

PRISON AND ALTERNATIVES OVERVIEW AND SOME RESULTS

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RESEARCH QUESTIONS

- What is more effective– Custodial or Non Custodial sentences?
- Essentially a debate on the relative strength of incapacitation, (generalised and specific) deterrence vs criminogenic effects
- Reduces the question of impact on crime reduction which is a narrow lens
- Prison has other societal costs on the individual and the family
- This nonetheless allows a discussion on rehabilitation and its form and desirability

RESEARCH QUESTIONS

- Within this narrow lens: What is more effective in reducing crime – Custodial or Non Custodial sentences?
- How does it vary by crime type?
- Should we use different sentences on juveniles and adults?
- How do these interact with institutional details on what support is available with custodial or non custodial sentences
- Analysis mainly based on our forthcoming paper in British journal of Criminology

Custodial and Non Custodial Sentences in the UK

Custodial:

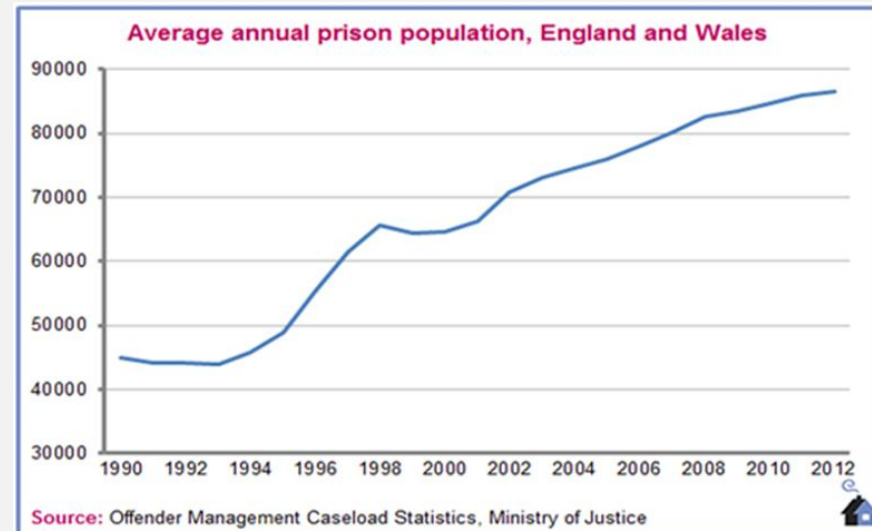
- Prison sentences
- Determinate custodial sentences (which can be suspended sentences)

Non Custodial:

- Fines
- Community service
- Conditional Discharge
- Absolute Discharge

Custodial and Non Custodial Sentences in the UK

Heavy use of custodial sentences led to steady increases in annual prison population over the years:



Custodial and Non Custodial Sentences in the UK

- However, in the UK the annual average cost for each prison place is £36,237 and cost per prisoner is £33,785 (for 2013-14)*
- Non Custodial sentences such as Community Service are being proposed as ‘better’ (or ‘cheaper’) alternatives to harsh (and expensive) prison sentences:
 - Criminal Justice Act 2003 (implemented in 2005) has been the most far reaching community sentence reform, its main aim being to provide credible community alternatives to custodial sentences of less than 12 months
 - Government states that it costs around £2,800 to administer a community sentence, though it provides no indication as to its effectiveness

* Taken from Costs per place and costs per prisoner, National Offender Management Service, Annual Report and Accounts 2013-14, Management Information Addendum, Ministry of Justice, Information Release, Published 28 October 2014

LITERATURE

- Randomised control trials have arguably the highest level of internal validity, however, how it is rare that justice systems can permit random selection of sanctions
- Comparatively small numbers of offenders are included in these studies with the result that small effects might be hard to detect with certainty

LITERATURE

- Killias et al. 2000 and Killias et al. 2010 – followed 123 offenders who were randomly assigned to community sentence or short term custody:
 - After two years – no difference with respect to subsequent employment history or social and private life circumstances but higher re-arrest rate among those assigned to prison
 - After eleven years – those who were assigned to prison had more positive outcomes, they complied with tax regulations and did no worse regarding employment history or marital status

The results suggest that **short custodial sanctions are not harmful when compared to community service**. However, the evidence is still relatively limited.

