

**Complexity
Science*Hub**

Modelling fear of crime

Rafael Prieto-Curiel

@rafaelprietoc

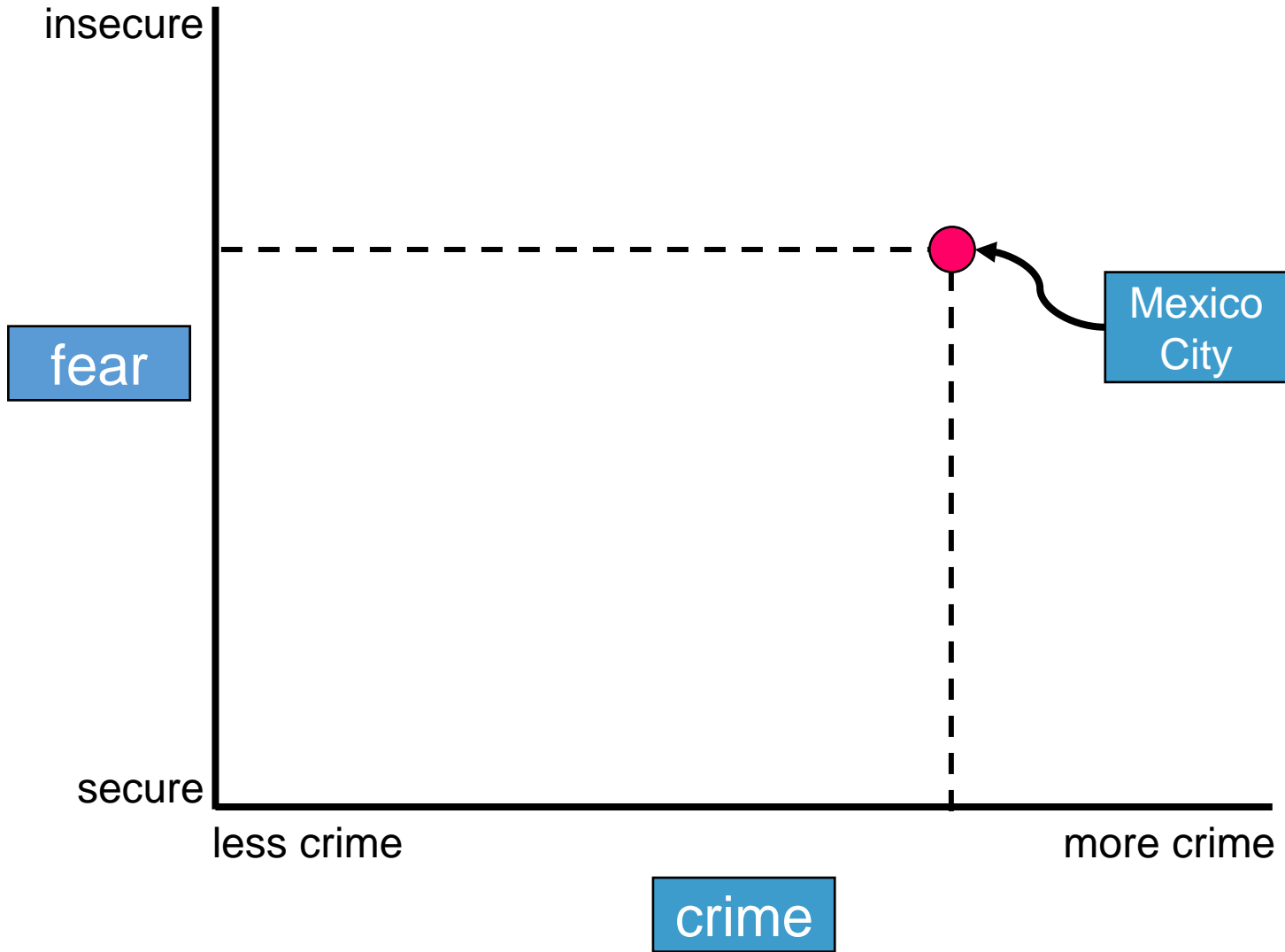


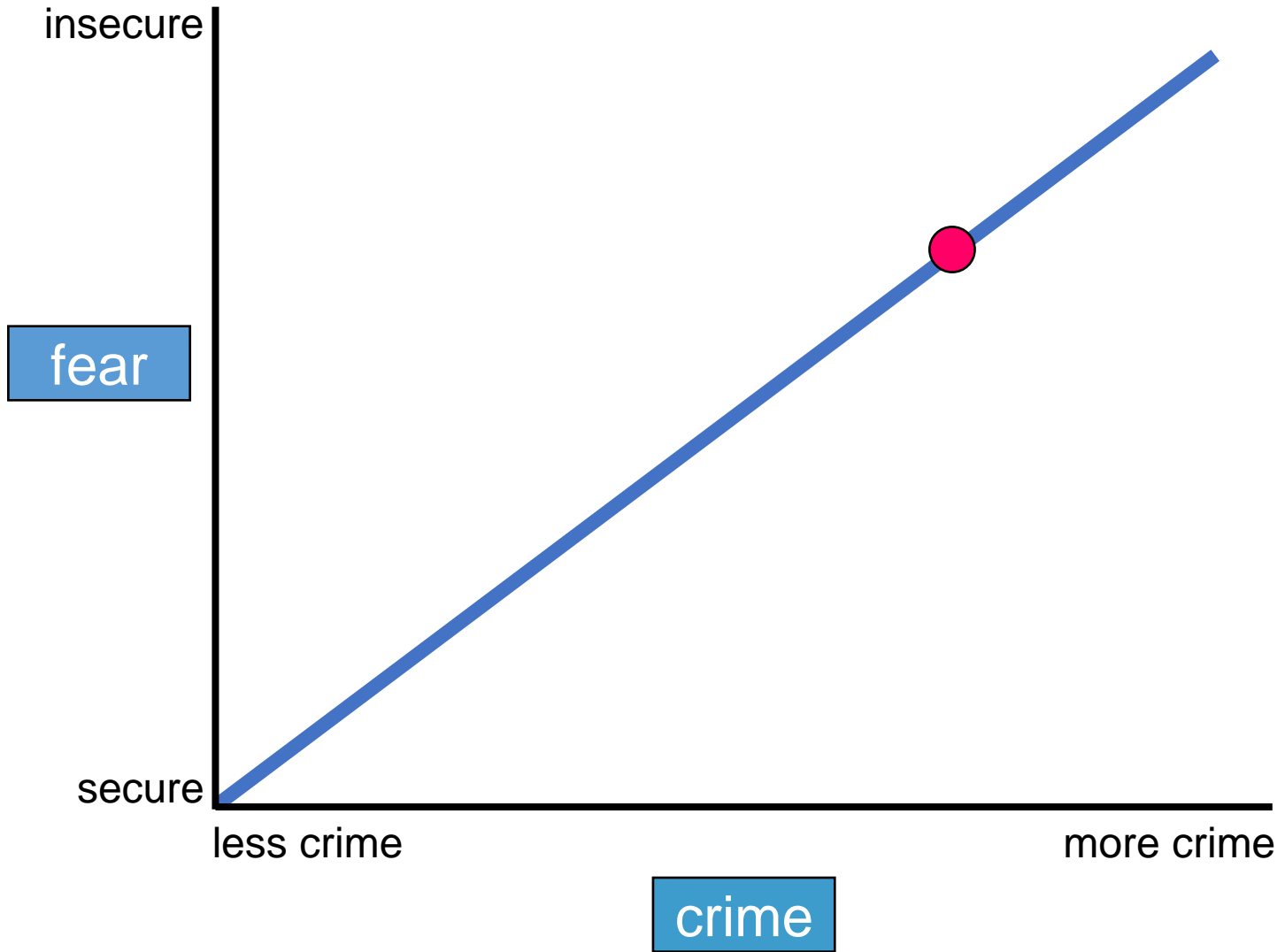
Pacific
Ocean

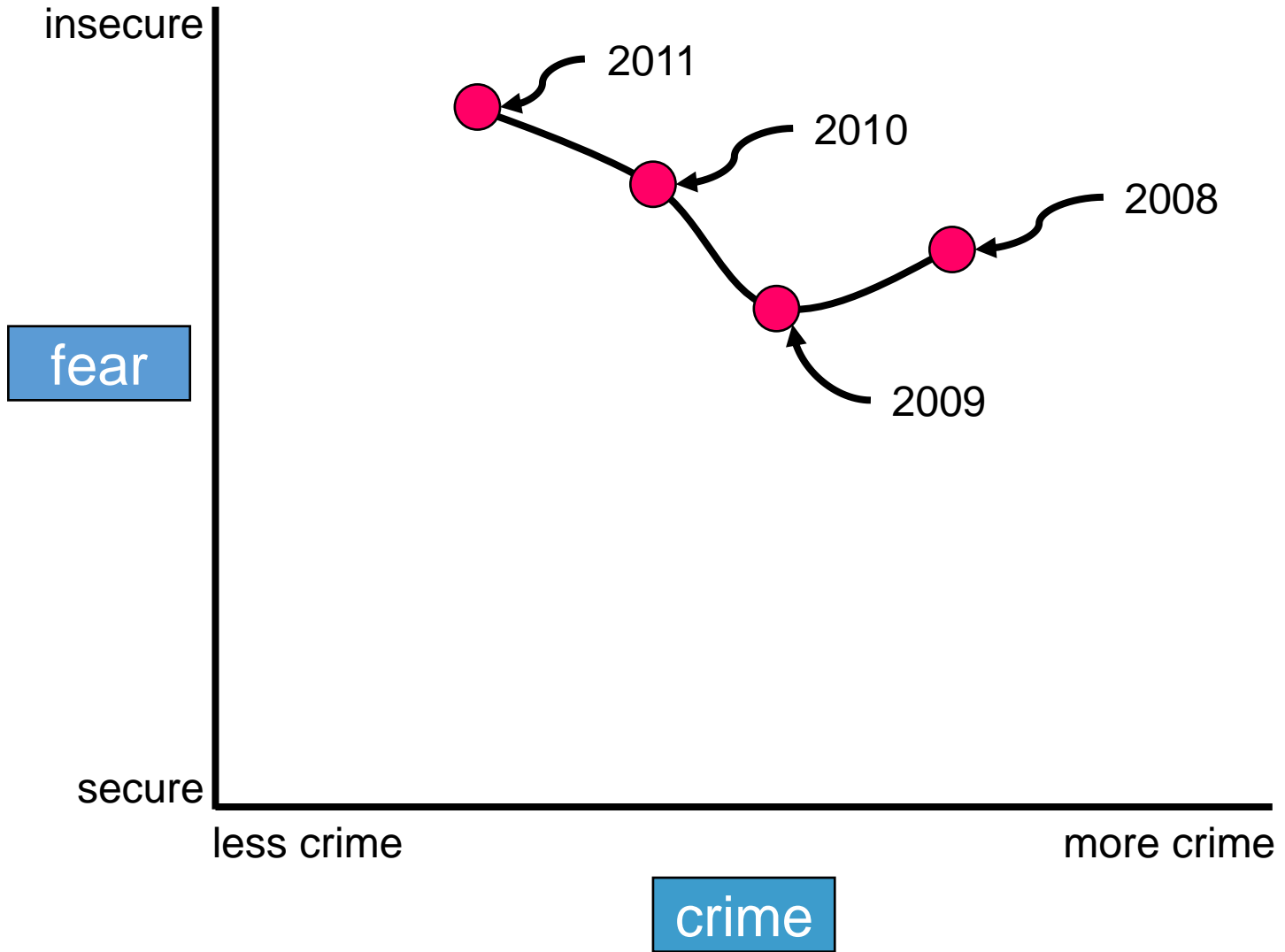
Gulf of
Mexico

