

```

RECODE Density (Lowest thru 54.62=1) (54.63 thru Highest=0) INTO Rural.
EXECUTE.
RECODE Region (3=1) (4=1) (5=1) (1=0) (2=0) (6=0) INTO WestOK.
EXECUTE.
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.1) POUT(.15)
  /NOORIGIN
  /DEPENDENT Pct_Repub
  /METHOD=ENTER Pct_Black Pct_White Pct_Two_Plus Pct_SNAP Pct_FIRE_I Pct_Pover
ty Pct_Unemp
  Med_HomeValue Pct_BlueCollar_OPct_Hispanic Area Lat_Cent Lon_Cent Populat
ion Density Pct_NatAm
  Pct_Asian Pct_Pacific Pct_Other Med_Age Pct_NotLabor Pct_Commute Pct_Servi
ce_O PCI Pct_Vacant
  Pct_Divorced Pct_NoHS Pct_Fallin
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /SAVE LEVER ZRESID.

```

## Regression

## Notes

Output Created		29-FEB-2020 14:14:42
Comments		
Input	Data	C: \Users\bullok\Downloads\ 5303_EX_A.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1541
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.

## Notes

Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL /CRITERIA=PIN(.1) POUT(.15) /NOORIGIN /DEPENDENT Pct_Repub /METHOD=ENTER Pct_Black Pct_White Pct_Two_Plus Pct_SNAP Pct_FIRE_I Pct_Poverty Pct_Unemp Med_HomeValue Pct_BlueCollar_O Pct_Hispanic Area Lat_Cent Lon_Cent Population Density Pct_NatAm Pct_Asian Pct_Pacific Pct_Other Med_Age Pct_NotLabor Pct_Commute Pct_Service_O PCI Pct_Vacant Pct_Divorced Pct_NoHS Pct_Fallin /SCATTERPLOT= (*ZRESID ,*ZPRED) /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID) /SAVE LEVER ZRESID.
Resources	Processor Time	00:00:00.37
	Elapsed Time	00:00:00.26
	Memory Required	39120 bytes
	Additional Memory Required for Residual Plots	248 bytes
Variables Created or Modified	ZRE_2	Standardized Residual
	LEV_2	Centered Leverage Value

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
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## Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Percent voting for Fallin 11/4/2014, Percent Pacific Islander, Percent Asian, Percent commuting to work alone (in vehicles), Area in square miles, Percent not completing high school, Percent Black, Percent Native American, Percent population 15 or older that is divorced, Percent of housing units vacant, Percent employees in blue collar occupations, Centroid Latitude, Percent Two or more races, Population density, Percent employees in service occupations, Percent of workforce unemployed, Median age, Percent living in poverty, Percent employees in professional industries, Percent Other Race, Median home value (2011 \$), Percent of	.	Enter

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. Tolerance = .000 limit reached.

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.951 <sup>a</sup>	.904	.852	5.87207

a. Predictors: (Constant), Percent voting for Fallin 11/4/2014, Percent Pacific Islander, Percent Asian, Percent commuting to work alone (in vehicles), Area in square miles, Percent not completing high school, Percent Black, Percent Native American, Percent population 15 or older that is divorced, Percent of housing units vacant, Percent employees in blue collar occupations, Centroid Latitude, Percent Two or more races, Population density, Percent employees in service occupations, Percent of workforce unemployed, Median age, Percent living in poverty, Percent employees in professional industries, Percent Other Race, Median home value (2011 \$), Percent of population not in workforce, Percent receiving SNAP assistance, Centroid Longitude, Per capita income (2011 \$), Percent Hispanic, Total population

b. Dependent Variable: Percent registered Republican as of 1/15/2015

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15994.998	27	592.407	17.181	.000 <sup>b</sup>
	Residual	1689.582	49	34.481		
	Total	17684.580	76			

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. Predictors: (Constant), Percent voting for Fallin 11/4/2014, Percent Pacific Islander, Percent Asian, Percent commuting to work alone (in vehicles), Area in square miles, Percent not completing high school, Percent Black, Percent Native American, Percent population 15 or older that is divorced, Percent of housing units vacant, Percent employees in blue collar occupations, Centroid Latitude, Percent Two or more races, Population density, Percent employees in service occupations, Percent of workforce unemployed, Median age, Percent living in poverty, Percent employees in professional industries, Percent Other Race, Median home value (2011 \$), Percent of population not in workforce, Percent receiving SNAP assistance, Centroid Longitude, Per capita income (2011 \$), Percent Hispanic, Total population

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-366.667	142.378		-2.575	.013
	Percent Black	-.400	.349	-.093	-1.145	.258
	Percent Two or more races	-.223	.294	-.059	-.759	.451
	Percent receiving SNAP assistance	.387	.383	.129	1.010	.317
	Percent employees in professional industries	-.162	.322	-.048	-.502	.618
	Percent living in poverty	-.342	.403	-.105	-.849	.400
	Percent of workforce unemployed	.422	.661	.065	.638	.526
	Median home value (2011 \$)	6.404E-5	.000	.097	.911	.367
	Percent employees in blue collar occupations	-.731	.344	-.157	-2.124	.039
	Percent Hispanic	-.256	.386	-.116	-.664	.510
	Area in square miles	.000	.003	.007	.094	.926
	Centroid Latitude	6.911	1.254	.402	5.510	.000
	Centroid Longitude	-2.090	1.244	-.236	-1.680	.099
	Total population	2.171E-5	.000	.157	.416	.679
	Population density	-.008	.033	-.084	-.226	.822
	Percent Native American	-.098	.184	-.046	-.533	.596
	Percent Asian	-2.546	1.567	-.149	-1.625	.111
	Percent Pacific Islander	2.353	3.006	.040	.783	.437
	Percent Other Race	-.304	.530	-.082	-.574	.569
	Median age	-.597	.471	-.142	-1.267	.211
	Percent of population not in workforce	.043	.355	.017	.122	.904
	Percent commuting to work alone (in vehicles)	-.615	.286	-.126	-2.155	.036
	Percent employees in service occupations	-.437	.467	-.083	-.935	.355
	Per capita income (2011 \$)	.001	.001	.305	1.788	.080
	Percent of housing units vacant	-.151	.233	-.067	-.646	.521

## Coefficients<sup>a</sup>

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Percent Black	.294	3.407
	Percent Two or more races	.328	3.048
	Percent receiving SNAP assistance	.120	8.324
	Percent employees in professional industries	.216	4.631
	Percent living in poverty	.127	7.846
	Percent of workforce unemployed	.187	5.343
	Median home value (2011 \$)	.172	5.822
	Percent employees in blue collar occupations	.356	2.811
	Percent Hispanic	.064	15.568
	Area in square miles	.381	2.623
	Centroid Latitude	.367	2.728
	Centroid Longitude	.099	10.140
	Total population	.014	73.283
	Population density	.014	71.200
	Percent Native American	.263	3.800
	Percent Asian	.233	4.289
	Percent Pacific Islander	.750	1.334
	Percent Other Race	.096	10.468
	Median age	.155	6.460
	Percent of population not in workforce	.106	9.454
	Percent commuting to work alone (in vehicles)	.566	1.766
	Percent employees in service occupations	.247	4.054
	Per capita income (2011 \$)	.067	14.912
	Percent of housing units vacant	.179	5.577



### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Percent population 15 or older that is divorced	-.919	.599	-.129	-1.535	.131
	Percent not completing high school	.341	.521	.087	.654	.516
	Percent voting for Fallin 11/4/2014	.501	.199	.254	2.513	.015

### Coefficients<sup>a</sup>

Model		Collinearity Statistics	
		Tolerance	VIF
	Percent population 15 or older that is divorced	.276	3.617
	Percent not completing high school	.109	9.159
	Percent voting for Fallin 11/4/2014	.191	5.226

a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Excluded Variables<sup>a</sup>

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics	
						Tolerance	VIF
1	Percent White	-44.435 <sup>b</sup>	-.574	.568	-.083	3.302E-7	3028042.054

### Excluded Variables<sup>a</sup>

Model		Collinearity ...
		Minimum Tolerance
1	Percent White	3.302E-7

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. Predictors in the Model: (Constant), Percent voting for Fallin 11/4/2014, Percent Pacific Islander, Percent Asian, Percent commuting to work alone (in vehicles), Area in square miles, Percent not completing high school, Percent Black, Percent Native American, Percent population 15 or older that is divorced, Percent of housing units vacant, Percent employees in blue collar occupations, Centroid Latitude, Percent Two or more races, Population density, Percent employees in service occupations, Percent of workforce unemployed, Median age, Percent living in poverty, Percent employees in professional industries, Percent Other Race, Median home value (2011 \$), Percent of population not in workforce, Percent receiving SNAP assistance, Centroid Longitude, Per capita income (2011 \$), Percent Hispanic, Total population

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Percent Black	Percent Two or more races
1	1	21.968	1.000	.00	.00	.00
	2	2.103	3.232	.00	.00	.00
	3	1.294	4.121	.00	.00	.00
	4	.896	4.950	.00	.00	.00
	5	.444	7.032	.00	.17	.00
	6	.382	7.580	.00	.06	.01
	7	.289	8.717	.00	.09	.00
	8	.164	11.567	.00	.00	.11
	9	.098	14.982	.00	.00	.24
	10	.086	15.975	.00	.00	.02
	11	.074	17.258	.00	.11	.14
	12	.059	19.376	.00	.04	.01
	13	.034	25.305	.00	.00	.00
	14	.028	27.986	.00	.12	.00
	15	.019	33.680	.00	.01	.04
	16	.014	40.249	.00	.00	.01
	17	.013	41.856	.00	.02	.01
	18	.009	50.231	.00	.02	.04
	19	.007	54.155	.00	.03	.01
	20	.006	60.168	.00	.02	.03
	21	.005	63.787	.00	.01	.06
	22	.002	97.173	.00	.04	.01
	23	.002	101.097	.00	.08	.06
	24	.001	139.092	.00	.01	.00

## Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				Median home value (2011 \$)
		Percent receiving SNAP assistance	Percent employees in professional industries	Percent living in poverty	Percent of workforce unemployed	
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.00
	3	.00	.00	.00	.00	.00
	4	.00	.00	.00	.00	.00
	5	.00	.00	.00	.00	.00
	6	.00	.00	.00	.00	.00
	7	.00	.00	.00	.00	.00
	8	.00	.00	.00	.00	.00
	9	.00	.00	.00	.00	.00
	10	.00	.00	.01	.00	.01
	11	.04	.00	.00	.04	.01
	12	.01	.00	.01	.00	.00
	13	.00	.00	.01	.37	.01
	14	.01	.00	.02	.00	.03
	15	.04	.02	.06	.05	.00
	16	.01	.00	.00	.00	.34
	17	.32	.01	.03	.10	.03
	18	.02	.00	.07	.00	.04
	19	.02	.21	.06	.00	.05
	20	.01	.00	.02	.00	.03
	21	.30	.01	.41	.01	.03
	22	.03	.51	.00	.04	.01
	23	.05	.06	.16	.00	.00
	24	.10	.08	.08	.06	.13

## Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Percent employees in blue collar occupations	Percent Hispanic	Area in square miles	Centroid Latitude	Centroid Longitude
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.00
	3	.00	.01	.00	.00	.00
	4	.00	.00	.00	.00	.00
	5	.00	.00	.00	.00	.00
	6	.00	.00	.00	.00	.00
	7	.00	.00	.00	.00	.00
	8	.00	.00	.10	.00	.00
	9	.00	.00	.11	.00	.00
	10	.00	.00	.18	.00	.00
	11	.00	.06	.00	.00	.00
	12	.04	.11	.01	.00	.00
	13	.00	.06	.01	.00	.00
	14	.29	.06	.05	.00	.00
	15	.02	.00	.01	.00	.00
	16	.07	.05	.00	.00	.00
	17	.02	.05	.01	.00	.00
	18	.17	.00	.03	.00	.00
	19	.05	.11	.01	.00	.00
	20	.02	.02	.08	.00	.00
	21	.16	.00	.25	.00	.00
	22	.01	.05	.01	.00	.00
	23	.11	.01	.05	.00	.00
	24	.05	.13	.00	.02	.00

## Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Total population	Population density	Percent Native American	Percent Asian	Percent Pacific Islander
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.01	.00
	3	.00	.00	.01	.00	.00
	4	.00	.00	.00	.00	.72
	5	.00	.00	.01	.00	.00
	6	.00	.00	.06	.13	.00
	7	.00	.00	.03	.14	.03
	8	.00	.00	.17	.00	.00
	9	.00	.00	.03	.03	.01
	10	.00	.00	.01	.10	.02
	11	.00	.00	.16	.01	.00
	12	.00	.00	.01	.00	.00
	13	.00	.00	.00	.02	.00
	14	.00	.00	.02	.14	.01
	15	.00	.00	.01	.03	.01
	16	.00	.00	.07	.01	.01
	17	.01	.02	.04	.05	.02
	18	.00	.01	.00	.05	.03
	19	.01	.01	.00	.03	.00
	20	.78	.75	.00	.01	.03
	21	.11	.11	.01	.08	.02
	22	.01	.02	.05	.04	.01
	23	.03	.00	.03	.00	.00
	24	.00	.00	.00	.02	.00

## Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Percent Other Race	Median age	Percent of population not in workforce	Percent commuting to work alone (in vehicles)	Percent employees in service occupations
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.00
	3	.02	.00	.00	.00	.00
	4	.00	.00	.00	.00	.00
	5	.01	.00	.00	.00	.00
	6	.01	.00	.00	.00	.00
	7	.02	.00	.00	.00	.00
	8	.00	.00	.00	.00	.00
	9	.02	.00	.00	.00	.00
	10	.01	.00	.00	.00	.00
	11	.03	.00	.00	.00	.00
	12	.25	.00	.00	.00	.00
	13	.02	.00	.00	.00	.01
	14	.03	.00	.00	.00	.03
	15	.04	.00	.00	.00	.03
	16	.01	.00	.00	.00	.00
	17	.05	.00	.00	.00	.11
	18	.16	.01	.00	.00	.05
	19	.06	.00	.02	.00	.01
	20	.01	.00	.01	.00	.05
	21	.04	.00	.04	.00	.24
	22	.00	.03	.14	.01	.04
	23	.02	.04	.21	.00	.03
	24	.01	.68	.01	.01	.01

