

A map of New England, including parts of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island. The map is overlaid with a dense field of small yellow dots, representing data points or population density. A network of green lines is superimposed on the map, likely representing roads or transportation routes. The background is a solid blue color, and a vertical red bar is visible on the left edge.

# Attitudes Towards Rural Smart Growth Communities

An Update on the Work Program of the New  
England Transportation Institute

*October, 2010*



## NETI

- Established as a “501c3” Research Institute in November 2001
- Funded under *Section 5513 (f) Rural Transportation Research, SAFETEA-LU*
- *Additional funding from*
  - *The University of Vermont Transportation Research Center*
  - *The “Changing Climate Change” program of the Green Mountain Coffee Roasters, Inc*



## Focus Areas:

FHWA Grant Agreement DTFH61-06-G-0008

***1) Rural Transportation:  
Issue Definition and Refinement***

**2) Rural Transportation:  
Implications for Safety and Health**

**3) Information Technologies for  
Rural Mobility and System Connectivity**



## 1) Rural Issue Definition and Refinement


- NETI has concluded a major survey to document the attitudes of those in the rural states of the Northeast concerning their perceptions of their own levels of mobility, and their perceptions of their isolation.
- These perceptions of mobility or isolation are being examined against many variables, including age and position in the life cycle. Results are analyzed in terms of their evaluation of the quality of their access to medical services, and retail activities, among other destinations.



# The New England Transportation Survey


- Database includes 3,700 survey responses from Maine, New Hampshire and Vermont

New England  
Transportation Institute



The  
UNIVERSITY  
of VERMONT  
TRANSPORTATION RESEARCH CENTER

New England Transportation Survey



To take this survey online, go to:  
[www.surveycake.com/NETI](http://www.surveycake.com/NETI)

and enter your password:

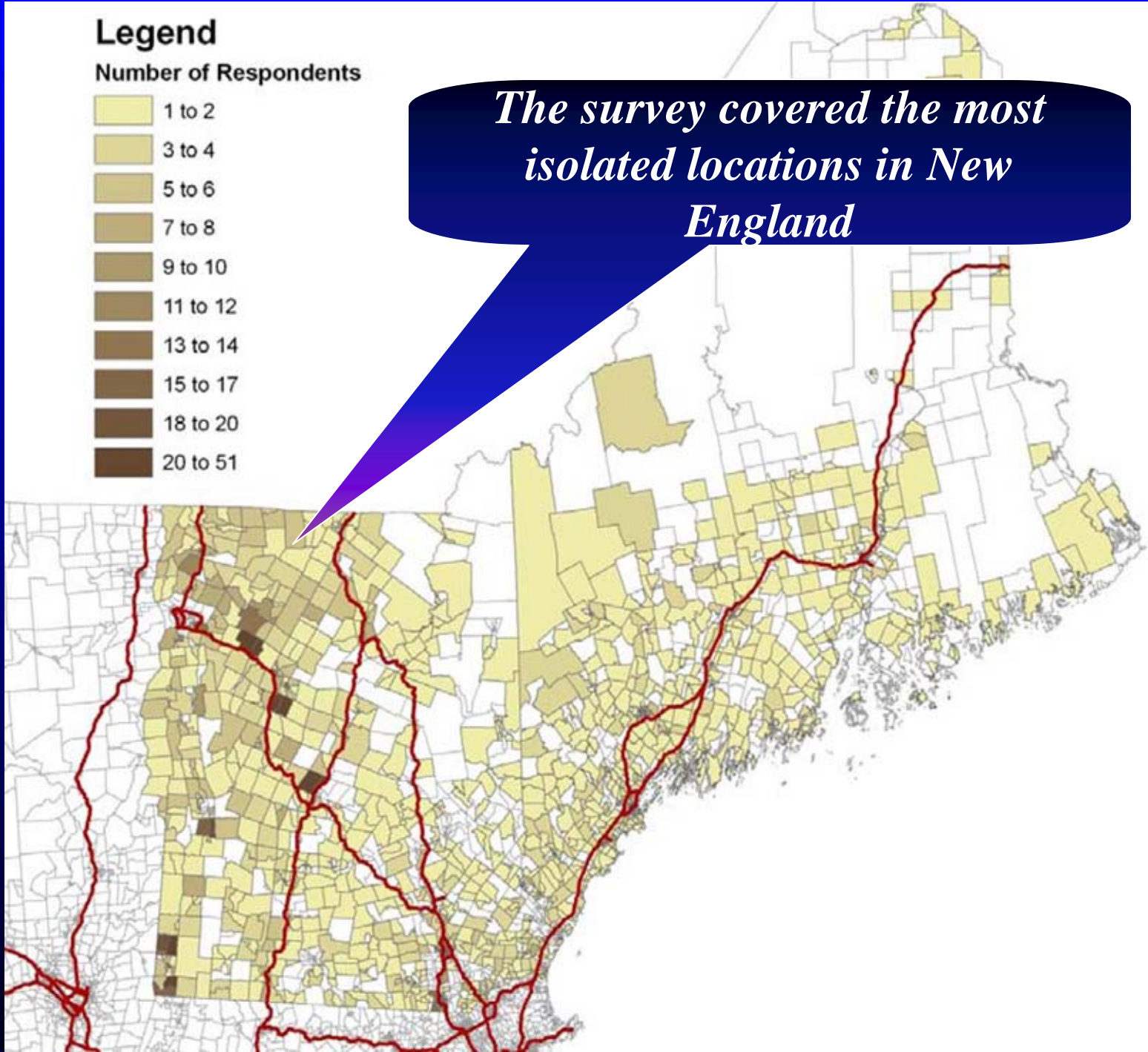
4109

## Legend

### Number of Respondents



*The survey covered the most isolated locations in New England*





# NETI Project Support New Definition of Rural Livability

As discussed in the next presentation the NETI program will help define the meaning of “rural livability”

- **DENSITY:** Household or population density in the neighborhood
- **DIVERSITY:** Jobs/Housing balance, i.e. is there a place to walk to? Can you get basic goods and services in your neighborhood?
- **DESIGN:** Is the street infrastructure walkable?

