

## PRACTICAL ANALYTIC TECHNIQUES AGENDA

November 17, 2021

The aim behind analysis should be to provide insight to help shape the conversation and make decisions and not just to calculate the right numbers. In this class we will cover a number of practical techniques suitable for use in local government to help elevate our analysis. Class will include both discussion of techniques but also demonstrations for how to use Excel to implement these analyses.

Times listed are approximate. We will break for lunch about 12noon and there will be breaks during the day.

Sessions	Topics
9am to 11am  <b>Some Basics</b>	1. What's average? <ol style="list-style-type: none"> <li>Central Tendency – What is typical</li> <li>Dispersion – What is the distribution?</li> </ol> 2. How do I understand variation? <ol style="list-style-type: none"> <li>The problem with common comparison strategies</li> <li>Understanding variation</li> <li>Plot the dots</li> <li>Process behavior charts for analysis</li> </ol> 3. Is there a relationship that helps explain variation? <ol style="list-style-type: none"> <li>Correlations and regression</li> </ol> 4. Can I forecast what the future might look like? <ol style="list-style-type: none"> <li>Straight line regressions for forecasting</li> </ol> 5. What needs to be random?
11am to 2pm (lunch) <b>Do we have the right amount of resources?</b>	1. Work standards 2. Staffing factor calculations 3. UHUs 4. Demand analysis 5. Optimization
2-3pm  <b>What does it cost?</b>	1. Cost of risk 2. Inflation 3. Cost of capital 4. Full cost accounting 5. Go away costs 6. Life cycle costs
3-4pm  <b>Thinking Analytically</b>	1. What if the assumptions or key variables change? <ol style="list-style-type: none"> <li>Basic Sensitivity Analysis</li> <li>Excel What If Tools - Goal Seek, Data Tables, Scenarios</li> </ol> 2. Thinking analytically Case Study