# IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF MISSISSIPPI GREENVILLE DIVISION 

## DYAMONE WHITE; DERRICK

SIMMONS; TY PINKINS;
CONSTANCE OLIVIA SLAUGHTER
PLAINTIFFS

VS.
CIVIL ACTION NO. 4:22-cv-00062-SA-JMV
STATE BOARD OF ELECTION
COMMISSIONERS; TATE REEVES
in his official capacity as Governor of
Mississippi; LYNN FITCH in her
official capacity as Attorney General of
Mississippi; MICHAEL WATSON in
his official capacity as Secretary of
State of Mississippi
DEFENDANTS

# DEFENDANTS' MOTION FOR PAYMENT OF FEES AND COSTS ACTUALLY INCURRED AS A RESULT OF PLAINTIFFS' IMPROPER EXPERT REBUTTAL DISCLOSURES 

COME NOW the defendants, State Board of Election Commissioners, Tate Reeves, in his official capacity as Governor of Mississippi, Lynn Fitch, in her official capacity as Attorney General of Mississippi, and Michael Watson, in his official capacity as Secretary of State of Mississippi, (hereinafter collectively "Defendants") by and through counsel, and pursuant to this Court's April 14, 2023, order [Dkt. \#140], Fed. R. Civ. P. 37(c)(1)(A),(C), and Fed. R. Civ. P. 26(b)(4)(E)(i), file this their motion for payment of fees and costs actually incurred as a result of Plaintiffs' improper expert rebuttal disclosures, and in support thereof would show unto the Court the following:

1. Pursuant to this Court's April 14, 2023, order [Dkt. \#140] and FRCP 37(c)(1)(A),(C), the Court should order Plaintiffs to pay the sum of \$120,449.27 to Defendants as
reimbursement of reasonable fees and costs that Defendants actually incurred solely as a result of the improper expert rebuttal disclosures of two of Plaintiffs' experts, Dr. Burch and Dr. Orey.
2. This is a Section 2 Voting Rights Act case that is set for trial in May 2024. Plaintiffs, who are backed by the ACLU and the Southern Poverty Law Center, challenge the lines of the Central District for electing justices to the Mississippi Supreme Court.
3. On April 14, 2023, this Court entered its Order Denying Motion to Strike on Satisfaction of Conditions [Dkt. \#140], in which the Court found that rebuttal disclosures submitted by Dr. Burch and Dr. Orey did not constitute proper expert rebuttal or supplementation. See Dkt. \#140 at 7-8. The Court accordingly held that to avoid having these improper rebuttal disclosures stricken by the Court, Plaintiffs would be required to stipulate to the payment of Defendants' "reasonable expert fees and costs actually incurred by Defendants in having their experts respond to the untimely rebuttal opinions of Drs. Burch and Orey." Dkt. \#140 at 13. Plaintiffs so stipulated. Defendants now seek to recover their reasonable fees and costs actually incurred solely as a result of Plaintiffs' improper rebuttal disclosures.
4. All of the fees and costs for which recovery is sought herein are associated with the preparation of surrebuttal expert reports by Defendants' testifying experts, Dr. Swanson and Dr. Bonneau, and their subsequent surrebuttal depositions (and related follow-up work) taken at the instance of Plaintiffs' counsel in late September and early October 2023. But for the improper rebuttal disclosures of Dr. Burch and Dr. Orey, Defendants would not have incurred any of the fees and costs for which recovery is sought in this motion.
5. Defendants adopt and incorporate by reference, as if fully and completely set forth herein, the arguments and authorities set forth in the Memorandum of Authorities in Support of

Defendants' Motion for Payment of Fees and Costs Actually Incurred as a Result of Plaintiffs' Improper Expert Rebuttal Disclosures, being filed contemporaneously herewith.
6. On the basis of the grounds asserted herein and as further set forth in the aforementioned memorandum of authorities, the Court should award Defendants the sum of $\$ 120,449.27$ as reimbursement for reasonable expert and attorney's fees and costs actually incurred as a result of Plaintiffs' improper rebuttal disclosures.
7. In further support of their motion, Defendants submit the following:

Exhibit "A" 4/18/2023 E-mail from Mr. Savitzky to Judge Virden
Exhibit "B" Surrebuttal Report of Dr. Swanson

Exhibit "C" Surrebuttal Report of Dr. Bonneau
Exhibit "D" Itemizations of Expert Fees - Dr. Swanson and Mr. Bryan (composite)

Exhibit "E" Itemization of Expert Fees - Dr. Bonneau
Exhibit "F" Itemization of Deposition Fees/Expenses - Dr. Bonneau
Exhibit "G" Declaration of Michael B. Wallace

Exhibit "H" Itemization of Post-Deposition Expenses - Dr. Bonneau
WHEREFORE, PREMISES CONSIDERED, Defendants respectfully request that the Court make and enter its Order (1) granting Defendants' motion for payment of fees and costs actually incurred as a result of Plaintiffs' improper expert rebuttal disclosures; and (2) directing Plaintiffs to tender payment, within 10 days of entry of this Court's order granting the instant motion, of the sum of $\$ 120,449.27$ to the law firm of Wise Carter Child \& Caraway, P.A., in payment of the aforesaid fees and costs actually incurred by Defendants.

THIS the 21st day of November, 2023.

Respectfully submitted,
STATE BOARD OF ELECTION
COMMISSIONERS, TATE REEVES, IN HIS OFFICIAL CAPACITY AS GOVERNOR OF MISSISSIPPI, LYNN FITCH, IN HER OFFICIAL CAPACITY AS ATTORNEY GENERAL OF MISSISSIPPI, AND MICHAEL WATSON, IN HIS OFFICIAL CAPACITY AS SECRETARY OF STATE OF MISSISSIPPI, DEFENDANTS

## By: LYNN FITCH, ATTORNEY GENERAL STATE OF MISSISSIPPI

By: s/Rex M. Shannon III REX M. SHANNON III (MSB \#102974) Special Assistant Attorney General

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## CAPACITY AS SECRETARY OF STATE OF MISSISSIPPI

## CERTIFICATE OF SERVICE

I, Rex M. Shannon III, Special Assistant Attorney General and one of the attorneys for the above-named State Defendants, do hereby certify that I have this date caused to be filed with the Clerk of the Court a true and correct copy of the above and foregoing via the Court's ECF filing system, which sent notification of such filing to all counsel of record.

THIS the 21st day of November, 2023.
s/Rex M. Shannon III
REX M. SHANNON III

Rex Shannon

## From:

Sent:
To:
Cc:

Subject:

Ari Savitzky [asavitzky@aclu.org](mailto:asavitzky@aclu.org)
Tuesday, April 18, 2023 4:31 PM
Judge-Virden MSND
Joshua Tom; jyoungwood@stblaw.com; Leslie Faith Jones; Sabrina Khan; Ahmed K. Soussi; Ming Cheung; Kelsey Miller; Rex Shannon; Gerald Kucia; mbw@wisecarter.com White v. SBEC, No. 4:22 Civ. 62-SA-JMV

Judge Virden:
I represent Plaintiffs in the above captioned case. I write, copying opposing counsel, to follow up on your order of Friday, April 14, denying Defendants' motion to strike on satisfaction of conditions.

Plaintiffs wish to satisfy the conditions set forth in the Court's order. Plaintiffs are prepared to file a motion for a continuance so that Defendants' experts may submit responsive reports, as described in your order. Plaintiffs are also prepared to represent in the motion that they will bear Defendants' reasonable expert costs in preparing such further reports.

I write to seek any additional guidance the Court might provide on the precise form and content of the contemplated motion, including: whether the Court wants short form motion or a memorandum or both; whether Plaintiffs should propose new scheduling dates/deadlines to accommodate Defendants' additional reports; and whether, if so, the Court would entertain argument that the current trial date remains workable.

Respectfully,

Ari Savitzky

## Ari Savitzky

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Pronouns: he, him, his
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THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF MISSISSIPPI GREENVILLE DIVISION

DYAMONE WHITE; DERRICK<br>SIMMONS; TY PINKINS;<br>CONSTANCE OLIVIA SLAUGHTER HARVEY-BURWELL

## PLAINTIFFS

VS.
CIVIL ACTION NO. 4:22-cv-00062-SA-JMV

## STATE BOARD OF ELECTION

 COMMISSIONERS; TATE REEVES in his official capacity as Governor of Mississippi; LYNN FITCH in her official capacity as Attorney General of Mississippi; MICHAEL WATSON in his official capacity as Secretary of State of MississippiDEFENDANTS

## DECLARATION OF DAVID A. SWANSON, Ph.D.

I, David A. Swanson, Ph.D., do hereby declare as follows:

1. My name is David A. Swanson. I am an adult resident citizen of Whatcom County, Washington. I have personal knowledge of the facts and matters set forth herein and am otherwise fully competent to offer the testimony hereafter stated.
2. I was retained by Defendants to analyze a report submitted by Plaintiffs' expert Dr. Traci Burch (120206_Dr. Burch Rebuttal Report.Final.Signed(2721085.100)) in this litigation. I was asked to check the accuracy of her use of data in supporting her opinions and, if necessary, to collect and examine data tending to support opinions to the contrary.
3. My qualifications to offer the opinions presented in my report and in this declaration are stated in T\$1 1-11 of my report.

As I discuss in detail in this report, I find, in summary, that Dr. Burch's Rebuttal Report contains major errors. These errors, combined with several critical oversights, render her opinion invalid.
4. My observations of Dr. Burch's work are that she:
(1) claims that the Current Population Survey (CPS) is unreliable, ${ }^{1}$ therefore causing her to turn to a new data set, The "Cooperative Election Survey" (CES) for "validated voters." However, the CES is itself linked back to the CPS to establish weights for "validated voters," a fact which she does not acknowledge;
(2) claims on the basis of an extremely small sample that the CES data showed that $74 \%$ of the White Mississippi respondents who said they voted actually did so, while $57 \%$ of the Black Mississippi respondents did so.
(3) uses a weighting scheme in her "logistic regression" analyses that is not recommended by the authors of the CES study and compounding this failure by declaring that there were "statistically significant" coefficients in her two sample-based logistic regression models, both of which, in fact, turn out to be not statistically significant when the recommended weighting scheme is used. That is, Dr. Burch fails to create logistic regression models from which she can make inferences from the CES samples to the populations in question;
(4) incorrectly identifies the counties in Mississippi Supreme Court District 1 in her "Ecological Inference" Model of District 1 by erroneously excluding Bolivar County and erroneously including Adams County; and
(5) compares White voters to Non-White Voters in her two Ecological Inference models, one for District 1 and the other for the state as a whole, when, in fact the question is in regard to White Voters and Black Voters.
5. Because of these and other errors and oversights I discuss in the report that follows, I find Dr. Burch has no valid opinion regarding White voters relative to Black Voters both in MS Supreme Court District 1 and in Mississippi as a whole. As such, her "findings" do not rebut my conclusion or change my opinion that Black Mississippians are able to participate effectively in the political process in MS Supreme Court District 1 and in the state as a whole.

[^0]6. Next, I examine the background of Dr. Burch's original expert report and the contents of her supplemental report that lead to my conclusions. At page 10 of her initial expert report, Dr. Burch offered the following opinion:
"Black people in Mississippi have had less access to quality education and therefore have lower educational attainment for the reasons discussed in this section; this lower educational attainment leads to lower voter turnout."

The data supporting this opinion was her calculation on page 10 of her expert report that:

> " $56.1 \%$ of white Mississippi citizens voted in the 2020 general election, compared with $53.0 \%$ of Black Mississippi citizens."
7. Figure 4, found on page 10 of Dr. Burch's expert report, shows that the calculation supporting this opinion relied upon the 2020 Current Population Survey ("CPS") Voting Supplement, official data collected by the United States Census Bureau. In conducting a "quality control" assessment of this calculation by Dr. Burch, I first examined historical CPS data provided by the Census Bureau and found, as stated in I 128 of my expert report, that Black voter turnout exceeded White voter turnout in Mississippi every year since 2012. Moreover, as stated in 『l 137 of my expert report, I found that the official 2020 CPS data claimed to have been used by Dr. Burch in generating her calculation contradicted the opinion she formed from this calculation. Instead of showing that 2020 voter turnout by White Mississippians exceeded the 2020 voter turnout by Black Mississippians, it showed that the turnout by the latter exceeded the turnout by the former.
8. As stated in 『 149 of my expert report, I found that in using the official 2020 CPS data to come to her opinion, Dr. Burch neglected to use the correct age filters so that only those 18 years and over who are eligible to vote would be included in her calculations. These errors led, in turn, to her erroneous opinion that White voter turnout was higher than Black voter turnout in Mississippi. When the correct age filters are applied, the same CPS data used by Dr. Burch show that Black voter turnout is higher than White voter turnout in Mississippi, which contradicts not only the opinion found in her expert report, but also to the adherence of this erroneous opinion found in her rebuttal.
9. In a further effort to substantiate my finding from the CPS that Black voter turnout exceeds White voter turnout in Mississippi (and has for some time) while simultaneously examining Dr. Burch's opinion that an "overall gap in turnout between Black and white Mississippians exists," also found on page 10 of her expert report, I examined a second set of data. The Social Science Research Center at Mississippi State University has conducted annual statewide surveys of registration and voting frequency from 2015 to 2021. In I 148-151 of my report, I determined that these additional data also indicated that Black voter turnout generally exceeds White voter turnout in Mississippi.
10. In response to my findings, Dr. Burch submitted a rebuttal report (120206_Dr. Burch Rebuttal Report.Final.Signed(2721085.100)) on February 6, 2023. She admits at page 3 of this rebuttal report that, as I pointed out in my declaration of March 8, 2023, she miscalculated White and Black voter turnout in Mississippi's 2020 general election because she failed to use the correct age filters in her analysis. The CPS educational question is only asked if persons aged 15 years and over and she erroneously included those under 18 in the portion of her analysis related to educational attainment (i.e., she included those aged 15,16 , and 17 , who are not eligible to vote). In providing her estimate of overall voter turnout, Dr. Burch compounds this error by including even more of those who are not eligible to vote, namely all of those under the age of 18 , to include infants. Overlooking her errors for the moment, I find that, in spite of the fact that she relied on CPS data in her in her expert report, she now states at page 4 of her rebuttal that she has now determined that "turnout estimates in the CPS are unreliable." This statement repudiates not only her own expert report, but disregards the fact that the CPS represents a nationally recognized source of record for statistics on voter registration and voter turnout on which, like Dr. Burch, I relied in my expert report.
11. Dr. Burch reveals on page 4 of her rebuttal report that she now relies upon for the first time the "2020 Cooperative Election Study" (CES) as a remedial dataset. This national dataset has been available and has been used by experts in the field for many years. This data set has a number of issues in regard to its Mississippi sample. First, the 2020 CPS data that Dr. Burch originally relied upon has 2,548 total respondents, and 1,657 voting-age respondents. By comparison, the CES that Dr. Burch turns to remediate the CPS has 462 voting-age respondents. Generally speaking, when a survey sample is being used to analyze extremely small populations, the largest sample possible is most beneficial. What Dr. Burch asserts is that while the CPS has a larger sample size, that larger sample in its entirety is flawed, it cannot be relied upon, and another source with $1 / 4$ the sample size should be the appropriate source of record for measuring voter turnout in Mississippi.
12. An issue that frequently stands out in survey samples that are weighted to represent a population (such as the CES using 462 people to represent nearly 2.3 million voting age population in Mississippi) ${ }^{2}$ is that more rare populations that have unique combinations of characteristics tend to have high weights that carry the risk of significantly and disproportionately impacting statistics using those respondents - and impacting the interpretation and conclusions based on them.

[^1]13. There are glaring examples of this problem in the CES. One feature that stands out among its many issues is that the answers for four Black respondents - who count as 51 respondents in reporting survey results when they are weighted using the "commonPostweight." ${ }^{3}$ Because the sum of the CommonPostweights in the survey is 419 - that means those four respondents are actually representing $12 \%$ of Mississippi's total sample and $29 \%$ of its Black sample. While even one of those respondents could end up changing the results of a table if it found its way into a given analytic cell - the consequences of all four of those respondents being grouped together could be disastrously misleading. With these four respondents forming a potentially influential set of cases in the small subsample she uses in her analysis, Dr. Burch is clearly ignoring the warning found in the CES Study Guide (Ansolabehere, Schaffner, and Luks, 2021: 23): "... we advise caution when analyzing very small subsamples as random measurement error may lead to faulty inferences about analyzing very small subpopulations."
14. In her rebuttal report, Dr. Burch touts the value of the CES in enabling the researcher to look beyond self-reported voting behavior, on page 4-5:

> Because much of the bias in turnout estimates based on the CPS has to do with differential overreporting of voting by race, 11 it is necessary to examine alternative sources that do not depend on self-reporting of turnout to estimate turnout by race in Mississippi. First, I examine the 2020 Cooperative Election Study (CES), which contains a sample of 462. Mississippi adults (unweighted). The CES, although it is a survey, independently validates voter registration and turnout for respondents by attempting to match respondents to a database of registered voters maintained by Catalist, a corporation that maintains a national database of voters. Catalist updates their information on voter registration and history with data directly from states. In my analysis, I use the measure of validated voter turnout rather than self-reported voter turnout to estimate racial gaps in turnout, distinguishing this survey from the unvalidated selfreported turnout from CPS or Mississippi State University analyzed by Dr. Swanson.
15. Based on Dr. Burch's advocacy of the benefits of the CES, and her discussion of how it enables validation of voters by matching to Catalist, and the direction by the authors of the CES:
"We recommend the use of "vvweight" or "vvweight post" any time researchers wish to characterize the opinions, behaviors, or traits of voters or registered voters. The "vv" stands for

[^2]"voter validated" and these weights are missing for all respondents who were not validated as (active) registered voters."

I anticipated an analysis of the CES leveraging the powerful technique of matching voters who said they voted to those who actually voted.
16. On page 6 Burch observes:

CES allows us to examine overreporting of voting. Comparing selfreported voter turnout to validated voter turnout shows substantial overreporting of voting. The CES team was able to validate in Catalist that $74 \%$ of the White Mississippi respondents who said they voted actually did so, but were only able to validate that $57 \%$ of the Black Mississippi respondents who said they voted did so. Thus, as the CES shows, corroborating the recent work of Ansolabehere et al. discussed supra, differential over-reporting of voter turnout by race is an important phenomenon that affects estimates of voter turnout in Mississippi and demonstrates the problems with relying only on self-reported voting to estimate racial differences in turnout. ${ }^{4}$
17. In the footnote of this discussion, Dr. Burch states: "For this analysis, which includes reported voter turnout, I weighted the sample by the variable "commonpostweight." After writing at length about the power that CES has in validating voters and reading the CES technical documentation instructing users to use "vvweight or vvweight_post any time researchers wish to characterize the opinions behavior or traits of voters or registered voters" (see page 16) it is inexplicable why Dr. Burch would instead use a weight (commonpostweight) that the CES technical documentation says not to use for the analysis Dr. Burch performs. Next, I perform a statistical investigation in an effort to understand the effect of her choice.
18. I attempted to replicate Dr. Burch's results (See Appendix B for a discussion of approaches to validating voters from the CES technical documentation). Dr. Burch appears to use the third and most rigorous method, just without using the correct weights. In Figure 1.1 I show the self-identification variable "cc20_401."

[^3]Figure 1.1: CC20_401 Self-reported voting variable
Voted in 2020
Which of the following statements ber describes you?
CC20_401

| Voted in 2020 |  | N |
| :--- | ---: | ---: |
| Idid not vote in the election this November. | 1317 |  |
| I thought about voting this time-bur didn't | 620 |  |
| I usually vote, but didn't this time. | 432 |  |
| I atrempted to vote but did not ar could not | 433 |  |
| Idefinitely voted in the November 2020 General bection. | 45660 |  |
| N | 48462 |  |

19. Next, in Figure 1.2 I show the CL_2020GVM variable - which is the Catalist variable showing whether the respondent actually voted. A combination of "I definitely voted" from Figure 1.1 and any response to Figure 1.2 would be the number of validated voters, divided by everyone who said they definitely voted.

Figure 1.2 CL_2020GVM Self-reported voting variable
CL_2020gvm - How respondent voted in 2020 general election (if missing, respondent did not have a record of voting)

1. absentee
2. earlyVote
3. mail
4. polling
5. unknown
6. In Table 1.1, for white voters, I show the CC20_401 (self-reported voting) variable at the top, for those who "definitely voted". On the left of Table 1.1, I show the responses for CL_2020gvm. Associated with the code of " 5 " under the first column, we can see in the second column of Table 1.1 that there were 127 (weighted) white respondents (135 unweighted) who reported they voted and were validated (we just don't know in what manner they voted). Continuing on to the "NA" code in the first column, we can see in the second column that there were 45 (weighted) white respondents ( 49 unweighted) who reported that they voted but were not validated. In this case, the 127 weighted White voters who were validated divided by 172 , the total number of weighted White respondents who stated that they voted yields an estimate of $73.6 \%$ white- matching Dr. Burch's estimate. The problem here is that this estimate is using the incorrect "commonpostweight".

Table 1.1 Calculation of Validated white Voters Using "Commonpostweight"

| inputstate <br> race | 28 |
| :---: | :---: |
|  | White |
| 5 | Def Voted |
| NA | 127 |
| Grand Total | 45 |
| Voted and Validated | 172 |

21. Similarly in Table 1.2, for Black voters, I show the CC20_401 (self-reported voting) variable at the top, for those who "definitely voted". On the left of Table 1.2, I show the responses for CL_2020gvm. Associated with the code " 5 " under the first column, we can see in the second column of Table 1.2, that there are 81 (weighted) Black respondents ( 52 unweighted) who reported they voted and were validated (we just don't know in what manner they voted). Continuing on to the "NA" code in the first column, we can see in the second column that there were 61 Black respondents ( 35 unweighted) who reported they voted but were not validated. In this case, the 81 weighted Black voters divided by the 143 weighted Black respondents who stated they voted yields an estimate of $57.1 \%$ - matching Dr. Burch's estimate. The problem here again is that this estimate is generated using the incorrect "commonpostweight".
Table 1.2 Calculation of Validated Black Voters Using "Commonpostweight"

| inputstate <br> race | 28 |
| :---: | :---: |
|  | Black |
| 5 | Def Voted |
| NA | 81 |
| Grand Total | 61 |
| Voted and Validated | 143 |

22. Using the incorrect weighting scheme,"commonpostweight," it appears that: (1) 73.6 percent of Whites who reported voting actually did vote; and (2) 57.1 percent of Blacks who reported voting actually did vote. However, a different story emerges when the correct weighting system is used.

Table 1.3 Calculation of Validated white Voters Using the Correct Weighting Scheme, "vvweight_post"

| inputstate <br> race | 28 |
| :---: | :---: |
|  | White |
| 5 | Def Voted |
| NA | 115 |
| Grand Total | 6 |
| Voted and Validated | 121 |

23. On the left of Table 1.3, I show the responses for CL_2020gvm. Associated with the code " 5 " in the first column of Table 1.3 we can see in the second column that there are 115 (weighted) White respondents ( 134 unweighted) who reported they voted and were validated. Associated with the "NA" in the first column, we can see in the second column that there are 6 (weighted) White respondents ( 6 unweighted) who reported they voted but were not validated. In this case, the 115 weighted White "validated voters" divided by the 121 weighted White respondents who reported they voted yields an estimate of $95.1 \%$ "Whites who voted and were validated."
Table 1.4 Calculation of Validated Black Voters Using the Correct Weighting Scheme, "vvweight_post"

| inputstate | Black |
| :---: | :---: |
| race | Def Voted |
|  | 70 |
| 5 | 15 |
| NA | 85 |
| Grand Total | $82.8 \%$ |

24. On the left of Table 1.4, I show the responses for CL_2020gvm. Associated with the code " 5 " in the first column of Table 1.4, we can see that in the second column that there are 70 (weighted) Black respondents ( 52 unweighted) who reported they voted and were validated. Continuing on to the "NA" in the first Column, we can see in the second column that there are 15 (weighted) Black respondents ( 9 unweighted) who reported they voted but were not validated. In this case, the 70 weighted Black "validated voters" divided by the 85 weighted Black respondents who said they voted yields an estimate of $82.8 \%$ "Blacks who voted and were validated."
25. Had she used the correct weighting scheme, "vvweight_post," Dr. Burch would have found that $95.1 \%$ of White respondents and $82.8 \%$ of Black respondents correctly reported that they voted. While we can see that this less of a difference than found using the incorrect weighting scheme used by Dr. Burch ( $12.3 \%$ vs. $16.5 \%$ ), it is here that we begin to see the strain of the CES small sample size. Using the vvweight_post, there are only 6 nonvalidated white voters (both weighted and unweighted), and only 9 non-validated Black
voters ( 15 weighted). That is - the numerator for estimating rates of validated voting from the CES for Mississippi are 6 white respondents (out of 140 , representing approximately 1.3 million white, NH VAP from the 2020 Census) and 9 Black respondents (out of 61 , representing approximately 800,000 any part Black VAP from the 2020 Census). This difference of $12.3 \%$ between validated Black and white voters (both based on single-digit sample sizes) is not statistically significant, per the results of an Aspin-Welch Unequal Variance, Two sample T-test I ran with $\alpha=.05$, which yielded $p=0.9743$ (NCSS, https://www.ncss.com/wp-content/themes/ncss/pdf/Procedures/NCSS/Two-Sample TTest.pdf ). See Appendix C. The irony is that Dr. Burch repeatedly touts the strength of a survey-based voter validation system that in the end she fails both to understand and use correctly.
26. As we can now see, Dr. Burch's "finding" regarding the validation of White and Black voters in Mississippi is inaccurate for two reasons. First, she used the incorrect weights. Second, even had she used the correct weights, she would have found there was no statistically significant difference between the validated White and Black voters had she conducted an appropriate statistical test. As you will see, in the following section, I continue to examine her use of incorrect weights and failing to take into account sample size when I examine the logistic regression models constructed by Dr. Burch.
27. In combination with Dr. Burch's statement at page 4 of her rebuttal that "turnout estimates in the CPS are unreliable" it is, indeed, ironic that the "Cooperative Election Survey," the data set to which she turned because, unlike the CPS, it contains "validated voting results," the CES (Ansolabehere, Schaffner, and Luks, 2021: 16) weights these validated voters using the CPS:
"A second set of weights was constructed after matching the survey to Catalist. Respondents for whom there was a validated voter registration record were weighted using the same approach as described above, but this time to ensure that those individuals were representative of registered voters (according to the 2020 CPS)."
28. Thus, in her use of CES data because it has "validated voters," Dr. Burch's analysis is again tied to the CPS, a data set she declared has turnout estimates that are unreliable. In conjunction with this new data set she introduces two new analytic methods, logistic regression and ecological inference. I now turn to an examination of her logistic regression analysis.

