

Transit Fundamentals: Priorities, Trade-offs and Transit that Works for Your City

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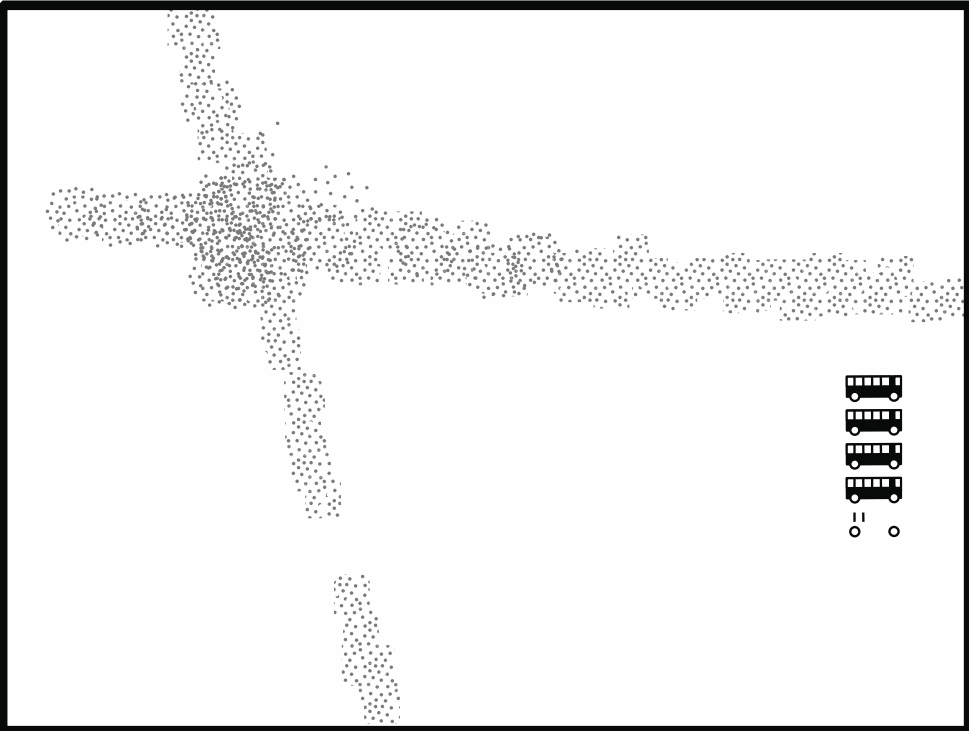
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Three Themes

- Higher ridership, or higher coverage?
- Faster speeds, or shorter walks?
- Collaboration between cities and transit providers

Ridership-Coverage trade-off

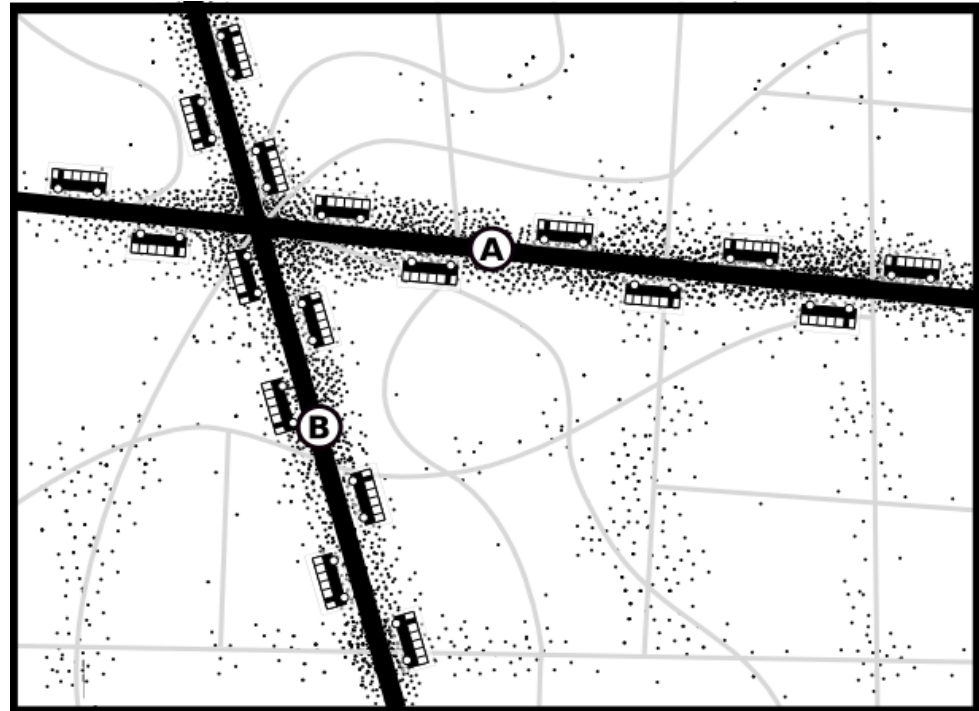
How should a transit agency allocate its resources?



