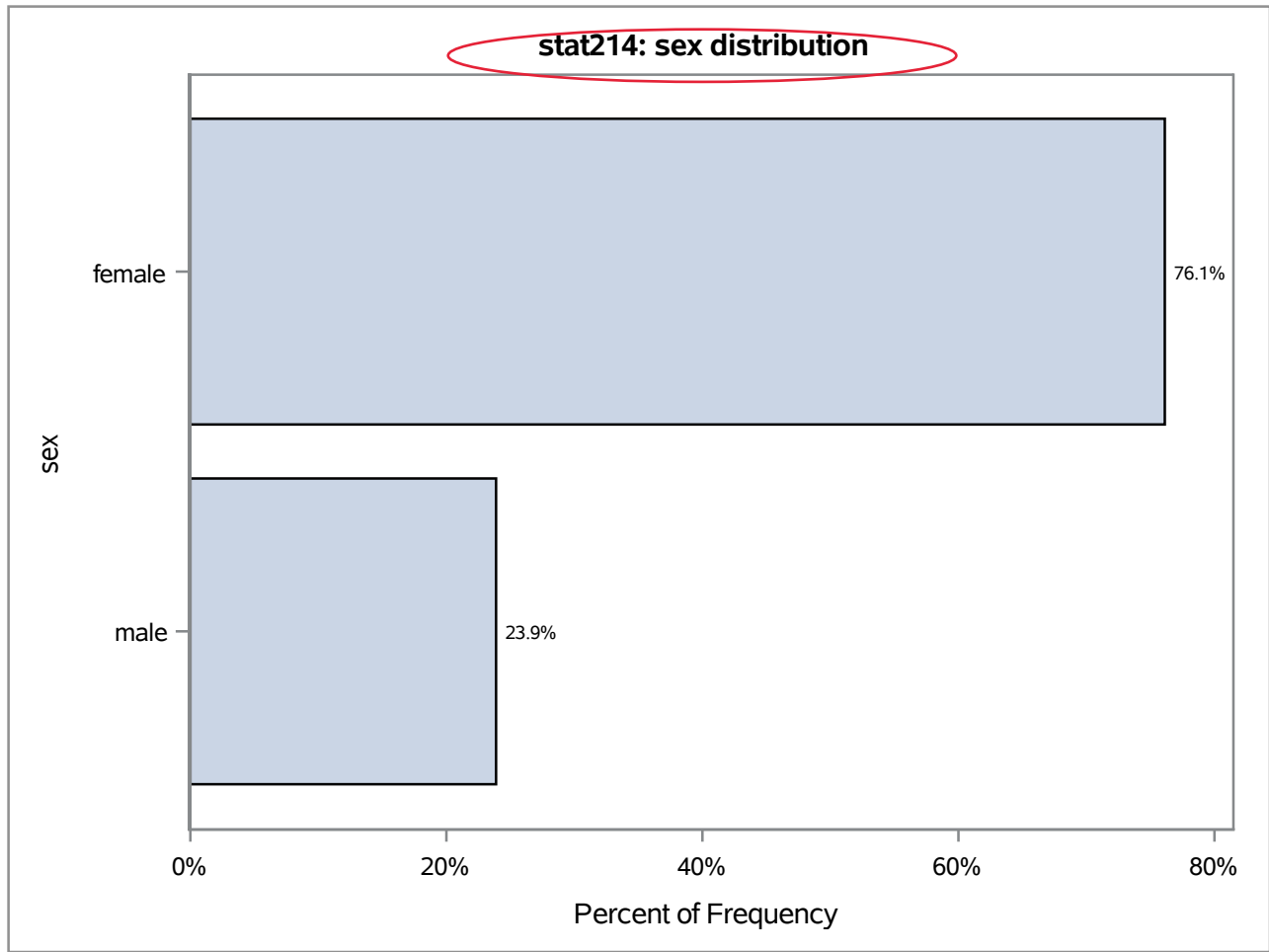


The FREQ Procedure

sex	Frequency	Percent	Cumulative Frequency	Cumulative Percent
female	51	76.12	51	76.12
male	16	23.88	67	100.00

Frequency and relative frequency distribution





horizontal bar graph

The FREQ Procedure

section=1

sex	Frequency	Percent	Cumulative Frequency	Cumulative Percent
female	28	77.78	28	77.78
male	8	22.22	36	100.00

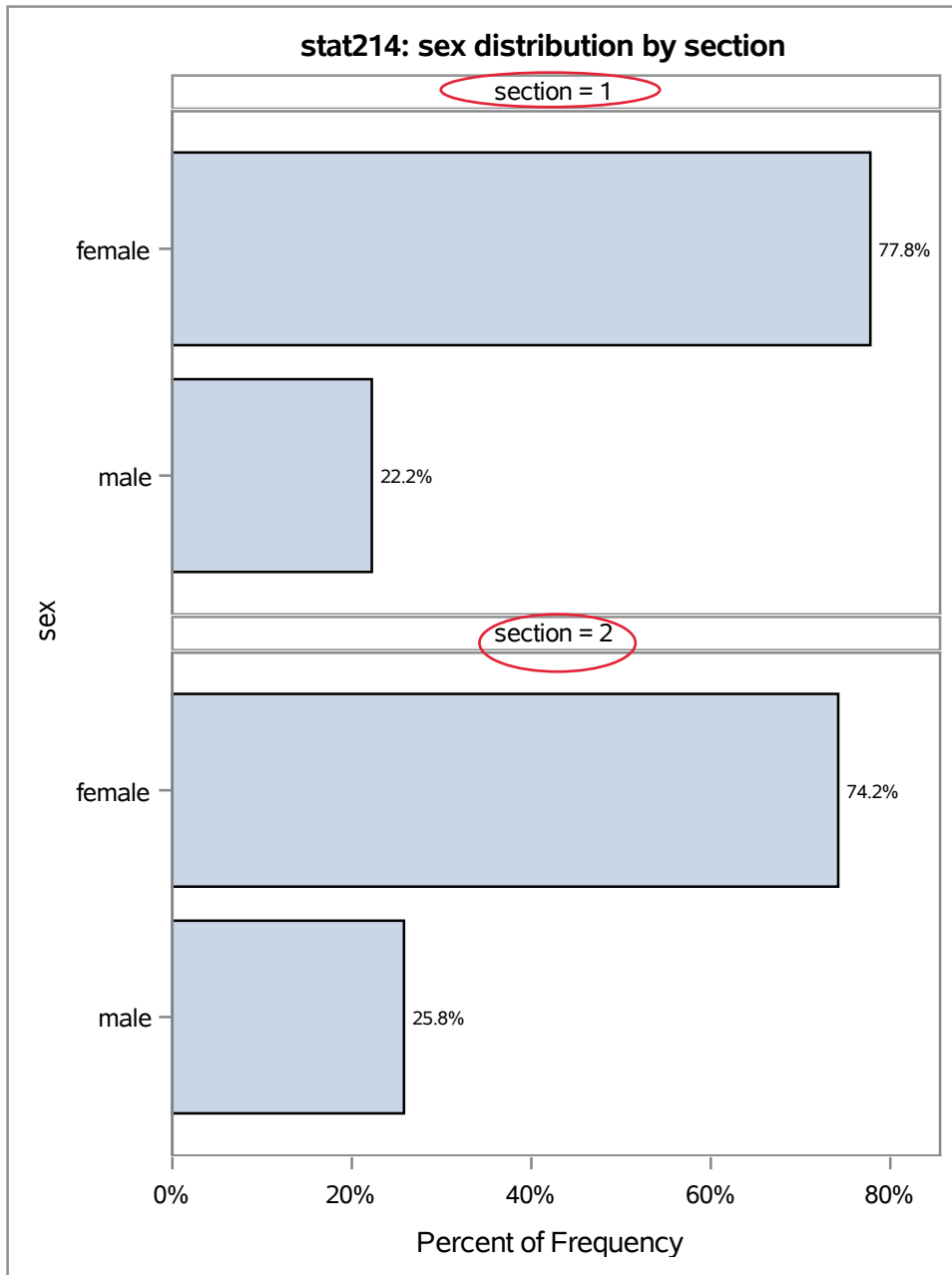
Frequency and relative frequency distribution

The FREQ Procedure

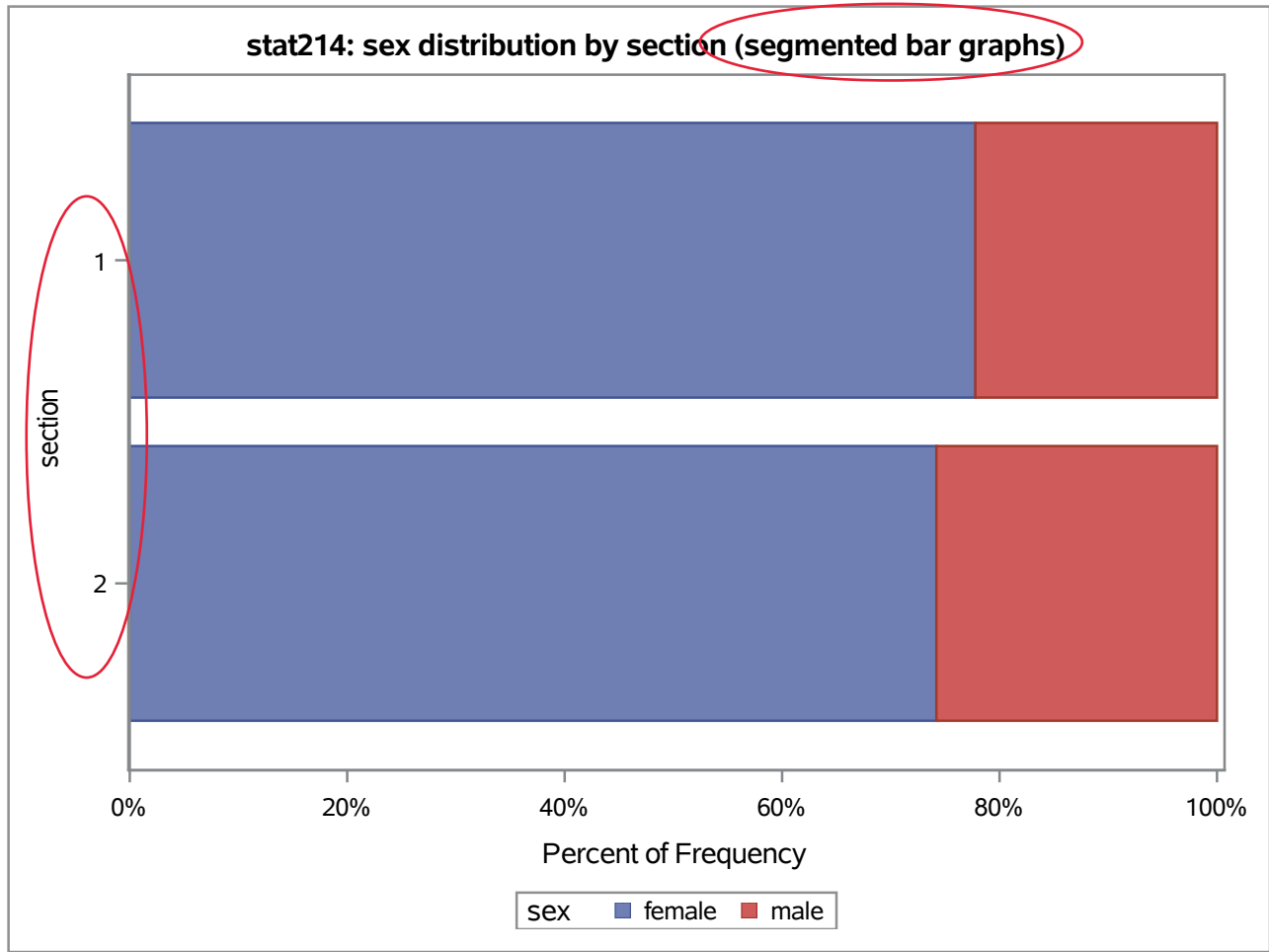
section=2

sex	Frequency	Percent	Cumulative Frequency	Cumulative Percent
female	23	74.19	23	74.19
male	8	25.81	31	100.00

↑
Frequency and relative frequency distribution




horizontal bar graphs

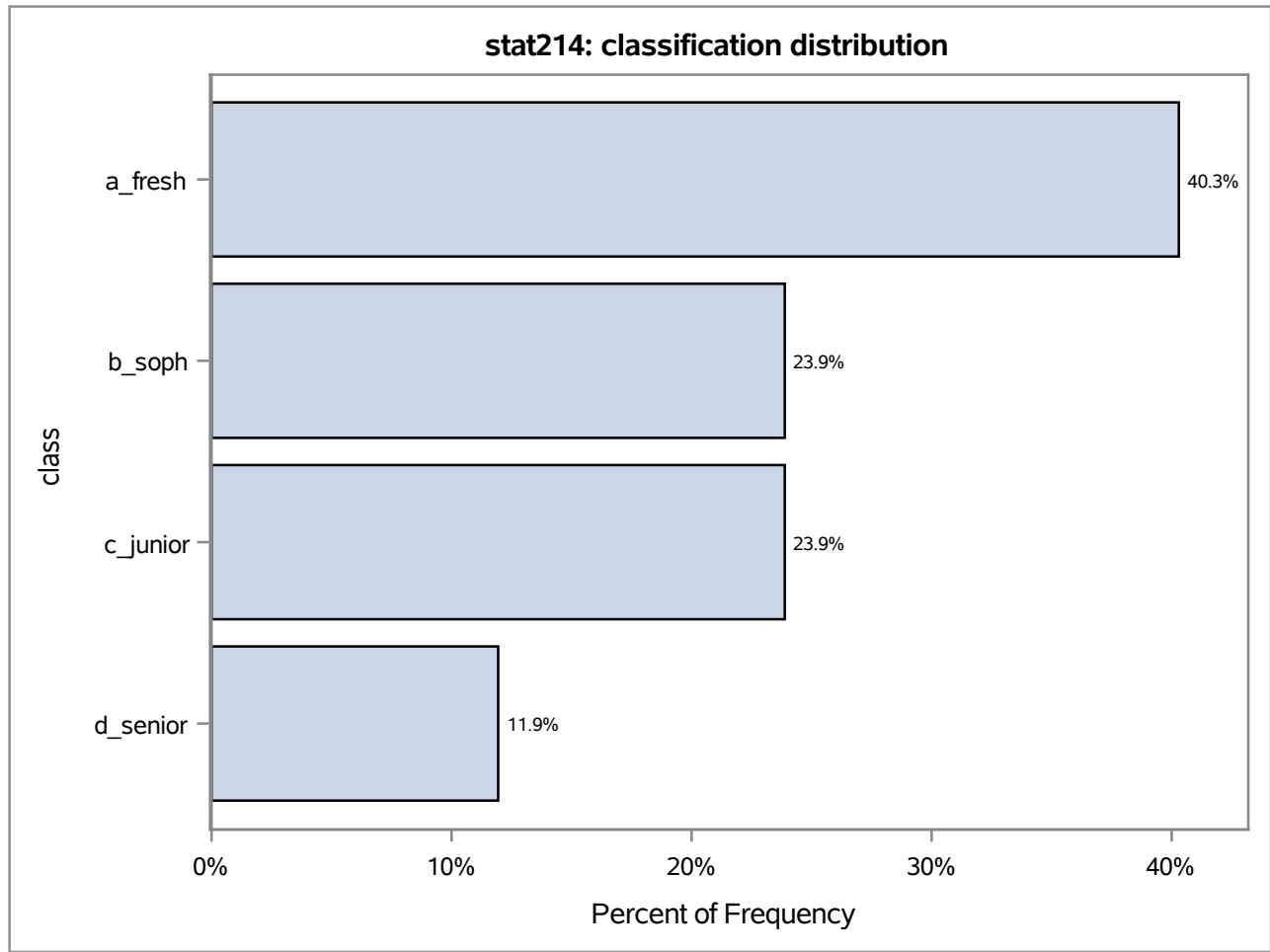


The FREQ Procedure

class	Frequency	Percent	Cumulative Frequency	Cumulative Percent
a_fresh	27	40.30	27	40.30
b_soph	16	23.88	43	64.18
c_junior	16	23.88	59	88.06
d_senior	8	11.94	67	100.00

Frequency and relative
frequency distribution





horizontal bar graph

note the letter prefixes (a,b,c,d) added to preserve order

stat214 classification distribution by section**The FREQ Procedure**

section=1

class	Frequency	Percent	Cumulative Frequency	Cumulative Percent
a_fresh	19	52.78	19	52.78
b_soph	6	16.67	25	69.44
c_junior	6	16.67	31	86.11
d_senior	5	13.89	36	100.00

