

*Looking for a Rural
Culture of Driving in New England*

A presentation by

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The New England Transportation Institute

TRB Conference on Rural and Intercity Bus
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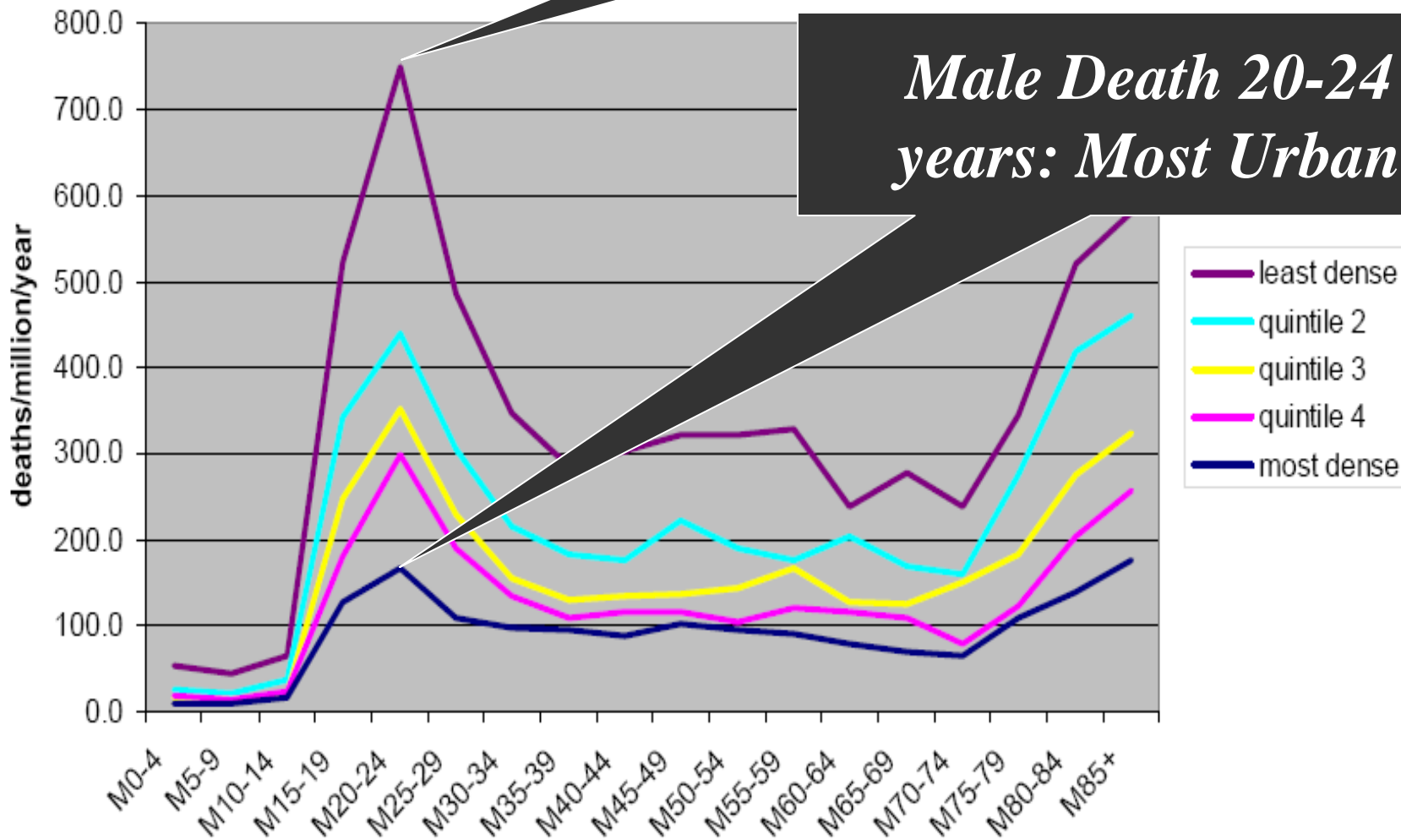
An International Research Project

- A project of the New England Transportation Institute, White River Jct., Vermont
- In cooperation with
 - INRETS, France
 - VTI, Sweden
- Survey undertaken by
 - Resource Systems Group, White River Jct, VT

2004 U.S. Male Death Rate by Age Cohort
of Residence Density

*Male Death 20-24
years: Most Rural*

*Male Death 20-24
years: Most Urban*



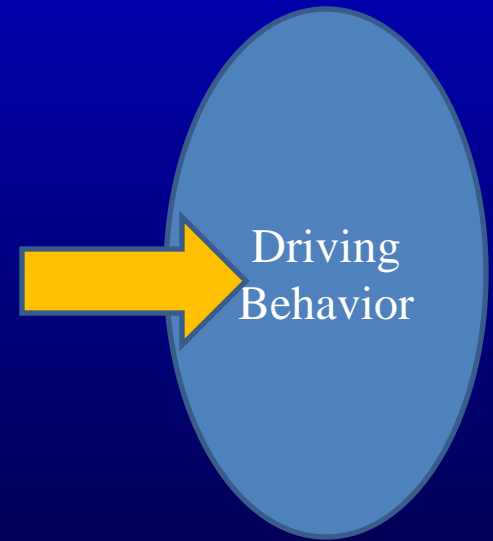
What We are Looking For

- Seeking to understand the differences in attitudes and culture which might affect driving behavior
 - Dangerous driving behavior in specific
- Seeking to understand the higher mortality rates associated with rural driving

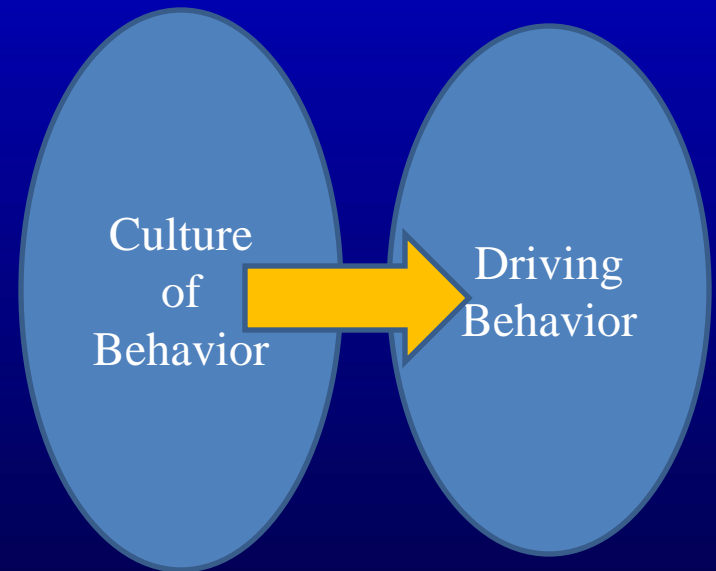
Our Survey Instrument

- 1050 surveys, one half hour each
- Entirely Internet-based
- Full coverage of
 - Rural (Non-metropolitan)
 - Within village
 - Isolated from village
 - Urban (Metropolitan)

The Logic of a “Culture of Driving Behavior”



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The Logic of a “Culture of Driving Behavior”



To be applied across demographic and location categories

What We Did

- 1000 surveys, one half hour each
- Full coverage of
 - Rural
 - Within village
 - Isolated from village
 - Suburban
 - Urban

Holding Regional Variables Constant

- All 1,000 participants are from Maine, New Hampshire and Vermont,
 - (and adjacent areas in the Northeast)



Holding Regional Variables Constant

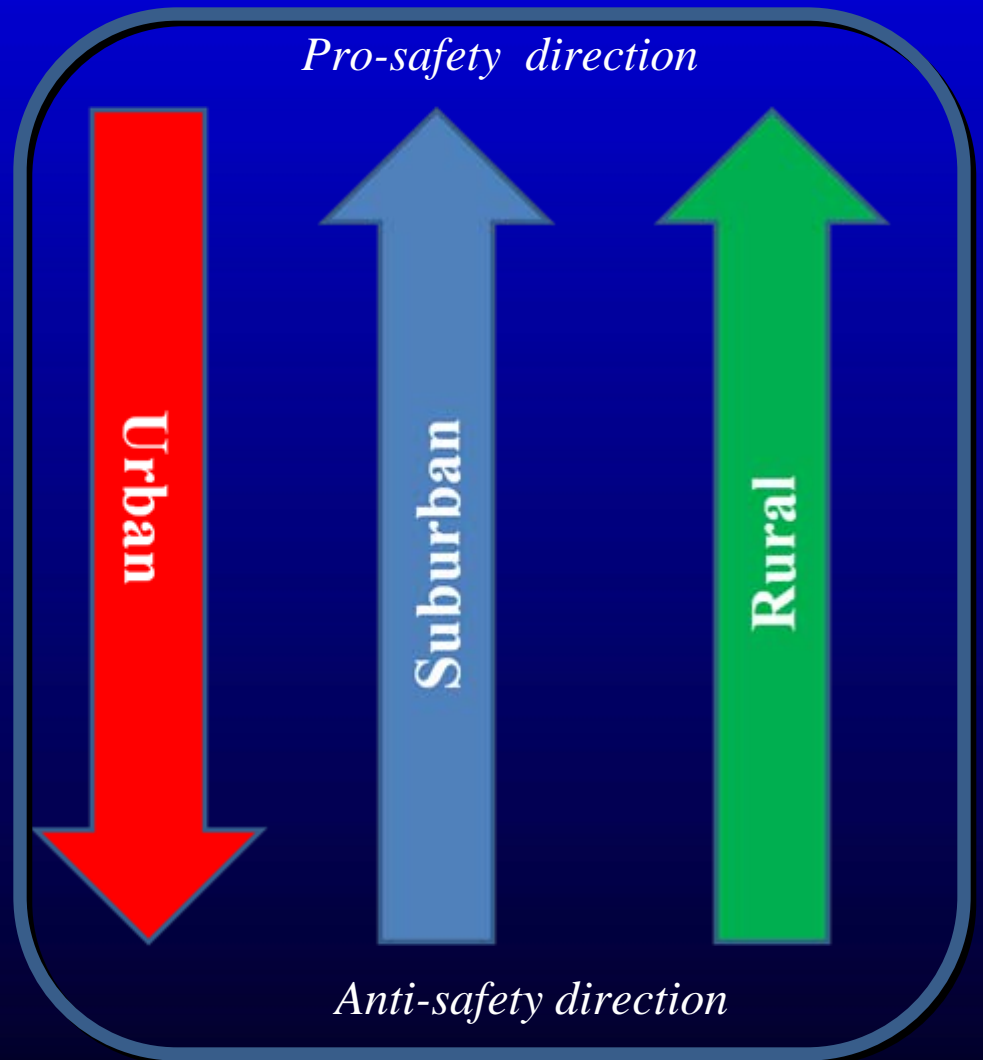
- This statistical process allows the urban/rural dimension to be examined separately from regional variation



