

Horse Creek Time Period Comparison Appendix - Display 1
 Comparison of Historical and Current Surface Nitrate+Nitrite N
 at USGS Station 02297155

The NPARIWAY Procedure

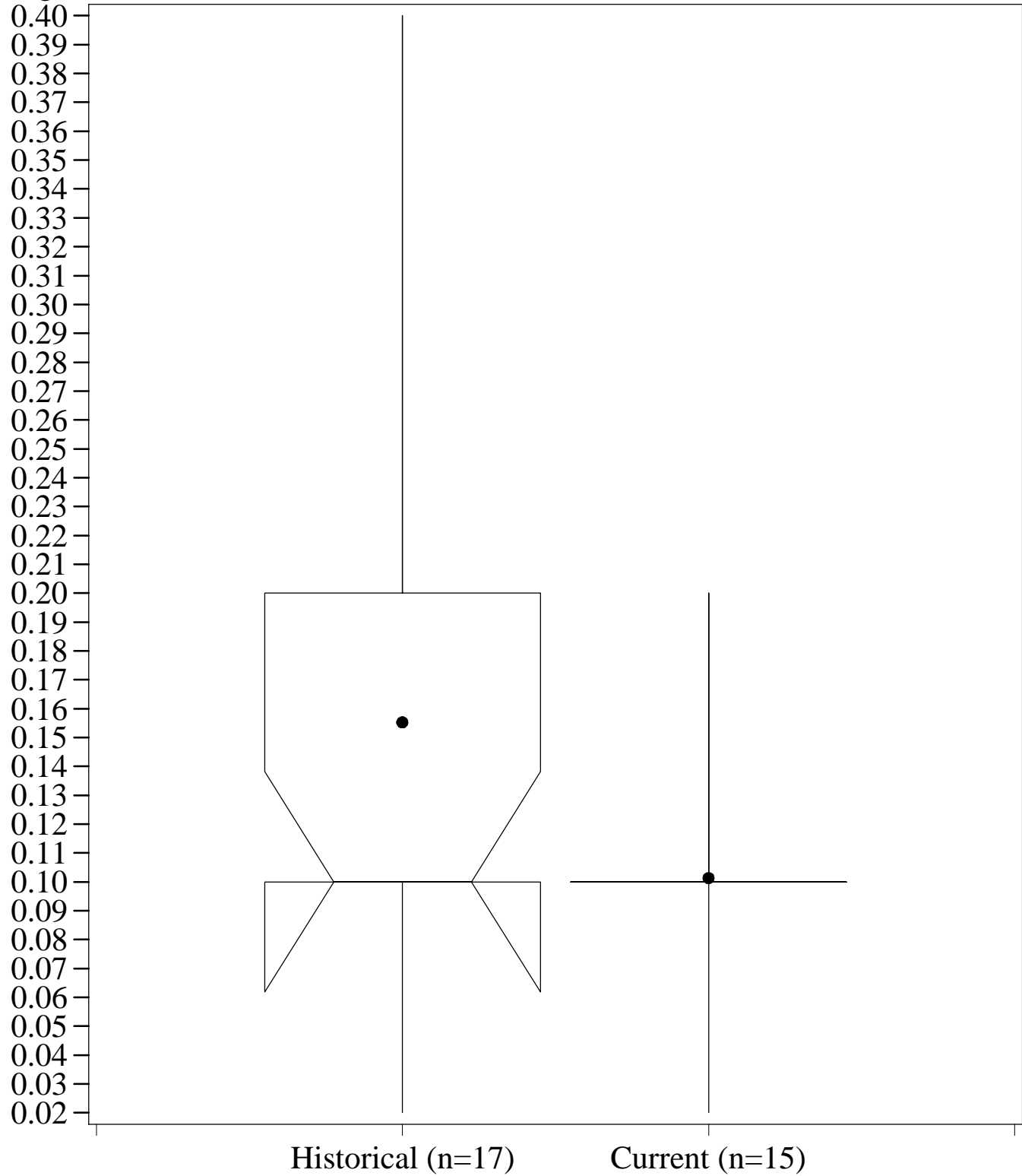
Wilcoxon Scores (Rank Sums) for Variable NO23 Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	17	323.50	280.50	22.860354	19.029412
Current	15	204.50	247.50	22.860354	13.633333
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	204.5000
Normal Approximation	
Z	-1.8591
One-Sided Pr < Z	0.0315
Two-Sided Pr > Z	0.0630
t Approximation	
One-Sided Pr < Z	0.0363
Two-Sided Pr > Z	0.0725
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	3.5381
DF	1
Pr > Chi-Square	0.0600

