

Casual Carpooling: Slugging in D.C.

February 9, 2010

Webinar Transcript





Landmark Designation

The program described in this case study was designated in 2009.

Designation as a Landmark (best practice) case study through our peer selection process recognizes programs and social marketing approaches considered to be among the most successful in the world. They are nominated both by our peer-selection panels and by Tools of Change staff, and are then scored by the selection panels based on impact, innovation, replicability and adaptability.

The panel that designated this program consisted of:

- Danny Albert, University of Ottawa's Parking and Sustainable Transportation Department
- Daniel Coldrey, Transport Canada
- Mark Dessauer, Active Living by Design
- Catherine Habel, Metrolinx
- Jacky Kennedy, Green Communities Canada
- Jessica Mankowski, Federation of Canadian Municipalities
- Gary McFadden, National Center for Biking and Walking
- Lorenzo Mele, Town of Markham
- Chuck Wilsker, U.S. Telework Coalition
- Phil Winters, University of South Florida
- JoAnn Woodhall, Translink

This transcript covers a webinar held on Tuesday Feb. 9, 2010. Additional materials about Casual Carpooling: Slugging in DC can be found at <http://www.toolsofchange.com/en/case-studies/detail/650/>.

Introduction by Jay Kassirer, Culbridge Marketing and Communications and Tools of Change.

Today's case study was designated a landmark case study by our peer selection committee (members of the committee are listed at the end of this transcript). When scoring alternative case studies, the committee took into account individual and overall impact, innovation, replicability to other locations, and adaptability of the approach to other behaviors.

The committee was particularly impressed by this project's innovation, the fact that it is community-driven, and the high potential impact where suitable conditions exist. As one panel member noted in the evaluation comments, "Some say that the single greatest wasted transportation resources are all the empty seats in private automobiles. Learning how to increase carpooling, including casual carpooling, is a worthwhile endeavor." At the same time, the committee noted some concerns, including liability and safety concerns, and replicability to other, smaller locations – less-congested locations – places where there aren't HOV lanes, which our speakers will, hopefully, address in the presentation today.

This project is useful not just in looking at slugging, or in casual carpooling, but also in learning more about how we promote carpooling overall. In particular, to provide some fresh thinking on the use of time and financial incentives, as well as how to reduce the key barriers related to safety and liability.

Our first speaker is David LeBlanc. David LeBlanc is the author of *Slugging: The Commuting Alternative for Washington D.C.* and the webmaster for Slug-Lines.com. He is recognized as a leading expert on slugging matters, and has been advocating this unusual form of transportation as a cost-effective way to reduce congestion for over ten years. David LeBlanc has appeared on national and international television and radio programs such as CNN Headline News and the British Broadcasting Company, advocating slugging. His interviews with television and major newspapers have appeared coast to coast, such as the *CBS Evening News*, *The New York Times*, *The Washington Post*, *The Washington Times*, *The Atlanta Journal-Constitution*, and numerous others.

David LeBlanc, author *Slugging: The Commuting Alternative for Washington D.C.*

It truly is an honor for slugging to be selected as a landmark case study. I want to thank Cullbridge and the Tools of Change for hosting this webinar, and hopefully, we can get the word out on how casual carpooling can be replicated in other areas because it truly is a great system of carpooling, and it actually has changed my life.

To get started, the purpose of today's webinar is to discuss how we do slugging or casual carpooling here in the Washington D.C. area. I first became involved with carpooling and slugging in the D.C. area back in 1997. Before I moved here, one of the main concerns in this area was transportation, the congestion on the roads. Transportation is a major decision on where you live and how you're going to get to work. I had heard about slugging from a coworker and he basically described how the system operated. The main idea is that you're getting into a car with total strangers to carpool into work. I had the same reaction that many people do, which is, "That violates everything your mother has taught you as a child about getting in the car with strangers." So before I even came to D.C., I had already dismissed carpooling as a way for me to get to work.

How slugging works

I'll start with a little bit of the background of slugging: what it is exactly and how it works. [Slide] You can see on this slide how it got started, the very first slug line, some of the terms and words we use during the slugging process. I'll go through some etiquette and the rules. It's interesting that even though it's a completely unregulated form of transportation, it really does have a clearly-defined set of rules and the etiquette. Nobody is in charge, but yet, everybody is in charge at the same time. I'll also show you a map of where the slug lines exist, and then we'll discuss how slugging or casual carpooling has spread elsewhere.

