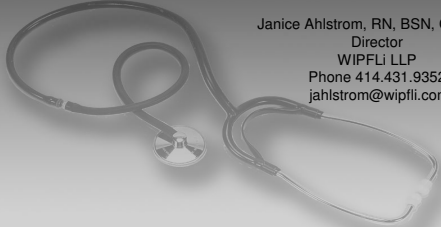


**WIPFLi** Navigating the Road to Performance Improvement  
Business experts. Right from the start.

## Performance Measurement and HIT

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**WIPFLi** Agenda  
Business experts. Right from the start.

## Metrics and Benchmarking

- Metrics
- Using metrics
- Benchmarking yourself
- Resources


**WIPFLi** Metrics and Benchmarking  
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### Definitions

Metric – a standard of measurement  
 Benchmark – a standard by which something can be measured or judged


### Why do we measure?

We cannot **improve** without knowing the **baseline**




**WIPFLi** Metrics  
Business experts. Right from the start.

- What are you trying to measure?
  - Productivity
  - Quality
  - Return
  - Cost
  - Satisfaction
- Is it quantitative or qualitative?
  - Cost or Value?
  - Transaction or Relationship?
- Is this related to a project or to an asset life cycle?
- What type of statistical attributes serve best?
  - Comparison – means, medians
  - Ratios – cost, staffing or effort per some unit of measure
  - Time – static, rolling




**WIPFLi** Metrics  
Business experts. Right from the start.

- Sample commonly used metrics
  - Productivity
    - Network uptime / downtime
    - Application availability
    - Average system response time
    - Trouble ticket response times
    - Average duration of outages
    - Mean time between failures
    - Print operators per 100,000 pages
    - Lines of code developed per programmer
    - Lines of code tested per QA resource
    - Time to delivery
    - Project conception to deployment cycle time




**WIPFLi** Metrics  
Business experts. Right from the start.

- Sample commonly used metrics
  - Quality
    - On budget / on time
    - Defects per lines of code
    - Number of certified staff as a percent of total
    - Number of documentation errors
    - Number of changes after the program is coded
    - Number of error-related help desk tickets




**WIPFLi** Business experts. Right from the start. **Metrics**

- Sample commonly used metrics
  - Return
    - ROI – Return on Investment
    - ROA – Return on Assets
    - ROE – Return on Equity
    - EVA – Economic Value Add
    - KVA – Knowledge Value Added
  - Cost
    - TCO – Total Cost of Ownership
    - TCOGS – Total Cost of Goods and Services
    - IT budget as a percent of total
    - IT expenditures as a percent of revenue
    - IT staff as a percent of total




**WIPFLi** Business experts. Right from the start. **Metrics**

- Sample commonly used metrics
  - Satisfaction
    - Usage rates
    - Adoption rates
    - Satisfaction rating
    - Number of change requests submitted
    - Percent of change requests completed
    - Trouble ticket resolution time
    - First call resolution



**WIPFLi** Business experts. Right from the start. **Using metrics**


- What metrics are you using today?
- To whom are they reported?
- What actions or behaviors are driven by the metrics?



**WIPFLi** Business experts. Right from the start. **Using metrics**

The primary purpose of metrics is...

... to identify the baseline upon which to improve



**WIPFLi** Business experts. Right from the start. **Using metrics**

Metrics must be:

- Aligned with the business strategy and the relevant business metrics
- The basis for which continuous improvement programs are defined and prioritized
- A key component into defining performance reviews and variable compensation

*“You are what you measure”*

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Alignment with business strategy...

- Balanced scorecard
  - Financial perspective
  - Customer perspective
  - Operational perspective
  - Learning and growth perspective
  - Human capital perspective
- Market differentiation
  - Operational excellence
  - Product innovation
  - Customer intimacy

Basis for continuous improvement...

- When our metrics aren't meeting our benchmark requirements, dig into components that impact the metric
- Assess and look for opportunities around
  - People
    - Knowledge, skills, attitude
  - Process
    - Value stream or process mapping, kaizen events
  - Technology
    - Hardware / software deployment or replacement

Key component of reviews and comp...

