



Peter Eibich, Research Associate in the Research Infrastructure Socio-Economic Panel (SOEP) at DIW Berlin

## FIVE QUESTIONS TO PETER EIBICH

# »Aircraft Noise Has Negative Impact on Well-Being and Health — Even When Not Perceived as a Disturbance«

1. Mr. Eibich, you have studied the impact of aircraft noise on well-being and health, taking Berlin as an example. Were you able to establish a clear association? It certainly has been possible to determine an association. However, the strength of this association depends heavily on the indicator being considered. We determined, for example, that individuals living in residential areas heavily affected by aircraft noise experience a lower level of life satisfaction than those less affected by it. At the same time, these individuals are also less satisfied with their living environment and, from a health perspective, there is more evidence of sleep disturbances. However, we cannot completely rule out the possibility that these effects are caused by other factors than aircraft noise.
2. What health problems can be caused by aircraft noise? We established that individuals residing in areas affected by aircraft noise assess their general health to be poorer. Our findings demonstrate that actual health problems are primarily sleep-related. Those affected suffer more frequently from sleeplessness and feel more tired during the day than those who are unaffected. However, for some indicators where a correlation might have been anticipated, none was actually found. There was no significant association between aircraft noise and high blood pressure, for instance.
3. How can you distinguish whether it is only well-being or, in fact, health that is negatively affected by aircraft noise? In order to be able to differentiate, we first looked at indicators clearly in the category of well-being and life satisfaction and second, we examined indicators unambiguously associated with health. Thus, we were able to establish that both well-being and health are compromised by aircraft noise. According to our data, however, the impact on well-being appears to be stronger.
4. Is the health of individuals still compromised even if they do not perceive a negative impact? Interestingly, this is indeed the case. Our data enable us to clearly distinguish whether individuals only perceive the existence of aircraft noise where they live, or whether they feel as though the noise actually has a negative impact on them. As a result, we can see that only around a third of individuals indicating that their place of residence was affected by aircraft noise actually felt disturbed by that noise. Nevertheless, the same effects identified for disruptive aviation noise are also observed for the mere presence of aircraft noise, albeit to a somewhat lesser extent, of course. The implication of this finding is that it is of no particular significance whether an individual feels negatively affected by aircraft noise or not but the simple existence of perceptible aviation noise is sufficient to compromise their well-being and have a negative impact on their health.
5. To what extent do lower household costs, such as reduced rents, for example, compensate for the adverse effects of aircraft noise? Of course, it is generally expected that individuals who do not personally perceive aircraft noise as a disturbance are happy to accept living in the affected residential areas as a trade-off for lower rent or more reasonable property prices. This is also confirmed by previous analyses. For example, it is evident that property prices per square meter are lower, the closer the housing or land is to a flight corridor. However, our analyses also show that this compensation mechanism cannot completely offset the reduction in well-being. This means that even individuals who enjoy lower rents due to noise impact still experience a decline in well-being.

Interview by Erich Wittenberg



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