

Natural Resources Commission Meeting

NRC Policy Committee on
Wildlife & Fisheries

October 8, 2015



Proposed For Information

- For Information- NRC
 - Statewide Trout, Salmon, Whitefish, Lake Herring, and Smelt Regulations (FO No. 200.16)
 - Special Fishing Regulations for Warmwater Species on Select Waters (FO No. 206.15A of 2015)
 - Fishing Regulations – Sylvania Wilderness Area, Ottawa National Forest, Gogebic County (FO No. 212.6)
 - Criteria for Selection of Trout Streams with Gear Restriction Regulations (FO No. 213.5)
 - Gear Restrictions for Fishing (FO No. 218.16)
 - Possession Limits for Fish (FO No. 248.16)
- For Information- Director
 - Comprehensive Resource Management Plan for Drummond Island



Proposed For Action

- For Action- NRC
 - Michigan-Wisconsin Boundary Water Regulations (FO No. 205.16 of 2015)
 - Statewide Warmwater Regulations for Bass, Pike, Catfish, Yellow Perch, Sunfishes, and White Bass (FO No. 215.15A of 2015)
 - Regulations on the Take of Freshwater Mollusks (FO No. 228.15 of 2015)



NRC Policy Committee on Wildlife and Fisheries

- Fisheries Chief Update
- Fishing Regulations
- Wildlife Chief Update
- Preliminary Elk Season Results
- Deer Season Forecast
- Antler Point Restrictions and Hunter Retention Update



Department of Natural Resources

Fisheries Division Update

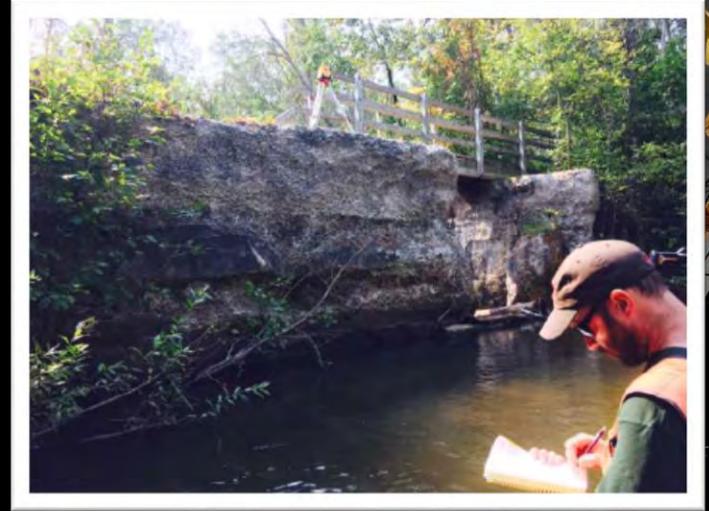
Jim Dexter, Fisheries Chief

October 8, 2015



Habitat Improvement Account

- FY16 grant awards:
 - Upper Manistee River Fishing Access Site Improvement: \$13,295
 - Muskegon River Barrier Inventory: \$20,000
 - Buhl Dam Removal: \$47,520



Habitat Improvement Account

- FY16 grant awards (cont.):
 - West Branch of Big Creek Habitat Improvement: \$165,085
 - Old Orchard Park Boat Launch Upgrade: \$32,100



Aquatic Restoration Conference

- October 21-23 (Tustin, MI)
- Bringing local & nationally-renowned stream restoration practitioners:
 - Provide platform for discussion on river restoration in MI
 - Improve dissemination of current info & techniques
 - Encourage collaborative partnerships
- Fisheries Division staff will actively participate



Thank you!

Questions?



Department of Natural Resources

Fishing Regulations For Information

Nick Popoff, Fisheries Division

October 8, 2015



F0 – 200, Statewide Trout, Salmon, Whitefish, Herring Regulations

- Align splake and lake trout regulations in Lake Michigan
 - Enforcement issue
- Remove Type B Trout Lakes exception
 - No longer necessary
 - Provides new opportunities
- Remove Lake Angeline (Marquette) from Type B listing



F0 – 200, Statewide Trout, Salmon, Whitefish, Herring Regulations

- Remove Trout Lake (Livingston) and Pickerel Lake (Washtenaw) from Type C listing
 - poor trout survival
- Remove exception for Betsie Lake (Benzie) to align with other Type F lakes
 - Adds a month of harvest season



F0 – 200, Statewide Trout, Salmon, Whitefish, Herring Regulations

- Reduce brook trout MSL in Cooks Run and S. Branch Paint River (Iron) from 10” to 7”.
 - Poor survival/growth inhibits harvest
- Change boundary for Type 4 on N. Branch Clinton River (Macomb)
 - from dam to 32 mile rd.



F0 – 206, Special Regulations for Warmwater Species on Select Waters

- Lake Gogebic walleye
 - Public/biological support to lower MSL
 - Allow two walleye from 13 – 15” in five fish daily bag limit.
- Tahquamenon River muskellunge
 - Few reach 42”
 - Reduce MSL to 38”
- Northern Pike Protected Slot Limit (24 – 34”): Sand Lake (Montcalm)
 - potential to produce large pike
 - anglers are supportive of a slot limit.



F0 – 206, Special Regulations for Warmwater Species on Select Waters

- Northern Pike no MSL (1 > 24")
 - Paradise (Cheboygan/Emmet), Pickerel, Kimball, Emerald, Sylvan (Newaygo), Susan (Charlevoix), Orchard (Presque Isle).
- Northern Pike no MSL no limit
 - Lake Lavine (Branch) is managed for trout. Reduce pike populations w/o reclaiming lake.
- Remove reference to Brown Bridge Pond (Grand Traverse).



F0 – 206, Special Regulations for Warmwater Species on Select Waters

Ontonagon River Walleye

- A healthy walleye fishery with diverse size classes.
- Local clubs requested a “one over” option.
- No information to support that this proposal would enhance walleye populations.
- Public meeting
 - No consensus



F0 – 206, Special Regulations for Warmwater Species on Select Waters

Ontonagon River Walleye

Option A - No change

- Pros:
 - Best walleye fishery in decades
 - Attracts anglers
 - Social support
 - Consistent regulations
- Cons:
 - None identified



F0 – 206, Special Regulations for Warmwater Species on Select Waters

Ontonagon River Walleye

Option B: one fish over 23” in the river.

- Pros:
 - some social support
- Cons:
 - Likely ineffective
 - Social preferences varied widely
 - May limit participation
 - Adds regulatory complexity



F0 – 212, Sylvania Wilderness Area

- Propose to renew as written
 - No motorized boats
 - Artificial lures with barbless hooks
 - No possession for bass
 - Higher MSLS for pike, lake trout and walleye
 - Very good support



F0 – 213, Criteria for Selection of Trout Streams with Gear Restrictions

- Propose to renew as written – immediate effect
 - MCL 324.48701 required the Department to develop these criteria.
 - Department does not recommend any changes.



F0 – 218, Gear Restrictions for Fishing

- Propose to renew as written.
 - Protects migrating salmonids.
 - LED has worked with FD to restrict gear without limiting participation



F0 – 248, Possession Limits

- Clarify that anglers can continue fishing after they reach their possession limit – CIR only
- Clarify that like Sturgeon, Muskellunge are not included in the provision allowing anglers to possess an additional two days' possession limit of fish



Thank you!

Questions?



Wildlife Chief Update

Russ Mason
Chief, Wildlife Division



Wildlife Chief Update

- Wildlife Habitat Grant Projects - 2016
 - Total eligible Applications: 30
 - NLP: 8
 - SELP: 9
 - SWLP: 7
 - UP: 4
 - Multi-regional: 2
- Sharp-tailed Grouse Hunting Season
 - October 10 - 31



Thank You



Elk Season Results



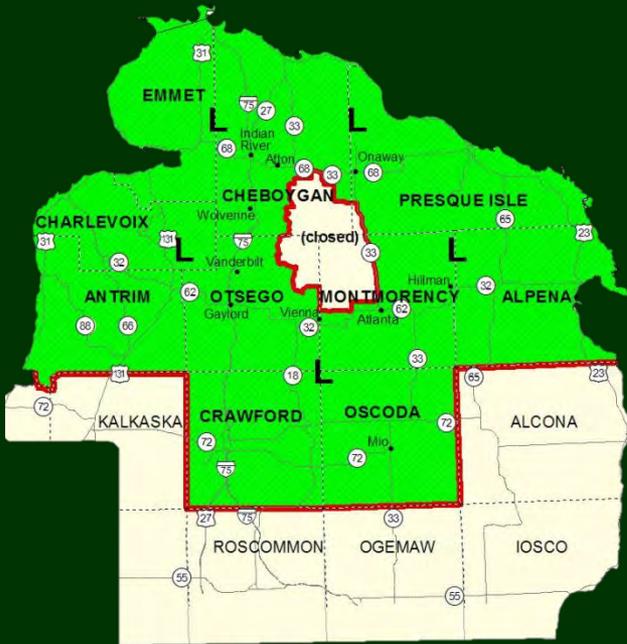
2015 Preliminary Elk Season Summary

- August 25-28, Sept 11-14, Sept 25-28
- Weather has been excellent
 - Cool weather throughout first two periods
- License Quota: 50
 - 15 any elk
 - 35 antlerless only elk

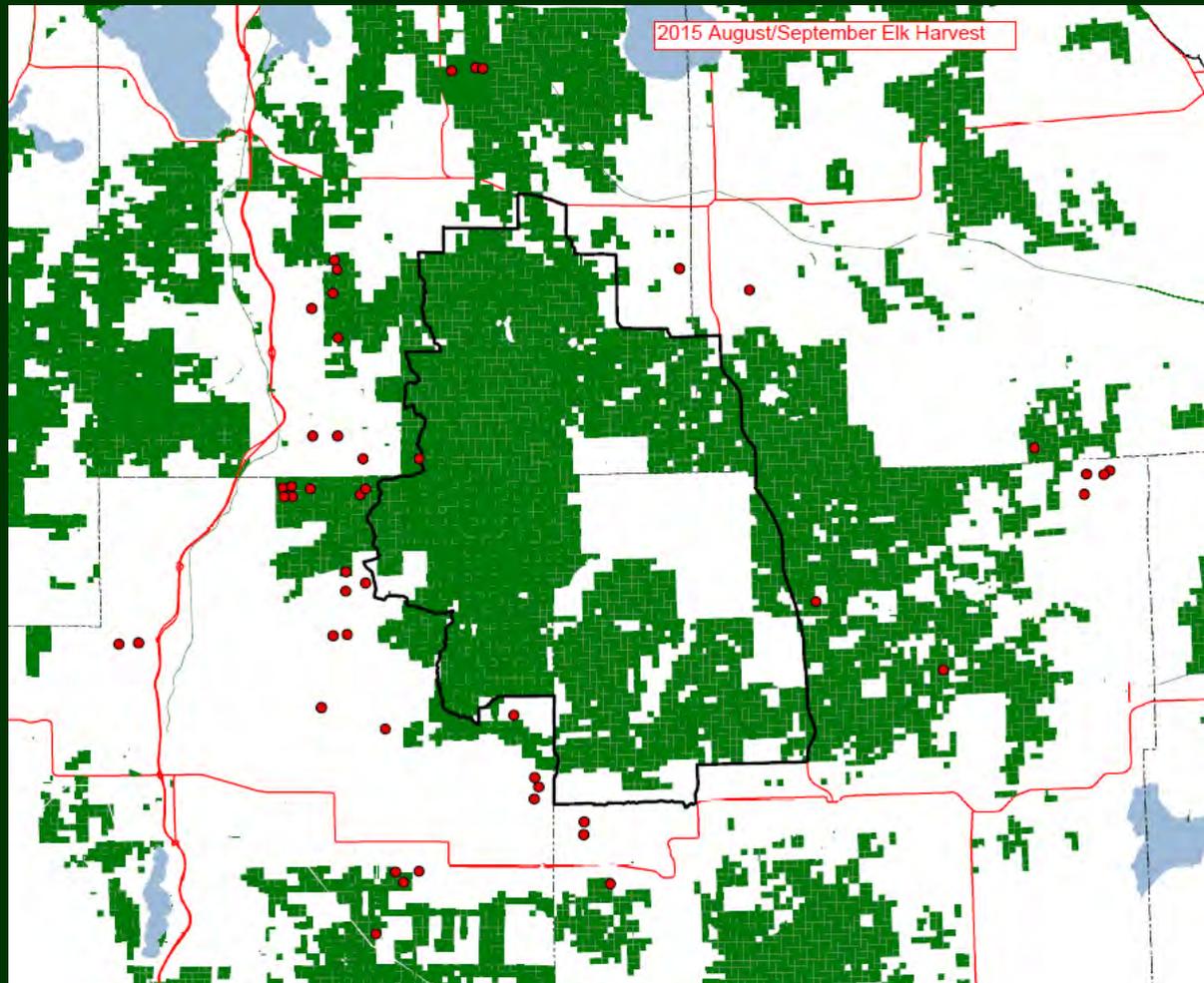


Elk Harvest – Hunt 1

- Hunt Period 1 Harvest
 - State hunter harvest: 46 legally harvested elk
 - 15 antlered elk (bulls)
 - 3 bulls by Pure Michigan Hunters
 - 28 antlerless elk (cows and calves)
 - >80% success (highest since 2007)
 - Tribal harvest: 2 elk
 - 1 antlered elk (bull), 1 antlerless elk (cow)
 - Illegal harvest
 - 1 double bull kill



Early Hunt Harvest Map



Thank You

www.michigan.gov/elk





2015 Deer Season Forecast

Ashley Autenrieth
Deer Program Biologist,
Wildlife Division

Upper Peninsula

- Conditions
 - Winter was bad but not as severe as previous years and has led to relatively better survival of both adult deer and fawns (Predator/Prey Study)
 - Good growing conditions going into Fall
- Mast Production
 - Acorn and beechnut production is spotty throughout the region
- What to Expect
 - Hunters will likely see fewer deer, especially in the 1.5 and 2.5 year old age classes
- Regulation Changes
 - Hunters may no longer harvest an antlerless deer using their single deer license or combination deer license during the archery season