LITERATURE

- Jolliffe and Hedderman (2015) analysed the effect of prison and community sentence on future offending.
 - They used a sample of 5,500 offenders from 1 of 10 regions in the United Kingdom. Using propensity score matching to balance pre-existing differences between two groups of offenders, they found that incarcerated offenders tended to commit more offenses after their release and started reoffending earlier than those supervised in the community.

They concluded, in line with other emerging evidence that **prison sentences tends to slightly increase the chances of future offending.**

LITERATURE

- Andersen (2015) analysed full-sample individual-level data in Denmark, using difference-in-differences matching to measure the effects of doing community sentence as an alternative to serving a prison sentence.

This study had the benefit of measuring several short and long-term post-sentence outcomes. The results suggested that offenders given a community sentence had higher incomes and were less dependent on social benefits in the long term, however, there was **no overall evidence of lower recidivism** rates

LITERATURE

- Bhuller et. al (2015) looks precisely at the question of whether, and in what situations, time spent in prison is criminogenic or preventive.
- Overcomes challenges due to data availability and correlated unobservables. This paper overcomes these challenges in the context of Norway's criminal justice system, offering new insights into how incarceration affects subsequent crime and employment.

Uses the random assignment of criminal cases to judges who differ systematically in their stringency in sentencing defendants to prison.

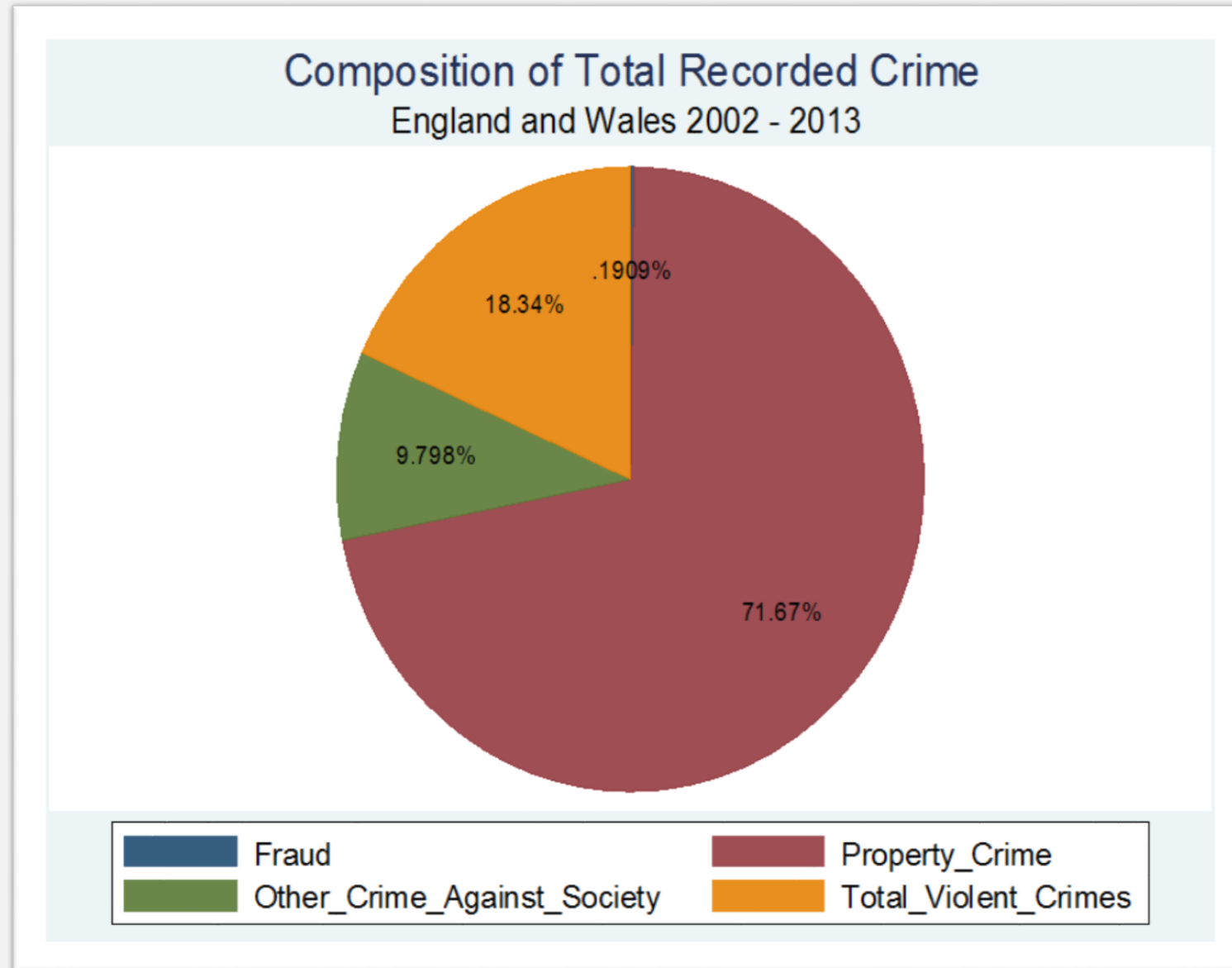
Using variations in judge stringency they find that imprisonment discourages further criminal behaviour, and that the reduction extends beyond incapacitation. Incarceration decreases the probability an individual will reoffend within 5 years by 29 percentage points, and reduces the number of offenses over this same period by 11 criminal charges.

