

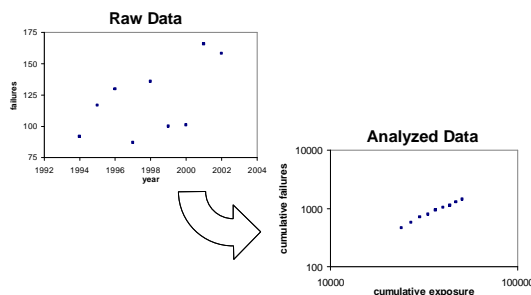
Statistical Failure Analyses

PowerComm Engineering offers consulting services to assist clients with assessment of failures and prediction of future failures within large equipment populations to support development of replacement strategies, maintenance programs, and regulatory filings. PowerComm provides leading edge engineering consulting services that exceed client expectations using industry leading statistical techniques and experienced personnel.

Why Statistical Failure Analysis?

Statistical analysis supports the development of proactive maintenance and replacement programs to manage the impact of future failures. Further, these analyses have been used to support regulatory filings for funding replacement and maintenance programs.

Unfortunately, it is often difficult to discern failure trends in large populations of equipment of different sizes, ratings, manufacturer, and installation dates.



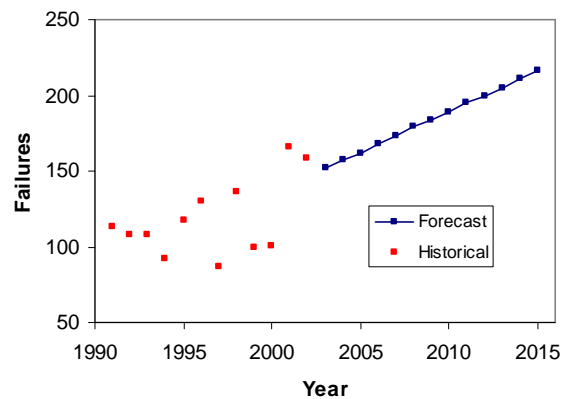
Advanced statistical methods help overcome the difficulties associated with analyzing the “raw” data, allowing failure trends among different classifications of equipment to be identified. The results of these analyses include:

- Prediction of future failure trends
- Equipment classification breakouts (age, manuf., install date, size)
- Projection of customer impacts (SAIDI, SAIFI)
- Statistical accuracy measures

The PowerComm Approach

PowerComm approaches statistical failure assessments in a systematic way, using data available from each individual customer. The first step is an *available data assessment*, which reviews the population and failure data sources that may be available for a particular analysis.

The most applicable analysis methodology is selected to optimize validity based on the available data. *Data analysis* is performed and failure predictions developed for each equipment classification and an *accuracy assessment* performed versus the historical data.



Finally, the *customer impacts* (SAIFI and SAIDI) and *replacement/maintenance requirements* to maintain target reliability levels are determined providing valuable direction for budget and maintenance planning.

PowerComm Engineering's statistical failure analysis can help you prepare for the future by providing failure projections that define the magnitude of challenges facing utility distribution systems. Contact PowerComm today to see how we can assist you.

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