

*Trends in Resident and Non-resident Hunter Effort
and Harvest for White-tailed Deer in Mississippi:
1980-81 to 2010-11 Seasons*



**Human Dimensions & Conservation Law Enforcement Laboratory
Forest and Wildlife Research Center
Mississippi State University**

***Trends in Resident and Non-resident Hunter Effort and
Harvest for White-tailed Deer in Mississippi:
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Prepared for the

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INTRODUCTION & METHODS

Self-administered mail surveys of resident hunters have been conducted intermittently since the 1947-48 Mississippi hunting season to estimate hunter effort and game harvest in Mississippi, with annual surveys (unless noted) starting in 1980-1981 season. Non-resident hunter surveys began on an annual basis in 1994 (unless noted).

Annual surveys were completed by the Human Dimensions & Conservation Law Enforcement Laboratory in the Forest & Wildlife Research Center at Mississippi State University from 2001 thru 2011 using mail survey methodology prescribed by Dillman (2000). This entailed an introductory letter being sent to hunters followed one-week later by another letter, questionnaire, and business reply envelope (i.e., a complete packet). Ten days after that, hunters were sent a reminder/thank you postcard. Non-respondents were sent a complete packet as necessary three and seven weeks after the postcard.

These surveys provide information to biologists and researcher to determine trends in total harvest, average seasonal harvest per hunter, average daily harvest per hunter, average person-days spent afield, total person-days spent afield, percent successful hunters, and the proportion of hunters seeking 13 different game species, and feral hog. This report includes mail survey data for white-tailed deer (*Odocoileus virginianus*) spanning from the 1980-81 hunting season to the 2010-11 hunting season for resident hunters, and data spanning from the 1994-95 hunting season to the 2010-11 hunting season for non-resident hunters.

This document will be updated annually with most recent data and will evolve to include other measures and information as that information is extracted from archived files. This report does not attempt to determine and describe trends in hunter effort and harvest. It is meant to provide the reader with the data for these estimates in an organized manner.

LITERATURE CITED

Dillman, D.A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. 2nd Edition. New York: John Wiley and Sons, Inc.

RESULTS

TABLE 1. Mississippi total deer hunting effort and harvest trends for licensed resident hunters
(1980-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENCEES (A)
1981	201,677	5,462	0.077	1.16	49.4	2,419,079	14.14	173,061	82.0
1982	210,684	9,403	0.079	1.26	51.7	2,541,459	15.44	167,063	81.2
1983	243,776	10,093	0.075	1.29	53.5	2,940,847	15.65	189,721	84.6
1984	196,375	8,452	0.072	1.08	49.4	2,595,786	14.51	181,580	80.6
1985	226,743	7,933	0.075	1.20	51.7	2,878,029	15.44	188,428	83.5
1986	234,955	5,524	0.078	1.26	53.5	2,899,327	15.69	187,257	82.4
1987	254,904	9,021	0.075	1.29	53.8	3,317,039	16.96	197,365	86.1
1988	265,217	9,283	0.071	1.33	57.3	3,603,325	18.15	200,067	86.4
1989	-	-	-	-	-	-	-	-	-
1990	262,386	10,271	0.082	1.39	54.1	3,109,769	16.78	188,213	88.6
1991	249,572	9,041	0.081	1.50	58.7	2,867,243	17.48	166,925	78.4
1992	277,714	8,877	0.080	1.56	56.3	3,248,982	18.46	177,323	82.9
1993	300,980	8,569	0.086	1.71	61.1	3,350,077	19.26	175,829	80.9
1994	262,409	5,115	0.093	1.89	66.1	2,611,749	19.06	139,102	81.4
1995	310,100	8,306	0.087	1.80	63.5	3,201,879	18.94	172,267	83.7
1996	335,599	10,018	0.097	2.02	67.4	3,270,848	19.95	166,328	83.1
1997	334,457	9,170	0.097	2.03	66.9	3,087,871	19.95	165,024	83.1
1998	333,218	9,601	0.097	1.96	64.6	3,144,706	18.81	170,003	85.0
1999	276,361	5,688	0.088	1.71	64.5	2,940,096	18.54	161,650	80.9
2000	-	-	-	-	-	-	-	-	-
2001	285,156	7,370	0.090	1.95	68.2	3,018,273	21.07	146,190	74.5
2002	287,540	9,551	0.080	1.88	69.9	3,065,770	20.96	152,623	78.4
2003	296,783	8,769	0.080	2.12	75.8	3,181,957	24.08	140,256	76.3
2004	246,850	9,695	0.080	1.94	71.6	2,390,619	20.25	127,200	69.8
2005	255,732	11,495	0.070	1.97	72.1	2,759,020	22.76	129,780	71.8
2006	256,870	7,858	0.080	2	73.7	2,542,662	21.03	128,180	74.7
2007	297,107	9,142	0.06	2.55	84.7	2,398,844	22.36	116,463	66.7
2008	264,592	8,825	0.09	2.23	79.2	2,545,897	22.92	118,897	67.3
2009	249,764	10,258	0.080	2.24	75.7	2,455,774	24.03	111,572	63.8
2010	238,453	8,737	0.09	2.23	75.4	2,282,113	23.33	106,498	65.8
2011	287,673	10,013	0.09	2.3	77.2	2,669,289	22.8	125,028	76.7

