

# ***Turkey Harvest Report***

**Spring 2011**

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## INTRODUCTION AND METHODS

For the spring 2011 season there were 4 turkey hunting units in Kansas (Figure 1). An initial turkey permit could be purchased over-the-counter for all units except Unit 4 (southwest Kansas). A second turkey game tag was also available for Units 2 and 3. The Unit 4 quota was raised from 325 to 500 permits for the 2011 season and they were issued through a pre-season drawing. The permit allocation was 250 for general residents and 250 for landowner/tenants. Youth did not have to be drawn to hunt in Unit 4 as they could purchase over-the-counter permits that were valid statewide. The unit was undersubscribed this year for the first time and 27 permits were still available after the drawing. The spring 2011 season ran 61 days (Table 1) and the total number of permits issued was 65,026 (includes 21,923 game tags; Table 2).

The spring wild turkey harvest survey has been conducted annually by the Kansas Department of Wildlife, Parks, and Tourism (KDWPT) since the first regulated season was established in 1974. However, the survey methodology has changed over the years to improve efficiency, reduce costs, and improve accuracy of estimates. For the first time, the spring turkey harvest survey was conducted solely online after an evaluation of survey methodology revealed that online surveys provided similar results to the department's traditional postcard survey technique. Moving to an online survey also provides more timely results and eliminates expenses for postage and data entry.

The survey was conducted by selecting a random sample of hunters from all the people who provided e-mail addresses when they purchased their permit. The number of individuals that was drawn was equal to 15% of the total number of people who purchased a permit for the spring season ( $n = 6,497$ ). An e-mail was sent to those individuals two days after the close of the season (June 2) asking them to complete an online questionnaire about their hunting activity and harvest during the 2011 season (Figure 2). Those people receiving an e-mail were offered a chance at a framed wild turkey print or ten KDWPT magazine subscription if they completed the questionnaire by June 30. Non-respondents were sent two more subsequent follow-up e-mails on June 13 and June 22.

Results from the harvest survey were used to develop statewide estimates of the number of hunters participating in each season, harvest (by weapon and property ownership), perceived hunting pressure on publicly owned land and walk-in-hunting area (WIHA) tracts, hunter effort, harvest distribution, hunter success, and hunter satisfaction with Kansas turkey hunting and management. Many of these parameters were also calculated for each of the 6 turkey management regions (Figure 3). Several parameter estimates are only available from 2005-present due to changes in survey design.

## RESULTS AND DISCUSSION

Of the selected sample, a total of 5,706 e-mails were deliverable and 3,240 complete responses were provided resulting in an adjusted response rate of 56.8%. An estimated 94.3% of the 43,103 initial permit buyers hunted turkeys during the spring 2011 season resulting in 40,629 active hunters (27,623 residents and 12,869 non-residents; Table 4). Those hunters spent an average of 4.8 days (95% CI = 4.7 – 5.0) in the field and accumulated an estimated 195,019 total efforts. The estimated numbers of people participating in the early season as archers, youth, and disabled hunters were 6,756 (95% CI = 6,234 – 7,313), 2,899 (95% CI = 2,802 – 3,000), and 279 (95% CI = 270 - 289), respectively. The estimated number of people to hunt with a crossbow during the regular turkey season was 226 (95% CI = 141 – 361). The mean age of all the people purchasing a 2011 spring turkey permit was 39.2 and their age distribution was bimodal with a high number of youth hunters (<18), fewer young adults (18-35), and the vast majority of hunters being middle-aged or older (>35; Figure 4).

Total harvest during the spring 2011 season was 32,298 turkeys of which 10.6% was taken with archery equipment and 0.3% was taken with a crossbow (Table 5). The age and sex structure of the 2011 harvest was 83.6% adult gobblers, 15.4% jakes, and 1.0% bearded hens. The percentage of turkey hunters taking at least 1 bird was 61% during the 2011 season. The overall success rate has been >60% for 9 of the last

10 spring turkey seasons in Kansas. Initial permit success was again higher than game tag success and non-residents were more successful than residents (Table 6). On a statewide scale, the percentage of the harvest taken with a second turkey game tag was 24.0% in 2011 (Table 4). Hunting pressure on publicly owned properties was generally perceived to be heavier than pressure on WIHA properties by resident and non-resident hunters using those property types during the spring 2011 season (Figure 5).

During the spring 2011 season, 6.8% of the total harvest was taken on opening day of the regular season (Figure 6). Prior to the creation of the archery-only season in 2007 the percentage of total harvest taken on opening day was typically >10%. The special early seasons not only provide unique opportunities but they spread out the harvest which helps to slightly lessen the number of hunters in the woods during the regular season. By the end of the 5<sup>th</sup> day of the regular season an estimated 40.9% of the total 2011 harvest had already occurred and by the end of April that percentage was estimated to be 71.4% (Figure 6).

The number of hunters pursuing turkeys ranged from 7,000 to 10,000 within each management region except the southwest and northwest where hunter numbers ranged from 2,500 to 5,000 (Figure 7). The greatest harvest occurred in the northeast region where >8,500 turkeys were taken. The percentage of jakes in the harvest was low (<20%) in every management region during the spring 2011 season (Figure 8). Hunter success was greatest in the northwest management region where an estimated 68% of all active hunters harvested at least one bird (Figure 8). Hunt success was lowest in the southeast management region where an estimated 51% of active hunter harvested at least one bird. Hunt success in the southeast management region has declined in recent years due to extremely low turkey production that occurred across the region in 2007 and 2008. Productivity across the southeast management region was near average in 2009 and 2010 and at the time of this report appeared to have been good during the summer of 2011. Thus, hunter success in the southeast region is expected to be somewhat improved next spring as a result of more adult gobblers across the landscape.

The WIHA properties were utilized by >1,000 hunters in the northeast, northwest, and north-central regions during 2011 (Table 7). The north-central region had the most acres enrolled in WIHA and also had the highest number of hunters using the program. Correspondingly, the greatest WIHA harvest occurred in the north-central region (588 birds; Table 7). During the 2011 season a similar number of people hunted spring turkeys on publicly owned properties (6,849) and WIHA tracts (6,116). Nearly 30% of all spring turkey hunters in Kansas utilized properties either provided (WIHA) or managed by the KDWP or other federal agencies (e.g. U.S. Fish & Wildlife Service, U.S. Forest Service, etc.). Of the 3 major land types, the greatest number of spring turkey hunters and harvest were both associated with private land in each of the 6 management regions. Private land was used by nearly 85% of all active hunters and a similar percentage of the statewide harvest occurred on those properties.

Spring turkey hunters in Kansas were generally satisfied or very satisfied (>75%) with turkey management and hunting on a statewide scale but satisfaction has declined over the last 6 years (Figure 9). The same declining pattern has been observed for each region (Figure 10). Declines in the south-central, northeast, and southeast regions are probably associated with declining hunter success that has resulted from poor poult production in recent years. The recent declining trends in satisfaction reported by hunters in the southwest, northwest, and north-central regions are not understood because hunter success remains very high in those regions and opportunity has been expended in some of those areas (Figure 10).

