

Coastal Lower Peace Time Period Comparison Appendix - Display 1
 Comparison of Historical and Current Surface Chloride
 at USGS Station 02297330

The NPARIWAY Procedure

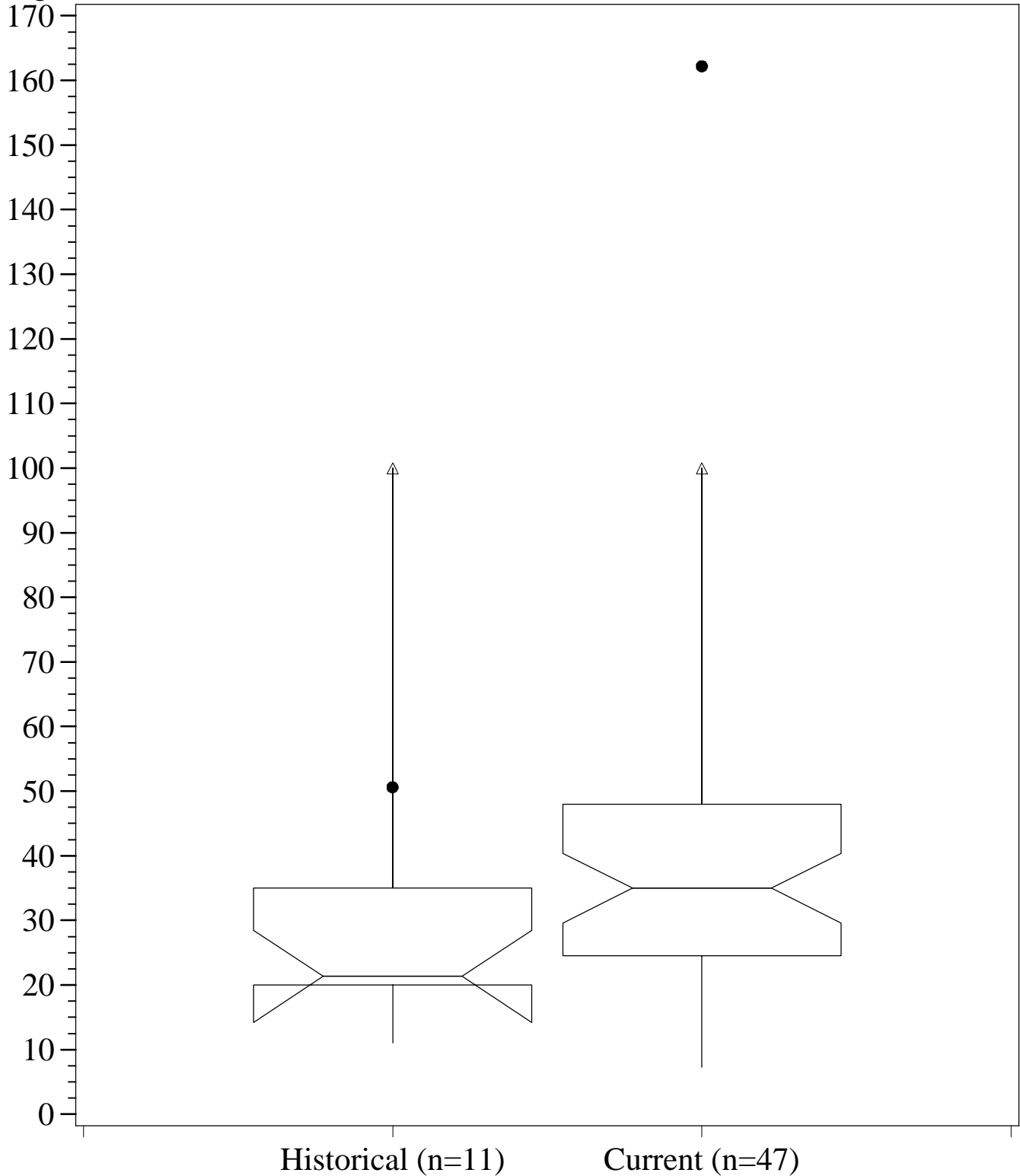
Wilcoxon Scores (Rank Sums) for Variable CL Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	11	231.50	324.50	50.401913	21.045455
Current	47	1479.50	1386.50	50.401913	31.478723
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	231.5000
Normal Approximation	
Z	-1.8352
One-Sided Pr < Z	0.0332
Two-Sided Pr > Z	0.0665
t Approximation	
One-Sided Pr < Z	0.0358
Two-Sided Pr > Z	0.0717
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	3.4046
DF	1
Pr > Chi-Square	0.0650

Coastal Lower Peace Time Period Comparison Appendix - Display 2
Comparison of Historical and Current Surface Chloride
at USGS Station 02297330

Chloride
(mg/L)



Historical Period (1983 to 1985) Current Period (1996 to 2000)

90% of the Historical Data were Collected from 1984 to 1985

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.065$

Coastal Lower Peace Time Period Comparison Appendix - Display 3
 Comparison of Historical and Current Surface Color
 at USGS Station 02297330

