

Review of: "On Mask Wearing in Environments With and Without a Mask Mandate"

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Potential competing interests: No potential competing interests to declare.

Review opinions

Manuscript ID: Qeios P2U6DU

Finished by: Longes

Recommended decision: **Major revision**

The author analyzed an office environment with two types of workers. The first type does not wear a mask. The second type does wear a mask to protect itself from Covid-19. Then they ascertained the possible outcome in Coasian bargaining between the two types of workers. The work is quite topical and the analysis sound and intriguing. But there are many problems:

1. The introduction is not focused enough. There has not been sufficient literature research on the applied model of theoretical framework. There are only 9 references in the full text. It is recommended to expand the important relevant literature.
2. It is very important to establish the scientific and reasonable 2.1 theoretical framework. Please clarify the key concepts, the "worker's utility function" and "Coasian bargaining".
3. The application of linear model in the utility function of wearing masks is not rigorous enough. Is it based on existing references? It is likely that a reliability analysis was required.
4. Ignoring the externality, it is optimal for a type one worker to not wear a mask for 50h. But after considering the externality, it's 0h. In other words, once we account for the externality, everybody in our office environment ought to be wearing a mask all the time. This conclusion is very interesting, and it is suggested to be reflected in the Abstract.
5. 2.5. No mask mandate "the outcome of Coasian bargaining is between 250 and 500 utils to wear a mask". Based the context, the "α" after "250 and 500" is missing.
6. The first paragraph of conclusion, which is repeated with the abstract and introduction, is suggested to be deleted.

To sum up, the thesis must be significantly revised.