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Per capita income (2011 \$)	Percent of housing units vacant	Percent population 15 or older that is divorced	Percent not completing high school	Percent voting for Fallin 11/4/2014
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.00
	3	.00	.00	.00	.00	.00
	4	.00	.00	.00	.00	.00
	5	.00	.00	.00	.00	.00
	6	.00	.00	.00	.00	.00
	7	.00	.00	.00	.00	.00
	8	.00	.01	.00	.00	.00
	9	.00	.05	.00	.00	.00
	10	.00	.08	.00	.00	.00
	11	.00	.01	.00	.00	.00
	12	.00	.04	.00	.00	.00
	13	.00	.02	.00	.01	.00
	14	.00	.00	.00	.00	.00
	15	.00	.00	.09	.07	.00
	16	.00	.05	.06	.07	.02
	17	.00	.05	.09	.01	.00
	18	.00	.00	.19	.16	.06
	19	.00	.00	.00	.00	.12
	20	.00	.00	.04	.00	.00
	21	.00	.08	.02	.02	.01
	22	.01	.15	.22	.22	.18
	23	.16	.01	.00	.29	.30
	24	.10	.11	.06	.04	.00

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					Percent Black	Percent Two or more races
	25	.001	159.993	.00	.12	.01
	26	.001	196.159	.00	.00	.01
	27	.000	355.437	.01	.00	.11
	28	1.315E-5	1292.405	.98	.06	.08

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Percent receiving SNAP assistance	Percent employees in professional industries	Percent living in poverty	Percent of workforce unemployed	Median home value (2011 \$)
	25	.00	.01	.01	.00	.00
	26	.00	.08	.01	.17	.06
	27	.01	.00	.01	.00	.04
	28	.02	.00	.03	.15	.18

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Percent employees in blue collar occupations	Percent Hispanic	Area in square miles	Centroid Latitude	Centroid Longitude
	25	.00	.23	.01	.00	.00
	26	.00	.00	.00	.06	.01
	27	.00	.03	.03	.81	.04
	28	.00	.00	.02	.11	.95



### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Total population	Population density	Percent Native American	Percent Asian	Percent Pacific Islander
	25	.02	.02	.03	.04	.00
	26	.00	.00	.03	.02	.02
	27	.00	.01	.15	.00	.06
	28	.01	.02	.03	.00	.00

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Percent Other Race	Median age	Percent of population not in workforce	Percent commuting to work alone (in vehicles)	Percent employees in service occupations
	25	.06	.02	.39	.47	.23
	26	.00	.08	.14	.48	.08
	27	.02	.01	.02	.02	.00
	28	.13	.12	.02	.01	.08

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Per capita income (2011 \$)	Percent of housing units vacant	Percent population 15 or older that is divorced	Percent not completing high school	Percent voting for Fallin 11/4/2014
	25	.30	.24	.06	.01	.00
	26	.43	.01	.10	.01	.01
	27	.00	.01	.02	.04	.24
	28	.00	.07	.05	.05	.05

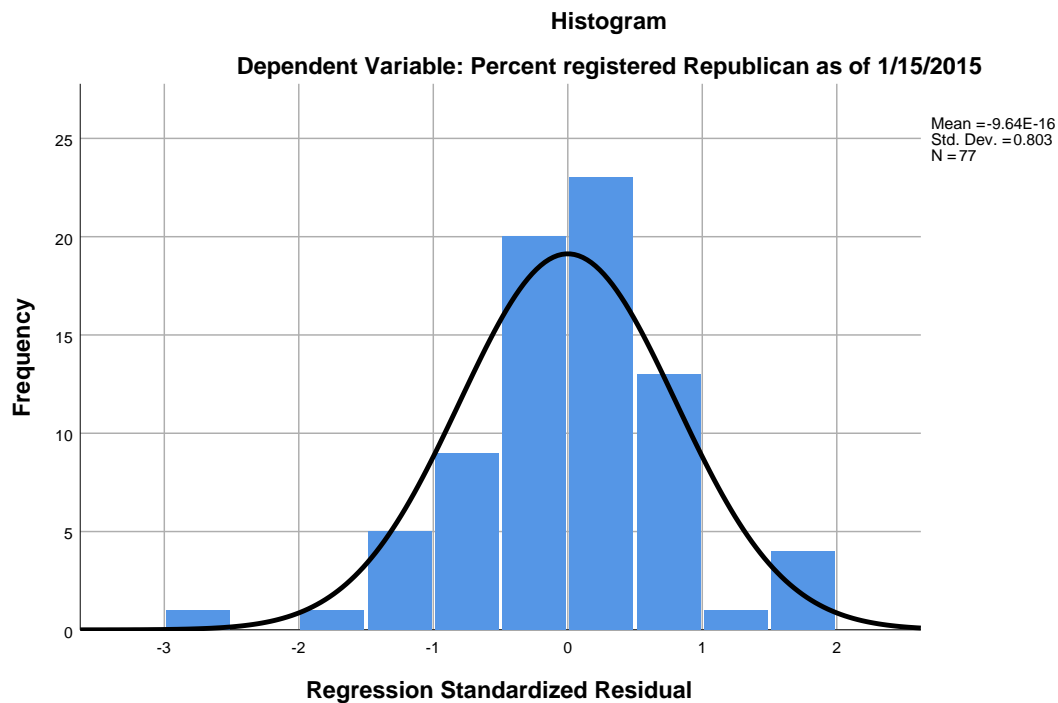
a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Residuals Statistics<sup>a</sup>

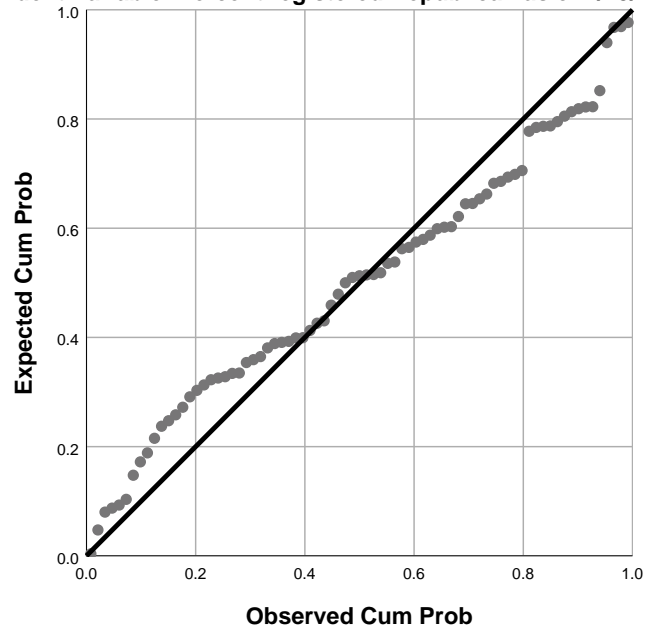
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	15.9545	64.6576	38.9971	14.50726	77
Std. Predicted Value	-1.588	1.769	.000	1.000	77
Standard Error of Predicted Value	2.079	5.435	3.461	.753	77
Adjusted Predicted Value	14.9320	96.3073	39.1550	15.72392	77
Residual	-15.70795	11.68915	.00000	4.71501	77
Std. Residual	-2.675	1.991	.000	.803	77
Stud. Residual	-3.247	2.458	-.004	1.058	77
Deleted Residual	-39.89734	21.18983	-.15784	9.00259	77
Stud. Deleted Residual	-3.628	2.599	-.009	1.103	77
Mahal. Distance	8.541	64.130	26.649	12.090	77
Cook's Distance	.000	1.308	.043	.155	77
Centered Leverage Value	.112	.844	.351	.159	77