N. B. The Northeast as a whole has a lower rate of seatbelt use than the rest of the country

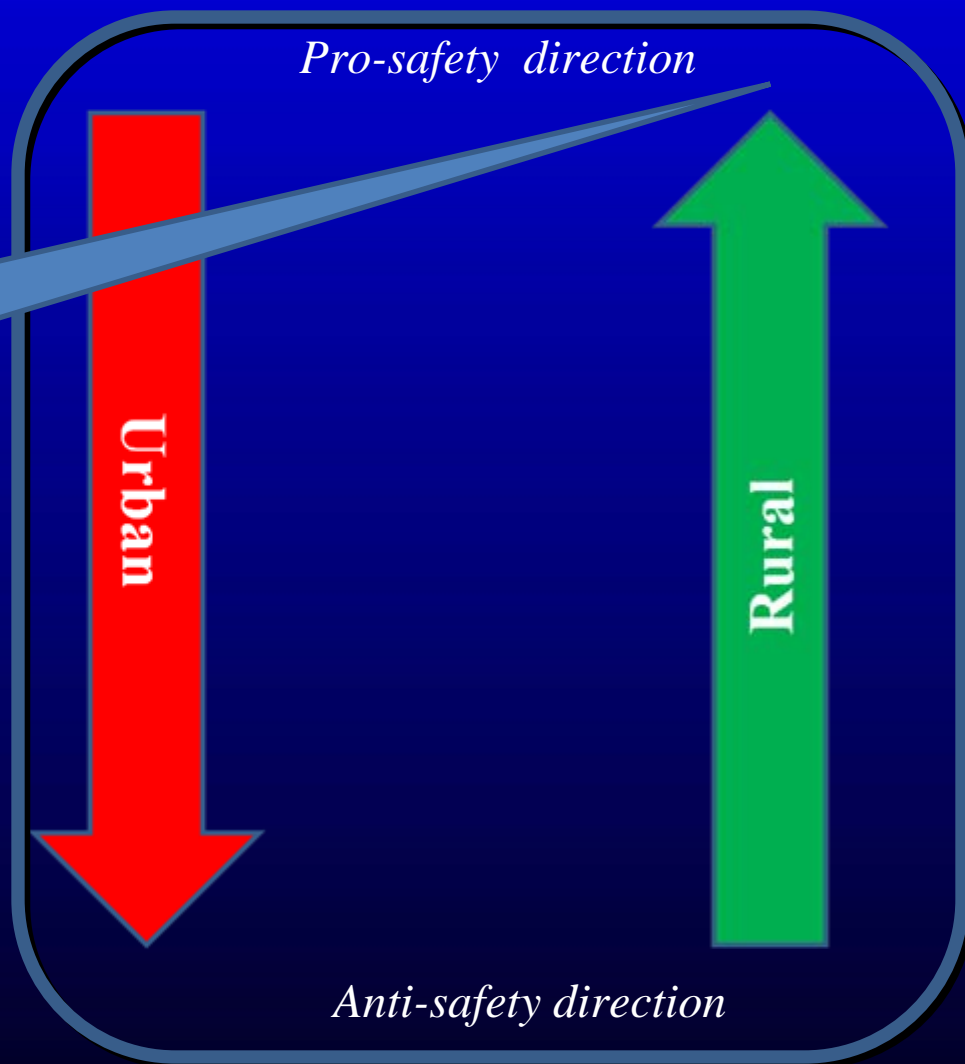
Three Categories of Location

*Our survey questions
will appear here*



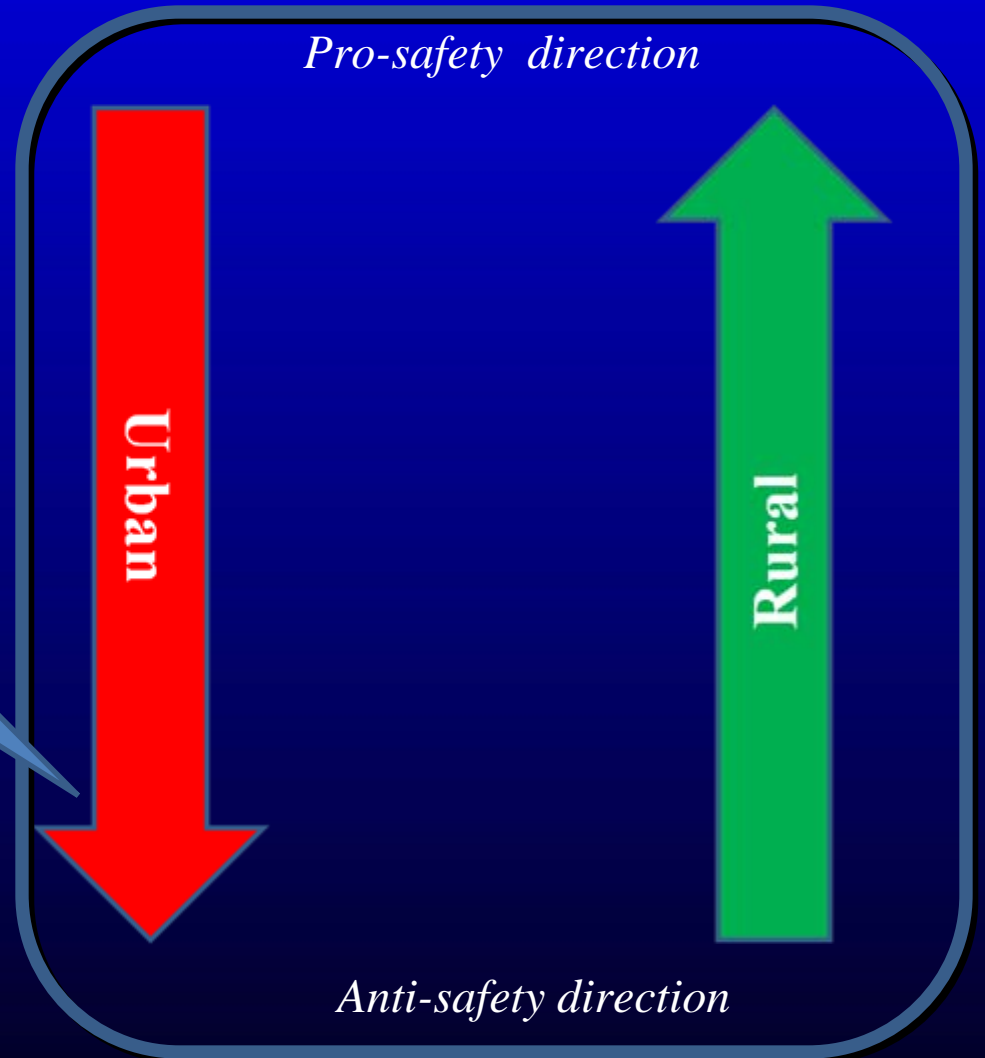
The Meaning of the Arrows

Upward Arrow
means a PRO
SAFETY
REPOSNE



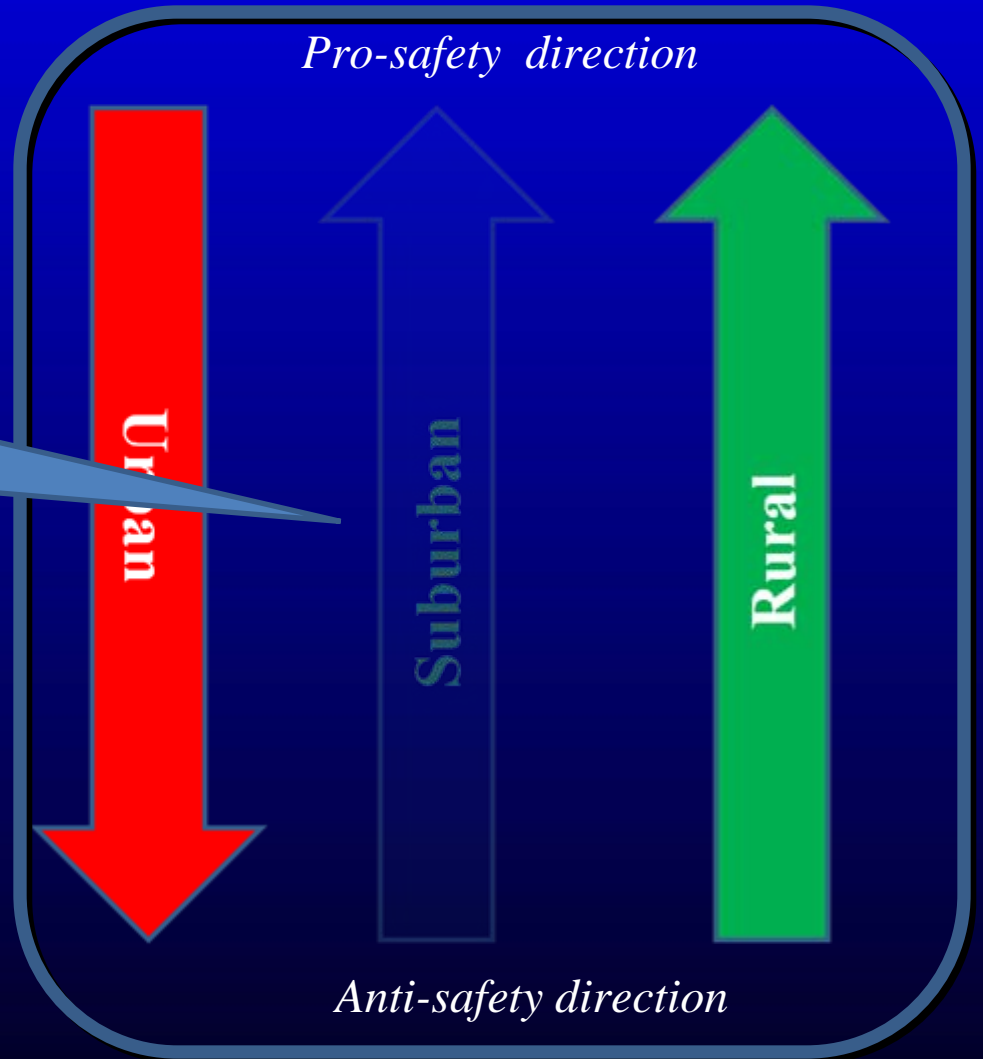
The Meaning of the Arrows

Downward Arrow
means an Anti-
SAFETY
REPOSNE



The Meaning of the Arrows

NO Arrow means
Response was not
significant

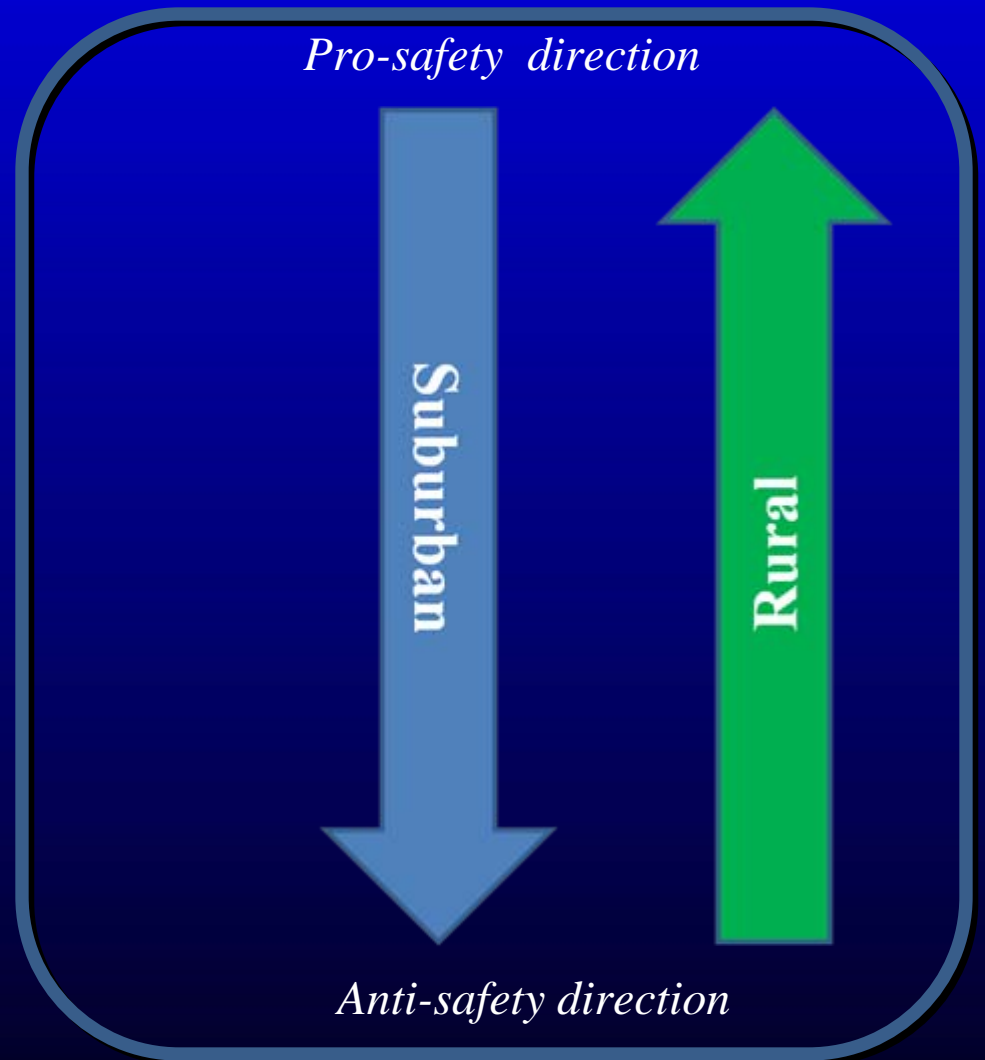


Let's Start

- *We are looking for evidence of a rural driving culture that would explain accident patterns*

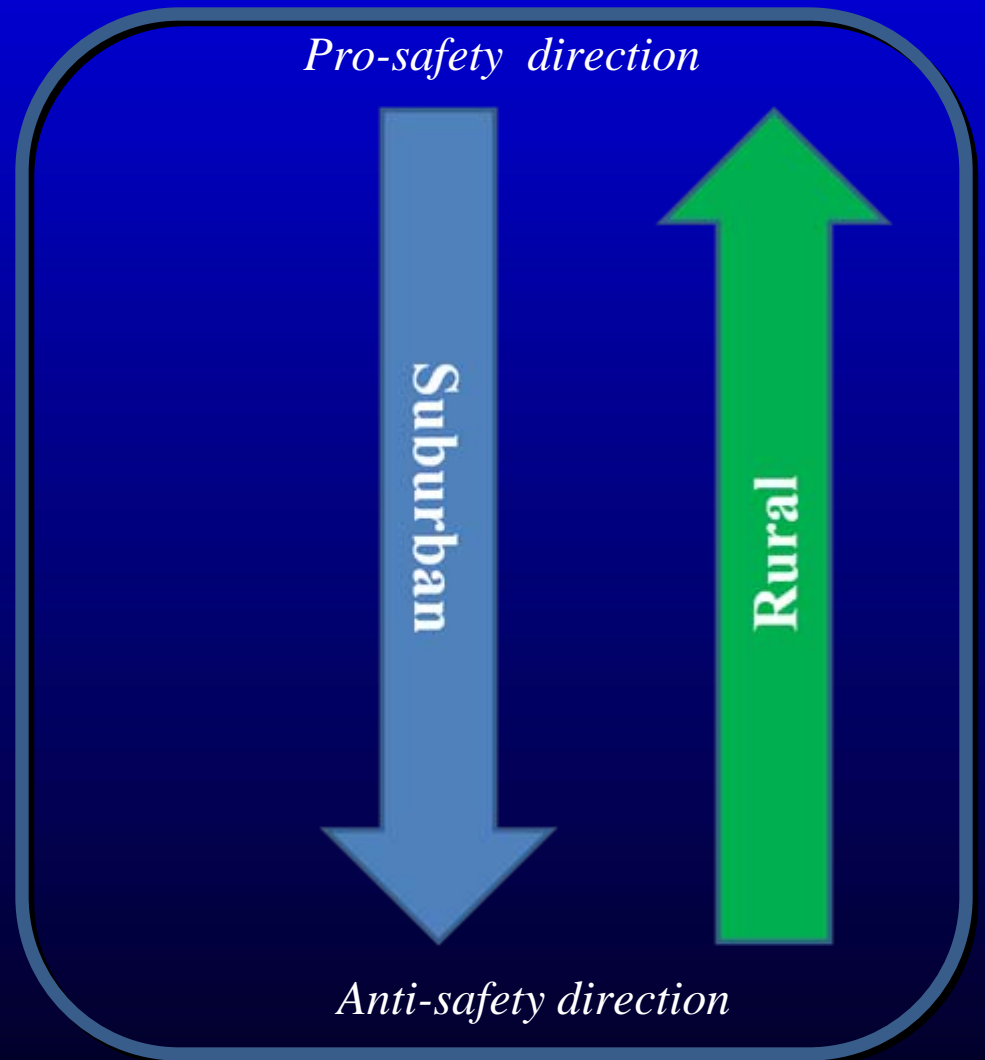
Logic of Speeding

“Driving over 45 mph through the towns would help to get me home in time for dinner”



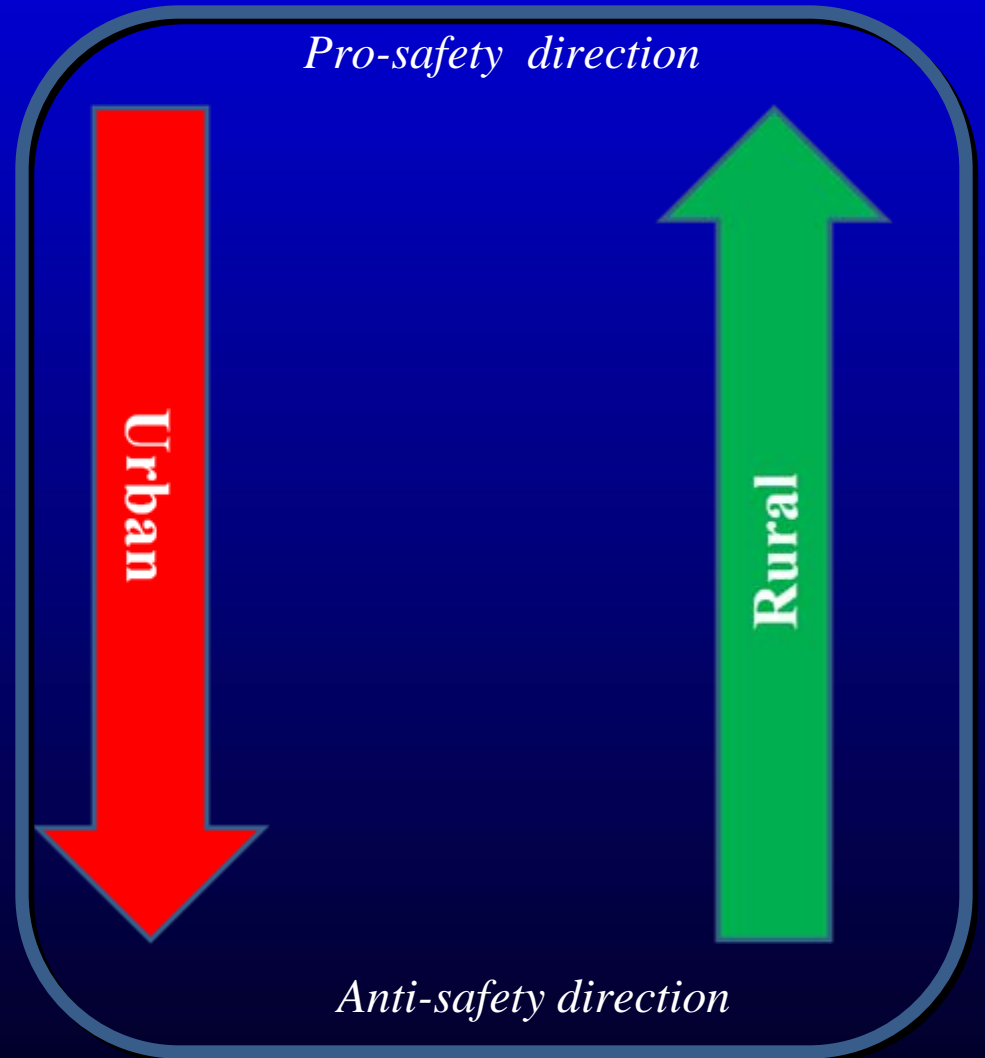
Logic of Speeding

“Driving at the higher speed in the passing lane would get me home a lot faster.”