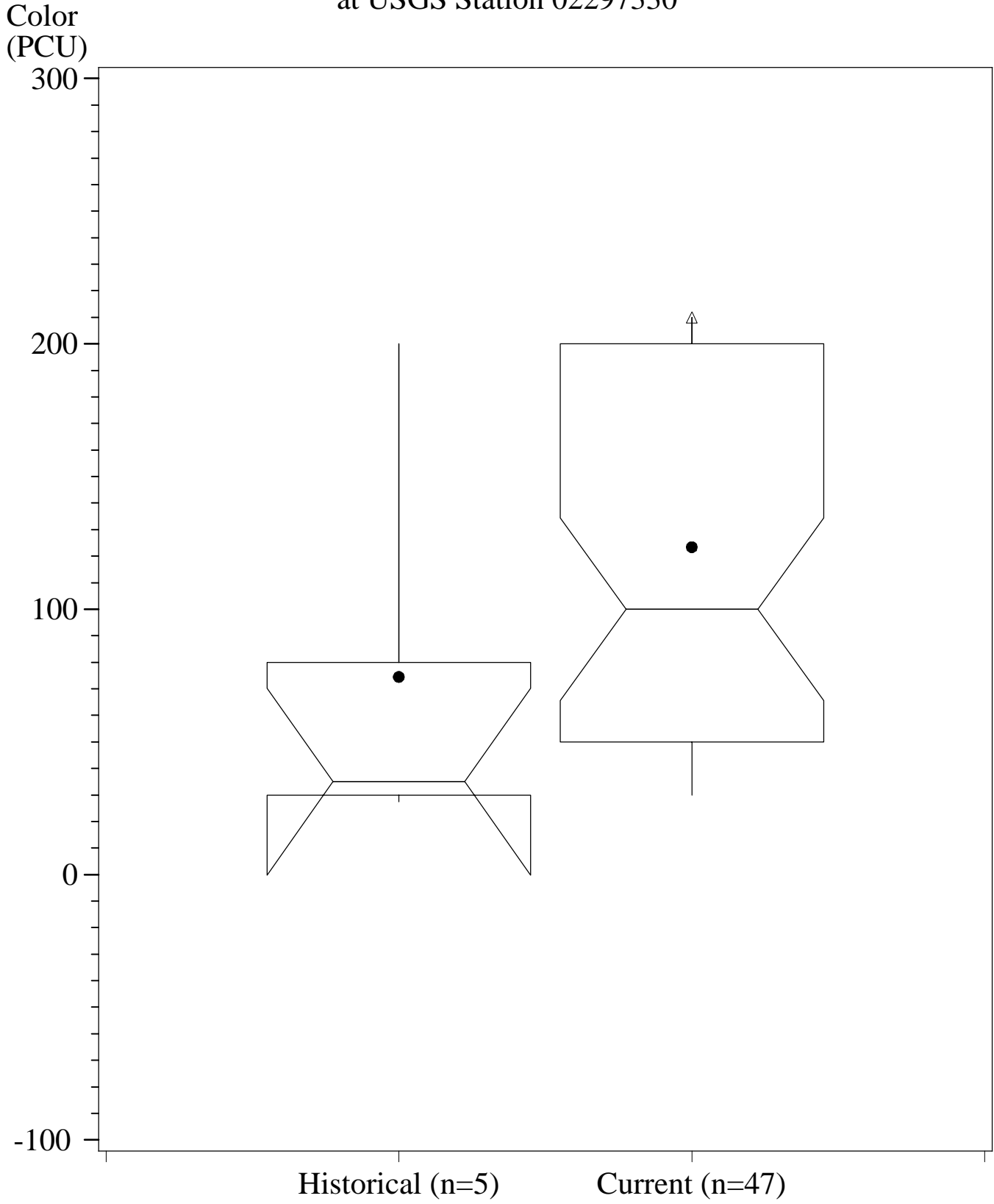
The NPARIWAY Procedure

Wilcoxon Scores (Rank Sums) for Variable COLOR Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	5	78.50	132.50	32.127888	15.700000
Current	47	1299.50	1245.50	32.127888	27.648936
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	78.5000
Normal Approximation	
Z	-1.6652
One-Sided Pr < Z	0.0479
Two-Sided Pr > Z	0.0959
t Approximation	
One-Sided Pr < Z	0.0510
Two-Sided Pr > Z	0.1020
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	2.8250
DF	1
Pr > Chi-Square	0.0928

Coastal Lower Peace Time Period Comparison Appendix - Display 4
Comparison of Historical and Current Surface Color
at USGS Station 02297330



Historical Period (1985 to 1985) Current Period (1996 to 2000)

90% of the Historical Data were Collected from 1996 to 1985

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.0928$

Coastal Lower Peace Time Period Comparison Appendix - Display 5
 Comparison of Historical and Current Surface Nitrate+Nitrite N
 at USGS Station 02297330

The NPARIWAY Procedure

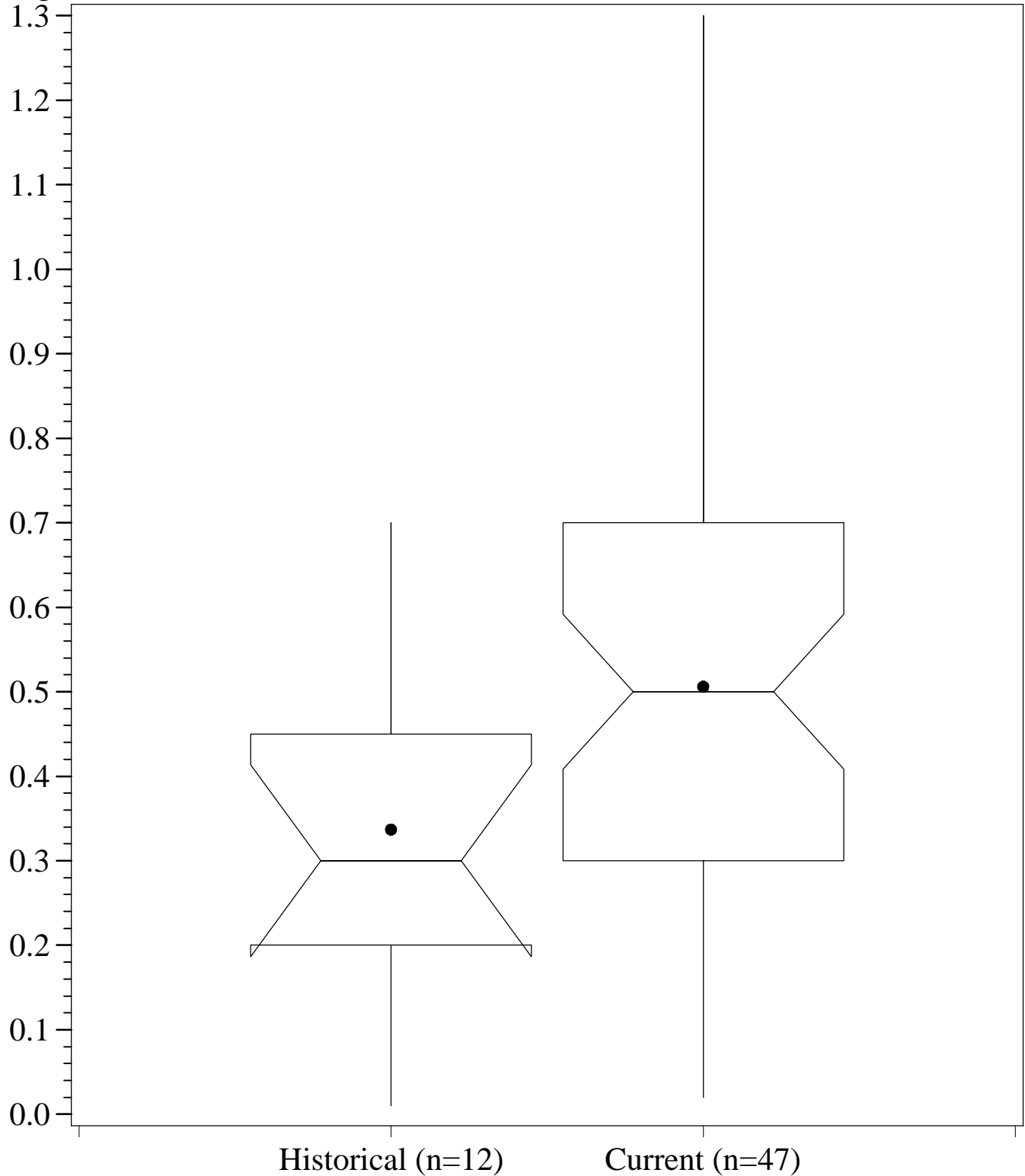
Wilcoxon Scores (Rank Sums) for Variable NO23 Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	12	257.50	360.0	52.850118	21.458333
Current	47	1512.50	1410.0	52.850118	32.180851
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	257.5000
Normal Approximation	
Z	-1.9300
One-Sided Pr < Z	0.0268
Two-Sided Pr > Z	0.0536
t Approximation	
One-Sided Pr < Z	0.0293
Two-Sided Pr > Z	0.0585
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	3.7615
DF	1
Pr > Chi-Square	0.0524

