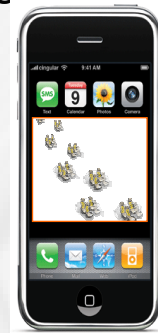


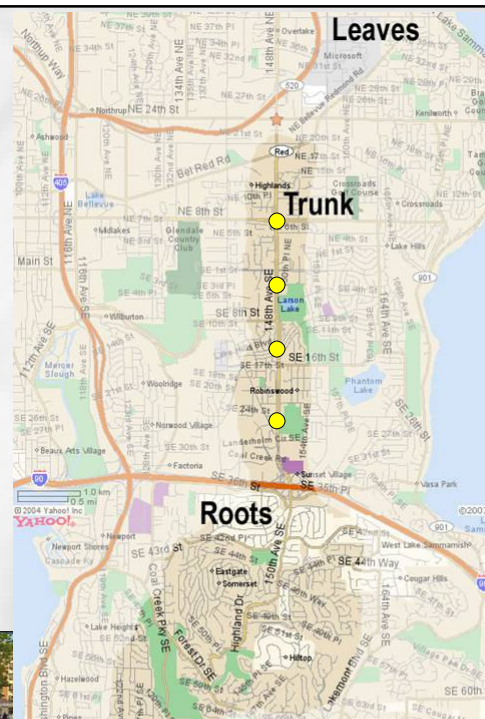
## Instant/Dynamic Ridesharing Industry Status Report

- Duh! Obvious. Fill empty seats in cars
  - If it works, 1000X more cost-effective
- Collaborate to save the climate
  - Web 2.0: low overhead
  - 4 minute good deed (easy)
- IRS: 10 min before, arrange ride
- DRS: 2 days before, arrange.



## Avego O/D for IRS

- Hypothetical system for Microsoft Redmond (Leaves), yellow Avego “stops” on 148<sup>th</sup> Ave. (Trunk)
- Longer commutes (Roots) better for drivers, shorter for riders (Trunk drivers can’t pickup Roots riders)
- MS has “last mile” circulator; ride home is harder
- Ideally “your ride every 5 minutes” comes by on 148<sup>th</sup> Ave.

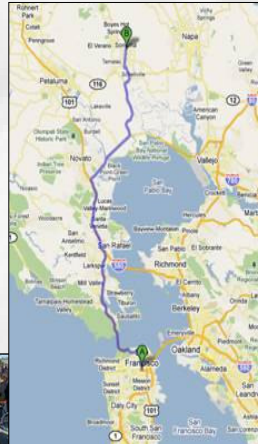
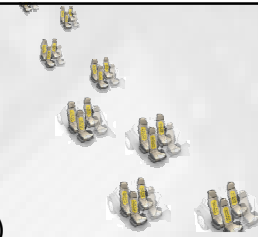


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# Actually, Not Obvious!

- 15 previous failed pilots
- 3 compelling new IRS projects
- SR520 Seattle → Microsoft Redmond (30K)
  - \$400K WSDOT funded, most \$ for incentives
- Santa Barbara: IV to SBCC (6K students)
  - FHWA VPPP. ~\$175K-ish
- 101 Sonoma → Golden Gate → SF
  - MTC Climate Innovations pgm (by Cities21)
  - \$1.5M. 3 counties: Sonoma, Marin and Contra Costa
  - Software RFP later this year
- Addl Federal FHWA VPPP funding (5?).

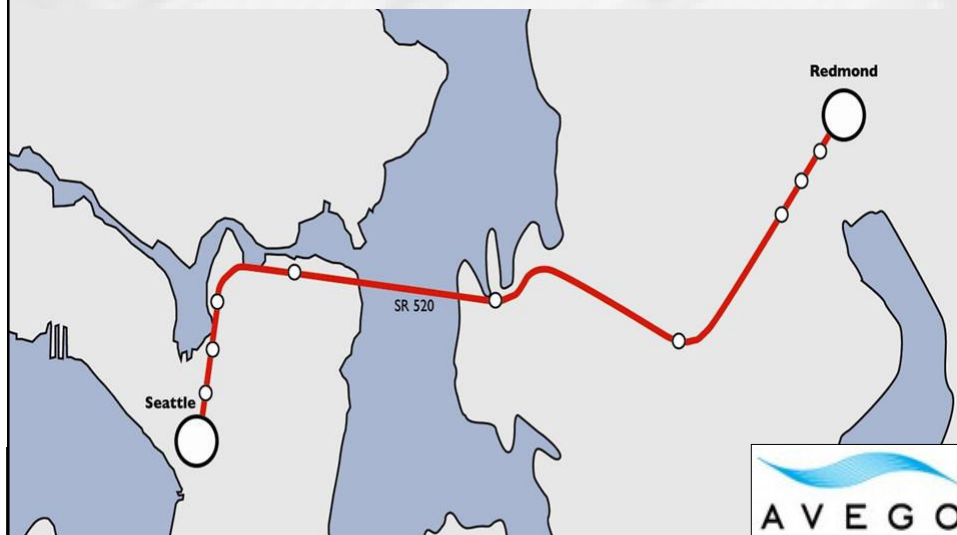


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## Seattle: SR520 to Microsoft

- 250 drivers, 750 riders. “Warm up” starts Jan 27.



