



Measuring LGBTQ+ Discrimination: A Double List Analysis Assessing the Impact of Anti-LGBTQ+ Legislation

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Abstract

In this study, we assess the extent to which individuals in the United States misreport their attitudes regarding anti-LGBTQ+ educational legislation. Specifically, this study focuses on the Floridian bill HB 1557, or the “Don’t Say Gay,” bill. The gap between reported views and actual views is primarily the result of social desirability bias: the tendency of participants to respond dishonestly to questions when they believe that their answer opposes social norms. We utilize the inherently anonymous list experiment to minimize the prevalence of social desirability bias to elicit truthful responses from participants. We conduct two double list experiments to explore multiple facets of HB 1557. The size of the bias for each list is estimated by a difference-of-means analysis and can be viewed as a lower-bound estimate of the population’s true views. This study was conducted via Prolific and gathered a sample that is representative of the larger American population on the basis of age, sex and race.

There are five statements in the list below. How many of the following statements are true for you?

- I own a car.
- I would vote for a candidate who would tighten border security with Mexico.
- I am pro-choice regarding abortions.
- I have visited over 15 countries.
- I think the law should allow for the inclusion of LGBTQ+ content in educational curriculum.

Image 1: List 2A + KS2. This is one of the ways participants interacted with the key statement

There are five statements in the list below. How many of the following statements are true for you?

- I have personally met the current Vice President of the United States.
- I would vote for a candidate who would decriminalize usage of marijuana.
- I support relaxing gun control laws.
- I have a driver's license.
- I would be comfortable with my child having an openly LGBTQ+ teacher.

Image 2: List 1A + KS1.

Methods

This study focuses on two main key statements of interest, which are defined as follows:
KS1: I would be comfortable with my child having an openly LGBTQ+ teacher.
KS2: I think the law should allow for the inclusion of LGBTQ+ content in educational curriculum.
 To curb social desirability bias, we utilized a double list experiment for each question.

In a double list, participants see two lists with four trivial statements each, and a key statement is randomly appended to one list. Participants are instructed to indicate how many items on each list they agree with, preserving their anonymity. Thus, a difference in means can be calculated to estimate the true proportion of participants that agree with the key statement. To do this, we utilize Tsai’s 2019 Stata package KICT. We also estimate the true population size using standard OLS.

Participants are subsequently instructed to complete a survey in which they directly answer the key statements without any anonymity. The difference between our double list estimates and the average response of participants can be interpreted as the size of the social desirability bias.

Participants are also instructed to indicate “x/100 Americans would agree with” for each key statement, effectively measuring their second-order beliefs. Heterogeneity analysis is done for various subgroups.

Acknowledgements

This research would not have been possible without the help of my thesis director, Dr. John Hamman, and my two board members, Dr. Cynthia Yang and Dr. Paul Renfro. Special consideration also goes to Dr. Billur Aksoy for her considerable contribution to the formation of this project. I would also like to thank my partner Leon and my friend Becky for helping me get through countless hours of coding and analysis.

Findings and Implications

As our sample is statistically representative of the larger American population, we draw conclusions for Americans.

KS1

An estimated 69.67% of Americans agree with key statement 1. When directly asked, 75.16% of participants agreed with KS1. The size of the social desirability bias is 5.49%, and the difference is statistically significant. Participants predict that 47.27% of Americans agree with KS1, indicating that Americans drastically underestimate the amount of support for openly LGBTQ+ teachers. The presence of social desirability suggests that future surveys which attempt to measure attitudes towards LGBTQ+ teachers may present an overly optimistic view. The size of this gap is line with findings from Aksoy et al. (2022) and Coffman et al. (2012).

OLS Estimates

Our OLS estimates for KS1 and KS2 are all statistically significant and fall near our double list estimates, even when adding demographic, socioeconomic and miscellaneous controls.

KS2

An estimated 61.40% of Americans agree with key statement 2. Direct responses yield an average score of .6306, indicating that when directly asked, 63% of participants agree with KS2. The difference between our estimate and direct responses is not statistically significant, indicating that social desirability bias may not be present when looking at this question. This is a departure from our expectations, as politically charged questions tend to have some social desirability bias when asked directly. However, the difference between participants second order beliefs about KS2 and our estimate is statistically significant (42.11% vs 61.4%). The implications of this are not entirely clear. Future studies are necessary to understand why there is no social desirability bias. Preliminary research may suggest that the proliferation of anti-LGBTQ+ legislation regarding interactions with children may decrease the size of this bias, but no causal relationship has been established.

Table 1 KS1, list 1A: LGBTQ+ Teacher; OLS Results

No Controls	Demographic Controls	Demo. and Socioeconomic Controls	Demo. and Socio. and Misc. Controls
.7614*** (.0444)	.7432*** (.0437)	.7522*** (.0409)	.7550*** (.0410)

Table 2 KS1, list 1B: LGBTQ+ Teacher; OLS Results

No Controls	Demographic Controls	Demo. and Socioeconomic Controls	Demo. and Socio. and Misc. Controls
.7057*** (.0434)	.6697*** (.0419)	.6661*** (.0406)	.6638*** (.0407)

Table 3 KS2, list 2A: LGBTQ+ Curriculum; OLS Results

No Controls	Demographic Controls	Demo. and Socioeconomic Controls	Demo. and Socio. and Misc. Controls
.6407*** (.0521)	.6170*** (.0505)	.6275*** (.0471)	.6297*** (.0468)

Table 4 KS2, list 2B: LGBTQ+ Curriculum; OLS Results

No Controls	Demographic Controls	Demo. and Socioeconomic Controls	Demo. and Socio. and Misc. Controls
.6199*** (.0411)	.6117*** (.0411)	.5988*** (.0402)	.5963*** (.0403)

*** p < 0.01. Demographic controls include participant’s age, sex assigned at birth, race, and sexuality. Socioeconomic controls include participant’s education, employment status, income, political alignment, religion, and their direct response to the key statement. Miscellaneous controls consists of participant’s dependent status, household size, community size and their marital status.

References

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