Northern Lower Peninsula

- Conditions
 - Winter was not as severe as previous years, hunters and staff have noted high numbers of fawns including many sets of twins and some triplets
 - Good growing conditions going into Fall, warmer temperatures still continuing with no major frosts yet
- Mast Production
 - Acorn and beechnut production is spotty throughout the region
 - Wild apple production is good for a second year in a row
- What to Expect
 - Hunters will likely see more deer this year than last, both antler development and body size appear to be very good this year
- Regulation Changes
 - None



Southern Lower Peninsula

- Conditions
 - Good growing conditions going into Fall, warmer temperatures still continuing with no major frosts yet
 - More farmers have already been able to harvest crops earlier this year so standing corn may not be as big of an impact this year (80% of corn was still standing during the firearm season last year)
- What to Expect
 - Hunters will likely see more deer this year than last due to good growing conditions and good recovery from EHD
 - Both antler development and body size appear to be very good this year
- Regulation Changes
 - Changes were made due to the discovery of CWD, see regulation changes in Hunting and Trapping Digest
 - CWD: we have tested over 900 deer and of those there have been 3 positive cases



Thank You

www.michigan.gov/deer



Antler Point Restrictions (APRs) and Hunter Retention



Brent Rudolph
Research Specialist
Wildlife Division
October 8, 2015



APR Assessment: Overview

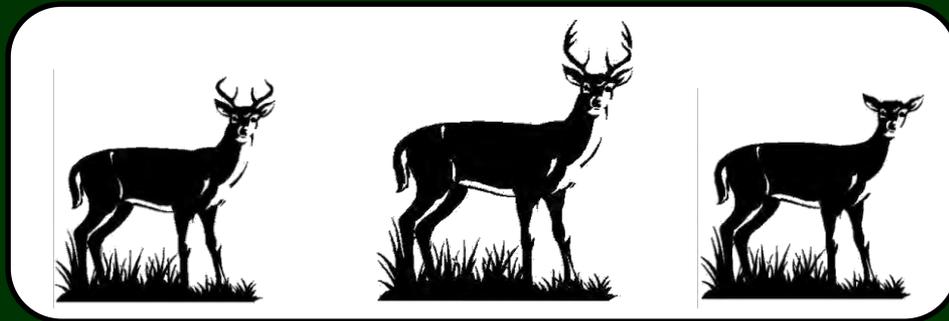
- Summarize ongoing and upcoming evaluations
- Review hunter retention results
(Dr. Richelle Winkler, Michigan Tech)
- Hunter retention relevance to APRs
- APR assessments and regulations timeline



APR: Assessment of Impacts

Discussed March & July 2014...

- Population impacts
- Disease risk
- Hunter recruitment and retention
- Hunting-related economic impacts
- Crop & silvicultural damage



APR: Assessment of Impacts

Discussed March & July 2014...

- Population impacts
 - Disease risk
 - Hunter recruitment and retention
 - Hunting-related economic impacts
 - Crop & silvicultural damage
- Best opportunities to assess through ongoing research



APR: Population Impacts

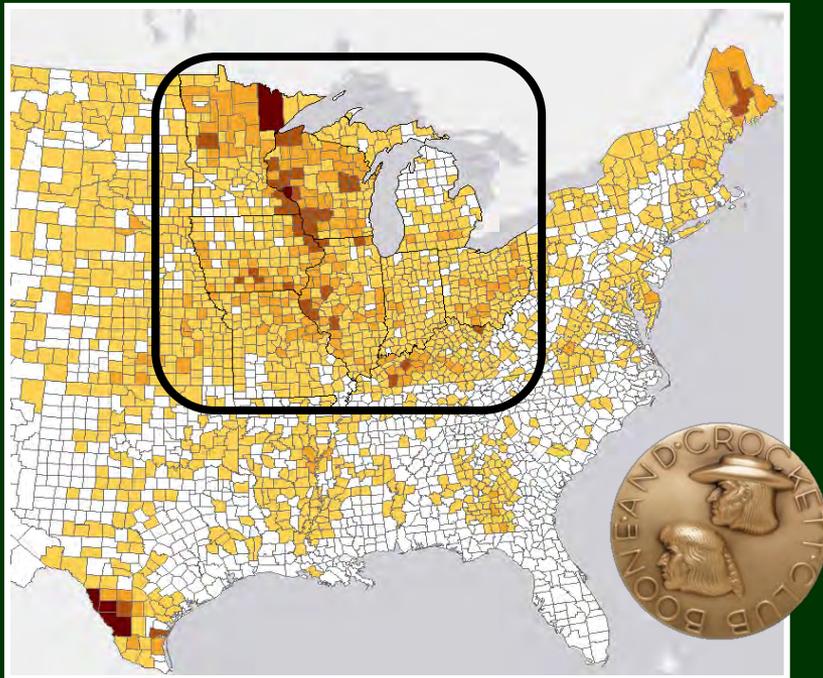
Michigan State University:

Dr. William Porter

Boone & Crockett Chair
of Wildlife Conservation

Rebecca Cain

Boone & Crockett Fellow,
Quantitative Wildlife Lab



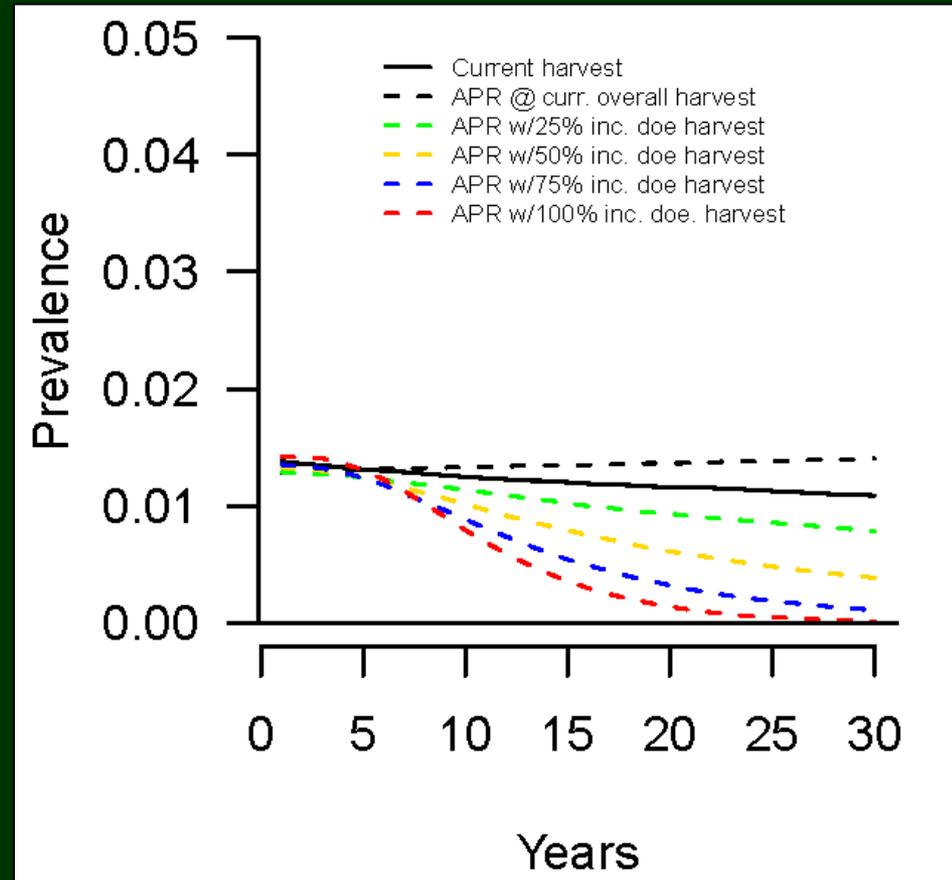
- Examine trophy records and harvest age structure
- Compare patterns to habitat suitability, climate, harvest regulations, and hunter traditions
- FY 15–19



APR: Disease Risk

Dr. Dan O'Brien
Michigan DNR
Wildlife Disease Lab

- Adapt bovine tuberculosis model*
- Forecast TB prevalence and risk of establishment under various harvest rates and population age structure



* Forecasting eradication of bovine tuberculosis in Michigan white-tailed deer. Ramsey, D.S.L., D.J. O'Brien, M.K. Cosgrove, B.A. Rudolph, A.B. Locher, and S.M. Schmitt. 2014. *Journal of Wildlife Management* 78:240–254.



APR: Recruitment & Retention

Michigan Tech University:

Dr. Richelle Winkler

Social Sciences
Department

- County-level analysis, controlling for age-period-cohort effects on hunting participation
- FY 14–16

Michigan State University:

Dr. Shawn Riley

Partnership for Ecosystem
Research and Management

- Assess underlying causes of hunter “drop out”
- Identify potential opportunities & barriers to recruitment
- FY 15–19



Michigan Hunters: A Demographic Analysis & Projections of Future Hunters

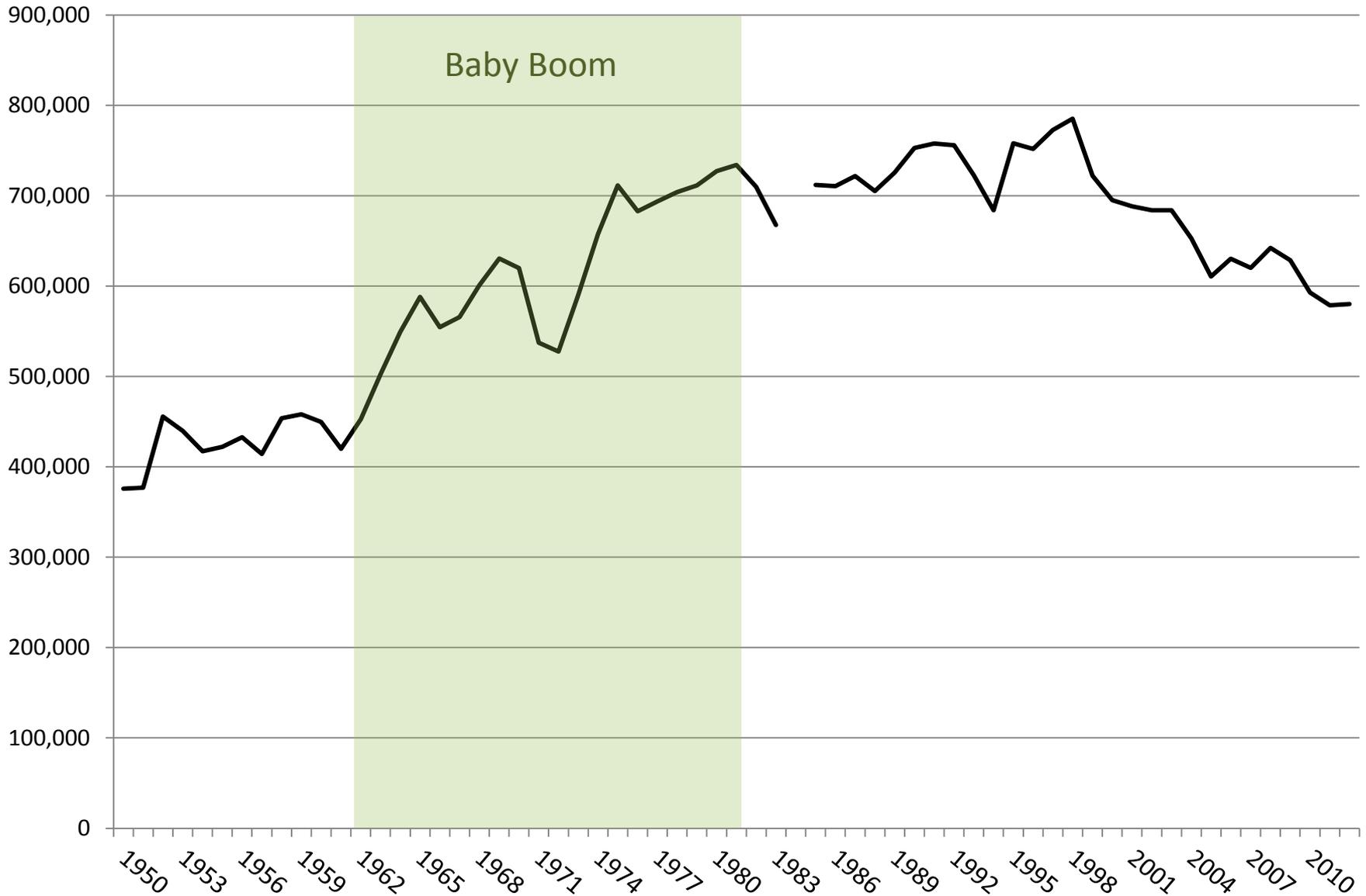
Presentation to the Natural Resources Commission Meeting
October 8, 2015

