Program Summary - FinalProgram.sas

Execution Environment

Author:	rtedesco11970
File:	/home/rtedesco11970/FinalProj/FinalProgram.sas
SAS Platform:	Linux LIN X64 3.10.0-693.21.1.el7.x86_64
SAS Host:	ODAWS03.ODA.SAS.COM
SAS Version:	9.04.01M5P09132017
SAS Locale:	en_US
Submission Time:	4/23/2019, 5:42:47 PM
Browser Host:	147.126.81.8
User Agent:	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/74.0.3729.108 Safari/537.36
Application Server:	ODAMID00-PROD-US.ODA.SAS.COM

Code: FinalProgram.sas

```
proc import datafile="/home/rtedesco11970/FinalProj/PovertyPANJ.xlsx" dbms=xlsx
out=poverty replace;
getnames=yes;
run;

Proc import datafile="/home/rtedesco11970/FinalProj/New Jersey Crime Rates.xlsx" dbms=xlsx
out=crime_data replace;
getnames=yes;
run;

data NJcrimePer100000;
set crime_data (firstobs=98);
Title "NJCrime Per 100,000 1976-2016";
run;


proc import datafile="/home/rtedesco11970/FinalProj/UnemploymentRate.xls" dbms=xls replace
out=unmpRate;
getnames=yes;
Title "New Jersey Unemployment";
run;

Proc import datafile="/home/rtedesco11970/FinalProj/PAcrimeshort.csv" dbms=csv
out=PAcrime_data replace;
getnames=yes;
run;

Proc import datafile="/home/rtedesco11970/FinalProj/housing.xls" dbms=xls
out=housing replace;
getnames=yes;
run;

proc sort;
by state;
run;


data PANJcrimecpi;
merge PAcrime_data NJcrimePer100000 poverty housing;
lnviolent=log(violent);
lnpovertypct=log(povertypct);
lnaveragecpi=log(AverageCPI);
lnrobbery=log(robbery);
by state;
run;
proc print;
run;
```

```
proc gchart;
vbar year/sumvar=MedianHouseholdIncome discrete
group=state;
Title "Median Household Income by State";
run;
proc gchart;
vbar year/sumvar=averagecpi discrete
group=state;
Title "AverageCPI by State";
run;
proc gchart;
vbar year/sumvar=povertypct discrete
group=state;
Title "Poverty rate by State";
run;
proc gchart;
vbar year/sumvar=violent discrete
group=state;
Title "Violent crime rate by State";
run;
proc gchart;
vbar year/sumvar=murder discrete
group=state;
Title "Murder rate by State";
run;
*Our vbar charts depict the rates of serious crime,poverty, cpi,
and median household income between New Jersey and PA;
proc univariate noprint;
by State;
QQplot murder violent robbery;
title 'QQplots of MurderRate ViolentCrimeRate and AverageCPI by State';
run;

proc ttest;
var robbery;
class State;
run;
*H0: the difference in true mean robbery rate of NJ and PA is 0.
HA: the difference in true mean robbert rate of NJ and PA is not 0.
test statistic=0.98     value=0.3337     a=0.05
Therefore we fail to reject the null hypothesis and conclude that the true mean difference
in statistically rate between NJ and PA is not statistically significant.;

proc ttest;
var murder;
class State;
run;
*H0: the difference in true mean murder rate of NJ and PA is 0.
HA: the difference in true mean murder rate of NJ and PA is not 0.
test statistic=-6.97     p-value=>0.0001     a=0.05
Therefore we reject the null hypothesis and say that the true mean difference
in murder rate between NJ and PA is statistically significant.;
proc npar1way wilcoxon;
var violent;
class state;
run;
*H0:the difference in true median murder rate of NJ and PA is 0.
HA:the difference in true median murder rate of NJ and PA is not 0.
test statistic=-6.97     p-value=>0.0001     a=0.05.
proc reg;

proc corr;
title "correlation between CPI, UnemploymentRate, and NJ/PA crime variables";
var murder violent robbery AverageCPI povertypct MedianHouseholdIncome;
by state;
run;
*There are a few possible regressions we want to look at and see
if they agree with our assumptions.
```

We are interested in the statistically different rates of serious
crime between NJ and PA and finding an explanation for that.;

```
proc reg;
model violent=povertypct;
by state;
title "Regresison of violence as a function of Poverty Rate(%)";
run;
*While there is a slight trend in the PA residuals for violence as a function of poverty,
but if we remove the two outliers, the regression is not awful.;




proc reg;
model lnviolent=lnaveragecpi;
by state;
title"regression of robbery as a function of Poverty Rate(%) for the year";
run;
*We could not conclude that there was a relationip between violent crime
and CPI in PA because the residual plots have a hyperbolic trend.;
```

Log: FinalProgram.sas

Warnings (1)

Notes (56)

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
70
71         proc import datafile="/home/rtedesco11970/FinalProj/PovertyPANJ.xlsx" dbms=xlsx
72         out=poverty replace;
73         getnames=yes;
74         run;
```

NOTE: One or more variables were converted because the data type is not supported by the V9 engine. For more details, run with
      options MSGLEVEL=I.
NOTE: The import data set has 30 observations and 3 variables.
NOTE: WORK.POVERTY data set was successfully created.
NOTE: PROCEDURE IMPORT used (Total process time):
      real time   0.00 seconds
      user cpu time   0.01 seconds
      system cpu time   0.01 seconds
      memory   2595.65k
      OS Memory   40368.00k
      Timestamp   04/23/2019 10:42:41 PM
      Step Count   53 Switch Count 4
      Page Faults   0
      Page Reclaims   560
      Page Swaps   0
      Voluntary Context Switches   24
      Involuntary Context Switches 0
      Block Input Operations   0
      Block Output Operations   264


```
75
76         Proc import datafile="/home/rtedesco11970/FinalProj/New Jersey Crime Rates.xlsx" dbms=xlsx
77         out=crime_data replace;
78         getnames=yes;
79         run;
```

NOTE: One or more variables were converted because the data type is not supported by the V9 engine. For more details, run with
      options MSGLEVEL=I.
NOTE: The import data set has 112 observations and 9 variables.
NOTE: WORK.CRIME_DATA data set was successfully created.
NOTE: PROCEDURE IMPORT used (Total process time):
      real time   0.01 seconds
      user cpu time   0.01 seconds
      system cpu time   0.00 seconds
      memory   2599.93k
      OS Memory   40368.00k
      Timestamp   04/23/2019 10:42:41 PM
      Step Count   54 Switch Count 4
      Page Faults   0
      Page Reclaims   552
      Page Swaps   0

```
237        *While there is a slight trend in the PA residuals for violence as a function of poverty,
238        but if we remove the two outliers, the regression is not awful.;
239
240        proc reg;
241        model lnviolent=lnaveragecpi;
242        by state;
243        title"regression of robbery as a function of Poverty Rate(%) for the year";
244        run;
```

NOTE: Interactivity disabled with BY processing.
