



User: L. Adkins  
Project: Econ 6243

```

hdroom |          74      2.993243      .8459948      1.5      5
name:   <unnamed>
log:    H:\Documents and Settings\Lee\My Documents\Document\stata\ordered Probit.smcl
log type: smcl
opened on: 19 Apr 2010, 14:24:59
    
```

```
. webuse fullauto, clear
(Automobile Models)
```

```
. summarize
```

| Variable | Obs | Mean     | Std. Dev. | Min  | Max   |
|----------|-----|----------|-----------|------|-------|
| make     | 74  | 11.62162 | 6.356321  | 1    | 23    |
| model    | 74  | 137.2568 | 588.0577  | 1    | 5000  |
| price    | 74  | 6165.257 | 2949.496  | 3291 | 15906 |
| mpg      | 74  | 21.43243 | 6.05473   | 12   | 41    |
| rep78    | 69  | 3.405797 | .9899323  | 1    | 5     |
| rep77    | 66  | 3.19697  | .9642805  | 1    | 5     |
| hdroom   | 74  | 2.993243 | .8459948  | 1.5  | 5     |
| rseat    | 74  | 26.85811 | 3.135655  | 18.5 | 37.5  |
| trunk    | 74  | 13.75676 | 4.277404  | 5    | 23    |
| weight   | 74  | 3019.459 | 777.1936  | 1760 | 4840  |
| length   | 74  | 187.9324 | 22.26634  | 142  | 233   |
| turn     | 74  | 39.64865 | 4.399354  | 31   | 51    |
| displ    | 74  | 197.2973 | 91.83722  | 79   | 425   |
| gratio   | 74  | 3.014865 | .4562871  | 2.19 | 3.89  |
| order    | 74  | 37.5     | 21.50581  | 1    | 74    |
| foreign  | 74  | .2972973 | .4601885  | 0    | 1     |
| wgt      | 52  | 3317.115 | 695.3637  | 1800 | 4840  |
| wgtf     | 22  | 2315.909 | 433.0035  | 1760 | 3420  |

```
. tabulate foreign rep77
```

| Foreign  | Repair Record 1977 |      |         |      |           | Total |
|----------|--------------------|------|---------|------|-----------|-------|
|          | Poor               | Fair | Average | Good | Excellent |       |
| Domestic | 2                  | 10   | 20      | 13   | 0         | 45    |
| Foreign  | 1                  | 1    | 7       | 7    | 5         | 21    |
| Total    | 3                  | 11   | 27      | 20   | 5         | 66    |

```
. oprobit rep77 foreign length mpg
```

```

Iteration 0: log likelihood = -89.895098
Iteration 1: log likelihood = -78.106316
Iteration 2: log likelihood = -78.020086
Iteration 3: log likelihood = -78.020025
Iteration 4: log likelihood = -78.020025
    
```

```

Ordered probit regression
Number of obs = 66
LR chi2(3) = 23.75
Prob > chi2 = 0.0000
Pseudo R2 = 0.1321
Log likelihood = -78.020025
    
```



. margins, dydx(\*) predict(outcome(3))

Average marginal effects Number of obs = 66  
 Model VCE : OIM

Expression : Pr(rep77==3), predict(outcome(3))  
 dy/dx w.r.t. : foreign length mpg

|         | dy/dx     | Delta-method<br>Std. Err. | z     | P> z  | [95% Conf. Interval] |          |
|---------|-----------|---------------------------|-------|-------|----------------------|----------|
| foreign | -.1094144 | .068555                   | -1.60 | 0.110 | -.2437798            | .0249509 |
| length  | -.0030079 | .0019491                  | -1.54 | 0.123 | -.0068281            | .0008124 |
| mpg     | -.0083724 | .0053433                  | -1.57 | 0.117 | -.0188451            | .0021003 |

. log close  
 name: <unnamed>  
 log: H:\Documents and Settings\Lee\My Documents\Document\stata\ordered Probit.smcl  
 log type: smcl  
 closed on: 19 Apr 2010, 14:28:15