



Overview of Use Patterns, Regulations, and Harvest History of Moose in GMU 13 (Copper Basin)

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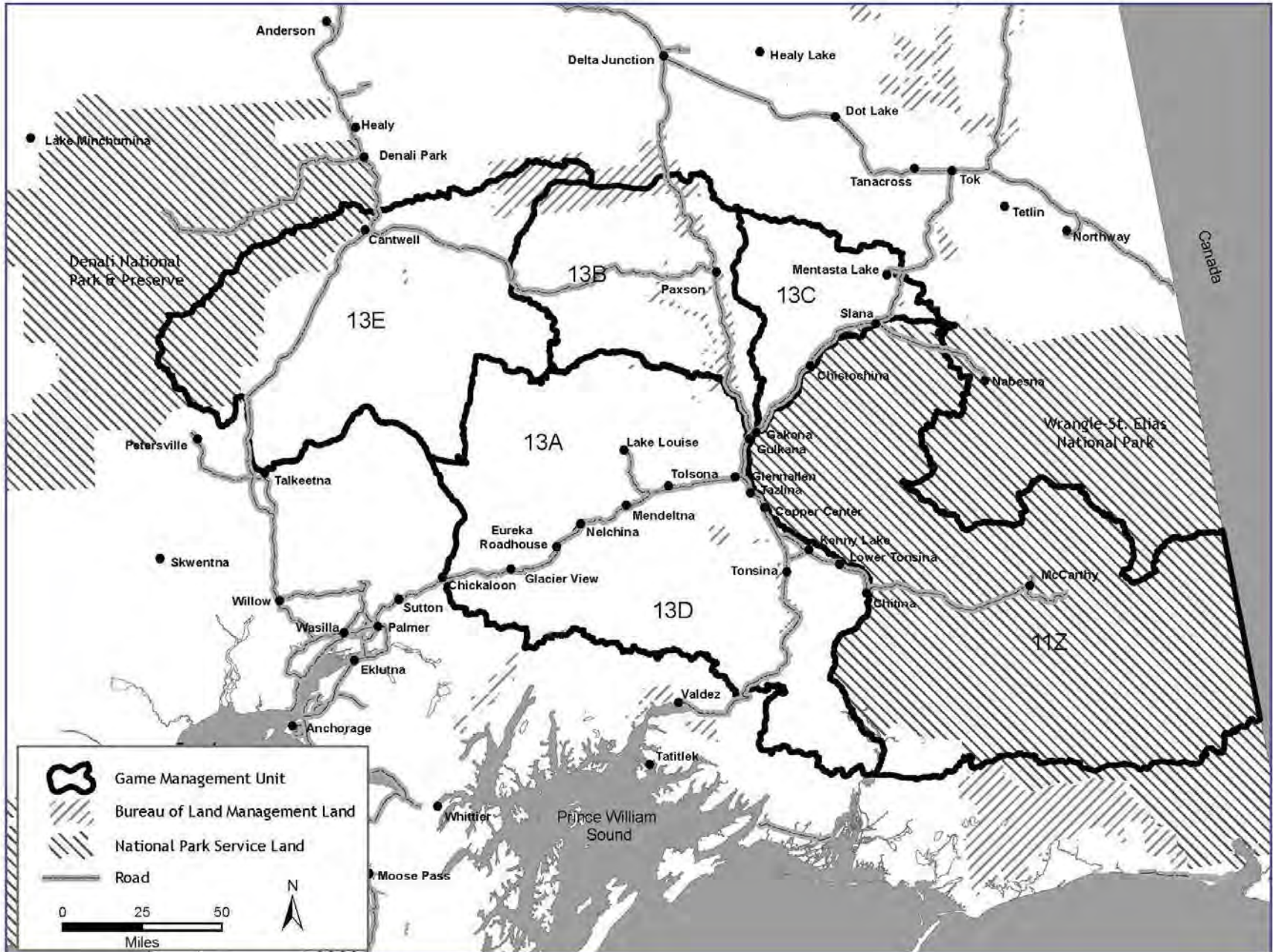
Goals of Presentation

- Summarize key points from written report
- Assist with evaluation of proposals to potentially modify or replace the current community subsistence hunt regulations
- Highlight themes and identify patterns related to C&T uses, harvest and use trends, regulatory history, and providing reasonable opportunities for subsistence uses of moose in the Copper Basin GMUs
- Relevant to most proposals; especially Prop. 1 (ANS), Prop. 20 (Tier II); those that eliminate the CSH, the “any bull” option, or the August season

Written Report (RC 2, Tab 3)

- Multiple sources of information
- Contains excerpts from 2009 discussion when ANS and CSH established
- Table 2 = timeline including key regulations, other BOG actions, & court actions
- Appendix A is regulatory history
- Appendix B is Tier II system chronology

Figure 1. The Copper River Basin: GMUs 13 and 11



Ahtna Subsistence Patterns

- Ahtna Athabascans are indigenous people of the Copper Basin
- Subsistence patterns featured in BOG findings
- Patterned seasonal round; moose key resource
- Flexibility regarding harvest timing and effort
- Efficiency of effort
- Community-based harvesting, processing, and distribution

Customary and Traditional Use Findings

#2006 – 170 – BOG

“Community-based pattern of use”

- Long-established, extended kinship networks
- Cooperative hunting, processing, and sharing
- Focused on variety of local resources
- Economy of effort and cost
- Goal to pass skills, knowledge, and values across generations

#2011 – 184 -BOG

“Individual, household, or family pattern of use”

- Shorter time duration
- More household or individual family based
- May involve more distant travel
- Often centered on camps and hunting areas
- Also focused on cross-generational training

Human Demography

Figure 2. Population of Copper River Census Subarea and Other Alaska Census Areas Connected to GMU 13 by Road, 1960 - 2015

