

Olivet Nazarene University

Digital Commons @ Olivet

Honors Program Projects

Honors Program

5-2022

Effects of the Tax Cuts and Jobs Act of 2017 on Nonprofits' Charitable Contributions

Megan Drenth
mjdrenth23@gmail.com

Follow this and additional works at: https://digitalcommons.olivet.edu/honr_proj



Part of the [Business Commons](#)

Recommended Citation

Drenth, Megan, "Effects of the Tax Cuts and Jobs Act of 2017 on Nonprofits' Charitable Contributions" (2022). *Honors Program Projects*. 136.

https://digitalcommons.olivet.edu/honr_proj/136

This Thesis is brought to you for free and open access by the Honors Program at Digital Commons @ Olivet. It has been accepted for inclusion in Honors Program Projects by an authorized administrator of Digital Commons @ Olivet. For more information, please contact digitalcommons@olivet.edu.

EFFECTS OF THE TAX CUTS AND JOBS ACT OF 2017 ON NONPROFITS'

CHARITABLE CONTRIBUTIONS

By

Megan J. Drenth

Honors Scholarship Project

Submitted to the Faculty of

Olivet Nazarene University

for partial fulfillment of the requirements for

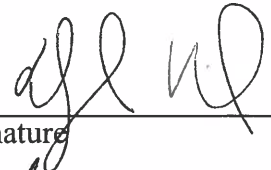

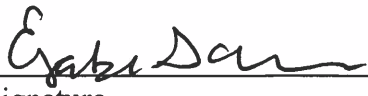
GRADUATION WITH UNIVERSITY HONORS

February 2022

BACHELOR OF SCIENCE

in

Accounting & Economics/Finance

<u>Douglas Nielsen</u>	<u></u>	<u>2-7-22</u>
Scholarship Project Advisor (printed)	Signature	Date
<u>Stephen Case</u>	<u></u>	<u>4.27.22</u>
Honors Council Chair (printed)	Signature	Date
<u>Elizabeth Schuman</u>	<u></u>	<u>4-27-22</u>
Honors Council Member (printed)	Signature	Date

ACKNOWLEDGEMENTS

Thank you to the Olivet Nazarene University Honors Program for giving me the opportunity to complete this research. Thank you to Prof. Nielsen, my research mentor, for his unceasing encouragement and dedication, his expertise, and his excitement for the research process. I'd also like to thank Dr. Williams for providing me with the original idea for this project and for his enthusiasm for accounting. Thank you to my fellow cohort members for their support and friendship throughout this experience, as well as my Honors professors for their teachings that have been crucial to my Olivet experience. Thank you to my roommates and family who have believed in me and cheered me on to see this project to completion.

TABLE OF CONTENTS

Acknowledgements.....	ii
List of Figures.....	iv
Abstract.....	v
Introduction.....	1
Review of Literature	2
The Tax Cuts and Jobs Act.....	2
Effects of the Tax Cuts and Jobs Act on the Standard Deduction.....	2
Charitable Contribution Deduction.....	3
Charitable Contributions under the Tax Cuts and Jobs Act.....	5
Methods.....	6
Sampling.....	6
Statistical Process.....	6
Results.....	7
Paired Differences T-tests.....	7
ANOVA	8
Discussion.....	9
Conclusion	11
References.....	12
Appendix A.1	15
Appendix A.2.....	18
Appendix B.....	21
Appendix C.....	26

LIST OF FIGURES

Table 1: Charitable contributions paired differences t-test results	8
Table 2: Charitable contributions ANOVA results.....	9

ABSTRACT

Background

The Tax Cuts and Jobs Act (TCJA), passed in 2017, significantly altered individuals' taxes for all filing statuses, notably increasing the standard deduction. By nearly doubling the standard deduction, it considerably decreased those individuals choosing the itemized deduction. Due to this, it may impact charitable contributions, a major source of nonprofits' revenues. Prior studies projected a variety of stances regarding changes in giving levels due to the TCJA. This study attempted to determine the overall effect of the TCJA on nonprofits, as well as within the National Taxonomy of Exempt Entities (NTEE) major groups Education, Health, Human Services, Public and Societal Benefit, and Religion Related.

Methodology

This study utilized paired t-tests to determine if a statistically significant positive difference in charitable contributions occurred post-TCJA, meaning more individuals gave to nonprofits prior to the TCJA than after the TCJA. Additionally, ANOVA analysis was used to determine if the TCJA's effects were widespread or more material to a selected segment.

Results

All t-tests performed evidenced no statistically significant positive difference in charitable contributions before and after the TCJA. All ANOVA tests were rejected at the 99% level of confidence, showing that there were statistically significant differences in charitable contributions between groups.

Conclusion

The findings of the t-tests are in alignment with prior research that indicated no change in overall giving as a result of the TCJA (Hodge, 2020). Though the researchers failed to reject all of the t-tests, the Public and Societal Benefit tests displayed p-values less than .01, which may evidence greater contributions post-TCJA in that sector.

Following the ANOVA analysis, post hoc tests identified one nonprofit within each NTEE group that received significantly greater contributions. These nonprofits were Teach for America, American Lebanese Syrian Associated Charities Inc/St. Jude Children's Research Hospital, Feeding America, The Rotary Foundation, and Samaritan's Purse.

Keywords: Tax Cuts and Jobs Act, TCJA, charitable contributions, standard deduction, itemized deduction, charitable contribution deduction

INTRODUCTION

In 2017, the Tax Cuts and Jobs Act (TCJA) was enacted and involved major tax code changes. As a result, it drastically reduced the number of taxpayers claiming itemized deductions, which therefore reduced the number of taxpayers eligible to claim the charitable contribution deduction. Nonprofits specifically have been concerned about the impacts of the TCJA on the charitable contributions they receive because they rely on these donations in order to pursue their organizational purpose. In 2016, donations made up 15.1% of nonprofit sector revenues (NCCS Project Team, 2020). However, nonprofits that provide services that are public in nature have a greater dependence on charitable contributions than other revenue sources when compared to nonprofits providing private services (Fischer et al., 2011). These donations are prone to instability from donor preferences, the current economy, and tax code changes like the TCJA (Tuckman & Chang, 1991). High incidences of instability can cause nonprofits to be financially vulnerable (Tuckman & Chang, 1991). Thus, the volatility of charitable contributions can greatly impact a nonprofit's operations. Though these concerns were expressed prior to the passing of the TCJA, the true impacts could not be discovered until a few years post-TCJA. Given this, this study sought to examine the effects of the TCJA on charitable contributions as reported as revenue on the nonprofit organizations' tax returns known as Form 990. This research will determine if a statistically significant positive difference in donation levels exists between pre- and post-TCJA within varying nonprofit sectors and whether statistical differences in charitable contributions exist between the individual nonprofit organizations.

REVIEW OF LITERATURE

The following sections will describe the Tax Cuts and Jobs Act (TCJA) and its effects on the standard deduction. Additionally, the following sections will provide further details on current experts' estimated extent of impact on nonprofits' charitable contributions as caused by the TCJA.

The Tax Cuts and Jobs Act

The Tax Cuts and Jobs Act (TCJA) is the largest change in the U.S. tax code since the Tax Reform Act of 1986. It was passed in December 2017 and will remain in effect from 2018-2025. A significant change under the TCJA was the reduction of the top marginal individual tax rate from 39.6% to 37%, along with a decrease in the other tax brackets (Gale et al., 2018). In addition, the TCJA enacted a flat 21% corporate income tax rate (Gale et al., 2018). Several itemized deductions for individuals, including those for state and local taxes (SALT) and miscellaneous itemized deductions, changed drastically. Under the TCJA, SALT deductions are limited to \$10,000 annual for both single and married filing jointly filers (Gale et al., 2018). The TCJA completely removed the deduction for miscellaneous itemized deductions, such as unreimbursed employee expenses (Gale et al., 2018). Thus, this landmark legislation considerably altered both the individual and corporate tax codes.

Effects of the Tax Cuts and Jobs Act on the Standard Deduction

One provision of the TCJA was an increase in the standard deduction that nearly doubled the previous deduction amount for most taxpayers. The standard deduction reduces taxable income by a select amount defined yearly by the Internal Revenue Service (IRS) (US Department of Treasury, 2021b). This deduction amount changes

periodically due to inflation and can increase depending on filing status, age, and disability (US Department of Treasury, 2021b). Itemized deductions, however, depend on taxpayer behavior and can increase due to changes in items such as state and local tax paid, medical expenses paid, and charitable contributions made (US Department of Treasury, 2021b). Taxpayers benefit from claiming the standard deduction only if the standard deduction amount is greater than the itemized deductions they are eligible to claim.

Under the TCJA, the standard deduction for single filers increased in 2018 from \$6,350 to \$12,000. The deduction for married couples filing jointly also increased from \$12,700 to \$24,000. Due to this increase, many itemizing taxpayers shifted to claim the standard deduction because itemized deductions no longer benefited them if they could claim a higher deduction using the standard deduction. Gleckman (2018) projected that in 2018, 21 million taxpayers would no longer itemize deductions, representing a decrease of 11.5%. A similar projection for 2018 showing an 11.9% decrease of itemizing households was made by Gale et al. (2018). For the 2019 tax year, an overwhelming majority, 87.6%, of individual returns used the standard deduction (U.S. Department of Treasury, 2021a). This increased use of the standard deduction further impacts itemized deductions, such as the charitable contribution deduction, by decreasing their use.