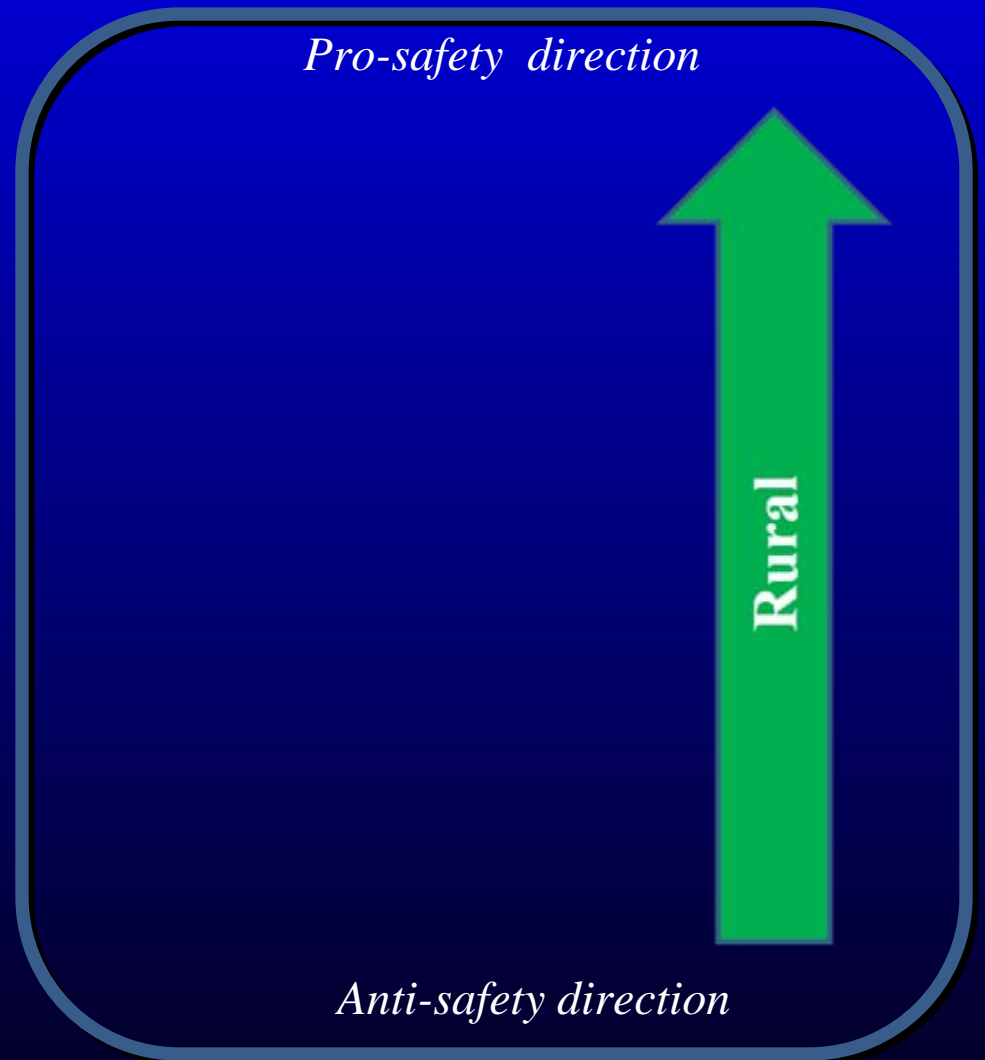
Subjective Norm

“The people I like to be around would never obey these town speed limits.”



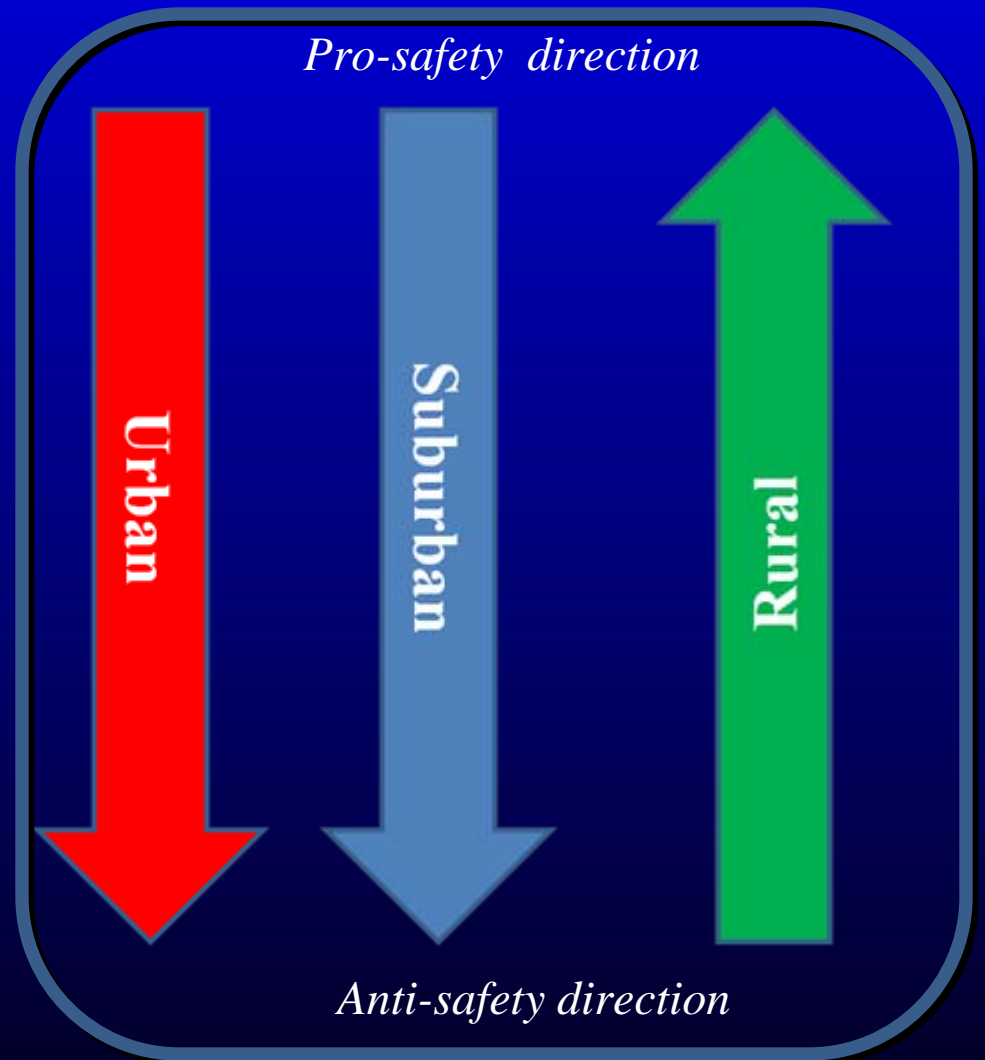
Social Norm for Speeding

“I would feel ashamed to be pulled over by the police for tailgating the slow car.”



Social Norm for Speeding

“If I told my friends at dinner that I broke the speed limit to get home, they would disapprove....”



Social Norm for Speeding

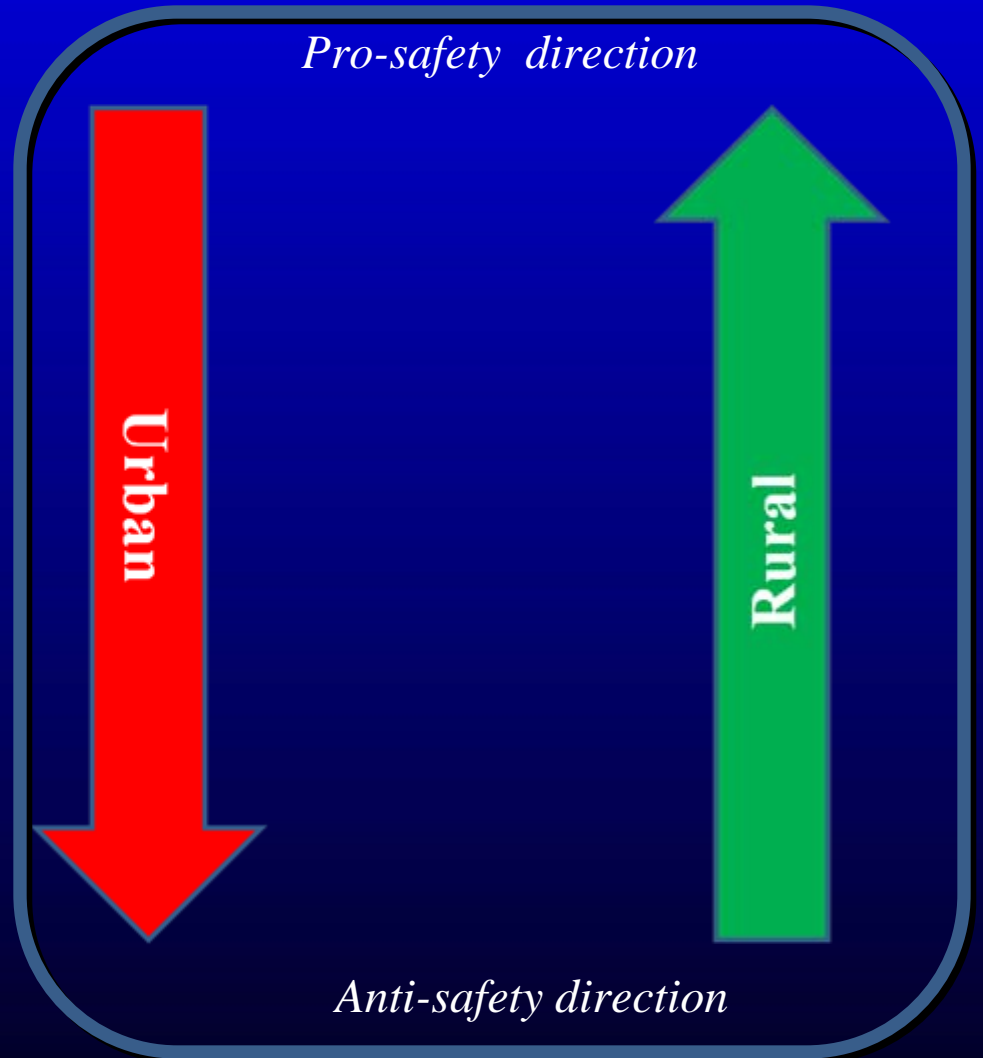
“My parents would
find the idea of me
speeding...
unacceptable”

Pro-safety direction

Anti-safety direction

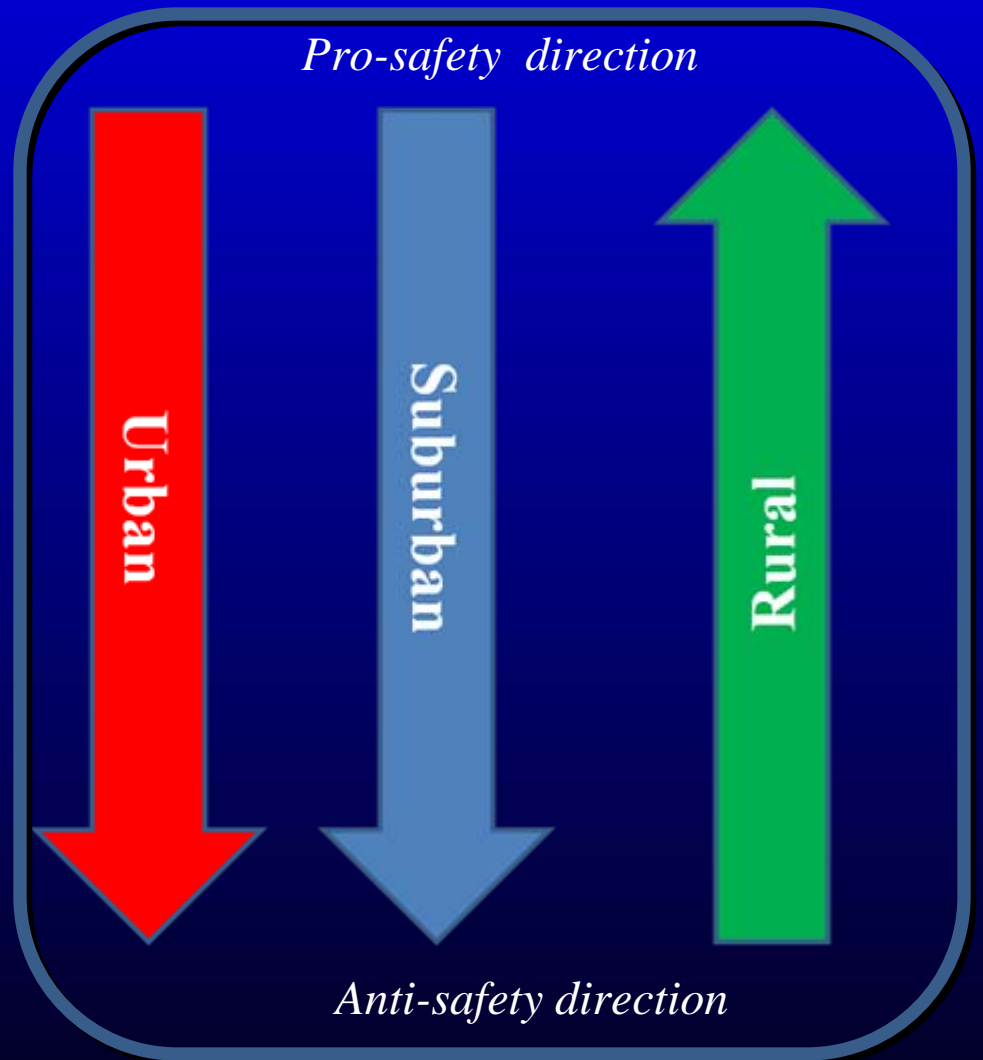
Illusions of Self Power

“These rules make no sense for me, as I am a very precise driver who brakes quickly.”



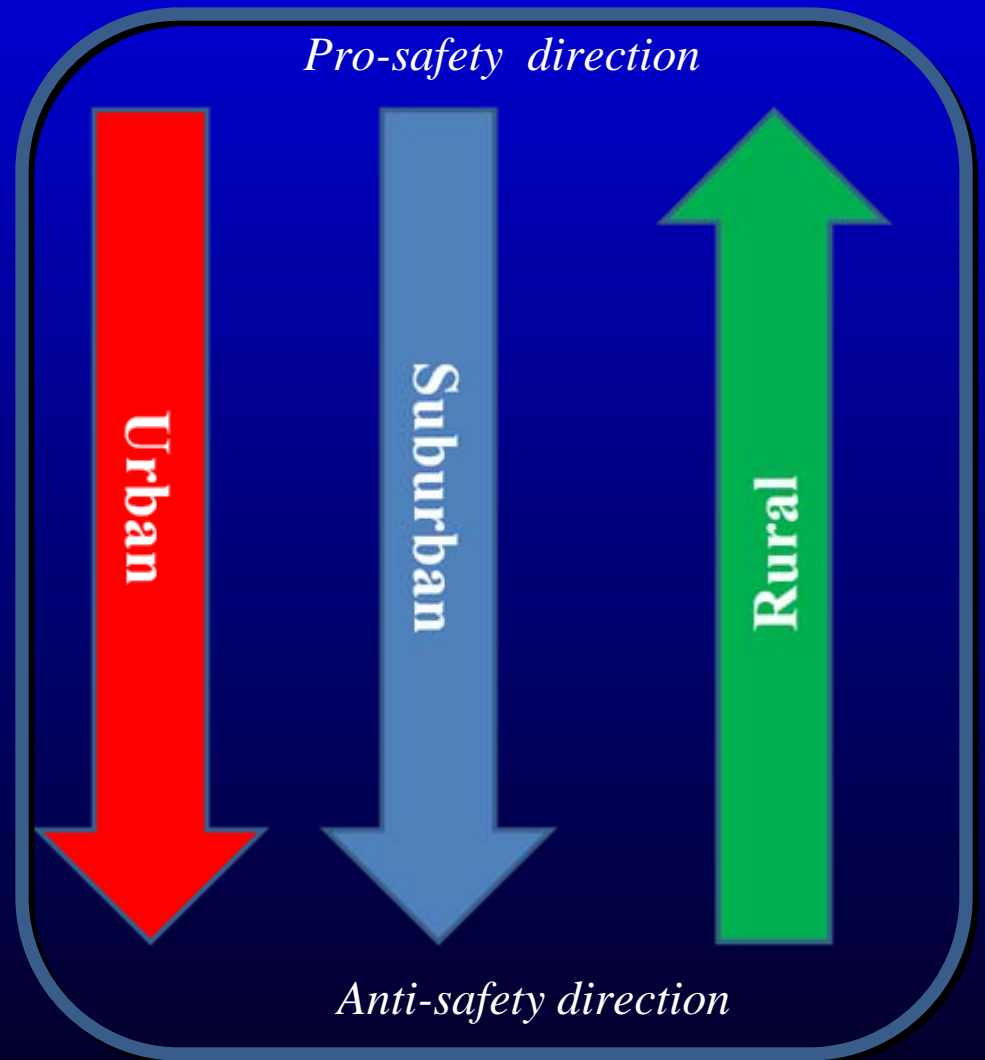
Intention to Speed

“I intend to go through similar towns at the higher speed in the next two months.”



