

**The SAS System****The MEANS Procedure**

Variable	N	Mean	Std Dev	Minimum	Maximum
favwin	553	0.7631103	0.4255590	0	1.0000000
spread	553	9.6130199	7.3105525	1.0000000	39.0000000
favhome	553	0.6781193	0.4676205	0	1.0000000
fav25	553	0.2640145	0.4412061	0	1.0000000
und25	553	0.0614828	0.2404313	0	1.0000000

## The SAS System

The REG Procedure  
Model: MODEL1  
Dependent Variable: favwin

Number of Observations Read	553
Number of Observations Used	553

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	11.06363	11.06363	68.57	<.0001
Error	551	88.90382	0.16135		
Corrected Total	552	99.96745			

Root MSE	0.40168	R-Square	0.1107
Dependent Mean	0.76311	Adj R-Sq	0.1091
Coeff Var	52.63772		

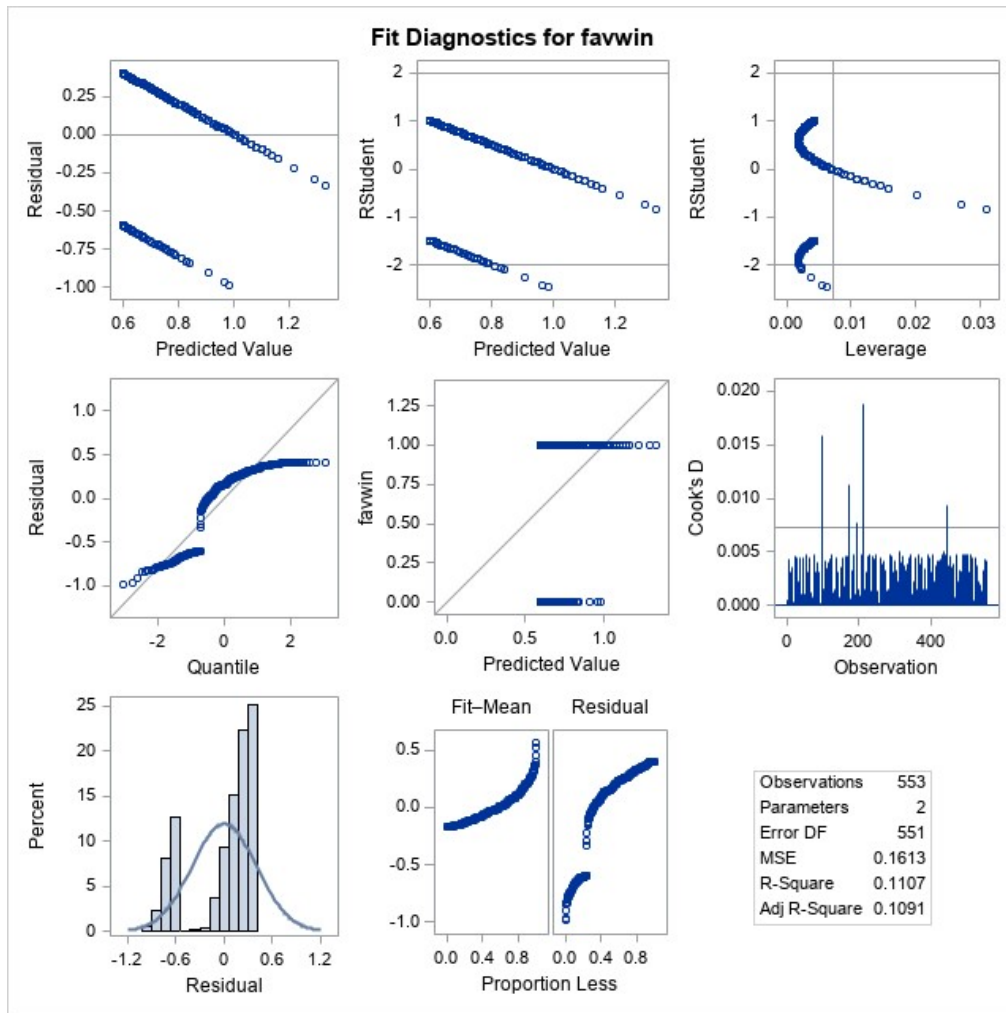
Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.57695	0.02823	20.43	<.0001
spread	1	0.01937	0.00234	8.28	<.0001