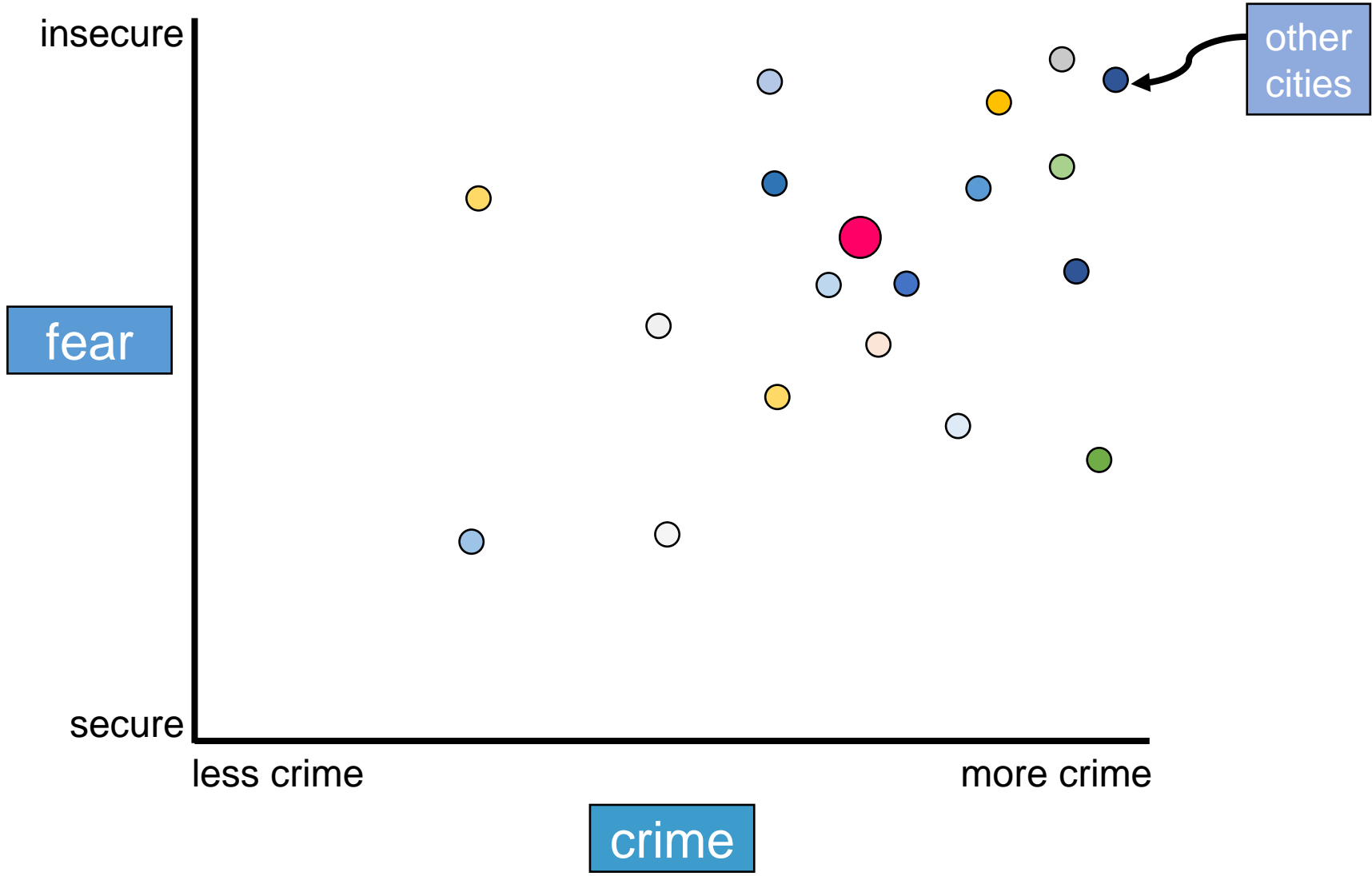
Mexico
City

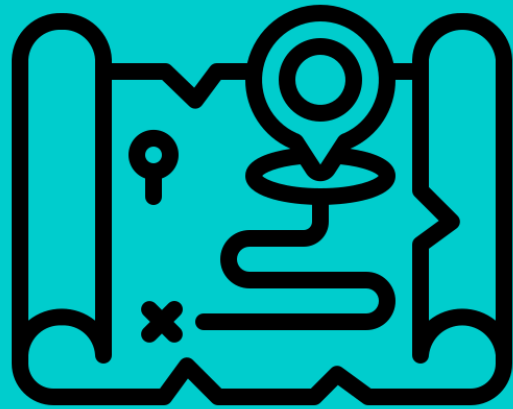




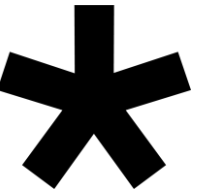


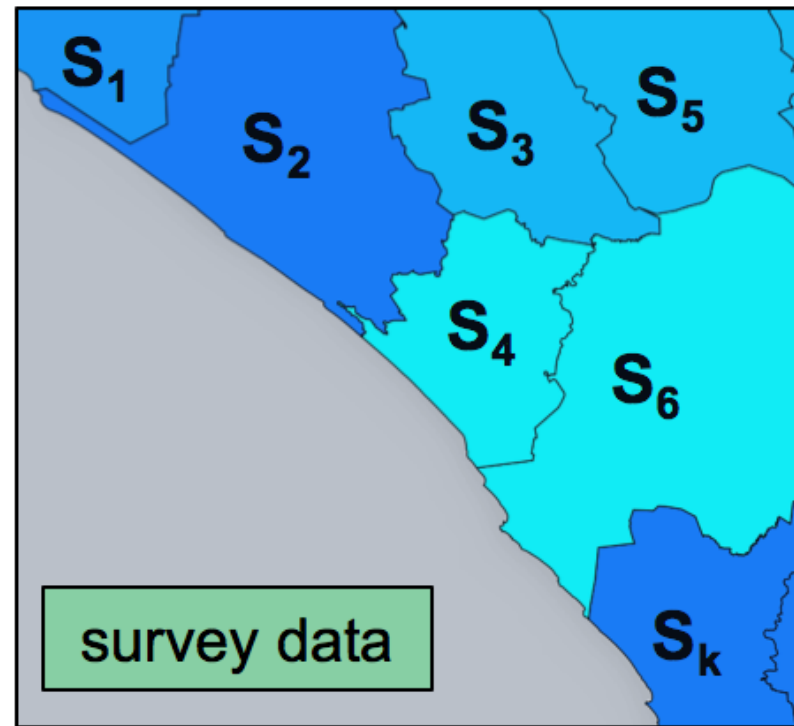
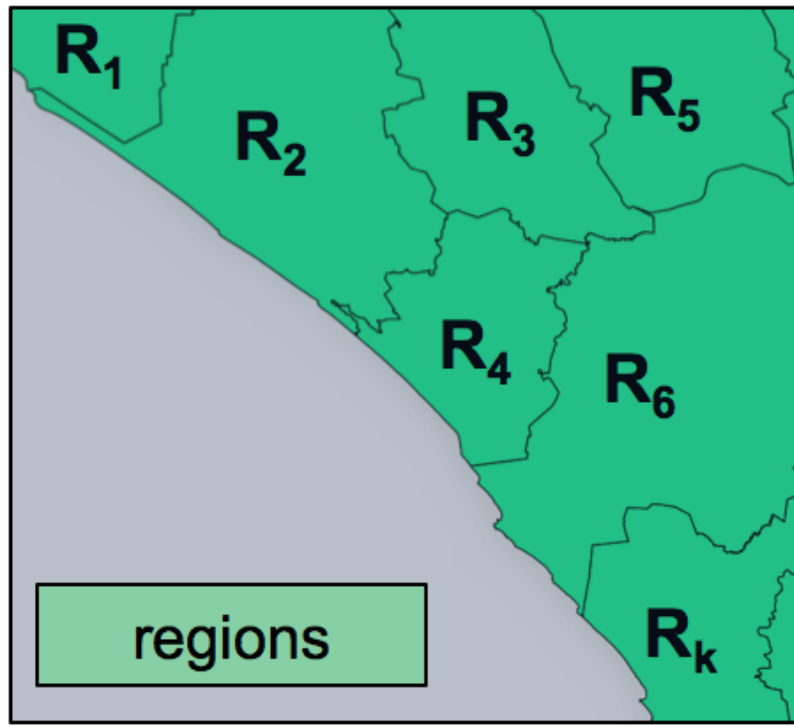
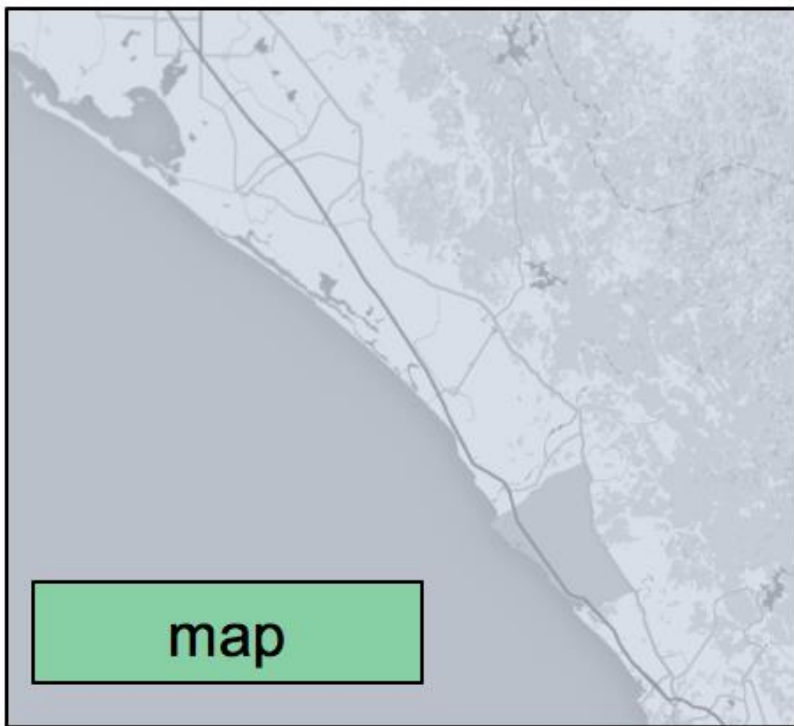