The term "slugging" itself is a unique term that is only used here in the D.C. and Northern Virginia area. In other areas it's called casual carpooling, instant carpooling, flexible carpooling, or dynamic ridesharing. They're all describing the same thing: carpoolers get together and create carpools on the fly. Some people have described it as a taxi stand for carpoolers, or people join together at designated locations and that's how they form the carpools.

In D.C., slugging revolves around the high-occupancy vehicles lanes, the "HOV-3" lanes [3 people per car] are dedicated lanes. We used to have HOV-4 lanes [4 people per car] when we first started. In other words, there are very discrete entry and exit points. In some areas, we have HOV lanes that are just a diamond in the road, and cars can slide over to the HOV lane and then slide back out. Along the I-95-395 corridor, there are very discrete entry and exit points. Two lanes will go northbound in the morning, and then southbound in the evening. Slugging only occurs during those restricted HOV hours. If you try to slug beyond 9:00 a.m., the slug lines evaporate. You can't find a slug. Earlier than that, let's say before 6:00 a.m., you can actually find slugs because the commute, in some cases, takes 30 or 45 minutes to an hour. Slug lines begin to form around 5:30 a.m. and sometimes earlier depending on the location. Anyway, for the purpose of the slugging, it only occurs during peak HOV-3 hours.

If a driver needs either two more occupants to make the HOV-3 lane, or if a carpool has somebody absent from the carpool that day, the driver drives up to a predetermined slug line. The slug (the passenger) hops in the car and they now make the HOV-3 requirement so off they go. The lines themselves are pre-arranged so that determines which slug line to get into and which cars will pull into which line. Different locations in a commuter lot go to different places. For example, the slug line next to the bus stop [slide] goes to the Pentagon; the one on the corner [slide] is the one that goes to a different destination.

Once somebody gets in the car, there's no money exchanged. No conversation. Sometimes, the driver will initiate a conversation, but for the most part, it's all done in relative silence. Once you arrive at your destination, the slugs – the passengers – get out and that terminates the casual carpool. Just like the slug lines themselves, it's understood where particular destinations are and which areas you can get off anywhere between the slug line and the final destination.

Because the slugging itself is based on HOV-3 it saves me, for example, one to two hours each day. I normally slug. I drive to a commuter lot, which is about three miles from my house. If I were to drive as a single-occupant vehicle along I-95, all the way to work, it would take me probably an hour or maybe an hour and a half to get into work, and the same amount of time in return. If I drive to the commuter lot and use the HOV-3 lanes, from the commuter lot to the front door of my office in Crystal City, it's about a 30- to 40-minute commute. Each way I save anywhere from 30 minutes to 45 minutes, maybe an hour. I had a lady that e-mailed me not too long ago, who had never tried slugging, and after her first time, she sent me this wonderful e-mail about how, for the first time in many years, she was actually able to have dinner with her family because normally, driving the I-95, she didn't get home until a little after dinnertime. For her, it was a real quality-of-life change.

History of slugging

Slugging originated back in the early 1970s, shortly after the oil embargo that led to huge lines for gasoline. It was during this era that the government decided that they needed to reduce their dependence on foreign oil. In an attempt to do that, they created the Shirley Highway, which was an HOV lane. In conjunction with that, they also tried to reduce the speed limit and asked car manufacturers to be more efficient. Since the HOV lanes were designed for more passengers in a car, the government was going to get the benefit of reduced consumption of gasoline. There were some environmental benefits as well. For the individuals using the HOV lanes, they had the added advantage of using high-speed lanes to get into work. Time was a major factor, and of course, if you're riding and you're sharing the expense, it's a cost savings as well.

Shortly after they started the HOV lanes, the first slugging started to emerge. The Shirley Highway, along 395, originally was HOV-4 (4 people in the car) and designed for buses

and other forms of mass transportation. In 1975, they opened up the lane to carpooling and vanpools. Eventually they reduced it from HOV-4 to HOV-3. When drivers in carpools or vanpools didn't have enough people to get into the HOV lanes, they really only had a couple of choices. Either they drove the 395 or the I-95 lanes, which were very congested, or they had to get another occupant to make up the HOV requirement. Drivers started pulling up to bus lines and asking if anyone wanted a ride to, for example, the Pentagon. As a bus rider, you were faced with the idea of either waiting for the bus, and paying the \$4.50 or \$5.00 fare, or jump in the car. Because most people have consistent commuting patterns, it didn't take long before word spread. People in the bus lines soon realized that by hopping in a car they could get to work faster and for free.

