

**San José State University  
Human Subjects- Institutional Review Board**

**Request to Use Human Subjects in Research  
Cover Sheet**

Date submitted: 6/25/07      Project Period: From: 07/07      To: 6/08

Funded by: Mineta Transportation Institute, SJSU

Name: Asha Weinstein Agrawal      Department: Urban & Regional Planning

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City: San Jose      State: CA      Zip Code: 95192-0185

Check one:

SJSU Faculty Member

SJSU Student

SJSU Staff

Non-SJSU Investigator

Other (please describe) \_\_\_\_\_

Title of Proposed Project:: Bus Priority Lane Enforcement and Availability in Congested Urban Centers

Abstract: This study will examine the policies and strategies governing the enforcement of bus lanes in major congested urban centers. It will also examine the effectiveness of current bus lane enforcement strategies in several major U.S. cities. This study is expected to produce two key sets of findings. First, it is likely that in a majority of cities examined, a lack of ongoing commitment to enforcement has led to rampant violations of bus priority lanes and a deterioration in the lanes' exclusive availability to buses. Second, in a minority of cities, it is anticipated that innovative policies have enabled enforcement agencies to maintain a commitment to protecting the effectiveness of bus priority lanes, and that this commitment is reflected in lower rates of bus lane violations. It is hoped that these findings will be useful to local governments as they design and revisit their bus priority lane enforcement strategies.

Number of Subjects: 30

Age of Subjects: Adults (all subjects over 21)

Type of Subjects: Transit, transportation planning, and urban planning professionals

Proposed Research Method: Telephone interviews

What Kinds of Data Will Be Collected: Handwritten or typed notes with information about the subject's experiences with the design, implementation and enforcement of priority bus lanes.

Is a copy or description of each data collection instrument attached: YES  NO:

Are procedures to protect confidentiality delineated: YES  NO

Are agreements from participating institutions (on their letterhead) included: YES  NO  (NA)

Is a consent form attached: YES  NO

Is it on SJSU letterhead? YES  NO

Possible Risks:

Category of Risk: A

- A. Research involving only minimal risks to human subjects: Probability and magnitude of harm or discomfort are no greater than they encounter in daily life.
- B. Research involving reasonable risk to human subjects: Risks to the subject are reasonable in relation to anticipated benefits to the subjects and the importance of the knowledge that may reasonably be expected to result.

Please submit two copies of the completed protocol and supporting materials to:

HS-IRB Coordinator  
Graduate Admissions and Program Evaluations  
San José State University  
One Washington Square  
San José, CA 95192-0025.

For questions call the HS-IRB Coordinator at (408) 924-248

**SUPPORTING INFORMATION FOR  
HUMAN SUBJECTS REVIEW**

SUBMITTED BY

**ASHA WEINSTEIN AGRAWAL**

ON

**JUNE 25, 2007**

## STATEMENT OF RESEARCH PURPOSE AND JUSTIFICATION

In recent years, there has been a wave of interest and innovation in strategies to make bus operations more efficient and effective. Cities around the country have created new Bus Rapid Transit (BRT) systems and pursued other strategies to make their regular bus services faster and more reliable. One common approach in urban centers has been the dedication of street space for priority use by buses during designated hours.

But experiences in congested urban centers have shown that simply designating a bus lane is not enough to ensure that operating conditions for buses are improved. Amid the intensive competition for street and curb space that occurs within central business districts, the effectiveness of bus lanes can be quickly undermined in the absence of ongoing enforcement efforts. This study will examine the policies and strategies governing the enforcement of bus lanes in major congested urban centers. It will also examine the effectiveness of current bus lane enforcement strategies in several major U.S. cities.

This study is expected to produce two key sets of findings. First, it is likely that in a majority of cities examined, a lack of ongoing commitment to enforcement has led to rampant violations of bus priority lanes and a deterioration in the lanes' exclusive availability to buses. Second, in a minority of cities, it is anticipated that innovative policies have enabled enforcement agencies to maintain a commitment to protecting the effectiveness of bus priority lanes, and that this commitment is reflected in lower rates of bus lane violations. These findings will be useful to local governments as they design and revisit their bus priority lane enforcement strategies.