**Table 1. Spring wild turkey hunting seasons in Kansas, 1974-2011.**

Year	Archery <sup>a</sup>	Youth/Disabled <sup>b</sup>	Regular spring season	Total days
1974	No Season	No Season	Apr. 20-28	9
1975	No Season	No Season	Apr. 26-May4	9
1976	No Season	No Season	Apr. 24-May 3	10
1977	No Season	No Season	Apr. 23-May 1	9
1978	No Season	No Season	Apr. 22-28	7
1979	No Season	No Season	Apr. 21-24, Apr. 21-29, Apr. 27-May 1	18
1980	No Season	No Season	Apr. 19-22, Apr. 19-27, Apr. 26-30	18
1981	No Season	No Season	Apr. 25-28, Apr. 25-May 30, Apr. 26-30	18
1982	No Season	No Season	Apr. 24-27, Apr. 24-May 2, May 1-5	18
1983	No Season	No Season	Apr. 24-27, Apr. 25-May2, May 1-5	18
1984	No Season	No Season	Apr. 18-May 6	19
1985	No Season	No Season	Apr. 17-May5	19
1986	No Season	No Season	Apr. 16-May 4	19
1987	No Season	No Season	Apr. 15-May 3	19
1988	No Season	No Season	Apr. 13-May 1	19
1989	No Season	No Season	Apr. 19-May 7	19
1990	No Season	No Season	Apr. 18-May 6	19
1991	No Season	No Season	Apr. 17-May 12	26
1992	No Season	No Season	Apr. 15-May 10	26
1993	No Season	No Season	Apr. 14-May 9	26
1994	No Season	No Season	Apr. 13-May 8	26
1995	No Season	No Season	Apr. 12-May 7	26
1996	No Season	No Season	Apr. 10-May 5	26
1997	No Season	No Season	Apr. 9-May 11	33
1998	No Season	No Season	Apr. 8-May 17	40
1999	No Season	No Season	Apr. 14-May 23	40
2000	No Season	No Season	Apr. 12-May 21	40
2001	No Season	No Season	Apr. 11-May 20	40
2002	No Season	No Season	Apr. 10-May 19	40
2003	No Season	Apr. 4-6	Apr. 9-May 18	43
2004	No Season	Apr. 8-10	Apr. 13-May 31	52
2005	No Season	Apr. 8-10	Apr. 13-May 31	52
2006	No Season	Apr. 7-9	Apr. 12-May 31	53
2007	Apr. 1-10	Apr. 6-8	Apr. 11-May 31	61
2008	Apr. 1-8	Apr. 1-8	Apr. 9 –May 31	61
2009	Apr. 1-7	Apr. 1-7	Apr. 8 – May 31	61
2010	Apr. 1-13	Apr.1-13	Apr. 14 – May 31	61
2011	Apr. 1-12	Apr. 1-12	Apr. 13 – May 31	61

<sup>a</sup> Season open only to archery hunters.<sup>b</sup> Firearms legal for youth younger than 17 years of age and disabled individuals.

**Table 2. Kansas spring turkey permit sales and generated revenue, 1974-2011.**

Year	Resident <sup>a</sup>	Resident Youth (<16)	Non-Resident <sup>b</sup>	LO/T <sup>c</sup>	Game Tags <sup>d</sup>	Total Permits	Total Revenue <sup>e</sup>
1974	209	NT <sup>f</sup>	NT	191	NT	400	\$4,000
1975	250	NT	NT	117	NT	367	\$5,505
1976	255	NT	NT	145	NT	400	\$6,000
1977	321	NT	NT	179	NT	500	\$7,500
1978	319	NT	NT	181	NT	500	\$7,500
1979	521	NT	NT	243	NT	764	\$11,460
1980	740	NT	NT	225	NT	965	\$19,300
1981	932	NT	NT	330	NT	1,262	\$25,240
1982	1,290	NT	NT	363	NT	1,653	\$33,060
1983	1,743	NT	NT	531	NT	2,274	\$45,480
1984	3,323	NT	NT	898	NT	4,221	\$84,420
1985	3,916	NT	NT	937	NT	4,853	\$99,487
1986	4,763	NT	NT	1,382	NT	6,145	\$125,973
1987	5,438	NT	48	2,062	NT	7,548	\$134,594
1988	6,490	NT	205	3,395	NT	10,090	\$174,945
1989	8,889	NT	684	4,655	NT	14,228	\$251,964
1990	8,250	NT	461	5,106	NT	13,817	\$236,799
1991	10,917	NT	543	1,034	1,700	14,194	\$269,067
1992	10,335	NT	739	4,246	2,000	17,320	\$299,990
1993	10,158	NT	834	4,148	2,997	18,137	\$308,699
1994	11,976	NT	766	4,840	NT	17,582	\$407,601
1995	13,098	NT	1,453	5,250	7,338	27,139	\$445,020
1996	13,469	NT	1,677	5,257	6,576	26,979	\$451,530
1997	13,481	NT	1,791	5,776	6,356	27,404	\$458,412
1998	14,882	NT	2,178	5,869	7,619	30,548	\$513,154
1999	17,648	NT	2,690	7,015	9,698	37,051	\$619,536
2000	20,155	NT	3,848	7,489	11,774	43,266	\$733,063
2001	21,350	NT	4,589	7,590	12,396	45,925	\$787,793
2002	22,440	NT	5,435	7,809	13,878	49,562	\$853,821
2003	23,368	NT	6,515	8,629	14,611	53,138	\$922,499
2004	24,023	NT	7,346	8,906	14,531 (4,299) <sup>g</sup>	54,820	\$1,033,300
2005	24,520	NT	8,345	9,319	14,663 (4,559)	56,887	\$1,026,960
2006	24,601	NT	9,773	7,754	18,464 (6,161)	60,592	\$1,109,000
2007	24,666	NT	11,366	7,958	20,106 (7,642)	64,096	\$1,191,360
2008	20,403	4,183	11,425	7,063	19,303 (7,781)	62,375	\$1,134,050
2009	20,848	4,489	11,753	6,989	18,810 (7,624)	62,788	\$1,145,640
2010	19,879	4,618	12,638	6,223	23,263 (8,998)	66,621	\$1,163,390
2011	19,445	4,655	13,149	5,715	21,923 (8,900)	65,026	\$1,158,534

<sup>a</sup> Includes all resident permits regardless of age through 2007 and only those  $\geq 16$  after that point.

<sup>b</sup> Includes non-resident archery, firearm, and the universal non-resident permit that is currently issued.

<sup>c</sup> Includes all landowner/tenant (LO/T) permits, hunt-own-land permits, and non-resident landowner permits.

<sup>d</sup> Game tags for spring turkey season were not issued until 1991 and separate tags for residents and non-residents were not issued until 2004. The total includes both resident and non-resident game tags.

<sup>e</sup> Does not include the cost of a small game license which is required to hunt turkeys.

<sup>f</sup> NT = No tag issued.

<sup>g</sup> The value in parentheses was the number of game tags issued to non-residents.