NOTE: PROCEDURE REG used (Total process time):
      real time   1.21 seconds
      user cpu time   0.41 seconds
      system cpu time   0.06 seconds
      memory   12339.03k
      OS Memory   62964.00k
      Timestamp   04/23/2019 10:42:47 PM
      Step Count   73 Switch Count 43
      Page Faults   0
      Page Reclaims   23653
      Page Swaps   0
      Voluntary Context Switches   1940
      Involuntary Context Switches   1
      Block Input Operations   0
      Block Output Operations   2328

```
245        *We could not conclude that there was a relationip between violent crime
246        and CPI in PA because the residual plots have a hyperbolic trend.;
247
248        OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
260
```

Results: FinalProgram.sas

New Jersey Unemployment

| Obs	State	Year	Population	Violent	Murder	Rape	Robbery	Aggravated_assault	AverageCPI	PovertyPct	MedianHouseholdIncome	Inviolent	Inpovertypct	Inaveragecpi	Inrobbery
1	NJ	2000	8414350	383.8	3.4	16.1	161.1	203.2	179.58	8.2	71950	5.95012	2.10413	5.19062	5.08203
2	NJ	2001	8511116	388.8	3.9	15	165.8	204.1	184.26	8.2	71854	5.96307	2.10413	5.21635	5.11078
3	NJ	2002	8575252	376.1	4	15.9	162.7	193.5	188.52	8.4	74561	5.92986	2.12823	5.23920	5.09191
4	NJ	2003	8642412	364.3	4.7	14.9	154.4	190.4	193.39	8.4	74879	5.89798	2.12823	5.26471	5.03955
5	NJ	2004	8685166	356.3	4.5	15.3	150.6	185.9	200.83	7.2	71907	5.87577	1.97408	5.30246	5.01463
6	NJ	2005	8703150	355.3	4.8	13.9	151.8	184.7	208.62	8	79735	5.87296	2.07944	5.34051	5.02256
7	NJ	2006	8724560	351.6	4.9	14.2	153.1	179.4	216.55	8.8	82948	5.86249	2.17475	5.37782	5.03109
8	NJ	2007	8685920	329.3	4.4	12.1	144.5	168.3	222	9.1	71712	5.79697	2.20827	5.40268	4.97328
9	NJ	2008	8663398	327.3	4.3	13	146.6	163.4	229.94	9.4	74535	5.79088	2.24071	5.43782	4.98771
10	NJ	2009	8707739	311.4	3.7	12	133.7	162.1	230.19	10.2	74189	5.74108	2.32239	5.43891	4.89560
11	NJ	2010	8799593	307.5	4.2	11.1	134.3	157.8	234.36	11.2	70947	5.72848	2.41591	5.45686	4.90008
12	NJ	2011	8834773	307.9	4.3	11.4	138.2	154	240.89	10.5	68091	5.72978	2.35138	5.48434	4.92870
13	NJ	2012	8867749	290.1	4.4	11.7	128.4	145.7	245.43	10.3	71336	5.67023	2.33214	5.50301	4.85515