Coastal Lower Peace Time Period Comparison Appendix - Display 6
Comparison of Historical and Current Surface Nitrate+Nitrite N
at USGS Station 02297330

Nitrate+Nitrite N
(mg/L)



Historical Period (1983 to 1985) Current Period (1996 to 2000)

90% of the Historical Data were Collected from 1984 to 1985

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.0524$

Coastal Lower Peace Time Period Comparison Appendix - Display 7
 Comparison of Historical and Current Surface Nitrate+Nitrite N
 at USGS Station 02298202

The NPARIWAY Procedure

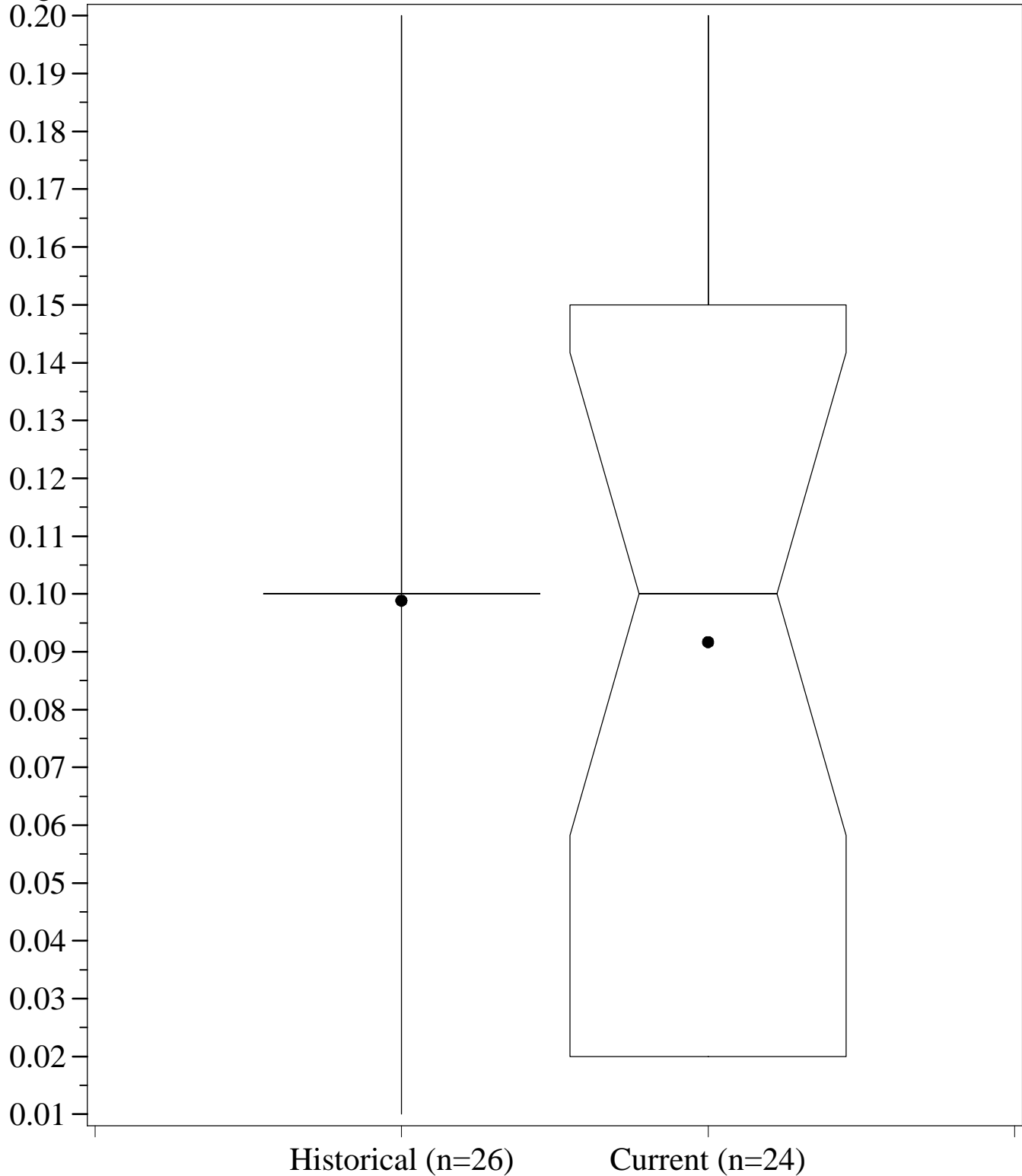
Wilcoxon Scores (Rank Sums) for Variable NO23 Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	26	695.0	663.0	46.617331	26.730769
Current	24	580.0	612.0	46.617331	24.166667
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	580.0000
Normal Approximation	
Z	-0.6757
One-Sided Pr < Z	0.2496
Two-Sided Pr > Z	0.4992
t Approximation	
One-Sided Pr < Z	0.2512
Two-Sided Pr > Z	0.5024
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	0.4712
DF	1
Pr > Chi-Square	0.4924