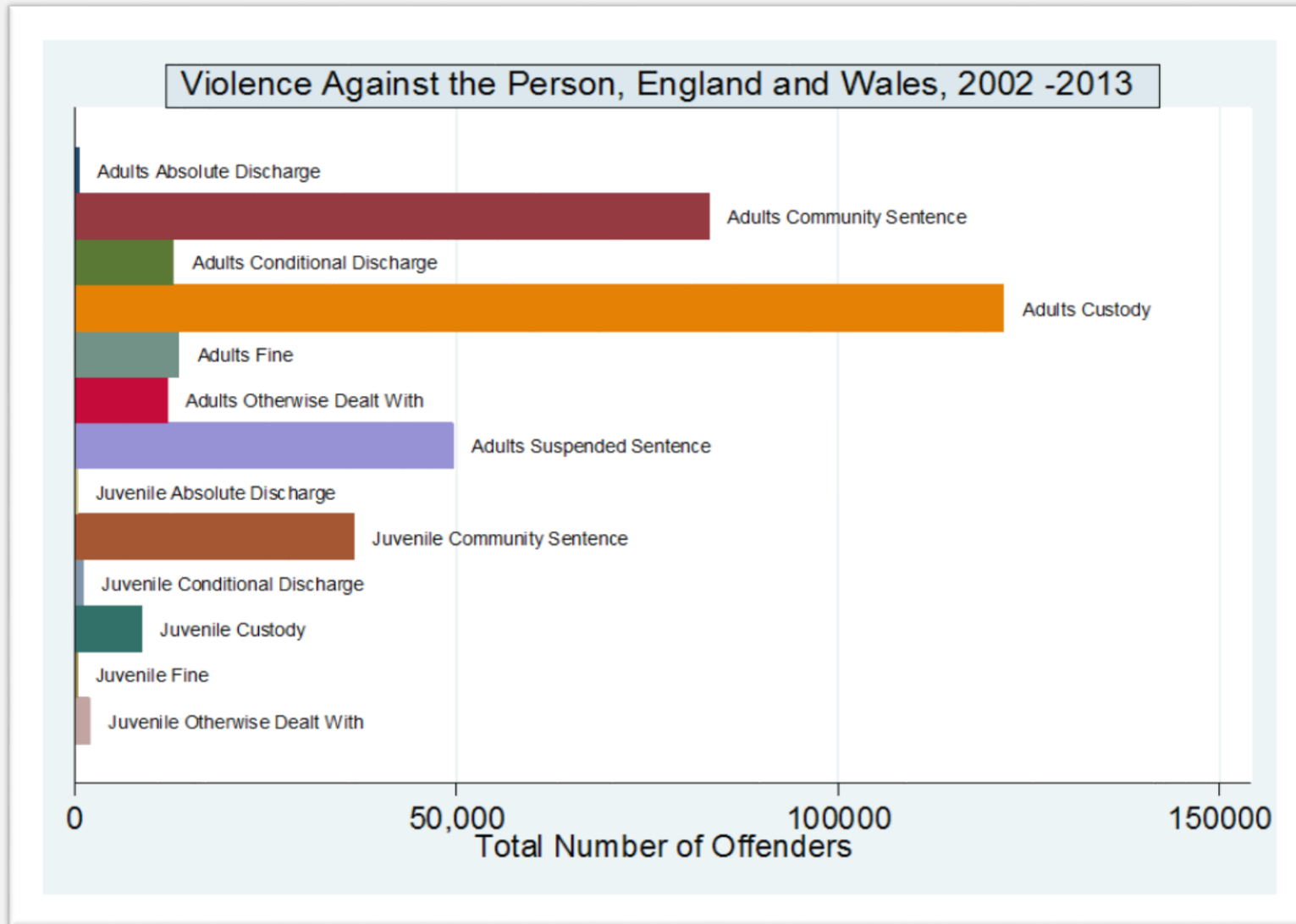
Reduction mainly driven by previously unemployed persons being supported by rehab while in prison.

