The LOGISTIC Procedure

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

Number of Observations Read	30162
Number of Observations Used	30162

Response Profile		
Ordered Value	income_bin	Total Frequency
1	0	22654
2	1	7508

Probability modeled is income_bin=1.

Class Level Information								
Class	**Value**	**Design Variables**						
WorkingClass_clean	Governemnt	1	0	0				
	Others	0	1	0				
	Private	0	0	1				
	SelfEmployed	0	0	0				
EducationLevel_clean	Elementary	1	0	0	0			
	HighSchool	0	1	0	0			
	HigherEducation	0	0	1	0			
	MiddleSchool	0	0	0	1			
	Post-High_School	0	0	0	0			
Sex	Female	1						
	Male	0						
Race	Amer-In	1	0	0	0			
	Asian-P	0	1	0	0			
	Black	0	0	1	0			
	Other	0	0	0	1			
	White	0	0	0	0			
Marital_Status	Divorced	1	0	0	0	0	0	
	Married-AF-spouse	0	1	0	0	0	0	
	Married-civ-spouse	0	0	1	0	0	0	
	Married-spouse-absen	0	0	0	1	0	0	
	Never-married	0	0	0	0	1	0	
	Separated	0	0	0	0	0	1	
	Widowed	0	0	0	0	0	0	
Occupation_clean	Domestic	1	0	0	0	0	0	0
	ManualLabor	0	1	0	0	0	0	0
	Professional	0	0	1	0	0	0	0
	Protective Ser	0	0	0	1	0	0	0
	Sales	0	0	0	0	1	0	0
	Services	0	0	0	0	0	1	0
	SkilledLabor	0	0	0	0	0	0	1
	Specialized	0	0	0	0	0	0	0

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	33852.709	21084.484
SC	33861.023	21325.599
-2 Log L	33850.709	21026.484

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	12824.2250	28	<.0001
Score	10347.4484	28	<.0001
Wald	6058.9007	28	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
WorkingClass_clean	3	41.5832	<.0001
Net_Capital	1	805.1891	<.0001
Race	4	22.9712	0.0001
Age	1	304.4554	<.0001
EducationLevel_clean	4	1002.2025	<.0001
Sex	1	10.7372	0.0011
Hrs_per_Week	1	352.9813	<.0001
Marital_Status	6	2617.5872	<.0001
Occupation_clean	7	451.7500	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-5.4985	0.2087	694.0229	<.0001
WorkingClass_clean	Governemnt	1	0.3182	0.0662	23.1172	<.0001
WorkingClass_clean	Others	1	-10.7283	119.0	0.0081	0.9281
WorkingClass_clean	Private	1	0.3286	0.0515	40.7362	<.0001
Net_Capital		1	0.000246	8.654E-6	805.1891	<.0001
Race	Amer-In	1	-0.6914	0.2201	9.8654	0.0017
Race	Asian-P	1	-0.1158	0.1007	1.3217	0.2503
Race	Black	1	-0.1551	0.0730	4.5140	0.0336
Race	Other	1	-0.8115	0.2828	8.2320	0.0041
Age		1	0.0279	0.00160	304.4554	<.0001
EducationLevel_clean	Elementary	1	-2.1450	0.2596	68.2631	<.0001
EducationLevel_clean	HighSchool	1	-0.5305	0.0442	143.8690	<.0001
EducationLevel_clean	HigherEducation	1	0.8698	0.0472	340.1415	<.0001
EducationLevel_clean	MiddleSchool	1	-1.8678	0.1467	162.1131	<.0001
Sex	Female	1	-0.1695	0.0517	10.7372	0.0011
Hrs_per_Week		1	0.0298	0.00159	352.9813	<.0001
Marital_Status	Divorced	1	0.0124	0.1488	0.0070	0.9334
Marital_Status	Married-AF-spouse	1	2.9706	0.5135	33.4699	<.0001
Marital_Status	Married-civ-spouse	1	2.1332	0.1431	222.0979	<.0001
Marital_Status	Married-spouse-absen	1	-0.0912	0.2594	0.1236	0.7252
Marital_Status	Never-married	1	-0.5209	0.1519	11.7629	0.0006
Marital_Status	Separated	1	-0.0926	0.2010	0.2121	0.6452
Occupation_clean	Domestic	1	-3.7302	1.3053	8.1664	0.0043
Occupation_clean	ManualLabor	1	-0.1808	0.0933	3.7549	0.0527
Occupation_clean	Professional	1	0.8802	0.0762	133.2963	<.0001
Occupation_clean	Protective Ser	1	0.5498	0.1261	19.0006	<.0001
Occupation_clean	Sales	1	0.4286	0.0838	26.1539	<.0001
Occupation_clean	Services	1	-0.1113	0.0862	1.6675	0.1966