Coastal Lower Peace Time Period Comparison Appendix - Display 8
Comparison of Historical and Current Surface Nitrate+Nitrite N
at USGS Station 02298202

Nitrate+Nitrite N
(mg/L)



Historical Period (1982 to 1995) Current Period (1996 to 1999)

90% of the Historical Data were Collected from 1984 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.4924$

Coastal Lower Peace Time Period Comparison Appendix - Display 9
 Comparison of Historical and Current Surface Ammonia N
 at USGS Station 02297330

The NPARIWAY Procedure

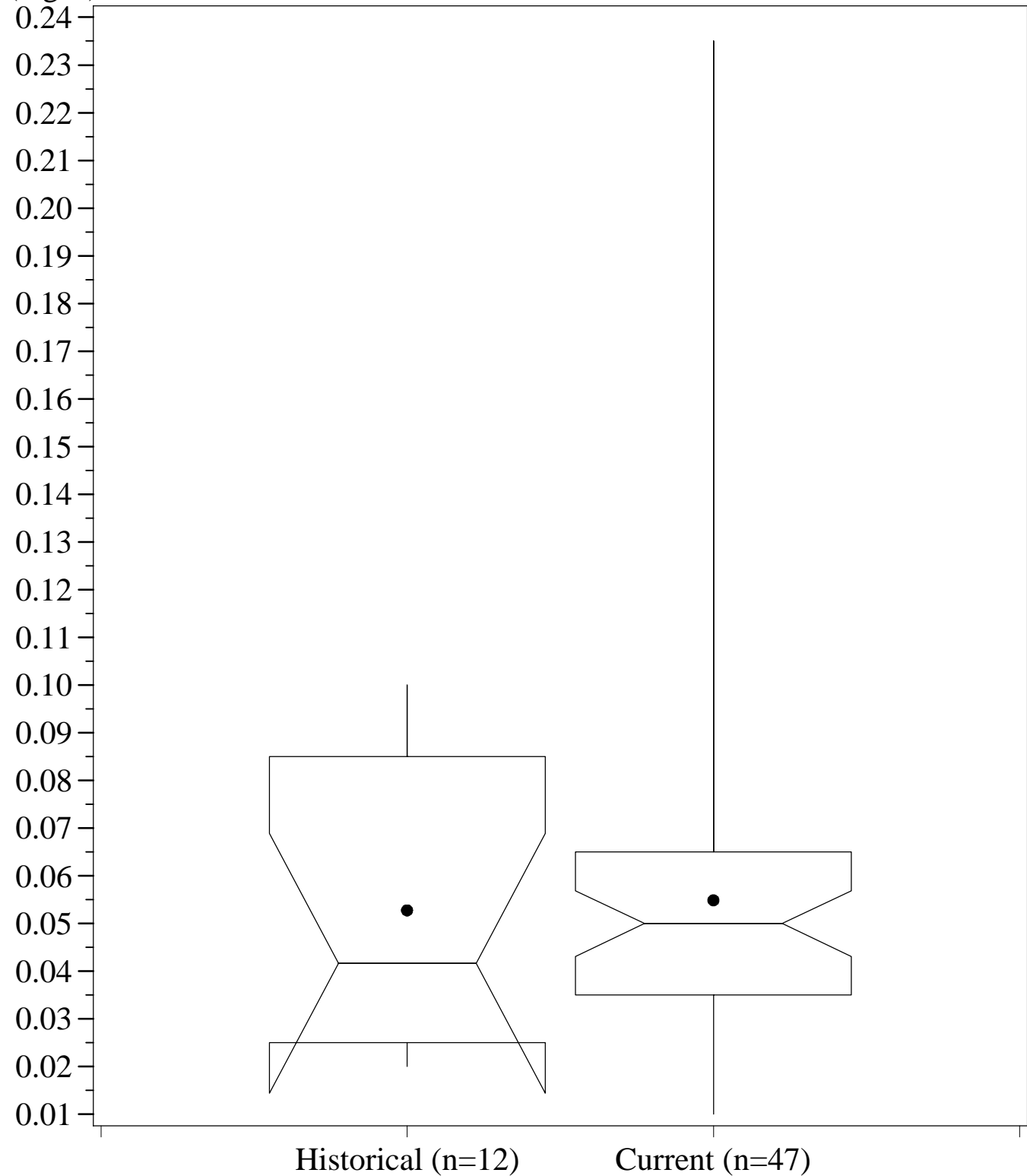
Wilcoxon Scores (Rank Sums) for Variable NH3 Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	12	341.0	360.0	52.886749	28.416667
Current	47	1429.0	1410.0	52.886749	30.404255
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	341.0000
Normal Approximation	
Z	-0.3498
One-Sided Pr < Z	0.3632
Two-Sided Pr > Z	0.7265
t Approximation	
One-Sided Pr < Z	0.3639
Two-Sided Pr > Z	0.7278
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	0.1291
DF	1
Pr > Chi-Square	0.7194

Coastal Lower Peace Time Period Comparison Appendix - Display 10
Comparison of Historical and Current Surface Ammonia N
at USGS Station 02297330

Ammonia N
(mg/L)



Historical Period (1983 to 1985) Current Period (1996 to 2000)

90% of the Historical Data were Collected from 1984 to 1985

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.7194$

Coastal Lower Peace Time Period Comparison Appendix - Display 11
 Comparison of Historical and Current Surface Ammonia N
 at USGS Station 02298202

