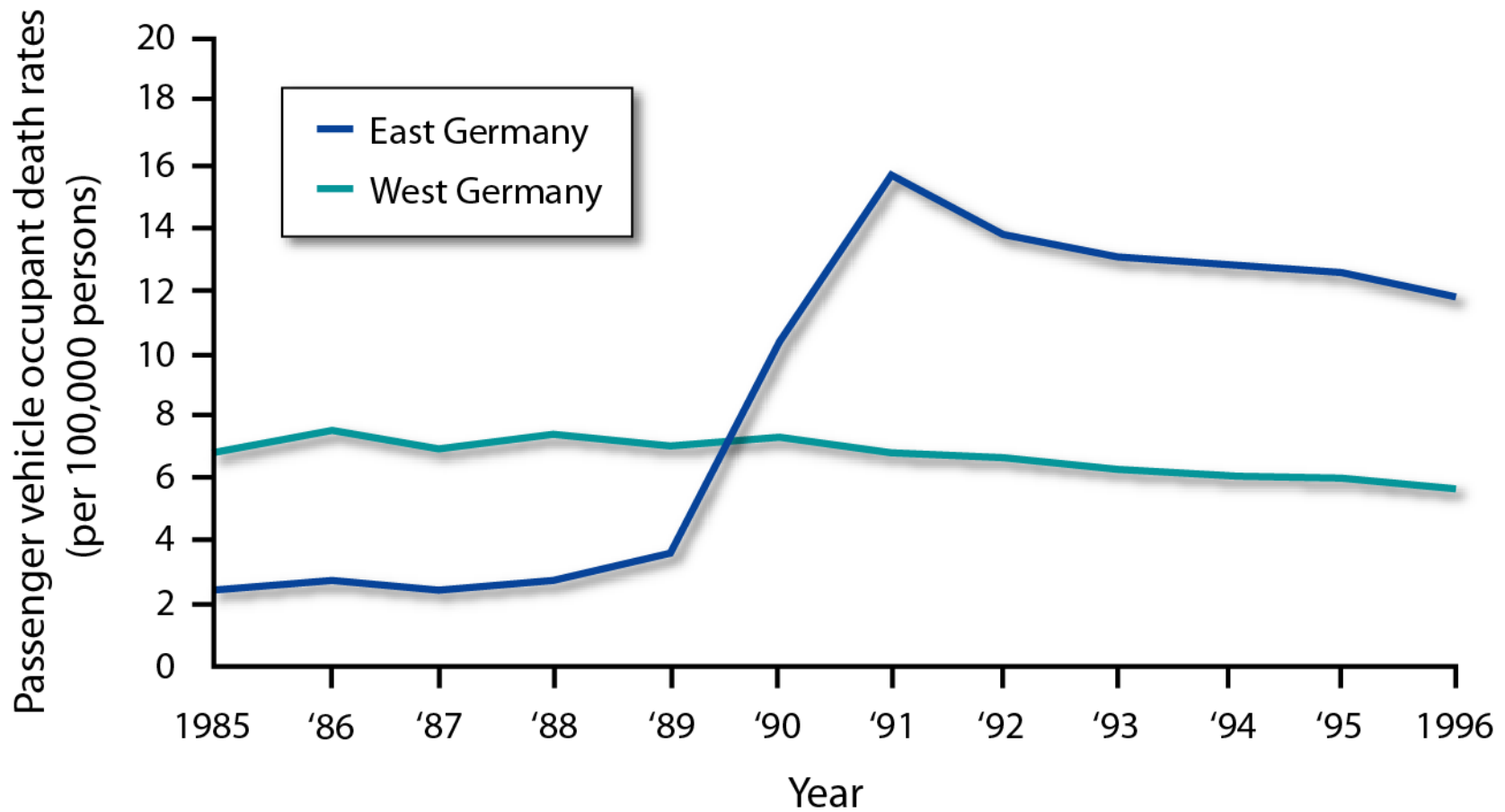
The Setting

- West Germany (formerly Federal Republic of Germany)
- East Germany (formerly German Democratic Republic)
- November 1989, reunified



The Numbers

Death Rates for Car Occupants for Former East and West Germany



Adapted by CTLT from Winston et al. (1999).

What Would You Like to Know?

- What do they call an MV death?
 - Immediate death
 - Death after some hours/days
 - Crash in any road
 - Crash in public road
- What do they call an East German or West German death?
 - Residents
 - Place of crash
 - Place of death

What Would You Like to Know?

- Which unit did they evaluate?
 - Death counts
 - Death rates
- What data source(s) did they compare?
 - Death certificates
 - Police reports
 - Special survey

What Would You Like to Know?

- If rates, were they adjusted?
 - By age
 - By gender
 - By number of vehicles
 - By amount of travel
- Were there any changes in data ...
 - Completeness
 - Accuracy
 - Definition
 - Coding?

Some Answers

- International Road Traffic and Accident Database (German Federal Ministry of Transport) is a police-based system
- MV deaths are any deaths within 30 days from an MV crash
- East or West MV deaths are located depending on where the crash occurred
- In summary, according to authors, no changes over time (comparable data)

Possible Explanations

- Changes in definitions and reporting
- Increase in number of motor vehicles
- Increase in driving exposure
- Increase in traffic volume
- Increase in speeds
- Increase in alcohol involvement

Remember

- This is an ecological study (no evidence that those dead were East Germans driving the new cars)
- East Germany underwent a big economic recession right after the study period with major health repercussions (no follow-up on MV deaths to date)