

# Summary of Nonindustrial Private Landowner Survey in Virginia

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## Objectives



Private Woodland Owner Timber Harvest Survey 2014

- Update available information regarding nonindustrial private forest landowners in Virginia.
- Identify general information regarding landowners.
- Determine landowners' willingness to harvest timber.



## Introduction

- Discussion began fall of 2013 for a need to better understand Virginia's nonindustrial private forest (NIPF) landowners.
- Literature review of previous surveys conducted winter 2013.
- Drafting of a survey began in spring 2014.
- Survey mailed from July 2014-October 2014



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## Introduction

- Why Nonindustrial Private Forest Landowners?
  - Majority of forest land is held by private interests.
  - Expected loss of private forestland to development in the US in the coming decades
  - Social constraints posed the greatest reduction to the available wood supply in northern states (Butler et al. 2010)



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## LITERATURE REVIEW

- Research focused on previous surveys of NIPF landowners.
- Identified decision variables from literature.
- Extensive literature available regarding timber harvests and decision variables.
- Few surveys conducted on NIPF landowners in Virginia.



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## Survey Methods

- Determined decision variables to include in survey based on literature review results.
- Formulated questions revolving around decision variables identified.



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## Survey Methods

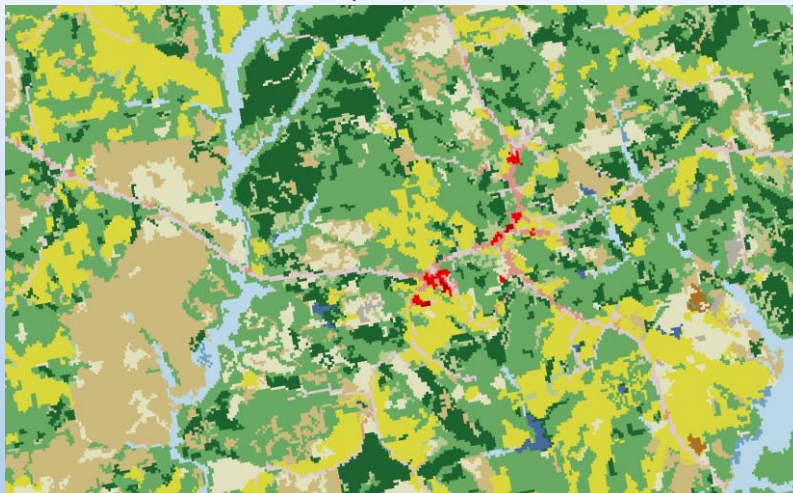
- Selected random sample through the use of land cover data and publically available parcel data in GIS.
- Population criteria:
  - At least 10 acres of Forested land
  - Owner must be nonindustrial private forest landowner



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## Survey Methods



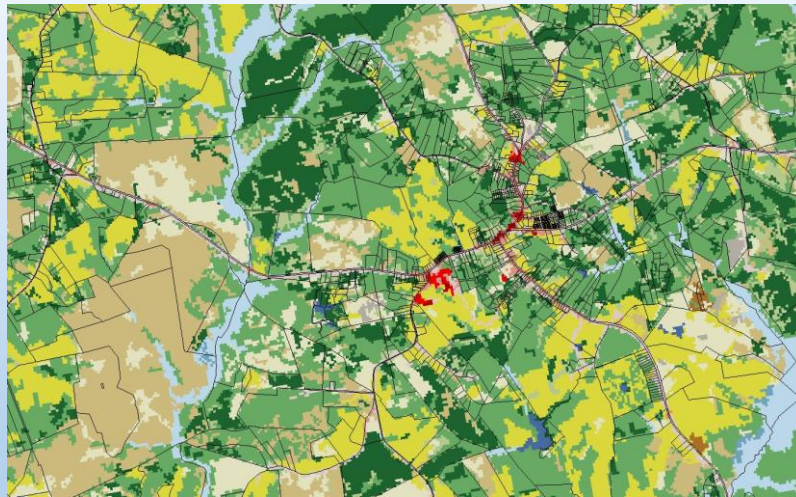
Legend	
Water	Blue
Dev. Open	Light Pink
Dev. Low Intens.	Light Red
Dev. Med. Intens.	Red
Dev. High Intens.	Dark Red
Barren	Grey
Deciduous For.	Light Green
Evergreen For.	Dark Green
Mixed For.	Medium Green
Shrub	Yellow-Green
Grassland	Yellow
Pasture	Orange
Crops	Brown
Woody Wet.	Light Blue
Herb. Wet.	Dark Blue

Land Cover Map

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# Survey Methods



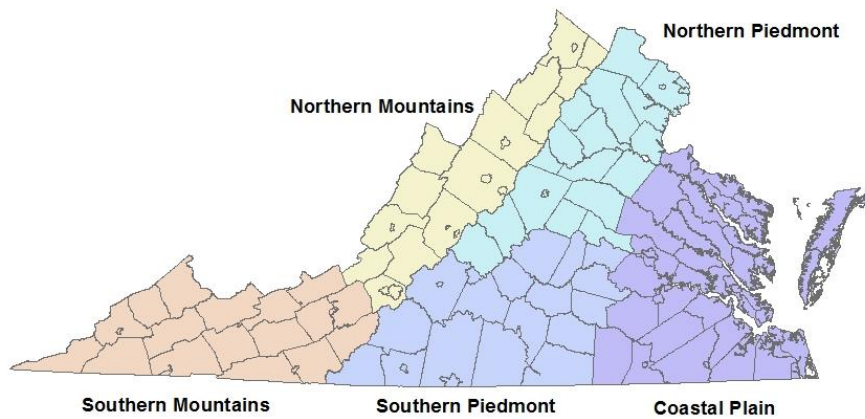
Legend	
	Water
	Dev. Open
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	Dev. High Intens.
	Barren
	Deciduous For.
	Evergreen For.
	Mixed For.
	Shrub
	Grassland
	Pasture
	Crops
	Woody Wet.
	Herb. Wet.

Land Cover and Parcel Map

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## Regions of Virginia



## Survey Methods

- Sample Size: 3,000
  - Per Region: 600
- Expected Response Rate:
  - 20-30%



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## Survey Methods



Private Woodland Owner Timber Harvest Survey 2014

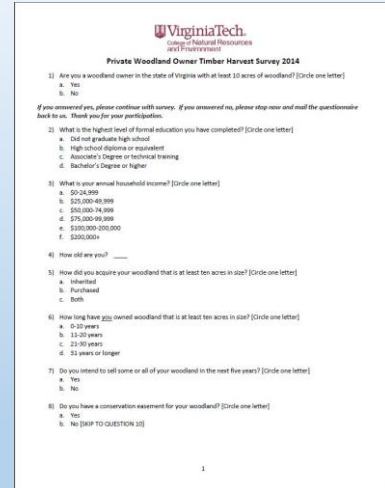
- Mailings
  - Began in July 2014 and ended in October 2014
  - Consisted of four separate mailings:
    - 1) Pre-notice informative letter
    - 2) Cover letter and questionnaire
    - 3) Postcard reminder
    - 4) Second questionnaire