**How strongly do you agree or disagree with the following statements describing your current home location?**

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree	Don't know or not applicable
It is easy to get to a town center or other place of activity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I know my neighbors extremely well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe when outside in my neighborhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My home is conveniently located near to where I work or go to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily get to places where people gather, like community centers, libraries, or social clubs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I worry that it would be difficult to get help in case of an auto accident on my local roads.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to get to a place to buy groceries near my home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I worry that, in the future, I will not be able to get to medical services from where I live now.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next Question 





### Which of these phrases best describes you?

- I moved to this state because I wanted to live in a rural setting.
- I moved to this state because I had to, not because I chose to.
- I was raised in a rural state, and I stay here because I like it.
- I was raised in a rural state, and I stay here because I have little choice.

Next Question 

 0%

Questions or problems? Please call toll-free 1-888-774-5986 or email [NETI@surveycafe.com](mailto:NETI@surveycafe.com)

## Which of these phrases best describes you?

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- I was raised in a rural state, and I stay here because I have little choice.

Next Question 

0%

Questions or problems? Please call toll-free 1-888-774-5986 or email [NETI@surveycafe.com](mailto:NETI@surveycafe.com)

*91% are there because they want to be there*

Why You Live in a Rural State	Percent
I was raised in a rural state, and I stay here because I like it	53%
I moved to this state because I wanted to live in a rural setting	35%
I moved to this state because I had to, not because I chose to	8%
I was raised in a rural state, and I stay here because I have little choice	4%

## How strongly do you agree or disagree with the following?

If you feel that your present neighborhood already has all these characteristics, then check this box and click "Next Question" — you don't need to answer the questions below.

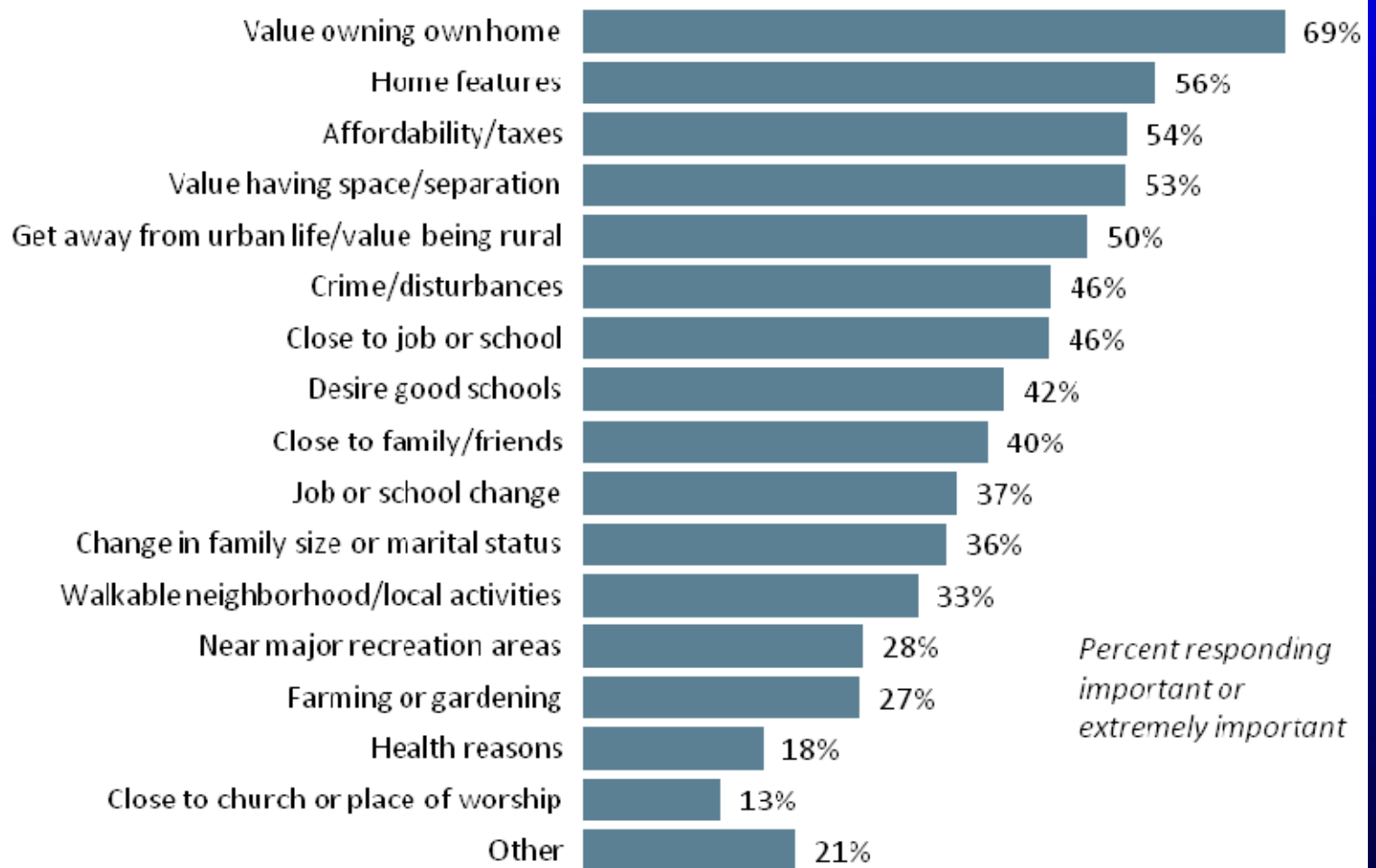
Select one answer for each row.