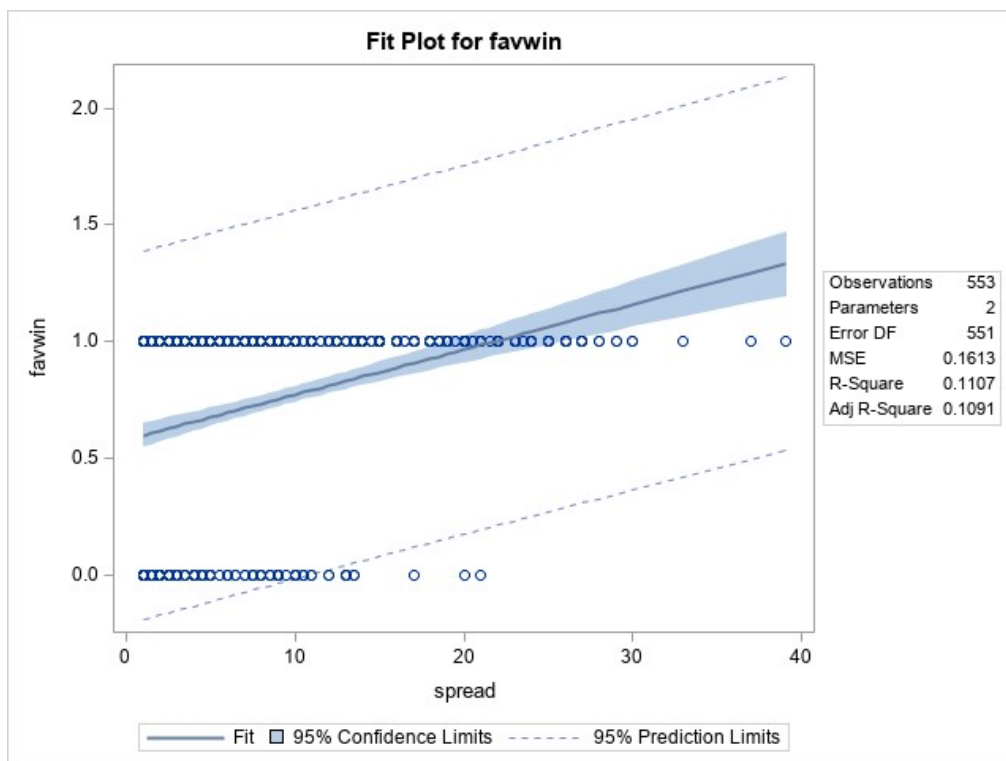
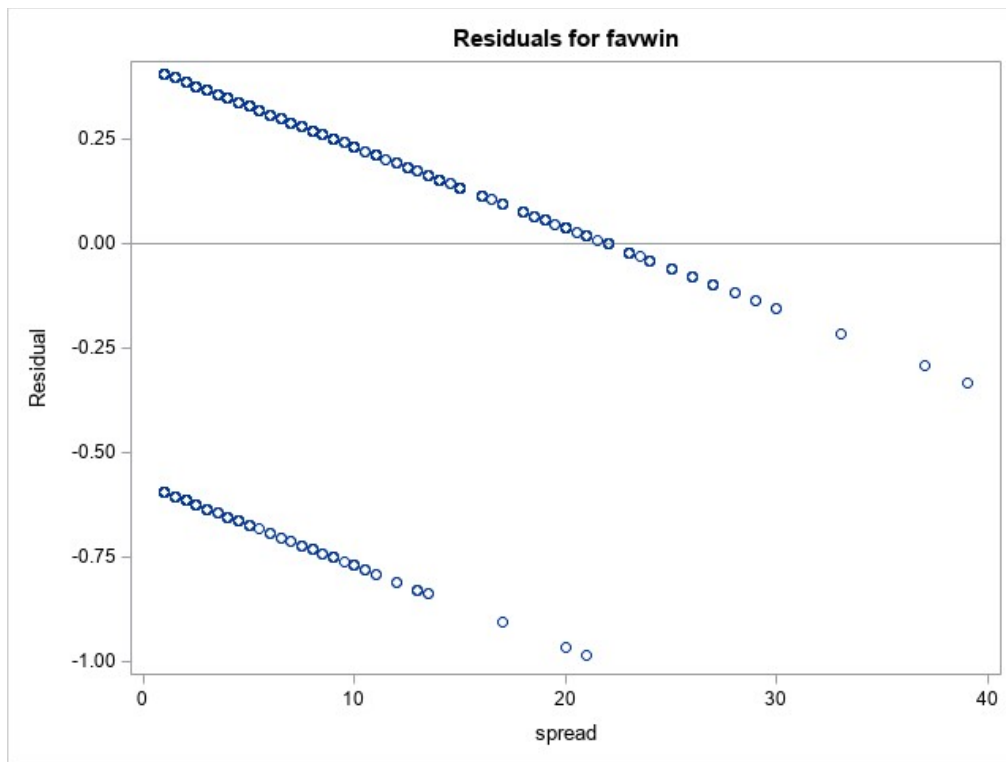
## The SAS System