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# Survey Results

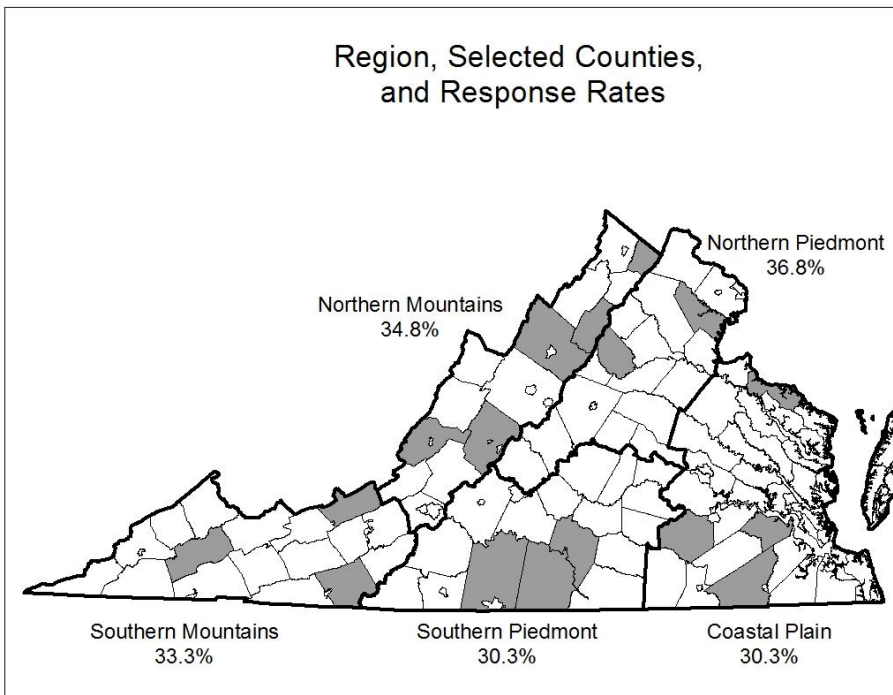
- 3,000 Surveys Mailed
- 234 could not be delivered
- 2,766 possible responses
- 882 usable surveys returned
- Adjusted response rate for state:
  - **31.9%**



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## Region, Selected Counties, and Response Rates



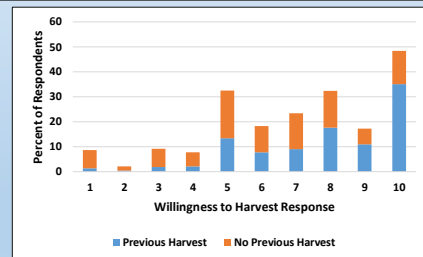
## Survey Results

- Summary results grouped by “willing to harvest” versus “less willing to harvest” based on answer to ten point Likert-Type question.

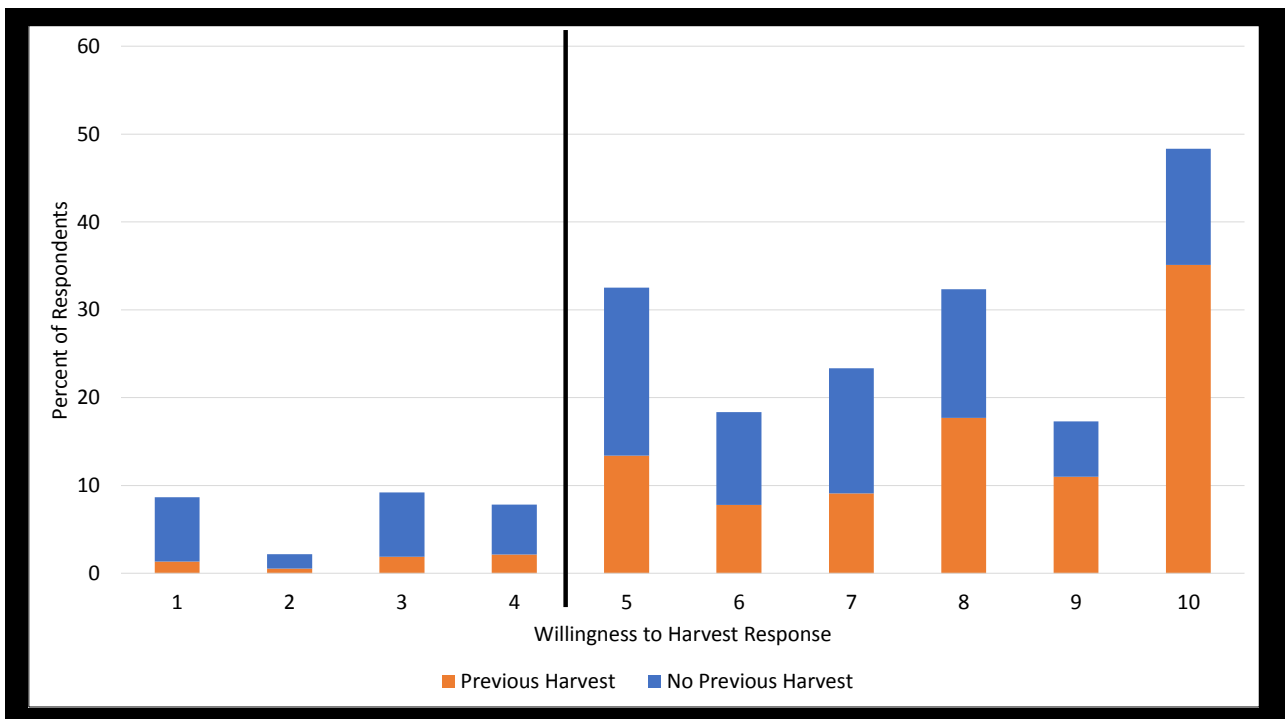
18) Please circle the number that reflects your attitude toward commercial timber harvesting for any forest product (timber, pulpwood, and biomass).

1 2 3 4 5 6 7 8 9 10  
Strongly opposed Strongly in favor

- 94% of those who had previously harvested answered five or above on harvesting attitude question.
- Answers five or above considered “willing to harvest” and below five were considered “less willing to harvest”.

