
Subject: survey weights in R

Posted by dhivvyajp@am.amrita.edu on Fri, 13 Jan 2023 02:44:15 GMT

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I am currently working on this dataset IAMR7DFL.DTA

I am looking forward to use survey weights for the chi-square test and logistic regression. After searching in the internet, I came across this piece of code.

```
my_design <-svydesign(id=~Mendata$psu, weights=~Mendata$wt, strata=Mendata$strata,
data=Mendata, survey.lonely.psu = "adjust")
```

It worked and my_design shows this

```
> my_design
```

```
Stratified 1 - level Cluster Sampling design (with replacement)
```

```
With (9102) clusters.
```

```
svydesign(id = ~Mendata$psu, weights = ~Mendata$wt, strata = Mendata$strata,
  data = Mendata, survey.lonely.psu = "adjust")
```

After that when I am doing the chi-square test like this,
I am getting the following error.

```
> svychisq(~InternetUsage+RuralOrUrban, my_design, statistic="adjWald")
Error in onestrat(x[index, , drop = FALSE], clusters[index], nPSU[index][1], :
  Stratum (51) has only one PSU at stage 1
```

Kindly help me to resolve this issue and also please specify the analysis of chi-square test and logistic regression with and without survey weights.

Subject: Re: survey weights in R

Posted by [Shireen-DHS](#) on Fri, 13 Jan 2023 17:14:25 GMT

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Hello,

I have done this recently in R and the code below works. I see you have the option to adjust for error your received but can you try the following code for your data?

```
# setting the survey design using the weight (wt), psu, and strata
mysurvey<-svydesign(id=Mendata$v021, data=IRdata, strata=Mendata$v022,
weight=Mendata$wt, nest=T)
options(survey.lonely.psu="adjust")
```

```
# chi-square results
```

svychisq(~InternetUsage+RuralOrUrban, mysurvey)

Best,
Shireen Assaf
The DHS Program

Subject: Re: survey weights in R
Posted by [Shireen-DHS](#) on Fri, 13 Jan 2023 17:17:27 GMT
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Hello,

I forgot to add one more thing.
You may have done this already but for the men's file you would compute the weight variable (wt) in this way:

```
# creating the sampling weight variable.  
Mendata$wt <- Mendata$mv005/1000000
```

For the women's file you would use v005.

Thank you.
Best,
Shireen Assaf
The DHS Program

Subject: Re: survey weights in R
Posted by dhivvyajp@am.amrita.edu on Wed, 18 Jan 2023 03:09:21 GMT
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Thanks a lot. It worked now.