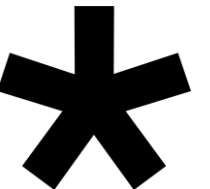
define fear





Fear of crime

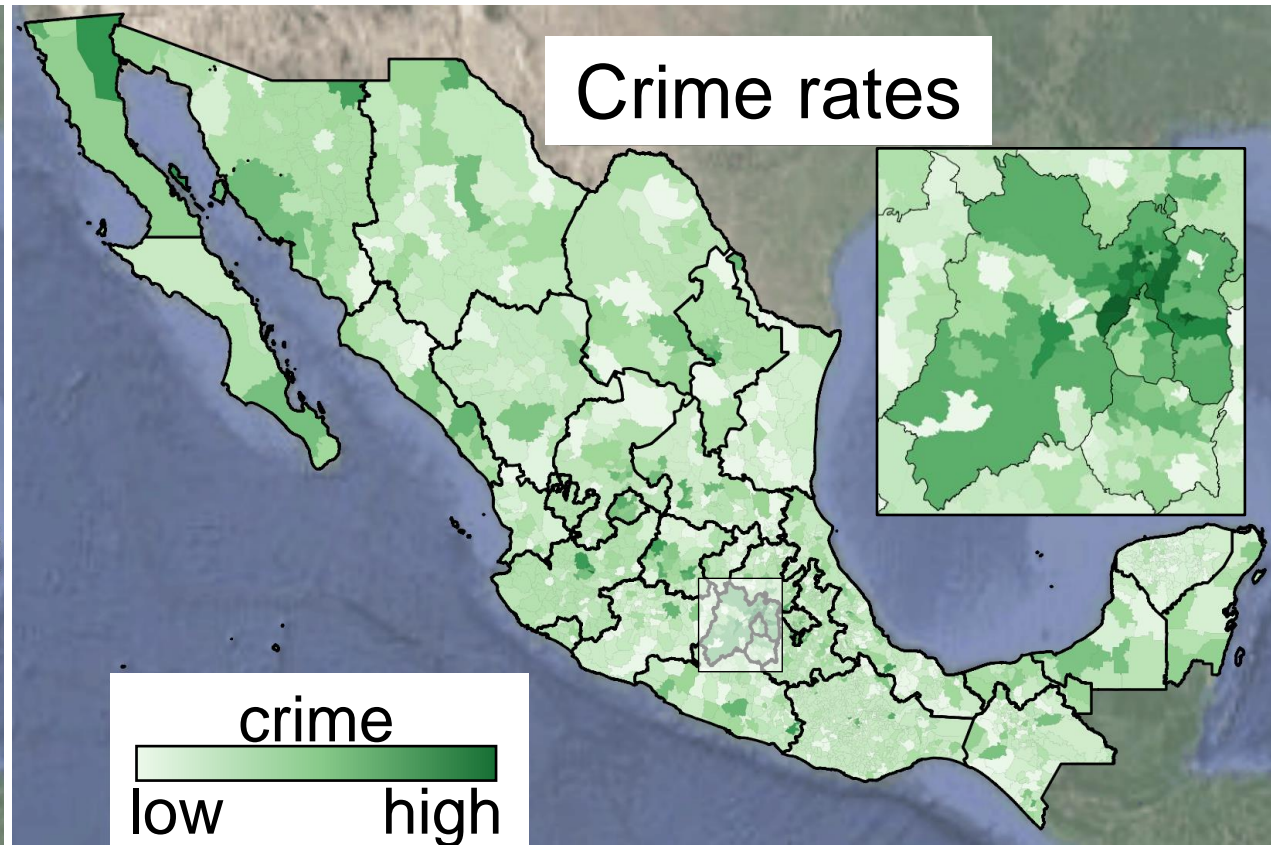




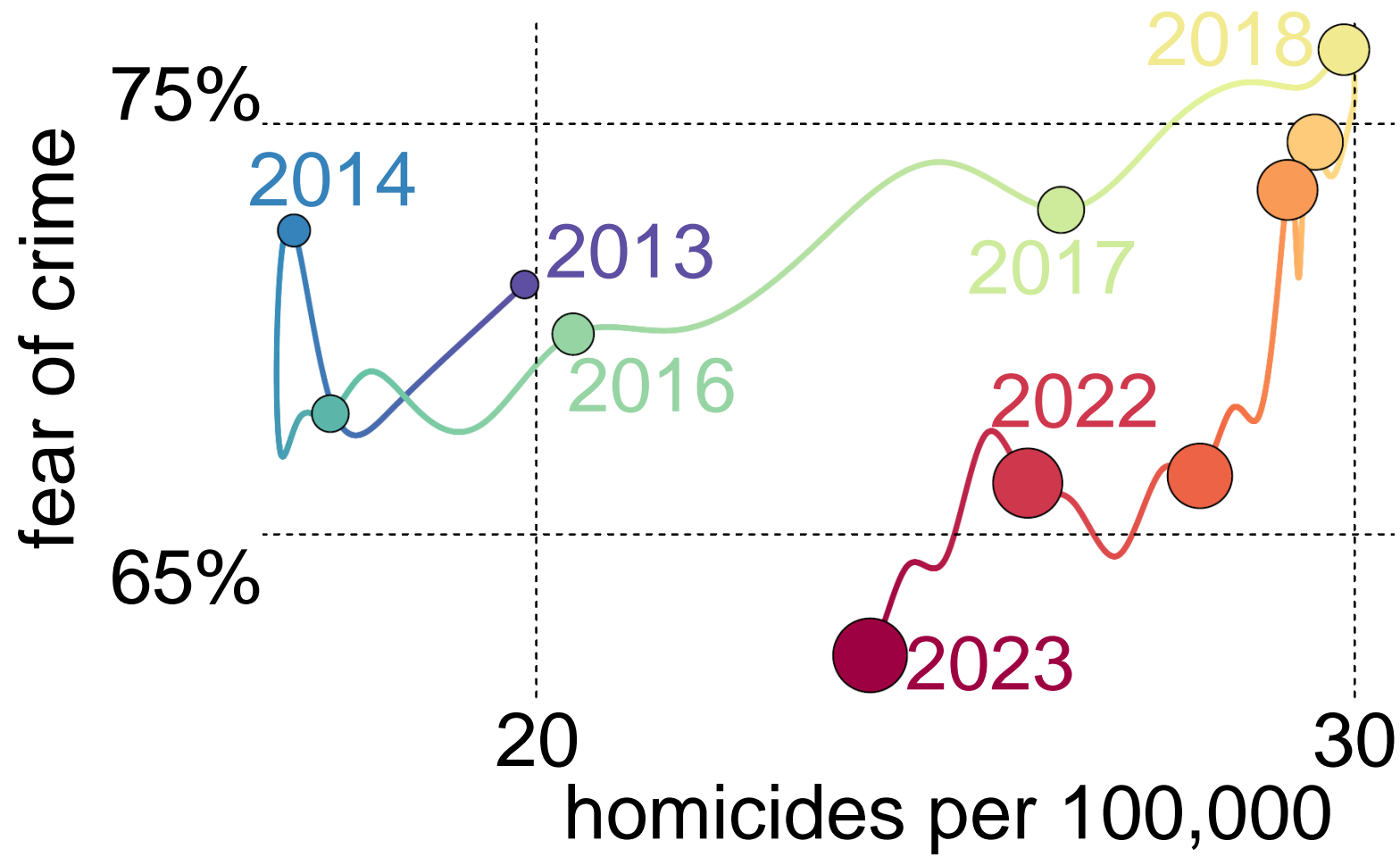
Fear of crime



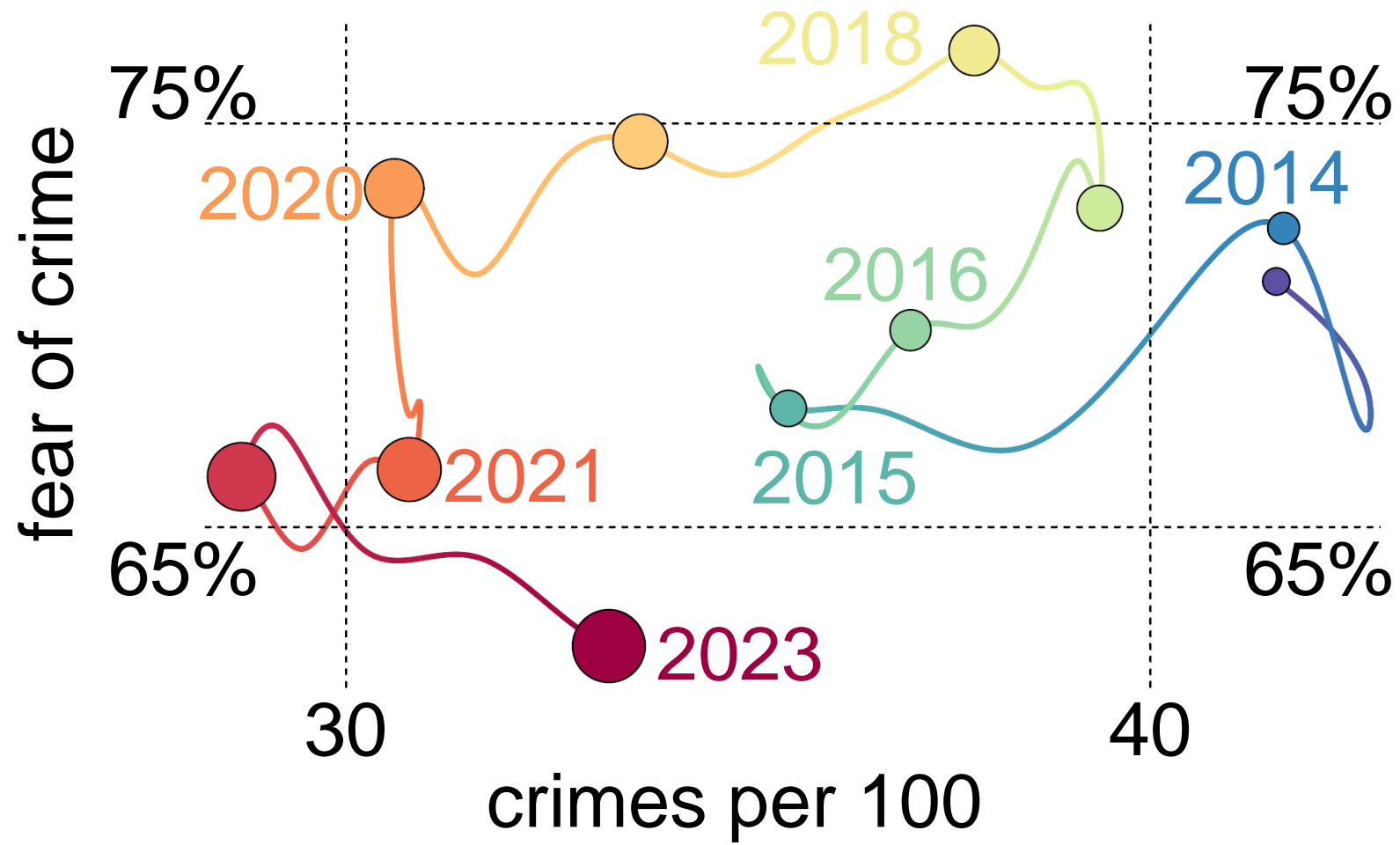
Crime rates

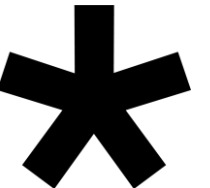
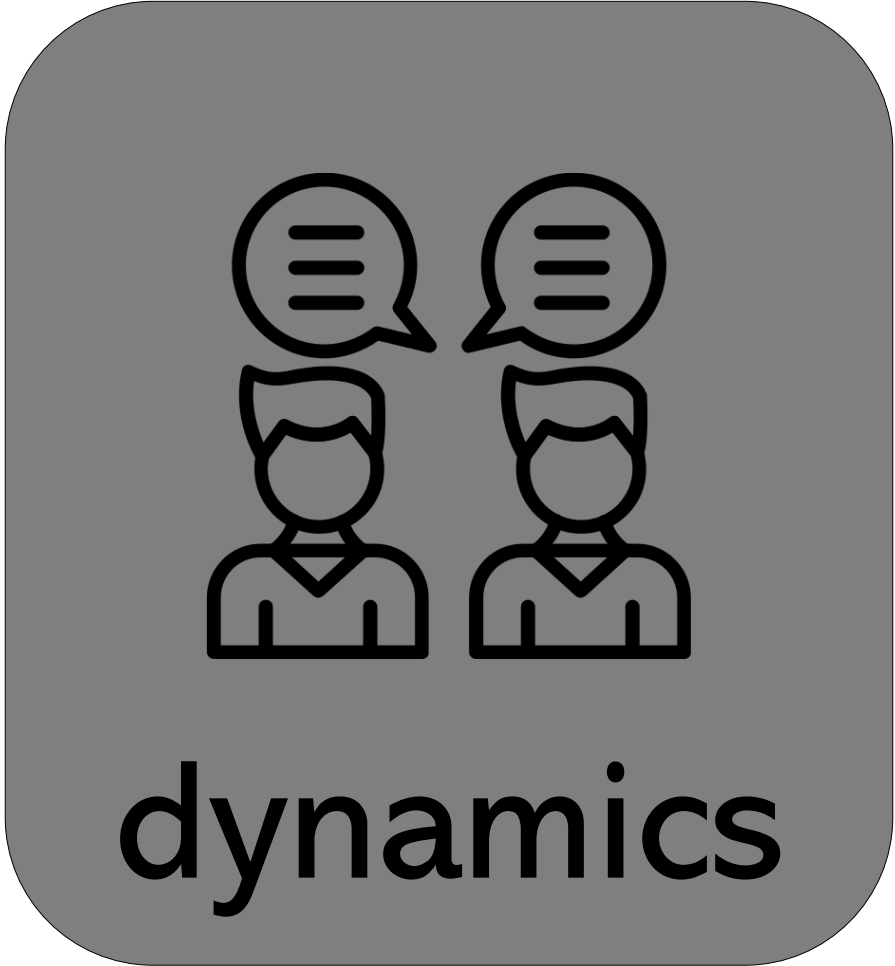