a. Dependent Variable: Percent registered Republican as of 1/15/2015

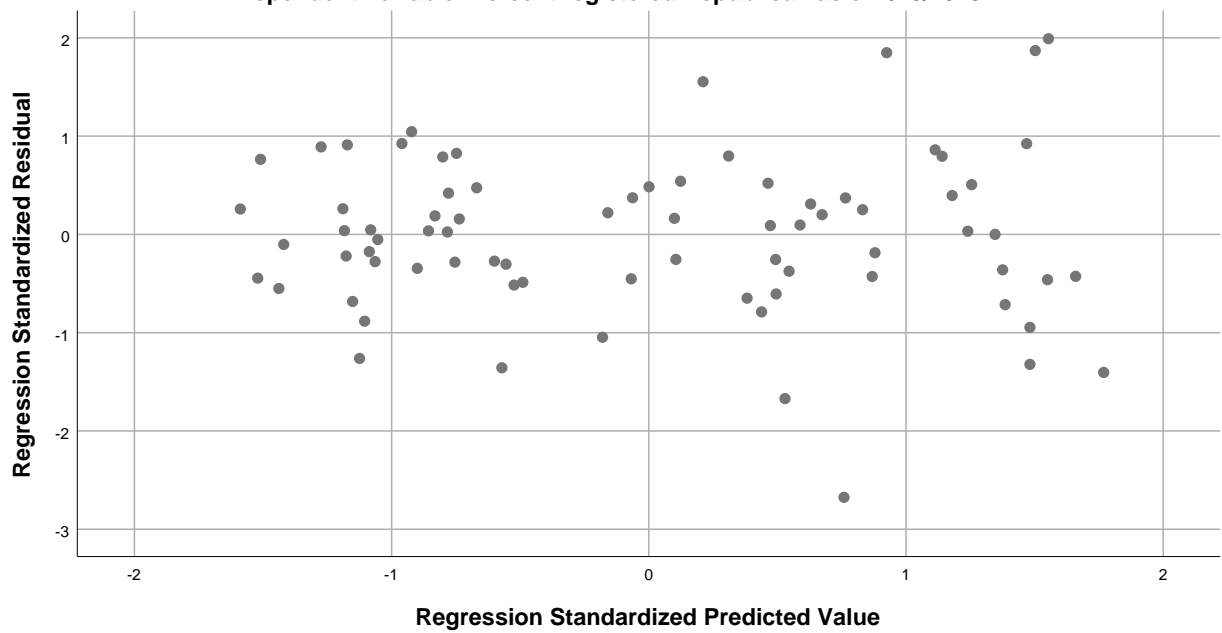
## Charts



**Normal P-P Plot of Regression Standardized Residual**  
**Dependent Variable: Percent registered Republican as of 1/15/2015**



**Scatterplot**  
**Dependent Variable: Percent registered Republican as of 1/15/2015**



GET

FILE= 'C:\Users\bullok1\Downloads\5303\_EX\_A.sav' .

```
DATASET NAME DataSet1 WINDOW=FRONT.  
COMPUTE Black_Transform=LG10(Pct_Black).  
EXECUTE.
```

```
>Warning # 601  
>The argument for the log base 10 function is less than or equal to zero on the  
>indicated command. The result has been set to the system-missing value.  
>Command line: 34 Current case: 80 Current splitfile group: 1
```

```
>Warning # 601  
>The argument for the log base 10 function is less than or equal to zero on the  
>indicated command. The result has been set to the system-missing value.  
>Command line: 34 Current case: 87 Current splitfile group: 1
```

```
>Warning # 601  
>The argument for the log base 10 function is less than or equal to zero on the  
>indicated command. The result has been set to the system-missing value.  
>Command line: 34 Current case: 88 Current splitfile group: 1
```

```
>Warning # 601  
>The argument for the log base 10 function is less than or equal to zero on the  
>indicated command. The result has been set to the system-missing value.  
>Command line: 34 Current case: 90 Current splitfile group: 1
```

```
>Warning # 601  
>The argument for the log base 10 function is less than or equal to zero on the  
>indicated command. The result has been set to the system-missing value.  
>Command line: 34 Current case: 91 Current splitfile group: 1
```

```
>Warning # 601  
>The argument for the log base 10 function is less than or equal to zero on the  
e
```

>indicated command. The result has been set to the system-missingvalue.

>Command line: 34 Current case: 102 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 34 Current case: 104 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 34 Current case: 105 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 34 Current case: 107 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 34 Current case: 110 Current splitfile group: 1

>Warning # 92

>The limit for MXWARNS warnings in this data pass has been exceeded. Further

>warnings have been suppressed. To change the limit use SET MXWARNS.

COMPUTE Hispanic\_Transform=LG10(Pct\_Hispanic).

EXECUTE.

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 134 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 246 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 375 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 553 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 946 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 1024 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missingvalue.

>Command line: 37 Current case: 1114 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missing value.

>Command line: 37 Current case: 1155 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missing value.

>Command line: 37 Current case: 1240 Current splitfile group: 1

>Warning # 601

>The argument for the log base 10 function is less than or equal to zero on the

>indicated command. The result has been set to the system-missing value.

>Command line: 37 Current case: 1329 Current splitfile group: 1

>Warning # 92

>The limit for MXWARNS warnings in this data pass has been exceeded. Further  
>warnings have been suppressed. To change the limit use SET MXWARNS.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT Pct\_Repub

/METHOD=ENTER Black\_TransformHispanic\_TransformMed\_HomeValue Pct\_Poverty P  
ct\_SNAP Pct\_FIRE\_I

Pct\_BlueCollar\_OPct\_Unemp Pct\_Two\_Plus Pct\_White

/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID) .