↑
Frequency and relative
frequency distribution

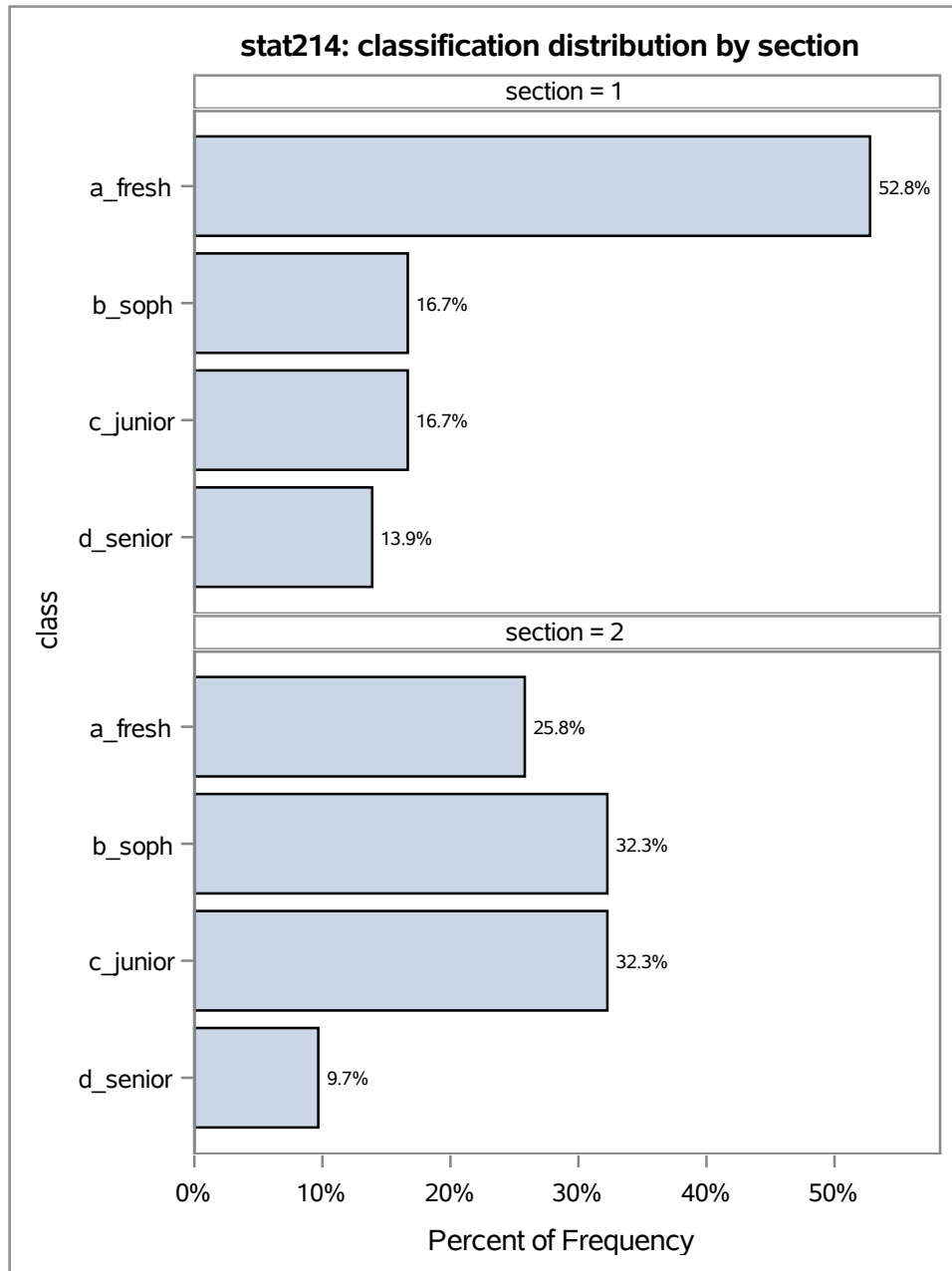
stat214 classification distribution by section**The FREQ Procedure**

section=2

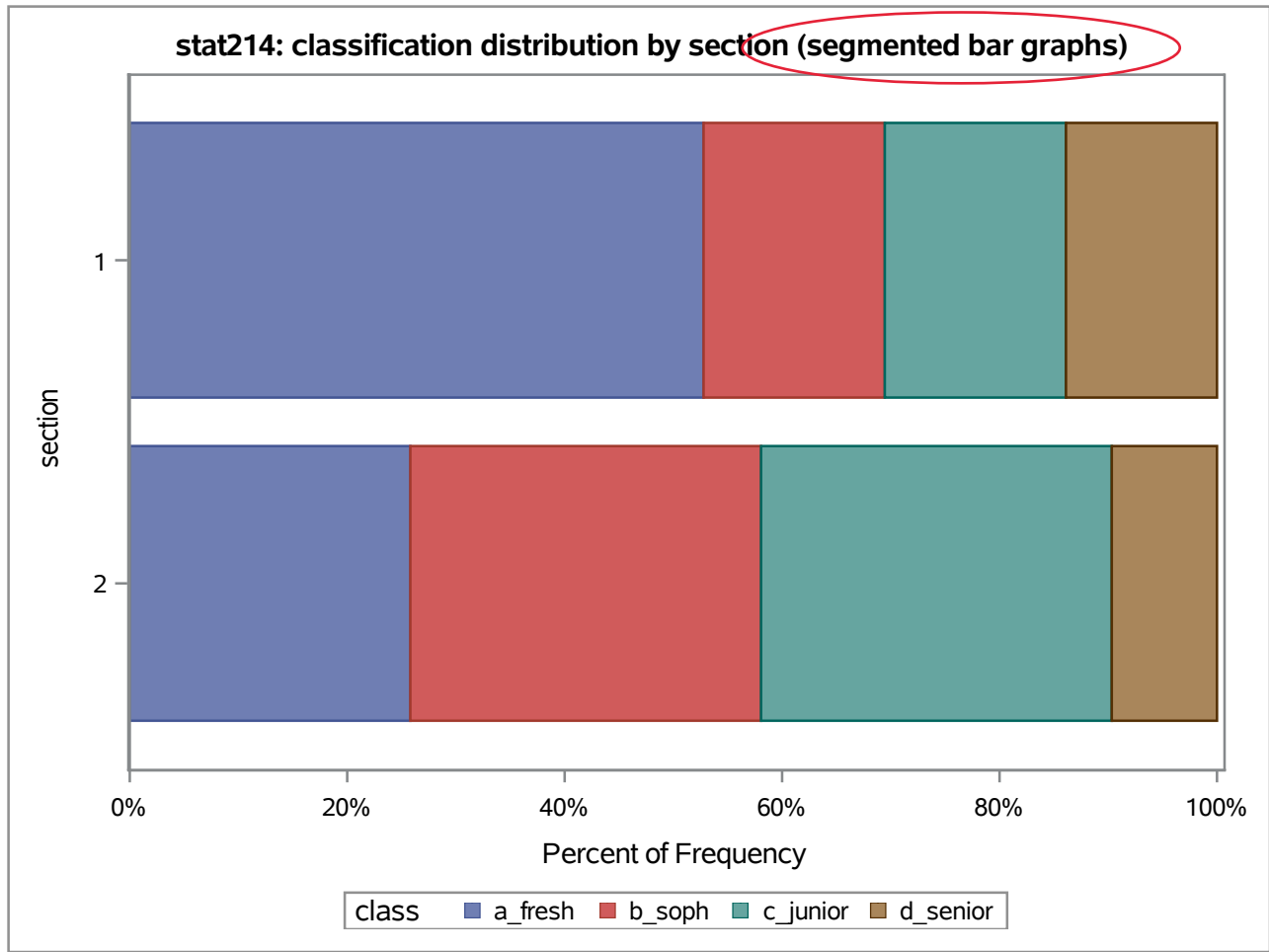
class	Frequency	Percent	Cumulative Frequency	Cumulative Percent
a_fresh	8	25.81	8	25.81
b_soph	10	32.26	18	58.06
c_junior	10	32.26	28	90.32
d_senior	3	9.68	31	100.00



Frequency and relative frequency distribution
note the letter prefixes (a,b,c,d) added to preserve order



horizontal bar graphs
 note the letter prefixes (a,b,c,d) added to preserve order



segmented bar graphs
 note the letter prefixes (a,b,c,d) added to preserve order

The FREQ Procedure

siblings	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	2	2.99	2	2.99
1	21	31.34	23	34.33
2	21	31.34	44	65.67
3	11	16.42	55	82.09
4	7	10.45	62	92.54
5	3	4.48	65	97.01
6	1	1.49	66	98.51
7	1	1.49	67	100.00

↑
Frequency and relative
frequency distribution

The UNIVARIATE Procedure
Variable: siblings

This page gives general summary information about the distribution

Basic Statistical Measures			
Location		Variability	
Mean	2.268657	Std Deviation	1.40973
Median	2.000000	Variance	1.98734
Mode	1.000000	Range	7.00000
		Interquartile Range	2.00000

Note: The mode displayed is the smallest of 2 modes with a count of 21.

Quantiles (Definition 5)	
Level	Quantile
100% Max	7
99%	7
95%	5
90%	4
75% Q3	3
50% Median	2
25% Q1	1
10%	1
5%	1
1%	0
0% Min	0

This means there are 2 values which each occur 21 times.

Below we find that these values are 2 and 3. Since 2 and 3 are adjacent, the distribution is essentially unimodal. (The histogram has one peak over 2 and 3).

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	0	2	4	3	11
2	1	21	5	4	7
3	2	21	6	5	3
4	3	11	7	6	1
5	4	7	8	7	1

The MEANS Procedure

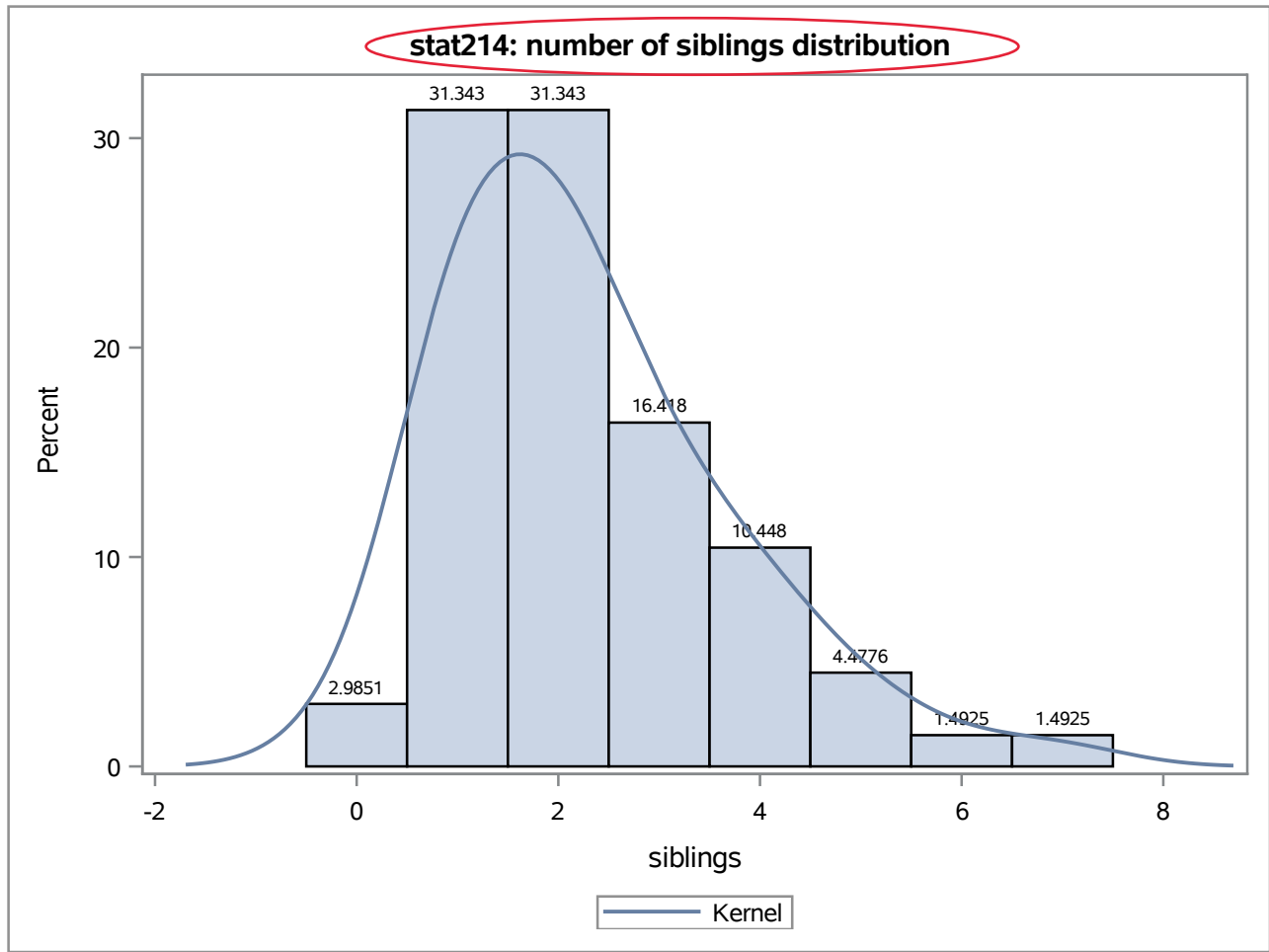
Analysis Variable : siblings									
N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
67	0.0000	1.0000	2.0000	3.0000	7.0000	7.0000	2.0000	2.2687	1.4097

basic summary statistics

The MEANS Procedure

Analysis Variable : siblings												
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
0.0000	1.0000	1.0000	1.0000	1.0000	2.0000	2.0000	2.0000	3.0000	3.0000	4.0000	5.0000	7.0000

percentiles




number of siblings distribution histogram with smoothed histogram (fitted curve) (kernel density estimate)

stat214 siblings distribution by section**The FREQ Procedure**

section=1

siblings	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1	2.78	1	2.78
1	14	38.89	15	41.67
2	12	33.33	27	75.00
3	5	13.89	32	88.89
4	1	2.78	33	91.67
5	3	8.33	36	100.00

Frequency and relative
frequency distribution



stat214 siblings distribution by section

The FREQ Procedure

section=2

siblings	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1	3.23	1	3.23
1	7	22.58	8	25.81
2	9	29.03	17	54.84
3	6	19.35	23	74.19
4	6	19.35	29	93.55
6	1	3.23	30	96.77
7	1	3.23	31	100.00

note gap
no one had 5 siblings

Frequency and relative
frequency distribution

The UNIVARIATE Procedure
Variable: siblings
section = 1

This page gives general summary information about the distribution

Basic Statistical Measures			
Location		Variability	
Mean	2.000000	Std Deviation	1.24212
Median	2.000000	Variance	1.54286
Mode	1.000000	Range	5.00000
		Interquartile Range	1.50000

Quantiles (Definition 5)	
Level	Quantile
100% Max	5.0
99%	5.0
95%	5.0
90%	4.0
75% Q3	2.5
50% Median	2.0
25% Q1	1.0
10%	1.0
5%	1.0
1%	0.0
0% Min	0.0

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	0	1	2	1	14
2	1	14	3	2	12
3	2	12	4	3	5
4	3	5	5	4	1
5	4	1	6	5	3

The UNIVARIATE Procedure
Variable: siblings
section = 2

This page gives general summary information about the distribution

Basic Statistical Measures			
Location		Variability	
Mean	2.580645	Std Deviation	1.54433
Median	2.000000	Variance	2.38495
Mode	2.000000	Range	7.00000
		Interquartile Range	3.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	7
99%	7
95%	6
90%	4
75% Q3	4
50% Median	2
25% Q1	1
10%	1
5%	1
1%	0
0% Min	0

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	0	1	3	2	9
2	1	7	4	3	6
3	2	9	5	4	6
4	3	6	6	6	1
5	4	6	7	7	1

The MEANS Procedure

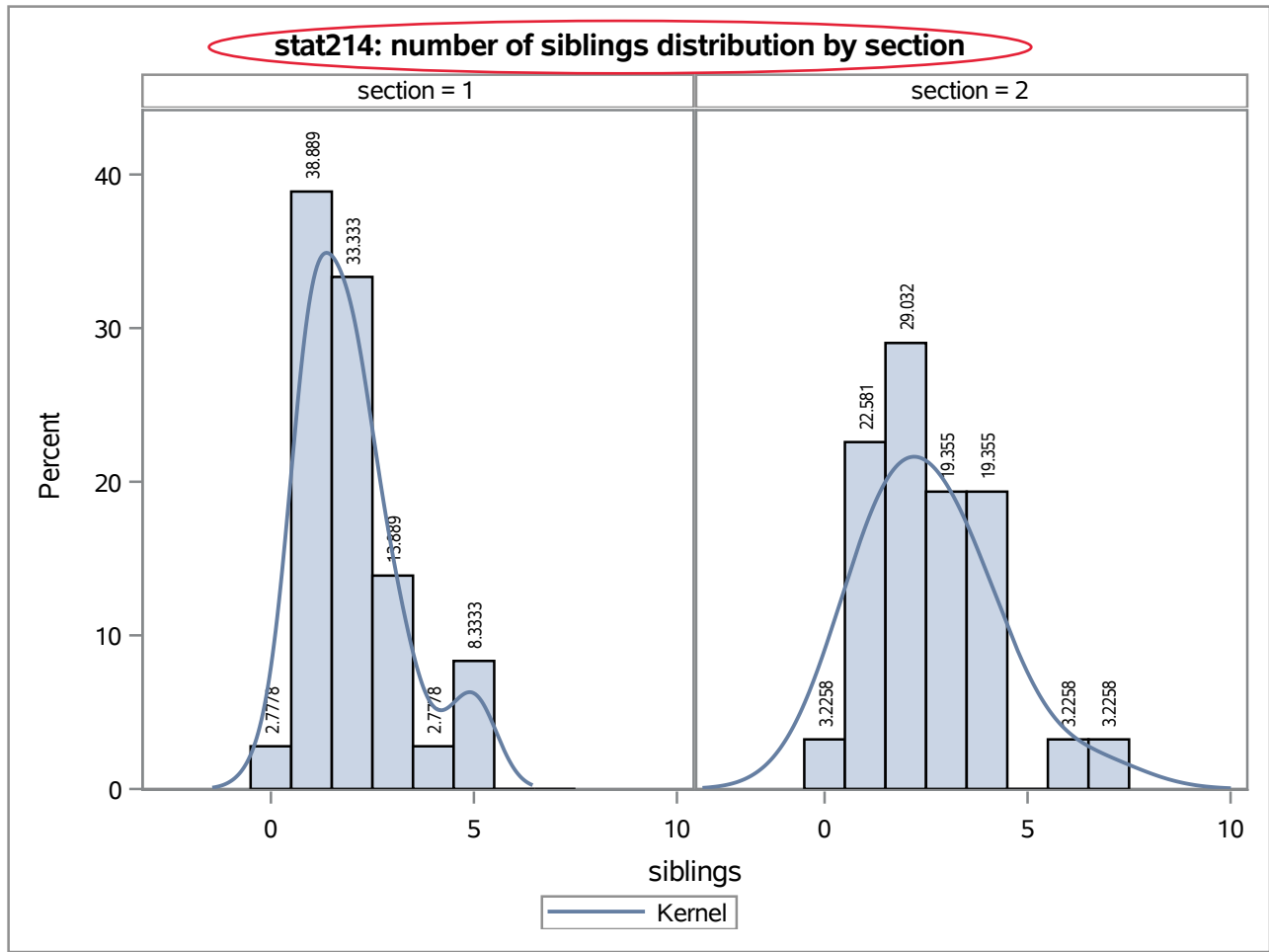
Analysis Variable : siblings											
section	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
1	36	36	0.0000	1.0000	2.0000	2.5000	5.0000	5.0000	1.5000	2.0000	1.2421
2	31	31	0.0000	1.0000	2.0000	4.0000	7.0000	7.0000	3.0000	2.5806	1.5443

