



STRATEGIC HIGHWAY RESEARCH PROGRAM

Accelerating solutions for highway safety, renewal, reliability, and capacity

SHRP 2 Safety

Making a Significant Improvement in Highway Safety

PROLOGUE Advisory Board
June 20, 2011

Ken Campbell
SHRP2 Chief Program Officer

Why a Naturalistic Driving Study?

- Strategic focus on the driver
- Collect more and better data:
 - Objective pre-crash data
 - More accurate crash data
 - Near crash/incident data
 - “Exposure” (ordinary driving) data
- Determine relative crash risk for different factors and interactions of factors
- Develop crash surrogates

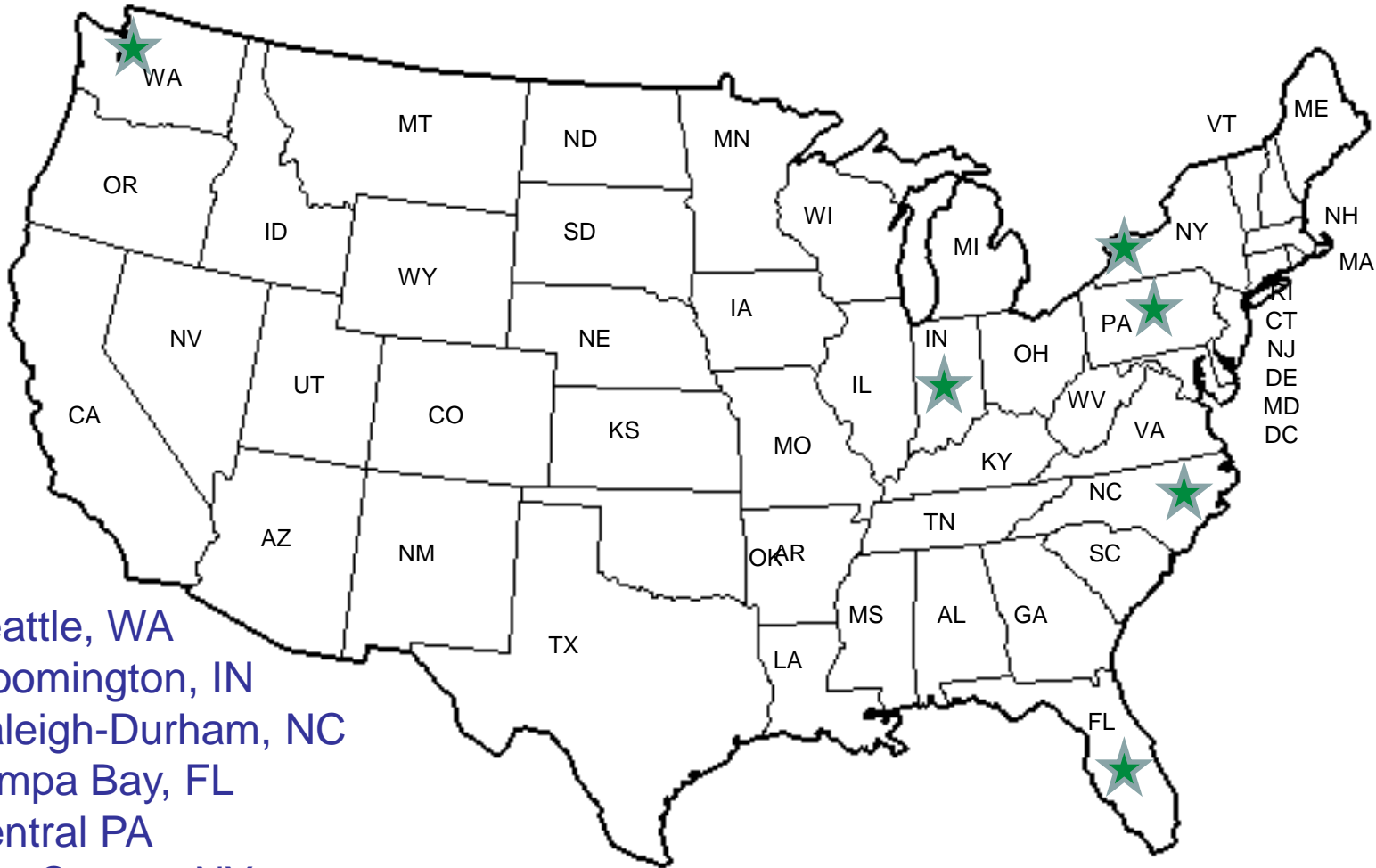
Research Questions

- Drove the study design
- Started with stakeholders
- High priority research questions
 - Road departure
 - Intersections
- Long list of detailed questions/hypotheses
- Instrumentation requirements followed