Ridership Goal *“Maximum ridership”*

The straight lines offer density, walkability, and an efficient transit path, so you focus service there.

Because all 18 buses are focused on few lines, waits are short, so many people ride.



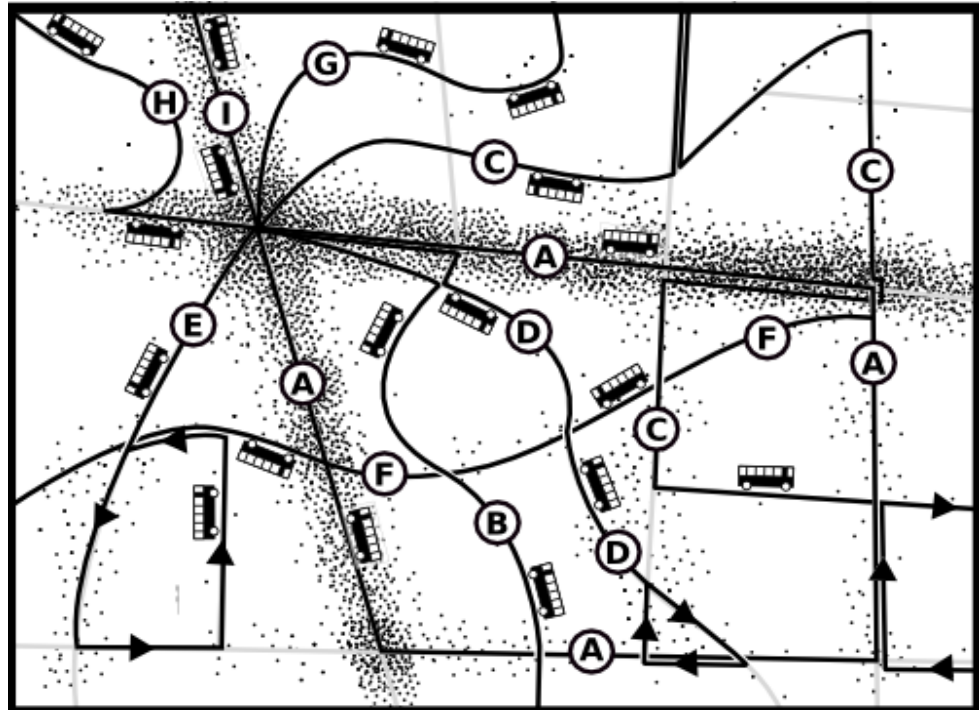
Performance Measure: *Ridership or Productivity*

□ mm³ km mm² gm kg gmm² mℓ mmtmm³ °mm² tkℓ mkℓ kgt

Coverage Goal *“Some service for everyone”*

Think like a government service.
Try to serve everyone, *even those in expensive-to-serve places.*

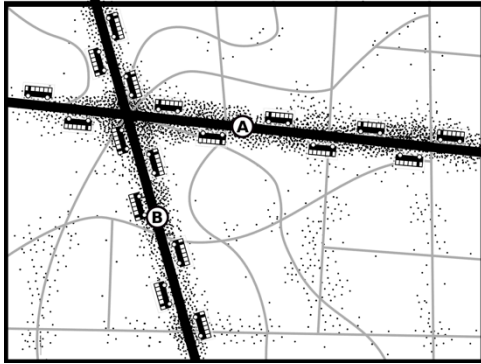
The result is more routes covering everyone, but less frequency, more complexity, and lower ridership.



Performance Measure: Coverage

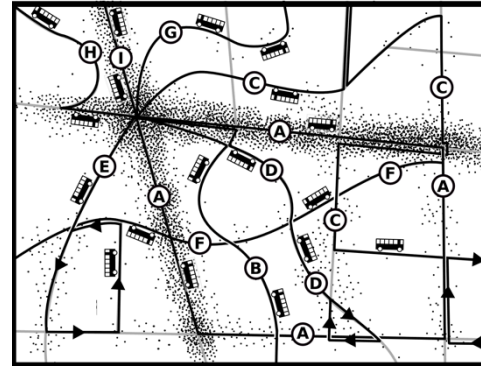
% of population and jobs near some service

Both goals are important,
... but they lead opposite directions!



Ridership Goal

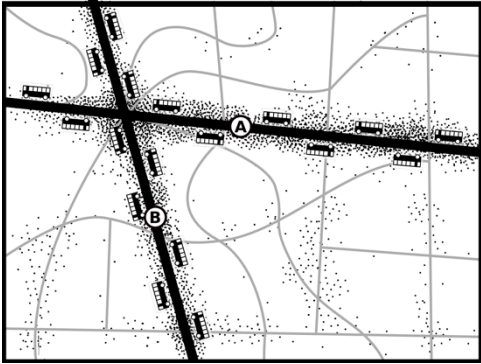
- Support dense and walkable development.
- Maximum VMT reduction.
- Protect economy from congestion.



