# Remembering the Victims: Understanding the Human Toll of Auschwitz through Interactive Data Visualization\*

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# 1 Introduction

Auschwitz stands as one of the most chilling symbols of the Holocaust, where millions of individuals were subjected to unspeakable horrors. By examining the data on the total number of deportees and victims of Auschwitz, we aim to delve deeper into the human experiences behind the statistics, ensuring that the memory of those who suffered is honored and preserved. The paper was don using R Core Team (2023), Wickham et al. (2019), and Goodrich et al. (2022). Link to shiny app: https://ddmje2-emily-su.shinyapps.io/holocaust/.

# 2 Data

The data used in this analysis provides insights into the ethnic origins and number of Holocaust victims killed at Auschwitz concentration camp and is obtained from (2015). The dataset includes information on the nationality/category of victims, the total number of deportees, the percentage of deported individuals, the number of victims, the percentage of murdered individuals within each category, and the percentage of all victims by nationality/category.

The dataset provides a comprehensive overview of the demographic composition of victims at Auschwitz, allowing for a analysis of the human toll of the Holocaust. This data serves as the foundation for creating interactive visualizations using the Shiny framework, facilitating a user-friendly exploration of the statistics and trends associated with Auschwitz victims' ethnic origins and numbers.

<sup>\*</sup>Code and data are available at: https://github.com/emisu36/Holocaust-Victims-shiny.

With the tests of different models as shown in Figure 1, Figure 2, and Figure 3. We have created the shiny app on this website using shinyapp.io shiny app here.

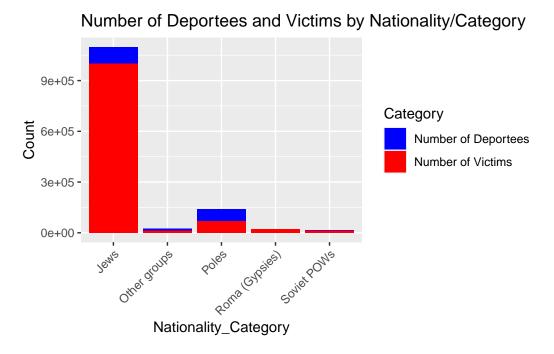


Figure 1: Nationality/Category vs. Number of Deportees and Number of Victims

# Percentage of Murdered within Nationality/Category 75 50 25 Poles P

Figure 2: Nationality/Category vs. Percentage of Murdered within the Category/Nationality

Nationality\_Category

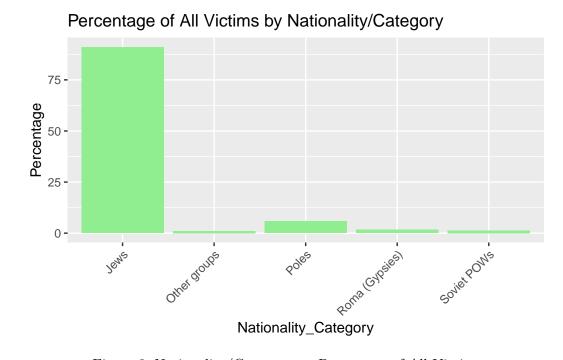


Figure 3: Nationality/Category vs. Percentage of All Victims

# 3 Discussion

After reading the paper from Bouie (2022) the following discussions were looked into to relate with the victims of Auschwitz.

# 3.1 Humanizing Historical Data

The numbers provided offer a stark reminder of the immense scale of suffering at Auschwitz. With an estimated total of 1.3 million deportees to the camp, it's crucial to recognize that each number represents a human being, each with their own story of resilience and tragedy. For example, the data reveals that approximately 1.1 million individuals perished within the confines of Auschwitz, highlighting the staggering loss of life and the individual tragedies that unfolded within its walls.

#### 3.2 Ethical Considerations

Engaging with data on Auschwitz necessitates careful ethical considerations, given the profound trauma associated with the Holocaust. While quantifying the number of victims provides important historical insights, researchers must approach this data with sensitivity and empathy, mindful of the impact it may have on survivors and their descendants. Preserving the dignity and memory of those who perished must remain paramount in our research endeavors.

### 3.3 Intersection of Quantitative and Qualitative Approaches

To fully comprehend the human toll of Auschwitz, we must combine quantitative analysis with qualitative research methods. While the numbers convey the scale of the tragedy, qualitative approaches allow us to humanize the data by sharing the stories of survivors and victims. By integrating both approaches, we can gain a more nuanced understanding of the lived experiences of those who endured the horrors of Auschwitz.

# 3.4 Responsibility of Researchers

Researchers have a responsibility to present historical data accurately and responsibly, particularly when dealing with sensitive topics such as the Holocaust. It's essential to critically engage with the sources of information, recognizing the biases and limitations inherent in the records. Moreover, researchers must amplify the voices of survivors and ensure that their narratives are central to our understanding of Auschwitz and its legacy.

# 3.5 Public Engagement and Education

Projects that disseminate information about Auschwitz, such as the documentation of deportees and victims, play a crucial role in public education and remembrance. However, it's imperative to approach public engagement with empathy and respect, ensuring that the memory of the victims is honored and that survivors' voices are uplifted. By fostering awareness and empathy, we can ensure that the lessons of Auschwitz are never forgotten.

# 3.6 Conclusion

As we reflect on the data regarding Auschwitz, we must remember that behind each number lies a human life—a story of suffering, resilience, and loss. By humanizing historical data, engaging in ethical research practices, and prioritizing remembrance and education, we can honor the memory of those who perished at Auschwitz and strive towards a more compassionate and just world.

# References

- 2015. 70th Anniversary of Liberation of Auschwitz. Państwowe Muzeum Auschwitz-Birkenau w Oświęcimiu. http://70.auschwitz.org/index.php?option=com\_content&view=article&id=89&Itemid=173&lang=en.
- Bouie, Jamelle. 2022. "We Still Can't See American Slavery for What It Was." *The New York Times*. The New York Times. https://www.nytimes.com/2022/01/28/opinion/slavery-voyages-data-sets.html.
- Goodrich, Ben, Jonah Gabry, Imad Ali, and Sam Brilleman. 2022. "Rstanarm: Bayesian Applied Regression Modeling via Stan." https://mc-stan.org/rstanarm/.
- R Core Team. 2023. R: A Language and Environment for Statistical Computing. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.
- Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.