(A) Calculated as a percent of big game license holders only

Figure 1. Trends in total harvest of deer for licensed resident hunters (1980-2011)

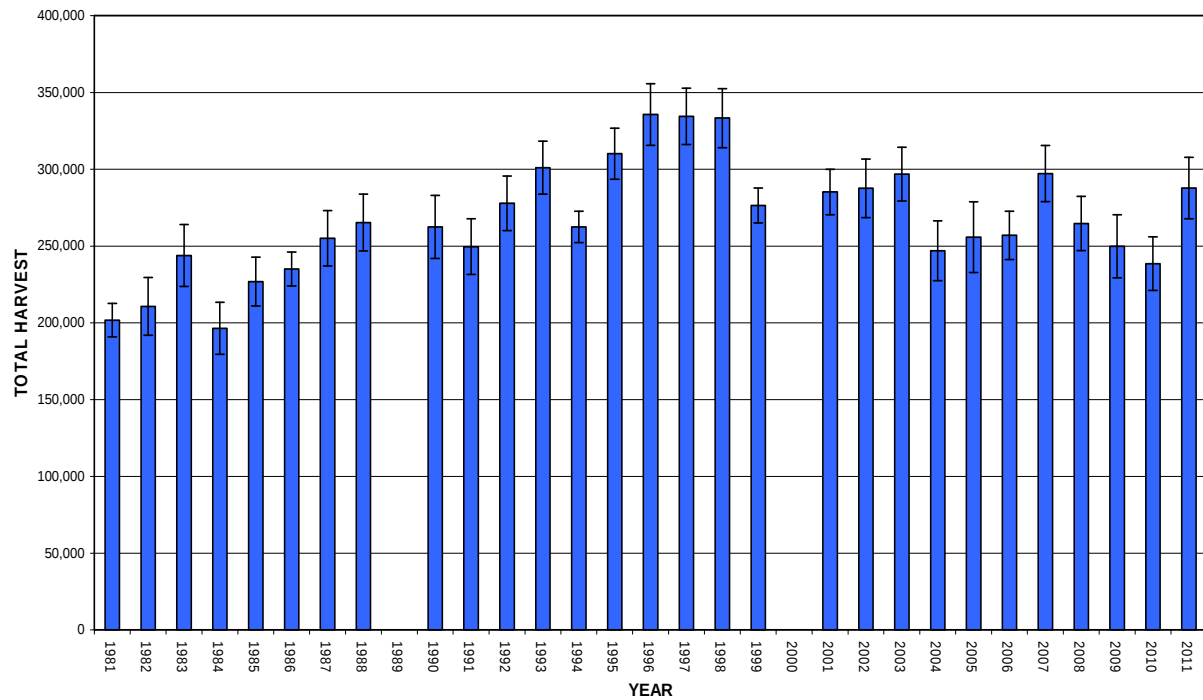


Figure 2. Trends in average daily kill of deer for licensed resident hunters (1980-2011)