Charitable Contribution Deduction

The charitable contribution deduction began in 1917 and has changed very little since. A charitable contribution is defined by the IRS as “a donation or gift to, or for the use of, a qualified organization (U.S. Department of Treasury, 2019). It is voluntary and is made without getting, or expecting to get, anything of equal value” (U.S. Department

of Treasury, 2019). However, this tax benefit is only available to taxpayers who itemize deductions. Schedule A, which lists taxpayers' itemized deductions, is not required when claiming the standard deduction, making the tax benefit of charitable contributions only available on tax returns where taxpayers itemize deductions. Claiming the charitable contribution deduction effectively lowers the taxpayer's tax liability and the cost of the donation. For example, a taxpayer in the 32% tax bracket who makes a \$100 donation to a qualifying 501(c)(3) organization would reduce their tax liability by \$32 and decrease the cost of their donation to \$68. Thus, both nonprofits and itemizing taxpayers benefit when making charitable contributions.

High-income taxpayers have traditionally been the main users of the deduction since its inception. The deduction was implemented to prevent taxpayers from hoarding their after-tax income as a result of high income tax rates during World War I (Brill, 2019). An increase in the charitable contribution deductibility was passed in 1952, which increased the adjusted gross income (AGI) limitation from 15% of income to 20% (Crandall-Hollick, 2020). This increase occurred due to the introduction of the standard deduction a few years earlier (Crandall-Hollick, 2020). Congress was concerned that the standard deduction would lead to a decrease in charitable contributions made, so the AGI limitation was increased (Crandall-Hollick, 2020). Another large wave of tax code change occurred in the 1980s. President Reagan emphasized voluntarism to Americans, which was evidenced by the Economic Recovery Act of 1981 that allowed taxpayers claiming the standard deduction to deduct up to 25% of charitable contributions up to a maximum of \$100 in donations, later increased to \$300 in 1984 (Duquette, 2019). During this time, the top income tax bracket fell significantly (Duquette, 2019). Due to the

lowered tax rate, the tax benefit for charitable contributions decreased. This caused charitable contributions by the top 0.1% of taxpayers to fall 50% from 1980 to 1990, evidencing the impact of tax code legislation on charitable giving (Duquette, 2019).

Charitable Contributions under the Tax Cuts and Jobs Act

The significant change in tax code that was the TCJA resulted in many concerns, including the concern that nonprofits would see lower levels of contributions due to the change in standard deduction. The increase in the standard deduction effectively eliminates the tax benefit of charitable contributions for taxpayers who elect to take the standard deduction. Brill and Choe (2018) projected a decrease in charitable contributions by 4% because of the increase in the standard deduction, equating an estimated loss in charitable donations from individuals of \$16.3 billion to \$17.2 billion. Ricco (2018), on the other hand, projected a 5.1% reduction in charitable giving under the TCJA. Fidelity Charitable (2019) surveyed taxpayers who reported donating less to nonprofits in 2018 than in 2017, of which 48% cited doing so due to the TCJA, indicating the effect of tax code changes on taxpayers' giving habits. Additionally, empirical results indicate that taxpayers in the highest and lowest tax brackets are more likely to donate under the new legislation than taxpayers in other brackets (Nickerson, 2018). However, other estimations projected increases in total charitable giving, including a rise of 4.2% in 2019 following the implementation of the TCJA (Giving USA, 2020). Furthermore, an analysis of 2019 U.S. charitable giving data found individual giving remained at a steady \$310 billion donated and did not decrease from 2018 (Hodge, 2020). Overall, there are studies that support and refute the notion that charitable contributions will decrease due to the increase of the standard deduction from the historic TCJA. This study attempted to

resolve this ambiguity by comparing the charitable contributions before and after the TCJA.

METHODS

Sampling

This study examined 50 U.S. based nonprofits. These nonprofits are of varying revenue sizes and are segmented by National Taxonomy of Exempt Entities (NTEE) organizational major groups. NTEE major group codes are used by the IRS to classify tax-exempt organizations according to their purposes. Within each major group studied, ten nonprofits were selected. The NTEE groups analyzed were Education, Health, Human Services, Public and Societal Benefit, and Religion Related. These NTEE major groups were selected to provide a broad representation of different nonprofit sectors. The total contributions and total contributions less government contributions were examined for these five groups. Nonprofits' charitable contributions received were collected from Form 990, which is the organization's tax return. The use of Form 990 provides a more accurate depiction of changes in giving trends because unclaimed contributions made by taxpayers who do not itemize deductions are included in nonprofits' revenues on the Form 990. Form 990 from 2016-2019 were selected to examine two years pre- and post-TCJA. Charitable contribution revenue was gathered from GuideStar, a database storing Form 990 and other financial information of over 2.5 million nonprofit organizations, and the IRS.

Statistical Process

An average of charitable contributions received was calculated by individual nonprofits for pre-TCJA years 2016 and 2017 and the same time-frame post-TCJA, filing

years 2018 and 2019. These pre- and post-TCJA averages were used to perform paired differences t-tests on each of the NTEE segmentations. Paired t-tests were utilized to determine if a significant change in charitable contributions has occurred post-TCJA within each segmentation, which would indicate more giving before the TCJA than after (see Appendix A.1). The use of t-tests allows for the comparison of the magnitudes of impact the TCJA made on individual NTEE groups studied. In order to determine if one segment received a significantly different amount of contributions, an analysis of variance (ANOVA) was conducted on each segment. The supplemental analysis using ANOVA was selected to determine if the TCJA's effects were widespread across each segmentation or were more material to a selected segment (see Appendix A.2).

RESULTS

Paired Differences T-tests

Paired t-tests were performed for each NTEE major group and were segmented by total contributions and non-government contributions. Table 1 shows the t-statistic and p-value results of each test. All tests performed failed to reject the null, evidencing no significant difference in contributions before and after the TCJA. Even though both Public and Societal Benefit tests appear to be significant, this is irrelevant for the upper tail t-test performed (see Appendix B).

Table 1: Charitable contributions paired differences t-test results

Test	T-statistic	P-value
Education Total Contributions	1.3153	0.1105
Education Non-Government Contributions	0.9817	0.1746
Health Total Contributions	-0.6374	0.2699
Health Non-Government Contributions	-0.6488	0.2663
Human Services Total Contributions	-1.0797	0.1542
Human Services Non-Government Contributions	-1.0487	0.1608
Public and Societal Benefit Total Contributions	-2.8967	0.0088
Public and Societal Benefit Non-Government Contributions	-2.7503	0.0112
Religion Related Total Contributions	-1.5425	0.0787
Religion Related Non-Government Contributions	-0.5322	0.3037

ANOVA

An ANOVA was performed on each NTEE group for total contributions received and non-government contributions. Results indicated to reject the null hypotheses (see Appendix A.2) in all tests at the 99% level (see Table 2). Additionally, post hoc tests were used to determine what nonprofits received significant contributions, indicating one nonprofit in each category received greater amounts of charitable contributions. The groups that were significant were Teach for America, American Lebanese Syrian Associated Charities Inc/St. Jude Children's Research Hospital, Feeding America, The Rotary Foundation, and Samaritan's Purse (see Appendix C).

Table 2: Charitable contributions ANOVA results

Test	F-statistic
Education Total Contributions	130***
Education Non-Government Contributions	95.8***
Health Total Contributions	136***
Health Non-Government Contributions	136***
Human Services Total Contributions	843***
Human Services Non-Government Contributions	847***
Public and Societal Benefit Total Contributions	42.7***
Public and Societal Benefit Non-Government Contributions	35.7***
Religion Related Total Contributions	581***
Religion Related Non-Government Contributions	510***

Significance at the 0.99 level is denoted with ***, at the 0.95 level with **, and at the 0.9 level with *.

DISCUSSION

This study sought to determine if a statistically significant positive difference in donation levels exists between pre- and post-TCJA within varying nonprofit sectors, as well as whether statistical differences in charitable contributions exist between the individual nonprofit organizations. The t-tests in this study were used to determine if a significant change in charitable contributions has occurred post-TCJA within NTEE sectors. The t-tests conducted failed to reject the null hypothesis, illustrating that there was not a significant difference in charitable contributions pre- and post-TCJA (see Appendix A.1). Though the Public and Societal Benefit t-tests displayed low p-values of

0.0088 and 0.0112, these results are not significant due to the one-tail, upper-tail nature of these tests. Additionally, the t-statistic did not exceed the critical value, so we failed to reject the hypotheses. This may be evidence of more contributions after the TCJA for Public and Societal Benefit nonprofits, which could indicate that charitable contributions increased post-TCJA. This is consistent with prior research that indicated increases in charitable giving or no change at all (Giving USA, 2020; Hodge, 2020).

The ANOVAs in this study determined if one segmentation received a significantly different amount of contributions. The ANOVAs performed rejected the null hypothesis of every test at the 99% level (see appendix A.2). Post hoc Tukey tests were performed on each ANOVA to determine which nonprofits received significant contributions within the NTEE group (See appendix C). Within each test, one nonprofit received significantly greater contributions. The nonprofits that received these significant amounts were Teach for America, American Lebanese Syrian Associated Charities Inc/St. Jude Children's Research Hospital, Feeding America, The Rotary Foundation, and Samaritan's Purse. These results indicate that nonprofits within an NTEE group did receive varying levels of charitable contributions from 2016-2019 and did not experience a consistent level of giving, meaning that the TCJA did have an effect on charitable contributions.