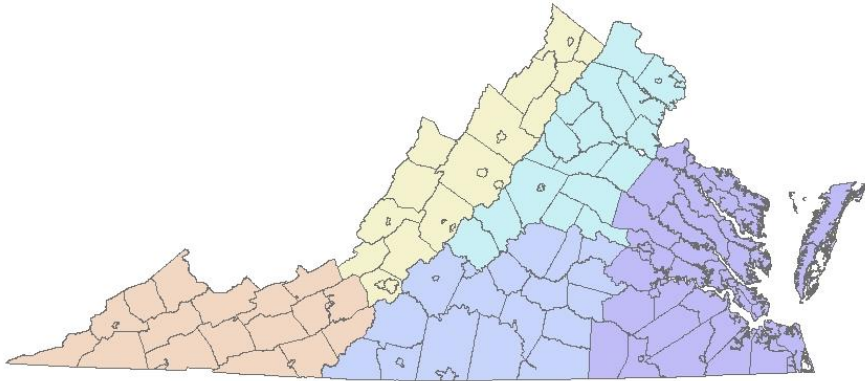


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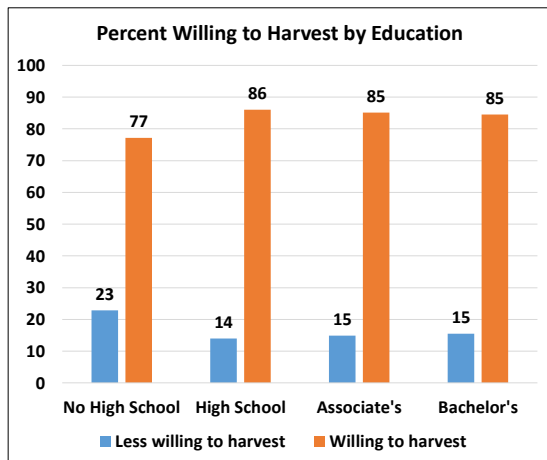
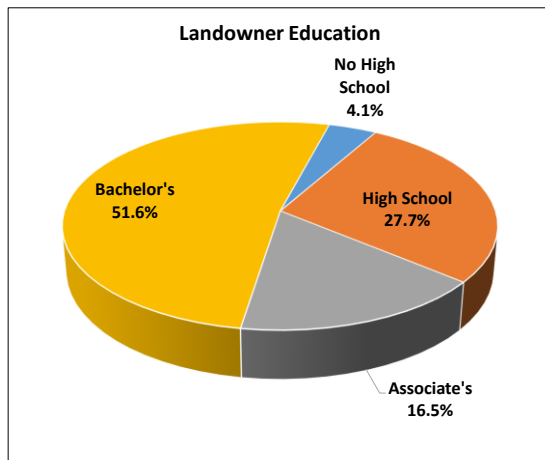
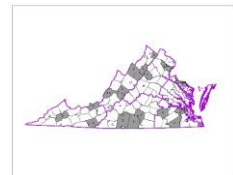


## Results for Virginia



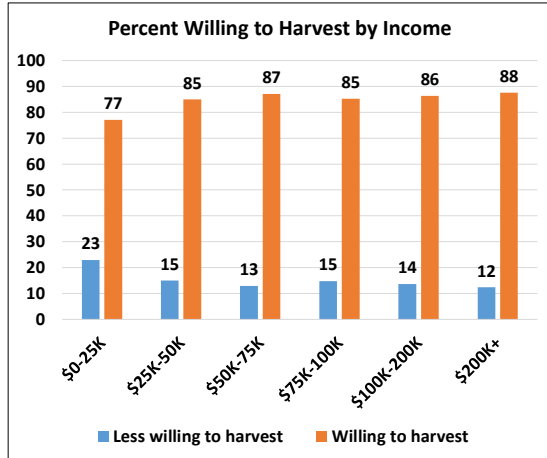
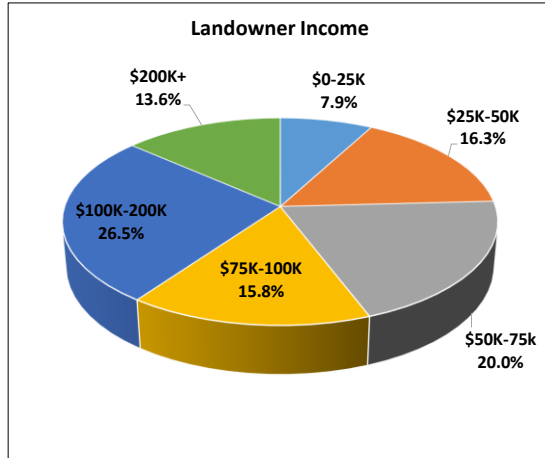
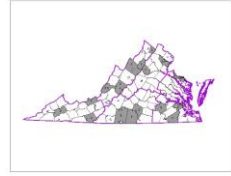
What is the highest level of formal education you have completed?

- a. Did not graduate high school
- b. High school diploma or equivalent
- c. Associate's degree or technical training
- d. Bachelor's or higher



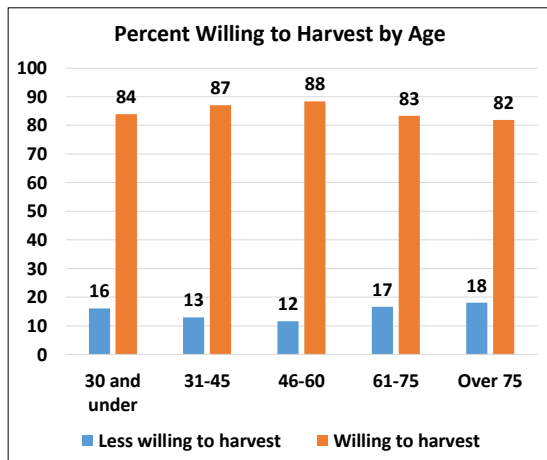
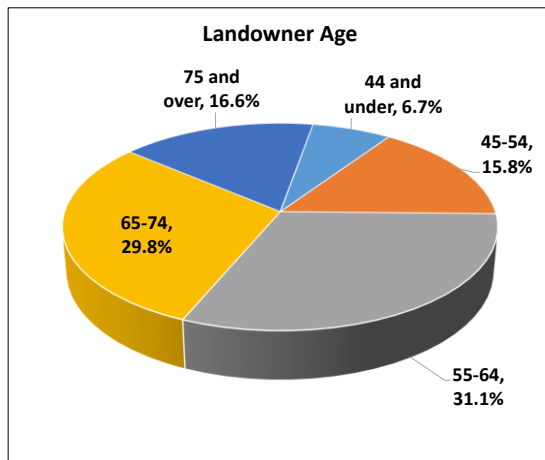
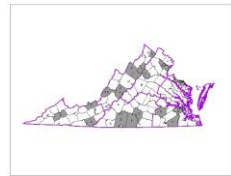
What is your annual household income?

- a. \$0-24,999
- b. \$25,000-49,999
- c. \$50,000-74,999
- d. \$75,000-99,999
- e. \$100,000-200,000
- f. \$200,000+



Landowners in the smallest income bracket are the least likely to harvest.

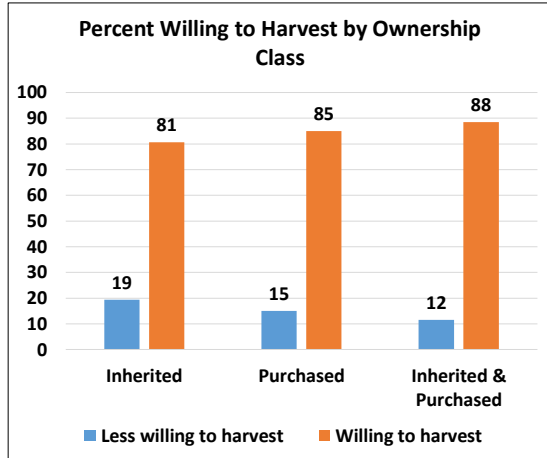
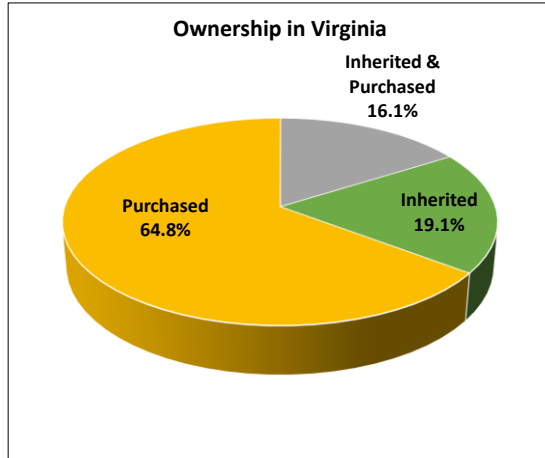
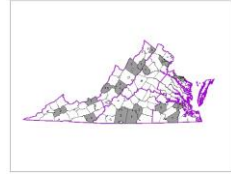
How old are you? \_\_\_\_\_ years



\*Mean age for state is 63 years old.

