```
log using "D:\Jason\workshop\Margins\2023\margins workshop 4.log", replace

set more 1


use http://www.stata-press.com/data/r14/margex, clear

sum y outcome sex age

**********************************
* 1. Continuous Dependent variables
**********************************

use http://www.stata-press.com/data/r14/margex, clear

reg y i.sex##c.age

        ***********************************************************
        * 1.1 Average Adjusted Prediction and Average Marginal Effect
        ***********************************************************
        margins  i.sex
        margins, dydx(i.sex)

        ***************************************************************
        * 1.2 Adjusted Predictions and Marginal Effects at the Means
        ***************************************************************
        margins  i.sex,      atmeans
        margins, dydx(i.sex) atmeans

        ***************************************************************
        * 1.3 Adjusted Predictions and Marginal Effects at Representative values
        ***************************************************************
        margins  i.sex,      at(age=(20(10)60))
        margins, dydx(i.sex) at(age=(20(10)60))




**********************************
* 2. Binary Dependent variables
**********************************

logit outcome i.sex##c.age

        *********************************************************
        * 2.1 Average Adjusted Prediction and Average Marginal Effect
        *********************************************************
        margins  i.sex
        margins, dydx(i.sex)

        ***************************************************************
        * 2.2 Adjusted Predictions and Marginal Effects at the Means
        ***************************************************************
        margins  i.sex,      atmeans
        margins, dydx(i.sex) atmeans

        ***************************************************************
        * 2.3 Adjusted Predictions and Marginal Effects at Representative values
        ***************************************************************
        margins  i.sex,      at(age=(20(10)60))
        margins, dydx(i.sex) at(age=(20(10)60))
```

```
*******************************
* 3. Nominal Dependent Variable
*******************************

mlogit group i.sex##c.age

        **************************************************************
        * 3.1 Average Adjusted Prediction and Average Marginal Effect
        **************************************************************
        margins  i.sex
        margins, dydx(i.sex)

        *********************************************************************
        * 3.2 Adjusted Predictions and Marginal Effects at the Means
        *********************************************************************
        margins  i.sex,       atmeans
        margins, dydx(i.sex) atmeans

        *********************************************************************
        * 3.3 Adjusted Predictions and Marginal Effects at Representative values
        *********************************************************************
        margins  i.sex,       at(age=(20(10)60))
        margins, dydx(i.sex) at(age=(20(10)60))


***********************************************
* 4. Data collected with complex survey design
***********************************************
use "D:\Jason\workshop\Margins\2023\margins.dta", clear



svydes

sum illness sex age

svy: reg illness i.sex##c.age

        **************************************************************
        * 4.1 Average Adjusted Prediction and Average Marginal Effect
        **************************************************************
        margins  i.sex,       vce(unconditional)
        margins, dydx(i.sex) vce(unconditional)

        *********************************************************************
        * 4.2 Adjusted Predictions and Marginal Effects at the Means
        *********************************************************************
        margins  i.sex,       atmeans vce(unconditional)
        margins, dydx(i.sex) atmeans vce(unconditional)

        *********************************************************************
        * 4.3 Adjusted Predictions and Marginal Effects at Representative values
        *********************************************************************
        margins  i.sex,       at(age=(20(10)80)) vce(unconditional)
        margins, dydx(i.sex) at(age=(20(10)80)) vce(unconditional)


***********************************
* 5. Margins with the imputed data
```

```
************************************

webuse mheart1s20, clear
mi convert flong
mi estimate , saving(D:\Jason\workshop\Margins\2023\miestfile.dta, replace) esample(esample) : logit attack smokes age bmi hsgrad female

        *****************************
        * 5.1 Average Adjusted Prediction and Average Marginal Effect
        *************************
        mimrgns using D:\Jason\workshop\Margins\2023\miestfile.dta , esample(esample) predict(pr) dydx(*)
        mimrgns using D:\Jason\workshop\Margins\2023\miestfile.dta , esample(esample) dydx(*)


*********************************************************
* 6. Plotting the results from the -margins- command
*********************************************************

use http://www.stata-press.com/data/r14/margex, clear
mlogit group i.sex##c.age


        ****************************************
        * Plotting the Adjusted Predictions
        ****************************************
        margins  i.sex,      at(age=(20(10)60))
        marginsplot, yline(0)
        graph save D:\Jason\workshop\Margins\2023\graph1.gph, replace

        margins  i.sex,      at(age=(20(10)60))
        marginsplot, by(sex) yline(0)
        graph save D:\Jason\workshop\Margins\2023\graph2.gph, replace



log close
```