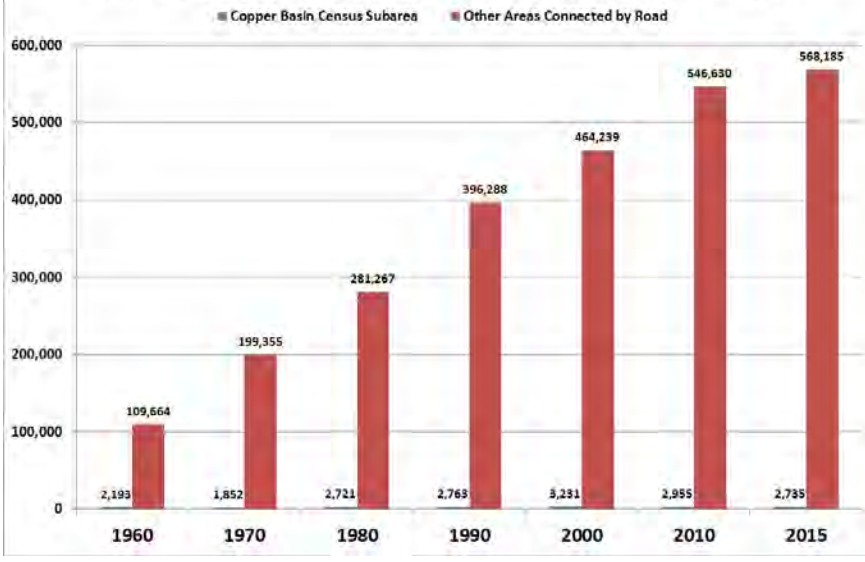
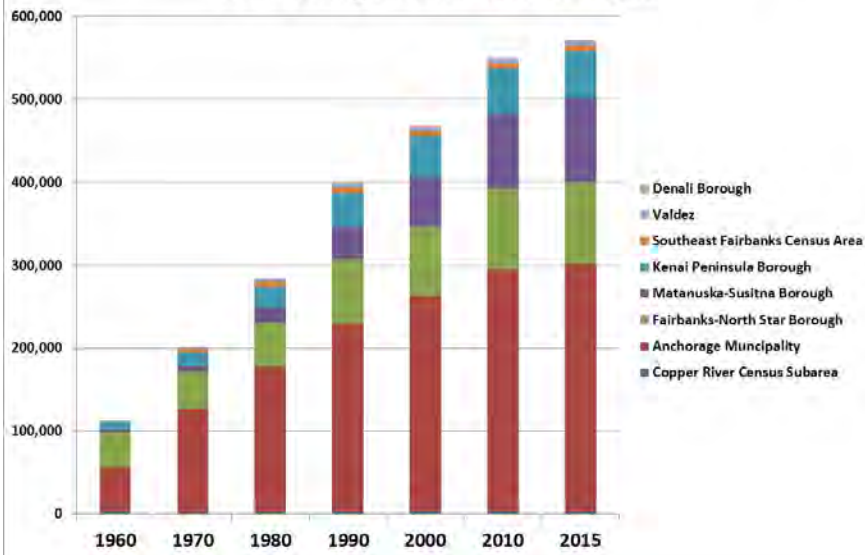


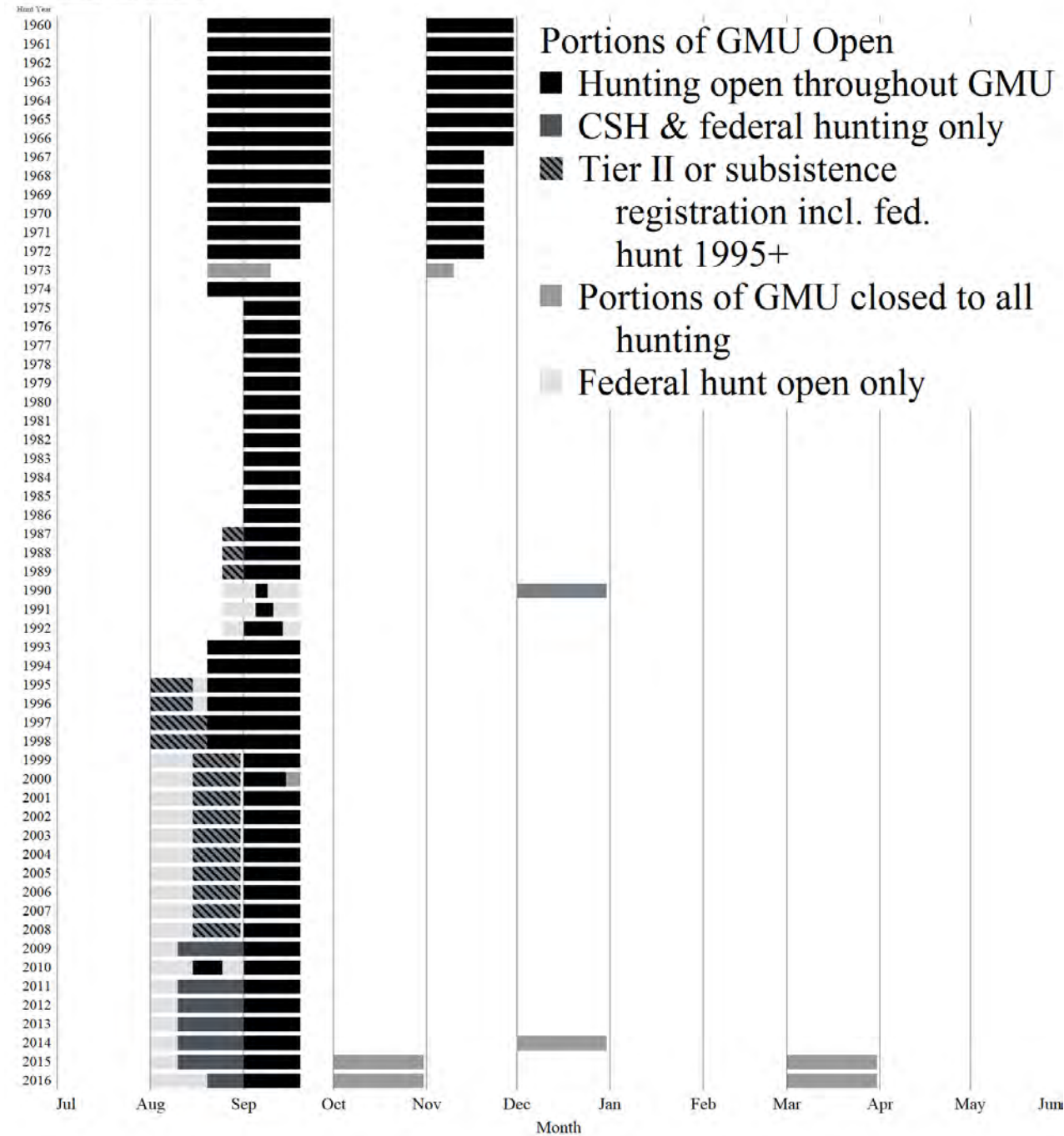
Figure 3. Populations of Areas of Alaska Connected by Road to Game Management Unit 13: 1960 - 2015