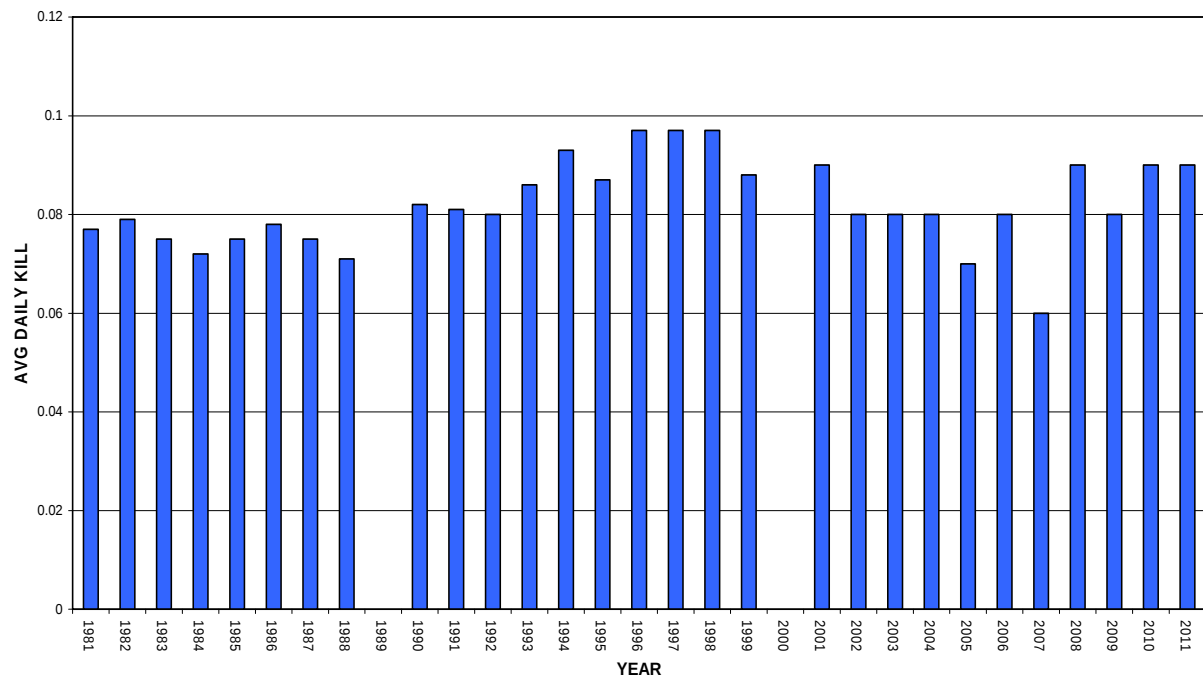


Figure 3. Trends in average seasonal harvest of deer for licensed resident hunters (1980-2011)

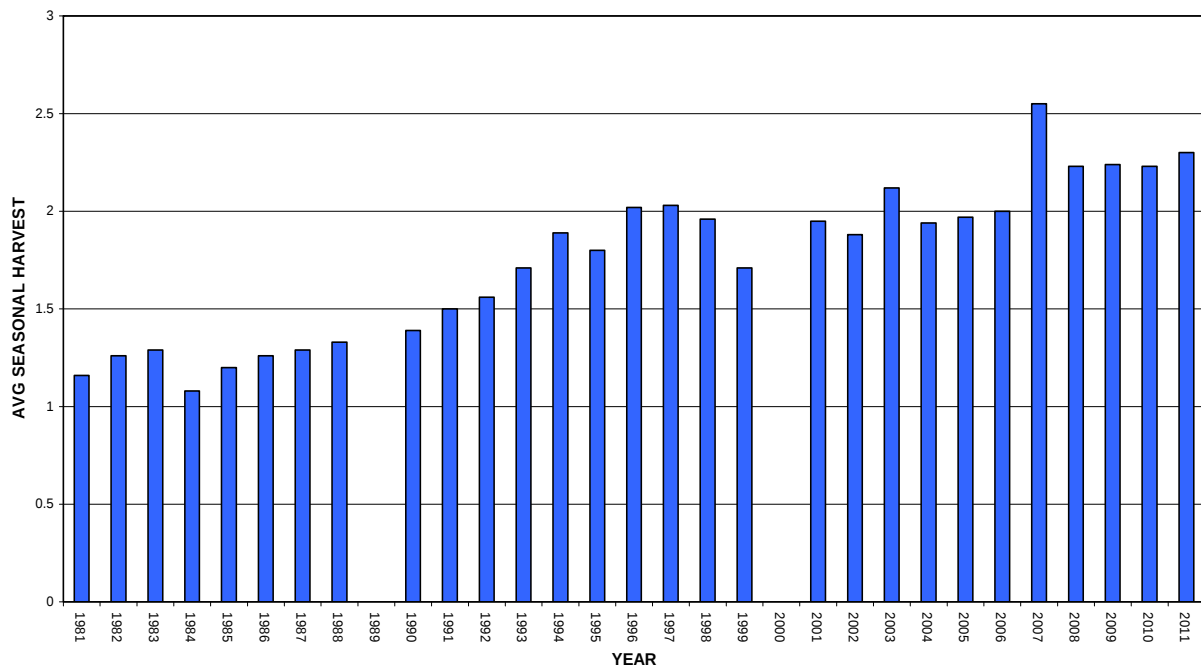


Figure 4. Trends in percent successful deer hunters for licensed resident hunters (1980-2011)

