

Virginia Master Naturalist Program

Needs Assessment Results



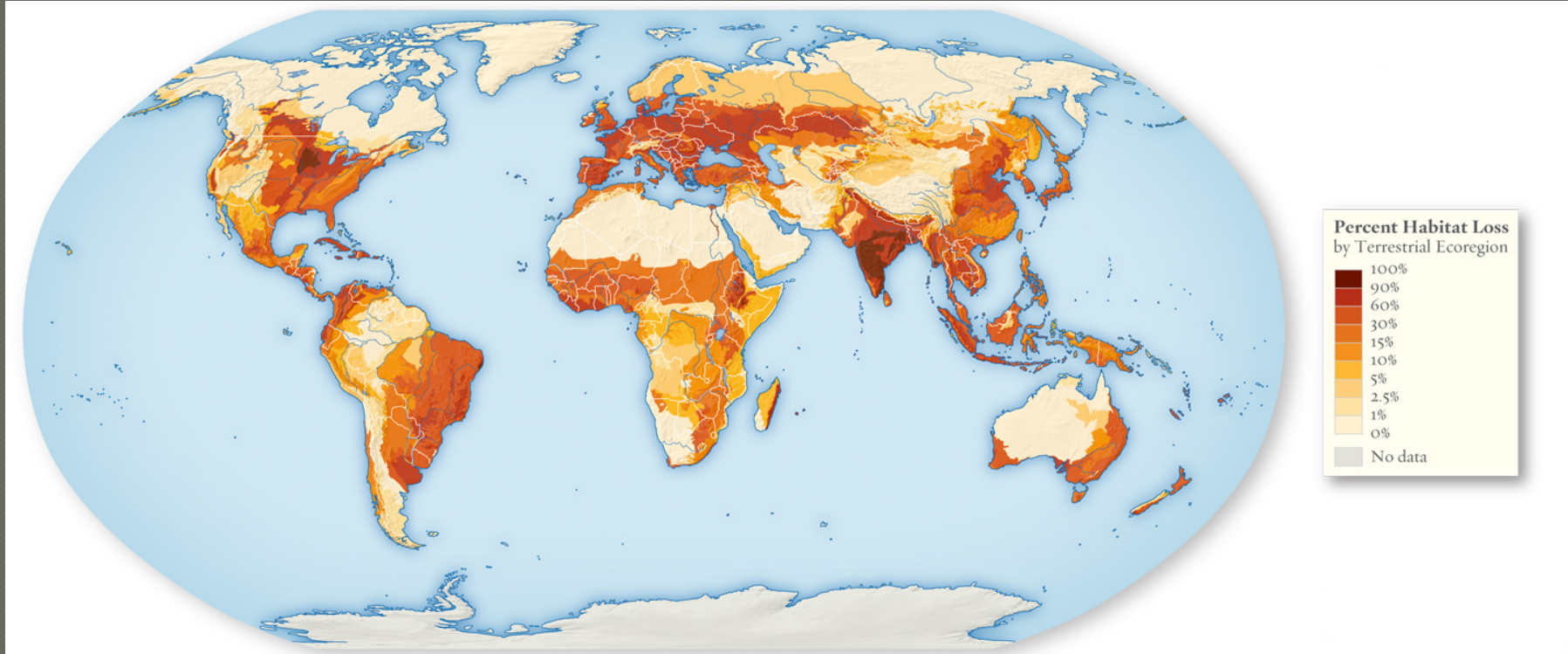




Photo: Michael Barron, National Park Service, Bugwood.org

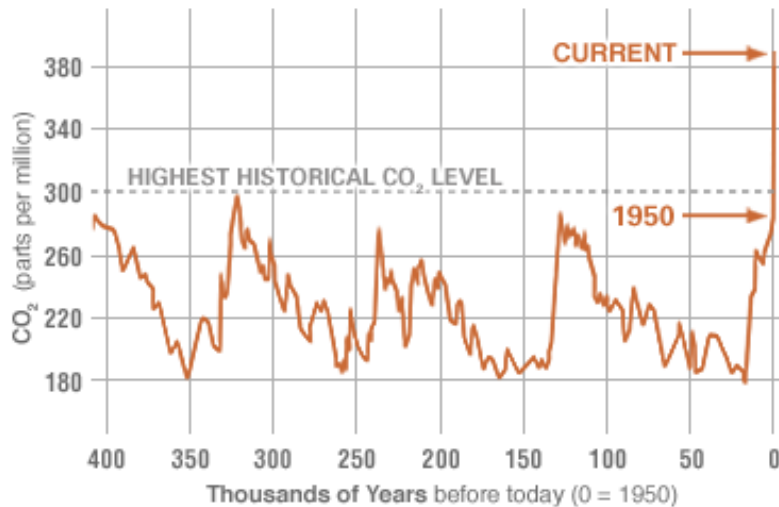
Carbon Dioxide Concentration

↓ DOWNLOAD DATA

PROXY (INDIRECT) MEASUREMENTS

Data source: Reconstruction from ice cores.

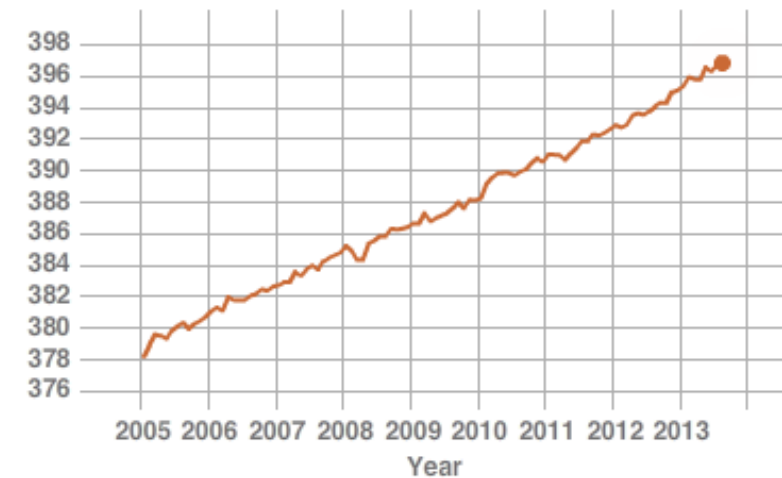
Credit: [NOAA](#)



DIRECT MEASUREMENTS: 2005-PRESENT

Data source: Monthly measurements (corrected for average seasonal cycle).

Credit: [NOAA](#)



Available: <http://climate.nasa.gov>

Climate Milestone: Earth's CO₂ Level Passes 400 ppm

Greenhouse gas highest since the Pliocene, when sea levels were higher and the Earth was warmer.



Two teams of scientists at the Mauna Loa Observatory in Hawaii have been measuring carbon dioxide concentration there for decades, and have watched the level inch toward a new milestone.

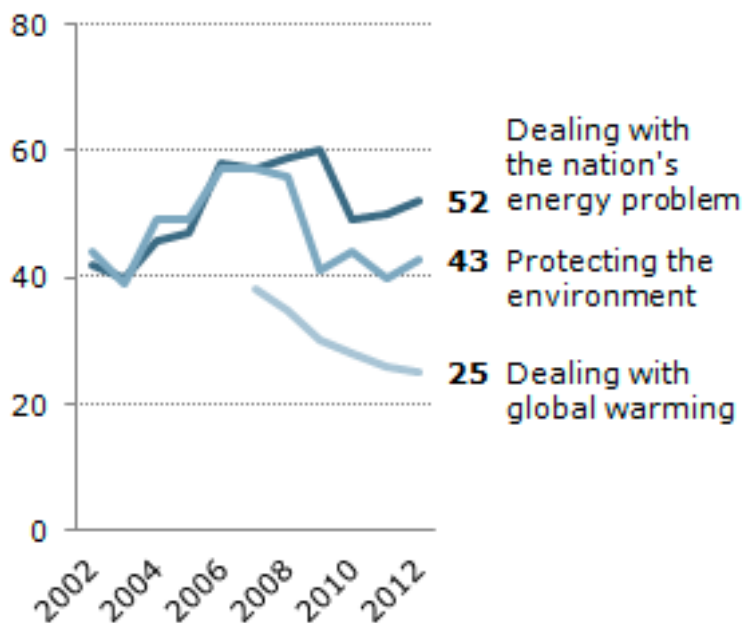
Photograph by Jonathan Kingston, National Geographic

Climate Change and Extinction

- Thomas et al. 2004. Extinction risk from climate change. *Nature* 427:145-148
 - Best case scenario
 - 18% of species extinct by 2050
 - Mid-range scenario
 - 24% of species extinct by 2050
 - Worst case scenario
 - 35% of species extinct by 2050
- Considered 6th mass extinction event in history of Earth

Energy Higher Priority than Environment, Global Warming

Percent rating each as a top priority



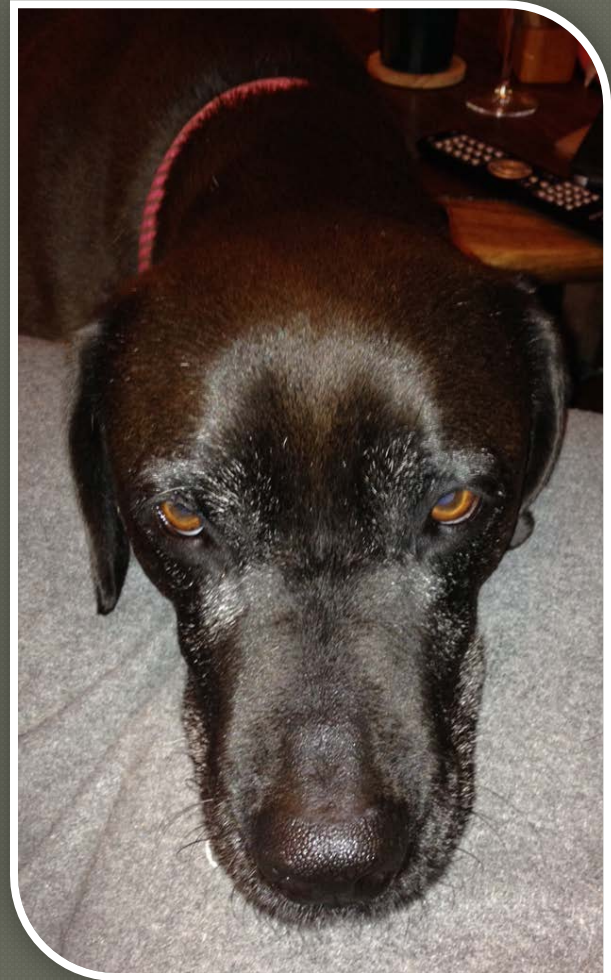
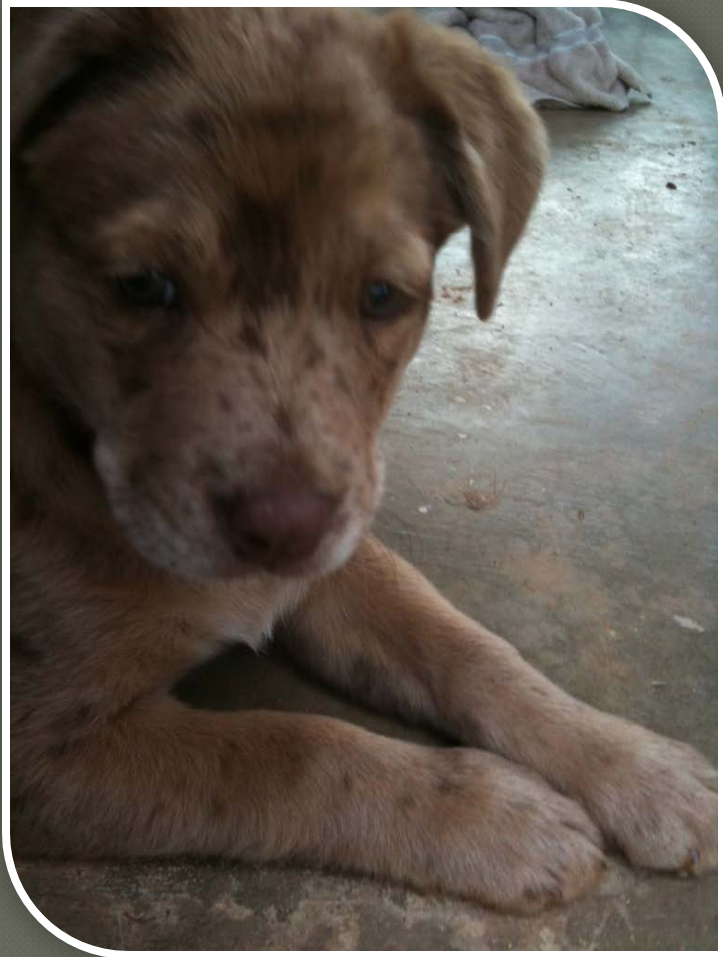
PEW RESEARCH CENTER Jan. 11-16, 2012. Q35e,t,u.

Top Policy Priorities for 2012

% considering each as a "top priority" for the president and Congress this year	Five years ago	One year ago	Today	Five year chg
	Jan 2007	Jan 2011	Jan 2012	
	%	%	%	
Economy	68	87	86	+18
Jobs	57	84	82	+25
Terrorism	80	73	69	-11
Budget deficit	53	64	69	+16
Social Security	64	66	68	
Education	69	66	65	
Medicare	63	61	61	
Tax fairness	--	--	61	
Health care costs	68	61	60	-8
Energy	57	50	52	
Help poor and needy	55	52	52	
Crime	62	44	48	-14
Moral breakdown	47	43	44	
Environment	57	40	43	-14
Lobbyist influence	35	37	40	
Illegal immigration	55	46	39	-16
Strengthening military	46	43	39	-7
Global trade	34	34	38	
Transportation	--	33	30	
Lower military spending	--	--	29	
Campaign finance	24*	--	28	
Global warming	38	26	25	-13

PEW RESEARCH CENTER Jan. 11-16, 2012.

* Campaign finance reform trend from Jan. 2004.