The REG Procedure

Model: MODEL1

Dependent Variable: favwin





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**The SAS System****The REG Procedure**  
**Model: MODEL1**

Test 1 Results for Dependent Variable favwin				
Source	DF	Mean Square	F Value	Pr > F
Numerator	1	1.19844	7.43	0.0066
Denominator	551	0.16135		

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**The SAS System****The REG Procedure**  
**Model: MODEL1**

Test 2 Results for Dependent Variable favwin				
Source	DF	Mean Square	F Value	Pr > F
Numerator	1	2938704	1.821E7	<.0001
Denominator	551	0.16135		

## The SAS System

The REG Procedure  
Model: MODEL1  
Dependent Variable: favwin

Number of Observations Read	553
Number of Observations Used	553

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	11.59476	2.89869	17.97	<.0001
Error	548	88.37269	0.16126		
Corrected Total	552	99.96745			

Root MSE	0.40158	R-Square	0.1160
Dependent Mean	0.76311	Adj R-Sq	0.1095
Coeff Var	52.62371		

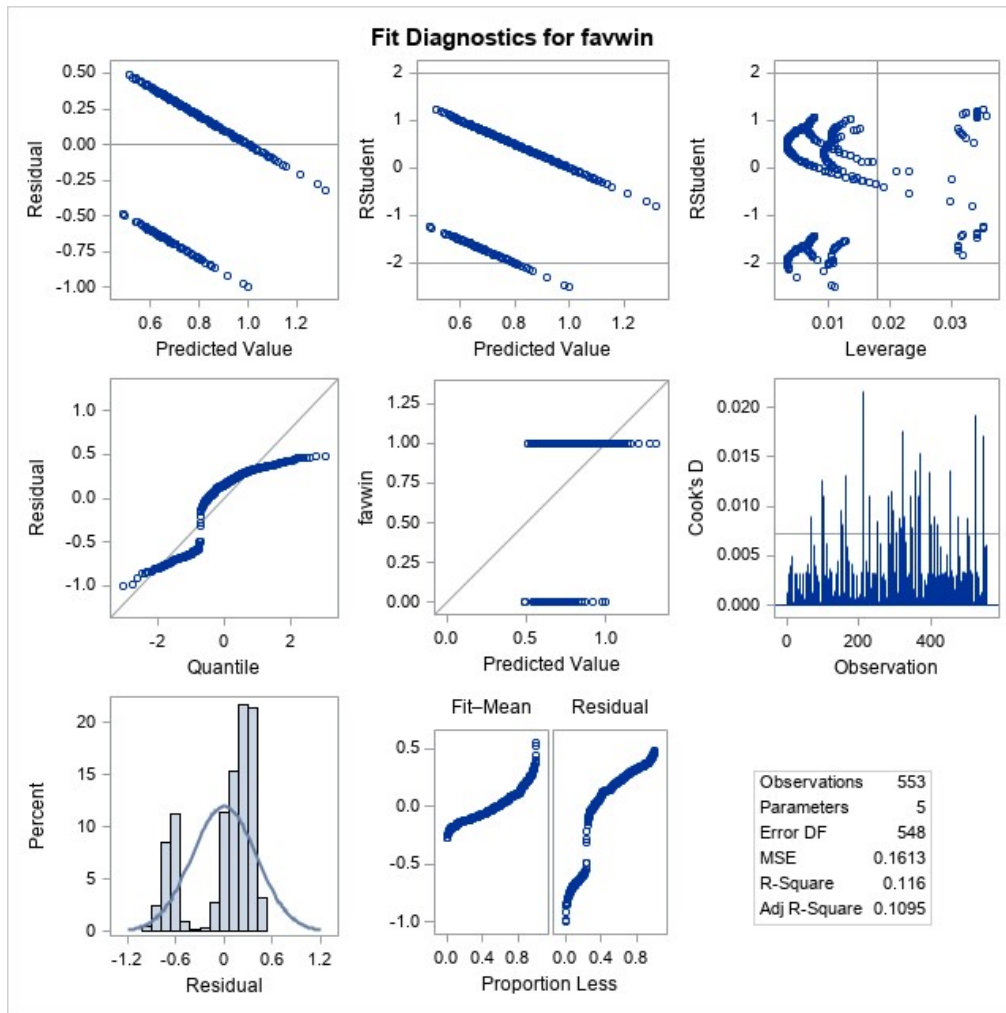
Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.55882	0.03598	15.53	<.0001
spread	1	0.01776	0.00255	6.97	<.0001
favhome	1	0.05435	0.03884	1.40	0.1623
fav25	1	0.01098	0.04142	0.27	0.7910
und25	1	-0.10110	0.07613	-1.33	0.1847

