

## Guatemalan cholesterol example summary

**The UNIVARIATE Procedure**  
**Variable: level**  
**group = rural**

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	157.0204	<b>Std Deviation</b>	31.74868
<b>Median</b>	152.0000	<b>Variance</b>	1008
<b>Mode</b>	108.0000	<b>Range</b>	136.00000
		<b>Interquartile Range</b>	38.00000

**Note: The mode displayed is the smallest of 9 modes with a count of 2.**

summary statistics for the cholesterol level of the group of rural Guatemalans

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	231
<b>99%</b>	231
<b>95%</b>	223
<b>90%</b>	204
<b>75% Q3</b>	174
<b>50% Median</b>	152
<b>25% Q1</b>	136
<b>10%</b>	115
<b>5%</b>	108
<b>1%</b>	95
<b>0% Min</b>	95

When there are 9 modes each occurring only 2 times the formal mode is of little interest.  
  
 Find the location of the peak in the histogram instead to get a modal interval.

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	95	1	36	204	1
2	108	2	37	220	1
3	114	1	38	223	1
4	115	1	39	226	1
5	124	1	40	231	1

**Guatemalan cholesterol example summary**

**The UNIVARIATE Procedure  
Variable: level  
group = urban**

Basic Statistical Measures			
Location		Variability	
Mean	216.8667	Std Deviation	39.92015
Median	206.0000	Variance	1594
Mode	205.0000	Range	197.00000
		Interquartile Range	43.00000

**Note: The mode displayed is the smallest of 2 modes with a count of 3.**

Quantiles (Definition 5)	
Level	Quantile
100% Max	330
99%	330
95%	284
90%	279
75% Q3	239
50% Median	206
25% Q1	196
10%	175
5%	155
1%	133
0% Min	133

When there are 2 modes each occurring only 3 times the formal mode is of little interest. Find the location of the peak in the histogram instead to get a modal interval.

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	133	1	32	252	1
2	134	1	33	273	1
3	155	1	34	279	1
4	170	1	35	284	3
5	175	1	36	330	1

**Guatemalan cholesterol example summary****The MEANS Procedure**

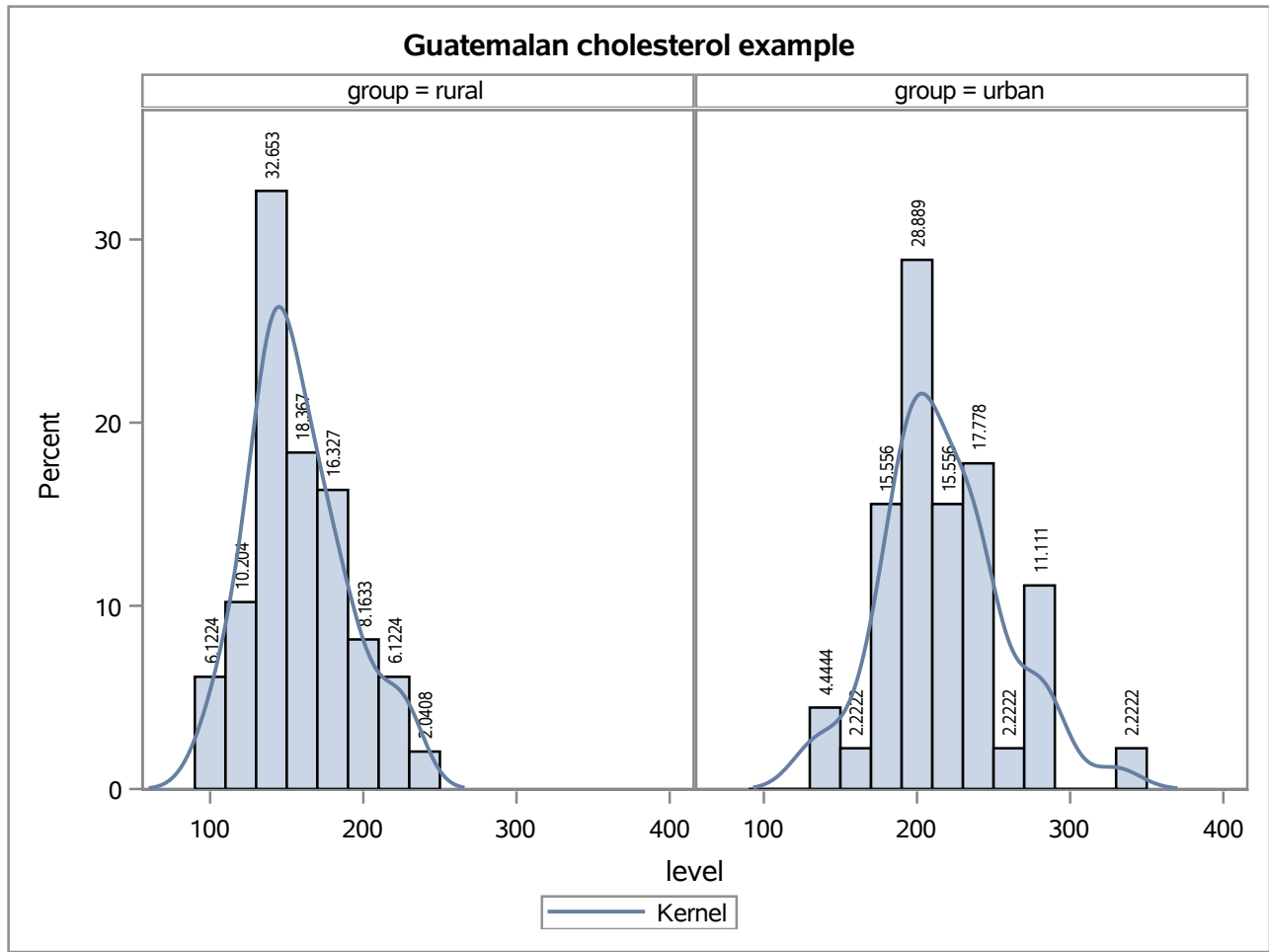
Analysis Variable : level											
group	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
rural	49	49	95.00	136.00	152.00	174.00	231.00	136.00	38.00	157.02	31.75
urban	45	45	133.00	196.00	206.00	239.00	330.00	197.00	43.00	216.87	39.92