How did you acquire your woodland that is at least ten acres in size?

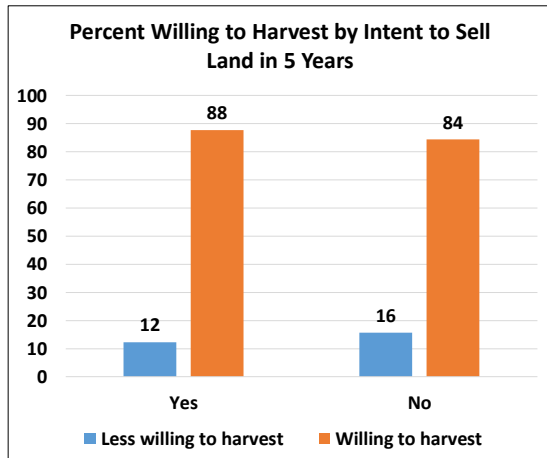
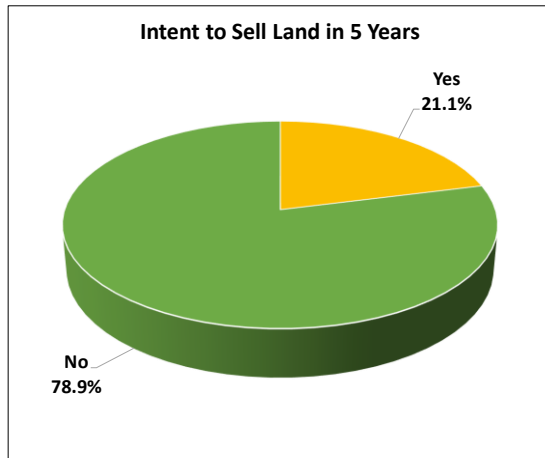
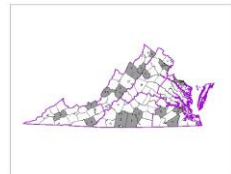
- a. Inherited
- b. Purchased
- c. Both



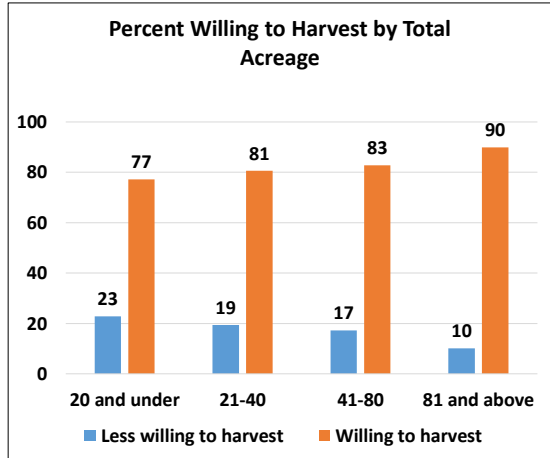
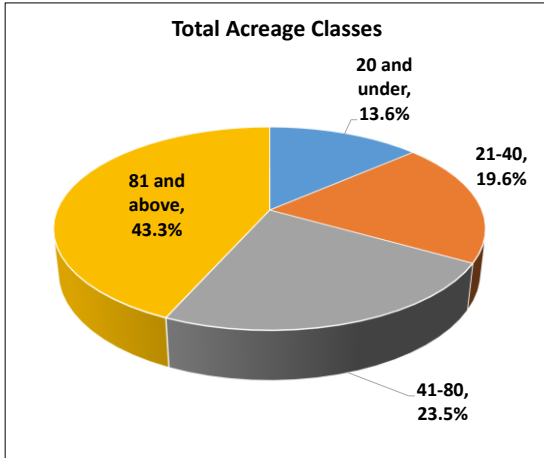
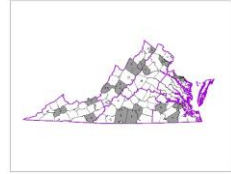
Landowners who purchased property are more willing to harvest.

Do you intend to sell some or all of your woodland in the next five years?

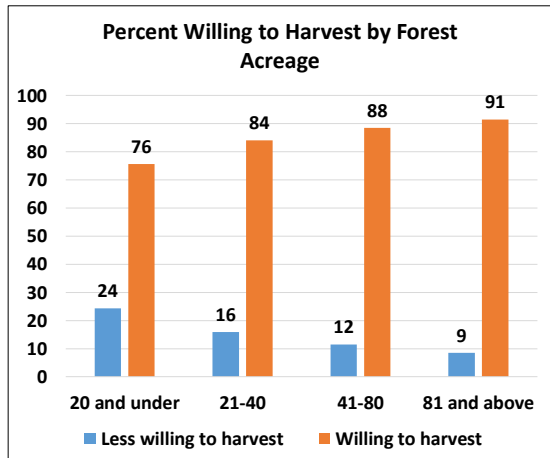
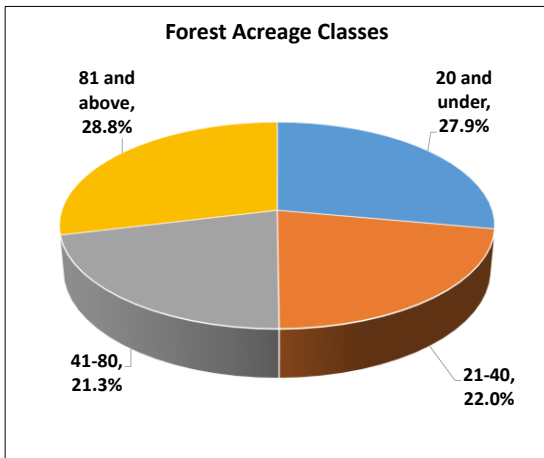
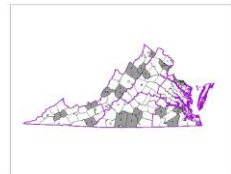
- a. Yes
- b. No



How many total acres of land (both wooded and non-wooded) do you own in Virginia? \_\_\_\_\_ acres



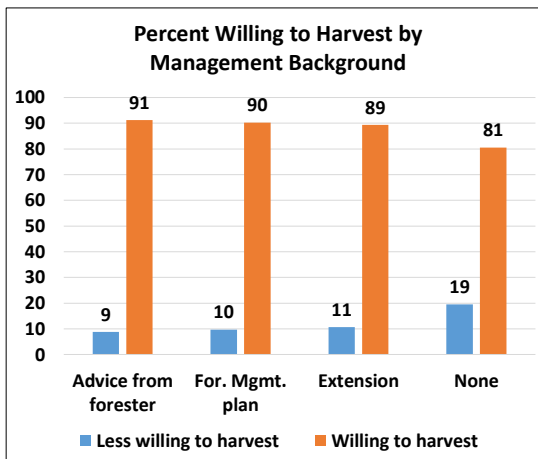
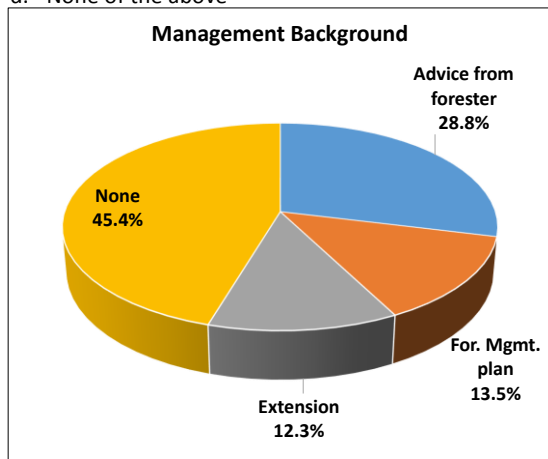
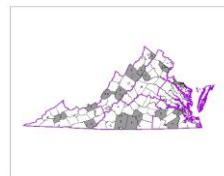
How many acres of woodland do you own in Virginia? (Please estimate if you do not know exact acreage.) \_\_\_\_\_ acres