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
If I moved to a Town Center, it would be easy for me to get myself to medical facilities, like a major hospital.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, it would be easy for me to get to stores, restaurants, and other activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, my household could own fewer cars.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, I would have less living space.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, I would get more exercise by walking or bicycling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, I would make friends with more of my neighbors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, there would be more noise and disturbance on the street.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, I would go to a place where people can gather and meet (like a club or community center).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, it would be easier for friends and relatives to take me places (like to medical services).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I moved to a Town Center, I would have a lot less privacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

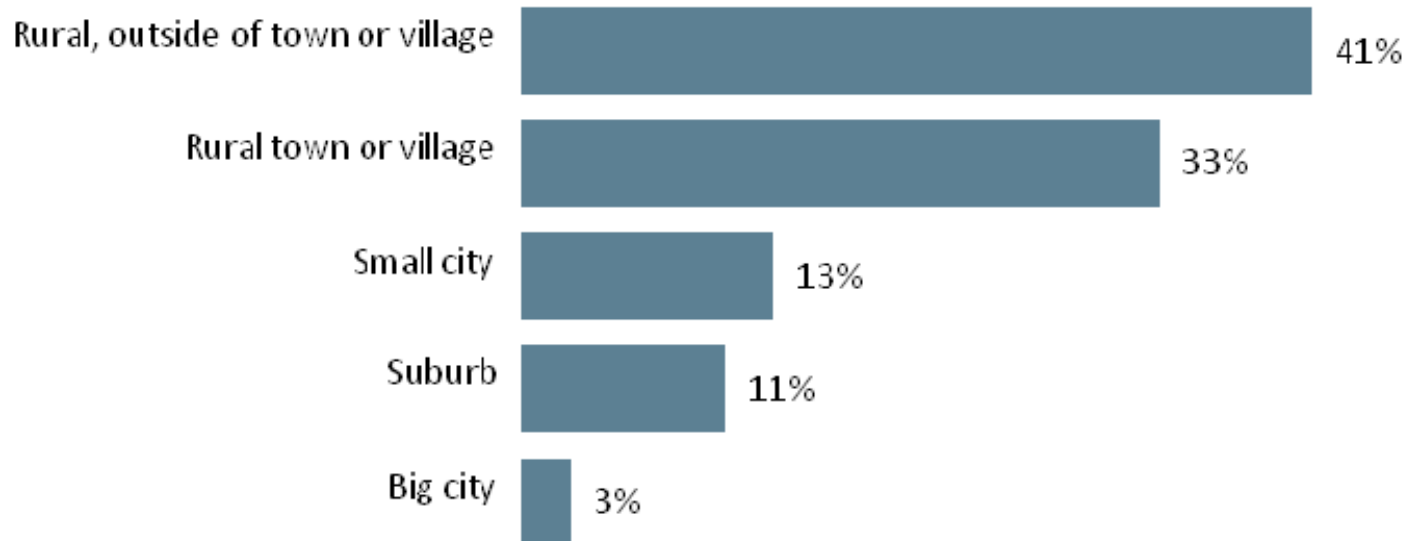
Next Question 



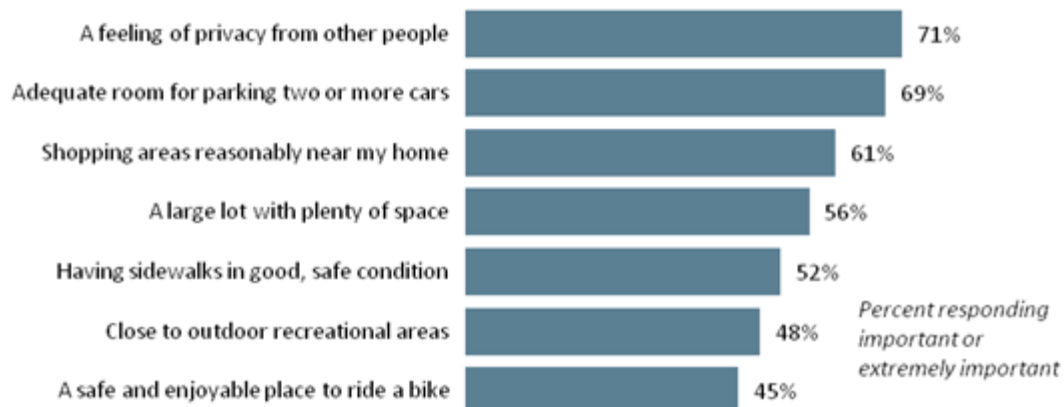
## Reasons for Moving



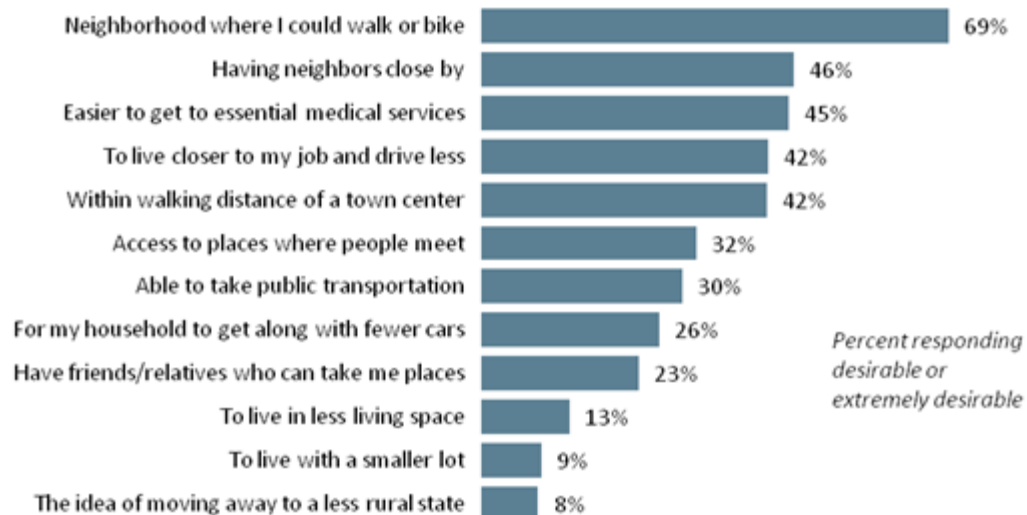
### Where would you prefer to live?