## Burch's Logistic Regression model(s)

29. I find a number of problems with the discussion of the logistic model(s) Dr. Burch constructed, including but not limited to, her failure to:
(1) fully document the input data from the Current Election Study (CES) and not making it clear that she used only 460 of the 462 cases for Mississippi;
(2) adequately describe the characteristics of her logistic model(s) in that, among other omissions, she does not describe the "fit" of her model to the data and whether or not any of the assumptions underlying a logistic regression model were violated;
(3) identify the statistical package she used to generate the logistic model(s), which turned out to be SPSS;
(4) include in her rebuttal the fact that there are exceptional weights in the CES Mississippi sample, which places a lot of explanatory burden on only a few subjects such that if these subjects were eliminated, the characteristics of her logistic model(s) would change substantially (See paragraph 10);
(5) report that "Model 1 " only correctly classifies 57.5 percent of the voters found in the Mississippi CES sample into the correct category, which is not much better than simply flipping a fair coin for which we would expect to be correct in calling "heads" 50 percent of the time (see Appendix A); and
(6) report that she used a weighting scheme not recommended by the authors of the CES study guide for the type of analysis she conducted and compounding that failure by declaring that there were "statistically significant" coefficients in her sample-based logistic regression model labeled as "Model 1" (shown in Table 2 of her rebuttal) and that if the recommended weighting scheme had been used, that there are no "statistically significant" coefficients in "Model 1."

30 . This final and $6^{\text {th }}$ failure essentially renders moot the other problems with her logistic model(s) and inconsequential the discussion she provides of them in her rebuttal because "Model 1" cannot be used to infer from the incorrectly weighted sample data to the "universe" that the sample represents.
31. Before turning to the discussion of the incorrect weights used by Dr. Burch in her logistic regression models, I provide a simple description of weighting for purposes of clarification and understanding.
32. In many sample surveys, the proportion of respondents in the survey with a given characteristic does not match the same proportion found in the entire population of interest. When this occurs, "weighting" is used to make the survey results consistent with what is expected for the entire population (Kish, 1965).
33. As an illustration, I adapt a discussion of gender-based weights from Swanson (1997). In this situation, it was known the frequency of females in the sample for a given community
is not equal to its frequency in the population. Using Amargosa Valley, Nevada, as an illustration, $61.5 \%$ (120) of the 195 adults sampled in this community were female, but they only constitute $49 \%$ (221) of the total population (452). This "over-representation" of females (and "under-representation" of males) in the sample survey needs to be taken into account in order to correctly infer from the sample to the population as a whole. Using the population and sample data, the "weight" that will do this for females is found by multiplying the total sample (195) by the proportion of females in the population (.49) and dividing this quotient by the number of females in the sample (120), a process that yields $\left(195^{*} .49\right) / 120=0.796$, which can be rounded to 0.80 . For males, this process yields $(195 * .51) / 75=1.326$, which can be rounded to 1.3.
34. These weights for females and males, respectively, would be applied to the survey respondents by gender to obtain results that would apply to the population as a whole. As a simple illustration, if the 120 females in the sample all answered "yes" to a question and the 75 males all answered "no," the sample would show that $61.5 \%$ answered "yes." In order to apply this to the population by taking into account the over-representation of females, we multiply .615 by 0.80 , which yields 0.49 . That is, $49 \%$ of the population of adults in Amargosa Valley, NV replied "yes" to this question.
35. The CES weighting scheme is much more complicated than the preceding example, but underneath all of the complications, it is simply trying to get the sample survey results to the level where they represent the population the sample is intended to represent.
36. Turning now, to the CES, in looking at which of four weighting schemes to use in analyzing data taken from the CES study, here are the recommendations as found in the CES Study Guide (Ansolabehere, Schaffner, and Luks, 2021: 16-17):

## "Using Weights

Note that the 2020 CES Common Content includes weights for both the Pre-Election and Post Election waves of the study. The weights are constructed to ensure that the sample is representative of different populations either adult Americans or adult Americans who are registered to vote.

| Variable name | Respondent group Target population |
| :--- | :--- |
| commonweight | All respondents Adults |
| commonpostweight | Answered both waves Adults |
| vvweight | Matched to validated registration record Registered adults |
| vvweight_post | Answered both waves \& matched to registration record Registered adults |

We recommend the use of "commonweight" any time researchers wish to characterize the opinions and behaviors of adult Americans. However, use "commonpostweight" when you wish to characterize the opinions and behaviors of adult Americans but you are using any items from the post-election wave of the questionnaire. We recommend the use of "vvweight" or "vvweight_post" any time researchers wish to characterize the opinions, behaviors, or traits of voters or registered voters. The "vv" stands for "voter validated" and these
weights are missing for all respondents who were not validated as (active) registered voters. This approach differs from previous cycles when all respondents received a value for "vvweight" and those weights were not designed solely for use with voters or registered voters. If seeking to characterize the opinions, behaviors, or traits of voters, use "vvweight" or "vvweight post" in conjunction with the vote validation variables."
37. Dr. Burch uses logistic regression to show that white subjects in the CES sample for Mississippi who report as having voted are more likely to be validated than Black subjects in the MS CES sample. In so doing, she uses the "commonweight," which as can be seen above in the excerpt is designed for characterizing the opinions and behaviors of adult Americans in general. However, she uses the "validation" variable in her logistic model, which according to the same excerpt, needs the "commonpostweight" because she is reaching across to the post-election wave, where the validation of "I voted" takes place. Thus, she has not used the weight recommended in the CES Study Guide (Ansolabehere, Schaffner, and Luks (2021: 16-17).
38. In using "commonweight," the incorrect weighting scheme for her analysis, Dr. Burch reports in Table 2 of her rebuttal that two of the three coefficients (including the "constant") in "Model 1 " are statistically significant, where ${ }^{* * *}=\mathrm{P}<.001,{ }^{* *}=\mathrm{P}<.01$, and ${ }^{*}=\mathrm{P}<.05$. In displaying these " p values" she is indicating that she is using a hypothesis test to assess the validity of her model for the entire population that the sample represents (Swanson, 2012: 131-240).

| Variable name | coefficient | p level |
| :---: | :---: | :---: |
| Black | -0.545 | ** |
| Other race | -1.246 |  |
| Constant | 0.388 | *** |

39. When using "commonpostweight," the recommended weight for going across into the postelection time period, the coefficients change in value and neither the Black variable nor the constant is statistically significant, a finding I made after replicating her logistic analysis with "commonweight," the "incorrect weight" and subsequently using "commonpostweight," the recommended weight for an analysis that reaches into the postelection period (See the Appendix for the NCSS output of these two models, with the replication of Burch's incorrectly weighted model in Appendix A and the logistic regression model that results when the correctly weighting scheme is used in Appendix B)

| Variable name | coefficient | p level |
| :---: | :---: | :---: |
| Black | -0.308 | ( $\mathrm{p}=.12289$ ), not statistically significant because $\mathrm{p}>0.05$ |
| Other race | -1.19123 | ( $\mathrm{p}=.12849$ ), not statistically significant because $\mathrm{p}>0.05$ |
| Constant | 0.15301 | ( $\mathrm{p}=.08171$ ), not statistically significant because $\mathrm{p}>0.05$ |

40. Essentially, when the recommended weights are used, one cannot statistically infer (which is what we need to do because the CES data are a sample) that Dr. Burch has constructed a logistic regression model that proves her point. That is, following the path she selected, which was to use hypothesis testing in regard to the model's coefficients, we cannot reject the null hypothesis that each of these three coefficients assembled from the sample data do not represent the corresponding coefficient that would be found if we had the entire voting age population data set to analyze. Thus, Dr. Burch has not constructed a valid logistic regression model that represents the entire voting age population in Mississippi.
41. It is important to note that a colleague of mine, L.M. Tedrow, a research associate at Western Washington University, confirmed the results I found using the NCSS statistical package by using the same package that Dr. Burch used, SPSS.

| Variable name |  | coefficient |  |
| :--- | :--- | :--- | :--- |
|  |  |  | $p$ level |
| Black | -0.308 |  | $(p=.12289)$, not statistically significant because $p>0.05$ |
| Other race | -1.19123 |  | $(p=.12849)$, not statistically significant because $p>0.05$ |
| Constant | 0.15301 |  | $(p=.08171)$, not statistically significant because $p>0.05$ |

Here is the confirmatory SPSS output provided by Mr. Tedrow.

## Variables in the Equation

|  | B | S.E. | Wald | df | Sig. | $\operatorname{Exp}(\mathrm{B})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Step 1 $^{\text {a }}$ | Black | -.308 | .200 | 2.380 | 1 | .123 |
|  | otherrace -1.191 | .784 | 2.311 | 1 | .128 | .304 |
|  | Constant .201 | .131 | 2.334 | 1 | .127 | 1.222 |

a. Variable(s) entered on step 1: black, other race.
42. Dr. Burch's "findings" in regard to using logistic regression in conjunction with the CES data neither rebuts my conclusion nor changes my opinion concerning the ability of Black Mississippians to participate effectively in the political process. As I showed in my initial report: Black people vote at higher rates than White people.

## The Ecological Inference Model for District 1

43. In constructing her Ecological Inference (EI) model of existing District 1, Dr. Burch erroneously included Adams County (a county in existing District 2) and erroneously excluded Bolivar Country (a county in existing District 1). Again, following my "quality control" protocol, I discovered this by examining the file I was provided that was represented by Plaintiffs as the file Dr. Burch used in her EI analysis of District 1 ("neweicentraldist for EI," a text document). In checking this file, I found that there were 32 block groups with the Adams County Code (28001.......) and zero block groups with the Bolivar County code ( 28011 .......). There should have been 28 of the latter in this file, as is found in the file I was provided that was represented by Plaintiff as the file Dr. Burch used in her EI analysis of Mississippi as a whole ("dataforEI2," a text document).
44. In her Ecological Inference analysis she uses "non-white," not Black, as can be seen in Figure 4 on page 11 of her rebuttal report. So, she is now expressing an opinion about White voters relative to non-white voters, not an opinion about White voters relative to Black voters.
45. On page 10 of her rebuttal, Dr. Burch states that she places the Hispanic population (regardless of race) into the "nonwhite" category she employs in her EI analysis by using "...block group data on the citizen voting age population by race, distinguishing nonHispanic white population from the non-White population." In so doing, she places White Hispanics of voting age into her non-white category, along with Asian, American Indian and Alaskan Natives, and "other" Non-Black people of voting age. This action serves to further dilute Dr. Burch's ability to provide an opinion about White voters relative to Black voters in District 1.
46. Coupled with her error of excluding all of the 28 Bolivar County block groups from her EI analysis of District 1 and erroneously including all 32 of the Adams County block groups, the fact that she compares white voters to non-white votes, leads me to conclude that Dr. Burch has neither an opinion on District 1 (in terms of its correct definition) nor an opinion regarding White voters relative to Black Voters in District 1.
47. Dr. Burch's "findings" in regard to using the Ecological Inference Method in conjunction with the CES data applied to District 1 do not rebut my conclusion or change my opinion
that Black Mississippians are able to participate effectively in the political process. As I showed in my initial report, Blacks vote at higher rates than Whites in District 1.

## The Ecological Inference (EI) Model for Mississippi as a Whole

48. As was the case for District 1, in her Ecological Inference analysis for Mississippi as a whole, Dr. Burch uses "non-white," not Black, as can be seen in Figure 4 on page 11 of her rebuttal report. So, she is now expressing an opinion about White voters relative to non-white voters not an opinion about White voters relative to Black voters. Moreover, as noted in \#21, she further diluted her ability to provide an opinion about White voters relative to Black voters because she placed Hispanics of any race into the non-white category, which for the state as a whole includes 29,061 White (alone and in combination with other races) Hispanics of voting age, along with Asian, American Indian and Alaskan Natives, and "other" Non-Black people of voting age. As a consequence of these actions, Dr. Burch has no opinion regarding White voters relative to Black Voters in Mississippi as a whole.
49. Dr. Burch's "findings" in regard to using the Ecological Inference Method in conjunction with the CES data relative to Mississippi as a whole do not rebut my conclusion or change my opinion that Black Mississippians are able to participate effectively in the political process. As I showed in my initial report: Blacks vote at higher rates than Whites in Mississippi as a whole.

In summary, I find that Dr. Burch's Rebuttal Report contains major and other errors that along with related oversights render invalid the opinions she presents in it, to include:
(1) claiming that the Current Population Survey (CPS) is unreliable, therefore causing her to turn to a new data set, The Cooperative Election Survey" (CES) for "validated voters." However, the CES is itself linked back to the CPS to establish weights for "validated voters," a fact of which she is either ignorant or ignores;
(2) Claiming on the basis of an extremely small sample that she incorrectly weighted that the CES data showed that $74 \%$ of the White Mississippi respondents who said they voted actually did so, while $57 \%$ of the Black Mississippi respondents did so.
(3) using a weighting scheme in her "logistic regression" analyses that is not recommended by the authors of the CES study and compounding this failure by declaring that there were "statistically significant" coefficients in her two sample-based logistic regression models, both of which, in fact, turn out to be not statistically significant when the recommended weighting scheme is
used. That is, Dr. Burch fails to create logistic regression models from which she can make inferences from the CES samples to the two populations in question;
(4) incorrectly identifying the counties in MS Supreme Court District 1 in her "Ecological Inference" Model of District 1 by erroneously excluding Bolivar County and erroneously including Adams County; and
(5) comparing White voters to Non-White Voters in her two Ecological Inference models, one for District 1 and the other for the state as a whole, when, in fact the question is in regard to White Voters and Black Voters.
50. Because of these and other errors and oversights, I find Dr. Burch has no valid opinion regarding White voters relative to Black Voters both in MS Supreme Court District 1 and in Mississippi as a whole. As such, her "findings" do not rebut my conclusion or change my opinion that Black Mississippians are able to participate effectively in the political process in MS Supreme Court District 1 and in the state as a whole.

Pursuant to 28 U.S.C. § 1746, I, David A. Swanson, Ph.D., hereby certify under penalty of perjury under the laws of the United States of America that the foregoing is true and correct to the best of my knowledge, information, and belief at the time of making this declaration.

Executed this the 15th day of September, 2023.

# David A. Swanson 

DAVID A. SWANSON, PH.D.

## References

Ansolabehere, S., B. Schaffner, and S. Luks (2021). Guide to the 2020 Cooperative Election StudyData Release No. 21 (June).

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NCSS (no date). Logistic Regression. NCSS Statistical Software. (https://www.ncss.com/wp-
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## APPENDIX

# Appendix A. Logistic Regression Results when the incorrect weights are used. 

NCSS 2020, v20.0.1

## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS <br> Y (Ref Value) <br> validvote(0) <br> Frequency |
| :--- | :--- |
| commonweight |  |


|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Item | Value | Item | Value |
| Y Variable | validvote | Rows Processed | 460 |
| Reference Value | 0 | Rows Used | 460 |
| Number of Y-Values | 2 | Rows for Validation | 0 |
| Frequency Variable | commonweight | Rows X's Missing | 0 |
| Numeric X Variables | 2 | Rows Freq Miss. or 0 | 0 |
| Categorical X Variables | 0 | Rows Prediction Only | 0 |
| Final Log Likelihood | -358.43367 | Unique Rows (Y and X's) | 6 |
| Model R | 0.83627 | Sum of Frequencies | 527.457094326484 |
| Actual Convergence | $7.461232 E-10$ | Likelihood Iterations | 4 |
| Target Convergence | $1 E-06$ | Maximum Iterations | 20 |
| Model D.F. | 3 | Completion Status | Normal Completion |
| Priors | Equal |  |  |

Y Variable Summary

|  | Unique <br> Rows | $\mathbf{Y}$ | Y | $\mathbf{R}^{\mathbf{2}}$ | Percent <br> Correctly |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Y vs Pred. |  |  |  |  |  |

## Coefficient Significance Tests

| Independent | Regression | Standard | Wald |  | Odds |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | Coefficient | Error | Z-Value | Wald | Ratio |
| X | b(i) | Sb(i) | H0: $\beta=0$ | P-Value | Exp(b)(i)) |
| Intercept | 0.25268 | 0.07911 | 3.194 | 0.00140 | 1.28748 |
| black | -0.54495 | 0.18019 | -3.024 | 0.00249 | 0.57987 |
| otherrace | -1.24551 | 0.64877 | -1.920 | 0.05488 | 0.28779 |

## Coefficient Confidence Intervals

| Independent | Regression | Standard | Lower 95\% | Upper 95\% |
| :---: | :---: | :---: | :---: | :---: |
| Variable | Coefficient | Error | Confidence | Confidence |


| X | b(i) | $\mathbf{S b}(\mathbf{i})$ | Limit | Limit |
| :--- | ---: | ---: | ---: | ---: | Exp(b(i))

NCSS 2020, v20.0.1

## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

Odds Ratios


|  |  |  | Increase <br> From Model <br> Deviance |  |
| :--- | ---: | ---: | ---: | ---: |
| Term | DF | Deviance | $\left(\right.$ Chi $\left.^{2}\right)$ P-Value <br> Omitted 2 | 728.81738 |
| All | 1 | 726.08487 | 11.95004 | 0.00254 |
| black | 1 | 720.96271 | 9.21753 | 0.00240 |
| otherrace | 2 | 716.86734 | 4.09538 | 0.04300 |
| None(Model) |  |  |  |  |

The Prob Level is for testing the significance of that term after considering all other terms.

## Log Likelihood \& R ${ }^{2}$

| Term(s) | DF | Log <br> Likelihood | $\mathbf{R}^{\mathbf{2}}$ of <br> Remaining <br> Term(s) | Reduction <br> From | Reduction <br> From |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Omitted | 1 | -364.40869 | 0.00000 |  |  |
| All | 1 | -363.04243 | 0.19122 | 0.64505 | 0.80878 |
| black | 1 | -360.48136 | 0.54968 | 0.28660 | 0.45032 |
| Otherrace | 2 | -358.43367 | 0.83627 | 0.00000 | 0.16373 |
| None(Model) | 6 | -357.26388 | 1.00000 |  | 0.00000 |
| None(Saturated) | 6 |  |  |  |  |

Classification Table

|  | Estimated |  |  |
| :--- | ---: | ---: | ---: |
| Actual | 0 | 1 | Total |
| $\mathbf{0}$ | 124.9911 | 120.9789 | 245.9699 |
| $\mathbf{1}$ | 103.2388 | 178.2484 | 281.4872 |
| Total | 228.2298 | 299.2273 | 527.4571 |

Percent Correctly classified $=57.5 \%$

## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

Residual Report

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 2 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| $3^{*}$ | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 4* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | \||||||||...... |
| 5 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 6 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \|||||||....... |
| $7 *$ | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.58141 | \||||||||||..... |
| 8 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 9 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||...... |
| 10 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 11 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 12 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 13 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 14* | 1 | 2.93353 | \|||.......... | 0.82207 | I\|........... | 0.92572 | \||||||||||||||||| |
| 15* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 16* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 17* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 18 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 19 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 20* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 21 | , | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| $22^{*}$ | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \|||||||....... |
| 23 | 0 | -9.64124 | \|||||||||||||... | -3.73948 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 24 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \|||||||||||||]... | 0.58141 | \||||||||||..... |
| 25* | 1 | 2.93353 | \|||........... | 0.82207 | \||............ | 0.92572 | \|||||||||||||||| |
| 26 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 27* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | \|||||||-...... |
| 28 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 29* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \||||||| |
| 30* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||I|||||||||||]. | 0.46074 | \||||||||....... |
| 31 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 32 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 33 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 34* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 35* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||-.... |
| 36* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 37 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | $\|\|\|\|\|\|\|\mid$...... |


| 38 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 40* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 41 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 42 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 43* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||| |
| 44 | 0 | -1.78567 | \||............ | -0.79495 | \||............ | 0.92572 | \|||||||||||||||| |
| 45 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 46* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||||- | 0.46074 | \||||||||....... |
| 47* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 48 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.46074 | \||||||| ....... |

## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) |  |

commonweight

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 50 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 51 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 52* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | \|||||||....... |
| 53 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 54 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 55* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 56 | 1 | 11.46233 |  | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 57 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 58* | 1 | 11.15826 | \|||||||||||||.. | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||-.... |
| 59 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 60 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 61* | 1 | 2.93353 | \|||........... | 0.82207 | \||........... | 0.92572 | \||||||||||||||| |
| 62* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||....... |
| 63 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 64 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 65* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 66 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 67 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 68 | 1 | 11.46233 | \|||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 69 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 70* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \||||||||...... |
| 71* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 72 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 73* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 74* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 75 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 76* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||...... |
| 77 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 78 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \|||||||-...... |
| 79 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 80 | 1 | 11.46233 | \|||||||||||||| | 4.49750 | \||||||||||||||||| | 0.46074 | \|||||||....... |
| 81 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid .$. | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 82* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||| |
| 83 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 84 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 85* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 86 | 0 | -1.78567 | \||............ | -0.79495 | \\|........... | 0.92572 | \|||||||||||||||| |
| 87 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 88* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||||. | 0.46074 | \||||||||....... |
| 89 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 90 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 91 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 92 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| ....... |


| 93* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 94 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 95 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 96* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 97 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 98 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 99* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 100* | 1 | 11.15826 | \|||||||||||||].. | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 101* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 102 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid . .$. | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 103* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||....... |
| 104* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||-.... |
| 105* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 106* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.58141 | \||||||||| |
| 107* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 108* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \|||||||||..... |
| 109 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 110* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 111* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 112* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | $\|\|\|\|\|\|\|\|\|\mid$..... |
| 113 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 114 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 115* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 116* | 1 | 11.15826 | \|||||||||||||.. | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 117 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 118 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| ....... |
| 119 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 120 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \||||||||||||| | 0.58141 | \||||||||||..... |
| 121* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||||. | 0.46074 | \||||||||....... |
| 122* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 123 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 124 | 1 | 11.46233 | \||||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \|||||||| |
| 125 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 126* | 0 | -13.00597 | \||I|||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 127 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 128 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 129* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 130 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 131* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 132* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| ....... |
| 133 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 134 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 135* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||. | 0.46074 | \||||||| ....... |


| 136* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||| |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 137* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 138* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||....... |
| 139* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||| ... | 0.58141 | \||||||||||..... |
| 140 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \|||||||||||| ... | 0.58141 | \||||||||| |
| 141 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 142 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||| ..... |
| 143* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||| |
| 144* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 145* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \||||||| |
| 146 | 0 | -1.78567 | \||............ | -0.79495 | \||............ | 0.92572 | \|||||||||||||||| |
| 147* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 148* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 149 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 150* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \|||||||||||..... |
| 151* | 1 | 2.93353 | \|||........... | 0.82207 | \||............ | 0.92572 | \|||||||||||||||| |
| 152 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |
| 153* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 154 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 155 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 156* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 157* | 1 | 11.15826 | \||I||||||||||... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 158 | 1 | 11.46233 | \||||||||||||||]. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 159* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 160 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |
| 161* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 162* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||i|||...... |
| 163* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | $\|\|\|\|\|\|\mid$ \|...... |
| 164 | 1 | 11.46233 | \|||||||||||||| . | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 165 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid . .$. | -3.73948 | \||||||||||||||... | 0.58141 | \|||||||||| |
| 166 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 167 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \||||||||||||||... | 0.58141 | \|||||||||| |
| 168 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 169 | 1 | 11.46233 | \|||||||||||||| | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 170 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 171 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 172 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||i|||....... |
| 173* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||| |
| 174* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 175 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 176* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \|||||||||...... |
| 177* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 178 | 1 | 11.46233 | \|||||||||||||. | 4.49750 | \||||||||||||| | 0.46074 | \||||||| ....... |


| 179 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||| | 0.58141 | \||||||||||..... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 180* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 181* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 182 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 183* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 184* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||. |
| 185 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \|||||||||||| ... | 0.58141 | \||||||||||..... |
| 186 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 187 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 188 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 189 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 190 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 191* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||...... |
| 192* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||. | 0.46074 | \||||||||....... |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 193 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||]. |
| 194 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||| |
| 195 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||| |
| 196* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 197 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 198 | 0 | -9.64124 | \|||||||||||| $\ldots$ | -3.73948 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 199 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 200 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 201* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \|||||||....... |
| 202* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | \||||||| ....... |
| 203 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid . .$. | -3.73948 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 204 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \||1|||| |
| 205* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 206 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||| ... | 0.58141 | \||||||||||..... |
| 207* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 208 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 209* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 210* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \||||||||....... |
| 211* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \|||||||....... |
| 212* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 213* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 214 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| ....... |
| 215 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 216 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 217 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 218* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \|||||||....... |
| 219 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 220* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 221 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||. |