14	NJ	2013	8911502	288.9	4.5	9.7	135.6	135.5	248.93	11.3	67198	5.66608	2.42480	5.51717	4.90971
15	NJ	2014	8938844	260.9	3.9	10.7	117.5	125.2	252.17	11.3	67622	5.56414	2.42480	5.53010	4.76644
16	PA	2000	12281054	420	4.9	26.4	147.8	240.9	190.917	10.5	60204	6.04025	2.35138	5.25184	4.99586
17	PA	2001	12303104	409.9	5.3	28.2	142.2	234.2	196.917	10.7	60373	6.01591	2.37024	5.28278	4.95723
18	PA	2002	12328827	402.1	5.1	30.3	139.2	227.6	203.317	10.5	58069	5.99670	2.35138	5.31477	4.93591
19	PA	2003	12370761	397.8	5.2	28.7	145.3	218.5	211.058	10.9	57361	5.98595	2.38876	5.35213	4.97880
20	PA	2004	12394471	411.5	5.2	28.5	149.1	228.6	220.442	11.7	57378	6.01981	2.45959	5.39563	5.00462
21	PA	2005	12405348	425	6.1	28.9	154.9	235.4	228.683	11.9	58258	6.05209	2.47654	5.43234	5.04278
22	PA	2006	12440621	442.3	6	29	169.6	237.8	237.25	12.1	59082	6.09199	2.49321	5.46911	5.13344
23	PA	2007	12432792	416.7	5.8	27.7	156.4	226.8	247.534	11.6	57406	6.03237	2.45101	5.51155	5.05242
24	PA	2008	12448279	410	5.7	28	151.6	224.8	255.159	12.1	58666	6.01616	2.49321	5.54189	5.02125
25	PA	2009	12604767	382.3	5.3	28.8	138.9	209.4	258.682	12.5	55172	5.94621	2.52573	5.55560	4.93375
26	PA	2010	12717722	366.5	5.1	27.3	128.8	205.3	259.761	13.4	54436	5.90400	2.59525	5.55976	4.85826
27	PA	2011	12743948	362.4	5	26.2	126.8	204.4	262.59	13.8	54516	5.89275	2.62467	5.57059	4.84261
28	PA	2012	12764475	355.5	5.5	26.4	123.3	200.3	269.27	13.7	55518	5.87353	2.61740	5.59571	4.81462
29	PA	2013	12781296	335.1	4.8	21.3	115.3	185.3	274.766	13.7	58135	5.81443	2.61740	5.61592	4.74754
30	PA	2014	12787209	314.1	4.8	21.8	105.8	173.5	280.885	13.6	57185	5.74971	2.61007	5.63795	4.66155

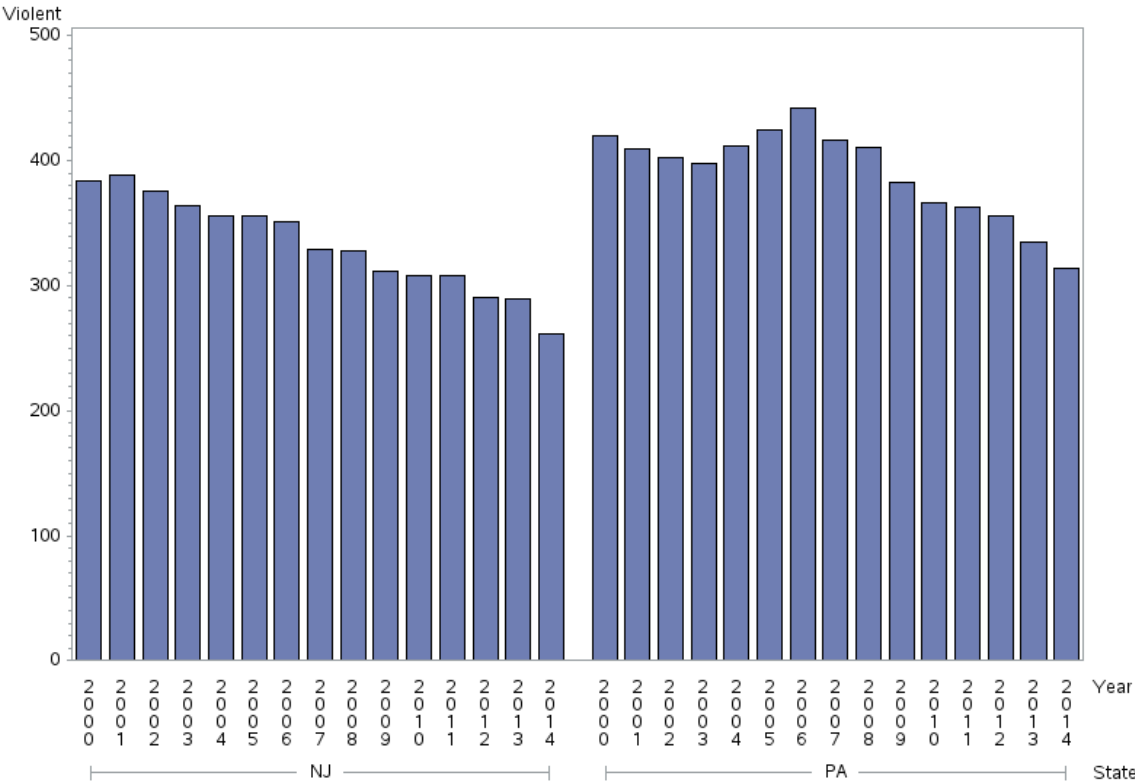## Median Household Income by State
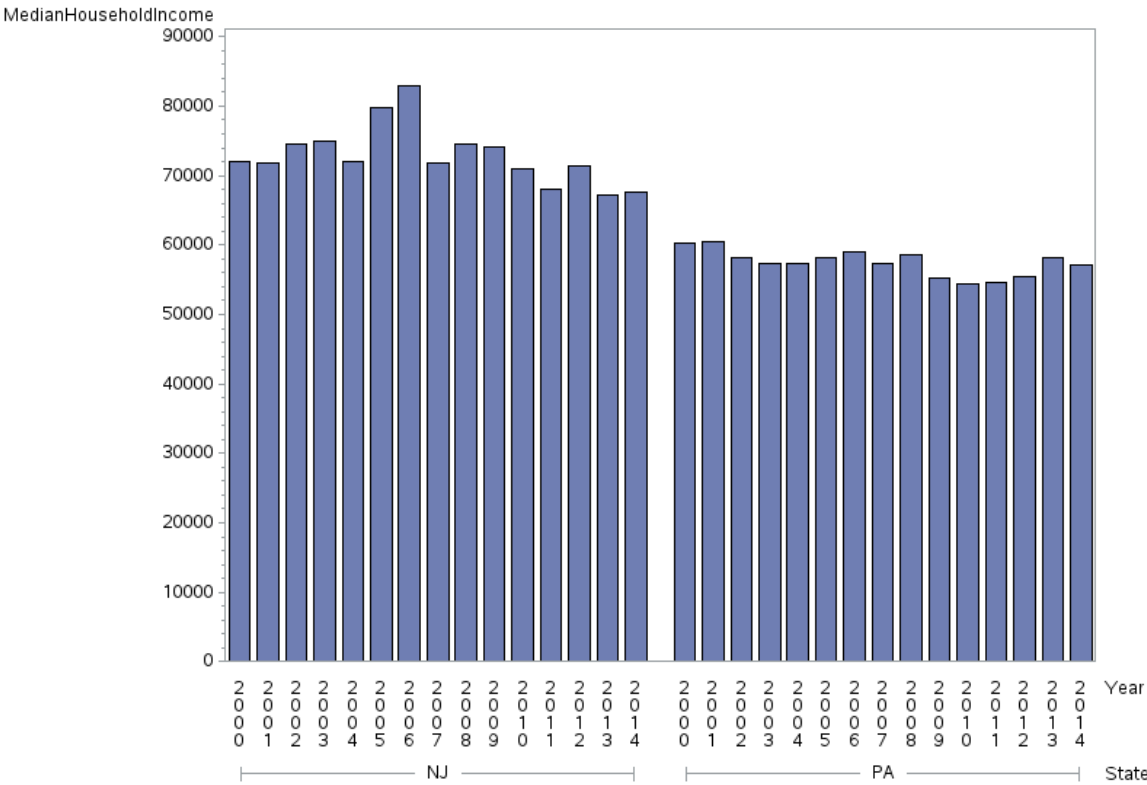
AverageCPI by State
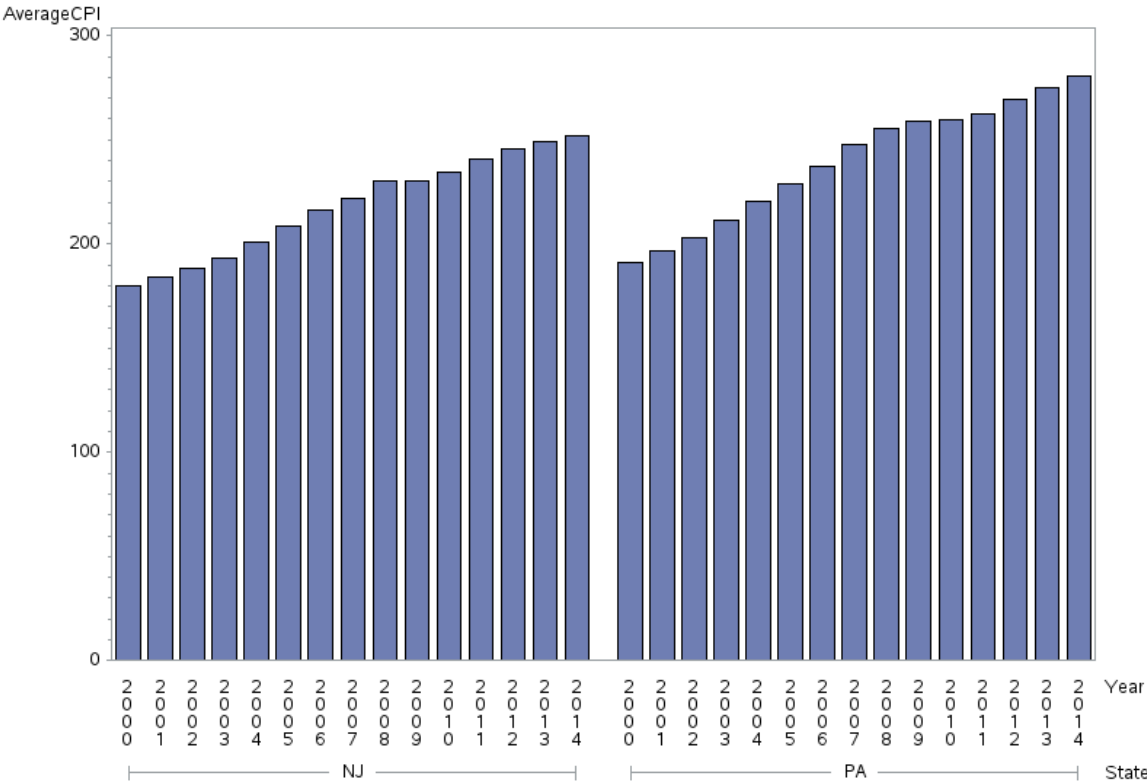
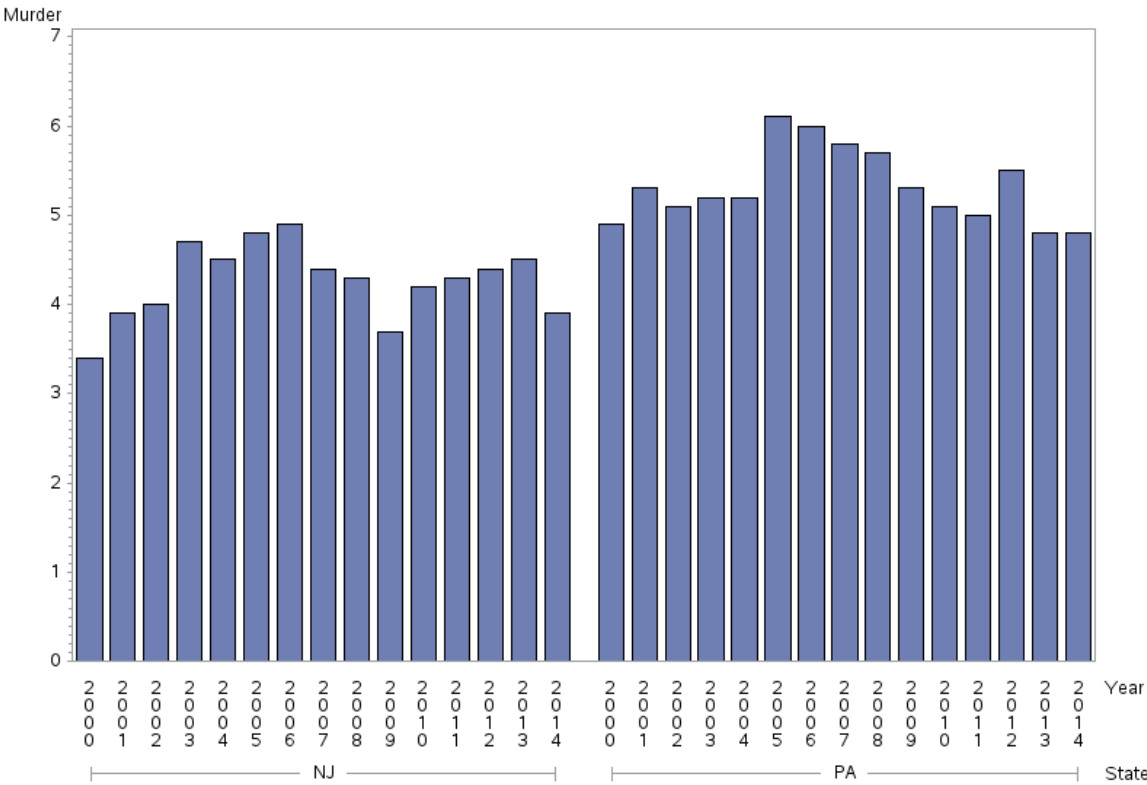## Poverty rate by State
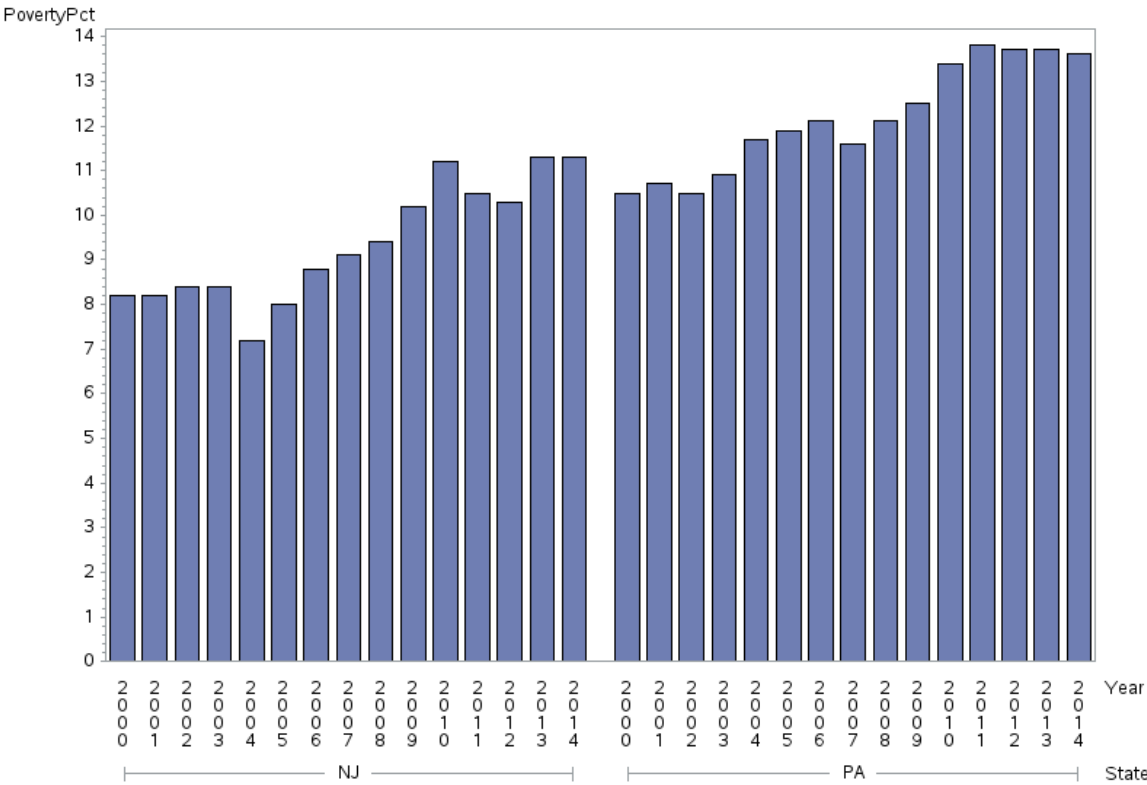
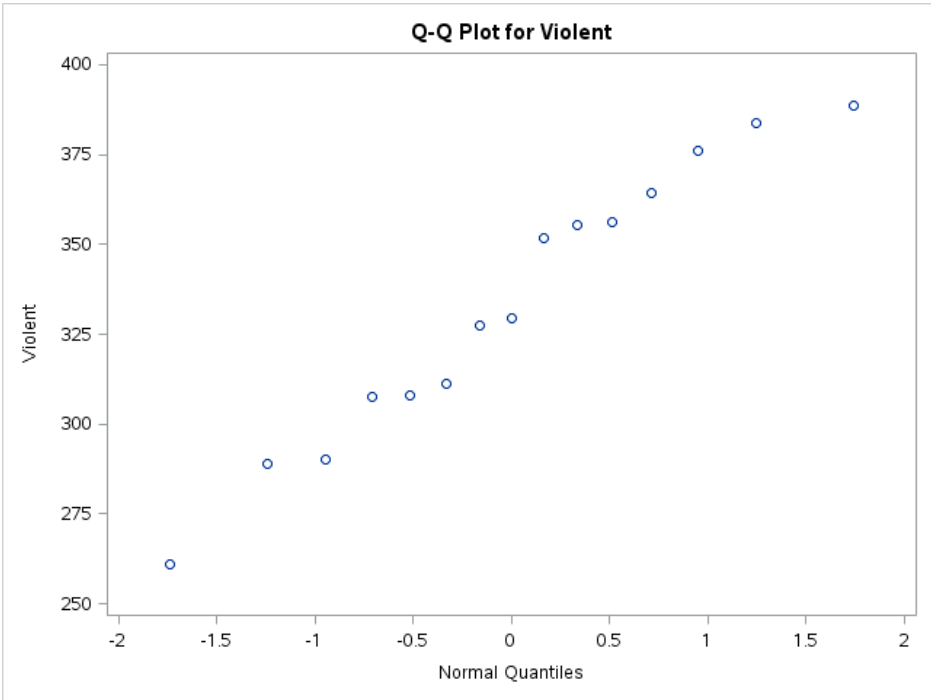## Violent crime rate by State

Murder rate by State

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The UNIVARIATE Procedure