SHRP 2 NDS

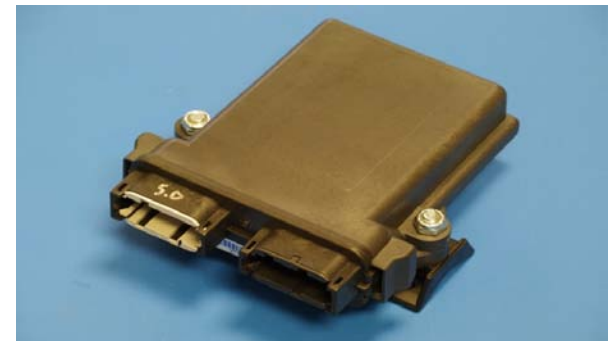
- 1950 instrumentation packages
- 3100 participants: some 1-year, some 2-year
- Two-year data collection
- 3900 vehicle-years of data
- Passenger cars, vans, SUVs, pick ups
- Other data:
 - Driver assessment
 - Roadway/roadside data
 - Detailed crash investigations

SHRP 2 NDS Study Sites



- Seattle, WA
- Bloomington, IN
- Raleigh-Durham, NC
- Tampa Bay, FL
- Central PA
- Erie County, NY

DAS



TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

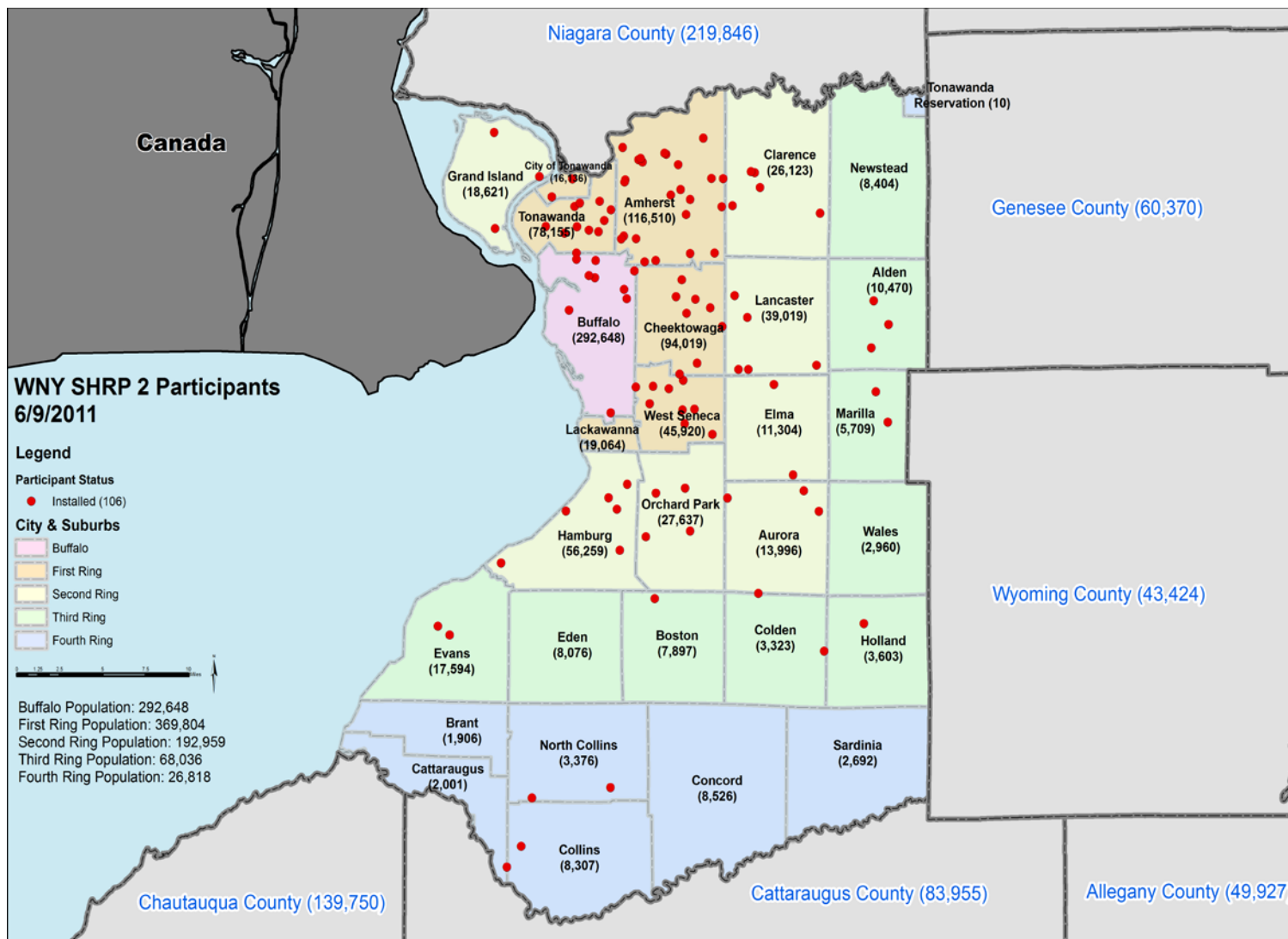
Camera Views



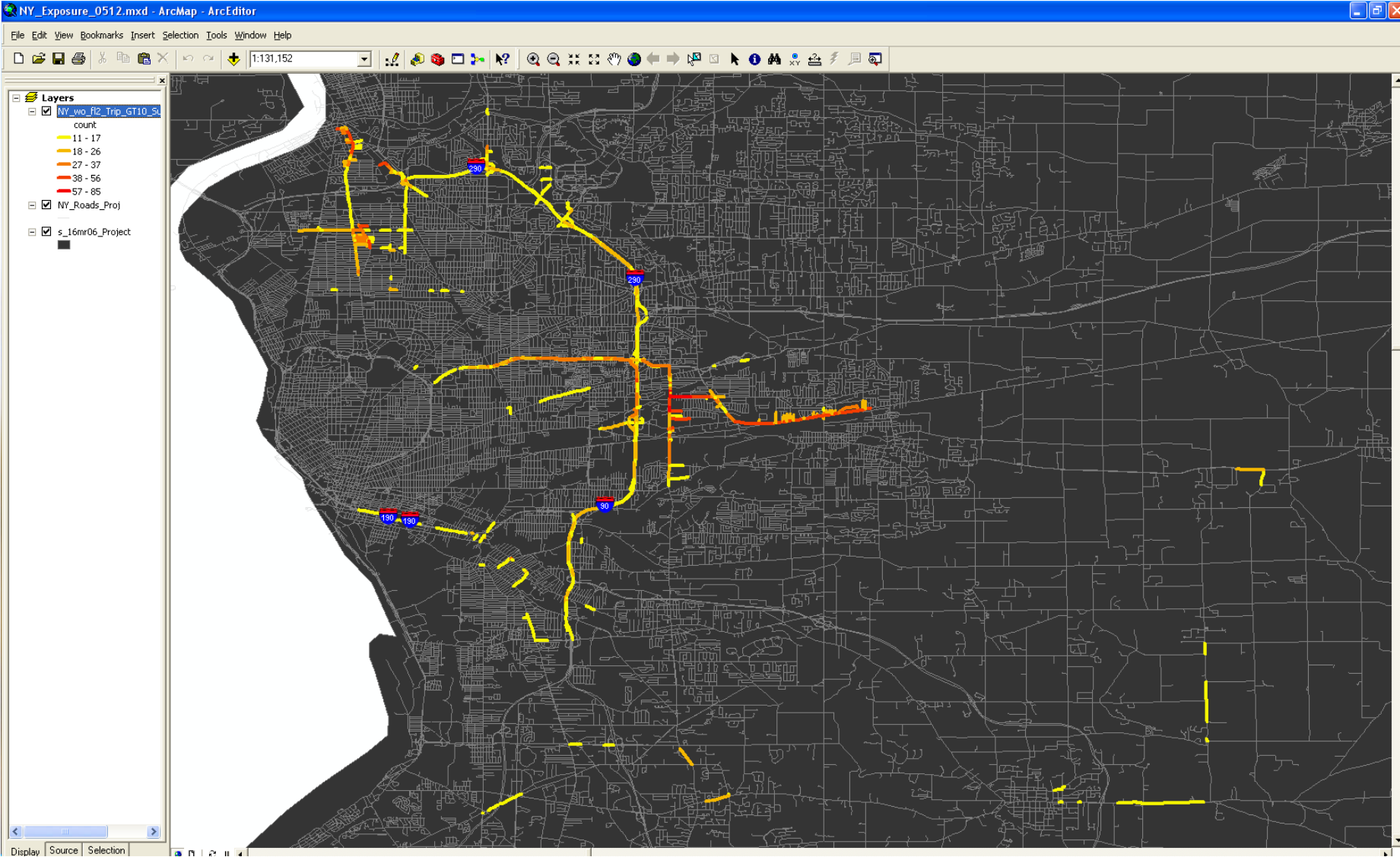
DAS Installation Progress

CONTRACTOR	SITE DAS	READY DATE	FIRST INSTALL	DAS INSTALLED to June 11	%
S 07-A IU	150	July 29	Jan 28/ '11	51	34%
S 07-B PSU	150	July 15	Feb 15 '11	48	32%
S 07-C CUBRC-FI	450	June 25	Nov 16 '10	102	23%
S 07-D CUBRC-NY	450	May 13	Oct 25 '10	107	24%
S 07-E Westat	300	July 1	Nov 8 '10	120	40%
S07-F Battelle	450	Sept. 17	Feb 23 '11	69	15%
	1950			497	25%