**Table 3. Statewide estimates of active resident and non-resident spring wild turkey hunters in Kansas, 1974-2011.**

Year	Residents	95% CI	Non-Residents	95% CI	Total <sup>a</sup>	95% CI
1974	NE <sup>b</sup>	NE	NE <sup>b</sup>	NE	400	NE
1975	NE	NE	NE	NE	367	NE
1976	NE	NE	NE	NE	400	NE
1977	NE	NE	NE	NE	500	NE
1978	NE	NE	NE	NE	500	NE
1979	NE	NE	NE	NE	764	NE
1980	NE	NE	NE	NE	965	NE
1981	NE	NE	NE	NE	1,262	NE
1982	NE	NE	NE	NE	1,653	NE
1983	NE	NE	NE	NE	2,274	NE
1984	NE	NE	NE	NE	4,221	NE
1985	NE	NE	NE	NE	4,853	NE
1986	NE	NE	NE	NE	6,145	NE
1987	NE	NE	NE	NE	7,548	NE
1988	NE	NE	NE	NE	10,090	NE
1989	NE	NE	NE	NE	14,228	NE
1990	NE	NE	NE	NE	13,817	NE
1991	NE	NE	NE	NE	12,494	NE
1992	NE	NE	NE	NE	15,320	NE
1993	NE	NE	NE	NE	15,140	NE
1994	NE	NE	NE	NE	17,582	NE
1995	NE	NE	NE	NE	19,801	NE
1996	NE	NE	NE	NE	20,403	NE
1997	NE	NE	NE	NE	21,048	NE
1998	NE	NE	NE	NE	22,929	NE
1999	NE	NE	NE	NE	27,353	NE
2000	NE	NE	NE	NE	31,492	NE
2001	NE	NE	NE	NE	33,529	NE
2002	NE	NE	NE	NE	35,684	NE
2003	NE	NE	NE	NE	38,527	NE
2004	NE	NE	NE	NE	40,289	NE
2005	32,470	(32,071 – 32,785)	8,193	(8,117 – 8,245)	40,928	(40,618 – 41,180)
2006	30,747	(30,383 – 31,048)	9,588	(9,464 – 9,664)	40,422	(40,063 – 40,722)
2007	31,018	(30,639 – 31,326)	11,184	(11,043 – 11,264)	42,265	(41,883 – 42,578)
2008	29,420	(28,979 – 29,788)	11,439	(11,307 – 11,509)	40,992	(40,564 – 41,350)
2009	30,799	(30,425 – 31,103)	11,609	(11,490 – 11,675)	42,521	(42,161 – 42,815)
2010	28,817	(28,546 – 29,055)	12,399	(12,303 – 12,467)	41,321	(41,052 – 41,561)
2011	27,623	(27,253 – 27,946)	12,869	(12,737 – 12,958)	40,629	(40,261 – 40,952)

<sup>a</sup> May not equal sum of resident and non-resident hunters due to rounding errors. Prior to 2005 the number presented is the initial permit buyers.

<sup>b</sup> NE = no estimate.

**Table 4. Statewide estimates of spring wild turkey harvest and hunter success in Kansas, 1974-2011.**

Year	Harvest						Total <sup>a</sup>	95% CI	Overall Success <sup>b</sup>	95% CI
	Archery	95% CI	Firearms	95% CI	Crossbow	95% CI				
1974	NE	NE	NE	NE	NA	NA	123	NE	40%	NE
1975	NE	NE	NE	NE	NA	NA	139	NE	44%	NE
1976	NE	NE	NE	NE	NA	NA	123	NE	39%	NE
1977	NE	NE	NE	NE	NA	NA	149	NE	36%	NE
1978	NE	NE	NE	NE	NA	NA	196	NE	44%	NE
1979	NE	NE	NE	NE	NA	NA	305	NE	46%	NE
1980	NE	NE	NE	NE	NA	NA	369	NE	45%	NE
1981	NE	NE	NE	NE	NA	NA	482	NE	47%	NE
1982	NE	NE	NE	NE	NA	NA	616	NE	44%	NE
1983	NE	NE	NE	NE	NA	NA	945	NE	50%	NE
1984	NE	NE	NE	NE	NA	NA	1,430	NE	42%	NE
1985	NE	NE	NE	NE	NA	NA	1,544	NE	44%	NE
1986	NE	NE	NE	NE	NA	NA	2,167	NE	44%	NE
1987	NE	NE	NE	NE	NA	NA	2,777	NE	48%	NE
1988	NE	NE	NE	NE	NA	NA	3,977	NE	48%	NE
1989	NE	NE	NE	NE	NA	NA	4,898	NE	47%	NE
1990	NE	NE	NE	NE	NA	NA	4,988	NE	44%	NE
1991	NE	NE	NE	NE	NA	NA	6,602	NE	50%	NE
1992	NE	NE	NE	NE	NA	NA	NA 8,898	NE	54%	NE
1993	NE	NE	NE	NE	NA	NA	NA 7,710	NE	46%	NE

<sup>a</sup>Total may not equal to sum of weapon-specific estimates due to rounding error.

<sup>b</sup>Percentage of active hunters that harvested at least 1 bird. This estimate is equal to the percentage of active initial permit buyers that harvested a bird.

<sup>c</sup>Percentage of harvest taken with a second turkey game tag.

**Table 4. Continued...**

Year	Harvest						Total <sup>a</sup>	95% CI	Overall Success <sup>b</sup>	95% CI
	Archery	95% CI	Firearms	95% CI	Crossbow	95% CI				
1994	NE	NE	NE	NE	NA	NA	13,008	NE	38%	NE
1995	NE	NE	NE	NE	NA	NA	14,953	NE	48%	NE
1996	NE	NE	NE	NE	NA	NA	12,612	NE	56%	NE
1997	NE	NE	NE	NE	NA	NA	16,198	NE	60%	NE
1998	NE	NE	NE	NE	NA	NA	16,954	NE	56%	NE
1999	NE	NE	NE	NE	NA	NA	18,165	NE	49%	NE
2000	NE	NE	NE	NE	NA	NA	17,215	NE	56%	NE
2001	NE	NE	NE	NE	NA	NA	20,247	NE	46%	NE
2002	NE	NE	NE	NE	NA	NA	29,868	NE	67%	NE
2003	NE	NE	NE	NE	NA	NA	32,945	NE	62%	NE
2004	NE	NE	NE	NE	NA	NA	31,023	NE	58%	NE
2005	1,127	(911 - 1,392)	31,788	(31,523 - 32,004)	NA	NA	34,727 (17.6%) <sup>c</sup>	(33,658 - 35,796)	70%	(68% - 72%)
2006	1,452	(1,192 - 1,765)	31,713	(31,401 - 31,973)	NA	NA	34,164 (21.7%)	(32,953 - 35,376)	66%	(65% - 68%)
2007	2,552	(2,170 - 2,996)	31,010	(30,566 - 31,392)	NA	NA	33,913 (23.0%)	(32,506 - 35,322)	62%	(60% - 64%)
2008	3,025	(2,599 - 3,513)	31,742	(31,254 - 32,168)	NA	NA	35,040 (24.8%)	(33,615 - 36,465)	65%	(63% - 67%)
2009	2,304	(1,953 - 2,712)	30,611	(30,201 - 30,963)	17	(3 - 99)	33,350 (22.4%)	(32,007 - 34,694)	61%	(59% - 63%)
2010	3,357	(3,058 - 3,682)	31,268	(30,941 - 31,570)	59	(28 - 121)	34,991 (27.1%)	(34,053 - 35,929)	63%	(61% - 64%)
2011	3,409	(3,065 - 3,787)	28,223	(27,840 - 28,573)	111	(61 - 205)	32,298 (24.0%)	(31,149 - 33,448)	61%	(59% - 63%)

<sup>a</sup>Total may not equal to sum of weapon-specific estimates due to rounding error.