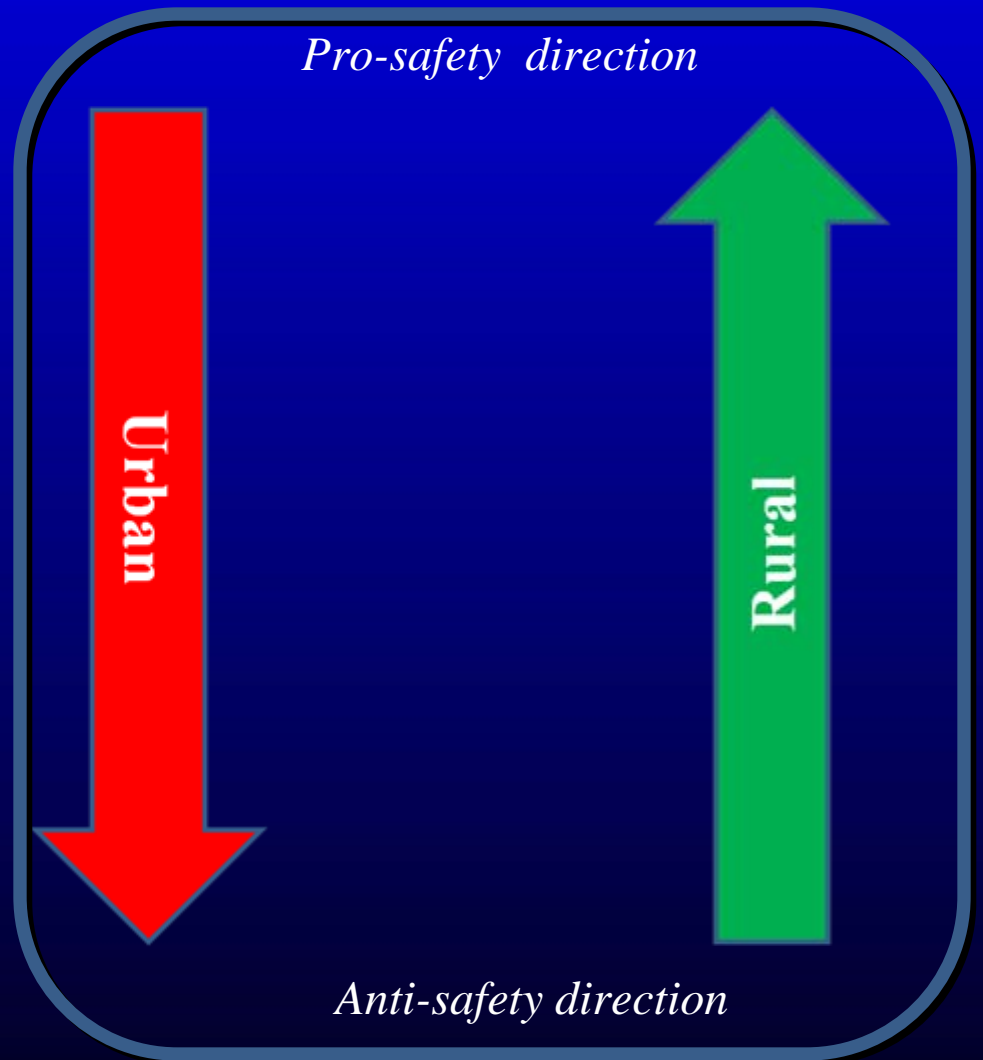
Reported Low Speeding

“I usually go through towns at the higher speed (over 45 mph).”



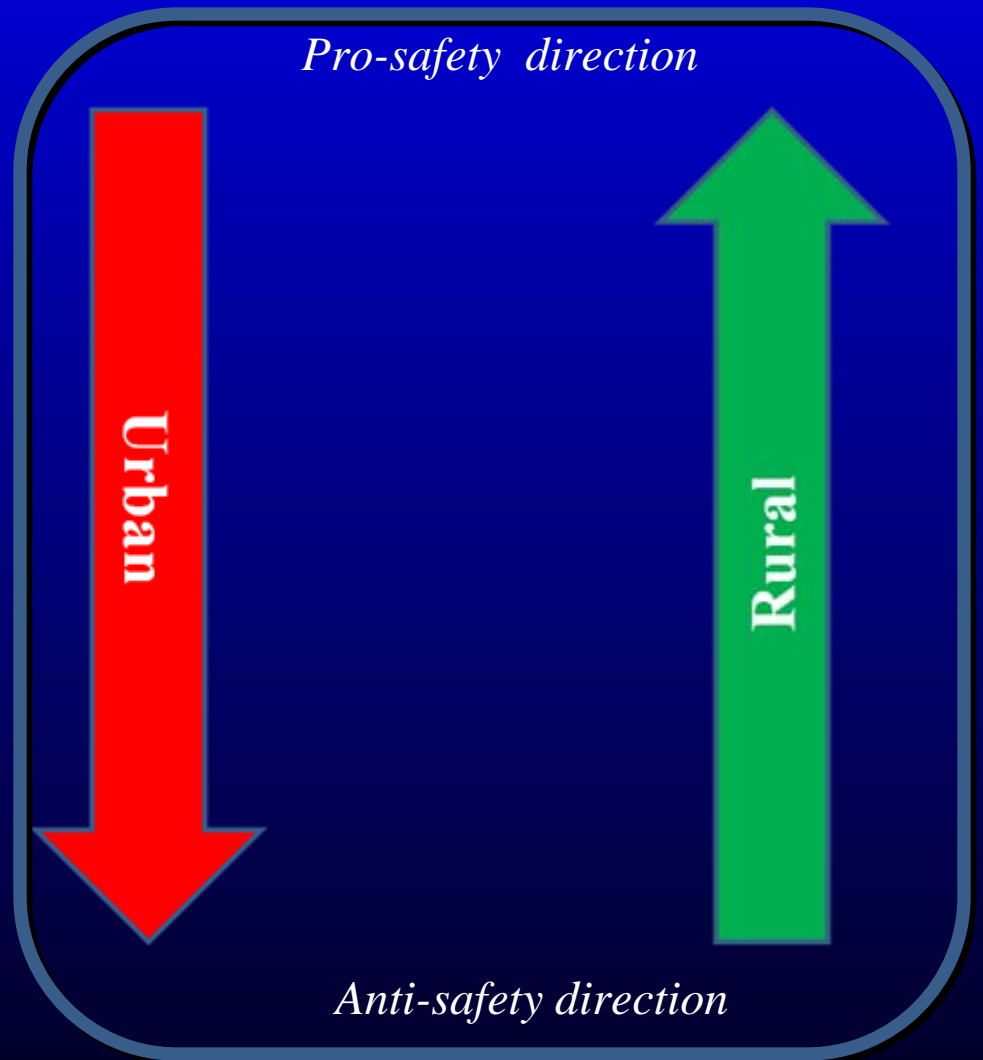
Attitudes to Drink and Drive

“Driving after having a few drinks is acceptable.”



Attitudes to Drink and Drive

“It is dangerous to drink and drive..”



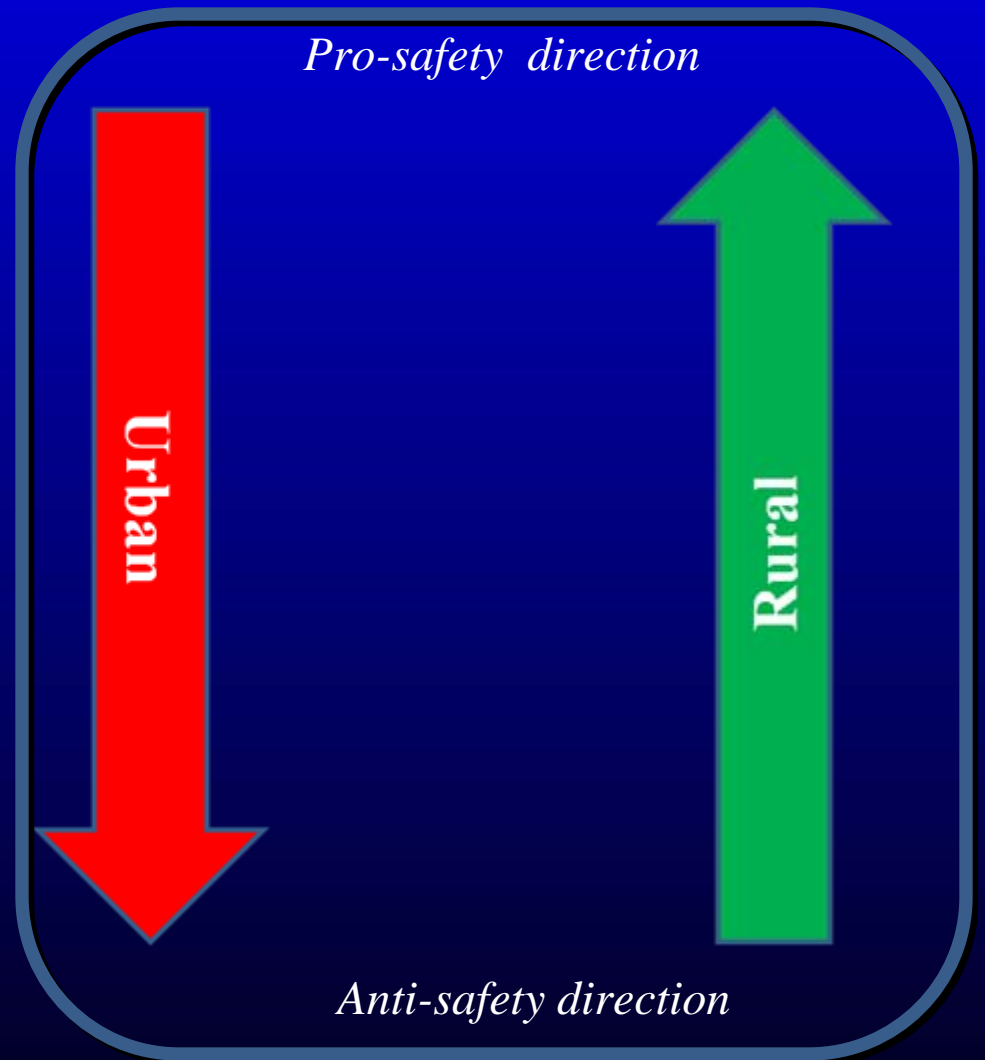
Driving Behavior: Speeding

“Disregard the speed limit on a two-lane highway.”



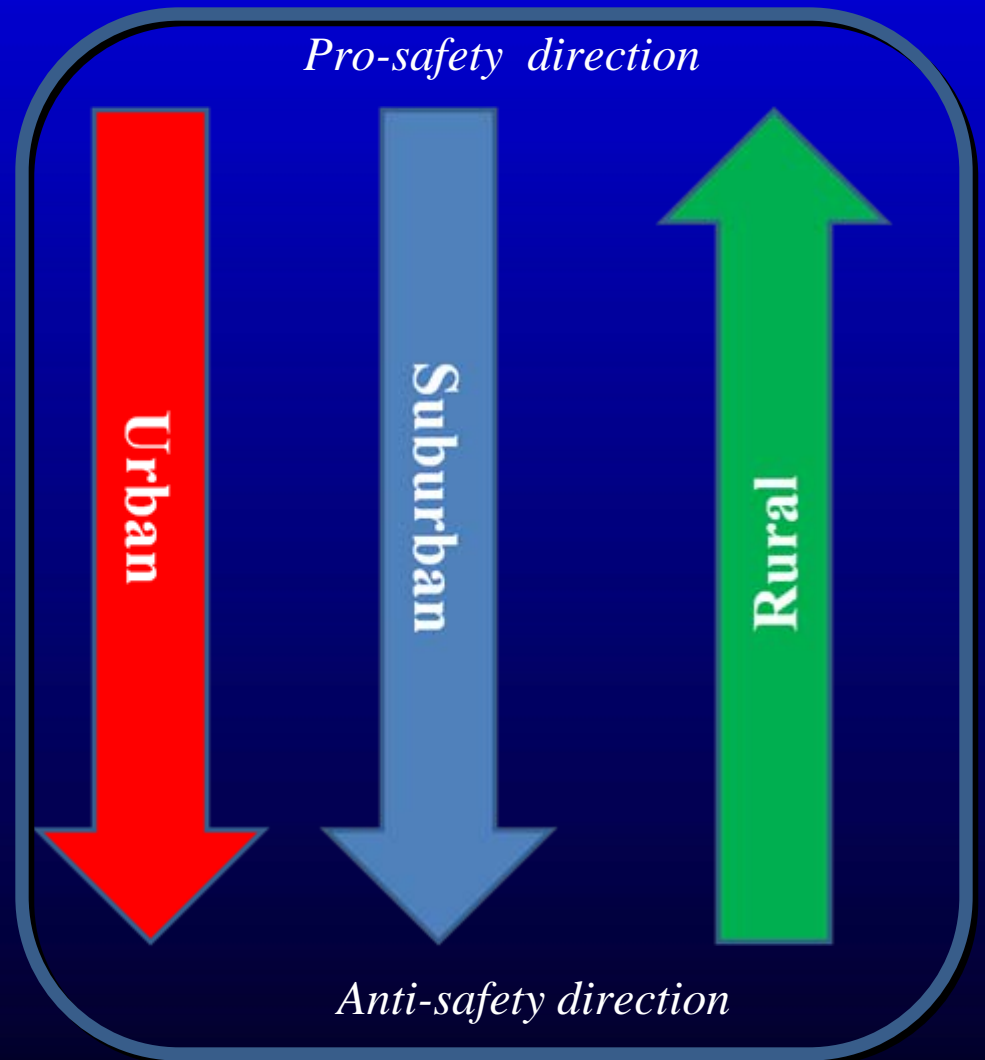
Perceived Effectiveness of Aggressive Driving

“If I follow the car in front of me closely, then it is very likely that the car would move out of the left lane.”