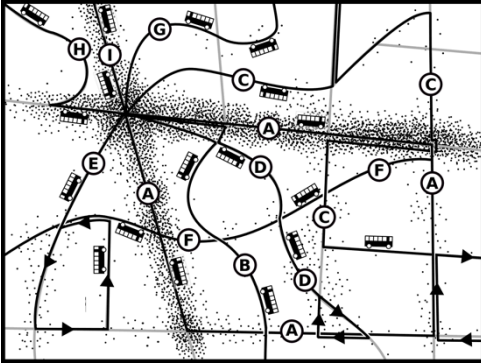
Coverage Goal

- Support suburban low-density development.
- Lifeline access for everyone, no matter where they live.
- Service to every city or electoral district.

It helps to choose a point on the spectrum ...



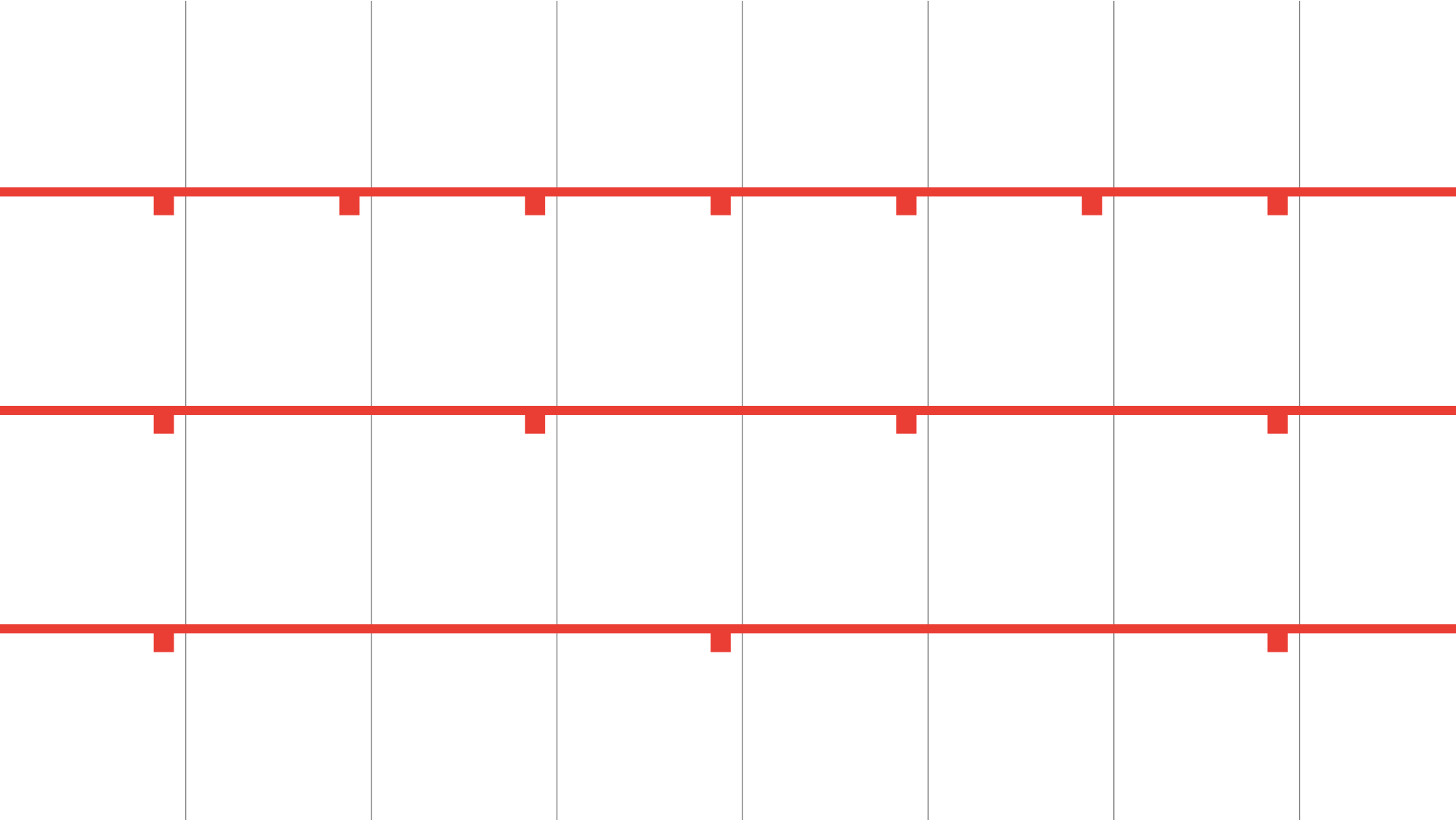
Ridership Goal



Coverage Goal



Fast/close trade-off





Route length \div by speed \div by number of buses = frequency

Speed \downarrow , frequency gets worse

Transit agency's options:

1. Worsen frequency
2. Spend more operating dollars on the (slower) route
3. Cut length off the route
4. Speed up operations!

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