## The SAS System

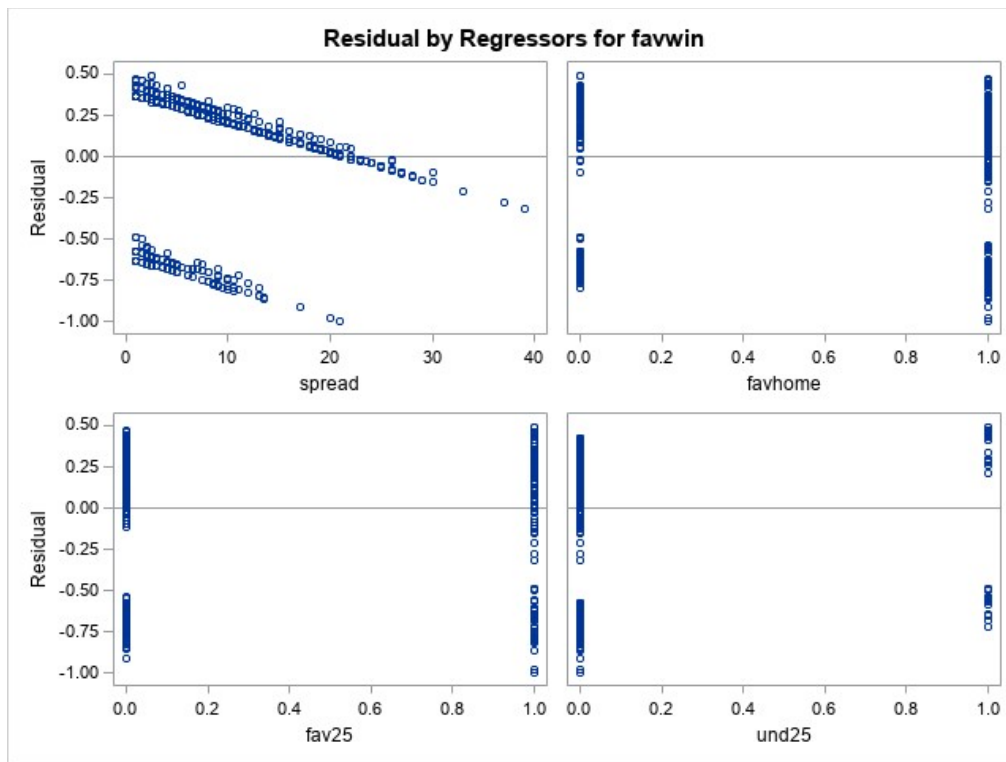
The REG Procedure

Model: MODEL1

Dependent Variable: favwin







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**The SAS System****The REG Procedure**  
**Model: MODEL1**

Test 1 Results for Dependent Variable favwin				
Source	DF	Mean Square	F Value	Pr > F
Numerator	3	0.19103	1.18	0.3149
Denominator	548	0.16126		

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**The SAS System**

Predicted probability of winning by LPM is 0.7364432592
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## The SAS System

### The LOGISTIC Procedure

Model Information	
Data Set	WORK.TMP
Response Variable	favwin
Number of Response Levels	2
Model	binary probit
Optimization Technique	Fisher's scoring

Number of Observations Read	553
Number of Observations Used	553

Response Profile		
Ordered Value	favwin	Total Frequency
1	1	422
2	0	131

Probability modeled is favwin=1.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	607.500	531.124
SC	611.815	539.755
-2 Log L	605.500	527.124

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	78.3754	1	<.0001
Score	61.2018	1	<.0001
Wald	58.2232	1	<.0001

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.0105	0.1035	0.0104	0.9189
spread	1	0.0925	0.0121	58.2232	<.0001

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	72.2	Somers' D	0.475
Percent Discordant	24.7	Gamma	0.490
Percent Tied	3.1	Tau-a	0.172

<b>Pairs</b>	55282	<b>c</b>	0.737
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<b>Linear Hypotheses Testing Results</b>			
