

**National Survey of Religious Leaders
Weights Documentation for NSRL 2019
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Key NSRL Features Relevant for Weighting:

- Religious Leaders enter the NSRL sample by being identified as leaders of congregations that participated in the Fourth Wave of the National Congregations Study (NCS-IV). Congregations were nominated for the NCS-IV by General Social Survey (GSS) respondents as the place they attend religious services. Since larger congregations were more likely to be named by GSS respondents than smaller congregations, the NCS-IV and NSRL are probability-proportional-to-size samples.
- NSRL base weights are the final NCS-IV weights for a congregation. Using different weights, the data can be analyzed at the congregation level or at the attendee level.
- Leaders are designated as Primary Leaders (usually one per congregation, but co-leaders are identified in some congregations) or Non-Primary Leaders.
- There are three populations of interest: only Primary Leaders (whether or not they are paid), only paid Non-Primary Leaders, and all Leaders (both these groups together).
- Just as there are for the NCS-IV, there are three weights for each population of interest: two that allow users to analyze data at the congregation level (one that ignores duplicate GSS nominations and one that takes account of duplicate nominations) and one that allows users to analyze data at the attendee level.
 1. If you are interested in leaders in the average congregation, then use a congregation-level weight.
 2. If you are interested in leaders in the congregation of the average attendee, use the attendee-level weight.
- Therefore, there are $3 \times 3 = 9$ weights provided for the NSRL.
- Most weights have two main components:
 1. a base weight based upon the NCS-IV final weight; and
 2. a non-response adjustment step to adjust for response bias.
- Non-primary leaders in the twenty-seven congregations with more than 25 in-scope non-primary leaders have been declared out of scope for the NSRL because of the difficulties of achieving completes among them. Only 43 of the 1,561 non-primary leaders in these congregations completed the survey. All 1,561 non-primary leaders in these congregations were declared out of scope. Primary Leaders in these twenty-seven congregations remain in-scope. This means that the populations to which the NSRL sample can be generalized are all primary congregational leaders, non-primary leaders in congregations with 25 or fewer non-primary leaders, and all primary leaders plus all non-primary leaders in congregations with 25 or fewer non-primary leaders (the first two groups combined).

1. Among all leaders, response rates were 69.5% for primary leaders, 16.4% for non-primary leaders, and 28.0% for all leaders.
 2. New response rates, after reclassifying as out of scope the non-primary leaders in the twenty-seven congregations with more than 25 in-scope non-primary leaders, were 23.4% for non-primary leaders and 37.1% all leaders.
 3. Full details justifying excluding non-primary leaders in very large congregations and other weighting decisions are available in a separate non-response analysis report.
- Two variables are used in non-response bias adjustments.
 1. Data collection efforts were focused on primary leaders, leading to a much higher response rate among primary leaders (69.5%) than among non-primary leaders (23.4%). To correct the under-representation of non-primary leaders when generalizing to all leaders, we weight up the non-primary leaders in the all-leader weights.
 2. Black Protestant and Evangelical/Conservative non-primary leaders were somewhat under-represented in the non-primary leader sample, so we use the TRAD3 variable from the NCS -- which classifies each congregation into the broad religious tradition categories of Catholic, Evangelical/Conservative Protestant, Black Protestant, Mainline Protestant, and Non-Christian -- to correct for this in the non-primary-leader and all-leader weights. There is less non-response bias with respect to religious tradition (or any other variable we examined) in the primary leader sample, but for consistency we also implement a correction for TRAD3 in the primary leader weights.

SHORTCUT:

THE PRIMARY-LEADER SAMPLE IS A HIGHER QUALITY SAMPLE OF A MORE WELL DEFINED POPULATION THAN EITHER THE NON-PRIMARY-LEADER OR ALL-LEADER SAMPLES, SO ANALYSTS MAY WANT TO FOCUS ON JUST THE PRIMARY-LEADER SAMPLE. IN THAT CASE:

- **USE WT_NSRL_PRIMARY_DUP TO DESCRIBE THE PRIMARY LEADERS IN THE AVERAGE CONGREGATION.**
- **USE WT_NSRL_PRIMARY_ATTENDEE TO DESCRIBE THE PRIMARY LEADERS IN CONGREGATIONS OF THE AVERAGE ATTENDEE.**

FOR MOST PURPOSES THESE WILL BE THE ONLY WEIGHTS NEEDED.

This document contains:

Part 1. Which weights are appropriate for different populations/analyses of interest?