<sup>b</sup>Percentage of active hunters that harvested at least 1 bird. This estimate is equal to the percentage of active initial permit buyers that harvested a bird.

<sup>c</sup>Percentage of harvest taken with a second turkey game tag.

**Table 5. Statewide estimates of spring wild turkey hunter success (%) in Kansas for residents and non-residents using the initial permit and the additional game tag, 2005-2011.**

Year	Initial Permit				Game Tag			
	Resident	95% CI	Non-Resident	95% CI	Resident	95% CI	Non-Resident	95% C.I.
2005	65%	(63% - 68%)	76%	(73% - 78%)	48%	(44% - 52%)	55%	(51% - 59%)
2006	63%	(60% - 65%)	75%	(72% - 78%)	44%	(40% - 47%)	56%	(52% - 61%)
2007	59%	(56% - 61%)	69%	(65% - 72%)	41%	(37% - 45%)	49%	(44% - 53%)
2008	59%	(56% - 61%)	77%	(74% - 80%)	43%	(39% - 47%)	54%	(49% - 58%)
2009	56%	(54% - 59%)	70%	(67% - 73%)	40%	(36% - 44%)	46%	(42% - 51%)
2010	58%	(56% - 59%)	72%	(70% - 74%)	38%	(36% - 41%)	55%	(52% - 58%)
2011	56%	(53% - 58%)	69%	(67% - 72%)	31%	(28% - 34%)	45%	(41% - 48%)

**Table 6. Regional and statewide estimates of turkey harvest and the number of hunters using each of Kansas' primary land types during the spring 2011 season.**

Variable -Region	Land Type					
	WIHA <sup>a</sup>	95% CI	Public	95% CI	Private	95% CI
<b>Hunters<sup>b</sup></b>						
Northcentral	2,252	(1,974 – 2,554)	1,679	(1,432 – 1,957)	6,623	(6,338 – 6,880)
Northeast	1,439	(1,205 – 1,710)	2,052	(1,777 – 2,358)	8,555	(8,254 – 8,825)
Northwest	1,186	(982 – 1,419)	800	(630 – 1,005)	4,611	(4,393 – 4,795)
Southcentral	520	(384 – 698)	840	(665 – 1,051)	5,490	(5,286 – 5,656)
Southeast	493	(361 – 669)	1,146	(941 – 1,385)	6,276	(6,050 – 6,465)
Southwest	227	(143 – 351)	333	(230 – 474)	2,252	(2,111 – 2,355)
Statewide	6,116	(5,619 – 6,650)	6,849	(6,326 – 7,406)	33,806	(33,250 – 34,328)
<b>Harvest</b>						
Northcentral	588	(444 – 775)	613	(466 – 803)	6,053	(5,656 – 6,455)
Northeast	388	(274 – 547)	700	(542 – 903)	6,766	(6,332 – 7,209)
Northwest	188	(114 – 306)	125	(68 - 228)	3,902	(3,610 – 4,190)
Southcentral	25	(7 – 91)	213	(133 – 338)	3,840	(3,512 – 4,177)
Southeast	88	(42 – 180)	313	(213 - 458)	4,240	(3,894 – 4,597)
Southwest	ND <sup>c</sup>	ND	225	(144 – 349)	1,788	(1,575 – 2,007)
Statewide	1,276	(1,053 – 1,545)	2,189	(1,892 – 2,531)	26,616	(25,751 – 27,489)

<sup>a</sup> WIHA = walk-in-hunting areas.

<sup>b</sup> Many hunters reported hunting on more than one land type. Thus, the sum of the estimates will be greater than the estimated number of active hunters within each region.

<sup>c</sup> ND = no data.



**Figure 2. Continued...**

8. Did you hunt with a crossbow during the regular turkey season (April 13 – May 31, 2011)?  
Crossbows are not legal equipment during the special archery season.

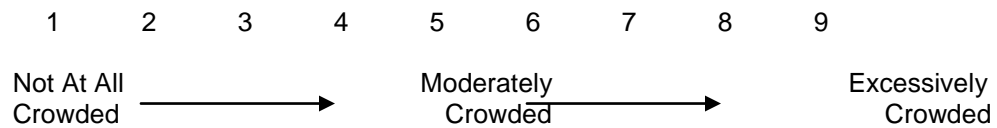
- 1 Yes
- 2 No

9. Did you hunt on a publicly owned property during the spring 2011 season? (If you answer 'NO' proceed to question 12)

- 1 Yes
- 2 No

10. Which publicly owned property did you most often hunt?

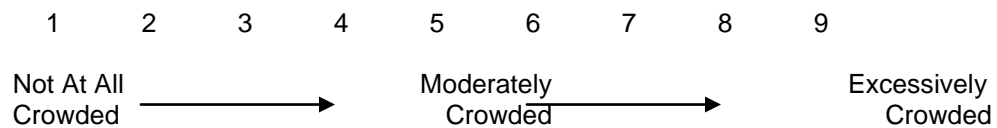
11. On the below scale, how would you describe the turkey hunting conditions on the public area you listed on the previous question. Please circle only one of the choices.



12. Did you turkey hunt any walk-in-hunting area (WIHA) properties during the spring 2011 season? (If you answer 'NO' proceed to question 14)

- 1 Yes
- 2 No

13. On the below scale, how would you describe the turkey hunting conditions on the WIHA areas you hunted. Please circle only one of the choices.



14. Please complete the following table with information about your purchase history and hunting activities for the spring 2011 turkey season. For each permit you purchased please answer all of the questions pertaining to your hunting activity with that permit. If you are not certain of the county or the date of harvest please make your best guess.

		Only answer these questions if you harvested a bird with the specific permit or game tag					
	Did you purchase this permit? (Please circle)	What did you harvest with this permit? (Please circle)	What equipment did you use to harvest this bird? (Please circle)	In which county did harvest occur?	On what <b>specific date</b> did harvest occur? Please make your best guess.  <i>Archery: April 1-12</i> <i>Youth/Disabled: April 1-12</i> <i>General: April 13 – May 31</i>	On which property type was bird harvested? (Please circle)	If bird was harvested on public property, which one?
Initial Permit	Yes  No	Did not Harvest Adult Male Juvenile Male Bearded Female	Archery  Firearm  Crossbow			Private Land  WIHA  Public Property	
Game Tag	Yes  No	Did not Harvest Adult Male Juvenile Male Bearded Female	Archery  Firearm  Crossbow			Private Land  WIHA  Public Property	

**Figure 2. Continued...**

Everyone should answer questions 15-17.