basic summary statistics

The MEANS Procedure

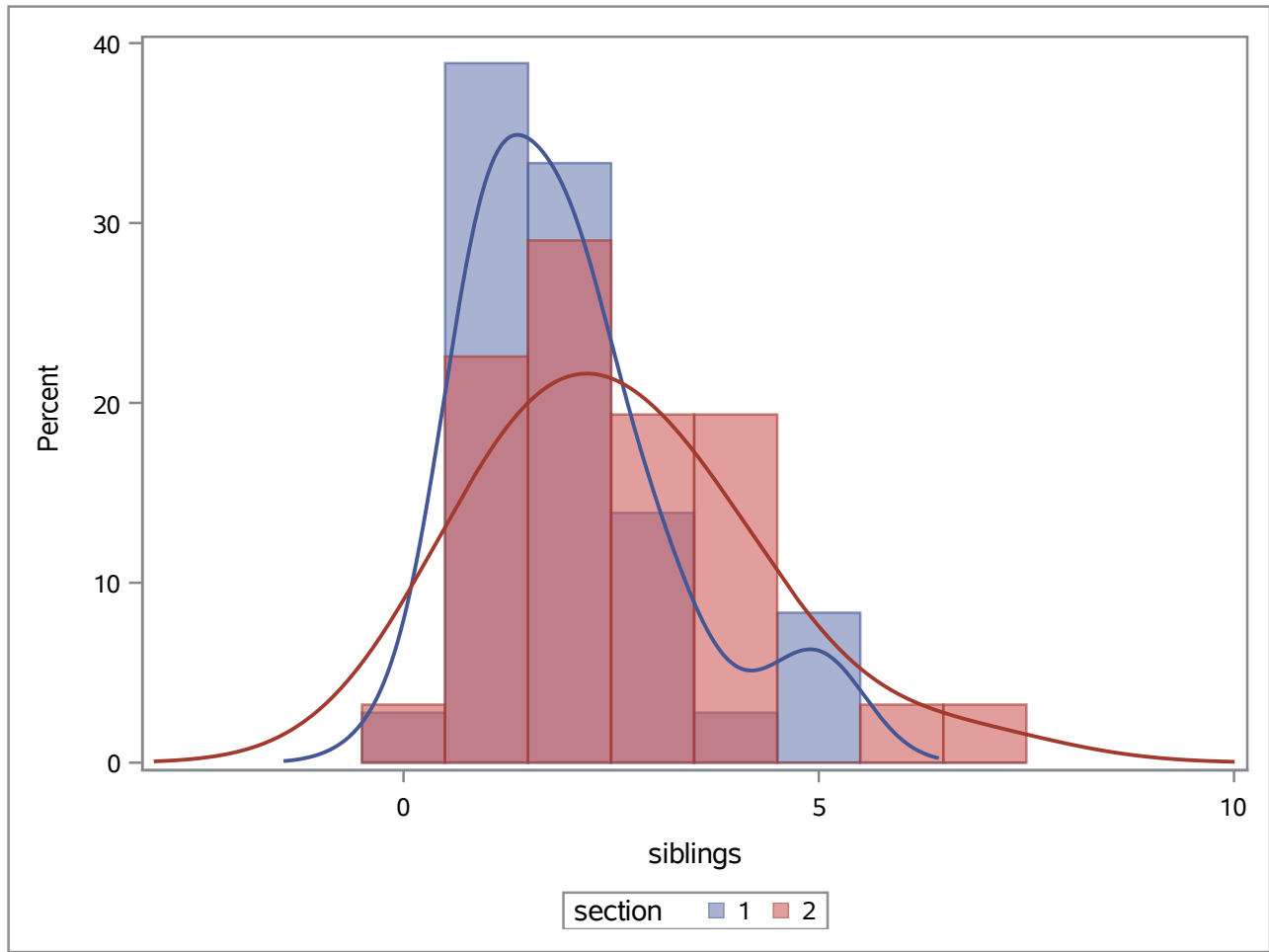
Analysis Variable : siblings														
section	N Obs	1st Pctl	5th Pctl	10th Pctl	20th Pctl	30th Pctl	40th Pctl	50th Pctl	60th Pctl	70th Pctl	80th Pctl	90th Pctl	95th Pctl	99th Pctl
1	36	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2.0000	2.0000	2.0000	3.0000	4.0000	5.0000	5.0000
2	31	0.0000	1.0000	1.0000	1.0000	2.0000	2.0000	2.0000	3.0000	3.0000	4.0000	4.0000	6.0000	7.0000

percentiles

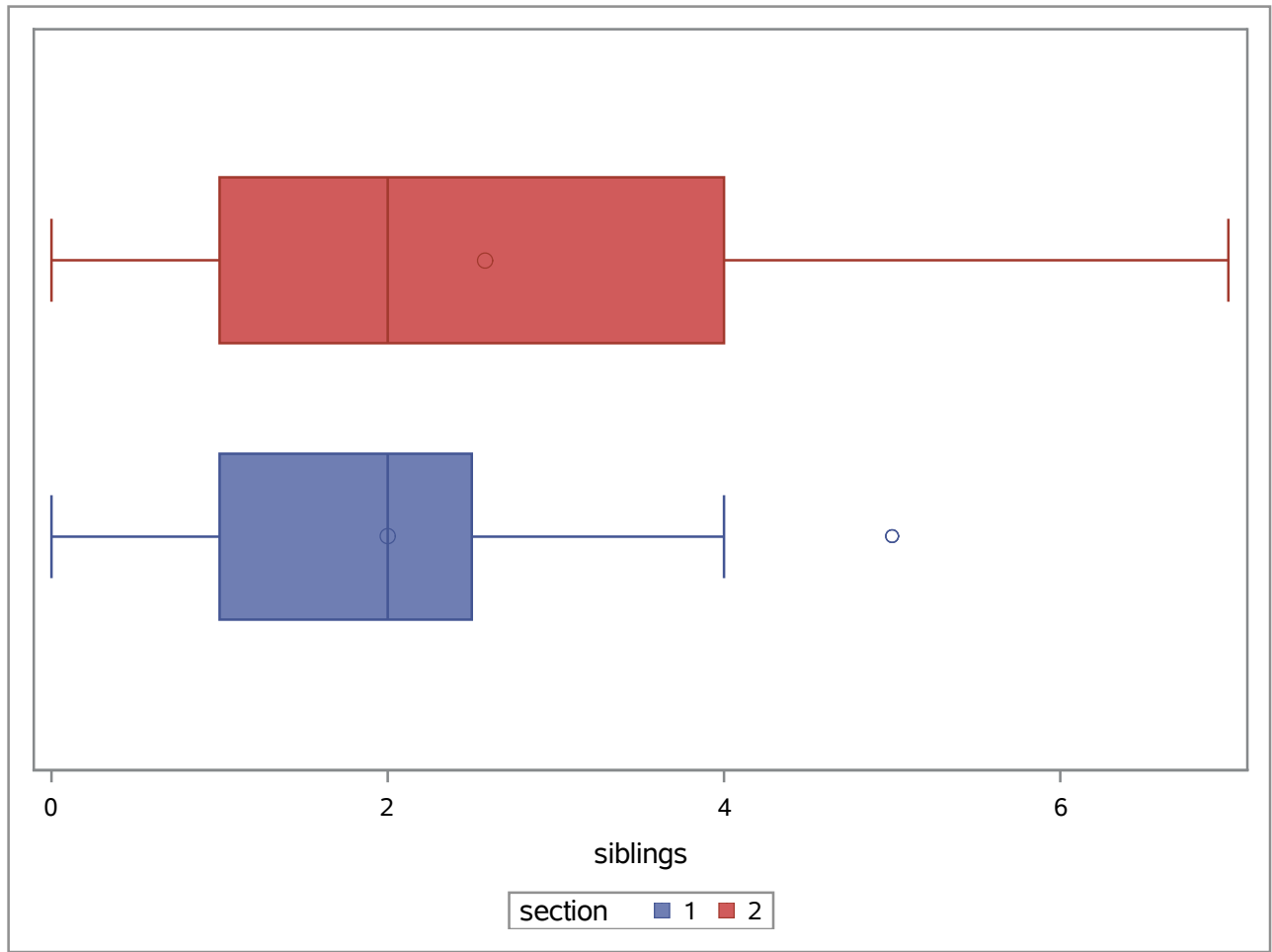


number of siblings distributions by section

histograms with smoothed histograms (fitted curves) (kernel density estimates)



number of siblings distributions by section (overlaid plot)
 histograms with smoothed histograms (fitted curve)



box plots for the number of siblings distributions

The FREQ Procedure

age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
18	19	28.36	19	28.36
19	10	14.93	29	43.28
20	11	16.42	40	59.70
21	8	11.94	48	71.64
22	8	11.94	56	83.58
23	1	1.49	57	85.07
24	1	1.49	58	86.57
25	3	4.48	61	91.04
26	1	1.49	62	92.54
28	1	1.49	63	94.03
41	1	1.49	64	95.52
44	1	1.49	65	97.01
47	1	1.49	66	98.51
48	1	1.49	67	100.00

Note that there are gaps among these ages

Frequency and relative frequency distribution

The UNIVARIATE Procedure
Variable: age

Basic Statistical Measures			
Location		Variability	
Mean	21.67164	Std Deviation	6.35893
Median	20.00000	Variance	40.43600
Mode	18.00000	Range	30.00000
		Interquartile Range	4.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	48
99%	48
95%	41
90%	25
75% Q3	22
50% Median	20
25% Q1	18
10%	18
5%	18
1%	18
0% Min	18

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	18	19	10	28	1
2	19	10	11	41	1
3	20	11	12	44	1
4	21	8	13	47	1
5	22	8	14	48	1

The MEANS Procedure

Analysis Variable : age									
N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
67	18.0000	18.0000	20.0000	22.0000	48.0000	30.0000	4.0000	21.6716	6.3589

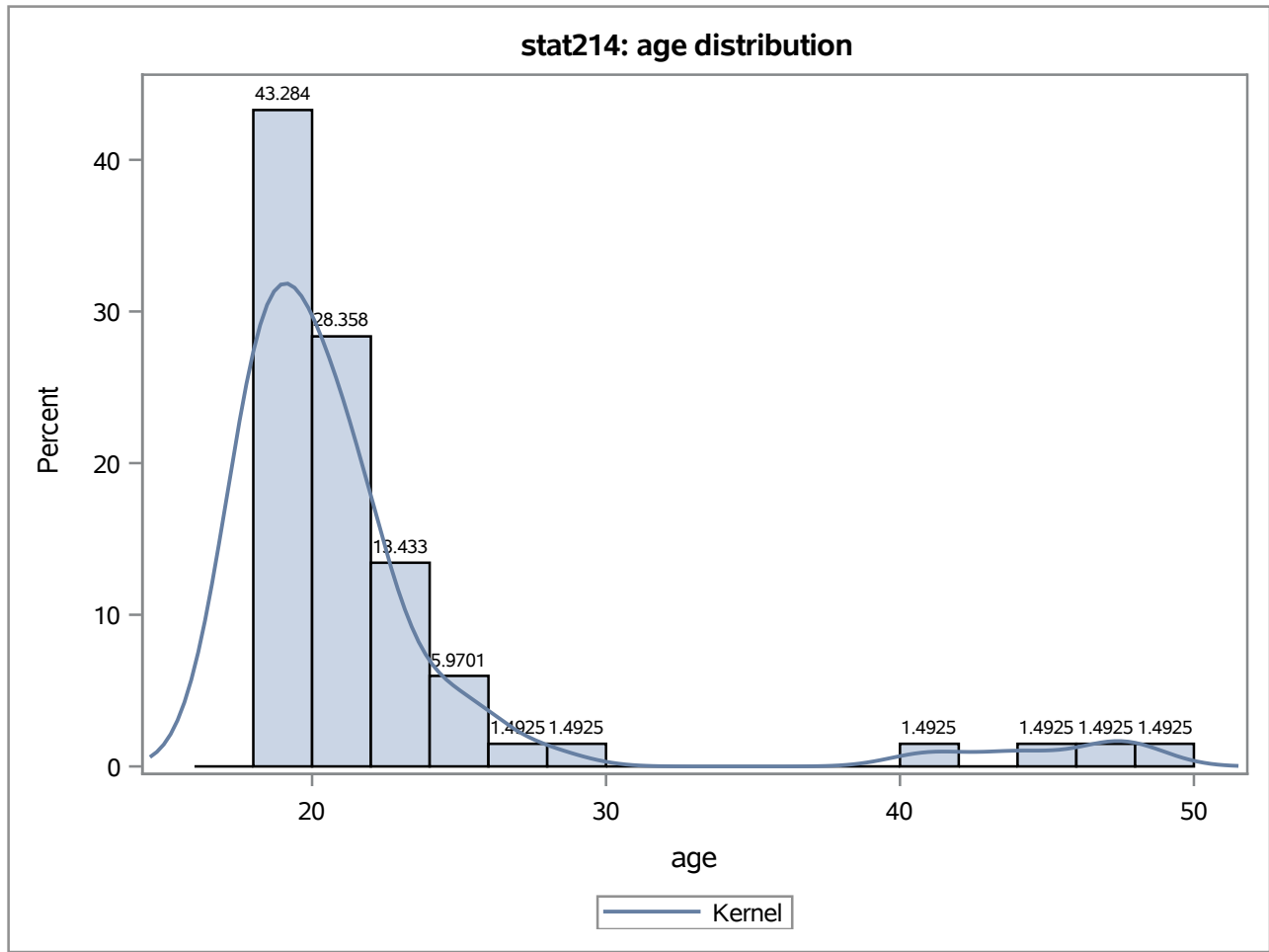
basic summary statistics

The MEANS Procedure

Analysis Variable : age

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
18.0000	18.0000	18.0000	18.0000	19.0000	19.0000	20.0000	21.0000	21.0000	22.0000	25.0000	41.0000	48.0000

percentiles



age distribution histogram with smoothed histogram (fitted curve) (kernel density estimate)

The FREQ Procedure

section=1

age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
18	14	38.89	14	38.89
19	4	11.11	18	50.00
20	4	11.11	22	61.11
21	3	8.33	25	69.44
22	7	19.44	32	88.89
25	2	5.56	34	94.44
41	1	2.78	35	97.22
47	1	2.78	36	100.00

Frequency and relative frequency distribution

NOTE gaps!

The FREQ Procedure

section=2

age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
18	5	16.13	5	16.13
19	6	19.35	11	35.48
20	7	22.58	18	58.06
21	5	16.13	23	74.19
22	1	3.23	24	77.42
23	1	3.23	25	80.65
24	1	3.23	26	83.87
25	1	3.23	27	87.10
26	1	3.23	28	90.32
28	1	3.23	29	93.55
44	1	3.23	30	96.77
48	1	3.23	31	100.00

↑
Frequency and relative frequency distribution
NOTE gaps!