State=NJ

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The UNIVARIATE Procedure

State=NJ

Q-Q Plot for Murder

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The UNIVARIATE Procedure

State=NJ

Q-Q Plot for Robbery

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The UNIVARIATE Procedure

State=PA

Q-Q Plot for Violent

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The UNIVARIATE Procedure

State=PA

Q-Q Plot for Murder

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The UNIVARIATE Procedure

State=PA

Q-Q Plot for Robbery
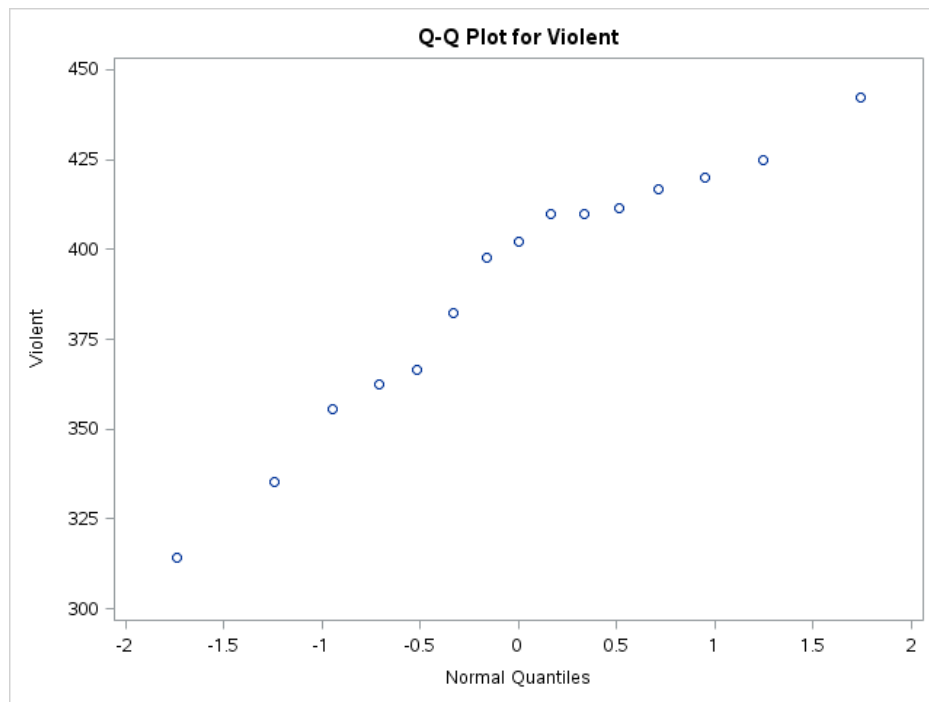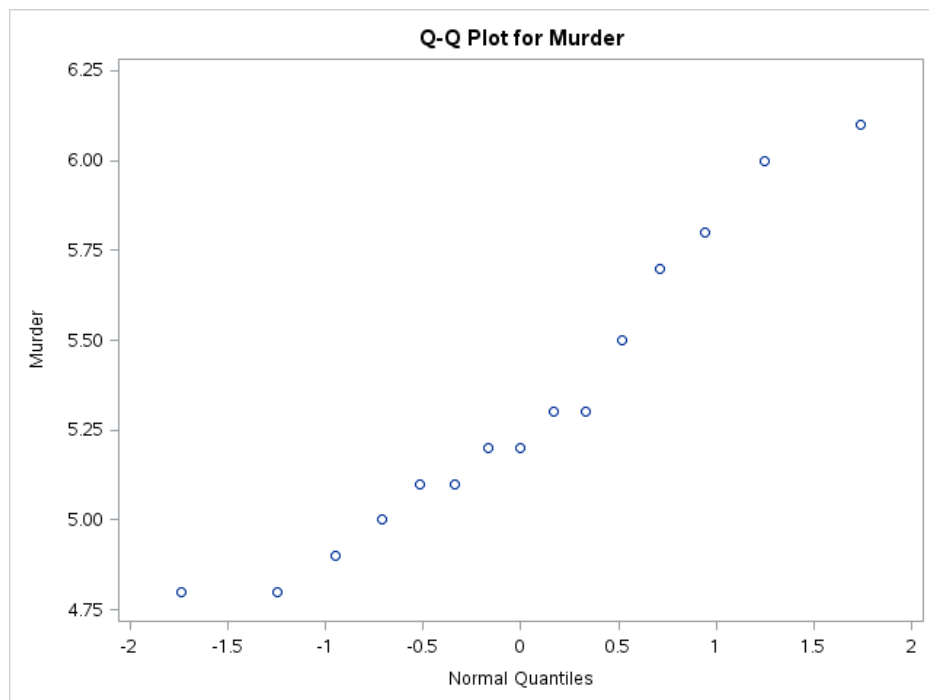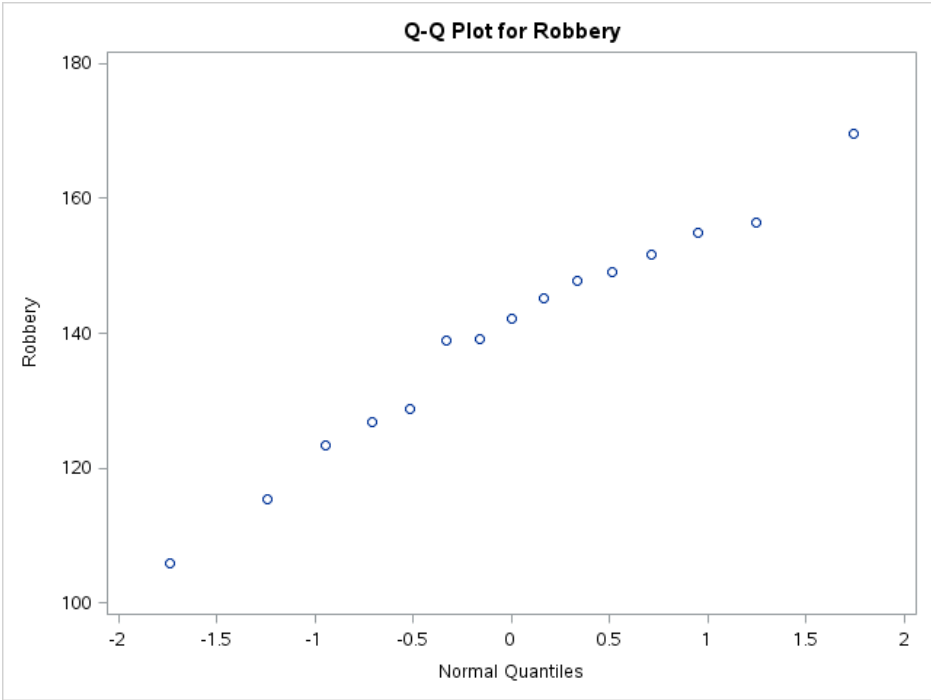
QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The TTEST Procedure

Variable: Robbery (Robbery)

State	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
NJ		15	145.2	13.7513	3.5506	117.5	165.8
PA		15	139.7	16.9806	4.3844	105.8	169.6
Diff (1-2)	Pooled		5.5533	15.4505	5.6417		
Diff (1-2)	Satterthwaite		5.5533		5.6417		

State	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
NJ		145.2	137.6	152.8	13.7513	10.0677	21.6872
PA		139.7	130.3	149.1	16.9806	12.4319	26.7800
Diff (1-2)	Pooled	5.5533	-6.0032	17.1099	15.4505	12.2612	20.8961
Diff (1-2)	Satterthwaite	5.5533	-6.0258	17.1324			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	28	0.98	0.3334
Satterthwaite	Unequal	26.84	0.98	0.3337

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	14	14	1.52	0.4398
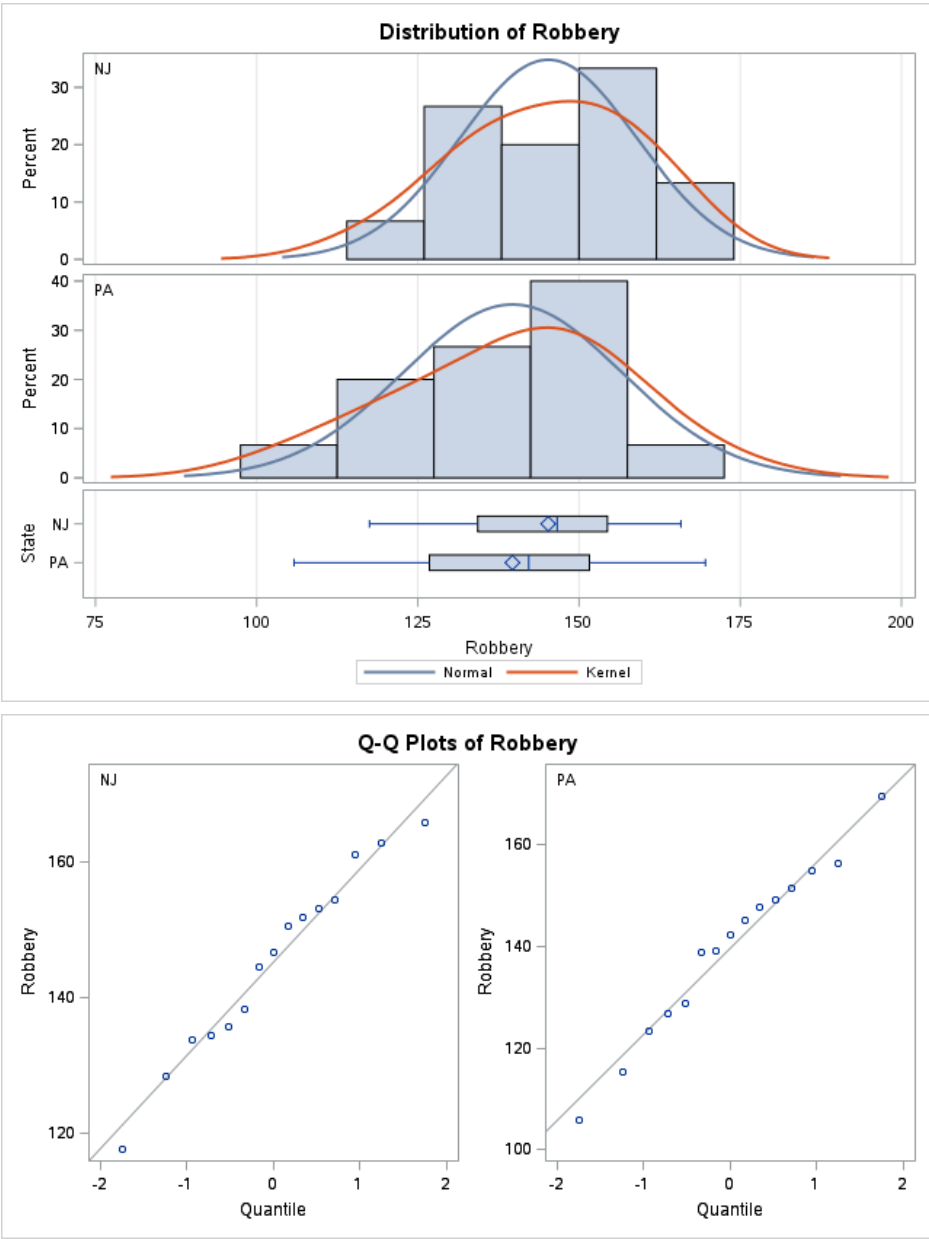
Distribution of Robbery

Q-Q Plots of Robbery

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The TTEST Procedure

Variable: Murder (Murder)

State	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
NJ		15	4.2600	0.4171	0.1077	3.4000	4.9000
PA		15	5.3200	0.4161	0.1074	4.8000	6.1000
Diff (1-2)	Pooled		-1.0600	0.4166	0.1521		
Diff (1-2)	Satterthwaite		-1.0600		0.1521		

State	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
NJ		4.2600	4.0290	4.4910	0.4171	0.3054	0.6579
PA		5.3200	5.0896	5.5504	0.4161	0.3046	0.6562
Diff (1-2)	Pooled	-1.0600	-1.3716	-0.7484	0.4166	0.3306	0.5635
