

Aircraft noise pollution and work disability

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Abstract: Environmental noise has emerged as a prominent public health concern in recent decades, contributing significantly to the global burden of disease, second only to air pollution. A vast body of literature has found associations between environmental noise and a variety of adverse health outcomes. However, up to the date few studies have identified causal links between the two phenomena. Additionally, the detrimental impact of environmental noise on economies due to productivity losses resulting from work disability of the working age population has been overlooked altogether. In this study, we use population-wide administrative registers from Norway to investigate how chronic exposure to aircraft noise affects long-term sickness absence. We focus on the case of Rygge airport in Moss municipality, which shut down in 2016 after being in operation for 10 years. Treating this event as a natural experiment, we apply two-way fixed-effects event-study design to estimate changes in long-term sickness absence of inhabitants in the nearest district following the airport closure. Our results show that within one year after of discontinuation of the air traffic, the probability of long-term sickness absence decreased significantly by approximately three percent. This reduced probability has remained stable in the following years.

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