

Summary Statistics
QMB 3200: Advanced and Quantitative Methods
Fall 2019

Property Crimes in Georgia

Submitted to
Dr. Jim Dewey
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Submitted by
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1. Variables Summarization

Table 1: Summary of variable (Mean, Standard deviation, Minimum, and Maximum)

Variable	Mean	Std. Dev.	Minimum	Maximum
property2012	1271.885	3672.148	2	30285
property2017	1109.042	3161.136	3	23246
property2018	978	2877.916	1	21426
popgrowth	0.0033757	0.0107121	-0.013552	0.0697667
lnpop2012	10.28049	1.192467	7.925158	13.78838
lnpop2017	10.29737	1.221712	7.861727	13.85366
pop2012	74038.13	163019.8	2766	973236
pop2017	78400.6	175426.6	2596	1038884
propertygrowth	0.0349247	0.0944389	0.5278115	0.5051457
lnproperty2012	5.888458	1.467278	0.6931472	10.31841
lnproperty2017	5.713834	1.444298	1.098612	10.05389
poppov	74895.93	11167.23	187	77387
poor	6569.26	13266.33	322	79132
verypoor	5485.75	11167.23	187	77387
unemployment	8.20625	3.004481	4	20.3
eduless9th	5.896875	2.476859	1.5	14
edu9to12th	11.85208	3.774289	3.2	22.8
highschool	35.37396	6.50032	18.3	52.1
associate	7.396875	1.521388	3.4	12.2
somecollege	20.58437	3.261234	2.1	25.2
bachelor	11.43646	5.627566	3	29.9
graduatedegree	7.464583	3.789653	2.1	25.2
Pop14to172012	4176.781	9046.742	119	54311
Pop14to172017	4445.188	9903.134	149	60463
Pop18to242012	7235.083	16102.45	216	105314
Pop18to242017	7289.813	16524.48	190	105701
Pop65up2012	8192.01	14809.5	412	93402
Pop65up2017	10273.48	19364.88	493	118228
Pop85up2012	881.0833	1755.629	33	12704
Pop85up2017	1028.354	2052.7	46	14101

The number of observations for each variable is equal to 96, the variables summary shows a trend of population growth and a decrease on property crime occurrences. The data will be further analyzed using multiple regression and hypothesis testing on the next steps of the project. Lastly, the Stata output for this and the next table are on appendix A.

2. Variables Description

Table 2: Description of all variable (Storage type, Display format, Variable label)

Variable	Storage type	Display format	Variable label
property2012	int	%8.0g	Property2012
property2017	int	%8.0g	Property2017
property2018	int	%8.0g	Property2018
popgrowth	float	%9.0g	
lnpop2012	float	%9.0g	
lnpop2017	float	%12.0g	
pop2012	long	%12.0g	Pop2012
pop2017	long	%12.0g	Pop2017
propertygrowth	float	%9.0g	
lnproperty2012	float	%9.0g	
lnproperty2017	float	%9.0g	
poppov	long	%12.0g	PopPov
poor	long	%12.0g	Poor
verypoor	long	%12.0g	VeryPoor
unemployment	float	%9.0g	Unemployment
eduless9th	float	%9.0g	Eduless9th
edu9to12th	float	%9.0g	Edu9to12th
highschool	float	%9.0g	Highschool
associate	float	%9.0g	Associate
somecollege	float	%9.0g	SomeCollege
bachelor	float	%9.0g	Bachelor
graduatedegree	float	%9.0g	Graduate degree
pop14to172012	long	%12.0g	Pop14to172012
pop14to172017	long	%12.0g	Pop14to172017
pop18to242012	long	%12.0g	Pop18to242012
pop18to242017	long	%12.0g	Pop18to242017
pop65up2012	long	%12.0g	Pop65up2012
pop65up2017	long	%12.0g	Pop65up2017
pop85up2012	int	%8.0g	Pop85up2012
pop85up2017	int	%8.0g	Pop85up2017

This table includes information regarding the storage type of each variable (int, float, or long), the display format for each of the variables, and the variable label, which is the variable name on the Excel file before importing it to Stata.