- Performance evaluations
  - Objective portion of performance evaluation
- Team / Individual incentives
  - Flexible incentives based on metric value
  - Fixed incentives based on outcome achievement



- Identify the metric
  - Validate alignment, relevancy and feasibility
- Define the metric
  - Formula
  - Timeframe
  - Aggregation points
- Identify comparison group(s)
  - Industry, process, role, technology, size, competition
  - Validate relevancy (strategy, position, uniqueness, etc.)
- Measure baseline
  - Methods and tools for data collection
  - Validity sampling
- Perform ongoing measurement

Final Thoughts

- If you want to be perceived as a contributor to the business, the most objective way to demonstrate this is through metrics that show **direct contribution to the business strategy**.
- Choose your comparison benchmarks carefully – you might ultimately end up defending yourself against the very metric you selected.
- Remember –Information can be manipulated. Understand all of the variables that make up a metric.

- Gartner Group
  - "Total Cost of Ownership" - TCO
  - Services
    - Technology evaluation / vendor analysis – Gartner
    - IT operations and management - Gartner
    - Human Capital research – people3
    - IT Market analysis – Dataquest
    - Technology Industry analysis – GartnerG2
  - Web sites
    - [www.gartner.com](http://www.gartner.com)
    - [www.people3.com](http://www.people3.com)
    - [www.dataquest.com](http://www.dataquest.com)
    - [www.gartnerG2.com](http://www.gartnerG2.com)

- Meta Group
  - "Total Cost of Goods Sold" - TCOGS
  - Services
    - Technology evaluation / vendor analysis
    - IT operations and management
  - Web sites
    - [www.metagroup.com](http://www.metagroup.com)
    - [www.metricnet.com](http://www.metricnet.com)

- Forrester Research
  - “Total Economic Impact” - TEI
  - Services
    - Wholeview research
      - TechStrategy
      - Technographics
      - TechRankings
  - Web sites
    - [www.forrester.com](http://www.forrester.com)
    - [www.gigaweb.com](http://www.gigaweb.com)

- Others
  - **ROI analysis**
    - Nucleus Research – [www.nucleusresearch.com](http://www.nucleusresearch.com)
      - Focus on defining ROI for technology projects
      - Occasional free research available on specific platforms
      - Consulting-oriented to perform or mentor ROI analysis
    - The Deciding Factor – [www.decidingfactor.com](http://www.decidingfactor.com)
      - Focus on defining ROI for any type of investment
      - More publication-oriented but offer workshops and consulting
  - **Process benchmarking**
    - American Productivity and Quality Center – [www.apqc.org](http://www.apqc.org)
      - Focus on benchmarking shared services
        - Accounting, Human Resources, IT, Facilities Management
      - Consulting fees or membership dues to access research
    - Hackett Group – [www.hacketthighway.com](http://www.hacketthighway.com)
      - Focus on benchmarking business processes and collaborative learning
        - Accounting, Human Resources, IT, Procurement, SG&A
      - Consultancy-based organization that is part of Answerthink

- Others (continued)
  - **Software development**
    - International Software Benchmarking Standards Group – [www.isbsg.org](http://www.isbsg.org)
      - Focuses on software development and enhancement as well as software maintenance and support
      - Defines international standards for process and measurement
      - Membership is limited to various country-specific organizations
    - Cutter Consortium – [www.cutter.com](http://www.cutter.com)
      - Generally known for software project expertise for both development and project management
      - Publication-based with additional consulting available
      - Does offer ISBSG research results

- Others (continued)
  - **Labor**
    - Information Technology Association of America – [www.itaa.org](http://www.itaa.org)
      - Membership-based trade association for technology firms
      - Part of World Information Technology and Services Alliance
      - Provide research and analysis for both members and non-members
        - Annual ITAA Compensation survey
    - Help Desk Institute – [www.thinkhdi.com](http://www.thinkhdi.com)
      - Membership-based organization for help desk professionals
      - Provide annual salary surveys
    - Data Warehouse Institute – [www.dw-institute.com](http://www.dw-institute.com)
      - Membership-based organization for data warehousing professionals
      - Provide annual salary surveys

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