

In the race to reduce greenhouse  
gas emissions from transportation,

there is no **SILVER** bullet



but **RIDESHARING** looks pretty **SHINY!**

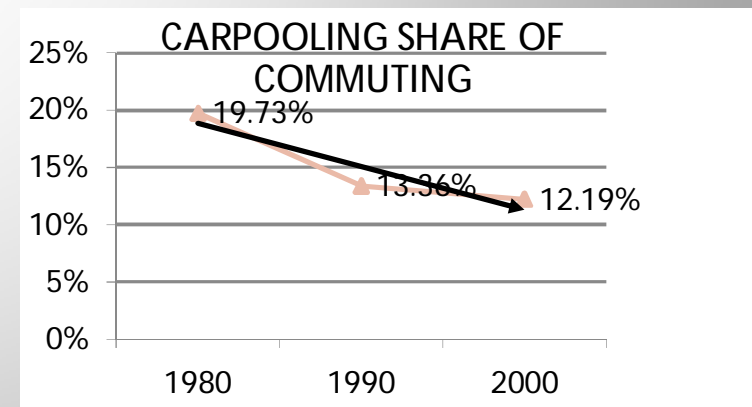
A GREEN paper from Trip Convergence, Auckland, New Zealand

## Ridesharing Improves Livability

- Reduces number of vehicles on the road
- Reduces GHG emissions and fuel consumption
- Increases opportunity for social interaction
- Reduces need for 2-3 car families
- Leverages existing infrastructure
- With a new vision, can integrate with transit
- Can be neighborhood solution

## Barriers to More Ridesharing

- Inconvenience finding rideshare partners.
- Time wasted gathering riders.
- Collective inability to imagine a ridesharing solution that solves the first two barriers.
- The trend.



Source: A Pizarski

# Research Question:

What Combination of Systems,  
Technologies, Cultures, and  
Rewards Does it Take

To Bring About A  
Quantum Increase In  
Ridesharing?

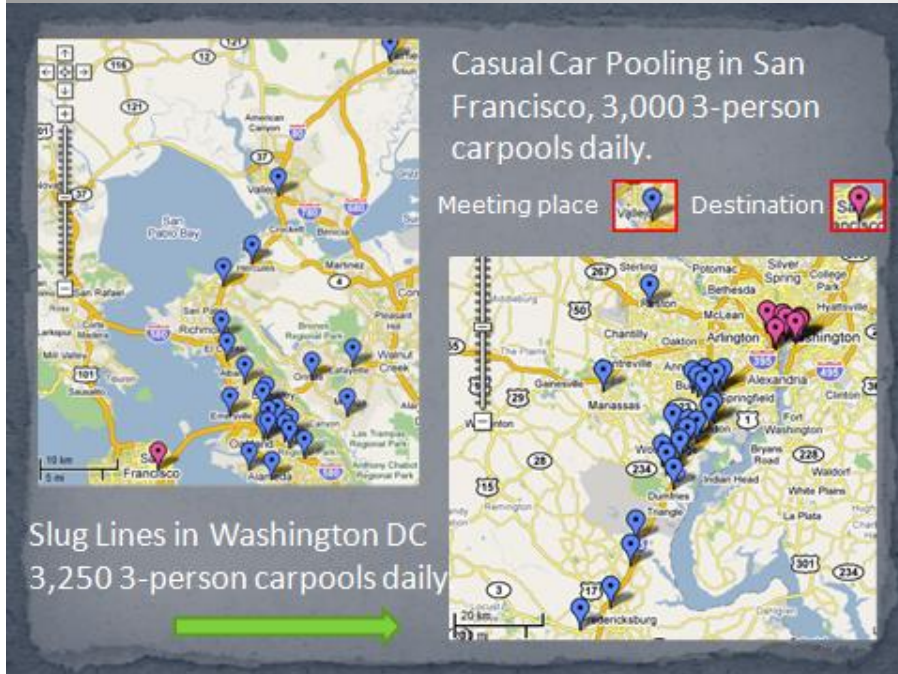
## Casual Carpooling /Slug Lines

- Most successful carpooling system in the world
- Not work-place based
- Not internet based
- Meeting-place based, rides not pre-arranged
- 20,000 daily users in 3 US cities
- Pre-established routes
- Three people per car
- Operating since the 1970's
- People or cars line up, share with next in line
- Organic, confounds conventional wisdom