## Regression

## Notes

Output Created		29-FEB-2020 19:26:23
Comments		
Input	Data	C: \Users\bullok\Downloads\ 5303_EX_A.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1541
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT Pct_Repub /METHOD=ENTER Black_Transform Hispanic_Transform Med_HomeValue Pct_Poverty Pct_SNAP Pct_FIRE_I Pct_BlueCollar_O Pct_Unemp Pct_Two_Plus Pct_White /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).
Resources	Processor Time	00:00:01.66
	Elapsed Time	00:00:00.65
	Memory Required	10768 bytes
	Additional Memory Required for Residual Plots	496 bytes



[DataSet1] C:\Users\bullok1\Downloads\5303\_EX\_A.sav

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Percent White, Median home value (2011 \$), Hispanic_Transform, Black_Transform, Percent employees in professional industries, Percent employees in blue collar occupations, Percent Two or more races, Percent living in poverty, Percent of workforce unemployed, Percent receiving SNAP assistance <sup>b</sup>	.	Enter

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. All requested variables entered.

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 <sup>a</sup>	.610	.551	10.21705

a. Predictors: (Constant), Percent White, Median home value (2011 \$), Hispanic\_Transform, Black\_Transform, Percent employees in professional industries, Percent employees in blue collar occupations, Percent Two or more races, Percent living in poverty, Percent of workforce unemployed, Percent receiving SNAP assistance

b. Dependent Variable: Percent registered Republican as of 1/15/2015

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10794.961	10	1079.496	10.341	.000 <sup>b</sup>
	Residual	6889.619	66	104.388		
	Total	17684.580	76			

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. Predictors: (Constant), Percent White, Median home value (2011 \$), Hispanic\_Transform, Black\_Transform, Percent employees in professional industries, Percent employees in blue collar occupations, Percent Two or more races, Percent living in poverty, Percent of workforce unemployed, Percent receiving SNAP assistance

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	63.225	29.097		2.173	.033
	Black_Transform	-4.735	3.083	-.163	-1.536	.129
	Hispanic_Transform	4.505	5.458	.083	.825	.412
	Median home value (2011 \$)	.000	.000	.152	1.292	.201
	Percent living in poverty	-.901	.434	-.276	-2.075	.042
	Percent receiving SNAP assistance	-.656	.456	-.218	-1.437	.155
	Percent employees in professional industries	-.003	.388	-.001	-.009	.993
	Percent employees in blue collar occupations	-.550	.505	-.118	-1.090	.280
	Percent of workforce unemployed	.059	.890	.009	.066	.947
	Percent Two or more races	-.941	.438	-.247	-2.149	.035
	Percent White	.066	.213	.041	.311	.757

# Coefficients<sup>a</sup>

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Black_Transform	.523	1.912
	Hispanic_Transform	.581	1.720
	Median home value (2011 \$)	.428	2.334
	Percent living in poverty	.333	3.004
	Percent receiving SNAP assistance	.256	3.905
	Percent employees in professional industries	.451	2.219
	Percent employees in blue collar occupations	.501	1.996
	Percent of workforce unemployed	.313	3.198
	Percent Two or more races	.446	2.241
	Percent White	.335	2.984

a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					Black_Transform	Hispanic_Transform
1	1	9.637	1.000	.00	.00	.00
	2	.758	3.566	.00	.46	.00
	3	.310	5.579	.00	.03	.05
	4	.121	8.942	.00	.01	.03
	5	.069	11.808	.00	.05	.28
	6	.041	15.296	.00	.40	.29
	7	.027	18.970	.00	.00	.14
	8	.018	23.327	.00	.01	.00
	9	.013	27.707	.01	.01	.02
	10	.006	38.564	.00	.00	.00
	11	.001	86.881	.99	.03	.17

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions				
		Median home value (2011 \$)	Percent living in poverty	Percent receiving SNAP assistance	Percent employees in professional industries	Percent employees in blue collar occupations
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.00
	3	.00	.00	.01	.00	.00
	4	.08	.02	.04	.00	.01
	5	.02	.00	.01	.00	.00
	6	.04	.00	.04	.00	.26
	7	.00	.15	.10	.02	.06
	8	.02	.58	.73	.00	.04
	9	.59	.15	.01	.05	.33
	10	.15	.04	.06	.87	.19
	11	.09	.07	.01	.05	.11

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions		
		Percent of workforce unemployed	Percent Two or more races	Percent White
1	1	.00	.00	.00
	2	.00	.00	.00
	3	.01	.10	.00
	4	.00	.11	.00
	5	.09	.48	.00
	6	.04	.03	.01
	7	.64	.01	.01
	8	.06	.01	.00
	9	.04	.06	.12
	10	.03	.01	.14
	11	.09	.20	.71

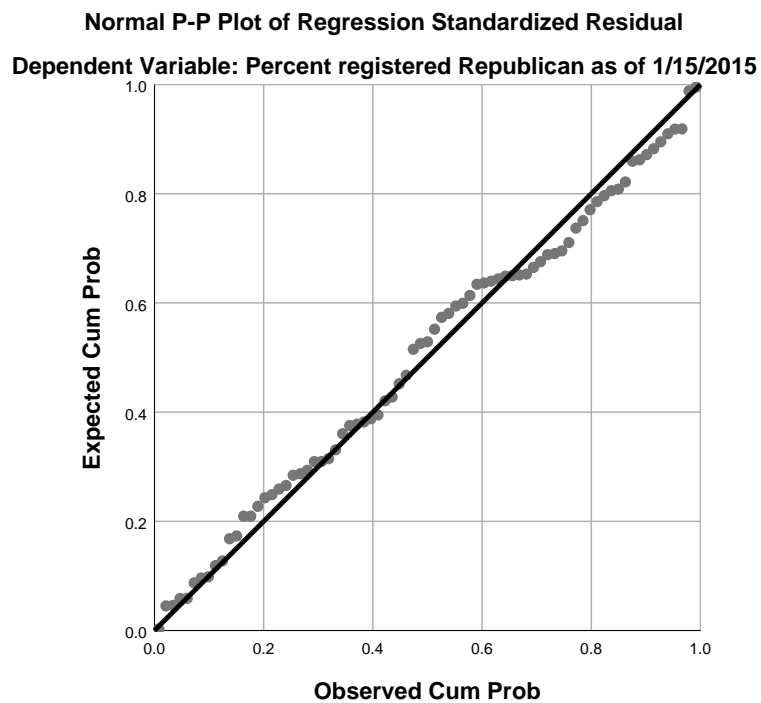
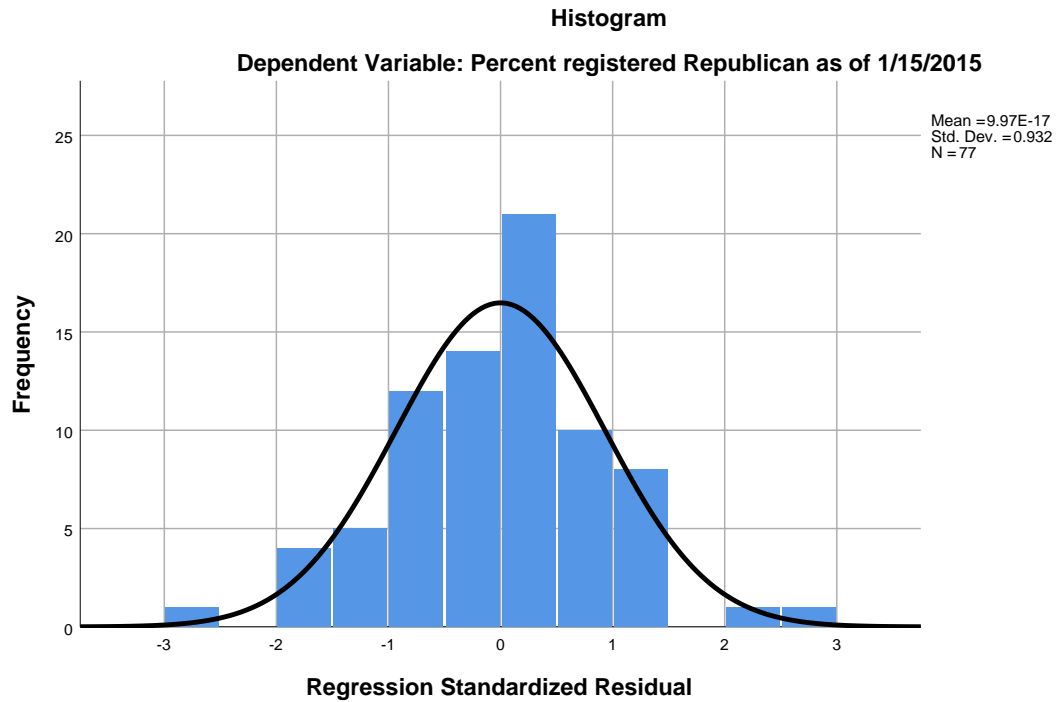
a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	12.3915	62.9327	38.9971	11.91801	77
Residual	-27.95968	26.45126	.00000	9.52118	77
Std. Predicted Value	-2.232	2.008	.000	1.000	77
Std. Residual	-2.737	2.589	.000	.932	77