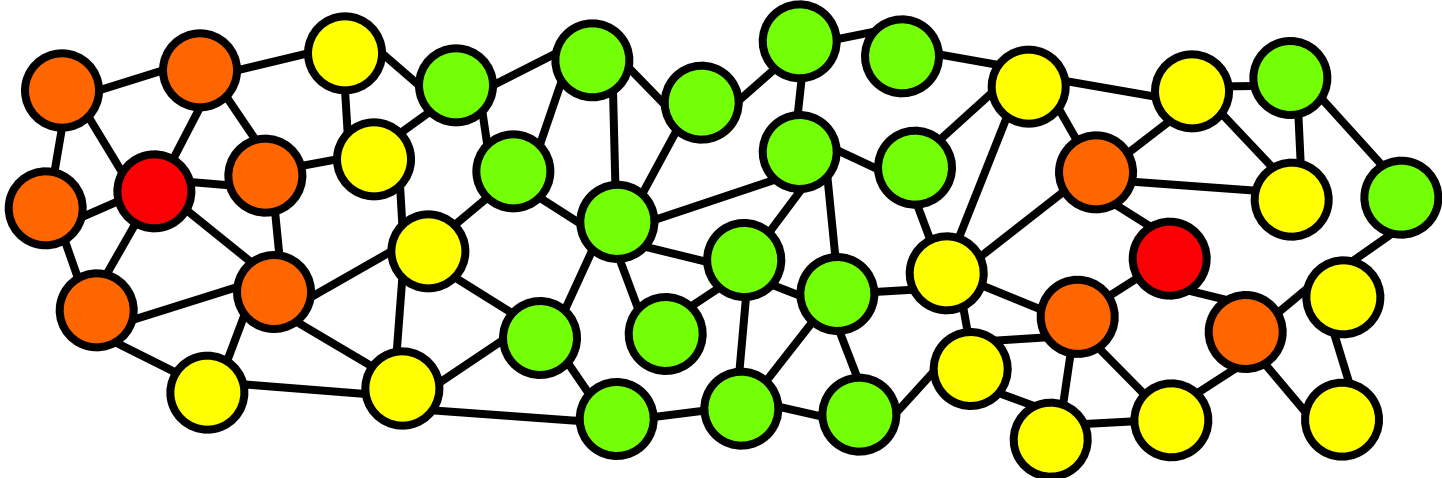
fear and homicides



fear and crime rates







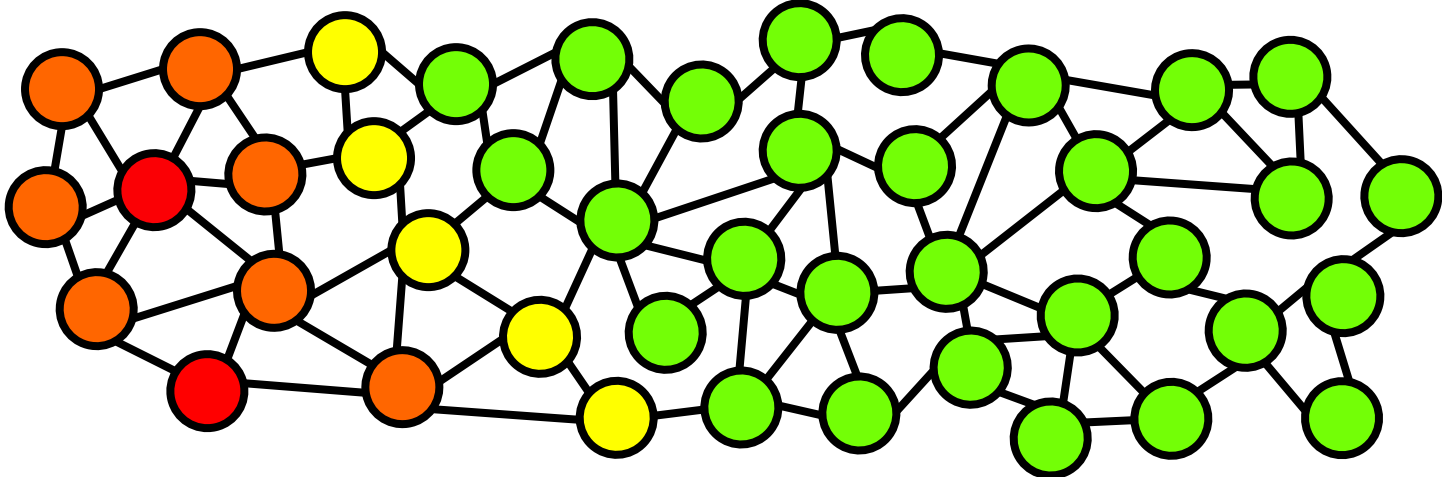
fear of crime



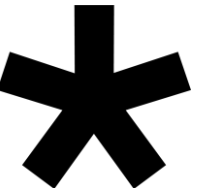