The UNIVARIATE Procedure
 Variable: age
 section = 1

Basic Statistical Measures			
Location		Variability	
Mean	21.19444	Std Deviation	5.99914
Median	19.50000	Variance	35.98968
Mode	18.00000	Range	29.00000
		Interquartile Range	4.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	47.0
99%	47.0
95%	41.0
90%	25.0
75% Q3	22.0
50% Median	19.5
25% Q1	18.0
10%	18.0
5%	18.0
1%	18.0
0% Min	18.0

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	18	14	4	21	3
2	19	4	5	22	7
3	20	4	6	25	2
4	21	3	7	41	1
5	22	7	8	47	1

there are two older students
 one is 41 and the other is 47
 the next oldest is 25



The UNIVARIATE Procedure
 Variable: age
 section = 2

Basic Statistical Measures			
Location		Variability	
Mean	22.22581	Std Deviation	6.81033
Median	20.00000	Variance	46.38065
Mode	20.00000	Range	30.00000
		Interquartile Range	3.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	48
99%	48
95%	44
90%	26
75% Q3	22
50% Median	20
25% Q1	19
10%	18
5%	18
1%	18
0% Min	18

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	18	5	8	25	1
2	19	6	9	26	1
3	20	7	10	28	1
4	21	5	11	44	1
5	22	1	12	48	1

there are two older students
 one is 44 and the other is 48
 the next oldest is 28



The MEANS Procedure

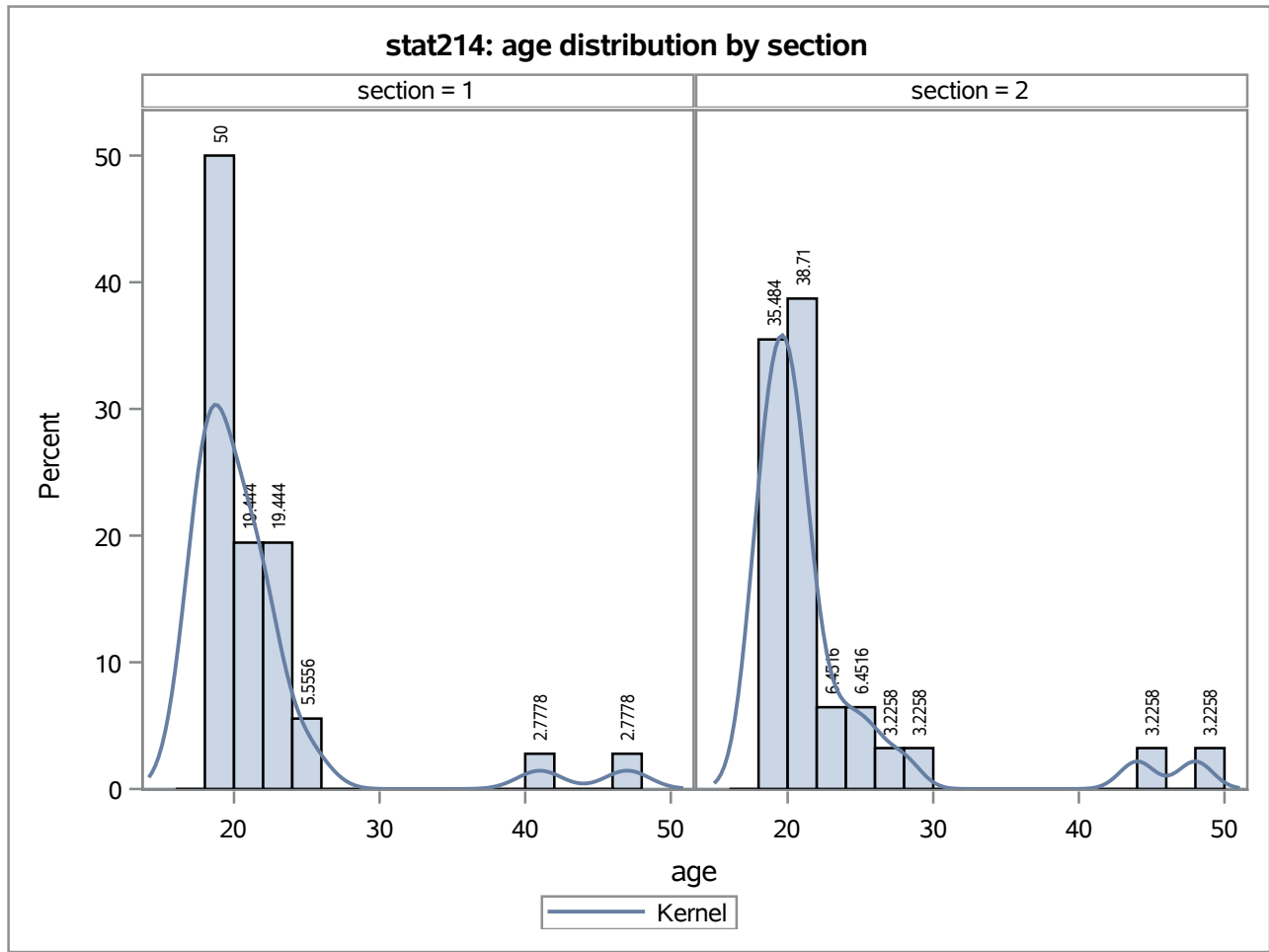
Analysis Variable : age											
section	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
1	36	36	18.0000	18.0000	19.5000	22.0000	47.0000	29.0000	4.0000	21.1944	5.9991
2	31	31	18.0000	19.0000	20.0000	22.0000	48.0000	30.0000	3.0000	22.2258	6.8103

basic summary statistics

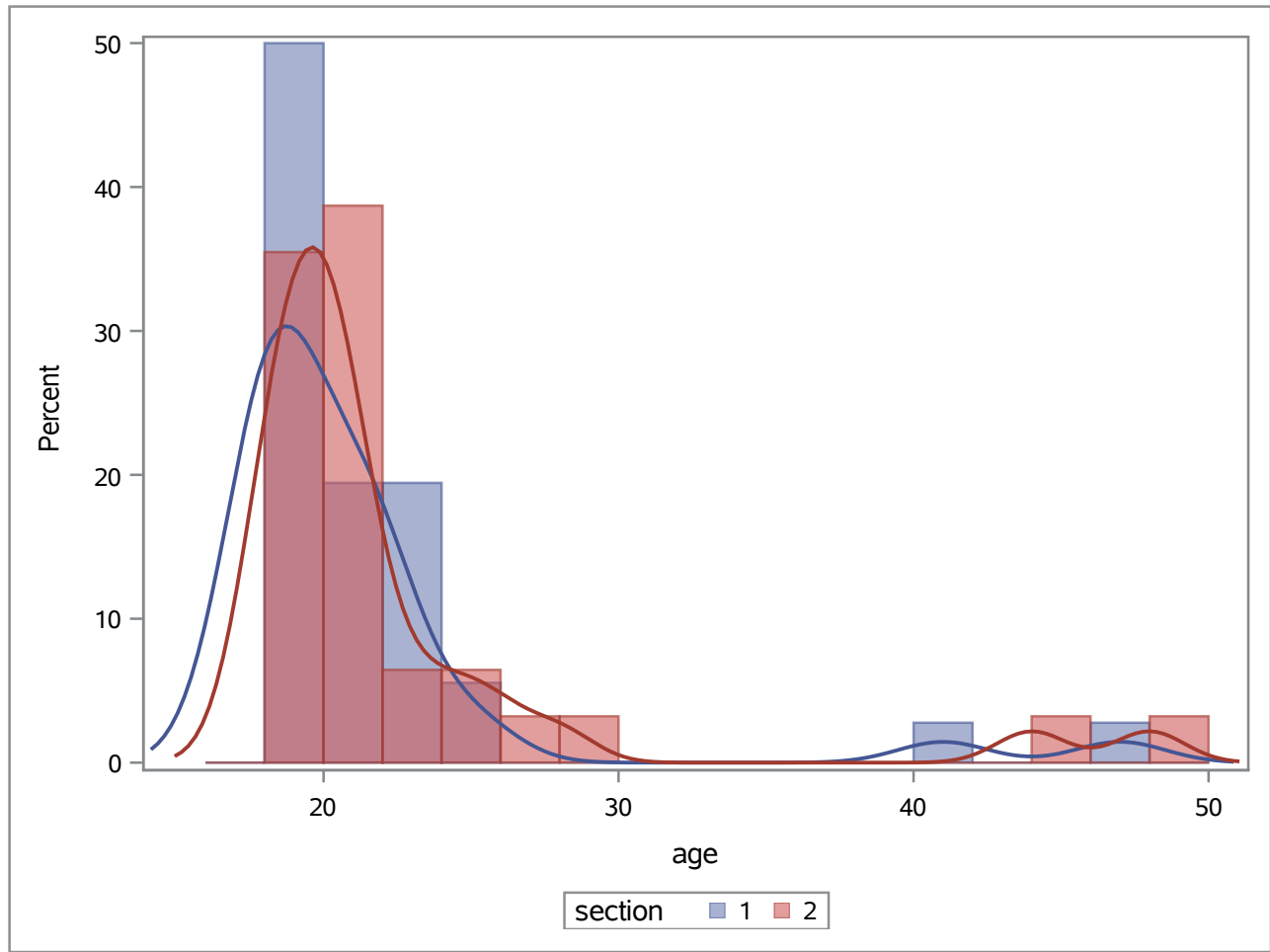
The MEANS Procedure

Analysis Variable : age														
section	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
1	36	18.0000	18.0000	18.0000	18.0000	18.0000	19.0000	19.5000	20.0000	22.0000	22.0000	25.0000	41.0000	47.0000
2	31	18.0000	18.0000	18.0000	19.0000	19.0000	20.0000	20.0000	21.0000	21.0000	23.0000	26.0000	44.0000	48.0000

percentiles

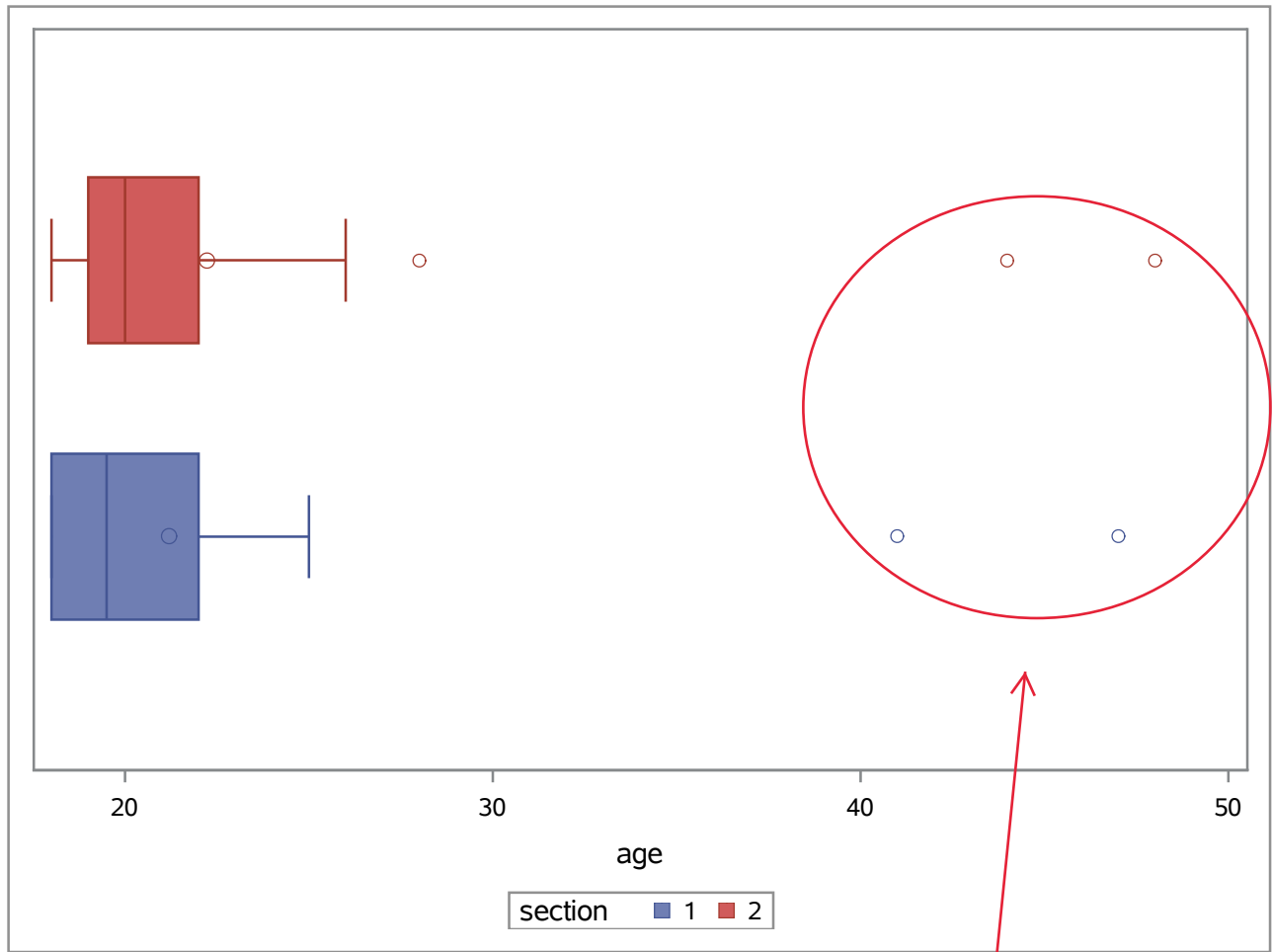


age distributions by section
 histograms with smoothed histograms (fitted curves) (kernel density estimates)



age distributions by section (overlaid plot)

histograms with smoothed histograms (fitted curves)



age distributions by section box plots

note that each section has a few older students

The UNIVARIATE Procedure
Variable: weight

Basic Statistical Measures			
Location		Variability	
Mean	139.9851	Std Deviation	27.00140
Median	135.0000	Variance	729.07553
Mode	110.0000	Range	110.00000
		Interquartile Range	46.00000

Note: The mode displayed is the smallest of 2 modes with a count of 7.

Quantiles (Definition 5)	
Level	Quantile
100% Max	205
99%	205
95%	190
90%	180
75% Q3	162
50% Median	135
25% Q1	116
10%	110
5%	105
1%	95
0% Min	95

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	95	1	25	175	1
2	96	1	26	180	2
3	103	1	27	185	2
4	105	2	28	190	3
5	110	7	29	205	1

The MEANS Procedure

Analysis Variable : weight									
N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
67	95.0000	116.0000	135.0000	162.0000	205.0000	110.0000	46.0000	139.9851	27.0014

