Transportation Post-COVID

Thoughts

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The Big Questions

- Will we have a vaccine?
- And if so, how soon?
- A vaccine lets us “return to normal”
  - The earlier it happens, the less likely major changes occur
  - The longer we go without one, the more likely changes in travel behavior become permanent,
  - Because people have a “new normal” by then

Pre-COVID Conditions

- Urban living was making a major comeback
  - Tech oriented businesses often prefer major urban centers versus suburban office parks
- Our inability to improve suburb-to-center commutes is causing the “traditional” suburb-to-center commute to grow even worse
- This made the traditional suburban land use trade-off less attractive
  - i.e., more land & lower prices in return for a longer commute

Why Urban Centers

- Mix of activities was attractive
  - Many things to do within a short distance
- Especially for younger and older singles and couples (& small families)
  - Easy participation in activities, good access to health care, more attractive than a large house
- Companies liked being in major centers, it allows interaction of employees with their peers (same and different companies)
  - Improved idea generation, cross-team communication

COVID Outcome

- Everyone that can telecommute did
- Large urban employment areas emptied, hurting service jobs
  - Many employees liked not having to commute
  - Where work tasks are clear, telecommuting is fine for productivity
  - Where work tasks are not clear, or where external communication is required, it can be less effective
  - Dense areas highlight ease of spread of COVID 19

The Future?

- At best, many knowledge employees will work from home more often
  - Probably not every day
    - 2 or 3 times per week
  - Hot desks
- Some experimentation on schedules will occur
- Without a vaccine, this could go on quite a long time.
  - With a vaccine, it will be a matter of employer / employee preference

Land Use Impacts

- Less office space required downtown
  - Lower economic activity in urban centers
  - Lower transit use into urban centers
  - Lower freeway congestion (reduced duration of commute periods)
    - Will more people turn to driving, as congestion goes down?
    - Limiting freeway improvements, but not transit loss?
    - Lower air pollution emissions from vehicles?
  - (Not sure about energy use)

The Future?

- Without a vaccine, will people be reluctant to use transit for fear of dense conditions?
  - We already lack the ability to provide seats on buses/trains on many major routes during commute periods
- Initial reduction in driving allowed some cities to re-purpose roads to encourage active transportation
  - If residents take advantage of these modes, and get used to using them,
  - We could see an increase in those modes

Neotraditional Street Layout

Suburban-Style Street Layout

Data

- Electronic transit fare card data
  - Access to micro-mobility usage data???
    - Requires changes to data sharing laws and procedures
- Freeway performance data
  - Loops (in Washington, we are good at this)
  - Private sector vehicle probe data (e.g., NPMRDS)
  - Toll records
- Trip data on employees
  - Will employers share it?

Data

- Electronic device probe data (private sector)
  - Location Based Services (LBS) data
  - Cell phone data

- Can be used to estimate travel time, volume, and OD
  - Quality? Bias?
    - Being tested / improved