Future research would benefit from an increased data pool that contains more nonprofits overall, as well as a longer period of time studying pre- and post-TCJA. As the TCJA was newly implemented at the start of this study, there was limited data available to analyze the true effects of the TCJA. Two years pre- and post-TCJA is a short time frame that is not representative of other factors affecting charitable contributions, such as

donors bunching several years' worth of donations into a single tax year. Additionally, due to the extensions available for Form 990 filings, many nonprofits could not be included in this study because Form 990 was not available to the public for the time period studied. An increase in the number of nonprofits studied would allow for a larger sample that may indicate more trends within varying NTEE major groups.

CONCLUSION

This study focused on the overall impact of the TCJA on the charitable contributions reported by nonprofits, as well as the impact on five NTEE major groups. The analysis from this study evidenced no statistically significant positive difference in charitable contributions pre- and post-TCJA. However, the Public and Societal Benefit NTEE major group was indicative of increased charitable contributions post-TCJA. Additionally, this study determined that Teach for America, American Lebanese Syrian Associated Charities Inc/St. Jude Children's Research Hospital, Feeding America, The Rotary Foundation, and Samaritan's Purse received statistically significant greater contributions within their respective NTEE groups, indicating that specific nonprofits within each NTEE group received more contributions relative to the others. These findings are important to nonprofits as charitable contributions make up 15.1% of nonprofit sector revenues (NCCS Project Team, 2020). Additionally, these findings may impact future tax code legislation by examining its unintended effects on nonprofits. Further studies may provide additional information about these trends in order to determine long-term effects of the TCJA on nonprofits' charitable contributions.

REFERENCES

- Brill, A., & Choe, D. (2018). Charitable giving and the Tax Cuts and Jobs Act. *Washington: American Enterprise Institute for Public Policy Research.*
<https://www.aei.org/research-products/report/charitable-giving-and-the-tax-cuts-and-jobs-act/>
- Crandall-Hollick, M. L. (2020, June 26). The charitable deduction for individuals: A brief legislative history. *Congressional Research Service.*
- Duquette, N. J. (2019). Founders' fortunes and philanthropy: A history of the U.S. charitable-contribution deduction. *Business History Review, 93(3), 553–584.*
<https://doi.org/10.1017/S0007680519000710>
- Fidelity Charitable. (2019). Adapting to tax reform: How donors responded and their plans for the future. <https://www.fidelitycharitable.org/insights/donors-adapting-to-tax-reform.html>
- Fischer, R. L., Wilsker, A., & Young, D. R. (2011). Exploring the revenue mix of nonprofit organizations: Does it relate to publicness. *Nonprofit and Voluntary Sector Quarterly, 40(4), 662–681.*
- Gale, W. G., Gelfond, H., Krupkin, A., Mazur, M. J., & Toder, E. J. (2018, June 13). Effects of the Tax Cuts and Jobs Act: A preliminary analysis. *Tax Policy Center.*
<https://papers.ssrn.com/abstract=3280582>
- Giving USA. (2020, June 16). Giving USA 2020: Charitable giving showed solid growth, climbing to \$449.64 billion in 2019, one of the highest years for giving on record. *Giving USA Foundation.* <https://givingusa.org/giving-usa-2020-charitable-giving->

showed-solid-growth-climbing-to-449-64-billion-in-2019-one-of-the-highest-years-for-giving-on-record/

Gleckman, H. (2018, January 8). 21 Million taxpayers will stop taking the charitable deduction under the TCJA. *Tax Policy Center*.

<https://www.taxpolicycenter.org/taxvox/21-million-taxpayers-will-stop-taking-charitable-deduction-under-tcja>

Hodge, S. A. (2020, June 22). Latest data shows that the Tax Cuts and Jobs Act didn't dampen charitable giving. *Tax Foundation*. <https://taxfoundation.org/tax-cuts-jobs-act-affect-charitable-giving/>

NCCS Project Team. (2020, June). The nonprofit sector in brief 2019. *Urban Institute: National Center for Charitable Statistics*.

<https://nccs.urban.org/publication/nonprofit-sector-brief-2019#the-nonprofit-sector-in-brief-2019>

Nickerson, M. A. (2018). First look at the Tax Cuts and Jobs Act: Impact on individual charitable giving. *The CPA Journal*, 88(4), 10-12.

<https://www.cpajournal.com/2018/05/04/first-look-at-the-tax-cuts-and-jobs-act-2/>

Ricco, J. (2018). TCJA projected to lower 2018 charity giving by \$22 billion. *Penn*

Wharton Budget Model.

<https://budgetmodel.wharton.upenn.edu/issues/2018/7/20/tcja-projected-to-lower-2018-charity-giving-by-22-billion>

Tuckman, H. P., & Chang, C. F. (1991). A methodology for measuring the financial vulnerability of charitable nonprofit organizations. *Nonprofit and Voluntary*

Sector Quarterly, 20(4), 445–460. <https://doi.org/10.1177/089976409102000407>

U.S. Department of Treasury. Internal Revenue Service. (2019, March 12). Publication 526: Charitable contributions. (Cat. No. 15050A). <https://www.irs.gov/forms-pubs/about-publication-526>

U.S. Department of Treasury. Internal Revenue Service. (2021a). Publication 1304: Statistics of income – 2019 Individual income tax returns. (Cat. No. 63338H). <https://www.irs.gov/statistics/soi-tax-stats-individual-income-tax-returns-complete-report-publication-1304>

U.S. Department of Treasury. Internal Revenue Service. (2021b, February 22). Things taxpayers should know when choosing between standard and itemized deductions. <https://www.irs.gov/newsroom/things-taxpayers-should-know-when-choosing-between-standard-and-itemized-deductions>

APPENDIX A.1

Paired T-Test Hypotheses

Education Total Contributions

H₀: There is no statistically significant positive difference in the total charitable contributions with the Education group before and after the TCJA.

H_a: There is a statistically significant positive difference in the total charitable contributions within the Education group before and after the TCJA.

Education Non-Government Contributions

H₀: There is no statistically significant positive difference in the non-government charitable contributions with the Education group before and after the TCJA.

H_a: There is a statistically significant positive difference in the non-government charitable contributions within the Education group before and after the TCJA.

Health Total Contributions

H₀: There is no statistically significant positive difference in the total charitable contributions with the Health group before and after the TCJA.

H_a: There is a statistically significant positive difference in the total charitable contributions within the Health group before and after the TCJA.

Health Non-Government Contributions

H₀: There is no statistically significant positive difference in the non-government charitable contributions with the Health group before and after the TCJA.

H_a: There is a statistically significant positive difference in the non-government charitable contributions within the Health group before and after the TCJA.

Human Services Total Contributions

H₀: There is no statistically significant positive difference in the total charitable contributions with the Human Services group before and after the TCJA.

H_a: There is a statistically significant positive difference in the total charitable contributions within the Human Services group before and after the TCJA.

Human Services Non-Government Contributions

H₀: There is no statistically significant positive difference in the non-government charitable contributions with the Human Services group before and after the TCJA.

H_a: There is a statistically significant positive difference in the non-government charitable contributions within the Human Services group before and after the TCJA.

Public and Societal Benefit Total Contributions

H₀: There is no statistically significant positive difference in the total charitable contributions with the Public and Societal Benefit group before and after the TCJA.

H_a: There is a statistically significant positive difference in the total charitable contributions within the Public and Societal Benefit group before and after the TCJA.

Public and Societal Benefit Non-Government Contributions

H₀: There is no statistically significant positive difference in the non-government charitable contributions with the Public and Societal Benefit group before and after the TCJA.

H_a: There is a statistically significant positive difference in the non-government charitable contributions within the Public and Societal Benefit group before and after the TCJA.

Religion Related Total Contributions

H₀: There is no statistically significant positive difference in the total charitable contributions with the Religion Related group before and after the TCJA.

H_a: There is a statistically significant positive difference in the total charitable contributions within the Religion Related group before and after the TCJA.

Religion Related Non-Government Contributions

H₀: There is no statistically significant positive difference in the non-government charitable contributions with the Religion Related group before and after the TCJA.

H_a: There is a statistically significant positive difference in the non-government charitable contributions within the Religion Related group before and after the TCJA.

APPENDIX A.2

ANOVA Hypotheses

Education Total Contributions

H₀: There are no statistically significant differences in the mean total charitable contributions between the groups in Education.

H_a: At least two of the mean total charitable contributions in the Education group differ.

Education Non-Government Contributions

H₀: There are no statistically significant differences in the mean non-government charitable contributions between the groups in Education.

H_a: At least two of the mean non-government charitable contributions in the Education group differ.

Health Total Contributions

H₀: There are no statistically significant differences in the mean total charitable contributions between the groups in Health.

H_a: At least two of the mean total charitable contributions in the Health group differ.

Health Non-Government Contributions

H₀: There are no statistically significant differences in the mean non-government charitable contributions between the groups in Health.

H_a: At least two of the mean non-government charitable contributions in the Health group differ.