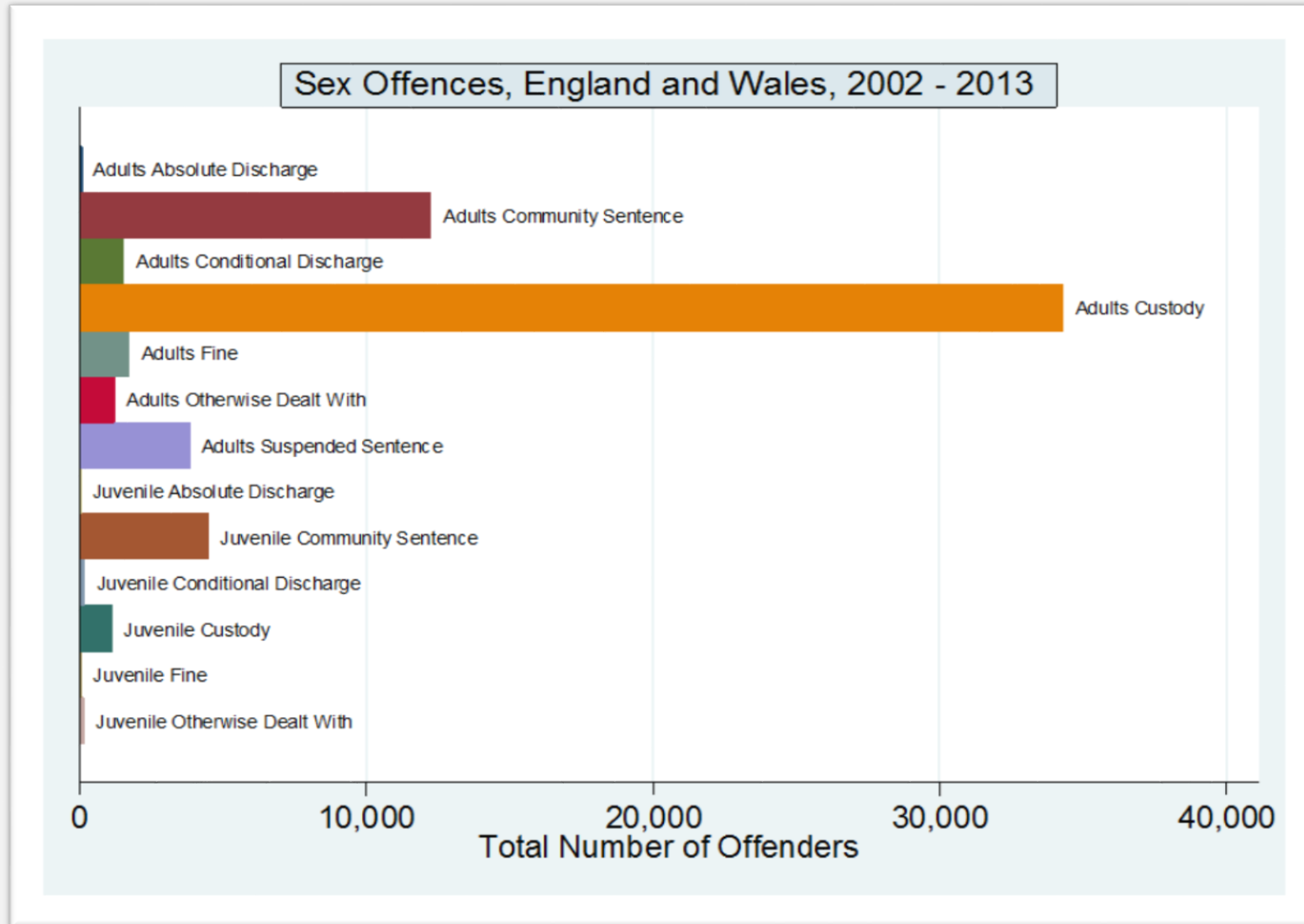
THIS STUDY

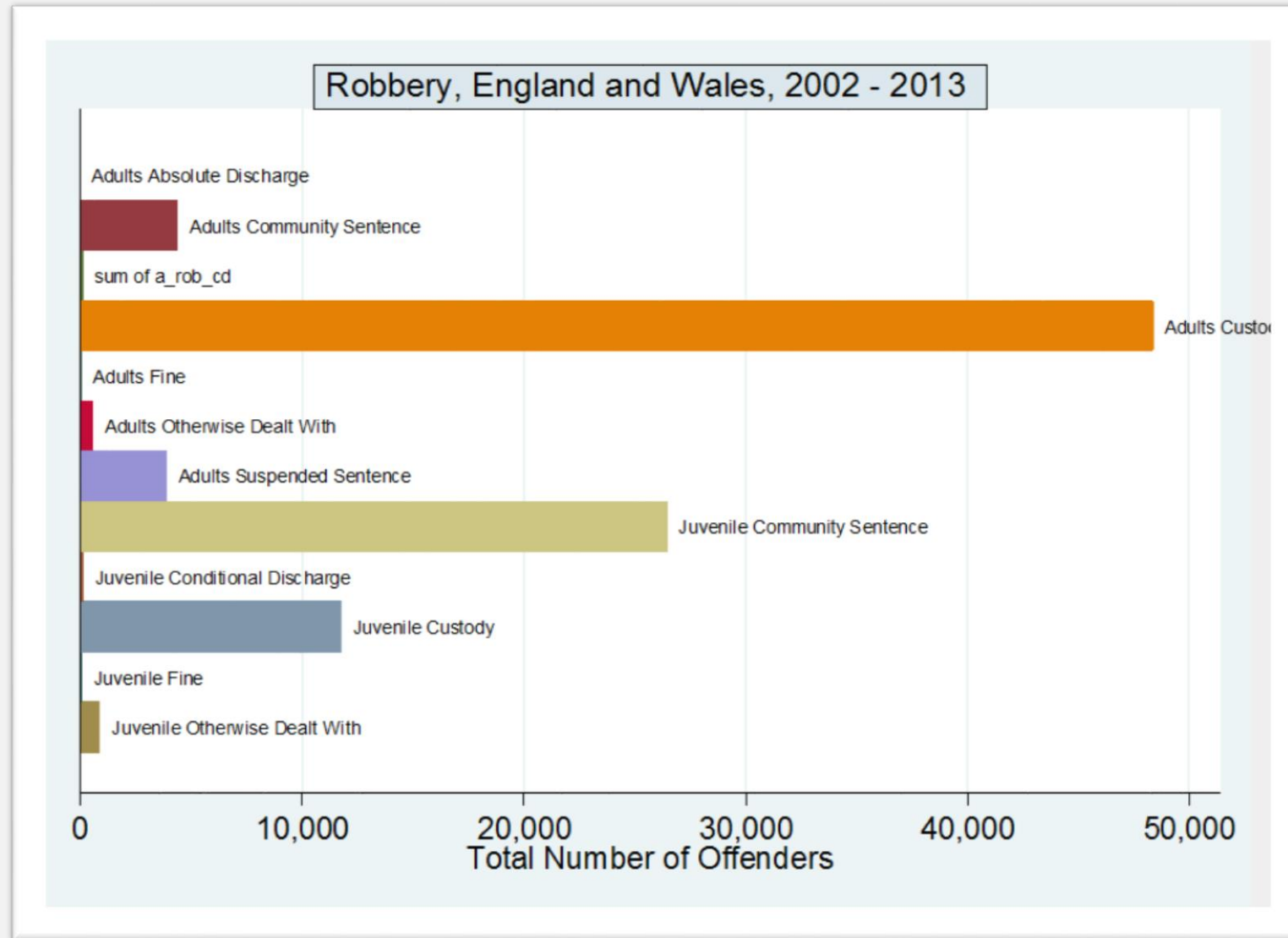
Data

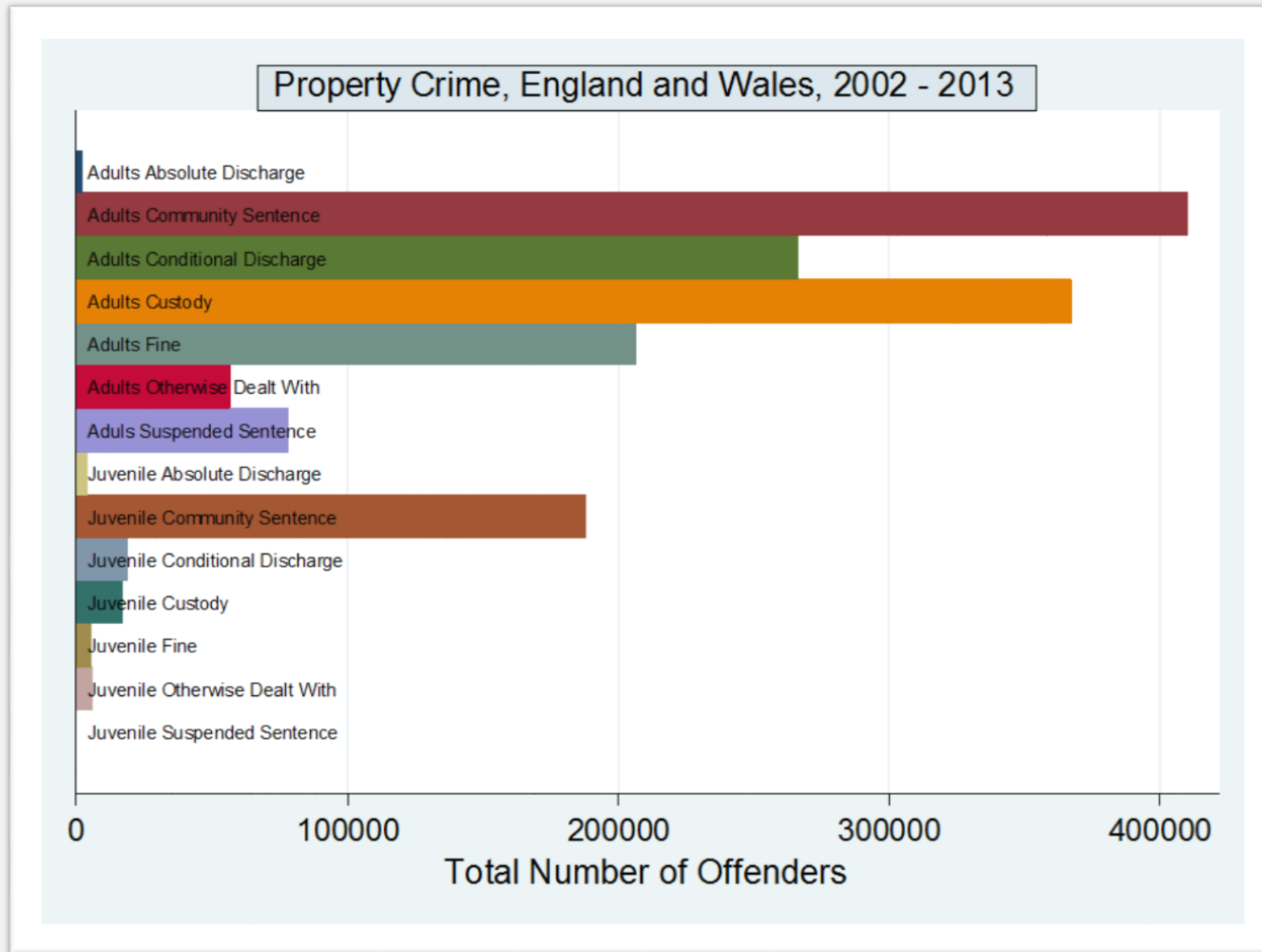
- Panel level, at each Police Force Area (PFA) in England and Wales, from 2002 to 2013
- Four types of offences – violence against the person, sex offences, robbery and property crime
- Conviction rate for each year for each PFA for community sentence, custody, conditional discharge, suspended sentence and fines
- Conviction rates separate for juvenile and adult offenders
- Also, controlling for unemployment, police officers' salaries and proportion of young people in the population