Which of the woodland management activities below have you done?  
 [Circle all that apply]

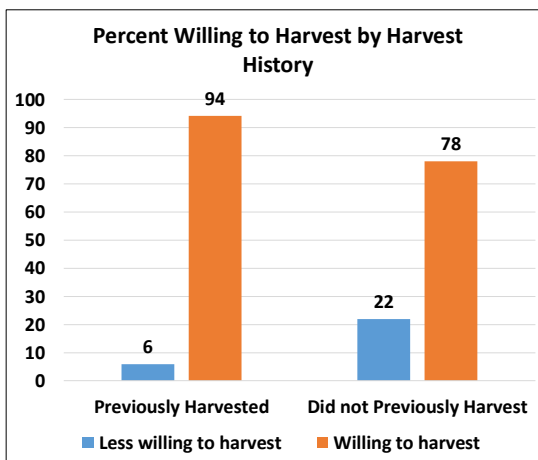
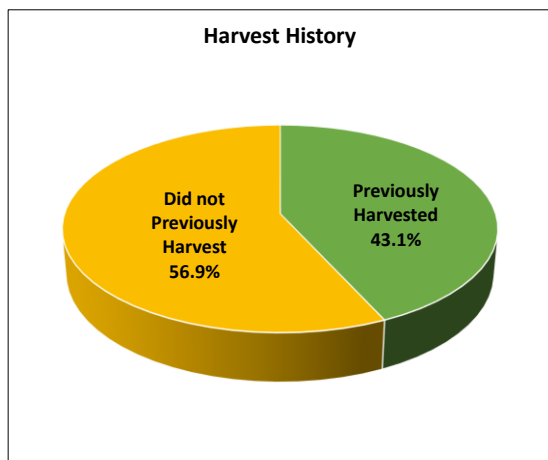
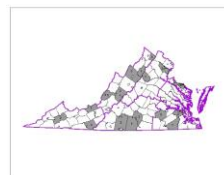
- a. Received advice on managing your woodland from a forester
- b. Had a forest management plan written by a forester
- c. Learned about forest management from Extension
- d. None of the above



Landowners who have received some form of management assistance are more willing to harvest.

Have you had a commercial timber harvest for timber, pulpwood, or biomass on your woodlands since you have owned the property?

- a. Yes
- b. No



# Management Objectives Results



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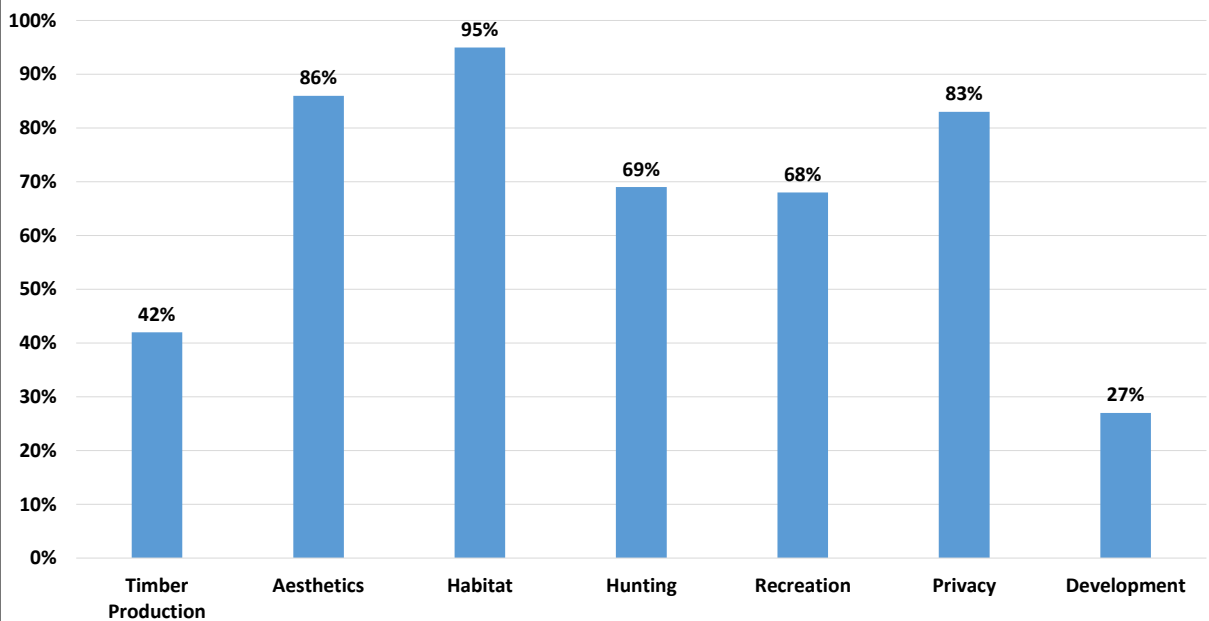
20) Please circle the number that reflects the level of importance aesthetics (the desire to manage woodlands for the visual benefits of the forest) are to you.