Human Services Total Contributions

H₀: There are no statistically significant differences in the mean total charitable contributions between the groups in Human Services.

H_a: At least two of the mean total charitable contributions in the Human Services group differ.

Human Services Non-Government Contributions

H₀: There are no statistically significant differences in the mean non-government charitable contributions between the groups in Human Services.

H_a: At least two of the mean non-government charitable contributions in the Human Services group differ.

Public and Societal Benefit Total Contributions

H₀: There are no statistically significant differences in the mean total charitable contributions between the groups in Public and Societal Benefit.

H_a: At least two of the mean total charitable contributions in the Public and Societal Benefit group differ.

Public and Societal Benefit Non-Government Contributions

H₀: There are no statistically significant differences in the mean non-government charitable contributions between the groups in Public and Societal Benefit.

H_a: At least two of the mean non-government charitable contributions in the Public and Societal Benefit group differ.

Religion Related Total Contributions

H₀: There are no statistically significant differences in the mean total charitable contributions between the groups in Religion Related.

H_a: At least two of the mean total charitable contributions in the Religion Related group differ.

Religion Related Non-Government Contributions

H₀: There are no statistically significant differences in the mean non-government charitable contributions between the groups in Religion Related.

H_a: At least two of the mean non-government charitable contributions in the Religion Related group differ.

APPENDIX B
T-Test Results

Table B.1: Results of the Education Total Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	62661129.35	58245215.95
Variance	6.25437E+15	6.23386E+15
Observations	10	10
Pearson Correlation	0.990974764	
Hypothesized Mean Difference	0	
df	9	
t Stat	1.315251136	
P(T<=t) one-tail	0.110473109	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.220946219	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in total charitable contributions pre- and post-TCJA within the Education NTEE group studied.

Table B.2: Results of the Education Non-Government Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	54845170.1	50905871.55
Variance	4.05113E+15	4.36059E+15
Observations	10	10
Pearson Correlation	0.981741158	
Hypothesized Mean Difference	0	
df	9	
t Stat	0.987362883	
P(T<=t) one-tail	0.174632061	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.349264121	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in non-government charitable contributions pre- and post-TCJA within the Education NTEE group studied.

Table B.3: Results of the Health Total Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	351585306.2	375123125.1
Variance	1.78717E+17	2.4547E+17
Observations	10	10
Pearson Correlation	0.980068335	
Hypothesized Mean Difference	0	
df	9	
t Stat	-0.63744542	
P(T<=t) one-tail	0.269855214	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.539710428	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in total charitable contributions pre- and post-TCJA within the Health NTEE group studied.

Table B.4: Results of the Health Non-Government Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	350000478.4	373920789.3
Variance	1.78037E+17	2.45064E+17
Observations	10	10
Pearson Correlation	0.98025592	
Hypothesized Mean Difference	0	
df	9	
t Stat	-0.648841572	
P(T<=t) one-tail	0.266322943	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.532645887	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in non-government charitable contributions pre- and post-TCJA within the Health NTEE group studied.

Table B.5: Results of the Human Services Total Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	276438792.2	302228096.6
Variance	6.20292E+17	7.44825E+17
Observations	10	10
Pearson Correlation	0.999990369	
Hypothesized Mean Difference	0	
df	9	
t Stat	-1.079698326	
P(T<=t) one-tail	0.154179979	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.308359957	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in total charitable contributions pre- and post-TCJA within the Human Services NTEE group studied.

Table B.6: Results of the Human Services Non-Government Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	274328234.1	299436654.8
Variance	6.21508E+17	7.46523E+17
Observations	10	10
Pearson Correlation	0.999993665	
Hypothesized Mean Difference	0	
df	9	
t Stat	-1.048670536	
P(T<=t) one-tail	0.160836686	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.321673372	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in non-government charitable contributions pre- and post-TCJA within the Human Services NTEE group studied.

Table B.7: Results of the Public and Societal Benefit Total Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	99036505.95	123845905.3
Variance	6.31284E+15	8.98979E+15
Observations	10	10
Pearson Correlation	0.966975825	
Hypothesized Mean Difference	0	
df	9	
t Stat	-2.896727155	
P(T<=t) one-tail	0.008844698	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.017689395	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. The results may appear significant, but because this study was a one tail, upper tail test, the results are not statistically significant. This shows that there was no significant difference in total charitable contributions pre- and post-TCJA within the Public and Societal Benefit NTEE group studied.

Table B.8: Results of the Public and Societal Benefit Non-Government Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	81195549.55	108183678.5
Variance	7.1325E+15	9.67261E+15
Observations	10	10
Pearson Correlation	0.953658956	
Hypothesized Mean Difference	0	
df	9	
t Stat	-2.750316567	
P(T<=t) one-tail	0.011232588	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.022465177	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. The results may appear significant, but because this study was a one tail, upper tail test, the results are not statistically significant. This shows that there was no significant difference in non-government charitable contributions pre- and post-TCJA within the Human Services NTEE group studied.

Table B.9: Results of the Religion Related Total Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	342363661.9	359030737.9
Variance	1.6198E+17	1.64695E+17
Observations	10	10
Pearson Correlation	0.996460324	
Hypothesized Mean Difference	0	
df	9	
t Stat	-1.542478872	
P(T<=t) one-tail	0.078675019	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.157350037	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in total charitable contributions pre- and post-TCJA within the Religion Related NTEE group studied.

Table B.10: Results of the Religion Related Non-Government Contributions T-Test

	<i>2016-2017 Mean</i>	<i>2018-2019 Mean</i>
Mean	310413017.5	315910743.8
Variance	1.25935E+17	1.14345E+17
Observations	10	10
Pearson Correlation	0.996719272	
Hypothesized Mean Difference	0	
df	9	
t Stat	-0.53222446	
P(T<=t) one-tail	0.303728602	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.607457203	
t Critical two-tail	2.262157163	

The reported results indicated to fail to reject the null hypothesis. This shows that there was no significant difference in non-government charitable contributions pre- and post-TCJA within the Religion Related NTEE group studied.

APPENDIX C
ANOVA Test Results

Table C.1: Results of Education Total Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	2.24e+17	9	2.49e+16	130	< .001
Residuals	5.74e+15	30	1.91e+14		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the total charitable contributions between the nonprofits of the Education group.

Table C.2: Results of Education Non-Government Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	1.50e+17	9	1.67e+16	95.8	< .001
Residuals	5.22e+15	30	1.74e+14		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the non-government charitable contributions between the nonprofits of the Education group.

Table C.3: Results of Health Total Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	7.51e+18	9	8.35e+17	136	< .001
Residuals	1.84e+17	30	6.14e+15		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the total charitable contributions between the nonprofits of the Health group.

Table C.4: Results of Health Non-Government Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	7.49e+18	9	8.33e+17	136	< .001
Residuals	1.83e+17	30	6.12e+15		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the non-government charitable contributions between the nonprofits of the Health group.

Table C.5: Results of Human Services Total Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	2.45e+19	9	2.72e+18	843	< .001
Residuals	9.69e+16	30	3.23e+15		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the total charitable contributions between the nonprofits of the Human Services group.

Table C.6: Results of Human Services Non-Government Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	2.46e+19	9	2.73e+18	847	< .001
Residuals	9.67e+16	30	3.22e+15		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the non-government charitable contributions between the nonprofits of the Human Services group.

Table C.7: Results of Public and Societal Benefit Total Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	2.69e+17	9	2.99e+16	42.7	< .001
Residuals	2.10e+16	30	6.99e+14		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the total charitable contributions between the nonprofits of the Public and Societal Benefit group.

Table C.8: Results of Public and Societal Benefit Non-Government Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	2.94e+17	9	3.26e+16	35.7	< .001
Residuals	2.74e+16	30	9.14e+14		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the non-government charitable contributions between the nonprofits of the Public and Societal Benefit group.

Table C.9: Results of Religion Related Total Contributions ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	5.87e+18	9	6.52e+17	581	< .001
Residuals	3.37e+16	30	1.12e+15		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the total charitable contributions between the nonprofits of the Religion Related group.

Table C.10: Results of Religion Related Non-Government ANOVA

	Sum of Squares	df	Mean Square	F	p
Nonprofits	4.32e+18	9	4.79e+17	510	< .001
Residuals	2.82e+16	30	9.40e+14		

The reported results indicated to reject the null hypothesis at the 99% confidence level. This shows that there are statistically significant differences in the non-government charitable contributions between the nonprofits of the Religion Related group.