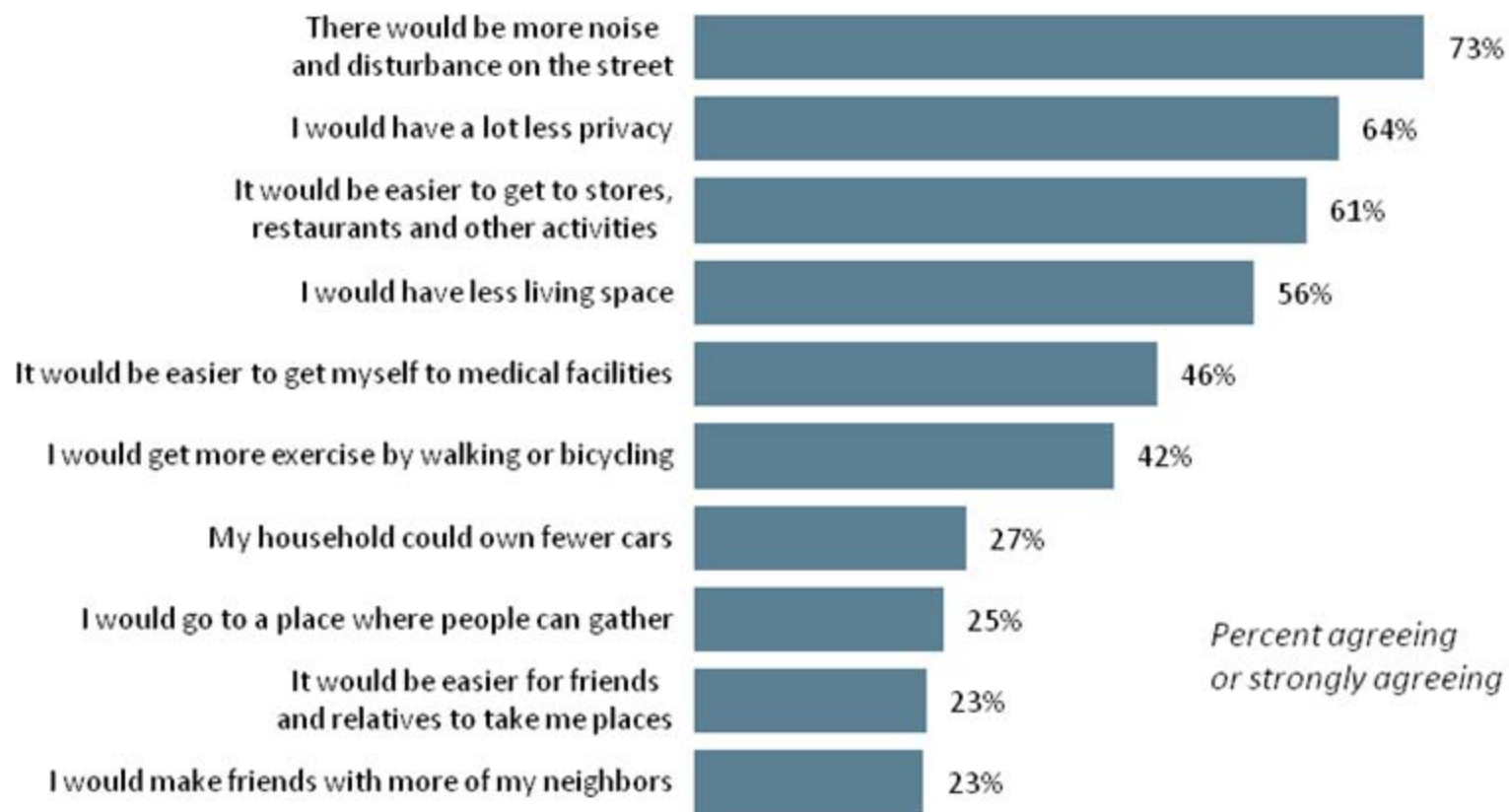
### Important Features for Next Home



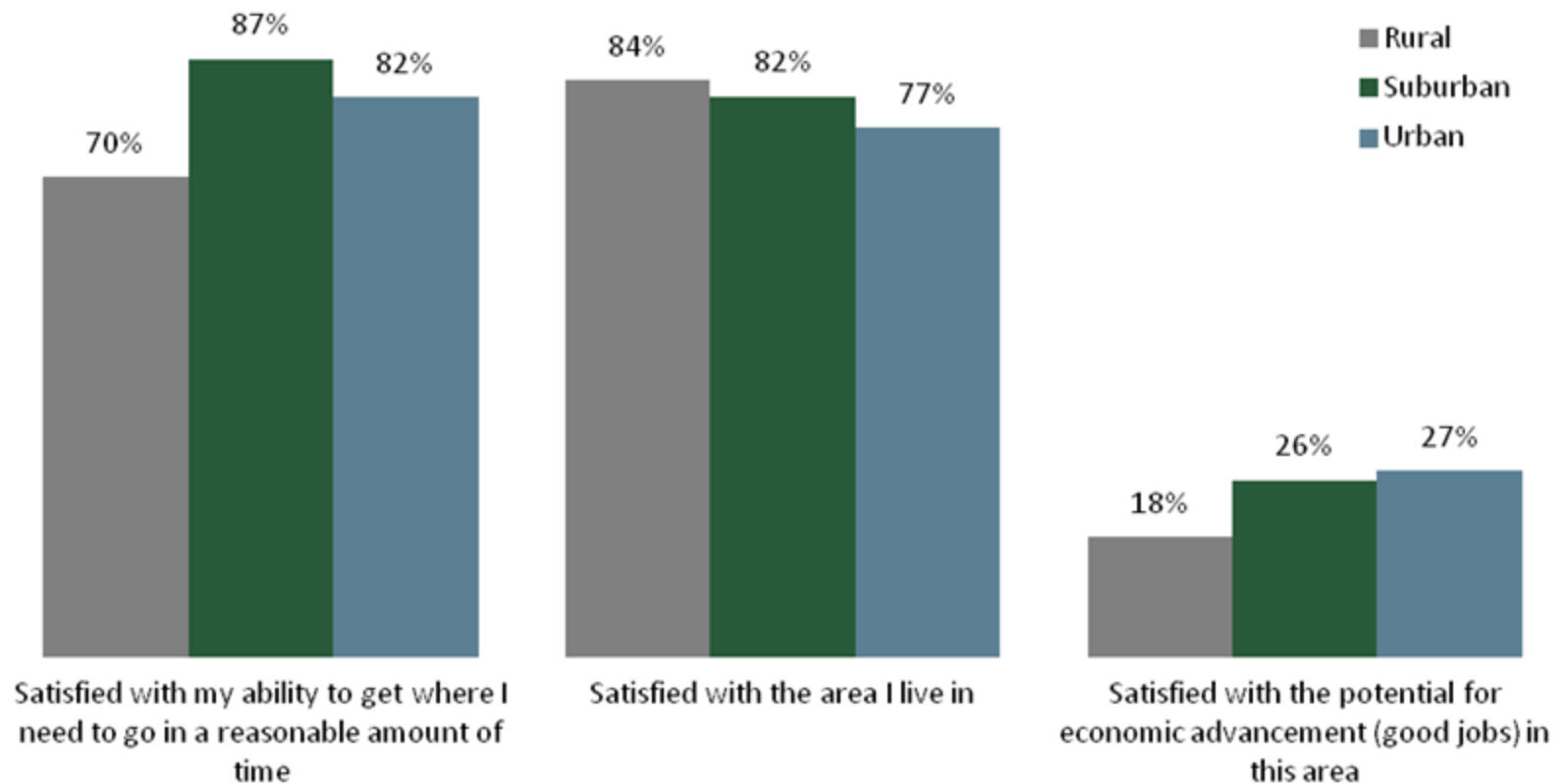
### Desirable Features for Next Home



### If I moved to a Town Center...



