Cutting crime, Cutting Carbon

Has the crime drop also reduced carbon emissions?

Helen Skudder – EngD researcher

Research Team:
Dr Angela Druckman, University of Surrey
Dr Ian Brunton-Smith, University of Surrey
John Cole, Home Office
Alan McInnes, Secured by Design

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Outline

- ✓ Aims and background of research
- ✓ Methodology and datasets used
- ✓ Footprinting results
  - Individual offences
  - Total crime
  - Crime drop
- ✓ Future work

Introduction

- Crime has huge monetary costs
- Crime also has carbon costs
- Aims:
  - Estimate the environmental impact of crime
  - Highlight opportunities to reduce this impact
  - Identify low carbon crime prevention solutions

Source: Pease, 2009

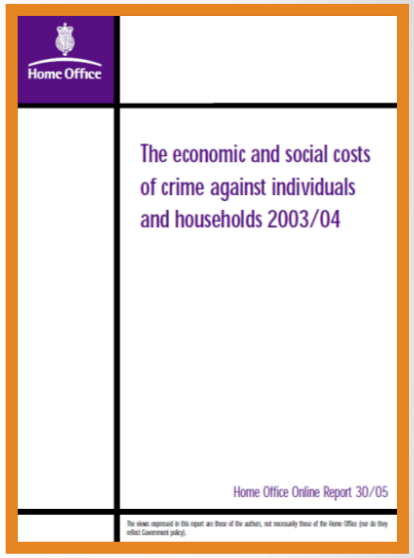
Crime-Carbon blind spot

Need to consider all costs:

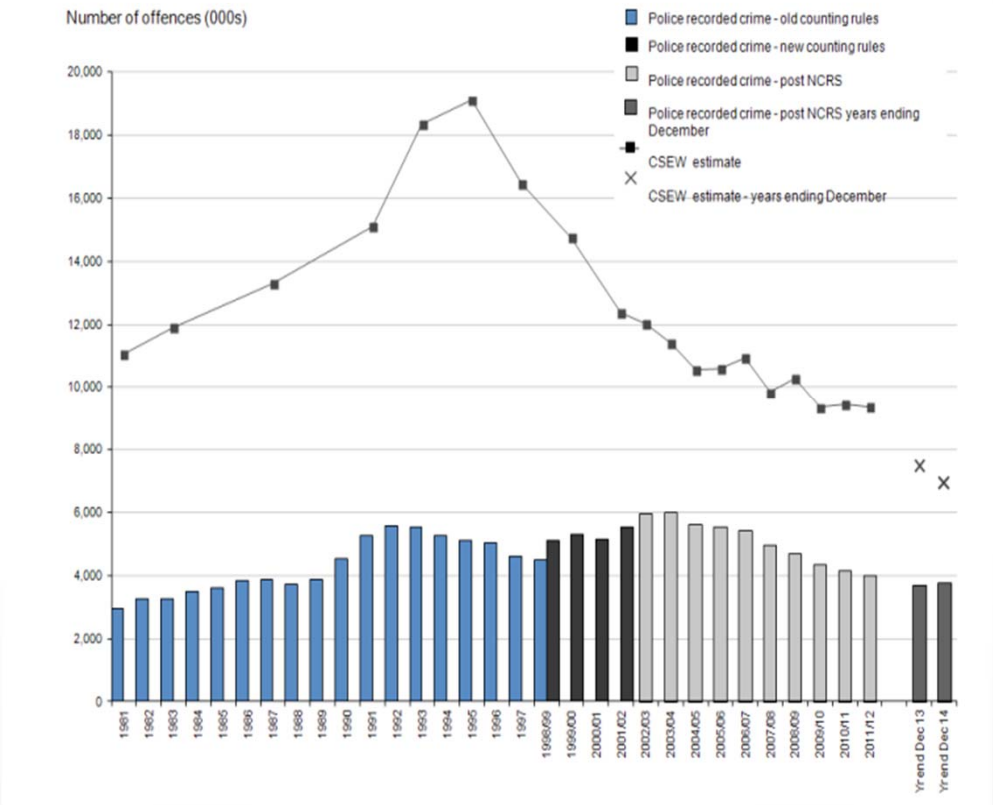
- Economic
- Social
- Environmental

= sustainable approach to cut crime

Carbon Costs of Crime

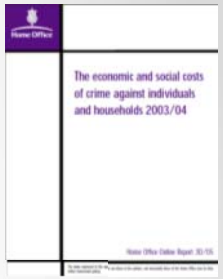


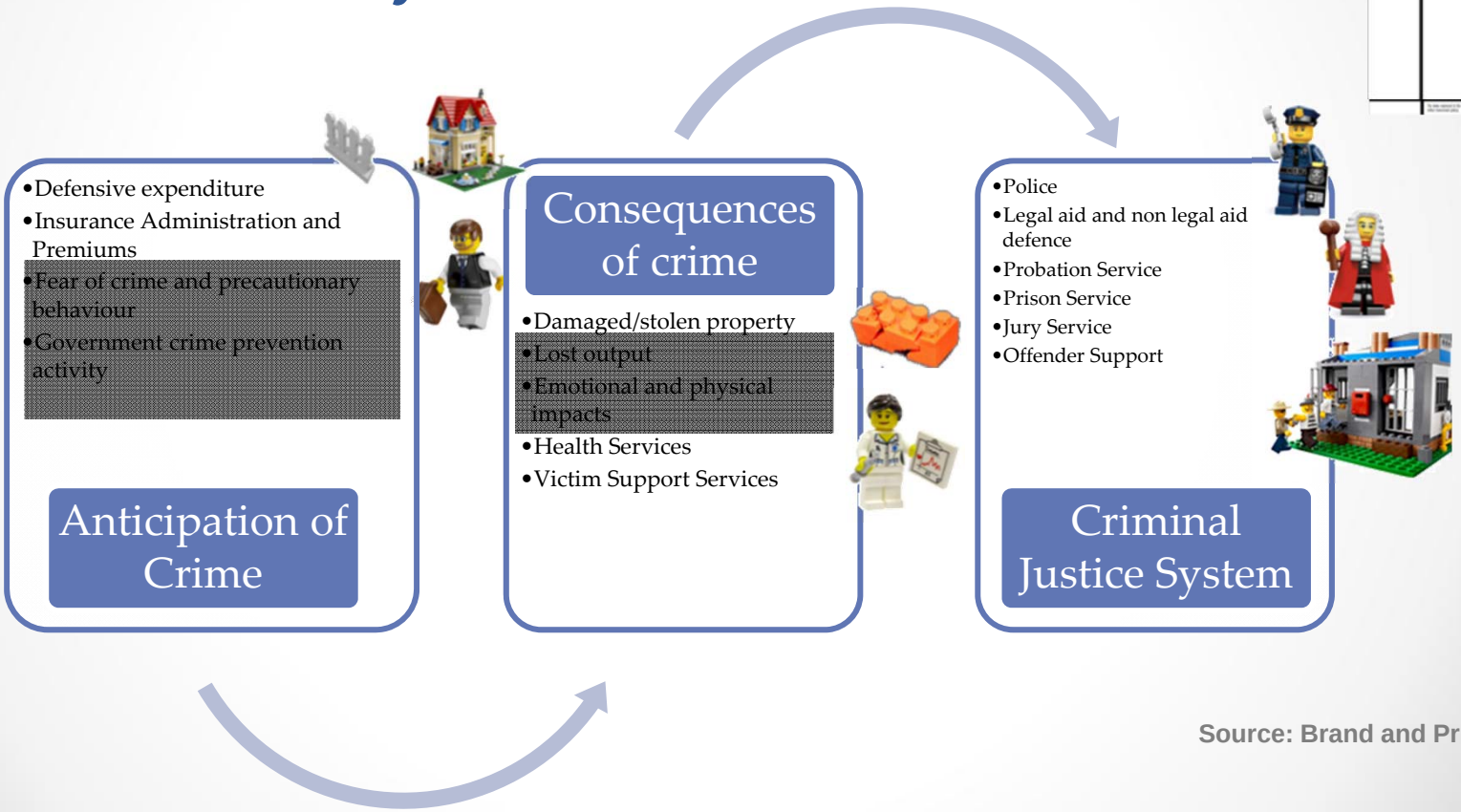
The Crime Drop



Source: ONS, 2015

Methods: Lifecycle costs





Source: Brand and Price, 2000

Methods: Datasets

- Home Office Monetised Costs of Crime – 2011
- Defra Carbon Emission Factors – 2011
- Police Recorded Crime – 1995 onwards
- Crime Survey England and Wales -1995 onwards