The first known slugging location was a place called Bob's, after a nearby Bob's Big Boy restaurant. Bob's was right across the street from a bus line. People started saying: "Hey, if you needed that extra person to round out your carpool, go to Bob's." There was a study done in 1989 by the Irving Institute that recognized the Bob's slug line. Although the study doesn't say exactly when it started, it did say that it was the first formal line that they were aware of.

The word "slugging" itself is interesting. There have been a number of times when people have tried to change the term to one of the more descriptor terms like casual carpooling or dynamic ridesharing, but those names never stuck. Slugging has stood the test of time. The word actually originated from, not a slug or a snail, but with bus drivers. Bus drivers were warned about watching for fake tokens put into fare boxes. Bus drivers would pull up to the bus line, and of the ten people left standing in line, let's say only four or five got on. Pretty soon even more people weren't getting on the bus than did. The bus drivers began to recognize the people standing in the line (sometimes, they would separate themselves away from the bus line) and could differentiate between the real bus riders and the others (the "fakes" or "slugs"). So the word itself, "slug," was a name given to the people who stood in the bus line but who weren't actual bus riders.

Benefits

There are so many advantages to slugging. It has really changed the way I commute. One of the reasons is that it's free, which is a significant benefit. If I were to take the bus to work each day, it's \$4.50-\$5.00 on a fare each way. Let's say \$10 a day to take the bus. If I drove my vehicle on the I-95, it's about a 35-minute or 35-mile journey. If you do the math, at 25 miles to the gallon, a couple of gallons to get to work, plus parking fees, the wear and tear on your vehicle, it certainly adds up very quickly. Although money is one aspect, the real driving factor for a lot of slugs is that it's faster than regular a single-occupant vehicle and it's faster than the regular bus.

One of the driving factors for me was the flexibility. I can join a slug almost anytime in morning, from about 5:30 to 9:00 a.m. That appealed to me. I had been involved in carpools before, but the problem with the traditional carpool is that it is generally a set

time with set occupants. If I had the rare opportunity to leave work early, I was tied to a carpool so I couldn't take advantage of leaving work early. If I did leave early anyway, I felt guilty because that inconvenienced the carpool and now, the carpool had to find somebody else to take my place. Of course, on the other side, if I had to work late, and my meeting ran over time, that meant that I was inconveniencing the carpool once again because I couldn't leave. They either had to wait for me or they had to find somebody else.

Slugging resolved all of that for me. I could come and go as I wanted. I didn't even have to be going to the same destination. If I knew I had a meeting in downtown D.C., I could get in a different slug line that took me there. After the meeting, I could hop on the metro and get to my office. The tremendous flexibility was what really drew me to slugging.

With a regular carpool, a lot of times you have to share in the cost, or you have to take turns driving. All those issues were resolved with casual carpooling. There are also more options. A lot of slugs slug into work but take a bus or train home. In some cases, there are slug lines that take you to one area, but on the return, you actually have to go to a different location to get home. For example, if you go to, let's say, downtown D.C. on 14th Street, you can get dropped off just about anywhere along 14th Street – which is a very long street – but in order to get back, you may have to walk a number of blocks to get to a slug line that services your destination. What some people elect to do is they slug in, and then take transit home because the bus may stop right in front of their building. Slugging allows those options to mix-and-match transportation to your schedule.

For some people, they slug for the environment. Slugging takes thousands of cars off the road by carpooling. That has all kinds of benefits on the environment, but also roadwork is less, it's less congested, so everyone gets to work faster. They're in their cars a shorter period of time, so everybody benefits.

Slugging etiquette

[Slide] Next I'll discuss the etiquette and rules of slugging. I didn't come up with any of these rules. As the webmaster, a lot of people feed me the information. During the research of the book, I came across most of these, but I'll go through them quickly and explain why the rules came to be.