basic summary statistics

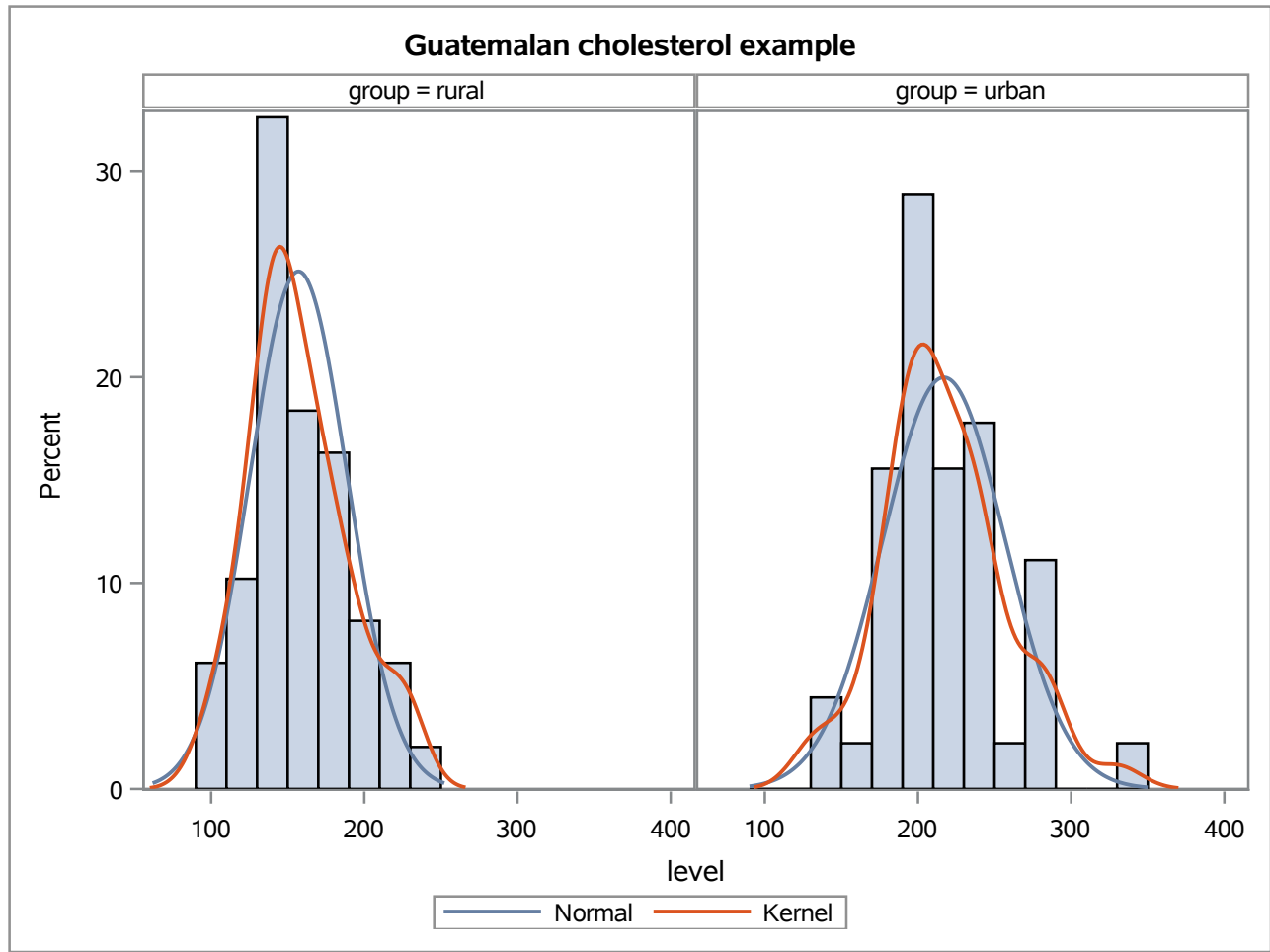
**Guatemalan cholesterol example summary****The MEANS Procedure**