Diff (1-2)	Satterthwaite	-1.0600	-1.3716	-0.7484			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	28	-6.97	<.0001
Satterthwaite	Unequal	28	-6.97	<.0001

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	14	14	1.00	0.9928

Distribution of Murder
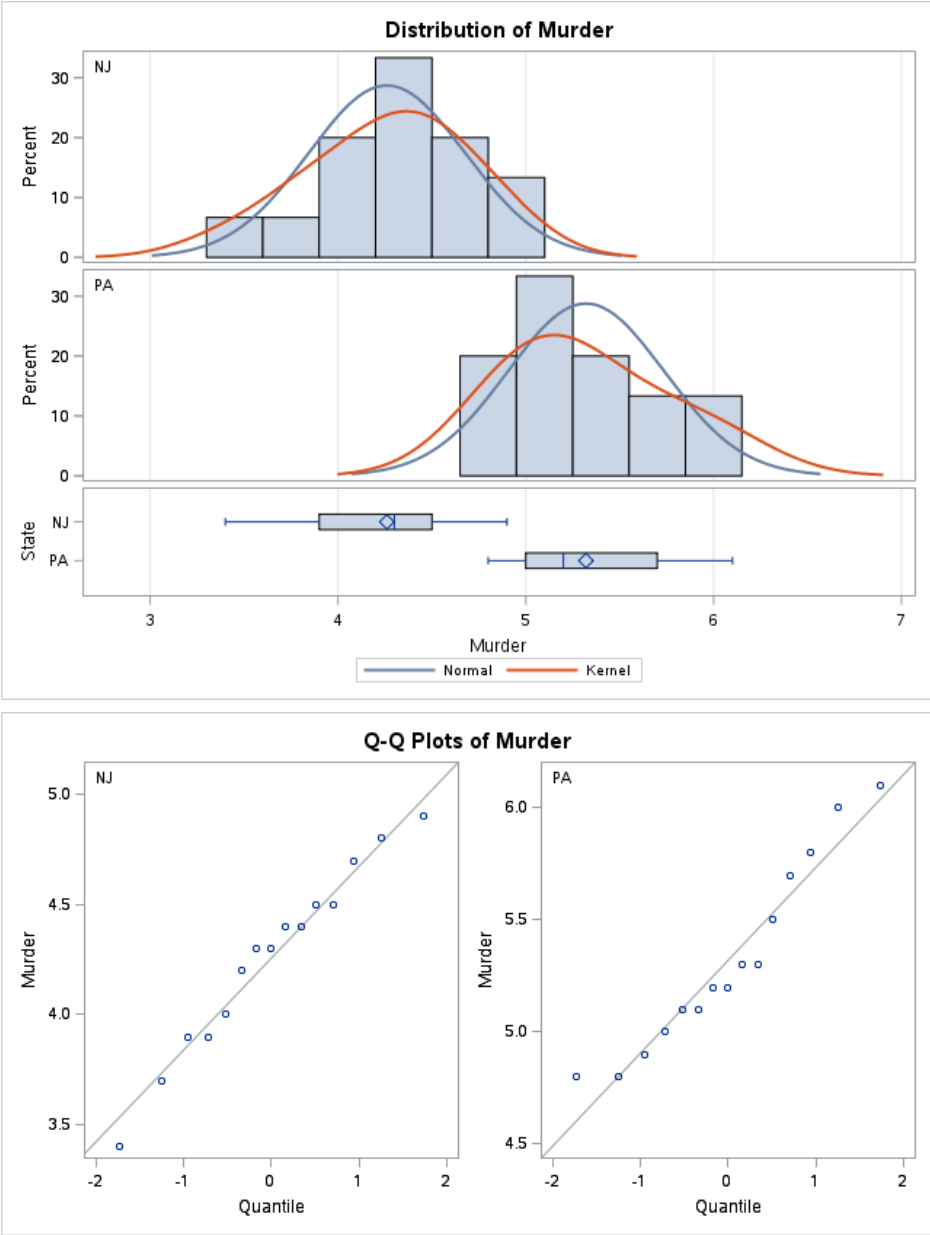
Q-Q Plots of Murder

QQplots of MurderRate ViolentCrimeRate and AverageCPI by State

The NPAR1WAY Procedure

		Sum of	Expected	Std Dev	Mean
State	**N**	**Scores**	**Under H0**	**Under H0**	**Score**
NJ	15	150.0	232.50	24.109127	10.0
PA	15	315.0	232.50	24.109127	21.0

Wilcoxon Scores (Rank Sums) for Variable Violent Classified by Variable State

Wilcoxon Two-Sample Test	
Statistic	150.0000
Normal Approximation	
Z	-3.4012
One-Sided Pr < Z	0.0003
Two-Sided Pr > |Z|	0.0007
t Approximation	
One-Sided Pr < Z	0.0010
Two-Sided Pr > |Z|	0.0020
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test

Kruskal-Wallis Test	
Chi-Square	11.7097
DF	1
Pr > Chi-Square	0.0006
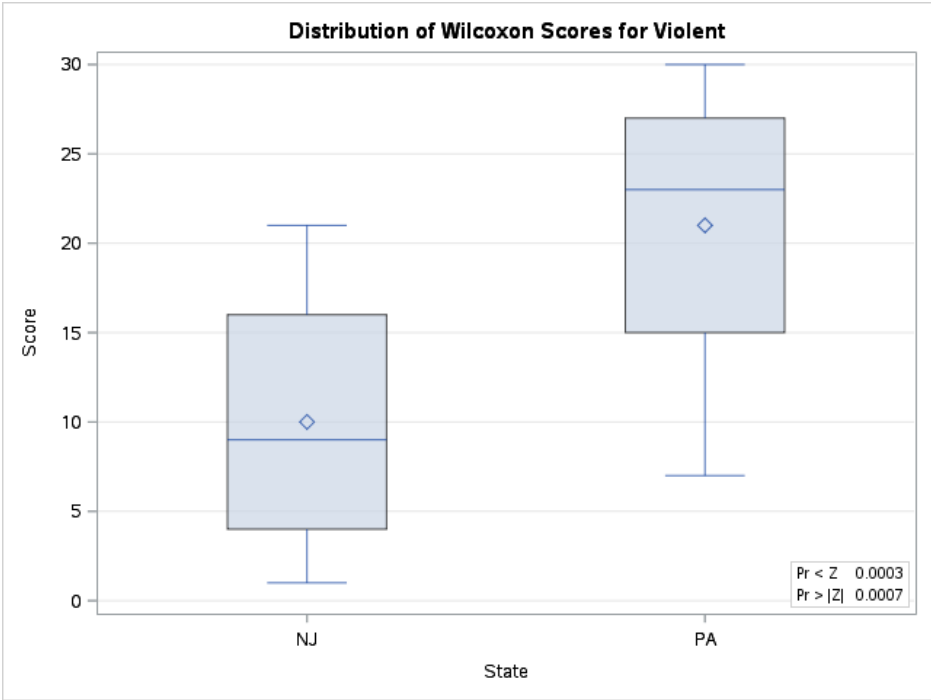
Distribution of Wilcoxon Scores for Violent

Pr < Z   0.0003
Pr > |Z| 0.0007

---

correlation between CPI, UnemploymentRate, and NJ/PA crime variables

The CORR Procedure

State=NJ

6 Variables:	Murder Violent Robbery AverageCPI PovertyPct MedianHouseholdIncome

Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Murder	15	4.26000	0.41713	63.90000	3.40000	4.90000	Murder
Violent	15	333.30000	38.44569	5000	260.90000	388.80000	Violent
Robbery	15	145.22000	13.75132	2178	117.50000	165.80000	Robbery
AverageCPI	15	218.37733	24.56389	3276	179.58000	252.17000	AverageCPI
PovertyPct	15	9.36667	1.34253	140.50000	7.20000	11.30000	PovertyPct
MedianHouseholdIncome	15	72898	4250	1093464	67198	82948	MedianHouseholdIncome

Pearson Correlation Coefficients, N = 15 Prob > |r| under H0: Rho=0						
	Murder	Violent	Robbery	AverageCPI	PovertyPct	MedianHouseholdIncome
Murder Murder	1.00000	-0.04646 0.8694	0.00513 0.9855	0.17440 0.5342	-0.13265 0.6374	0.44043 0.1004
Violent Violent	-0.04646 0.8694	1.00000	0.98050 <.0001	-0.97234 <.0001	-0.89244 <.0001	0.51585 0.0490
Robbery Robbery	0.00513 0.9855	0.98050 <.0001	1.00000	-0.92694 <.0001	-0.84597 <.0001	0.48917 0.0642