Appendix A: Stata Output for tables 1 and 2

Variable	Obs	Mean	Std. Dev.	Min	Max
popgrowth	96	.0033757	.0107121	-.0135521	.0322412
propertygr~h	96	-.0349247	.0944389	-.5278115	.5051457
lnpop2012	96	10.28049	1.192467	7.925158	13.78838
lnpop2017	96	10.29737	1.221712	7.861727	13.85366
lnprope~2012	96	5.888458	1.467278	.6931472	10.31841
lnprope~2017	96	5.713834	1.444298	1.098612	10.05389
property2012	96	1271.885	3672.148	2	30285
property2017	96	1109.042	3161.136	3	23246
property2018	96	978	2877.916	1	21426
unemployment	96	8.20625	3.004481	4	20.3
poor	96	6569.26	13266.33	322	79132
verypoor	96	5385.75	11167.23	187	77387
poppov	96	74895.93	167551.8	2613	978533
graduatedeve	96	7.464583	3.789653	2.1	25.2
bachelor	96	11.43646	5.627566	3	29.9
associate	96	7.396875	1.521388	3.4	12.2
somecollege	96	20.58437	3.261234	12	31.1
highschool	96	35.37396	6.50032	18.3	52.1
edu9to12th	96	11.85208	3.774289	3.2	22.8
eduless9th	96	5.896875	2.476859	1.5	14
pop2012	96	74038.13	163019.8	2766	973236
pop2017	96	78400.6	175426.6	2596	1038884
pop14~172012	96	4176.781	9046.742	119	54311
pop14~172017	96	4445.188	9903.134	149	60463
pop18~242012	96	7235.083	16102.45	216	105314
pop18~242017	96	7289.813	16524.48	190	105701
pop65up2017	96	10273.48	19364.88	493	118228
pop65up2012	96	8192.01	14809.5	412	93402
pop85up2012	96	881.0833	1755.629	33	12704
pop85up2017	96	1028.354	2052.7	46	14101

variable name	storage type	display format	value label	variable label
popgrowth	float	%9.0g		
propertygrowth	float	%9.0g		
lnpop2012	float	%9.0g		
lnpop2017	float	%9.0g		
lnproperty2012	float	%9.0g		
lnproperty2017	float	%9.0g		
property2012	int	%8.0g		Property2012
property2017	int	%8.0g		Property2017
property2018	int	%8.0g		Property2018
unemployment	float	%9.0g		Unemployment
poor	long	%12.0g		Poor
verypoor	long	%12.0g		VeryPoor
poppov	long	%12.0g		PopPov
graduatedegree	float	%9.0g		Graduate degree
bachelor	float	%9.0g		Bachelor
associate	float	%9.0g		Associate
somecollege	float	%9.0g		SomeCollege
highschool	float	%9.0g		HighSchool
edu9to12th	float	%9.0g		Edu9to12th
eduless9th	float	%9.0g		EduLess9th
pop2012	long	%12.0g		Pop2012
pop2017	long	%12.0g		Pop2017
pop14to172012	long	%12.0g		Pop14to172012
pop14to172017	long	%12.0g		Pop14to172017
pop18to242012	long	%12.0g		Pop18to242012
pop18to242017	long	%12.0g		Pop18to242017
pop65up2017	long	%12.0g		Pop65up2017
pop65up2012	long	%12.0g		Pop65up2012
pop85up2012	int	%8.0g		Pop85up2012
pop85up2017	int	%8.0g		Pop85up2017

Appendix B: Do-file-for-Project

```
/* QMB 3200 Regression Example Work */
```

```
clear
```

```
cd "C:\Users\luizg\Desktop\QMB Project"
```

```
use "C:\Users\luizg\Desktop\QMB Project\statadataproject.dta"
```

```
*Generating Ln Variables and Variable growth
```

```
gen lnproperty2012 = ln(property2012)
```

```
gen lnproperty2017 = ln(property2017)
```

```
gen propertygrowth=(lnproperty2017-lnproperty2012)/5
```

```
gen lnpop2012 = ln(pop2012)
```

```
gen lnpop2017 = ln(pop2017)
```

```
gen popgrowth=(lnpop2017-lnpop2012)/5
```

```
*Variables Summary
```

```
sum popgrowth propertygrowth lnpop2012 lnpop2017 lnproperty2012  
lnproperty2017 property2012 property2017 property2018 unemployment poor  
verypoor poppv graduatedegree bachelor associate somecollege highschool  
edu9to12th eduless9th pop2012 pop2017 pop14to172012 pop14to172017  
pop18to242012 pop18to242017 pop65up2017 pop65up2012 pop85up2012  
pop85up2017
```

```
*Variables Description
```

```
describe popgrowth propertygrowth lnpop2012 lnpop2017 lnproperty2012  
lnproperty2017 property2012 property2017 property2018 unemployment poor  
verypoor poppv graduatedegree bachelor associate somecollege highschool  
edu9to12th eduless9th pop2012 pop2017 pop14to172012 pop14to172017  
pop18to242012 pop18to242017 pop65up2017 pop65up2012 pop85up2012  
pop85up2017
```

```
STOP
```

```
log close
```

Appendix C: Log-file-for-Project

```
____ _ _ _ _ (R)
/_ / _ /
____/ / ____/
____/ / ____/ 16.0 Copyright 1985-2019 StataCorp LLC
Statistics/Data Analysis StataCorp
4905 Lakeway Drive
College Station, Texas 77845 USA
800-STATA-PC
http://www.stata.com
979-696-4600 stata@stata.com
979-696-4601 (fax)
```

Single-user Stata license expires 16 Mar 2020:

Serial number: 301609236389

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Florida Polytechnic University

Notes:

