

GVPT 722

Examples of Presenting Logit Results

(1) Model with continuous independent variables and single dummy variables for particular discrete variables (see table 1 at back)

```
. logit presvote partyid income age educ chattend white female
```

```
Iteration 0: log likelihood = -499.75288
Iteration 1: log likelihood = -249.92202
Iteration 2: log likelihood = -222.88317
Iteration 3: log likelihood = -219.7118
Iteration 4: log likelihood = -219.62508
Iteration 5: log likelihood = -219.62499
```

```
Logit estimates                                Number of obs   =          721
                                                LR chi2(7)      =          560.26
                                                Prob > chi2     =           0.0000
Log likelihood = -219.62499                    Pseudo R2       =           0.5605
```

presvote	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
partyid	1.158551	.0796177	14.55	0.000	1.002503	1.314599
income	.0196383	.0247661	0.79	0.428	-.0289023	.0681789
age	.0035411	.0081209	0.44	0.663	-.0123756	.0194577
educ	-.1132323	.088314	-1.28	0.200	-.2863245	.0598599
chattend	.1559022	.0750741	2.08	0.038	.0087596	.3030447
white	.6153488	.3008644	2.05	0.041	.0256653	1.205032
female	-.0457191	.2552843	-0.18	0.858	-.5460672	.4546289
_cons	-5.381753	.6789733	-7.93	0.000	-6.712517	-4.05099

```
. fitstat
```

Measures of Fit for logit of presvote

Log-Lik Intercept Only:	-499.753	Log-Lik Full Model:	-219.625
D(713):	439.250	LR(7):	560.256
		Prob > LR:	0.000
McFadden's R2:	0.561	McFadden's Adj R2:	0.545
Maximum Likelihood R2:	0.540	Cragg & Uhler's R2:	0.720
McKelvey and Zavoina's R2:	0.696	Efron's R2:	0.641
Variance of y*:	10.812	Variance of error:	3.290
Count R2:	0.892	Adj Count R2:	0.783
AIC:	0.631	AIC*n:	455.250
BIC:	-4252.746	BIC':	-514.191

```
. prchange
```

logit: Changes in Predicted Probabilities for presvote

	min->max	0->1	+1/2	+sd/2	MargEfct
partyid	0.9396	0.0228	0.2813	0.5698	0.2891
income	0.1076	0.0049	0.0049	0.0275	0.0049
age	0.0635	0.0009	0.0009	0.0148	0.0009
educ	-0.1672	-0.0262	-0.0282	-0.0448	-0.0283
chattend	0.1911	0.0381	0.0389	0.0689	0.0389
white	0.1524	0.1524	0.1524	0.0650	0.1535
female	-0.0114	-0.0114	-0.0114	-0.0057	-0.0114

	kerry	bush
Pr(y x)	0.4782	0.5218

	partyid	income	age	educ	chattend	white	female
x=	3.97503	15.6463	48.2926	4.61442	2.95978	.765603	.533981
sd(x)=	2.23841	5.6111	16.6998	1.585	1.77476	.423915	.49919

(2) Model with multiple dummy variables representing a particular discrete variable (race) with control variables (see tables 2 and 3 at back)

```
. logit presvote partyid income age educ chattend female black hispanic otherrace
```

```
Iteration 0: log likelihood = -499.75288
Iteration 1: log likelihood = -248.76591
Iteration 2: log likelihood = -221.4199
Iteration 3: log likelihood = -218.17622
Iteration 4: log likelihood = -218.086
Iteration 5: log likelihood = -218.08589
```

```
Logit estimates                                     Number of obs   =      721
                                                    LR chi2(9)      =     563.33
                                                    Prob > chi2     =     0.0000
Log likelihood = -218.08589                       Pseudo R2      =     0.5636
```