- Figure 2: steady growth of road system population
- Figure 3: population by census area
- Alaska Native population = 29% of Copper River Census Subarea, 2010

Moose Harvest Seasons (1960-2016)

Game Management Unit 13



Moose Hunting Seasons, GMU 13

- Figure 4 in report
- 5 categories
- Elimination of August hunt
- Subsistence seasons thru state and/or federal regulations, most years since 1987

Regulatory Changes

1960 – 1978/1980

- Shortened seasons
- No distinction between general or subsistence hunting
- First antler size requirement, 1980

1978 - 1989

- State subsistence law, 1978
- ANILCA Title VIII, 1980
- First subsistence hunting regulations for moose, 1983
- Registration hunt, 1986 – 1989
- August subsistence hunting restored, 1987

Regulations 1989 - 1995

- 1989: McDowell Decision: no rural priority
- Subsistence registration hunt eliminated
- 1990 – 1995: annual changes in seasons
- 1990 – 1995: antler restrictions in all state hunts
- 1992: ANS finding of 600 moose
- Kluti Kaah I: challenge to seasons
- Kluti Kaah II: challenge to antler restrictions
- 1995 BOG “any bull” Tier II hunt established

Federal Regulations

- 1990: Federal Subsistence Board
- Adopted state's subsistence regulations from 1989
- Over time, expanded eligibility
- Over time, expanded seasons
- See Table 8 for federal subsistence moose harvests

Regulations: 1995 - 2008

- Concerns with Tier II hunts
- Changes to the allocation of points
- New questions added to Tier II application
- Several law suits challenged scoring system

Figure 9. Percentage of Permits Awarded, Tier II Moose Hunt in GMU 13 (TM300), 1995 - 2008, by Area of Residence

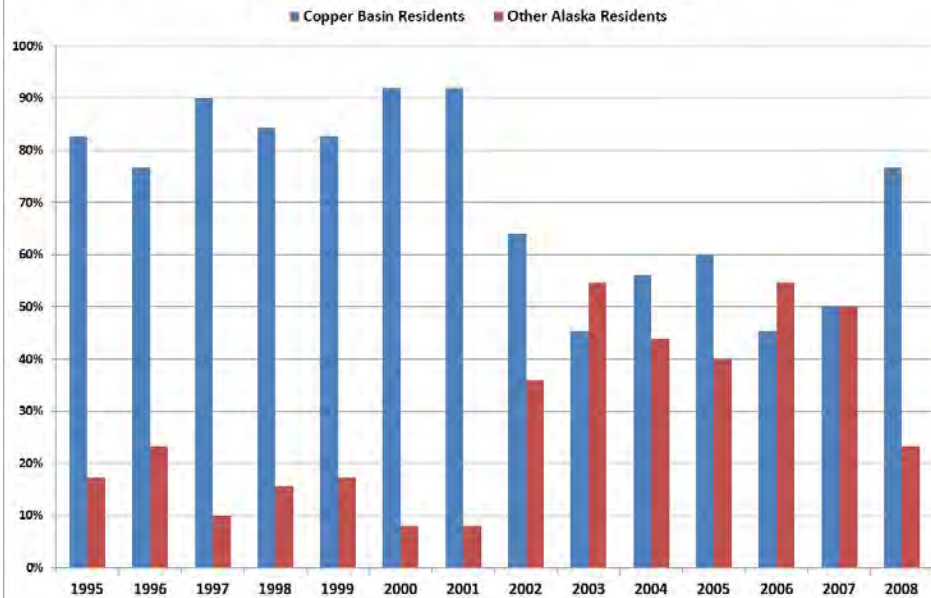
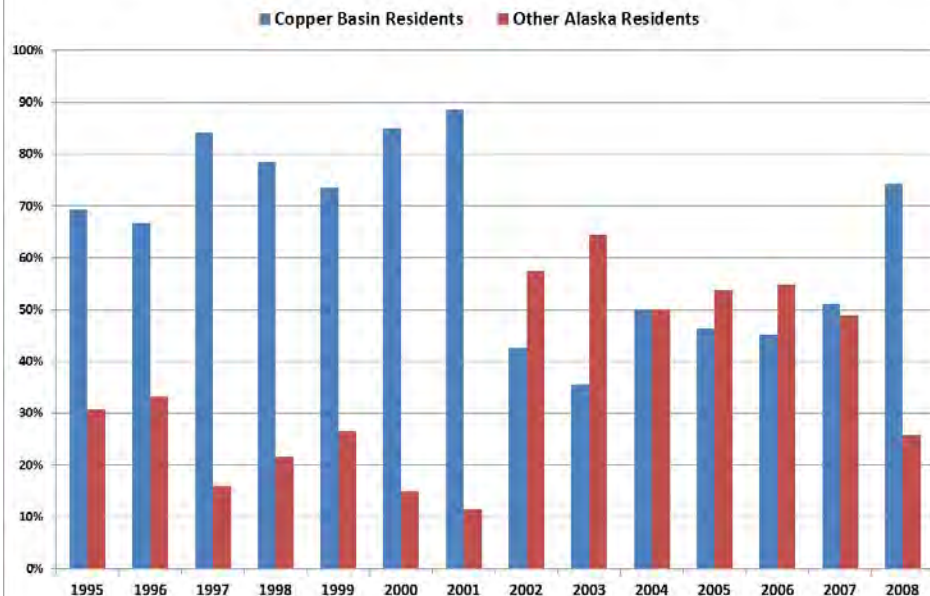