### Participants' Satisfaction with Area

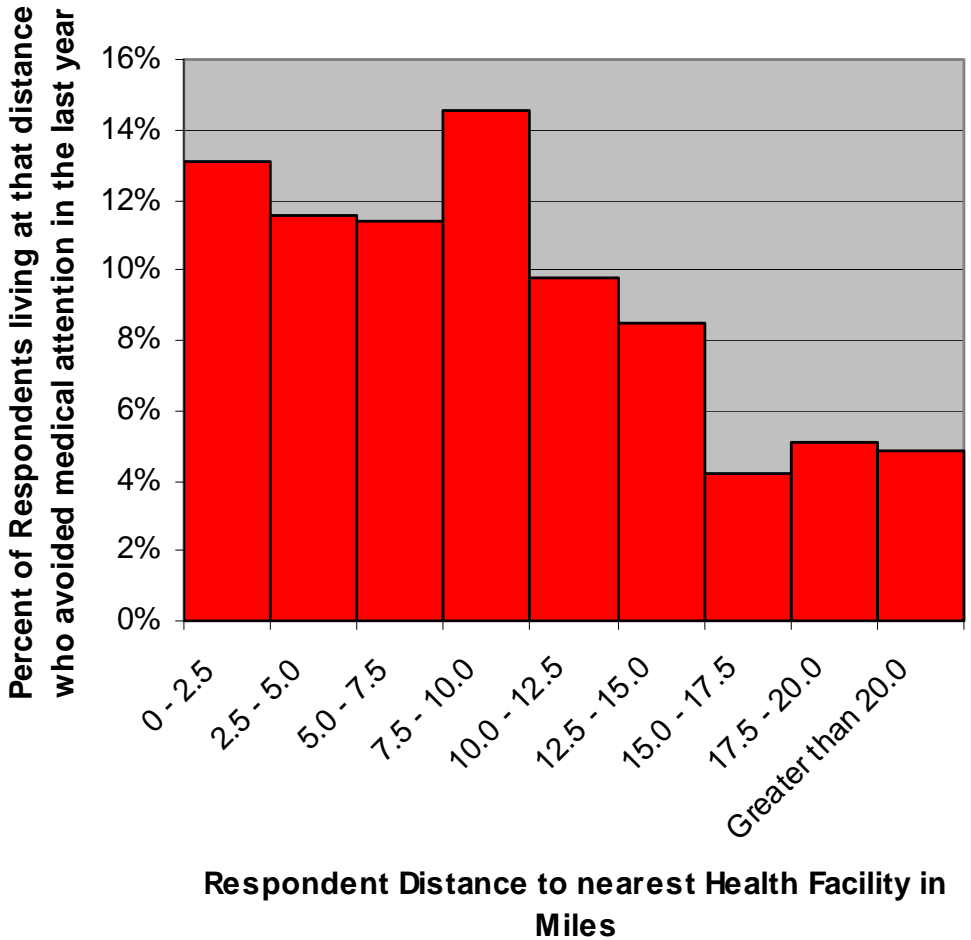




*“...in the future, I will not be able to get to medical services from where I live now”*