<b>Label</b>	<b>Wald Chi-Square</b>	<b>DF</b>	<b>Pr &gt; ChiSq</b>
<b>Test 1</b>	0.0104	1	0.9189
<b>Test 2</b>	668628.125	1	<.0001

## The SAS System

### The LOGISTIC Procedure

Model Information	
Data Set	WORK.TMP
Response Variable	favwin
Number of Response Levels	2
Model	binary probit
Optimization Technique	Fisher's scoring

Number of Observations Read	553
Number of Observations Used	553

Response Profile		
Ordered Value	favwin	Total Frequency
1	1	422
2	0	131

Probability modeled is favwin=1.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	607.500	535.284
SC	611.815	556.860
-2 Log L	605.500	525.284

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	80.2162	4	<.0001
Score	64.1399	4	<.0001
Wald	60.2643	4	<.0001

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.0552	0.1292	0.1823	0.6694
spread	1	0.0879	0.0128	47.2938	<.0001
favhome	1	0.1486	0.1369	1.1784	0.2777
fav25	1	0.00308	0.1588	0.0004	0.9845
und25	1	-0.2198	0.2513	0.7653	0.3817

Association of Predicted Probabilities and Observed Responses	
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<b>Percent Concordant</b>	73.6	<b>Somers' D</b>	0.482
<b>Percent Discordant</b>	25.5	<b>Gamma</b>	0.486
<b>Percent Tied</b>	0.9	<b>Tau-a</b>	0.174
<b>Pairs</b>	55282	<b>c</b>	0.741

Linear Hypotheses Testing Results			
Label	Wald Chi-Square	DF	Pr > ChiSq
Test 1	2.7098	3	0.4386

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**The SAS System**

Predicted probability of winning by the probit model is 0.7949323475
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