The NPARIWAY Procedure

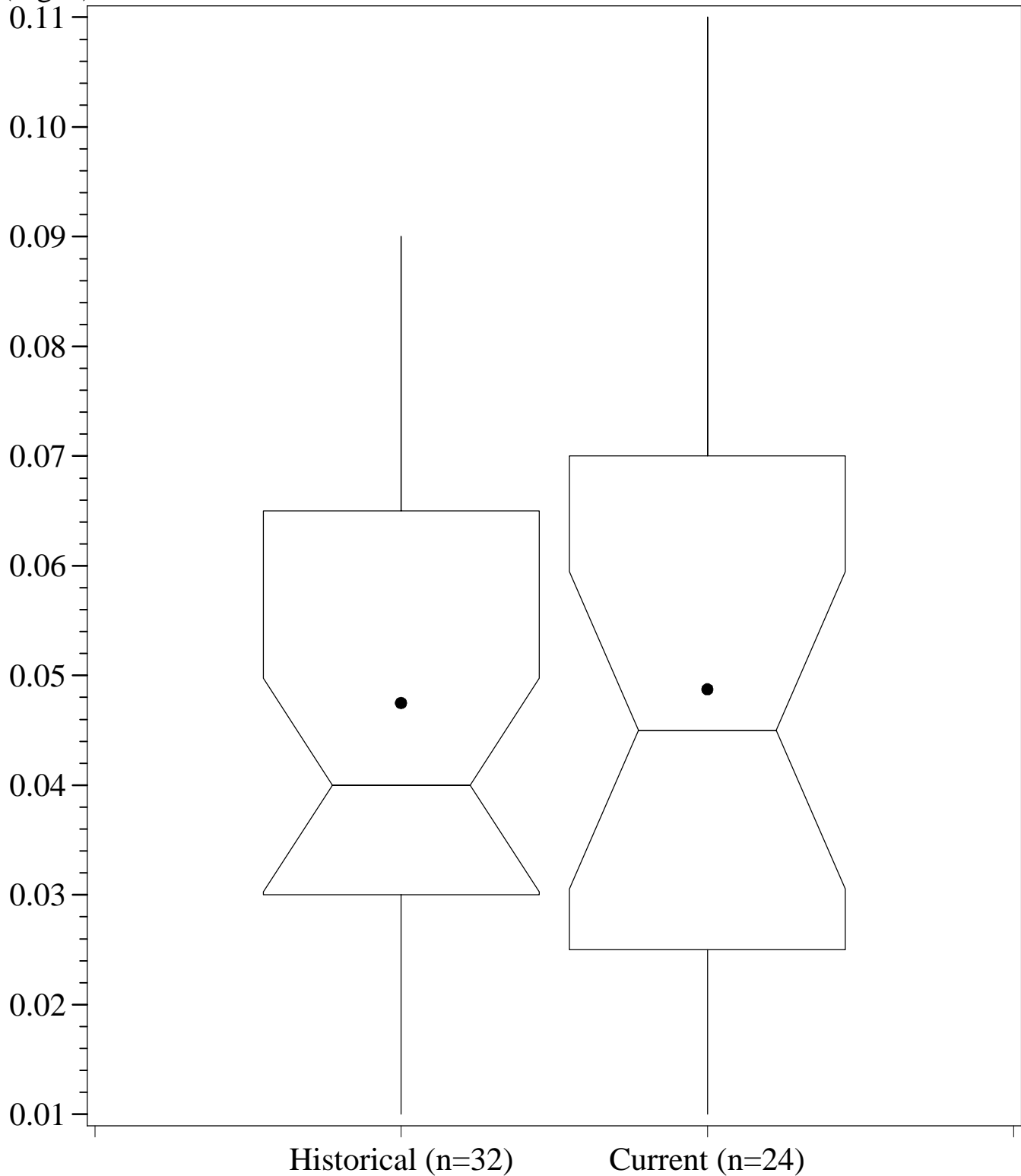
Wilcoxon Scores (Rank Sums) for Variable NH3 Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	32	921.50	912.0	59.891851	28.796875
Current	24	674.50	684.0	59.891851	28.104167
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	674.5000
Normal Approximation	
Z	-0.1503
One-Sided Pr < Z	0.4403
Two-Sided Pr > Z	0.8806
t Approximation	
One-Sided Pr < Z	0.4406
Two-Sided Pr > Z	0.8811
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	0.0252
DF	1
Pr > Chi-Square	0.8740

Coastal Lower Peace Time Period Comparison Appendix - Display 12
Comparison of Historical and Current Surface Ammonia N
at USGS Station 02298202

Ammonia N
(mg/L)



Historical Period (1982 to 1995) Current Period (1996 to 1999)

90% of the Historical Data were Collected from 1984 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.874$

Coastal Lower Peace Time Period Comparison Appendix - Display 13
 Comparison of Historical and Current Surface Total Kjeldahl Nitrogen
 at USGS Station 02297330