- For all violent crimes most adult offenders received a custodial sentence while most juvenile offenders received a community sentence
- For property crime for both – adult and juvenile – offenders community sentence was the most popular sentence
- For adult offenders for property crime more non custodial sentences were used compared to violent crimes
- We use conviction rates of different types of sentences to proxy for the effect it has

Using panel level data for years 2002 – 2013 we apply this econometric specification for violence against the person, robbery and sex offences:

$$\begin{aligned} CrimeRate_{i,t} = & \beta_1 AdultConvictionCS_{i,t-1} + \beta_2 AdultConvictionCust_{i,t-1} + \beta_3 AdultConvictionCD_{i,t-1} + \beta_4 AdultConvictionF_{i,t-1} + \beta_5 AdultConvictionSS_{i,t-1} + \\ & \beta_6 JuvenileConvictionCS_{i,t-1} + \beta_7 JuvenileConvictionCust_{i,t-1} + \beta_8 PoliceOfficersSalaries_{i,t} + \beta_9 Unempl_{i,t} + \beta_{10} Youth_{i,t} + \sigma_i + \mu_t + \varepsilon_{i,t} \end{aligned}$$

where i represents the cross-section unit of observation, t represents time, σ_i is the unknown intercept for each PFA, μ_t represents year fixed effects which are needed to account for PFA specific year changes, and $\varepsilon_{i,t}$ is the error term.

AdultConvictionCS - conviction rate for adults who got sentenced with a community sentence

AdultConvictionCust - conviction rate for adults who got issued a custody

AdultConvictionCD - conviction rate for adults who received conditional discharge as a sentence for the crime they have committed

AdultConvictionF - conviction rate for the adults offenders who were fined

AdultConvictionSS - conviction rate for adults offenders who received suspended sentence

JuvenileConvictionCS - conviction rate for juvenile offenders who got sentenced with a community sentence

JuvenileConvictionCust - conviction rate for juvenile offenders who got issued a custody

PoliceOfficersSalaries - total cost of police salaries, *Unempl* - unemployment rate and *Youth* - the ratio of people aged 15 to 24 in the population

Econometric specification of the model for property crime offences is as follows:

$$\begin{aligned}
 CrimeRate_{i,t} = & \beta_1 AdultConvictionCS_{i,t-1} + \beta_2 AdultConvictionCust_{i,t-1} + \beta_3 AdultConvictionCD_{i,t-1} + \beta_4 AdultConvictionF_{i,t-1} + \\
 & \beta_5 AdultConvictionSS_{i,t-1} + \beta_6 JuvenileConvictionCS_{i,t-1} + \beta_7 JuvenileConvictionCust_{i,t-1} + \beta_8 JuvenileConvictionCD_{i,t-1} + \\
 & \beta_9 JuvenileConvictionF_{i,t-1} + \beta_{10} PoliceOfficersSalaries_{i,t} + \beta_{11} Unempl_{i,t} + \beta_{12} Youth_{i,t} + \sigma_i + \mu_t + \varepsilon_{i,t}
 \end{aligned}$$

where i represents the cross-section unit of observation, t represents time, σ_i is the unknown intercept for each PFA, μ_t represents year fixed effects which are needed to account for PFA specific year changes, and $\varepsilon_{i,t}$ is the error term.