Buffalo Participants



Buffalo GPS Traces

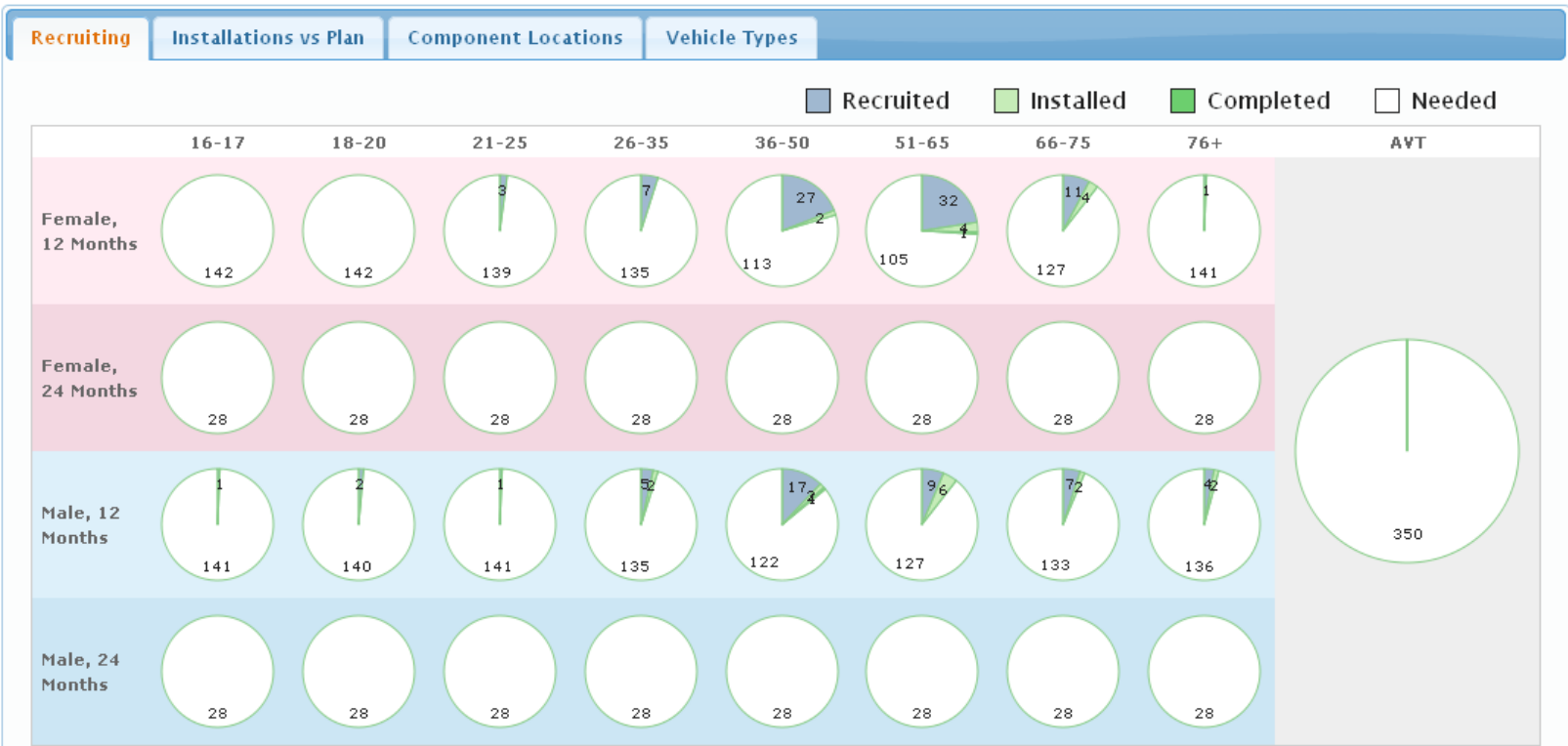


SHRP2 STRATEGIC HIGHWAY RESEARCH PROGRAM

Study Status

Study Status
 Participants
 Vehicles

Admin
 Log out



ID	Gender	Sample Cell	Status	Duration	Study Year	Site	Vehicle Type	Vehicle
1	F	51-65	DROPPED_OUT			NY	CAR	1
2	M	26-35	DROPPED_OUT			NY	SUV_CROSSOVER	2
3	M	66-75	INSTALLED			NY	PICKUP_TRUCK	3

SHRP2 STRATEGIC HIGHWAY RESEARCH PROGRAM

Participant Details

Study Status
Participants
Vehicles

Log out

Participant 2533 Details

Personal Information

Name:	Driver Girl-2533	
Birth Date:	July 22, 1959	
Address:	2533 Participant Ave Indianapolis, IN 46202	
Phone:	(212) 555-2533	
Email:	participant.2533@justatest.com	

Study Information

Demographics:	Female, 51-65 Years Old
Site:	IN
Driver Type:	PRIMARY
Study Year:	Year 2
Participation Term:	12 Months
Participation Dates:	Not Started Yet
Program Totals:	Unknown Months, 100 Miles
Install Dates:	<u>July 22, 2010</u> (Vehicle 2533)
Status:	RECRUITED

[Update](#)

Documentation

Surveys:	test Barkley's Quick Screen	Not Started
	test Demographic Questionnaire SHRP2 NDS	Not Started
	test Driving History	Not Started
	test Driving Knowledge	Not Started
	test Frequency of Risky Behavior Questionnaire	Not Started
	test Medical Conditions & Medications	Not Started
	test Modified Manchester Driver Behavior Questionn	Not Started
	test Integrated Systems Feature Identification	Not Started
	test Perception of Risk Questionnaire	Not Started
	test Sensation Seeking Scale	Not Started
	test Sleep Questionnaire	Not Started
	test Optec Scoring Sheet	Not Started
	test Hand Strength Questionnaire	Not Started

Crash Events: No crash events found

Uploads: No documents found



Create Intake Packet

SHRP2 STRATEGIC HIGHWAY RESEARCH PROGRAM

- Home Page
- System and Installation
- Assessments
- Informed Consent
- What's Required
- Risks and Benefits
- Confidentiality
- Compensation
- FAQs
- Recruited Participants
- SHRP 2 Website

Study Site Centers

- Seattle, WA
- Durham, NC
- Tampa, FL
- Buffalo, NY
- State College, PA
- Bloomington, IN

For More Information

If you are interested in hearing more about participating in the SHRP 2 NDS, please contact us at: 1-877-495-1556.