AverageCPI AverageCPI	0.17440 0.5342	-0.97234 <.0001	-0.92694 <.0001	1.00000	0.87549 <.0001	-0.40963 0.1294
PovertyPct PovertyPct	-0.13265 0.6374	-0.89244 <.0001	-0.84597 <.0001	0.87549 <.0001	1.00000	-0.55520 0.0317
MedianHouseholdIncome MedianHouseholdIncome	0.44043 0.1004	0.51585 0.0490	0.48917 0.0642	-0.40963 0.1294	-0.55520 0.0317	1.00000

---

correlation between CPI, UnemploymentRate, and NJ/PA crime variables

The CORR Procedure

State=PA

6 Variables:	Murder Violent Robbery AverageCPI PovertyPct MedianHouseholdIncome

Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label

Simple Statistics							
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Murder	15	5.32000	0.41610	79.80000	4.80000	6.10000	Murder
Violent	15	390.08000	36.23038	5851	314.10000	442.30000	Violent
Robbery	15	139.66667	16.98056	2095	105.80000	169.60000	Robbery
AverageCPI	15	239.81540	29.56781	3597	190.91700	280.88500	AverageCPI
PovertyPct	15	12.18000	1.22428	182.70000	10.50000	13.80000	PovertyPct
MedianHouseholdIncome	15	57451	1861	861759	54436	60373	MedianHouseholdIncome

Pearson Correlation Coefficients, N = 15 Prob > |r| under H0: Rho=0						
	Murder	Violent	Robbery	AverageCPI	PovertyPct	MedianHouseholdIncome
Murder Murder	1.00000	0.66364 0.0070	0.74293 0.0015	-0.06951 0.8056	-0.18424 0.5110	0.17807 0.5255
Violent Violent	0.66364 0.0070	1.00000	0.97631 <.0001	-0.71403 0.0028	-0.75858 0.0010	0.53115 0.0416
Robbery Robbery	0.74293 0.0015	0.97631 <.0001	1.00000	-0.57149 0.0260	-0.65296 0.0083	0.45081 0.0917
AverageCPI AverageCPI	-0.06951 0.8056	-0.71403 0.0028	-0.57149 0.0260	1.00000	0.93562 <.0001	-0.63266 0.0114
PovertyPct PovertyPct	-0.18424 0.5110	-0.75858 0.0010	-0.65296 0.0083	0.93562 <.0001	1.00000	-0.68050 0.0052
MedianHouseholdIncome MedianHouseholdIncome	0.17807 0.5255	0.53115 0.0416	0.45081 0.0917	-0.63266 0.0114	-0.68050 0.0052	1.00000

Regresison of violence as a function of Poverty Rate(%)

The REG Procedure
Model: MODEL1
Dependent Variable: Violent Violent

State=NJ

Number of Observations Read	15
Number of Observations Used	15

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	16481	16481	50.87	<.0001
Error	13	4212.01396	324.00107		