Part 2. Details of the weights

Part 1. WHICH WEIGHTS ARE APPROPRIATE FOR DIFFERENT POPULATIONS/ANALYSES OF INTEREST?

a. Population of interest: Only Primary Religious Leaders

These three weights are positive for all responding primary religious leaders:

WT_NSRL_PRIMARY_IGN: Weight for all primary religious leaders, ignoring GSS nominations of duplicate congregations. This weight allows users to analyze the data at the congregation level.

WT_NSRL_PRIMARY_DUP: Weight for all primary religious leaders, taking account of duplicate nominations. This weight allows users to analyze the data at the congregation level.

WT_NSRL_PRIMARY_ATTENDEE: Weight for all primary religious leaders, which allows users to analyze the data at the attendee level.

b. Population of interest: Only Non-Primary Religious Leaders

These three weights are positive for all responding non-primary religious leaders:

WT_NSRL_NONP_IGN: Weight for all non-primary religious leaders, ignoring GSS nominations of duplicate congregations. This weight allows users to analyze the data at the congregation level.

WT_NSRL_NONP_DUP: Weight for all non-primary religious leaders, taking account of duplicate nominations. This weight allows users to analyze the data at the congregation level.

WT_NSRL_NONP_ATTENDEE: Weight for all non-primary religious leaders, which allows users to analyze the data at the attendee level.

c. Population of interest: All Religious Leaders

These three weights are positive for all responding religious leaders:

WT_NSRL_ALL_IGN: Weight for all religious leaders (primary and non-primary), ignoring GSS nominations of duplicate congregations. This weight allows users to analyze the data at the congregation level.

WT_NSRL_ALL_DUP: Weight for all religious leaders (primary and non-primary), taking account of duplicate nominations. This weight allows users to analyze the data at the congregation level.

WT_NSRL_ALL_ATTENDEE: Weight for all religious leaders (primary and non-primary), which allows users to analyze the data at the attendee level.

Part 2. DETAILS OF THE WEIGHTS

For each weight variable, we outline the calculation steps, using the following notation: $WtLi_{\langle step \rangle}$

where: WtL refers to an NSRL weight rather than an NCS weight
 i refers to the weight variable being calculated ($i=1, 2 \dots 9$), and
 $step$ refers to the step in the calculation (0, 1... final)

$Wi_{\langle NCS-IVfinal \rangle}$ is the final NCS-IV weight used as the base weight.

WT_NSRL_PRIMARY_IGN: Weight for all 890 Primary Leader respondents, ignoring duplicate nominations. This weight allows users to analyze the data at the congregation level. We use the shorthand $WtL1$ for WT_NSRL_PRIMARY_IGN in the formulas below.

Here are the steps followed in NSRL for $WtL1$:

1. Calculate the base weight as the final NCS-IV weight for all primary leaders:

$$WtL1_1 = W1_{\langle NCS-IVfinal \rangle}$$

2. Perform a non-response adjustment by TRAD3=Religious Tradition (collapsed):

$$WtL1_2 = \frac{\sum_{all \in NRcell} WtL1_1}{\sum_{resp \in NRcell} WtL1_1} WtL1_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL1_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL1_2} * WtL1_2$$

WT_NSRL_PRIMARY_DUP: Weight for all 890 Primary Leader respondents, taking account of duplicate nominations. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL2 for WT_NSRL_PRIMARY_DUP in the formulas below.

Here are the steps followed in NSRL for WtL2:

1. Calculate the base weight as the final NCS-IV weight for all primary leaders:

$$WtL2_1 = W2_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by TRAD3=Religious Tradition (collapsed):

$$WtL2_2 = \frac{\sum_{all \in NRcell} WtL2_1}{\sum_{resp \in NRcell} WtL2_1} WtL2_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

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$$WtL2_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL2_2} * WtL2_2$$

WT_NSRL_PRIMARY_ATTENDEE: Weight for all 890 Primary Leader respondents, which allows users to analyze the data at the attendee level. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL3 for WT_NSRL_PRIMARY_ATTENDEE in the formulas below.

Here are the steps followed in NSRL for WtL3:

1. Calculate the base weight as the final NCS-IV weight for all primary leaders:

$$WtL3_1 = W3_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by TRAD3=Religious Tradition (collapsed):

$$WtL3_2 = \frac{\sum_{all \in NRcell} WtL3_1}{\sum_{resp \in NRcell} WtL3_1} WtL3_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL3_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL3_2} * WtL3_2$$

WT_NSRL_NONP_IGN: Weight for all 710 Non-Primary Leader respondents, ignoring duplicate nominations. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL4 for WT_NSRL_NONP_IGN in the formulas below.