The NPARIWAY Procedure

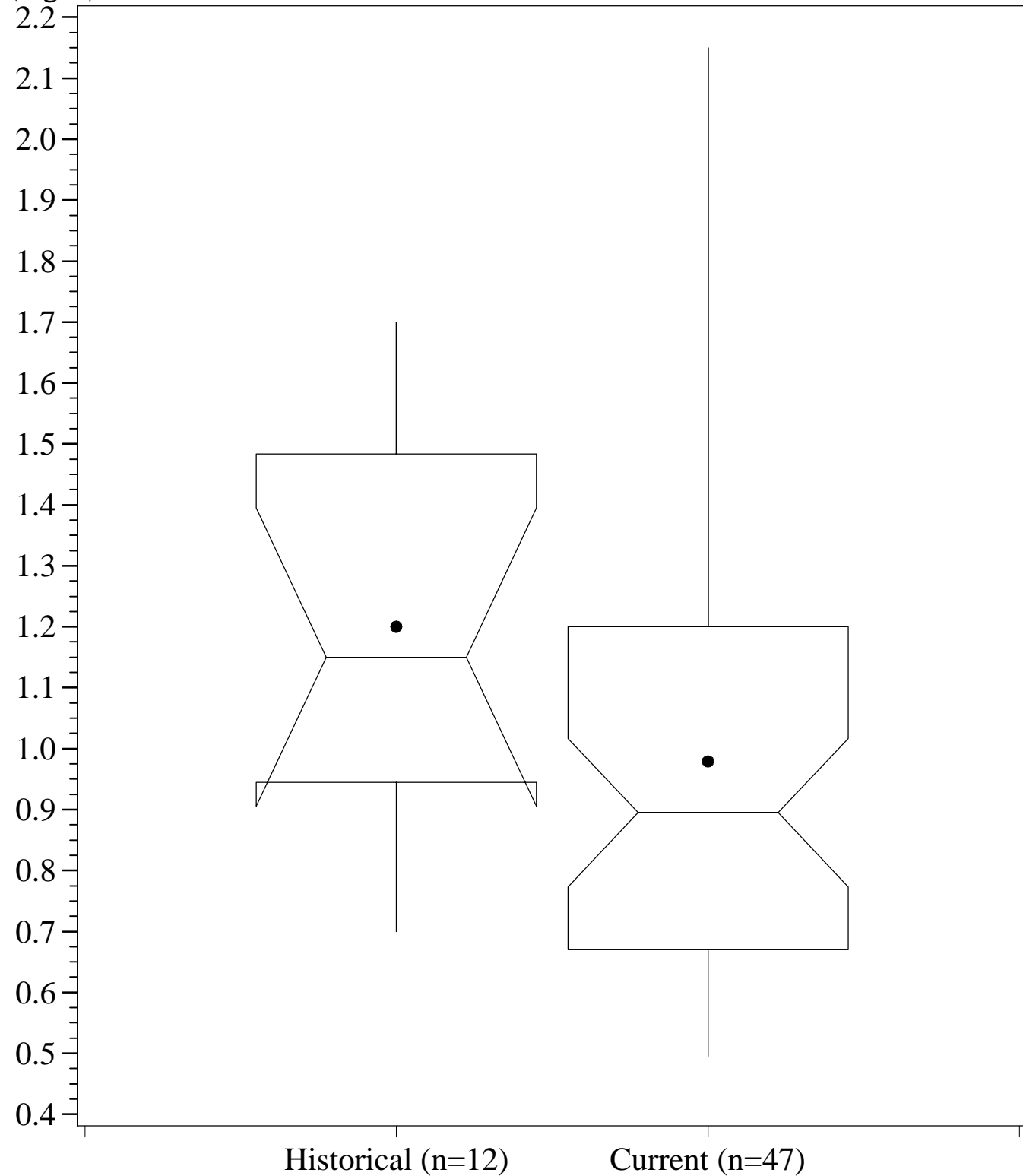
Wilcoxon Scores (Rank Sums) for Variable TKN Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	12	474.0	360.0	53.085823	39.500000
Current	47	1296.0	1410.0	53.085823	27.574468
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	474.0000
Normal Approximation	
Z	2.1380
One-Sided Pr > Z	0.0163
Two-Sided Pr > Z	0.0325
t Approximation	
One-Sided Pr > Z	0.0184
Two-Sided Pr > Z	0.0367
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	4.6116
DF	1
Pr > Chi-Square	0.0318

Coastal Lower Peace Time Period Comparison Appendix - Display 14
Comparison of Historical and Current Surface Total Kjeldahl Nitrogen
at USGS Station 02297330

Total Kjeldahl Nitrogen
(mg/L)



Historical Period (1983 to 1985) Current Period (1996 to 2000)

90% of the Historical Data were Collected from 1984 to 1985

There is a Significant Difference Between the Two Time Periods at $p > |X^2| = 0.0318$

Coastal Lower Peace Time Period Comparison Appendix - Display 15
 Comparison of Historical and Current Surface Total Kjeldahl Nitrogen
 at USGS Station 02298202

The NPARIWAY Procedure

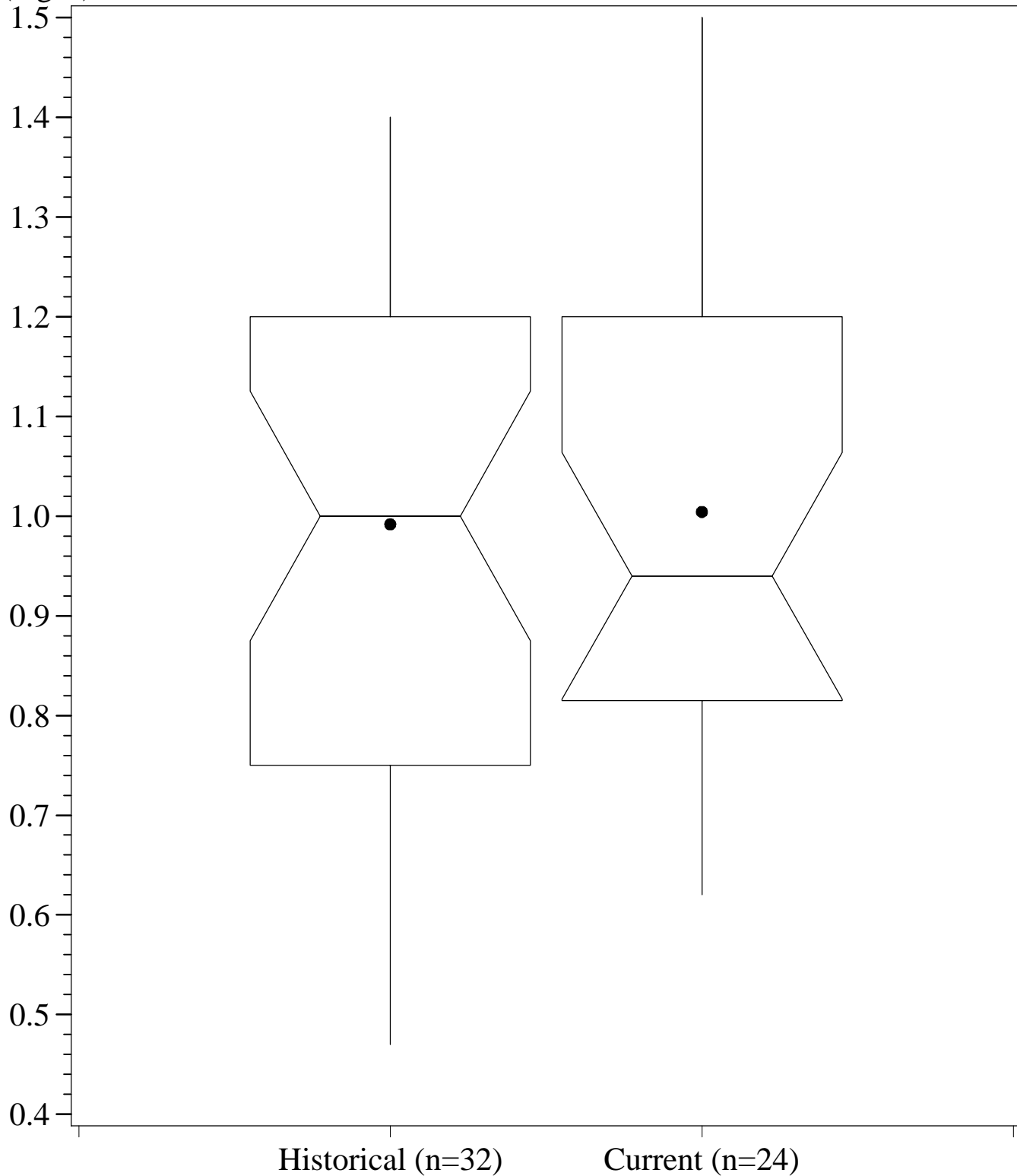
Wilcoxon Scores (Rank Sums) for Variable TKN Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	32	921.0	912.0	60.197079	28.781250
Current	24	675.0	684.0	60.197079	28.125000
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	675.0000
Normal Approximation	
Z	-0.1412
One-Sided Pr < Z	0.4439
Two-Sided Pr > Z	0.8877
t Approximation	
One-Sided Pr < Z	0.4441
Two-Sided Pr > Z	0.8882
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	0.0224
DF	1
Pr > Chi-Square	0.8812