1. Unicode is supported; see help unicode_advice.

```
. doedit "C:\Users\luizg\Desktop\QMB Project\do-file-project.do"
```

```
. do "C:\Users\luizg\AppData\Local\Temp\STD4388_000000.tmp"
```

```
. /* QMB 3200 Regression Example Work */
```

```
.
```

```
. clear
```

```
.
```

```
. cd "C:\Users\luizg\Desktop\QMB Project"
```

```
C:\Users\luizg\Desktop\QMB Project
```

```

.
. use "C:\Users\luizg\Desktop\QMB Project\statadataproject.dta"

.
. *Generating Ln Variables and Variable growth
. gen lnproperty2012 = ln(property2012)

. gen lnproperty2017 = ln(property2017)

. gen propertygrowth=(lnproperty2017-lnproperty2012)/5

. gen lnpop2012 = ln(pop2012)

. gen lnpop2017 = ln(pop2017)

. gen popgrowth=(lnpop2017-lnpop2012)/5

.
. *Variables Summary
. sum popgrowth propertygrowth lnpop2012 lnpop2017 lnproperty2012
lnproperty2017 property2012 property2017 property2018 unemployment poo
> r verypoor poppov graduatedegree bachelor associate somecollege
highschool edu9to12th eduleess9th pop2012 pop2017 pop14to172012 pop14to
> 172017 pop18to242012 pop18to242017 pop65up2017 pop65up2012 pop85up2012
pop85up2017

```

Variable	Obs	Mean	Std. Dev.	Min	Max
popgrowth	96	.0033757	.0107121	-.0135521	.0322412
propertygr~h	96	-.0349247	.0944389	-.5278115	.5051457
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lnprope~2012		96	5.888458	1.467278	.6931472	10.31841
-----+-----						
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-----+-----						
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verypoor		96	5385.75	11167.23	187	77387
poppov		96	74895.93	167551.8	2613	978533
graduatede~e		96	7.464583	3.789653	2.1	25.2
bachelor		96	11.43646	5.627566	3	29.9
-----+-----						
associate		96	7.396875	1.521388	3.4	12.2
somecollege		96	20.58437	3.261234	12	31.1
highschool		96	35.37396	6.50032	18.3	52.1
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-----+-----						
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pop2017		96	78400.6	175426.6	2596	1038884
pop14~172012		96	4176.781	9046.742	119	54311
pop14~172017		96	4445.188	9903.134	149	60463
pop18~242012		96	7235.083	16102.45	216	105314
-----+-----						
pop18~242017		96	7289.813	16524.48	190	105701
pop65up2017		96	10273.48	19364.88	493	118228
pop65up2012		96	8192.01	14809.5	412	93402
pop85up2012		96	881.0833	1755.629	33	12704

pop85up2017	96	1028.354	2052.7	46	14101
-------------	----	----------	--------	----	-------

.

. *Variables Description

```
. describe popgrowth propertygrowth lnpop2012 lnpop2017 lnproperty2012
lnproperty2017 property2012 property2017 property2018 unemploymen
```

```
> t poor verypoor poppov graduatedegree bachelor associate somecollege
highschool edu9to12th eduless9th pop2012 pop2017 pop14to172012 po
```

```
> p14to172017 pop18to242012 pop18to242017 pop65up2017 pop65up2012
pop85up2012 pop85up2017
```

	storage	display	value	
variable name	type	format	label	variable label

popgrowth	float	%9.0g		
propertygrowth	float	%9.0g		
lnpop2012	float	%9.0g		
lnpop2017	float	%9.0g		
lnproperty2012	float	%9.0g		
lnproperty2017	float	%9.0g		
property2012	int	%8.0g		Property2012
property2017	int	%8.0g		Property2017
property2018	int	%8.0g		Property2018
unemployment	float	%9.0g		Unemployment
poor	long	%12.0g		Poor
verypoor	long	%12.0g		VeryPoor
poppov	long	%12.0g		PopPov
graduatedegree	float	%9.0g		Graduate degree
bachelor	float	%9.0g		Bachelor
associate	float	%9.0g		Associate
somecollege	float	%9.0g		SomeCollege
highschool	float	%9.0g		HighSchool

edu9to12th	float	%9.0g	Edu9to12th
eduleless9th	float	%9.0g	EduLess9th
pop2012	long	%12.0g	Pop2012
pop2017	long	%12.0g	Pop2017
pop14to172012	long	%12.0g	Pop14to172012
pop14to172017	long	%12.0g	Pop14to172017
pop18to242012	long	%12.0g	Pop18to242012
pop18to242017	long	%12.0g	Pop18to242017
pop65up2017	long	%12.0g	Pop65up2017
pop65up2012	long	%12.0g	Pop65up2012
pop85up2012	int	%8.0g	Pop85up2012
pop85up2017	int	%8.0g	Pop85up2017

.

. STOP

command STOP is unrecognized

r(199);

end of do-file

r(199);

.