

Lab 2: Guidance/Hints

- Don't forget to put a TYPE node after importing data, creating variables, or changing variables! This ensures that you have declared the data properly
 - To ensure a variable is included in further analyses, change measurement type from 'Typeless' to a suitable category in the TYPE node
- When importing your data, use NOMINAL as your measurement (although it is technically a FLAG) for the ADULT field.
- Don't forget to **partition your data** before you run your prediction models
- Don't forget to upload your lab by Sunday to the CLE website! No screenshots required for lab (only homework).

Homework 2: Guidance/Hints

- Don't forget to include screenshots for every question to get full credit
- How to specify missing values (i.e. for age):
 - In the TYPE node window, click on the MISSING column
 - Select SPECIFY
 - Select "Define Blanks"
 - Enter in 0 as a missing value
 - Use a DATA AUDIT node to check

The screenshot shows a dialog box titled "age Values". It has several sections:

- Measurement:** A dropdown menu set to "Continuous".
- Storage:** A dropdown menu set to "Integer".
- Depth:** A text field set to "0".
- Model Field...** A button.
- Values:** Two radio buttons: "Read from data" (unselected) and "Specify values and labels" (selected).
- Lower:** A text field set to "0".
- Upper:** A text field set to "223".
- Labels...** A button.
- Extend values from data:** An unchecked checkbox.
- Check values:** A dropdown menu set to "None".
- Define blanks:** A checked checkbox.
- Missing values:** A list box containing "0".
- Range:** An unchecked checkbox.
- Null:** A checked checkbox.
- White space:** An unchecked checkbox.
- Description:** A text field.
- Buttons:** "OK", "Cancel", and "Help" at the bottom right.

Homework 2: Guidance/Hints

- Replace age ≥ 200 with a FIXED value less than 2 using a FILLER node (although you can actually calculate to the decimal place how many years, this causes problems since the age field is defined as an integer)
- In your logistic regression model, don't include variables from which other variables are derived (e.g. you should not include the disposition variable since you have derived the admit variable from the disposition variable)

Homework 2: Guidance/Hints

- How to evaluate if one variable is “more important” than another with logistic regression:
 - Double click the model nugget and go to the Advanced tab →
 - Look at the Exp(B) column for Head and Toe (this tells us the odds ratio for the outcome for a given variable)
 - Recall that your outcome is being admitted
 - The referent category for Head=0 is Head=1
 - This means that NOT having a head injury is associated with an OR of 0.778 of being admitted*
 - Odds Ratios are symmetrical, so HAVING a head injury is associated with an odds of $1/0.778 = 1.29$ odds of being admitted

Parameter Estimates

Admit ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
1 Intercept	-5.223	.252	428.200	1	.000			
weight	-.009	.000	1668.130	1	.000	.991	.991	.992
age	.036	.000	19763.865	1	.000	1.037	1.036	1.037
[sex=1]	.181	.014	175.257	1	.000	1.199	1.167	1.232
[sex=2]	0 ^b	.	.	0	.	.	.	.
[race=0]	.063	.228	.077	1	.782	1.065	.682	1.665
[race=1]	-.023	.228	.010	1	.919	.977	.625	1.527
[race=2]	-.466	.229	4.142	1	.042	.628	.401	.983
[race=3]	-.070	.230	.093	1	.760	.932	.593	1.464
[race=4]	.024	.236	.010	1	.920	1.024	.645	1.626
[race=5]	.171	.259	.436	1	.509	1.187	.714	1.972
[race=6]	0 ^b	.	.	0	.	.	.	.
[Head=0]	-.251	.017	229.517	1	.000	.778	.753	.804
[Head=1]	0 ^b	.	.	0	.	.	.	.
[Toe=0]	1.680	.108	244.016	1	.000	5.368	4.347	6.628
[Toe=1]	0 ^b	.	.	0	.	.	.	.

a. The reference category is: 0.
b. This parameter is set to zero because it is redundant.

* This output is opposite to Stata!

Homework 2: Guidance/Hints

- How to evaluate if one variable is “more important” than another with neural networks:
 - Double click the model nugget and go to the Model tab and Predictor Importance window
 - Predictors are listed in order of importance making it easier to interpret →