| 222* | 0 | -13.00597 | \|||||||||||||| | -4.34811 | \||||||||||||||. | 0.46074 | \|||||||....... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 223 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \|||||||||..... |
| 224* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||. |
| 225* | 1 | 2.93353 | \|||........... | 0.82207 |  | 0.92572 | \|||||||||||||||| |
| 226 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 227 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| $228{ }^{*}$ | 0 | -13.00597 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||....... |
| 229 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||...... |
| 230 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 231* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | \|||||||||||||]... | 0.58141 | \||||||||||..... |
| 232 | 0 | -1.78567 | \||............ | -0.79495 | \||........ | 0.92572 | \|||||||||||||||| |
| 233 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | $\|\|\|\|\|\|\mid$....... |
| 234 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.46074 | \||||||| |
| 235* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \|||||||||..... |
| 236 | 0 | -9.64124 | \|i|||||||||.... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 237* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 238* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||-.... |
| 239* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 240 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \|||||||||||| ... | 0.58141 | \||||||||| |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson <br> Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 241 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | $\|\|\|\|\|\|\mid$....... |
| 242* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 243* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 244* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 3.86756 | \|||||||||||||.. | 0.58141 | \|||||||||..... |
| 245 | 1 | 11.46233 | \||i|||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 246 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 247 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 248 | 1 | 11.46233 | \||||||||||||||.- | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 249 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 250 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 251 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 252* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 253 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 254 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 255* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 256 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 257 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 258* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 259 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 260* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 261* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||| |
| 262 | 1 | 11.46233 | \||||||||||||||.- | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||... |
| 263* | 1 | 11.15826 | \||||||||||||| ... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||.... |
| 264* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||| |


| 265* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||]. | 0.46074 | \|||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 266 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 267 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 268 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 269* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||| ....... |
| 270* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | $\|\|\|\|\|\|\mid$....... |
| 271 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \||||||| |
| 272* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 273* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | $\|\|\|\|\|\|\|\|\|\mid \ldots .$. |
| 274 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||...... |
| 275* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 276 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| $277 *$ | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 278 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 279* | 1 | 11.15826 | \||||||||||||| .. | 3.86756 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 280* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 281 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||| |
| 282* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 283 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 284* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \|||||||||||| | 0.58141 | \||||||||||..... |
| 285 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 286 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 287 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 288* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \|||||||....... |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote( 0 ) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 289* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 290 | 1 | 11.46233 | \|||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 291 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |
| 292 | 0 | -9.64124 | \||||||||||| | -3.73948 | \||||||||||||| ... | 0.58141 | \||||||||||..... |
| 293 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 294 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 295 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 296* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \||||||||||||||||. | 0.46074 | \||||||||....... |
| 297* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 298 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \|||||||||..... |
| 299* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 300* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 301* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | \||||||||....... |
| 302* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||||. | 0.46074 | \|||||||]....... |
| 303 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||. |
| 304 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||. |
| 305 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 306* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 307 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid . .$. | 0.58141 | \|||||||||..... |


| 308* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \|||||||....... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 309 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 310 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 311* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 312 | 0 | -9.64124 | \||||||||||| ... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||| |
| 313 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 314 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 315 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 316* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| $317 *$ | 1 | 11.15826 | \|||||||||||||... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||| |
| 318* | 1 | 11.15826 | \||||||||||||]... | 3.86756 | \||||||||||||| ... | 0.58141 | \|||||||||..... |
| 319 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | -3.73948 | \||||||||||||| ... | 0.58141 | \|||||||||..... |
| 320* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||]. | 0.46074 | \||||||||...... |
| 321 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 322 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||| |
| 323* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \|||||||....... |
| 324* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| |
| 325* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 326* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |
| $327 *$ | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 328* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 329 | 0 | -9.64124 | \||||||||||| ... | -3.73948 | \||||||||||||||... | 0.58141 | \||||||||||-.... |
| 330 | 0 | -9.64124 | \||||||||||| | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 331* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | \||||||||||||| .. | 0.58141 | \||||||||||..... |
| 332 | 1 | 11.46233 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 333 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid . .$. | -3.73948 | \|||||||||||||... | 0.58141 | $\|\|\|\|\|\|\|\|\|\mid$..... |
| 334* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 335* | 1 | 2.93353 | \|||........... | 0.82207 | \||........... | 0.92572 | \|||||||||||||||| |
| 336* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 3.86756 | \|||||||||||| ... | 0.58141 | \||||||||||..... |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 337 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||. |
| 338 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | $\|\|\|\|\|\|\|\|\|\mid$.... |
| 339 | 0 | -9.64124 | \||||||||||| | -3.73948 | \|||||||||||| | 0.58141 | \||||||||||..... |
| 340 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| ....... |
| 341* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 342 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 343 | 0 | -9.64124 | \||||||||||| | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 344* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||. |
| 345 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.58141 | \||||||||||. |
| 346* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 347 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 348* | 1 | 2.93353 | \|||........... | 0.82207 | \||............ | 0.92572 | \|||||||||||||||| |
| 349 | 1 | 11.46233 | \|||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 350* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||| |


| 351 | 0 | -9.64124 | \|||||||||.... | -3.73948 | \|||||||||||... | 0.58141 | \||||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 352* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||.... |
| 353* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||IIII| |
| 354* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 355 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 356* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||....... |
| 357 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||. |
| 358 | 0 | -9.64124 | \|||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 359* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 360* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||.. | 0.58141 | \|||||||||..... |
| 361* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 362* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | I\|I|I| |
| 363* | 1 | 41.15826 | \|||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||| |
| 364 | 1 | 11.46233 | \|il|i|||1||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||III||....... |
| 365* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 366 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||I||||. |
| 367 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||. |
| 368* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||||. | 0.46074 | \|||||||. |
| 369 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||1||||. |
| 370* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||... |
| 371* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 372* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||.... |
| 373* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 374 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 375* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 376* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 377* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||III| $\mid$.. |
| 378* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||1|||||||||||| | 0.46074 | \|||||||. |
| 379 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||I||||. |
| 380 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||1||||... |
| 381 | 0 | -1.78567 |  | -0.79495 |  | 0.92572 | \|||||||||||||||| |
| 382* | 1 | 11.15826 | \||||||||||||... | 3.86756 | \||1||||||||||... | 0.58141 | \||||||||||..... |
| 383* |  | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||. | 0.46074 | \||||||| |
| 384* | 1 | 11.15826 | \||||||||||||.. | 3.86756 | \|||||||||||||... | 0.58141 | \|||||||||..... |

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## Logistic Regression Report

| Dataset | ..Imsexport460.NCSS |
| :--- | :--- |
| Y(Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 385* | 1 | 11.15826 | \||||||||||... | 3.86756 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 386 | 0 | -9.64124 | \|ili|i|i|||.... | -3.73948 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 387 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 388 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \||||||||||||... | 0.58141 | \||||||||| |
| 389* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||| | 0.46074 | \||I|||||....... |
| 390 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 391* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.46074 | \||||||||...... |
| 392* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||...... |
| 393 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |


| 394* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 395 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \||||||||||||... | 0.58141 | \|||||||||..... |
| 396 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 397* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 398* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||| |
| 399 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \|||||||||..... |
| 400 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 401 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \|||||||||..... |
| 402 | 0 | -1.78567 | \||............ | -0.79495 | \||............ | 0.92572 | \|||||||||||||||| |
| 403 | 0 | -9.64124 | \|||||||||||... | -3.73948 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 404* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||| ....... |
| 405* | 1 | 2.93353 | \|||........... | 0.82207 | \\||............ | 0.92572 | \|||||||||||||||| |
| 406* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \||||||||||||||. | 0.46074 | \||||||| |
| 407 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 408* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 409 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 0.58141 | $\|\|\|\|\|\|\|\|\mid$..... |
| 410* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.58141 | $\|\|\|\|\|\|\|\|\mid$..... |
| 411 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \||||||||||||| | 0.58141 | \||||||||||..... |
| 412 | 0 | -9.64124 | \||||||||||| | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 413* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | $\|\|\|\|\|\|\mid$....... |
| 414 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 0.58141 | $\|\|\|\|\|\|\|\|\mid$..... |
| 415 | 0 | -1.78567 | \||........... | -0.79495 | \||............ | 0.92572 | \|||||||||||||||| |
| 416 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 417 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 418 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.58141 | \|||||||||..... |
| 419 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||....... |
| 420 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||...... |
| 421 | 0 | -9.64124 | \|||||||||||.... | -3.73948 | \||||||||||||... | 0.58141 | \||||||||||..... |
| 422 | 0 | -1.78567 | \||............ | -0.79495 | \\|f........... | 0.92572 | \|||||||||||||||| |
| 423 | 1 | 11.46233 | \|||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 424 | 1 | 11.46233 | \||||||||||||||.. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 425 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||...... |
| 426* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||....... |
| 427* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | $\|\|\|\|\|\|\mid$....... |
| 428 | 1 | 11.46233 | \|||||||||||||.. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 429 | 0 | -1.78567 | \||........... | -0.79495 | \||............ | 0.92572 | \|||||||||||||||| |
| 430 | 0 | -1.78567 | \||............ | -0.79495 | \||............ | 0.92572 | \|||||||||||||||| |
| 431* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||. | 0.46074 | \||||||||...... |
| 432 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |

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Logistic Regression Report

| Dataset | ... Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Residual Report (Continued)

|  | Actual <br> validvote | Pearson <br> Residual | Deviance | Maximum <br> Residual | Hat Diagonal |
| :--- | ---: | ---: | ---: | ---: | ---: |


| 437 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \|||||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 438 | 0 | -1.78567 | \||........... | -0.79495 | \||............ | 0.92572 | \||||||||||||||| |
| 439* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \||||||||...... |
| 440* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||||. | 0.46074 | \||||||| ....... |
| 441 | 0 | -9.64124 | \||||||||||||.... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 0.58141 | \|||||||||..... |
| 442* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 443 | 0 | -9.64124 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||| |
| 444* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \||||||||||||||| | 0.46074 | \|||||||....... |
| 445 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |
| 446* | 0 | -13.00597 | \|||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \|||||||....... |
| 447* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 3.86756 | \||||||||||||||... | 0.58141 | \||||||||||..... |
| 448* | 1 | 11.15826 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 3.86756 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.58141 | \||||||||||..... |
| 449* | 1 | 11.15826 | \|||||||||||||... | 3.86756 | \|||||||||||||... | 0.58141 | \|||||||||..... |
| 450* | 0 | -13.00597 | \||||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 451 | 1 | 11.46233 | \|||||||||||||. | 4.49750 | \|||||||||||||||| | 0.46074 | \||||||| |
| 452 | 1 | 11.46233 | \|||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \|||||||....... |
| 453 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 454* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | \|||||||||||||||| | 0.46074 | \||||||||...... |
| 455 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \||||||||||||||... | 0.58141 | \|||||||||..... |
| 456 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |
| 457 | 0 | -9.64124 | \||||||||||||... | -3.73948 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.58141 | \||||||||||..... |
| 458* | 0 | -13.00597 | \||||||||||||||| | -4.34811 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.46074 | \||||||||....... |
| 459 | 1 | 11.46233 | \||||||||||||||. | 4.49750 | \||||||||||||||||| | 0.46074 | \||||||||....... |
| 460 | 0 | -9.64124 | \||||||||||||... | -3.73948 | \|||||||||||||... | 0.58141 | \||||||||||..... |

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## Logistic Regression Report

| Dataset | ...Imsexport460.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

Y vs X's Plots



Simple Residuals vs X's Plots



NCSS 2020, v20.0.1

## Logistic Regression Report

Dataset ...Imsexport460.NCSS
$Y$ (Ref Value) validvote(0)
Frequency commonweight
Deviance Residuals vs X's Plots



Pearson Residuals vs X's Plots



NCSS 2020, v20.0.1

## Logistic Regression Report

| Dataset <br> Y (Ref Value) | ..Imsexport460.NCSS <br> validvote(0) <br> Frequency |
| :--- | :--- |
| commonweight |  |




|  | Logistic Regression Report |
| :--- | :--- |
|  |  |
| Dataset | ..Imsexport460.NCSS |
| Y (Ref Value) | validvote(0) |
| Frequency | commonweight |

## Prob Correct vs Cutoff Plot



Procedure Input Settings
Autosave Inactive
Variables, Model Tab
-- Variables
Y
Reference Value:
Numeric X's:
Categorical X's:
Frequencies:
Validation Filter:
validvote
0
black, otherrace
<Empty>
commonweight
<Empty>
-- Regression Model

Terms:
Remove Intercept

1-Way
Unchecked

- Prior Y-Value Probabilities (Changes Intercept and Predicted Values)

Priors: Equal across $Y$ Values

## Subset Selection Tab

-- Select the Best Subset from the X's



## Storage Tab

-- Data Storage Options
Storage Option:
Do not store data

## Appendix B. NCSS Logistic Regression Results when the correct weights are used.

NCSS 12.0.4
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## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Run Summary

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Item | Value | Item | Value |
| Y Variable | validvote | Rows Processed | 460 |
| Reference Value | 0 | Rows Used | 349 |
| Number of Y-Values | 2 | Rows for Validation | 0 |
| Frequency Variable | commonpostweight Rows X's Missing | 0 |  |
| Numeric X Variables | 2 | Rows Freq Miss. or 0 | 111 |
| Categorical X Variables | 0 | Rows Prediction Only | 0 |
| Final Log Likelihood | -288.15982 | Unique Rows (Y and X's) | 6 |
| Model R |  | Sum of Frequencies | 419.122537315027 |
| Actual Convergence | 0.94973 | $4.048361 E-09$ | Likelihood Iterations |
| Target Convergence | $1 E-06$ | Maximum Iterations | 4 |
| Model D.F. | 3 | Completion Status | Normal Completion |
| Priors | Equal |  |  |

Y Variable Summary

|  | Unique <br> Rows | Y | Y | $\mathbf{R}^{\mathbf{2}}$ <br> (Y vs Pred. | Percent <br> Correctly |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Validvote | Count |  |  |  |  |
| Classified |  |  |  |  |  |

Coefficient Significance Tests

| Independent | Regression | Standard | Wald |  | Odds |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | Coefficient | Error | Z-Value | Wald | Ratio |
| X | b(i) | Sb(i) | H0: $\beta=0$ | P-Value | Exp(b)(i)) |
| Intercept | 0.15301 | 0.08790 | 1.741 | 0.08171 | 1.16534 |
| black | -0.30844 | 0.19993 | -1.543 | 0.12289 | 0.73459 |
| otherrace | -1.19123 | 0.78367 | -1.520 | 0.12849 | 0.30385 |

Coefficient Confidence Intervals

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Independent | Regression <br> Coefficient | Standard <br> Error | Lower 95\% <br> Confidence | Upper 95\% <br> Confidence | Odds <br> Ratio |
| Variable | Sb(i) | Limit | Limit | Exp(b)(i)) |  |
| X | 0.15301 | 0.08790 | -0.01926 | 0.32529 | 1.16534 |
| Intercept | -0.30844 | 0.19993 | -0.70030 | 0.08341 | 0.73459 |
| black | -1.19123 | 0.78367 | -2.72719 | 0.34473 | 0.30385 |

NCSS 12.0.4
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2

## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Odds Ratios

| Independent | Regression <br> Coefficient | Odds <br> Ratio | Lower 95\% <br> Confidence | Upper 95\% <br> Confidence |
| :--- | ---: | ---: | ---: | ---: |
| Variable | b(i) | Exp(b(i)) | Limit | Limit |
| X | 0.15301 | 1.16534 | 0.98093 | 1.38443 |
| Intercept | -0.30844 | 0.73459 | 0.49644 | 1.08699 |
| black | -1.19123 | 0.30385 | 0.06540 | 1.41161 |

Estimated Logistic Regression Model(s) in Reading Form

Model for Logit(validvote) $=\mathrm{XB}$ when validvote $=1$
0.15-0.31 * black-1.19 * otherrace

## Estimated Logistic Regression Model(s) in Transformation Form

Model for Logit(validvote) $=$ XB when validvote $=1$
$0.15301475991198-0.308441217146693^{*}$ black -1.1912307058887*otherrace
Each model estimates $X B$ (where Logit(Y) = XB) for a specific $Y$ outcome. To calculate the Y-value probabilities when there are only 2 outcomes, transform the logit using
$\operatorname{Prob}(Y=$ outcome $)=1 /(1+\operatorname{Exp}(-X B))$ or $\operatorname{Prob}(Y \neq$ outcome $)=\operatorname{Exp}(-X B) /(1+\operatorname{Exp}(-X B))$. For the calculation formula to use when there are more than 2 outcomes, see the help documentation.

Analysis of Deviance

|  |  | Increase <br> From Model <br> Deviance |  |
| :--- | ---: | ---: | ---: |
| Term | DF | Deviance | $\left(\right.$ Chi $\left.^{2}\right)$ |$\quad$ P-Value


| Ali | 2 | 580.78819 | 4.46856 | 0.10707 |
| :--- | :--- | :--- | :--- | :--- |
| black | 1 | 578.70605 | 2.38642 | 0.12239 |
| otherrace | 1 | 578.94312 | 2.62349 | 0.10529 |
| None(Model) | 2 | 576.31963 |  |  |

The Prob Level is for testing the significance of that term after considering all other terms.

Log Likelihood \& R ${ }^{\mathbf{2}}$

| Term(s) | DF | Log | $\mathbf{R}^{\mathbf{2}}$ of <br> Remaining | Reduction <br> From | Reduction <br> From |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Omitted | 1 | -290.39410 | 0.00000 |  |  |
| All | 1 | -289.35303 | 0.44253 | 0.50720 | 0.55747 |
| black | 1 | -289.47156 | 0.39215 | 0.55759 | 0.60785 |
| otherrace | 2 | -288.15982 | 0.94973 | 0.00000 | 0.05027 |
| None(Model) | 6 | -288.04156 | 1.00000 |  | 0.00000 |
| None(Saturated) | 6 |  |  |  |  |
| NCSS 12.0.4 |  |  |  | $5 / 17 / 20231: 26: 51 \mathrm{PM}$ | 3 |

## Logistic Regression Report

$\begin{array}{ll}\text { Dataset } & \text {...WCSSmsexport. NCSS } \\ Y \text { (Ref Value) } & \text { validvote(0) }\end{array}$
Frequency commonpostweight

## Classification Table

|  | Estimated |  |  |
| :--- | ---: | ---: | ---: |
| Actual | 0 | 1 | Total |
| $\mathbf{0}$ | 99.31236 | 105.2447 | 204.5571 |
| $\mathbf{1}$ | 85.91865 | 128.6468 | 214.5655 |
| Total | 185.231 | 233.8915 | 419.1225 |

Percent Correctly classified $=54.4 \%$

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 2 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 3* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 4* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 5 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |


| 6 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7{ }^{*}$ | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 8 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||| ....... |
| 9 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||| ....... |
| 10 | 1 | 10.39601 | \||||||||||||||].. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 11 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 12 | 1 | 10.39601 | \||||||||||||||].. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||1|| |
| 13 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||i|||||i|| | 0.44911 | \||||||| ....... |
| 14* | 1 | 2.50368 | \||1........... | 0.40136 | \||............ | 0.96226 | \|||||||||||||||| |
| 15* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||. | 0.57746 | \|||||||||..... |
| 16* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \|||||||||..... |
| $17^{*}$ | 1 | 9.76123 | \|||||||||||||||.. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 18 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 19 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 20* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||| |
| 21 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 |  | 0.44911 | \||||||||....... |
| 22* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||...... |
| 23 | 0 | -9.03138 | \||||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 24 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||| ... | 0.57746 | \||||||||| |
| $25^{*}$ | 1 | 2.50368 | \|||........... | 0.40136 | \||............ | 0.96226 | \||||||||||||||| |
| 26 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| $27^{*}$ | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 28 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 29* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||||. | 0.44911 | \||||||||-...... |
| $30^{*}$ | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 31 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 32 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||....... |
| 33 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 34* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||| |
| 35* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \|||||||||| |
| 36* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||||. | 0.44911 | $\|\|\|\|\|\|\|\mid . . . . .$. |
| 37 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 2.36709 | \|||||||||||||||||| | 0.44911 | \||||||||....... |
| 38 | 0 | -9.03138 | \||||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | \|||||||||| ..... |
| 39* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 40* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 41 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||-..... |
| 42 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 43* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 44 | 0 | -1.48982 | \|............ | -0.39661 | \||............ | 0.96226 | \|||||||||||||||| |
| 45 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 46* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | $\|\|\|\|\|\|\|\mid$....... |
| 47* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \||||||||....... |
| 48 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 49 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||....... |

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## Logistic Regression Report

Dataset
Y (Ref Value)
Frequency
..NCSSmsexport.NCSS
validvote(0)
commonpostweight

## Residual Report (Continued)

Actual
Pearson
Deviance
Maximum

| Row | validvote | Residual |  |
| :---: | :---: | :---: | :---: |
| 50 | 1 | 10.39601 | \||||||||||||||.. |
| 51 | 1 | 10.39601 | \||||||||||||||.. |
| 52* | 0 | -11.22260 | \|||||||||||||||| |
| 53 | 1 | 10.39601 | \||||||||||||||. |
| 54 | 0 | -9.03138 | \||||||||||||... |
| 55* | 0 | -11.22260 | \|||||||||||||||| |
| 56 | 1 | 10.39601 | \||||||||||||||.. |
| 57 | 1 | 10.39601 | \||||||||||||||].. |
| $58{ }^{*}$ | 1 | 9.76123 | \||||||||||||||]. |
| 59 | 1 | 10.39601 | \||||||||||||||.. |
| 60 | 1 | 10.39601 | \|||||||||||||.. |
| $61^{*}$ | 1 | 2.50368 | \|||........... |
| 62* | 0 | -11.22260 | \|||||||||||||||| |
| 63 | 1 | 10.39601 | \||||||||||||||.. |
| 64 | 0 | -9.03138 | \|||||||||||||... |
| 65* | 0 | -11.22260 | \||||||||||||||| |
| 66 | 1 | 10.39601 | \||||||||||||||.. |
| 67 | 1 | 10.39601 | \||||||||||||||.. |
| 68 | 1 | 10.39601 | \||||||||||||||. |
| 69 | 1 | 10.39601 | \||||||||||||||. |
| 70* | 0 | -11.22260 | \||||||||||||||| |
| $71^{*}$ | 1 | 9.76123 | \||||||||||||||. |
| 72 | 1 | 10.39601 | \||||||||||||||.. |
| 73* | 0 | -11.22260 | \||||||||||||||||| |
| 74* | 0 | -11.22260 | \||||||||||||||| |
| 75 | 1 | 10.39601 | \||||||||||||||.. |
| 76* | 0 | -11.22260 | \|||||||||||||||| |
| 77 | 1 | 10.39601 | \||||||||||||||. |
| 78 | 1 | 10.39601 | \||||||||||||||. |
| 79 | 1 | 10.39601 | \||||||||||||||. |
| 80 | 1 | 10.39601 | \||||||||||||||. |
| 81 | 0 | -9.03138 | \|||||||||||||... |
| 82* | 1 | 9.76123 | \||||||||||||||. |
| 83 | 1 | 10.39601 | \||||||||||||||.. |
| 84 | 0 | -9.03138 | \|||||||||||||... |
| 85* | 1 | 9.76123 | \||||||||||||||. |
| 86 | 0 | -1.48982 | \|............. |
| 87 | 1 | 10.39601 | \|||||||||||||. |
| 88* | 0 | -11.22260 | \||||||||||||||| |
| 89 | 1 | 10.39601 | \||||||||||||||. |
| 90 | 1 | 10.39601 | \||||||||||||||. |
| 91 | 1 | 10.39601 | \||||||||||||||. |
| 92 | 1 | 10.39601 | \||||||||||||||.. |
| 93* | 0 | -11.22260 | \||||||||||||||| |
| 94 | 1 | 10.39601 | \||||||||||||||. |
| 95 | 1 | 10.39601 | \||||||||||||||. |
| 96* | 1 | 9.76123 | \||||||||||||||.. |
| 97 | 1 | 10.39601 | \||||||||||||||. |
| 98 | 1 | 10.39601 | \||||||||||||||. |


| Residual |  |
| :---: | :---: |
| 2.36709 | \|||||||||||||| |
| 2.36709 | \||IIIIIIIII |
| -2.33898 | \|||||||||||||||. |
| 2.36709 | \|||||||||||||||| |
| -2.03870 | IIIIIIIII |
| -2.33898 | \|||i||||||||||. |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \|||||||||||||||| |
| 2.06318 | \||||||||||||||. |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \||I||||||| |
| 0.40136 |  |
| -2.33898 | \|||||||||||||| |
| 2.36709 | \||||||||||||||| |
| -2.03870 | \|||||||||||||.. |
| -2.33898 | \|||||||||||||| |
| 2.36709 | \||||||||||| |
| 2.36709 | \||I|||||||| |
| 2.36709 | \||||||||||||| |
| 2.36709 | \||||||||||||||| |
| -2.33898 | \||||||||||||||| |
| 2.06318 | \||||||||||||||. |
| 2.36709 | \|||||||||||||||| |
| -2.33898 | \||||||||||||||| |
| -2.33898 | \||||||||||||||| |
| 2.36709 | \|||||||||||||| |
| -2.33898 | \|||||||| |
| 2.36709 | \||||||||||||||||| |
| 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \|||||||||||||| |
| -2.03870 | \|||||||||||||... |
| 2.06318 | \|||||||||||||.. |
| 2.36709 | \||||||||||||||| |
| -2.03870 | \||||||||||||... |
| 2.06318 | \|||||||||||||. |
| -0.39661 |  |
| 2.36709 | \|||||||||||||||| |
| -2.33898 | \|||||||||||||| |
| 2.36709 | \||||||||||||||| |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \|||||||||||||||| |
| -2.33898 | \||||||||||||||| |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \||||||||||||||| |
| 2.06318 | \|||||||||||||.. |
| 2.36709 | \|||||||||||||||| |
| 2.36709 | \||I|||||||| |


| Hat Diagonal |  |
| :---: | :---: |
| 0.44911 | \|||||||....... |
| 0.44911 | \|||||||....... |
| 0.44911 | \|||I||| ....... |
| 0.44911 | \||IIIII. |
| 0.57746 | \|||||||||. |
| 0.44911 | \||I||||. |
| 0.44911 | \|||||||. |
| 0.44911 | \||I||||. |
| 0.57746 | \|||||||||..... |
| 0.44911 | \||I||||. |
| 0.44911 | \||I||||. |
| 0.96226 | \||||||||||||||| |
| 0.44911 | \||I||||. |
| 0.44911 | \|||||||... |
| 0.57746 | \||||||||||..... |
| 0.44911 | \|||||||....... |
| 0.44911 | \||III||....... |
| 0.44911 | \|||I|||....... |
| 0.44911 | \|||||||... |
| 0.44911 | \|||||||... |
| 0.44911 | \||I||||]. |
| 0.57746 | \|||||||||...... |
| 0.44911 | \|||||||. |
| 0.44911 | \|||||||....... |
| 0.44911 | \|||||||.. |
| 0.44911 | \||I||I|. |
| 0.44911 | \|||||||. |
| 0.44911 | \|||||||... |
| 0.44911 | \||IIIII... |
| 0.44911 | \|||||||. |
| 0.44911 | \|||||||. |
| 0.57746 | \||I||||||..... |
| 0.57746 | \||||||||||..... |
| 0.44911 | \||IIII| |
| 0.57746 | \|||||||||..... |
| 0.57746 | \||||||||||. |
| 0.96226 | \||||||||||||||| |
| 0.44911 | \|||||||... |
| 0.44911 | \|||||||....... |
| 0.44911 | \|||||||....... |
| 0.44911 | \||I||||. |
| 0.44911 | \||IIIII.. |
| 0.44911 | \||IIIII. |
| 0.44911 | \|||||||... |
| 0.44911 | \|||||||....... |
| 0.44911 | \|||||||. |
| 0.57746 | \|||||||||..... |
| 0.44911 | \||||||| |
| 0.44911 | \||||||||....... |