Richelle Winkler, Associate Professor, Dept of Social Sciences

Chris Henderson, MS Student, Environmental and Energy Policy



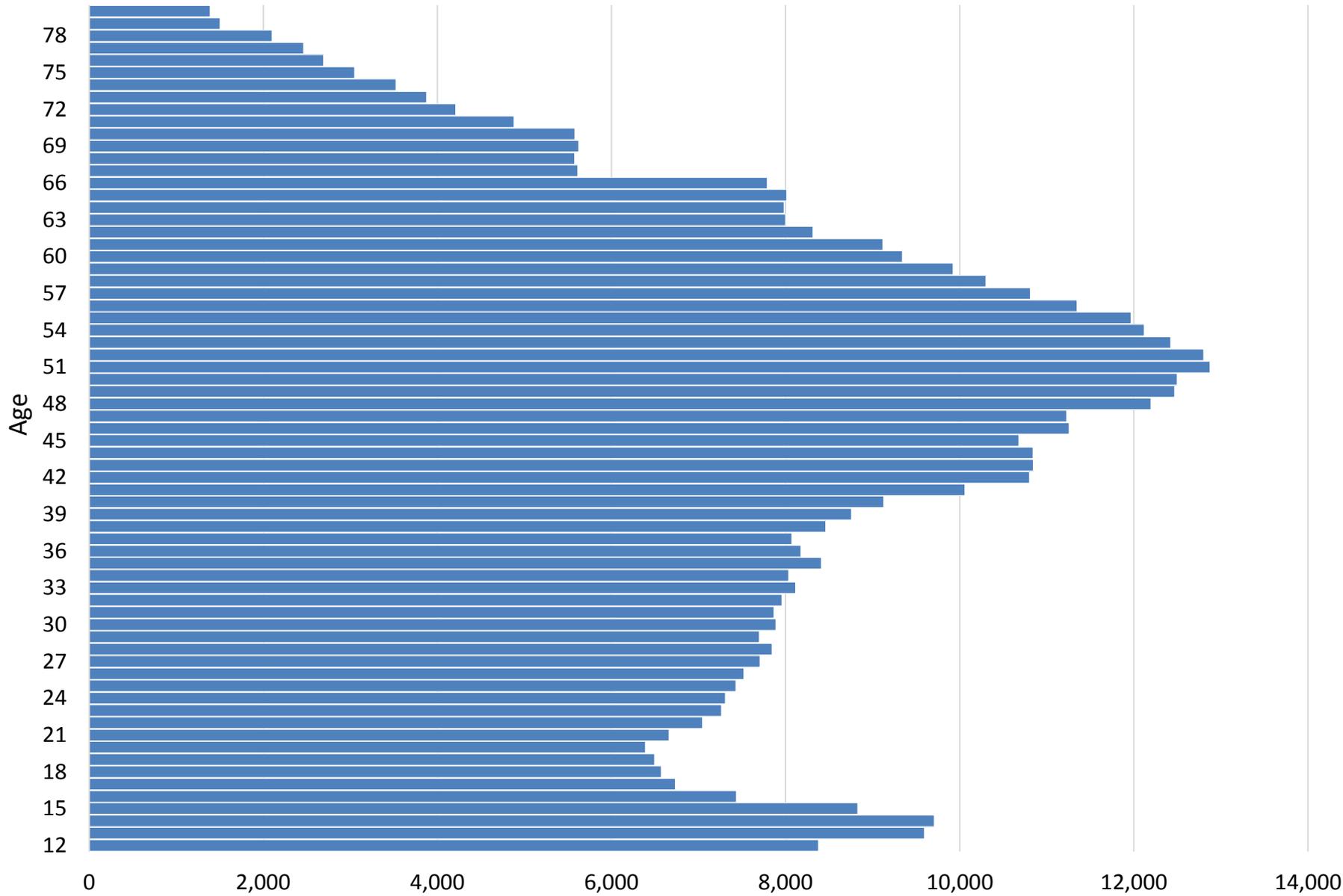
Michigan Male Deer Hunters



Data

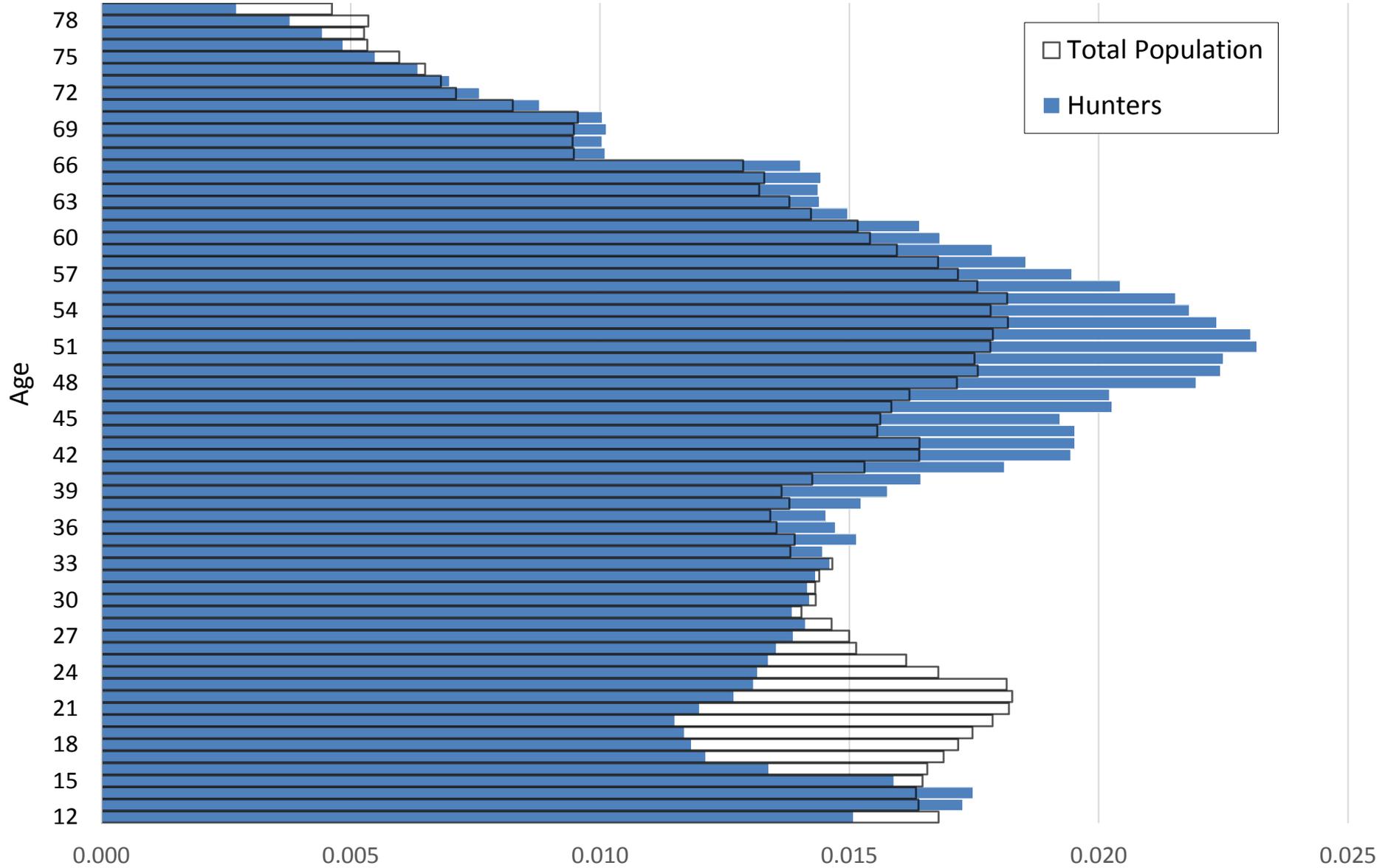
1. State license records by single year age, sex, county of residence. 1995-2013. Age 12 and over.
2. Deer (firearm)
3. Generate participation rates: Divide by Total population from US Census

Age Structure of Michigan Male Deer Hunters, 2013

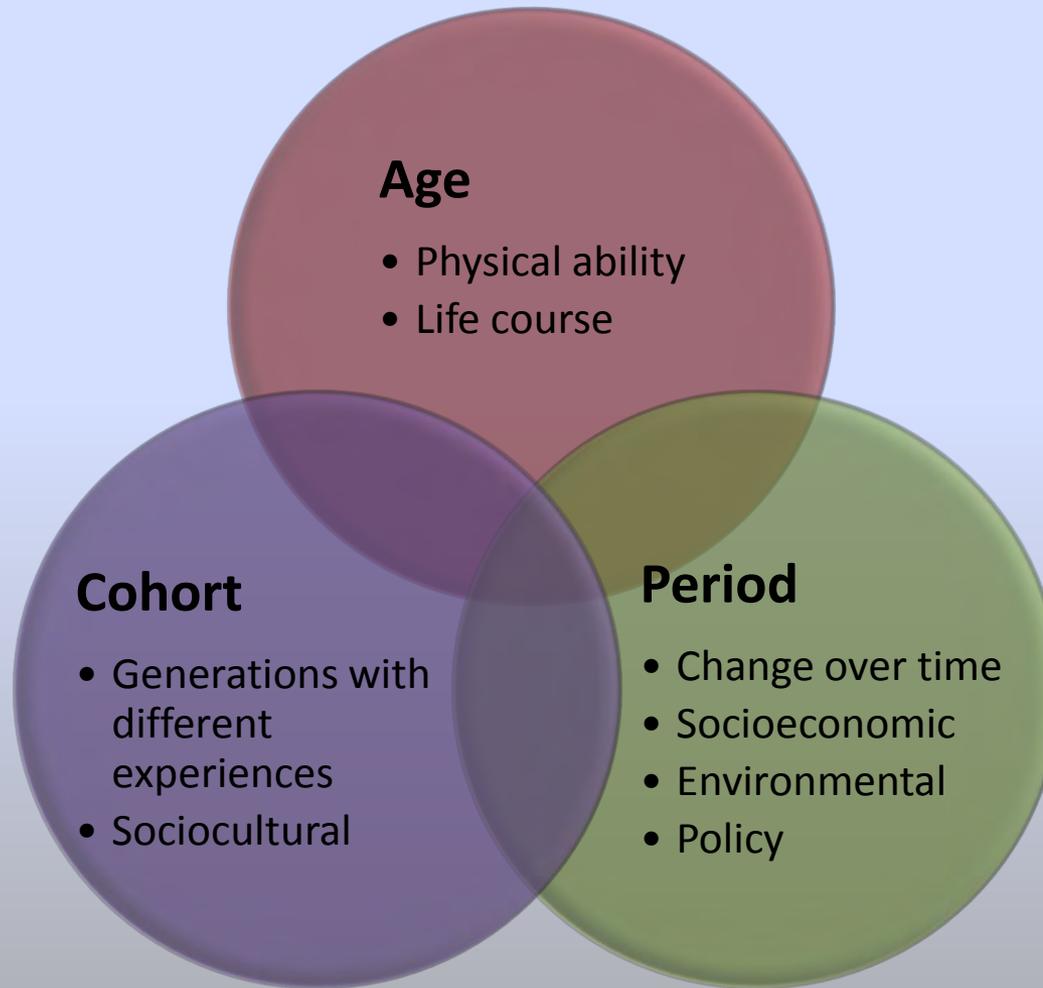


Age Structure of Michigan Males, 2013

Hunters vs Total



Age-Period-Cohort



Questions & Analysis

1. How important are current age, time period, and birth cohort effects for hunter participation?

A- Statistical (APC) analysis to estimate independent effects

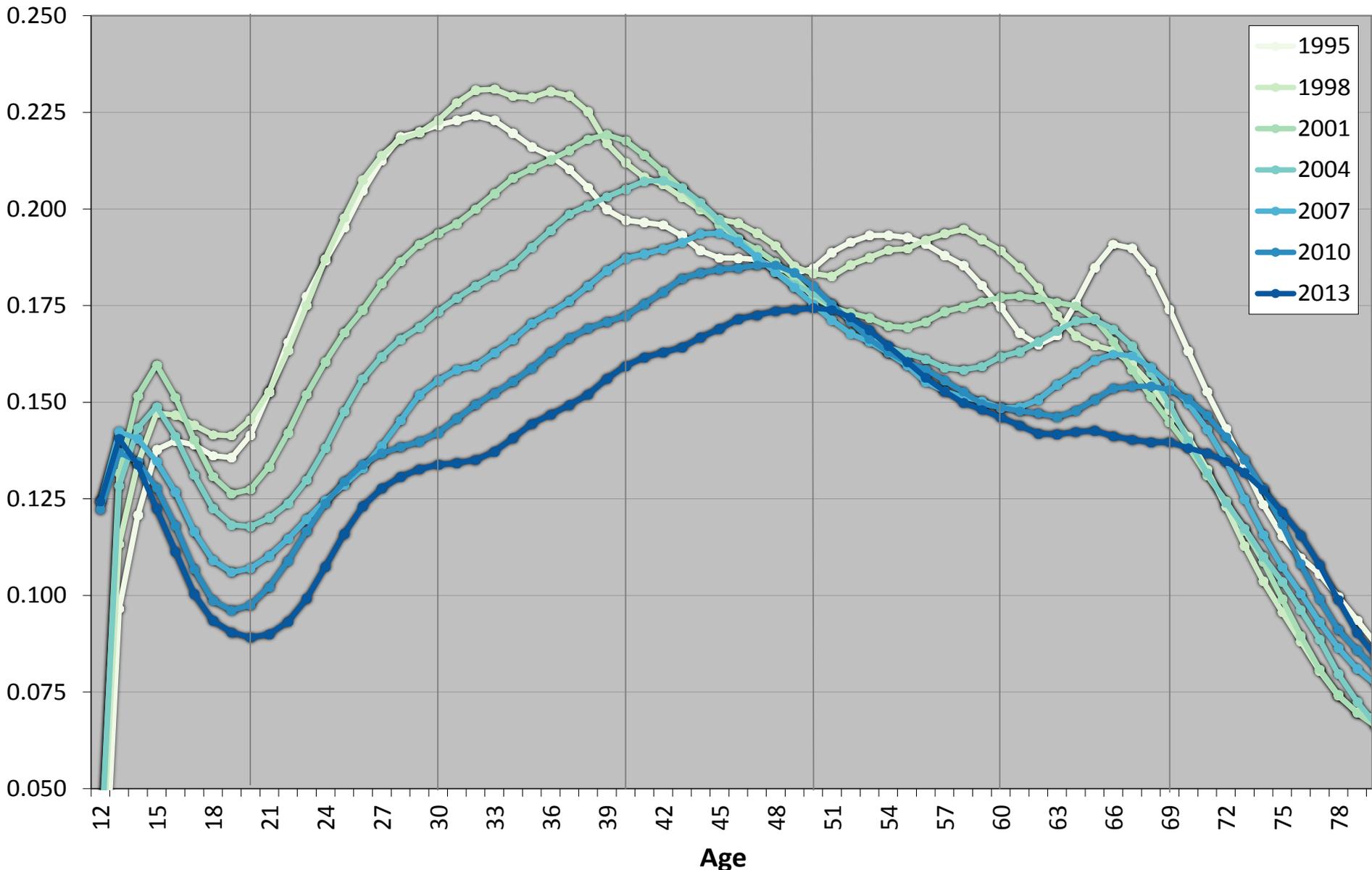
2. How many hunters can we expect in the future?