ANOVA Post Hoc Test Results

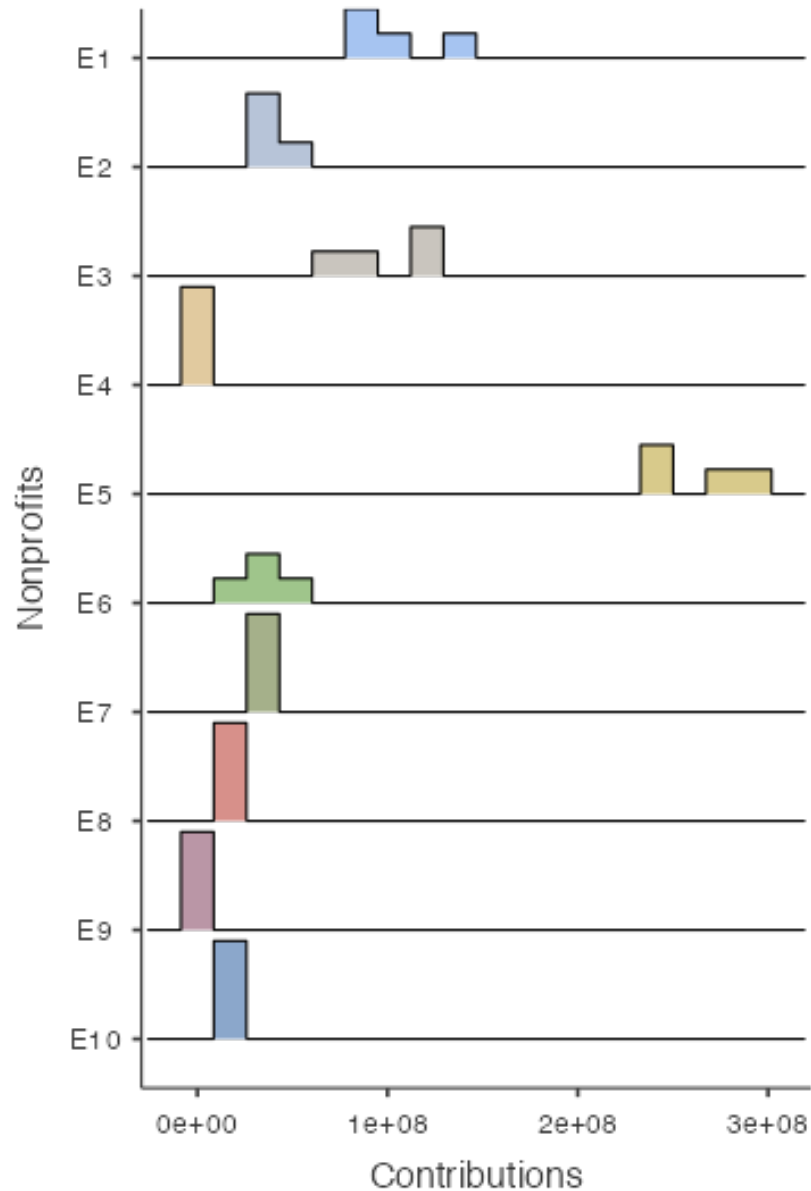


Figure C.1: Results of Education NTEE major group total contributions ANOVA. The nonprofits included in this Education grouping were First Book (E1), National Merit Scholarship Corporation (E2), Harlem Children’s Zone, Inc. (E3), ScriptEd Inc (E4), Teach for America Inc (E5), The New Teacher Project, Inc. (E6), Kahn Academy Inc (E7), The Education Trust (E8), Olivet Nazarene University Foundation (E9), and American Library Association (E10). Teach for America received a significantly greater level of contributions in all comparisons to nonprofits within the Education group.

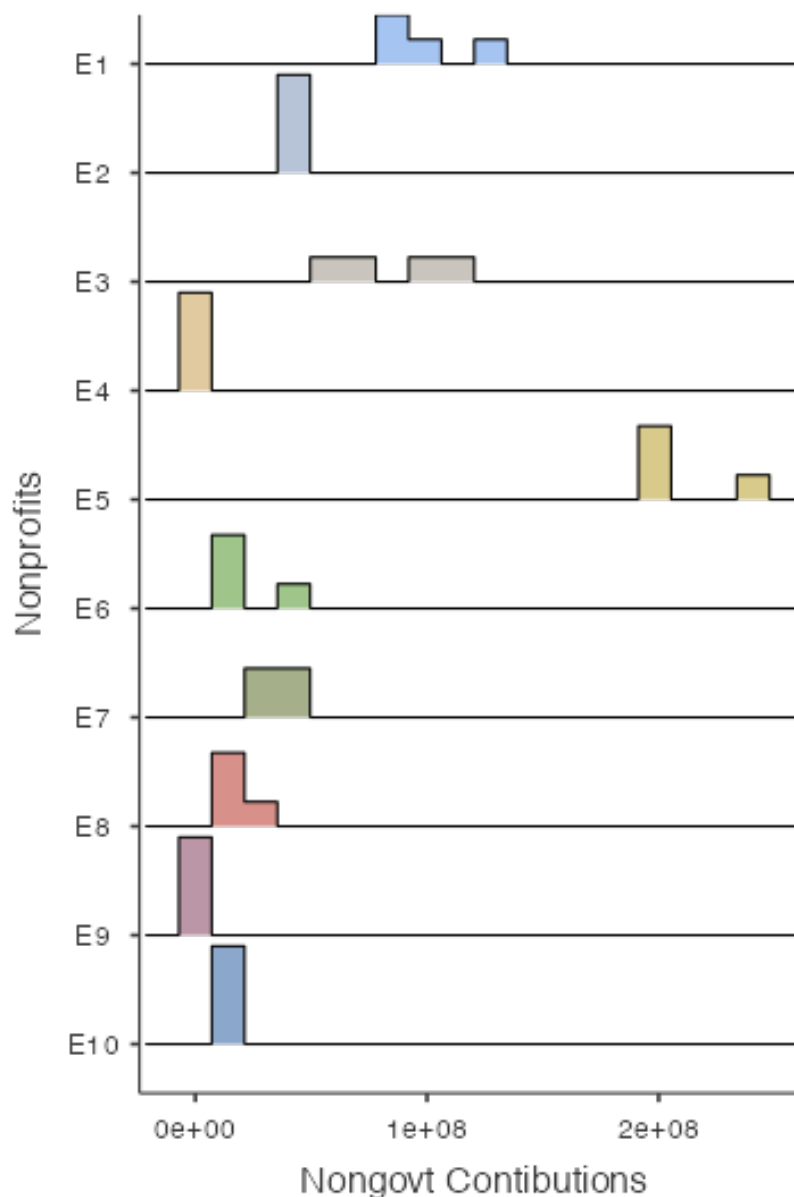


Figure C.2: Results of Education NTEE major group non-government contributions ANOVA. The nonprofits included in this Education grouping were First Book (E1), National Merit Scholarship Corporation (E2), Harlem Children’s Zone, Inc. (E3), ScriptEd Inc (E4), Teach for America Inc (E5), The New Teacher Project, Inc. (E6), Kahn Academy Inc (E7), The Education Trust (E8), Olivet Nazarene University Foundation (E9), and American Library Association (E10). Teach for America received a significantly greater level of contributions in all comparisons to nonprofits within the Education group.

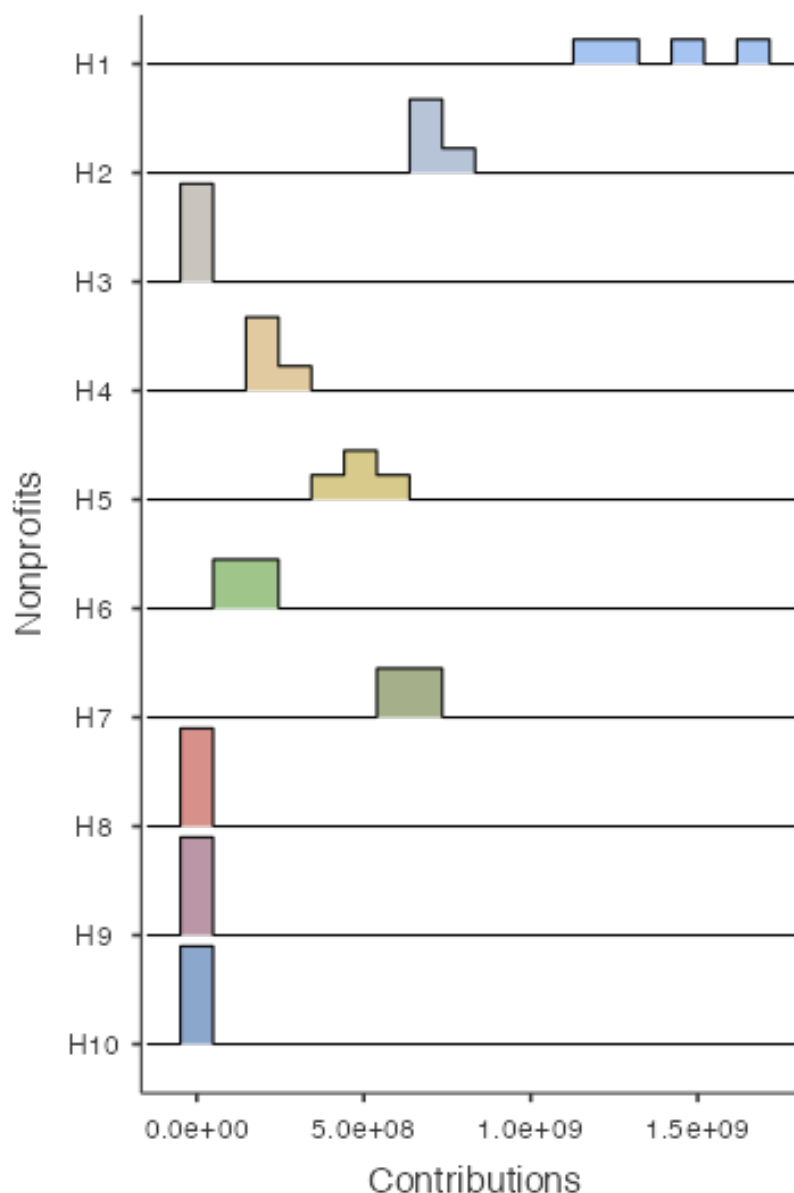


Figure C.3: Results of Health NTEE major group total contributions ANOVA. The nonprofits included in this Health grouping were American Lebanese Syrian Associated Charities Inc/St. Jude Children’s Research Hospital (H1), American Cancer Society Inc (H2), Upper Midwest Organ Procurement Organization Inc/Lifesource (H3), Chronic Disease Fund Inc (H4), Patient Access Network Foundation (H5), March of Dimes Foundation (H6), American Heart Association Inc (H7), Mental Health America Inc (H8), Duane Dean Behavioral Treatment Health Center (H9), and The Helen Wheeler Center for Community Mental Health (H10). American Lebanese Syrian Associated Charities Inc/St. Jude Children’s Research Hospital received a significantly greater level of contributions in all comparisons to nonprofits within the Health group.