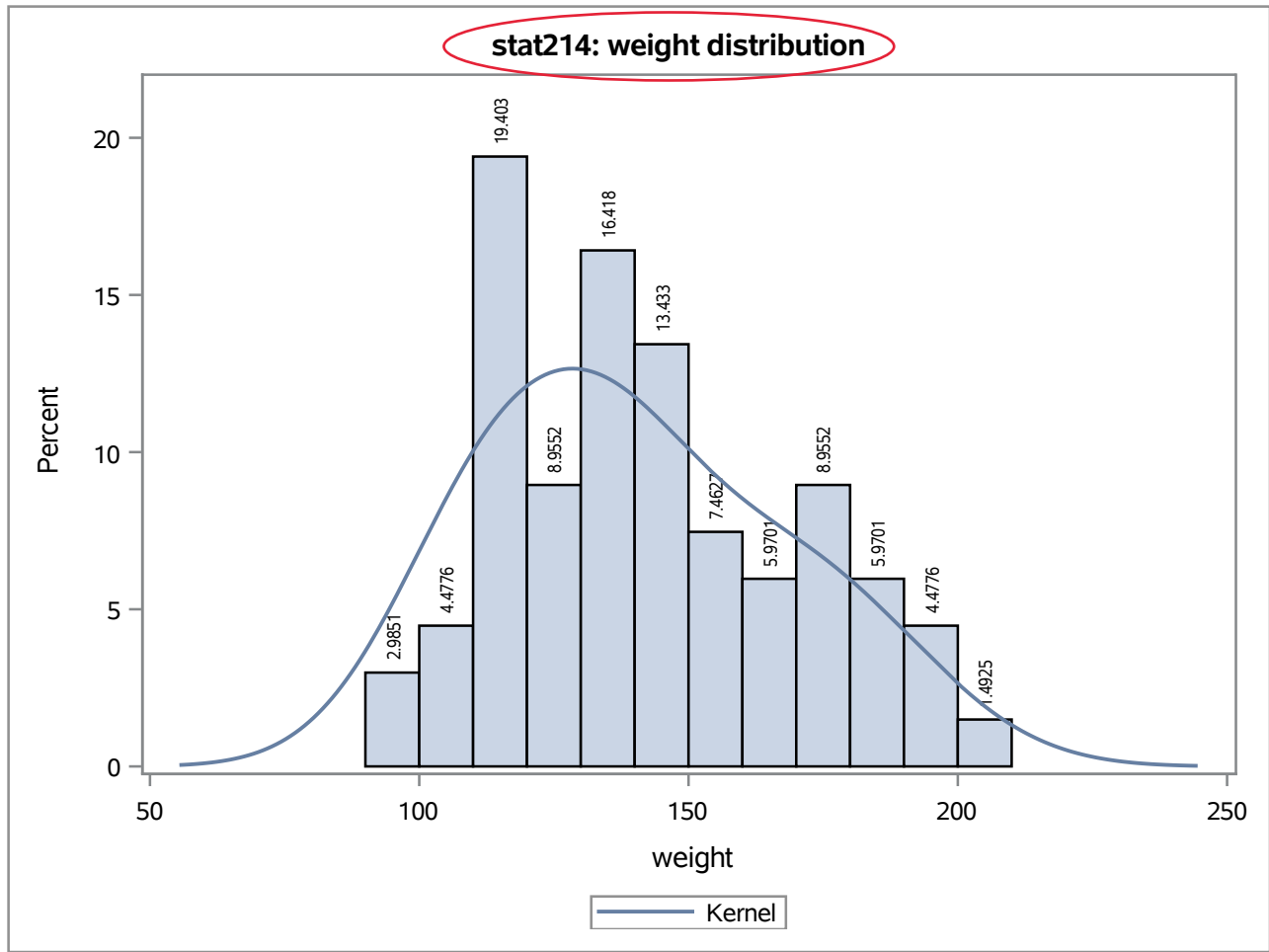
basic summary statistics

The MEANS Procedure

Analysis Variable : weight

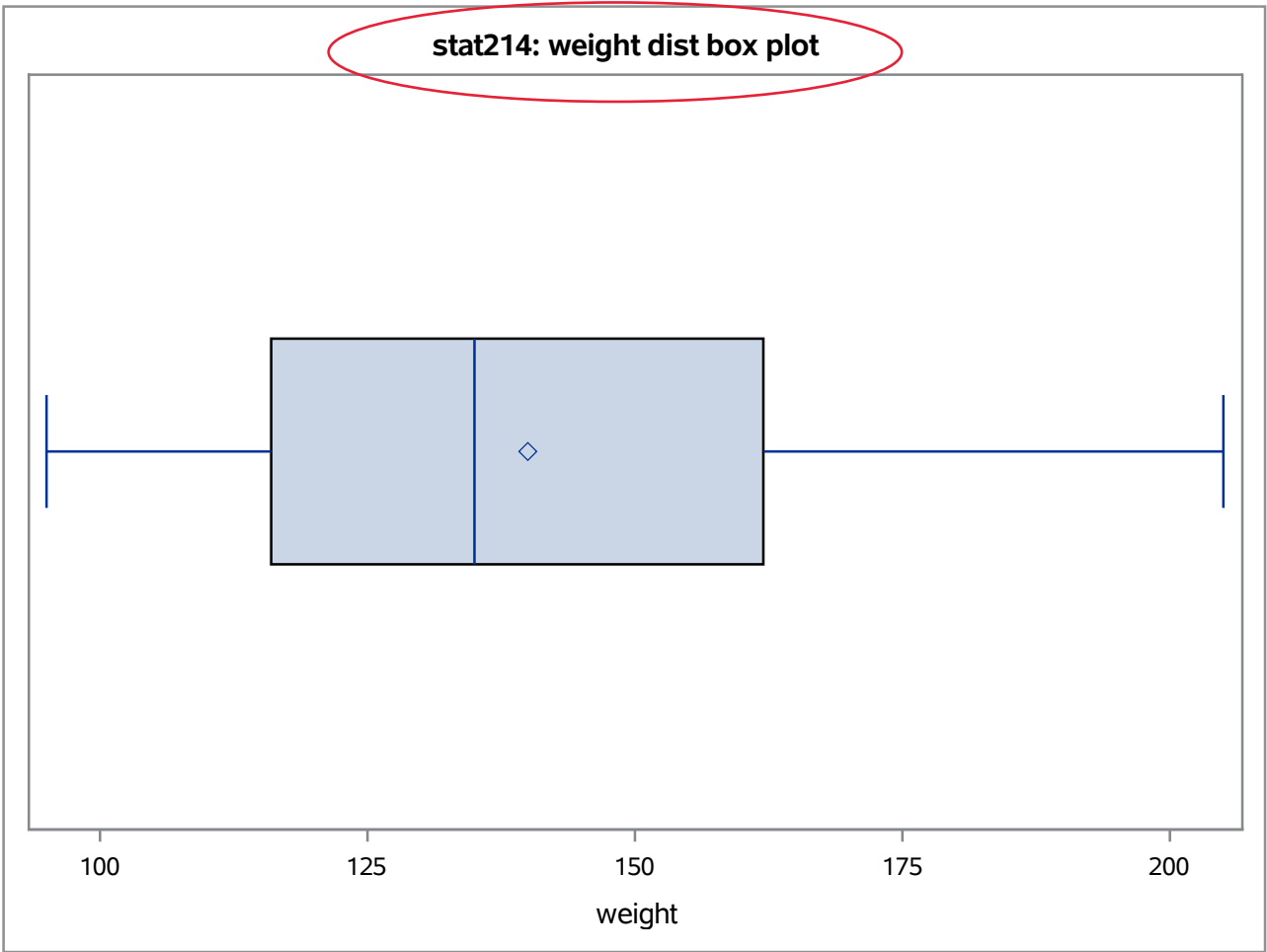
1st Pctl	5th Pctl	10th Pctl	20th Pctl	30th Pctl	40th Pctl	50th Pctl	60th Pctl	70th Pctl	80th Pctl	90th Pctl	95th Pctl	99th Pctl
95.0000	105.0000	110.0000	115.0000	120.0000	130.0000	135.0000	140.0000	155.0000	170.0000	180.0000	190.0000	205.0000

percentiles



weight distribution
 histogram with smoothed histogram (fitted curve) (kernel density estimate)

stat214: weight dist box plot



The UNIVARIATE Procedure
Variable: weight
sex = female

Basic Statistical Measures			
Location		Variability	
Mean	131.0000	Std Deviation	21.86230
Median	130.0000	Variance	477.96000
Mode	110.0000	Range	90.00000
		Interquartile Range	28.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	185
99%	185
95%	170
90%	165
75% Q3	140
50% Median	130
25% Q1	112
10%	110
5%	103
1%	95
0% Min	95

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	95	1	20	160	1
2	96	1	21	165	1
3	103	1	22	170	3
4	105	2	23	180	1
5	110	7	24	185	1

The UNIVARIATE Procedure
 Variable: weight
 sex = male

Basic Statistical Measures			
Location		Variability	
Mean	168.6250	Std Deviation	21.57120
Median	170.0000	Variance	465.31667
Mode	190.0000	Range	75.00000
		Interquartile Range	32.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	205.0
99%	205.0
95%	205.0
90%	190.0
75% Q3	187.5
50% Median	170.0
25% Q1	155.5
10%	135.0
5%	130.0
1%	130.0
0% Min	130.0

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	130	1	9	175	1
2	135	1	10	180	1
3	140	1	11	185	1
4	155	1	12	190	3
5	156	1	13	205	1

The MEANS Procedure

Analysis Variable : weight											
sex	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
female	51	51	95.0000	112.0000	130.0000	140.0000	185.0000	90.0000	28.0000	131.0000	21.8623
male	16	16	130.0000	155.5000	170.0000	187.5000	205.0000	75.0000	32.0000	168.6250	21.5712

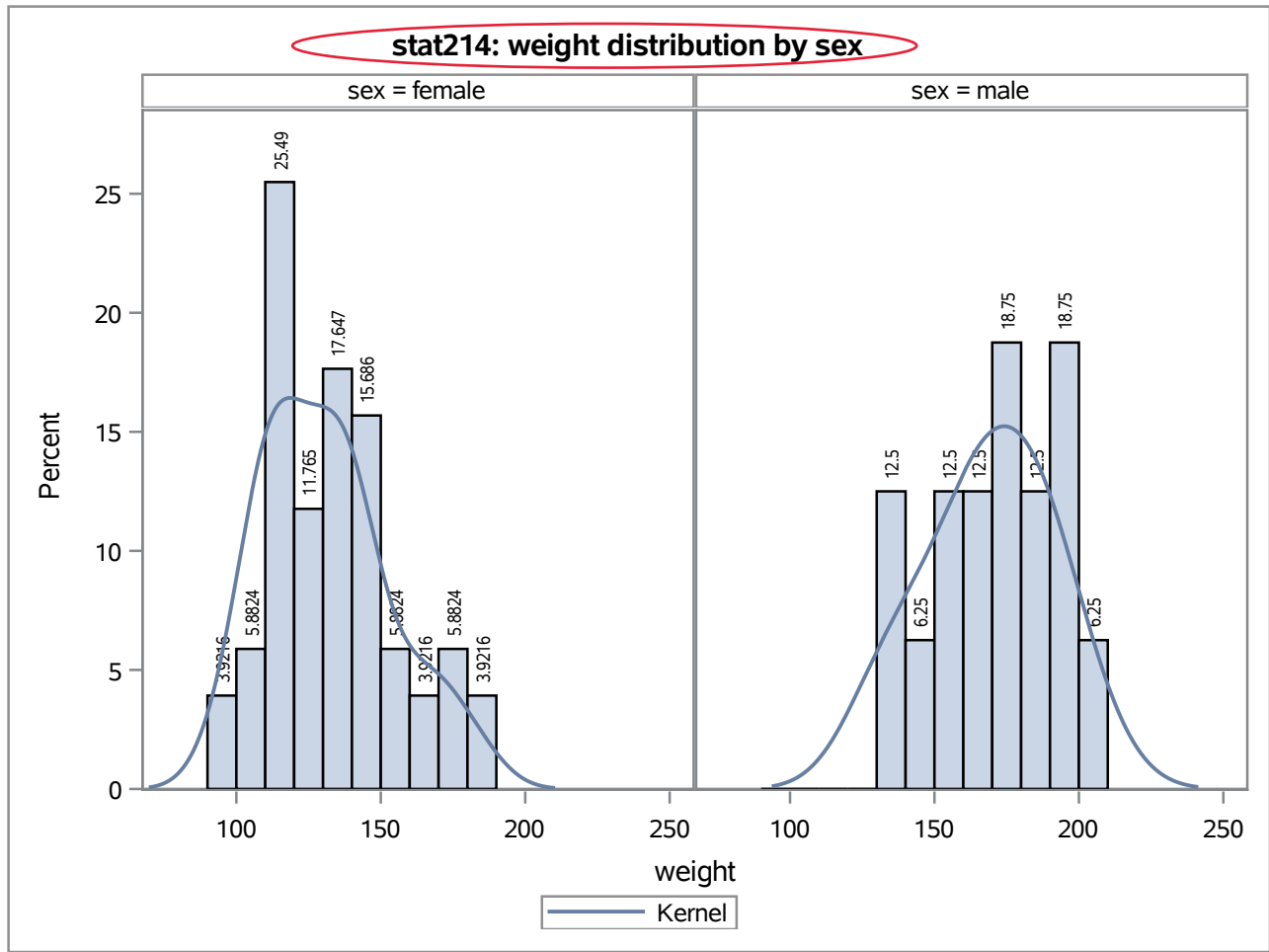
basic summary statistics

The MEANS Procedure

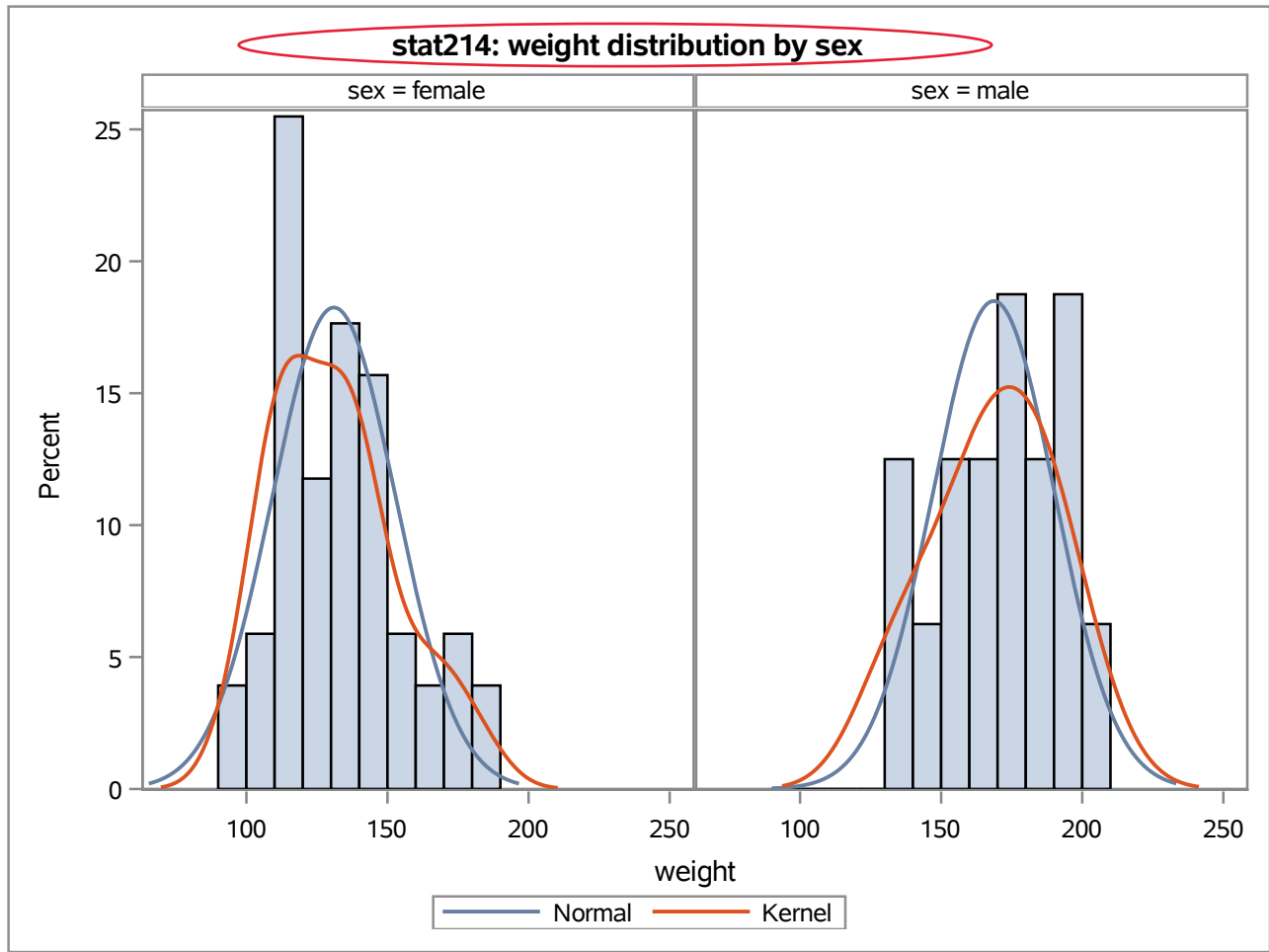
Analysis Variable : weight													
sex	N Obs	1st Pctl	5th Pctl	10th Pctl	20th Pctl	30th Pctl	40th Pctl	50th Pctl	60th Pctl	70th Pctl	80th Pctl	90th Pctl	95th Pctl
female	51	95.0000	103.0000	110.0000	110.0000	115.0000	120.0000	130.0000	135.0000	140.0000	145.0000	165.0000	170.0000
male	16	130.0000	130.0000	135.0000	155.0000	156.0000	165.0000	170.0000	175.0000	185.0000	190.0000	190.0000	205.0000

percentiles

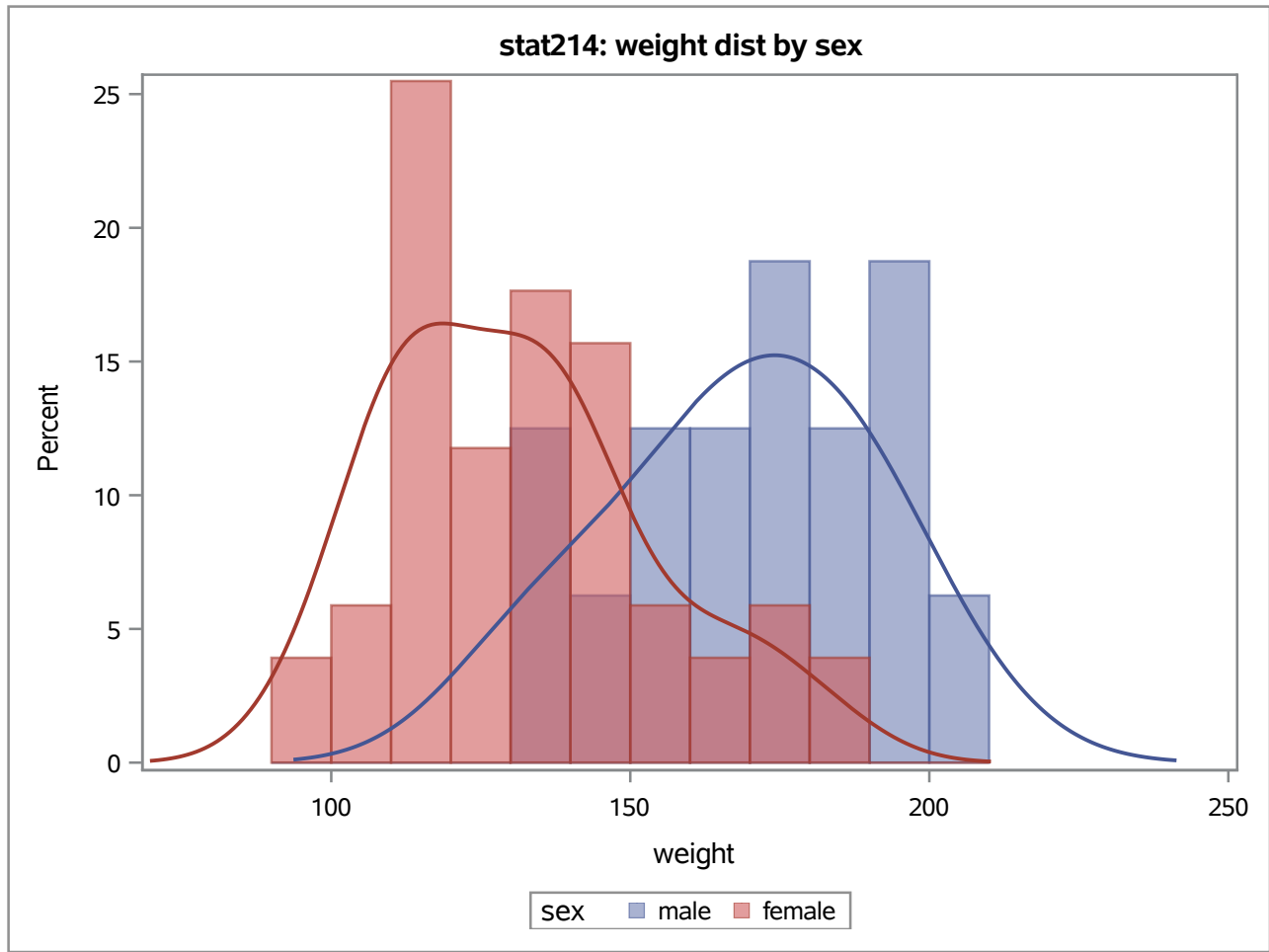
Analysis Variable : weight		
sex	N Obs	99th Pctl
female	51	185.0000
male	16	205.0000



weight distributions by sex
 histograms with smoothed histograms (fitted curves) (kernel density estimates)