A- Population projections

3. Can recruitment/retention efforts reduce decline?

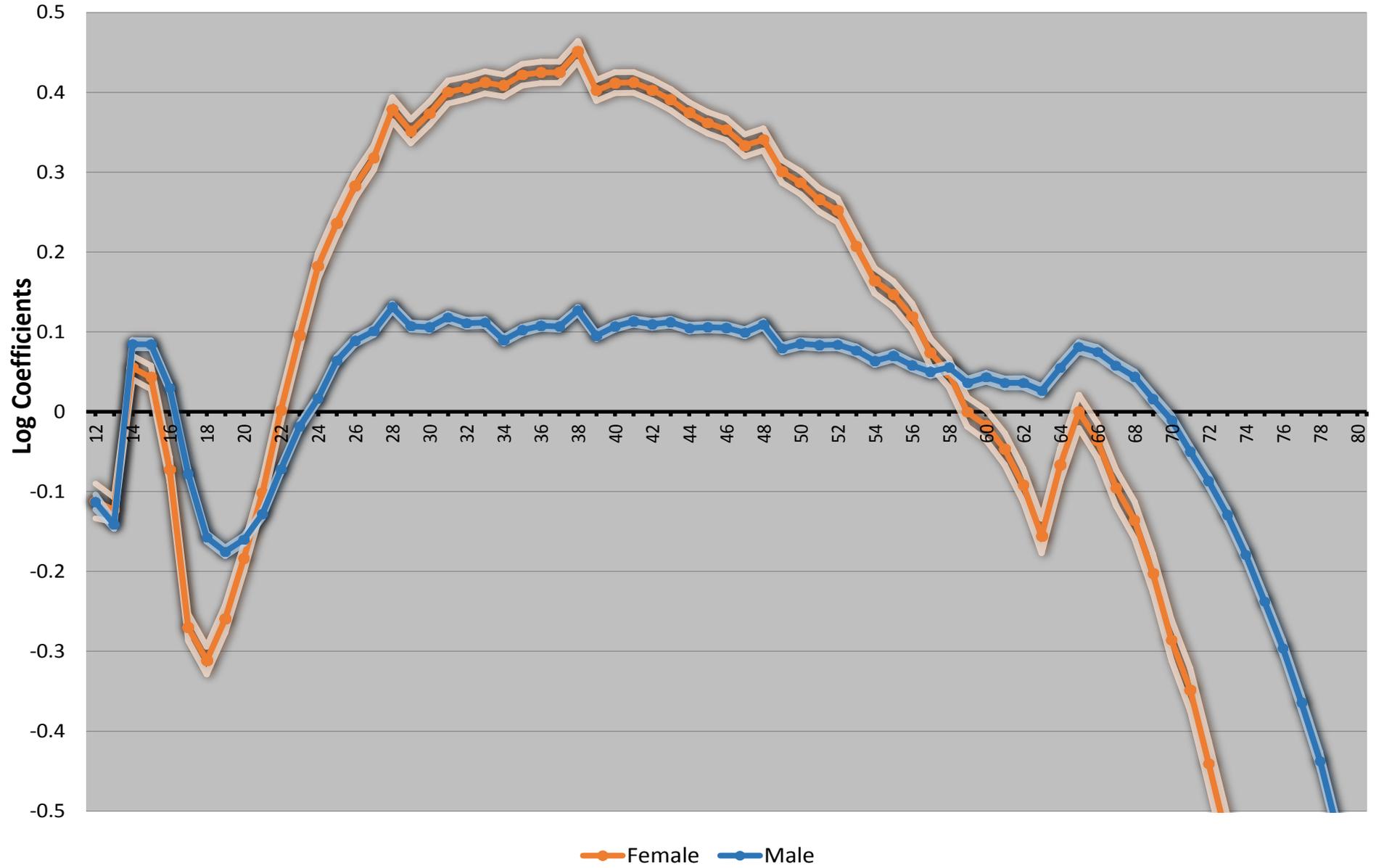
A- Population projections with different scenarios

