

TOOLS OF CHANGE WEBINAR

SLUGGING IN DC (AND ELSEWHERE)

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PART I: Slugging - Background

- History of Slugging
 - What is "Slugging"
 - How it Works
 - How it all Started
 - The Very First Slug Line
 - The Term "Slugging"
- Advantages to Slugging
- Etiquette and Rules
- Map of Locations
- Slugging Elsewhere



What is Slugging

- "Slugging" is a term used to describe a unique form of commuting found in the Washington, DC and Northern Virginia.
- Also known in other areas as:
 - "Instant Carpooling"
 - "Casual Carpooling"
 - "Flexible Carpooling"
 - "Dynamic Rideshare"
- It is unique because carpools are created "on the fly" and the commuters are generally total strangers.

How it Works

- Slugging occurs only during the High Occupancy Vehicle (HOV-3) restricted hours along I-95/395
 - Northbound 6:00 a.m. to 9:00 am
 - Southbound 3:30 p.m. to 6:00 p.m.
- A driver needing additional passengers to meet the required HOV-3 (3-person minimum) requirement, drives to a slug line.
- The slugs (passengers) join the driver to create an "instant carpool" of three occupants to meet the HOV-3 requirement

How it Works

- Destination is "pre-arranged" based upon the slug line itself
- No money is exchanged
- No conversation (unless initiated by the driver)
- Driver drops off slugs at the destination

Slugging is based upon the use of the faster HOV-3 lanes along I-95/395 and **saves the commuter 1 - 2 hours each day** in reduced commuting time.

How it all Started

- Slugging can trace its roots back to the Arab oil embargo of the 1970's.
- During this era, gas prices soared and it became apparent that the United States was dependent on foreign oil.
- In an attempt to reduce its dependence on foreign oil, the United States adopted a number of measures to curb gasoline consumption:
 - Speed limits were reduced from 65+ m.p.h. to 55 m.p.h.
 - Car manufacturers were told to make cars more efficient
 - **High Occupancy Vehicle (HOV) lanes** were constructed. These lanes were for vehicles with more than three occupants. The benefit for the government was twofold:
 - reduced gasoline consumption
 - environmental benefits.

The Very First Slug Line

- When the HOV lanes on Shirley Highway (I-395) opened to carpools in 1975, the first slug lines began to emerge. With the high occupancy lanes being strictly enforced, drivers had to abide by the HOV-4 rule (later changed to HOV-3) or pay stiff fines.
- When a driver or carpool did not have enough passengers for the HOV-4, they had two choices:
 - Drive in the congested I-95/395
 - Get more passengers to use the HOV lanes
- Drivers started pulling up to a line of commuters waiting for the bus and offer a ride to anybody in the line.

The Very First Slug Line

- The bus rider had two choices:
 - Wait in the summer heat or winter cold for a bus that could be late or full to capacity
 - Accept a free ride to their destination
- Soon word began to spread as drivers found an **easy solution to meeting the HOV requirements**, and bus riders found a faster, cheaper alternative to the bus.
- According to a study by the Urban Institute in 1989, slugging existed in only one location in Springfield, VA. at a place known as "Bob's" (which referred to a line adjacent to Bob's Big Boy restaurant).

Where Did the Word "Slug" Come From?

- The term "slug" originated from bus drivers as a derogatory term. It is not derived from the word that means *mollusk*.
- Bus drivers were warned about counterfeit coins (also known as *slugs*).
- When slugging first emerged, the slugs stood at the bus stops waiting for a driver to pick them up.
- Bus drivers would stop to pick up passengers, but many would not board. They were waiting for the free drivers.
- Bus drivers began recognizing the real bus riders from the counterfeit riders or fakes riders (slugs) standing in line.
- Bus drivers began calling the non-riders: "slugs"

Advantages

- It's free
- Faster than public transportation
- Flexible hours (within HOV hours timeframe)
- Not tied to a carpool schedule or obligations
 - Do not take turns driving
 - Do not have to coordinate with anyone if your schedule changes
 - No timeline pressure
- Option to use other forms of transportation (slug to work, bus home)
- Good for the environment
- Reduces congestion by removing cars from the roadway