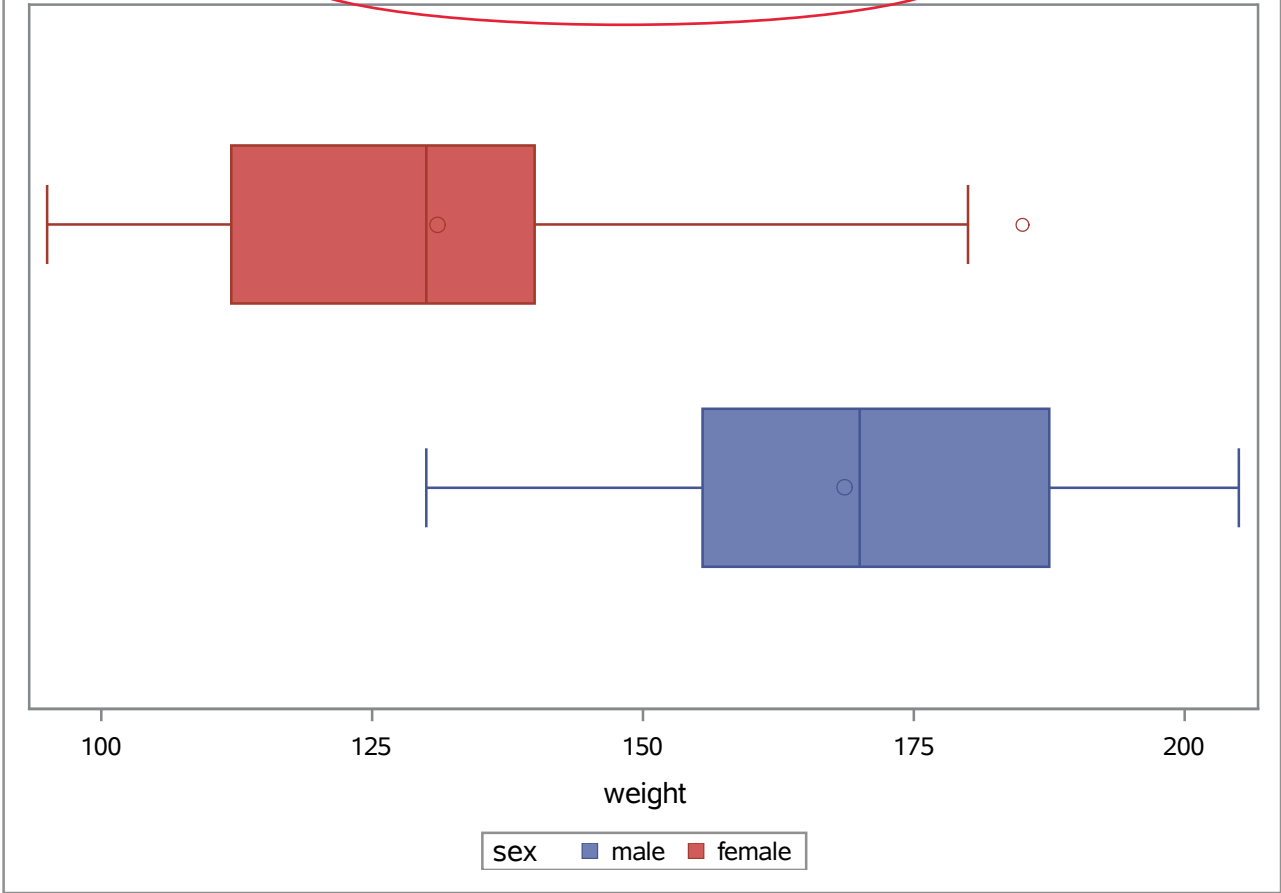


weight distributions by sex
 histograms with smoothed histograms (fitted curves) (kernel density estimates)
 and fitted normal density curves for comparison



weight distributions by sex (overlaid plots)
 histograms with smoothed histograms (fitted curves) (kernel density estimates)

stat214: weight dist box plots by sex



The UNIVARIATE Procedure
Variable: height

Basic Statistical Measures			
Location		Variability	
Mean	65.97015	Std Deviation	3.65136
Median	66.00000	Variance	13.33243
Mode	66.00000	Range	16.00000
		Interquartile Range	5.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	75
99%	75
95%	72
90%	72
75% Q3	68
50% Median	66
25% Q1	63
10%	61
5%	61
1%	59
0% Min	59

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	59	1	12	70	3
2	60	2	13	71	2
3	61	4	14	72	5
4	62	6	15	74	1
5	63	5	16	75	1

The MEANS Procedure

Analysis Variable : height									
N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
67	59.0000	63.0000	66.0000	68.0000	75.0000	16.0000	5.0000	65.9701	3.6514

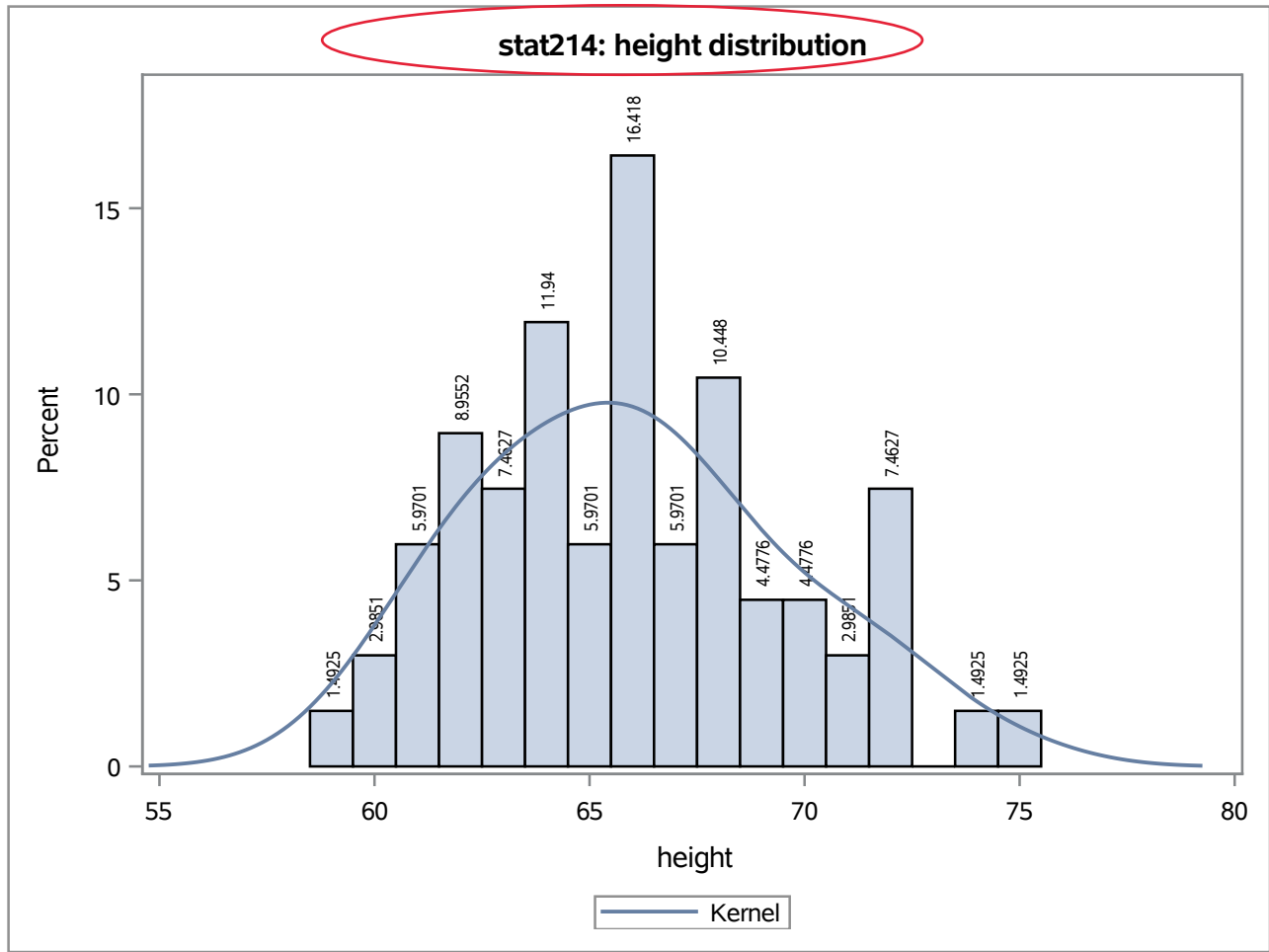
basic summary statistics

The MEANS Procedure

Analysis Variable : height

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
59.0000	61.0000	61.0000	63.0000	64.0000	65.0000	66.0000	66.0000	68.0000	69.0000	72.0000	72.0000	75.0000

percentiles



height distribution

histogram with smoothed histograms (fitted curve) (kernel density estimate)

stat214: height dist box plot



The UNIVARIATE Procedure

Variable: height
sex = female

Basic Statistical Measures			
Location		Variability	
Mean	64.58824	Std Deviation	2.68460
Median	64.00000	Variance	7.20706
Mode	66.00000	Range	11.00000
		Interquartile Range	4.00000

Quantiles (Definition 5)	
Level	Quantile
100% Max	70
99%	70
95%	69
90%	68
75% Q3	66
50% Median	64
25% Q1	62
10%	61
5%	60
1%	59
0% Min	59

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	59	1	8	66	10
2	60	2	9	67	4
3	61	4	10	68	5
4	62	6	11	69	1
5	63	5	12	70	2

The UNIVARIATE Procedure

Variable: height

sex = male

Basic Statistical Measures			
Location		Variability	
Mean	70.37500	Std Deviation	2.72947
Median	71.00000	Variance	7.45000
Mode	72.00000	Range	10.00000
		Interquartile Range	3.50000

Quantiles (Definition 5)	
Level	Quantile
100% Max	75.0
99%	75.0
95%	75.0
90%	74.0
75% Q3	72.0
50% Median	71.0
25% Q1	68.5
10%	66.0
5%	65.0
1%	65.0
0% Min	65.0

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	65	1	5	70	1
2	66	1	6	71	2
3	68	2	7	72	5
4	69	2	8	74	1
5	70	1	9	75	1

The MEANS Procedure

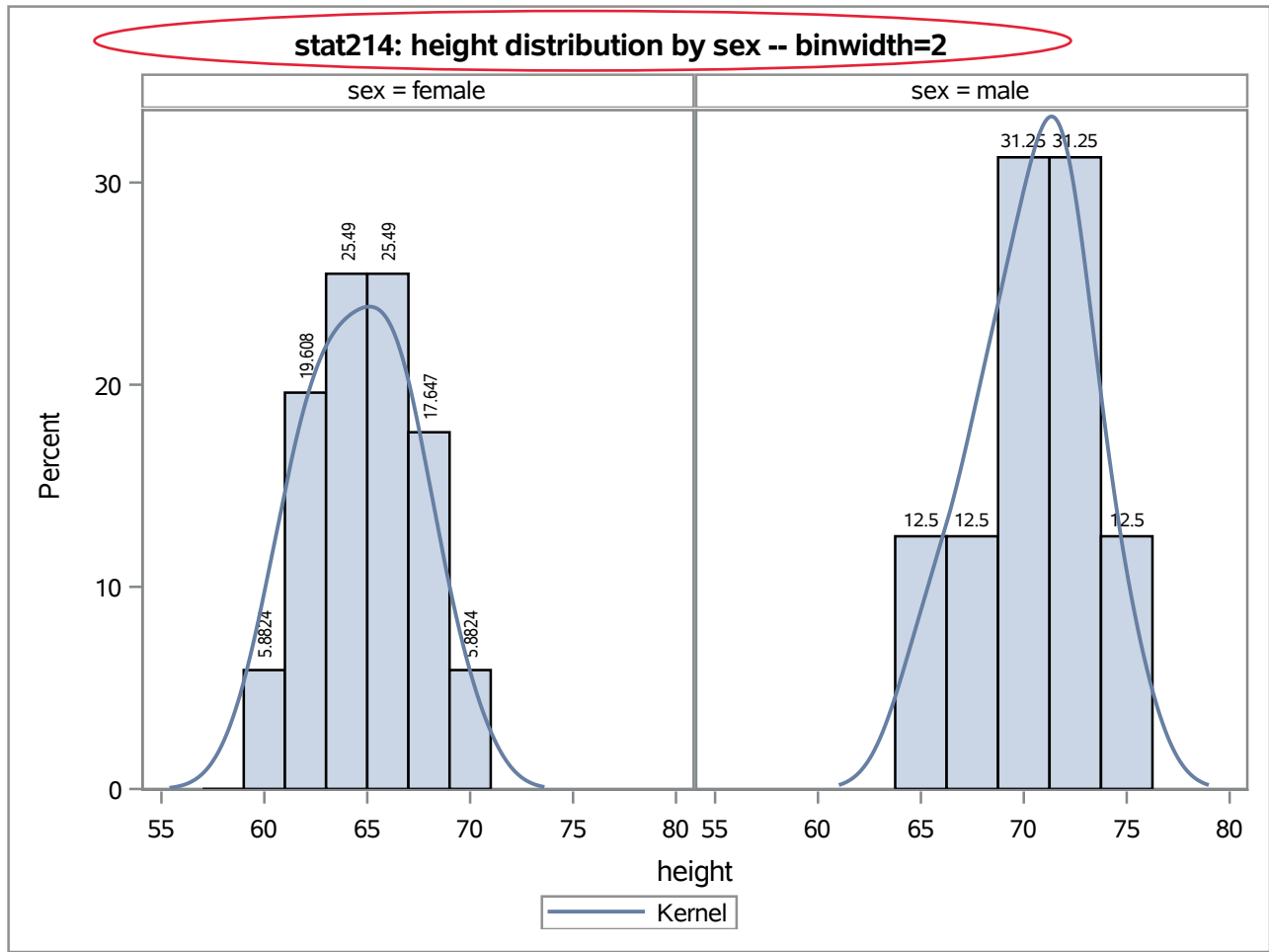
Analysis Variable : height											
sex	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
female	51	51	59.0000	62.0000	64.0000	66.0000	70.0000	11.0000	4.0000	64.5882	2.6846
male	16	16	65.0000	68.5000	71.0000	72.0000	75.0000	10.0000	3.5000	70.3750	2.7295

basic summary statistics

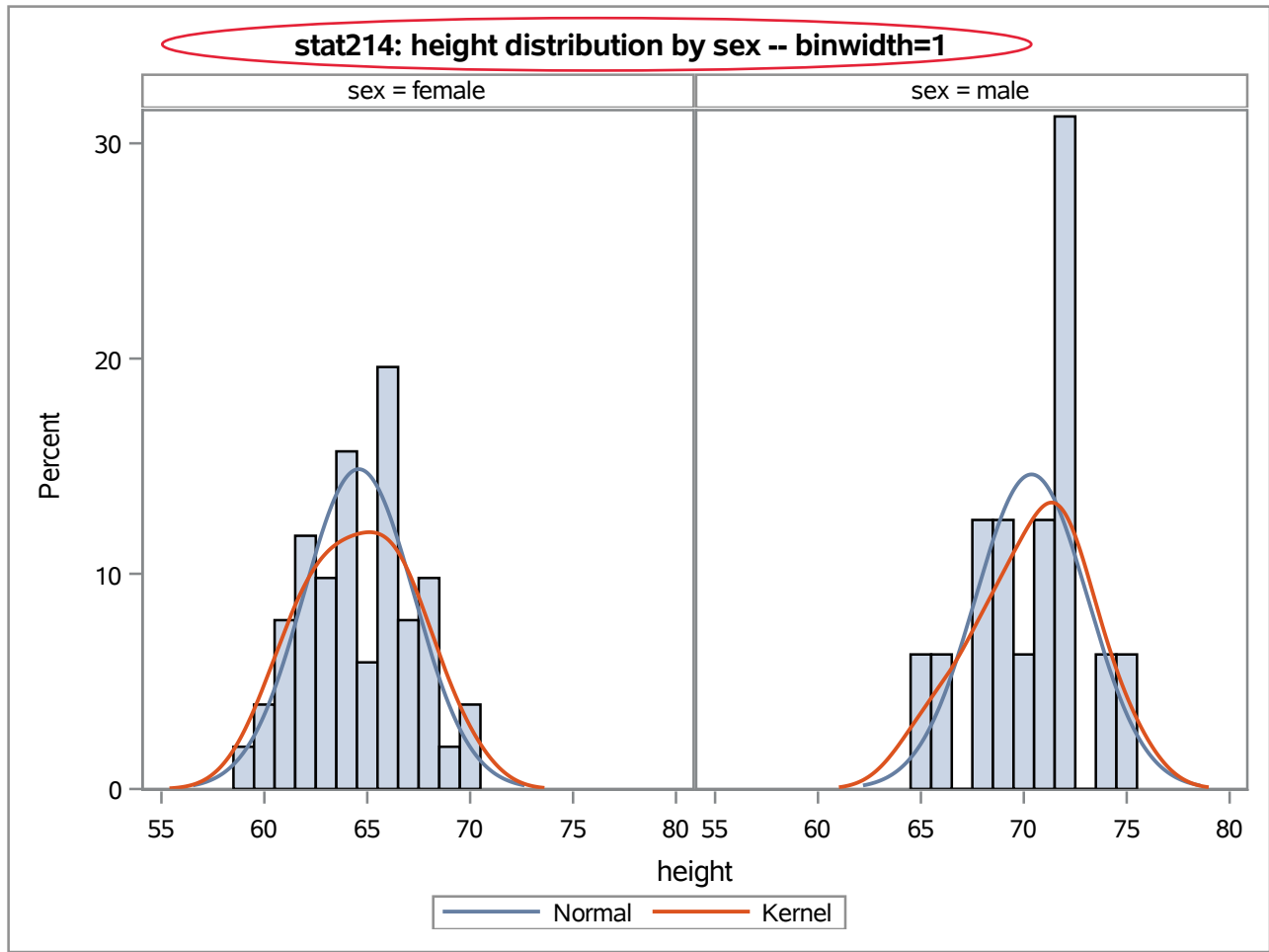
The MEANS Procedure

Analysis Variable : height														
sex	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
female	51	59.0000	60.0000	61.0000	62.0000	63.0000	64.0000	64.0000	66.0000	66.0000	67.0000	68.0000	69.0000	70.0000
male	16	65.0000	65.0000	66.0000	68.0000	69.0000	70.0000	71.0000	72.0000	72.0000	72.0000	74.0000	75.0000	75.0000