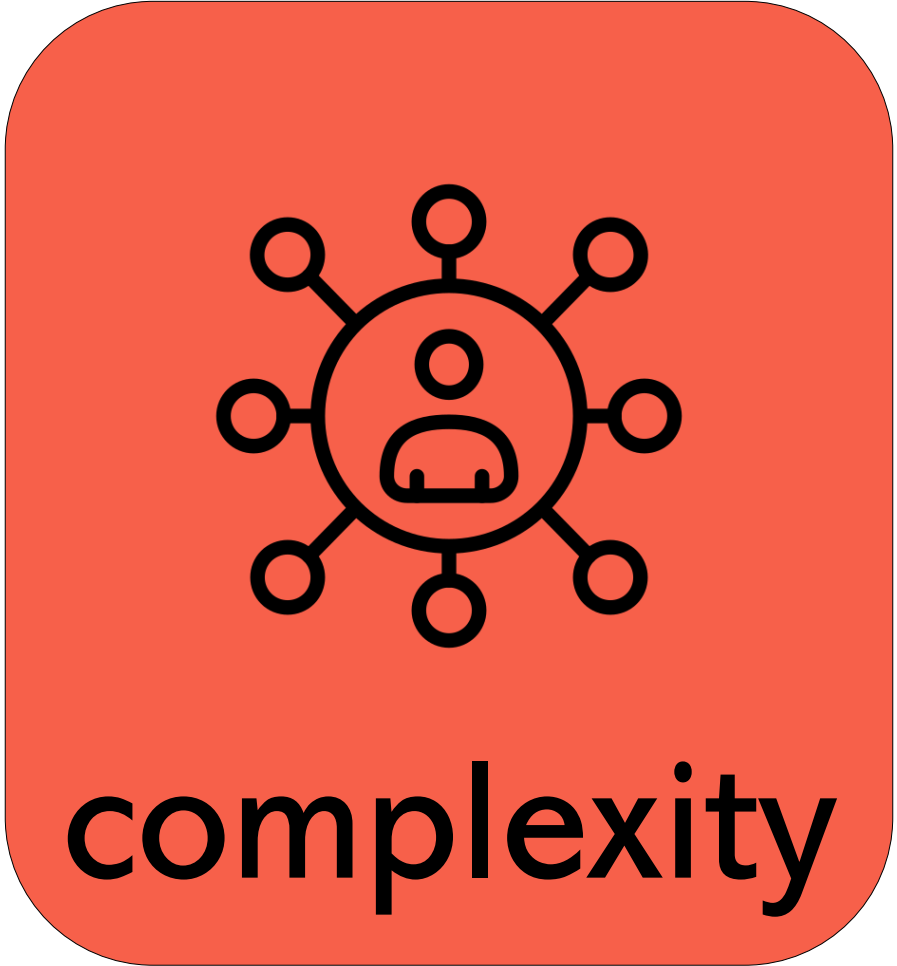
secure

insecure

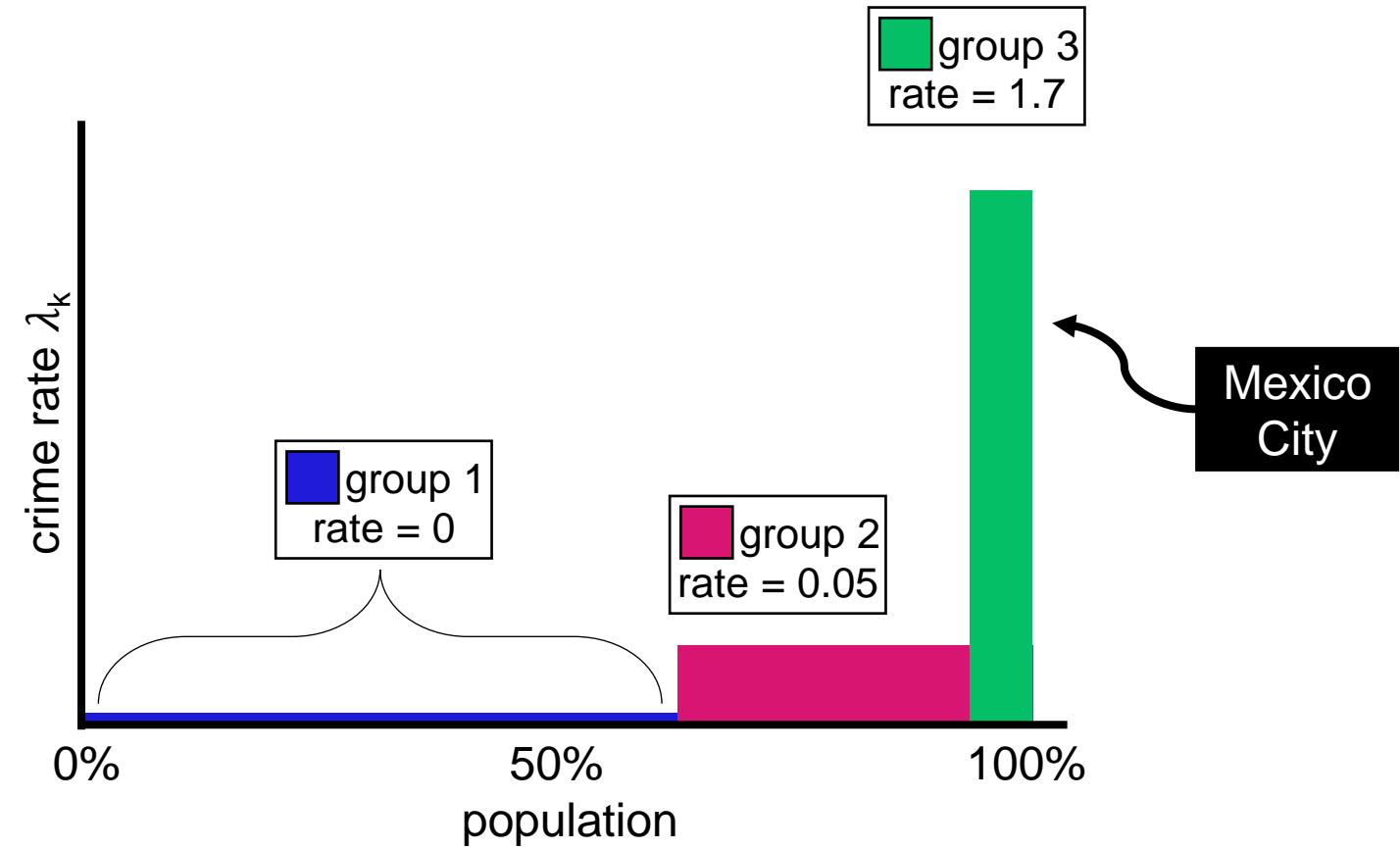
mean fear

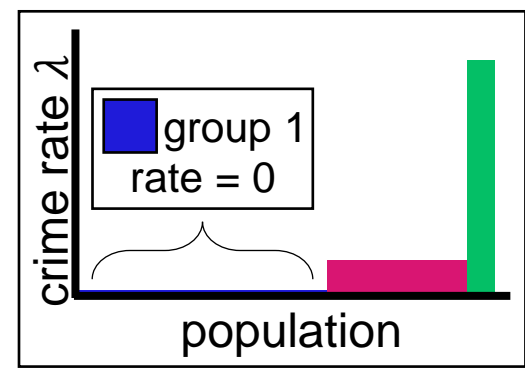
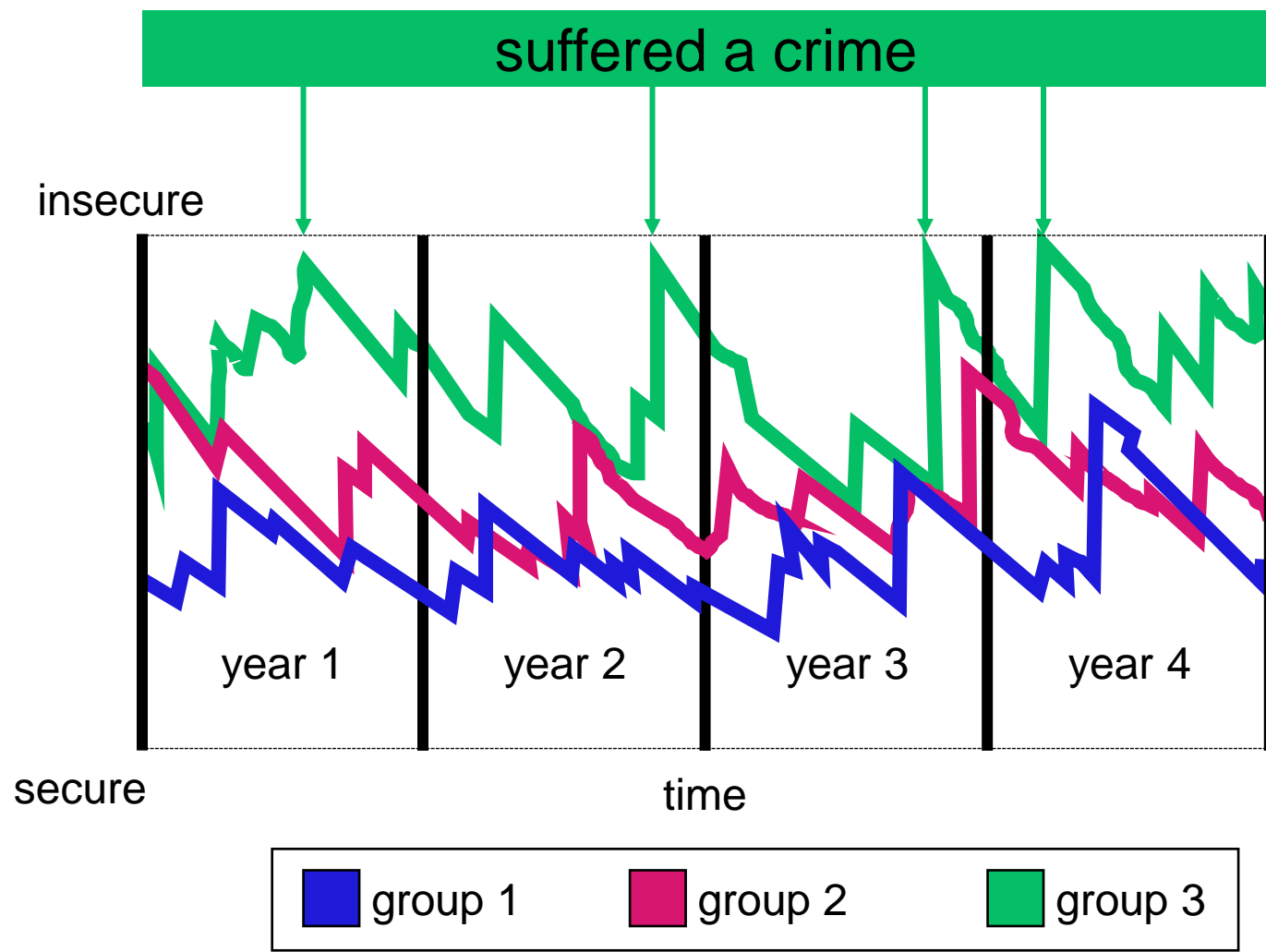