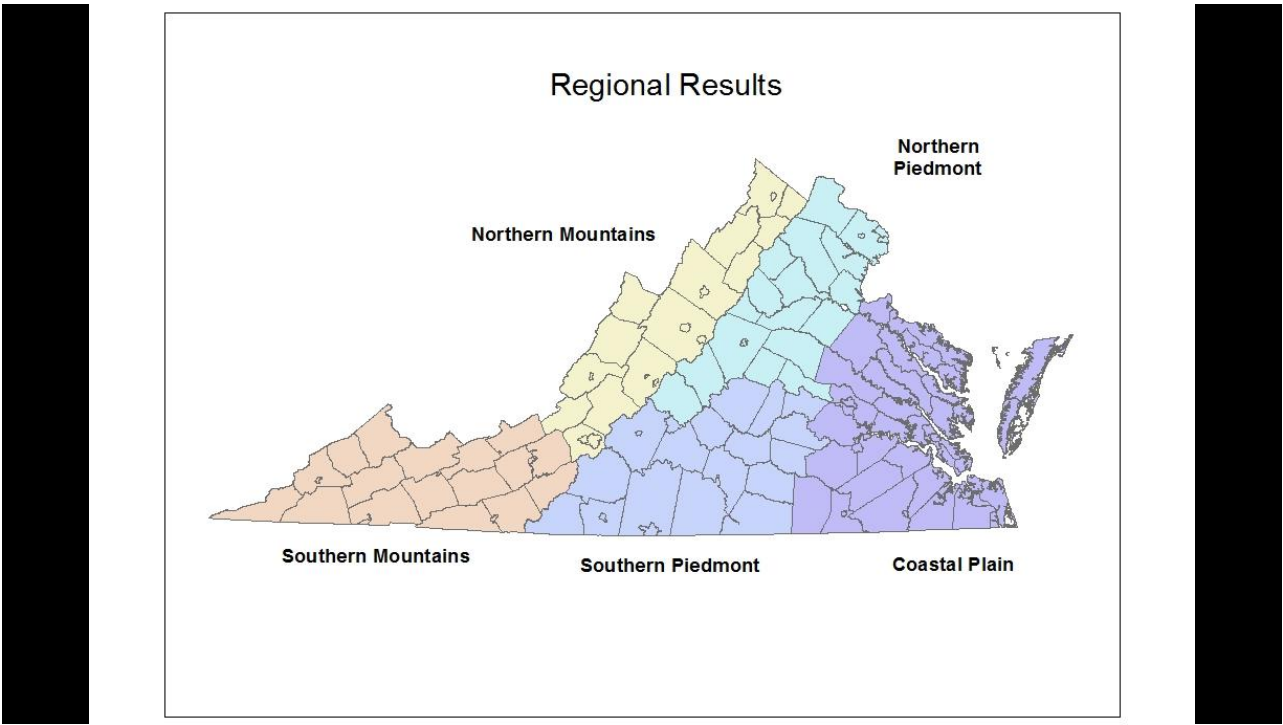
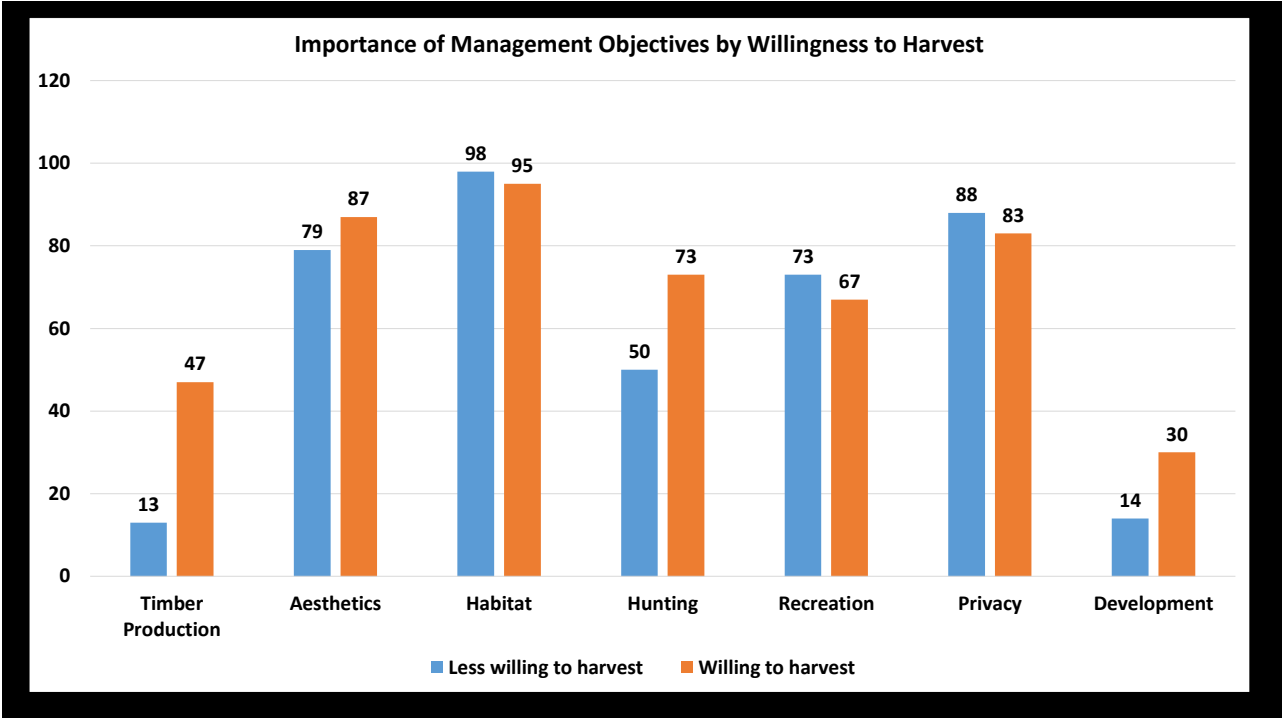
1 2 3 4 5 6 7 8 9 10  
Not important                      Extremely important