Male Gun Hunter Participation Rates, 1995-2013



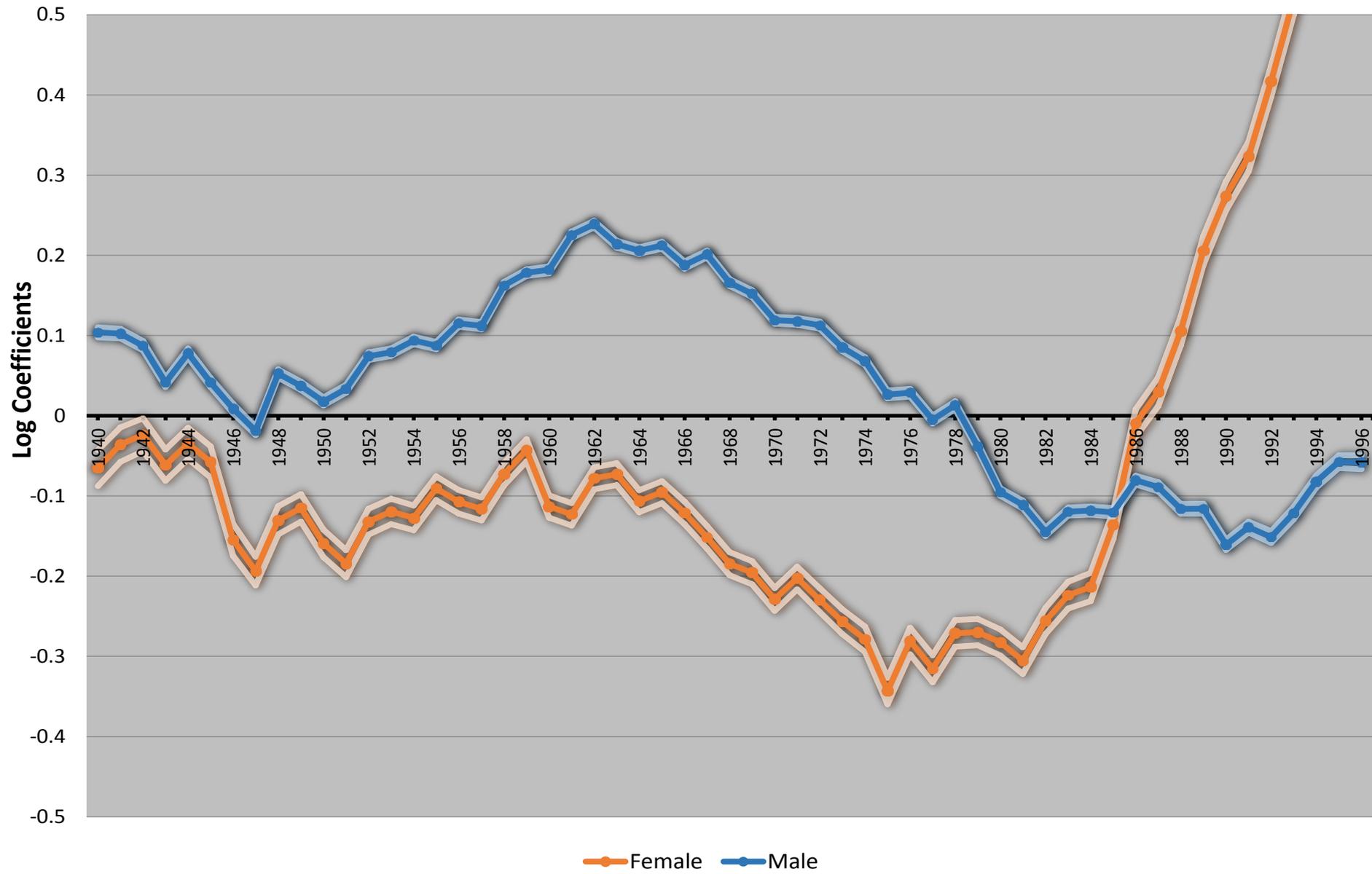
Deer- firearm

Age Effects



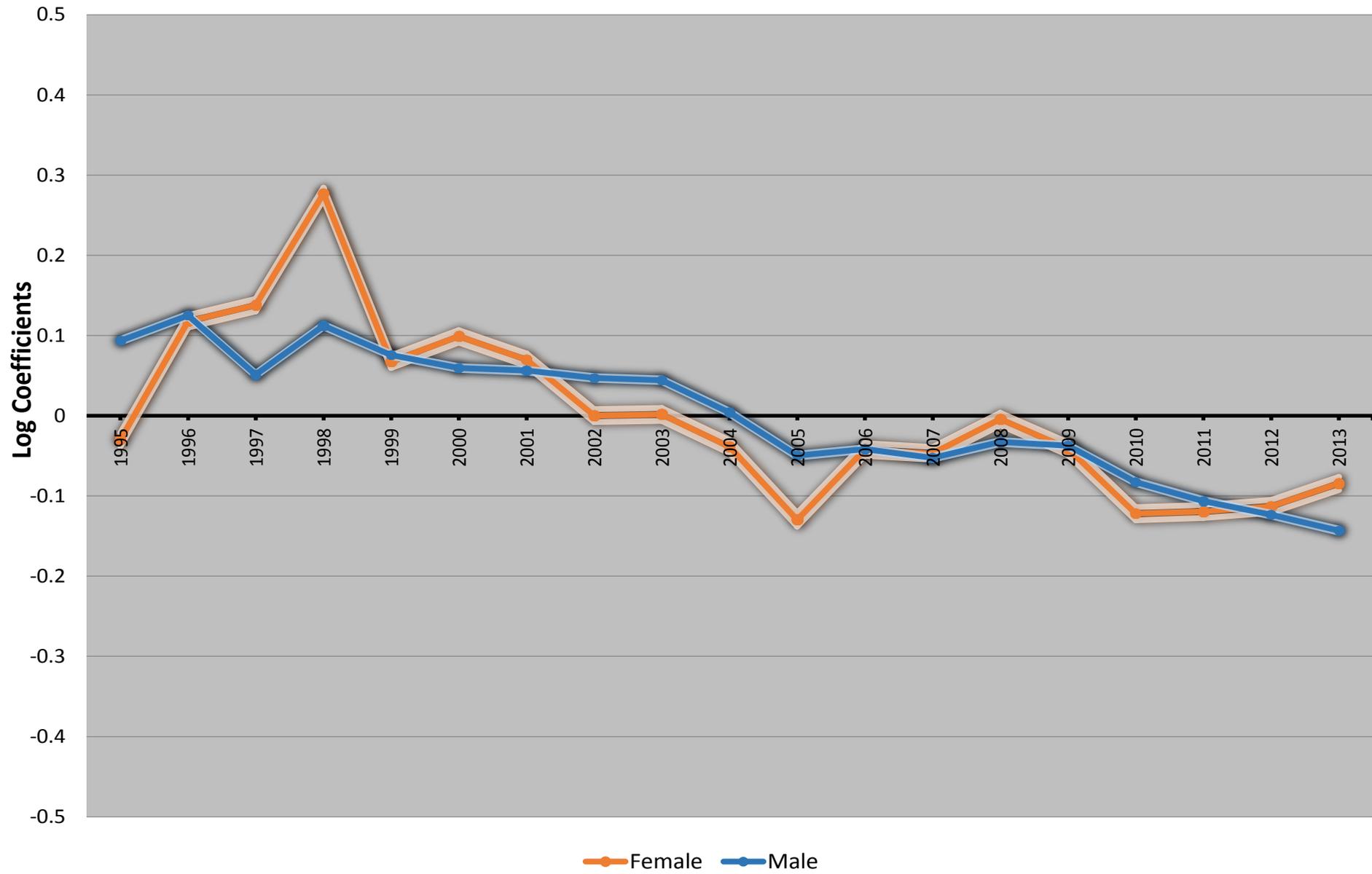
Deer- firearm

Cohort Effects



Deer- firearm

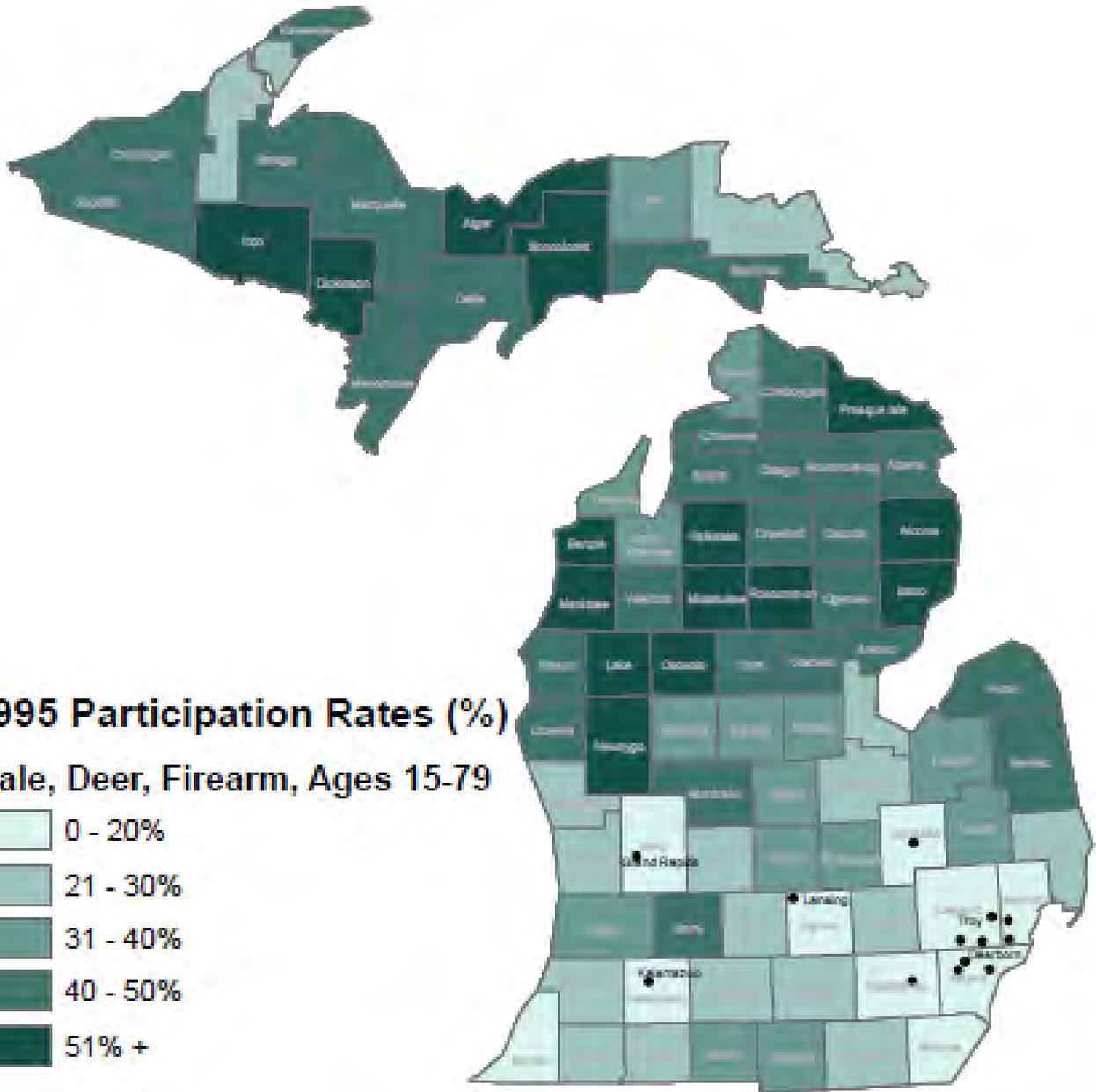
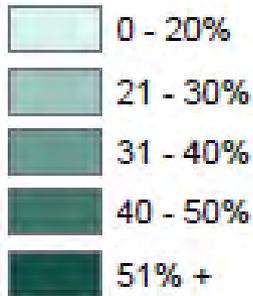
Period Effects



1995

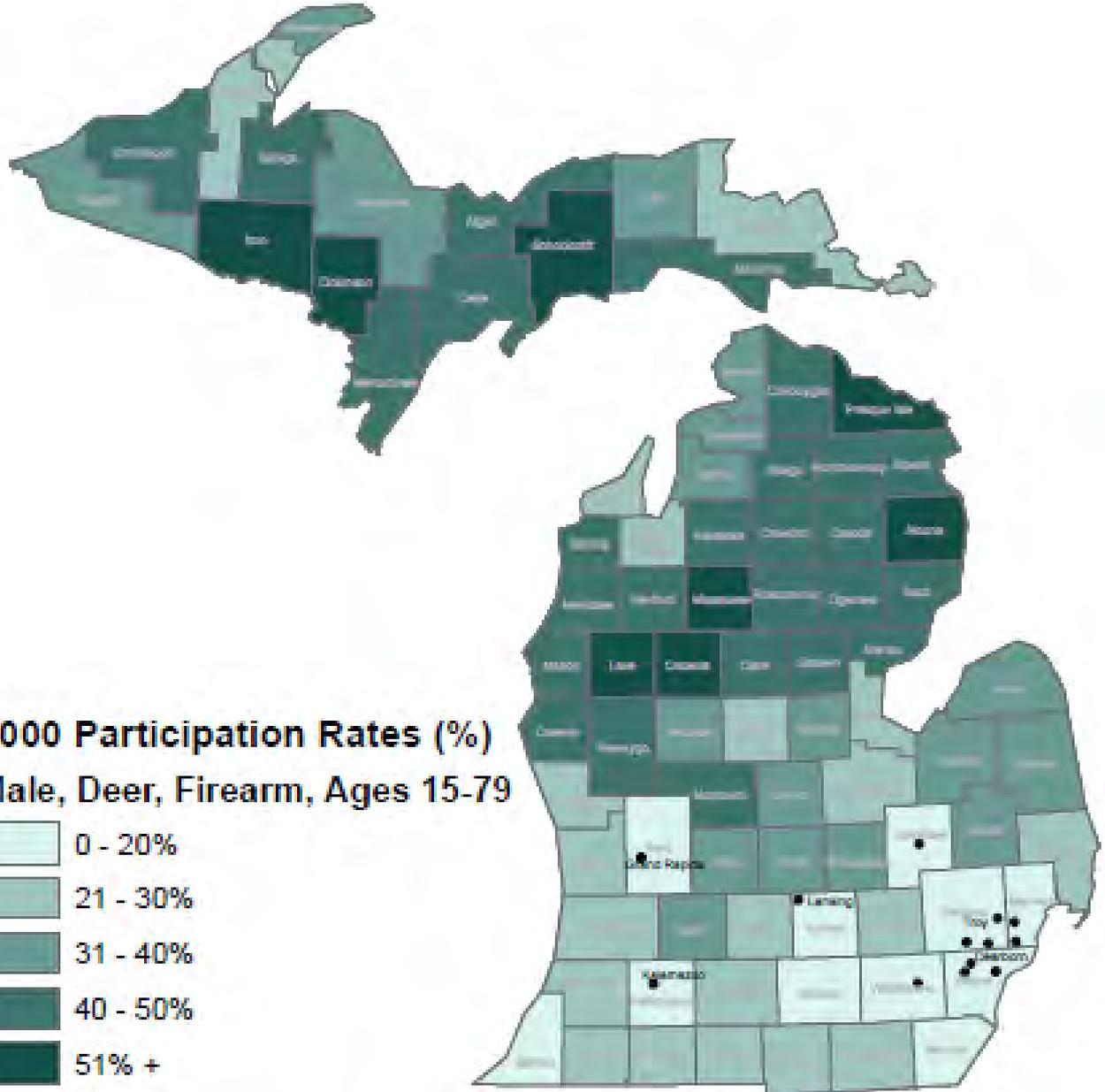
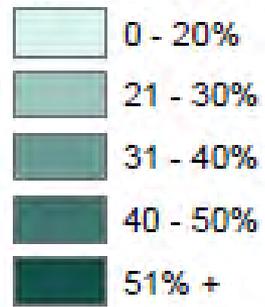
1995 Participation Rates (%)

Male, Deer, Firearm, Ages 15-79



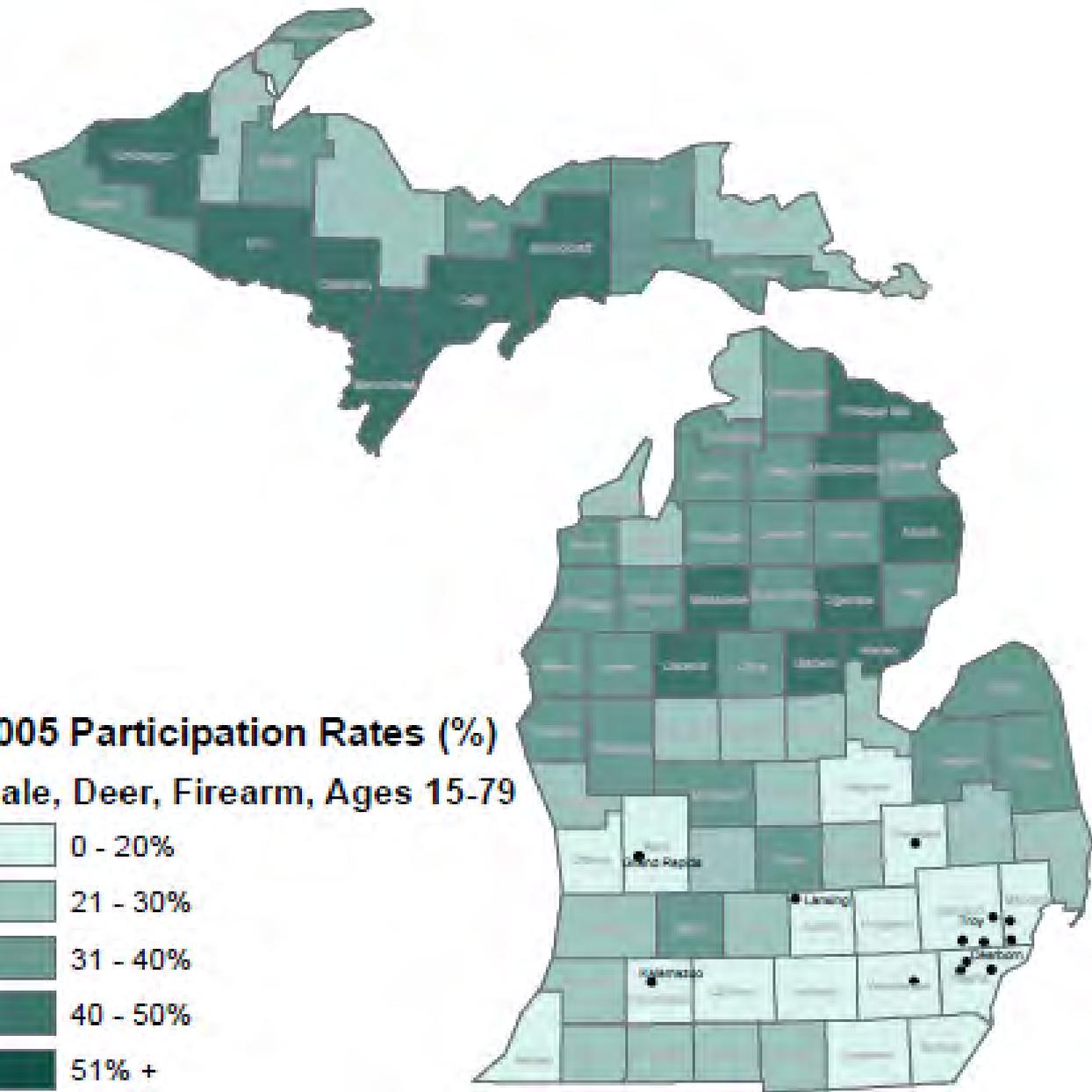
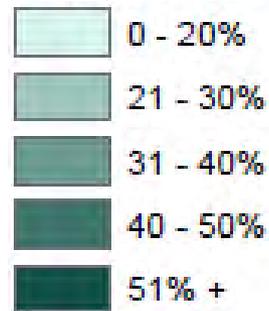
2000

2000 Participation Rates (%)
Male, Deer, Firearm, Ages 15-79



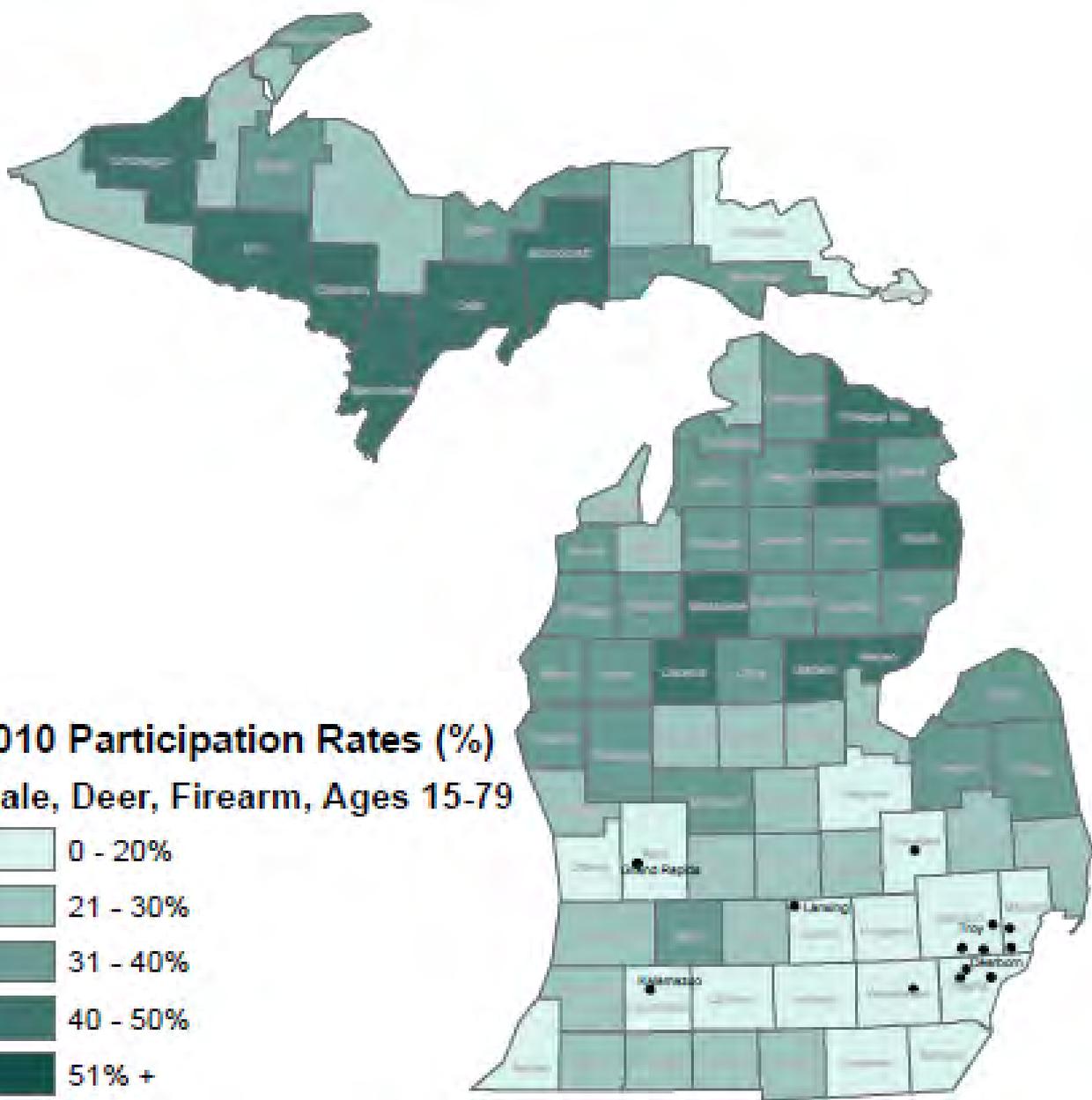
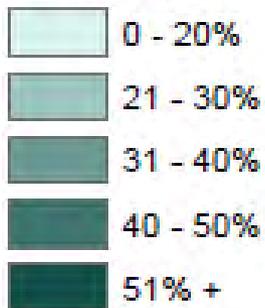
2005

