



The Relationship Between Income Level, Support for Transportation and Tax Tolerance

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Introduction

- Research shows that toleration for taxation is increased when public goods like transportation infrastructure are delivered effectively (Alfaro et al., 2022).
- Support for public transportation infrastructure is dependent on the general public's support and through taxation for public goods.
- Having sufficient public goodwill is a necessary step to sustainably funding mass transit through taxation (Poon et al, 2020 & Wagner, 2013).
- Concentration of public transportation infrastructure shows a relationship between neighborhood median household income (Barton et al., 2017).
- Differences in income inequality show to effect support for public spending and taxation driven policies (Solano-Garcia, 2022).

Research Questions

- Is there an association between an individual's income level and their support for current or greater levels of funding for transportation infrastructure?
- Does the association between an individuals support for transportation funding and income level vary based on their toleration for taxation?

Methods

Sample

- Respondents (n=1,484) were drawn from the 2021 General Social Survey (GSS), a nationally representative sample of English-speaking, non-institutionalized adults in the U.S.

Measures

- Beliefs about transportation spending(mass transportation, highways and bridges) were assessed through responses coded dichotomously.
- Individual's income level was assessed through 3 categories, ranging from "Low Income", "Middle Income", and "Upper Income".
- Beliefs about taxation were assessed through responses coded on a scale of 1(too much) to 3(too little).

Results

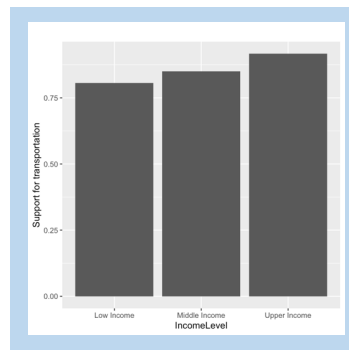
Univariate

- 90.3% of respondents are in the low and middle-income class.
- 83.63% of respondents indicated that they supported current or greater levels of funding for transportation.
- 53.6% of respondents believe that taxes are too high.

Bivariate

- A chi-squared test showed that **support for transportation spending** were significantly and positively associated with **increasing family income level** ($X^2=12.271$, $p=0.002165$).
- A post-hoc chi-squared results indicate that a statistically significant higher proportion of high-income individuals supported transportation spending compared to those in the low-income categories.

Figure 1. Support for Transportation Spending and Family Income Level

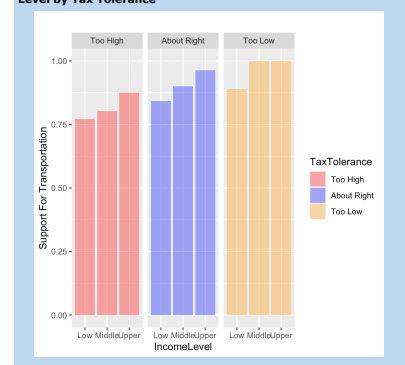


- Additionally, chi-squared testing shows a greater rate of support for transportation spending as tax tolerance increased($X^2=22.815$, $p=1.111e-05$).
- A post-hoc chi-squared analysis indicate a statistically significant difference in tax tolerance comparisons between the "Too High" and "About Right" groups, but not between the "Too Low" and "About Right" groups.

Multivariate

- Respondents in the upper income has a significantly higher likelihood of supporting transportation spending than low income for people who think taxes are "Too High" (p -value=.0418).
- For respondents in the low-income group, Tax Tolerance of "About Right" is significantly higher in proportion of support than "Too High" (p -value=.0194). Visually, there appears to be relationships throughout other groups between tax tolerance levels, but this can be attributed to sampling influences.

Figure 2. Support for Transportation Spending vs. Income Level by Tax Tolerance



Discussion

- An increase in an individual's family income level shows some level of association with increased support for transportation spending.
- Additionally, an increased toleration to taxes shows an association with increased support for transportation spending, but this difference in support is only significantly higher between the low-income level respondents who thought that their taxes were "Too High" and "About Right" and between individuals in high and low income who thought their taxes were "Too High".
- Policymakers could use this information to target certain demographics in order to garner support for public transportation products.
- Further research is needed to better understand what other factors influence an individual's tax tolerance and the impact of other demographic factors within each income level.