Figure 11. Percentage of Moose Harvest, Tier II Moose Hunt in GMU 13 (TM 300), 1995 - 2008, by Area of Residence



Tier II Moose Hunt (TM300) Patterns

- Average number of applications = 1,566
- Fig. 9: Copper Basin more successful thru 2001; 86% of permits
- Change after 2002: obtained 53%
- Fig. 11: Copper Basin residents harvested most moose: 78% 1995 - 2001
- Also changed after 2002: 45% (2002 – 2007)
- All years: annual average of 43 moose harvested

Regulations: 2006 - present

- 2006 BOG finding (#2006-170-BOG)
- Development of hunt conditions to reflect C&T pattern
- 2009 ANS revision: 300 – 600 moose
- 2009 adoption of Community Subsistence Hunt regulations
- Legal challenges
- 2011 board action and second C&T pattern finding (#2011-184-BOG)
- More legal challenges
- Courts support CSH and C&T findings

Trends in Community Subsistence Hunt

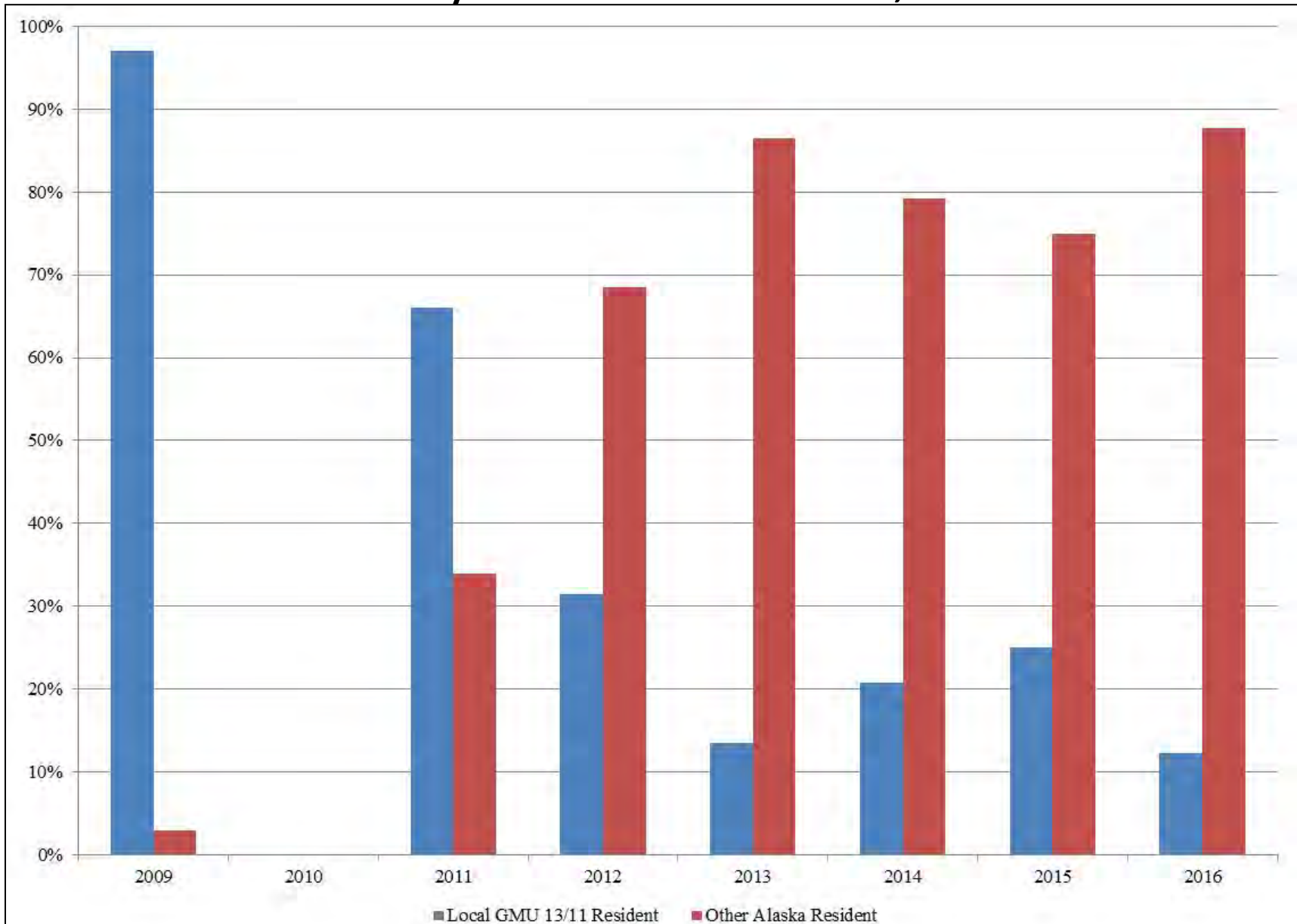
Table 5. Participation and harvest in the CSH hunt in Units 11, 13, and a portion of 12, regulatory years 2009 - 2016

Regulatory year	Number of groups	Number of communities participating	Number of households	Number of individual participants	Total number of moose harvested
2009	1	19	246	378	100 (68 "any bull") ^b
2010 ^a					
2011	9	31	416	814	86 (59 "any bull")
2012	19	29	460	969	98 (73 "any bull")
2013	45	41	955	2,066	156 (81 "any bull")
2014	43	41	893	1,771	150 (77 "any bull")
2015	43	43	1,039	1,984	171 (92 "any bull")
2016	73	48	1,527	3,400	201 (114 "any bull")