Analysis Variable : level														
group	N Obs	1st Pctl	5th Pctl	10th Pctl	20th Pctl	30th Pctl	40th Pctl	50th Pctl	60th Pctl	70th Pctl	80th Pctl	90th Pctl	95th Pctl	99th Pctl
rural	49	95.00	108.00	115.00	131.00	140.00	144.00	152.00	158.00	172.00	181.00	204.00	223.00	231.00
urban	45	133.00	155.00	175.00	188.50	199.00	202.50	206.00	224.50	234.00	243.00	279.00	284.00	330.00

percentiles

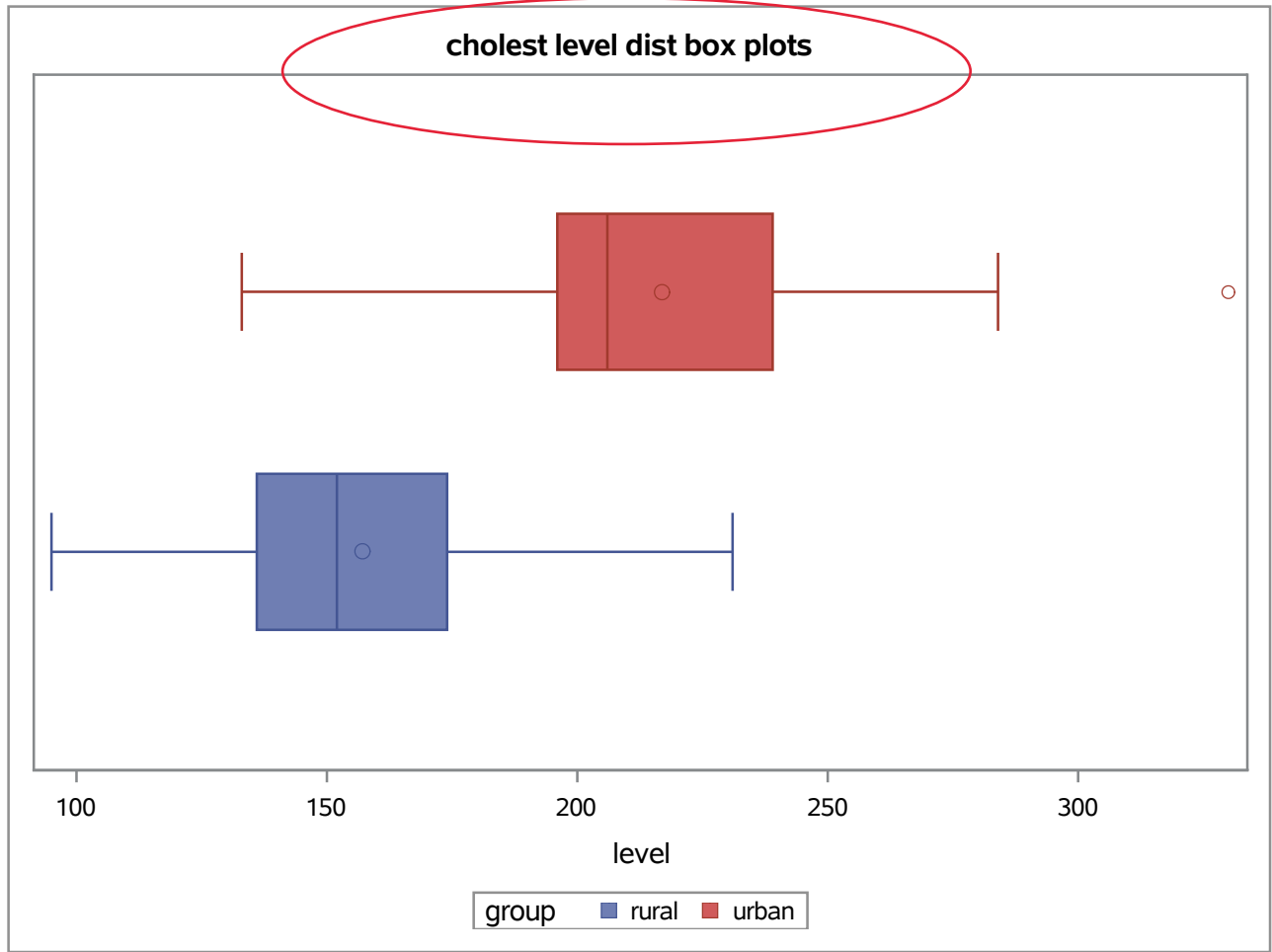


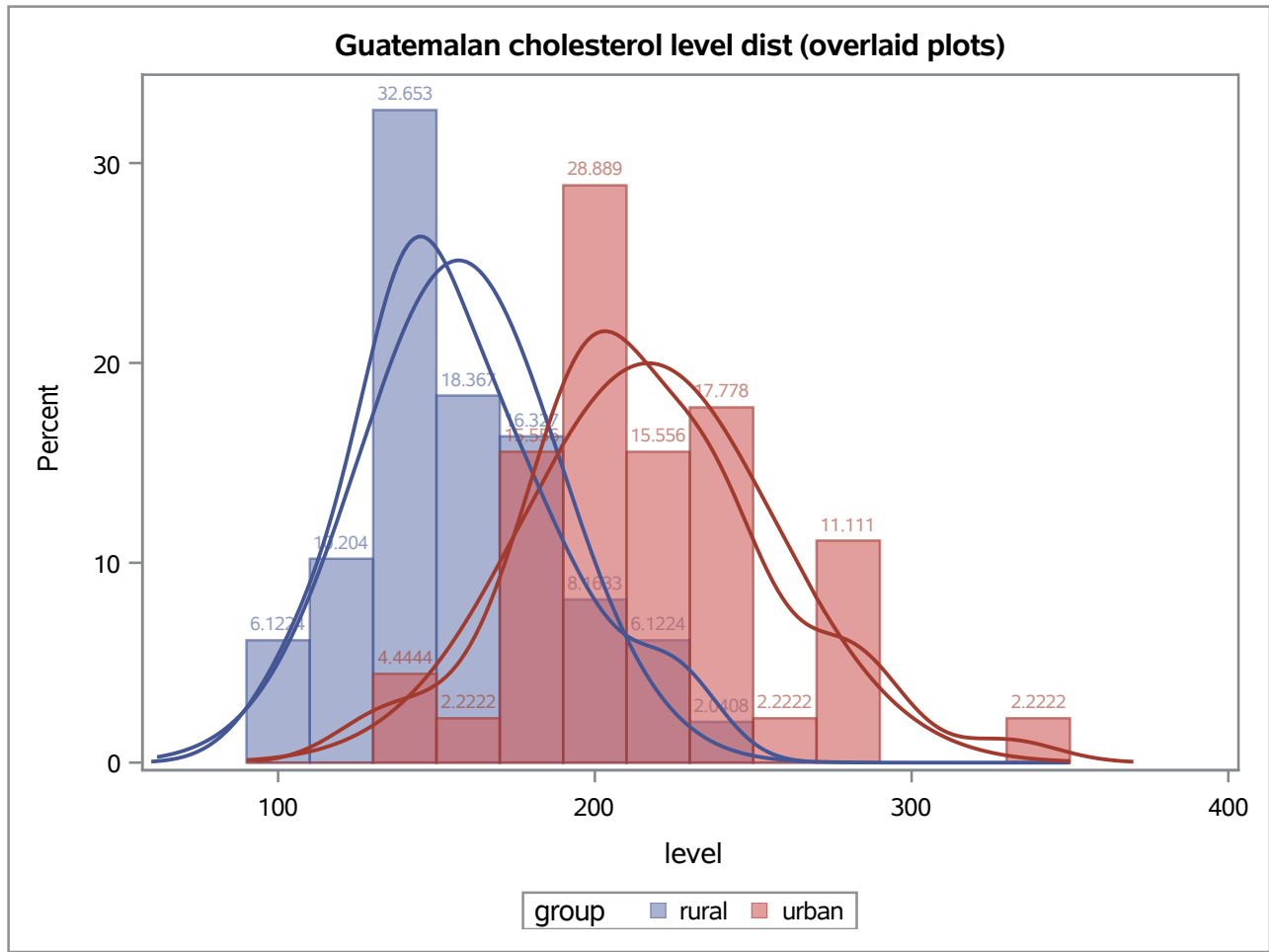
cholesterol level distributions by group  
 histograms with smoothed histograms (fitted curves) (kernel density estimates)