15. How would you best describe your satisfaction with the Kansas turkey management program?

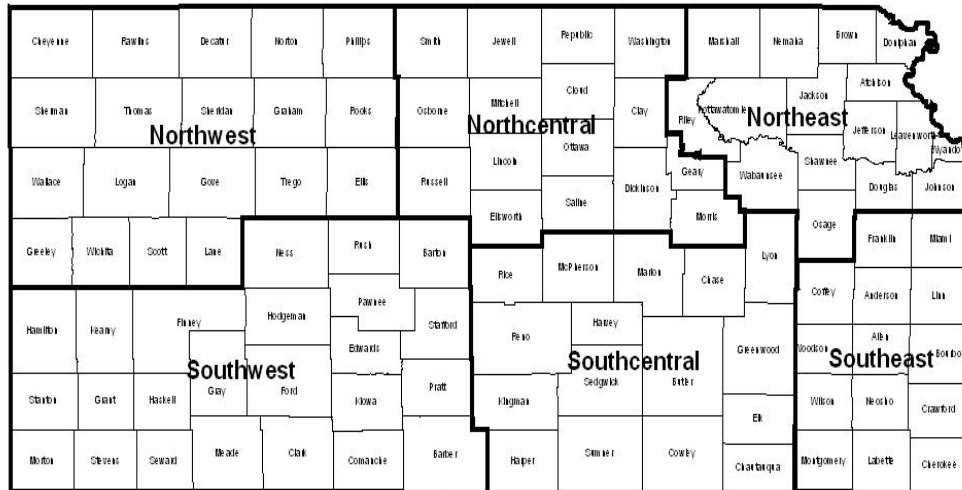
- 1 Very Dissatisfied
- 2 Dissatisfied
- 3 Uncertain
- 4 Satisfied
- 5 Very Satisfied

16. Which of the following best describes your satisfaction with Kansas turkey hunting?

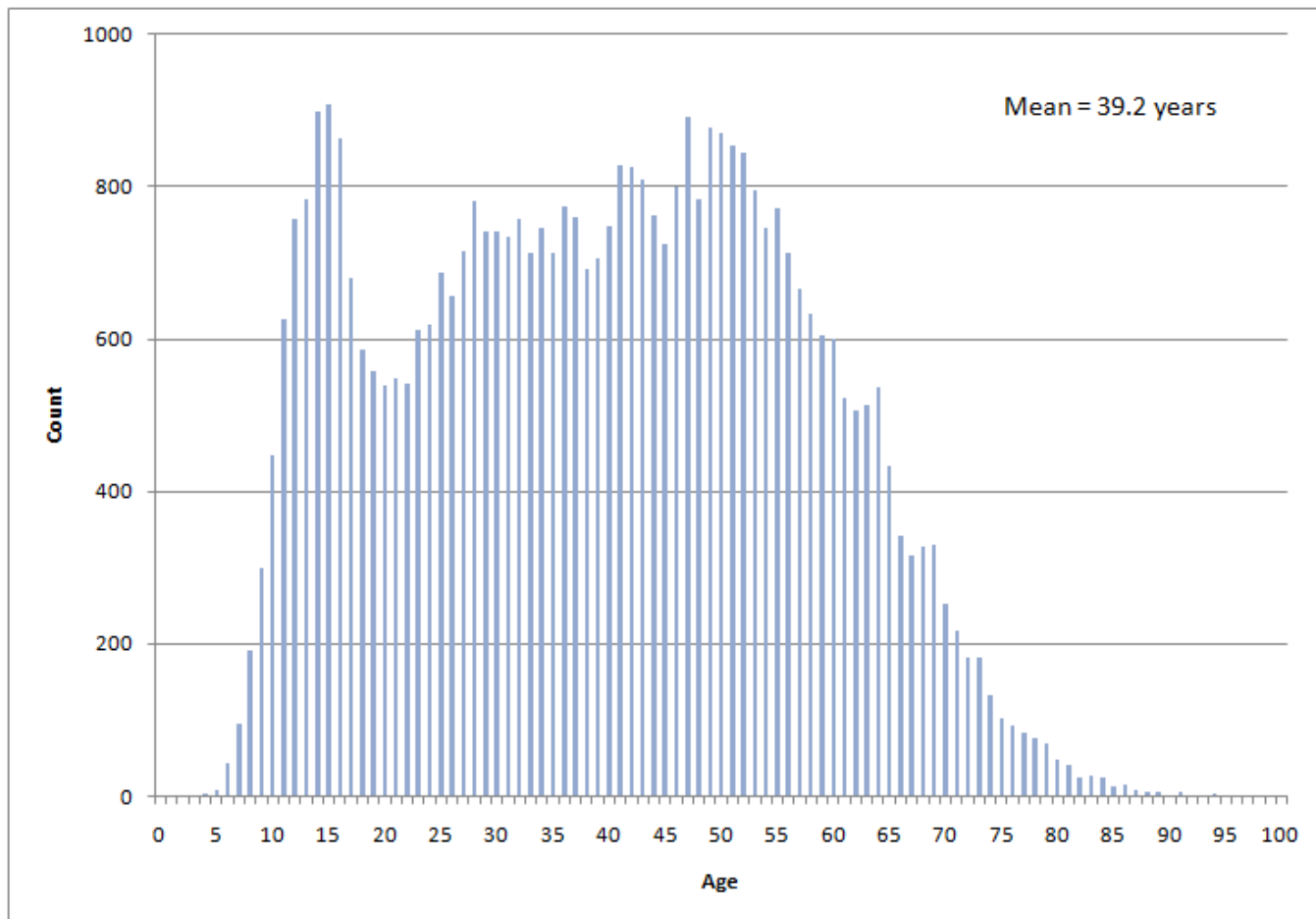
- 1 Very Dissatisfied
- 2 Dissatisfied
- 3 Uncertain
- 4 Satisfied
- 5 Very Satisfied