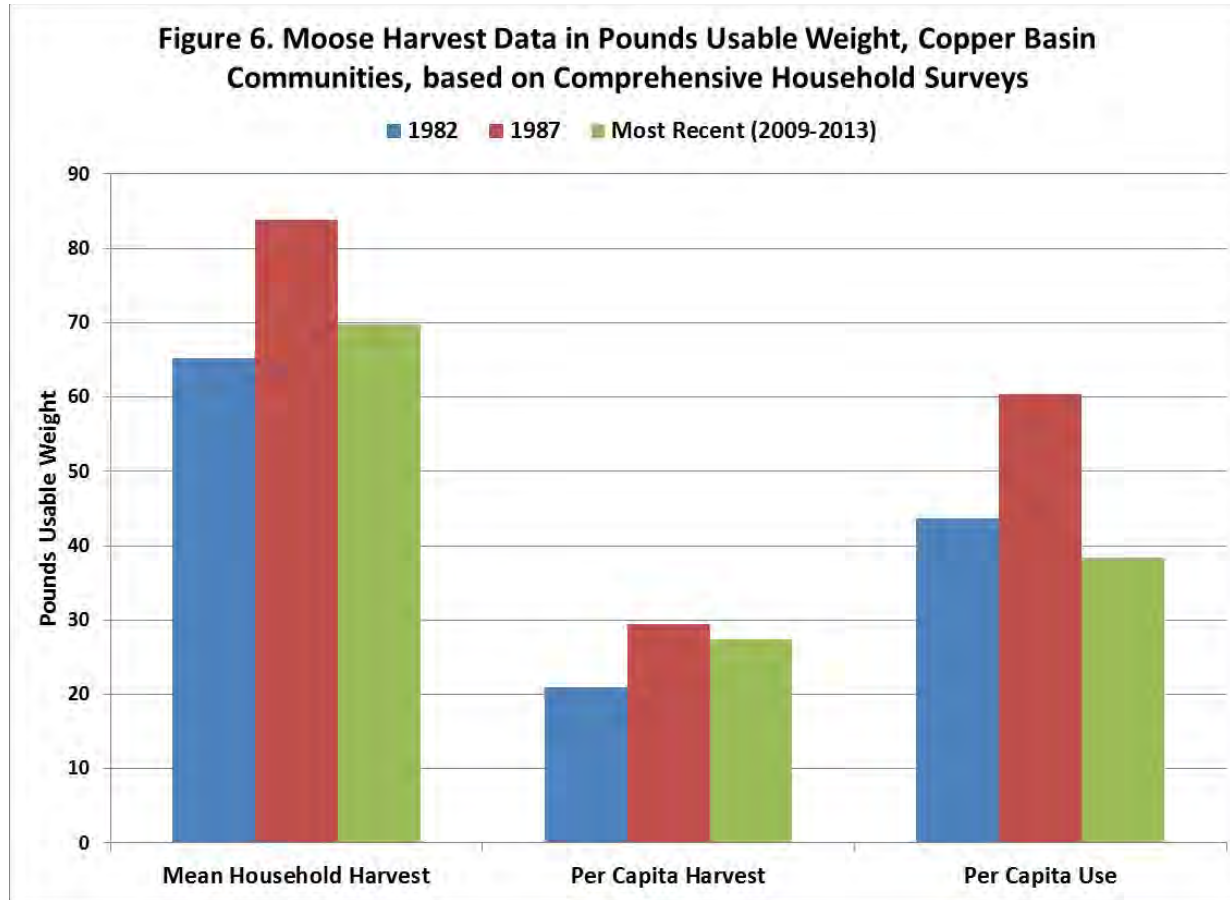
a. The community hunt was not offered in regulatory year 2010.

b. "Any bull" means bull moose that do not meet antler requirements for other Alaska resident hunts in the units in which the CSH takes place.

Figure 12: Percentage of “any bull” moose harvest in CSH hunt by area of residence, 2009 - 2016



Household survey findings



- Increase in moose harvests, usable lb, from 1982 to 1987
- Decline in moose harvests, usable lb, 1987 to most recent study year
- Key respondent themes:
 - Competition
 - Technological disadvantage
 - Abuse of CSH

Figure 13. Number of Alaska resident hunters in GMU 13 and number of moose harvested, 1967 - 2015