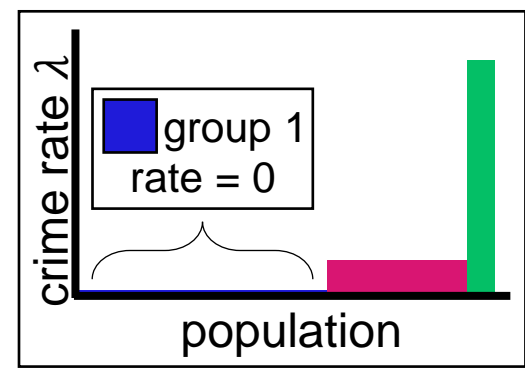
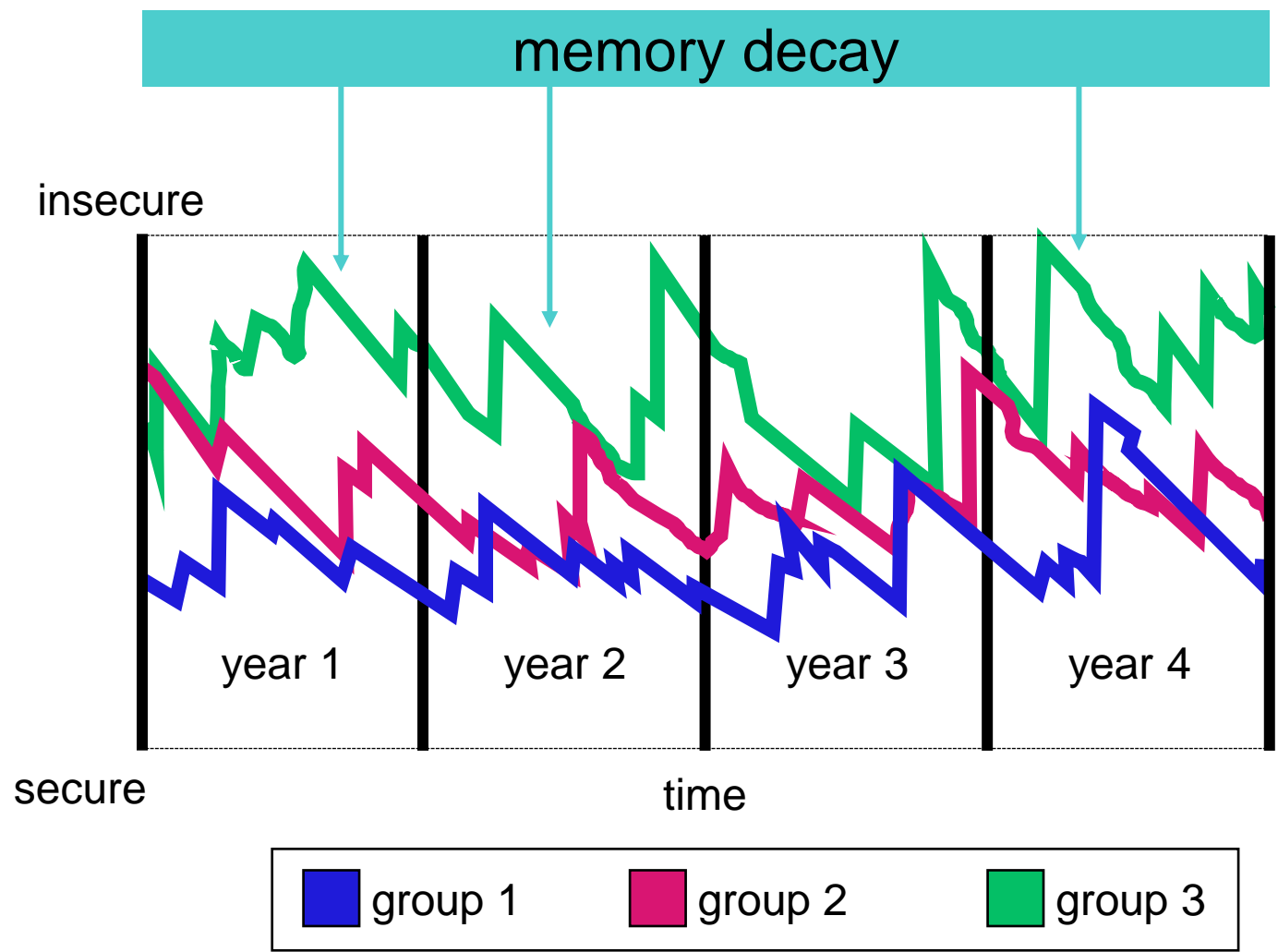
mean fear

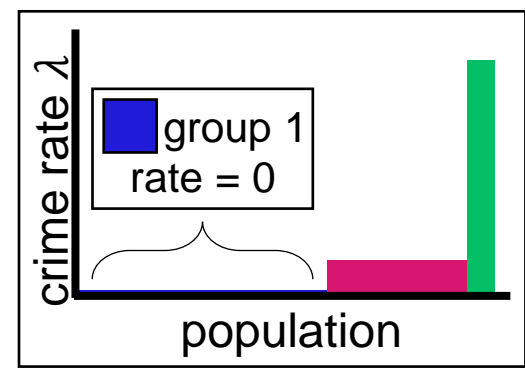
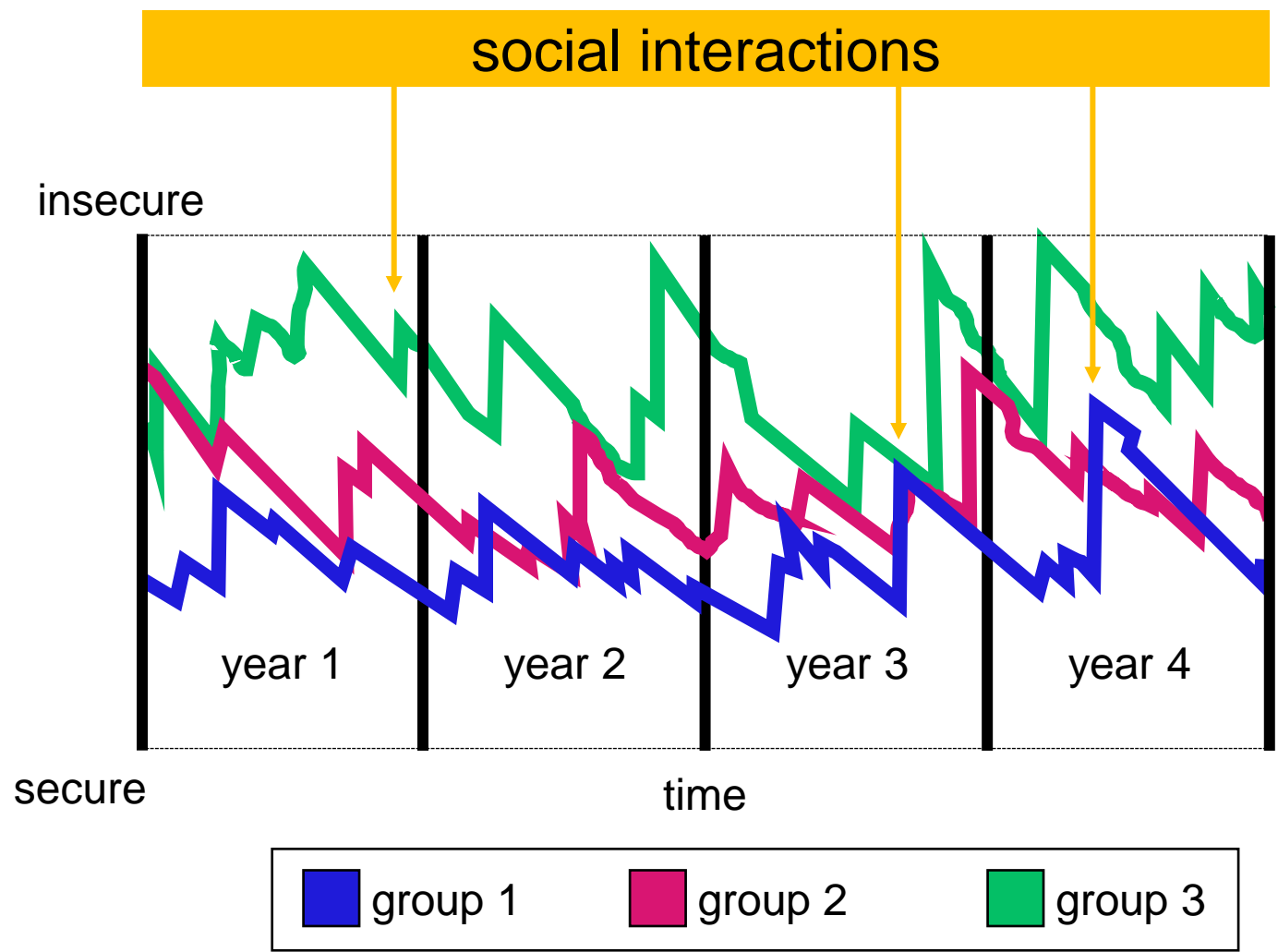