2005 Participation Rates (%) Male, Deer, Firearm, Ages 15-79



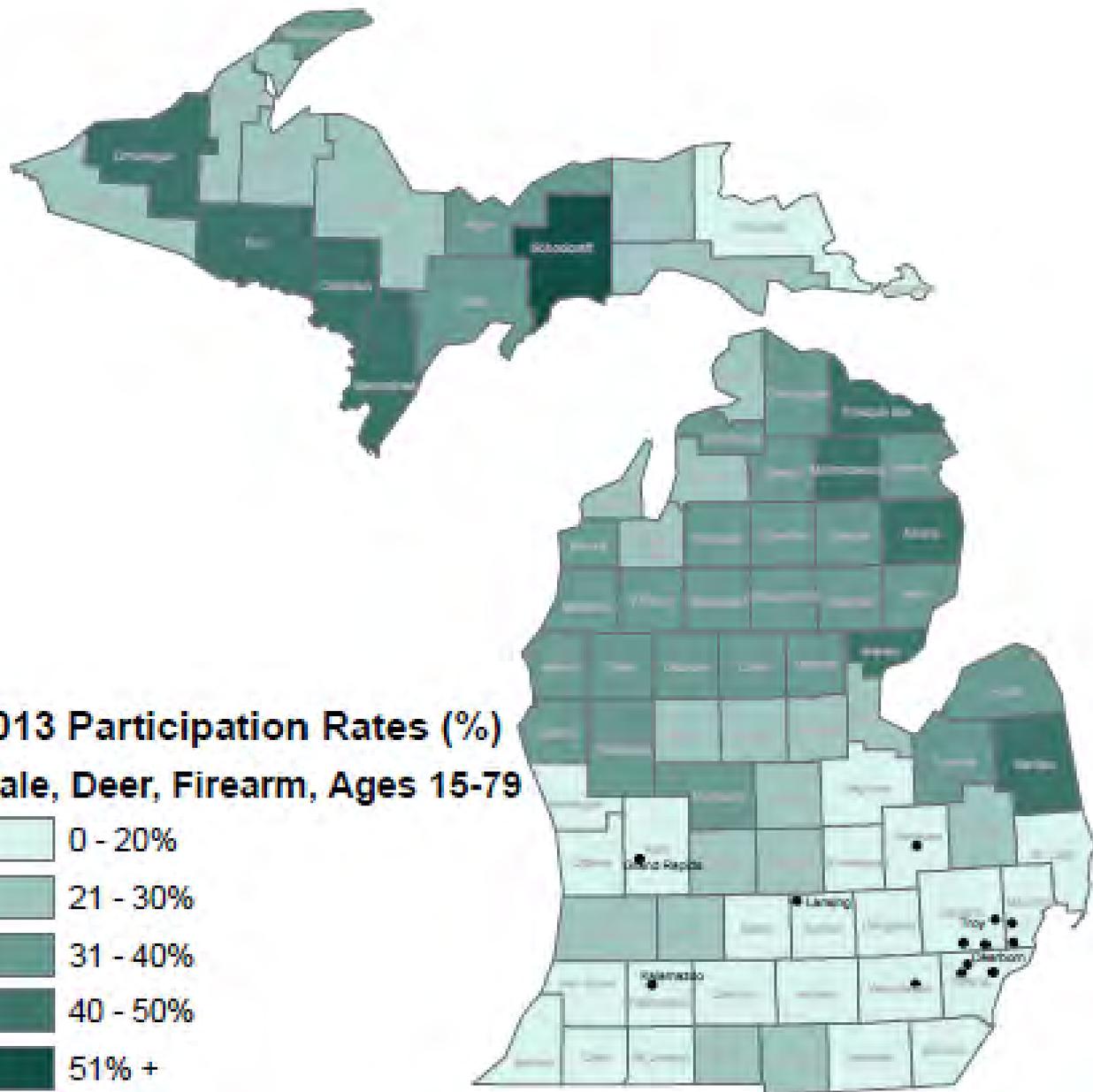
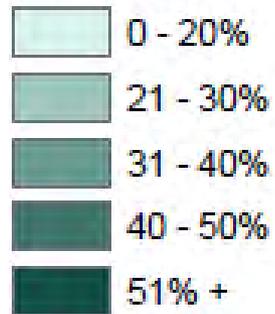
2010

2010 Participation Rates (%) Male, Deer, Firearm, Ages 15-79

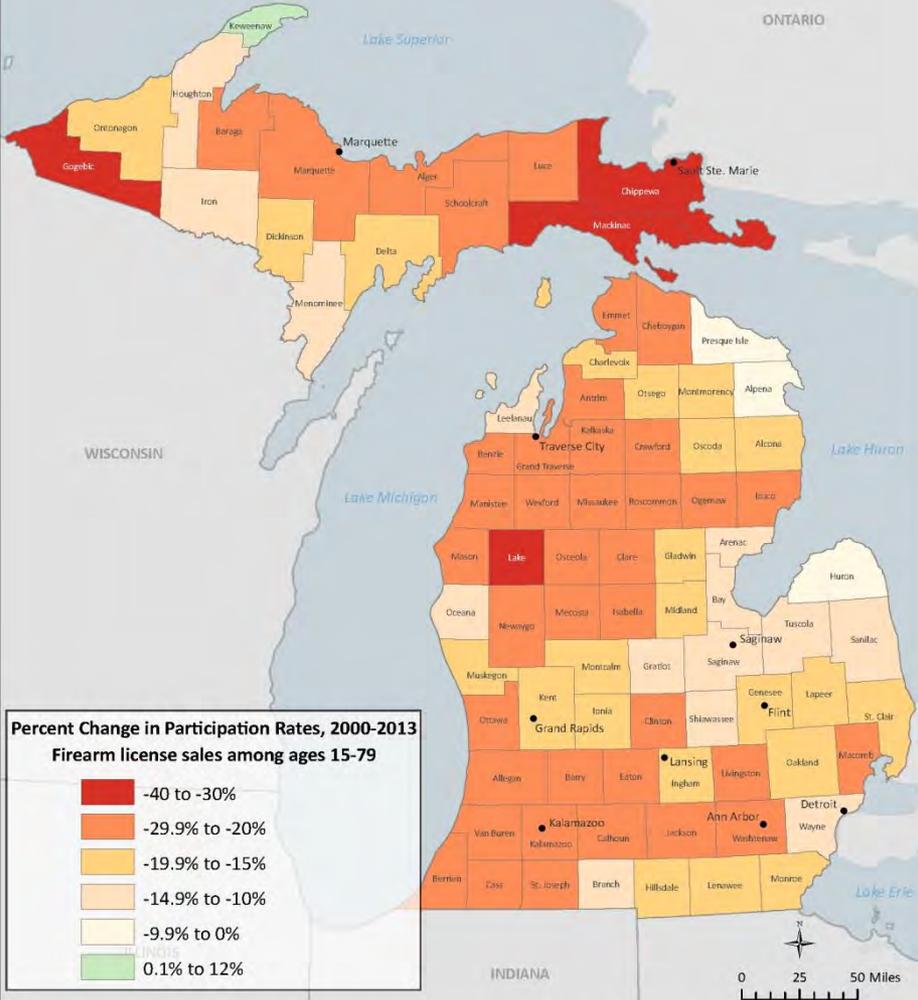


2013

2013 Participation Rates (%) Male, Deer, Firearm, Ages 15-79



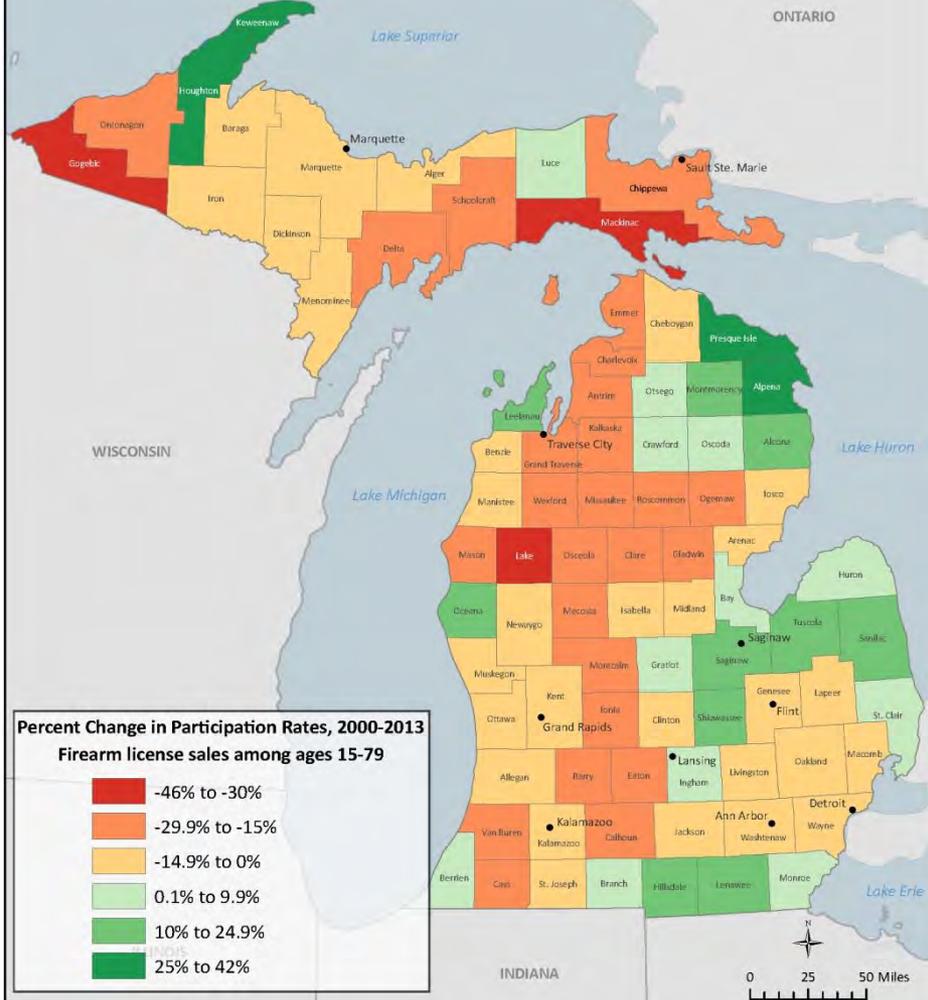
Male Deer Hunter Participation Change



Authors: Data analysis by Richelle Winkler and Chris Henderson, Michigan Technological University. Cartography by Raz Klaas, Applied Population Lab, UW- Madison
Sources: Rates constructed by dividing Michigan DNR annual license sales data by total population age 15-79 from US Census Bureau

Michigan Tech
Michigan Technological University

Female Deer Hunter Participation Change



Authors: Data analysis by Richelle Winkler and Chris Henderson, Michigan Technological University. Cartography by Raz Klaas, Applied Population Lab, UW- Madison
Sources: Rates constructed by dividing Michigan DNR annual license sales data by total population age 15-79 from US Census Bureau

Michigan Tech
Michigan Technological University

Male Projection Models

Cohort Survival & APC Baseline

Baseline models show business as usual. Two very different methods. Similar results.