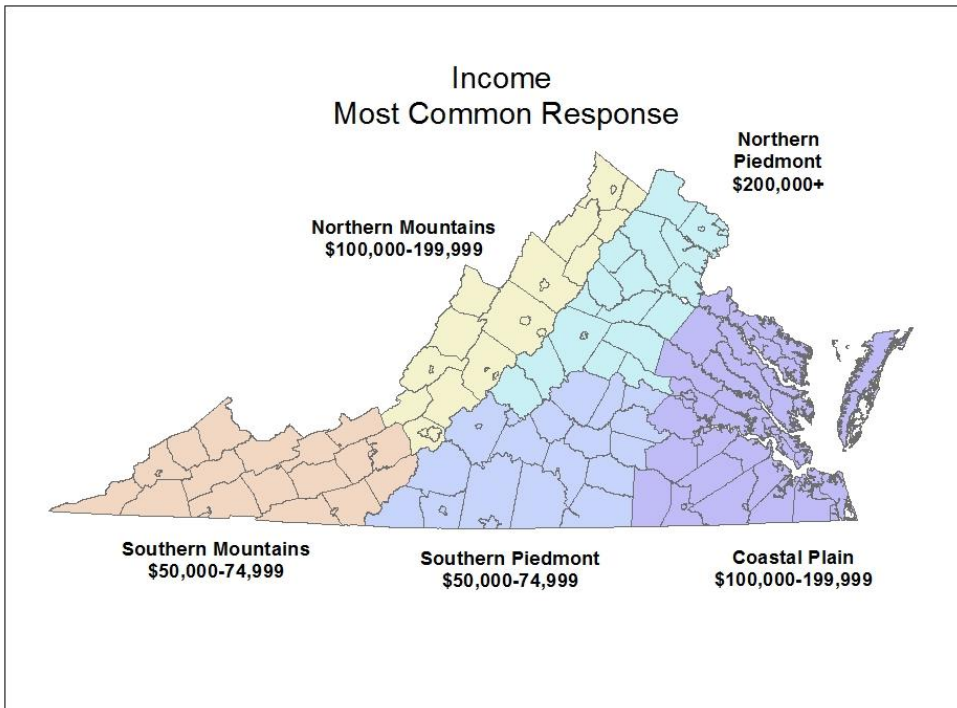
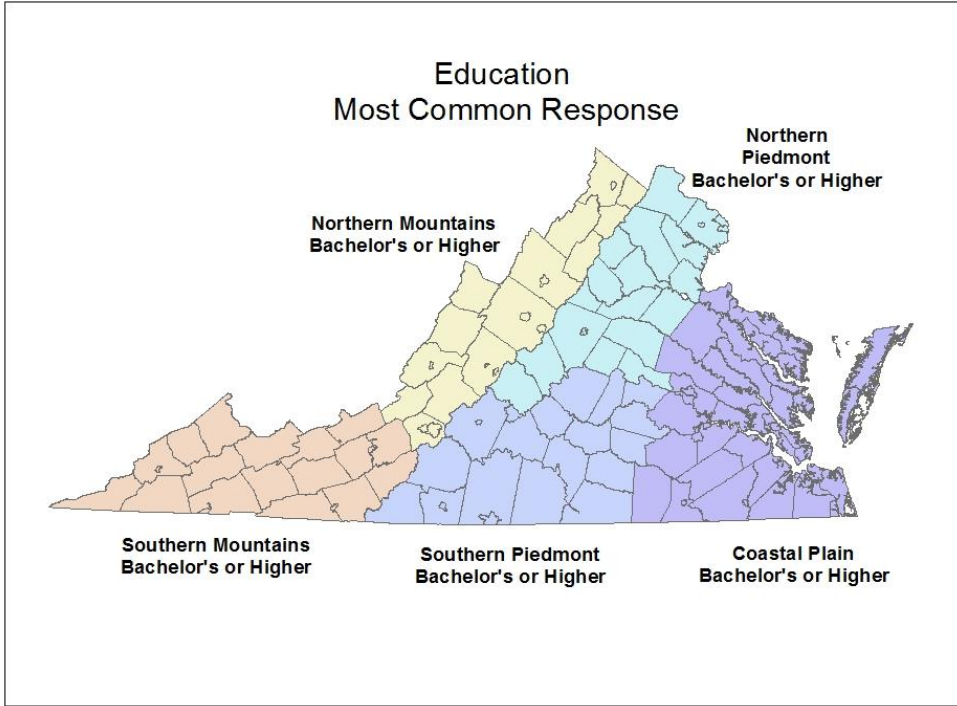
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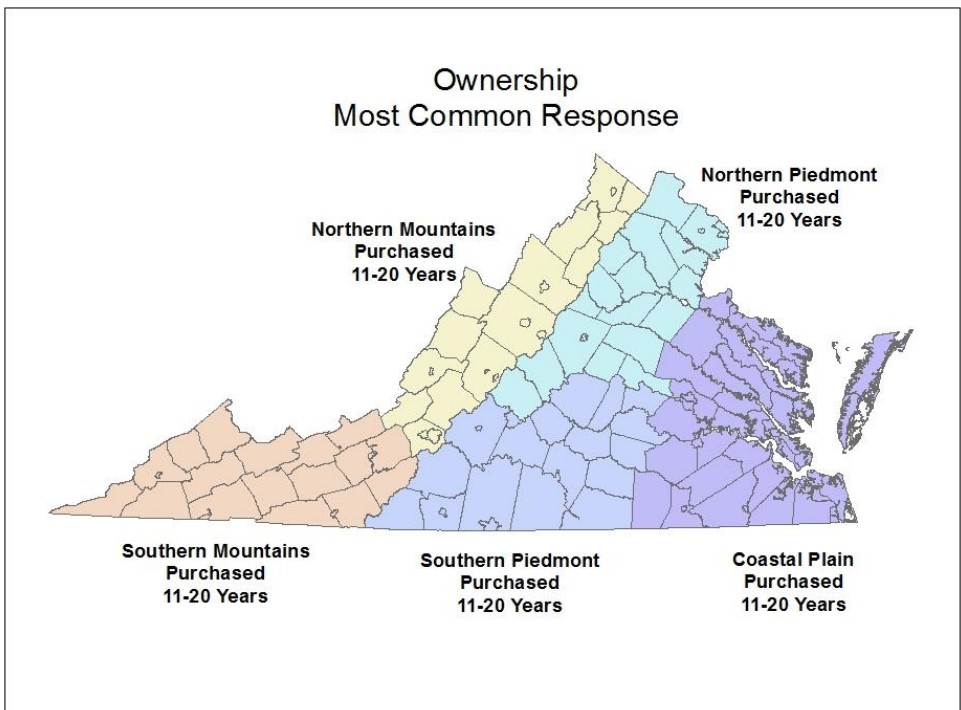
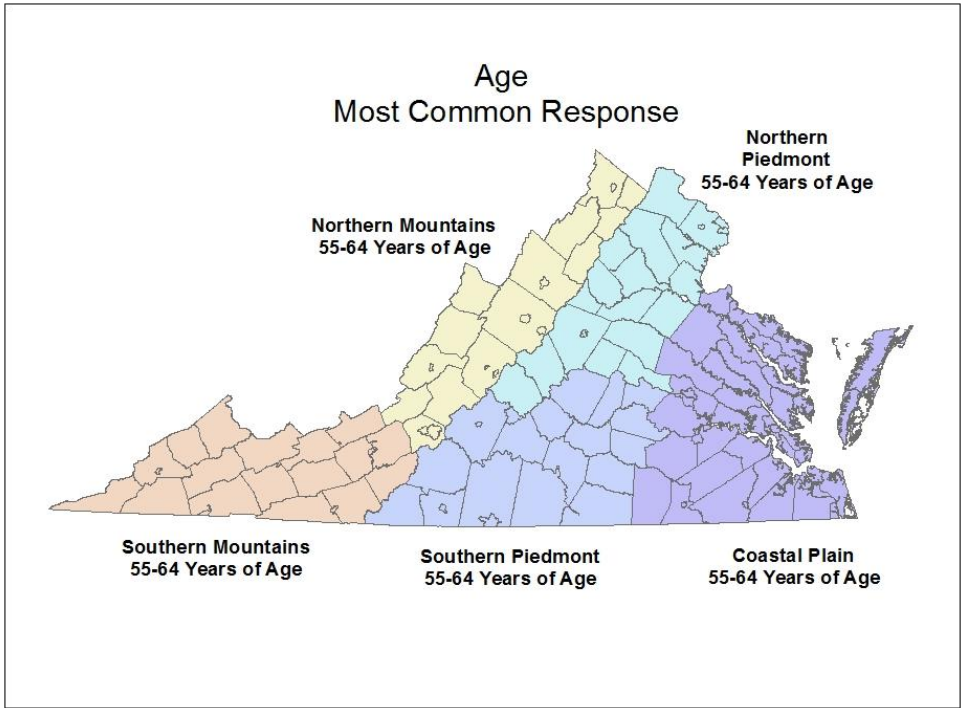
Importance of Management Objectives for all Respondents

