## **Appendix D**

## Software Development Performance Monitoring

- The Consortium and the vendor to agree on baselines after the vendor has run 6 sprints. The baseline will serve as a measure of for trending where applicable.
- The Consortium will work with vendor to modify criteria as needed to ensure adequate and effective performance monitoring
- Not meeting performance metrics will result in penalties
- Please see section on penalties for impact of failure to meet metrics

Area	Description
Defect Density	Total Number of Defects/Lines of Code. Acceptable defect density for enhancement projects is 1 defect per 1000 lines of code
Defect Detection Percentage	Number of defects found in testing/total defects (includes UAT)
Escape Rate	Number of defects in Production/Total Defects X 100. Acceptable levels for escape rate 3 or less
Cyclomatic Complexity	10 or less. A cyclomatic complexity greater than 10 will require remediation
Code Coverage	The standard is 80% unless otherwise authorized by the states
Code Quantity	Lines of code per function. Measurements based on trends. More functions preferred over greater lines of code per function
Cycle Time	Average work in progress/throughput
Lead Time	From inception to completion
Velocity	A measure of the functionality completed and demoed per sprint. Measurements based on trends
Code Churn	Lines added, modified or deleted to a file from one version to another. Measurements based on trends
Sprint Burndown	Depiction of how much work is remaining and the rate at which work if being completed. Measurements based on trends