JuvenileConvictionCD - conviction rate for juvenile offenders who received conditional discharge as a sentence for the crime they have committed

JuvenileConvictionF - conviction rate for juvenile offenders who were fined for the property crime offences they have committed

Introduction	Literature	Data	Methodology	Results	Conclusion
Fixed effects regression models predicting change in crime rates, 2002–20013		VATP	SexOff	Robb	Property
Adult Conviction Rate for Community Sentence (t-1)		0.02	-0.02	-0.02*	-0.16***
Adult Conviction Rate for Custody (t-1)		-0.16***	-0.13***	0.06*	-0.12**
Adult Conviction Rate for Conditional Discharge (t-1)		-0.05**	-0.02**	0.0015	0.03
Adult Conviction Rate for Fine (t-1)		-0.03*	0.005	0.0002	0.06*
Adult Conviction Rate for Suspended Sentence (t-1)		-0.09***	-0.01	0.02	0.02
Juvenile Conviction Rate for Community Sentence (t-1)		-0.003	-0.02	-0.06**	0.009
Juvenile Conviction Rate for Custody (t-1)		-0.03**	0.01	-0.02	-0.02
Juvenile Conviction Rate for Conditional Discharge (t-1)					-0.005
Juvenile Conviction Rate for Fine (t-1)					-0.02***
Police Officers' Salaries		-0.005	0.02	0.02	0.01
Unemployment		-0.12**	-0.08	-0.39*	-0.14***
Youth (15 – 24)		-0.2	-0.27	1.26**	0.34*
Time Effects		Yes	Yes	Yes	Yes
Number of Observations		462	462	462	462
R ² (within)		0.74	0.4	0.51	0.9

Note: dependant variable is the crime rate per 100 people, robust standard errors are clustered at the PFA level. Coefficients are significant at the 10%, 5% and 1% level and are marked *, **, *** respectively. Results are converted to elasticity form using sample means

RESULTS

Adult offenders:

Community sentence is effective at reducing crime for Robbery and Property Crime

Custody is effective at reducing crime for Violence Against the Person and Sex Offences, ineffective for Robbery, and less effective than community sentence for the Property crime

Conditional discharge is effective for Violence Against the Person and Sex Offences

Suspended sentence is effective for Violence Against the Person only

Juvenile offenders

Community sentence is effective at reducing crime for Robbery

Custody is effective for Violence Against the Person

Fines: significant only for the Property crime, for adults offenders it increases crime while for juvenile offenders it reduces crime

ESTIMATED NUMBER OF CRIMES PREVENTED

Offence type	Violence Against the Person	Robbery	Sexual Offences
Total number of offences recorded by the police (by adult offenders)	720833	48585	78609
Estimated change in a number of offences after 1% increase in custody	-1153	+29	-102
Estimated change in a number of offences after 1% increase in community sentence		-10	
Estimated change in a number of offences after 1% increase in conditional discharge	-360		-16
Estimated change in a number of offences after 1% increase in suspended sentence	-649		

ESTIMATED NUMBER OF CRIMES PREVENTED

Property Crime	Custody	Community Sentence
Estimated change in a number of offences	-2693	-3590

All these estimated are based on the data for 2013-2014 crime trends from <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/2015-04-23> and https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/399379/youth-justice-annual-stats-13-14.pdf

CONCLUSIONS

- Custody (for adult offenders) reduces crime for 3 offence types
- Sentencing of adult and juvenile offenders can affect crime in the opposite ways
- Community sentence (for adult offenders) is effective for the reduction of the Property crime
- Conditional discharge, suspended sentence and community sentence (for adult offenders) is effective for reduction of the violent crimes
- Juvenile offenders commit approximately 10% of the total crimes in England and Wales, therefore, it might be difficult to capture the effect of different sentencing
- Overall, the cost of alternative sentences can be much lower than for custody, and while sentencing and its effectiveness differs a lot between offence types, alternative sentencing can also be effective way to reduce crime.