



An Analysis of Local Resilience Challenges in the United States

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Abstract

This project analyzes the prevalence of multiple resilience challenges within local U.S. governments. These challenges can be broken down into five different classifications: Natural Environment Resilience and Climate Change (E), Natural Disasters (D), Socio-Economic Resilience (SE), Built Environment and Infrastructure Resilience (I), and Government and Institutional Resilience (G). In order to identify the incidence of these challenges, a survey was emailed to 11,148 local government leaders from 1,246 cities with a total population of more than 30,000 residents. The survey received 496 responses with 254 complete responses. The results were analyzed utilizing Excel and basic statistical measures to determine which challenges are most prevalent in local communities. Results are preliminary; however, it appears that the most frequent responses include those concerning economic inequality and climate change. Local governments struggle to cope with manifestations of these issues, such as rising carbon emissions and a lack of affordable housing.

Introduction

- The purpose of this project is to determine which resilience challenges are most prevalent within United States communities.
- The definition of a resilience challenge is any issue a community faces that requires adaptation to overcome.
- Cities with above average income are defined as those with an average income of \$75,000 and higher.

Methods

A Qualtrics survey concerning governmental resilience was sent to 11,148 local leaders from cities with populations that exceed 30,000. These leaders include mayors, council members, city managers, etc. The survey received 496 responses with 254 of those being complete. Email addresses of officials were obtained from city websites and coded utilizing Excel. The portion of the survey that is the focal point of this project is an open-ended question that states “what are your community’s sustainability or resilience challenges that you want to address most?” The survey results were then analyzed.

Results

- Responses coded under Built Environment and Infrastructure Resilience were the most common in cities with an above average income, and responses coded under Socio-Economic Resilience were the least common challenges in cities with an above average income.

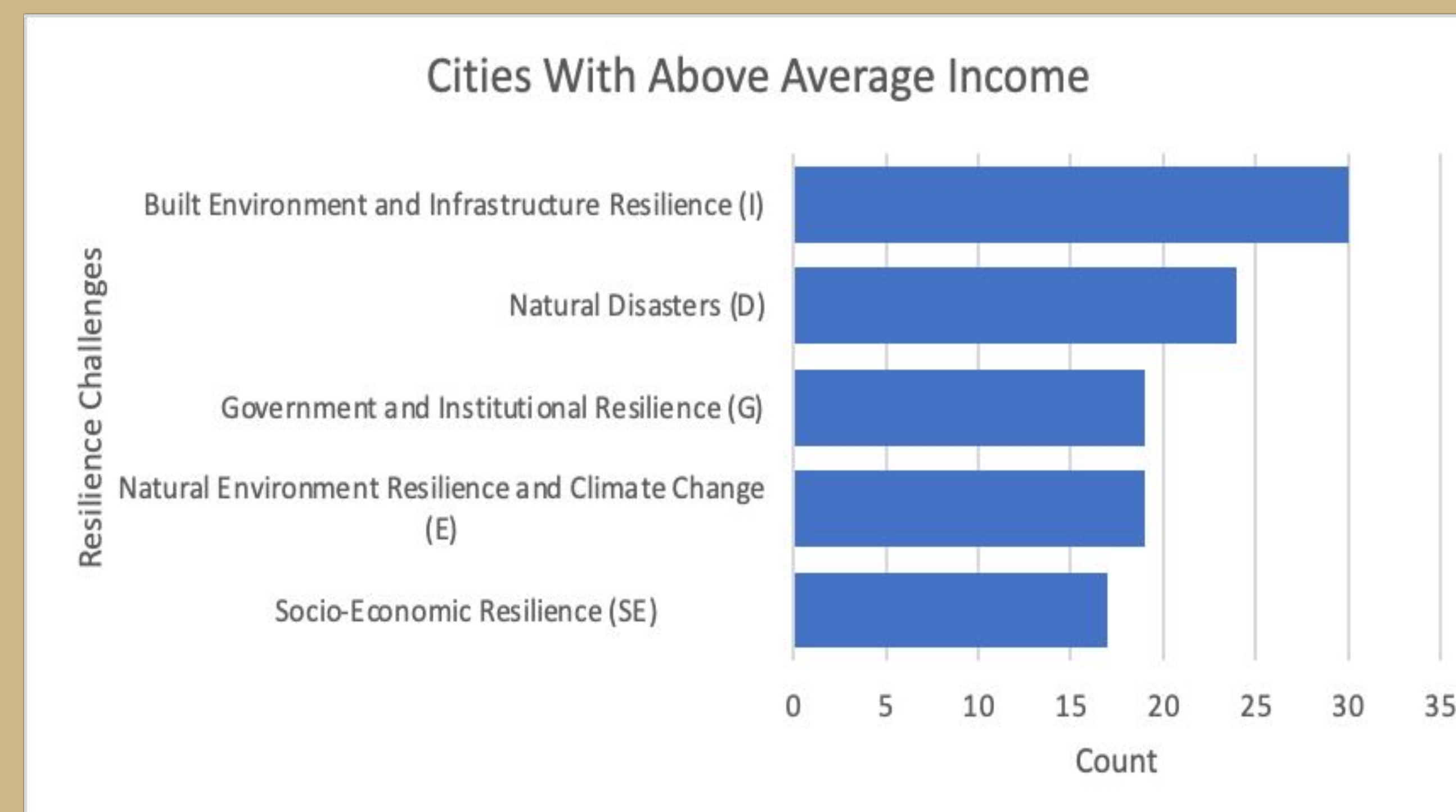


Figure 1: A chart to display the breakdown of resilience challenges in above average income communities.

