Data Literacy Among Small Transit Agencies

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Working Definition of Data Literacy

Data literacy in public transportation is the ability of agency staff, decision-makers, and stakeholders to ***access, interpret, analyze, apply, and communicate data to enable evidence-based decisions that improve operations, guide planning, and shape policy****.*

7 Core Competencies of Data Literacy

1. **Awareness:** Understanding which data exist, what they represent, and how they can be used to inform service and decision-making.
2. **Access:** The ability to reliably obtain relevant data from internal or external sources using available systems and tools.
3. **Interpretation:** The ability to analyze and draw meaning from data, identify trends, and evaluate performance.
4. **Application:** The use of data to guide day-to-day operations and solve practical problems.
5. **Optimization:** Leveraging data to improve service delivery, efficiency, and responsiveness over time.
6. **Communication:** Clearly and appropriately presenting data findings to internal or external stakeholders.
7. **Responsible Use:** Ensuring data are used responsibly, with attention to privacy, fairness, and compliance with legal or regulatory standards.

Findings: Tools & Technology

- Underutilization of advanced tools/technology
  - Heavy dependence on spreadsheets (75%)
  - Limited technical infrastructure, staffing, training
  - 'Black box' reports and limited customization options
- Underperformance of advanced tools/technology → buyer's remorse
  - Technology procurement often mismatched to agency needs
  - Agencies "locked in" to poorly supported, incompatible systems

Findings: Performance Monitoring & Reporting

- Inconsistent tracking of key performance metrics
  - Ridership widely tracked; nearly 20% do not track OTP
  - Result: limited ability to monitor internal performance
- Visualization tools seldom used
  - 70%+ unfamiliar with visualization tools
  - Result: limited ability to monitor internally AND to convey results externally
- Compliance data often unused for decision-making
  - No clear use cases or processes for applying the data
  - Result: data collection becomes a burden rather than a benefit

Findings: Organizational Culture & Capacity

- Organizational culture matters!
- Staffing shortages and skill gaps are limiting
  - Wearing "all the hats" leaves no time for professional development
- Data use mainly compliance/funding-focused
- Few agencies have structured career pathways and succession planning to sustain data literacy
  - Staff departures can result in a total loss of institutional knowledge
- Peer learning highly valued for capacity building, but fragmented and informal

Ideas for Local and State Agencies

- State-level support for small agencies
  - Minimal staff capacity to implement new tech & processes
  - Adding FTE too expensive
  - Pooled staff member to support multiple agencies could fill gaps
- Collaboration among agencies
  - Pooling resources around shared challenges can make it worth procuring a consultant or other support
  - Learning how others tackled a challenge can help you avoid reinventing the wheel
  - Talking can help reveal what data you could improve on

Resources

- Technical assistance centers
- Local planning organizations
- Local/state colleges/high schools
- Who can help you deal with this info?

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