## HYPOTHESIS

We have two main hypotheses:

1. We hypothesize that in a majority of cities examined, a lack of ongoing commitment to enforcement has led to rampant violations of bus priority lanes and a deterioration in the lanes' exclusive availability to buses.
2. We hypothesize that in some cities innovative policies have enabled enforcement agencies to maintain a commitment to protecting the effectiveness of bus priority lanes, and that this commitment is reflected in lower rates of bus lane violations.

## METHODS SECTION

### SUBJECTS

#### *a) Number, age, and type of subjects*

We expect to interview about 30 subjects. Subjects will all be adults 21 years or older. They will be transit, transportation, and urban planners who work for cities, counties, transit agencies, transportation planning authorities, or other government agencies. In addition, we may interview professionals working for consulting firms or non-profit

*b) Procedure for selecting subjects*

For each city identified as having bus lanes worth including in the project, we will identify the public agency employees with the most experience planning and managing the bus lane project.

*c) Rationale for employing the type of subjects selected*

The subjects will provide expert information on the effectiveness of different bus lane operation and enforcement strategies.

*d) How subjects are expected to benefit from participation in the study*

Subjects are not expected to benefit from this study other than to the extent that they value contributing their knowledge and expertise to research and informed decision making. They may benefit indirectly from the knowledge gained from the research after it is completed. Subjects will receive no direct, tangible benefits. Participants will not be offered any financial reward or other incentive to participate.

*e) Risks to subjects anticipated from participation in the study*

There are no anticipated risks to the subjects.

*f) Compensation*

The subjects will not be compensated in any way.

*g) Identification of subjects with the data*

As explained to subjects in the recruitment/consent email, we will include subjects' names and affiliations at the end of the report in a list of persons interviewed for the study. In addition, where subjects' comments are especially insightful, we may quote them and identify them by name. To ensure that we represent their views accurately, whenever we wish to attribute a quotation to a particular subject, we will email him or her a draft of that section of the report for review and approval. We will not circulate a draft or final version of the report that attributes a quotation to a subject without first obtaining this approval.

## **MATERIALS AND DEVICES**

No materials or devices will be used as part of the interview process. (See explanation of procedures and the interview protocol for an explanation of what will take place during the interviews and for the list of questions that might be asked.)

## **PROCEDURES**

*a) Step-by-step description of procedures*

For each person identified as a possible subject, the project team will follow these procedures:

- **Initial contact:** Subjects will be sent an initial email that describes the research project and notifies them that they will receive a follow-up phone call to ask if they are willing to participate (see attached recruitment/consent email text).
- **Secure informed consent:** A member of the research team will call the subject to ask if s/he received the letter and is interested in participating. The subject will also be asked if s/he has any questions about the project or how the information from the interview will be used. A time for the interview will be scheduled.
- **Phone interview:** At the beginning of the interview, the interviewer will read the text indicated in Section II of the attached interview protocol, which reminds the subject how the information will be used, and the subject will be asked if these procedures are acceptable.

*b) Where, when, and by whom the research will be conducted*

- **Where:** The subject may choose any phone number at which s/he wishes to be called.
- **When:** The interviews will take place during normal business hours, from Jul6 2007 through June 2008.
- **By whom:** The interviews will be conducted by Professor Asha Weinstein of SJSU (the Principal Investigator), Dr. Todd Goldman of the University Transportation Research Center at the City University of New York, or a graduate student research assistant. Professor Weinstein will take responsibility for training Dr. Goldman and any student research assistants in proper interviewing protocol, including the steps they must take to protect the subjects' rights as research participants.

## CONFIDENTIALITY

Notes from the interviews will be recorded in a computer file. The name of the interviewee will be included in these notes. However, to protect confidentiality, the header of every page of notes will contain the message "Confidential information: Not to be released or distributed for any reason without prior approval from both Principal Investigator Asha Weinstein and the subject."