Slugging is first come, first serve. The first person standing in a slug line going to a destination has the right to get into the first car going to that destination. The first person in line doesn't have to get in that car; if a car pulls up that doesn't look very appealing, or if it doesn't feel right to the person to get into a car, there's no obligation to get in that car and you can pass it on to the next person.

The slugs do not talk during the ride. That always gets a lot of interest because people think it's rude but it's actually not. You are riding with strangers and you don't want

your 30- or 45-minute commute spent every day in idle conversation. Generally, you greet each other, get in, and ride in peace and quiet. I read the newspaper. I'll write out some bills. It's a great opportunity to get a lot of work done. The "Do Not Talk" rule is actually a rule that most people enjoy. The driver, sometimes, will start a conversation but it's up to the driver if they want to, and of course, there are topics that are forbidden, so to speak.

There is no exchange of money of any sort for the ride. When gas prices started to soar here recently, there were a number of questions on the website like, "Shouldn't we institute some kind of reimbursement?" But the slugging community said, "No, that's one of the rules of slugging. The driver gets the benefit by getting to work faster and getting the use of a carpool. The slugs don't have to use their vehicle, so their benefit is get to work faster."

Other rules: you don't use your cell phone. It's acceptable if you're a few minutes out from the commuter lot to call your family and tell them where you are or that you'll be home soon. Limited use is acceptable, but no conversations on the phone the entire ride.

Call it chivalry, but one of the rules is, if it's at night, you don't leave a woman in line by themselves. You let them take the ride. Or in many cases, a lot of drivers will accept a fourth person, so you'll have a driver and three slugs as opposed to two.

No eating or smoking while driving—that applies to both the driver and the slug. Once you're in the car, you're not to ask for anything. You don't ask to change the air conditioner or the heater or roll the windows down or change the radio station.

Another rule is no curbside service. There are understood destinations on where you're going. If you're going to 14th Street in downtown D.C., it's pretty much understood, that you can get off anywhere along 14th Street. What you can't do is to ask the driver to take you to a location that's seven or eight blocks away from the understood destination. For the same reason, drivers aren't supposed to stop short. If you're slugging to Rosalyn, for instance, and the driver wants to get off the freeway earlier than that, that's not fair either. The driver has an obligation to take you all the way to the agreed-upon destination.

I'm getting a question here. Do most drivers just take one slug? Why not two? Usually this is because the driver is using the HOV-3 lanes. Most of the cars that pull up to the slug line only have the driver, so they may take two people to make the HOV-3. If there are 20 people in the slug line and a car pulls up, a lot of times the driver will take an extra person to help reduce the line. Let's say there are three slugs in line as you pull up. The driver only needs two to make it HOV-3. You have to be careful not to take the fourth slug because that might deny another driver coming to pick up slugs so that they, too, can use the HOV-3 lanes.

The basic etiquette rules are consideration for others. [Slide] This is the I-95 corridor and you can see all the slugging locations. Different locations may have multiple lines like the Corner Road line, which has four or five lines to different destinations.

Slugging in other cities

In terms of slugging elsewhere, San Francisco is probably the best example. They call it flexible carpooling and it's estimated that about 6,500 people commute each day using that form of transportation. What's interesting about San Francisco is that they have HOV-2 lanes, but their rules say, "In order to use the flexible carpooling, you have to take a third." So even though the road itself is HOV-2, the flexible carpooling is HOV-3. Based on this example, we could get slugging to occur along the I-66 and 270 where it's HOV-2. If we adopted a strategy like San Francisco, we could get slugging to flourish all around D.C., where right now, it's only along the I-95 corridor. Texas has a form called casual carpooling. The numbers are small, but they have designated park-and-ride facilities and set up locations to help facilitate casual carpooling. Seattle also started a program that was designed to try to influence the flexible carpooling. I don't have the results of that, but it was a real opportunity to take a group of people and try out this flexible carpooling concept.

Jay Kassirer: Our next speaker is Marc Oliphant. Marc works as an urban planner for the U.S. Navy in Washington D.C. His interest in slugging began when he wrote his 2008 Master's thesis about the practice. Marc is spending the first six months of 2010 on loan to the Federal Highway Administration, studying ways to expand and promote dynamic ridesharing – another name for slugging. He hopes to see similar carpooling systems spread to other major U.S. cities and across the world. Unfortunately, he doesn't live near any slug lines, so he rides his bike to work instead. He's married and has a three-year-old son.