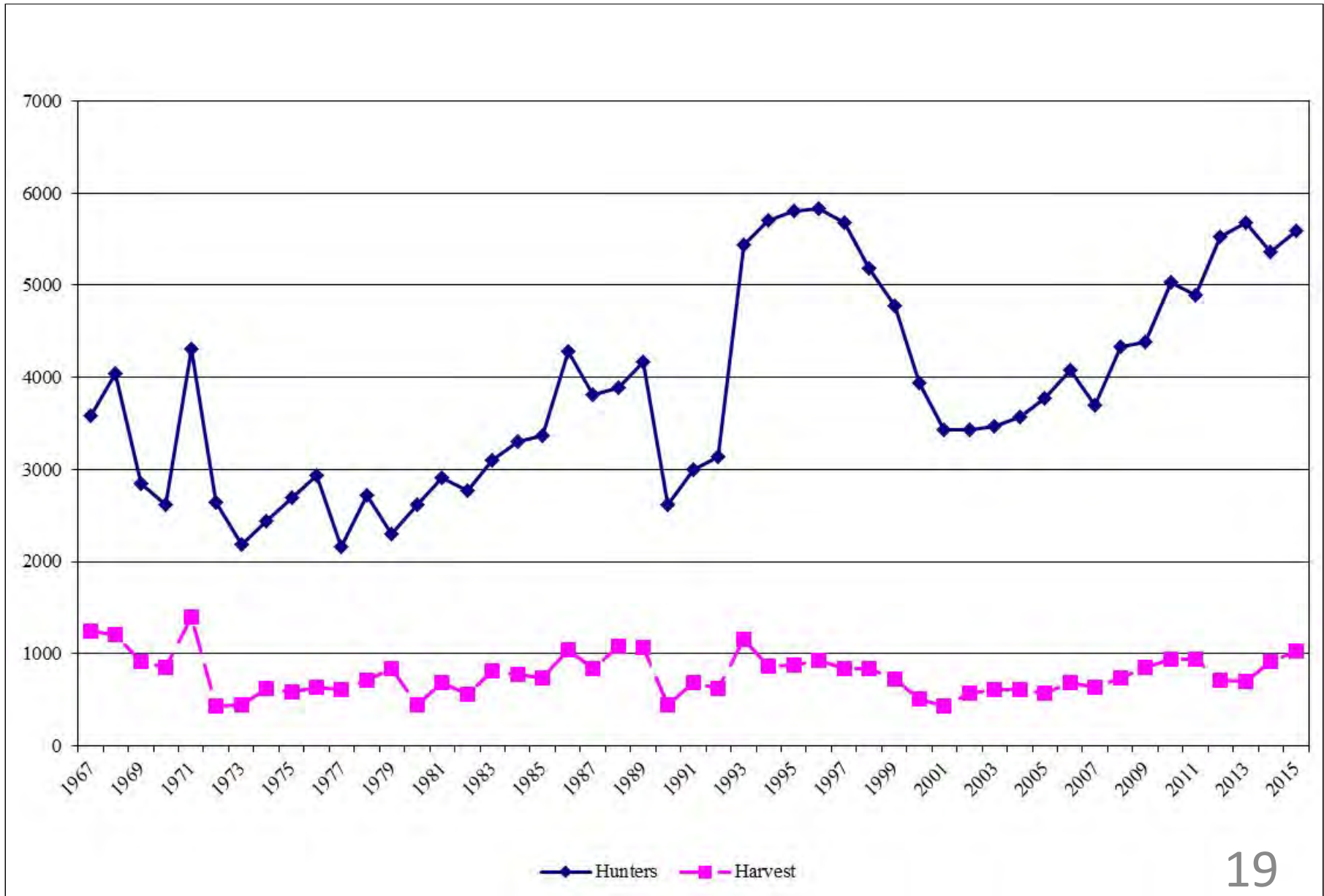


Figure 15. Number of local resident hunters of moose in GMU 13 and number of moose harvested, all hunts, 1969 - 2015

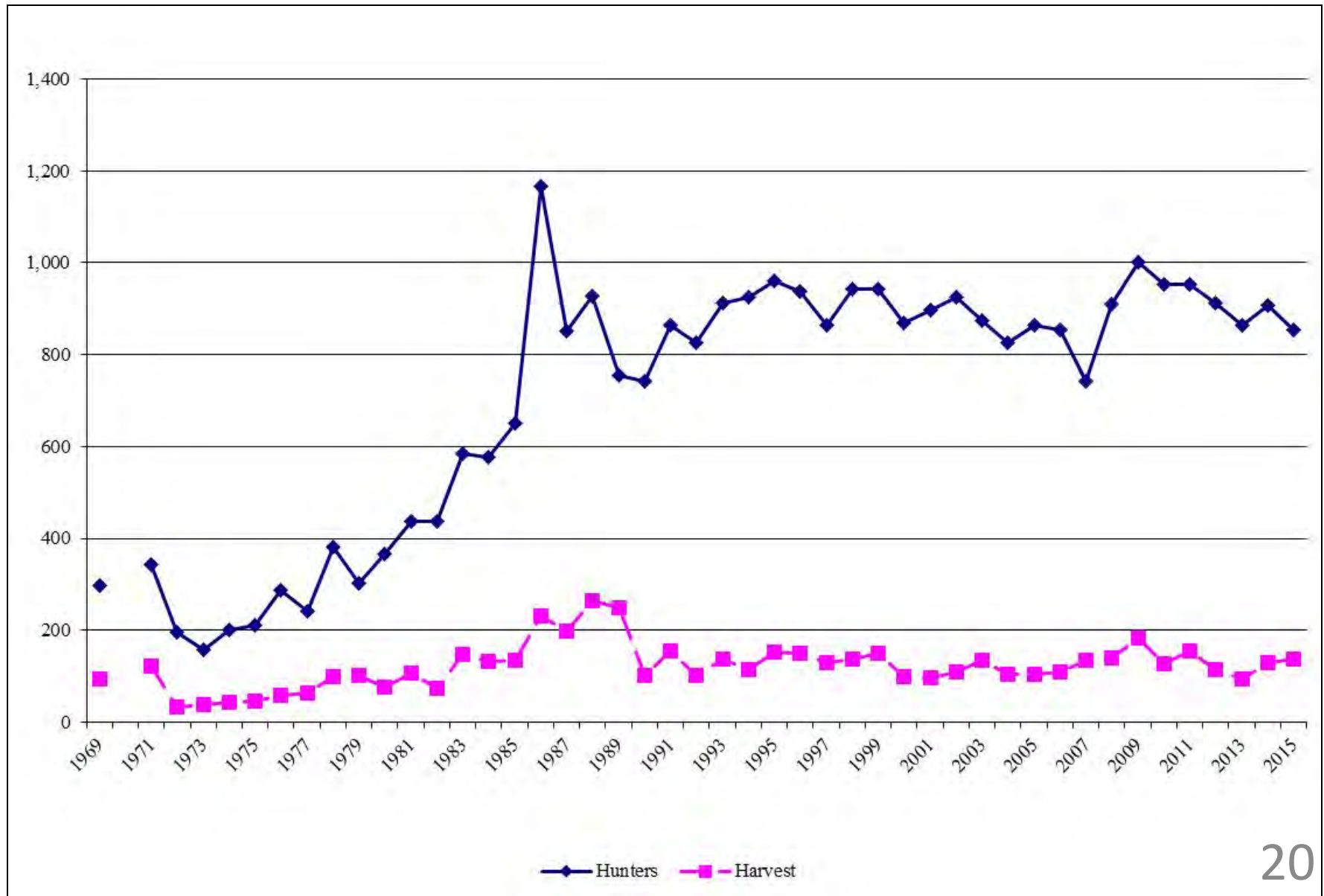


Figure 16. Percentage of moose hunters in GMU 13 who are non-local residents and percentage of harvest by non-local hunters

