



## The Impact of Demographics on Mask Wearing: Why Minorities Mask at a Higher Rate Carmel Andeberhan

### Abstract

The Covid-19 pandemic sparked a national conversation on mask wearing and social responsibility. Despite the rising death and infection rates many citizens in the U.S remained unwilling to follow CDC guidelines by masking and social distancing. By 2022 many schools had begun to go mask optional including mine. Over the course of the last two months of the school year I surveyed over sixty students and interviewed eleven. The research question I was looking to answer was, which demographics masked more and why. I found that minorities or disadvantaged groups in terms of race, class and gender wore masks at a higher rate. The interviews I had conducted also showed that those who wore masks expressed concern for others at a higher rate, leading me to confirm my hypothesis that minorities mask at a higher rate because they are more empathetic. My operational definition for minority was non-white persons, women and non-binary people, as well as those in the middle or working class whereas my operational definition for empathy was concern and consideration for others, especially those unrelated to them. My hypothesis is also supported by previous studies showing ethnic and gender minorities mask at a higher rate, lower class people are more empathetic and that empathy increases masking and social distancing.

*Keywords: Covid-19, Mask-wearing, Race, Class, Gender, Empathy*

### 1. Introduction

In January of 2021 a paper titled *Understanding How Race, Ethnicity, and Gender Shape Mask-Wearing Adherence During the COVID-19 Pandemic: Evidence from the COVID Impact Survey* was published. This study pooled data on mask wearing from the COVID-19 Impact Survey and analyzed it through the lens of race, ethnicity and gender. This study showed Black, Latino and Asian respondents were more likely to wear masks than their White counterparts. It also showed women were more likely to wear masks than men with white men being the demographic least likely to wear masks. The study also showed that men were more likely to view mask wearing negatively than women. This study made it clear that marginalized and as a result less privileged persons were more likely to wear masks. The study also mentions that more privileged groups were less impacted by Covid-19 and that white men being the wealthiest demographic could be part of the reason for this gap in mask wearing. Another study on this topic, *The Emotional Path to Action* showed that empathetic people were more likely to wear masks and social distance. These studies support my hypothesis and are significant because they show disparities in masking among racial, class and gender groups. Seeing as illness is an inevitable aspect of human life this research is important for improving public response to illnesses and promoting social responsibility.



## 1. Materials and Methods

In this study I used mixed methods to gather data and analyze masking practices within my highschool. These methods were surveying and interviewing a randomly selected sample. The survey had six multiple choice questions, asking participants what race, class, gender and ability level they identified with as well as whether they wore a mask over their nose and mouth to school regularly. This survey was given to students during various lunch periods through a google form. After surveying sixty-one participants I analyzed the responses to see the correlation between participant's demographics and their masking choices. As for the interviews I attempted to randomly select students throughout the school although the majority were from my classes. In these interviews I asked students who wore masks and those who didn't a set of varied yet comparable questions regarding Covid-19 and mask wearing. These questions covered topics such as why participants chose to wear or not wear a mask, what their concerns regarding Covid were and the masking choices of those around them. I then coded these interview responses for expressions of concern for others or greater society, to see if there was a correlation between masking and empathy. I had originally conducted eleven interviews, seven with non-masking students and four with masking students, however due to technical issues two non masking interviews were unable to be retrieved. Through the survey data I was able to identify a correlation between specific demographics and mask wearing. By looking at the nine participants' responses to the interview questions I attempted to identify trends in why some chose to wear a mask or not. I also mention and use three different studies on national masking rates in correlation to demographics, mask-wearing and empathy and privilege and empathy to support my hypothesis.