Coastal Lower Peace Time Period Comparison Appendix - Display 16
Comparison of Historical and Current Surface Total Kjeldahl Nitrogen
at USGS Station 02298202

Total Kjeldahl Nitrogen
(mg/L)



Historical Period (1982 to 1995) Current Period (1996 to 1999)

90% of the Historical Data were Collected from 1984 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X2| = 0.8812$

Coastal Lower Peace Time Period Comparison Appendix - Display 17
 Comparison of Historical and Current Surface Total Phosphorous
 at USGS Station 02297330

The NPARIWAY Procedure

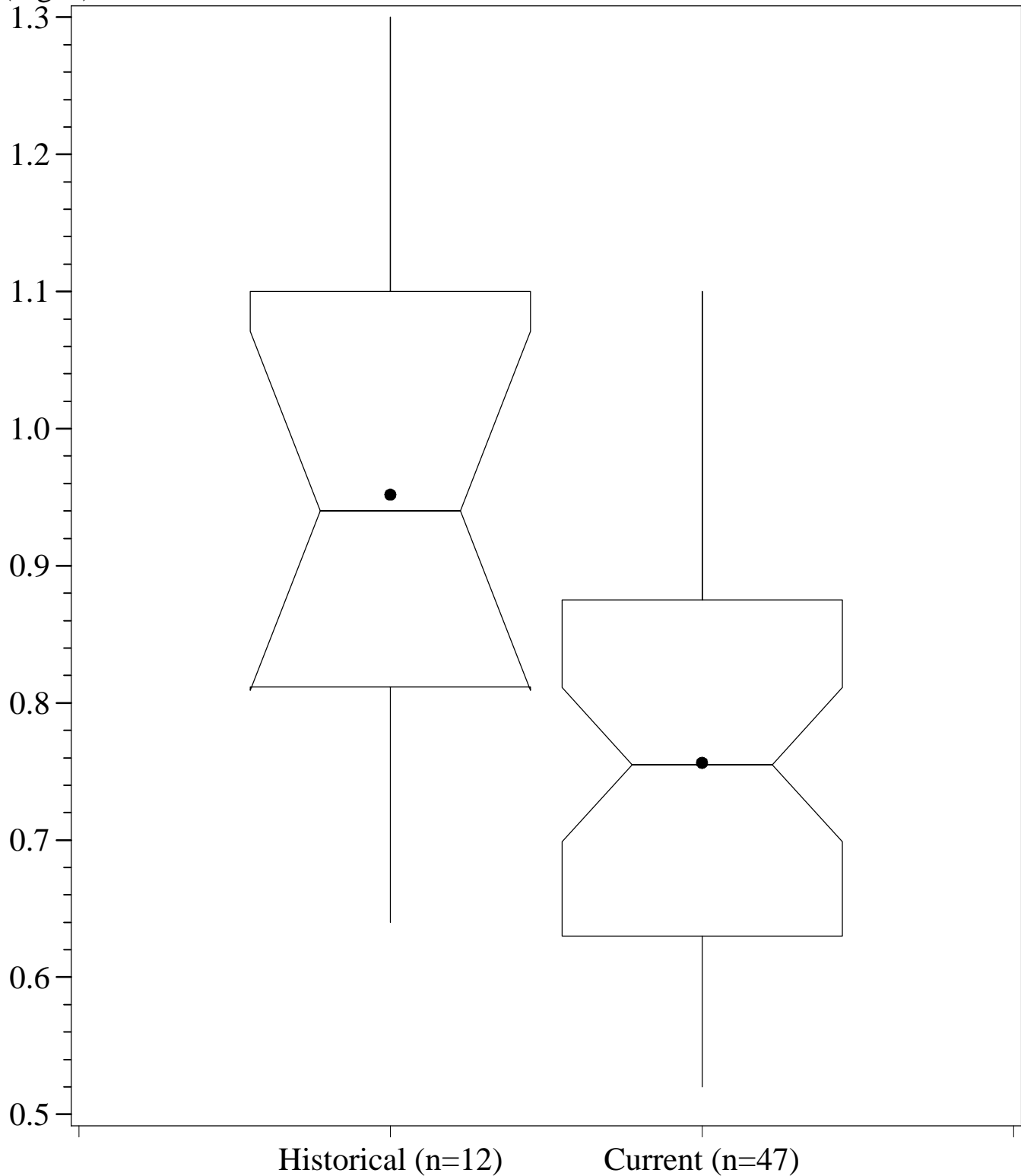
Wilcoxon Scores (Rank Sums) for Variable TP Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	12	524.50	360.0	53.090480	43.708333
Current	47	1245.50	1410.0	53.090480	26.500000
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	524.5000
Normal Approximation	
Z	3.0891
One-Sided Pr > Z	0.0010
Two-Sided Pr > Z 	0.0020
t Approximation	
One-Sided Pr > Z	0.0015
Two-Sided Pr > Z 	0.0031
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	9.6006
DF	1
Pr > Chi-Square	0.0019

