

SOCIO-ECONOMIC STATUS OF AIRCRAFT NOISE COMPLAINERS

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Introduction Recently the World Health Organisation (WHO) stated that noise pollution continues to grow. This is accompanied by an increasing number of complaints from people exposed to noise (Berglund et.al. 1999). There is limited understanding of complaint behaviour and many issues are controversial. Studies of the socio-economic status of complainants have produced conflicting results. Stockbridge and Lee (1973) stated, "Complaints tend to come from the articulate, affluent householders in the community and therefore do not represent a random sample of the population." This view was supported by Guski (1977), who added that complainants are often members of social organisations. Fiedler & Fiedler (1975) state "We would expect generally lower income levels and less expensive housing in the airport vicinity", which may infer that complainants have a low income. However, Fields (1993) indicates there is no significant correlation between income and noise annoyance or complaint, whereas Miedema & Vos (1999) find the opposite, i.e. people with a higher income are more likely to complain. As part of a comprehensive review of factors determining complaint behaviour at Manchester Airport, this study aimed to determine the socio-economic status of complainants compared with residents in the same communities.

Methods Complaints from Manchester Airport in 2000 were collected and analysed. The postcodes (UK address location code) for each complainant were used to assess the socio-economic status of each complainant by using a classification system called ACORN[®] (A Classification of Residential Neighbourhoods). The classification is derived using more than 250 pieces of information drawn from the national UK census, various market research and lifestyle databases to assign postcodes to one of 17 distinct groups, which in turn contain 54 neighbourhood categories. Information on the likelihood of ownership of two or more cars, the likelihood of owning a house with a mortgage and the average house prices for postcode areas were collected. In order to compare socio-economic status of complainants with a population known to be affected by aircraft noise at Manchester Airport, a random sample of postcodes within the 54dBA daytime contour around Manchester Airport were also analysed.

Results In 2000 there were a total of 2,804 complaints from 612 complainants received by Manchester Airport about their operations. Figure 1 shows a frequency histogram of the socio-economic classification for the complainants and the random sample of residents' postcodes within the 54dBA contour. Complainants clearly appear to be more prevalent in the higher socio-economic groups, while the residents are more evenly distributed. There were more complainants than residents in the highest socio-economic category while in lower categories (>8) residents were dominant. The distribution of house prices of residents and complainants (figure 2) shows clear differences with residents showing a substantial peak between £50,000 and £99,999, while complainants had a more normal distribution with a peak in the £150,000 to £199,999 category. Other indices, such as ownership of two or more cars and the purchase of homes with mortgages, indicate a higher socio-economic status for complainants than residents.

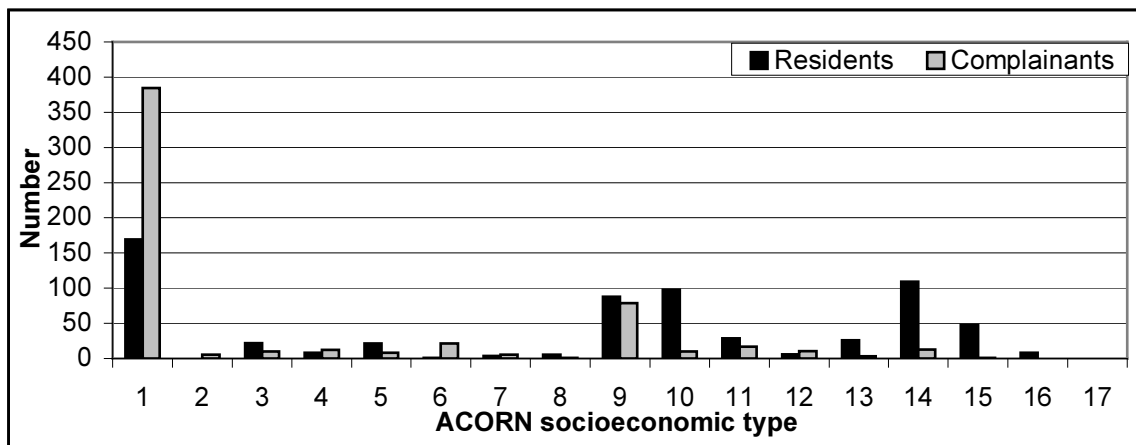


Figure 1 Comparison of ACORN[®] socio-economic status for residents living within the 54dBA daytime contour at Manchester Airport and complainants in 2000

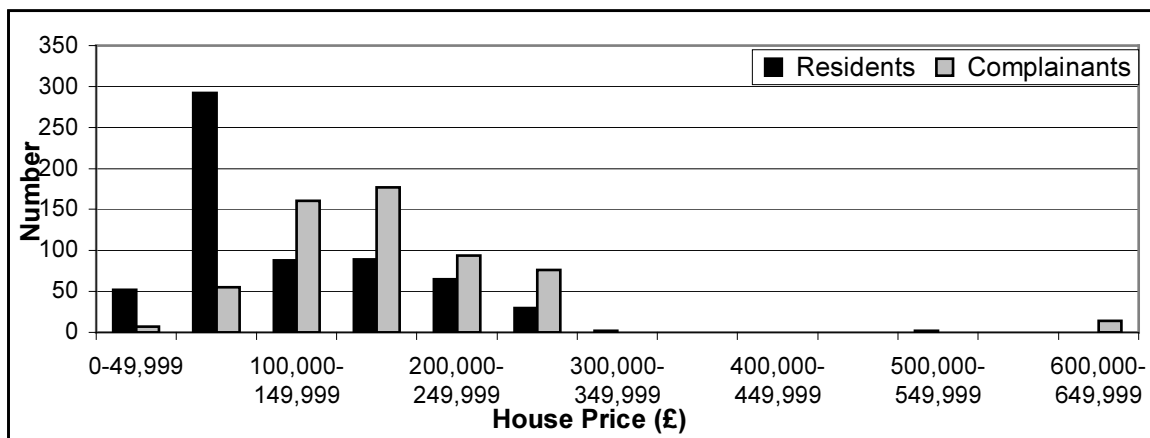


Figure 2 Comparison of approximate house prices for residents living within the 54dBA daytime contour at Manchester Airport and complainants in 2000

Discussion The data indicates that complainants tend to be drawn from a higher socio-economic status, tend to live in more expensive houses and have more than two cars. The relationship between annoyance and complaints is complex and so one cannot conclude from this data that socio-economic status determines the level of annoyance induced by aircraft noise. However, it is possible to say that people of a higher socio-economic status are more likely to express this annoyance by complaining. This is supported in previous work (Stockbridge & Lee, 1973; Guski, 1977; Miedema & Vos, 1999).

Keywords: complaints, aircraft noise, socio-economic status.

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