## 1. Results

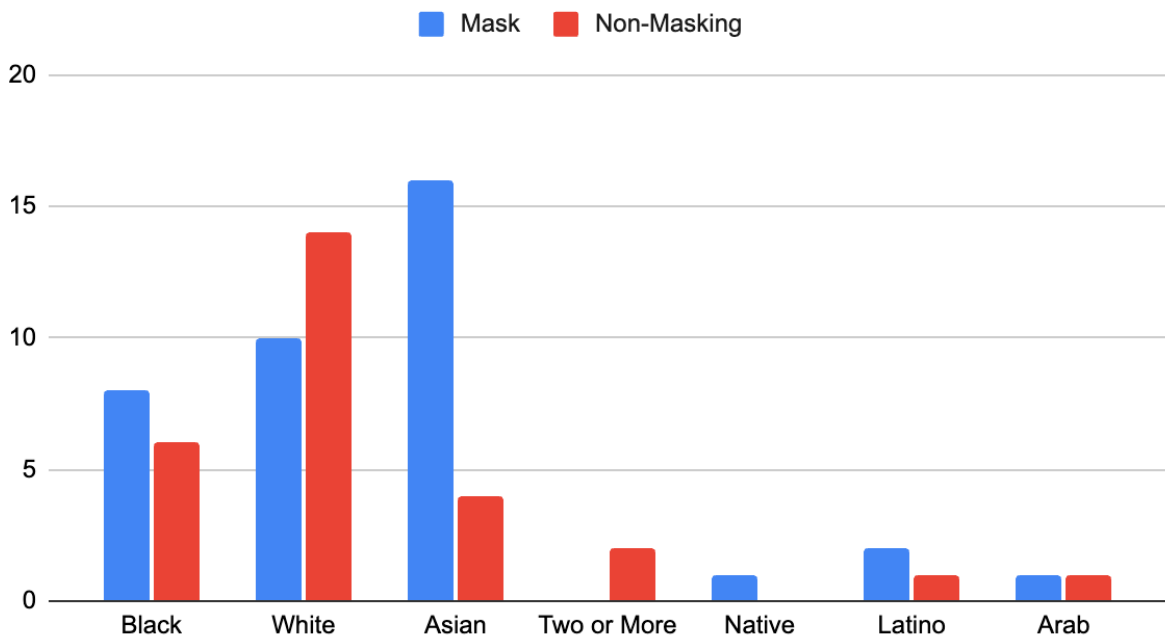
The highschool used in this study is a well-funded public high school located in a liberal mid-sized city in a conservative state within the midwest(US News: Ladue school district, MO). Less than 3% of the district is below the poverty line and the average income per household is around \$110,000 which is more than double the state's average(Census profile: Ladue school district, MO). Around 40% of the 1,300 enrolled students are considered minorities with the school being 55.9% white, 16.4% Asian, 15.8% Black, 6.4% two or more races, 5.3% Hispanic and 0.2% American Indian (Census profile: Ladue school district, MO). Of this population I surveyed a randomized sample of sixty-one people. Of the surveyed students 16 out of 20 Asian, 8 out of 14 Black and 10 out of 25 white students wore masks to school regularly. I also found that 1 out of 4 upper, 12 out of 28 upper middle, 22 out of 29 middle and 2 out of 4 working class students masked. Additionally 7 out of 25 male, 25 out of 34 female and 5 out of 5 non binary students wore masks. Although this population is not perfectly representative with Black, Asian and Female students being overrepresented we can still see that racial, gender and class minorities were more likely to wear masks. Upon coding for concern for

others within the interviews, I found that 4 out of 7 masking participants and 1 out of 2 non-masking participants expressed concern for the safety of others or the greater public.

Figures:

This bar graph displays higher masking tendencies within racial minorities, considerably Black and Asian. Latino populations and Arab populations were underrepresented but showed similar tendencies.