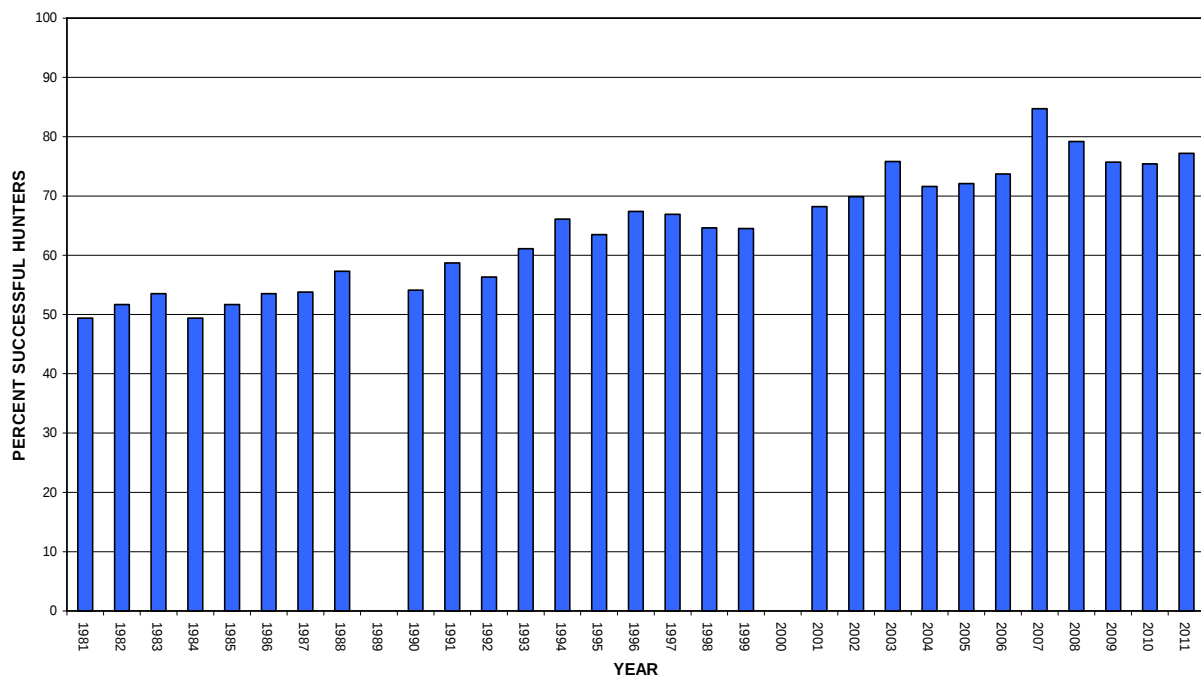


Figure 5. Trends in total man days hunting for licensed resident hunters (1980-2011)

