
***CILTNA – Carleton
2018 Annual Lunch & Lecture***

***What would a successful LRT look like
and how would we even know?***

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Be careful what you wish for

1. *Primary goal*

- A system will optimize in direction of the primary goal
 - No clearly-articulated primary goal
 - Multiple goals
- } → Unmanaged evolution
- Solution is “transportation” ∴ primary goal is *mobility*
 - Mobility for whom?
 - everyone? transit users? LRT riders only? the affluent?
 - travellers individually? travellers collectively?

2. Differentiate

- **Primary goal**
 - mobility
- **Secondary goals**
 - civic pride, de-cluttered streets, healthier citizens, safety . . .
- **Proxies / KPIs**
 - volume throughput, travel time, ridership, comfort, congestion, traveller costs . . .
- **Constraints**
 - GHGs, system cost, timing . . .

What you measure is what you get

3. Sweat the metrics

- **KPIs often not very “key”**
- **Three tests:**
 1. **do we want *endless amounts* of whatever the index measures?**
 2. **can lots of it be generated by sabotaging other desirable things?**
 3. **is “success” built into the index?**
 - **passenger-kilometers per day?**
 - **riders per day?**
 - **minimum expected wait-time?**
 - **mean trip-time of LRT journey?**
 - **mean trip-time end-to-end?**
 - **consistency of trip-times?**

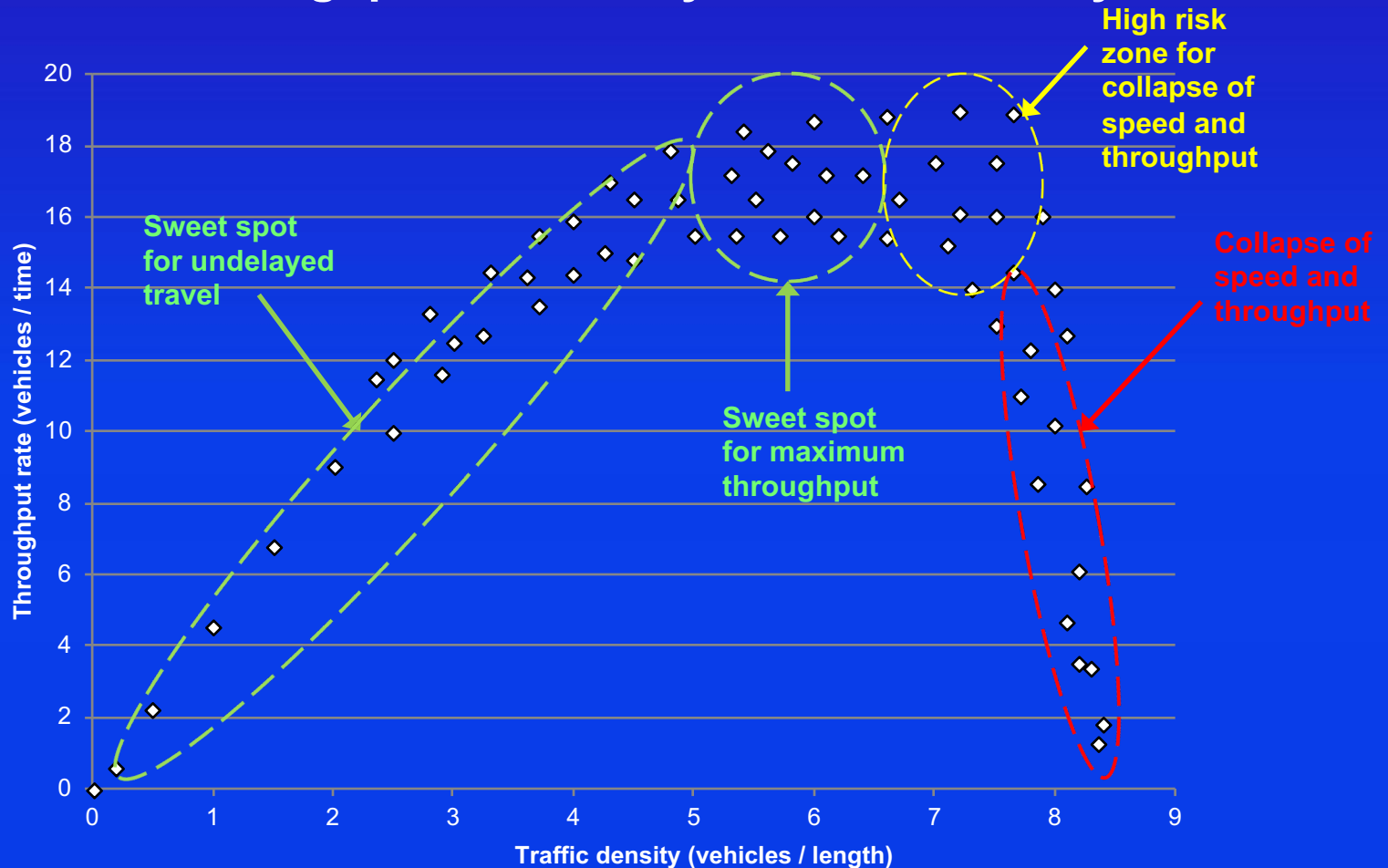
Betting it all on one horse?

4. Complementary measures

- **What else is the city doing to improve mobility?**
 - + **reducing demand for transportation, e.g., by zoning**
 - + **setting helpful regulations, rules for connectivity to other modes**
 - + **removing physical disruptions to flow**
 - + **synchronizing traffic lights**
 - + **reducing variation in speed limits**
 - + **limiting road repairs to off-hours**
 - **spending freed-up capacity on things that wipe out the gains**

5. Dealing with physical reality

- Notional throughput vs. density on a traffic artery



The phenomenon of mobility

6. *Dealing with human reality*

- **What is city's policy response to "induced demand"?**
- **What is city's policy for road tolling, congestion pricing, ramp metering?**

In conclusion

- **Six criteria for enabling success**
 1. **Establish the primary goal**
 2. **Differentiate primary goal | secondary goals | proxies | constraints**
 3. **Sweat the metrics**
 4. **Take complementary measures**
 5. **Deal with physical reality**
 6. **Deal with human reality**