Here are the steps followed in NSRL for WtL4:

1. Calculate the base weight as the final NCS-IV weight for all leaders in the same congregation:

$$WtL4_1 = W1_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by TRAD3=Religious Tradition (collapsed):

$$WtL4_2 = \frac{\sum_{all \in NRcell} WtL4_1}{\sum_{resp \in NRcell} WtL4_1} WtL4_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

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$$WtL4_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL4_2} * WtL4_2$$

WT_NSRL_NONP_DUP: Weight for all 710 Non-Primary Leader respondents, taking account of duplicate nominations. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL5 for WT_NSRL_NONP_DUP in the formulas below.

Here are the steps followed in NSRL for WtL5:

1. Calculate the base weight as the final NCS-IV weight for all leaders in the same congregation:

$$WtL5_1 = W2_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by TRAD3=Religious Tradition (collapsed):

$$WtL5_2 = \frac{\sum_{all \in NRcell} WtL5_1}{\sum_{resp \in NRcell} WtL5_1} WtL5_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL5_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL5_2} * WtL5_2$$

WT_NSRL_NONP_ATTENDEE: Weight for all 710 Non-Primary Leader respondents, which allows users to analyze the data at the attendee level. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL6 for WT_NSRL_NONP_ATTENDEE in the formulas below.

Here are the steps followed in NSRL for WtL6:

1. Calculate the base weight as the final NCS-IV weight for all leaders in the same congregation:

$$WtL6_1 = W3_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by TRAD3=Religious Tradition (collapsed):

$$WtL6_2 = \frac{\sum_{all \in NRcell} WtL6_1}{\sum_{resp \in NRcell} WtL6_1} WtL6_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL6_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL6_2} * WtL6_2$$

WT_NSRL_ALL_IGN: Weight for all 1,600 Leader respondents, ignoring duplicate nominations. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL7 for WT_NSRL_ALL_IGN in the formulas below.

Here are the steps followed in NSRL for WtL7:

1. Calculate the base weight as the final NCS-IV weight for all leaders in the same congregation:

$$WtL7_1 = W1_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by Primary Leader Status and TRAD3:

$$WtL7_2 = \frac{\sum_{all \in NRcell} WtL7_1}{\sum_{resp \in NRcell} WtL7_1} WtL7_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights

between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL7_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL7_2} * WtL7_2$$

WT_NSRL_ALL_DUP: Weight for all 1,600 Leader respondents, taking account of duplicate nominations. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL8 for WT_NSRL_ALL_DUP in the formulas below.

Here are the steps followed in NSRL for WtL8:

1. Calculate the base weight as the final NCS-IV weight for all leaders in the same congregation:

$$WtL8_1 = W2_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by Primary Leader Status and TRAD3=Religious Tradition (collapsed):

$$WtL8_2 = \frac{\sum_{all \in NRcell} WtL8_1}{\sum_{resp \in NRcell} WtL8_2_1} WtL8_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL8_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL8_2} * WtL8_2$$

WT_NSRL_ALL_ATTENDEE: Weight for all 1,600 Leader respondents, which allows users to analyze the data at the attendee level. This weight allows users to analyze the data at the congregation level. We use the shorthand WtL9 for WT_NSRL_ALL_ATTENDEE in the formulas below.

Here are the steps followed in NSRL for WtL9:

1. Calculate the base weight as the final NCS-IV weight for all leaders in the same congregation:

$$WtL9_1 = W3_{<NCS-IVfinal>}$$

2. Perform a non-response adjustment by Primary Leader Status and TRAD3=Religious Tradition (collapsed):

$$WtL9_2 = \frac{\sum_{all \in NRcell} WtL9_1}{\sum_{resp \in NRcell} WtL9_1} WtL9_1$$

This ratio is the sum of all Step 1 weights within a non-response cell divided by the sum of all respondent Step 1 weights within a non-response cell.

3. Rescale the sum of the weights by sample size

Many data analysis programs assume that the sum of the weights is equal to the sample size. Thus it is good practice to rescale the weights to the total number of cases to ensure correct calculation of standard errors and confidence intervals. Without changing the relative weights between the cases, we will rescale the weights so that the sum of the weights is equal to the number of cases.

$$WtL9_{final} = \frac{\sum_{resp} 1}{\sum_{resp} WtL9_2} * WtL9_2$$