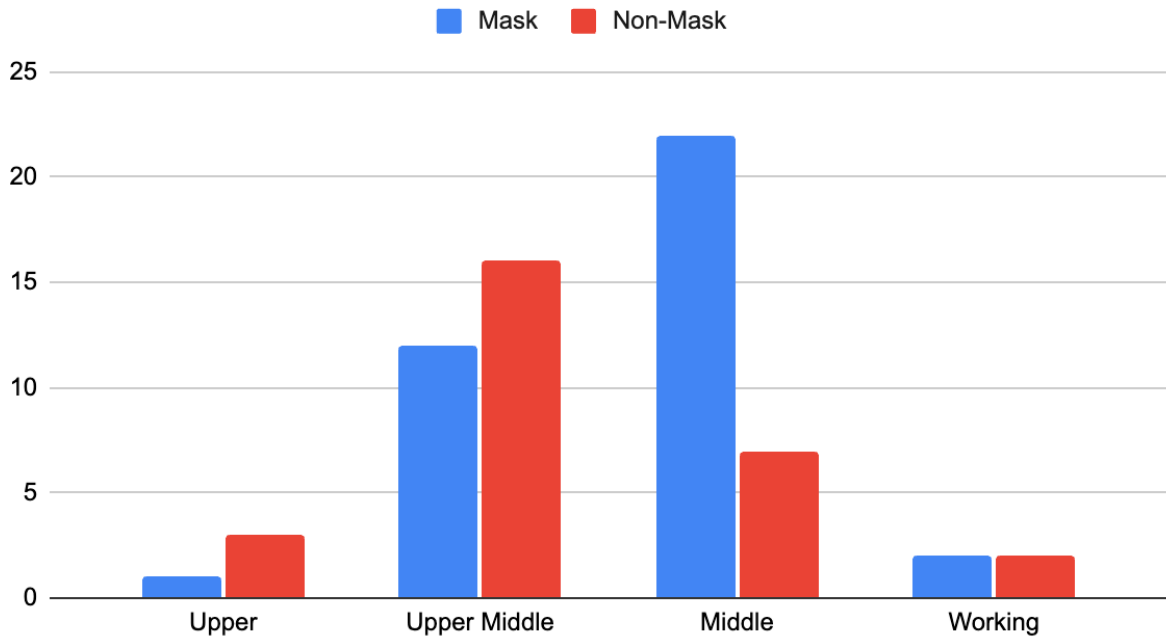
### Masking v Race



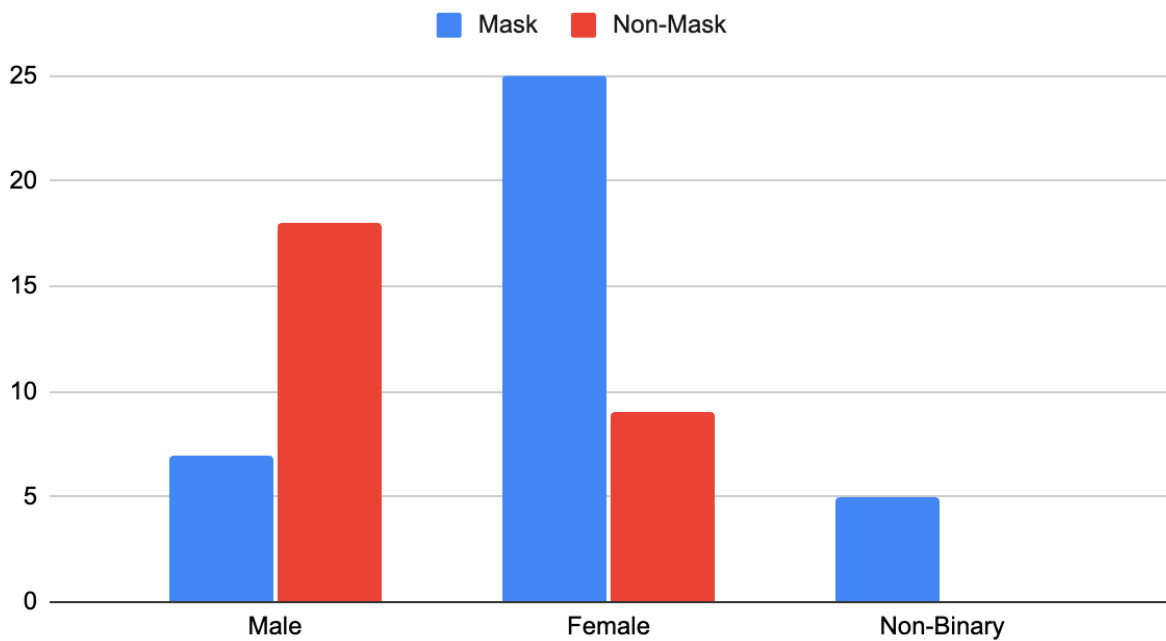
This bar graph shows upper middle class participants chose to unmask significantly more than they masked, whereas middle class participants are significantly more likely to wear a mask than not. Working class participants were underrepresented but were split evenly between mask wearing and non mask wearing.



## Masking v Class



## Masking v Gender



Female participants wore masks significantly more while the majority of male participants did not wear a mask. All non-binary or gender non-conforming persons surveyed wore masks, with a 100% masking rate.

## Discussion

The survey results shown above make it clear that minorities masked at a higher rate than less disadvantaged persons. When analyzing previously mentioned interviews one can arrive at the conclusion that masked participants were more empathetic because they showed more concern for others. Although the interviews conducted were not representative due to underrepresentation of non-masking students, other studies show that there is a clear link between mask wearing and empathy including previously mentioned *The Emotional Path to Action*. Based on this information I was able to come to the conclusion that minorities mask at a higher rate because they are more empathetic. This is increasingly supported by *Social Class, Contextualism, and Empathic Accuracy*, a study that shows participants from lower classes had higher “empathic accuracy”. The significance of my research is that while it is not generalizable on its own, in the context of past studies it can show us why there were gaps in mask wearing and arguably social responsibility between demographic groups during the Covid-19 pandemic. In inevitable future health crises, we can put this information to use, to close these gaps and reduce harm.

## References

*Census profile: Ladue school district, MO*. Census Reporter. (n.d.).

<https://censusreporter.org/profiles/97000US2917820-ladue-school-district-mo/>

US News . (n.d.). *Ladue Horton Watkins high school in St Louis, MO - US news best high*  
... usnews.com.

<https://www.usnews.com/education/best-high-schools/missouri/districts/ladue/ladue-horton-watkins-high-school-11718>

Pfattheicher, S., Nockur, L., Böhm, R., Sassenrath, C., & Petersen, M. B. (2020). The emotional path to action: Empathy promotes physical distancing and wearing of face masks during the COVID-19 pandemic. *Psychological Science*, 31(11), 1363–1373. <https://doi.org/10.1177/0956797620964422>

Hearne, Brittany N., & Michael D. Niño. (2021, January 19). *Understanding how race, ethnicity, and gender shape mask-wearing adherence during the COVID-19 pandemic: Evidence from the COVID impact survey - journal of racial and ethnic health disparities*. SpringerLink. <https://link.springer.com/article/10.1007/s40615-020-00941-1>



Kraus, Michael W., Stéphane Côté, and Dacher Keltner. 2010. "Social Class, Contextualism, and Empathic Accuracy." *Psychological Science* 21 (11): 1716–23. <https://doi.org/10.1177/0956797610387613>.