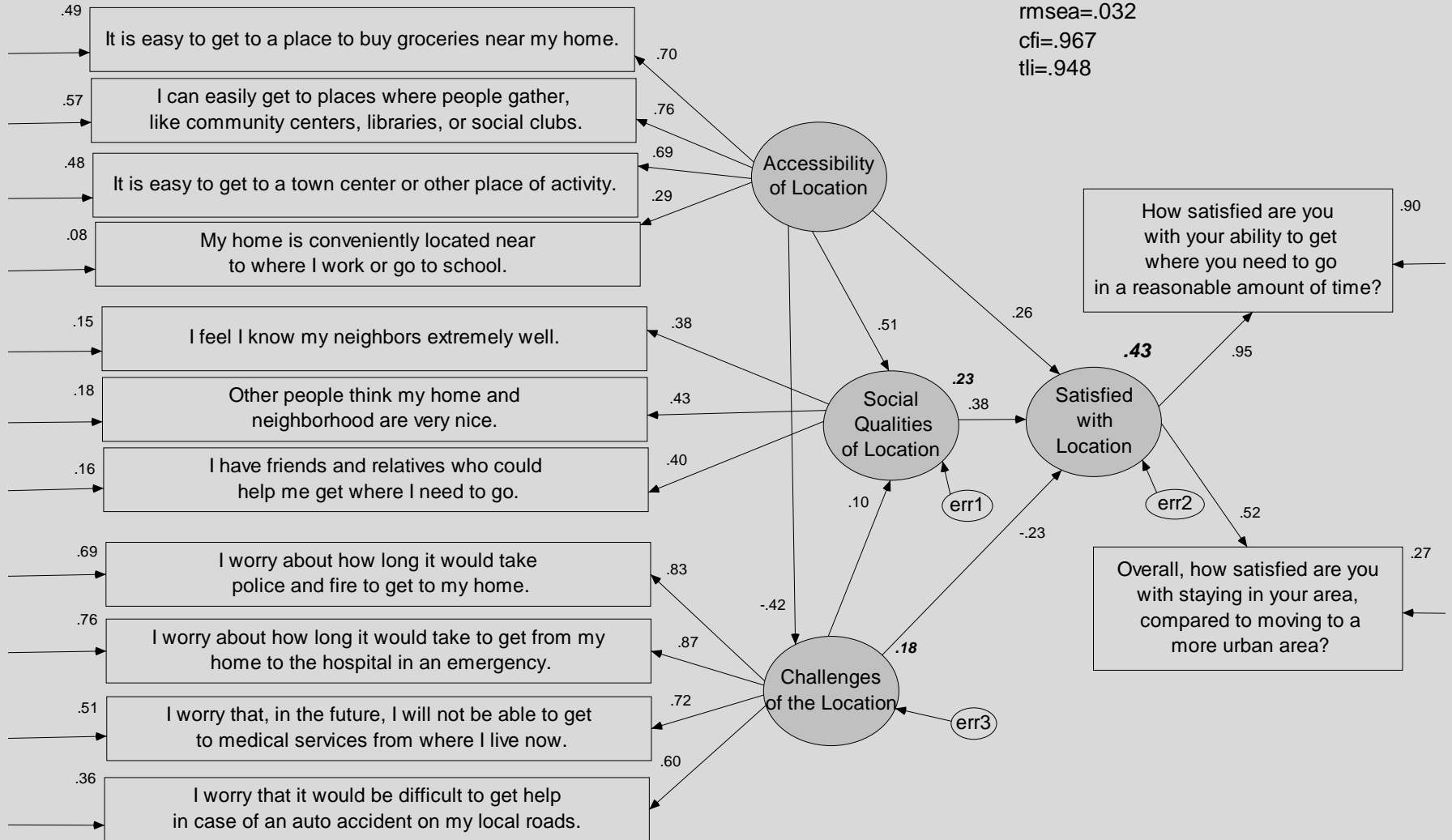
Level of Agreement	# of Respondents	Average Distance to Nearest hospital (in Miles)	Average Distance to nearest Health Facility (in Miles)
Strongly disagree	811	6.57	5.34
Disagree	1322	2.22	6.28
Somewhat disagree	295	9.96	7.93
Neither agree nor disagree	454	11.50	8.39
Somewhat agree	243	11.43	8.62
Agree	166	11.98	9.19
Strongly agree	72	12.77	8.23

**Percentage (by distance to the nearest Health Facility) of Respondents who avoided Medical Concerns or Appointments in the past year**