Results – Footprint Units

CARBON DIOXIDE EQUIVALENT : CO_2e

Examples (per year)

=

=

=

= 568 million tonnes

Home Office

NHS

Results

Individual footprints per offence

Results – Footprint per offence

Offence	Cost (social and economic)	Carbon Footprint (tonnes CO_2e)	Equivalent to...
Homicide	£1.8 mil	71	15 cars used for a year
Serious wounding	£26,000	5	6 months home energy use
Vehicle Theft	£5,000	2	4,700 miles driven in a car
Sexual Offence	£40,000	1.3	35,000 miles on a train
Robbery	£9,000	1.1	Produce 500 litres of wine
Burglary	£4,000	1.1	4 hour flight
Shoplifting	£126	0.049	Manufacture an Apple Watch

(2011 figures)

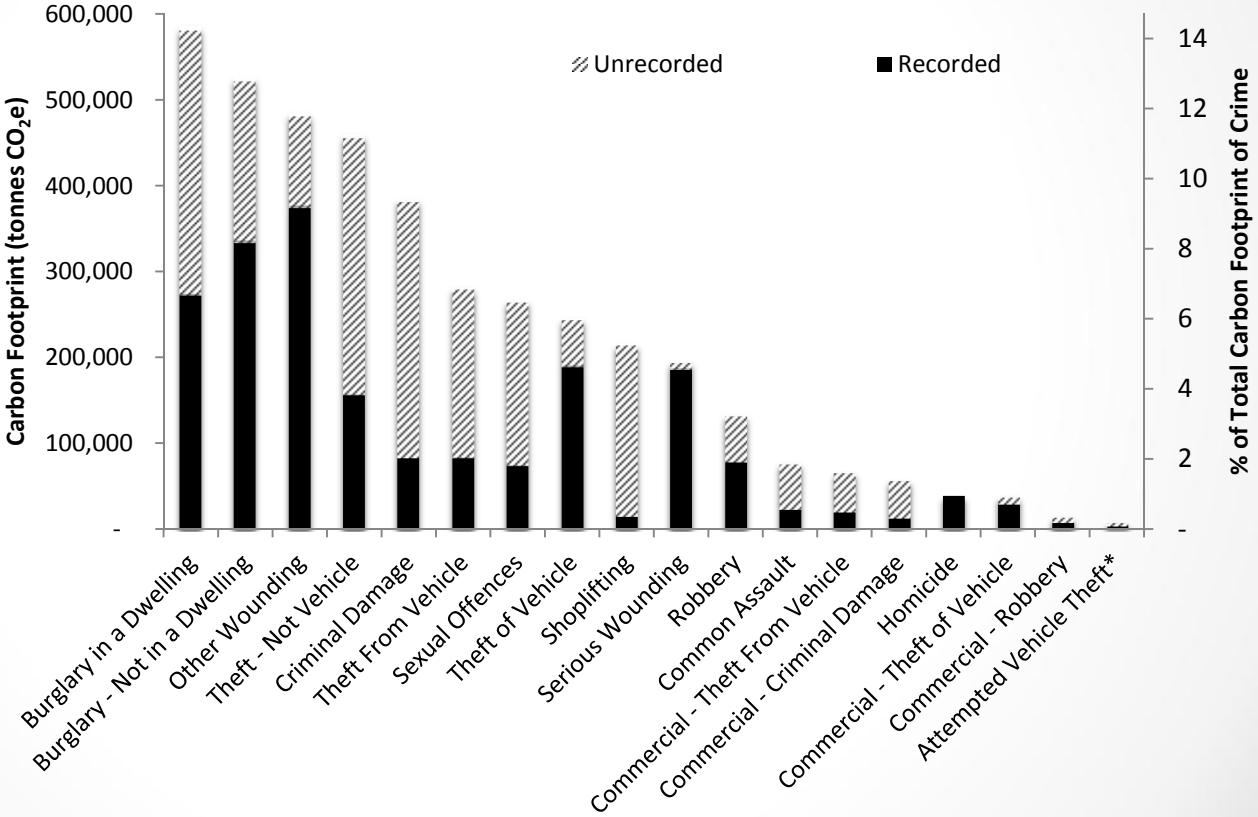
