

Effective Development of KPIs

- Why Measure Performance?
- Performance Measurement Options
- Approaching a KPI Project
- Highlights of TCRP/TRB Report 88
- Challenges in Building Your Own KPIs
- Automated Scorecard for Transit (Astra)

Why Measure Performance?

1. Agencies are legally required to report certain performance measurements
2. Citizens, grantors and other agencies need to know what is going on
3. Useful for the agency to improve performance

Performance Measurement Options

- Business Intelligence
- Analytics
- Key Performance Indicators
- Scorecard or Balance Scorecard
- Tools vs. Applications

Approaching a KPI Project

- Plan Your Foundation for Long Term Success
 - KPIs – Application – Analytics/Tools
- Plan & Execute with Users' Collaboration
 - Performance measures (KPIs) to be tracked
 - Use of benchmarks (Balance Scorecard)
 - Analytics capabilities and ad hoc reporting tools
- Changes in requirements is natural during the life of the performance measurement systems

Highlights of TRB Report 88

- A guidebook for development a Transit performance measurement systems
- Case studies of successful programs
- Considers all points of view
 - Customer
 - Community
 - Agency
 - Vehicle/Driver

Highlights of TRB Report 88 (Contd.)

- **Eleven Measurement Groups**
 1. Availability
 2. Service Delivery
 3. Community Measures
 4. Safety and Security
 5. Maintenance and Construction
 6. Economic Measures
 7. Capacity
 8. Paratransit Measures
 9. ADA Accessibility
 10. Service Contracting
 11. Comfort
- **181 Detailed Measurements (Dashboards)**

Performance Measure Examples

Points of View → Categories → Measurements

| COMMUNITY | | | | | | | |
|--|--|--|---|--|---|--|--|
| VEHICLE/DRIVER | | AGENCY | | CUSTOMER (QUALITY OF SERVICE) | | | |
| TRAVEL TIME | CAPACITY | TRANSIT IMPACT | ECONOMIC | MAINT. & CONSTRN. | SAFETY & SECURITY | SERVICE DELIVERY | AVAILABILITY |
| <ul style="list-style-type: none"> ▪ Delay ▪ System Speed ▪ Transfer Time ▪ Transit-Auto Travel Time | <ul style="list-style-type: none"> ▪ Vehicle Capacity ▪ Roadway Capacity ▪ Volume-to-Capacity Ratio | <ul style="list-style-type: none"> ▪ Community Economic Impact ▪ Mobility ▪ Employment Impact ▪ Environmental Impact | <ul style="list-style-type: none"> ▪ Ridership ▪ Cost Efficiency ▪ Cost Effectiveness ▪ Fleet Maintenance Performance | <ul style="list-style-type: none"> ▪ Road Calls ▪ Spare Ratio ▪ Fleet Cleaning ▪ Construction Impact | <ul style="list-style-type: none"> ▪ Vehicle Accident Rate ▪ Passenger Accident Rate ▪ Crime Rate ▪ % Vehicle with Safety Devices | <ul style="list-style-type: none"> ▪ Reliability ▪ Comfort ▪ Passenger Environment ▪ Customer Satisfaction | <ul style="list-style-type: none"> ▪ Service Coverage ▪ Service Denials ▪ Frequency ▪ Hours of Service |

Challenges in Building Your Own KPIs

- Increases the complexity, timeline and cost of the project
- Limited availability of internal subject matter experts (SMEs)
- Synchronization with industry standards are easier when building scorecard
- Performance measures/categories change over time
- Use off-the-shelf application for easy deployment
- Use Analytics/tools for agency specific needs

ASTRA: Sneak Preview

Automated Scorecard for Transit

- Was demonstrated in the exhibit area on Tuesday
- Integrated BI Application with KPIs, Dashboards & Analytics Tool
- Built specifically for transit industry
- Configurable to individual agency's needs
- Independent of data sources and systems
- Compliant with TRB/TCRP Recommendations
- Built on industry standard Oracle technology
- GA release will be announced in APTA publications by summer of 2010

Questions and Open Discussion