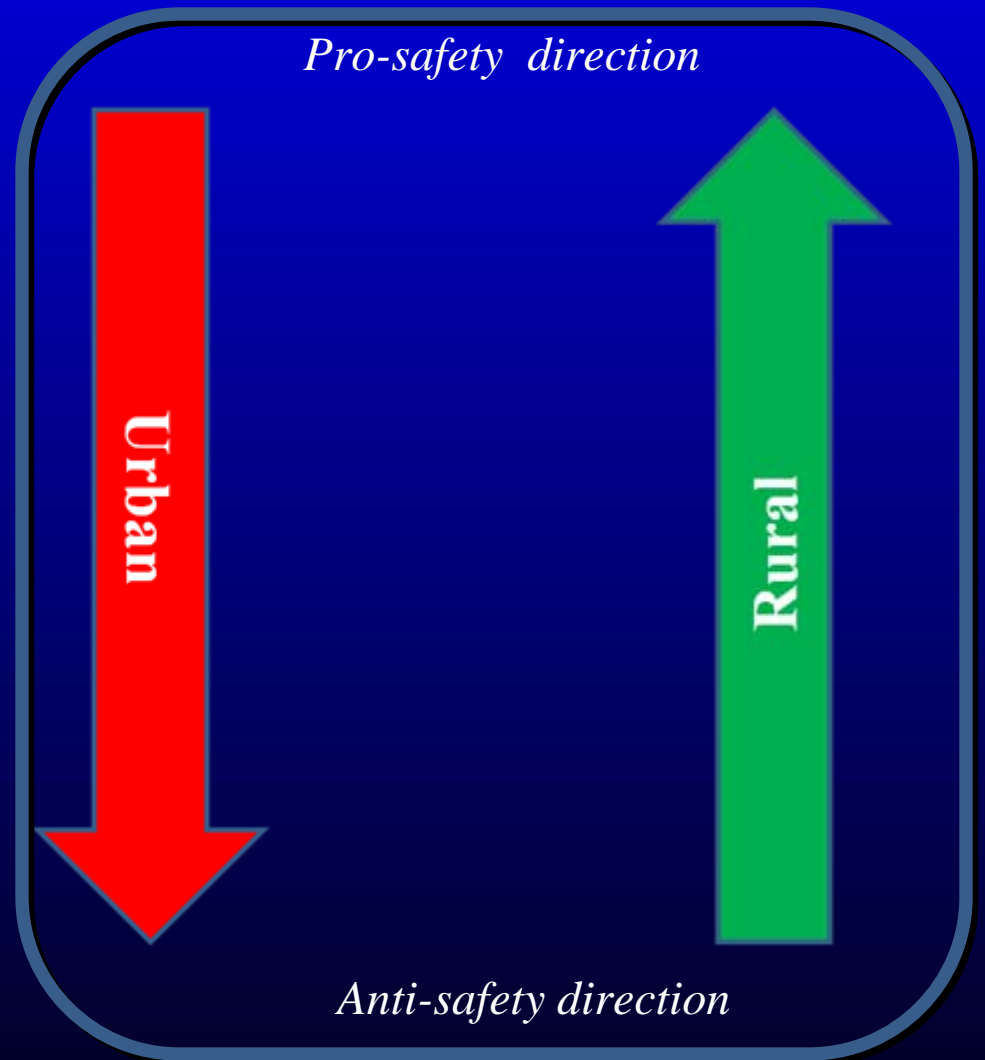
Driving Behavior– Speed

“Go more than 75 mph on an interstate....”



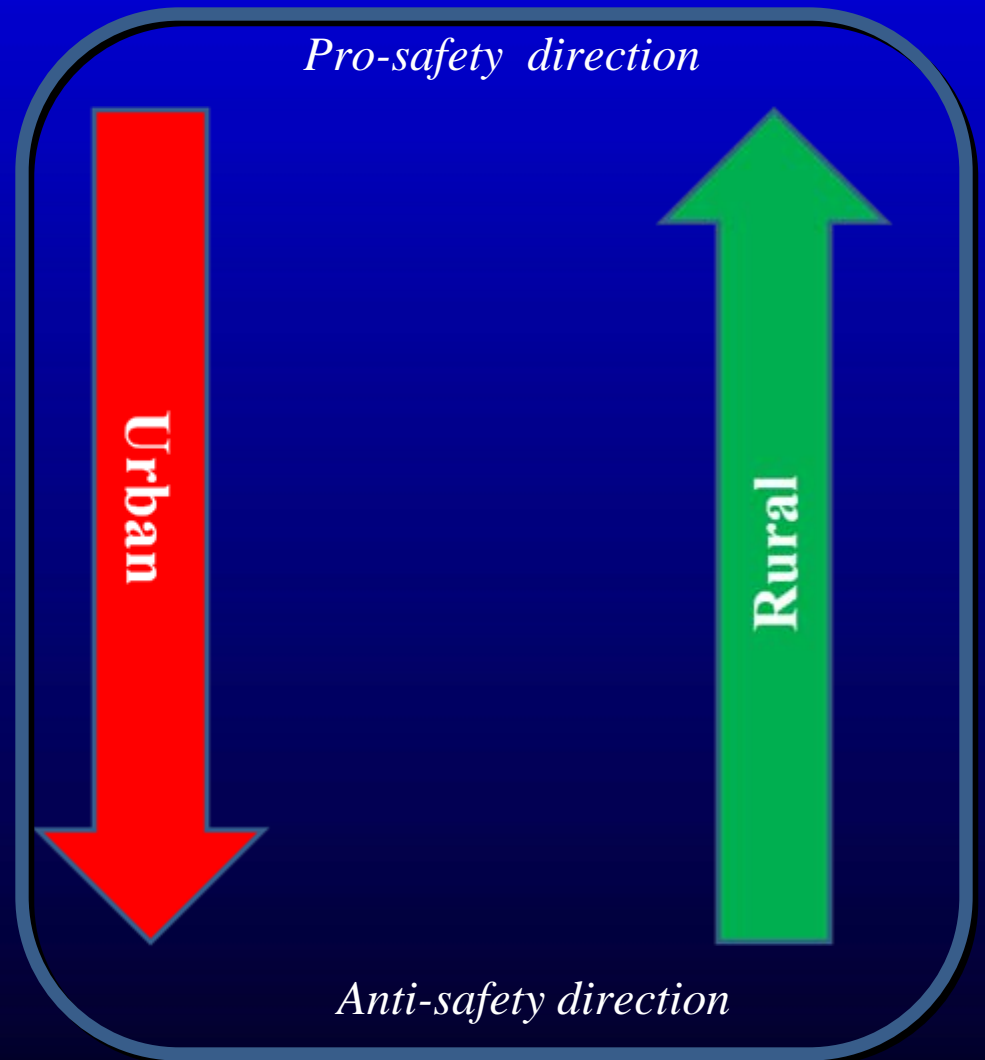
Driving Behavior– Speed

“Go more than 80
mph on an
interstate....”



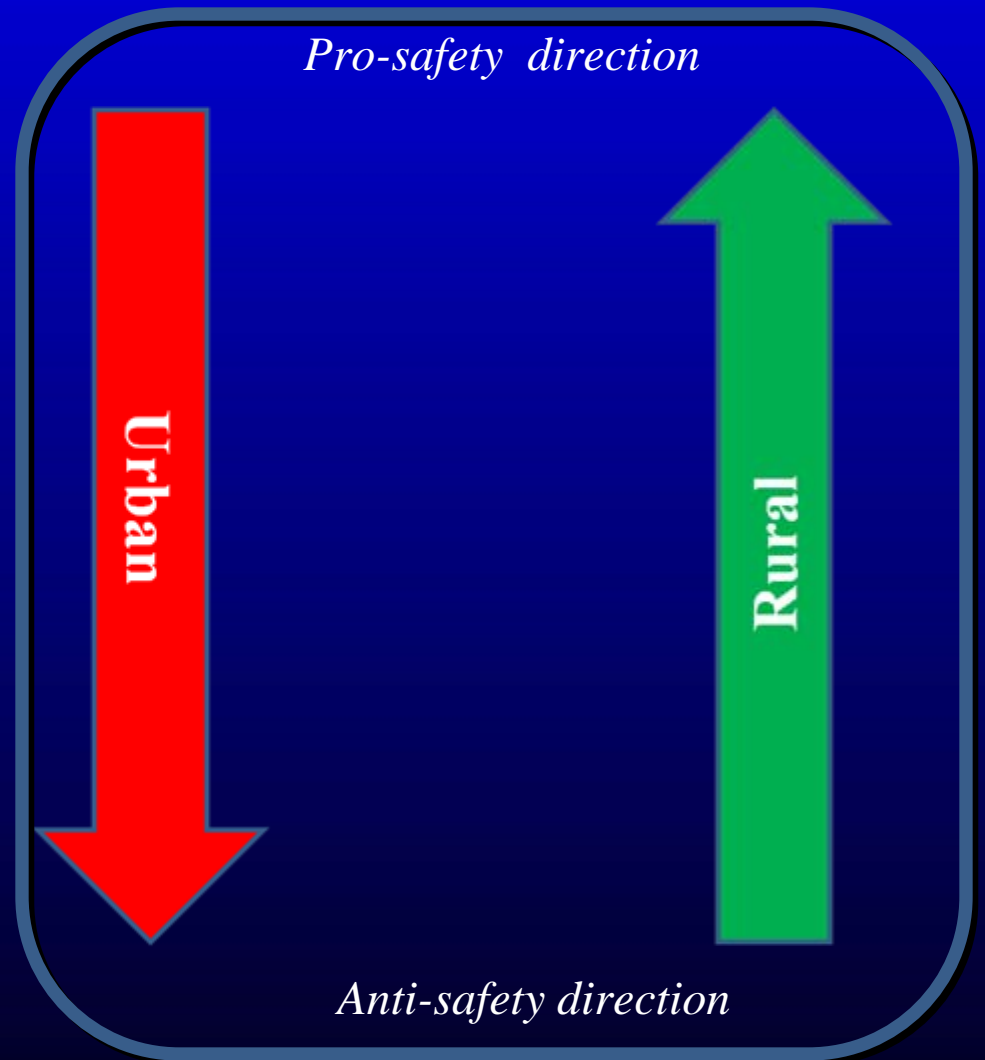
Alcohol- Behavior

“Drive home after
having drunk more
than the legal
limit.....



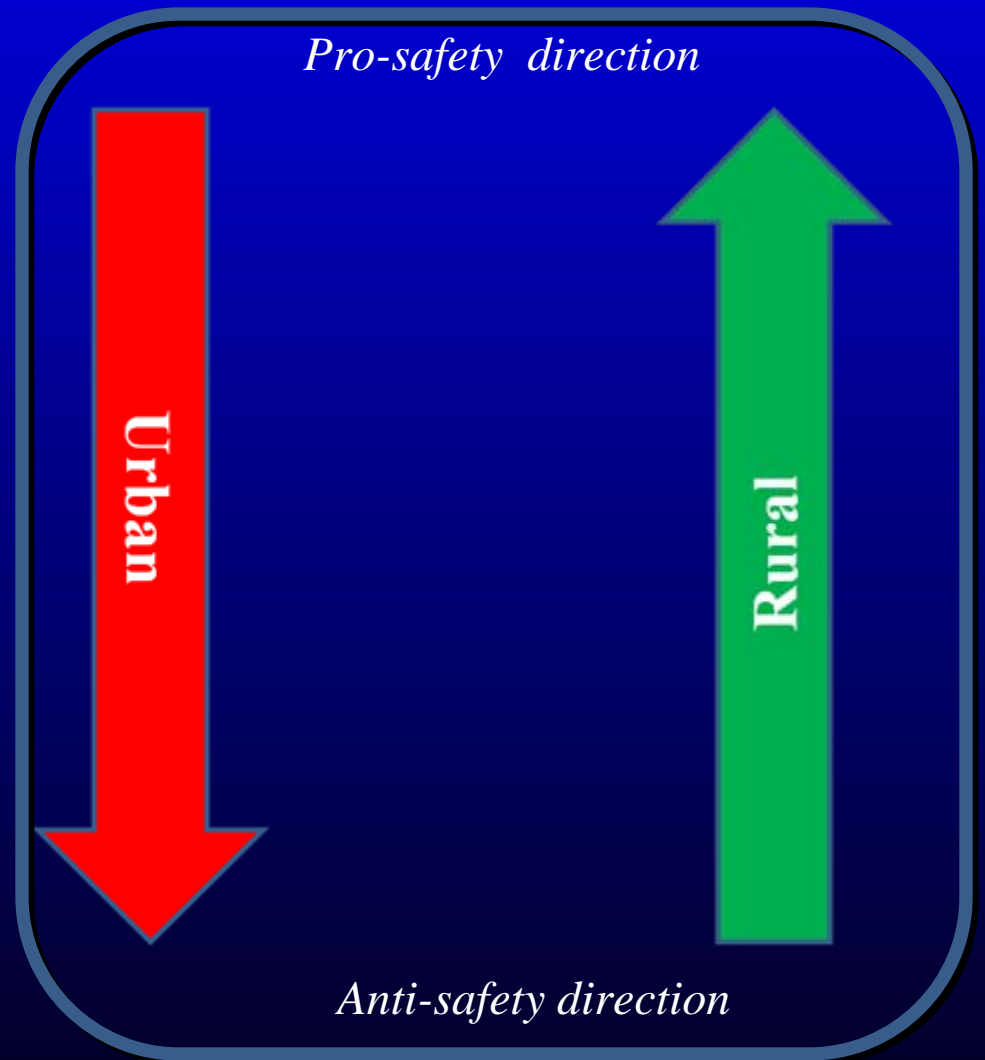
Denial of Risk

“Tailgating the car in front of me would increase the chance of having a bad accident.”



Dangerous Driving – Phone

“Use your cell phone while you are driving.”



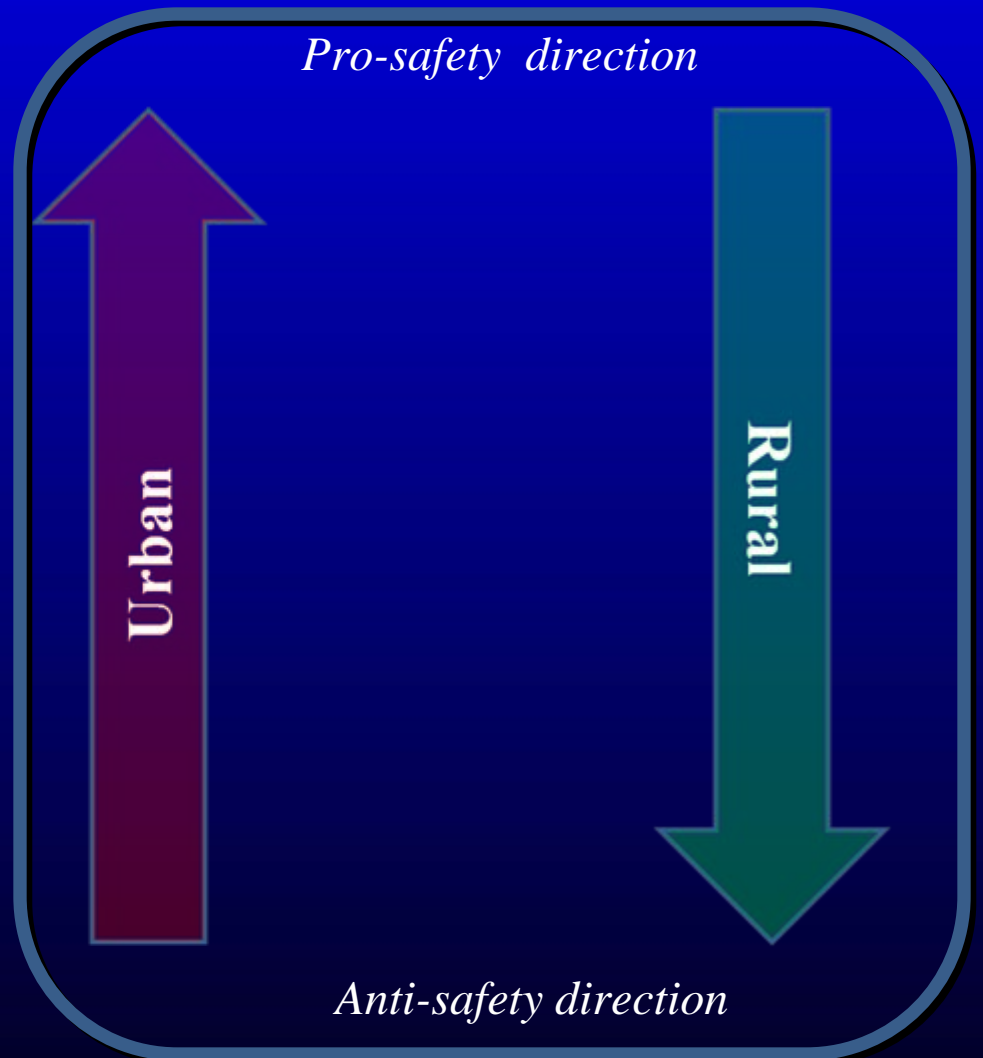
Efficacy of the Seatbelt

“Driving without a seatbelt is dangerous.”