a. Dependent Variable: Percent registered Republican as of 1/15/2015

## Charts



DATASET ACTIVATE DataSet1.

```

SAVE OUTFILE='C:\Users\bullok1\Downloads\5303_EX_A.sav'
/COMPRESSED.
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL
/CRITERIA=PIN(.1) POUT(.15)
/NOORIGIN
/DEPENDENT Pct_Repub
/METHOD=STEPWISE Black_TransformHispanic_TransformMed_HomeValue Pct_Povert
y Pct_SNAP Pct_FIRE_I
Pct_BlueCollar_OPct_Unemp Pct_Two_Plus Pct_White
/SCATTERPLOT=(*ZRESID ,*ZPRED)
/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
/SAVE LEVER.

```

## Regression

### Notes

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Comments		
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	Active Dataset	DataSet1
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1541
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.



## Notes

Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL /CRITERIA=PIN(.1) POUT(.15) /NOORIGIN /DEPENDENT Pct_Repub /METHOD=STEPWISE Black_Transform Hispanic_Transform Med_HomeValue Pct_Poverty Pct_SNAP Pct_FIRE_I Pct_BlueCollar_O Pct_Unemp Pct_Two_Plus Pct_White /SCATTERPLOT= (*ZRESID,*ZPRED) /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID) /SAVE LEVER.
Resources	Processor Time	00:00:00.84
	Elapsed Time	00:00:00.30
	Memory Required	11968 bytes
	Additional Memory Required for Residual Plots	536 bytes
Variables Created or Modified	LEV_3	Centered Leverage Value

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Percent living in poverty	.	Stepwise (Criteria: Probability-of- F-to-enter <= . 100, Probability-of- F-to-remove >= .150).
2	Percent receiving SNAP assistance	.	Stepwise (Criteria: Probability-of- F-to-enter <= . 100, Probability-of- F-to-remove >= .150).
3	Percent Two or more races	.	Stepwise (Criteria: Probability-of- F-to-enter <= . 100, Probability-of- F-to-remove >= .150).
4	Median home value (2011 \$)	.	Stepwise (Criteria: Probability-of- F-to-enter <= . 100, Probability-of- F-to-remove >= .150).

a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Model Summary<sup>e</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 <sup>a</sup>	.479	.472	11.08056
2	.730 <sup>b</sup>	.533	.521	10.56220
3	.757 <sup>c</sup>	.573	.555	10.17380
4	.768 <sup>d</sup>	.590	.568	10.02960

a. Predictors: (Constant), Percent living in poverty

b. Predictors: (Constant), Percent living in poverty, Percent receiving SNAP assistance

c. Predictors: (Constant), Percent living in poverty, Percent receiving SNAP assistance, Percent Two or more races

d. Predictors: (Constant), Percent living in poverty, Percent receiving SNAP assistance, Percent Two or more races, Median home value (2011 \$)

e. Dependent Variable: Percent registered Republican as of 1/15/2015

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8476.170	1	8476.170	69.036	.000 <sup>b</sup>
	Residual	9208.410	75	122.779		
	Total	17684.580	76			
2	Regression	9429.132	2	4714.566	42.260	.000 <sup>c</sup>
	Residual	8255.448	74	111.560		
	Total	17684.580	76			
3	Regression	10128.623	3	3376.208	32.618	.000 <sup>d</sup>
	Residual	7555.957	73	103.506		
	Total	17684.580	76			
4	Regression	10441.898	4	2610.475	25.951	.000 <sup>e</sup>
	Residual	7242.682	72	100.593		
	Total	17684.580	76			

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. Predictors: (Constant), Percent living in poverty

c. Predictors: (Constant), Percent living in poverty, Percent receiving SNAP assistance

d. Predictors: (Constant), Percent living in poverty, Percent receiving SNAP assistance, Percent Two or more races

e. Predictors: (Constant), Percent living in poverty, Percent receiving SNAP assistance, Percent Two or more races, Median home value (2011 \$)

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	78.763	4.950		15.912	.000
	Percent living in poverty	-2.258	.272	-.692	-8.309	.000
2	(Constant)	78.576	4.719		16.652	.000
	Percent living in poverty	-1.380	.397	-.423	-3.480	.001
	Percent receiving SNAP assistance	-1.069	.366	-.355	-2.923	.005
3	(Constant)	79.578	4.561		17.446	.000
	Percent living in poverty	-1.144	.393	-.351	-2.915	.005
	Percent receiving SNAP assistance	-.948	.355	-.315	-2.669	.009
	Percent Two or more races	-.858	.330	-.225	-2.600	.011
4	(Constant)	66.508	8.665		7.676	.000
	Percent living in poverty	-.901	.411	-.276	-2.193	.032
	Percent receiving SNAP assistance	-.910	.351	-.303	-2.593	.012
	Percent Two or more races	-.975	.332	-.256	-2.936	.004
	Median home value (2011 \$)	.000	.000	.153	1.765	.082

## Coefficients<sup>a</sup>

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Percent living in poverty	1.000	1.000
2	(Constant)		
	Percent living in poverty	.427	2.344
	Percent receiving SNAP assistance	.427	2.344
3	(Constant)		
	Percent living in poverty	.404	2.476
	Percent receiving SNAP assistance	.419	2.385
	Percent Two or more races	.779	1.284
4	(Constant)		
	Percent living in poverty	.358	2.790
	Percent receiving SNAP assistance	.418	2.394
	Percent Two or more races	.748	1.337
	Median home value (2011 \$)	.757	1.322

a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Excluded Variables<sup>a</sup>