Horse Creek Time Period Comparison Appendix - Display 2
Comparison of Historical and Current Surface Nitrate+Nitrite N
at USGS Station 02297155

Nitrate+Nitrite N
(mg/L)



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

90% of the Historical Data were Collected from 1992 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.06$

Horse Creek Time Period Comparison Appendix - Display 3
 Comparison of Historical and Current Surface Ammonia N
 at USGS Station 02297155

The NPARIWAY Procedure

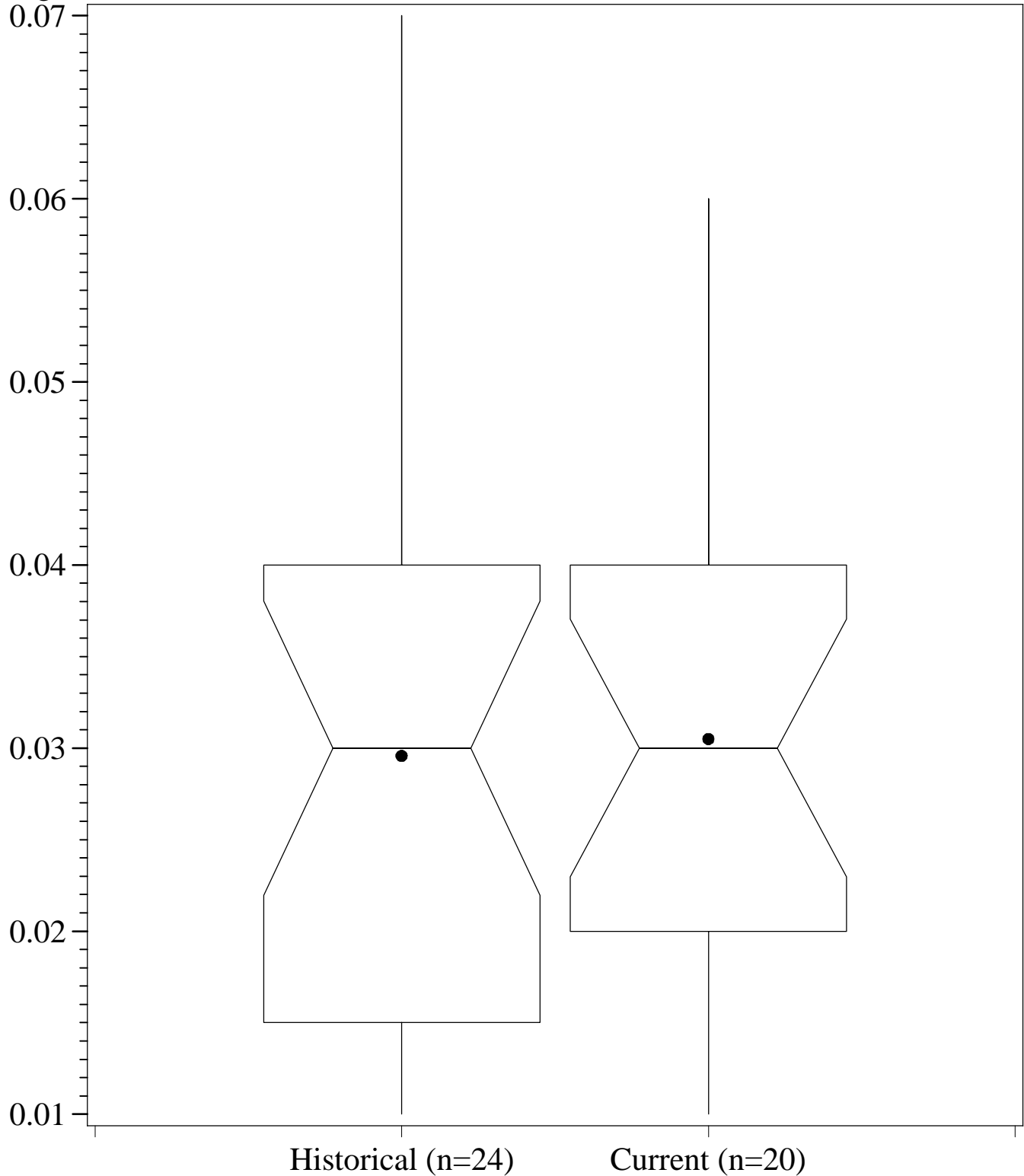
Wilcoxon Scores (Rank Sums) for Variable NH3 Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	24	531.50	540.0	41.424937	22.145833
Current	20	458.50	450.0	41.424937	22.925000
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	458.5000
Normal Approximation	
Z	0.1931
One-Sided Pr > Z	0.4234
Two-Sided Pr > Z	0.8469
t Approximation	
One-Sided Pr > Z	0.4239
Two-Sided Pr > Z	0.8478
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	0.0421
DF	1
Pr > Chi-Square	0.8374