17. Please include any additional comments. Thank you for your time!

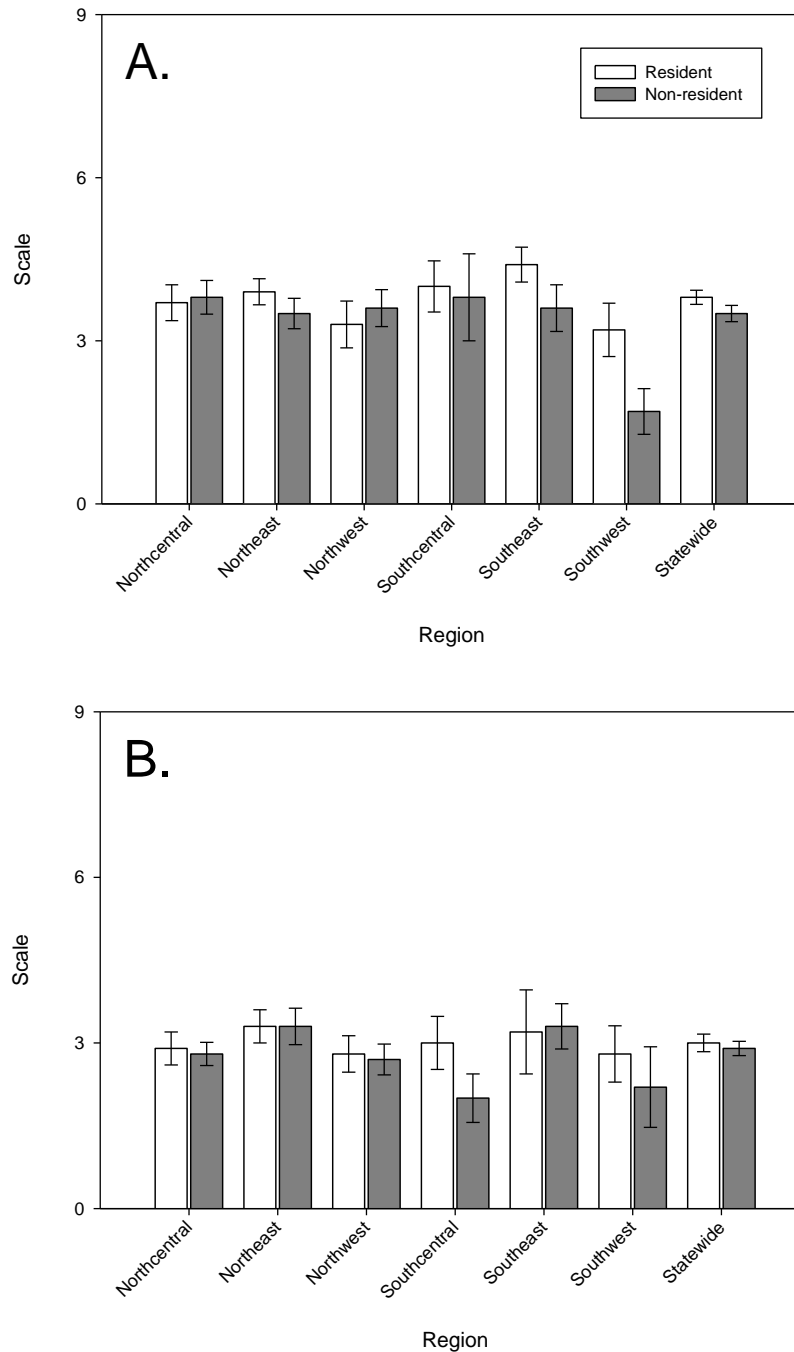
**Figure 3. The 6 wild turkey management regions in Kansas.**



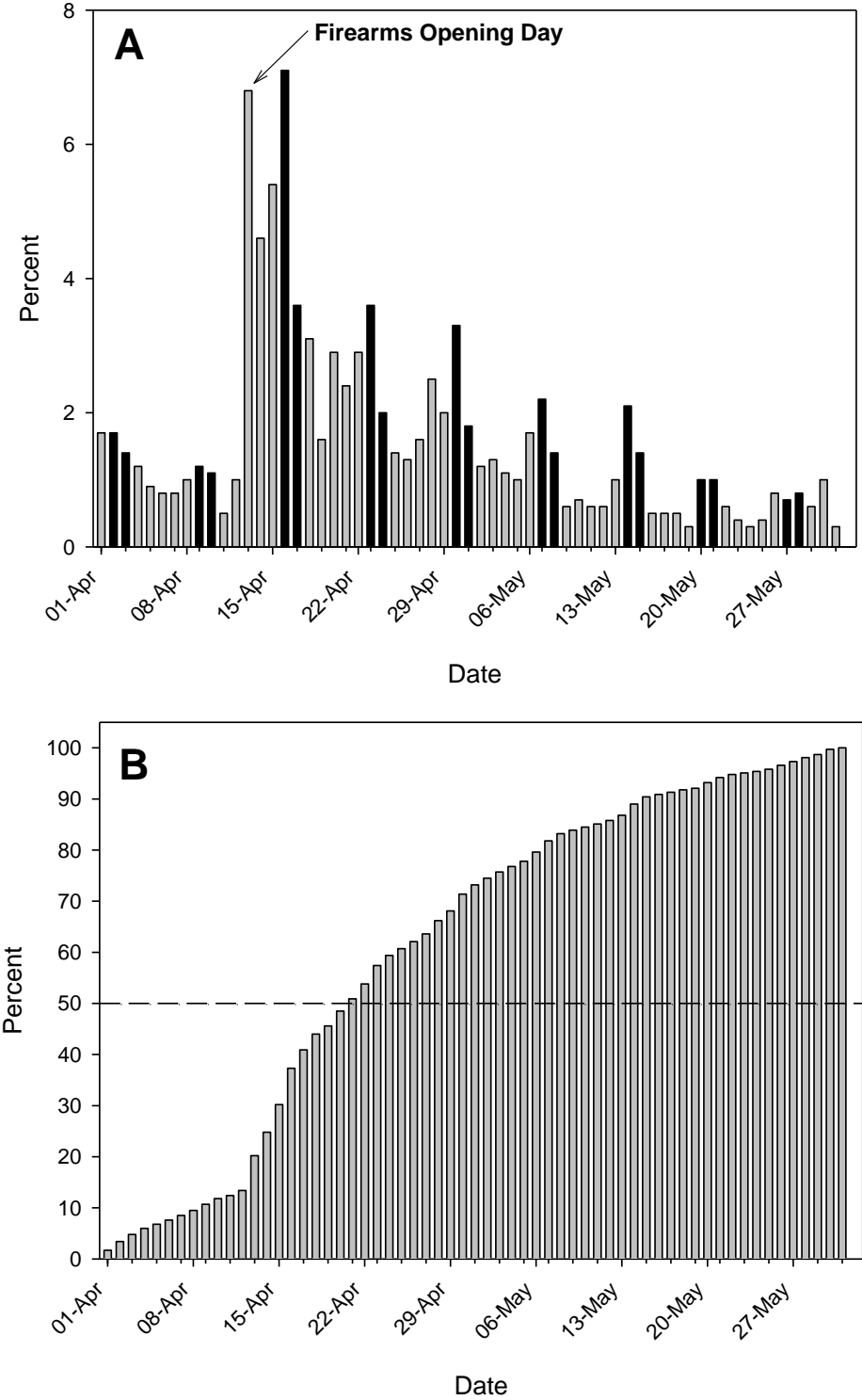
**Figure 4. Age distribution of spring turkey hunters ( $n = 43,103$ ) in Kansas, 2011.**