Butterfly Monitoring, Historic Rivers Chapter



Bluebird Monitoring, Pocahontas Chapter



Stiltgrass Control, Pocahontas Chapter



Wood Duck Box Installation, Historic Southside Chapter



Leading Interpretive Hikes, Central Rappahannock Chapter



Leading Educational Programs, Peninsula Chapter



River Cleanup, New River Valley Chapter



Bridge Building at First Landing State Park, Tidewater Chapter



Monitoring Streams, Beagle Ridge Chapter



“Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has.”

~Margaret Mead



THANK YOU

Overview



Methodology

VOLUNTEERS

- Random selection of ten chapters
- Random selection of 6-7 volunteers in two groups
 - Are serving or have served on Board of Directors
 - Have never served on Board of directors

CHAPTERS

- Alleghany Highlands
- Arlington Regional
- Blue Ridge Foothills and Lakes
- Central Piedmont
- Headwaters
- Historic Rivers
- Holston Rivers
- Old Rag
- Rockbridge
- Southwestern Piedmont

Methodology

ADVISORS

- Random selection of ten chapter advisors
- Interviews conducted

SPONSORING AGENCIES & PARTNERS

- Focus groups
- 5-6 participants in each



Photo: Karen Neale

Methodology

- Transcribed all focus groups and interviews
- Coded responses
 - Current engagement
 - Program impacts
 - Existing Needs
 - Working Well
 - Future Direction
- Used coded responses to develop four surveys
 - Volunteers
 - Chapter Advisors
 - Sponsoring Agency Staff
 - Partnering Organizations



Photo: Rivanna Chapter

Responses

- Volunteers
 - N=598
- Advisors
 - N=16
- Sponsoring Agencies
 - N=108
- Partnering Organizations
 - N=55





Photo: Historic Rivers Chapter

General Information

29 Chapters



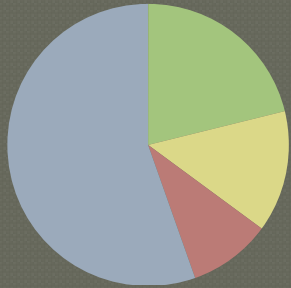
Volunteer Motivations

Motivator	Not At All	A Great Deal
To learn more	0.01%	86%
To connect with nature	1%	74%
To meet others with similar interests	2%	48%
To volunteer and give back to my community	1%	45%

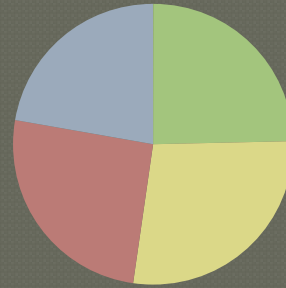


Photo: Rivanna Chapter

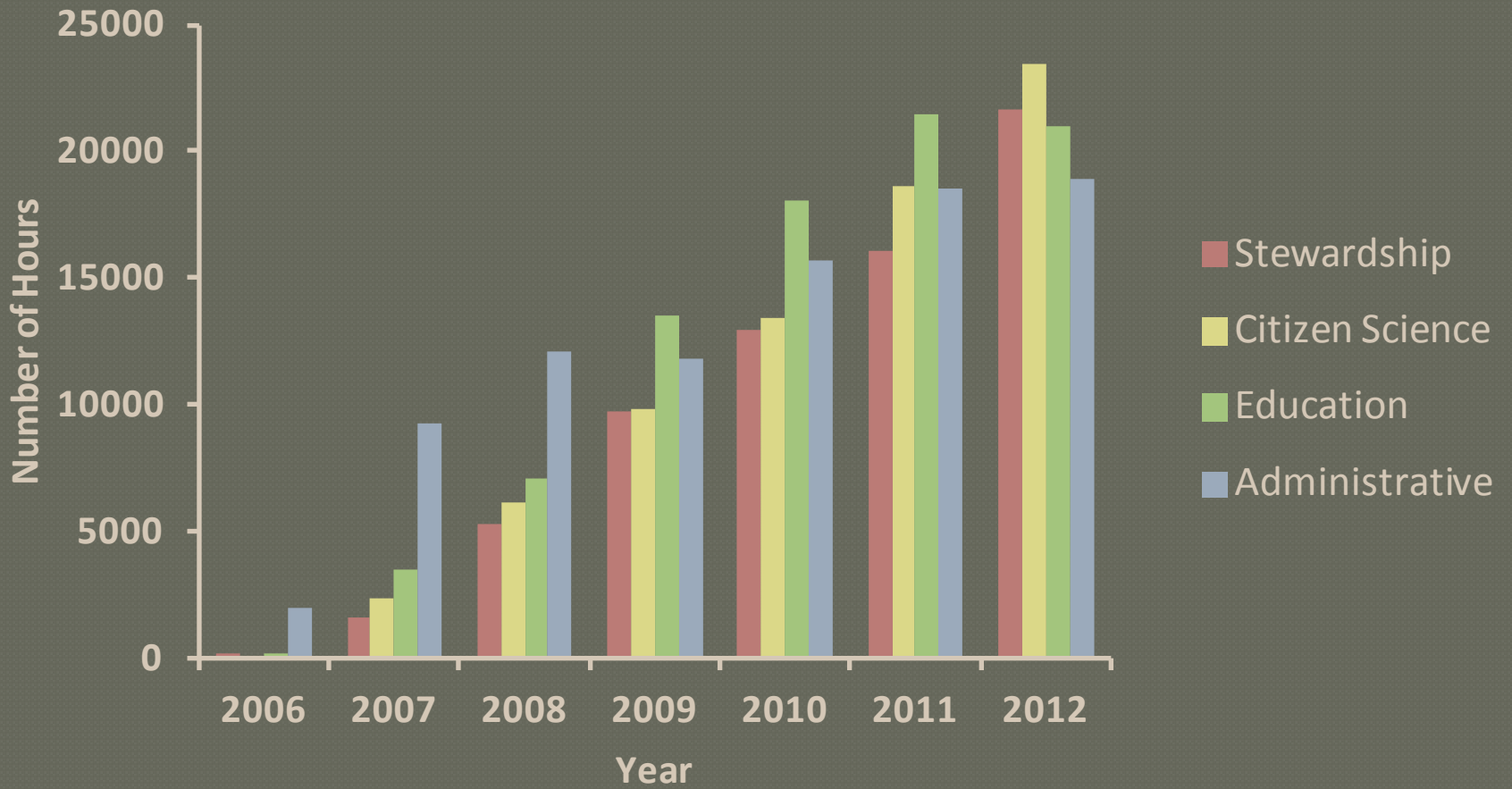
Only 7% provided “Other” response with a great deal of influence



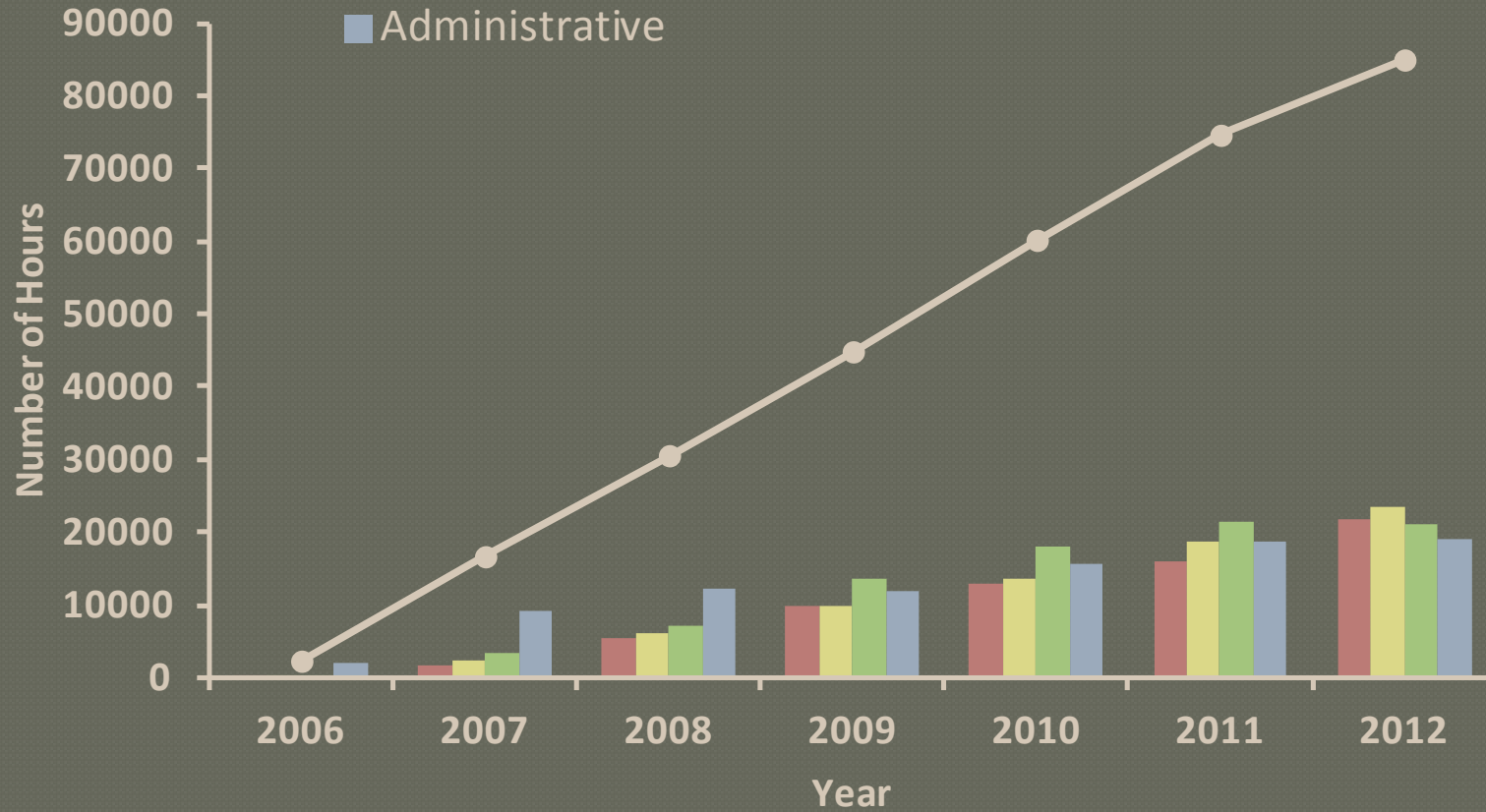
2007



2012

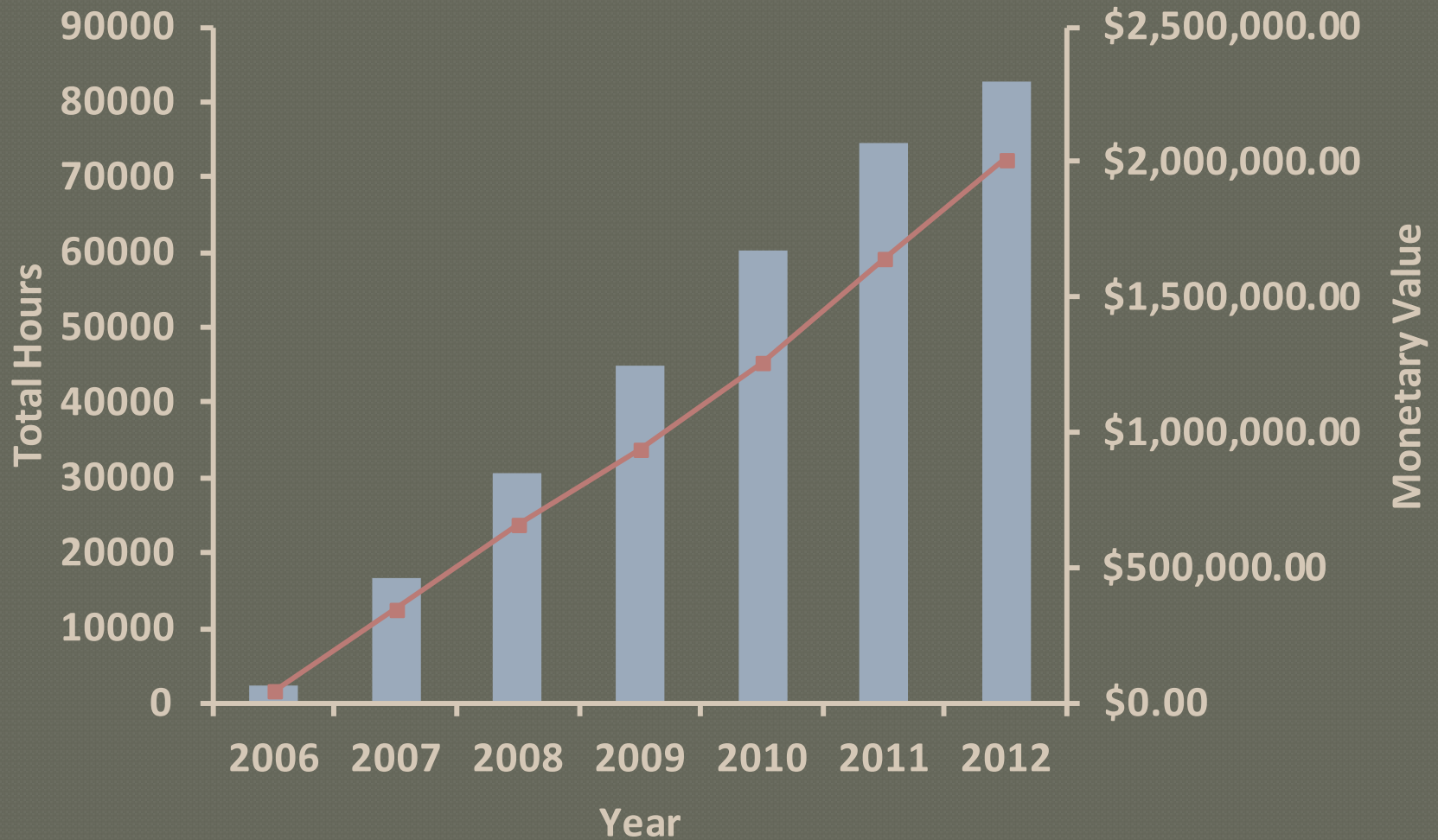


- Stewardship
- Citizen Science
- Education
- Administrative



TOTAL HOURS: 312,027

MONETARY VALUE: \$6,907,729



I log my volunteer hours....