Marc Oliphant, Urban Planner, U.S. Navy, seconded to the Federal Highway Administration

I'm going to speak a little bit about a study that I did about slugging. David has done some terrific work on how to slug, how it works, etc., In my field of urban planning I approached this research project and survey from the standpoint of how slugging would work from a regional perspective. How does it contribute to the transportation system? What is it that makes it work and how might it be replicated elsewhere?

Slugging survey

The survey was done in 2008, in late summer, August through September, which was also the height of gasoline prices. If you remember back to that time in, in the United States at least, and in this area, gas was \$4.00+ a gallon. So it was a really interesting time to find out more about this. I wanted to learn more about who slugs, why they do it,

and try to profile the typical participant, and then, identify what conditions exist in Washington D.C. that makes this system work, but not in other places. I was very surprised to see that not a lot of solid scholarly research or data collection had been done about this. The Virginia Department of Transportation has paid to do some counts, but beyond that, we don't know a whole lot about it from a data and a scientific point of view. It really is a terrific system. It moves lots of people. It's inexpensive. It's just beneficial in so many ways.

Thousands of people in the Washington area participate in this. Just from the numbers presented by David, we're talking 66% fewer cars. If three people, who might have been driving alone, are now driving in one car that is a terrific savings from a number of perspectives: less pollution, less congestion. You have to park fewer cars. You have to handle less traffic, stop lights, and all these other places where it can cause issues.

There was also some question about public transit and how they feel about this. Let's think about public transit for a minute here. They don't make money. Every seat on public transit has to be subsidized, unless you're talking about New York's system or, you know, maybe some of the systems in Europe. So I see this as something beneficial because the more people who slug, the fewer buses and seats on buses have to be subsidized by the government. The commuters are happier; everyone saves time and money. One the neatest aspects of this is that it makes you proud to be a human being if you hear about this. You say to yourself, "Wow, it's such an obvious solution, and isn't it great that people can get together and cooperate, and get to work in this way?" It's the antithesis of road rage. It's people cooperating to get to destinations and, really, benefitting not only themselves, but society in general.

The survey was done online. I did it through my university. I was going to Virginia Tech and I got almost 300 slugging participants to take the survey (drivers and riders). I recruited in several ways: I passed out flyers at slug lines; I advertised on David's website (Slug-Lines.com). There are also two listservs out there and I call that one Slugging 2.0 because people will make trip-by-trip ride matches through an e-mail system. For example, there's an e-mail system for people in Rosalyn and if you can't get to the slug line, you can e-mail the list saying, "I'm driving home at X hour. Who else wants to come with me?" It's a variation on slugging.

Early on, I sat down with my committee and discussed it. It's a strange system, and we wondered what kind of people would participate in this? I came up with these hypotheses, i.e., that women wouldn't do it because of safety concerns; that only young, just out of college, adventurous-types would do it; that people who didn't drive would make less money. Maybe the presence of military personnel in D.C. would add a measure of security. Maybe slugging would not be an attractive option; it would be the last on the list, but because people had so few options to commute, it would be their only choice. All of these early assumptions and hypotheses were proved wrong. None of those reasons had any bearing on what actually is happening.

Survey results

Here's what we found out. You drive in order to save time because you are eligible for the HOV lanes, but also, because you have flexibility. Drivers were very keen on flexibility so that they could leave work if they needed to. Riders were motivated by the money that they saved. Of course, they also saved a great deal of time. Now, the one caveat here is that this was not a scientifically-valid survey because participants were self-selected. I had no control as far as randomizing what results I got. It was a voluntary survey, and for that reason, some of this might be skewed, but it still gives us a good, general idea of what some of the characteristics are of the people who slug. [Slide] You can see also that 42% have been slugging for five or more years.

One of the best lessons I learned was that slugging is extremely robust and predictable. People use slugging and they are dependent on it just as much as they would depend on the bus, the train, or the subway. It's a fully-viable commuting option.