Corrected Total	14	20693			

Root MSE	18.00003	R-Square	0.7965
Dependent Mean	333.30000	Adj R-Sq	0.7808
Coeff Var	5.40055		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	572.68082	33.88404	16.90	<.0001
PovertyPct	PovertyPct	1	-25.55667	3.58332	-7.13	<.0001

Regresison of violence as a function of Poverty Rate(%)

The REG Procedure
Model: MODEL1
Dependent Variable: Violent Violent

State=NJ

Fit Diagnostics for Violent

Residuals for Violent

Fit Plot for Violent

Observations	15
Parameters	2
Error DF	13
MSE	324
R-Square	0.7965
Adj R-Square	0.7808

Fit ☐ 95% Confidence Limits ----- 95% Prediction Limits
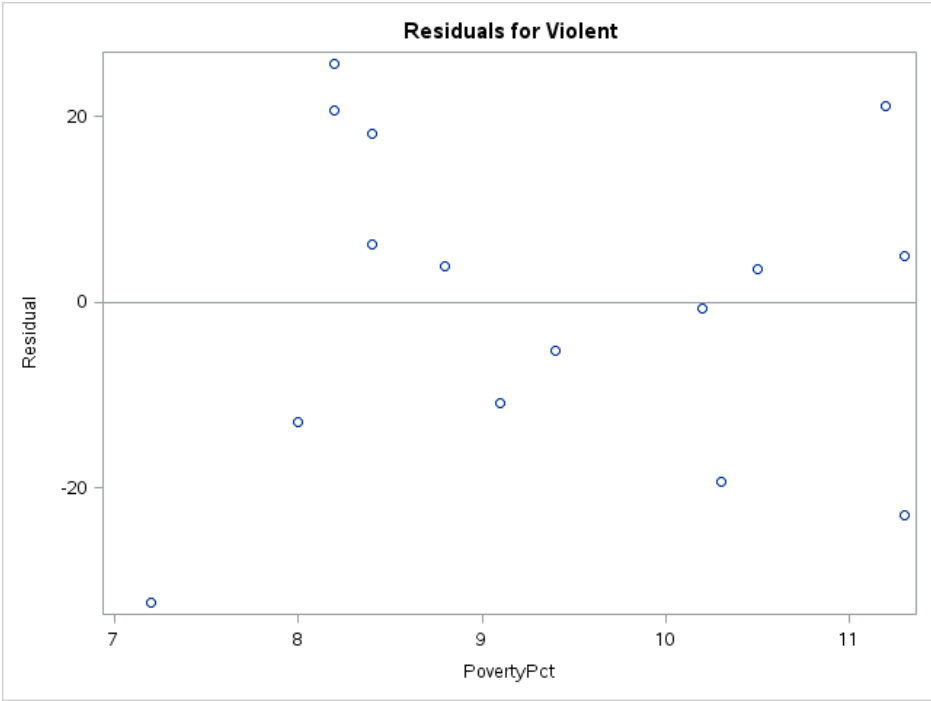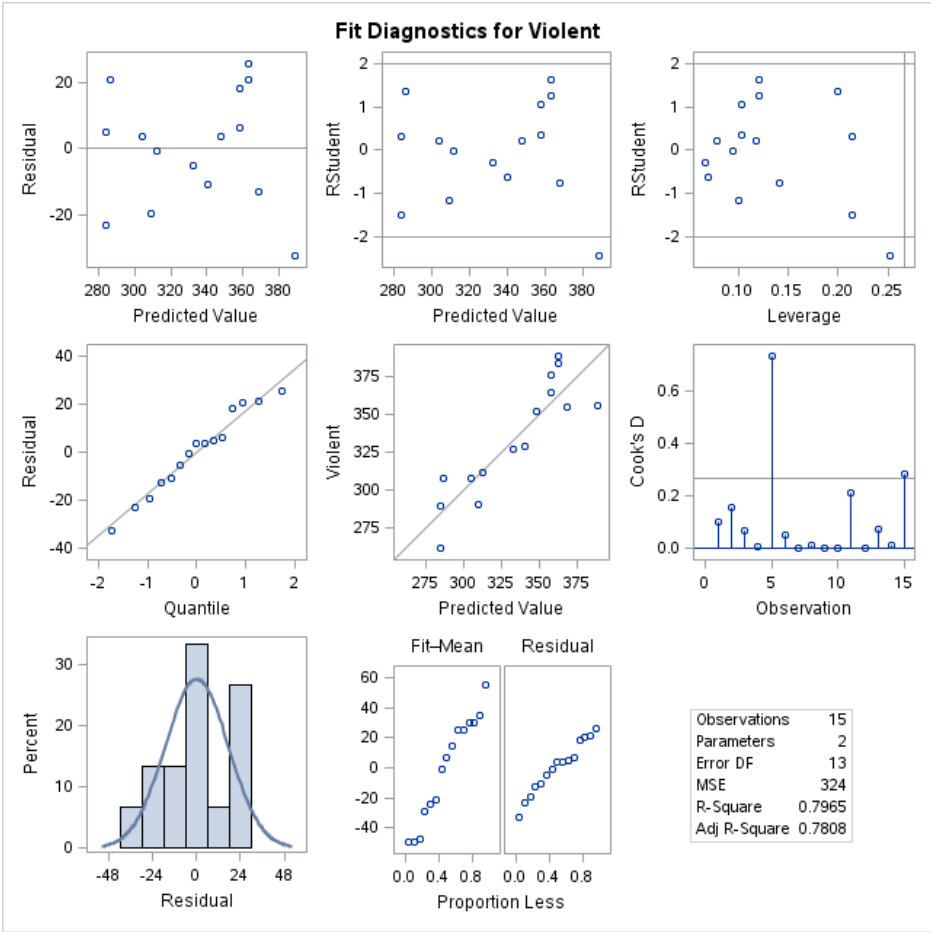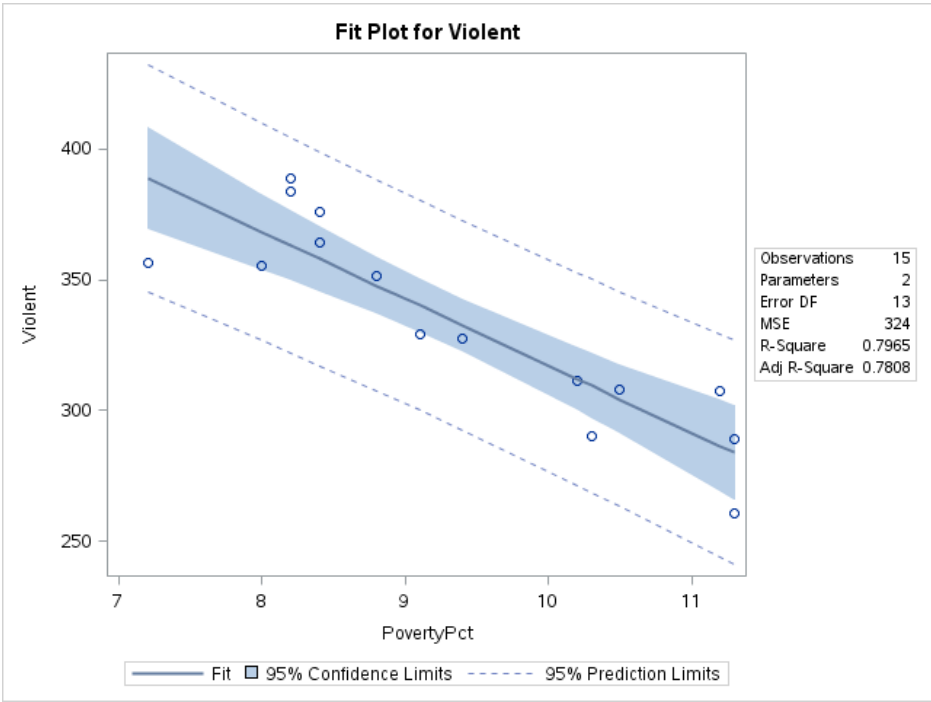
Regresison of violence as a function of Poverty Rate(%)

The REG Procedure
Model: MODEL1
Dependent Variable: Violent Violent

State=PA

Number of Observations Read	15
Number of Observations Used	15

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	10575	10575	17.62	0.0010
Error	13	7802.08903	600.16069		
Corrected Total	14	18377			

Root MSE	24.49818	R-Square	0.5754
Dependent Mean	390.08000	Adj R-Sq	0.5428
Coeff Var	6.28030		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	663.50661	65.44478	10.14	<.0001
PovertyPct	PovertyPct	1	-22.44882	5.34798	-4.20	0.0010

Regresison of violence as a function of Poverty Rate(%)

The REG Procedure
Model: MODEL1
Dependent Variable: Violent Violent

State=PA

Fit Diagnostics for Violent

Observations	15
Parameters	2
Error DF	13
MSE	600.16
R-Square	0.5754
Adj R-Square	0.5428

Residuals for Violent

Fit Plot for Violent

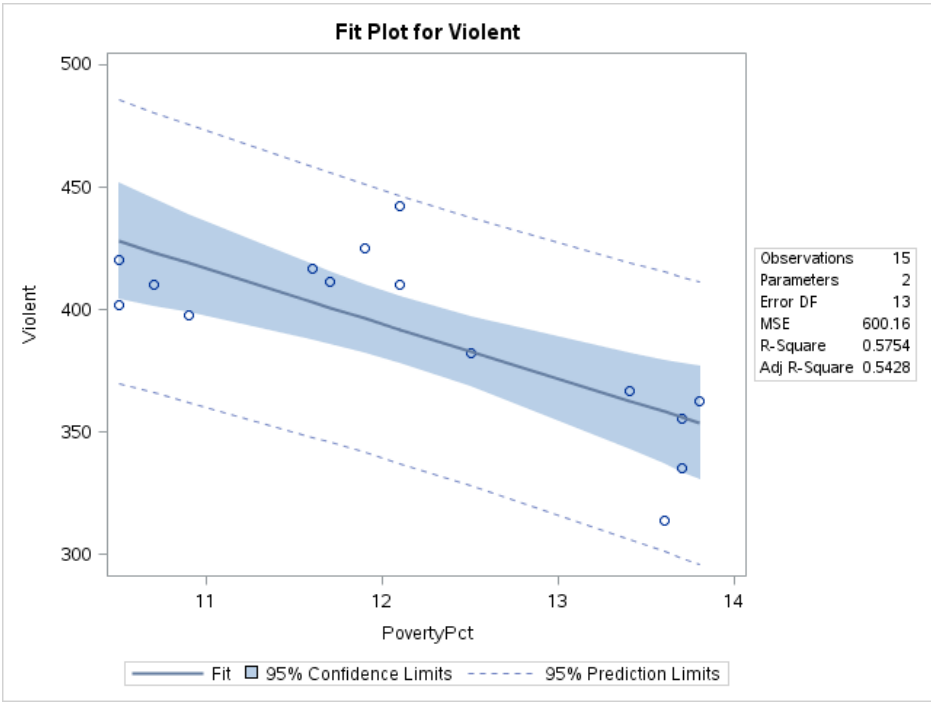| Observations | 15 |
Parameters	2
Error DF	13
MSE	600.16
R-Square	0.5754
Adj R-Square	0.5428

Legend: Fit — ☐ 95% Confidence Limits — - - - 95% Prediction Limits

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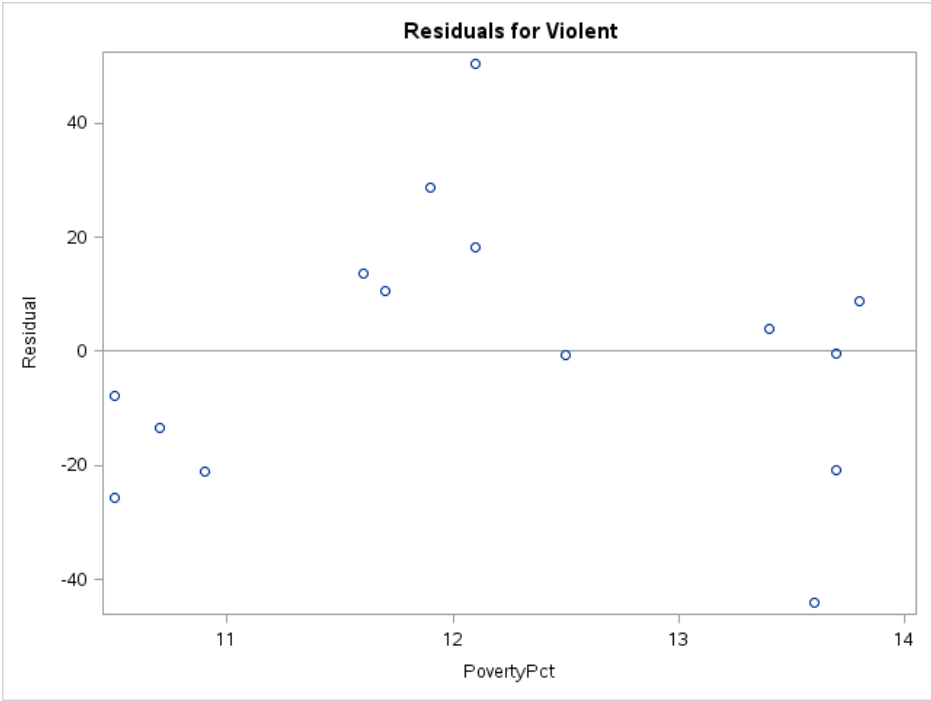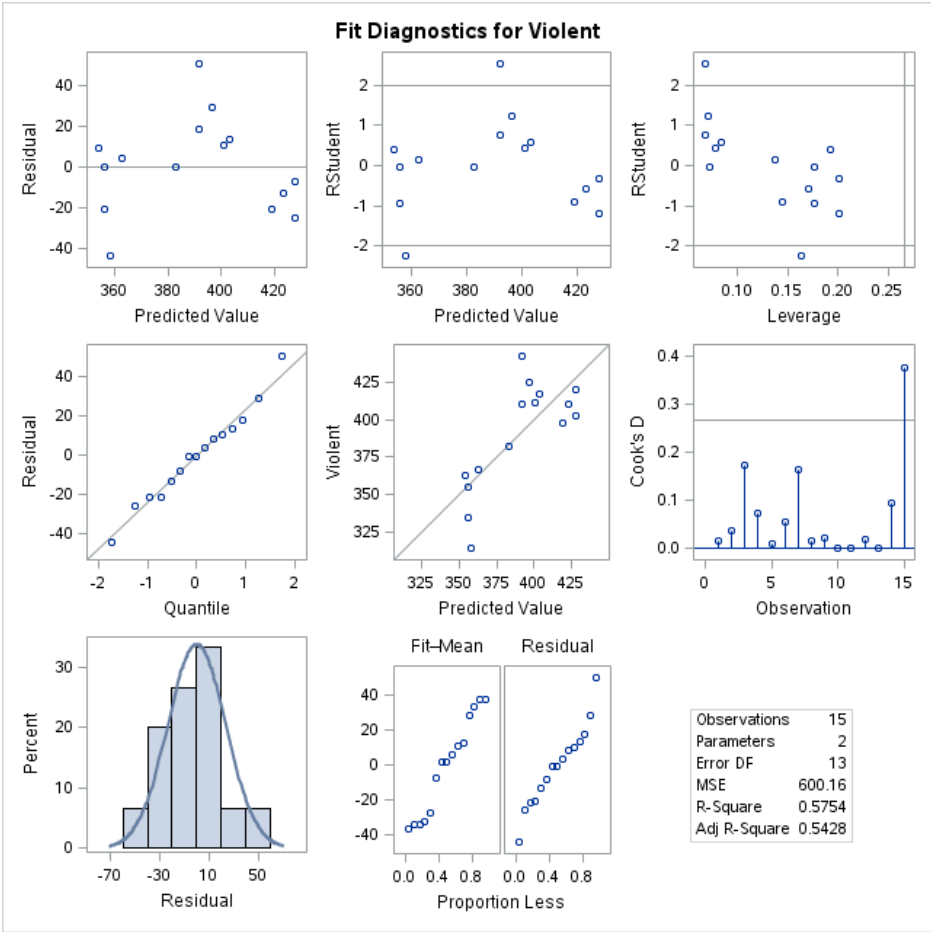
regression of robbery as a function of Poverty Rate(%) for the year

The REG Procedure
Model: MODEL1
Dependent Variable: Inviolent

State=NJ

Number of Observations Read	15