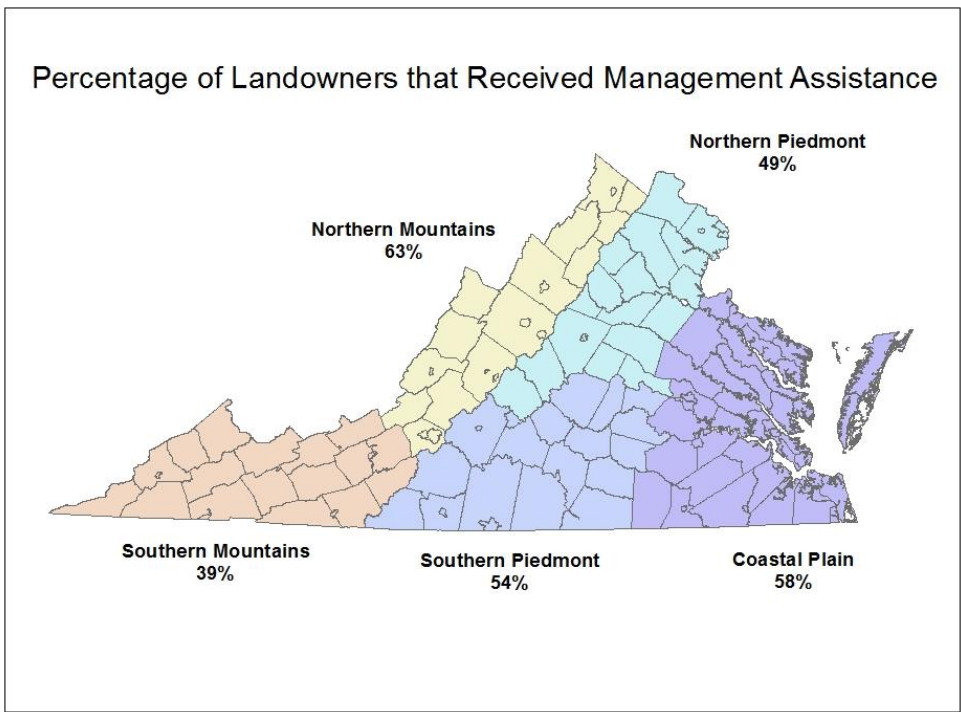
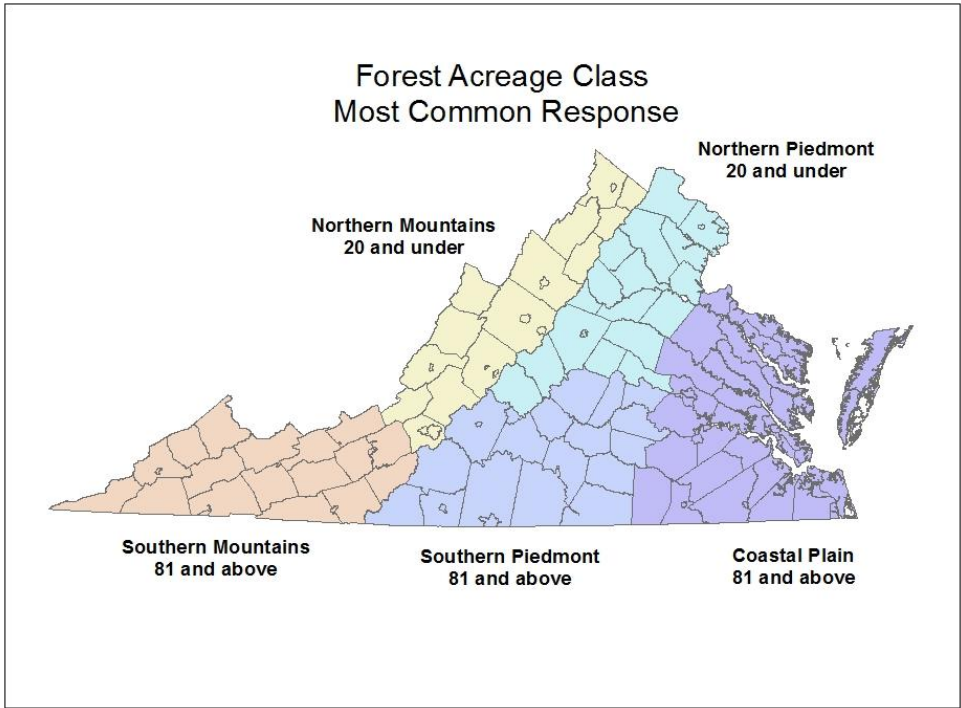




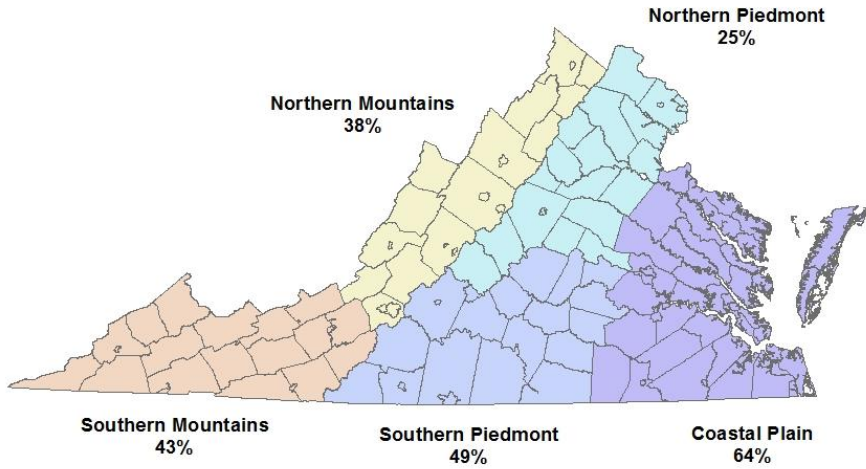




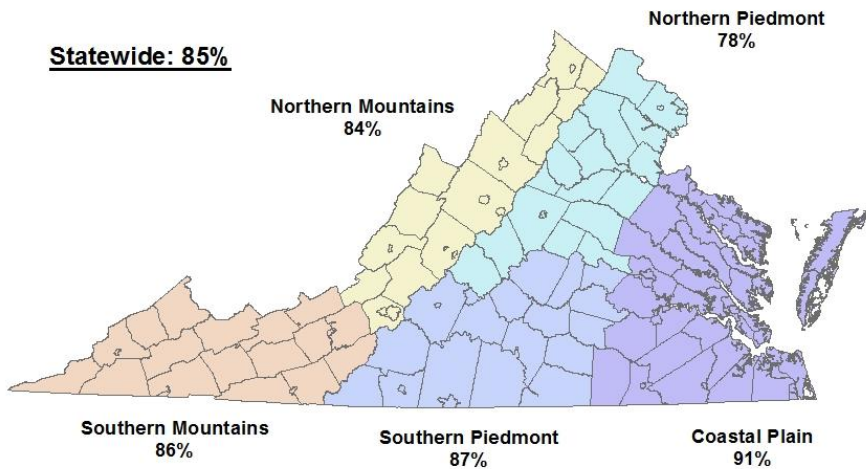




### Percentage of Landowners Who Previously Harvested



### Percent Willing to Harvest



# Summary



Private Woodland Owner Timber Harvest Survey 2014

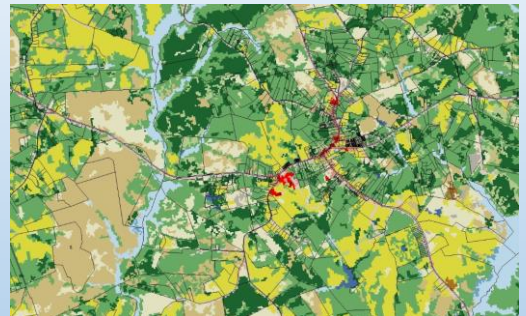
- Landowners of large parcels are more willing to harvest.
- Landowners who have received some form of management assistance are more willing to harvest.
- Previous harvest suggests a landowner is more willing to harvest.

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# Implications

- Overall willingness to harvest percentage can be applied by region.
- Forest acreage classes are significantly different.
- Forest acreage classes' willingness to harvest percentages can be easily applied to wood availability model.



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## Acknowledgements

- Committee Members

- Dr. Chad Bolding
- Dr. Steve Prisley
- Dr. Scott Barrett

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- Jennifer Gagnon



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- CeNRADS Partners

- Dominion Resources
- MWV
- Enviva
- Domtar
- Huber Engineered Woods
- The Forestland Group
- Forest Resources Associates
- Hancock Timber Resource Group

- The Nature Conservancy
- NOVEC
- RockTenn
- Morgan Lumber
- Jack M. Mathews Foundation
- Forest Resource Management
- US Forest Service
- Virginia Department of Forestry

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## Literature Cited

- Butler, B.J., Z. Ma, D.B. Kittredge, and P. Catanzaro. 2010. Social versus biophysical availability of wood in the northern United States. *North. J. Appl. For.* 27(4):151-159.