In addition, to ensure that any comments subjects wish to keep "off the record" are not mistakenly attributed to them, the interviewer will preface these sections of the notes with the warning "The following text is 'off the record' and may never be attributed to the subject for any reason."

The notes will be transferred to the Principle Investigator (PI) and co-investigator Todd Goldman. They will not be shared with any other members of the research team unless the PI determines that other team members need the data in order to complete their sections of the project analysis. She will on no account share these notes with any person not on the research team.

Finally, before the Principal Investigator releases a copy of the interview notes to any other member of the research team that needs them in order to analyze the data, she will explain the procedures in place to protect subjects' confidentiality and emphasize that all procedures must be followed precisely, without exception.

After the study is complete, the PI will transfer electronic copies of the interview notes to a CD or DVD and store it in a locked file cabinet. Files on computer hard drives will be deleted. Other members of the research team will be directed to destroy their paper and electronic copies of the notes.

## **CONSENT FORMS**

See attached text of consent/recruitment email that will be sent to all participants.

## **DATA COLLECTION INSTRUMENT**

See attached interview protocol.

## CONSENT MATERIALS

*[The following email will be sent to interviewees.]*

Dear [subject's name],

I am writing ask if you would agree to be interviewed over the phone for a research project entitled "Bus Priority Lane Enforcement and Availability in Congested Urban Centers." This project is investigating best practices in the design, implementation and enforcement of priority bus lanes. I hope you will be willing help us with our study by sharing your experience with such bus lanes.

If you agree to participate, I or one of my research team members will interview you for about thirty over the phone. During the interview, we will ask questions about the following topics:

- Strategies for accommodating multiple users of the curb lane (vehicles making deliveries, making turns, dropping off passengers, servicing utilities under the street, parking).
- Strategies for improving motorist awareness and visibility of the bus lane (signage, pavements, markings, etc.).
- Strategies for effective enforcement (policing strategies, etc.).
- Strategies for interagency coordination and management (DOT/transit/police/sanitation).

Attached to this email is a further explanation of your rights as a subject of research conducted through San José State University. Please read the material carefully. By agreeing to participate in the study, it is implied that you have read and understand your rights.

I or one of my research team members will be calling you shortly to ask if we may schedule a time to interview you. In the meantime, if you have any questions, feel free to call or email me.

Sincerely,

Asha Weinstein Agrawal  
Assistant Professor  
Department of Urban and Regional Planning  
San José State University  
One Washington Square  
San Jose, CA 95192-0185  
email: [asha.weinstein.agrawal@sjsu.edu](mailto:asha.weinstein.agrawal@sjsu.edu)  
phone: 408-924-5853

**Additional Information for Research Participants in the Study  
“Bus Priority Lane Enforcement and Availability in Congested Urban Centers”  
(Responsible Investigator: Asha Weinstein Agrawal)**



**San José State**  
UNIVERSITY

**Department of Urban and  
Regional Planning**

One Washington Square  
San José, CA 95192-0185  
Voice: 408-924-5882

Please read carefully the following information, which explains your rights as a research participant.

1. You have been asked to participate in a study researching the investigating best practices in the design, implementation and enforcement of priority bus lanes.
2. You will be asked to participate in a 20 or 30 minute phone interview during which you will be asked questions about your experience with the design, implementation and enforcement of priority bus lanes.
3. There is no anticipated risk to you from participating in this project.
4. There is no anticipated direct benefit to you from participating in this project other than the extent to which you value contributing your knowledge to helping local governments as they design and revisit their bus priority lane enforcement strategies.
5. Unless you ask request otherwise, your name and affiliation will be included at the end of the final report in a list of persons interviewed for the study. In addition, where your comments are especially insightful, the report may quote you and identify you by name. The interviewer will assume that your comments are on-the-record and that you agree to being quoted, unless you instruct the interviewer otherwise. If you wish to share any comments “off-the-record,” simply let the interviewer know, and that information will be kept strictly confidential within the research team. Finally, to ensure that your views are represented accurately, if the researchers wish to attribute a quotation to you personally, then you will be emailed a draft of that section of the report that you may review for accuracy.
6. You will not be compensated in any way for your participation in this research.
7. Questions about this research may be addressed to Asha Weinstein Agrawal at 408-924-5853. Questions about a research subjects’ rights, or research-related injury may be presented to Pamela Stacks, Ph.D., Associate Vice President, Graduate Studies and Research, at 408-924-2480.
8. No service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to “not participate” in the study.
9. Your consent is being given voluntarily. You may refuse to participate in the entire study or in any part of the study. You have the right to not answer questions you do not wish to answer. If you decide to participate in the study, you are free to withdraw at any time without any negative effect on your relations with San José State University or with any other participating institutions or agencies.

