

```
log using "D:\Jason\workshop\interpreting, constructing, and presenting interaction\2023\interpreting_2023.log", replace  
set more 1
```

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

```
*****  
* 1. Analyzing a two-ways interaction in the OLS regression  
*****
```

```
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 and  
*****  
margins i.sex, at(age=(20(10)80))  
margins, dydx(i.sex) at(age=(20(10)80))
```

```
*****  
* 2. Analyzing a two-ways interaction in the Logistic regression  
*****
```

```
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 and  
*****  
margins i.sex, at(age=(20(10)60))  
margins, dydx(i.sex) at(age=(20(10)60))
```

```
*****  
* 3. multinomial logistic regression  
*****
```

```
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 and  
*****
```

```
margins i.sex, at(age=(20(10)60))  
margins, dydx(i.sex) at(age=(20(10)60))
```

```
*****  
* 4. Plotting the results from the -margins- command  
*****  
use http://www.stata-press.com/data/r14/margex, clear  
mlogit group i.sex##c.age
```

```
*****  
* 4.1. Plotting the Adjusted Predictions  
*****  
margins i.sex, at(age=(20(10)60))  
marginsplot, yline(0)  
marginsplot, by(sex) yline(0)
```

```
*****  
* 4.2 Plotting the marginal effect  
*****  
margins, dydx(i.sex) at(age=(20(10)60))  
marginsplot, yline(0)
```

```
*****  
* 5. A three-way interactions in multi-nomial logistic regression  
*****
```

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

```
mlogit outcome i.sex##c.age##c.c.distance
```

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

```
*****  
* 5.2 Adjusted Predictions and Marginal Effects at the Means  
*****
```

```
margins i.sex, atmeans  
margins, dydx(i.sex) atmeans
```

```
*****  
* 5.3 Adjusted Predictions and Marginal Effects at Representative values and  
*****  
margins i.sex,      at(age=(20(10)60) distance = (0(100)800))  
margins, dydx(i.sex) at(age=(20(10)60) distance = (0(100)800))
```

log close