## Why Casual Carpooling Works

- Simple to find rideshare partner (solves barrier 1)
- Minimal time collecting riders (solves barrier 2)
- Money and time saved by carpoolers
- Given that there is a desire to carpool, and assuming 'sufficiently safe':  
Assembling at a meeting place has a lower cost (effort) for both riders and drivers than any system with trip-by-trip pre-arrangement

There are many casual carpooling and slugging routes (see map). There are also some routes in Houston. But it is only in these three cities.



We estimate that it saves over 3 million gallons of gasoline per year.

But, it has reached a plateau and this universe is not expanding 'as it should'.

## Research Sub-Question:

What Combination of Systems, Technologies, Cultures, and Rewards Does it Take To Introduce Casual Carpooling to a New Location?

What Will It Take To Catalyze New Routes?

## Response to Moving Cooler

- Potential for ridesharing is significantly understated
- Cost at \$80 per ton CO<sub>2</sub>e reduced is based on 1990's methods and is significantly overstated
- Increasing average occupancy multiplies impact of all other strategies
- Metric s/b GHG per traveler, not per vehicle: using per vehicle ignores potential of shifting mode
- Report focuses on technology shifts with long time horizons
- Social science research approach to make carpooling more flexible has faster impact
- Every million added carpoolers saves 1 billion gallons of gas/yr
- Carpooling is low hanging fruit
- Barriers are correctly identified as:
  - Inconvenience finding carpool partners
  - Time to gather riders
- These barriers can be overcome
- Example is casual carpooling/slug-lines
- Report (and conventional wisdom) lacks belief in potential for overcoming these barriers
- A small amount of applied research (pilot projects) could release enormous potential, and early

# Suggestions for Reauthorization

- Fund Establishment of Ridesharing Institute  
See: <http://ridesharinginstitute.wikispaces.com>
- Fund Applied Research for Ridesharing: \$50 million over 3 years
- Focus on Emerging Ridesharing Solutions
  - Flexible Carpooling
  - Dynamic Ridesharing
- Fund Ongoing Ridesharing Support at Equal (per user) to Transit
- Enable Payment of Incentives to Ridesharers
- Set Targets for Rideshare Mode: Double by 2020

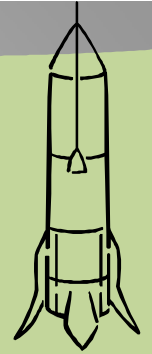
# Trip Convergence

- Start-up ridesharing solution provider
- Solution is 'ridesharing without trip-by-trip pre-arrangement': formalizing the slug-lines/casual carpools
- Progress:
  - UC Davis Exploratory Analysis
  - TRB Transit IDEA, Flexible Carpooling to Transit Stations feasibility study, Seattle
  - Flexible Carpooling Pilot Project, Seattle
- Mission: Making it Easier and More Rewarding for People to Share Rides

Contact: [paulminett@tripconvergence.co.nz](mailto:paulminett@tripconvergence.co.nz)  
Phone: 206-631-9702

# A Space Program For This Decade

Targets: Reduce VMT, Improve Efficiency, Reduce GHG, Save Energy, Save Time  
Double HOV Mode-Share by 2020 (15 million new ridesharers)



## ◇ Road Space Program ◇

- Casual carpooling shows the way
- Flexible carpooling builds on casual carpooling
- Dynamic ridesharing plays its part
- Create the Ridesharing Institute to drive an applied research program
- \$50 million over three years