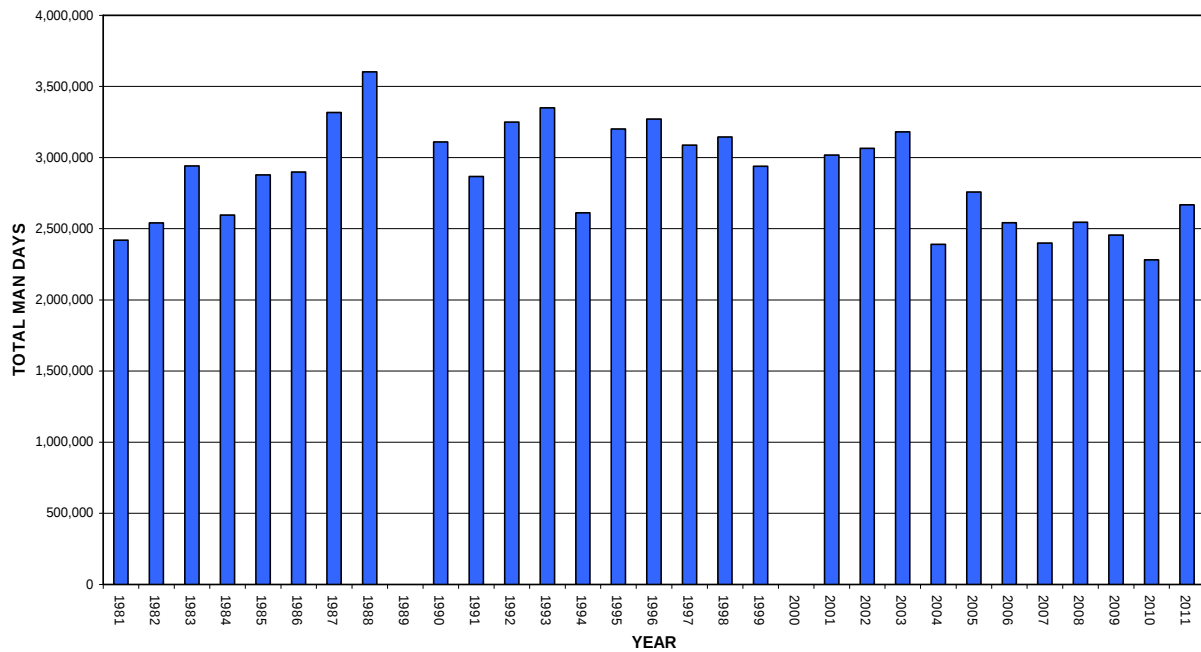


Figure 6. Trends in average seasonal days deer hunting for licensed resident hunters (1980-2011)

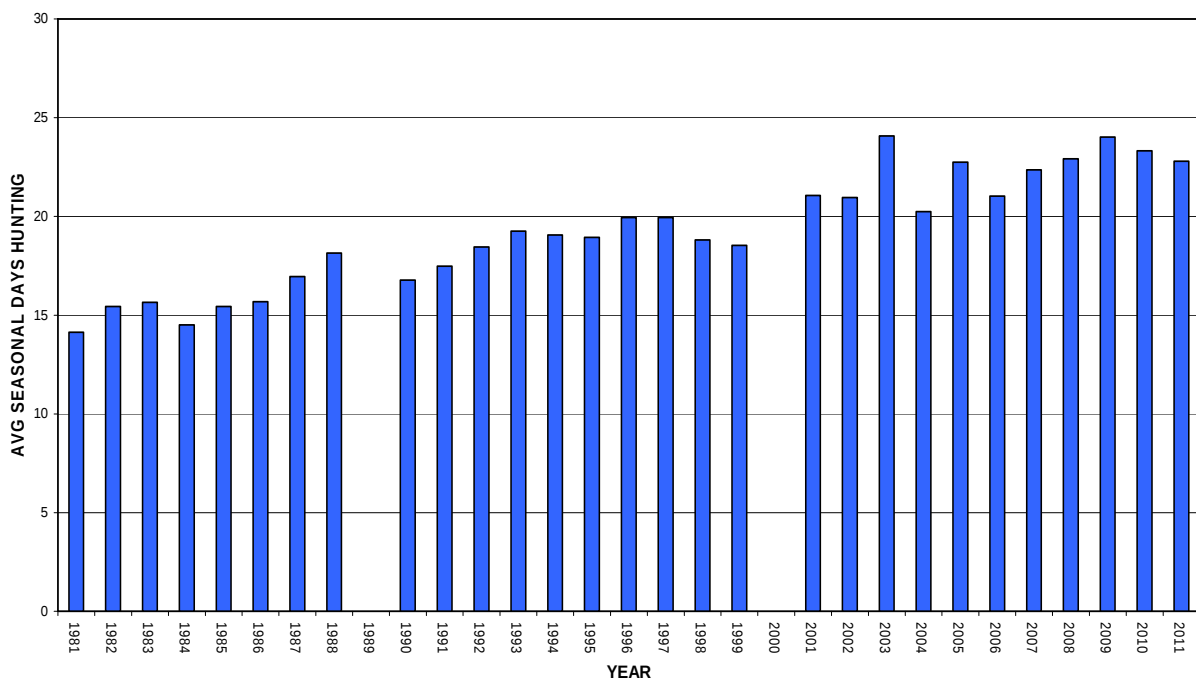


Figure 7. Trends in total deer hunters for licensed resident hunters (1980-2011)