Urban Mean=5.96

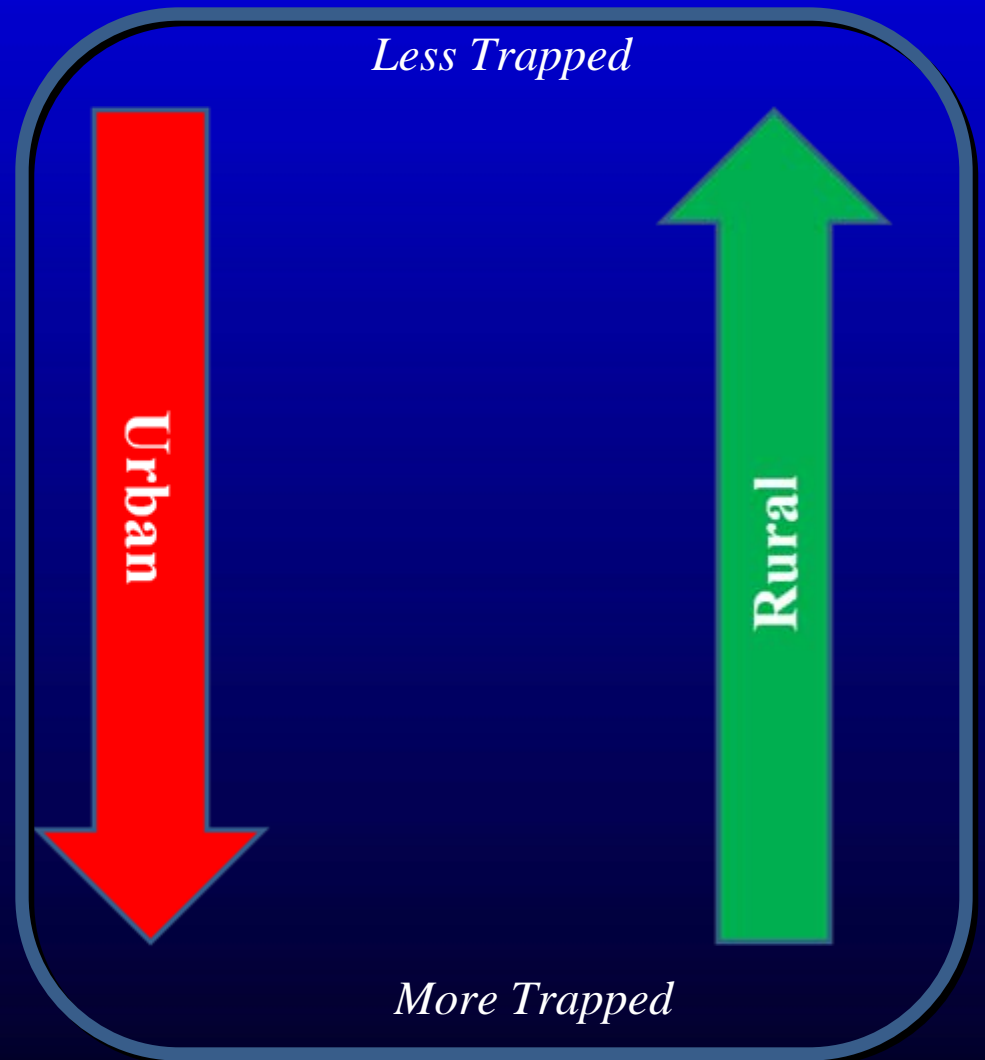
Rural Mean=5.92

(No significant difference)



Frustrated with Location?

“ Sometimes I think I am trapped in this place and cannot move away.”

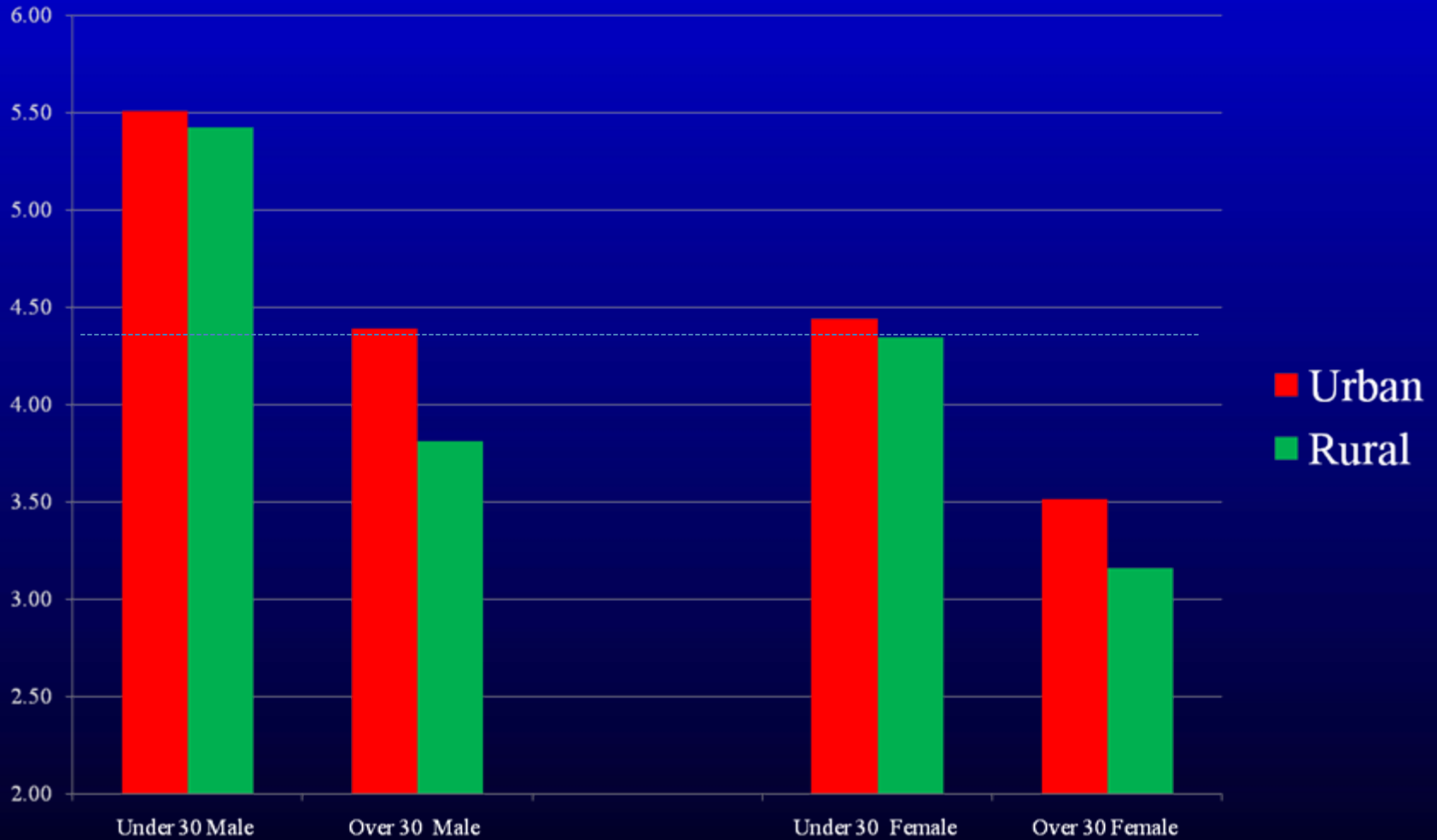


Badness of Attitude vs Badness of Driving Behavior

- Factor analysis was applied creating two separate factors
- A ‘Culture of Risky Driving Index’ was created to reflect attitudes and cultures
- A ‘Behavior of Risky Driving Index’ was created to reflect self reported driving behavior

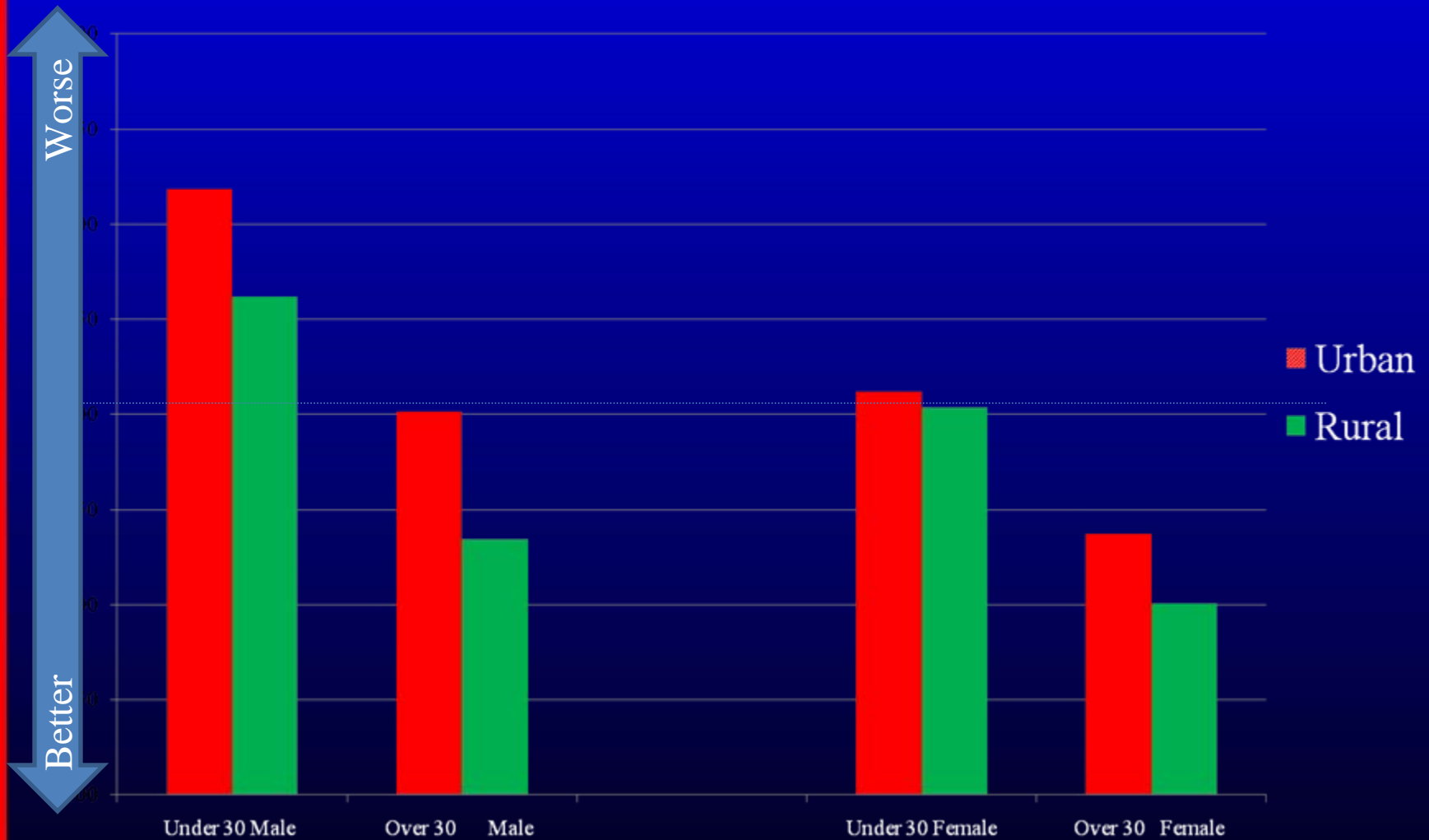
The Culture of Risky Driving

Urban/rural differences by age and gender



The Behavior of Risky Driving

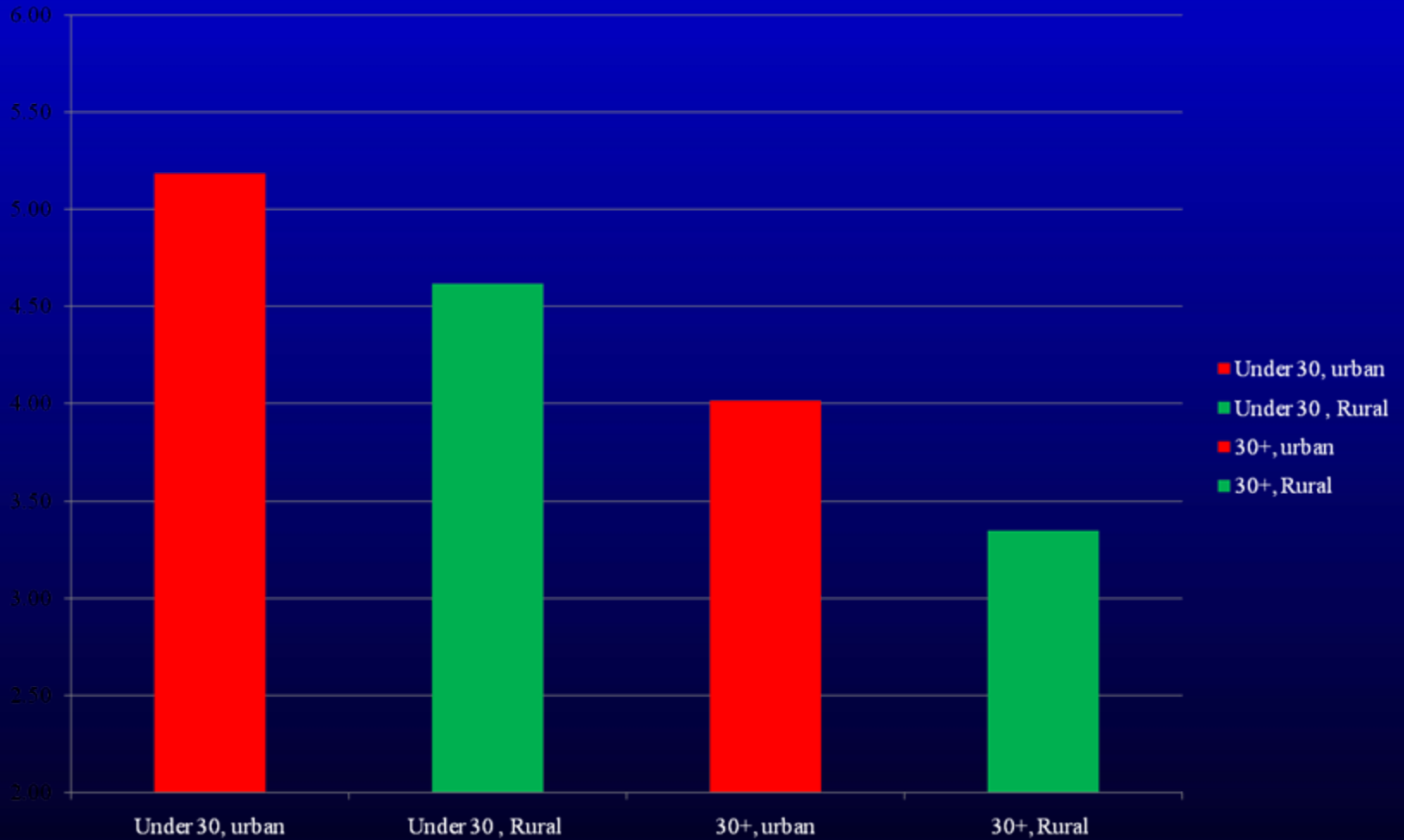
Urban Rural Differences by Age and Gender



