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name: <unnamed>
log: /Users/yushujiang/Desktop/ECO220/Labs/Problemset6/analysis/jiang_ps6_
> 3.log
log type: text
opened on: 4 Dec 2018, 13:31:30

```

```
. sum violent_crime_rate
```

Variable	Obs	Mean	Std. Dev.	Min	Max
violent_crime_rate	51	441.6275	241.3983	81	1508

```
. sum violent_crime_rate, d
```

violent_crime_rate				
Percentiles		Smallest		
1%	81	81		
5%	114	110		
10%	237	114	Obs	51
25%	281	167	Sum of Wgt.	51
			Mean	441.6275
50%	384		Std. Dev.	241.3983
		Largest		
75%	554	787		
90%	707	805	Variance	58273.16
95%	805	812	Skewness	1.757343
99%	1508	1508	Kurtosis	8.609668

```
. histogram violent_crime_rate, frequency
(bin=7, start=81, width=203.85714)
```

```
. histogram violent_crime_rate, bin(15) frequency
(bin=15, start=81, width=95.133333)
```

```
. histogram violent_crime_rate if violent_crime_rate<1508, bin(15) frequency
(bin=15, start=81, width=48.733333)
```

```
. sum police, d
```

police				
Percentiles		Smallest		
1%	104	104		
5%	133	122		
10%	145	133	Obs	51
25%	163	139	Sum of Wgt.	51
			Mean	224.5294
50%	190		Std. Dev.	170.2403
		Largest		
75%	234	300		
90%	282	351	Variance	28981.77
95%	351	412	Skewness	5.80764
99%	1348	1348	Kurtosis	38.74889

```
. sum violent_crime_rate, d, if police < 190
```

violent_crime_rate				
Percentiles		Smallest		
1%	81	81		
5%	110	110		
10%	114	114	Obs	25

25%	253	167	Sum of Wgt.	25
50%	349		Mean	363
		Largest	Std. Dev.	179.3532
75%	490	505		
90%	545	545	Variance	32167.58
95%	707	707	Skewness	.5304235
99%	805	805	Kurtosis	3.035617

. sum violent_crime_rate, d, if police >= 190

violent_crime_rate				
Percentiles		Smallest		
1%	237	237		
5%	244	244		
10%	256	256	Obs	26
25%	325	267	Sum of Wgt.	26
50%	500		Mean	517.2308
		Largest	Std. Dev.	271.1801
75%	657	758		
90%	787	787	Variance	73538.66
95%	812	812	Skewness	1.877646
99%	1508	1508	Kurtosis	7.787241

. regress violent_crime_rate poverty

Source	SS	df	MS	Number of obs	=	51
Model	489129.494	1	489129.494	F(1, 49)	=	9.89
Residual	2424528.43	49	49480.172	Prob > F	=	0.0028
Total	2913657.92	50	58273.1584	R-squared	=	0.1679
				Adj R-squared	=	0.1509
				Root MSE	=	222.44

violent_crime	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
poverty	32.69674	10.3994	3.14	0.003	11.79837 53.59511
_cons	63.75569	124.1551	0.51	0.610	-185.7433 313.2547

. regress violent_crime_rate single_parent

Source	SS	df	MS	Number of obs	=	51
Model	1730496.32	1	1730496.32	F(1, 49)	=	71.67
Residual	1183161.61	49	24146.1552	Prob > F	=	0.0000
Total	2913657.92	50	58273.1584	R-squared	=	0.5939
				Adj R-squared	=	0.5856
				Root MSE	=	155.39

violent_crime	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
single_parent	43.47858	5.13587	8.47	0.000	33.15766 53.79949
_cons	-575.6008	122.1134	-4.71	0.000	-820.9969 -330.2046

. regress violent_crime_rate unemployed

Source	SS	df	MS	Number of obs	=	51
Model	524043.978	1	524043.978	F(1, 49)	=	10.75
Residual	2389613.94	49	48767.6315	Prob > F	=	0.0019
				R-squared	=	0.1799

-----+-----				Adj R-squared	=	0.1631
Total		2913657.92	50 58273.1584	Root MSE	=	220.83

violent_cr~e		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
-----+-----						
unemployed		105.0318	32.04077	3.28	0.002	40.6435 169.4202
_cons		27.67848	130.0094	0.21	0.832	-233.5852 288.9421

```
. twoway(scatter violent_crime_rate poverty) (lfit violent_crime_rate poverty)
. twoway(scatter violent_crime_rate single_parent) (lfit violent_crime_rate single
> _parent)
. twoway(scatter violent_crime_rate unemployed) (lfit violent_crime_rate unemploye
> d)
. sum high_school
```

Variable		Obs	Mean	Std. Dev.	Min	Max
-----+-----						
high_school		51	85.43725	3.932987	77.1	91.8

```
. gen literate == (high_school > 85)
== invalid name
r(198);
```

```
. gen literate = (high_school > 85)
. sum violent_crime_rate if literate ==1
```

Variable		Obs	Mean	Std. Dev.	Min	Max
-----+-----						
violent_cr~e		32	357.9063	171.3923	81	787

```
. sum violent_crime_rate if literate == 0
```

Variable		Obs	Mean	Std. Dev.	Min	Max
-----+-----						
violent_cr~e		19	582.6316	278.9829	295	1508

```
. regress violent_crime_rate literate
```

Source		SS	df	MS	Number of obs	=	51
-----+-----							
Model		602056.782	1	602056.782	F(1, 49)	=	12.76
Residual		2311601.14	49	47175.5335	Prob > F	=	0.0008
-----+-----							
					R-squared	=	0.2066
-----+-----							
					Adj R-squared	=	0.1904
Total		2913657.92	50	58273.1584	Root MSE	=	217.2

violent_cr~e		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
-----+-----						
literate		-224.7253	62.90595	-3.57	0.001	-351.1396 -98.31109
_cons		582.6316	49.82894	11.69	0.000	482.4966 682.7666

```
. regress violent_crime_rate poverty single_parent unemployed
```

Source		SS	df	MS	Number of obs	=	51
-----+-----							
Model		1763274.12	3	587758.041	F(3, 47)	=	24.01
Residual		1150383.8	47	24476.251	Prob > F	=	0.0000
-----+-----							
					R-squared	=	0.6052

-----+-----				Adj R-squared	=	0.5800
Total		2913657.92	50 58273.1584	Root MSE	=	156.45

-----+-----						
violent_cr~e		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
-----+-----						
poverty		-2.684261	9.597977	-0.28	0.781	-21.9929 16.62438
single_par~t		41.30001	6.096157	6.77	0.000	29.03612 53.56389
unemployed		31.9965	28.52134	1.12	0.268	-25.38104 89.37404
_cons		-619.713	130.0673	-4.76	0.000	-881.3746 -358.0513
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```

. cmdlog close
(cmdlog /Users/yushujiang/Desktop/ECO220/Labs/Problemset6/analysis/jiang_ps6_3.do
> closed)

. log close
  name: <unnamed>
  log:  /Users/yushujiang/Desktop/ECO220/Labs/Problemset6/analysis/jiang_ps6_
> 3.log
  log type: text
closed on:  4 Dec 2018, 15:43:55
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