Horse Creek Time Period Comparison Appendix - Display 4
Comparison of Historical and Current Surface Ammonia N
at USGS Station 02297155

Ammonia N
(mg/L)



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

90% of the Historical Data were Collected from 1992 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.8374$

Horse Creek Time Period Comparison Appendix - Display 5
 Comparison of Historical and Current Surface Total Kjeldahl Nitrogen
 at USGS Station 02297155

The NPARIWAY Procedure

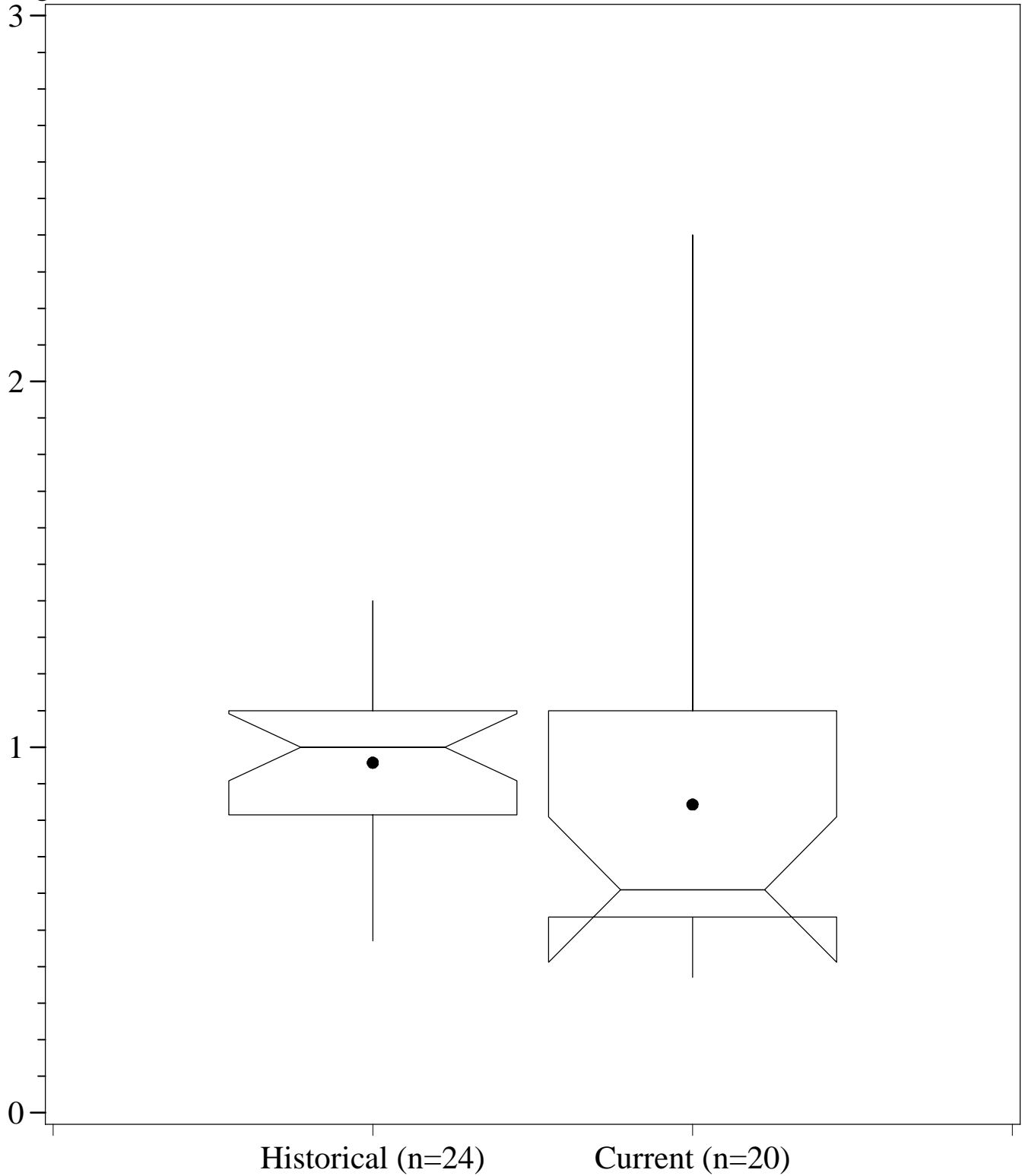
Wilcoxon Scores (Rank Sums) for Variable TKN Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	24	611.0	540.0	42.236123	25.458333
Current	20	379.0	450.0	42.236123	18.950000
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	379.0000
Normal Approximation	
Z	-1.6692
One-Sided Pr < Z	0.0475
Two-Sided Pr > Z	0.0951
t Approximation	
One-Sided Pr < Z	0.0512
Two-Sided Pr > Z	0.1023
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	2.8258
DF	1
Pr > Chi-Square	0.0928

