User: Tianhao_Wang

- 1 . do "C:\Users\MDW615-CAF\AppData\Local\Temp\STD296c_000000.tmp"
- 2 . use C:\Users\MDW615-CAF\Downloads\hw1data.dta, clear

3

4 . logit y i.x1 i.x2 i.x3 x4 x5 x6

Logistic regression

Number of obs = 120 LR chi2(6) = 108.18 Prob > chi2 = 0.0000 Pseudo R2 = 0.6536

Log likelihood = -28.672342

У	Coef.	Std. Err.	z	P> z	[95% Conf.	Interval]
1.x1	3.415127	.9586819	3.56	0.000	1.536145	5.294109
1.x2	-5.768404	1.321964	-4.36	0.000	-8.359406	-3.177402
1.x3	4.609453	1.064614	4.33	0.000	2.522848	6.696058
x4	1.544106	.4804108	3.21	0.001	.602518	2.485694
x5	-4.106603	.9933383	-4.13	0.000	-6.053511	-2.159696
x 6	.5345794	.2733479	1.96	0.051	0011727	1.070331
_cons	-1.565264	.8618573	-1.82	0.069	-3.254473	.1239449

5 . margin x2, atmeans

Adjusted predictions Number of obs = 120

Model VCE : OIM

Expression	:	Pr(y),	<pre>predict()</pre>		
at	:	0.x1	=	.5083333	(mean)
		1.x1	=	.4916667	(mean)
		0.x2	=	.4916667	(mean)
		1.x2	=	.5083333	(mean)
		0.x3	=	.5166667	(mean)
		1.x3	=	.4833333	(mean)
		x4	=	0947296	(mean)
		x5	=	0049466	(mean)
		x6	=	1.411335	(mean)

	Margin	Delta-method Std. Err.	z	P> z	[95% Conf.	Interval]
x2 0 1	.9512121 .0574242	.0337891 .0409645	28.15 1.40	0.000 0.161	.8849866 0228646	1.017438 .1377131

6 . margin, dydx(x5) atmeans

Conditional marginal effects Number of obs = 120

Model VCE : OIM

Expression : Pr(y), predict()
dy/dx w.r.t. : x5

= .5083333 (mean) = .4916667 (mean) : 0.x1 at 1.x1 0.x2 = .4916667 (mean) = .5083333 (mean) = .5166667 (mean) = .5083333 (mean) = .5166667 (mean) = .4833333 (mean) = -.0947296 (mean) 1.x2 0.x3 1.x3 x4 x5 = **-.0049466** (mean)

x5	-1.026281	.249062	-4.12	0.000	-1.514433	5381281
				P> z	[95% Conf.	<pre>Interval]</pre>
		Delta-method				

= **1.411335** (mean)

8 . probit y i.x1 i.x2 i.x3 x4 x5 x6

x6

Iteration 0: log likelihood = -82.760511 Iteration 1: log likelihood = -30.299996 Iteration 2: log likelihood = -28.400517

Iteration 3: log likelihood = -28.336254

Iteration 4: log likelihood = -28.336104

Iteration 5: log likelihood = -28.336104

Probit regression

Number of obs = 120 LR chi2(6) = 108.85 Prob > chi2 = 0.0000 Pseudo R2 = 0.6576

Log likelihood = -28.336104

У	Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
1.x1	2.011708	.5337449	3.77	0.000	. 9655868	3.057828
1.x2	-3.323863	.7132776	-4.66	0.000	-4.721861	-1.925864
1.x3	2.656909	.5679074	4.68	0.000	1.543831	3.769987
x4	.9049947	.2688554	3.37	0.001	.3780479	1.431941
x5	-2.380636	.550527	-4.32	0.000	-3.459649	-1.301623
x 6	.3098398	.1558339	1.99	0.047	.004411	.6152687
_cons	9246096	.4787586	-1.93	0.053	-1.862959	.0137399

Note: 8 failures and 3 successes completely determined.

9 . margin x2, atmeans

Adjusted predictions Model VCE : OIM

Number of obs = 120

Expression : Pr(y), predict() 0.x1 = .5083333 (mean) 1.x1 = .4916667 (mean) 0.x1 = .5083333 (mean) 1.x1 = .4916667 (mean) 0.x2 = .4916667 (mean) 1.x2 = .5083333 (mean) 0.x3 = .5166667 (mean) 1.x3 = .4833333 (mean) x4 = -.0947296 (mean) x5 = -.0049466 (mean) x6 = 1.411335 (mean)

	Margin	Delta-method Std. Err.	z	P> z	[95% Conf.	Interval]
x2 0 1	.9565505 .0534945	.0364217 .0451958	26.26 1.18	0.000 0.237	.8851653 0350876	1.027936 .1420766

10 . margin, dydx(x5) atmeans

Number of obs = 120 Conditional marginal effects

Model VCE : OIM

Expression : Pr(y), predict()
dy/dx w.r.t. : x5

x5

0.x1 = .5083333 (mean)

1.x1 = .4916667 (mean)

0.x2 = .4916667 (mean)

1.x2 = .5083333 (mean)

1.x3 = .5166667 (mean)

1.x3 = .4833333 (mean)

x4 = -.0947296 (mean)

x5 = -.0049466 (mean)

x6 = 1.411335 (mean) : 0.x1

		Delta-method Std. Err.	z	P> z	[95% Conf.	Interval]
x5	949499	.2200251	-4.32	0.000	-1.38074	5182578

end of do-file

12 .