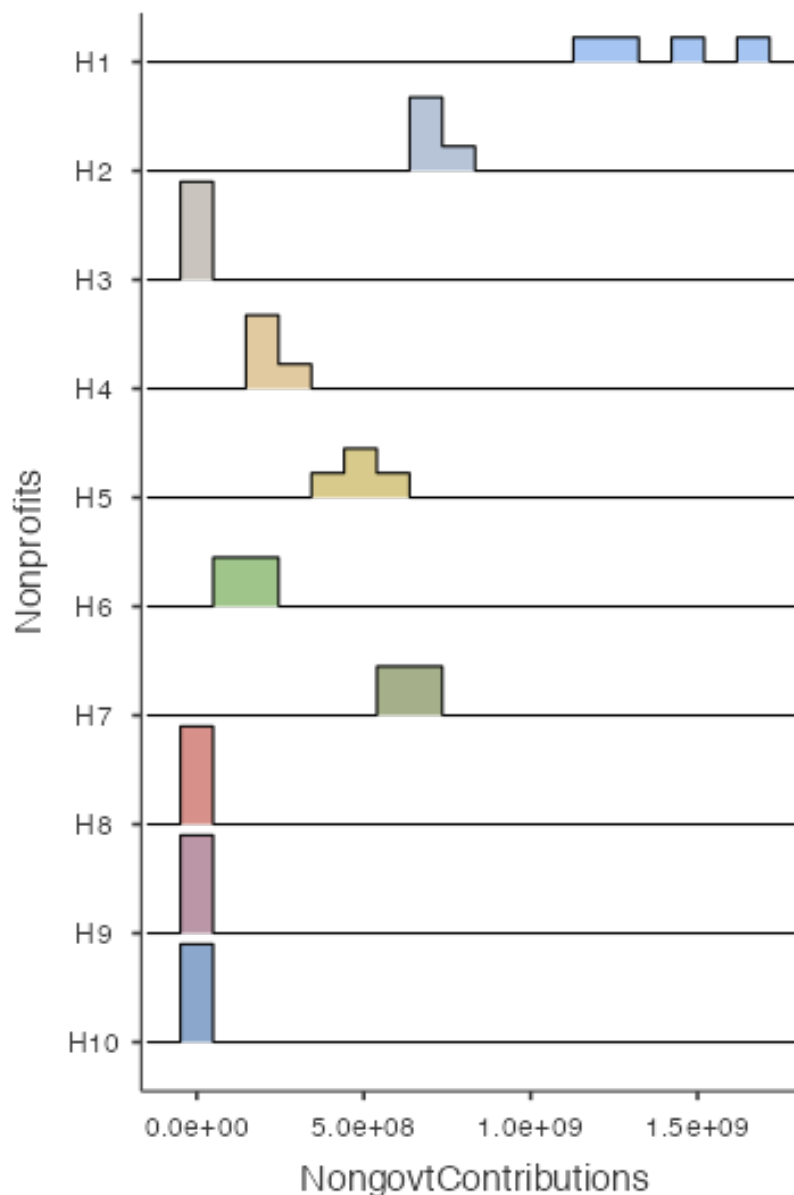


Figure C.4: Results of Health NTEE major group non-government contributions ANOVA. The nonprofits included in this Health grouping were American Lebanese Syrian Associated Charities Inc/St. Jude Children's Research Hospital (H1), American Cancer Society Inc (H2), Upper Midwest Organ Procurement Organization Inc/Lifesource (H3), Chronic Disease Fund Inc (H4), Patient Access Network Foundation (H5), March of Dimes Foundation (H6), American Heart Association Inc (H7), Mental Health America Inc (H8), Duane Dean Behavioral Treatment Health Center (H9), and The Helen Wheeler Center for Community Mental Health (H10). American Lebanese Syrian Associated Charities Inc/St. Jude Children's Research Hospital received a significantly greater level of contributions in all comparisons to nonprofits within the Health group.

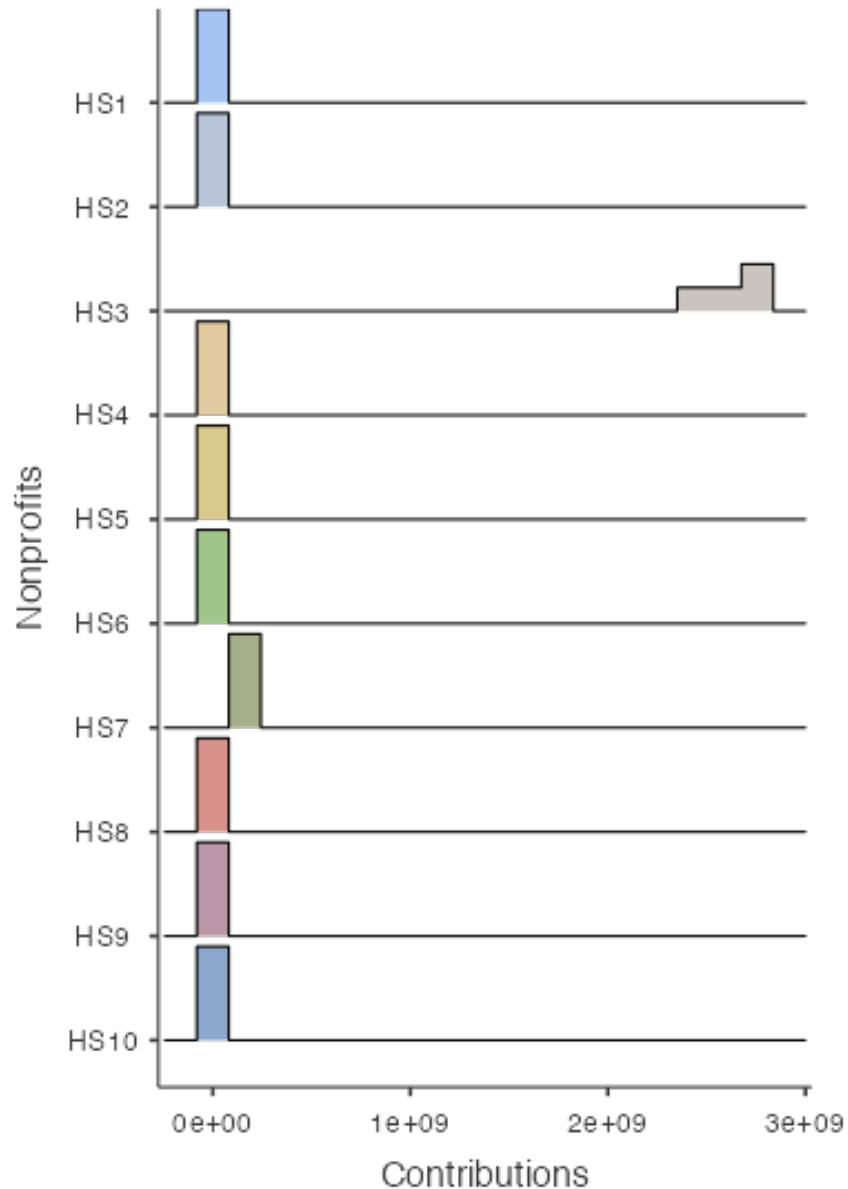


Figure C.5: Results of Human Services NTEE major group total contributions ANOVA. The nonprofits included in this Human Services grouping were The Salvation Army World Service Office (HS1), Goodwill Industries International Inc (HS2), Feeding America (HS3), National Coalition Against Domestic Violence (HS4), Covenant House (HS5), National Able Network Inc (HS6), Unbound (HS7), Meals on Wheels America (HS8), Compassionate Ministries Center of Hope (HS9), and Kankakee County Coalition Against Domestic Violence (HS10). Feeding America received a significantly greater level of contributions in all comparisons to nonprofits within the Human Services group.