[Slide] Here you have the participation breakdown, which is what you would generally expect: 60% participate as only passengers, 12% only as drivers, 28% do both, which is what you'd expect if you have one driver and passengers in each car. There's not a lot of turnover between the two roles. People tend to be rather fixed in their role. David mentioned saving one to two hours in time. Sixty percent said it was at least 30 minutes per day and that is on the roundtrip. [Slide] Here's a map. See that dark blue zip code there? That is where the most surveyed participants live, which is also where the Horner Road commuter lot is located and where I passed out a very large number of solicitations to take the surveys. That's something to be expected, but the map still shows how geographically spread out the participants are, and you can see people are coming from a very long distance away. You can see just under that shield at the bottom of the map is Fredericksburg, which is about 40 miles from Washington D.C. Some people are coming long distances to do this. Fredericksburg also happens to be the location of the southernmost slug line.

The favorite aspects of those who took the survey were time savings, gas and parking savings. Remember, I did this survey when gas prices were at their highest so I didn't even ask about parking, but I left a blank category for people to give other reasons. Many people mentioned parking was a big motivator. Some mentioned it could cost them between \$10 and \$20 a day to park, and that was a major disincentive to drive in. They also said they liked the flexibility and the benefit to the environment. The environmental benefits were interesting and people liked that aspect, but it was not a strong motivator. From that, I would say that you will not get people to participate in a similar system solely for environmental reasons or for social reasons. The least favorite aspects of those who took the survey were waiting in line and the possibility that you may not get a ride. Most lines are exposed to the elements. In a few places, they do have bus shelters.

Of the survey respondents, a little more than 80% had, at least, a Bachelor's degree. These are highly-educated people. A number also had post-Bachelor's degrees, professional degrees. They were closer to the middle age than to young, out-of-college age. For the most part, those who took the survey were middle-aged, married professionals. They make a lot of money. They have kids. That might be one contributor to the success of the system – these kinds of people, and especially those with kids, are more likely to have a consistent schedule in that you need to be home by 6:00 p.m. to pick up the kids from daycare. That might not be the case for some workers in their 20s who might not have children or might not be married. They may have a less-consistent schedule.

A typical survey respondent was equally likely to be male or female, which was very interesting – we really didn't think we would see that many females, but it has evolved and been so safe as a practice. I'm not aware of any major incidents of a crime or anything even approaching a felony in relation to slugging. Females use it just as much as males. They're driven by time savings and money savings motivations. They slug roundtrip, live in South County, which is about ten miles out south of D.C. They either work in downtown D.C. or in southeast Arlington, which is near the Pentagon or Crystal City. They have been doing it for a number of years and use slugging as the primary method of daily commuting. They save—and these are hard numbers—at least 30 minutes a day and \$10 in costs by participating. There are also some interesting things about how close people live. A lot of these people are taking multi-leg commute trips. It takes them 15 minutes to get to the slug line, they slug in, and they might still have to walk to work from there. As I said, the typical slug is highly-educated, makes over \$100,000 a year, works for the federal government, and is in the older age range.

Slugging in other cities

What might drive a slugging system in another city? We have a theory about what drives this. People slug because it benefits them personally. They save time. They save money. There are direct, personal benefits and that's why they do it. So, the HOV-3 is necessary, we think, because of safety. People feel safer having two strangers in the car versus just one. And if you think about that a little bit, the chances of two strangers being trouble are much greater than one. Strict enforcement of the HOV drives the time advantage of using the HOV lanes. You need large numbers of people living and working together. For example, the Pentagon has 25,000 workers. The Navy Yard in Washington D.C. has 13,000 workers. These are serious destinations. There are also a great number of these workers down in Prince William County who live near one another. The commute time has to be long enough that it's worth it for someone to go and park at the commuter lot and wait in line to get a ride. They need convenient alternatives. As David mentioned, the buses are co-located with the slug lines because bus riders will wait in the slug line. If they don't get a ride, then as soon as the bus comes, they hop on. The two systems feed off one another.

Sometimes the choke point is helpful. In San Francisco, the Bay Bridge is a choke point and people can't go around it. In D.C., it's I-95 and 395—they're right next to the Potomac, which limits people's options. Slugging could be artificially created in other cities, but you have to know how to manipulate the situation so that the benefits are great enough for participants.

Q&A

Q: If sluggers are getting free commutes, did transit agencies attempt to stop slugging due to lost revenues? I think one of the key questions for other locations considering this is the liability issue, and if local governments and state governments get involved with this, do they, then, have a liability exposure? I know in Canada some of the municipalities and provinces are concerned about that. Could you both answer a little bit about this liability issue and how that might affect local and regional governments.