Number of Observations Used	15

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.17658	0.17658	128.33	<.0001
Error	13	0.01789	0.00138		
Corrected Total	14	0.19447			

Root MSE	0.03709	R-Square	0.9080
Dependent Mean	5.80266	Adj R-Sq	0.9009
Coeff Var	0.63927		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	11.07417	0.46544	23.79	<.0001
Inaveragecpi	1	-0.97980	0.08649	-11.33	<.0001

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regression of robbery as a function of Poverty Rate(%) for the year

The REG Procedure
Model: MODEL1
Dependent Variable: Inviolent

State=NJ

Fit Diagnostics for Inviolent

Observations	15
Parameters	2
Error DF	13
MSE	0.0014
R-Square	0.908
Adj R-Square	0.9009

Residuals for Inviolent

Fit Plot for Inviolent

Observations	15
Parameters	2
Error DF	13
MSE	0.0014
R-Square	0.908
Adj R-Square	0.9009

Fit　　　□ 95% Confidence Limits　　　----- 95% Prediction Limits

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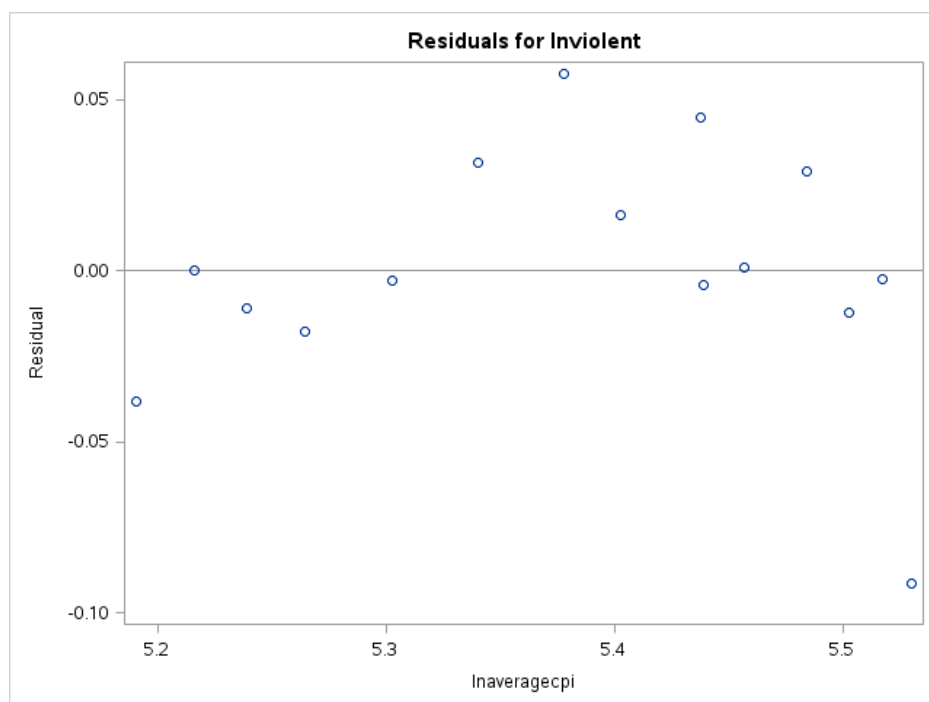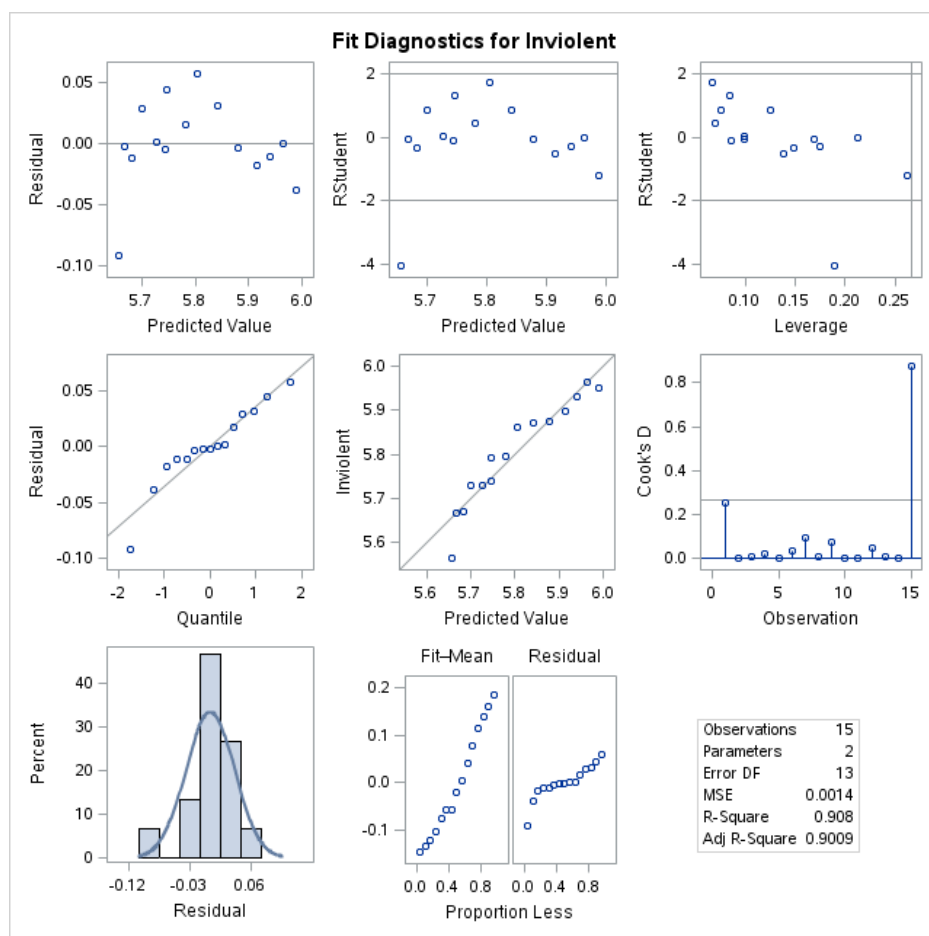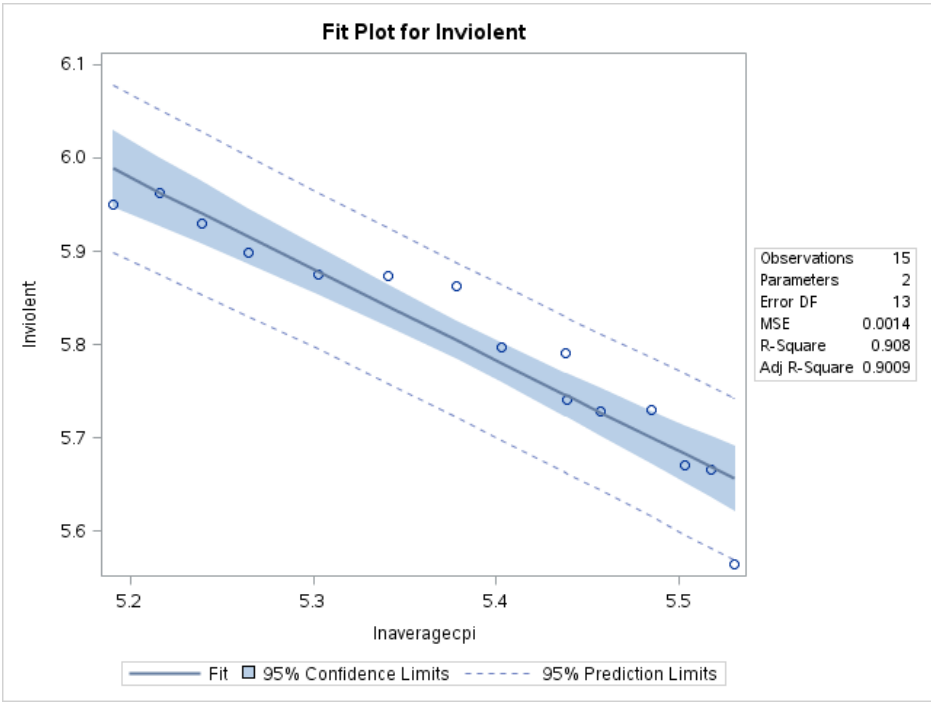
regression of robbery as a function of Poverty Rate(%) for the year

The REG Procedure
Model: MODEL1
Dependent Variable: Inviolent

State=PA

Number of Observations Read	15
Number of Observations Used	15

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.06205	0.06205	11.85	0.0044
Error	13	0.06808	0.00524		
Corrected Total	14	0.13013			

Root MSE	0.07237	R-Square	0.4768
Dependent Mean	5.96212	Adj R-Sq	0.4366
Coeff Var	1.21379		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	8.83468	0.83477	10.58	<.0001
Inaveragecpi	1	-0.52491	0.15250	-3.44	0.0044

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regression of robbery as a function of Poverty Rate(%) for the year

The REG Procedure
Model: MODEL1
Dependent Variable: Inviolent

State=PA

Fit Diagnostics for Inviolent

Observations	15
Parameters	2
Error DF	13
MSE	0.0052
R-Square	0.4768
Adj R-Square	0.4366

Residuals for Inviolent

Fit Plot for Inviolent

Observations	15
Parameters	2
Error DF	13
MSE	0.0052
R-Square	0.4768
Adj R-Square	0.4366

Fit   □ 95% Confidence Limits   - - - - 95% Prediction Limits