Results

Total Footprint over a year

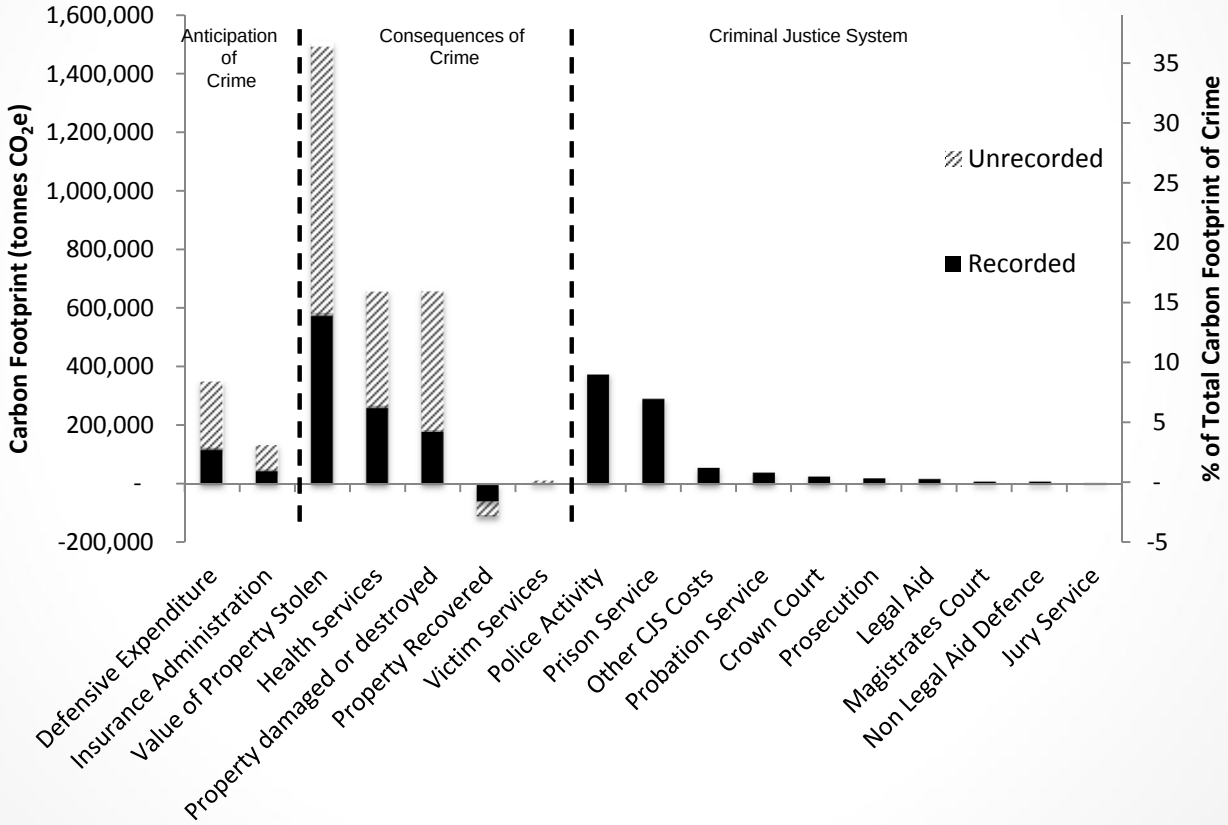
Results – Total Footprint

ALL CRIME

~4 MILLION TONNES CO_2E



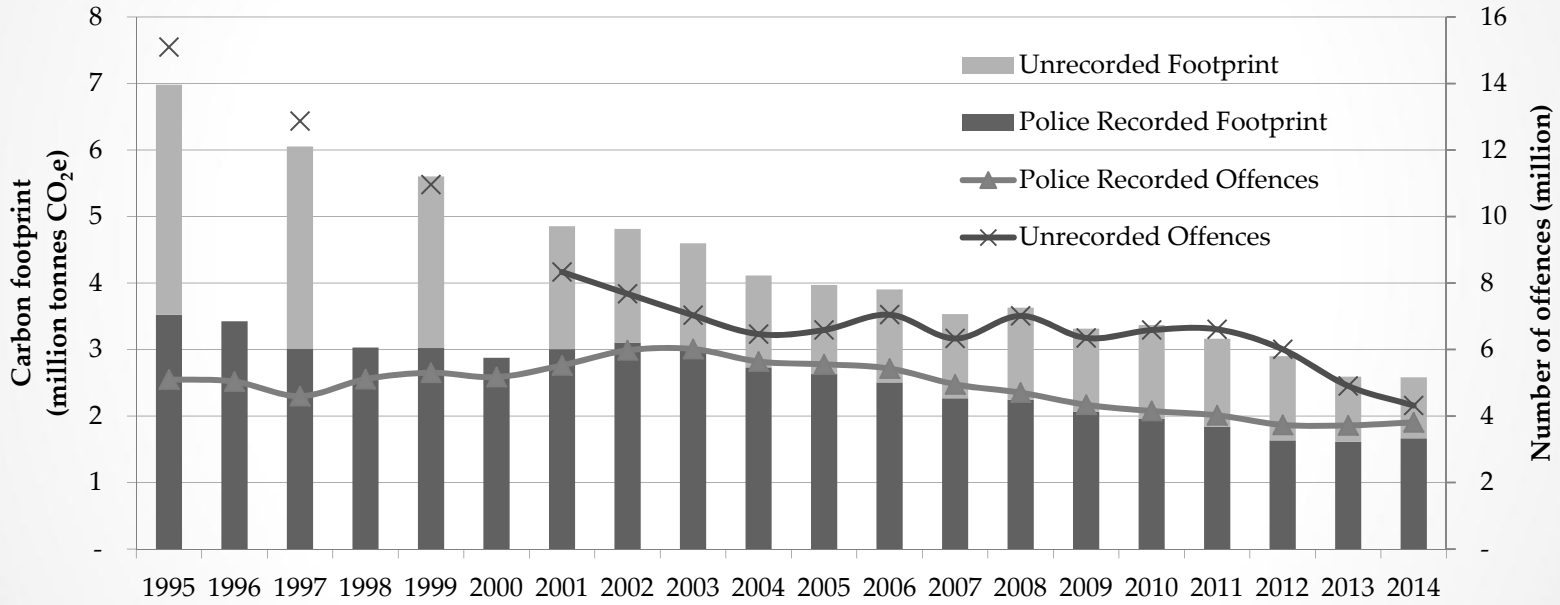
Results – Source of emissions



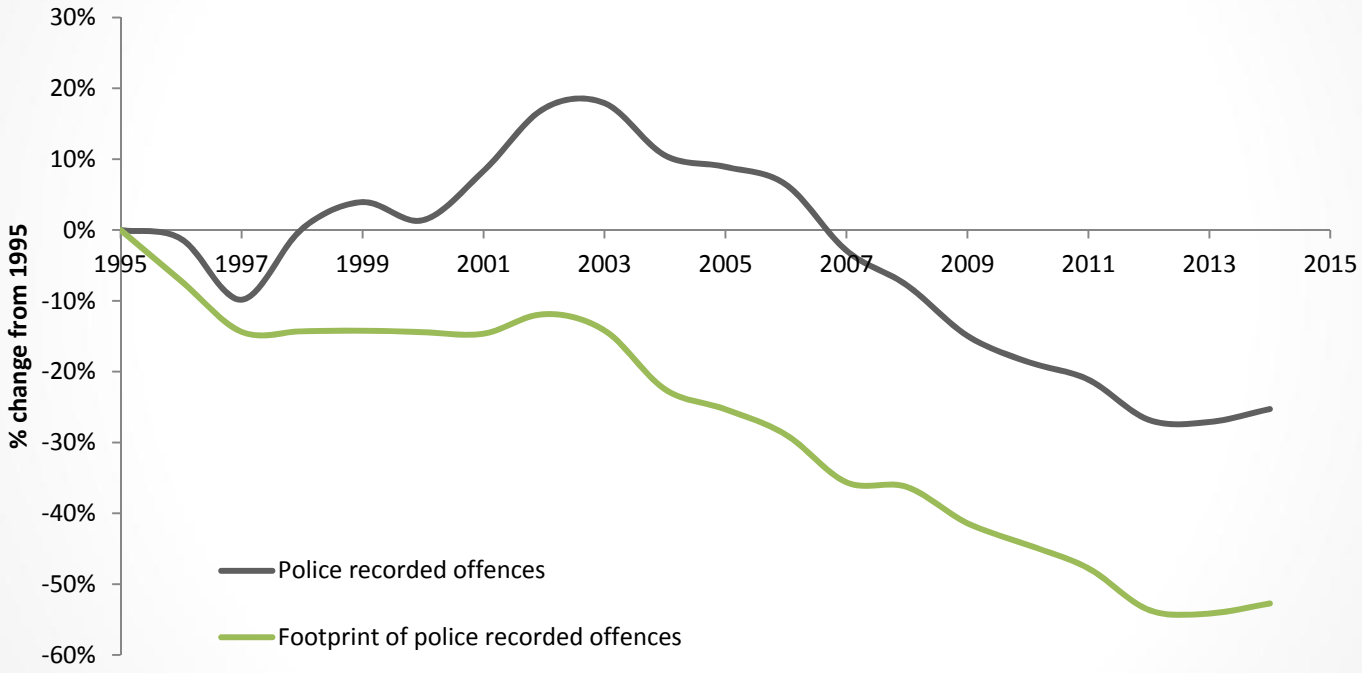
Results

Total Footprint over time – ‘The Crime Drop’

