

The FREQ Procedure

gender	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Female	158068	60.56	158068	60.56
Male	102958	39.44	261026	100.00

Table 1: Univariate and descriptive statistics**The FREQ Procedure**

Frequency Percent Row Pct Col Pct	Table of college by income			
	college	income		
		<	>	Total
		\$50,000	\$50,000	
NO		16489	1747	18236
		6.32	0.67	6.99
		90.42	9.58	
		12.72	1.33	
YES		113114	129676	242790
		43.33	49.68	93.01
		46.59	53.41	
		87.28	98.67	
Total		129603	131423	261026
		49.65	50.35	100.00

Statistics for Table of college by income

Statistic	DF	Value	Prob
Chi-Square	1	13035.1731	<.0001
Likelihood Ratio Chi-Square	1	14882.2432	<.0001
Continuity Adj. Chi-Square	1	13033.4199	<.0001
Mantel-Haenszel Chi-Square	1	13035.1232	<.0001
Phi Coefficient		0.2235	
Contingency Coefficient		0.2181	
Cramer's V		0.2235	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	16489
Left-sided Pr <= F	1.0000
Right-sided Pr >= F	<.0001
Table Probability (P)	<.0001
Two-sided Pr <= P	<.0001

Sample Size = 261026

Table 1: Univariate and descriptive statistics**The FREQ Procedure**

Frequency Percent Row Pct Col Pct	Table of agecat by income			
	agecat	income		
		< \$50,000	> \$50,000	Total
	1	22679 8.69 57.91 17.50	16485 6.32 42.09 12.54	39164 15.00
	2	37221 14.26 43.29 28.72	48760 18.68 56.71 37.10	85981 32.94
	3	69703 26.70 51.30 53.78	66178 25.35 48.70 50.35	135881 52.06
	Total	129603 49.65	131423 50.35	261026 100.00

Statistics for Table of agecat by income

Statistic	DF	Value	Prob
Chi-Square	2	2607.0773	<.0001
Likelihood Ratio Chi-Square	2	2615.7684	<.0001
Mantel-Haenszel Chi-Square	1	28.5813	<.0001
Phi Coefficient		0.0999	
Contingency Coefficient		0.0994	
Cramer's V		0.0999	

Sample Size = 261026

Frequency Percent Row Pct Col Pct	Table of SEX by income			
	SEX(RESPONDENTS SEX)	income		
		< \$50,000	> \$50,000	Total
	1	46954 17.99 45.61 36.23	56004 21.46 54.39 42.61	102958 39.44
	2	82649 31.66 52.29 63.77	75419 28.89 47.71 57.39	158068 60.56
	Total	129603 49.65	131423 50.35	261026 100.00

Table 1: Univariate and descriptive statistics**The FREQ Procedure****Statistics for Table of SEX by income**

Statistic	DF	Value	Prob
Chi-Square	1	1113.5573	<.0001
Likelihood Ratio Chi-Square	1	1114.6460	<.0001
Continuity Adj. Chi-Square	1	1113.2900	<.0001
Mantel-Haenszel Chi-Square	1	1113.5530	<.0001
Phi Coefficient		-0.0653	
Contingency Coefficient		0.0652	
Cramer's V		-0.0653	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	46954
Left-sided Pr <= F	<.0001
Right-sided Pr >= F	1.0000
Table Probability (P)	<.0001
Two-sided Pr <= P	<.0001

Sample Size = 261026

Table 2: Univariate and descriptive statistics**The FREQ Procedure**

Frequency Percent Row Pct Col Pct	Table of college by satisfied		
	college	satisfied	
		0	Total
	NO	2122 0.81 11.64 13.03	16114 6.17 88.36 6.58
	YES	14166 5.43 5.83 86.97	228624 93.01 94.17 93.42
	Total	16288 6.24	244738 93.76
			261026 100.00

Statistics for Table of college by satisfied

Statistic	DF	Value	Prob
Chi-Square	1	975.8393	<.0001
Likelihood Ratio Chi-Square	1	803.8666	<.0001
Continuity Adj. Chi-Square	1	974.8479	<.0001
Mantel-Haenszel Chi-Square	1	975.8356	<.0001
Phi Coefficient		0.0611	
Contingency Coefficient		0.0610	
Cramer's V		0.0611	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	2122
Left-sided Pr <= F	1.0000
Right-sided Pr >= F	<.0001
Table Probability (P)	<.0001
Two-sided Pr <= P	<.0001

Sample Size = 261026

Table 2: Univariate and descriptive statistics**The FREQ Procedure**

Frequency Percent Row Pct Col Pct	Table of agecat by satisfied		
	agecat	satisfied	
		0	Satisfied
	1	2007 0.77 5.12 12.32	37157 14.23 94.88 15.18
	2	5176 1.98 6.02 31.78	80805 30.96 93.98 33.02
	3	9105 3.49 6.70 55.90	126776 48.57 93.30 51.80
	Total	16288 6.24	244738 93.76
			39164 15.00
			85981 32.94
			135881 52.06
			261026 100.00

Statistics for Table of agecat by satisfied

Statistic	DF	Value	Prob
Chi-Square	2	139.6950	<.0001
Likelihood Ratio Chi-Square	2	143.7806	<.0001
Mantel-Haenszel Chi-Square	1	138.7038	<.0001
Phi Coefficient		0.0231	
Contingency Coefficient		0.0231	
Cramer's V		0.0231	

Sample Size = 261026

Frequency Percent Row Pct Col Pct	Table of income by satisfied		
	income	satisfied	
		0	Satisfied
	< \$50,000	13320 5.10 10.28 81.78	116283 44.55 89.72 47.51
	> \$50,000	2968 1.14 2.26 18.22	128455 49.21 97.74 52.49
	Total	16288 6.24	244738 93.76
			129603 49.65
			131423 50.35
			261026 100.00