percentiles



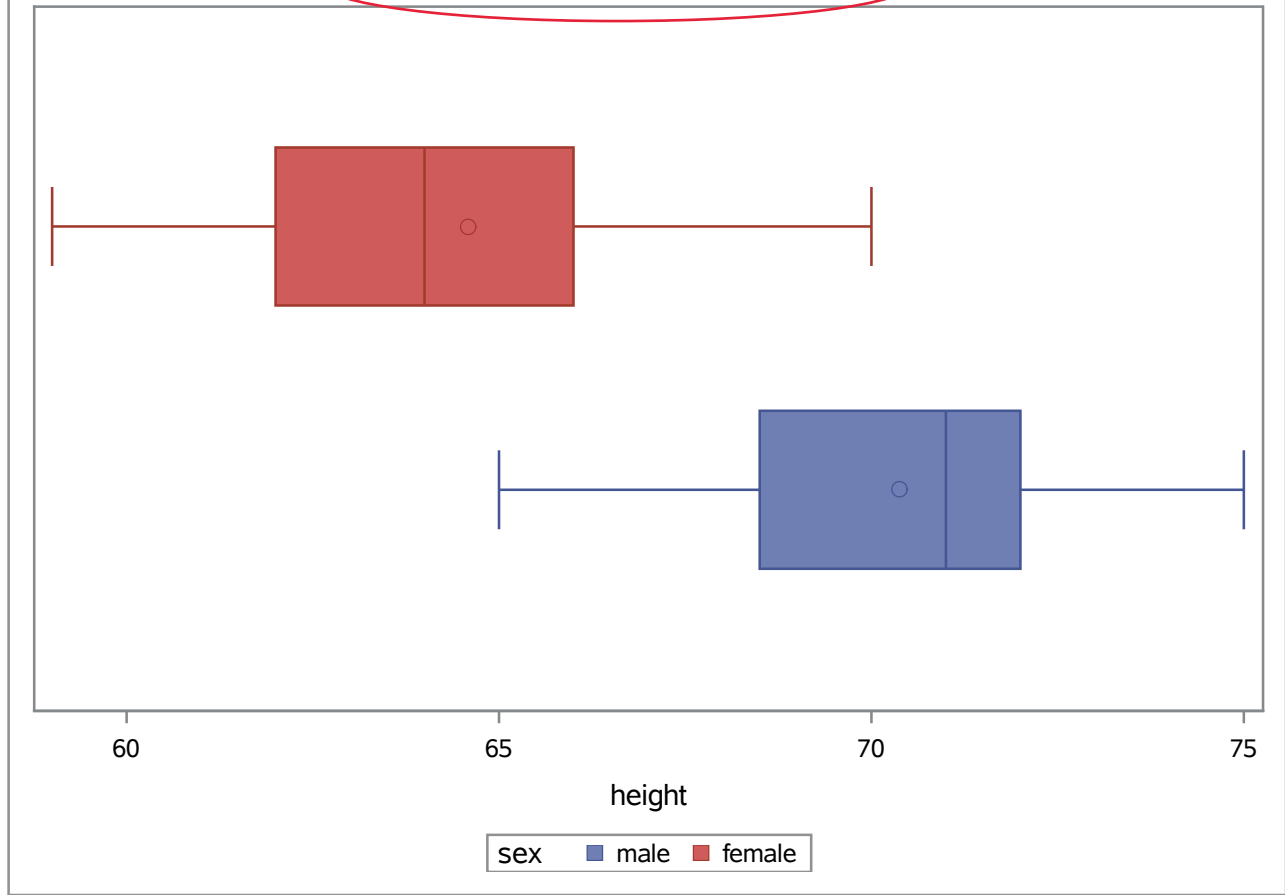
height distributions by sex
 histograms with smoothed histograms (fitted curves) (kernel density estimates)

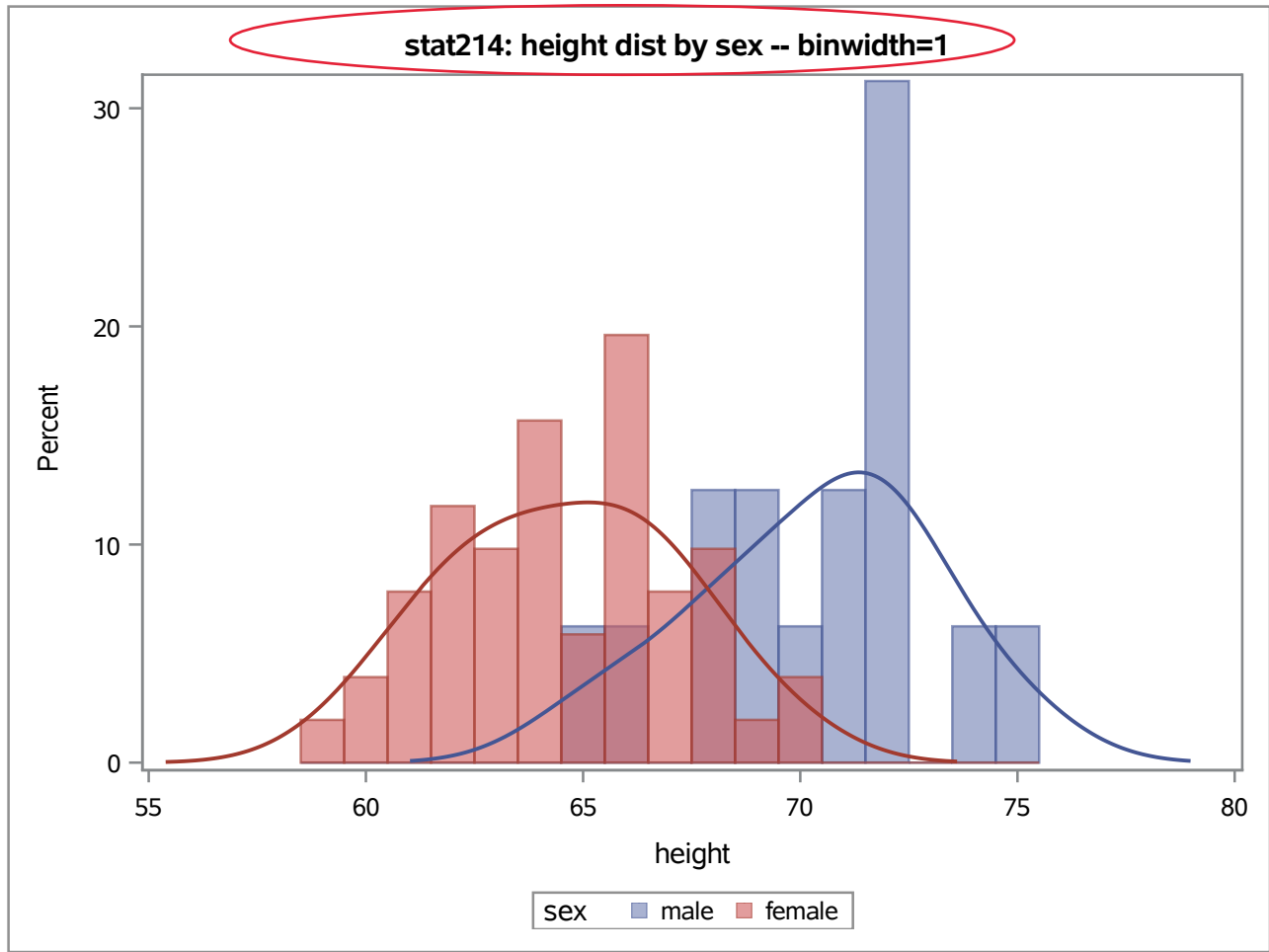


height distributions by sex

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

stat214: height dist box plots by sex





height distributions by sex (overlaid plot)

histograms with smoothed histograms (fitted curves) (kernel density estimates)

The UNIVARIATE Procedure
Variable: bmi

Basic Statistical Measures			
Location		Variability	
Mean	22.51924	Std Deviation	3.44410
Median	21.61575	Variance	11.86181
Mode	17.75253	Range	14.65553
		Interquartile Range	4.87777

Note: The mode displayed is the smallest of 6 modes with a count of 2.

Quantiles (Definition 5)	
Level	Quantile
100% Max	31.8821
99%	31.8821
95%	30.1109
90%	26.6288
75% Q3	24.9586
50% Median	21.6158
25% Q1	20.0808
10%	18.6357
5%	18.0096
1%	17.2266
0% Min	17.2266

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	17.2266	1	57	29.2612	1
2	17.7525	2	58	30.1109	1
3	18.0096	1	59	30.6635	1
4	18.1371	1	60	31.7517	1
5	18.3030	1	61	31.8821	1

The MEANS Procedure

Analysis Variable : bmi									
N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
67	17.2266	20.0808	21.6158	24.9586	31.8821	14.6555	4.8778	22.5192	3.4441

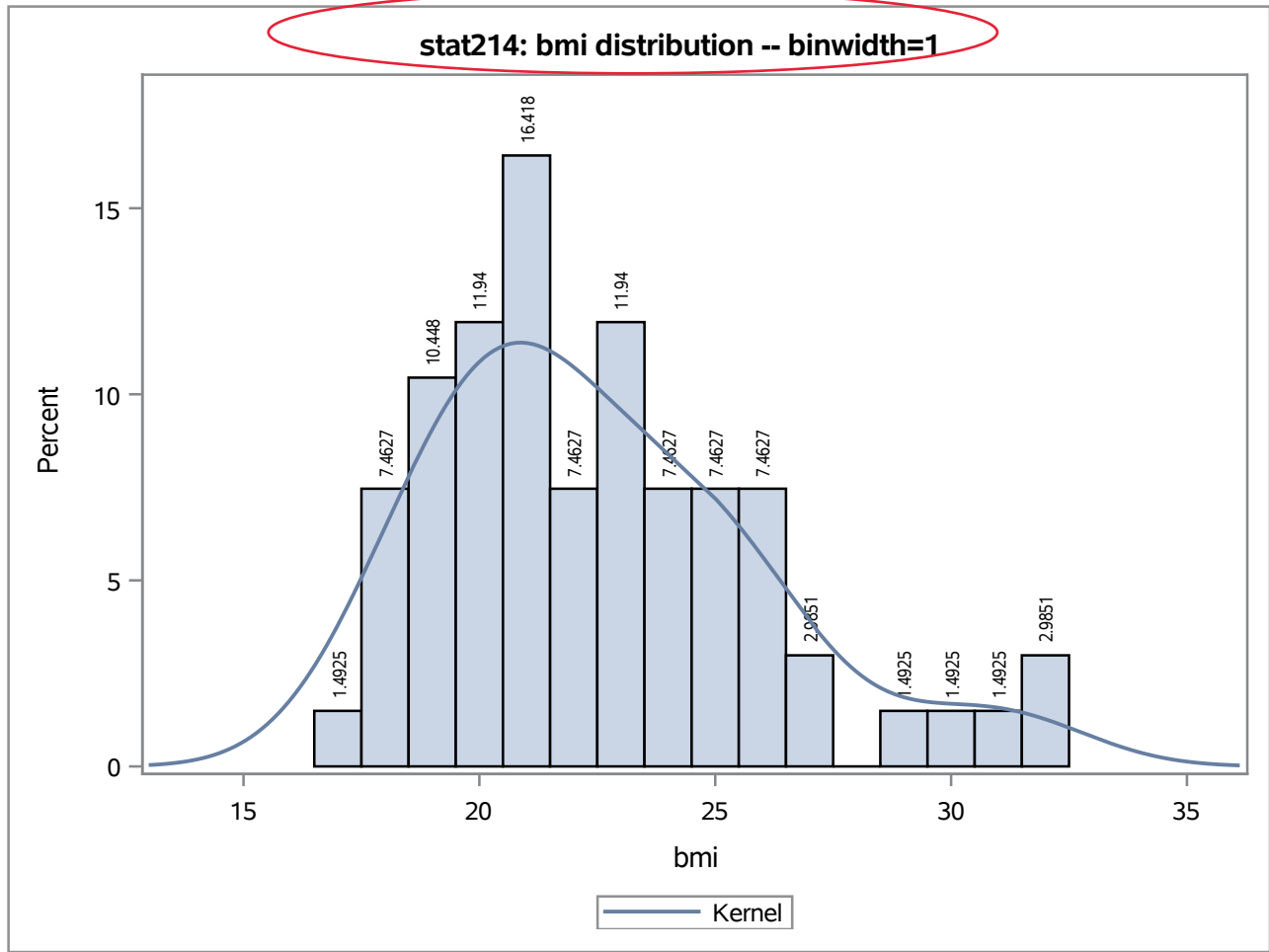
basic summary statistics

The MEANS Procedure

Analysis Variable : bmi

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
17.2266	18.0096	18.6357	19.5756	20.3724	21.0315	21.6158	22.8870	24.0283	25.1019	26.6288	30.1109	31.8821

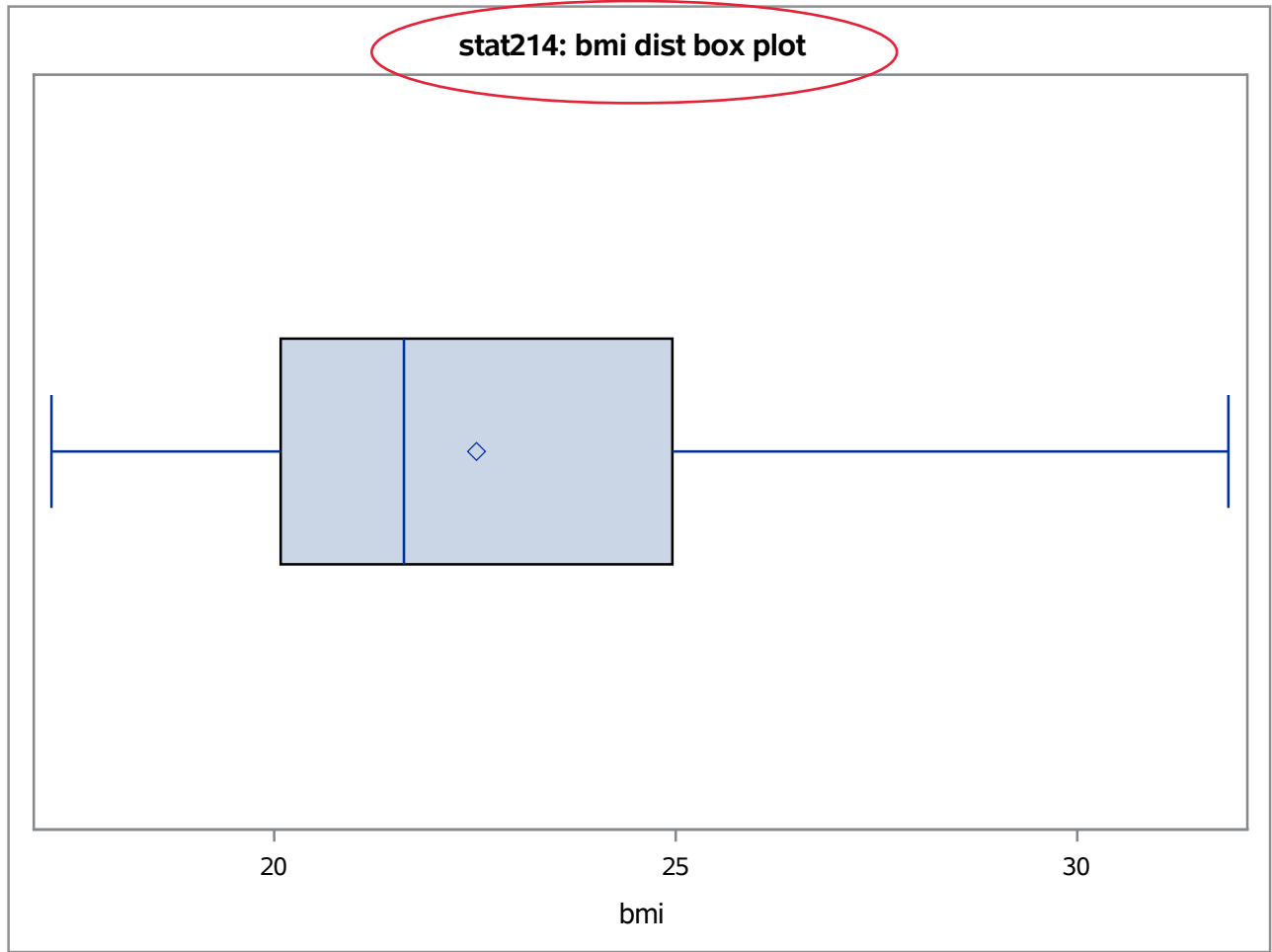
percentiles



bmi distributions

histogram with smoothed histogram (fitted curves) (kernel density estimate)

stat214: bmi dist box plot



The UNIVARIATE Procedure
 Variable: bmi
 sex = female

Basic Statistical Measures			
Location		Variability	
Mean	22.07282	Std Deviation	3.50793
Median	21.25472	Variance	12.30557
Mode	17.75253	Range	14.65553
		Interquartile Range	3.82543

Note: The mode displayed is the smallest of 4 modes with a count of 2.