Family Retention:

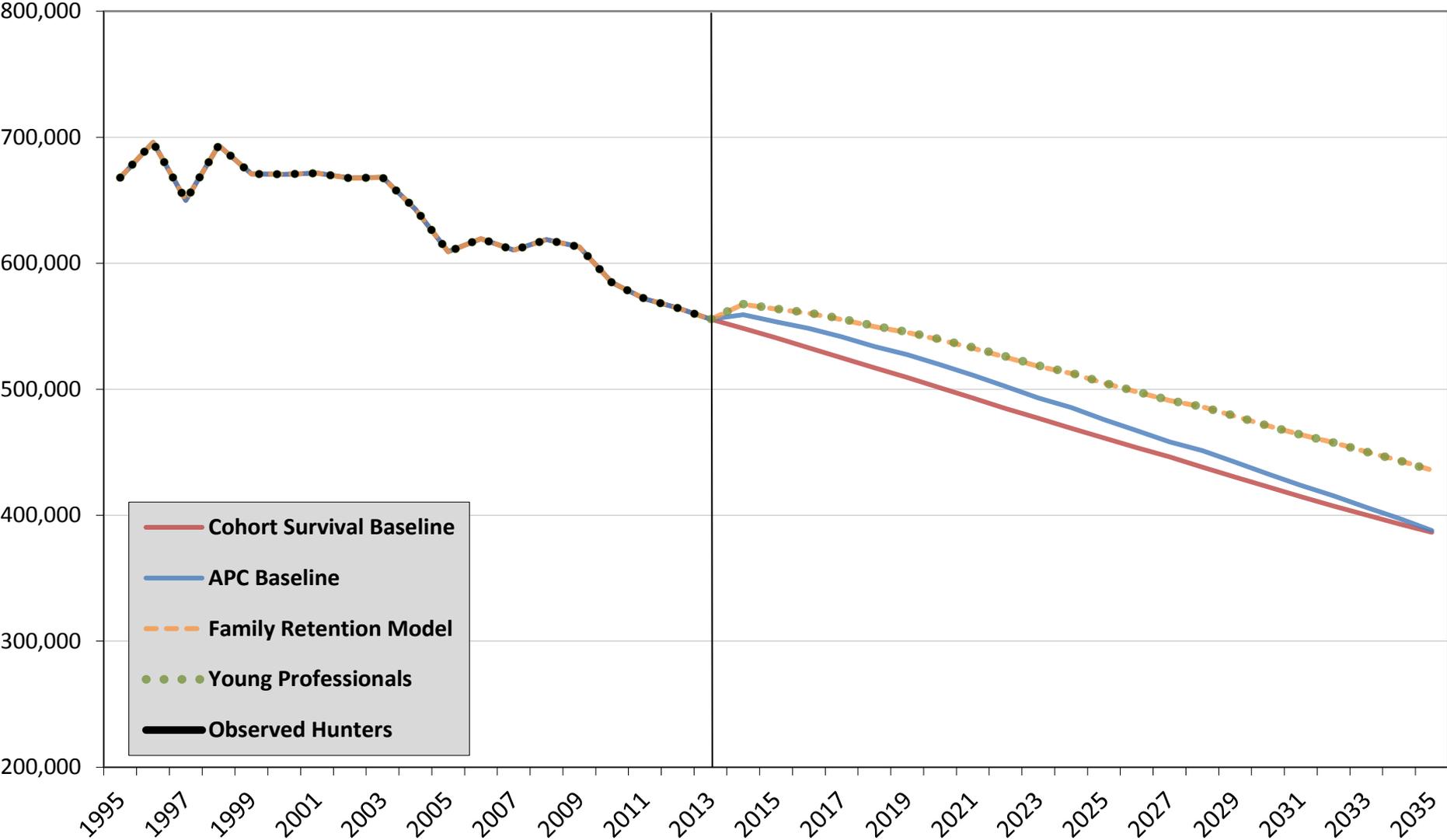
Optimistic (“best-case”) model if family programs successfully engage new cohorts, increase age effects for youth and parents, and stop period decline.

Young Professionals:

Optimistic (“best-case”) model if wide appeal to younger generations and stop period decline

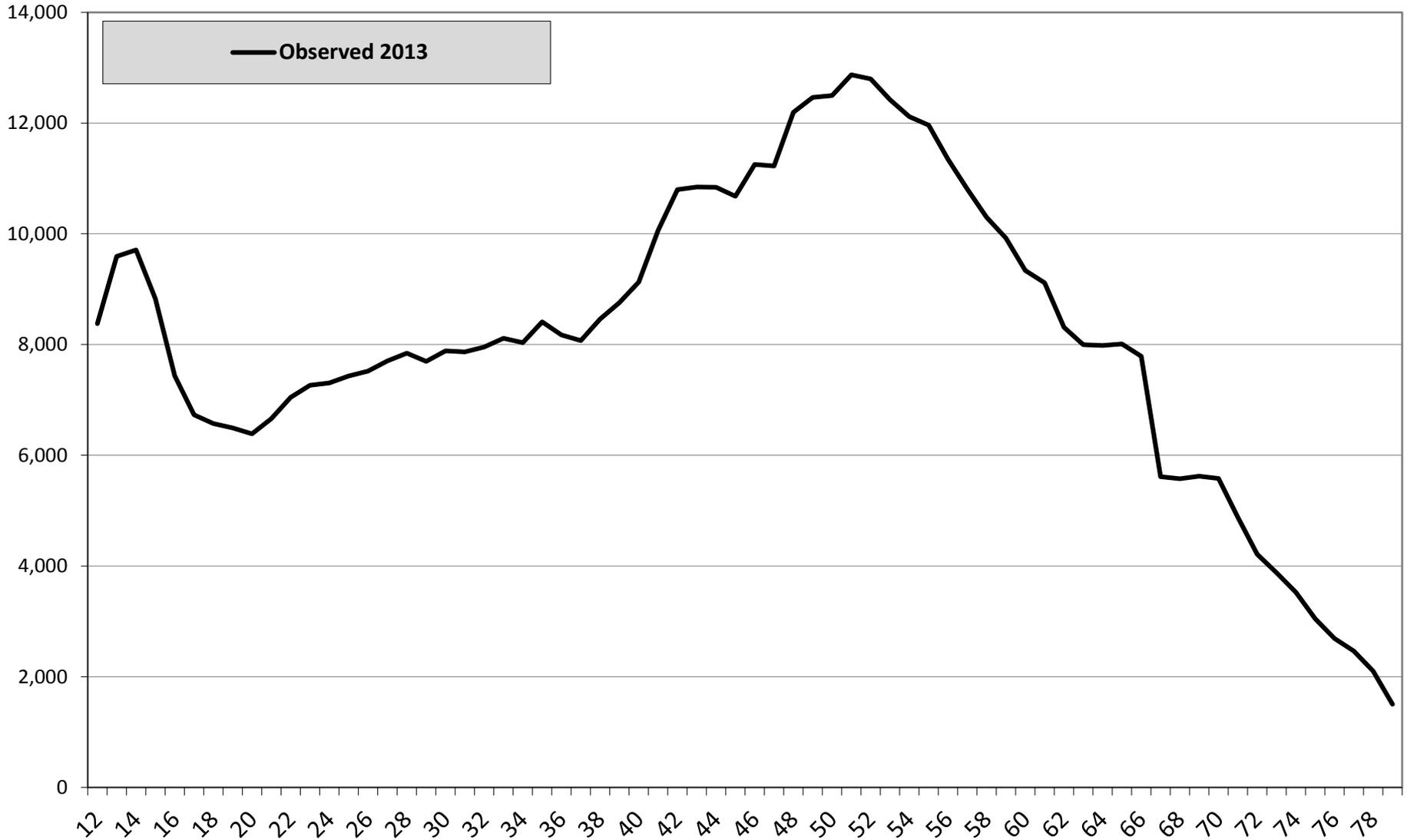
Firearm Deer Hunter Projection: 1995-2035

Includes Males only Age 12 and over



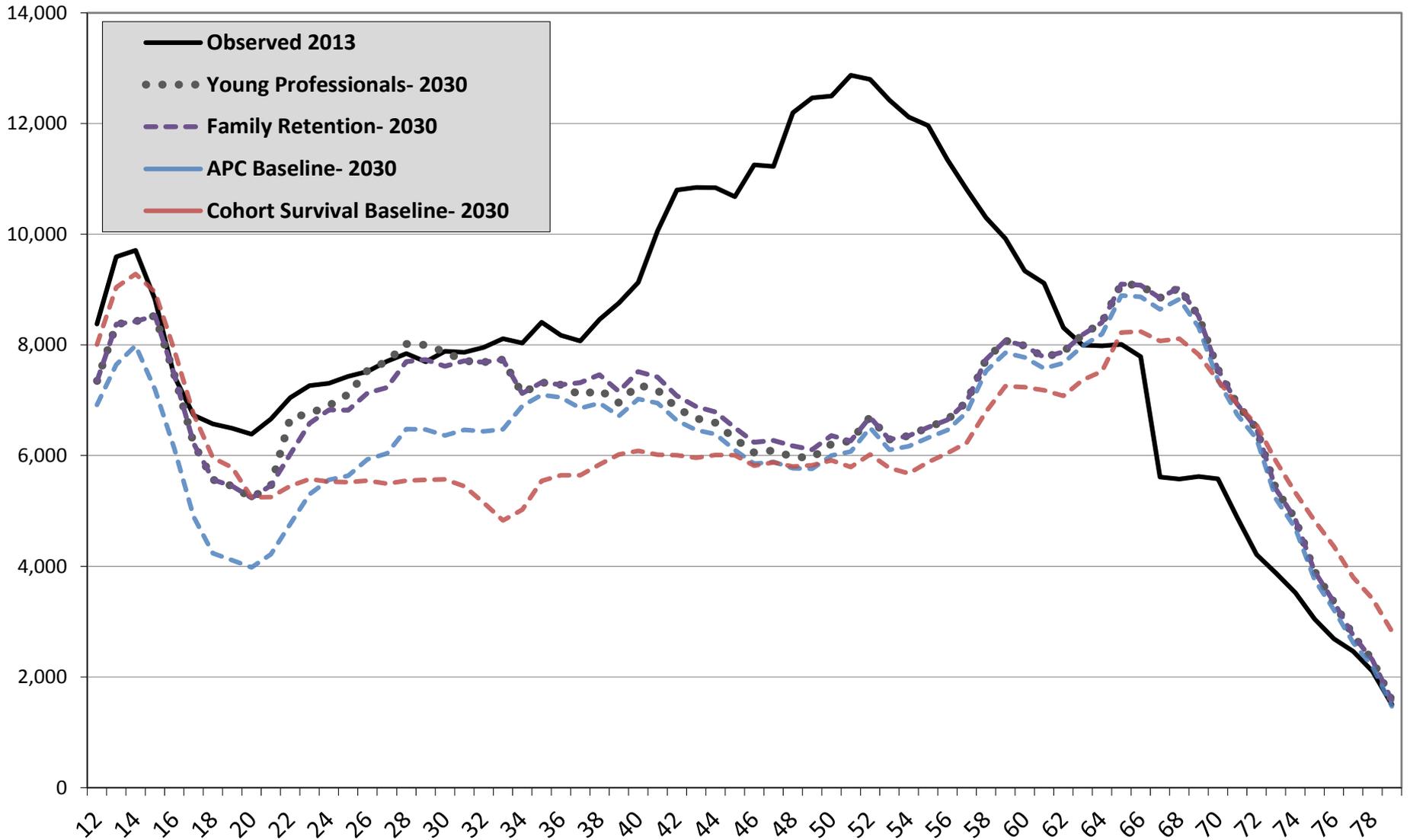
Age Structure of Gun Deer Hunters, 2013 vs 2030

Includes Males only Age 12 and over



Age Structure of Gun Deer Hunters, 2013 vs 2030

Includes Males only Age 12 and over



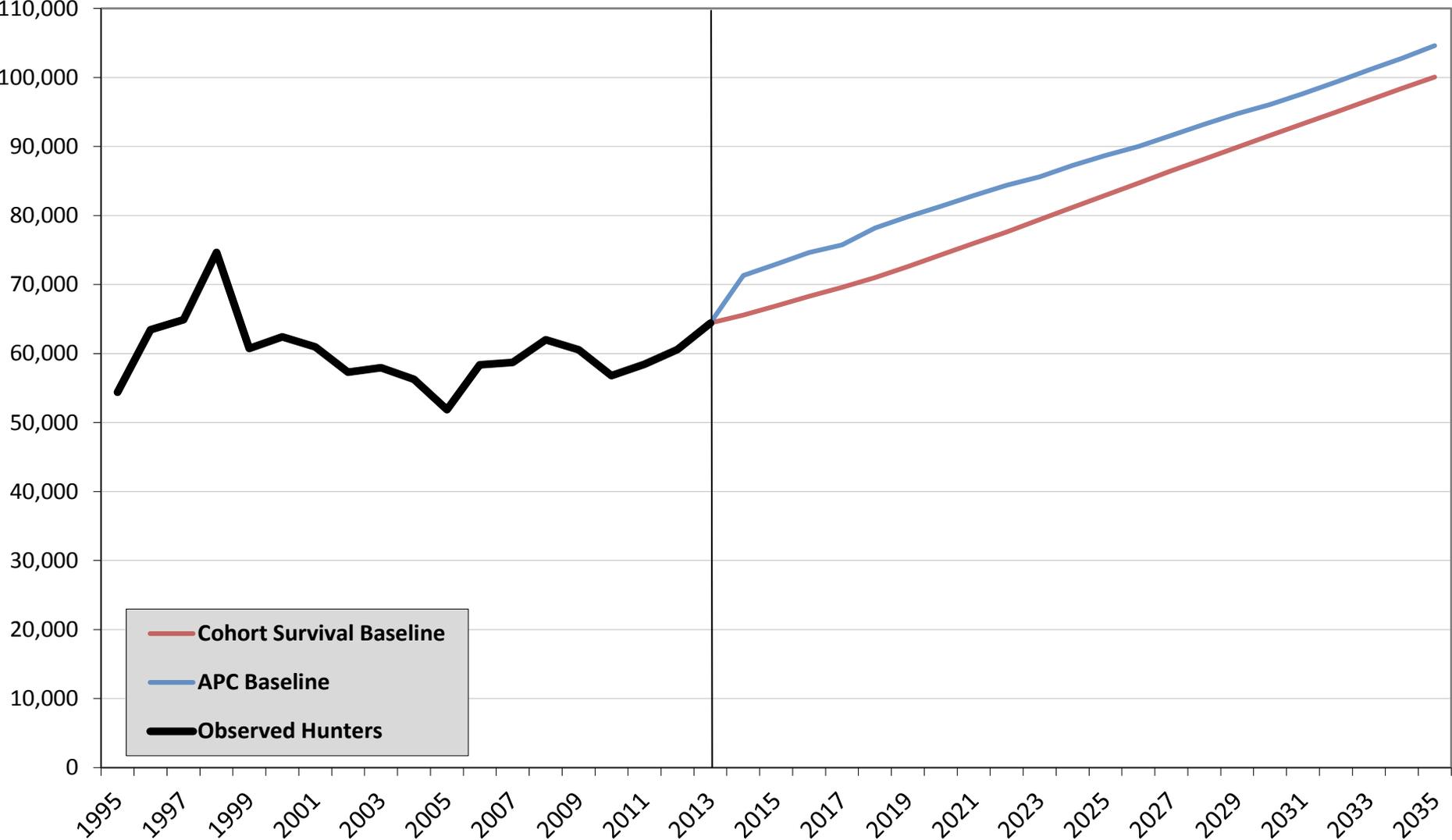
Female Projection Models

Cohort Survival & APC Baseline

- Business-as-new
- Continue high recruitment and retention of young females and new generations
- Retention is key- we don't know yet
- Two very different methods. Similar results.
- Optimistic, but realistic