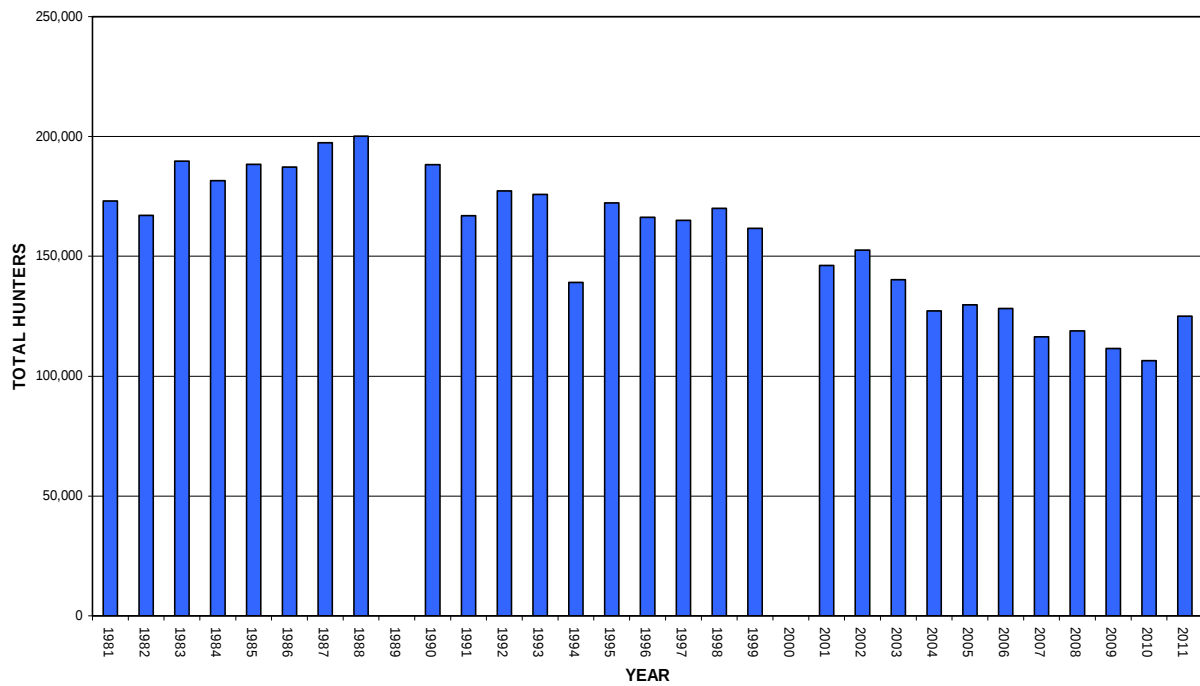


Figure 8. Trends in proportion of licensed resident hunters who hunted for deer (1980-2011)