## Logistic Regression Report

| Y (Ref Value) | validvote(0) |
| :--- | :--- |
| Frequency | commonpostweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson <br> Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 99* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \|||||||....... |
| 100* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 101* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||| ..... |
| 102 | 0 | -9.03138 | \||||||||||||| ... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 103* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 104* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \|||||||||..... |
| 105* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 106* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 107* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 108* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 109 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \|||||||||..... |
| 110* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \|||||||||||||||. | 0.57746 | \|||||||||..... |
| 111* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \||||||||||..... |
| 112* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \|||||||||||||||.. | 0.57746 | \||||||||||-.... |
| 113 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 114 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \|||||||||..... |
| 115* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 116* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.57746 | \||||||||||..... |
| 117 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 118 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 119 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||||| | 0.44911 | \||||||||....... |
| 120 | 0 | -9.03138 | \||||||||||||| ... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 121* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||...... |
| 122* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 123 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||...... |
| 124 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||||| | 0.44911 | \||||||||....... |
| 125 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 126* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \|||||||....... |
| 127 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||....... |
| 128 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 129* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 130 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||...... |
| 131* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||| |
| 132* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||||| | 0.44911 | \||||||||...... |
| 133 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||...... |
| 134 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||....... |
| 135* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 136* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||||. | 0.44911 | \||||||||...... |
| 137* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 138* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 139* | 1 | 9.76123 | \|||||||||||||||.. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 140 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||-.... |
| 141 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 142 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.57746 | \|||||||||..... |
| $143^{*}$ | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \|||||||||..... |
| 144* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 145* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||||. | 0.44911 | \||||||||....... |
| 146 | 0 | -1.48982 | \|............. | -0.39661 | \||........... | 0.96226 | \||||||||||||||| |
| 147* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||. | 0.57746 | \|||||||||..... |

## Logistic Regression Report

| Dataset | ..INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 148* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||| |
| 149 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||....... |
| 150* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 151* | 1 | 2.50368 | \||1........... | 0.40136 |  | 0.96226 | \||||||||||||||| |
| 152 | 0 | -9.03138 | \|||||||||||| ... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||| |
| 153* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 154 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 155 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \|||||||||..... |
| 156* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 157* |  | 9.76123 | \|||||||||||||||. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 158 | 1 | 10.39601 | \|||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||| |
| 159* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||| |
| 160 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \||||||||||..... |
| 161* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||-...... |
| 162* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 163* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 164 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 165 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \||||||||||..... |
| 166 | 1 | 10.39601 | \||||||||||||||]. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 167 | 0 | -9.03138 | \||||||||||||| ... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 168 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 169 | 1 | 10.39601 | Iliililiiil\|i. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 170 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \||||||||||..... |
| 171 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 172 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 173* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 174* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||| |
| 175 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid 1 .$. | 0.57746 | \||||||||||..... |
| 176* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 177* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 178 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \|||||||....... |
| 179 | 0 | -9.03138 | \||||||||||||| ... | -2.03870 |  | 0.57746 | \||||||||||..... |
| 180* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 181* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \|||||||||..... |
| 182 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 183* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 184* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \||||||||||..... |
| 185 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||| ... | 0.57746 | \||||||||||..... |
| 186 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||...... |
| 187 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 188 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 189 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 190 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \|||||||....... |


| 191* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 192* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| |
| 193 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||||| |
| 194 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| |
| 195 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| |
| 196* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson <br> Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 197 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||.... |
| 198 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||| ..... |
| 199 | 1 | 10.39601 | \||I||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 200 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \|||||||....... |
| 201* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \|||||||....... |
| 202* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||| |
| 203 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid . .$. | 0.57746 | \||||||||||..... |
| 204 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 205* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 206 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 0.57746 | \|||||||||..... |
| 207* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 208 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 209* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 210* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 211* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \|||||||....... |
| 212* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 213* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 214 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 215 | 1 | 10.39601 | \||||||||||||||]. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 216 | 1 | 10.39601 | \||||||||||||||]. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \|||||||....... |
| 217 | 1 | 10.39601 | \||||||||||||||]. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 218* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 219 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 220 * | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 221 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 222** | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 223 | 0 | -9.03138 | \||||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 224* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 225* | 1 | 2.50368 | \|||........... | 0.40136 | \\|1........... | 0.96226 | \|||||||||||||||| |
| 226. | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 227 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||||| | 0.44911 | \||||||||-...... |
| 228* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||]. | 0.44911 | \||||||||....... |
| 229 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 230 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||...... |
| 231* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 232 | 0 | -1.48982 | \|............. | -0.39661 | \||........... | 0.96226 | \||||||||||||||||| |
| 233 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||| ....... |


| 234 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 235* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||... |
| 236 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.57746 | \||i|||||||..... |
| 237* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 238* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.57746 | \||||||||||..... |
| 239* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 240 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 0.57746 | \||||||||||..... |
| 241 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||....... |
| 242* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 243* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 244* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||| |
| 245 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||| ....... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 246 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \|||||||. |
| 247 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 0.57746 | \||||||||||..... |
| 248 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 249 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 250 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||| |
| 251 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 252* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||| ....... |
| 253 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | -2.03870 | \|||||||||||||... | 0.57746 | \|||||||||-.... |
| 254 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||| ... | 0.57746 | \||||||||||..... |
| 255* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 256 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||| ....... |
| 257 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||| |
| 258* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||| |
| 259 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 260* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 261* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \|||||||....... |
| 262 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 263* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 264* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||| | 0.44911 | \|||||||....... |
| 265* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||...... |
| 266 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 267 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 268 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ | 0.44911 | \||||||||...... |
| 269* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||| | 0.44911 | \|||||||....... |
| 270* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 271 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 272* | 1 | 9.76123 | \|||||||||||||||.. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 273* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 274 | 1 | 10.39601 | \|||||||||||||||- | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||...... |
| 275* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||| | 0.44911 | \|||||||....... |
| 276 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||....... |


| 277* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \|||||||....... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 278 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.57746 | \|||||||||..... |
| 279* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \|||||||||..... |
| 280* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 281 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \|||||||||..... |
| 282* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 283 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 284* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||| |
| 285 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||| |
| 286 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | -2.03870 | \|||||||||||||... | 0.57746 | \|||||||||..... |
| 287 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||| |
| 288* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 289* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \|||||||....... |
| 290 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | $\|\|\|\|\|\|\|\mid$...... |
| 291 | 0 | -9.03138 | \|||||||||||||].. | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.57746 | \|||||||||..... |
| 292 | 0 | -9.03138 | \||||||||||||| | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||| |
| 293 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||...... |
| 294 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |

## NCSS 12.0.4

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 295 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||1||||||||||... | 0.57746 | \||||||||||..... |
| 296* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||....... |
| 297* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \|||||||||..... |
| 298 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \||||||||| |
| 299* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 300* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \||||||||...... |
| 301* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||...... |
| 302* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \|||||||....... |
| 303 | 0 | -9.03138 | \||||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 304 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 305 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 306* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44914 | \||||||||...... |
| 307 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 308* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||||- | 0.44911 | \||||||||....... |
| 309 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 310 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 311* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 312 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 313 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 314 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 315 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 316* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 0.44911 | \||||||||...... |
| 317* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 318* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \||||||||||||||.- | 0.57746 | \||||||||||..... |


| 319 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \|||||||||..... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 320* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||||. | 0.44911 | \||||||||....... |
| 321 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||| |
| 322 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 323* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 324* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \||||||||...... |
| 325* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 326* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \|||||||||..... |
| 327* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \||||||||....... |
| 328* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 329 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||| ... | 0.57746 | \||||||||||..... |
| 330 | 0 | -9.03138 | \|||||||||||||]... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 331* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||.. | 0.57746 | \||||||||||..... |
| 332 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 333 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 334* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||. | 0.44911 | \||||||||....... |
| 335* | 1 | 2.50368 | \|||........... | 0.40136 | \||............ | 0.96226 | \|||||||||||||||| |
| 336* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \||||||||||||||.. | 0.57746 | \|||||||||||..... |
| 337 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 338 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 339 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | -2.03870 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 0.57746 | \||||||||||..... |
| 340 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 341* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \||||||||||||||||. | 0.44911 | \||||||||....... |
| 342 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 343 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \||||||||||||.. | 0.57746 | \|||||||||..... |

NCSS 12.0.45/17/2023 1:26:51 PM 12

## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson <br> Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 344* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||| |
| 345 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \\|||||||||||||... | 0.57746 | \||||||||||..... |
| 346* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 347 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 348* | 1 | 2.50368 | \|||........... | 0.40136 | \\|............ | 0.96226 | \|||||||||||||||| |
| 349 | 1 | 10.39601 | \|||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 350 * | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 351 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 352* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 353* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \|||||||....... |
| 354* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 355 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | $\|\|\|\|\|\|\|\|\|\|\mid$.... |
| 356* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 357 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||...... |
| 358 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 359* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 360* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||||. | 0.57746 | \||||||||||..... |
| 361* | 1 | 9.76123 | \|||||||||||||.. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||| ..... |


| 362* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 363* | 1 | 9.76123 | \|||||||||||||||. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 364 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 365* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||||..... |
| 366 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 367 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | \|||||||-...... |
| 368* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||]. | 0.44911 | \||||||||....... |
| 369 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 370* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 371* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||||..... |
| 372* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 373* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||.. | 0.57746 | \||||||||||..... |
| 374 | 1 | 10.39601 | \||||||||||||||.. | 2.36709 | \|||||||||||||||| | 0.44911 | $\|\|\|\|\|\|\|\mid$....... |
| 375* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||||..... |
| 376* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||| | 0.44911 | \||||||| |
| 377* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||| ....... |
| 378* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 379 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 380 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \|||||||. |
| 381 | 0 | -1.48982 | \|............. | -0.39661 | \||............ | 0.96226 | \|||||||||||||||| |
| 382* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||||..... |
| 383* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 384* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \||||||||||||||.- | 0.57746 | \|||||||||| |
| 385* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | \||||||||||||||. | 0.57746 | \||||||||||..... |
| 386 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | -2.03870 | \||||||||||||... | 0.57746 | \||||||||||..... |
| 387 | 0 | -9.03138 | \||||||||||||]... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 388 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \|||||||||| |
| 389* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||....... |
| 390 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 391* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||| | 0.44911 | \||||||||...... |
| 392* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||| | 0.44911 | \|||||||...... |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report (Continued)

| Row | Actual validvote | Pearson Residual |  | Deviance Residual |  | Maximum Hat Diagonal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 393 | , | 10.39601 | \||||||||||.. | 2.36709 | \|||||||||||| | 0.44911 | \|||||||.... |
| 394* | 1 | 9.76123 | \||i|||||||||||. | 2.06318 | \||||||||||||||. | 0.57746 | \|||||||||..... |
| 395 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||... | 0.57746 | \|||||||||..... |
| 396 | 1 | 10.39601 | \|||||||||||||. | 2.36709 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 397* | 1 | 9.76123 | \||||||||||||||. | 2.06318 | \|||||||||||||. | 0.57746 | \|||||||||..... |
| 398* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 399 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 400 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \||||||||||||||| | 0.44911 | \||||||||... |
| 401 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... | 0.57746 | \||I|||||||. |
| 402 | 0 | -1.48982 |  | -0.39661 |  | 0.96226 | \||||||||||||||| |
| 403 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... | 0.57746 | \||||||||||..... |
| 404* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||. | 0.44911 | \|||I|||....... |


| 405* | 1 | 2.50368 |  | 0.40136 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 406* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||| |
| 407 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||| |
| 408* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ \|| |
| 409 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... |
| 410* | 1 | 9.76123 | \|||||||||||||.. | 2.06318 | \||||||||||||||. |
| 411 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... |
| 412 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... |
| 413* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| |
| 414 |  | -9.03138 | \|||||||||||||.. | -2.03870 | \|||||||||||||... |
| 415 | 0 | -1.48982 |  | -0.39661 |  |
| 416 | 1 | 10.39601 | \|||||||||||||. | 2.36709 | \||||||||||||||| |
| 417 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \||||||||||||||| |
| 418 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||... |
| 419 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ |
| 420 | 1 | 10.39601 | \|||||||||||||.. | 2.36709 | \|||||||||||||||| |
| 421 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... |
| 422 | 0 | -1.48982 | \|............. | -0.39661 |  |
| 423 |  | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| |
| 424 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||| |
| 425 | 1 | 10.39601 | \||||||||||||||. | 2.36709 | \|||||||||||||||| |
| 426* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \|||||||||||||||. |
| 427* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||. |
| 428 | 1 | 10.39601 | \|||||||||||||. | 2.36709 | \|||||||||||||||| |
| 429 | 0 | -1.48982 | \|............ | -0.39661 |  |
| 430 | 0 | -1.48982 | ............. | -0.39661 |  |
| 431* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| |
| 432 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||I||||||||||... |
| 433 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \||||||||||||... |
| 434* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| |
| 435* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| |
| 436 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... |
| 437 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|IIII||||||||... |
| 438 | 0 | -1.48982 |  | -0.39661 |  |
| 439* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \|||||||||||||| |
| 440* | 0 | -11.22260 | \||||||||||||||| | -2.33898 | \||||||||||||||| |
| 441 | 0 | -9.03138 | \||||||||||||... | -2.03870 | \|||||||||||||... |

NCSS 12.0.4

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Report (Continued)

|  | Actual | Pearson <br> Residual | Deviance <br> Residual | Maximum <br> Row | validvote |
| :--- | ---: | ---: | ---: | ---: | ---: |

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## Logistic Regression Report

| 448* | 1 | 9.76123 | \||||||||||||||.. | 2.06318 | \||||||||||||||.. | 0.57746 | \|||||||||..... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 449* | 1 | 9.76123 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.06318 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 0.57746 | \||||||||||..... |
| 450* | 0 | -11.22260 | \||||||||||||||||| | -2.33898 | \|||||||||||||||. | 0.44911 | \|||||||....... |
| 451 | 1 | 10.39601 | \|||||||||||||||.. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||....... |
| 452 | 1 | 10.39601 | \|||||||||||||||. | 2.36709 | \||||||||||||||||| | 0.44911 | \||||||||...... |
| 453 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 454* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \||||||||...... |
| 455 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |
| 456 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\mid 1 .$. | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 457 | 0 | -9.03138 | \|||||||||||||... | -2.03870 | \||||||||||||||... | 0.57746 | \||||||||||..... |
| 458* | 0 | -11.22260 | \|||||||||||||||| | -2.33898 | \||||||||||||||| | 0.44911 | \|||||||....... |
| 459 | 1 | 10.39601 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 2.36709 | \|||||||||||||||| | 0.44911 | \||||||||....... |
| 460 | 0 | -9.03138 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. | -2.03870 | \|||||||||||||... | 0.57746 | \||||||||||..... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote =1

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 |
| 2 | 1 | 0.44216 | \|............ | -0.43466 |  | -0.11089 |
| 3* | 1 | -0.54033 | ............. | 0.56461 | \|............. | 0.00000 |
| 4* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |
| 5 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |
| 6 | 1 | 0.44216 | \|............ | -0.43466 | \|............ | -0.11089 |
| 7* | 1 | -0.54033 | \|............. | 0.56461 |  | 0.00000 |
| 8 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 |
| 9 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |
| 10 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 |
| 11 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 |
| 12 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |
| 13 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 |
| $14^{*}$ | 1 | -0.22785 |  | 0.00000 | \|............ | 1.59732 |
| 15* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |
| $16^{*}$ | 1 | -0.54033 | \|............. | 0.56461 |  | 0.00000 |
| 17* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |
| 18 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |
| 19 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 |
| 20* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 |
| 21 | 1 | 0.44216 | \|.... | -0.43466 | \|............. | -0.11089 |
| 22* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |
| 23 | 0 | 20.95992 | \||||||||||||||||| | -21.90187 | \||||||||||||||||| | 0.00000 |
| 24 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |
| 25* | 1 | -0.22785 |  | 0.00000 | \|............. | 1.59732 |
| 26 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |
| 27* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |
| 28 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |
| 29* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |


| $30^{*}$ | 0 | -20.08375 | \|ㅔ․․․․|. | 19.74307 | \||||||||||.. | 5.03686 | ........... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | ............. |
| 32 | 1 | 0.44216 |  | -0.43466 | ............. | -0.11089 |  |
| 33 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| $34^{*}$ | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 35* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 36* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 37 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 38 | 0 | 20.95992 | \|||||||||||| | -21.90187 | \|||||||||||||| | 0.00000 |  |
| 39* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| $40^{*}$ | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 41 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 42 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 43* | 0 | -20.08375 | \||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 44 | 0 | 6.38662 | IIII.......... | 0.00000 |  | -44.77268 | \||||||||||||||| |
| 45 | 1 | 0.44216 | \|........... | -0.43466 | .... | -0.11089 |  |
| $46^{*}$ | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| $47^{*}$ |  | -20.08375 | \||||i||||||||||| | 19.74307 | \|||||||||||||||. | 5.03686 |  |
| 48 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 49 | 1 | 0.44216 | ............. | -0.43466 |  | -0.11089 |  |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 1 | 0.44216 | ............. | -0.43466 | ............. | -0.11089 |  |
| 51 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 52* | 0 | -20.08375 | \||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 53 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 54 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 55* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 56 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 57 | 1 | 0.44216 | ... | -0.43466 | ............. | -0.11089 |  |
| 58* | 1 | -0.54033 | .... | 0.56461 | 1............ | 0.00000 |  |
| 59 | 1 | 0.44216 | ... | -0.43466 | \|............ | -0.11089 | ...... |
| 60 | 1 | 0.44216 | \|............. | -0.43466 | ............. | -0.11089 | ...... |
| 61* | 1 | -0.22785 | ............. | 0.00000 | \|............ | 1.59732 | \|........... |
| $62^{*}$ | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 | \|......... |
| 63 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | \|.... |
| 64 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | \|........... |
| 65* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 66 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 67 | 1 | 0.44216 | \|............ | -0.43466 | ............. | -0.11089 |  |
| 68 | 1 | 0.44216 | ............. | -0.43466 | \|............ | -0.11089 |  |
| 69 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 70* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 | ...... |
| 71* | 1 | -0.54033 | \|............ | 0.56461 | \|............ | 0.00000 | ............ |
| 72 | 1 | 0.44216 | 1............ | -0.43466 | \|............ | -0.11089 | ............ |


| 73* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 | \|............. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 74* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||.. | 5.03686 | \|............. |
| 75 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 76* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 | \|............. |
| 77 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|............ |
| 78 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............. |
| 79 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............. |
| 80 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............. |
| 81 | 0 | 20.95992 | \|||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | \|............. |
| 82* | 1 | -0.54033 | \|............. | 0.56461 | ... | 0.00000 | \|............ |
| 83 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |
| 84 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 85* | 1 | -0.54033 | \|............. | 0.56461 | \|............ | 0.00000 | \|............. |
| 86 | 0 | 6.38662 | \||||.......... | 0.00000 | \|............. | -44.77268 | \||||||||||||||| |
| 87 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 | \|............ |
| 88* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 | \|............. |
| 89 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|............. |
| 90 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|............. |
| 91 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|............. |
| 92 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | ............. |
| 93* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 | \|............ |
| 94 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|............. |
| 95 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 | \|............ |
| 96* | 1 | -0.54033 | ............. | 0.56461 |  | 0.00000 |  |
| 97 | 1 | 0.44216 | \|............ | -0.43466 | \|............. | -0.11089 | \|............ |
| 98 | 1 | 0.44216 | \|............ | -0.43466 | \|............. | -0.11089 | ............ |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 99* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 100* | 1 | -0.54033 |  | 0.56461 | \|............. | 0.00000 |  |
| 101* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 102 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 103* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 104* | 1 | -0.54033 | \|...... | 0.56461 | \|............. | 0.00000 |  |
| 105* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 106* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 107* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 108* | 1 | -0.54033 | \|............ | 0.56461 | \|............. | 0.00000 |  |
| 109 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 110* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 111* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 112* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 113 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 114 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 115* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||.. | 5.03686 | ............ |


| 116* | 1 | -0.54033 |  | 0.56461 | \|............. | 0.00000 | \|............. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 117 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | \|............. |
| 118 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 | \|............ |
| 119 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 | \|............ |
| 120 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 | \|............. |
| 121* | 0 | -20.08375 | \|||||||||||||||]. | 19.74307 | \||||||||||||||.. | 5.03686 | \|............ |
| 122* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 | \|............. |
| 123 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |
| 124 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |
| 125 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 | \|............ |
| 126* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 | \|............ |
| 127 | 1 | 0.44216 |  | -0.43466 | \|............ | -0.11089 | \|............ |
| 128 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............. |
| 129* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||. | 5.03686 | \|............ |
| 130 | 1 | 0.44216 | \|............. | -0.43466 | .... | -0.11089 | \|............ |
| 131* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 | \|............ |
| 132* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 | \|............. |
| 133 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 | \|............ |
| 134 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 | \|............ |
| 135* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 | \|............ |
| 136* | 0 | -20.08375 | \|||||||||||||||]. | 19.74307 | \||||||||||||||. | 5.03686 | ....... |
| 137* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 | \|............ |
| 138* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||.. | 5.03686 | \|............. |
| 139* | 1 | -0.54033 | \|............. | 0.56461 |  | 0.00000 | \|............. |
| 140 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | \|............. |
| 141 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | .... |
| 142 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 143* | 1 | -0.54033 | \|............ | 0.56461 |  | 0.00000 | \|............ |
| 144* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 | \|............. |
| 145* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 | \|............. |
| 146 | 0 | 6.38662 | \||||.......... | 0.00000 | \|............. | -44.77268 | \||||||||||||||| |
| 147* | 1 | -0.54033 | \|............. | 0.56461 | \|............ | 0.00000 | ......... |
| NCSS 12.0.4 |  |  |  |  |  | 17/2023 1:2 | 6:51 PM |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 148* | 1 | -0.54033 | \|............. | 0.56461 | ...... | 0.00000 | $\ldots$ |
| 149 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | \|............ |
| 150* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 | \|... |
| 151* | 1 | -0.22785 | \|............. | 0.00000 | \|............. | 1.59732 | \|............ |
| 152 | 0 | 20.95992 | \|||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ... |
| 153* | 1 | -0.54033 |  | 0.56461 | \|............. | 0.00000 | \|... |
| 154 | 1 | 0.44216 | \|............. | -0.43466 | \|.... | -0.11089 | \|... |
| 155 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 156* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 157* | 1 | -0.54033 |  | 0.56461 | \|............ | 0.00000 | \|............ |
| 158 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |


| 159* | 0 | -20.08375 | \|||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 160 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 161* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 162* | 0 | -20.08375 | \|||||||||||||||]. | 19.74307 | \||||||||||||||.. | 5.03686 | ............ |
| 163* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 164 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | ............. |
| 165 | 0 | 20.95992 | \||I||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 166 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 167 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 168 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | - |
| 169 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | ............. |
| 170 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ............ |
| 171 | 1 | 0.44216 |  | -0.43466 | \|............ | -0.11089 |  |
| 172 | 1 | 0.44216 |  | -0.43466 | ..... | -0.11089 | ............. |
| 173* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 | ............ |
| 174* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 | ............ |
| 175 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ............. |
| 176* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 | \|............ |
| 177* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 | ............ |
| 178 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 | ............. |
| 179 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ............ |
| 180* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||. | 5.03686 | ............. |
| 181* | 1 | -0.54033 |  | 0.56461 | 1... | 0.00000 | ............ |
| 182 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ............ |
| 183* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 | ............. |
| 184* | 1 | -0.54033 | , | 0.56461 | 1 | 0.00000 | ............ |
| 185 | 0 | 20.95992 | \|||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ............. |
| 186 | 1 | 0.44216 | \|............ | -0.43466 | \|............ | -0.11089 | . |
| 187 | 1 | 0.44216 | \|............ | -0.43466 | \|............ | -0.11089 | ............. |
| 188 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 |  |
| 189 | 1 | 0.44216 | . | -0.43466 | \|............ | -0.11089 |  |
| 190 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 191* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 192* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 | .......... |
| 193 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|.......... |
| 194 | 1 | 0.44216 | \|... | -0.43466 | \|... | -0.11089 | \|..... |
| 195 | 1 | 0.44216 |  | -0.43466 | \|............ | -0.11089 |  |
| 196* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||.. | 5.03686 |  |

NCSS 12.0.4

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y(Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  |
| :---: | :---: | :---: | :---: |
| 197 | 0 | 20.95992 | \||||||||||||| |
| 198 | 0 | 20.95992 | \||||||||||||||| |
| 199 | 1 | 0.44216 |  |
| 200 | 1 | 0.44216 |  |
| 201* | 0 | -20.08375 | \|||||||||||. |


| DFBeta black |  | DFBeta otherrace |
| :---: | :---: | :---: |
| -21.90187 | \||||||||||||| | 0.00000 |
| -21.90187 | \|||||||||||||||| | 0.00000 |
| -0.43466 |  | -0.11089 |
| -0.43466 |  | -0.11089 |
| 19.74307 | \||||||||||||. | 5.03686 |