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Tolerance
1	Black_Transform	-.103 <sup>b</sup>	-1.217	.227	-.140	.958
	Hispanic_Transform	.147 <sup>b</sup>	1.741	.086	.198	.953
	Median home value (2011 \$)	.111 <sup>b</sup>	1.191	.238	.137	.789
	Percent receiving SNAP assistance	-.355 <sup>b</sup>	-2.923	.005	-.322	.427
	Percent employees in professional industries	-.024 <sup>b</sup>	-.275	.784	-.032	.944
	Percent employees in blue collar occupations	-.021 <sup>b</sup>	-.248	.805	-.029	1.000
	Percent of workforce unemployed	-.221 <sup>b</sup>	-2.166	.034	-.244	.633
	Percent Two or more races	-.255 <sup>b</sup>	-2.857	.006	-.315	.793
	Percent White	.213 <sup>b</sup>	2.099	.039	.237	.648
2	Black_Transform	-.012 <sup>c</sup>	-.132	.895	-.015	.809
	Hispanic_Transform	.124 <sup>c</sup>	1.529	.131	.176	.944
	Median home value (2011 \$)	.102 <sup>c</sup>	1.146	.256	.133	.788
	Percent employees in professional industries	.050 <sup>c</sup>	.578	.565	.068	.865
	Percent employees in blue collar occupations	-.071 <sup>c</sup>	-.869	.388	-.101	.959
	Percent of workforce unemployed	-.099 <sup>c</sup>	-.855	.395	-.100	.471
	Percent Two or more races	-.225 <sup>c</sup>	-2.600	.011	-.291	.779
	Percent White	.122 <sup>c</sup>	1.147	.255	.133	.557
3	Black_Transform	-.050 <sup>d</sup>	-.572	.569	-.067	.787
	Hispanic_Transform	.041 <sup>d</sup>	.469	.640	.055	.759

## Excluded Variables<sup>a</sup>

Model		Collinearity Statistics	
		VIF	Minimum Tolerance
1	Black_Transform	1.044	.958
	Hispanic_Transform	1.049	.953
	Median home value (2011 \$)	1.267	.789
	Percent receiving SNAP assistance	2.344	.427
	Percent employees in professional industries	1.060	.944
	Percent employees in blue collar occupations	1.000	1.000
	Percent of workforce unemployed	1.580	.633
	Percent Two or more races	1.262	.793
	Percent White	1.543	.648
2	Black_Transform	1.236	.361
	Hispanic_Transform	1.060	.422
	Median home value (2011 \$)	1.269	.389
	Percent employees in professional industries	1.157	.391
	Percent employees in blue collar occupations	1.043	.409
	Percent of workforce unemployed	2.125	.317
	Percent Two or more races	1.284	.404
	Percent White	1.794	.367
3	Black_Transform	1.270	.348
	Hispanic_Transform	1.317	.403

### Excluded Variables<sup>a</sup>

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Tolerance
	Median home value (2011 \$)	.153 <sup>d</sup>	1.765	.082	.204	.757
	Percent employees in professional industries	.081 <sup>d</sup>	.979	.331	.115	.847
	Percent employees in blue collar occupations	-.100 <sup>d</sup>	-1.280	.205	-.149	.941
	Percent of workforce unemployed	-.011 <sup>d</sup>	-.094	.926	-.011	.426
	Percent White	.004 <sup>d</sup>	.031	.975	.004	.446
4	Black_Transform	-.114 <sup>e</sup>	-1.266	.210	-.149	.696
	Hispanic_Transform	.051 <sup>e</sup>	.583	.562	.069	.756
	Percent employees in professional industries	-.008 <sup>e</sup>	-.080	.936	-.010	.543
	Percent employees in blue collar occupations	-.038 <sup>e</sup>	-.413	.681	-.049	.673
	Percent of workforce unemployed	-.053 <sup>e</sup>	-.450	.654	-.053	.410
	Percent White	.057 <sup>e</sup>	.484	.630	.057	.419



## Excluded Variables<sup>a</sup>

Model		Collinearity Statistics	
		VIF	Minimum Tolerance
	Median home value (2011 \$)	1.322	.358
	Percent employees in professional industries	1.180	.388
	Percent employees in blue collar occupations	1.063	.392
	Percent of workforce unemployed	2.347	.317
	Percent White	2.240	.366
4	Black_Transform	1.438	.333
	Hispanic_Transform	1.322	.358
	Percent employees in professional industries	1.843	.351
	Percent employees in blue collar occupations	1.485	.358
	Percent of workforce unemployed	2.442	.309
	Percent White	2.389	.345

a. Dependent Variable: Percent registered Republican as of 1/15/2015

b. Predictors in the Model: (Constant), Percent living in poverty

c. Predictors in the Model: (Constant), Percent living in poverty, Percent receiving SNAP assistance

d. Predictors in the Model: (Constant), Percent living in poverty, Percent receiving SNAP assistance, Percent Two or more races

e. Predictors in the Model: (Constant), Percent living in poverty, Percent receiving SNAP assistance, Percent

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					Percent living in poverty	Percent receiving SNAP assistance
1	1	1.967	1.000	.02	.02	
	2	.033	7.710	.98	.98	
2	1	2.924	1.000	.01	.00	.01
	2	.058	7.122	.65	.01	.34
	3	.018	12.669	.35	.99	.65
3	1	3.804	1.000	.00	.00	.00
	2	.121	5.606	.07	.01	.02
	3	.057	8.160	.60	.01	.37
	4	.018	14.534	.33	.98	.61
4	1	4.694	1.000	.00	.00	.00
	2	.164	5.358	.01	.00	.02
	3	.108	6.603	.00	.03	.12
	4	.025	13.811	.10	.32	.79
	5	.011	21.058	.89	.64	.06

## Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Variance Proportions	
		Percent Two or more races	Median home value (2011 \$)
1	1		
	2		
2	1		
	2		
	3		
3	1	.01	
	2	.96	
	3	.02	
	4	.01	
4	1	.01	.00
	2	.31	.12
	3	.63	.05
	4	.00	.19
	5	.05	.64