Quantiles (Definition 5)	
Level	Quantile
100% Max	31.8821
99%	31.8821
95%	30.1109
90%	26.6288
75% Q3	23.4011
50% Median	21.2547
25% Q1	19.5756
10%	18.3030
5%	17.7525
1%	17.2266
0% Min	17.2266

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	17.2266	1	43	27.4357	1
2	17.7525	2	44	29.2612	1
3	18.0096	1	45	30.1109	1
4	18.1371	1	46	31.7517	1
5	18.3030	1	47	31.8821	1

~~The UNIVARIATE Procedure~~

Variable: bmi

sex = male

Basic Statistical Measures			
Location		Variability	
Mean	23.94224	Std Deviation	2.88719
Median	24.74875	Variance	8.33588
Mode	25.10187	Range	11.67811
		Interquartile Range	3.57154

Quantiles (Definition 5)	
Level	Quantile
100% Max	30.6635
99%	30.6635
95%	30.6635
90%	25.9569
75% Q3	25.3638
50% Median	24.7487
25% Q1	21.7923
10%	19.7643
5%	18.9853
1%	18.9853
0% Min	18.9853

Extreme Values					
Lowest			Highest		
Order	Value	Freq	Order	Value	Freq
1	18.9853	1	11	25.1071	1
2	19.7643	1	12	25.6204	1
3	20.5244	1	13	25.7658	1
4	21.6158	1	14	25.9569	1
5	21.9688	1	15	30.6635	1

The MEANS Procedure

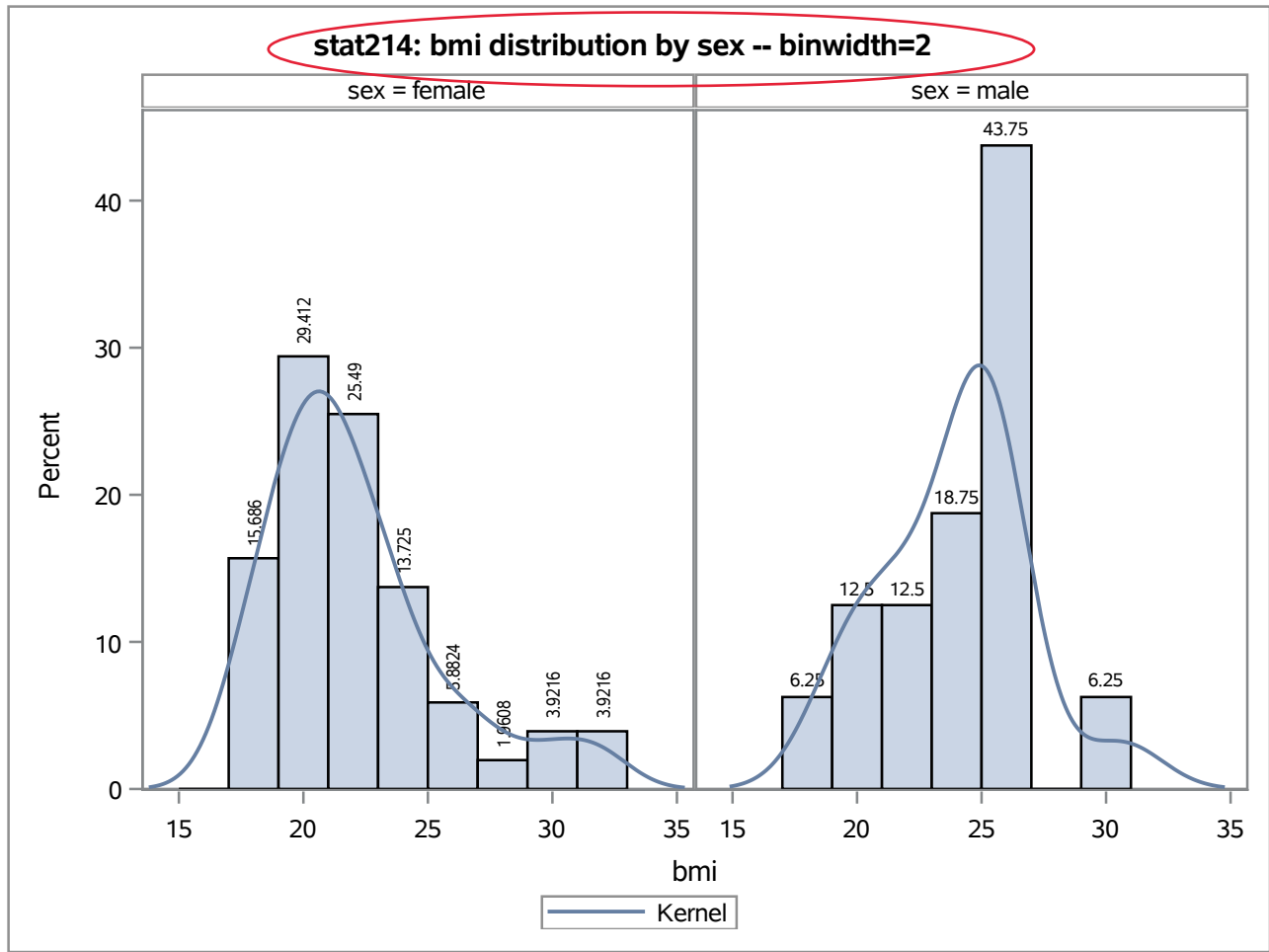
Analysis Variable : bmi											
sex	N Obs	N	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Range	Quartile Range	Mean	Std Dev
female	51	51	17.2266	19.5756	21.2547	23.4011	31.8821	14.6555	3.8254	22.0728	3.5079
male	16	16	18.9853	21.7923	24.7487	25.3638	30.6635	11.6781	3.5715	23.9422	2.8872

basic summary statistics

The MEANS Procedure

Analysis Variable : bmi														
sex	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
female	51	17.2266	17.7525	18.3030	19.3664	20.1136	20.5957	21.2547	21.9156	22.8870	24.0283	26.6288	30.1109	31.8821
male	16	18.9853	18.9853	19.7643	21.6158	21.9688	24.3919	24.7487	25.1019	25.1071	25.6204	25.9569	30.6635	30.6635

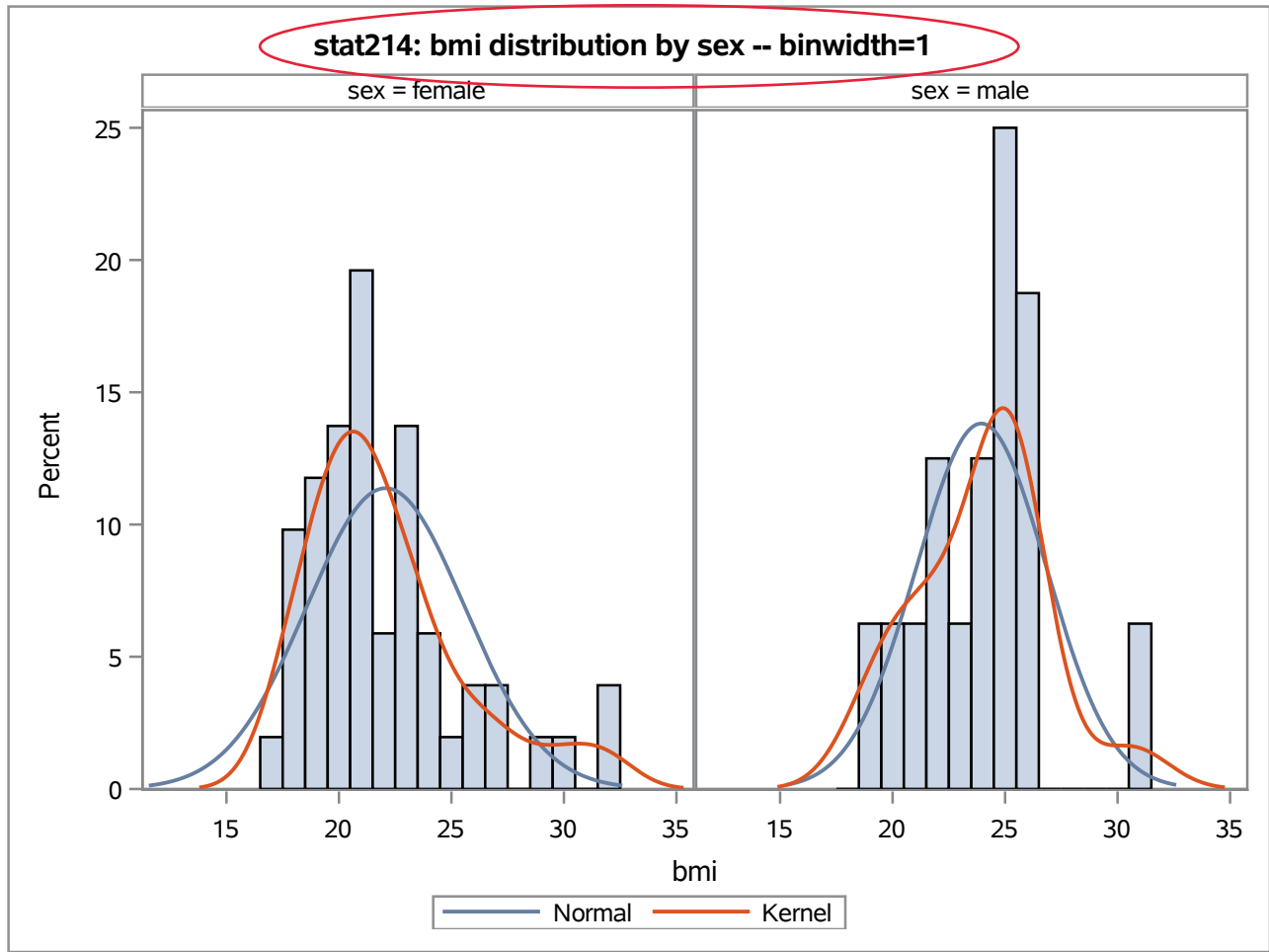
percentiles



bmi distributions by sex

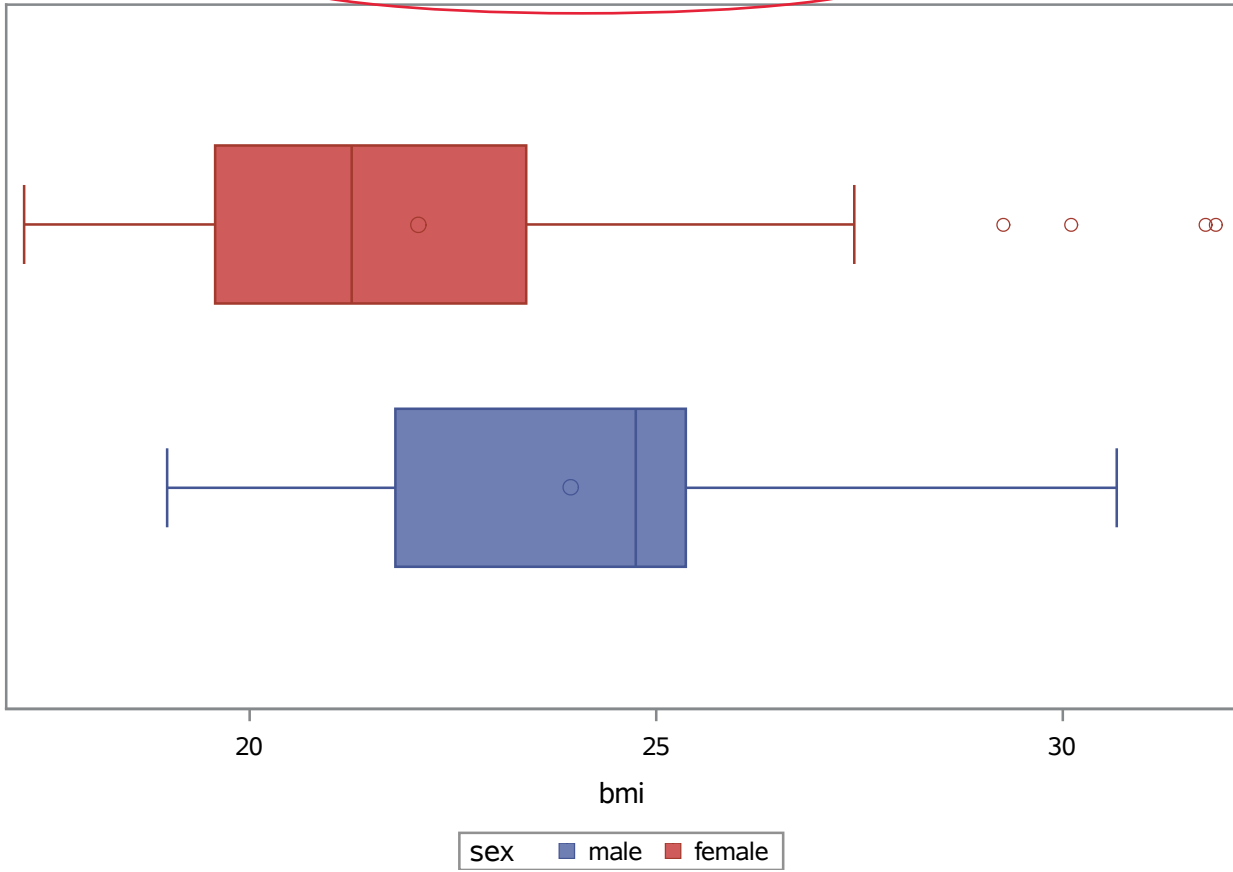
histograms with smoothed histograms (fitted curves)

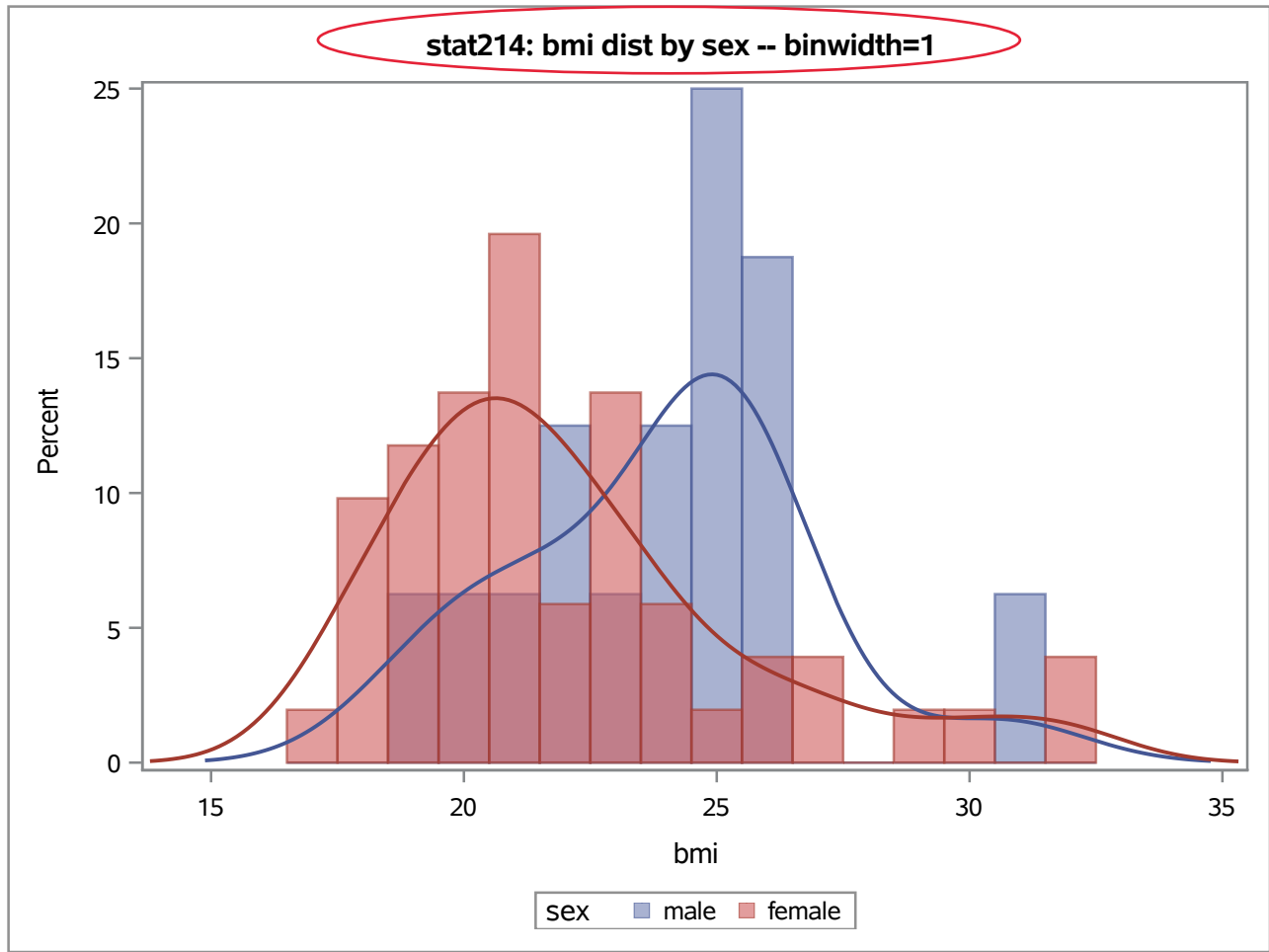
(kernel density estimates)



bmi distributions by sex
 histograms with smoothed histograms (fitted curves) (kernel density estimates) and fitted normal density curves for comparison

stat214: bmi dist box plots by sex





bmi distributions by sex (overlaid plot)
 histograms with smoothed histograms (fitted curves)