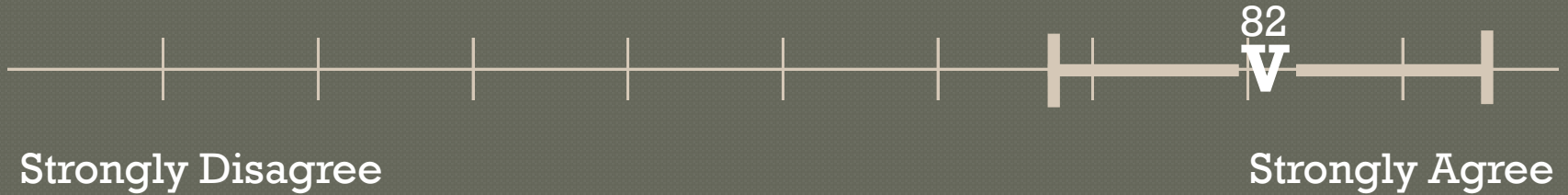
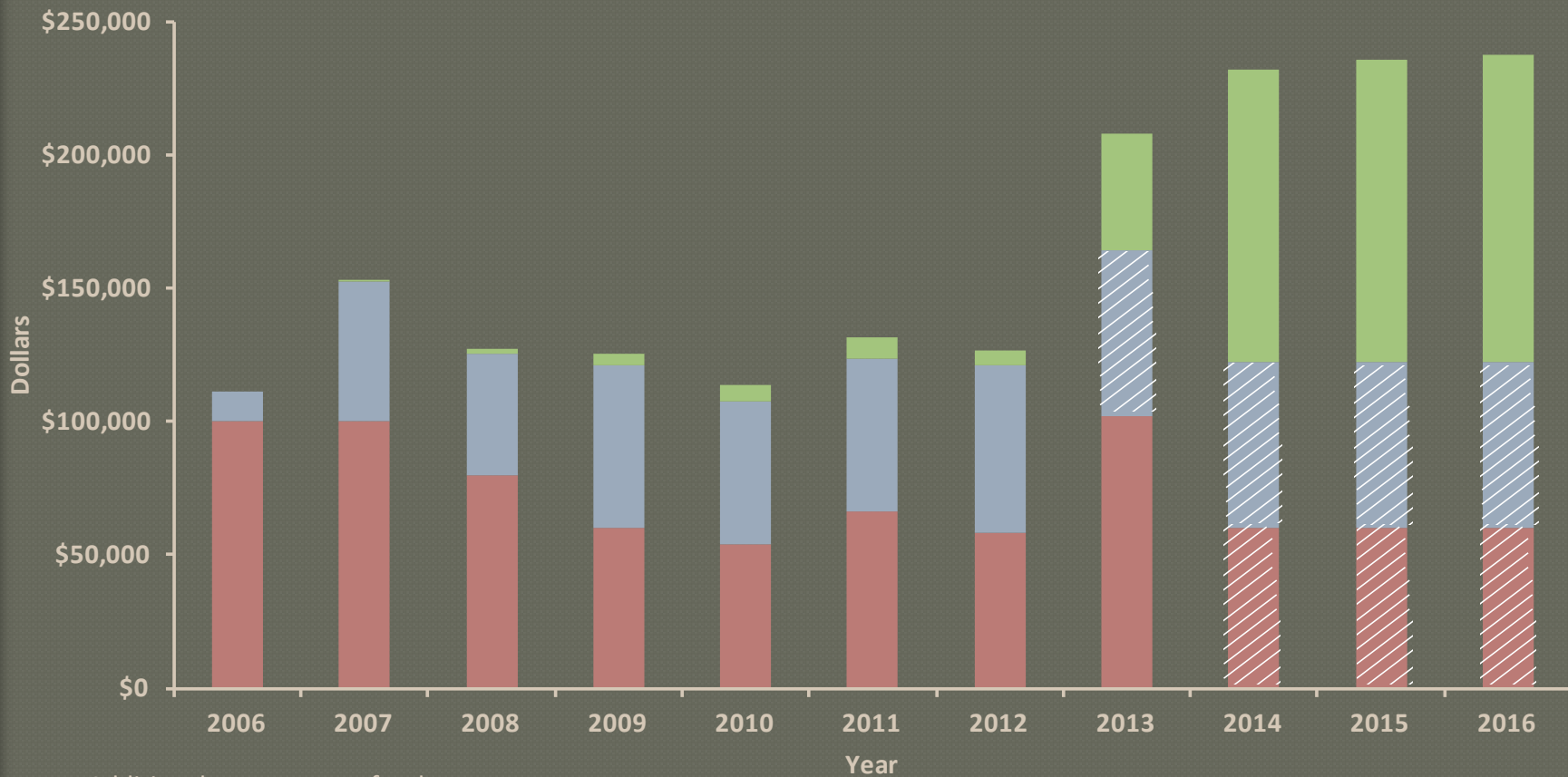


Photo: Historic Rivers Chapter



- Additional grant support for the state program
- Local financial support for chapters from course fees & member dues (estimated)
- Support for the state program from state agency sponsors

Future Direction

- ◉ VMN Account started
 - Donations are tax-deductible
 - Submit grants as 501(c)3
- ◉ Start volunteer advisory board
 - Crowdfunding
 - Mini-grant program?



Photo: Central Piedmont

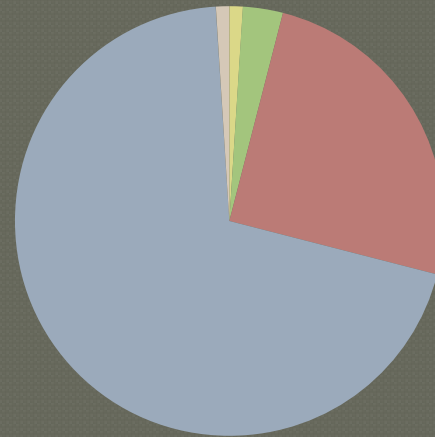


Photo: Historic Rivers Chapter

Basic & Advanced Training

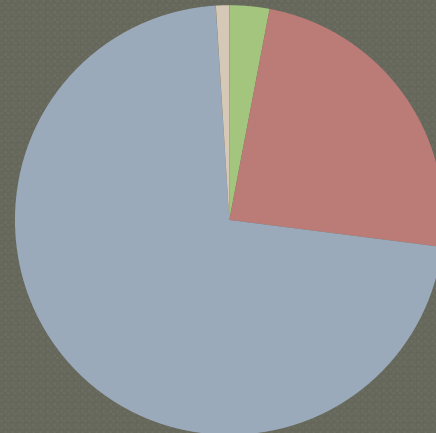
Basic Training Satisfaction

Basic Training Course

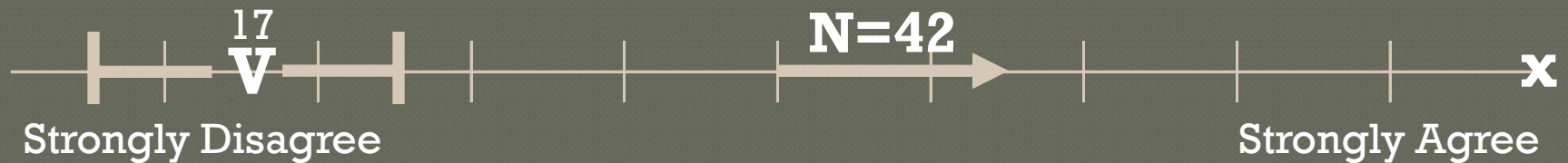


- Very dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very satisfied
- Unknown

Basic Training Instructors



The information provided in my
basic training course was too
advanced....



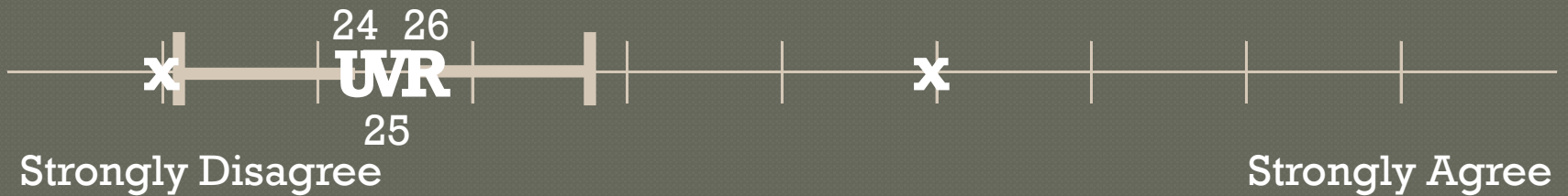
I have trouble finding advanced training opportunities in my area....





Photo: Fairfax Chapter

I have trouble finding volunteer opportunities in my area...



Future Direction

● Basic Training

- Complete basic training manual
- Develop online trainings to be used by chapters as needed

● Advanced Training

- Monthly online advanced training option
 - Starting January 2014
- Develop list of available speakers across state for diverse topics

● Available Projects

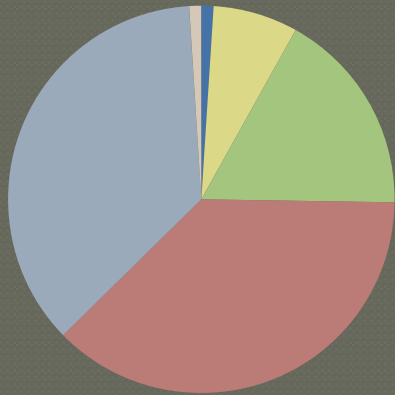
- Add statewide projects to VMS
- Add list of available projects to statewide website



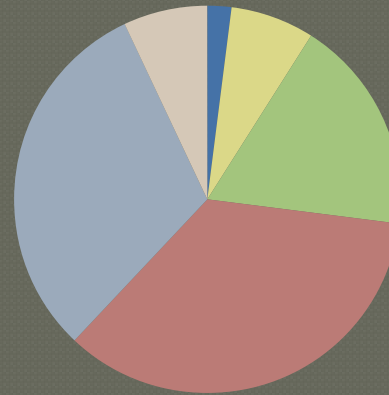
Photo: Historic Rivers Chapter

Program Communications

Chapter Communications



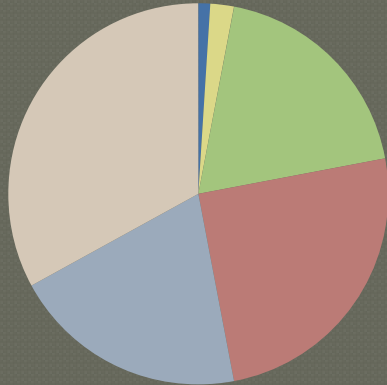
Communications



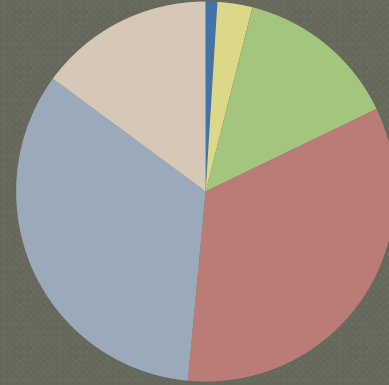
Website

- Very dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very satisfied
- Unknown

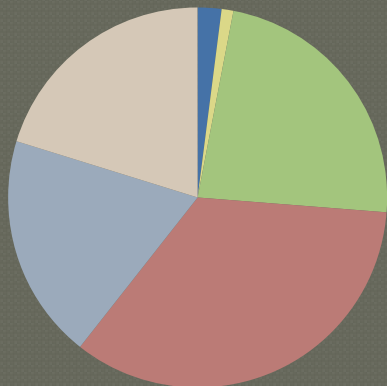
Program Communications



Listserv



VMN-VMS



Website



Future Direction

- Develop statewide communication plan
- Revamp VMN statewide website
- Assist local chapters
 - Developing local communication plan
 - Developing chapter websites



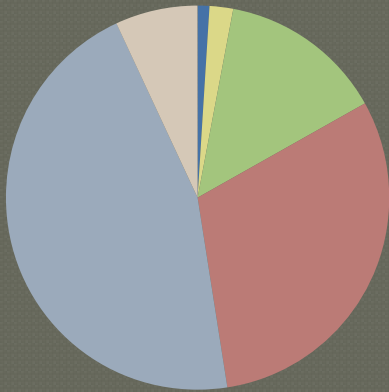
Photo: Fairfax Chapter



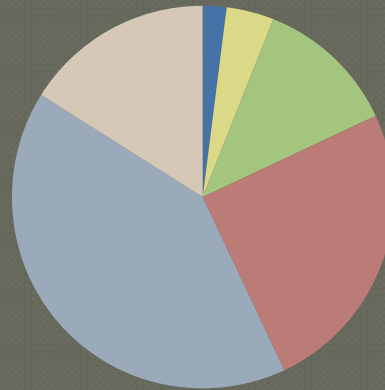
Photo: Southwestern Piedmont Chapter

Chapter and Program Leadership

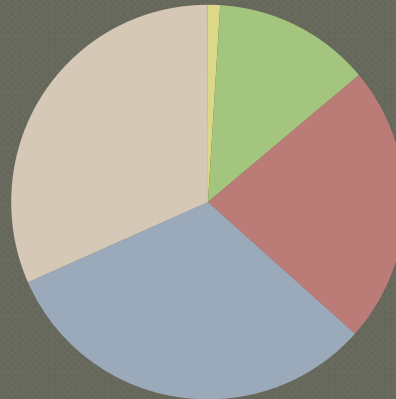
Leadership



Board of Directors



Advisor



Coordinator

- Very dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very satisfied
- Unknown

My chapter has strong leadership....