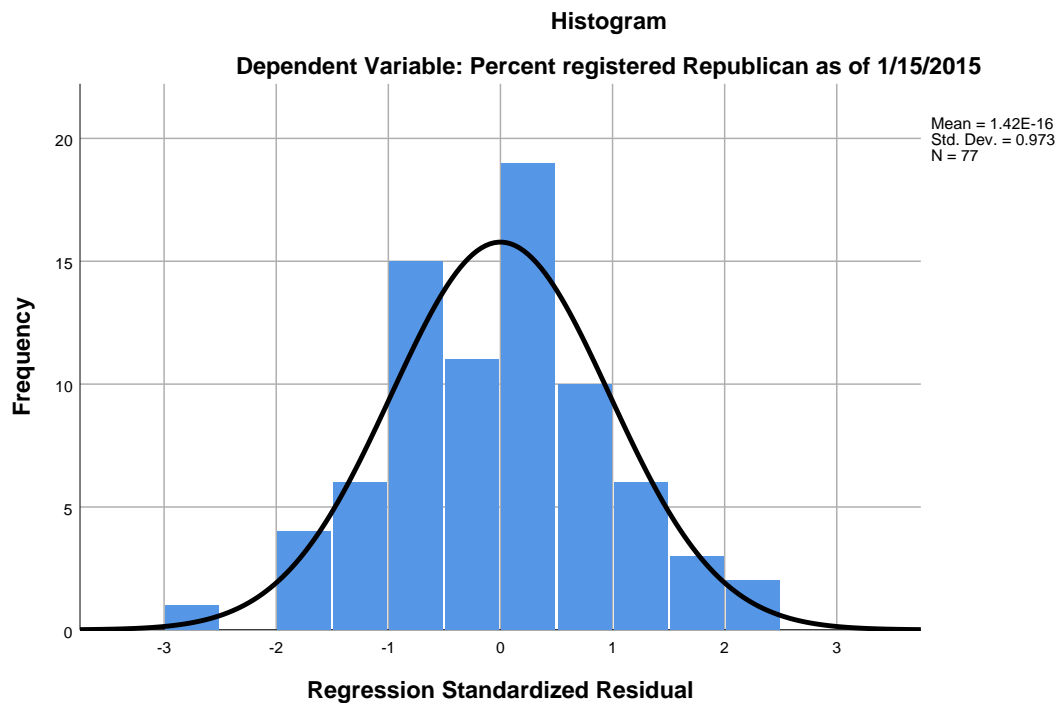
a. Dependent Variable: Percent registered Republican as of 1/15/2015

### Residuals Statistics<sup>a</sup>

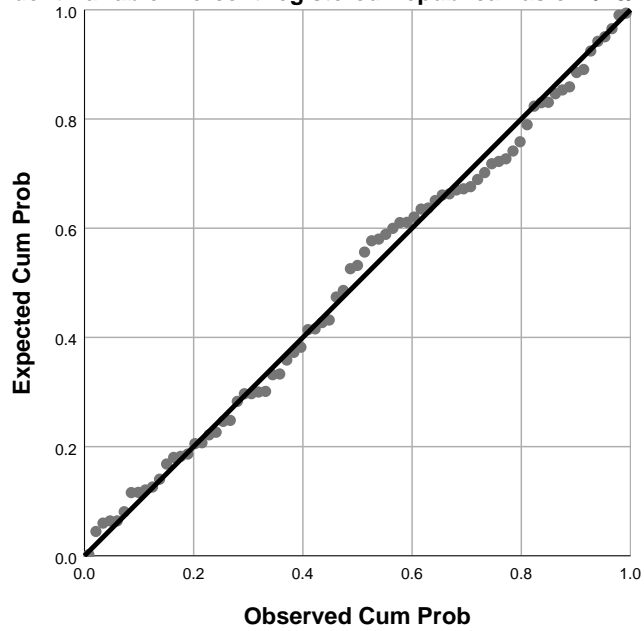
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	13.7783	62.0505	38.9971	11.72149	77
Std. Predicted Value	-2.152	1.967	.000	1.000	77
Standard Error of Predicted Value	1.201	5.379	2.439	.770	77
Adjusted Predicted Value	12.2233	62.2614	38.8692	11.81983	77
Residual	-28.60983	25.06866	.00000	9.76209	77
Std. Residual	-2.853	2.499	.000	.973	77
Stud. Residual	-2.927	2.562	.006	1.011	77
Deleted Residual	-30.12759	27.03491	.12796	10.55788	77
Stud. Deleted Residual	-3.097	2.668	.006	1.029	77
Mahal. Distance	.102	20.874	3.948	3.333	77
Cook's Distance	.000	.195	.017	.034	77
Centered Leverage Value	.001	.275	.052	.044	77

a. Dependent Variable: Percent registered Republican as of 1/15/2015

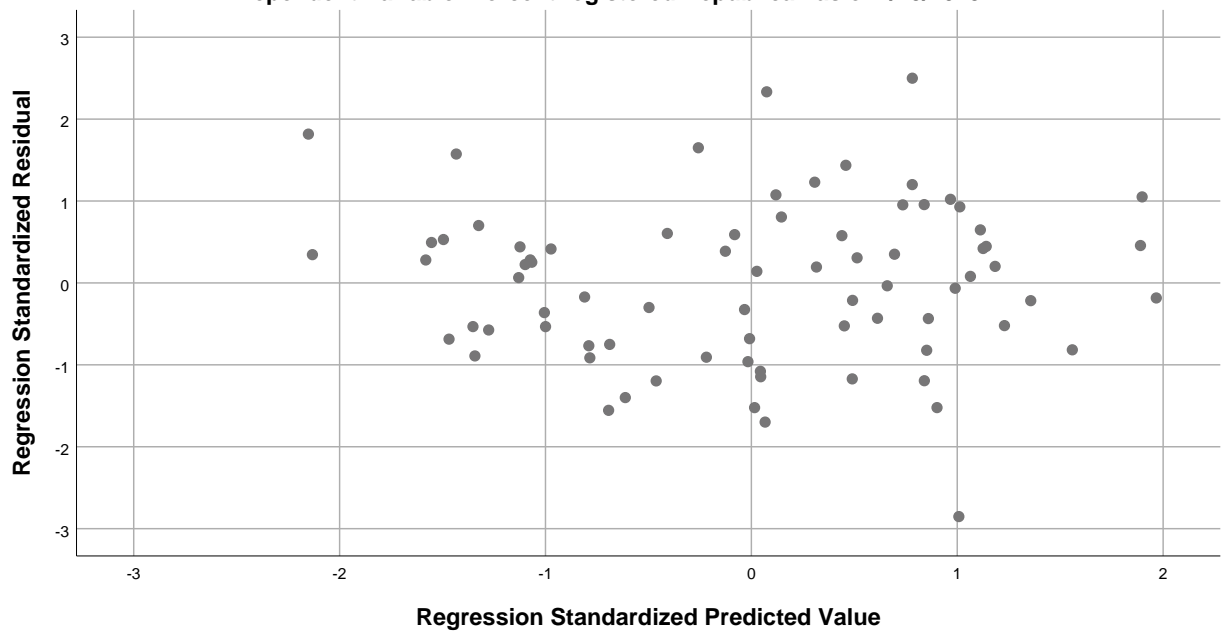
## Charts



**Normal P-P Plot of Regression Standardized Residual**  
**Dependent Variable: Percent registered Republican as of 1/15/2015**



**Scatterplot**  
**Dependent Variable: Percent registered Republican as of 1/15/2015**



SAVE OUTFILE= 'D:\EX4\5303\_EX\_A.sav'

/COMPRESSED.

GET

FILE='D:\EX4\5303\_EX\_A.sav'.

DATASET NAME DataSet1 WINDOW=FRONT.