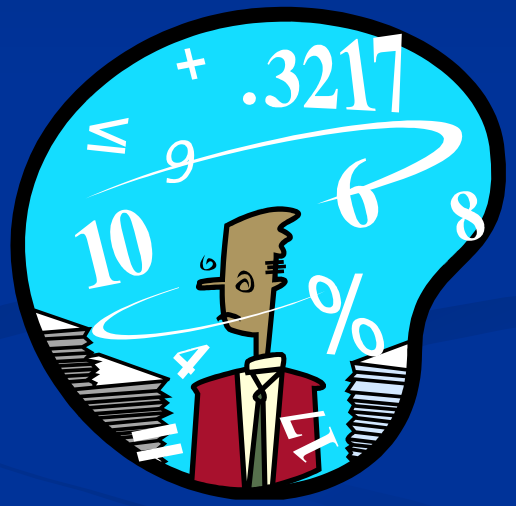
Measurement does matter but do we measure what really matters?

Insights for transport sector indicators efforts from public sector performance measurement literature



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Very brief background on performance measurement

- Business management principles applied to public sector (trend since early 1990s)
- Production cycle thinking applied to public agencies
- Attention to defining the 'product' (or 'mission' or 'public value')
- Indicators (hopefully in line with clear product definition)
- … and use them in planning and control cycle for better performance
- Much success… and growing awareness of dangers
- Connections between agency-level performance measurement and sector level?

First the good news

- Performance measurement can help in many ways
- Link between action and public value for agency
- Organisational learning
- Increasing accountability (both internal and external)
- Awareness of issues is raised ('if we don't count it, it don't count') (eg pedestrian and bicycle roles; eg disaggregated data)

Summary

1. Can't ignore values in public agency performance measurement
2. Measure both 'means' and 'ends' but try not to confuse them
3. Performance measurement can create powerful incentives but some are perverse

- *… urban transport particularly difficult*

Example to set scene: urban mobility as mean time for trip to work (urban households)

- Values implicit in this indicator?
  - Short average **time** to work as policy 'success'
- An 'outcome'
  - extremely complex causality…
  - Daily travel time per person stable (across wide range of urban areas and over time except for rare extreme cases; because wider urban systems and personal choices adapt…)
- Value judgements? Incentives created? Policy responses prompted?
  - Would road capacity expansion help?
  - Would transit-oriented urban planning?
  - Might some simplistic responses harm the poor?

1. Performance measurement by public agencies: laden with values

- In business, success is easy to define
- For public agencies not so simple!
- ‘Product’, or ‘mission’ or ‘success’ is often contested, with multiple values involved
- Relevance in transport sector?
  - Despite increasing role for private business
  - Much vital decision-making is and must always be by PUBLIC sector (as provider, planner or regulator)

‘Defining the product’ in urban transport policy?

- ‘Traffic’: enhance vehicle movement and speed; prevent congestion; maintain ‘level of service’
- ‘Mobility’: efficient movement of people and goods;
- ‘Accessibility’: transport as regrettable, so enhance ability to reach opportunities; proximity helps; increased traffic or mobility might help or harm, depending on situation
- Other values? For example, both traffic and mobility can ‘buy’ SPACE… which must be traded off against ease of access. Market failures (etc) prevent market based resolution.
- Reducing impacts? With successful urban transport. So should we reduce impacts in absolute terms? … per unit of vehicle travel? … per unit of passenger or goods travel? … per trip?

Agency missions may be narrowly framed - impacts on measurement

- Understandable tendency for narrow sense of purpose (and hence measurement) by agencies set up for specific roles
- Four levels of urban transport planning (Vuchic)
  - IV. Individual facilities (eg intersection)
  - III. Single mode network or system (eg road traffic)
  - II. Multimodal coordinated system
  - I. Settlement patterns-transport relationship

- Missions at levels IV and III should be guided by those at II and I (in theory) but rarely in practice
- Indicators likewise could help steer coordinated priorities but rarely do in practice

Care in value judgements on indicators

- Link with mission …
- Faster traffic better?
- Is reducing pollution per vehicle kilometre always good?
- What if done in way that harms other key transport values?
  Should we ‘ease traffic’ here by preventing pedestrians crossing at street level?
- Good to minimise transfers on public transport or minimise the inconvenience of transfers?
- Context is important:
  - increasing motor vehicle movement may be vital for a remote village without an all-weather road but not for Los Angeles!

2. Measure both ‘means’ and ‘ends’ but don’t confuse them

- ‘Value chain’: inputs, processes, outputs and outcomes
- Which to measure?
  - Inputs? but good intentions not enough; may be aligned with mission/value but no guarantee of results
  - Processes? but diligent, well-intentioned efforts not enough
  - Outputs? Often easy to measure, well-focused, consistent; but often not well linked with mission/value
  - Outcomes? linked with mission/value (good); but difficult to measure; time lags; complex causality…
- Always think carefully about links with mission… are they linked to desired ends?

Means and ends: urban transport examples

- Traffic-focused outcome indicators:
  - Roadway LOS and traffic speed indicators
  - Congestion delay
  - Indicators of impacts “per vehicle kilometre”
- Is speedy vehicle movement a desired outcome, or means to other ends?
- If Indonesian traffic speeds high during 1998/99… did this indicate success?
- Consider mission when making value judgements about indicators at all points in the value chain

3. Performance measurement creates incentives… but some are perverse

- No matter how well designed and implemented, indicators inevitably have some unintended impacts
- 'Gaming' the numbers
  - actors have incentives to find ways to 'improve' indicators, sometimes regardless of relevance of actions to mission
  - Difficult to design gaming-immune indicators
- Poorly conceived indicators may steer us in 'wrong' directions if misaligned with mission (especially if we forget mission and confuse ends with means)
  - Examples: rats; road safety versus danger reduction (eg bicycle helmet debate)

More perverse effects of taking indicators seriously

- Creation of norms is inevitable but may be perverse and/or unintended
  - Example: urban road space… how much is ‘enough’? A case of an informal norm developing even in absence of any really reliable comparative data!)
- Policy response may be simplistic
  - Eg ‘poor’ congestion or travel time indicators may prompt simplistic capacity expansion
- Soft numbers ‘harden’ with distance from source … possibly prompting action without real basis in evidence (eg road space figures again)

Bias may be magnified and locked-in through the role of indicators

- Easy to measure issues tend to be:
  - Narrowly focused (eg on a facility rather than a system)
  - Inputs or outputs rather than outcomes
  - Single value ‘products’ rather than multi-value ones
  - Events involving (large) transactions
- Unfortunate results in transport include:
  - encourage a private motor vehicle-bias
  - make non-motorised, short-distance transport especially invisible
- Biased indicators create biased norms and misplaced priorities

Thoughts on Two Draft ‘Headline’ Indicators

- Travel-time based urban mobility indicator:
  - Likely simplistic capacity expansion responses worry me… Possible to think again?
  - Modification? How about average travel time to work for poorest quartile?
    - Different goals implied – more poverty, equity focused
    - Prompts richer policy debate?
- Mode share is important but PLEASE don’t neglect non-motorised modes and very short trips
  - Passenger km shares versus trips share
  - Linked versus unlinked trips shares

In a nutshell…

- Performance measurement is extremely valuable and I am glad it is getting this attention from the Bank
- We will get the best (public) value from our indicator efforts if we are wise to the possible risks
- Note that some of the pitfalls apply even to well-conceived, well-measured indicators

The end…

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