presvote	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
partyid	1.142204	.0796275	14.34	0.000	.9861372	1.298271
income	.0164739	.0251364	0.66	0.512	-.0327925	.0657402
age	.0033765	.0082394	0.41	0.682	-.0127725	.0195255
educ	-.1221808	.0889552	-1.37	0.170	-.2965297	.052168
chattend	.1766916	.0764809	2.31	0.021	.0267918	.3265914
female	-.0433119	.2574559	-0.17	0.866	-.5479161	.4612923
black	-1.086481	.4241533	-2.56	0.010	-1.917806	-.2551559
hispanic	-.2249992	.5313555	-0.42	0.672	-1.266437	.8164385
otherrace	-.0819224	.5662771	-0.14	0.885	-1.191805	1.02796
_cons	-4.660888	.724907	-6.43	0.000	-6.08168	-3.240096

```
. prvalue, x(black=0 hispanic=0 otherrace=0) rest(mean)
```

```
logit: Predictions for presvote
```

```
Pr(y=bush|x):      0.5588   95% ci: (0.4887,0.6266)
Pr(y=kerry|x):     0.4412   95% ci: (0.3734,0.5113)
```

```

      partyid      income      age      educ      chattend      female      black      hispanic      otherrace
x=  3.9750347  15.646325  48.292649  4.6144244  2.9597781  .53398058          0          0          0

```

```
. prvalue, x(black=1 hispanic=0 otherrace=0) rest(mean)
```

```
logit: Predictions for presvote
```

```
Pr(y=bush|x):      0.2994   95% ci: (0.1643,0.4816)
Pr(y=kerry|x):     0.7006   95% ci: (0.5184,0.8357)
```

```

      partyid      income      age      educ      chattend      female      black      hispanic      otherrace
x=  3.9750347  15.646325  48.292649  4.6144244  2.9597781  .53398058          1          0          0

```

```
. prvalue, x(black=0 hispanic=1 otherrace=0) rest(mean)
```

```
logit: Predictions for presvote
```

```
Pr(y=bush|x):      0.5028   95% ci: (0.2705,0.7339)
Pr(y=kerry|x):     0.4972   95% ci: (0.2661,0.7295)
```

```

      partyid      income      age      educ      chattend      female      black      hispanic      otherrace
x=  3.9750347  15.646325  48.292649  4.6144244  2.9597781  .53398058          0          1          0

```

```
. prvalue, x(black=0 hispanic=0 otherrace=1) rest(mean)
```

```
logit: Predictions for presvote
```

```
Pr(y=bush|x):      0.5385   95% ci: (0.2847,0.7738)
Pr(y=kerry|x):     0.4615   95% ci: (0.2262,0.7153)
```

```

      partyid      income      age      educ      chattend      female      black      hispanic      otherrace
x=  3.9750347  15.646325  48.292649  4.6144244  2.9597781  .53398058          0          0          1

```

Table 1: The Impact of Party Identification and Sociodemographic Characteristics on the 2004 Presidential Vote

Independent Variables	Coefficient	Change in Probability ^a
Party Identification ^b	1.16** (.08)	.57
Income	.02 (.02)	.03
Age	.004 (.008)	.01
Education	-.11 (.09)	-.04
Worship Attendance	.16* (.08)	.07
White	.62* (.30)	.07
Female	-.05 (.26)	-.006
Constant	-5.38** (.68)	

N = 721
 χ^2 (df=7) = 560.26
Pseudo R² = .56
% Correctly Predicted = 89.2

Source: 2004 National Election Study

Note: Entries are logit coefficients. Standard errors are in parentheses. The presidential vote is coded 1 for Bush voters and 0 for Kerry voters.

^a Change in the predicted probability of voting for Bush for an increase of one standard deviation in each independent variable, while holding all other independent variables constant at their means.

^b Ranges from strong Democrat (1) to strong Republican (7).

**p<.001; *p<.05

Table 2: The Impact of Race on the 2004 Presidential Vote, with Controls for Party Identification and Sociodemographic Characteristics

Independent Variables	Logit Coefficient	Standard Error
African-American ^a	-1.08**	.42
Hispanic	-.22	.53
Other Race	-.08	.57
Party Identification ^b	1.14***	.08
Income	.01	.03
Age	.003	.008
Education	-.12	.17
Worship Attendance	.18*	.08
Female	-.04	.26
Constant	-4.66***	.72

N = 721

χ^2 (df=7) = 563.33

Pseudo R² = .56

% Correctly Predicted = 89.6

Source: 2004 National Election Study

Note: The presidential vote is coded 1 for Bush voters and 0 for Kerry voters.

^a The comparison category of race is white.

^b Ranges from strong Democrat (1) to strong Republican (7).

***p<.001; **p<.01; *p<.05

Table 3: Predicted Probabilities of Voting for Bush for Various Racial Groups

Group	Predicted Probability
White	.56
African-American	.30
Hispanic	.50
Other Race	.54

Source: Computed from the logit estimates in table 2.

Note: Entries are predicted probabilities while all of the control variables in table 2 are held constant at their means.