cholesterol level distributions by group

histograms with smoothed histograms (fitted curves) (kernel density estimates) and fitted normal curves for comparison





cholesterol level distributions by group (overlaid plot)  
 histograms with smoothed histograms (fitted curves) (kernel density estimates)  
 and fitted normal curves for comparison



**Guatemalan cholesterol example summary without the outlier**

**The UNIVARIATE Procedure  
Variable: level  
group = rural**

There is no change to the information on this page since the outlier is in the urban group.

Basic Statistical Measures			
Location		Variability	
Mean	157.0204	Std Deviation	31.74868
Median	152.0000	Variance	1008
Mode	108.0000	Range	136.00000
		Interquartile Range	38.00000

**Note: The mode displayed is the smallest of 9 modes with a count of 2.**

Quantiles (Definition 5)	
Level	Quantile
100% Max	231
99%	231
95%	223
90%	204
75% Q3	174
50% Median	152
25% Q1	136
10%	115
5%	108
1%	95
0% Min	95

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	95	1	36	204	1
2	108	2	37	220	1
3	114	1	38	223	1
4	115	1	39	226	1
5	124	1	40	231	1

## Guatemalan cholesterol example summary without the outlier

### The UNIVARIATE Procedure Variable: level group = urban

The most important things to check here are how the removal of the outlier affects the

- mean
- maximum
- range
- standard deviation
- and variance

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	214.2955	<b>Std Deviation</b>	36.41785
<b>Median</b>	205.5000	<b>Variance</b>	1326
<b>Mode</b>	205.0000	<b>Range</b>	151.00000
		<b>Interquartile Range</b>	44.50000

**Note: The mode displayed is the smallest of 2 modes with a count of 3.**

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	284.0
<b>99%</b>	284.0
<b>95%</b>	284.0
<b>90%</b>	273.0
<b>75% Q3</b>	237.5
<b>50% Median</b>	205.5
<b>25% Q1</b>	193.0
<b>10%</b>	175.0
<b>5%</b>	155.0
<b>1%</b>	133.0
<b>0% Min</b>	133.0

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	133	1	31	249	1
2	134	1	32	252	1
3	155	1	33	273	1
4	170	1	34	279	1
5	175	1	35	284	3