$\qquad$

| 202* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 | ... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 203 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | ........ |
| 204 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 | . |
| 205* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 206 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | \|............. |
| 207* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||.. | 5.03686 | \|............ |
| 208 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 209* | 0 | -20.08375 | \|||||||||||||||]. | 19.74307 | \||||||||||||||.. | 5.03686 |  |
| 210* | 0 | -20.08375 | \|||||||||||||||]. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 211* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 212* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 213* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 | \|... |
| 214 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|... |
| 215 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 216 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 | \|........... |
| 217 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 218* | 0 | -20.08375 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. | 19.74307 | \|||||||||||||. | 5.03686 | \|............ |
| 219 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 | \|............. |
| 220* | 1 | -0.54033 |  | 0.56461 | \|............. | 0.00000 | \|............ |
| 221 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |
| 222* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 223 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 | \|............ |
| 224* | 0 | -20.08375 | \|||||||||||||]. | 19.74307 | \||||||||||||||. | 5.03686 | \|............ |
| 225* | 1 | -0.22785 |  | 0.00000 |  | 1.59732 |  |
| 226 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |
| 227 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 228* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 229 | 1 | 0.44216 | \|............. | -0.43466 | \|............ | -0.11089 |  |
| 230 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 |  |
| 231* | 1 | -0.54033 | ........ | 0.56461 | \|............. | 0.00000 | \|............. |
| 232 | 0 | 6.38662 | \||||.......... | 0.00000 |  | -44.77268 | \||||||||||||||| |
| 233 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 |  |
| 234 | 1 | 0.44216 | .... | -0.43466 | \|............. | -0.11089 | \|............ |
| 235* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 | \|............ |
| 236 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 | \|............ |
| 237* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 | \|............ |
| 238* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 | \|............ |
| 239* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 | \|............ |
| 240 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 | \|............ |
| 241 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \|............ |
| 242* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 | \|............ |
| 243* | 0 | -20.08375 | \||||||||||||||]. | 19.74307 | \|||||||||||||.. | 5.03686 | \|............ |
| 244* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 | \|............ |
| 245 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 | \| |
| NCSS |  |  |  |  |  | 5/17/2023 1:2 | 6:51 PM |

## Logistic Regression Report

Dataset
Y (Ref Value)
...INCSSmsexport.NCSS
validvote(0)
Frequency commonpostweight
DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 246 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 247 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| |
| 248 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 249 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 250 | 1 | 0.44216 | \|............. | -0.43466 | .. |
| 251 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 252* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. |
| 253 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| |
| 254 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| |
| 255* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. |
| 256 | 1 | 0.44216 | \|............. | -0.43466 | \|............ |
| 257 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 258* | 1 | -0.54033 |  | 0.56461 | \|............ |
| 259 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 260* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. |
| 261* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. |
| 262 | 1 | 0.44216 |  | -0.43466 |  |
| 263* | 1 | -0.54033 | \|............. | 0.56461 | ........ |
| 264* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. |
| 265* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||||. |
| 266 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| |
| 267 | 1 | 0.44216 |  | -0.43466 | .... |
| 268 | 1 | 0.44216 | \|............. | -0.43466 | .......... |
| 269* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. |
| 270* | 0 | -20.08375 | \||||||||||||||||. | 19.74307 | \||||||||||||||.. |
| 271 | 1 | 0.44216 | \|............ | -0.43466 | \|............. |
| 272* | 1 | -0.54033 |  | 0.56461 |  |
| 273* | 1 | -0.54033 | \|............ | 0.56461 | \|............ |
| 274 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 275* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. |
| 276 | 1 | 0.44216 | \|............ | -0.43466 |  |
| 277* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||].. |
| 278 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| |
| 279* | 1 | -0.54033 | \|............. | 0.56461 |  |
| 280* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||.. |
| 281 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| |
| 282* | 1 | -0.54033 |  | 0.56461 |  |
| 283 | 1 | 0.44216 | \|............ | -0.43466 | - |
| 284* | 1 | -0.54033 | \|............ | 0.56461 |  |
| 285 | 1 | 0.44216 | \|............. | -0.43466 | .... |
| 286 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| |
| 287 | 1 | 0.44216 | \|.... | -0.43466 | ............. |
| 288* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||.. |
| 289* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. |
| 290 | 1 | 0.44216 | \|............. | -0.43466 |  |
| 291 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| |
| 292 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| |
| 293 | 1 | 0.44216 | .... | -0.43466 | . |
| 294 | 1 | 0.44216 | \|............. | -0.43466 | ........... |



## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 295 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 296* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 297* | 1 | -0.54033 | \|............ | 0.56461 | \|............. | 0.00000 |  |
| 298 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 299* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 300* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 301* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 302* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 303 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 304 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 305 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 306* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 307 | 0 | 20.95992 | \||||||||||||||||| | -21.90187 | \||||||||||||||||| | 0.00000 |  |
| 308* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \||||||||||||||.. | 5.03686 |  |
| 309 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 310 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 311* | 1 | -0.54033 | \|............ | 0.56461 | ......... | 0.00000 |  |
| 312 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 313 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 314 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 315 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 316* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 317* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 318* | 1 | -0.54033 |  | 0.56461 | \|............. | 0.00000 |  |
| 319 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 320* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 321 | 1 | 0.44216 | \|............ | -0.43466 | \|............. | -0.11089 |  |
| 322 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 323* | 0 | -20.08375 | \|||||||||||||||| | 19.74307 | \|||||||||||||||. | 5.03686 |  |
| 324* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 325* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 326* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 327* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 328* | 0 | -20.08375 | \|||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 329 | 0 | 20.95992 | \||||||||||||||||| | -21.90187 | \||||||||||||||||| | 0.00000 |  |
| 330 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 331* | 1 | -0.54033 | \|............ | 0.56461 | \|............. | 0.00000 |  |
| 332 | 1 | 0.44216 | .............. | -0.43466 | \|............. | -0.11089 |  |
| 333 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 334* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||||. | 5.03686 |  |
| 335* | 1 | -0.22785 |  | 0.00000 |  | 1.59732 |  |
| 336* | 1 | -0.54033 |  | 0.56461 | \|............. | 0.00000 |  |
| 337 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 338 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 339 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 340 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 |  |
| 341* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 342 | 1 | 0.44216 | \|............ | -0.43466 | ............. | -0.11089 | ......... |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y(Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 344* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 345 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 346* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 347 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 348* | 1 | -0.22785 | \|............ | 0.00000 |  | 1.59732 |  |
| 349 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 350* | 0 | -20.08375 | \| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 351 | 0 | 20.95992 | \|||||||||||1||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 352* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 353* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||II|||||||||| | 5.03686 |  |
| 354* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 | ............ |
| 355 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 356* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 357 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 358 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 359* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 360* | 1 | -0.54033 | \|............ | 0.56461 | \|............ | 0.00000 |  |
| 361* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 362* | 0 | -20.08375 | \|||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 363* | 1 | -0.54033 |  | 0.56461 | . | 0.00000 |  |
| 364 | 1 | 0.44216 | \|............ | -0.43466 | \|............ | -0.11089 | ...... |
| 365* | 1 | -0.54033 | \|... | 0.56461 | \|............ | 0.00000 |  |
| 366 | 1 | 0.44216 | \|............ | -0.43466 | \|............ | -0.11089 | ...... |
| 367 | 1 | 0.44216 | ............ | -0.43466 | I............ | -0.11089 |  |
| 368* | 0 | -20.08375 | \|||||||||||||. | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 369 | 1 | 0.44216 |  | -0.43466 | .......... | -0.11089 |  |
| 370* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 371* | 1 | -0.54033 | \|............ | 0.56461 | \|............. | 0.00000 |  |
| 372* | 1 | -0.54033 | \|... | 0.56461 | \|... | 0.00000 |  |
| 373* | 1 | -0.54033 | \|............ | 0.56461 | \|............ | 0.00000 |  |
| 374 | 1 | 0.44216 |  | -0.43466 | \|............ | -0.11089 | ..... |
| 375* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 376* | 0 | -20.08375 | \|||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 377* | 0 | -20.08375 | \|||i||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 378* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 379 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 380 | 1 | 0.44216 | \|............ | -0.43466 | \|............ | -0.11089 |  |
| 381 | 0 | 6.38662 | \|III.......... | 0.00000 | . | -44.77268 | \||||||||||||||| |
| 382* | 1 | -0.54033 |  | 0.56461 |  | 0.00000 |  |
| 383* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 384* | 1 | -0.54033 | \|............ | 0.56461 | . | 0.00000 |  |
| 385* | 1 | -0.54033 | ............. | 0.56461 | \|............ | 0.00000 |  |


| 386 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 |
| :---: | :---: | :---: | :---: | :---: |
| 387 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 |
| 388 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 |
| $389 *$ | 0 | -20.08375 | \|||||||||||||||| | 19.74307 |
| 390 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 |
| 391* | 0 | -20.08375 | \||||||||||||||| | 19.74307 |
| 392* | 0 | -20.08375 | \||||||||||||||| | 19.74307 |
| NCSS 12.0.45/17/2023 1:26:51 PM |  |  | 23 |  |
|  |  |  | Logistic Regression Report |  |
| Dataset | ...INCSSmsexport.NCSS |  |  |  |
| Y (Ref Value) | validvote(0) |  |  |  |
| Frequency | commonpostweight |  |  |  |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 393 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 394* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 395 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 396 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 397* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 398* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 399 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 400 | 1 | 0.44216 |  | -0.43466 |  | -0.11089 |  |
| 401 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 402 | 0 | 6.38662 | \||||.......... | 0.00000 |  | -44.77268 | \|||||||||||||||| |
| 403 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 404* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 405* | 1 | -0.22785 |  | 0.00000 | \|............. | 1.59732 |  |
| 406* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \|||||||||||||.. | 5.03686 |  |
| 407 | 1 | 0.44216 | \|............. | -0.43466 |  | -0.11089 |  |
| 408* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \|||||||||||||. | 5.03686 |  |
| 409 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 410* | 1 | -0.54033 |  | 0.56461 | \|... | 0.00000 |  |
| 411 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 412 | 0 | 20.95992 | \||||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| $413{ }^{\text {* }}$ | 0 | -20.08375 | \|||||||||||||||]. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 414 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 415 | 0 | 6.38662 | \||||.......... | 0.00000 |  | -44.77268 | \|||||||||||||||| |
| 416 | 1 | 0.44216 |  | -0.43466 | .... | -0.11089 |  |
| 417 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 418 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 419 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 |  |
| 420 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 421 | 0 | 20.95992 | \||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 422 | 0 | 6.38662 | \||I|.......... | 0.00000 | \|............. | -44.77268 | \||||||||||||||| |
| 423 | 1 | 0.44216 |  | -0.43466 | \|............ | -0.11089 |  |
| 424 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 |  |
| 425 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 426* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 427* | 0 | -20.08375 | \|||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 428 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |


| 429 | 0 | 6.38662 | \||||. |
| :---: | :---: | :---: | :---: |
| 430 | 0 | 6.38662 | \||I| .......... |
| 431* | 0 | -20.08375 | \||||||||||||||| |
| 432 | 0 | 20.95992 | \|||||||||||||||| |
| 433 | 0 | 20.95992 | \|||||||||||||||| |
| 434* | 0 | -20.08375 | \|||||||||||||| |
| 435* | 0 | -20.08375 | \||||||||||||||| |
| 436 | 0 | 20.95992 | \|||||||||||||||| |
| 437 | 0 | 20.95992 | \||||||||||||||| |
| 438 | 0 | 6.38662 | \||I|.......... |
| 439* | 0 | -20.08375 | \|||||||||||||| |
| 440* | 0 | -20.08375 | \|||||||||||||| |
| 441 | 0 | 20.95992 | \||||||||||||||| |


| 0.00000 |  |
| :---: | :---: |
| 0.00000 |  |
| 19.74307 | \||||||||| |
| -21.90187 | \||||||||||||||| |
| -21.90187 | \||||||||||||||| |
| 19.74307 | \|||||||||||||.. |
| 19.74307 | IIIIIIIIII |
| -21.90187 | \|i|i||i||||||||| |
| -21.90187 | IIIIIII |
| 0.00000 |  |
| 19.74307 | \|||||||||||||. |
| 19.74307 | \|||||||||||||.. |
| -21.90187 | \||||||||||||||| |


| -44.77268 | \|||||||||||||| |
| :---: | :---: |
| -44.77268 | \|||||||||||||||| |
| 5.03686 |  |
| 0.00000 |  |
| 0.00000 |  |
| 5.03686 |  |
| 5.03686 |  |
| 0.00000 |  |
| 0.00000 |  |
| -44.77268 | \|||||||||||||||| |
| 5.03686 |  |
| 5.03686 |  |
| 0.00000 |  |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y(Ref Value) | validvote(0) |
| Frequency | commonpostweight |

DFBetas Report For validvote $=1$ (Continued)

| Row | Actual validvote | DFBeta Intercept |  | DFBeta black |  | DFBeta otherrace |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 442* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 443 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 444* | 0 | -20.08375 | \||||||||||||||]. | 19.74307 | \||||||||||||||.. | 5.03686 |  |
| 445 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 446* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 447* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 448* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 449* | 1 | -0.54033 | \|............. | 0.56461 | \|............. | 0.00000 |  |
| 450* | 0 | -20.08375 | \||||||||||||||. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 451 | 1 | 0.44216 |  | -0.43466 | \|............. | -0.11089 |  |
| 452 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 453 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 454* | 0 | -20.08375 | \||||||||||||||| | 19.74307 | \||||||||||||||.. | 5.03686 |  |
| 455 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 456 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \||||||||||||||| | 0.00000 |  |
| 457 | 0 | 20.95992 | \|||||||||||||||| | -21.90187 | \|||||||||||||||| | 0.00000 |  |
| 458* | 0 | -20.08375 | \||||||||||||||]. | 19.74307 | \||||||||||||||. | 5.03686 |  |
| 459 | 1 | 0.44216 | \|............. | -0.43466 | \|............. | -0.11089 |  |
| 460 | 0 | 20.95992 | \|||||||||||||| | -21.90187 | \|||||||||||||| | 0.00000 | \|... |

NCSS 12.0.4

## Logistic Regression Report

Dataset
Y (Ref Value)
...INCSSmsexport.NCSS
validvote(0)
commonpostweight
Influence Diagnostics Report For validvote $=1$

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) |  | Cook's Distance (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 2 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\mid$...... |
| 3* | 1 | 0.57746 | \|||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 4* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | $\|\|\|\|\|\|\|\|\mid$..... |
| 5 | 1 | 0.44911 | \||||||| ....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 6 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 7* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 8 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid$..... |
| 9 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid$...... |
| 10 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 11 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 12 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 13 | 1 | 0.44911 | \||||||||....... | 159.93919 | ... | 88.10898 | $\|\|\|\|\|\|\|\mid$...... |
| 14* | 1 | 0.96226 | \||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \||||||||||||||||| |
| 15* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||||... |
| 16* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............. | 130.21478 | \|||||||||||||... |
| $17^{*}$ | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............. | 130.21478 | \|||||||||||||... |
| 18 | 1 | 0.44911 | \||||||||....... | 159.93919 | ............. | 88.10898 | \|||||||||...... |
| 19 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 20* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \|||||||||| |
| 21 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid$...... |
| 22* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 23 | 0 | 0.57746 | \||||||||||..... | 263.80925 | .... | 111.47037 | \||||||||||||.... |
| 24 | 0 | 0.57746 | \|||||||||..... | 263.80925 | \|... | 111.47037 | \|||||||||||.... |
| 25* | 1 | 0.96226 | \|||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \||||||||||||||||| |
| 26 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| $27^{*}$ | 0 | 0.44911 | \||||||| ....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 28 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 29* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| $30^{*}$ | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \|||||||||||..... |
| 31 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 32 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 33 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............ | 88.10898 | \|||||||||...... |
| 34* | 0 | 0.44911 | \||||||||...... | 186.38389 |  | 102.67711 | \|||||||||| ..... |
| 35* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||||... |
| 36* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 37 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid$...... |
| 38 | 0 | 0.57746 | \|||||||||||..... | 263.80925 | \|............ | 111.47037 | \||||||||||| .... |
| 39* | 0 | 0.44911 | \||||||||...... | 186.38389 |  | 102.67711 | \|||||||||| ..... |
| 40* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 41 | 1 | 0.44911 | \||||||||....... | 159.93919 | ............. | 88.10898 | \|||||||||...... |
| 42 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 43* | 0 | 0.44911 | \||||||| | 186.38389 | \|............ | 102.67711 | \||||||||||. |
| 44 | 0 | 0.96226 | \|||||||||||||||| | 1499.55501 | \|||||......... | 56.59278 | \|||||......... |
| 45 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid$..... |
| 46* | 0 | 0.44911 | \||||||| ....... | 186.38389 | \|............ | 102.67711 | \|||||||||| |
| 47* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||-.... |
| 48 | 1 | 0.44911 | \|||||||....... | 159.93919 | \|............ | 88.10898 | \|||||||||...... |

[^4]
## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Influence Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) |  | Cook's Distance (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 50 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............ | 88.10898 | \|||||||| ...... |
| 51 | 1 | 0.44911 | \||I|||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 52* | 0 | 0.44911 | \||||||| ....... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 53 | 1 | 0.44911 | $\|\|\|\|\|\|\|\mid$...... | 159.93919 | \|............. | 88.10898 | \||||||||...... |
| 54 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||| |
| 55* | 0 | 0.44911 | \||||||| | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 56 | 1 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 159.93919 | \|.... | 88.10898 | \|||||||||...... |
| 57 | 1 | 0.44911 | \|||||||....... | 159.93919 | \|............ | 88.10898 | \|||||||||...... |
| 58* | 1 | 0.57746 | \||||||||| ..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 59 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||| |
| 60 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|.... | 88.10898 | \||||||||...... |
| 61* | 1 | 0.96226 | \|||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \||||||||||||||| |
| 62* | 0 | 0.44911 | \||||||| ....... | 186.38389 |  | 102.67711 | \|||||||||| |
| 63 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | \|||||||||...... |
| 64 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 65* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | \|||||||||..... |
| 66 | 1 | 0.44911 | \|||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 67 | 1 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 68 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 69 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||| |
| 70* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 71* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............. | 130.21478 | \|||||||||||||.. |
| 72 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | \|||||||||...... |
| 73* | 0 | 0.44911 | \|||||||. ..... | 186.38389 |  | 102.67711 | \||||||||||.... |
| 74* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||.... |
| 75 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||| |
| 76* | 0 | 0.44911 | \||||||||...... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 77 | 1 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 78 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 79 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 80 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 81 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$.... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 82* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 83 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 84 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \|||||||||||.... |
| 85* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............ | 130.21478 | \|||||||||||||... |
| 86 | 0 | 0.96226 | \|||||||||||||||| | 1499.55501 | \||||||........ | 56.59278 | \|||||........ |
| 87 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 88* | 0 | 0.44911 | \|||||||]...... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 89 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | \|||||||||...... |
| 90 | 1 | 0.44911 | \||||||| ....... | 159.93919 | \|............ | 88.10898 | \|||||||||...... |
| 91 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 92 | 1 | 0.44911 | \|||||||....... | 159.93919 | \|............ | 88.10898 | \|||||||||..... |
| 93* | 0 | 0.44911 | \|||||||....... | 186.38389 | \|....... | 102.67711 | \|||||||||..... |



## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y(Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Influence Diagnostics Report For validvote $=1$ (Continued)


| 136* | 0 | 0.44911 | \|||||||]...... | 186.38389 | ..... | 102.67711 | \||||||||| |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 137* | 0 | 0.44911 | \|||||||]...... | 186.38389 |  | 102.67711 | \||||||||| |
| 138* | 0 | 0.44911 | \|||||||-...... | 186.38389 | ... | 102.67711 | \||||||| |
| 139* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............. | 130.21478 | \|||||||||||||... |
| 140 | 0 | 0.57746 | \||||||||| ..... | 263.80925 | ..... | 111.47037 | \||||||||||| |
| 141 | 1 | 0.44911 | \|||||||....... | 159.93919 | . | 88.10898 | \||||||||| |
| 142 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 143* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 144* | 1 | 0.57746 | \||||||||| ..... | 308.17036 | ............. | 130.21478 | \|||||||||||||... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Influence Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) |  | Cook's Distance (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 145* | 0 | 0.44911 | \|||||||....... | 186.38389 | ... | 102.67711 | $\|\|\|\|\|\|\|\|\|\mid \ldots .$. |
| 146 | 0 | 0.96226 | \|||||||||||||||| | 1499.55501 | \|||||. | 56.59278 | \|||||. ....... |
| 147* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 148* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 149 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 150* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............. | 130.21478 | \|||||||||||||... |
| 151* | 1 | 0.96226 | \||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \|||||||||||||||| |
| 152 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 153* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 154 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 155 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 156* | 0 | 0.44914 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 157* | 1 | 0.57746 | \|||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 158 | 1 | 0.44911 | \||||||| ....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 159* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 160 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 161* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 162* | 0 | 0.44911 | \||||||| ....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 163* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 164 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 165 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | $\|\|\|\|\|\|\|\|\|\|\mid$.... |
| 166 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | \|||||||||...... |
| 167 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \||||||||||||.... |
| 168 | 1 | 0.44911 | \|||||||-...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 169 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid . . . .$. |
| 170 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | $\|\|\|\|\|\|\|\|\|\mid$.... |
| 171 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \||||||||| ...... |
| 172 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | \|||||||||...... |
| 173* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 174* | 0 | 0.44911 | \||||||| ....... | 186.38389 | \|... | 102.67711 | \||||||||||..... |
| 175 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 176* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 177* | 0 | 0.44911 | \||||||| ....... | 186.38389 | \|....... | 102.67711 | \||||||||||-.... |


| 178 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||| |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 179 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 180* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 181* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ |
| 182 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \||||||||||..... |
| 183* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 184* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 185 | 0 | 0.57746 | \||||||||| ..... | 263.80925 | ............. | 111.47037 | \|||||||||||.... |
| 186 | 1 | 0.44911 | \||||||| ....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 187 | 1 | 0.44911 | \||||||| ....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 188 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 189 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\mid$...... |
| 190 | 1 | 0.44911 | \||||||||-...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 191* | 0 | 0.44911 | \||||||| | 186.38389 |  | 102.67711 | \||||||||||..... |
| 192* | 0 | 0.44911 | \||||||| ....... | 186.38389 | - | 102.67711 | \||I|||||||..... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Influence Diagnostics Report For validvote =1 (Continued)


| 220* | 1 | 0.57746 | \||||||||| ..... | 308.17036 |  | 130.21478 | \|||||||||||| ... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 221 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||| |
| 222* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 223 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|... | 111.47037 | \|||||||||||-... |
| 224* | 0 | 0.44911 | \||||||||....... | 186.38389 | ..... | 102.67711 | \||||||||| ..... |
| 225* | 1 | 0.96226 | \||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \||||||||||||||| |
| 226 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 227 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 228* | 0 | 0.44911 | \||||||||....... | 186.38389 | ............. | 102.67711 | \||||||||||..... |
| 229 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 230 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 231* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 232 | 0 | 0.96226 | \||||||||||||||| | 1499.55501 | \|||||........ | 56.59278 | \||||||......... |
| 233 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 234 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 235* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............ | 130.21478 | \|||||||||||||... |
| 236 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. |
| 237* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||...... |
| 238* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$..... | 308.17036 | ............. | 130.21478 | \||||||||||||| |
| 239* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 240 | 0 | 0.57746 | \|||||||||..... | 263.80925 | \|.... | 111.47037 | \|||||||||||.... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Influence Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) |  | Cook's Distance (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 241 | 1 | 0.44911 | \||||||||. | 159.93919 | \|............ | 88.10898 | \|||||||| |
| 242* | 0 | 0.44911 | \||||||||.... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 243* | 0 | 0.44911 | $\|\|\|\|\|\|\|\mid$.... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 244* | 1 | 0.57746 | \||||||||||..... | 308.17036 | ............. | 130.21478 | \||||||||||||.. |
| 245 | 1 | 0.44911 | $\|\|\|\|\|\|\|\mid$....... | 159.93919 | \|............. | 88.10898 | $\|\|\|\|\|\|\|\|\mid$..... |
| 246 | 1 | 0.44911 | $\|\|\|\|\|\|\|\mid$...... | 159.93919 | \|... | 88.10898 | \|||||||||...... |
| 247 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 248 | 1 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 249 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 250 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 251 | 1 | 0.44911 | \|i||||||....... | 159.93919 |  | 88.10898 | \||||||||| ..... |
| 252* | 0 | 0.44911 | $\|\|\|\|\|\|\|\mid$....... | 186.38389 | ... | 102.67711 | \|||||||||| |
| 253 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 254 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 255* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | \||||||||||.... |
| 256 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 257 | 1 | 0.44911 | \||||||||....... | 159.93919 | ............. | 88.10898 | \|||||||||..... |
| 258* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||.. |
| 259 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 260* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|.... | 102.67711 | \||||||||||.... |
| 261* | 0 | 0.44911 | \||||||| ....... | 186.38389 | \|.... | 102.67711 | \||||||||| |