Horse Creek Time Period Comparison Appendix - Display 6
Comparison of Historical and Current Surface Total Kjeldahl Nitrogen
at USGS Station 02297155

Total Kjeldahl Nitrogen
(mg/L)



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

90% of the Historical Data were Collected from 1992 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X2| = 0.0928$

Horse Creek Time Period Comparison Appendix - Display 7
 Comparison of Historical and Current Surface Total Phosphorous
 at USGS Station 02297155

The NPARIWAY Procedure

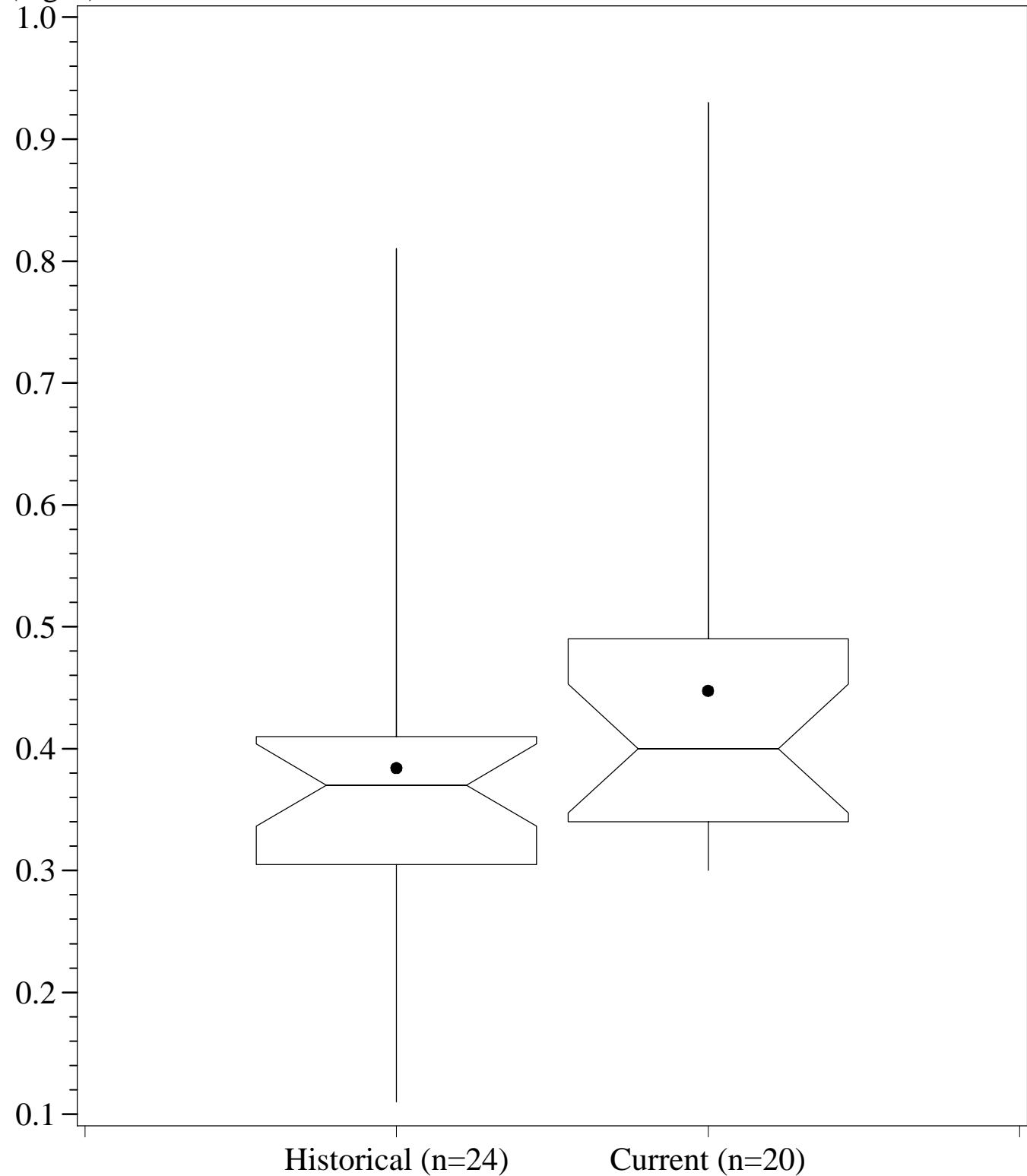
Wilcoxon Scores (Rank Sums) for Variable TP Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	24	486.0	540.0	42.359081	20.250
Current	20	504.0	450.0	42.359081	25.200
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	504.0000
Normal Approximation	
Z	1.2630
One-Sided Pr > Z	0.1033
Two-Sided Pr > Z 	0.2066
t Approximation	
One-Sided Pr > Z	0.1067
Two-Sided Pr > Z 	0.2134
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	1.6252
DF	1
Pr > Chi-Square	0.2024

Horse Creek Time Period Comparison Appendix - Display 8
Comparison of Historical and Current Surface Total Phosphorous
at USGS Station 02297155

Total Phosphorous
(mg/L)



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

90% of the Historical Data were Collected from 1992 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |X^2| = 0.2024$

Horse Creek Time Period Comparison Appendix - Display 9
 Comparison of Historical and Current Surface BOD 5-Day
 at FDEP Station 25020111