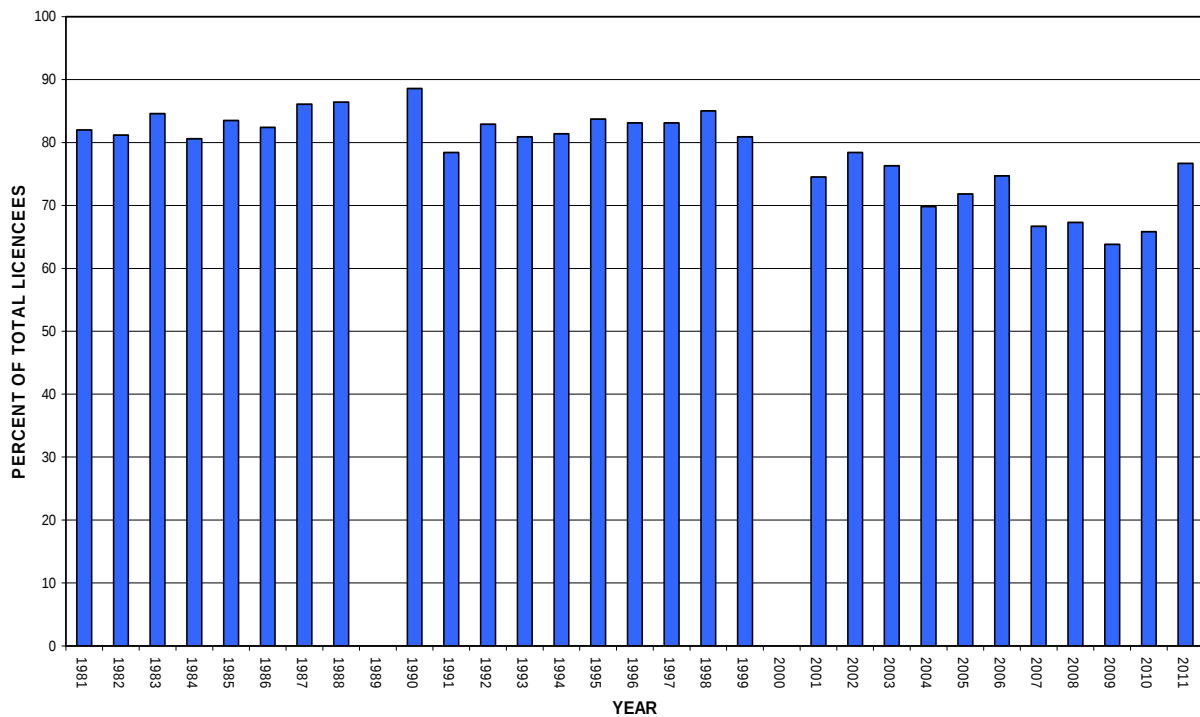


TABLE 2. Mississippi total deer hunting effort and harvest trends for licensed non-resident hunters (1995-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN-DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENCEES (A)
1995	30,444	-	0.136	0.95	0.4	296,718	7.78	26,492	39.3
1996	30,643	-	0.115	0.72	39.7	301,528	7.02	14,443	30.6
1997	-	-	-	-	-	-	-	-	-
1998	36,951	-	0.110	0.64	49.7	321,680	7.94	29,678	39.2
1999	31,035	-	0.106	0.33	28.7	302,987	6.53	31,612	40.5
2000	-	-	-	-	-	-	-	-	-
2001	36,034	883	0.090	1.87	72.3	397,380	20.97	19,281	80.5
2002	37,143	1,715	0.090	1.72	68.3	357,253	17.10	21,540	83.7
2003	29,578	1,179	0.080	1.63	70.8	304,921	17.67	18,119	80.8
2004	28,461	882	0.090	1.57	68.8	271,140	15.54	18,098	83.8
2005	26,718	961	0.080	1.48	67.2	265,103	15.23	18,096	79.6
2006	28,260	926	0.080	1.53	69.2	286,647	16.11	18,520	81.8
2007	26,917	1,408	0.08	1.81	75.93	268,957	19.99	14,572	60.5
2008	30,534	1,379	0.04	0.78	74.11	318,718	17.97	18,698	73.2
2009	29,898	1,456	0.070	1.43	67.3	361,098	18.00	20,903	77.7
2010	32,437	1,531	0.08	1.59	71.1	332,380	17.07	20,456	79.6
2011	34,614	1,709	0.09	1.75	74.8	311,693	16.64	19,802	78.5

(A) Calculated as a percent of big game license holders only

Figure 9. Trends in total harvest of deer for licensed non-resident hunters (1994-2011)