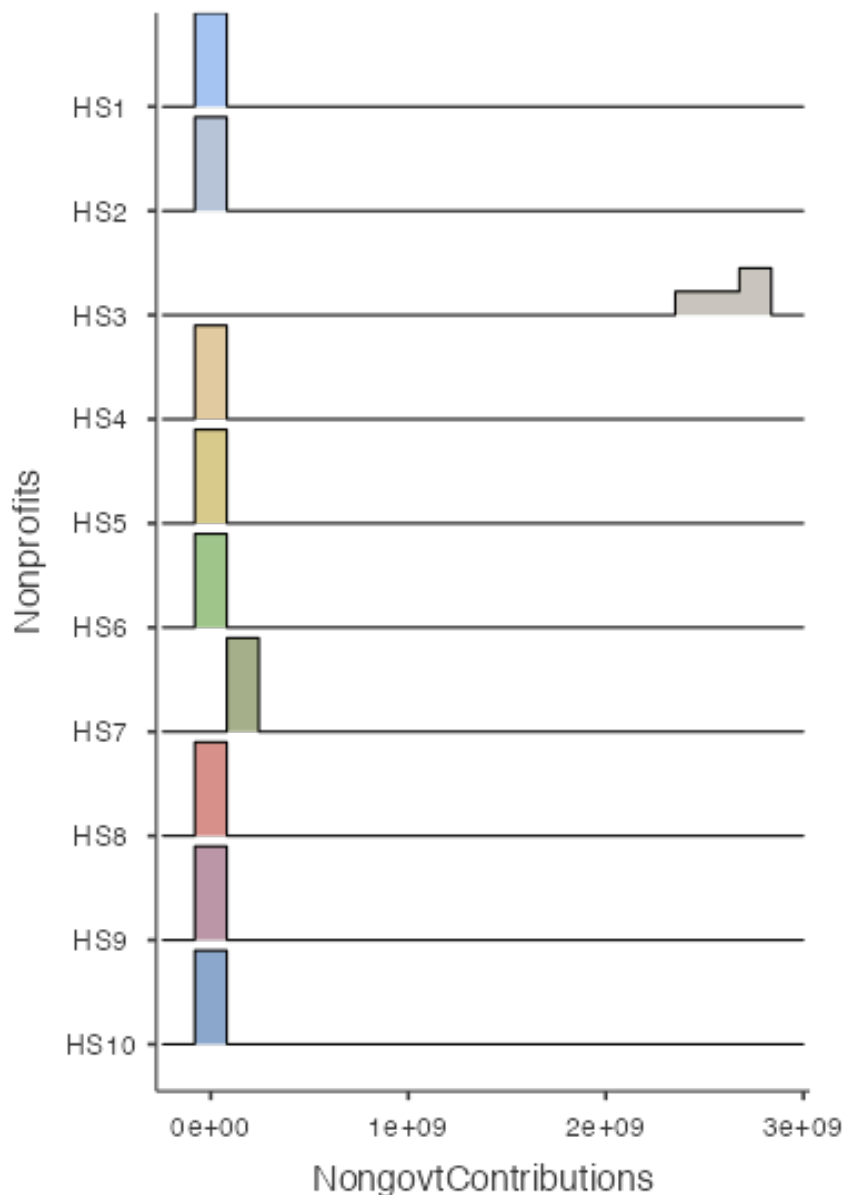


Figure C.6: Results of Human Services NTEE major group non-government contributions ANOVA. The nonprofits included in this Human Services grouping were The Salvation Army World Service Office (HS1), Goodwill Industries International Inc (HS2), Feeding America (HS3), National Coalition Against Domestic Violence (HS4), Covenant House (HS5), National Able Network Inc (HS6), Unbound (HS7), Meals on Wheels America (HS8), Compassionate Ministries Center of Hope (HS9), and Kankakee County Coalition Against Domestic Violence (HS10). Feeding America received a significantly greater level of contributions in all comparisons to nonprofits within the Human Services group.

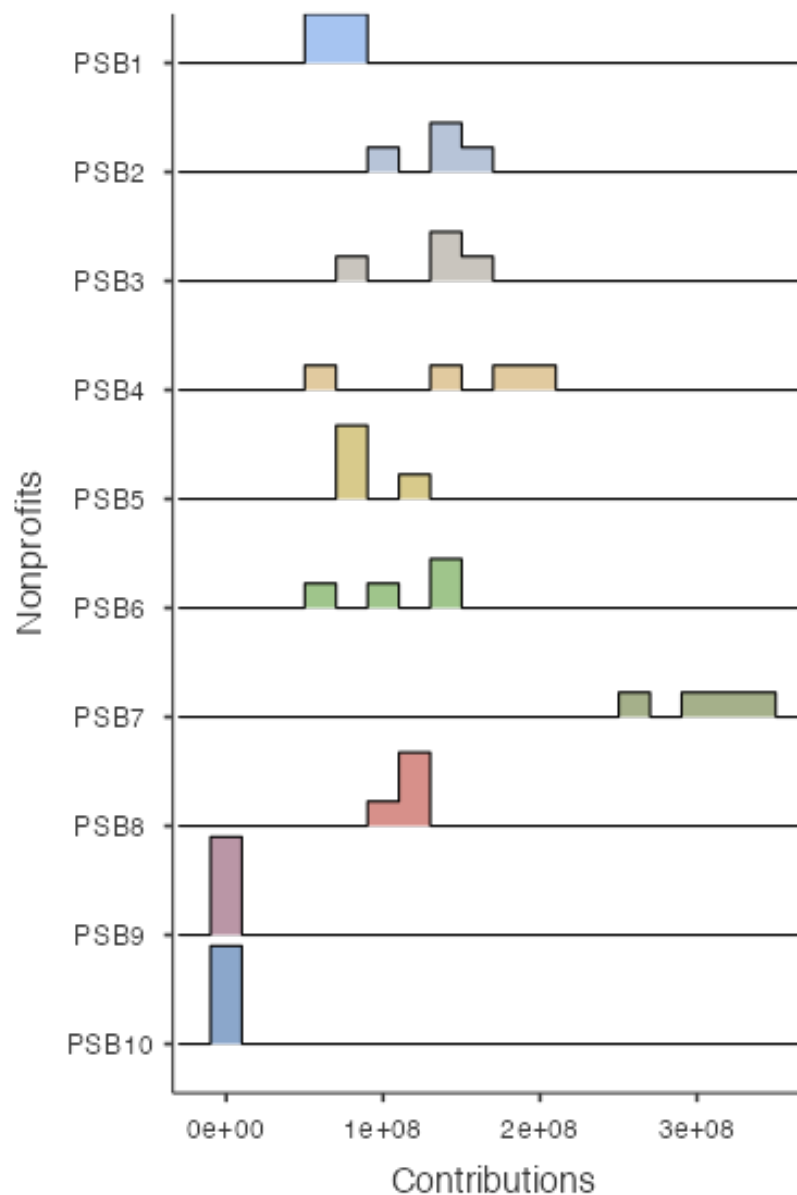


Figure C.7: Results of Public and Societal Benefit NTEE major group total contributions ANOVA. The nonprofits included in this Public and Societal Benefit grouping were Plan International USA Inc (PSB1), Local Initiatives Support Corporation (PSB2), American Civil Liberties Union Foundation Inc (PSB3), United Way Worldwide (PSB4), The Urban Institute (PSB5), Vera Institute of Justice Inc (PSB6), The Rotary Foundation of Rotary International (PSB7), Disabled American Veterans (PSB8), Community Organizing and Family Issues (PSB9), and DeKalb County Community Foundation (PSB10). The Rotary Foundation received a significantly greater level of contributions in all comparisons to nonprofits within the Public and Societal Benefit group.