- From cities with a below average income, responses concerning Socio-Economic Resilience were the most common, while responses about Natural Environment Resilience and Climate Change were the least common.

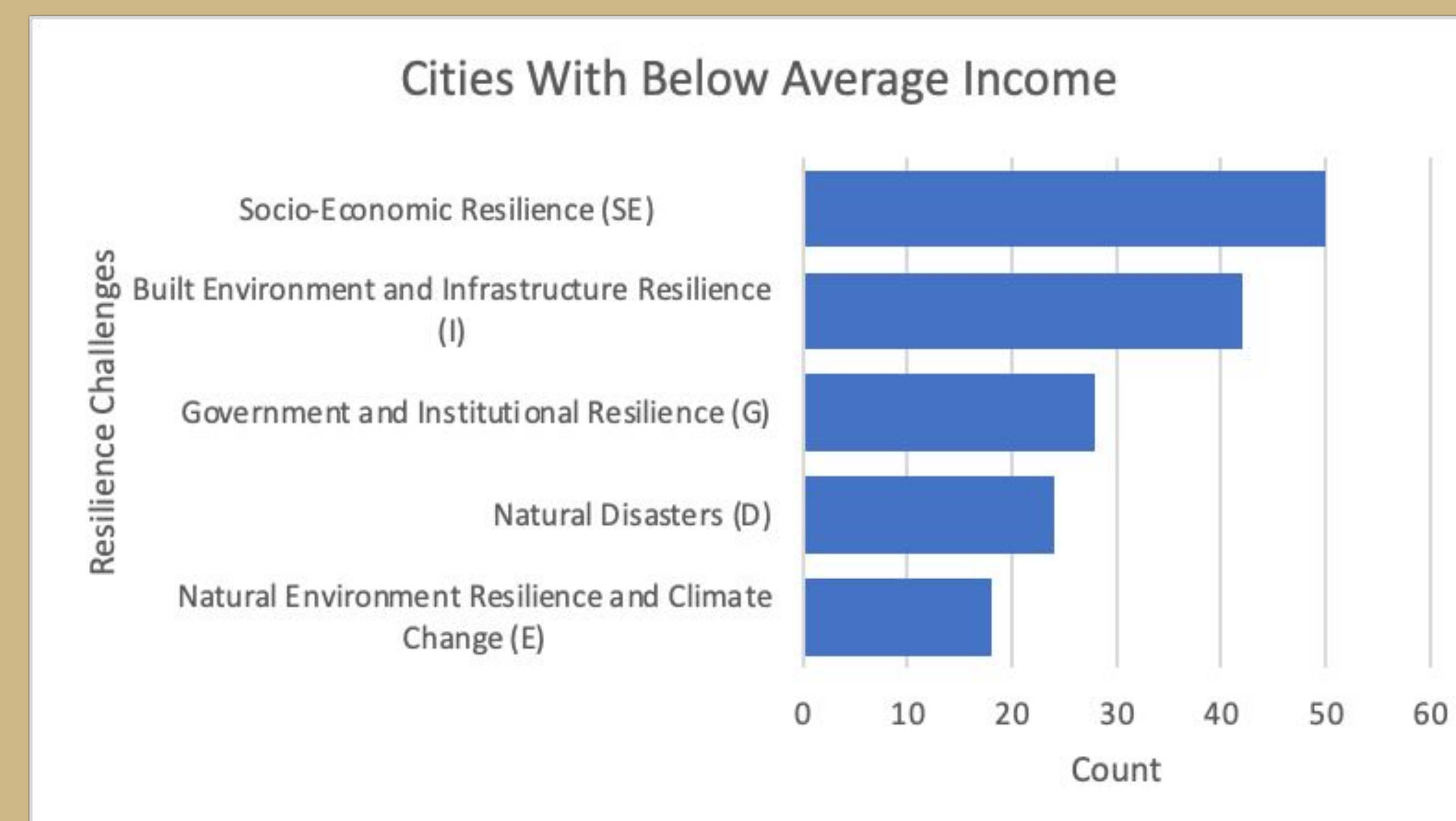


Figure 2: A chart to display the breakdown of resilience challenges in below average income communities.

Conclusion

- Overall, above average income cities struggle the most to cope with Built Environment and Infrastructure Resilience, while below average income cities struggle to cope with Socio-Economic Resilience.
- The number of challenges reported under the categories of Natural Environment Resilience and Climate Change as well as Natural Disasters do not see great variation among both below and above average income cities.
- Cities with below average incomes report Socio-Economic Resilience challenges, such as housing insecurity, much more frequently than cities with above average incomes.
- Cities with below average income struggle with infrastructure and governmental resilience more frequently.
- In future research, an interesting avenue to consider examining is the efficacy of various interventions aimed at mitigating these resilience challenges.

References

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