# Satisfaction with Rural Mobility and Accessibility

rmsea=.032  
 cfi=.967  
 tli=.948



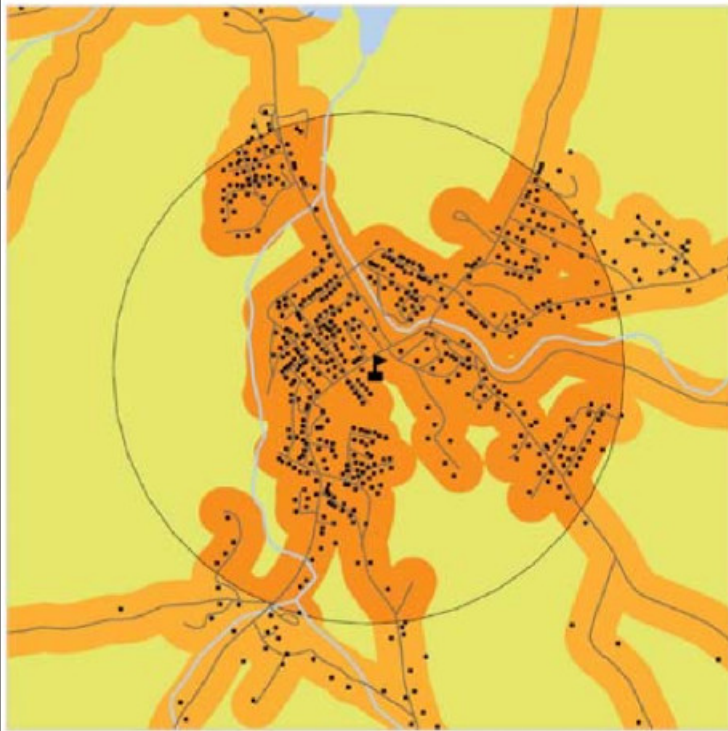


- “The cost of housing makes it difficult to move closer to my work or school.”

Level of Agreement	# of Respondents	Average reported commute	Average distance to nearest Employment Center in miles	Average distance to the nearest Large Employment Center in miles
Definitely false	318	6.54	7.89	17.01
False	546	9.43	7.68	16.17
Somewhat false	199	10.51	6.76	14.19
Neither	972	8.09	7.60	16.58
Somewhat true	346	17.82	7.34	15.78
True	419	15.49	7.36	17.30
Definitely true	269	17.92	7.78	15.97



- The ‘Smart Density’ method examines density in terms of a “buffer” zone along rural roadways.
- The NETI study will be the largest application of this method to date.



Hardwick Elementary School

Meters 0 125 250 500 750 1,000



Wardsboro Central School

Meters 0 125 250 500 750 1,000

MEASURE:	Wardsboro: (uni/s/acre)	Hardwick: (uni/s/acre)
e911	0.25	1.14
Block Group	0.09	0.09
Tract	0.03	0.06
Block	0.39	0.28
Circle Buffer	0.08	0.68
Cir+Rd Buffer	0.17	1.05

A map of the Northeastern United States, including parts of New York, New Jersey, Pennsylvania, and Delaware. The map is shaded in various tones of green to represent household density. Major roads and highways are shown as black lines. The title 'Household Density' is written in yellow text at the top center. A blue callout box with white text is positioned in the upper left quadrant, pointing towards the map. A blue box with white text is located at the bottom right of the map.

