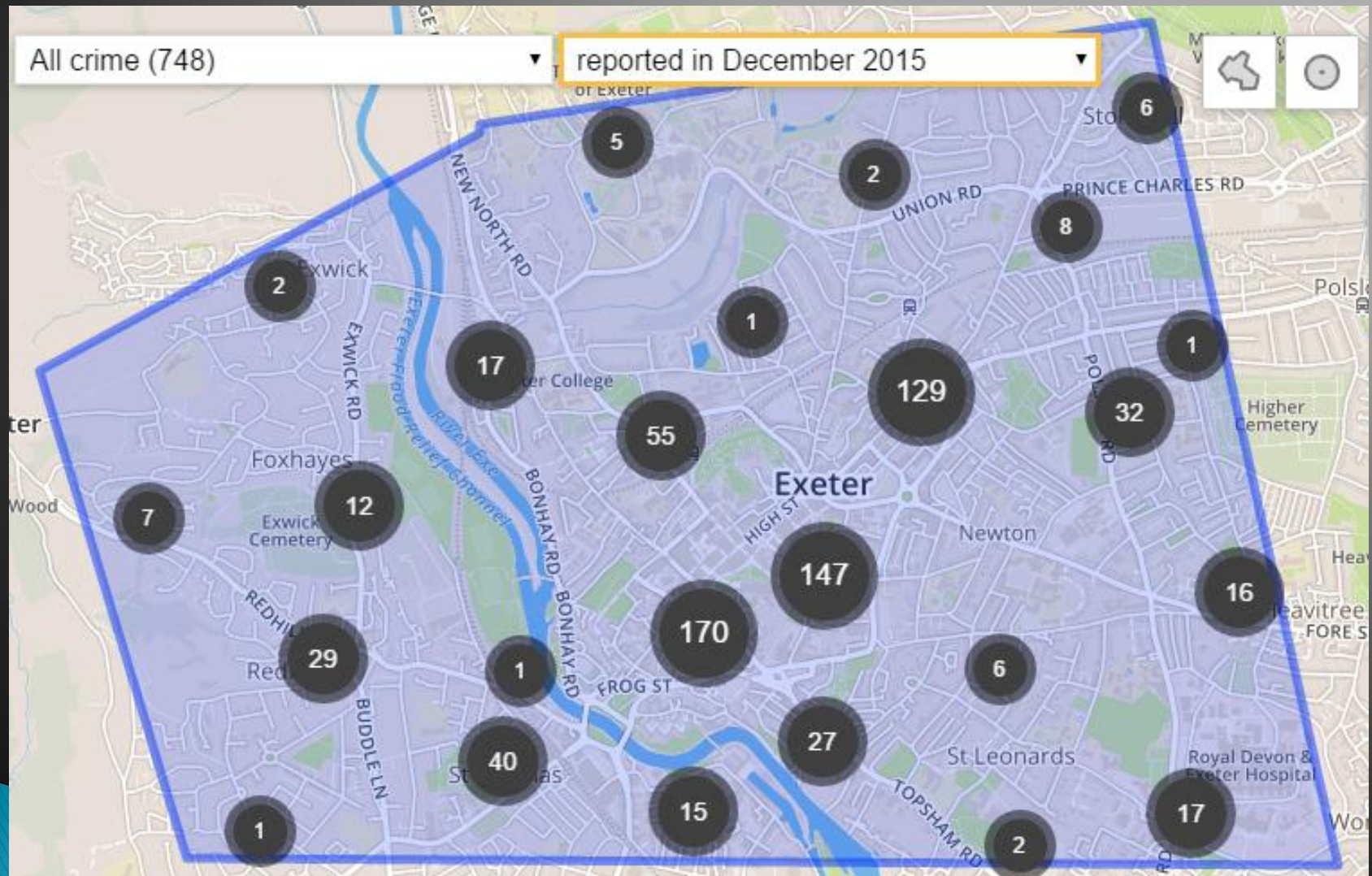




'What and whether' research: Quantitative Methods

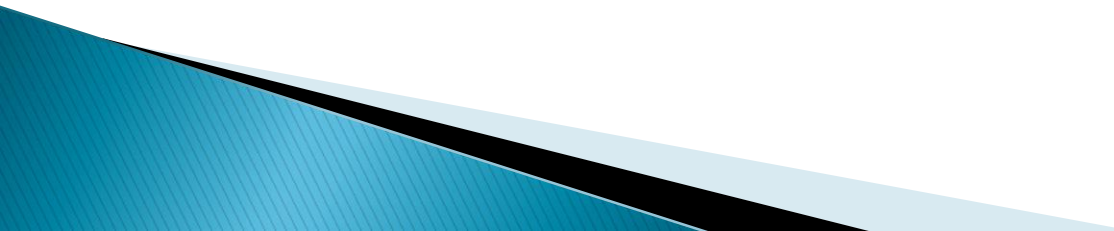
@PEG_Exeter

Numbers are key to police work



What is quantitative research?

“Explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics).” –Aliaga and Gunderson (2000)



Types quantitative research questions

Descriptive: “how much?”, “how often?”, “what percentage/proportion?”

- ▶ *Do sexual violence victims report their victimization?*

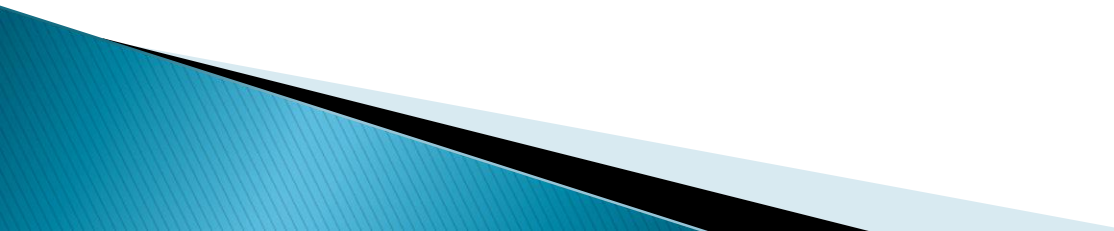
Comparative: “what is the difference in...?”

- ▶ *What’s the difference reporting rates between male and female sexual violence victims?*

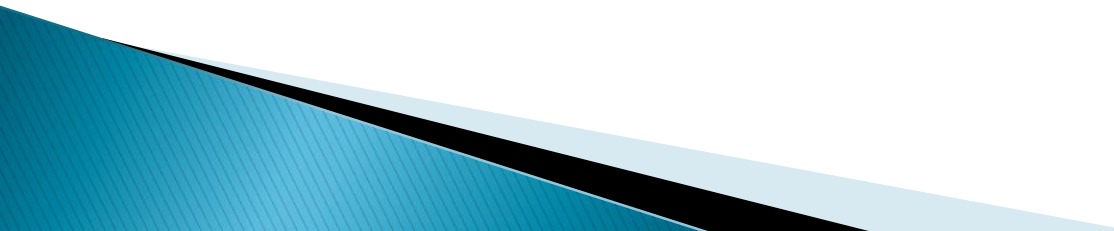
Relationship-based: “what is the relationship between/amongst...”

- ▶ *What is the relationship between gender, history of victimization, and reporting sexual violence victimization?*

How to appraise existing research?

- ▶ Common sense! You don't have to be a statistician
 - ▶ Use checklist we provide to focus on parts of the article
 - ▶ Decide if research is valid and relevant for your purposes
- 

Statistical Significance vs. Substantive Significance

- ▶ Statistical significance does not necessarily mean *substantive* significance
 - ▶ Non-significant results may not mean there is no relationship between variables –may be due to small sample size, low base rate, etc.
- 

Rapid Critical Appraisal of a Quantitative Study

- ▶ Your force in the South West is interested in implementing a program for drink–drive offenders to reduce drink–driving reoffending. Your colleague suggested implementing the Drink–Impaired Drivers program and asked your opinion. You do a search of the existing literature and find this paper by Palmer et al (2012)...

Quantitative Data is already collected

- ▶ Police recorded crime data
- ▶ Ministry of Justice data
- ▶ Prison & re-entry data
- ▶ Crime Survey for England and Wales (CSEW)

WHICH CRIMES ARE COVERED BY THE CSEW?

The respondents are asked about crimes for which they or their household were the victim. This includes crimes against them personally such as theft of a mobile phone and crimes against the household as a whole such as domestic burglary.

Examples of crimes covered by CSEW:



The infographic displays five icons representing different crime types: a house with a padlock for Domestic Burglary, a car with a starburst for Car Crime, a brick wall with graffiti for Vandalism such as Graffiti, a person running with a bag for Theft and Robbery from a Person, and a person with a triangle on their chest for Violent Crime.

				
DOMESTIC BURGLARY	CAR CRIME	VANDALISM SUCH AS GRAFFITI	THEFT AND ROBBERY FROM A PERSON	VIOLENT CRIME

- *What about using this data to conduct research?*