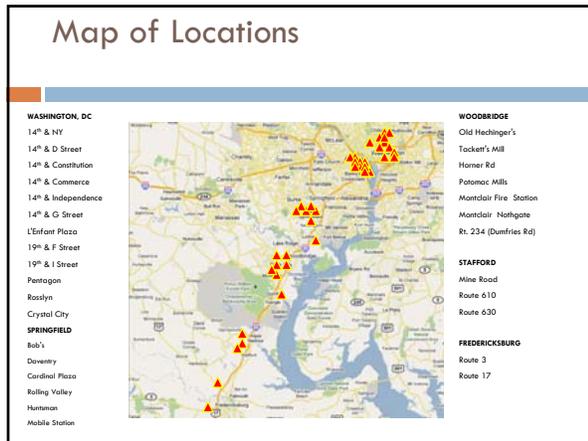
Etiquette and Rules

- First Come - First Served.
- Slugs do not talk during the ride.
- No conversations of religion, politics, or sex.
- No money, gifts, or tokens of appreciation are ever offered or requested.
- Do not use cell phones.
- Do not leave a woman standing alone in the line.
- There is no smoking or eating by the driver or slug.
- Slugs do not ask to change the radio station or adjust the heat or air conditioning.
- Normally, the slug does not open or close the window.

Etiquette and Rules

- No "curbside" service
- Drivers should not "stop short"
- Slugs have the right to pass or forfeit a ride if they do not like a particular car
- No "Body Snatching"
- Will Call is acceptable
- Wear Seat Belts
- Avoid Personal Hygiene Care

Consideration for others is the common theme for the rules.



- ### Slugging Elsewhere
- **San Francisco, California**
 - Called "Flexible Carpooling".
 - In the East Bay area there are numerous morning meeting locations.
 - Drivers drop passengers off at Fremont and Mission Streets (or nearby) in downtown San Francisco.
 - Estimated that 6,500 people use this form of commuting daily.
 - **Houston, Texas**
 - Called "Casual Carpooling".
 - Occurs in three locations: Kingsland and Addicks Park-and-Ride lots (on I-10 west of downtown Houston) and the Northwest Station Park-and-Ride lot located on US 290 (Northwest Freeway) northwest of downtown Houston.
 - Each park-and-ride facility is used primarily for transit and offers direct-connect ramps to a barrier-separated HOV lane.

- ### Slugging Elsewhere
- **Seattle, Washington**
 - Called "Flexible Carpooling".
 - The Auckland carpooling firm Trip Convergence Ltd was offered a contract by the Washington State Department of Transport (WSDOT) to implement its innovative flexible carpooling system in the Seattle Region.
 - 200 workers at Seattle's SeaTac airport, who live near Federal Way to the south of Seattle were to use flexible carpooling to get to work each day.
 - The fuller cars will be able to use the carpool lane on the I-5 to make the 12 mile journey more quickly.

PART II

2008 Slugging Survey: Who Slugs and Why? & Implications for Expanding and Improving Slugging

- ### Research Purpose
1. To learn more about who slugs and why they do it
 2. To create a profile of "the typical slug"
 3. Identify conditions that promote slugging
- Because...
- Slugging gets a lot of attention from the mass media but very little solid research/data collection has been done on the subject.
 - Slugging is beneficial in many ways and it behooves us to know more about it.