## Household Density

*“Smart Density” calculations  
have been made for every survey  
participant*

N. B. Survey participant locations are not  
shown to protect confidentiality



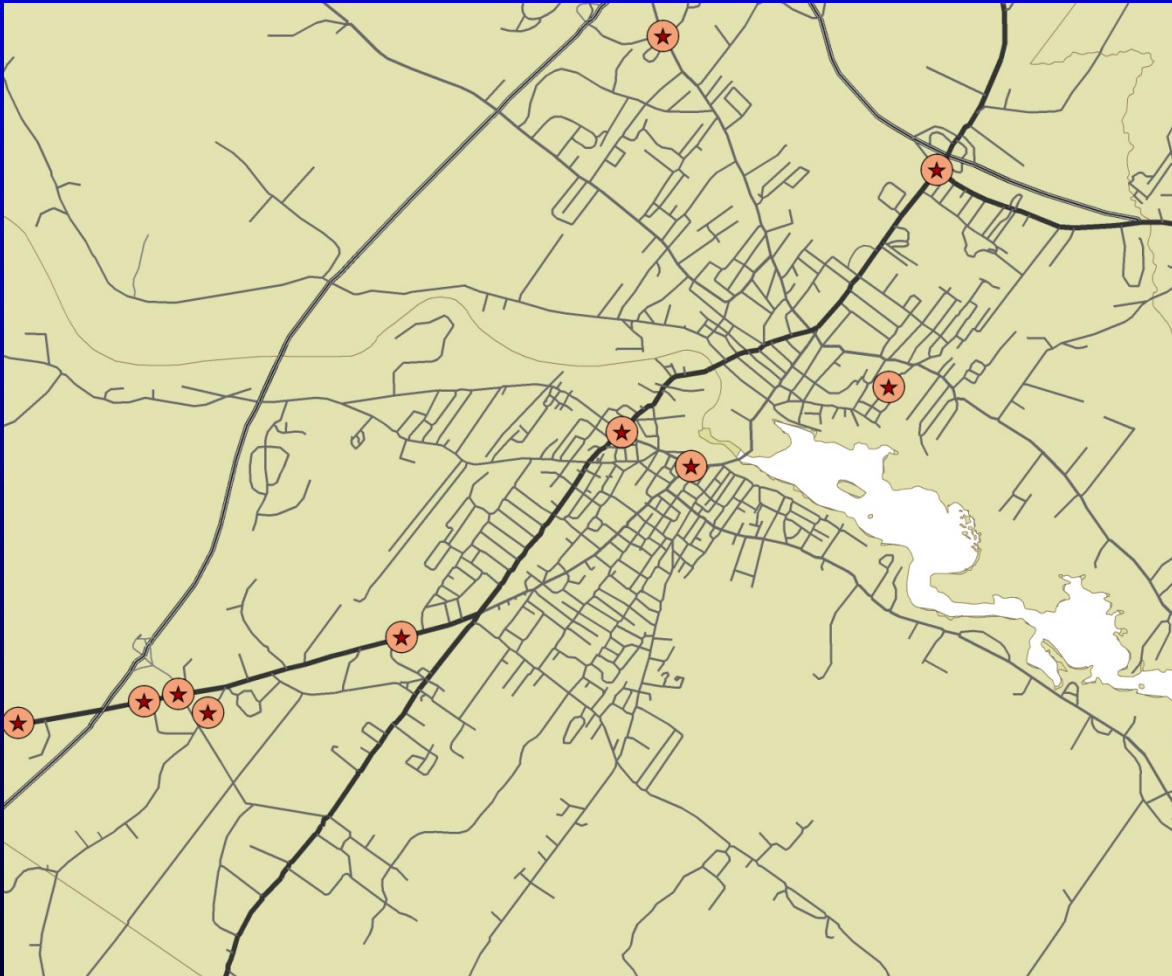
## Design: Street Connectivity

*Number of intersections per square mile have been calculated for every participant*

N. B. Survey participant locations are not shown to protect confidentiality



## Accessibility to Public Transit



*The survey database includes all local transit bus stops in Northern New England*



# Accessibility to Intercity Transit



*The survey database includes all long distance bus and rail stops in Northern New England*

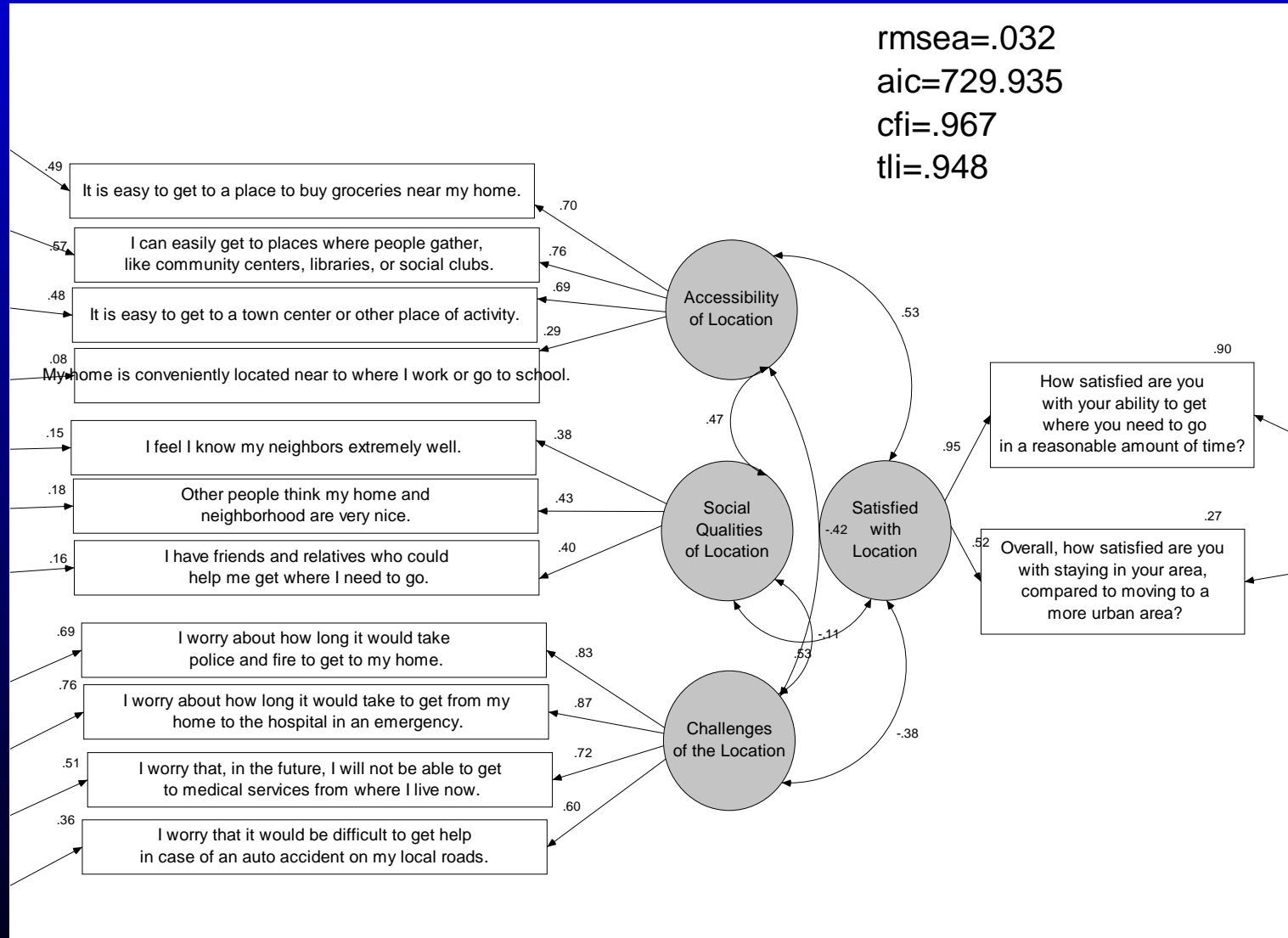


## Out Subject Today: Satisfaction with the Livability of the Rural Community

Satisfaction with “isolation” will vary by age and position in the life-cycle

- For populations which are migrating into the area, long travel distances buy something that is *desired*
- For older populations, longer travel distances may pose a threat to mobility/accessibility
- Isolation *may or may not* be associated with outflow of younger workers from region

# Rural Livability: how satisfied are rural residents with their level of mobility and accessibility?





- Rural Livability: satisfaction with accessibility
  - Level of satisfaction has been modeled for several sample groups (gender, length of residence, etc)