The NPARIWAY Procedure

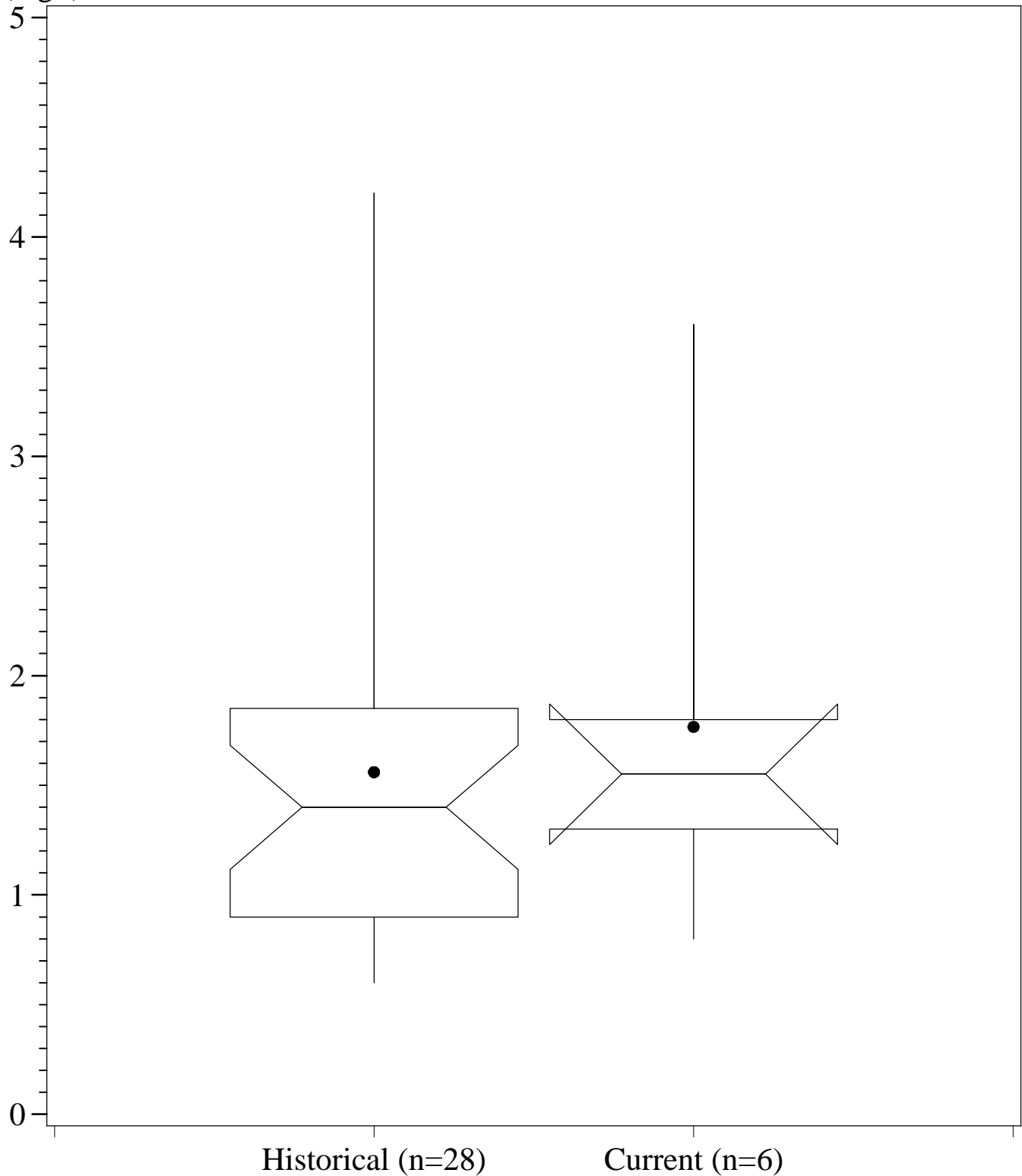
Wilcoxon Scores (Rank Sums) for Variable BOD Classified by Variable period					
period	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Historical	28	481.0	490.0	22.066501	17.178571
Current	6	114.0	105.0	22.066501	19.000000
Average scores were used for ties.					

Wilcoxon Two-Sample Test	
Statistic	114.0000
Normal Approximation	
Z	0.3852
One-Sided Pr > Z	0.3500
Two-Sided Pr > Z	0.7001
t Approximation	
One-Sided Pr > Z	0.3513
Two-Sided Pr > Z	0.7026
Z includes a continuity correction of 0.5.	

Kruskal-Wallis Test	
Chi-Square	0.1663
DF	1
Pr > Chi-Square	0.6834

Horse Creek Time Period Comparison Appendix - Display 10
Comparison of Historical and Current Surface BOD 5-Day
at FDEP Station 25020111

BOD 5-Day
(mg/l)



Historical Period (1973 to 1995) Current Period (1996 to 1998)

90% of the Historical Data were Collected from 1990 to 1995

There is no Significant Difference Between the Two Time Periods at $p > |\chi^2| = 0.6834$