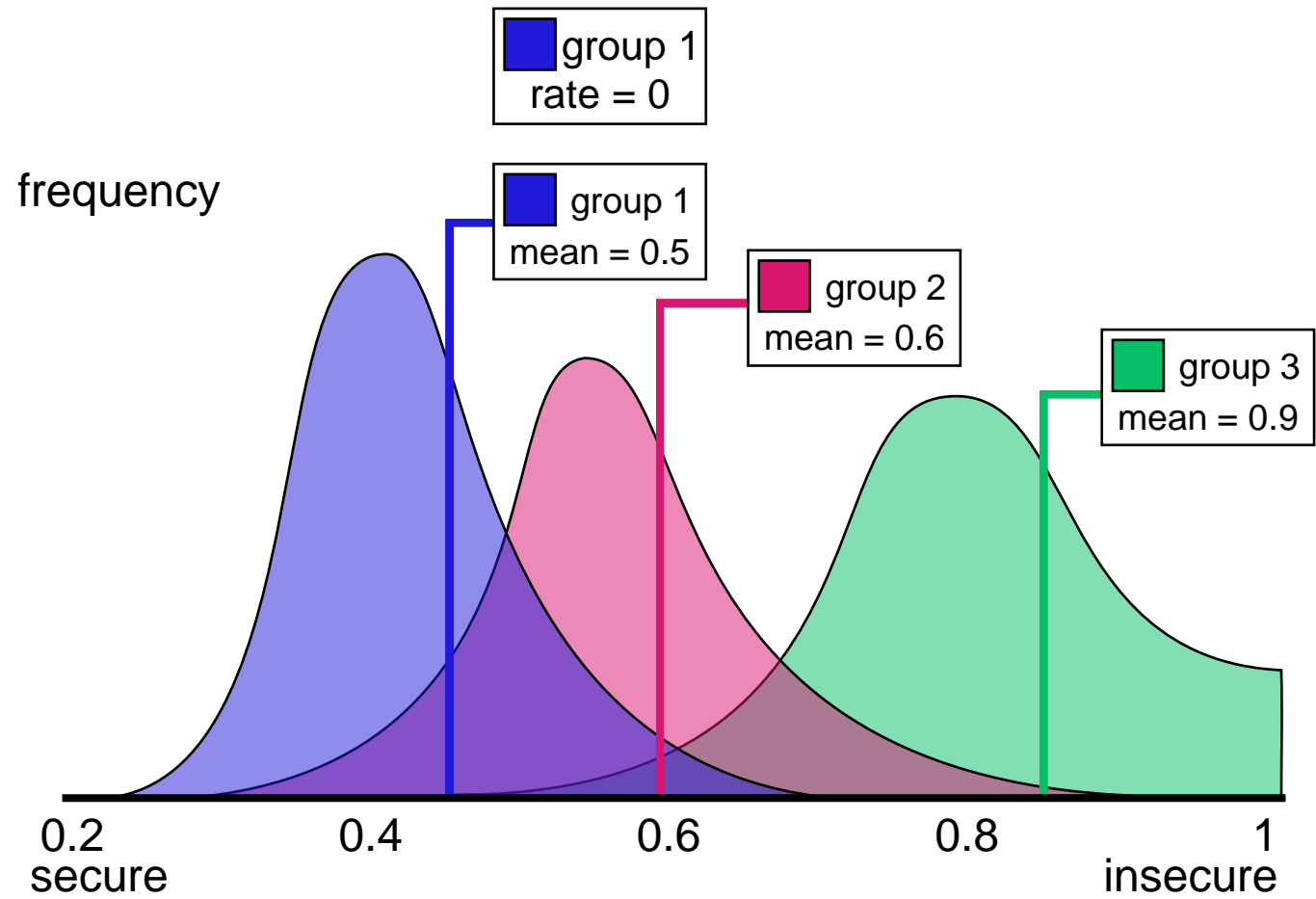
crimes “follow” a Poisson distribution
yearly rate = λ_k

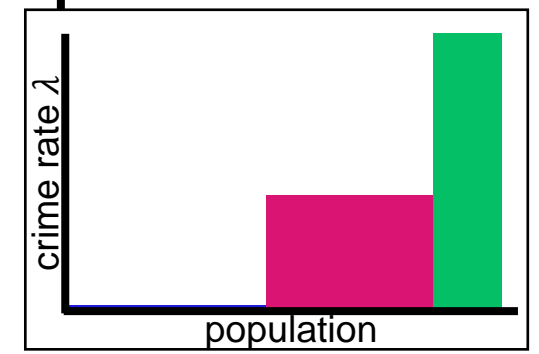
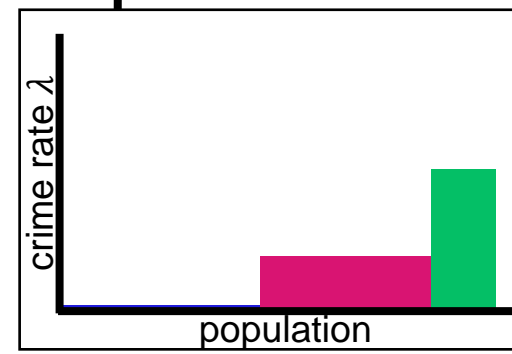
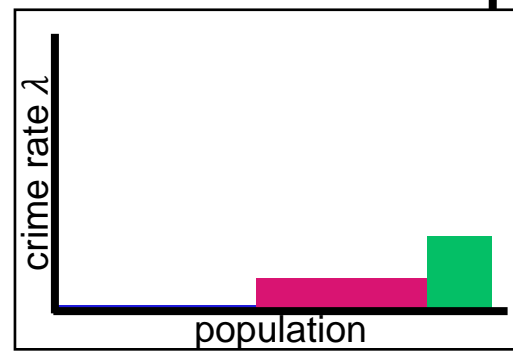
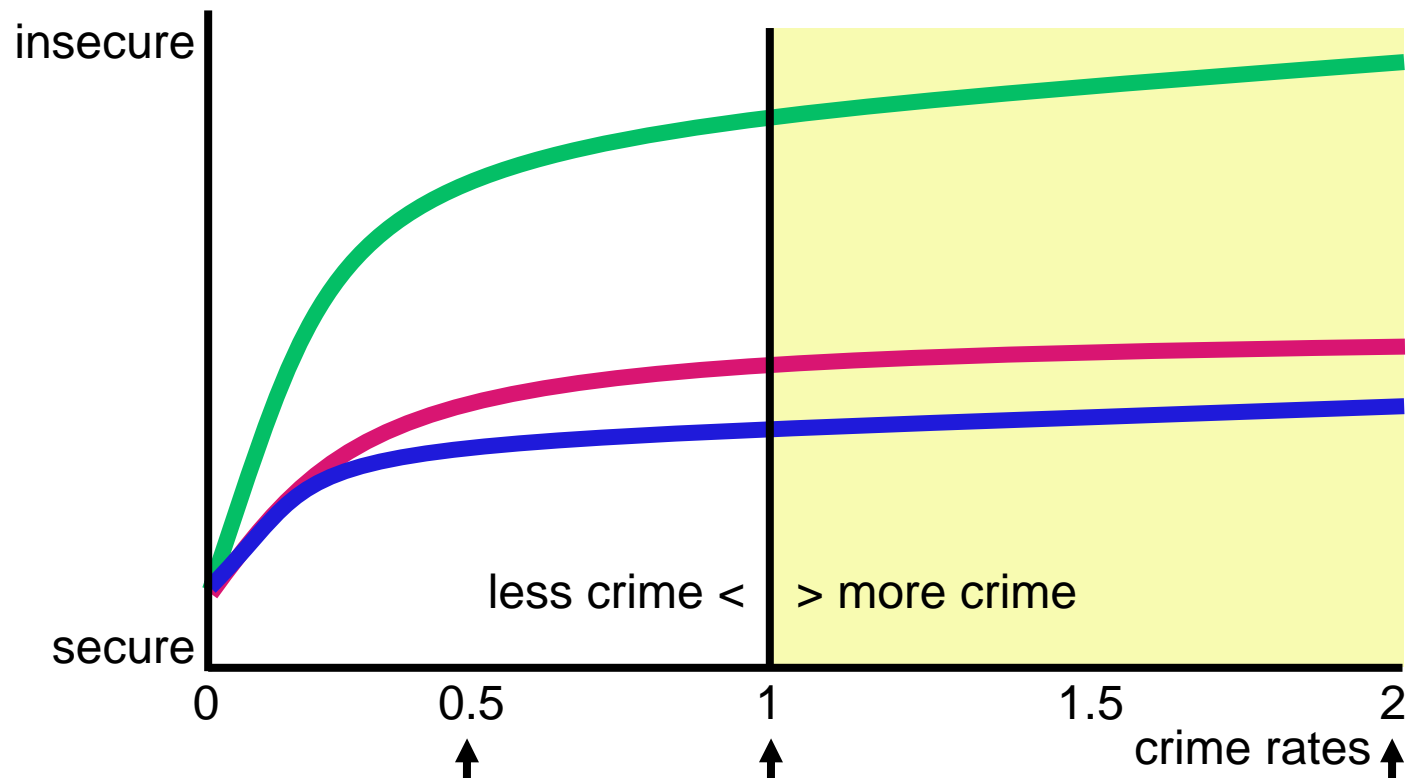


