**Supplementary File 3.**

Model parameters for linear mixed-effect model assessing the impact of air quality (AQI) on the baseline visual processing speed (shift rate) model which included Year, Load, SES, and Age Cohort as predictors, controlling for the change preference score (see Table 7)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **Estimate** | **Std. Error** | **DF** | **t value** | **Pr(>|t|)** |
| (Intercept) | 0.548 | 0.022 | 742.80 | 24.621 | <0.001 |
| **Change Pref** | **0.193** | **0.040** | **936.40** | **4.798** | **<0.001** |
| Year | 0.011 | 0.017 | 892.40 | 0.669 | 0.50337 |
| **Load1** | **0.034** | **0.011** | **814.20** | **3.013** | **0.00267** |
| Load2 | 0.001 | 0.011 | 811.20 | 0.098 | 0.92203 |
| SES | 0.001 | 0.003 | 205.60 | 0.318 | 0.75072 |
| Age | 0.003 | 0.028 | 196.50 | 0.119 | 0.90528 |
| **AQI** | **-0.001** | **0.000** | **192.70** | **-2.067** | **0.04011** |
| Year:SES | -0.005 | 0.004 | 927.10 | -1.120 | 0.26281 |