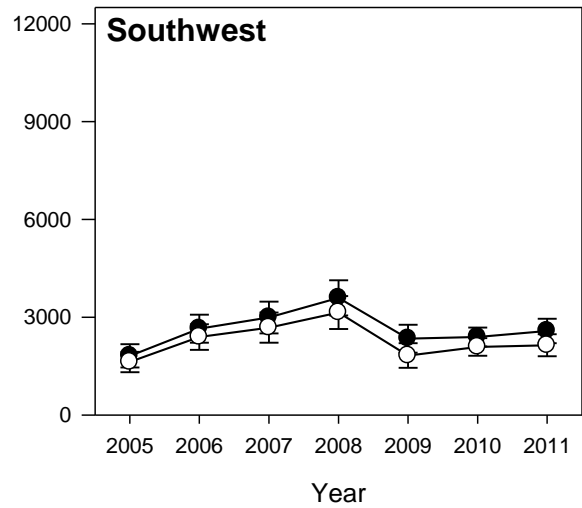
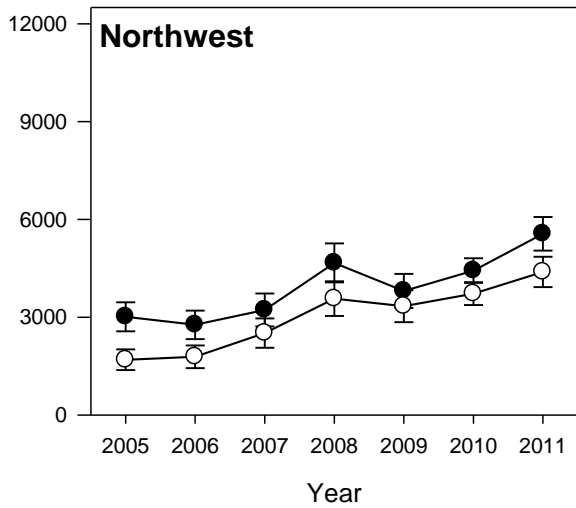
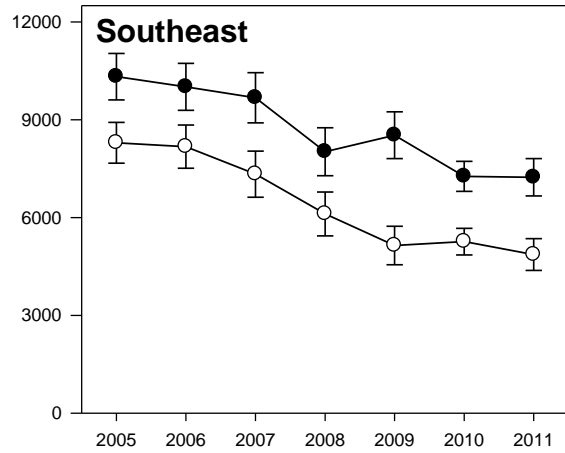
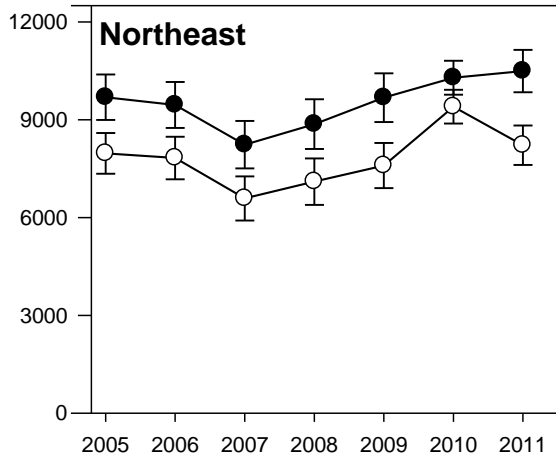
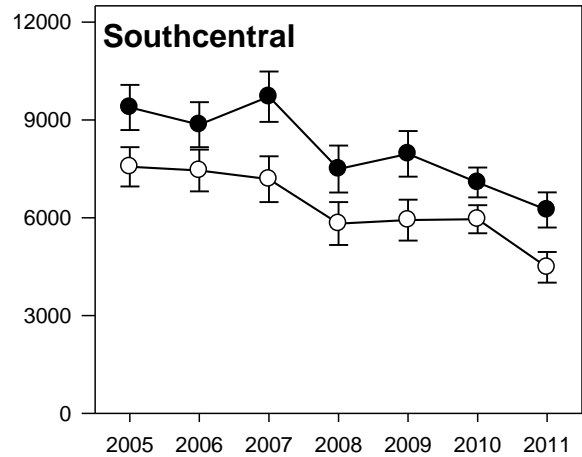
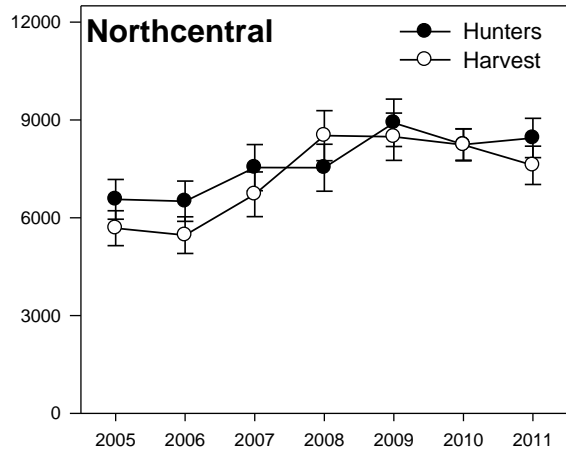
**Figure 5. Regional and statewide indices to hunting pressure on publicly owned areas (A.) and walk-in-hunting areas (B.) as ranked by resident and non-resident hunters who participated in Kansas' spring turkey season, 2011. The error bars indicate 95% confidence intervals. Individuals who hunted one of these property types ranked hunting pressure on a scale of 1-9 with one being lightest and 9 being heaviest.**