A (David): In terms of liability, the state and local governments have been hands-off with slugging for that reason. But at the same time, they openly support carpools and they even have 1-800 carpool lines where they help put carpoolers together. The government's role is that they feel comfortable putting people together, but then, letting the people themselves determine whether or not they want to form that carpool. Slugging really is no different. It's the mechanism of putting those people together that is slightly different. Instead of a 1-800 line and a form you fill out, you just meet at the commuter lot at a designated location. There shouldn't really be any liability issues from the government's standpoint because it really is up to the individual of whether or not they want to form that carpool or not.

A (Marc): I have never gotten a satisfactory answer to that question. Some municipalities, for example, Arlington County, which is right next to Washington D.C., provide signage for the slug lines or they support them in other ways. Some other counties will only say, "We support carpooling and how you form your carpooling is entirely up to you." I'm not aware of any liability issues, but there does seem to be some fear about it. There's no control from the bureaucracy-side of things, so when I talk to local government leaders about getting them involved they are wary. I would look forward to having a legal scholar address it in more detail.

Q: In speaking with you in preparing for today's webinar, there was some conversation about a new scheme that will be coming in where, depending on the number of people in the car, there's a variable rate. Can you talk a little bit about that? This would be on a toll road. Can you talk a little bit about variable tolls and basing a toll on the number of people in the car? And how that can or does affect slugging.

A (Marc): The state of Virginia and a private company, based in Australia, have entered into an agreement to make the HOV lanes into what are called HOT, or high-occupant toll lanes. It works on the premise that they think the lanes are underused as HOV lanes,

and so, they want to sell the excess capacity on the lanes to people willing to pay a toll. You can make money that way. There has been a lot of fear among people who slug as to how this might change the situation. Enforcement becomes a little murky. In the end, it may end up benefitting slugging because it means they will drive where the HOV lanes go, and that gives the possibility for slugging to expand.

Q: How does a slug line get started in the first place?

A (David): It's up to the people to start a slug line, and what generally happens, on the website, someone will ask about a slug line in a particular area. If there isn't one, but if someone is motivated to set it up, I'll give them the tools to do it. Basically, the individual who has the idea will print up a flyer and say, "I'm interested in starting a slug line from this commuter lot or this location to this destination." They'll spend about a month promoting it with the flyer, handing it out, talking it up. We post it on the website. On the day they start it, they try to get that balance of the right number of riders with the right number of drivers. If you can get that magical number – and it's worked in many cases – to get the slug line started, then it will continue to grow.

Q: What is body-snatching? (*Note: Reference in one David's slides regarding slugging etiquette*)

A (David): I don't know where it came from, but what happens, if you have a long line of cars waiting for slugs, and you have a slug that's walking through the slug line, sometimes the driver will try to pull up to the person walking and say, "Hey, are you going to the Pentagon? Well, hop in." So, they're "snatching the body" out of the first come, first serve line of cars. It happens sometimes. Sometimes the slugs don't want to walk all the way to the slug line. If someone is offering a ride, they'll hop in. But you're not supposed to.

Q: What sort of things can the government do to support it? In terms of something that people have organized for themselves up till now. What can they do to make it more successful or likely, and then, what sorts of things would actually disparage slugging if the government tried to organize it. Maybe what they want to do to try to help would actually be counterproductive because it would seem to be too organized?

A (Marc): That's a very good question. I think that the government can help but it must be very gentle about what it does. Things like signs for the established lines are very helpful. If they give a little bit of money to people like David LeBlanc, who has invested all this time and personal money into clearing the roads of Virginia. I think that employees should be eligible to get some benefit for carpooling. For example, people who vanpool can get a tax write-off for their participation in a vanpool. Bus shelters at slug lines so that you can wait out of the weather.

If you talk to people at the slug lines, they are very wary of the government getting involved and messing things up because if you think about it, if the government was to try and replicate this, it could so easily turn into a huge bureaucratic nightmare. There is a lot of fear that, by getting involved, the government is going to mess up something that works very well without outside intervention.

Jay Kassirer: Thanks once again to our speakers for a really useful session. I hope that more people will see the video after this. The link will be available and you'll be able to have them see the video of the whole webinar. We will be writing up a case study as well, eventually, in written form.