The Behavior of Risky Driving

Influence of age and location

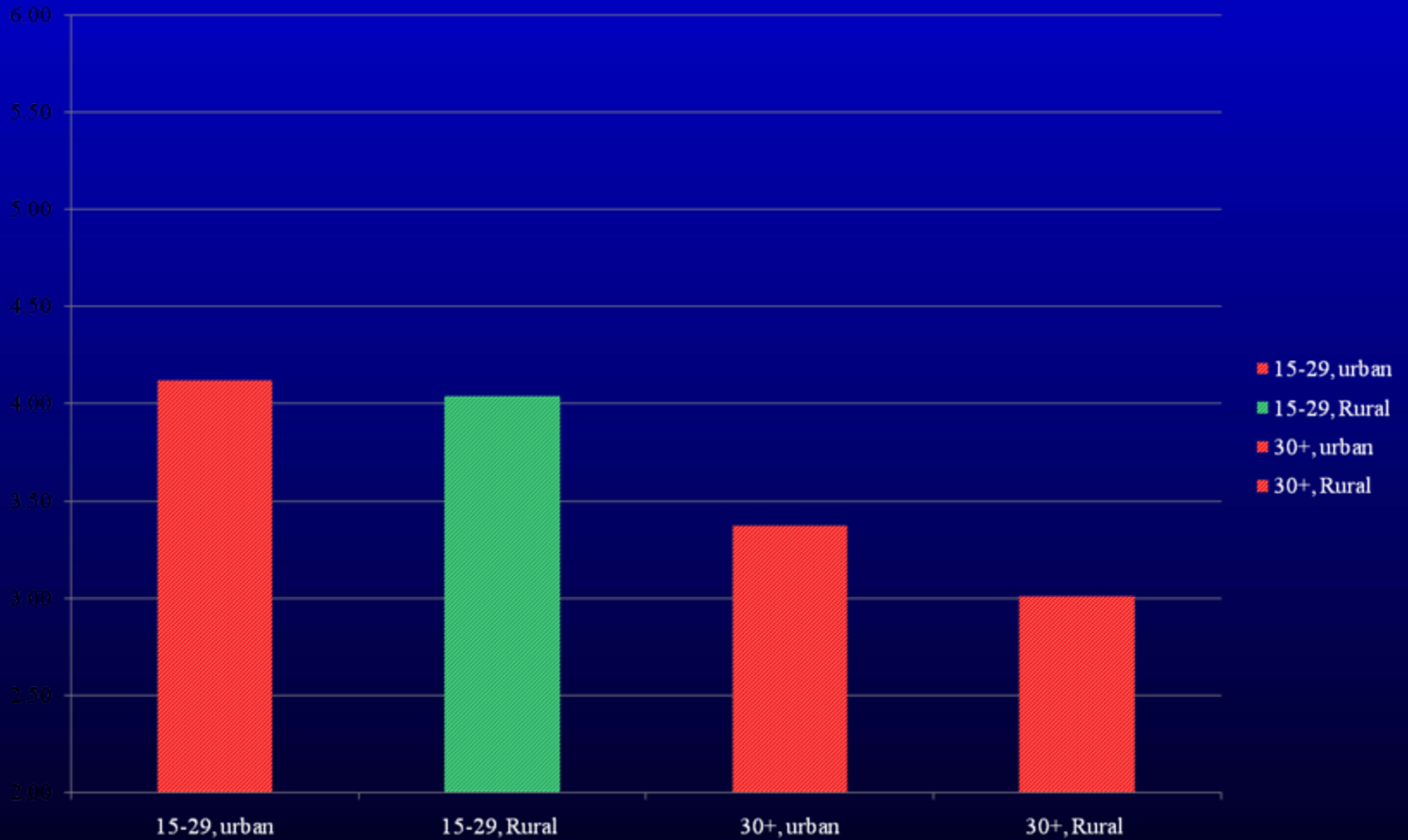
Male



The Behavior of Risky Driving

Influence of age, gender and location

Female

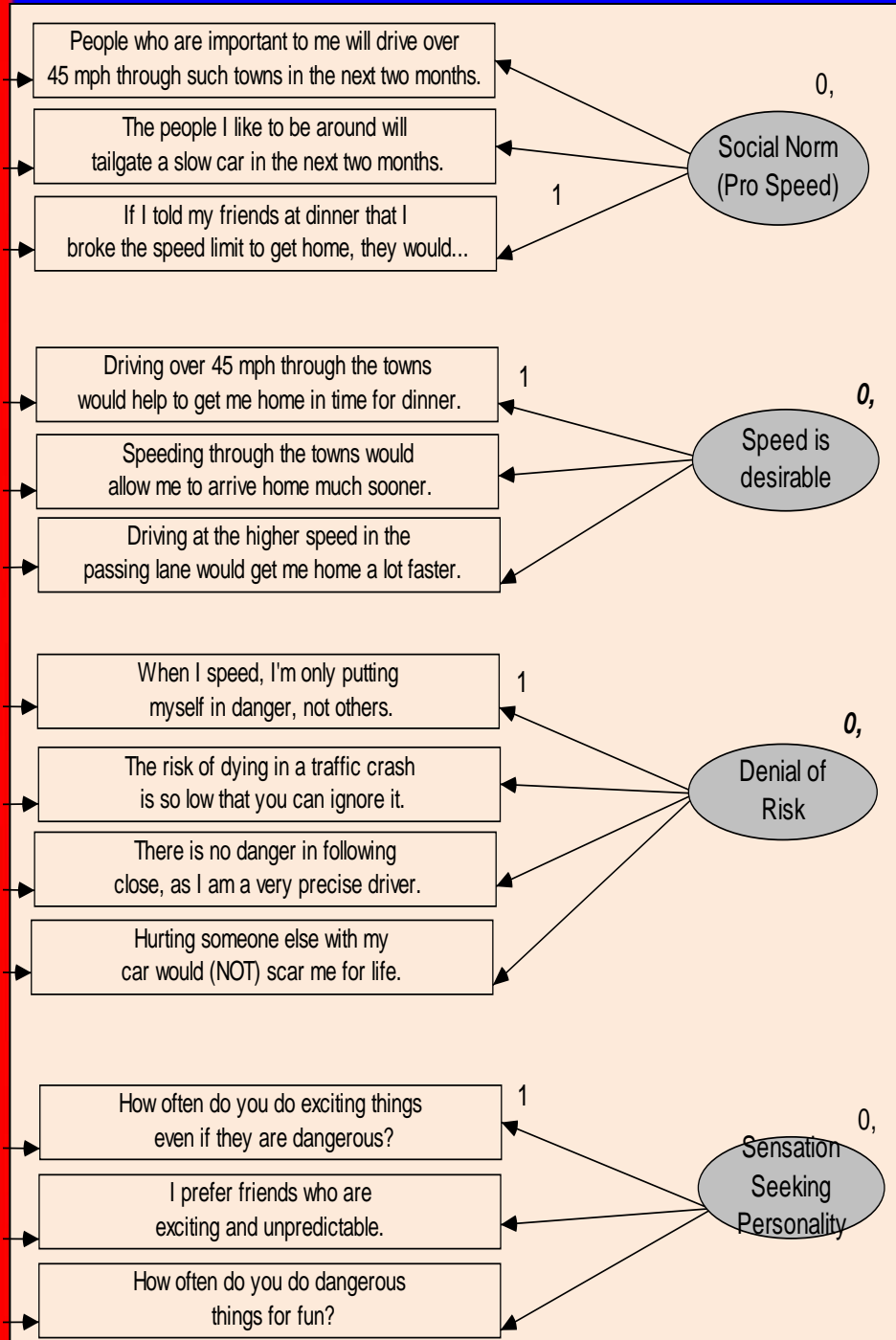


Further Analysis

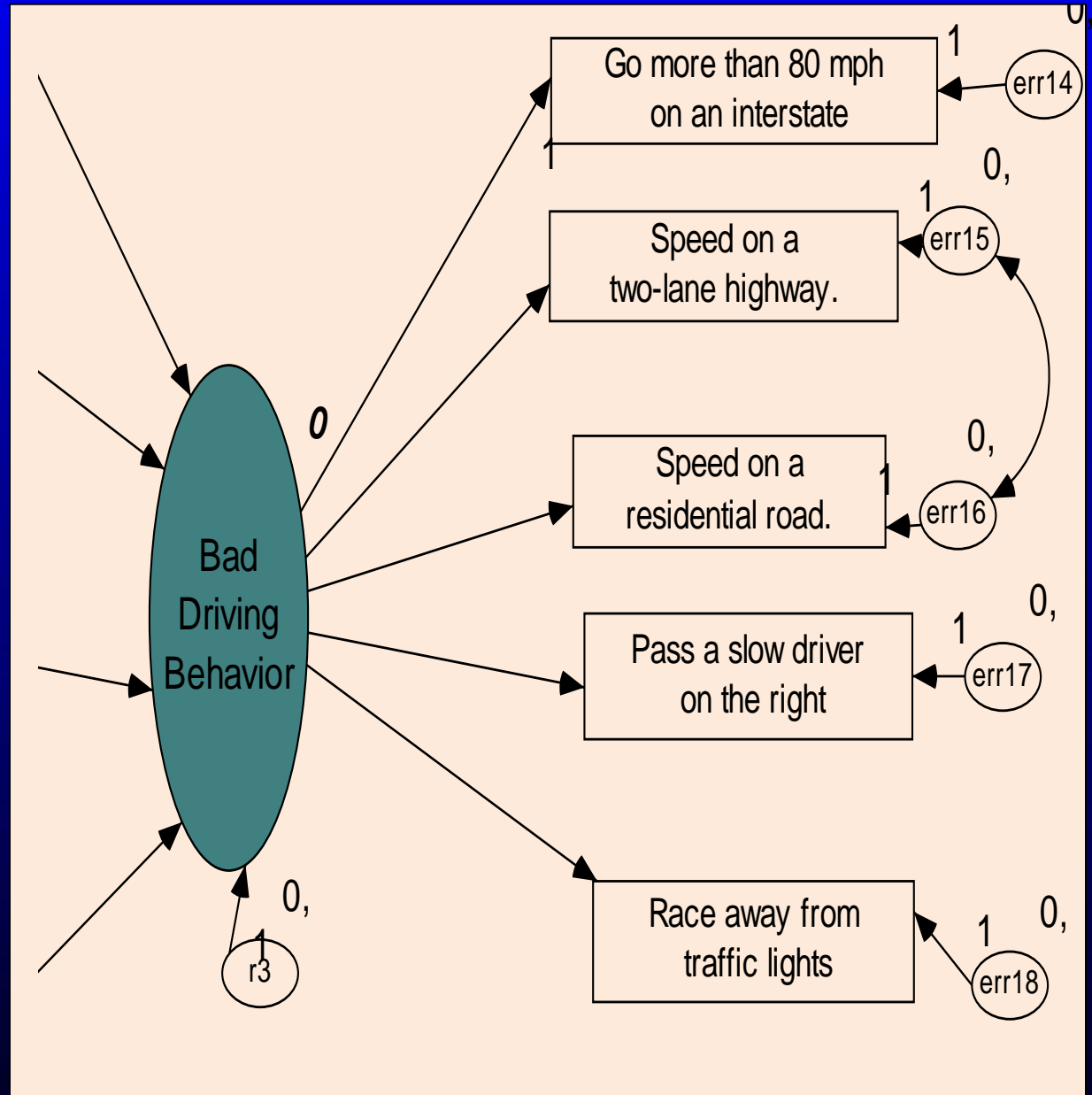
- Market research techniques are being applied to understand the psychographics of the separate market segments
- A structural equations model was built to understand how variables interact

- Four ‘explanatory’ latent factors were revealed in the Confirmatory Factor Analysis phase

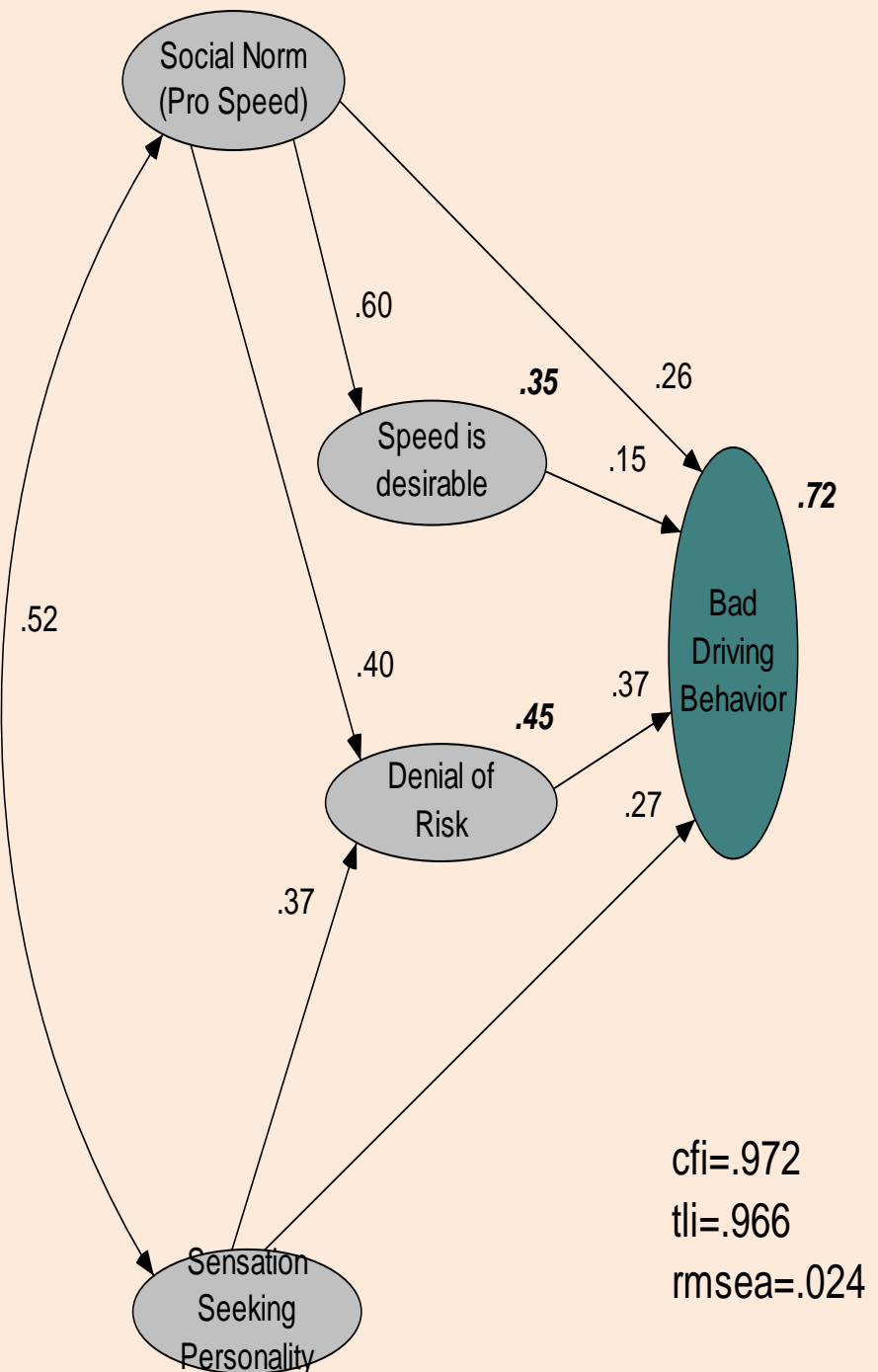
- 13 directly observed variables were used