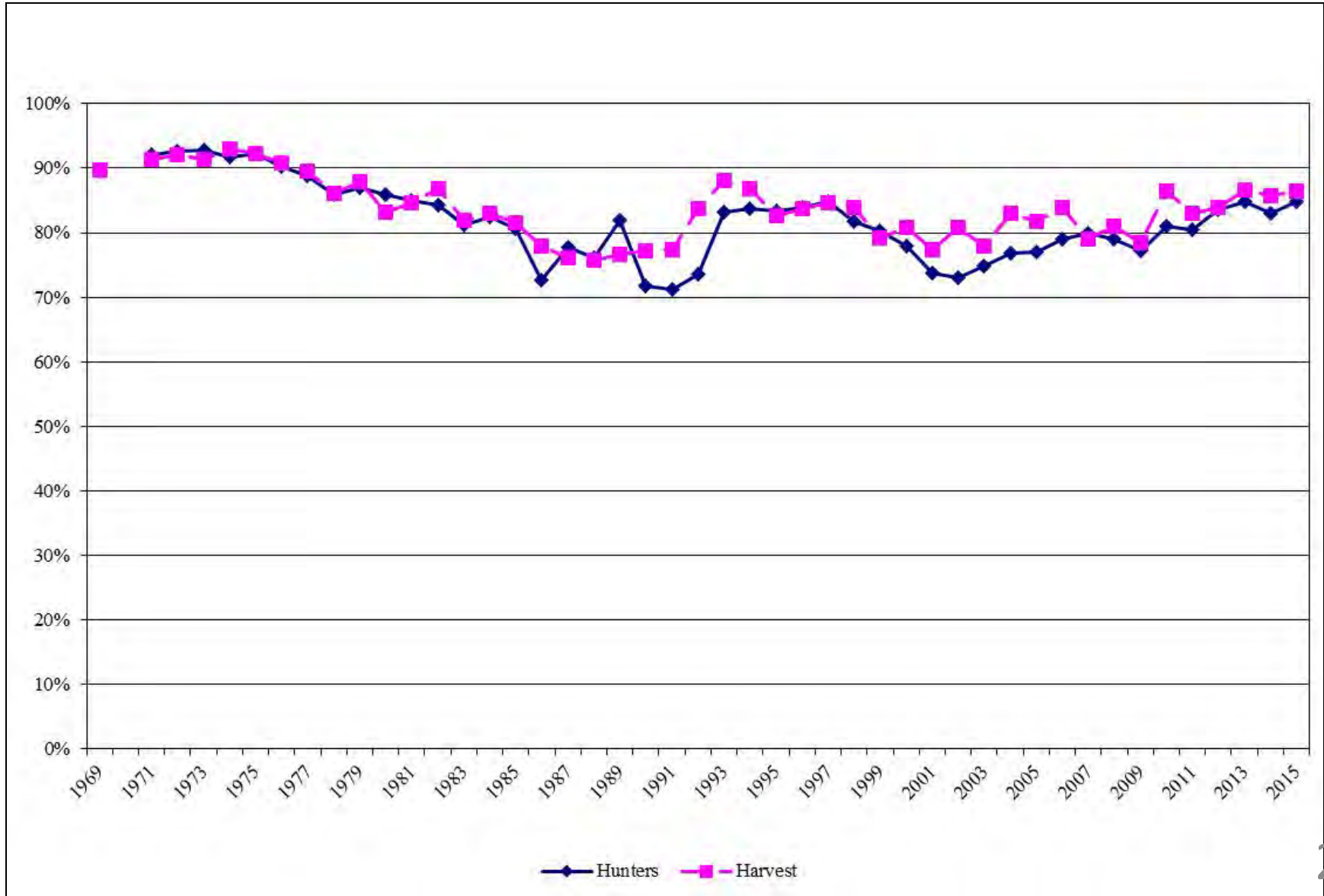


Figure 17. Success rates, GMU 13 moose hunters, by area of residence, 1967 - 2015