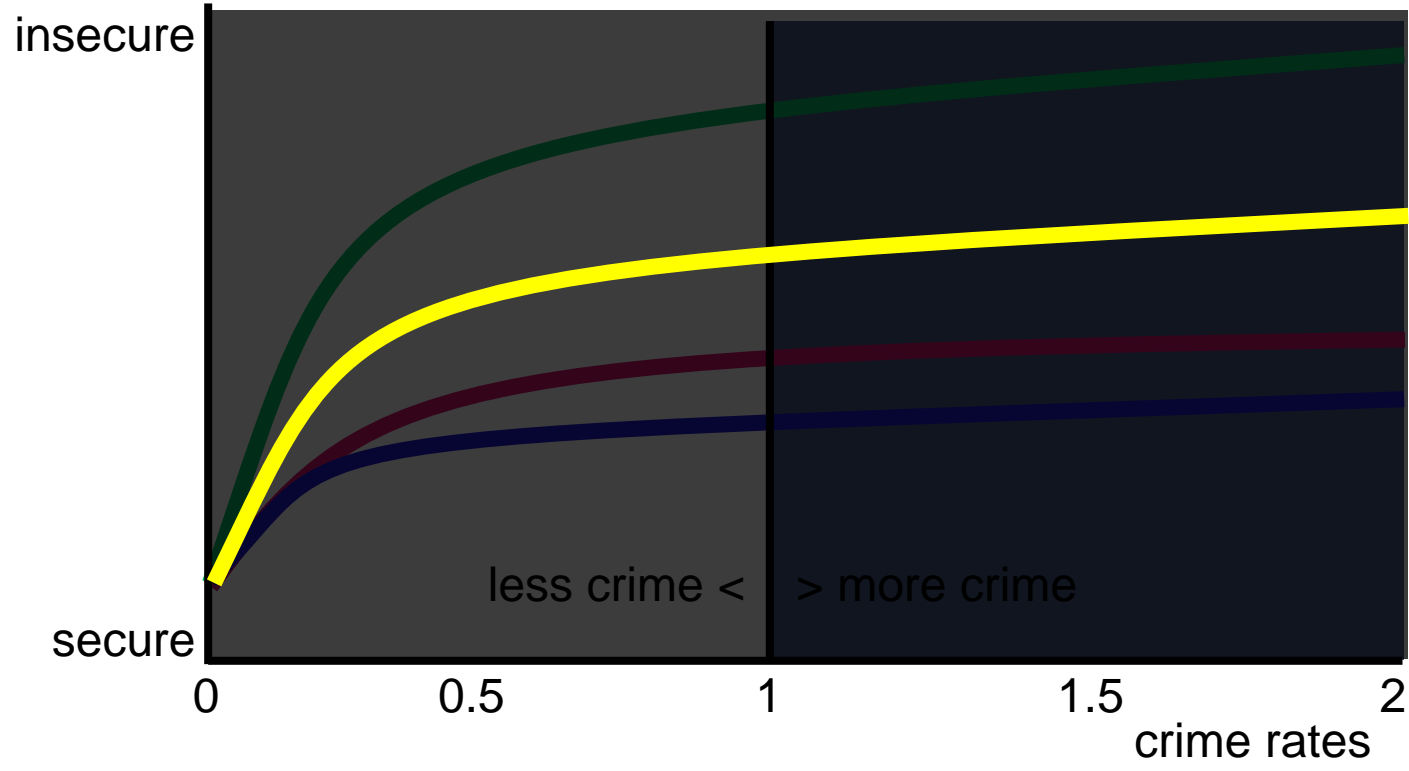


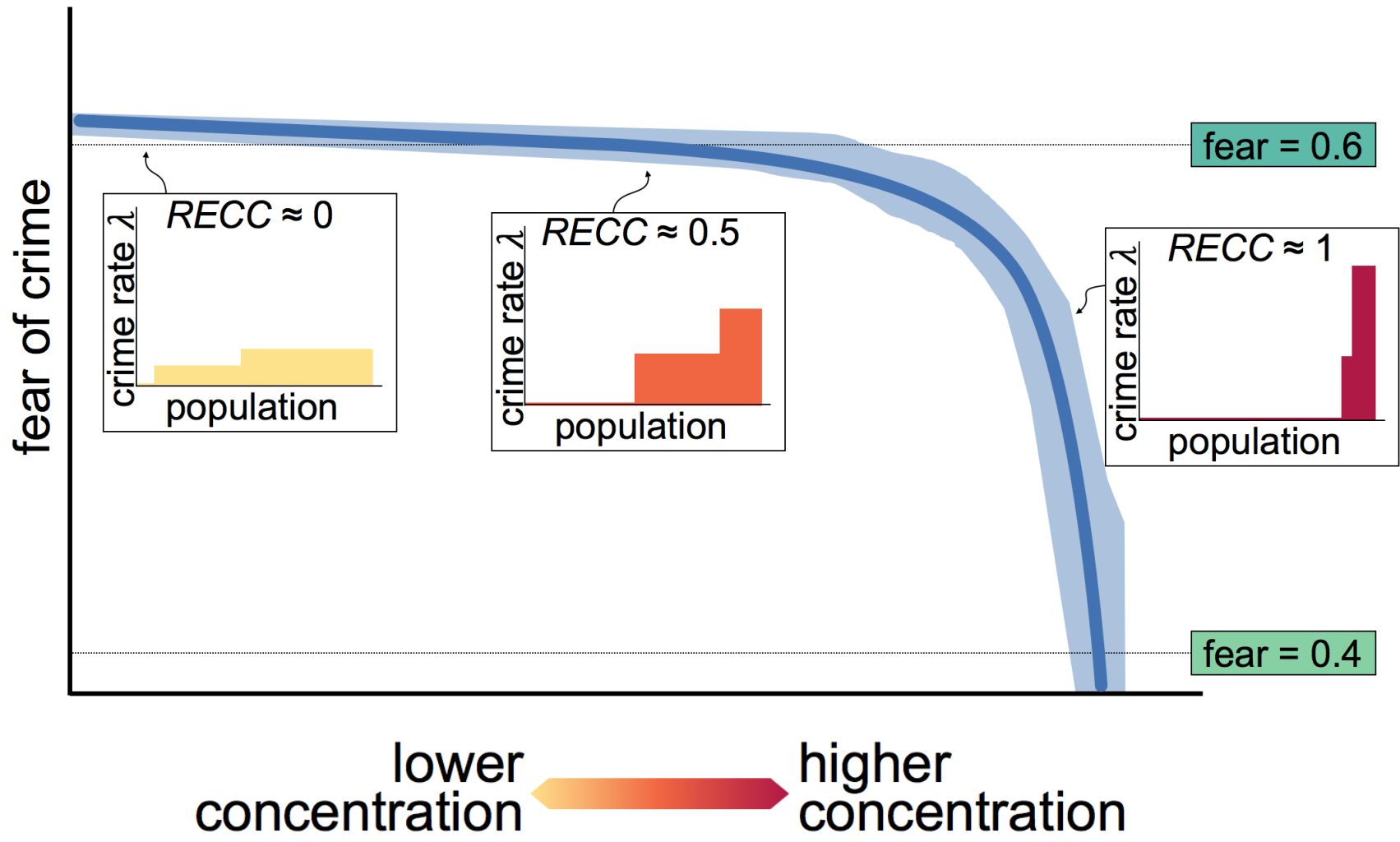


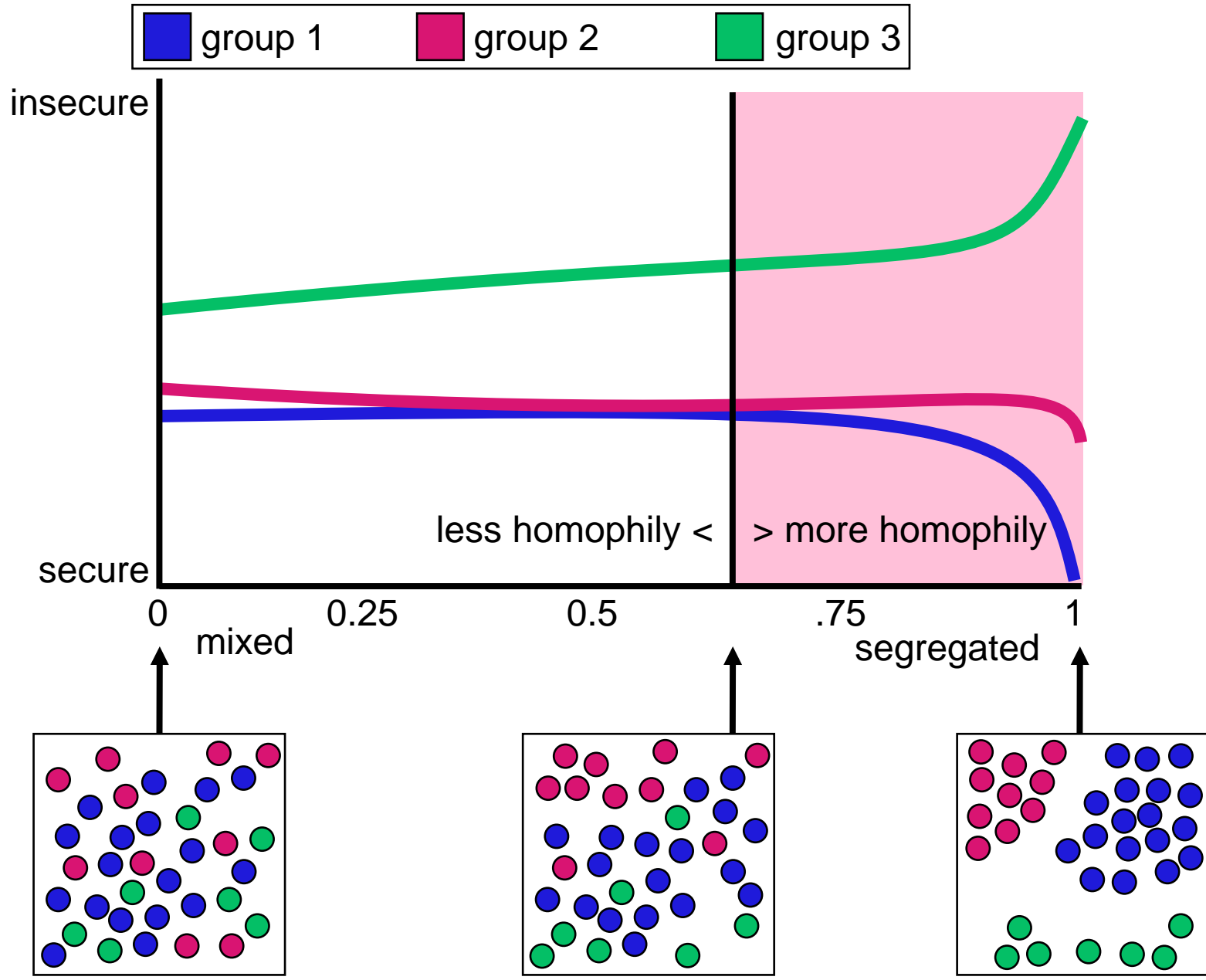






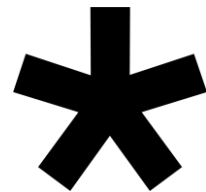








The PhD journey



Can we quantify
fear of crime?
Yes, surveys or social media

Is fear of crime
correlated with crime?
No

How can we
simulate crime?
Mixture of Poisson distributions

ARTICLE

<https://doi.org/10.1057/s41599-020-0430-7>

OPEN



Crime and its fear in social media

Rafael Prieto Curiel¹✉, Stefano Cresci², Cristina Ioana Muntean³ & Steven Richard Bishop⁴

Prieto Curiel and Bishop *Crime Sci* (2016) 5:12
DOI 10.1186/s40163-016-0060-y

Crime Science

RESEARCH

Open Access



A metric of the difference between perception of security and victimisation rates

Rafael Prieto Curiel^{*} and Steven Richard Bishop

J Quant Criminol (2018) 34:775–803
<https://doi.org/10.1007/s10940-017-9354-9>



ORIGINAL PAPER

Measuring the Distribution of Crime and Its Concentration

Rafael Prieto Curiel¹ · Sofía Collignon Delmar² ·
Steven Richard Bishop¹

A critical aspect to
simulate crime?

Low freq and high concentration

Why is fear not
correlated with crime?

It is complicated

How can we
reduce fear of crime?

Concentration or segregation

SCIENTIFIC REPORTS

OPEN

A measure of the concentration of rare events

Rafael Prieto Curiel & Steven Bishop

PROCEEDINGS A

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Research



Modelling the fear of crime

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HUMANITIES | SOCIAL SCIENCES | BUSINESS

ARTICLE

DOI: [10.1057/s41599-018-0094-8](https://doi.org/10.1057/s41599-018-0094-8)

OPEN

Fear of crime: the impact of different distributions of victimisation

Rafael Prieto Curiel¹ & Steven Richard Bishop¹

Complexity Science * Hub



Thank you!

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