Coastal Lower Peace Time Period Comparison Appendix - Display 18
Comparison of Historical and Current Surface Total Phosphorous
at USGS Station 02297330

Total Phosphorous
(mg/L)



Historical Period (1983 to 1985) Current Period (1996 to 2000)

90% of the Historical Data were Collected from 1984 to 1985

There is a Significant Difference Between the Two Time Periods at $p > |X^2| = 0.0019$

Coastal Lower Peace Time Period Comparison Appendix - Display 19
 Comparison of Historical and Current Surface Total Phosphorous
 at USGS Station 02298202

The NPARIWAY Procedure

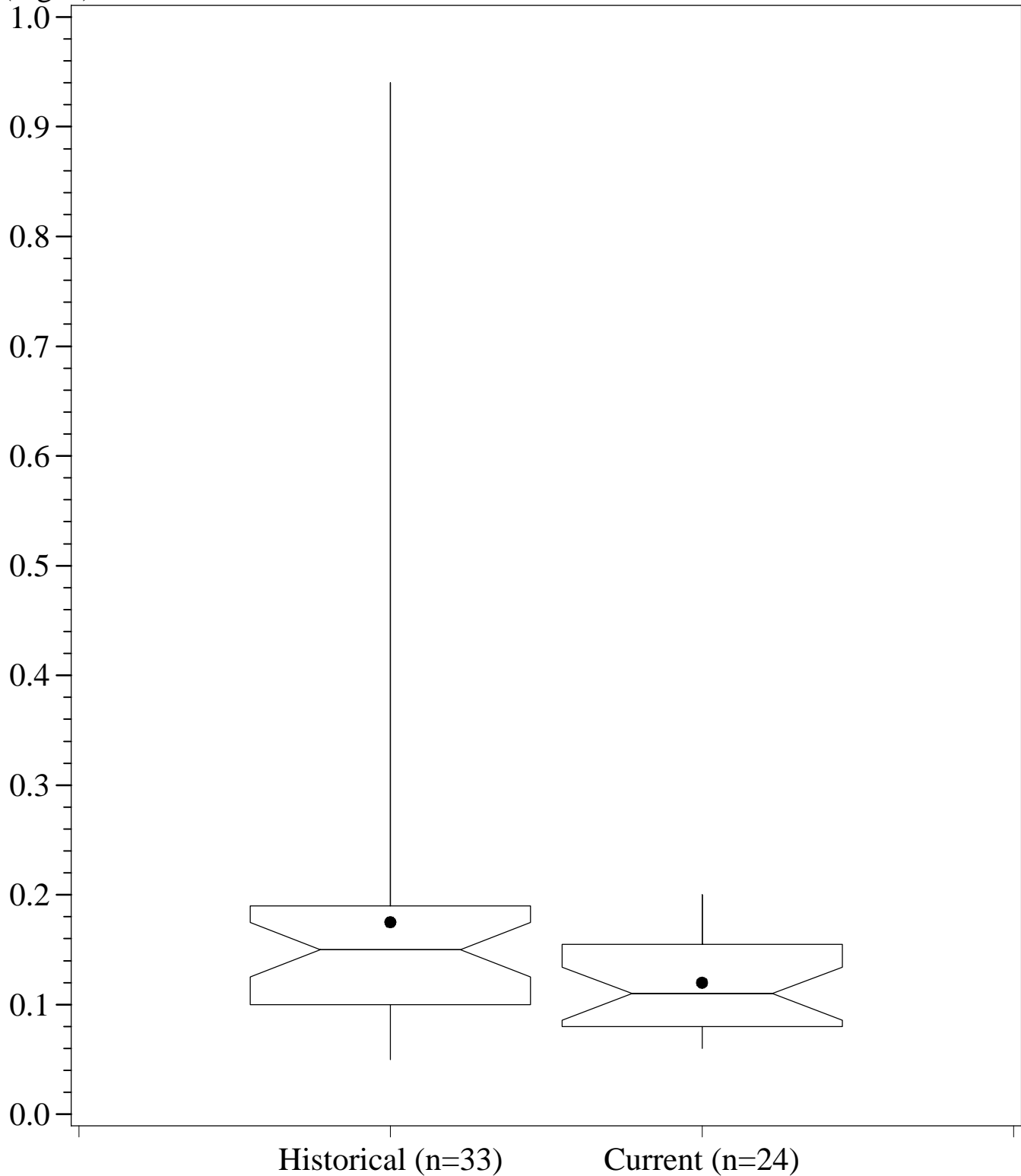
Wilcoxon Scores (Rank Sums) for Variable TP Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	33	1060.50	957.0	61.667981	32.136364
Current	24	592.50	696.0	61.667981	24.687500
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	592.5000
Normal Approximation	
Z	-1.6702
One-Sided Pr < Z	0.0474
Two-Sided Pr > Z	0.0949
t Approximation	
One-Sided Pr < Z	0.0502
Two-Sided Pr > Z	0.1005
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	2.8168
DF	1
Pr > Chi-Square	0.0933

Coastal Lower Peace Time Period Comparison Appendix - Display 20
Comparison of Historical and Current Surface Total Phosphorous
at USGS Station 02298202

Total Phosphorous
(mg/L)



Historical Period (1973 to 1995) Current Period (1996 to 1999)

90% of the Historical Data were Collected from 1984 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X2| = 0.0933$