- ### Relevance to Transportation Planning
- Slugging is a viable transportation option for thousands of D.C. area commuters
- Slugging's Benefits:**
- Fewer cars (≈ 66% fewer)
 - Less pollution
 - Less congestion
 - Lighter public transit burden
 - Happier commuters
 - Time and cost savings for participants
 - A beautiful system- the antithesis of "road rage"

Northern VA Slugging Case Study

Data Collection:

- 30 question online survey
- 285 responses over a 1 month period (August-September 2008)
- Recruited slugs and drivers through:
 - ▣ Slugging website (www.slug-lines.com)
 - ▣ In-person at slug lines
 - ▣ Slugging List-serves (Yahoo E-Slug)

Early Assumptions/Hypotheses

- Women will slug less due to safety concerns
- Most participants will be in the risk-taking life phase (young, single, childless, earn less)
- Those who participate as passengers will have lower incomes than drivers
- The participation of (uniformed) military personnel will be important for safety
- It will be the last choice or only transportation option for many participants

Survey Findings

Participants:

- DRIVE for reasons of TIME.
- RIDE for MONETARY reasons.
- Overwhelmingly Slug roundtrip (85%)
- 42% have been slugging for 5 or more years (and 20% for less than one year)

Survey Findings

Slugging Participation Breakdown

Role	Percentage
Passenger	60%
Driver	12%
Both	28%

- 60% of respondents estimate they save more than 30 MINUTES per day by slugging.

Where Slugging Participants Live

□ Most popular home zip-codes 22192 (70) and 22193 (58)

Survey Findings

Favorite aspects of slugging (in order):

1. Time savings
2. Gas/Parking savings
3. Flexibility
4. Benefit to environment

Least favorite aspects of slugging (in order):

1. Waiting in line
2. Possibility of not having a ride
3. Exposure to the elements
4. Riding with strangers

Survey Findings

Demographics:

- **Education:** 80% of respondents report at least a bachelor's degree
- **Age:** 60% of respondents are 35-54 years old
- **Households:** More than 60% of respondents live in households with 3 or more members

Survey Findings

The "Typical" Survey Respondent:

- Is equally likely to be a male or female
- Slugs for time savings/flexibility (drivers) or money savings (passengers)
- Slugs roundtrip
- Lives in Prince William County
- Works in east or south-east Arlington or near the White House in Washington D.C.
- Has been slugging for several years
- Uses slugging as his/her primary daily method of commuting

Survey Findings (continued)

The "Typical" Survey Respondent:

- Saves at least 30 minutes and \$10 per day by slugging
- Lives within 15 minutes of his/her morning slug line and works within 10 minutes of slugging drop-off point
- Is educated to a Bachelor's level or higher
- HH income > \$100,000
- HH size of 2-4 persons
- Works for the Federal Government
- Is between 35-54 years of age

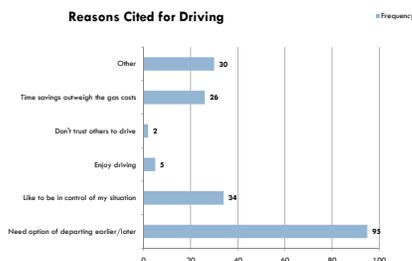
A Recipe for Slugging Success

Theory: Slugging systems need the majority of the following characteristics in order to succeed:

- HOV-3 or greater vehicle occupancy restrictions
- Strict enforcement of HOV laws
- Large numbers of commuters living and working together
- Long commute times
- Convenient transportation alternatives
- A choke point to eliminate substitution

