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Subject: Re: Weighting for binary logistic regression analysis in SPSS

Posted by [Bridgette-DHS](#) on Wed, 28 Apr 2021 13:48:46 GMT

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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

DHS includes an artificial factor of 1 million in the weight variables just to remove the need for a decimal point. If you are using Stata and the pweight version of weights, you do not need to divide by 1 million. Stata automatically re-normalizes the weights to have a mean of 1.

However, apparently in SPSS you do need to remove the factor. Apparently SPSS believes the sample size is 10,000,000,000 when it is actually 10,000 (for example). The standard errors are then incorrectly reduced by a factor of 1,000 (which is the square root of 1,000,000) and that's why you get the very narrow confidence intervals and lots of significant results. You should definitely remove the artificial factor of 1 million.

You have to be very careful with weight options. Some packages, and I think SPSS is one of them, will round or truncate the weight to an integer without telling you.

When trying different weight options, I recommend doing exactly what you did--that is, do some runs that are identical except for the weight option, and compare the results. In Stata, at DHS we almost always use either [pweight=v005] or [iweight=v005/1000000] (here, v005 could be hv005, etc., depending on the file).