| 262 | 1 | 0.44911 | \|||||| | 159.93919 |  | 88.10898 | \||||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 263* | 1 | 0.57746 | \||||||||||..... | 308.17036 | ............. | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 264* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 265* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 266 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 267 | 1 | 0.44911 | \||||||||. | 159.93919 |  | 88.10898 | \||||||||...... |
| 268 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||..... |
| 269* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 270* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 271 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\mid$...... |
| 272* | 1 | 0.57746 | \||||||||||. | 308.17036 | .. | 130.21478 | \|||||||||||||... |
| 273* | 1 | 0.57746 | \||||||||||... | 308.17036 | . | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 274 | 1 | 0.44911 | \||||||||. | 159.93919 |  | 88.10898 | $\|\|\|\|\|\|\|\|\mid . . . .$. |
| 275* | 0 | 0.44911 | \||||||||....... | 186.38389 | ............. | 102.67711 | \||||||||| |
| 276 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 277* | 0 | 0.44911 | \||||||||..... | 186.38389 | \|... | 102.67711 | \|||||||||..... |
| 278 | 0 | 0.57746 | \||||||||||. | 263.80925 | \|............. | 111.47037 | $\|\|\|\|\|\|\|\|\|\mid$.... |
| 279* | 1 | 0.57746 | \||||||||| | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 280* | 0 | 0.44911 | \||||||||.... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 281 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | $\|\|\|\|\|\|\|\|\|\|\mid \ldots$. |
| 282* | 1 | 0.57746 | \||i|||||||..... | 308.17036 | \|............. | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 283 | 1 | 0.44911 | \||||||||. | 159.93919 | ............. | 88.10898 | \|||||||||...... |
| 284* | 1 | 0.57746 | \|||||||||..... | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 285 | 1 | 0.44911 | \||||||||....... | 159.93919 | ............. | 88.10898 | \|||||||||...... |
| 286 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 287 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 288* | 0 | 0.44911 | \|||||||....... | 186.38389 | \|............ | 102.67711 | \||||||||||..... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Influence Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) |  | Cook's Distance (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 289* | 0 | 0.44911 | \|||||||....... | 186.38389 | ......... | 102.67711 | \||||||||||..... |
| 290 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 291 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 292 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 293 | 1 | 0.44911 | \|||||||]....... | 159.93919 | ... | 88.10898 | \|||||||||...... |
| 294 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 295 | 0 | 0.57746 | \||||||||||..... | 263.80925 | $\cdot$ | 111.47037 | \|||||||||||.... |
| 296* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 297* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 298 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \|||||||||||.... |
| 299* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 300* | 0 | 0.44911 | \|||||||....... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 301* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 302* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 303 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............ | 111.47037 | \|||||||||||.... |


| 304 | 0 | 0.57746 | \|||||||||..... | 263.80925 | \|.. | 111.47037 | \|||||||||||.... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 305 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 306* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 307 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 308* | 0 | 0.44911 | \|||||||]....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 309 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 310 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 311* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|... | 130.21478 | \|||||||||||||... |
| 312 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 313 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 314 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 315 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 316* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 317* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ |
| 318* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$ |
| 319 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \|||||||||||.... |
| 320* | 0 | 0.44911 | \|||||||-...... | 186.38389 | \|............. | 102.67711 | $\|\|\|\|\|\|\|\|\|\mid$..... |
| 321 | 1 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 322 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 323* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 324* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............ | 102.67711 | \||||||||||..... |
| 325* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | \||||||||||..... |
| 326* | 1 | 0.57746 | \|||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||| |
| 327* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 328* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 329 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 330 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | $\|\|\|\|\|\|\|\|\|\mid$.... |
| 331* | 1 | 0.57746 | \||||||||| ..... | 308.17036 | \|............. | 130.21478 | \||||||||||||||... |
| 332 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \||||||||| |
| 333 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 334* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............. | 102.67711 | \||||||||| |
| 335* | 1 | 0.96226 | \|||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \||||||||||||||||| |
| 336* | 1 | 0.57746 | \|||||||||..... | 308.17036 | \|............. | 130.21478 | \||||||||||||| ... |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Influence Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) |  | Cook's Distance <br> (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 337 | 1 | 0.44911 | \|||||||....... | 159.93919 | .... | 88.10898 | \|||||...... |
| 338 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ..... | 111.47037 | \|||||||||||.... |
| 339 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | $\|\|\|\|\|\|\|\|\|\|\mid$.... |
| 340 | 1 | 0.44911 | \|||||||....... | 159.93919 | \|............. | 88.10898 | \|||||||||...... |
| 341* | 0 | 0.44911 | \||||||| ....... | 186.38389 | \|............ | 102.67711 | \||||||||||..... |
| 342 | 1 | 0.44911 | \||||||| ....... | 159.93919 | . | 88.10898 | \|||||||||...... |
| 343 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \|||||||||||.... |
| 344* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 345 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |


| 346* | 0 | 0.44911 | \|||||||....... | 186.38389 | ..... | 102.67711 | \|||||||||..... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 347 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|... | 88.10898 | \||||||||...... |
| $348{ }^{*}$ | 1 | 0.96226 | \||||||||||||||| | 4235.00431 | \||||||||||||||| | 159.82785 | \||||||||||||||| |
| 349 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 350* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 351 | 0 | 0.57746 | \||||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |
| 352* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||| |
| 353* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 354* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 355 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 356* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 357 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 358 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 359* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 360 * | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 361* | 1 | 0.57746 | \|||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||| |
| 362* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 363* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 364 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 365* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 366 | 1 | 0.44911 | \||||||||...... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 367 | 1 | 0.44911 | \||||||| ....... | 159.93919 |  | 88.10898 | \|||||||||...... |
| 368* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 369 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 370 * | 0 | 0.44911 | \||i|||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 371* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............ | 130.21478 | \|||||||||||||... |
| 372* | 1 | 0.57746 | \||||||||| ..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 373* | 1 | 0.57746 | \||||||||||..... | 308.17036 | . | 130.21478 | \|||||||||||||... |
| 374 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 375* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||| ... |
| 376* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............ | 102.67711 | \||||||||||..... |
| 377* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 378* | 0 | 0.44911 | \||||||||....... | 186.38389 | . | 102.67711 | \||||||||||..... |
| 379 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 380 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 381 | 0 | 0.96226 | \|||||||||||||||| | 1499.55501 | \|||||......... | 56.59278 | \||||||........ |
| 382* | 1 | 0.57746 | \|||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||| ... |
| 383* | 0 | 0.44911 | \||||||||....... | 186.38389 | \|............ | 102.67711 | \||||||||||..... |
| 384* | 1 | 0.57746 | \||||||||||..... | 308.17036 | \|............. | 130.21478 | \|||||||||||||... |

NCSS 12.0.4

## Logistic Regression Report

| Dataset | ... WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Influence Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance (C) | Cook's Distance (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 385* | 1 | 0.57746 | \|||||||||..... | 308.17036 | 130.21478 | \|||||||||||| |
| 386 | 0 | 0.57746 | \||||||||| | 263.80925 | 111.47037 | \|||||||||||.... |
| 387 | 0 | 0.57746 | \||||||||||..... | 263.80925 | 111.47037 | \||||||||||.... |


| 388 | 0 | 0.57746 | \|||||||||...... | 263.80925 | \|............ | 111.47037 | \|||||||||.... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 389* | 0 | 0.44911 | Il\|i|l||....... | 186.38389 | \|............ | 102.67711 | \||||||||||..... |
| 390 | 0 | 0.57746 | \|i|||||||..... | 263.80925 | ... | 111.47037 | \||||||||||.... |
| 391* | 0 | 0.44911 | \|I|II||....... | 186.38389 | \|............ | 102.67711 | \|||||||||..... |
| 392* | 0 | 0.44911 | \||||||||....... | 186.38389 | I... | 102.67711 | \||||||||| |
| 393 | 1 | 0.44911 | \|I|II|| $\mid$...... | 159.93919 |  | 88.10898 | \||||||||...... |
| 394* | 1 | 0.57746 | \|ili|l|||...... | 308.17036 | ............. | 130.21478 | \||||||||||||... |
| 395 | 0 | 0.57746 | \|IIIIIIII|...... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 396 | 1 | 0.44911 | IIIII\||........ | 159.93919 | \|............ | 88.10898 | \||||||||...... |
| 397* | 1 | 0.57746 | \||1|1||||...... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 398* | 0 | 0.44911 | IIIIII\|....... | 186.38389 | .... | 102.67711 | \||||||||| |
| 399 | 0 | 0.57746 | \|||||||||..... | 263.80925 | \|............ | 111.47037 | \||||||||||.... |
| 400 | 1 | 0.44911 | I\|l|i|| | 159.93919 | ........... | 88.10898 | \|||||||||...... |
| 401 | 0 | 0.57746 | \|||||||||...... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 402 | 0 | 0.96226 | \|||||||||||||||| | 1499.55501 | \||I||......... | 56.59278 | \|IIII......... |
| 403 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 404* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||.... |
| 405* | 1 | 0.96226 | \|||||||||||||||| | 4235.00431 | \|||||||||||||||| | 159.82785 | \|||||||||||||||| |
| 406* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 407 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 408* | 0 | 0.44911 | \|IIII||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 409 | 0 | 0.57746 | \|||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 410* | 1 | 0.57746 | I\|l|i|l||..... | 308.17036 | .... | 130.21478 | \|||||||||||||.. |
| 411 | 0 | 0.57746 | I\|IIIII|| | 263.80925 |  | 111.47037 | \||||||||||.... |
| 412 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \||||||||||.... |
| 413* | 0 | 0.44911 | \|IIII||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 414 | 0 | 0.57746 | \|||||||||...... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 415 | 0 | 0.96226 | \||||||||||||||| | 1499.55501 | \||I||......... | 56.59278 | IIIII......... |
| 416 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 417 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||| |
| 418 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 419 | 1 | 0.44911 | \|||||||....... | 159.93919 | \|............ | 88.10898 | IIIIIIII\| |
| 420 | 1 | 0.44911 | \||i|||||....... | 159.93919 | ............. | 88.10898 | \||I||I|| |
| 421 | 0 | 0.57746 | \|||I|||||...... | 263.80925 |  | 111.47037 | \||||||||||..... |
| 422 | 0 | 0.96226 | \||||||||||||||| | 1499.55501 | \|||||......... | 56.59278 | \||III......... |
| 423 | 1 | 0.44911 | \||||||||....... | 159.93919 | \|........ | 88.10898 | \||||||||...... |
| 424 | 1 | 0.44911 | \||III||....... | 159.93919 | \|............ | 88.10898 | \|||||II|...... |
| 425 | 1 | 0.44911 | \|||||||....... | 159.93919 | \|............ | 88.10898 | IIIIIIII\| |
| 426* | 0 | 0.44911 | \|||||||....... | 186.38389 | \|............ | 102.67711 | \||||||||||. |
| 427* | 0 | 0.44911 | \|||I||| ....... | 186.38389 | ............. | 102.67711 | \||||||||||..... |
| 428 | 1 | 0.44911 | \||||||||....... | 159.93919 |  | 88.10898 | \||||||||...... |
| 429 | 0 | 0.96226 | \||||||||||||||| | 1499.55501 | IIIII......... | 56.59278 | \|IIII. |
| 430 | 0 | 0.96226 | \||||||||||||||| | 1499.55501 | \||I|| | 56.59278 | \|IIII......... |
| 431* | 0 | 0.44911 | \|||||||....... | 186.38389 | \|............. | 102.67711 | \|||||||||..... |
| 432 | 0 | 0.57746 | \|||||||||..... | 263.80925 | \|............ | 111.47037 | \||||||||||..... |

NCSS 12.0.4

## Logistic Regression Report

Dataset
Y (Ref Value)
Frequency
.INCSSmsexport.NCSS validvote(0) commonpostweight

Influence Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Cook's Distance <br> (C) |  | Cook's Distance <br> (CBar) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 433 | 0 | 0.57746 | \||||||||| ..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 434* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 435* | 0 | 0.44911 | \||||||| ....... | 186.38389 |  | 102.67711 | \||||||||| |
| 436 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 437 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \||||||||||.... |
| 438 | 0 | 0.96226 | \|||||||||||||||| | 1499.55501 | \|||||......... | 56.59278 | \||||||........ |
| 439* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 440* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 441 | 0 | 0.57746 | \|||||||||| ..... | 263.80925 |  | 111.47037 | \|||||||||| |
| 442* | 0 | 0.44911 | \||||||||....... | 186.38389 |  | 102.67711 | \|||||||||..... |
| 443 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 444* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \|||||||||-.... |
| 445 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 446* | 0 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 186.38389 |  | 102.67711 | \||||||||||..... |
| 447* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 448* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \||||||||||||... |
| 449* | 1 | 0.57746 | \||||||||||..... | 308.17036 |  | 130.21478 | \|||||||||||||... |
| 450* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \||||||||||.... |
| 451 | 1 | 0.44911 | \||||||| | 159.93919 |  | 88.10898 | \|||||||| |
| 452 | 1 | 0.44911 | \|||||||....... | 159.93919 |  | 88.10898 | \|||||||| |
| 453 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \||||||||||.... |
| 454* | 0 | 0.44911 | \||||||||....... | 186.38389 | ............. | 102.67711 | \||||||||||..... |
| 455 | 0 | 0.57746 | \||||||||| | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 456 | 0 | 0.57746 | \||||||||||..... | 263.80925 | ............. | 111.47037 | \||||||||||.... |
| 457 | 0 | 0.57746 | \||||||||||..... | 263.80925 |  | 111.47037 | \|||||||||||.... |
| 458* | 0 | 0.44911 | \|||||||....... | 186.38389 |  | 102.67711 | \|||||||||... |
| 459 | 1 | 0.44911 | \|||||||....... | 159.93919 | ............ | 88.10898 | \||||||||. |
| 460 | 0 | 0.57746 | \|||||||||..... | 263.80925 | \|............. | 111.47037 | \|||||||||||.... |

NCSS 12.0.4

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Diagnostics Report For validvote $=1$

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0.44911 | \||||||| | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 2 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||| ...... | 196.18596 | \||||||||||||||.. |
| 3* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 4* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 5 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||||.. |
| 6 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| |
| $7{ }^{*}$ | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||| ... | 225.49637 | \|||||||||||||||| |
| 8 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||.. |
| 9 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 10 | 1 | 0.44911 | \||||||| ....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||| |


| 11 | 1 | 0.44911 | \||||||| ....... | 93.71207 | \|||||||| | 196.18596 | \|||||||||... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 13 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||..... | 196.18596 | \|||||||||||||... |
| 14* | 1 | 0.96226 | \|||||||||||||||| | 159.98894 | \|||||||||||||||| | 166.09627 | \||||||||||.... |
| 15* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 16* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 134.47151 | \|||||||||||| ... | 225.49637 | \||||||||||||||| |
| 17* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||| ... | 225.49637 | \||||||||||||||| |
| 18 | 1 | 0.44911 | \||||||| | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 19 | 1 | 0.44911 | \||||||||...... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 20* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 21 | 1 | 0.44911 | \|||||||-...... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 22* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 23 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ |
| 24 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 25* | 1 | 0.96226 | \|||||||||||||||| | 159.98894 | \|||||||||||||||| | 166.09627 | \||||||||||.... |
| 26 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||..... | 196.18596 | \|||||||||||||... |
| 27* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 28 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 29* | 0 | 0.44911 | \||||||| ....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 30* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 31 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||||... |
| 32 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||-..... | 196.18596 | \|||||||||||||... |
| 33 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||| ...... | 196.18596 | \|||||||||||||... |
| 34* | 0 | 0.44911 | \||||||| | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 35* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 36* | 0 | 0.44911 | \|||||||-...... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 37 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 38 | 0 | 0.57746 | \|||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. |
| 39* | 0 | 0.44911 | \||||||| | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||| |
| 40* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 41 | 1 | 0.44911 | \||||||| | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 42 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 43* | 0 | 0.44911 | \||||||| | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||| |
| 44 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \||||| | 58.81234 | \|||........... |
| 45 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| |
| 46* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||||| |
| 47* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 48 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |

NCSS 12.0.4

## Logistic Regression Report

| Dataset | ..INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||.. |
| 50 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||. |
| 51 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||.. |
| 52* | 0 | 0.44911 | \||I|||| ....... | 108.14792 | \||||||||||].... | 228.62377 | \||||||||||||||| |


| 53 | 1 | 0.44911 | \|||||||. | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54 | 0 | 0.57746 | \|||||||||...... | 115.62666 | \||||||||||.... | 193.03618 | \|||||||||||||... |
| 55* | 0 | 0.44911 | \|||l||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 56 | 1 | 0.44911 | \|||1||| | 93.71207 | \||I||||||...... | 196.18596 | \||||||||||||... |
| 57 | 1 | 0.44911 | I\||l|||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| $58^{*}$ | 1 | 0.57746 | \|||||||||...... | 134.47151 | \||||||||||||.. | 225.49637 | \|||||||||||||| |
| 59 | 1 | 0.44911 | \||||1|||....... | 93.71207 | \||1||||||...... | 196.18596 | \|||||||||||... |
| 60 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||... | 196.18596 | \|||||||||||||... |
| 61* | 1 | 0.96226 | \|||1|||||||||| | 159.98894 | \|||||||||||||| | 166.09627 | \||||||||||..... |
| $62^{*}$ | 0 | 0.44911 | \|||l|||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 63 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 64 | 0 | 0.57746 | \|||||||||...... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||... |
| 65* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 66 | 1 | 0.44911 | \||||||| | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 67 | 1 | 0.44911 | \|i|l|||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||... |
| 68 | 1 | 0.44911 | I\||||||....... | 93.71207 | \||I|||||...... | 196.18596 | \||||||||||||... |
| 69 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 70* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 71* | 1 | 0.57746 | \|||||||||...... | 134.47151 | \||||||||||||... | 225.49637 | \||||||||||||||| |
| 72 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| $73^{*}$ | 0 | 0.44911 | \||||1||........ | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 74* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 75 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 76* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 77 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 78 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 79 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||I|||||...... | 196.18596 | \||||||||||||... |
| 80 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 81 | 0 | 0.57746 | \|||||||||...... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||... |
| 82* | 1 | 0.57746 | \|i|l|i|||..... | 134.47151 | \||||||||||||... | 225.49637 | \|||||||||||||||. |
| 83 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||1||| | 196.18596 | \|||||||||||||... |
| 84 | 0 | 0.57746 | \|||||||||...... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||... |
| 85* | 1 | 0.57746 | \|||||||||...... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 86 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \|IIII......... | 58.81234 |  |
| 87 | 1 | 0.44911 | \||||||||...... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||.. |
| 88* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 89 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|IIIIII|....... | 196.18596 | \||||||||||||... |
| 90 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 91 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||... |
| 92 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||I|||||. | 196.18596 | \||||||||||||... |
| 93* | 0 | 0.44911 | \|I|III||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 94 | 1 | 0.44911 | \|||1||| | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 95 | 1 | 0.44911 | \|||I|||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||.. |
| 96* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||||.. | 225.49637 | \||||||||||||||| |

NCSS 12.0.4
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## Logistic Regression Report

Dataset Y (Ref Value) Frequency
..INCSSmsexport.NCSS validvote(0) commonpostweight

Residual Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 97 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| ... |
| 98 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\|\mid \ldots$ | 196.18596 | \|||||||||||| ... |
| 99* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 100* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\mid$.. | 225.49637 | \|||||||||||||||| |
| 101* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | \||||||||||||||||| |
| 102 | 0 | 0.57746 | \|||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |
| 103* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 104* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | \||||||||||||||| |
| 105* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 106* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | \|||||||||||||||| |
| 107* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||||| |
| 108* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 225.49637 | \||||||||||||||| |
| 109 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 110* | 1 | 0.57746 | \|||||||||| ..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||||| |
| 111* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||||... | 225.49637 | \|||||||||||||||| |
| 112* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 113 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\mid$...... | 196.18596 | \|||||||||||||... |
| 114 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 115* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 116* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||| | 225.49637 | \|||||||||||||||| |
| 117 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||||... |
| 118 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 119 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 120 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |
| 121* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||| | 228.62377 | \||||||||||||||||| |
| 122* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||||| |
| 123 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 124 | 1 | 0.44911 | \|||||||| | 93.71207 | \||||||||| | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 125 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\|\mid$...... | 196.18596 | \||||||||||||||... |
| 126* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||||| |
| 127 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\|\mid$...... | 196.18596 | \||||||||||||||... |
| 128 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 129* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$... | 228.62377 | \||||||||||||||||| |
| 130 | 1 | 0.44911 | \|||||||]...... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 131* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$... | 228.62377 | \|||||||||||||||| |
| 132* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||||.... | 228.62377 | \||||||||||||||||| |
| 133 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| |
| 134 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|1\|\|\|\|\|\|\mid \ldots$ | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 135* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 136* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 228.62377 | \|||||||||||||||| |
| 137* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||||.... | 228.62377 | \||||||||||||||||| |
| 138* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 139* | 1 | 0.57746 | \|||||||||| | 134.47151 | \||||||||||||| | 225.49637 | \|||||||||||||||| |
| 140 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \||||||||||||||... |
| 141 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| ... |
| 142 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 143* | 1 | 0.57746 | \|||||||||| ..... | 134.47151 | \||||||||||||| ... | 225.49637 | \||||||||||||||| |
| 144* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Residual Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 145* | 0 | 0.44911 | \|||||||-...... | 108.14792 | $\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||| |
| 146 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | $\|\|\|\|\mid$......... | 58.81234 |  |
| 147* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 148* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||| ... | 225.49637 | \||||||||||||||||. |
| 149 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 150* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||| ... | 225.49637 | \|||||||||||||||. |
| 151* | 1 | 0.96226 | \|||||||||||||||| | 159.98894 | \|||||||||||||||| | 166.09627 | \|||||||||||.... |
| 152 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$.... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |
| 153* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 154 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 155 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 156* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 157* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||| | 225.49637 | \||||||||||||||| |
| 158 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| ... |
| 159* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 160 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 161* | 0 | 0.44911 | \||||||||...... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 162* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 163* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 164 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 165 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 166 | 1 | 0.44911 | \||||||| ....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 167 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||| |
| 168 | 1 | 0.44911 | \||||||| ....... | 93.71207 | $\|\|\|\|\|\|\|\|\mid$...... | 196.18596 | \||||||||||||||... |
| 169 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| .. |
| 170 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. |
| 171 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|i|||||||...... | 196.18596 | \|||||||||||||... |
| 172 | 1 | 0.44911 | \||||||||...... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||||... |
| 173* | 0 | 0.44911 | \|||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 174* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$... | 228.62377 | \|||||||||||||||| |
| 175 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 176* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 177* | 0 | 0.44911 | \||||||| ....... | 108.14792 | \|||||||||| | 228.62377 | \||||||||||||||||| |
| 178 | 1 | 0.44911 | \||||||| | 93.71207 | \||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 179 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||| ... |
| 180* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 181* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 182 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||| |
| 183* | 0 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. | 228.62377 | \|||||||||||||||| |
| 184* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||... | 225.49637 | \||||||||||||||| |
| 185 | 0 | 0.57746 | \|||||||||| | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 186 | 1 | 0.44911 | \|||||||...... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 187 | 1 | 0.44911 | \|||||||.... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||... |



## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Residual Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 193 | 1 | 0.44911 | \||||||| | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||.. |
| 194 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 195 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||| ...... | 196.18596 | \||||||||||||... |
| 196* | 0 | 0.44911 | \|||||||-...... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 197 | 0 | 0.57746 | \||||||||| | 115.62666 | \||||||||||.... | 193.03618 | \|||||||||||||... |
| 198 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 199 | 1 | 0.44911 | \||||||||...... | 93.71207 | \|||||||| ...... | 196.18596 | \|||||||||||||... |
| 200 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||]...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 201* | 0 | 0.44911 | \||||||| ....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 202* | 0 | 0.44911 | $\|\|\|\|\|\|\mid$....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||||| |
| 203 | 0 | 0.57746 | \|||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 204 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 205* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | \|||||||||||||||| |
| 206 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 207* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||||| |
| 208 | 0 | 0.57746 | \|||||||||..... | 115.62666 | \|||||||||||-... | 193.03618 | \|||||||||||||... |
| 209* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 210* | 0 | 0.44911 | \||||||||...... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||||| |
| 211* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 212* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||| .... | 228.62377 | \||||||||||||||||| |
| 213* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 214 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||||... |
| 215 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||..... | 196.18596 | \|||||||||||||... |
| 216 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||..... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 217 | 1 | 0.44911 | \||||||| | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 218* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 219 | 1 | 0.44911 | \|||||||]....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| $220 *$ | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 221 | 1 | 0.44911 | \||||||||...... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 222* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 223 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||| ... |
| 224* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 225* | 1 | 0.96226 | \||||||||||||||| | 159.98894 | \|||||||||||||||| | 166.09627 | \|||||||||||.... |
| 226 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||..... | 196.18596 | \||||||||||||| |
| 227 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 228* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 229 | 1 | 0.44911 | \||||||| | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |


| 230 | 1 | 0.44911 | \|||||||| | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 231* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 232 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \||||| ......... | 58.81234 |  |
| 233 | 1 | 0.44911 | \||||||||...... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 234 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 235* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 236 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 237* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 238* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||. |
| 239* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. | 228.62377 | \|||||||||||||||| |
| 240 | 0 | 0.57746 | \|||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |

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## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 241 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||..... | 196.18596 | \|||||||||||| .. |
| 242* | 0 | 0.44911 | \|||||||-...... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 243* | 0 | 0.44911 | \|||||||]....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 244* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||||- |
| 245 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| ... |
| 246 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||..... | 196.18596 | \||||||||||||||... |
| 247 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||| ... |
| 248 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||..... | 196.18596 | \||||||||||||||... |
| 249 | 1 | 0.44911 | \||||||| | 93.71207 | \|||||||||..... | 196.18596 | \||||||||||||||... |
| 250 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| ... |
| 251 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 252* | 0 | 0.44911 | \|||||||]....... | 108.14792 | \||||||||||].... | 228.62377 | \|||||||||||||||| |
| 253 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | \|||||||||||||... |
| 254 | 0 | 0.57746 | \||||||||| | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||| ... |
| 255* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 256 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 257 | 1 | 0.44911 | \|||||||]....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 258* | 1 | 0.57746 | \||||||||||-.... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 259 | 1 | 0.44911 | \||||||||...... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| |
| 260* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 261* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||||| |
| 262 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 263* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 264* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 265* | 0 | 0.44911 | \|||||||...... | 108.14792 | $\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 266 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |
| 267 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 268 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| ... |
| 269* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 270* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||| |
| 271 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | (1) |


| 272* | 1 | 0.57746 | \||||||||| | 134.47151 | \|||||||||||| | 225.49637 | \|||||||||||||||. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 273* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||| |
| 274 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||| |
| 275* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 276 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 277* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 278 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 279* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. |
| 280* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 281 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 282* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. | 225.49637 | \||||||||||||||||. |
| 283 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||... |
| 284* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | \|||||||||||||||. |
| 285 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 286 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid .$. |
| 287 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 288* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||| |