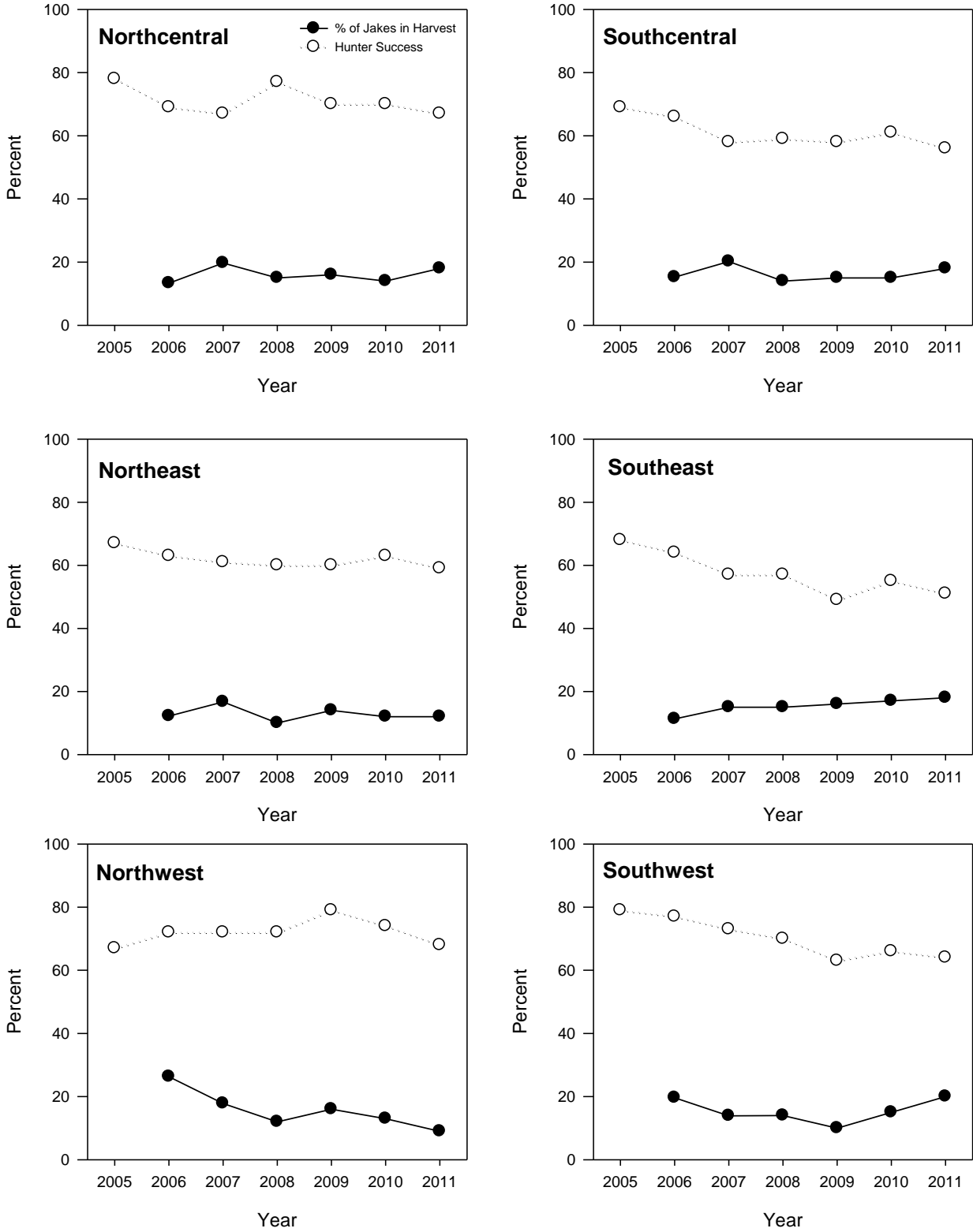
**Figure 6. Daily (A) and cumulative (B) harvest distribution during the spring 2011 wild turkey seasons in Kansas. The black bars on the daily distribution histogram indicate the weekends. The dashed line on the cumulative graph is a reference line at the 50<sup>th</sup> percentile.**



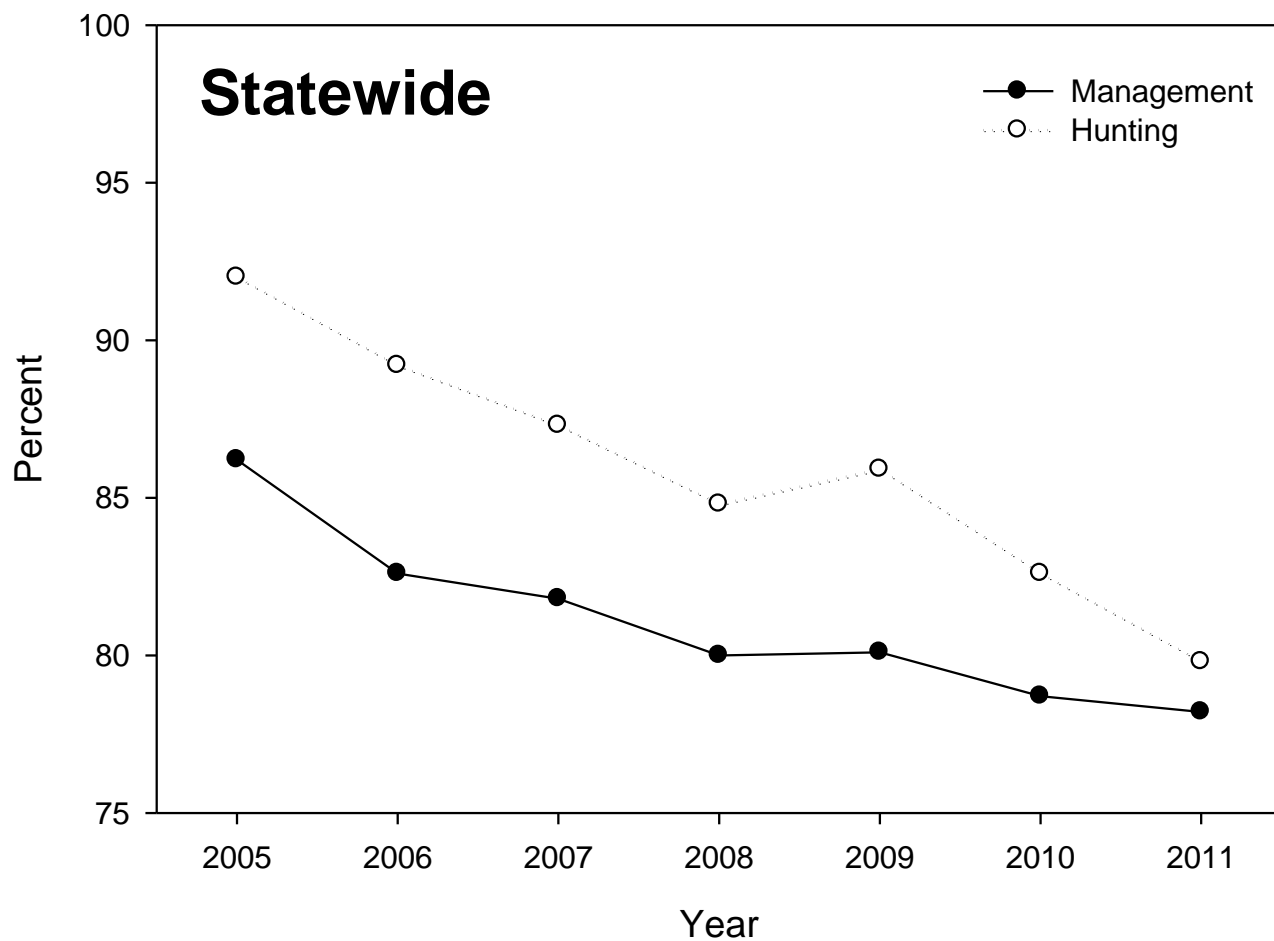
**Figure 7. Regional estimates of spring wild turkey hunter numbers and harvest in Kansas, 2005-2011. The error bars represent the 95% confidence intervals.**



**Figure 8. Percent of active turkey hunters harvesting at least one bird and the percentage of harvest composed of jakes during Kansas' spring turkey seasons, 2005-2011**



**Figure 9. Statewide percentage of Kansas wild turkey hunters that indicated they are ‘satisfied’ or ‘very satisfied’ with management and hunting, 2005-2011.**



**Figure 10. Regional percentages of Kansas wild turkey hunters indicating that they are ‘satisfied’ or ‘very satisfied’ with management and hunting, 2005-2011.**