Table 2: Univariate and descriptive statistics**The FREQ Procedure****Statistics for Table of income by satisfied**

Statistic	DF	Value	Prob
Chi-Square	1	7172.3473	<.0001
Likelihood Ratio Chi-Square	1	7707.6602	<.0001
Continuity Adj. Chi-Square	1	7170.9767	<.0001
Mantel-Haenszel Chi-Square	1	7172.3198	<.0001
Phi Coefficient		0.1658	
Contingency Coefficient		0.1635	
Cramer's V		0.1658	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	13320
Left-sided Pr <= F	1.0000
Right-sided Pr >= F	<.0001
Table Probability (P)	<.0001
Two-sided Pr <= P	<.0001

Sample Size = 261026

Frequency Percent Row Pct Col Pct	Table of SEX by satisfied			
	SEX(RESPONDENTS SEX)	satisfied		
		0	Satisfied	Total
	1	6279 2.41 6.10 38.55	96679 37.04 93.90 39.50	102958 39.44
	2	10009 3.83 6.33 61.45	148059 56.72 93.67 60.50	158068 60.56
	Total	16288 6.24	244738 93.76	261026 100.00

Table 2: Univariate and descriptive statistics**The FREQ Procedure****Statistics for Table of SEX by satisfied**

Statistic	DF	Value	Prob
Chi-Square	1	5.8093	0.0159
Likelihood Ratio Chi-Square	1	5.8239	0.0158
Continuity Adj. Chi-Square	1	5.7695	0.0163
Mantel-Haenszel Chi-Square	1	5.8093	0.0159
Phi Coefficient		-0.0047	
Contingency Coefficient		0.0047	
Cramer's V		-0.0047	

Fisher's Exact Test	
Cell (1,1) Frequency (F)	6279
Left-sided Pr <= F	0.0081
Right-sided Pr >= F	0.9923
Table Probability (P)	0.0004
Two-sided Pr <= P	0.0160

Sample Size = 261026

Table 3: Multivariable Logistic Regression**The LOGISTIC Procedure**

Model Information	
Data Set	WORK.TEMP
Response Variable	satisfied
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	261026
Number of Observations Used	261026

Response Profile		
Ordered Value	satisfied	Total Frequency
1	0	16288
2	1	244738

Probability modeled is satisfied=0.

Class Level Information			
Class	Value	Design Variables	
agecat	1	0	0
	2	1	0
	3	0	1
income	1	0	
	2	1	
college	0	0	
	1	1	
gender	0	0	
	1	1	

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Table 3: Multivariable Logistic Regression**The LOGISTIC Procedure**

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	121911.86	113840.61
SC	121922.34	113903.45
-2 Log L	121909.86	113828.61

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	8081.2497	5	<.0001
Score	7597.4447	5	<.0001
Wald	6366.1706	5	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
income	1	5675.7340	<.0001
agecat	2	240.0304	<.0001
college	1	114.6559	<.0001
gender	1	8.6606	0.0033

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-2.2779	0.0321	5048.5607	<.0001
income	2	1	-1.5884	0.0211	5675.7340	<.0001
agecat	2	1	0.3807	0.0274	192.8153	<.0001
agecat	3	1	0.3858	0.0257	226.2552	<.0001
college	1	1	-0.2695	0.0252	114.6559	<.0001
gender	1	1	0.0498	0.0169	8.6606	0.0033

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
income 2 vs 1	0.204	0.196	0.213
agecat 2 vs 1	1.463	1.387	1.544
agecat 3 vs 1	1.471	1.399	1.547

Table 3: Multivariable Logistic Regression**The LOGISTIC Procedure**

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
college 1 vs 0	0.764	0.727	0.802
gender 1 vs 0	1.051	1.017	1.086

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	64.5	Somers' D	0.376
Percent Discordant	26.9	Gamma	0.412
Percent Tied	8.6	Tau-a	0.044
Pairs	3986292544	c	0.688

Partition for the Hosmer and Lemeshow Test					
Group	Total	satisfied = 0		satisfied = 1	
		Observed	Expected	Observed	Expected
1	16485	321	266.60	16164	16218.40
2	28254	615	645.99	27639	27608.01
3	36846	895	846.64	35951	35999.36
4	19860	397	476.68	19463	19383.32
5	28594	665	689.74	27929	27904.26
6	24063	1761	1782.75	22302	22280.25
7	20807	2194	2138.68	18613	18668.32
8	39273	4048	4055.24	35225	35217.76
9	33525	3699	3613.78	29826	29911.22
10	13319	1693	1771.89	11626	11547.11

Hosmer and Lemeshow Goodness-of-Fit Test		
Chi-Square	DF	Pr > ChiSq
38.3892	8	<.0001

The REG Procedure
Model: MODEL1
Dependent Variable: satisfied

Number of Observations Read	261026
Number of Observations Used	261026

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	439.29839	109.82460	1932.71	<.0001
Error	261021	14832	0.05682		
Corrected Total	261025	15272			

Root MSE	0.23838	R-Square	0.0288
Dependent Mean	0.93760	Adj R-Sq	0.0288
Coeff Var	25.42432		

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Tolerance	Variance Inflation
Intercept	Intercept	1	0.81369	0.00299	271.76	<.0001	.	0
agecat		1	-0.00842	0.00063924	-13.17	<.0001	0.99893	1.00108
income		1	0.07768	0.00095966	80.94	<.0001	0.94558	1.05755
college		1	0.02465	0.00188	13.12	<.0001	0.94884	1.05392
SEX	RESPONDENTS SEX	1	0.00259	0.00095705	2.71	0.0068	0.99505	1.00497