Study Centers



SHRP 2 Naturalistic Driving Study (SHRP 2 NDS)

...the largest coordinated safety program ever undertaken in the United States . . .

The Second Strategic Highway Research Program (SHRP 2) was established by Congress to investigate the underlying causes of highway crashes and congestion in a short-term program of focused research. The objective is to identify countermeasures which will significantly improve highway safety through an understanding of driving behaviors. The study will incorporate approximately 3,100 drivers in six states throughout the United States.

Importance

This research agenda comes at a critical time in the history of our nation's surface transportation safety. Specifically:

- The United States was, for many years, the safest place to drive in the world. However, in terms of fatality rate, the United States dropped to 2nd in 1995, 9th in 2003.
- Because vehicular crashes do not discriminate by age, they constitute a leading killer based upon years of lost life. For example, newly-licensed teen drivers, America's future, are three times more likely to be involved in a fatal crash than their older counterparts. They are also more likely to die in a car

Information for Potential Participants

We are recruiting drivers for participation in the SHRP 2 Naturalistic Driving Study (SHRP 2 NDS). We are seeking licensed drivers:

- Who are 16 and older
- Who own their own vehicles (or can get permission from the owner)

Eligible Vehicles

- Who have a valid driver's license and drive regularly
- Who will allow a virtually unnoticeable data acquisition system to be installed in their personal vehicles for 12 to 24 months – there will be no permanent changes to the vehicle.
- Who are able to read and complete questionnaires
- Who reside within a participating study area
- Who are eligible for employment in the United State (in order to receive compensation for participation)

All inquiries are welcome!

The SHRP 2 NDS project is open to

Recruiting Framework

- “Cold calls”—from call center at VT
 - Using various lists
 - Screen potential participants
 - Send contact info to S07 for scheduling
- “Traditional”—flyers, ads, etc. handled by S07s
 - Interested persons directed to VT call center or web tool for screening
 - Call center sends contact info to S07s
- Added web-based access:
 - Can e-mail rather than phone the call center
 - Can do web-based self-screening
 - Social media (Facebook, Craig’s list, etc.)
 - Email/mass distribution

SHRP 2 NDS Privacy Procedures

Department of Health and Human Services policy for the Protection of Human Subjects (45 CFR 46)

- Consent Form for volunteer drivers
- VTTI Institutional Review Board (IRB)
(Technical Coordination and Quality Control, Project S06)
- National Academies IRB approval
- S07 site contractors IRB approval
- National Institutes of Health Certificate of Confidentiality

IRB Status

- Original field study and call center protocols, consent forms approved by all IRBs
- 2 sites (NY, NC) using VT IRB as IRB of Record
- VTTI certified compliance of the 4 other sites using their own IRBs
- 1st VT IRB approval to last certification of compliance: 5/6/10—4/5/11
- Amendments:
 - 7 to the field protocol
 - 10 to the call center protocol
 - Always working on the next amendment
 - Most of the amendments have been made to improve recruitment

SHRP 2 NDS Data Access Goal

Maximize availability & use of SHRP 2 NDS data

- Protecting the rights and privacy of study participants
- Maintaining data security
- Providing data access for qualified researchers

SHRP 2 NDS Analysis (S08) RFP

- Multiple awards
- December 7, 2010 RFP release
- Pre-bid webinar December 13, 2010
- Proposals due January 20, 2011
- Four initial projects selected
- Kickoff meeting tentatively scheduled in October 2011
- Additional RFP release anticipated early in 2012

SHRP 2 NDS Data Dissemination

New project under implementation funding to provide broader NDS and roadway data access

- Form NDS Data Users Group
- VTTI SHRP 2 NDS Data Access site

<http://forums.vtti.vt.edu/index.php?/files/category/9-shrp2-naturalistic-driving-study/>

Sixth SHRP 2 Safety Symposium
July 14-15, 2011

SHRP 2 Naturalistic Driving Study
www.shrp2nds.us

SHRP 2 NDS

SHRP 2 Participant portal

<http://drivingstudy.org>

THANK YOU

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www.trb.org/SHRP2/safety