By agreeing to participate in the study, it is implied that you have read and understand the above.

Please keep this information for your own records.

## INTERVIEW PROTOCOL

Notes for IRB reviewers:

1. We plan to follow as precisely as circumstances allow the scripts in sections I and II, which explain for interviewees the nature of the project, how their remarks will be used, and how follow-up will be conducted.
2. Section III, which is the actual questions to be asked, is a looser guide. Since the interviews will be open-ended conversations, we may not ask all questions listed below, may change the sequence of the questions, or may add additional questions asking subjects to clarify or expand on points raised. In addition, we may vary the questions slightly as we learn whether or not they are eliciting the information needed for the research. However, even if the wording of the questions and some details of their content evolves, the content of the interviews will not change substantially.

### ***I. Initial approach to set up a time for the interview:***

Hi, my name is [name]. I am a research assistant working with Drs. Asha Weinstein and Todd Goldman on a research initiative investigating best practices in the design, implementation and enforcement of priority bus lanes. This research is sponsored by the Mineta Transportation Institute to explore effective central-city bus lanes.

Would you be able to take a few minutes to relate [your city's/agency's] experience with bus priority lanes? We are investigating bus lanes in key areas of chronic congestion.

I hope you can provide me with this information, or let me know who else in your agency might be best able to help me.

### ***II. Beginning the interview [Once we have the right person]:***

This interview will probably take about twenty minutes.

Before we start, let me also go over the information about confidentiality that was in the email you received, to make sure you understand it and are comfortable with it.

- First, let me explain that this conversation is not being audio taped, but that I will take notes.
- I also want to explain that we may include some or all of the information you provide in our report, and, where your comments are especially insightful, we may quote you and identify you by name. We will assume that your comments are on-the-record and that you agree to being quoted, unless you instruct us otherwise. If you wish to share any comments off-the-record, simply let me know, and we will treat that information confidentially. Is that acceptable?
- If we decide that we wish to quote you by name in the report, we will email you a draft of these sections of the report so that you can review them and make sure that we have not made any errors in reporting what you said. Is this acceptable?
- Finally, regardless of whether or not we quote you by name in the report, we plan to include your name and affiliation in an appendix to the report, which lists all our interviewees. Is that acceptable?

### *III. The interview questions*

<b>Subject Area</b>	<b>Question</b>
Confirmation of our research	Our research indicates that [subject city] has priority bus lanes on [x, y streets] Is this the case? [Interviewer may ask for map or other documentation, showing the locations of these bus lanes, if necessary] Is any/all of this laneage within congested area?
Lane Use	During hours of operation, which types of vehicles are also allowed in the bus lanes:
Hours of Operation	Are the lanes in operation 24 hours a day, or just during peak hours?
Off-peak use	If peak hours only, what are lanes used for at other times?
Bus Lane Segregation	How are the bus lanes marked?
Enforcement	How are restrictions enforced? What agency(s) are responsible for enforcement? What are the penalties? for violation? How often are the lanes violated by prohibited vehicles? Is this an estimate or study-based?
Research	Have any studies on this been done on violations? If so, may we get a copy? What methods were used to assess the level of violations? Are there studies that have evaluated the actual speed of buses using the lanes?
Traffic Performance	What is the speed of vehicles in the parallel regular traffic lanes? Overall, how effective do you think the lane(s) are at speeding up bus service? How effective are the lanes at making bus speeds more predictable?
References	Can we get copies of any reports and plans produced by your agency about these bus lanes?