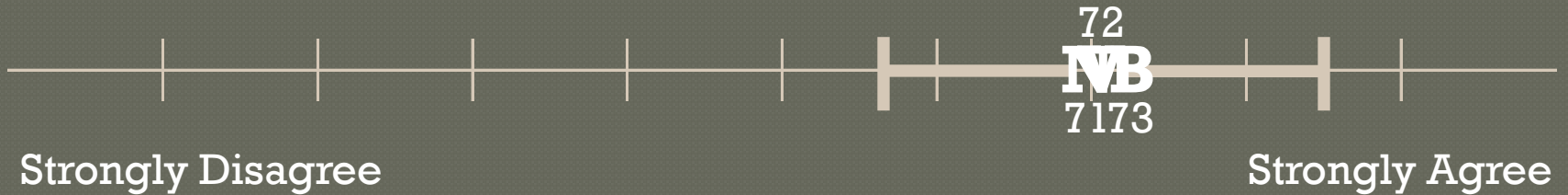


Photo: Historic Rivers Chapter

Future Direction

- Chapter Best Practices
 - Monthly conference call
 - Begins October 22
 - Fourth Tuesday of each month
 - Recorded and made available online
 - Development of manual
- Annual Advisors Meeting



Photo: Steve Kvech, Alleghany Highlands



Photo: Tidewater Chapter

Volunteer Retention and Recruitment

Recruitment and Retention

● Trained

- Individuals that have taken the basic training course

● Existing Members

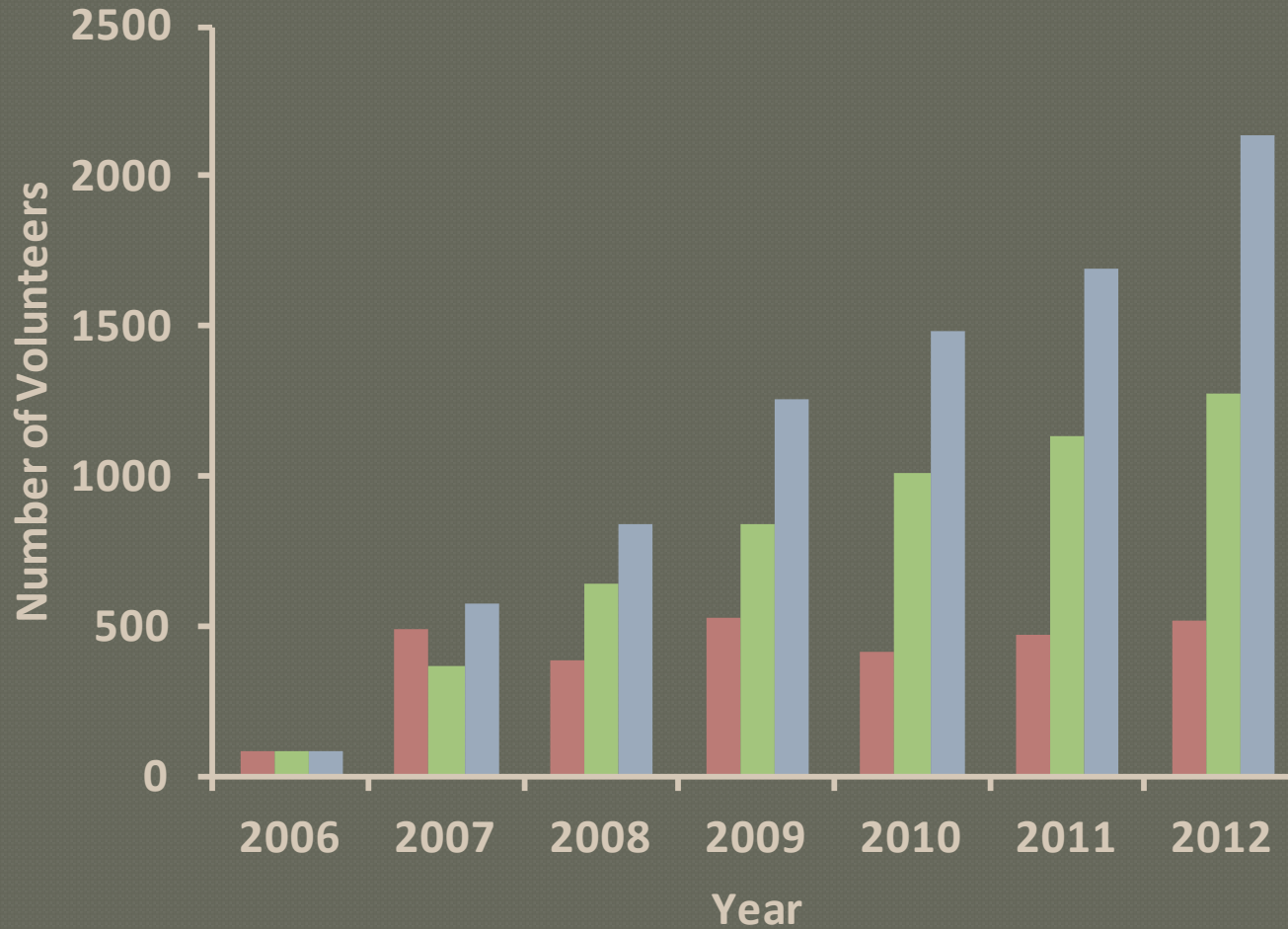
- Individuals that have taken the basic training course and submit annual dues

● Currently Active

- Individuals that have taken the basic training course, submit annual dues, and report hours

Trained = 2,801
Active = 1,278
Members = 2,132

Trained
Active
Members



Retention

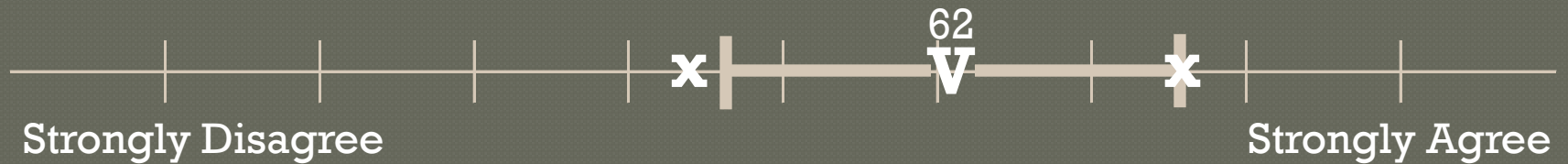
- Only 46% of those volunteers that have been trained are currently active
- Linked to motivations?

Motivator	Not At All	A Great Deal
To learn more	0.01%	86%
To connect with nature	1%	74%
To meet others with similar interests	2%	48%
To volunteer and give back to my community	1%	45%

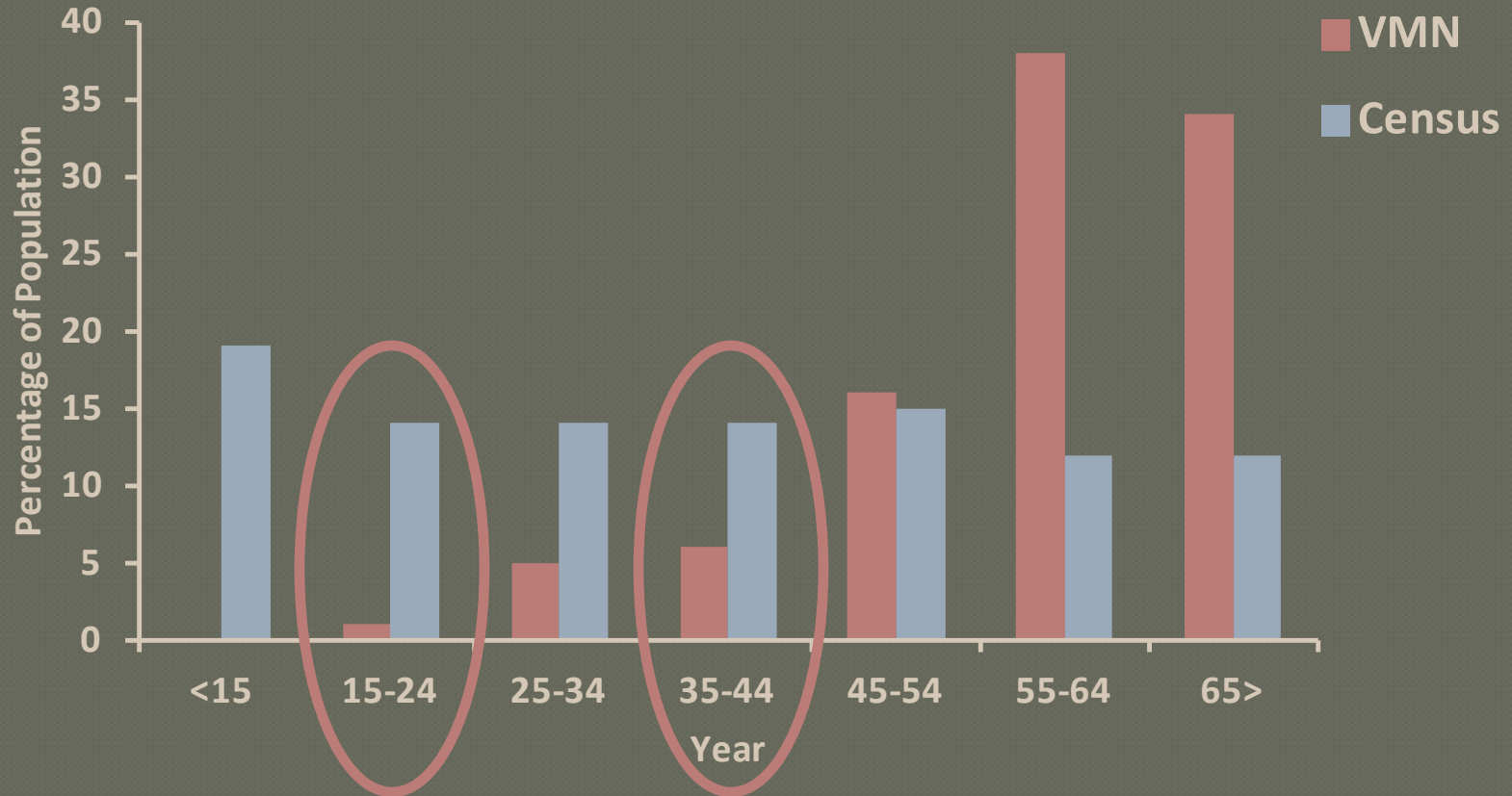


Photo: Tidewater Chapter

I feel a social connection with other members of my chapter...