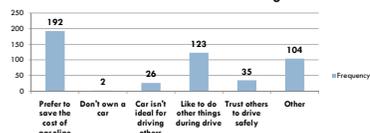
Survey Findings

Reasons Cited for Driving

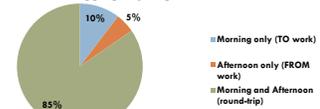


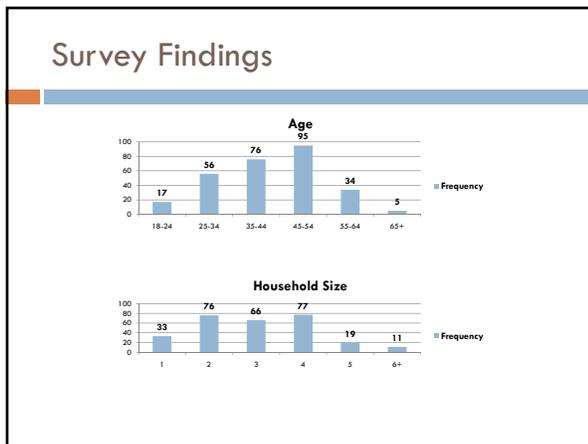
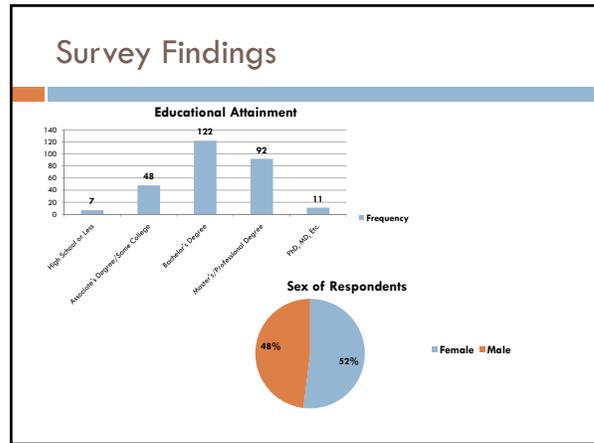
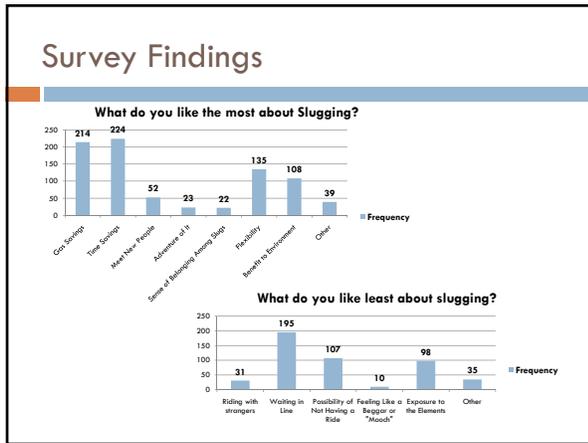
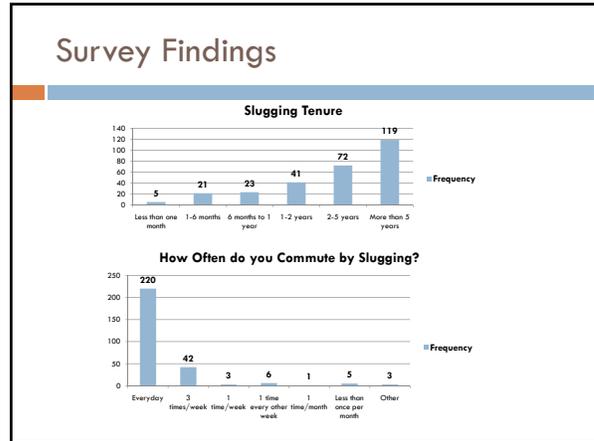
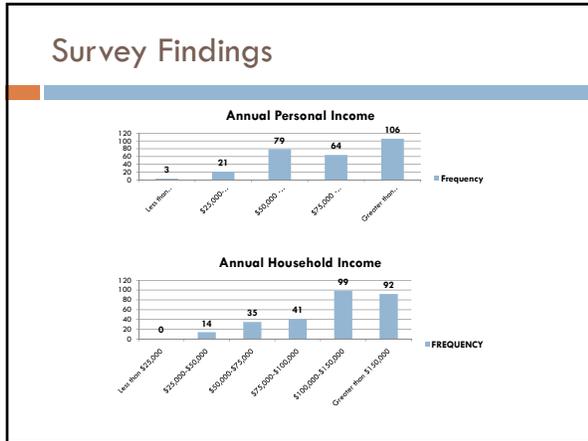
Survey Findings

Reasons Cited for Not Driving



Slugging Trip Segmentation





Further Information

- David's slugging website: www.slug-lines.com
- Marc's full research report: http://www.commuterpage.com/research/study_list.asp?jobID=Oliphant001&studyID=117