# Santa Barbara



- Isla Vista to SB City College – 13 mi
  - iPhone college generation, trusting socially
- Great first & last mile situation. Students walk
- Working on ConOps, then software RFP.

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## Have to “raise our game”



- Test “operational concepts” on skeptical experts (MPO TDF) who know history
  - Tough love: “That’s a stupid idea” is kinder
  - 15+ past failed pilots would not have passed
  - Need transportation analysis, not wishful thinking
- Don’t re-implement past mistakes
  - Each pilot should argue: 20% better than past failures
- Quantified objective: 250d + 750r a) 200 rides per day for 1 week, b) 200 rides w/ lower incentives, c) word-of-mouth organic growth.

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## ConOps “success case”

- Confirm large TAZ-level O/D flows
  - SR520: Nelson N. & KC Metro “gut”
- 250d + 750r – pick sample of 1K SR520 MS worker addresses along 520 corridor. Assign drivers & riders, then simulate the system
- Stranger Danger is well-addressed by the Invisible Hand (but risk-averse public sector needs detailed explanation in ConOps).



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## ConOps success case (cont)

- Travel utility =  $f(\text{travel time, travel cost, travel experience \{hassle, stress, comfort, entertainment value\}, parking hassle, parking cost, reliability})$  –  
util SOV < HOV: Bay Bridge, slugging
  - Make a case for your incentives
  - Driver incentive: \$1 + \$0.20 per mile from rider
  - Large startup incentives (6 mos): \$25/mo gas card
- Smartphone penetration:
  - SR520: Windows Mobile (for MS), Droid, iPhone.



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## ConOps success case (cont)

- Day 1 scale (if you try for ride twice & fail, done)
  - Goal: “your ride” every 5 minutes
  - SB: Forgoing Phase 1 hard-core group of 20 working ahead of Phase 2 Day 1, will help recruit Phase 2
    - Pizza parties, training, evangelization
    - OK TO CHEAT TO GET CRITICAL MASS
  - Conversion: if vanpooling tried twice, 72% stick
- Integration w/ other modes
  - SR520: vanpools, transit, MS lobby displays.

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## Thank You

- Steve Raney, [cities21@cities21.org](mailto:cities21@cities21.org)

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# US Carpooling



- 12M US carpoolers
  - 10M within the same household
  - Handful carpool with strangers
- US 2020 market: 15M new carpoolers
  - CA SB375: higher driving price
  - \$7/gal gas (Europe, Asia) motivates
- Some other countries have hitching culture
- Travel utility = f(travel time, travel cost, travel experience {hassle, stress, comfort, entertainment value}, parking hassle, parking cost, reliability)

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# SF Bay Bridge Casual Carpooling

- Solo drive “friction:”
  - bottleneck
  - \$\$, scarce dntn SF parking
  - 15 min HOV savings
  - bridge toll savings
- Enablers:
  - transit for ride back (no stranding)
  - “poachable” bus stops in Oakland
- Social protocol: talking, NPR, windows
- DC slugging (HOV3 only) also successful.



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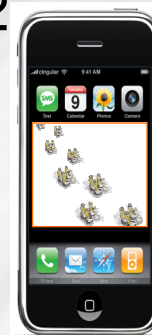
# Safety Fear

- Casual carpooling is safe, but ...
- Axe murderers? Sensationalized
  - Hitchhiking is anonymous, iPooling is not
- Start: Rides w/i social/work network
- Avoid 1 male, 1 female
- Reputation rating
- PIN code & photo to verify ride
- Police background check
- Big Sister: “home safe” GPS tracking.



# Seattle to MS Secrets 2

- Narrow corridor, not wide area
  - Large, narrow commute flow (critical mass)
- WSDOT I520 bridge construction
- Human infrastructure (TMAs) in place
  - Microsoft is involved



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## Seattle to MS Secrets 3

- Smartphones: Windows Mobile (for MS), Droid, iPhone
- Day 1 scale (if you try for ride twice & fail, done)
  - Pilot group (drivers/riders) working ahead of Day 1
  - Conversion: if vanpooling tried twice, 72% stick
- In MS lobbies, display real-time transit & Avego
  - Also integrated with 65 existing vanpools
- Safety: police & driving record check
- First adopter, tech savvy demographic.

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## How iPooling Rides Work

- Commuter drives route with designated “stops”
  - A bit like a bus driver
- Riders walk from home to stops for pickup
- Smartphones coordinate match making and rendezvous. Cloud payment.

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