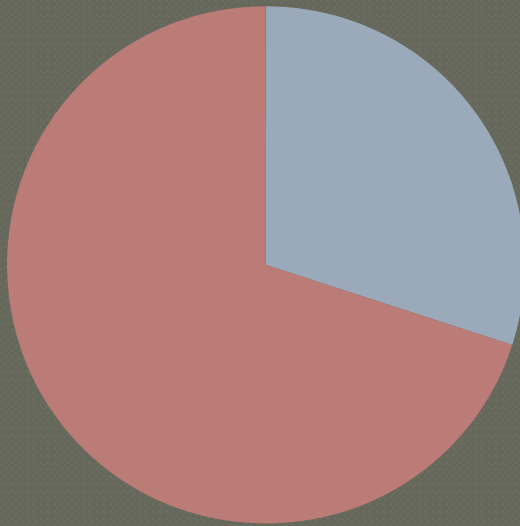
Demographics: Age



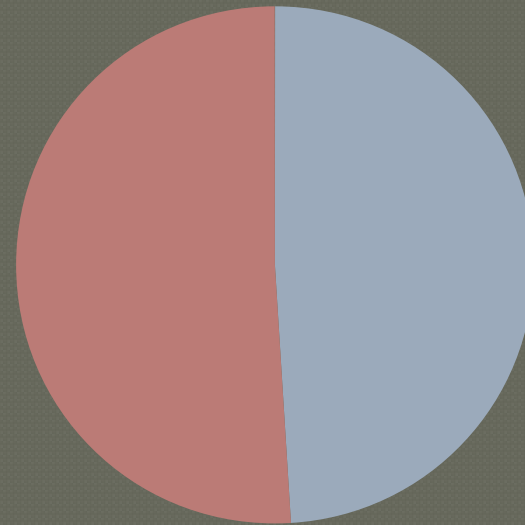
72% of respondents over 55 years of age

Demographics: Gender

■ Male
■ Female

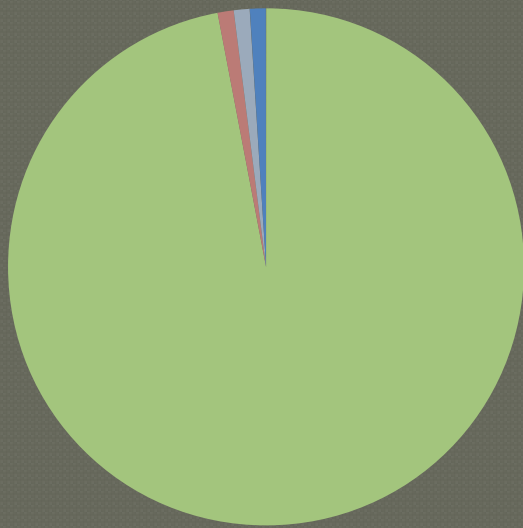


VMN Program

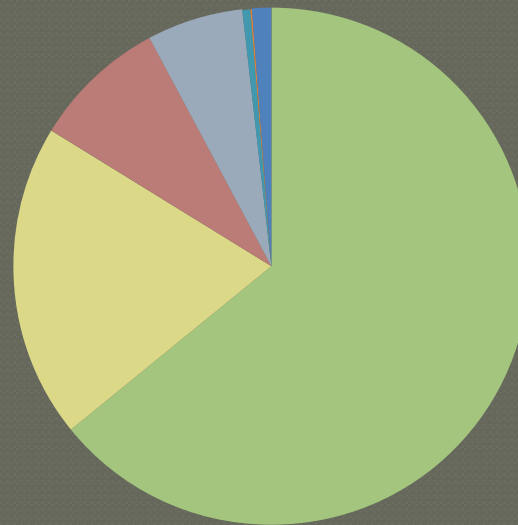


Virginia, 2010 Census Data

Demographics: Race



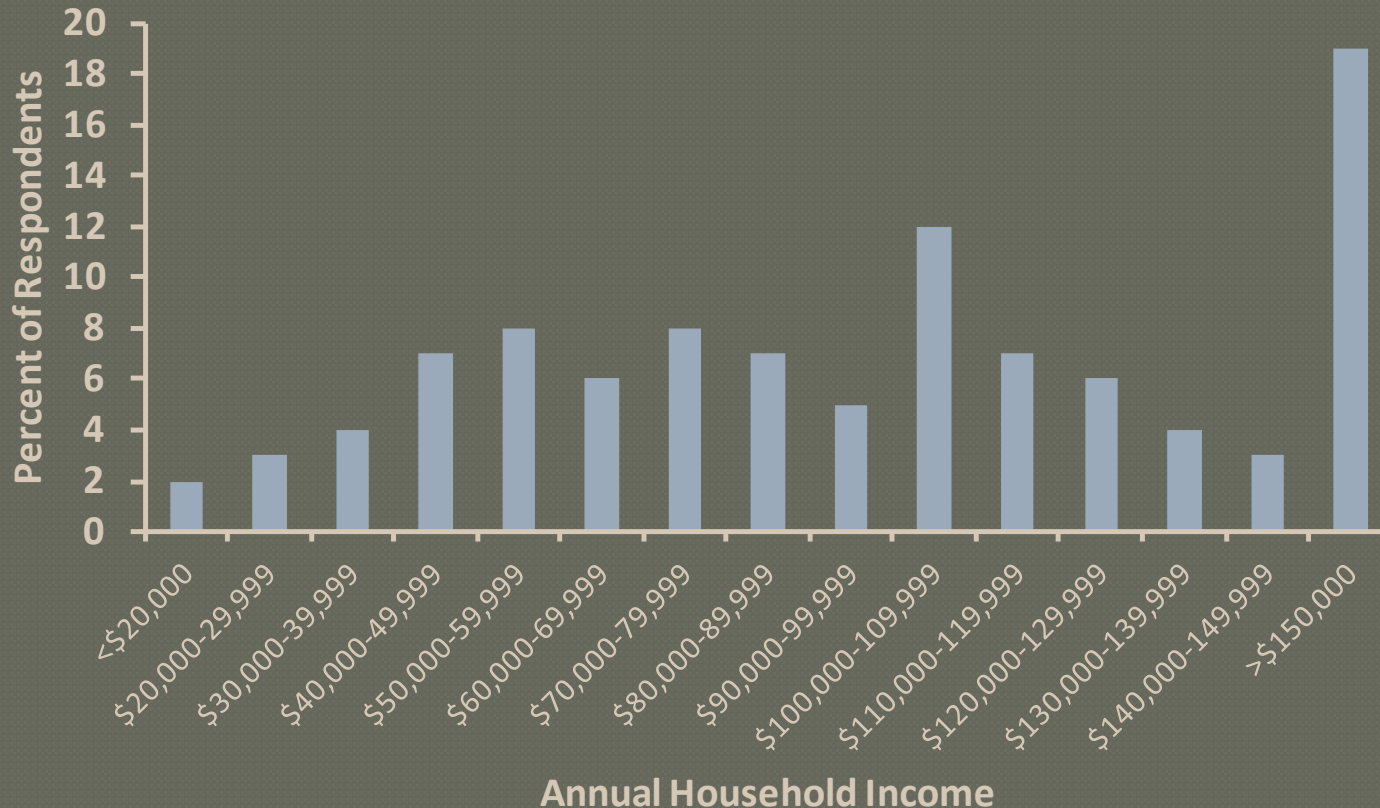
VMN Program



Virginia, 2010 Census

- White/Caucasian
- African American
- Hispanic
- Asian
- Native American
- Pacific Islander
- Other

Demographics: Income



51% of respondents have annual household incomes >\$100,000

Demographics: Income



Future Direction

- Professional Development Opportunities
 - Reaching new audiences
- Increase social media engagement
- Submitting grant in January
 - Engagement and diversity



Photo: Felice Bond, Historic Rivers



Photo: Peninsula Chapter

Education and Outreach



Photo: Inge Curtis, Historic Rivers

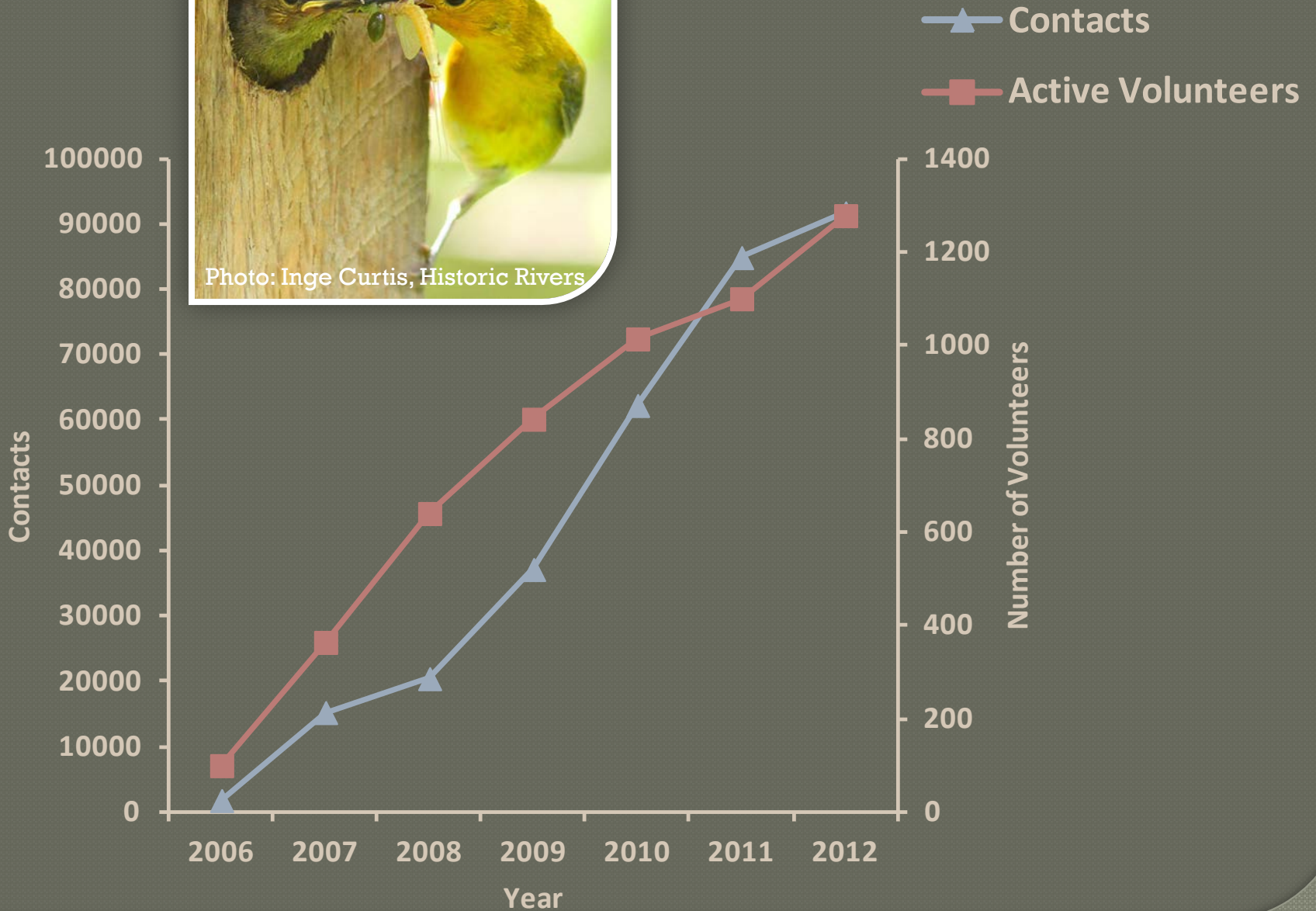




Photo: Riverine Chapter

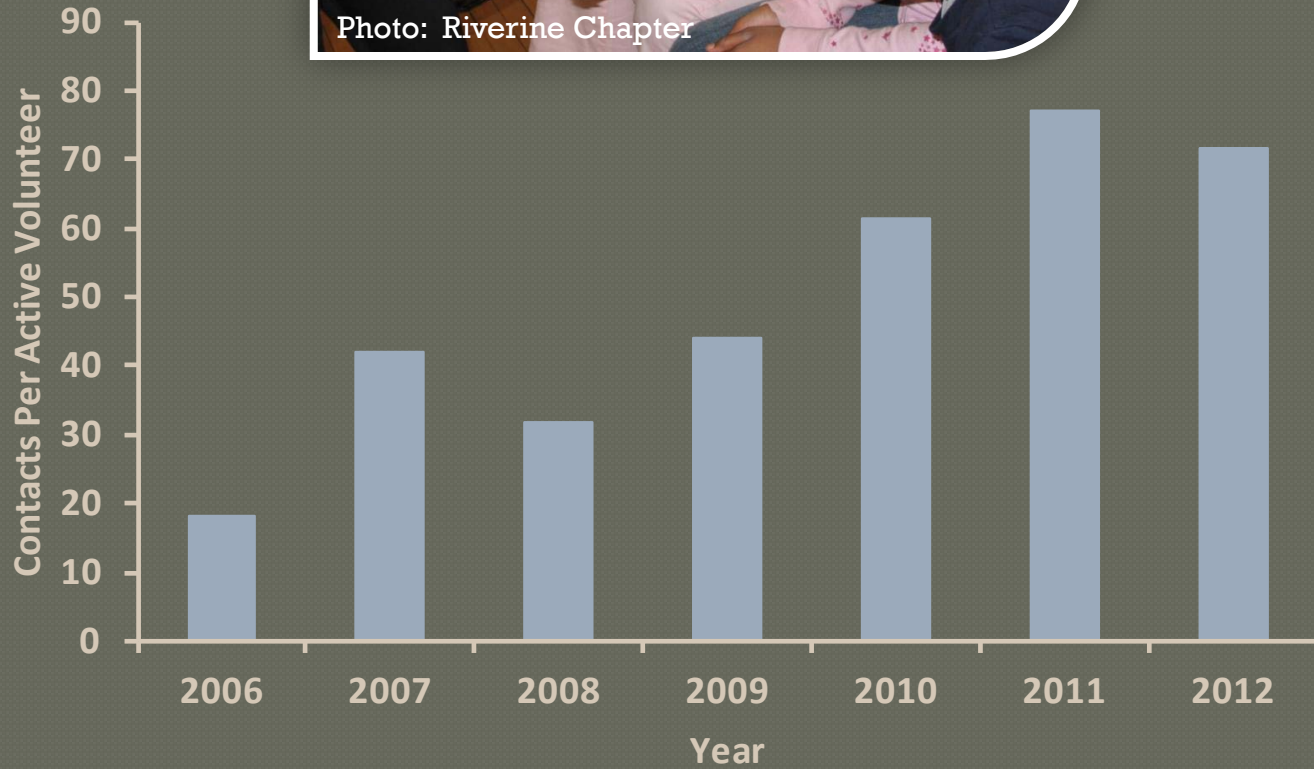




Photo: John Shoosmith, Historic Rivers

Our Sponsors and Partners

Who Are They?

SPONSORING AGENCIES

- Six statewide sponsors
 - VCE
 - DCR
 - DEQ
 - DGIF
 - DOF
 - VMNH
- Provide base financial support to program
- Representatives on steering and executive committees
- Serve as chapter advisors

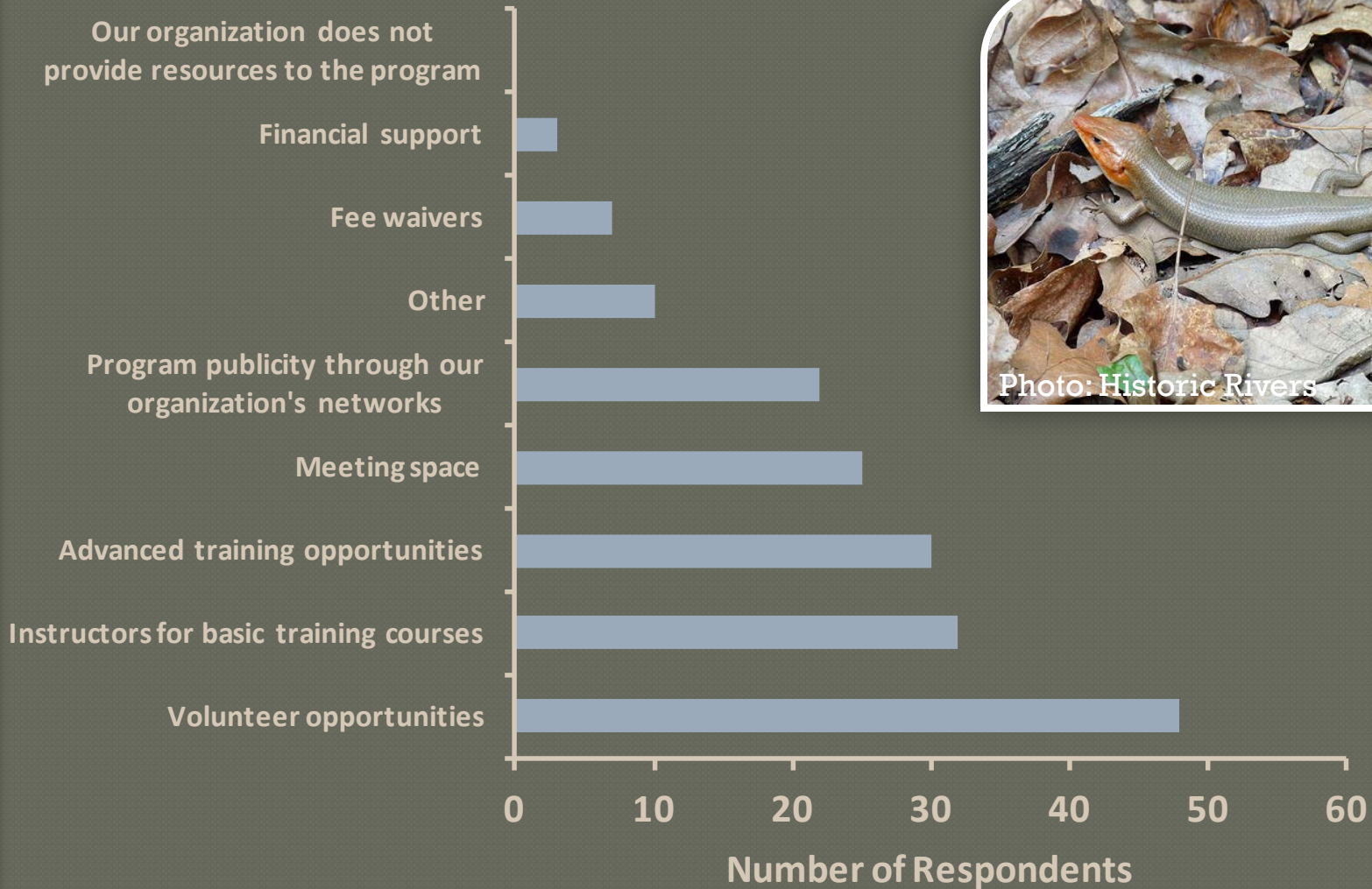
PARTNERING ORGANIZATIONS

- Local, state, and national organizations whose mission/goals overlap with that of our program
- Provide various levels of support to program
 - Training, meeting space, etc.