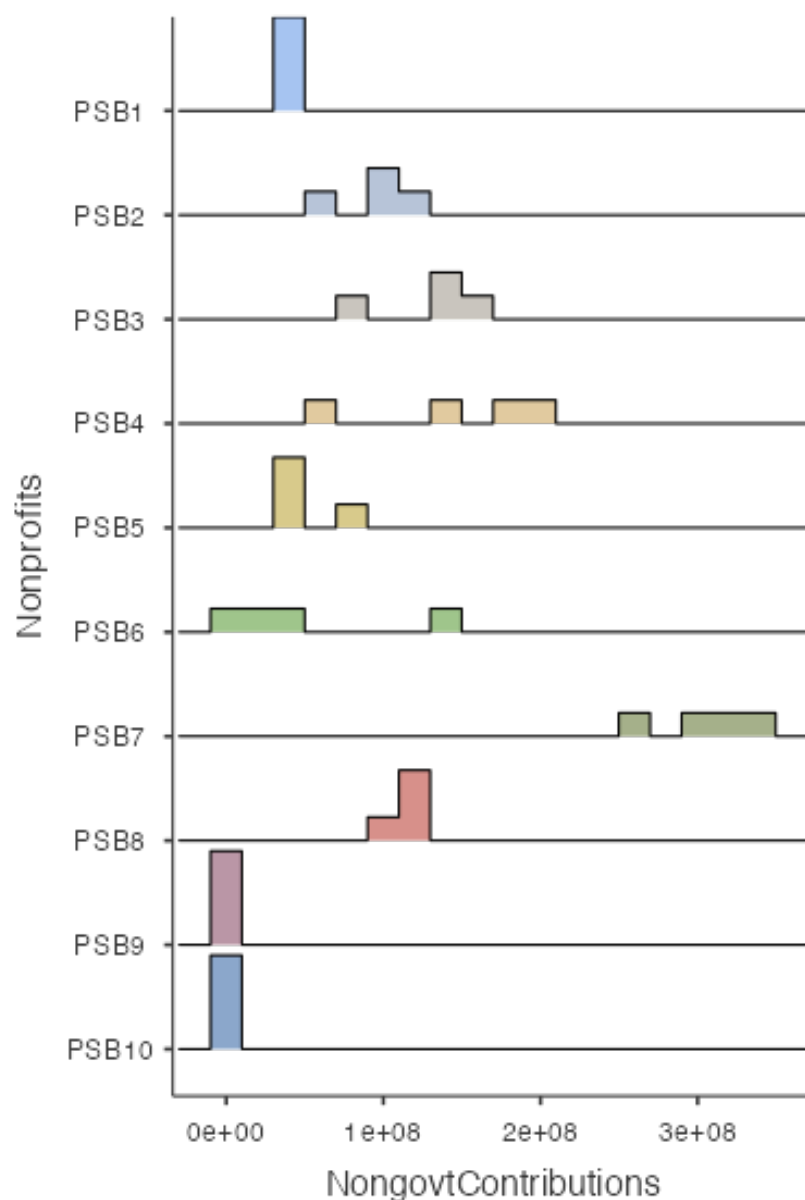


Figure C.8: Results of Public and Societal Benefit NTEE major group non-government contributions ANOVA. The nonprofits included in this Public and Societal Benefit grouping were Plan International USA Inc (PSB1), Local Initiatives Support Corporation (PSB2), American Civil Liberties Union Foundation Inc (PSB3), United Way Worldwide (PSB4), The Urban Institute (PSB5), Vera Institute of Justice Inc (PSB6), The Rotary Foundation of Rotary International (PSB7), Disabled American Veterans (PSB8), Community Organizing and Family Issues (PSB9), and DeKalb County Community Foundation (PSB10). The Rotary Foundation received a significantly greater level of contributions in all comparisons to nonprofits within the Public and Societal Benefit group.

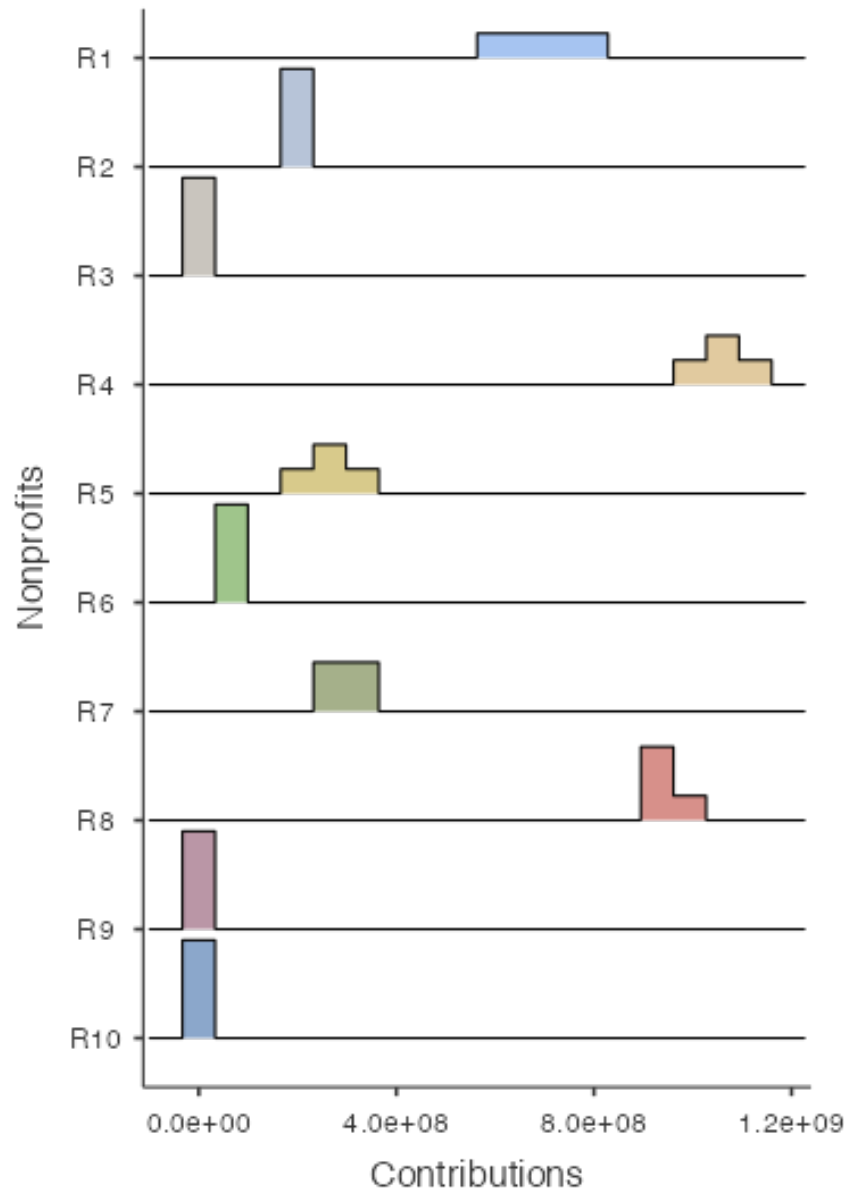


Figure C.9: Results of Religion Related NTEE major group total contributions ANOVA. The nonprofits included in this Religion Related grouping were Samaritan's Purse (R1), Educational Media Foundation (R2), One Collective (R3), World Vision Inc (R4), Habitat for Humanity International Inc (R5), Prison Fellowship Ministries (R6), Young Life (R7), Food for the Poor Inc (R8), South Pointe Youth for Christ (R9), and Warm Blankets Children's Foundation Inc (R10). Samaritan's Purse received a significantly greater level of contributions in all comparisons to nonprofits within the Religion Related group.

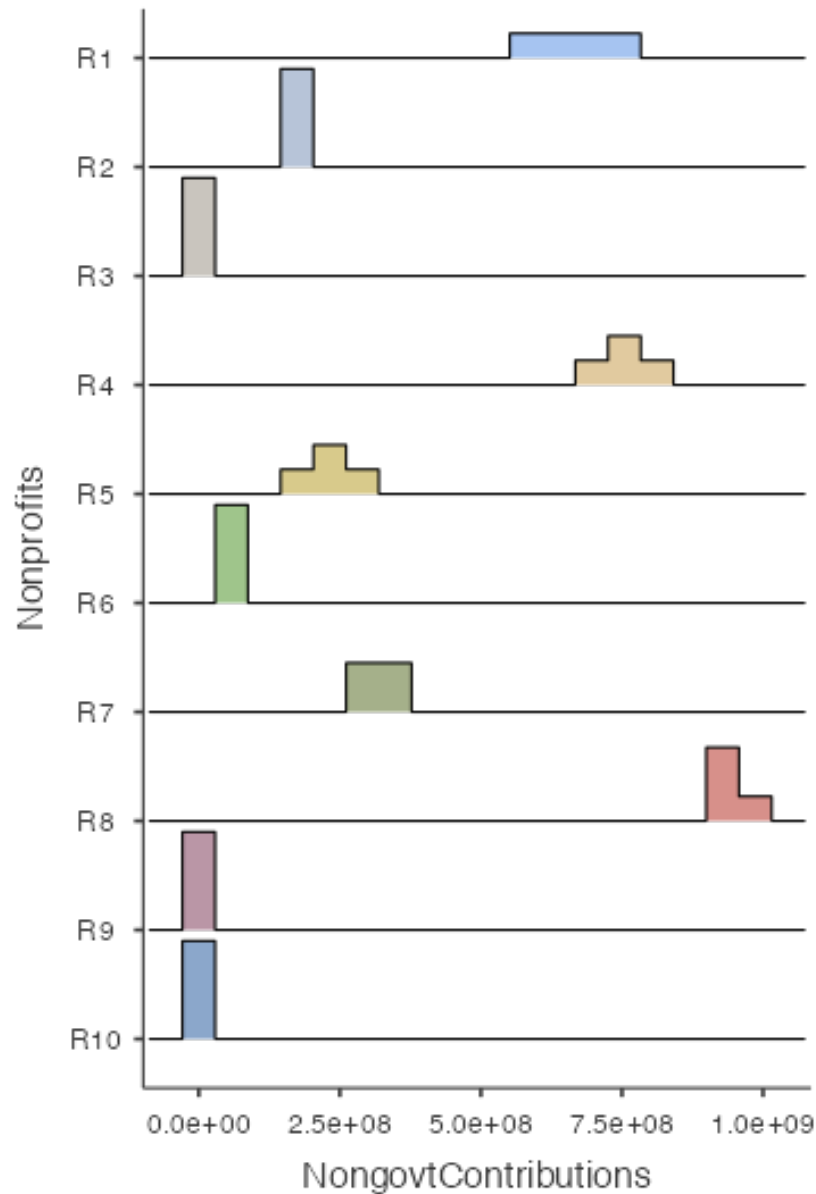


Figure C.10: Results of Religion Related NTEE major group non-government contributions ANOVA. The nonprofits included in this Religion Related grouping were Samaritan's Purse (R1), Educational Media Foundation (R2), One Collective (R3), World Vision Inc (R4), Habitat for Humanity International Inc (R5), Prison Fellowship Ministries (R6), Young Life (R7), Food for the Poor Inc (R8), South Pointe Youth for Christ (R9), and Warm Blankets Children's Foundation Inc (R10). Samaritan's Purse received a significantly greater level of contributions in all comparisons to nonprofits within the Religion Related group.