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## Logistic Regression Report

| Dataset | ...WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Residual Diagnostics Report For validvote $=1$ (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 289* | 0 | 0.44911 | \||||||| | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 290 | 1 | 0.44911 | \||||||||...... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 291 | 0 | 0.57746 | \||||||||| | 115.62666 | $\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 292 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | \|||||||||||||... |
| 293 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\mid$...... | 196.18596 | \|||||||||||||... |
| 294 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\mid$...... | 196.18596 | \|||||||||||||... |
| 295 | 0 | 0.57746 | \||||||||||-.... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||| |
| 296* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 297* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||... | 225.49637 | \||||||||||||||| |
| 298 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 299* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||| |
| 300* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 301* | 0 | 0.44911 | \||||||| | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||| |
| 302* | 0 | 0.44911 | \|||||||]....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 303 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||... |
| 304 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 305 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 306* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \||||||||||||||| |
| 307 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||| ... |
| 308* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||| |
| 309 | 0 | 0.57746 | \|||||||||..... | 115.62666 | \|||||||||||... | 193.03618 | \||||||||||||| |
| 310 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 311* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 312 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. | 193.03618 | \|||||||||||| |
| 313 | 0 | 0.57746 | \||I||||||]..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||| |


| 314 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||. | 196.18596 | \|||||||||||||.. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 315 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 316* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 317* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||... | 225.49637 | \||||||||||||||| |
| 318* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid \ldots$ | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 319 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 320* | 0 | 0.44911 | \||||||||...... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 321 | 1 | 0.44911 | \|||||i||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 322 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 323* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||||| |
| 324* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$... | 228.62377 | \|||||||||||||||| |
| 325* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 326* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||| | 225.49637 | \||||||||||||||| |
| 327* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 328* | 0 | 0.44911 | \|||||||..... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 329 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 330 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 331* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 332 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| |
| 333 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 334* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||| |
| 335* | 1 | 0.96226 | \|||||||||||||||| | 159.98894 | \||||||||||||||| | 166.09627 | \|||||||| |
| 336* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| $Y$ (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Residual Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 337 | 1 | 0.44911 | \|||||||| | 93.71207 | \| $\mid$ \|||||||...... | 196.18596 | \||||||||||||.. |
| 338 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 339 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||.. |
| 340 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\|\mid$...... | 196.18596 | \|||||||||||||... |
| $341 *$ | 0 | 0.44911 | \||||||||...... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 342 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||i||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$. |
| 343 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\mid$..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 344* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||| .... | 228.62377 | \|||||||||||||||| |
| 345 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||. |
| 346* | 0 | 0.44911 | \||||||| | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 347 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| |
| 348* | 1 | 0.96226 | \||||||||||||||| | 159.98894 | \|||||||||||||||| | 166.09627 | \||||||||||| |
| 349 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||.. |
| 350* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||| |
| 351 | 0 | 0.57746 | \||||||||| | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||.. |
| 352* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||| ... | 225.49637 | \|||||||||||||||| |
| 353* | 0 | 0.44911 | $\|\|\|\|\|\|\mid$ \|...... | 108.14792 | \||i||||||||.... | 228.62377 | \||||||||||||||| |
| 354* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 355 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. | 193.03618 | \|||||||||||| |


| 356* | 0 | 0.44911 | \|||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||| |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 357 | 1 | 0.44911 | \||||||| ....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 358 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid . .$. |
| 359* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 360* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||]... | 225.49637 | \|||||||||||||||| |
| 361* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||]... | 225.49637 | \||||||||||||||| |
| 362* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 363* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 364 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 365* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. |
| 366 | 1 | 0.44911 | \||||||| ....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 367 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 368* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||| |
| 369 | 1 | 0.44911 | \|||||||]....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 370* | 0 | 0.44911 | \|||||||]....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 371* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 372* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||. |
| 373* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | \||||||||||||||| |
| 374 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 375* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 376* | 0 | 0.44911 | \||||||| ....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| $377 *$ | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 378* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 379 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 380 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||| |
| 381 | 0 | 0.96226 | \||||||||||||||| | 56.75007 | \|||||......... | 58.81234 | \||||.......... |
| 382* | 1 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid . . .$. | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 383* | 0 | 0.44911 | \|||||||....... | 108.14792 | \|||||||||||..... | 228.62377 | \|||||||||||||||| |
| 384* | 1 | 0.57746 | \|||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |

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## Logistic Regression Report

## Dataset Y (Ref Value) <br> Frequency

...INCSSmsexport.NCSS
validvote(0)
commonpostweight
Residual Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 385* | , | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||. |
| 386 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid . .$. |
| 387 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | \|||||||||||||... |
| 388 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. | 193.03618 | \|||||||||||||... |
| 389* | 0 | 0.44911 | \|||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid \ldots$. | 228.62377 | \||||||||||||||||| |
| 390 | 0 | 0.57746 | \||||||||| | 115.62666 | \|||||||||||.... | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid \ldots$ |
| 391* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||||| |
| 392* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 393 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 394* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \||||||||||||||| |
| 395 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |
| 396 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||||... |
| 397* | 1 | 0.57746 | \|||||||||.. | 134.47151 | \||||||||||||... | 225.49637 | \||||||||. |


| 398* | 0 | 0.44911 | \|||||||| | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 399 | 0 | 0.57746 | \|||||||||]..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \||||||||||||| ... |
| 400 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 401 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 402 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \|||||......... | 58.81234 |  |
| 403 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 404* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 405* | 1 | 0.96226 | \|||||||||||||||| | 159.98894 | \|||||||||||||||| | 166.09627 | \|||||||||||.... |
| 406* | 0 | 0.44911 | \|||||||-...... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 407 | 1 | 0.44911 | \||||||||....... | 93.71207 | $\|\|\|\|\|\|\|\mid$...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 408* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 409 | 0 | 0.57746 | \|||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid . . .$. | 193.03618 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$.. |
| 410* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \||||||||||||||... | 225.49637 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. |
| 411 | 0 | 0.57746 | \|||||||||].... | 115.62666 | \|||||||||||... | 193.03618 | \||||||||||||| ... |
| 412 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\mid$.... | 193.03618 | \|||||||||||||... |
| 413* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 414 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid . .$. | 193.03618 | \|||||||||||||... |
| 415 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \||||||......... | 58.81234 | \|||........... |
| 416 | 1 | 0.44911 | \|||||||....... | 93.71207 | \||||||||...... | 196.18596 | \|||||||||||||... |
| 417 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 418 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 419 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||..... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 420 | 1 | 0.44911 | \||||||||...... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||||... |
| 421 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||| ... |
| 422 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \|||||......... | 58.81234 | \|||........... |
| 423 | 1 | 0.44911 | \||||||||....... | 93.71207 | \||||||||...... | 196.18596 | \||||||||||||... |
| 424 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... |
| 425 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 426* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \||||||||||||||||| |
| 427* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||| |
| 428 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 429 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \||||||........ | 58.81234 |  |
| 430 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \|||||......... | 58.81234 | \|||........... |
| 431* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 432 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |

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## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote( 0 ) |
| Frequency | commonpostweight |

## Residual Diagnostics Report For validvote = 1 (Continued)

| Row | Actual validvote | Hat <br> Diagonal |  | Deviance Change (DFDev) |  | Chi-Square Change (DFChi2) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 433 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||| ... |
| 434* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 435* | 0 | 0.44911 | \||||||||-...... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 436 | 0 | 0.57746 | \||||||||||..... | 115.62666 | $\|\|\|\|\|\|\|\|\|\|\mid \ldots$ | 193.03618 | \|||||||||||||... |
| 437 | 0 | 0.57746 | $\|\|\|\|\|\|\|\|\|\mid$.... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 438 | 0 | 0.96226 | \|||||||||||||||| | 56.75007 | \||||||......... | 58.81234 | \|||........... |
| 439* | 0 | 0.44911 | \|||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |


| 440* | 0 | 0.44911 | \||||||| | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 441 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 442* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 443 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \||1||||||||.... | 193.03618 | \|||||||||||||... |
| 444* | 0 | 0.44911 | \||||||||....... | 108.14792 | $\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \|||||||||||||||| |
| 445 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||| | 193.03618 | \|||||||||||||... |
| 446* | 0 | 0.44911 | \||||||||....... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 447* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 448* | 1 | 0.57746 | \||||||||||..... | 134.47151 | \|||||||||||||... | 225.49637 | \|||||||||||||||| |
| 449* | 1 | 0.57746 | \||||||||||..... | 134.47151 | $\|\|\|\|\|\|\|\|\|\|\|\|\mid$... | 225.49637 | $\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\mid$. |
| 450* | 0 | 0.44911 | \||||||||...... | 108.14792 | \|||||||||||.... | 228.62377 | \|||||||||||||||| |
| 451 | 1 | 0.44911 | \||||||||...... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||||... |
| 452 | 1 | 0.44911 | \||||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \|||||||||||||... |
| 453 | 0 | 0.57746 | \|||||||||..... | 115.62666 | \||||||||||.... | 193.03618 | \||||||||||||| |
| 454* | 0 | 0.44911 | \||||||||...... | 108.14792 | $\|\|\|\|\|\|\|\|\|\|\mid$.... | 228.62377 | \||||||||||||||||| |
| 455 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |
| 456 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \|||||||||||||... |
| 457 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||| ... |
| 458* | 0 | 0.44911 | \||||||||....... | 108.14792 | \||||||||||.... | 228.62377 | \|||||||||||||||| |
| 459 | 1 | 0.44911 | \|||||||....... | 93.71207 | \|||||||||...... | 196.18596 | \||||||||||||| ... |
| 460 | 0 | 0.57746 | \||||||||||..... | 115.62666 | \|||||||||||.... | 193.03618 | \||||||||||||||... |

NCSS 12.0.4

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

Diagnostic Plots



## Logistic Regression Report

| Dataset | ... WCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |





## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |





## Logistic Regression Report

| Dataset | ..INCSSmsexport.NCSS |
| :--- | :--- |
| Y(Ref Value) | validvote( 0 ) |
| Frequency | commonpostweight |

## Procedure Input Settings

## Autosave Inactive

Variables, Model Tab
-- Variables


## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Procedure Input Settings (Continued)

## Reports Tab (Continued)

.. Classification

| Classification Matrix | Checked |
| :--- | :--- |
| Validation Matrix | Checked |
| ROC Report | Checked |

. Row-by-Row Lists

| Row Classification Report: | None |
| :--- | :--- |
| Row Classification Probs Report: | None |
| Simple Residuals Report: | None |
| Residuals | Checked |
| DfBetas | Checked |
| Influence Diagnostics | Checked |
| Residual Diagnostics | Checked |

Report Options Tab
-- Confidence Levels

## ------

Confidence Level:
95
-- Variable and Value Labels

## -------

| Variable Names: | Names |
| :--- | :--- |
| Value Labels: | Data Values |
| Stagger label and output if label length is $\geq$ | 15 |

-- Decimal Places
Precision: Single

Probability: 5
Beta (Coefficients): 5
SE(Beta): 5
Z: 3
Log Likelihood: 5
Odds Ratio: 5
DFBeta: 5
Coefficients in Reading Form Model: 2

## Plots Tab

-- Select Plots

Y vs $X$
ROC Curves (Combined)
ROC Curve (Separate)

Checked
Checked
Checked

| Residuals vs X | Checked |
| :--- | :---: |
| Skip Reference Value | Checked |
| Deviance Residuals vs X | Checked |
| Pearson Residuals vs X | Checked |
| Pr(Correct) vs Cutoff | Checked |

-- ROC Curves and Prob(Correct) vs Cutoff Plot Options
Number Cutoffs: 29

NCSS 12.0.4

## Logistic Regression Report

| Dataset | ...INCSSmsexport.NCSS |
| :--- | :--- |
| Y (Ref Value) | validvote(0) |
| Frequency | commonpostweight |

## Procedure Input Settings (Continued)

## Storage Tab


Storage Option:
Do not store data

## Appendix B

There are three possible ways to measure turnout in the 2020 CES using the validation variables. Two use only the "CL_2020gvm" vote validation variable while the third uses this variable in conjunction with self-reported registration (votereg_post) and self-reported turnout (CC20_401).

1. Un-matched as non-voters. The first specification defines voters as respondents with a validated voting record no matter their mode of participation, and defines nonvoters as both matched non-voters and non-matched respondents. This specification retains the integrity of the full CES sample, no missing values are created. The justification for this approach is the fact that the most common reason that Catalist will not have a record for an individual is because that individual is not registered to vote. Indeed, rates of self-reported non-registration and nonvoting are much higher among un-matched respondents than among those for whom there is a match.
2. Only matched non-voters as non-voters. The second specification defines nonvoters as only matched non-voters. This specification reduces the CES sample and results in validated turnout estimates that are larger than those in the first specification. However, this specification increases the level of certainty in the identification of non-voters in the CES, because there could possibly be actual voters among nonmatched respondents.
3. Matched non-voters and self-reported non-voters as non-voters. The third specification defines non-voters as (1) matched non-voters, (2) non-matched respondents who reported not being registered to vote in the "votereg_post" question, and (3) non-matched respondents who are self-reported non-voters in the "CC20_401" question. This definition excludes non-matched respondents who are self-reported voters (these individuals would be coded as missing). This definition assumes that self-reported non-voters are honest about their non-participation because there is no incentive to go against the democratic norm of participation.

Appendix C

NCSS 12.0.18
Two-Sample Comparison Report
Dataset ...IVALIDATE VOTED BLACK \& WHITE T TEST.NCSS

Confidence Intervals of Means

|  |  |  |  |  | $95.0 \%$ C. I. of $\boldsymbol{\mu}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | Standard | Standard | Lower | Upper |
| Group | $\mathbf{N}$ | Mean | Deviation | Error | Limit | Limit |
| 1 | 121 | 0.049 | 0.218 | 0.01981818 | 0.009761379 | 0.08823862 |
| 2 | 61 | 0.1475 | 0.357 | 0.04570917 | 0.05606806 | 0.2389319 |

Two-Sided Confidence Interval for $\boldsymbol{\mu 1 - \mu 2}$

|  |  |  |  |  |  |  | $95.0 \%$ C. I. of $\mu 1-\mu 2$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Upper |  |  |  |  |  |  |  |  |

Equal-Variance T-Test

|  |  |  |  | Standard |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Alternative <br> Hypothesis | Mean <br> Difference | Error of <br> Difference | T-Statistic | d.f. | Prob <br> Level | Reject H0 <br> at $\alpha=$ |
| $\mu 1-\mu 2>0$ | -0.0985 | 0.04276412 | -2.3033 | 180 | 0.98880 | No |

Aspin-Welch Unequal-Variance T-Test

| Alternative |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Hypothesis <br> 0.050 | Mean <br> Difference | Standard <br> Error of | Difference | T-Statistic | d.f. | Prob <br> Level | Reject H0 <br> at $\mathbf{a}=$ |
| $1-\mu 2>0$ | -0.0985 | 0.04982056 | -1.9771 | 83.21 | 0.97433 | No |  |

Procedure Input Settings
Autosave Inactive
Data Tab
-- Group Summary Values
Group 1 Sample Size:
Group 1 Mean: ..... 049
Group 1 Standard Deviation: ..... 218
Group 2 Sample Size: ..... 61
Group 2 Mean: ..... 1475
Group 2 Standard Deviation: .....  357
Reports Tab
-- Confidence Intervals
Confidence Level: ..... 95
Confidence Intervals of Each Group Mean ..... Checked
Confidence Interval of $\mu 1-\mu 2$ ..... Checked
Limits:Two-Sided
Confidence Intervals of Each Group Standard ..... Unchecked
Deviation
Confidence Interval of $\sigma 1 / \sigma 2$ Unchecked

## Two-Sample Comparison Report

Dataset ...IVALIDATE VOTED BLACK \& WHITE T TEST.NCSS
Procedure Input Settings (Continued)
Reports Tab (Continued)
-- Tests

| Alpha: | 0.05 |
| :--- | :--- |
| H0: $\mu 1-\mu 2=$ | 0.0 |
| Ha: | $\mu 1-\mu 2>\mathrm{H} 0$ Value (one-sided) |

. Parametric

| Equal-Variance T-Test | Checked |
| :--- | :--- |
| Unequal-Variance T-Test | Checked |
| Z-Test | Unchecked |
| Equivalence Test | Unchecked |
| Power Report for Equal-Variance T-Test | Unchecked |
| Power Report for Unequal-Variance T-Test | Unchecked |

- Assumptions

Variance-Ratio Test Unchecked
-- Decimal Places
Means, Differences, and C.I. Limits:
Auto (Up to 7)
Standard Deviations and Standard Errors:
Auto (Up to 7)
P-Values and Powers:
5
Test Statistics:
4

# IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF MISSISSIPPI GREENVILLE DIVISION 

DYAMONE WHITE, ET AL.,<br>Plaintiffs,

Civil Case No. 4:22-CV-62-SA-JMV
V.

## STATE BOARD OF ELECTION COMMISSIONERS, ET AL.,

 Defendants.
## EXPERT REPORT OF DR. CHRISTOPHER W. BONNEAU

## REBUTTAL TO RESPONSIVE REPORT OF DR. ORE

1. In this rebuttal report, I respond to claims made by Dr. Byron D'Andra Orey in his Responsive Report dated February 6, 2023 (corrected February 24, 2023).
2. Dr. Ores takes issue with my conclusion that observed polarization is based on party and not race. Specifically, "Dr. Bonneau does not provide any empirical evidence that this claim applies specifically to Mississippi" (Urey Responsive Report, paragraph 4). This is not accurate. In paragraph 21 of my original report, I cite Plaintiffs' expert Justice Diaz who writes, "despite the fact that elections for the Supreme Court are non-partisan, such elections include many of the same features as partisan elections for political office."


Justice Diaz goes on to say (p. 28 of his report), "White candidates are generally understood to be associated with the Republican Party, and Black candidates with the Democratic Party."
3. Additional evidence of this can be seen from the Twitter account of 2020 Supreme Court candidate Latrice Westbrooks. In a post on August 18, 2020, Judge Westbrooks touts her endorsement from Representative Bennie Thompson (a Mississippi Democrat) by posting a photo of the two of them together as well as her letter of endorsement (Appendices 1-2). On August 20, she posted a photo of herself with then-candidate for President Joe Biden (Appendix 3). On October 27, Judge Westbrooks posted a flyer for a political rally involving herself, Bennie Thompson, and former-Congressman and Cabinet official (and then Senate candidate) Mike Espy (Appendix 4). Despite the lack of political party affiliation on the ballot, it was clear to those following the race that Judge Westbrooks was a member of the Democratic Party and her campaign was assisted by high-profile Mississippi Democrats.
4. This can have serious implications for any analysis using ecological inference, as Dr. Orey does. "For example, if white voters tend to be conservative and most potential minority candidates are very liberal, strong minority candidates may elect not to run because they are ideologically out of step. A court that inferred disparate treatment from white voters' lack of support for minority Democrats relative to white Democrats could be doubly in error: white voting patterns may reflect ideological as well as valence differences
between minority candidates and the white candidates whom the court treats as counterfactuals" (Elmendorf, Quinn, and Abrajano 2016, 655).
5. An example of this is in Table 2 of Professor Orey's original report. In the 2011 election for the Public Service Commission, Republican Lynn Posey defeated Democrat Addie Green. Dr. Orey states that Green was the preferred candidate of Black voters. However, in the 2007 election for the same office, Posey ran as the Democratic candidate and defeated the Republican nominee Charles Barbour, nephew of the governor at the time. Posey served for 20 years in the State Senate before winning his seat on the Public Service Commission, winning elections as a Democrat each time. While Orey did not analyze the 2007 election, if he had it is very likely he would have discovered that Posey was the Black-preferred candidate in that race. So, how did Posey go from being a Black-preferred candidate to a candidate not preferred by Blacks? The only difference between those two elections was his political party.
6. Thus, the 2007 and 2011 elections for the Public Service Commission seat demonstrate that political party is driving the choices of voters and not race. Of course, supreme court elections are nonpartisan in Mississippi, but as the Plaintiffs' expert Justice Diaz shows, as well as other contemporary accounts of these elections, including Judge Westbrooks' own Twitter account, political parties and party leaders endorse supreme court candidates and this is known to voters.
7. In Table 1 of his Responsive Report, Dr. Orey analyzes a Democratic gubernatorial primary election and concludes that even when one controls for party, Black voters and white voters prefer different candidates. It is important to note that in this case the Black preferred candidate won the nomination. Thus, the racially polarized voting Dr, Orey alleges was not determinative of the election. This is also true for the 2015 Public Service Commission primary, which Professor Orey did not analyze (though he did analyze the general election). In the primary, Cecil Brown (a white Democrat) defeated Bruce Burton (a Black Democrat). If Brown was the preferred candidate of Black voters in the primary (which is likely given the margin of his victory and the demographics of the district), this demonstrates that even holding the political party of the candidates' constant, Black voters do not necessarily favor Black candidates.
8. Moreover, "Racial polarization in the primary is only a signal of minority voters' preference for one candidate relative to the other available choices, not a signal of how much minority voters like the preferred candidate in any absolute sense" (Elmendorf, Quinn, and Abrajano 2016, 669).
9. The 2016 Supreme Court election included by Dr. Orey is also illustrative of the importance of political party. Despite the race being "nonpartisan," Justice Kitchens was endorsed by Democratic Representative Bennie Thompson, and even appeared on his "Sample Official Democratic Election Ballot" (Appendix 5). And this is not an aberration; Representative Thompson regularly includes his preferred candidates for Supreme Court
and Court of Appeals on his sample ballots that he distributes widely in his district. Indeed, "Making 'Bennie's sample ballot' is the key signal of validation Mississippi Democrat voters look for before heading to the polls" (Corder 2020).
10. In paragraph 9 of his Responsive Report, Dr. Orey argues that a previous expert witness report he authored is not relevant because "the conclusions drawn in that report are based on analyses where blacks voted against a black candidate who ran as a Republican." This is my point: political party, and not race, is the reason for the election results observed in Mississippi.
11. In paragraph 10 and 11 of his Responsive Report, Dr. Orey argues that the elections involving Justice King should be excluded because he was not challenged in his reelection bids. However, this is throwing out meaningful information. If Dr. Orey is correct that Black voters are not able to elect the candidates of their choice in District 1 (even though his Table 1 shows this is false since Justice Kitchens was the Black-preferred candidate and he won his reelection), then one would expect Justice King would be a target for defeat. Yet, not only does Justice King win his reelection bids, but also no one even challenges him. This is meaningful because the one African-American justice on the Supreme Court does not even garner any opposition. Why would a Supreme Court election go uncontested? Because no one thinks they have a good chance at defeating Justice King. If racially polarized voting was prohibiting Black voters from electing their preferred candidates, Justice

King would certainly face opposition from a candidate supported by white voters.
12. In paragraphs 14 and 16, Dr. Orey properly notes that in Paragraph 34 and 35 of my original report, I did not take into account ballot roll-off. However, the data I provide in Paragraph 50 does do this (using percentages rather than actual votes). The conclusion is the same: the Black-preferred candidate won in some races on the ballot, and not in others. That is, looking at how candidates fared in the same election on the same ballot, the Black-preferred candidates won some elections, and lost others.
13. There is also a more serious concern with the use of ecological inference techniques. In these analyses, "the analyst uses variation across precincts in candidates' vote shares and racial groups' population shares to estimate the proportion of each racial group that voted for each candidate. These estimates depend on a critical assumption: the proportion of white and minority voters who support each candidate is about the same in each precinct, subject to random noise" (Elmendorf, Quinn, and Abrajano 2016, 671). What this means is that "minorities in relatively affluent and racially integrated precincts are treated as politically indistinguishable from minorities in poor, racially homogenous precincts" (Elmendorf, Quinn, and Abrajano 2016, 671). This is an untenable assumption.
14. Orey claims that King's solution overcomes this limitation, but in doing so, it introduces an equally problematic issue. A hypothetical example by Cho (1998, 150-151) makes this clear. In trying to determine rates of voting for

President Clinton among minority and majority voters, Cho generates hypothetical data that show the true minority vote for Clinton is $62 \%$ and the true majority vote for Clinton is $43 \%$. If this model were to be estimated using Ordinary Least Squares (OLS) regression, "OLS assumes that the parameters are constant regardless of precinct of residence; i.e., in precinct 1, minority support for Clinton is $m$ percent, and minority support in precincts 2-6 is the same $m$ percent." However, in this artificially generated data, Cho set minority support in precinct 1 to be $70 \%$ and in precinct 2 to be $50 \%$. Thus, the assumption of constancy is clearly violated. This leads to biased parameters. King's ecological inference "solution" addresses this limitation of OLS, but in so doing assumes that "the distribution is unimodal [instead of constant] but the data it purports to describe are bimodal, one mode for the Republican districts and one mode for the Democratic districts."
15. Cho $(1998,162)$ conducts additional simulations and analyses and comes to a clear conclusion: "El is appropriate if and only if the specification is correct.... The problem is that one has no idea whether the specification is correct or not, and the diagnostics have limited utility in that regard.... Without a formal method for determining how to extend the model, a researcher is left with a wide variety of 'reasonable models' and no way of assessing whether any of these models is appropriate."
16. All of the above supports the conclusion I make in Paragraph 51 of my original report remains: "the evidence strongly suggests that African-

American candidates are able to win elections in District 1 (for statewide offices as well as state supreme court) under its current boundaries."

I reserve the right to update this report based on additional facts, testimony, and/or materials.


Chris W. Bonneau

September 12,2023
DATE

## References

Tam Cho, Wendy K. 1998. "Iff the Assumption Fits...: A Comment on the King Ecological Inference Solution." Political Analysis 7: 143-163.
Corder, Frank. 2020. "MS Supreme Court Candidate Lynchard Makes 'Bennie's
Ballot' in Lead Up to Election." Magnolia Tribune. October 15, 2020.
https://magnoliatribune.com/2020/10/15/ms-supreme-court-candidate-
lynchard-makes-bennies-ballot-in-lead-up-to-election/
Elmendorf, Christopher S., Kevin M. Quinn, and Marisa A. Abrajano. 2016. "Racially
Polarized Voting." University of Chicago Law Review 83: 587-692.