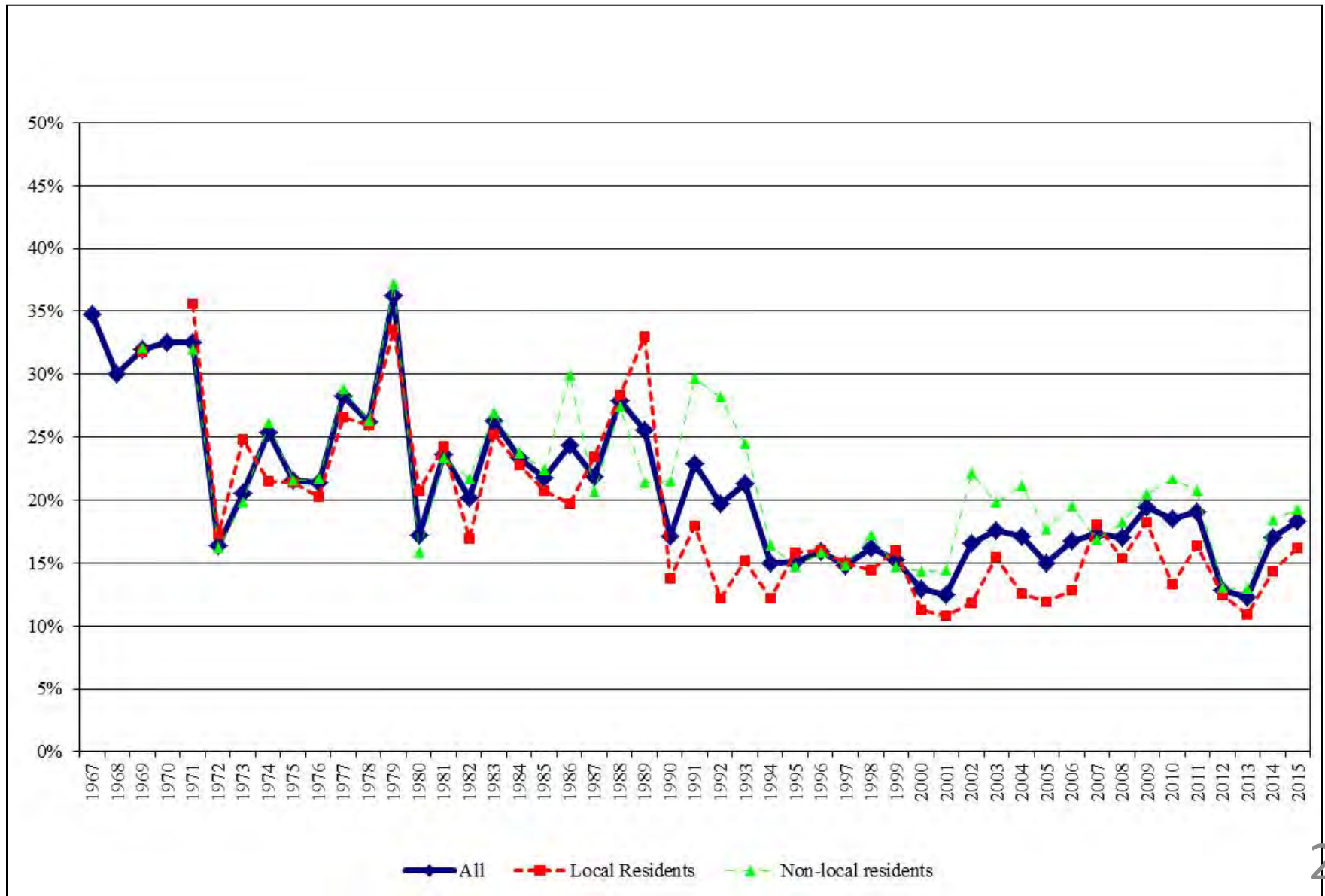


Figure 18. Percentage of hunters by transport type, GMU 13 moose, 2009–2016 (known types only)

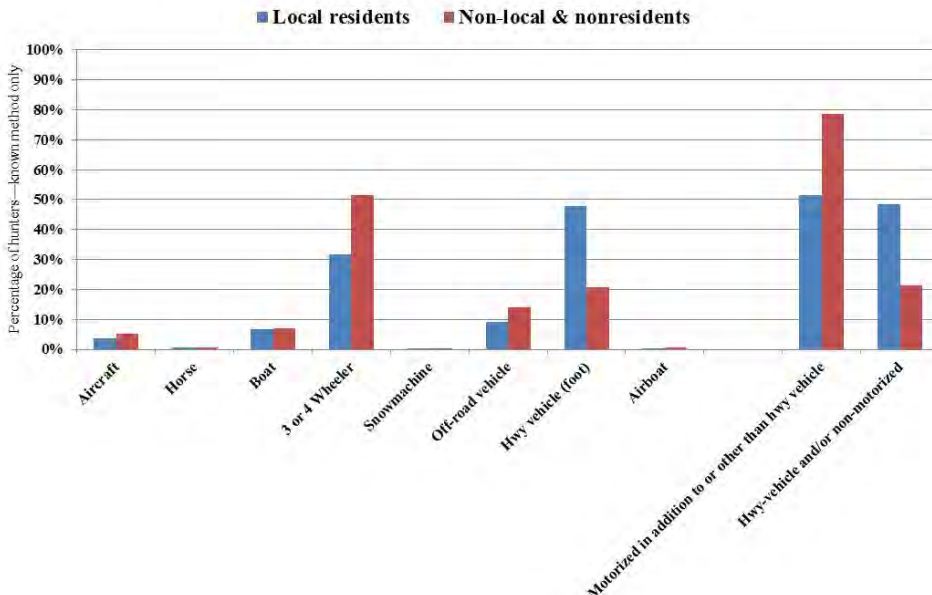
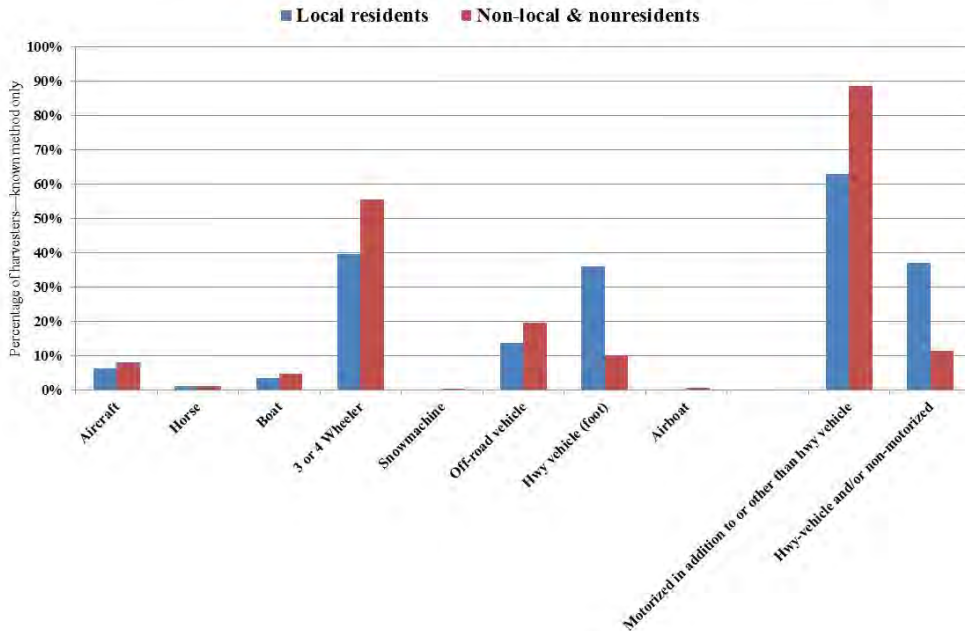


Figure 19. Percentage of successful hunters by transport type, GMU 13, 2009–2016 (known types only)



Transportation methods

- Figure 18 shows types used by all hunters
- Figure 19 shows successful hunters
- An example of “techno-economic differentiation”

Discussion: Themes

- C&T hunting patterns display efficiency, flexibility, and opportunistic harvest; reflect local ecology, culture, and economy
- Several factors shape “reasonable opportunity”
 - 1) Timing and length of seasons
 - 2) Competition, including “techno-economic differentiation”
 - 3) Bag limits related to selectivity

Concluding Points

- Moose in the Copper Basin have sustained Alaska communities for centuries
- Human population growth and accessibility create challenges
- To identify subsistence uses, BOG has acknowledged local C&T and other patterns
- The BOG has applied tools such as season length, bag limits, & hunt conditions, to provide reasonable opportunities for subsistence uses
- Knowledge of C&T patterns, harvest trends, and past regulatory efforts is key to meeting the goals of the subsistence law and sustainable management.