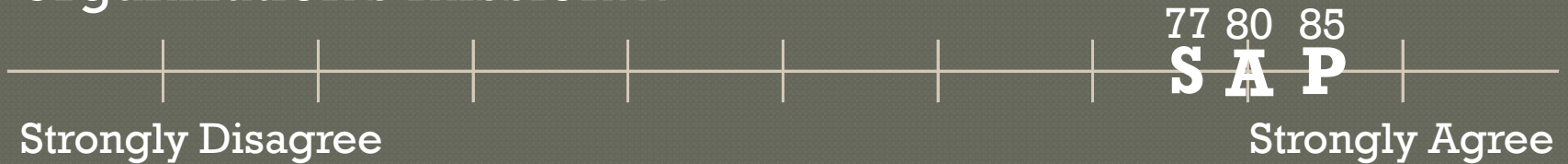
Sponsor and Partner Activities

Activity	Sponsor Percentage	Partner Percentage
Provide training assistance	44%	59%
Engage volunteers in educational programs	40%	59%
Engage volunteers in stewardship projects	30%	56%
Assist statewide coordinator (steering committee, executive committee)	23%	NA
Other	20%	26%
Serve as Virginia Master Naturalist volunteer	12%	37%
Engage volunteers in citizen science/research projects	11%	54%
Attended basic training course as a professional development opportunity	7%	22%

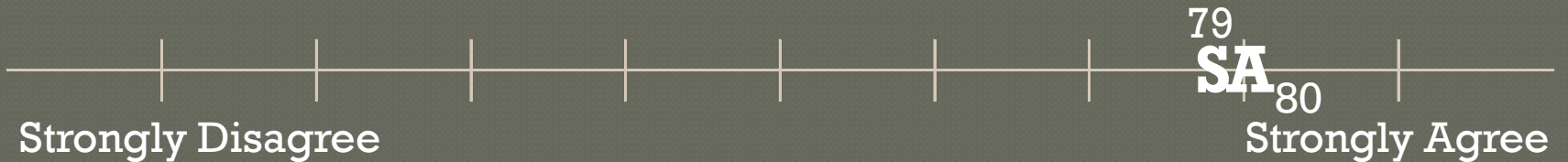
Resources Provided: Partners



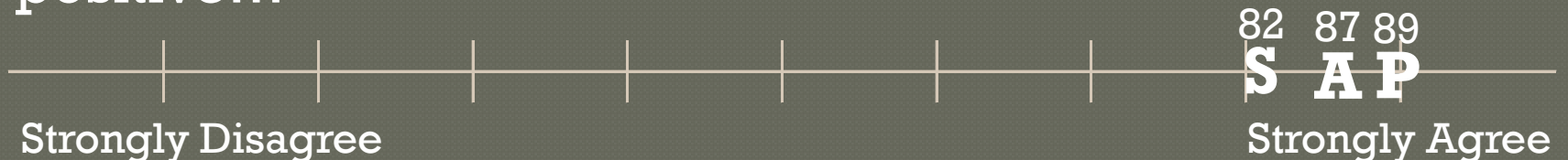
The VMN program supports my agency's/
organization's mission...



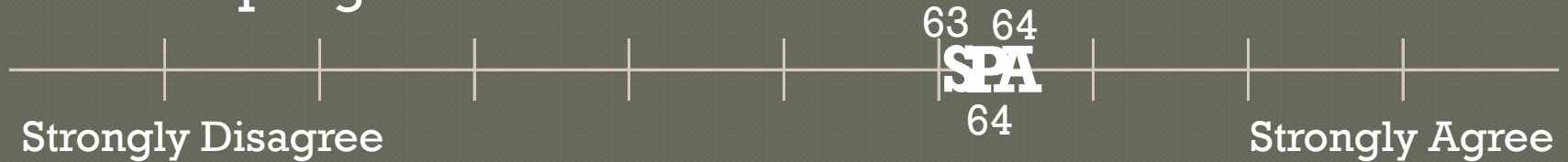
Investment by my agency in the VMN program is
worthwhile...



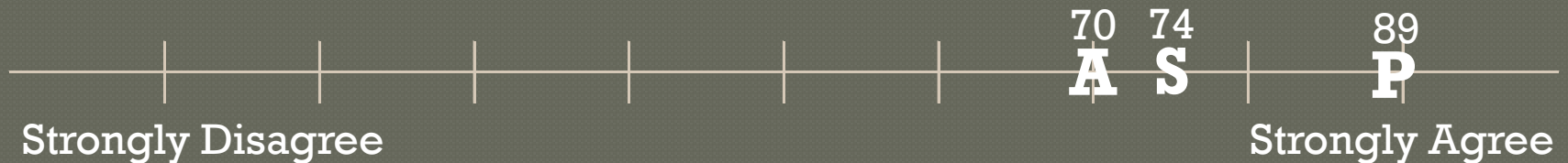
My experiences with the VMN volunteers have been
positive...



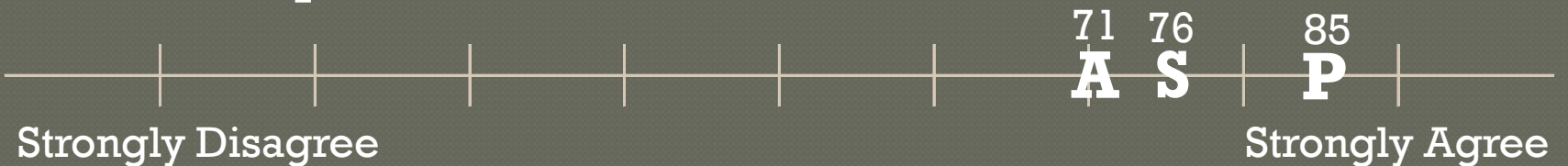
I get more out of the VMN program that I put into the program...



My agency/organization values the VMN program...



My time spent engaging with the program is time well spent...



VMNs do not spend enough time on projects
for my agency...

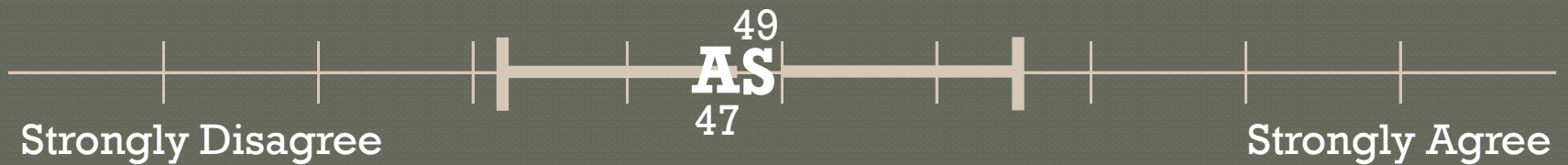
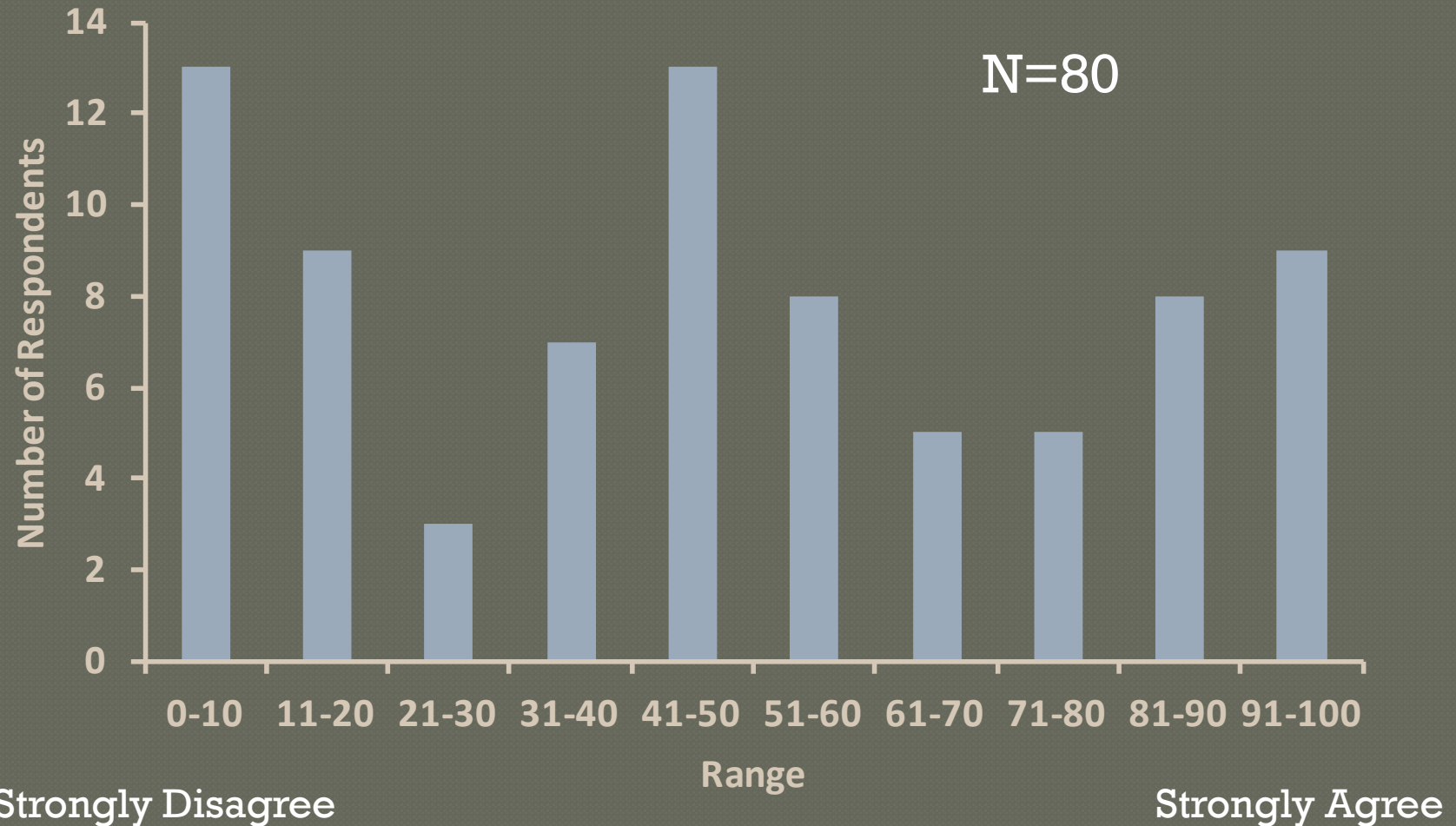


Photo: Susan McSwain, Central Blue Ridge

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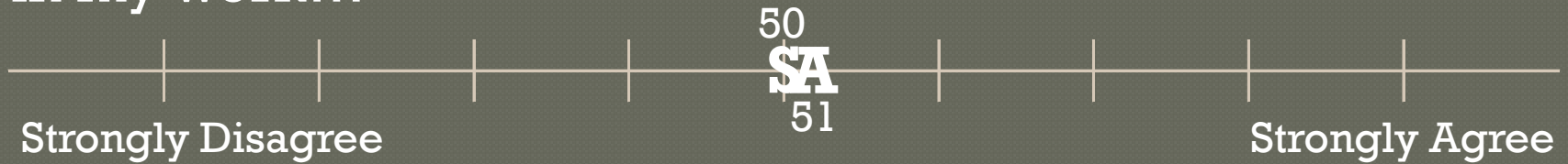
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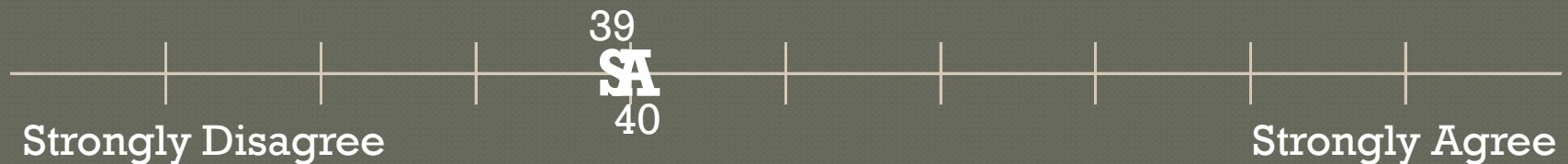