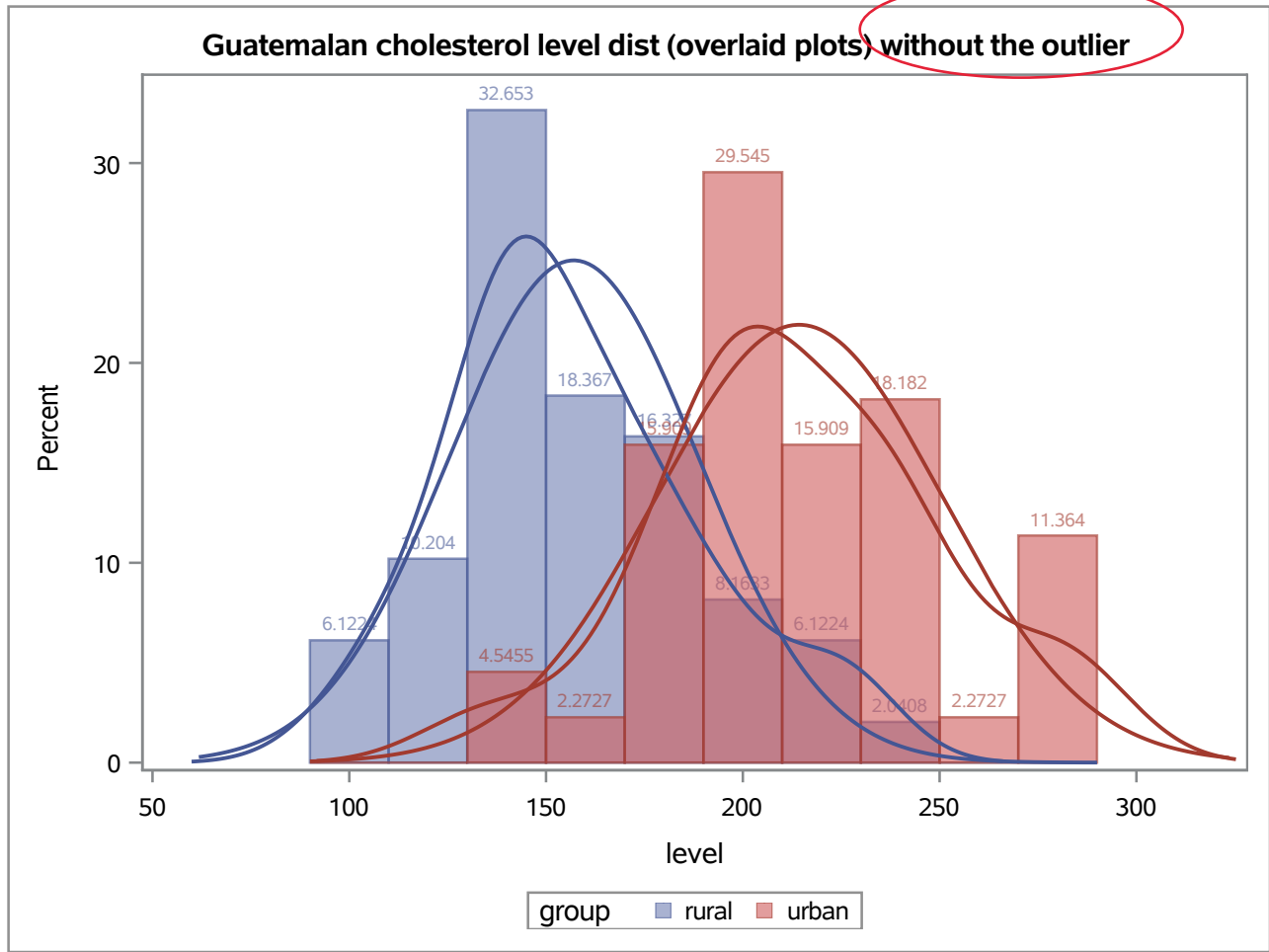
**Guatemalan cholesterol example summary without the outlier****The MEANS Procedure**

Analysis Variable : level											
group	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
rural	49	49	95.00	136.00	152.00	174.00	231.00	136.00	38.00	157.02	31.75
urban	44	44	133.00	193.00	205.50	237.50	284.00	151.00	44.50	214.30	36.42

compare these to the values with the outlier included

**Guatemalan cholesterol example summary without the outlier****The MEANS Procedure**

Analysis Variable : level														
group	N Obs	1st Pctl	5th Pctl	10th Pctl	20th Pctl	30th Pctl	40th Pctl	50th Pctl	60th Pctl	70th Pctl	80th Pctl	90th Pctl	95th Pctl	99th Pctl
rural	49	95.00	108.00	115.00	131.00	140.00	144.00	152.00	158.00	172.00	181.00	204.00	223.00	231.00
urban	44	133.00	155.00	175.00	188.00	199.00	201.00	205.50	222.00	234.00	242.00	273.00	284.00	284.00



cholesterol level distributions by group (overlaid plot)

histograms with smoothed histograms (fitted curves) (kernel density estimates) and fitted normal curves for comparison