## Appendix 1



## Appendix 2



## Appendix 3



## Appendix 4



## Appendix 5




| 19 JUNE 23 | 0 |  | \$0,00 | \$0,00 | \$0,00 | \$26,780,00 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 JUNE 23 | 0 |  | \$0,00 | \$0.00 | \$0,00 | \$26,780,00 |  |
| 21 JUNE 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$26,780,00 |  |
| 22 JUNE 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$26,780.00 |  |
| 23 June 23 | 0 |  | \$0,00 | \$0.00 | \$0,00 | \$26,780,00 |  |
| 24 JUNE 23 | 0 |  | 50.00 | \$0.00 | \$0.00 | \$26,780,00 |  |
| 25 JUNE 23 | 0 |  | \$0.00 | \$0,00 | \$0.00 | \$26,780.00 |  |
| 26 JUNE 23 | 0.75 | ZOOM CONF CALL | \$300,00 | \$0.00 | \$300,00 | \$27,080,00 | Bellingham, WA |
| 27 JUNE 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$27,080,00 |  |
| 28 JUNE 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$27,080.00 |  |
| 29 JuNE 23 | 0 |  | \$0,00 | \$0.00 | \$0,00 | \$27,080,00 |  |
| 30 JuNE 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$27,080,00 |  |
| 1 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$27,080,00 |  |
| 2 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$27,080,00 |  |
| 3 JULY 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$27,080,00 |  |
| 4 JuLY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$27,080.00 |  |
| 5 JuLy 23 | 2.5 | ANALYSIS OF BURCH'S LOGISTIC MODEL 2 | \$1,000,00 | \$0.00 | \$1,000,00 | \$28,080.00 | Bellingham, WA |
| 6 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$28,080,00 |  |
| 7 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$28,080,00 |  |
| 8 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$28,080,00 |  |
| 9 ¢ULY 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$28,080,00 |  |
| 10 JULY 23 | 0 |  | \$0,00 | \$0.00 | \$0,00 | \$28,080,00 |  |
| 11 July 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$28,080,00 |  |
| 12 JULY 23 | 1 | REVIEW BURCH'S REBUTTAL: EI | \$400.00 | \$0,00 | \$400.00 | \$28,480,00 | Bellingham, WA |
|  |  | OM CONF CALL \& PREP \& INITIAL SUMMARY |  |  |  |  |  |
| 13 JULY 23 | 3,75 | ANALYSIS, | \$1,500,00 | \$0.00 | \$1,500,00 | \$29,980.00 | Bellingham, WA |
| invoice of July |  |  |  | 27 MAR 23 - | TOTAL TO BE BILLED |  |  |
| 13 |  |  |  | 13 JULY 23 | TO PLAINTIFF | \$29,980.00 |  |
| 14 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$0.00 |  |
| 15 JULY 23 | 6 | continue with CES analysis | \$2,400,00 | \$0,00 | \$2,400.00 | \$2,400.00 | Bellingham, WA |
| 16 JULY 23 | 2 | continue with CES analysis | \$800,00 | \$0,00 | \$800,00 | \$3,200.00 | Bellingham, WA |
| 17 JULY 23 | 4.5 | continue with CES analysis | \$1,800,00 | \$0.00 | \$1,800,00 | \$5,000.00 | Bellingham, WA |
| 18 JULY 23 | 1.5 | continue with CES analysis | \$600.00 | \$0.00 | \$600.00 | \$5,600.00 | Bellingham, WA |
| 19 JuLy 23 | 0.5 | draft of findings | \$200.00 | \$0.00 | \$200.00 | \$5,800,00 | Bellingham, WA |
| 20 JuLY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$5,800,00 |  |
| 21 JULY 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$5,800,00 |  |
| 22 JuLY 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$5,800.00 |  |
| 23 Juty 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$5,800,00 |  |
| 24 JuLY 23 | 1 | draft of findings | \$400.00 | \$0.00 | \$400.00 | \$6,200,00 | Bellingham, WA |
| 25 JuLY 23 | 0.75 | draft of findings | \$300,00 | \$0,00 | \$300,00 | \$6,500,00 | Bellingham, WA |
| 26 JULY 23 | 0.5 | draft of firdings | \$200,00 | \$0.00 | \$200,00 | \$6,700,00 | Bellingham, WA |
| 27 JULY 23 |  |  | \$0,00 | \$0.00 | \$0,00 | \$6,700,00 |  |
| 28 JULY 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$6,700,00 |  |
| 29 JULY 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$6,700.00 |  |
| 30 JuLY 23 | 2 | draft of findings | \$800,00 | \$0.00 | \$800,00 | \$7,500.00 | Bellingham, wA |
| 31 JuLY 23 | 3 | draft of findings | \$1,200,00 | \$0.00 | \$1,200.00 | \$8,700,00 | Bellingham, WA |
| 1 Aug 23 | 1 | draft of findings | \$400.00 | \$0.00 | \$400,00 | \$9,100.00 | Bellingham, WA |
| 2 AUG 23 | 0.5 | draft of findings | \$200,00 | \$0.00 | \$200,00 | \$9,300,00 | Bellingham, WA |
| 3 AUG 23 | 0.5 | draft of findings | \$200.00 | \$0.00 | \$200.00 | \$9,500,00 | Bellingham, WA |
| 4 AUG 23 | 0.5 | draft of findings | \$200.00 | \$0.00 | \$200.00 | \$9,700.00 | Bellingham, wA |
| 5 AUG 23 | 0.75 | draft of findings | \$300.00 | \$0.00 | \$300.00 | \$10,000.00 | Bellingham, WA |
| 6 AUG 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$10,000,00 |  |
| 7 AUG 23 | 0.5 | draft of findings | \$200.00 | \$0.00 | \$200.00 | \$10,200.00 | Bellingham, WA |
| 8 Aug 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$10,200,00 |  |
| gaug 23 | 0.5 | draft of findings | \$200.00 | \$0.00 | \$200.00 | \$10,400,00 | Bellingham, WA |
| 10 AUG 23 | 4.75 | zoom call and draft of findings | \$1,900,00 | \$0,00 | \$1,900,00 | \$12,300,00 | Bellingham, WA |
| 11 AUG 23 | 1 | draft of findings | \$400,00 | \$0,00 | \$400.00 | \$12,700.00 | Bellingham, WA |
| 12 AUG 23 | 0.5 | draft of findings | \$200.00 | \$0.00 | \$200.00 | \$12,900.00 | Bellingham, w/ |
| 13 AUG 23 | 0.25 | CES study research | \$100.00 | \$0.00 | \$100.00 | \$13,000,00 | Bellingham, WA |
| 14 AUG 23 | 0.5 | CES study research | \$200.00 | \$0,00 | \$200.00 | \$13,200.00 | Bellingham, WA |
| 15 Aug 23 | 0 |  | \$0,00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 16 AUG 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$13,200,00 |  |
| 17 AUG 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$13,200.00 |  |
| 18 AUG 23 | 0 |  | \$0,00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 19 AUG 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 20 AUG 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 21 Aug 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 22 aug 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$13,200,00 |  |
| 23 Aug 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$13,200,00 |  |
| 24 AUG 23 | 0 |  | \$0.00 | \$0,00 | \$0,00 | \$13,200.00 |  |
| 25 AUG 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 26 AUG 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$13,200,00 |  |
| 27 Aug 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 28 Aug 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 29 Aug 23 | 0 |  | \$0.00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 30 AUG 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$13,200,00 |  |
| 31 AUG 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$13,200.00 |  |
| 1 SEP 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 2 SEP 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 3 SEP 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 4 SEP 23 | 0 |  | \$0,00 | \$0.00 | \$0.00 | \$13,200.00 |  |
| 5 SEP 23 |  |  | \$0.00 | \$0.00 | \$0.00 | \$13,200,00 |  |
| 6 SEP 23 | 0 |  | \$0.00 | \$0,00 | \$0.00 | \$13,200.00 |  |
| 7 SEP 23 | 1.5 | ZOOM CALL AND REVISION OF DRAFT | \$600.00 | \$0.00 | \$600,00 | \$13,800.00 | Bellingham, WA |
| 8 SEP 23 |  |  | \$0.00 | \$0.00 | \$0,00 | \$13,800,00 |  |
| 9 SEP 23 | 0 |  | \$0.00 | \$0.00 | \$0,00 | \$13,800,00 |  |
| 10 SEP 23 |  |  | \$0,00 | \$0.00 | \$0,00 | \$13,800.00 |  |
| 11 SEP 23 | 0 |  | \$0,00 | \$0,00 | \$0.00 | \$13,800.00 |  |
| 12 SEP 23 | 0 |  | \$0.00 | \$0,00 | \$0.00 | \$13,800,00 |  |



# Thomas M. Bryan 

13106 Dawnwood Terrace<br>Midlothian, VA 23114<br>425-466-9749<br>tom@bryangeodemo.com

September 18, 2023
Wise Carter PLLC
Attn: Michael B. Wallace
PO Box 651
Jackson, MS 39205-0651
Third Invoice for Mississippi Supreme Court Redistricting Litigation, Via Email
Mr. Wallace,
Thank you very much for the engagement and the opportunity to serve in support of your demographic expert in the case of Dyamone White, et al v. State Board of Election Commissioners, et al. This invoice for the second quarter of 2023 (July 21, 2023 to September 14, 2023) reflects 14 hours for Mr. Thomas Bryan billable to the Plaintiffs (for $\$ 5,600$ ) as detailed in Appendix 1.

Please let me know if you have any questions.
Best regards,
Tom


## APPENDIX 1: Thomas Bryan Invoice Detail

| $7 / 21 / 2023$ | 1.50 | $\$ 600.00$ | Document review and client call |
| :---: | :---: | :---: | :--- |
| $8 / 10 / 2023$ | 1.00 | $\$ 400.00$ | Client Call |
| $8 / 18 / 2023$ | 1.00 | $\$ 400.00$ | Client Call |
| $9 / 11 / 2023$ | 4.75 | $\$ 1,900.00$ | Report writing |
| $9 / 13 / 2023$ | 3.25 | $\$ 1,300.00$ | Report writing |
| 9/14/2023 | 2.50 | $\$ 1,000.00$ | Report writing |
| Total | 14.00 | $\$ 5,600.00$ |  |

Thomas M. Bryan<br>13106 Dawnwood Terrace<br>Midlothian, VA 23114<br>425-466-9749<br>tom@bryangeodemo.com

July 24, 2023
Wise Carter PLLC
Attn: Michael B. Wallace
PO Box 651
Jackson, MS 39205-0651
Second Invoice for Mississippi Supreme Court Redistricting Litigation, Via Email
Mr. Wallace,
Thank you very much for the engagement and the opportunity to serve in support of your demographic expert in the case of Dyamone White, et al v. State Board of Election Commissioners, et al. This invoice the first half of 2023 invoice reflects three amounts:

1) 75 hours for Dr. David Swanson billable to the Plaintiffs (for $\$ 30,000$ )
2) 13 hours for Mr. Thomas Bryan billable to the Clients (for $\$ 5,200$ )
3) 54.25 hours for Mr. Thomas Bryan billable to the Plaintiffs (for $\$ 21,700$ )

For a total of $\$ 56,900$. Please let me know if you have any questions.
Best regards,
Tom


## APPENDIX 2: Thomas Bryan Invoice Detail





| From: Chris W. Bonneau |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| то: | Mike Wallace |  |  |  |
| cc: | Rex Shannon; Gerald Kucia |  |  |  |
| Subject: | Re: FW: final draft |  |  |  |
| Date: | Thursday, September 14, 2023 7:54:55 AM |  |  |  |
| Attachments: | image001.png |  |  |  |
|  | image001.png |  |  |  |
|  | expert report rebuttal FINAL.pdf |  |  |  |
| Morning, all: |  |  |  |  |
| Attached is the final, signed rebuttal report. Below is an invoice for the hours I worked. Thanks. |  |  |  |  |
| cwb |  |  |  |  |
| 21-Apr Mtg with lawyer |  | 0.75 | \$300.00 | \$225.00 |
| 5-May Reading Orey report and rebuttal |  | 1 | \$300.00 | \$300.00 |
| 8-May researching for rebuttal |  | 2.5 | \$300.00 | \$750.00 |
| 9-Maydrafting rebuttal |  | 3 | \$300.00 | \$900.00 |
| 24-May meeting with attorneys |  | 0.33 | \$300.00 | \$99.00 |
| 17-Jul editing rebuttal |  | 1 | \$300.00 | \$300.00 |
| 4-Aug call with lawyer |  | 0.5 | \$300.00 | \$150.00 |
| 18-Aug finalizing rebuttal |  | 1 | \$300.00 | \$300.00 |
| 12-Sep finalizing rebuttal |  | 1 | \$300.00 | \$300.00 |

Chris W. Bonneau
Professor of Political Science
Interim Chair, Department of Hispanic Languages \& Literatures
cwbonneau@gmail.com
www.pitt.edu/~cwb7
@Bonneau_Says
View my research on my Google Scholar page:
http://scholar.google.com/citations?user=OOuB13MAAAAJ\&hl=en

| From: | Chris W. Bonneau |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| To: | Mike Wallace; Gerald Kucia; Rex Shannon |  |  |  |
| Subject: | Deposition invoice |  |  |  |
| Date: | Saturday, September 30, 2023 2:01:28 PM |  |  |  |
| Attachments: | depo receiots.joff |  |  |  |
| Mike, Rex, | erald: |  |  |  |
| Good to me | of you in person. Below is an invoic | ave | ched speci | receipts in a s |
| Please let m | w if you need any additional inform |  |  |  |
| cwb |  |  |  |  |
|  | Flight to Jackson |  |  | \$309.98 |
|  | Flight to Pittsburgh |  |  | \$298.20 |
|  | Travel for deposition | 6 | \$150.00 | \$900.00 |
|  | Deposition prep | 3 | \$300.00 | \$900.00 |
|  | yft from airport to law office |  |  | \$28.72 |
|  | Breakfast |  |  | \$10.27 |
|  | unch |  |  | \$19.16 |
|  | Deposition | 4 | \$300.00 | \$1,200.00 |
|  | yft from law office to airport |  |  | \$29.70 |
|  | Flight change fee |  |  | \$299.00 |
|  | Hotel/breakfast |  |  | \$131.53 |
|  | Travel for deposition | 8 | \$150.00 | \$1,200.00 |
|  | unch |  |  | \$37.01 |
|  | Dinner |  |  | \$28.76 |
|  | Airport parking |  |  | \$40.00 |


Chris W. Bonneau
Professor of Political Science
Interim Chair, Department of Hispanic Languages \& Literatures
cwbonneau@gmail.com
www.pitt.edu/~cwb7
@Bonneau_Says
View my research on my Google Scholar page:
http://scholar,google.com/citations?user=OOuB13MAAAAJ\&hl=en

## * THE UNITED STATES DISTRICT COURT写 THE NORTHERN DISTRICT OF MISSISSIPPI दREENVILLE DIVISION

DYAMONE WHITE: DERRICK<br>SIMMONS: TY PINKINS:<br>CONSTANCE OLIVIA SLAUGHTER<br>HARVEY-BURWELL<br>PLAINTIFFS

vs.
CIVIL ACTION NO. 4:22-cv-00062-SA-JMV

STATE BOARD OF ELECTIUN
COMMISSIONERS: TATE REEVES
in his official capacity as governor of
Mississippi; LYNN FITCH in her
official capacity as Attorney General of
Mississippi; MICHAEL WATSON in
his official capacity as Secretary of
State of Mississippi
DEFENDANTS

## DECLARATION OF MICHAEL B. WALLACE

Pursuant to 28 U.S.C. § 1746, I hereby declare as follows:

1. My name is Michael B. Wallace. I am an adult resident citizen of Madison County.

Mississippi. I have personal knowledge of the facts set forth herein, and I am competent to testify thereto.
2. I am a shareholder in the firm of Wise Carter Child \& Caraway. I serve as the firm's lead counsel in our rebresentation of the defendants in the above-captioned action. I nave knowledge of this firm's records with regard to that representation.
3. My regular rate in complex commercial matters is $\$ 450.00$ per hour. My regular rate in constifutional litigation is $\$ 375.00$ per hour. I have agreed to represent the defendants in this action for a discounted rate of $\$ 350.00$ per hour.

## EXHIBIT

2. Attached hereto and made a part hereof as Exhibit " $A$ " is an invoice accurately reflecting services performed by this firm regarding the surrebuttal reports prepared by our two experts, Professor Christopher Bonneau and Professor David Swanson, and their depositions. The invoice also includes expenses incurred in connection therewith. These fees and expenses are reasonable. and the defendants have confirmed their obligation to pay for them. I declare under penalty of perjury that the foregoing is true and correct. Executed on this the $20^{\frac{-t h}{d}}$ day of November, 2023.


MICHAEL B. WALLACE

## WISE CARTER CHILD \& CARAWAY

Lynn Fitch, Attorney General

Re: Dyamon White, et al v. State Board of Election Commissioners. et al

## Fees

| Date | Description |
| :---: | :---: |
| 08/22/23 | Attend meeting with D. Swanson |
| 09/12/23 | Receipt and review of Swanson report. |
| 09/12/23 | Receipt and review of Bonneau report. |
| 09/15/23 | Receipt and review of email from A. Savitzky regarding deposition; email co-counsel regarding same. |
| 09/15/23 | Email to Professor Bonneau regarding deposition; receipt and reply from same. |
| 09/15/23 | Email Professor Swanson regarding deposition; receipt and review of reply from same. |
| 09/18/23 | Receipt and review of multiple emails from Professor Swanson regarding deposition; reply to same. |
| 09/18/23 | Edit letter to A. Savitzky; receipt and review of email from co-counsel regarding same. |
| 09/19/23 | Receipt and review of letter from A. Savitzky regarding deposition. |
| 09/19/23 | Letter to A. Savitzky. |
| 09/20/23 | Edit letter to A. Savitzky; email co-counsel regarding same. |
| 09/20/23 | Email Professor Bonneau regarding deposition; receipt and review of reply. |
| 09/20/23 | Email Professor Swanson regarding deposition. |
| 09/20/23 | Receipt and review of email from A. Savitzky; reply to same. |
| 09/21/23 | Email plaintiffs' counsel regarding Bonneau deposition. |
| 09/21/23 | Receipt and review of email from A. Savitzky; reply to same. |
| 09/22/23 | Receipt and review of email from D. Swanson regarding deposition; reply to same. |
| 09/25/23 | Email Professor Bonneau regarding deposition. |
| 09/25/23 | Receipt and review of notice of Bonneau deposition. |
| 09/26/23 | Receipt and review of multiple emails from Professor Bonneau and cocounsel; reply to same. |
| 09/28/23 | Phone meeting with Professor Bonneau. |
| 09/28/23 | Office conference with Professor Bonneau and G. Kucia. |
| 09/29/23 | Prepare for and attend deposition of Professor Bonneau. |
| 09/29/23 | Email to D. Swanson regarding deposition; receipt and review replies from same. |
| 09/29/23 | Email A. Savitzky regarding deposition; receipt and review of replies from same. |
| 10/02/23 | Telephone conference and email to D. Swanson regarding preparation for deposition. |
| 10/02/23 | Receipt and review of Swanson Louisiana deposition. |
| 10/04/23 | Travel to Bellingham, WA. |
| 10/04/23 | Meeting with D. Swanson. |
|  | EXHIBIT <br> Doch. $A$ |


| Atty | Hours | Amount |
| :---: | :---: | :---: |
| MBW | 3.50 | 1,225.00 |
| MBW | 1.70 | 595.00 |
| MBW | 0.20 | 70.00 |
| MBW | 0.20 | 70.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.40 | 140.00 |
| MBW | 0.60 | 210.00 |
| MBW | 0.20 | 70.00 |
| MBW | 0.40 | 140.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.10 | 35.00 |
| MBW | 0.20 | 70.00 |
| MBW | 0.20 | 70.00 |
| MBW | 0.30 | 105.00 |
| MBW | 0.10 | 35.00 |
| MBW | 0.40 | 140.00 |
| MBW | 0.70 | 245.00 |
| MBW | 2.00 | 700.00 |
| MBW | 5.00 | 1,750.00 |
| MBW | 0.40 | 140.00 |
| MBW | 0.40 | 140.00 |
| MBW | 0.70 | 245.00 |
| MBW | 3.00 | 1,050.00 |
| MBW | 11.00 | 3,850.00 |
| MBW | 2.00 | 700.00 |


| 10/05/2 | Attend D. Swanson deposition; travel to Seattle. | MBW | 10.80 | 3,780.00 |
| :---: | :---: | :---: | :---: | :---: |
| 10/06/23 | Travel from Seattle, WA. | MBW | 10.80 | 3,780.00 |
| 10/09/23 | Receipt and review of Bonneau emails w/T/test; email co-counsel regarding same. | MBW | 0.20 | 70.00 |
| 10/09/23 | Letter to Professor Bonneau. | MBW | 0.20 | 70.00 |
| 10/09/23 | Email Professor Bonneau; receipt and review of reply to same. | MBW | 0.20 | 70.00 |
| 10/10/23 | Letter to plaintiffs' counsel regarding Bonneau documents. | MBW | 0.30 | 105.00 |
| 10/10/23 | Email to D. Swanson regarding T-test. | MBW | 0.30 | 105.00 |
| 10/11/23 | Study Swanson deposition exhibits. | MBW | 0.30 | 105.00 |
| 10/11/23 | Receipt and review of Bonneau deposition; email Professor Bonneau regarding same. | MBW | 0.30 | 105.00 |
| 10/16/23 | Study Bonneau deposition. | MBW | 2.00 | 700.00 |
| 10/17/23 | Study Bonneau transcript; email Professor Bonneau regarding same. | MBW | 0.80 | 280.00 |
| 10/20/23 | Receipt and review of Swanson deposition transcript; email D. Swanson and R. Shannon; receipt and review of replies to same. | MBW | 0.40 | 140.00 |
| 10/22/23 | Study Swanson deposition transcript. | MBW | 3.30 | 1,155.00 |
| 10/22/23 | Receipt and review of email from Professor Swanson; reply to same. | MBW | 0.20 | 70.00 |
| 10/23/23 | Study Swanson deposition transcript. | MBW | 2.60 | 910.00 |
| 10/23/23 | Email Professor Swanson regarding correction. | MBW | 1.00 | 350.00 |
| 10/23/23 | Receipt and review of further correction from D. Swanson; reply to same. | MBW | 0.20 | 70.00 |
| 10/24/23 | Receipt and review of email from court reporter. | MBW | 0.10 | 35.00 |
| 10/24/23 | Receipt and review of email from D. Swanson regarding correction. | MBW | 0.10 | 35.00 |
| 10/25/23 | Receipt and review of email from M. Cheung regarding depositions. | MBW | 0.10 | 35.00 |
| 10/25/23 | Email co-counsel regarding request from M . Cheung. | MBW | 0.50 | 175.00 |
| 10/25/23 | Receipt and review of multiple emails from R. Shannon regarding plaintiffs' requests regarding experts; reply to same. | MBW | 0.20 | 70.00 |
| 10/26/23 | Email Professor Bonneau regarding plaintiffs' requests. | MBW | 0.10 | 35.00 |
| 10/26/23 | Email Professor Swanson regarding plaintiffs' requests; receipt and review of reply from same. | MBW | 0.20 | 70.00 |
| 10/27/23 | Receipt and review of email from Professor Bonneau; email co-counsel regarding same. | MBW | 0.20 | 70.00 |
| 10/27/23 | Study Swanson deposition and T-test. | MBW | 0.30 | 105.00 |
| 10/27/23 | Telephone conference with Professor Swanson regarding T-test; email Professor Swanson regarding same. | MBW | 0.70 | 245.00 |
| 10/28/23 | Letter to M. Cheung regarding expert documents. | MBW | 0.30 | 105.00 |
| 10/28/23 | Receipt and review of email from D. Swanson regarding T-test. | MBW | 0.30 | 105.00 |
|  | EXPENSES |  |  |  |
| 10/05/23 | Hotel Expense; Travel to Bellingham, Washington for expert deposition; hotel expense; Michael Wallace |  |  | 491.31 |
| 10/05/23 | Airline Expense; Travel to Bellingham, Washington for expert deposition; airline expense; Michael Wallace |  |  | 897.40 |
|  | Travel Expense; Travel to Bellingham, Washington for expert deposition; car rental; Michael Wallace |  |  | 165.07 |
| 10/05/23 | Mileage; Travel to Bellingham, Washington for expert deposition; gas for rental car; Michael Wallace |  |  | 32.92 |
|  | Parking Fee; Travel to Bellingham, Washington for expert deposition; airport parking; Michael Wallace |  |  | 48.00 |
| 10/13/23 | Court Reporter Service; Deposition of Christopher Bonneau; Brooks Court Reporting, Inc. |  |  | 571.00 |

10/25/23 Court Reporter Service; Deposition of David Arthur Swanson, Ph.D.;



[^0]:    ${ }^{1}$ Burch rebuttal report, page 4: "Because, as discussed above, turnout estimates in the CPS are unreliable not just because of overreporting in general, but because of differences in overreporting by race in particular, I conducted additional analyses which employed alternative methods of looking at turnout by race that do not rely on self-reported voter turnout."

[^1]:    ${ }^{2}$ See: https://pages.nyu.edu/jackson/design.of.social.research/Readings/Johnson\%20-
    \%20Introduction\%20to\%20survey\%20weights\%20\%28PRI\%20version\%29.pdf for a general discussion of sample survey weighting.

[^2]:    ${ }^{3}$ Respondent 1236855389 has a weight of 10.1 , respondent 1247704425 has a weight of 11.3 , respondent 1248507989 has a weight of 14.3 and respondent 1259768185 has a weight of 15 . Combined - these four respondents count for 51.7.

[^3]:    ${ }^{4}$ Emphasis added by the author

[^4]:    NCSS 12.0.4