Photo: Susan McSwain, Central Blue Ridge

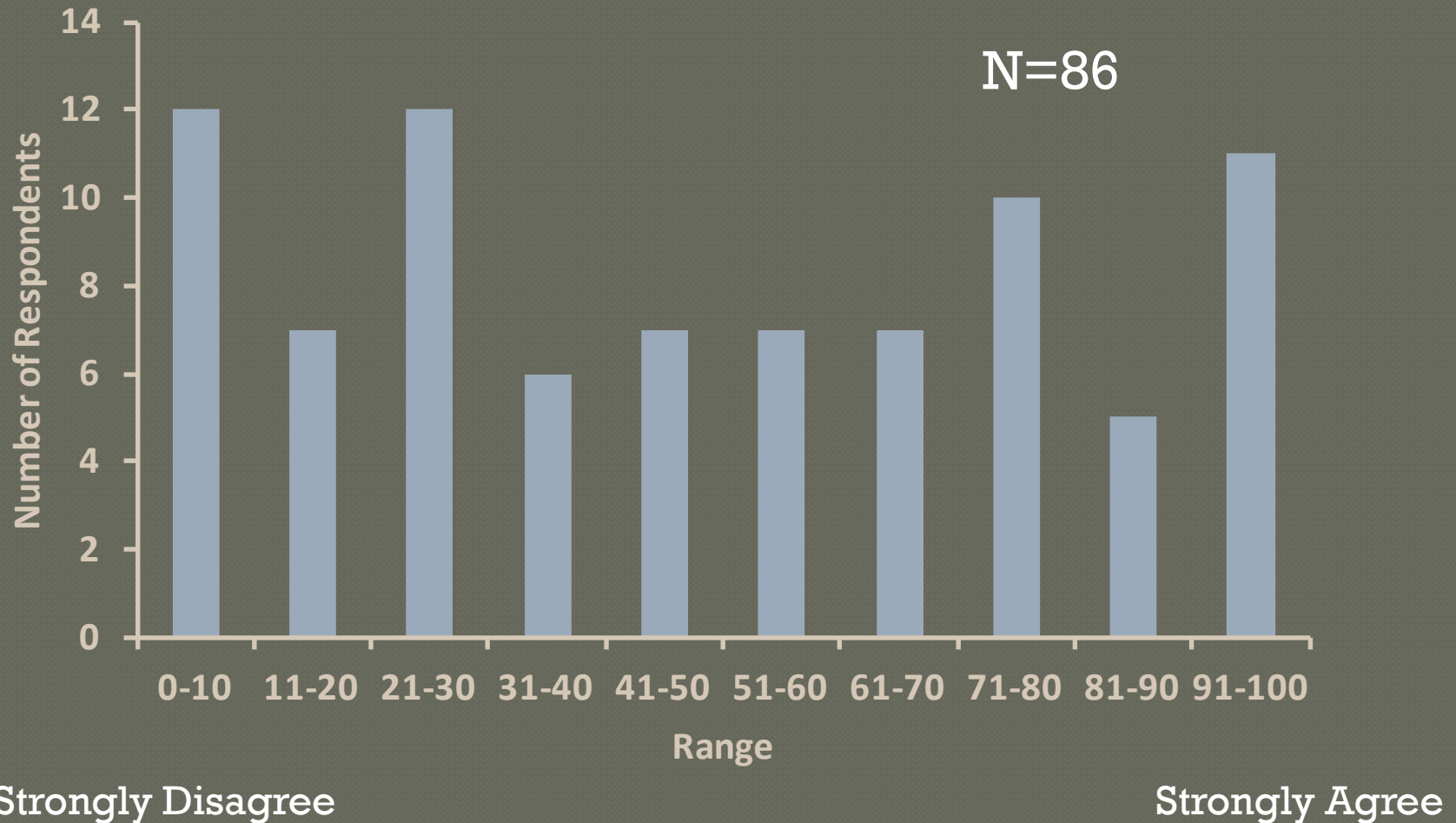
There are too few opportunities to engage VMNs
in my work...



I do not know how to engage VMNs in my work...

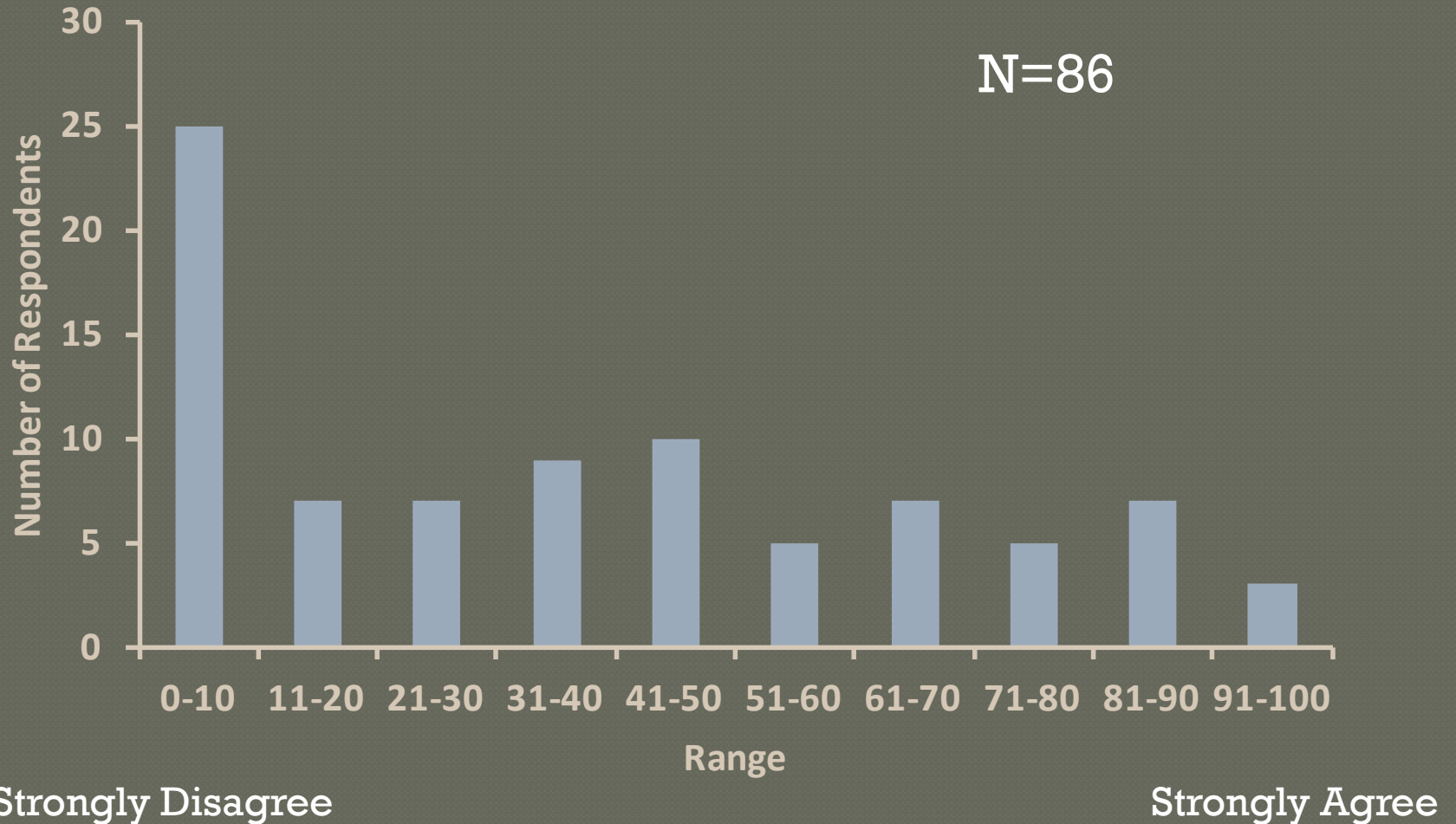


There are too few opportunities to engage VMNs in my work...



I do not know how to engage VMNs in my work...

N=86



I would like to see more staff in my agency engaged in the VMN program...

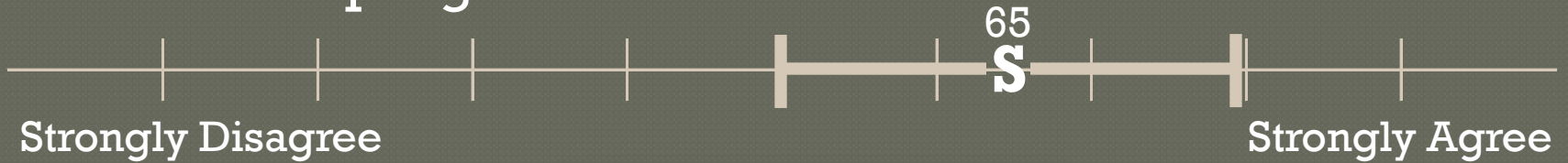
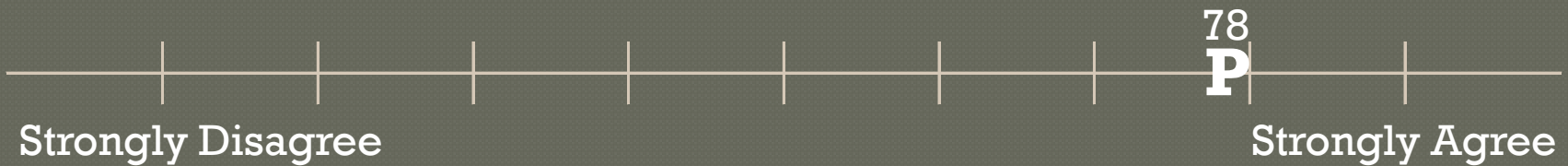
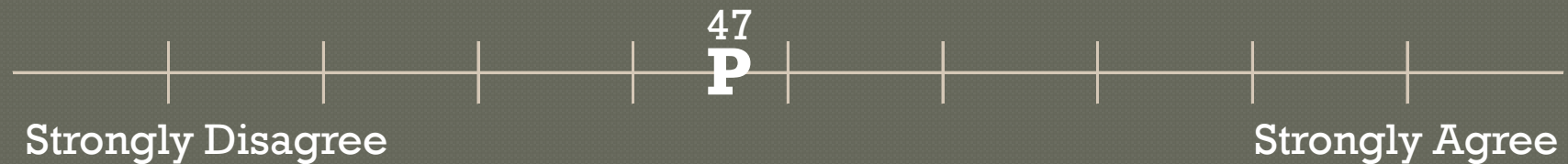


Photo: Peninsula Chapter

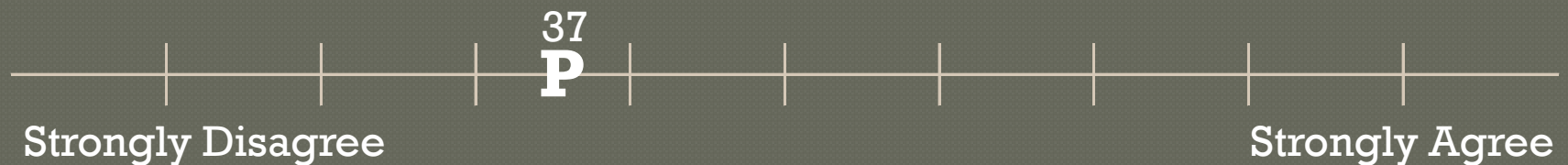
I would like to engage VMNs more in my work...



My organization could not accomplish its activities without the support of VMN volunteers...



A majority of my organization's volunteers are Virginia Master Naturalists...



Future Direction

- Attend regional and statewide agency meetings to promote program and engage staff
- Develop list of available projects for volunteers
- Share local projects statewide



Photo: Inge Curtis, Historic Rivers



Photo: Allegheny Highlands Chapter

Program Goals

Program Goals

Program Goal	Sponsor Highest Rank	Partner Highest Rank
Educate the public about the natural resources in Virginia	54%	27%
Develop an informed volunteer base that participates in projects that directly benefit Virginia's natural resources	18%	9%
Promote environmental stewardship	17%	38%
Develop an informed volunteer base that participates in projects that directly benefit your agency and its mission	10%	27%
Other	1%	0%

Retention

- Only 46% of those volunteers that have been trained are currently active
- Linked to motivations?

Motivator	Not At All	A Great Deal
To learn more	0.01%	86%
To connect with nature	1%	74%
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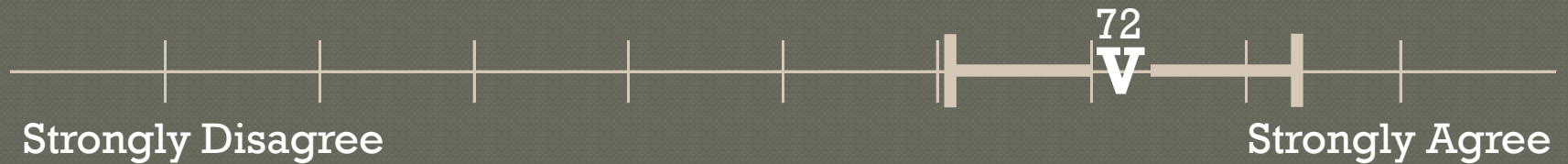


Program Impacts



Photo: Merrimac Farm Chapter

My volunteer work is making a difference...

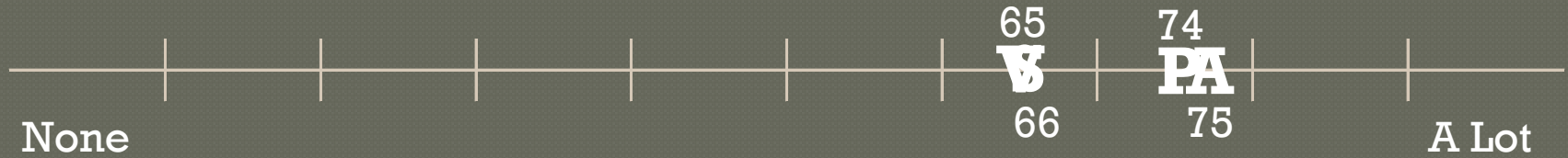


Please rank on a scale of 0 (none) to 100 (a lot) to what degree you feel the Virginia Master Naturalist program volunteers are making a difference in their communities in each of the following ways.



Photo: Rivanna Chapter

Supporting work of natural resource professionals...