Analysis of Maximum Likelihood Estimates

Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Occupation_clean	SkilledLabor	1	0.0748	0.0790	0.8947	0.3442

Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence Limits	
WorkingClass_clean Governemnt vs SelfEmployed	1.375	1.207	1.565
WorkingClass_clean Others vs SelfEmployed	<0.001	<0.001	>999.999
WorkingClass_clean Private vs SelfEmployed	1.389	1.256	1.537
Net_Capital	1.000	1.000	1.000
Race Amer-In vs White	0.501	0.325	0.771
Race Asian-P vs White	0.891	0.731	1.085
Race Black vs White	0.856	0.742	0.988
Race Other vs White	0.444	0.255	0.773
Age	1.028	1.025	1.032
EducationLevel_clean Elementary vs Post-High_School	0.117	0.070	0.195
EducationLevel_clean HighSchool vs Post-High_School	0.588	0.539	0.642
EducationLevel_clean HigherEducation vs Post-High_School	2.386	2.176	2.618
EducationLevel_clean MiddleSchool vs Post-High_School	0.154	0.116	0.206
Sex Female vs Male	0.844	0.763	0.934
Hrs_per_Week	1.030	1.027	1.033
Marital_Status Divorced vs Widowed	1.013	0.756	1.355
Marital_Status Married-AF-spouse vs Widowed	19.503	7.129	53.353
Marital_Status Married-civ-spouse vs Widowed	8.442	6.377	11.176
Marital_Status Married-spouse-absen vs Widowed	0.913	0.549	1.518
Marital_Status Never-married vs Widowed	0.594	0.441	0.800
Marital_Status Separated vs Widowed	0.912	0.615	1.352
Occupation_clean Domestic vs Specialized	0.024	0.002	0.310
Occupation_clean ManualLabor vs Specialized	0.835	0.695	1.002
Occupation_clean Professional vs Specialized	2.411	2.077	2.800
Occupation_clean Protective Ser vs Specialized	1.733	1.353	2.219
Occupation_clean Sales vs Specialized	1.535	1.303	1.809
Occupation_clean Services vs Specialized	0.895	0.756	1.059
Occupation_clean SkilledLabor vs Specialized	1.078	0.923	1.258

Association of Predicted Probabilities and Observed Responses

Percent Concordant	89.0	Somers' D	0.780
Percent Discordant	11.0	Gamma	0.780
Percent Tied	0.0	Tau-a	0.292
Pairs	170086232	c	0.890

Parameter Estimates and Profile-Likelihood Confidence Intervals

Parameter		Estimate	95% Confidence Limits	
Intercept		-5.4985	-5.9118	-5.0933
WorkingClass_clean	Governemnt	0.3182	0.1885	0.4480
WorkingClass_clean	Others	-10.7283	.	-0.3558
WorkingClass_clean	Private	0.3286	0.2279	0.4298
Net_Capital		0.000246	0.000229	0.000263
Race	Amer-In	-0.6914	-1.1388	-0.2738
Race	Asian-P	-0.1158	-0.3144	0.0806
Race	Black	-0.1551	-0.2993	-0.0131
Race	Other	-0.8115	-1.3946	-0.2817
Age		0.0279	0.0248	0.0310
EducationLevel_clean	Elementary	-2.1450	-2.6909	-1.6672

