transport network. Three years of crime data were used with corresponding survey passenger data on each mode of transport to create the index values.

**PURPOSE**: Understanding who is likely to be vulnerable to becoming a victim of crime on public transport is a worthwhile exercise because it facilitates the protection and reassurance of such subgroups.

**THEORY**: It has been known for many decades that not all targets are at equal risk of becoming a victim of crime. Some people are, by virtue of their socio-demographic qualities or lifestyle choices, more vulnerable to being selected by offenders. Two of the most influential theories relating to crime

activities can be particularly telling in explaining when and where they become vulnerable to crime. Appreciating that offenders make rational decisions when selecting their targets allows us to hypothesise what conditions increase the risk of crime happening. Profiling the victim population on public transport allows us to understand what these high-risk settings or socio



**PURPOSE:** In order to protect and reassure people who use public transportation it is first wise to understand who are targeted as victims of crime and, if possible, why these people are targeted. Determining the risk of being a victim on various modes of transport is though challenging, due to there being no robust baseline on which to base calculations. Here we present a method which estimates the victimisation *rate* of the travelling population. A rate transforms data into an intelligible form, so that the risk of victimisation can be estimated.

Ascertaining which groups of people suffer disproportionately from victimisation of particular crime types is the first step in a problem-solving process such as SARA (see Figure 2 which illustrates the iterative nature of problem-solving). The method pres

identifies and begins to quantify concentrations of victimisation. This forms a basis on which hypotheses can be generated (e.g. why does *this* group suffer disproportionately from x crime type?). Testing hypotheses generates new knowledge about a problem and feeds into intelligent response formulation.

Figure 2 the SARA problemsolving process

**THEORY**: One of the most influential theories relating to crime occurrence is the routine activity approach. This states that crime is a product of a motivated offender coming into contact with a suitable target (victim) in the absence of a capable guardian. How social life is organised determines the frequency and timing of these interactions between victims and offenders.

It has been known for many decades that not all targets are at equal risk of becoming a victim of crime. Some people are, by virtue of their socio-demographic qualities or lifestyle choices, more vulnerable to being selected by offenders. Some buildings and other properties have characteristics that make them more attractive to offenders than others. Identifying those people and products who are more likely to be targeted by offenders is a worthwhile exercise, because protecting the

**APPLICATION**: Estimating the risk of victimisation of particular populations is a useful starting point in devising crime prevention activities which minimise victimisation. Here we present an example of analysis that was done for the travelling population by analysts working for Transport for London.

BUS PASSENGERS AND AGE: Bus-related crime is defined as an offence occurring either on a bus or at a related location (such as bus stop/shelter). When proportions of the victim population were examined singly it looked like both the under 18 category and the 25-34 year groups had the greatest share (22.7% and 23% respectively). This may have led to the assertion that these two age groups were had the same risk of victimisation. Index profiles were created