Generating advocates for natural resource agencies...

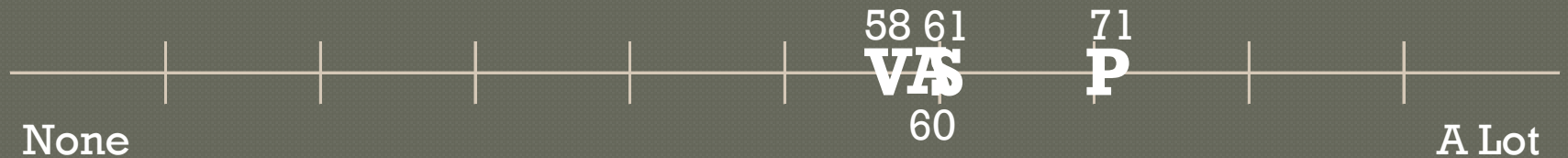
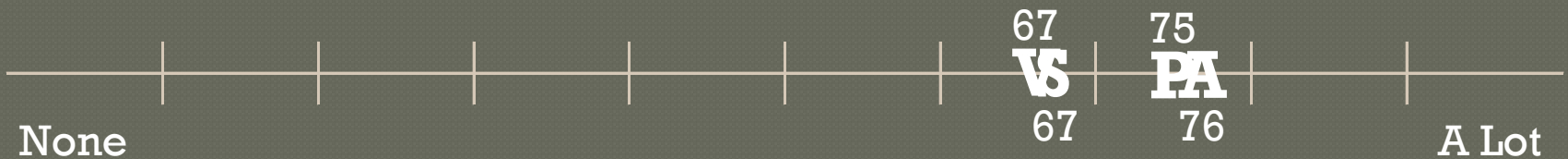


Photo: Pocahontas Chapter

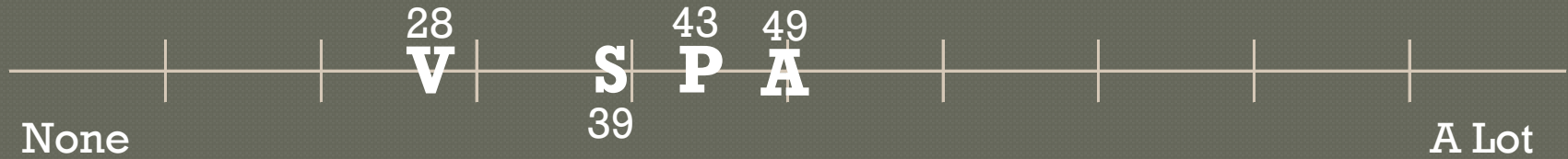


Photo: Historic Rivers Chapter

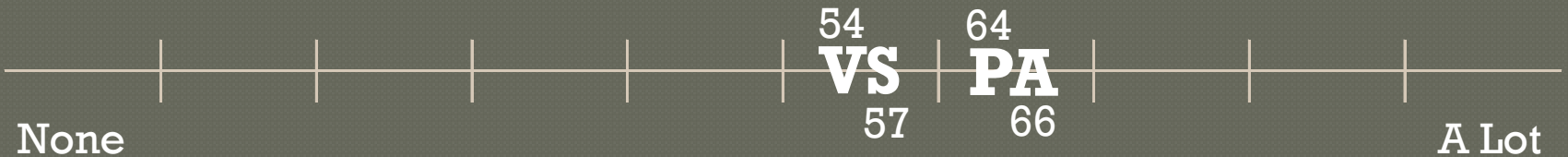
Educating and engaging the public...



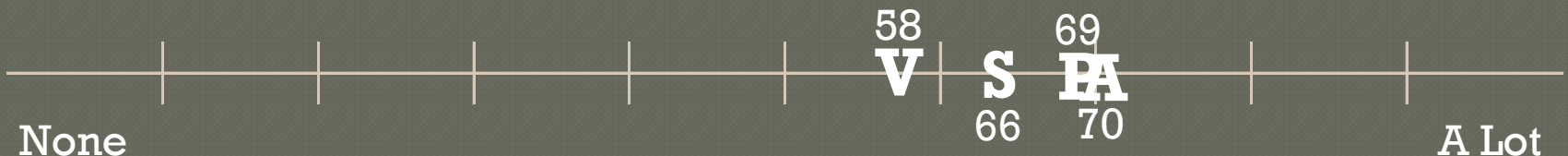
Providing professional development and job opportunities...



Developing community through social connections...



Increasing self-confidence of volunteers...



Creating knowledgeable and credible volunteers in the local community...

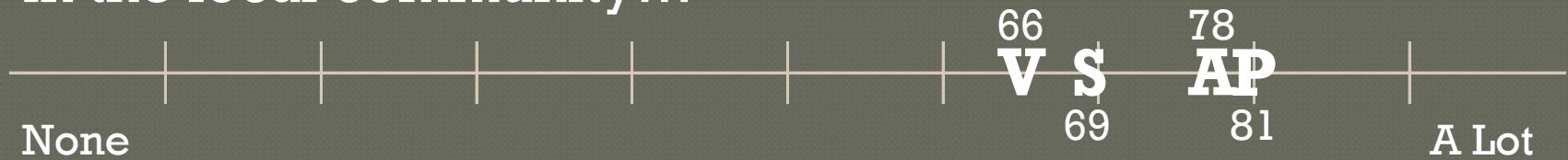
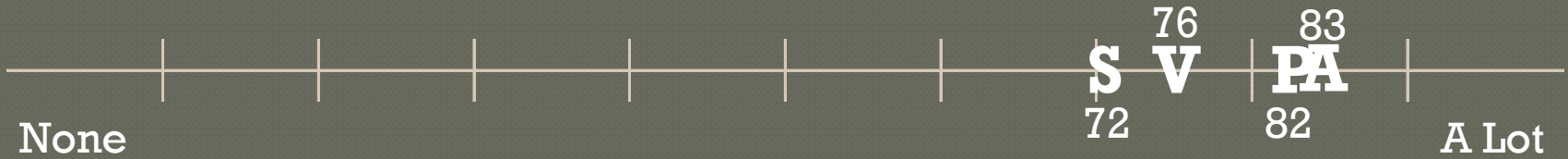


Photo: Historic Rivers Chapter

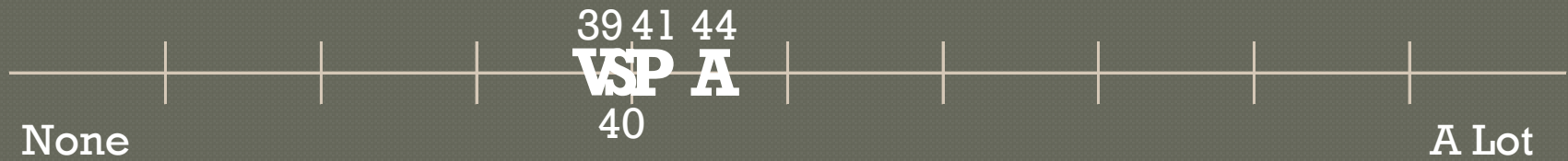
Participating in environmental stewardship projects...



Contributing data through citizen science to inform research or management...



Increasing economic activity through visitation/tourism during Master Naturalist events...



Increasing economic activity through improvements to natural resources or environmental services...

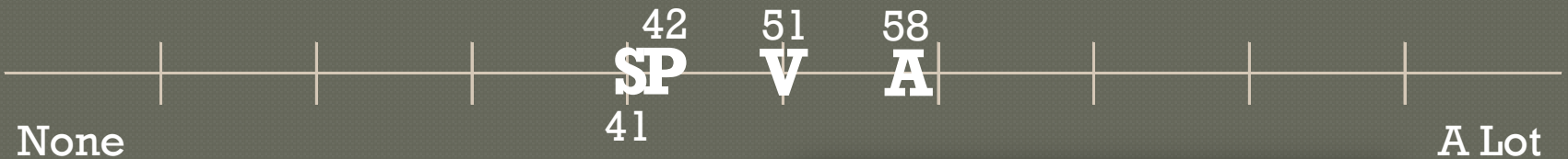


Photo: Central Piedmont Chapter



Photo: Historic Rivers Chapter

Next Steps

Future Activities: Volunteers

Activity	Highest Rank	Lowest Rank
Complete development of a basic training course manual	36%	7%
Provide list of available and/or potential projects from sponsoring agencies	22%	1%
Create statewide list of available speakers on specific topics	8%	8%
Initiate efforts to increase program diversity	8%	18%
Improve communications across multiple chapters	8%	7%
Host regional conferences / advanced training rallies	7%	11%
Increase basic training flexibility by providing online option	7%	44%
Provide statewide calendar of events on statewide website	4%	5%

Future Activities: Sponsors

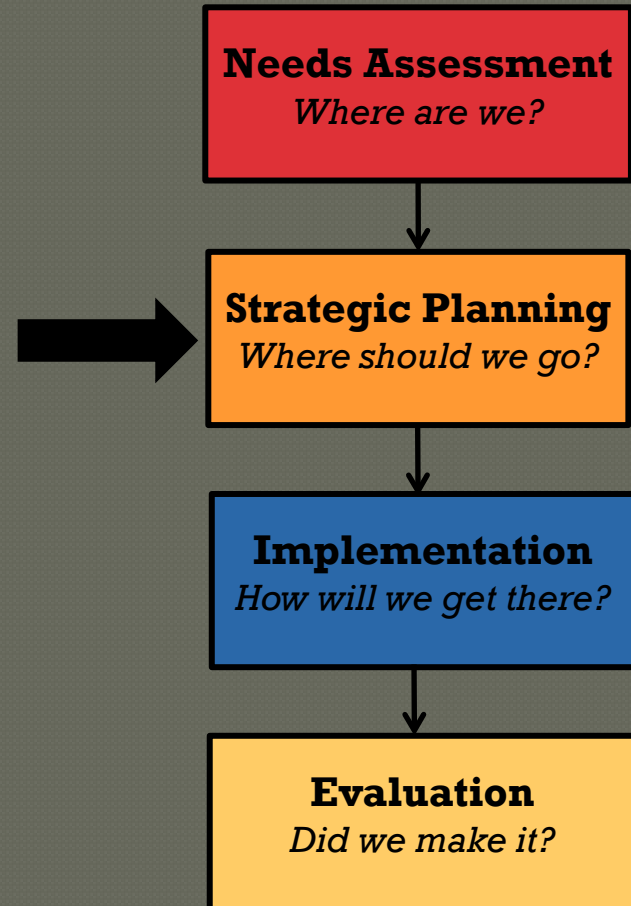
Activity	Highest Rank	Lowest Rank
Identify key public messages for VMN volunteers to deliver to public	30%	1%
Improve communications between coordinator and agency staff to increase program awareness and staff engagement	25%	2%
Develop a database of volunteer skills to match volunteers to specific projects	20%	1%
Improve communications on existing and potential projects among sponsoring agencies and volunteers	13%	0%
Further develop core training curriculum to facilitate standardization of training materials across chapters	6%	2%
Provide relevant professional development opportunities for agency staff	2%	4%
Other	2%	89%

Future Activities: Partners

Activity	Highest Rank	Lowest Rank
Provide ability to post volunteer opportunities from within your organization on the VMN statewide website	34%	2%
Develop a database of volunteer skills to match volunteers to specific projects	30%	0%
Improve communications on existing and potential projects among partnering organizations and volunteers	13%	0%
Improve communications between the VMN statewide coordinator and potential or existing partnering organizations to increase program awareness and engagement	11%	0%
Provide relevant professional development opportunities for your organization's staff engaged with the VMN program	6%	0%
Develop ways to reduce the time commitment of teaching classes for chapters	4%	2%
Other	2%	96%

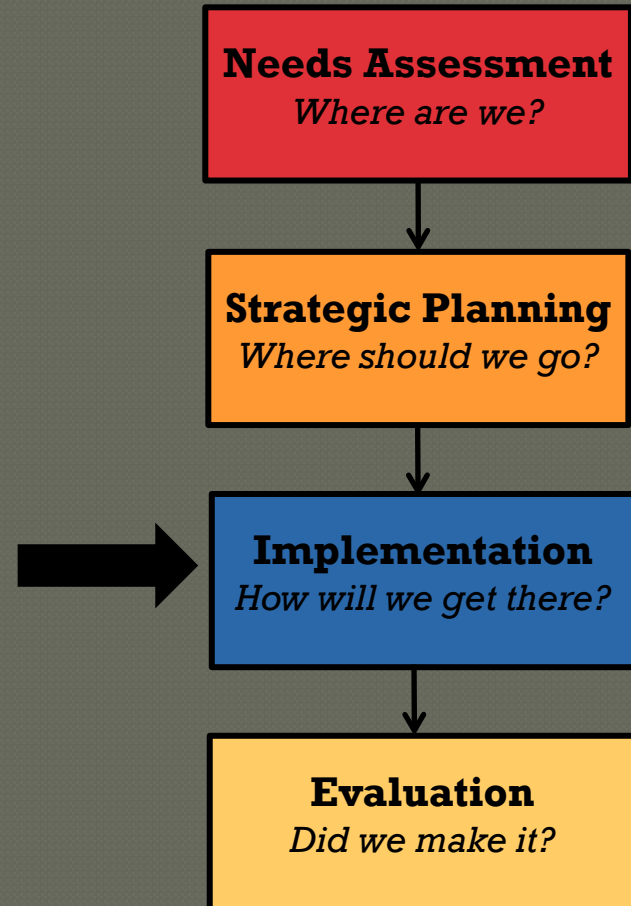
Next Steps

- Roundtable Discussion
 - Saturday Lunch
- Monday, November 18
 - Blacksburg, VA
- Wednesday, November 20
 - Williamsburg
- Thursday, November 21
 - Arlington
- Friday, November 22
 - Charlottesville



Next Steps

- January 23 Meeting
 - Steering Committee
 - Executive Committee
 - Additional Agency Representatives
 - Additional Volunteer Representatives



Next Steps

● Evaluation

- Annual follow-up evaluations
- Development of longitudinal dataset





Questions?