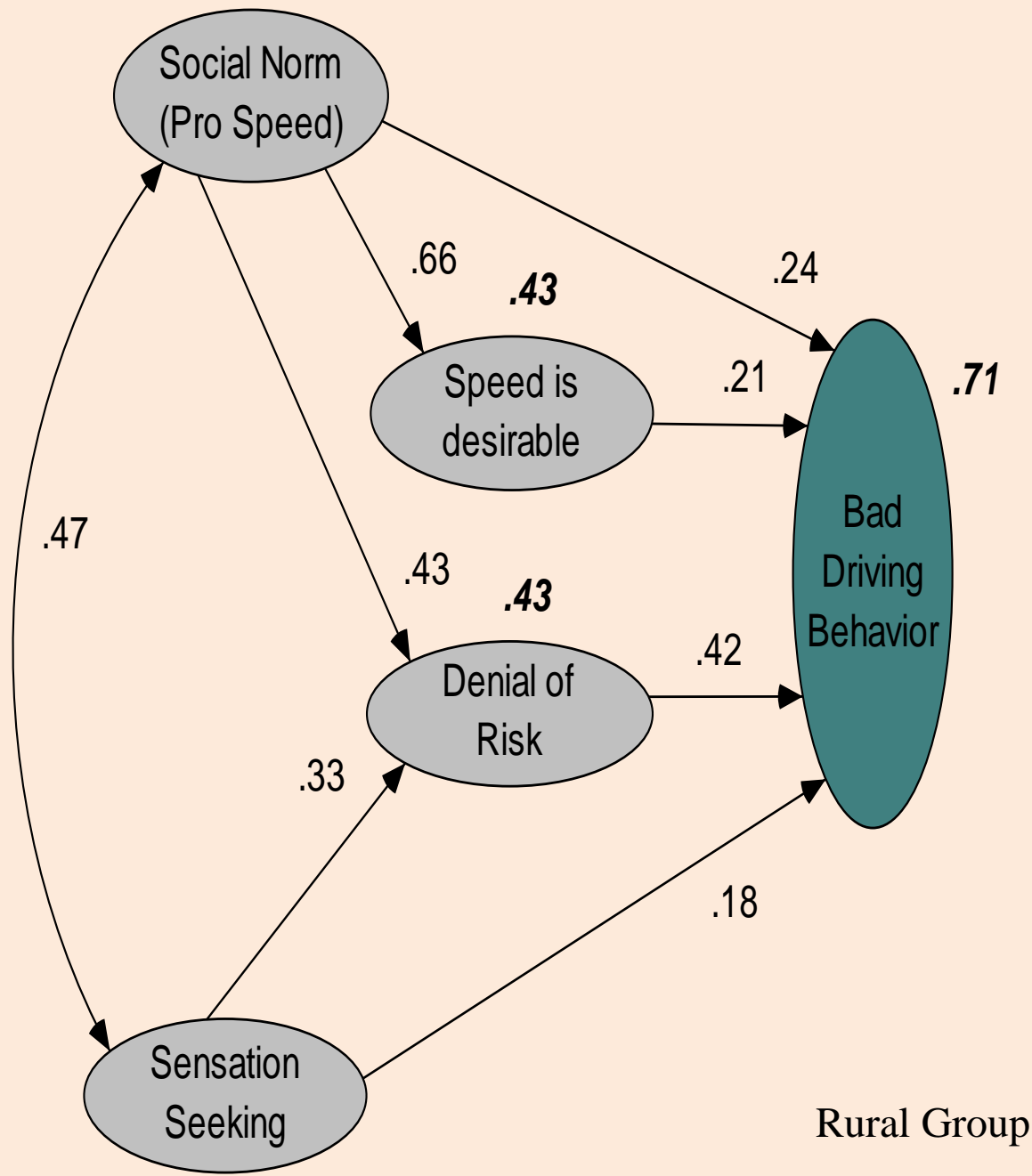


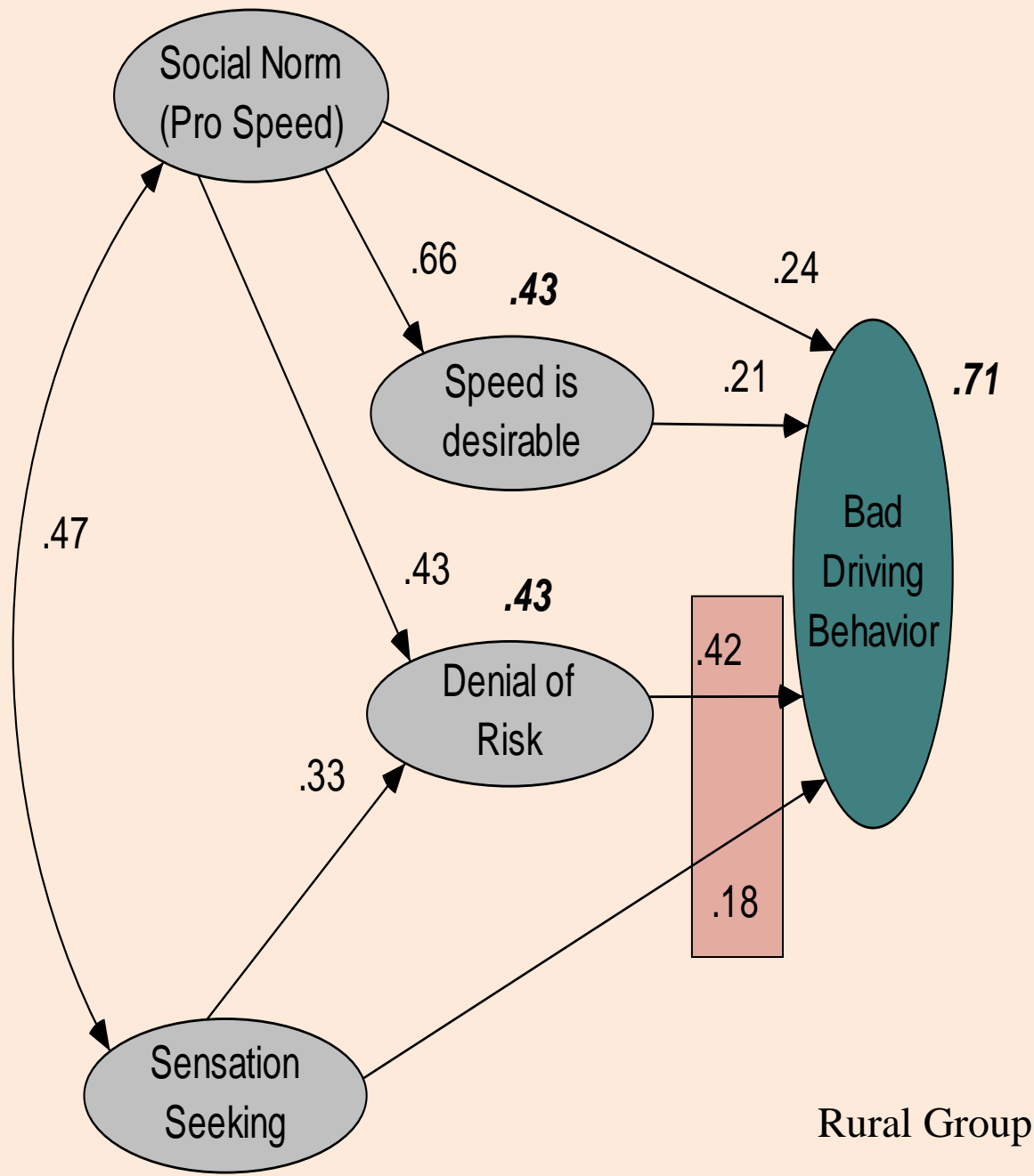
- One ‘outcome’ latent factor was created
 - 5 directly observed variables were used

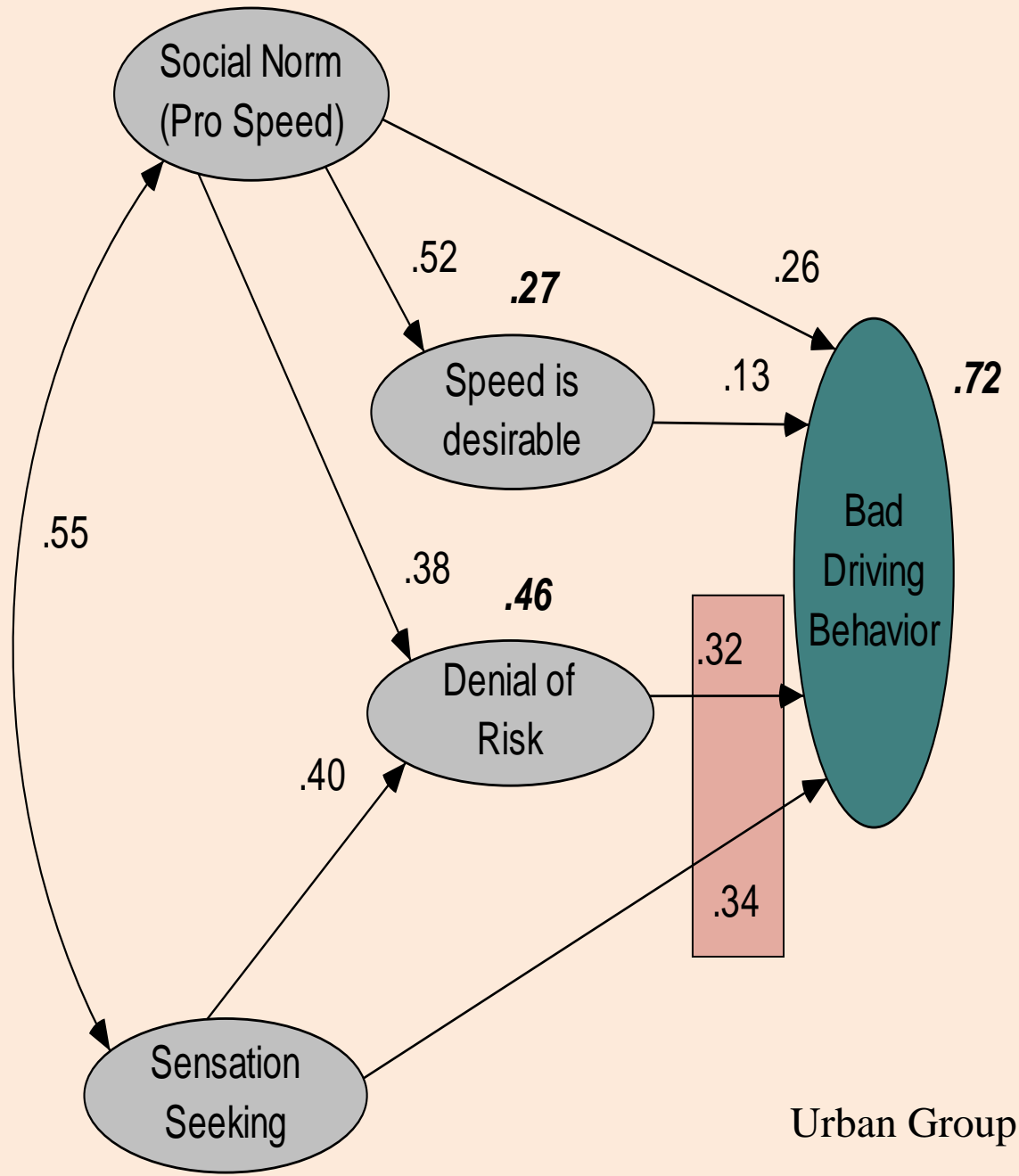


- A basic Structural Regression Model was created to show the relationships among the latent factors
 - For the full sample









Conclusions

- A “Rural Culture of Bad Driving” does NOT exist in our sample
- “Denial of Risk” is more important for the Rural Group than for the Urban Group
- “Sensation Seeking” is more important for the Urban Group than for the Rural Group

Conclusions

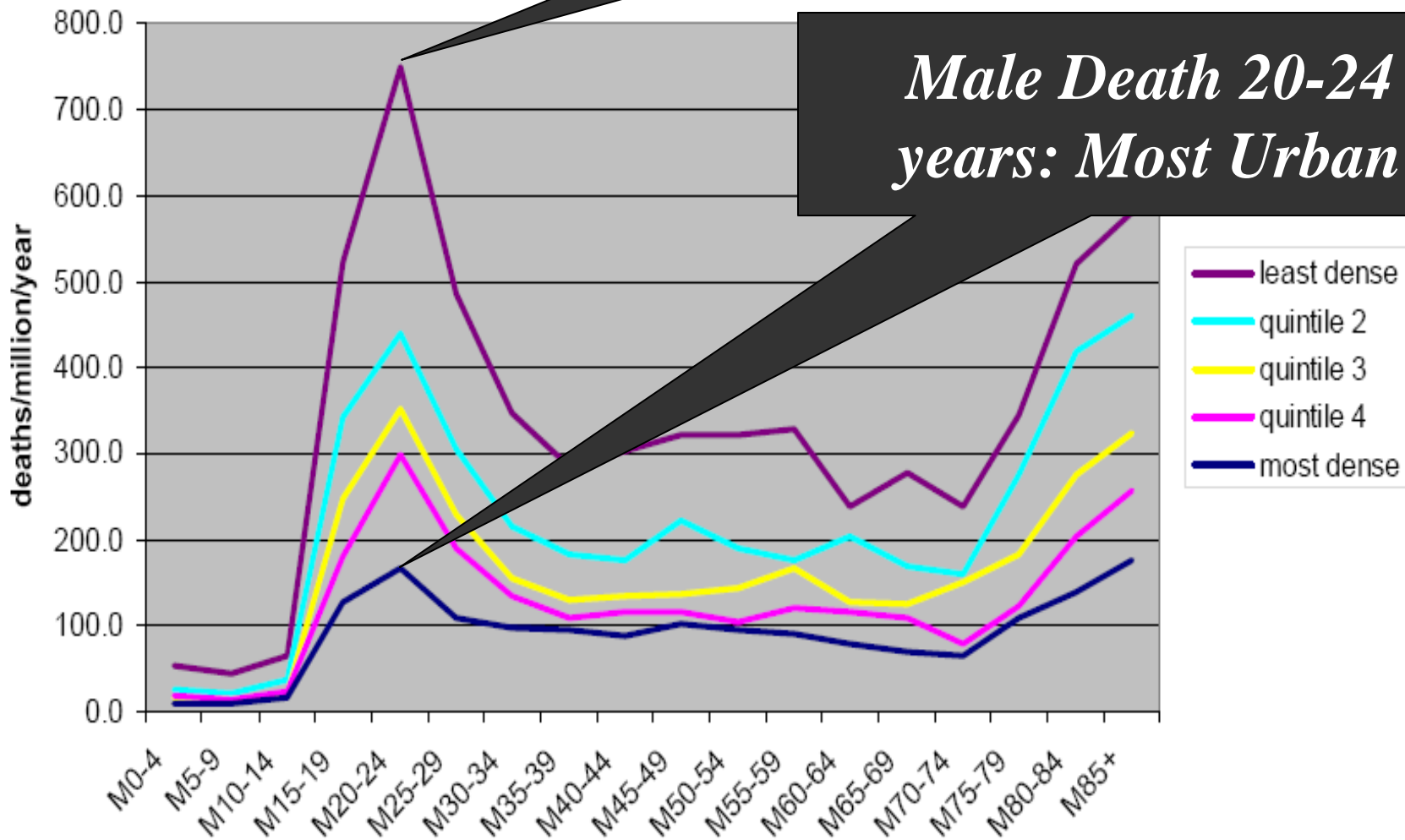
In our sample of Northeastern Rural States...

- *No negative rural driving culture was found*
- *No negative rural behavior pattern was found*
- But...
- Urban group driven by seeking sensation
- Rural group unable to perceive real risk

No Rural “Culture of Driving Behavior”



2004 U.S. Male Death Rate by Age Cohort
of Residence Density



*Male Death 20-24
years: Most Rural*

*Male Death 20-24
years: Most Urban*

- *Thanks.....*