Parameter Estimates and Profile-Likelihood Confidence Intervals

Parameter		Estimate	95% Confidence Limits	
EducationLevel_clean	HighSchool	-0.5305	-0.6172	-0.4438
EducationLevel_clean	HigherEducation	0.8698	0.7775	0.9624
EducationLevel_clean	MiddleSchool	-1.8678	-2.1647	-1.5887
Sex	Female	-0.1695	-0.2709	-0.0682
Hrs_per_Week		0.0298	0.0267	0.0329
Marital_Status	Divorced	0.0124	-0.2737	0.3103
Marital_Status	Married-AF-spouse	2.9706	1.9417	3.9741
Marital_Status	Married-civ-spouse	2.1332	1.8590	2.4207
Marital_Status	Married-spouse-absen	-0.0912	-0.6128	0.4067
Marital_Status	Never-married	-0.5209	-0.8132	-0.2173
Marital_Status	Separated	-0.0926	-0.4889	0.3004
Occupation_clean	Domestic	-3.7302	-6.9203	-1.5257
Occupation_clean	ManualLabor	-0.1808	-0.3637	0.00218
Occupation_clean	Professional	0.8802	0.7315	1.0304
Occupation_clean	Protective Ser	0.5498	0.3022	0.7968
Occupation_clean	Sales	0.4286	0.2648	0.5934
Occupation_clean	Services	-0.1113	-0.2798	0.0581
Occupation_clean	SkilledLabor	0.0748	-0.0795	0.2304

Parameter Estimates and Wald Confidence Intervals

Parameter		Estimate	95% Confidence Limits	
Intercept		-5.4985	-5.9076	-5.0895
WorkingClass_clean	Governemnt	0.3182	0.1885	0.4479
WorkingClass_clean	Others	-10.7283	-243.9	222.5
WorkingClass_clean	Private	0.3286	0.2277	0.4295
Net_Capital		0.000246	0.000229	0.000263
Race	Amer-In	-0.6914	-1.1229	-0.2600
Race	Asian-P	-0.1158	-0.3133	0.0816
Race	Black	-0.1551	-0.2982	-0.0120
Race	Other	-0.8115	-1.3658	-0.2571
Age		0.0279	0.0248	0.0310
EducationLevel_clean	Elementary	-2.1450	-2.6538	-1.6362
EducationLevel_clean	HighSchool	-0.5305	-0.6172	-0.4438
EducationLevel_clean	HigherEducation	0.8698	0.7774	0.9623
EducationLevel_clean	MiddleSchool	-1.8678	-2.1553	-1.5803
Sex	Female	-0.1695	-0.2708	-0.0681
Hrs_per_Week		0.0298	0.0267	0.0329
Marital_Status	Divorced	0.0124	-0.2793	0.3042
Marital_Status	Married-AF-spouse	2.9706	1.9642	3.9769
Marital_Status	Married-civ-spouse	2.1332	1.8527	2.4138
Marital_Status	Married-spouse-absen	-0.0912	-0.5995	0.4172
Marital_Status	Never-married	-0.5209	-0.8185	-0.2232
Marital_Status	Separated	-0.0926	-0.4866	0.3014
Occupation_clean	Domestic	-3.7302	-6.2886	-1.1718
Occupation_clean	ManualLabor	-0.1808	-0.3637	0.00207
Occupation_clean	Professional	0.8802	0.7308	1.0296
Occupation_clean	Protective Ser	0.5498	0.3026	0.7971
Occupation_clean	Sales	0.4286	0.2643	0.5928
Occupation_clean	Services	-0.1113	-0.2802	0.0576
Occupation_clean	SkilledLabor	0.0748	-0.0801	0.2296