

Statistical Methodologies:

Bell Atlantic will use statistical methodologies as a means to determine if “Parity with BA Retail” exists (that is, to determine if the performance for a CLEC, or CLECs in the aggregate, is equivalent to the performance for Bell Atlantic retail customers). For performance measures where “Parity with BA Retail” is the standard and a statistically significant sample size exists, Bell Atlantic will use the “modified t and Z statistics” proposed by a number of CLECs in LCUG (Local Competition Users Group). For metrics where the performance is measured against an objective (absolute) standard, the “modified t and Z statistics” are not applicable. The specific formulas are detailed below:

Mean Variables:	Percent Variables:
$t = \frac{\bar{X}_{CLEC} - \bar{X}_{BA}}{\sqrt{s_{BA}^2 \left(\frac{1}{n_{CLEC}} + \frac{1}{n_{BA}} \right)}}$	$Z = \frac{P_{CLEC} - P_{BA}}{\sqrt{P_{BA}(1 - P_{BA}) \left(\frac{1}{n_{CLEC}} + \frac{1}{n_{BA}} \right)}}$

Definitions:

Mean Variables are metrics of means or averages, such as mean time to repair, or average delay days.

Percent Variables are metrics of proportions, such as percent metrics.

\bar{X} is defined as the average performance or mean of the sample

S^2 is defined as the standard deviation

n is defined as the sample size

P is defined as the proportion (for percentages, 90% translates to a 0.90 proportion)

A Z or t score of below -1.645 provides a 95% confidence level that the samples are different, or that they come from different distributions.

If the Z or t score is ≥ -1.645 , the performance standard of “Parity with BA Retail” will be deemed to have been met. If the Z or t score is < -1.645 (farther from zero than -1.645), except as otherwise provided in BA’s Performance Assurance Plan (including, but not limited to, in Appendix J, “Bell Atlantic Exceptions,” and Exhibit 1, Section 3, “Skewed Data”) or determined by the Commission, the standard of “Parity with BA Retail” will be deemed not to have been met.

Sample Size Requirements:

Minimum Sample Size: The minimum sample size is 10. When the measured sample size for either BA Retail or CLEC is less than 10 (BA Retail <10 or CLEC <10), no determination will be made as to whether the standard has been met and Performance Assurance Plan Payments will not apply.

Use of Standard Z or t Statistic and Permutation Methods: The minimum sample size for use of the Z or t statistic is 30. When the measured sample size for each of BA Retail and CLEC is 30 or more (BA Retail ≥ 30 and CLEC ≥ 30), the Z or t statistic will be used for metrics where “Parity with BA Retail” is the standard. When the measured sample size for either BA Retail or CLEC is from 10 to 29 (BA Retail 10 to 29 or CLEC 10 to 29), BA will do the following:

- a.) If the absolute performance for the CLEC is better than the BA retail performance, no statistical analysis is required; the standard will be deemed to have been met.
- b.) If the absolute performance for the CLEC is worse than the BA retail performance, BA will perform a permutation test to determine whether or not BA’s performance for the CLEC was at “Parity with BA Retail.”

Bell Atlantic Exceptions:

(1) Clustering:

A key assumption about the data, necessary to use statistics, is that the data is independent. Events included in the performance measures of provisioning and maintenance of telecommunications services may not be independent. The lack of independence is referred to as “clustering” of data. Clustering occurs when individual items (orders, troubles etc.) are clustered together as one single event.

- a.) **Event Driven Clustering: Cable Failure:** If a significant proportion (more than 30%) of a CLEC’s troubles are in a single cable failure, BA will provide the data demonstrating that all troubles within that failure, including BA troubles, were resolved in an equivalent manner. Then, BA will provide the repair performance data with that cable failure performance excluded from the overall performance for both the CLEC and BA and the remaining troubles compared according to normal statistical methodologies.
- b.) **Location Driven Clustering: Facility Problems:** If a significant proportion (more than 30%) of a CLEC’s missed installation orders and resulting delay days were due to an individual location with a significant facility problem, BA will provide the data demonstrating that the orders were “clustered” in a single facility problem, will show that the problem was resolved in a manner equivalent to the manner in which such a problem primarily impacting BA retail operations would have been resolved, and will provide the provisioning performance with that data excluded. Additional location driven clustering may be demonstrated by disaggregating performance into smaller geographic areas.
- c.) **Time Driven Clustering: Single Day Events:** If a significant proportion (more than 30%) of CLEC activity, provisioning or maintenance, occurs on a single day within a month, and that day

represents an unusual amount of activity in a single day, BA will provide the data demonstrating the unusual amount of activity on that day. BA will compare that single day's performance for the CLEC to BA's own performance, including BA's processing of similar peak loads in BA's retail operations. Then, BA will provide data with that day excluded from overall performance to demonstrate "parity".

(2) CLEC Actions:

If BA's performance for any measure is impacted by unusual or inappropriate CLEC behavior, BA will bring such behavior to the attention of the CLEC to attempt resolution. Examples of CLEC behavior impacting performance results include order quality deficiencies, causing excessive missed appointments, incorrect dispatch identification, resulting in excessive multiple dispatch and repeat reports, failing to apply X coding on orders, where extended due dates are desired, and delays in rescheduling appointments, when BA has missed an appointment. If such action negatively impacts performance, BA will provide appropriate detail documentation of the events to the CLEC and the Commission.

Where BA proposes an exception, BA will provide applicable information, ensuring protection of customer proprietary information, to the CLEC and the Commission. Such information might include individual trouble reports and orders, with analysis of BA and CLEC performance. For cable failures, BA will provide appropriate documentation detailing other troubles associated with that cable failure.

Metrics with Objective (Absolute) Standards:

Minimum Sample Size: The minimum sample size is 10. When the measured sample size for either BA Retail or CLEC is less than 10 (BA Retail <10 or CLEC <10), no determination will be made as to whether the standard has been met and Performance Assurance Plan Payments will not apply.