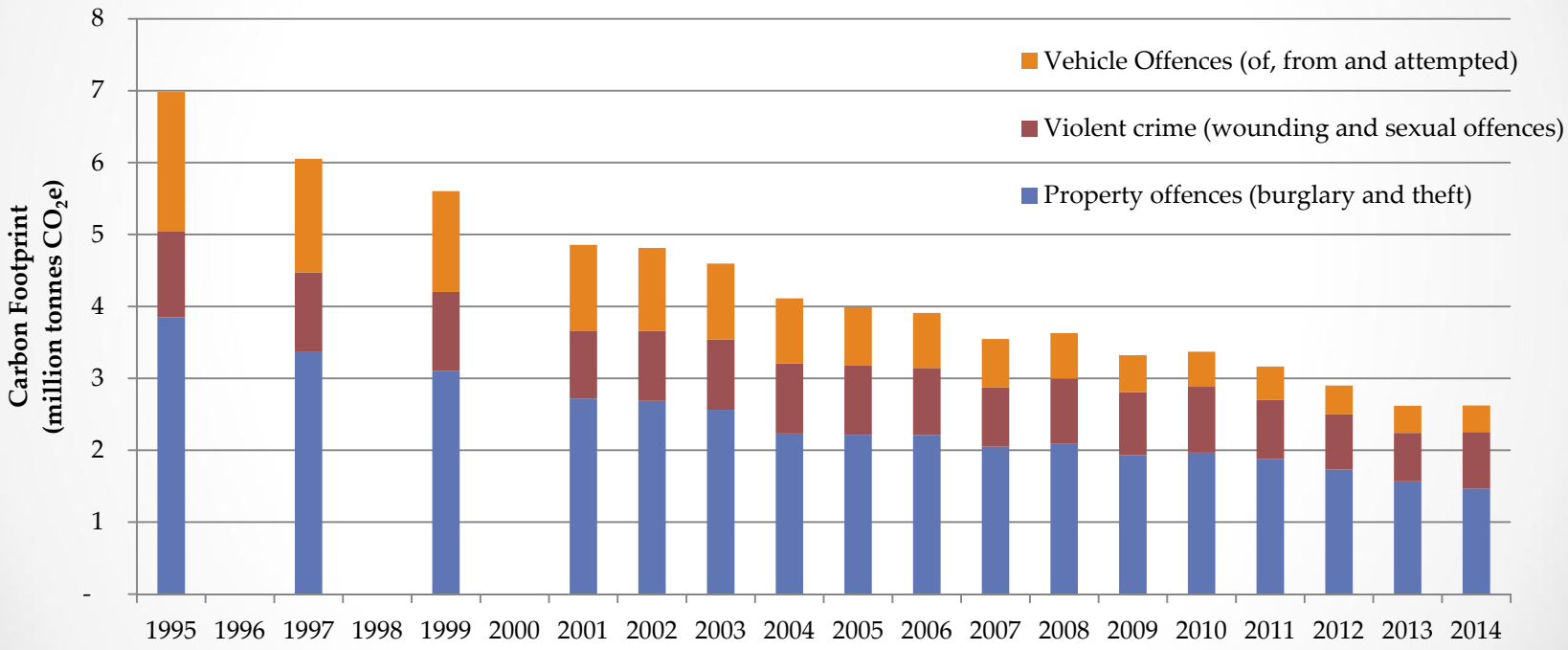
Results – Since 1995



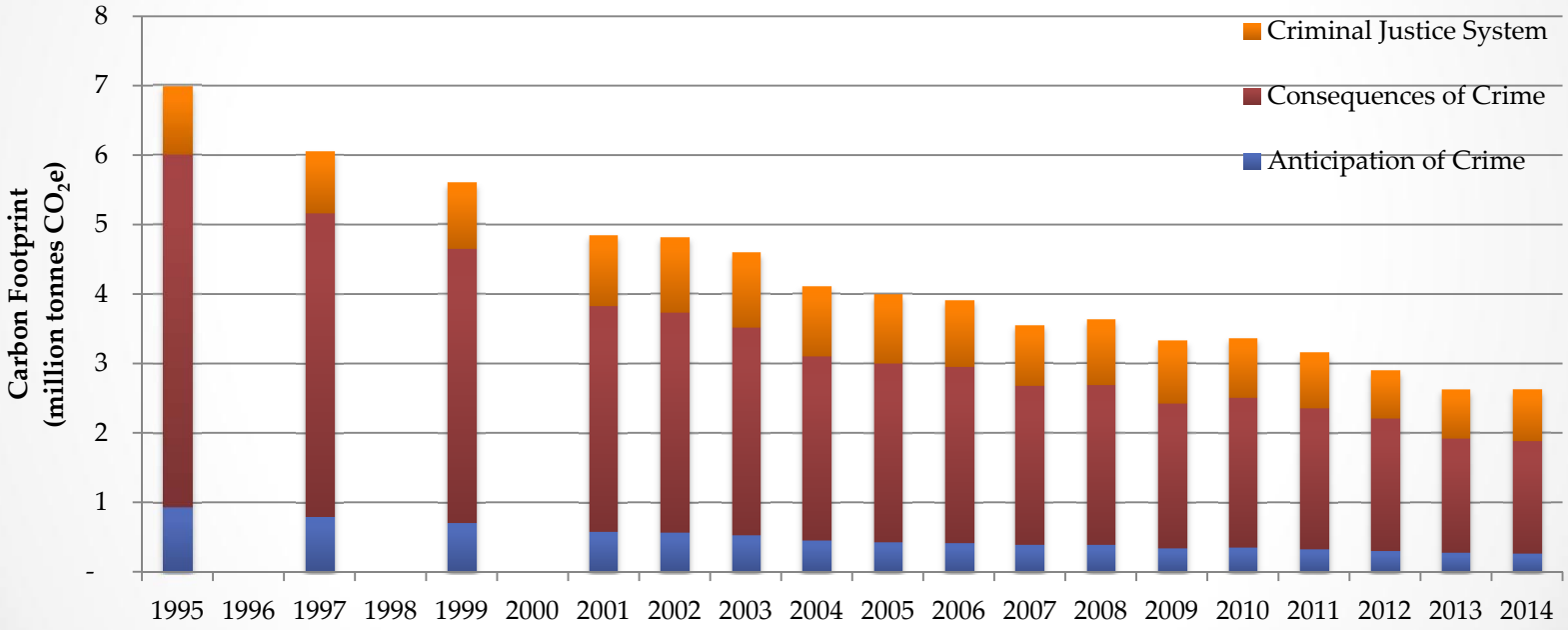
Results – Recorded Crime



Results – Offence type



Results – Source of emission



Results - Summary

- All crimes have a carbon footprint
- In England Wales crime attributes around 4 million tonnes CO_2e a year
- Since 1995, the carbon footprint of crime has fallen more sharply than the number that occur
- Areas of interest to reduce impacts:
  - Burglary - responsible for around 1/3rd of the the total footprint
  - Criminal Justice System - a large emitter
  - Property and vehicle offences decline responsible for saving the most emissions

Future Work

- Aim to identify low carbon & effective measures of crime control
- Identify win-win products, measures, policies or strategies
- Both secure and low carbon future

Thank you for Listening!

Any questions or comments?

Contact Details:
Helen Skudder
Helen.Skudder@homeoffice.gsi.gov.uk or h.skudder@surrey.ac.uk

References

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- Dubourg, R., Hamed, J. and Thorns, J. (2005) *The Economic and Social Costs of Crime against individuals and households 2003/2004*. Home Office. London, UK.
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