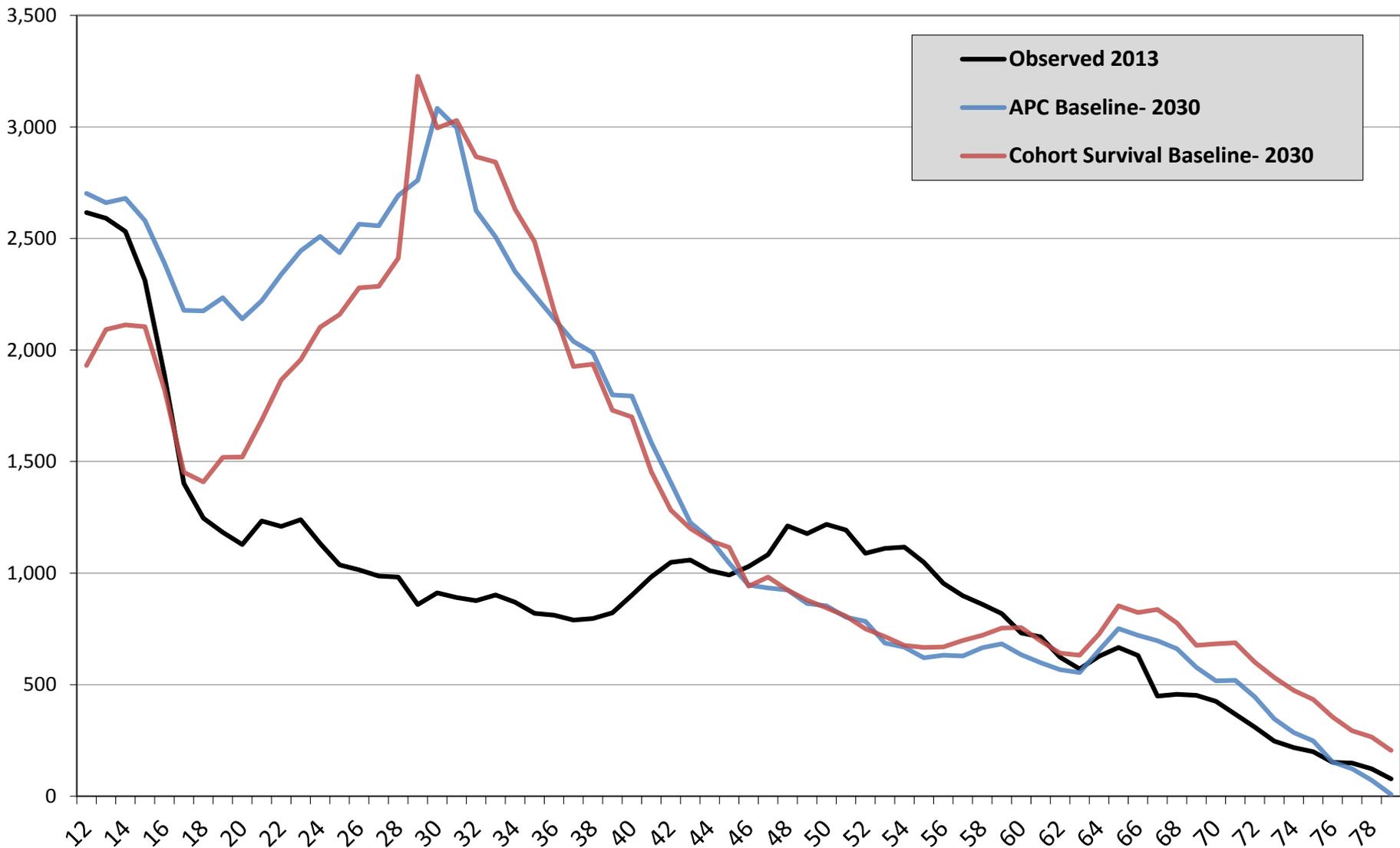
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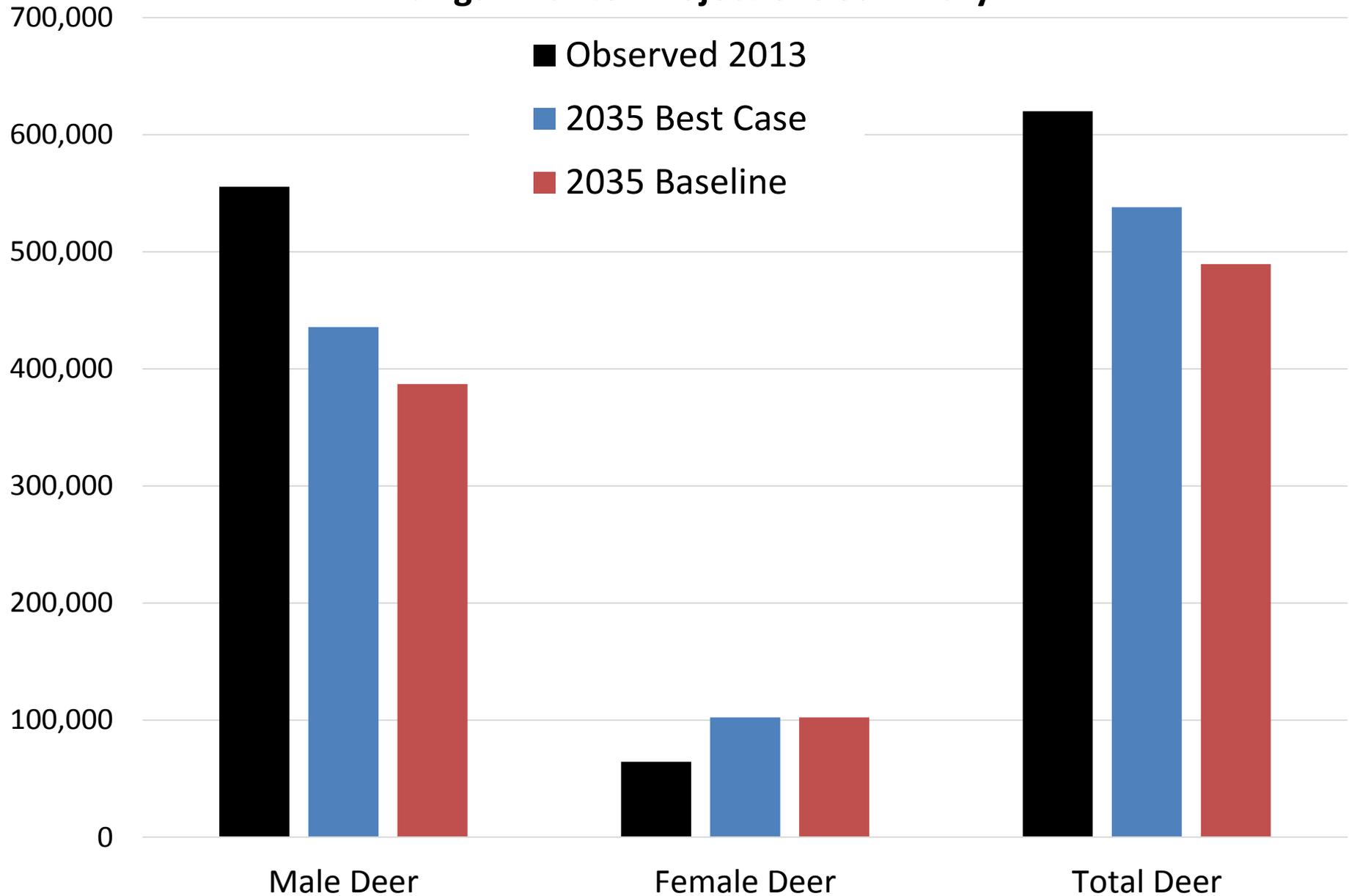


Age Structure of Gun Deer Hunters, 2013 vs 2030

Includes Females only Age 12 and over



Michigan Hunter Projections Summary



Findings

- Male participation declined 1995-2013 statewide
- Strong birth cohort patterns with males born in 1960s most likely to hunt
- Age effects: drop out age 60-70 (not yet for Boomers)
- Female participation among new cohorts growing. **If can retain**, could reduce declines.
 - Age 13: 21% of hunters age 13 are female. Project 20% total 2035.
- **Hunter population will continue to decline**
- **Hunter population will age dramatically**

Implications

- Cohort effects indicate social change
 - Not necessarily bad, but different.
- Decline could be slowed by **retaining females** and continuing youth recruitment efforts, but also a **Family Recruitment/Retention** program could help
- Some potential for Young Professional recruitment efforts, but only effective if tied to broader programs
- Consider alternative ways of engaging public with wildlife

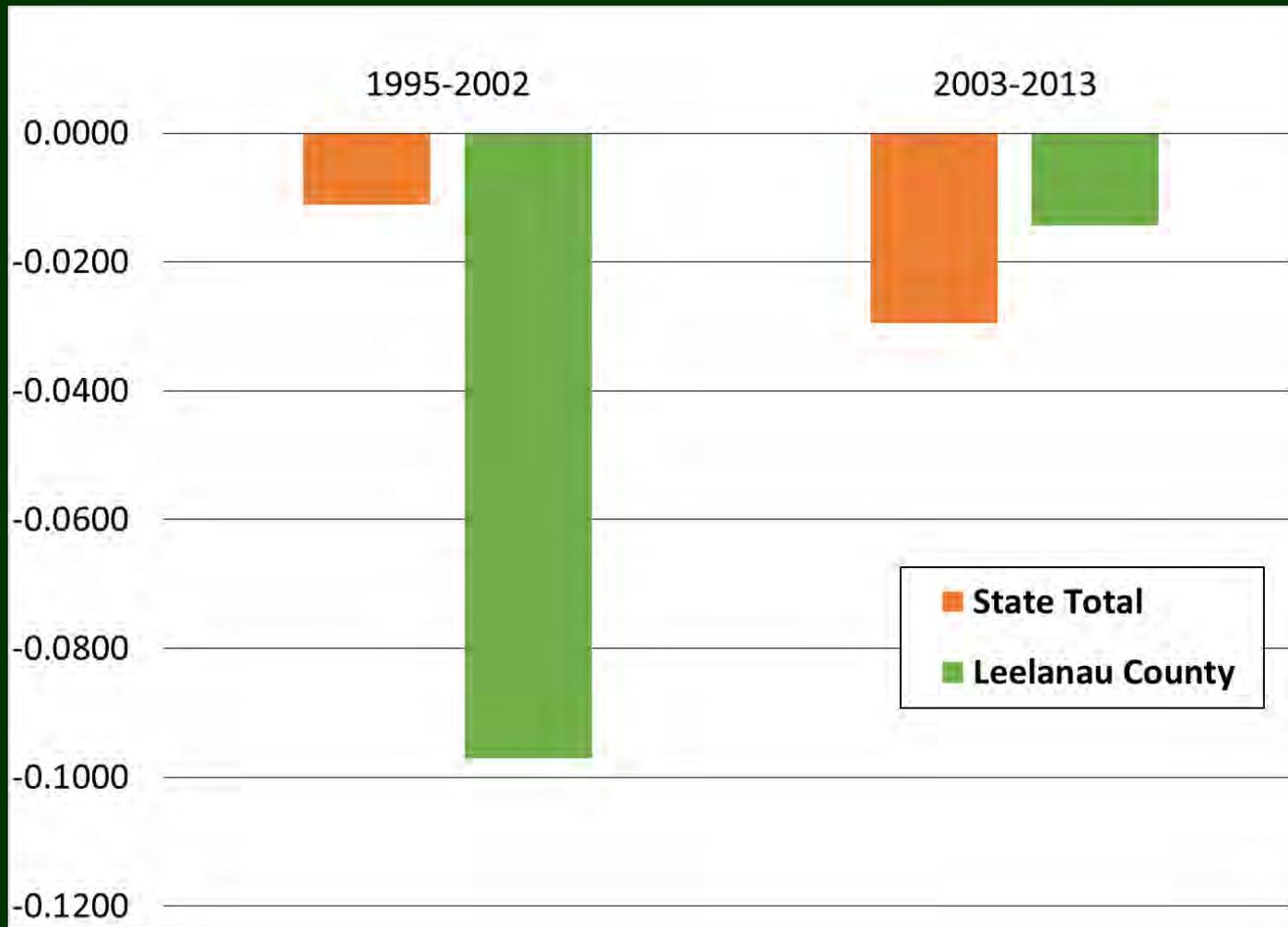
Change in Male Deer Hunter Participation Rates

	1995 – 2002	2003 – 2013
State Total:	-0.01	-0.03
Leelanau County:	-0.1	-0.01

(Leelanau County APR: 2003 – present)



Change in Male Deer Hunter Participation Rates



(Leelanau County APR: 2003 – present)



APR Assessment: Timeline

- Multi-year regulations package: 2014 – 2016
- Population impacts (harvest age structure): Oct 2014 – Sept 2019
- Disease risk: ongoing
- Hunter cohorts: Oct 2013 – Sept 2016
- Recruitment & retention: Oct 2014 – Sept 2019



Thank You

www.michigan.gov/deer