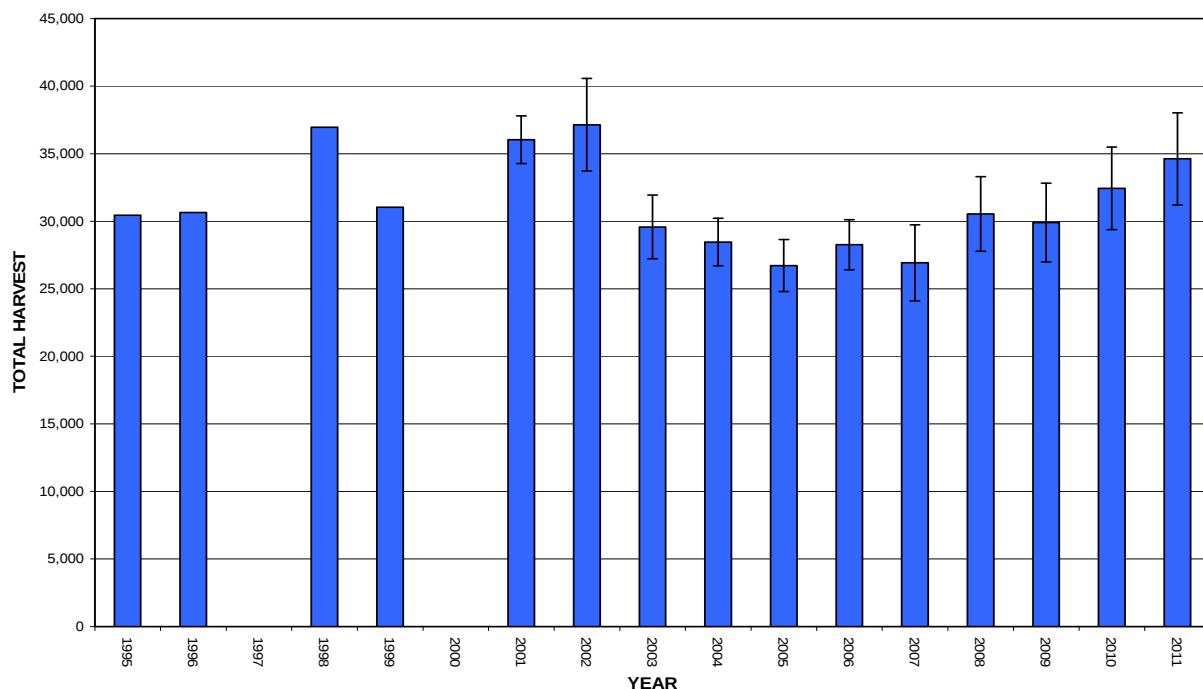


Figure 10. Trends in average daily kill of deer for licensed non-resident hunters (1994-2011)

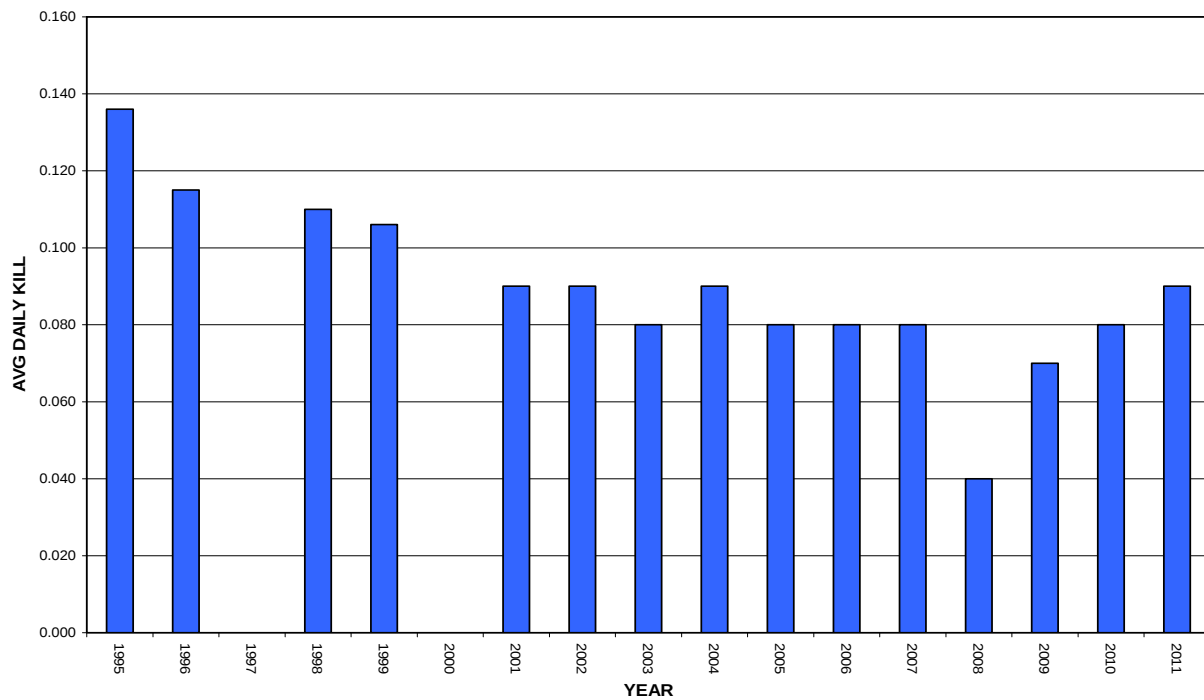


Figure 11. Trends in average seasonal harvest of deer for licensed non-resident hunters (1994-2011)

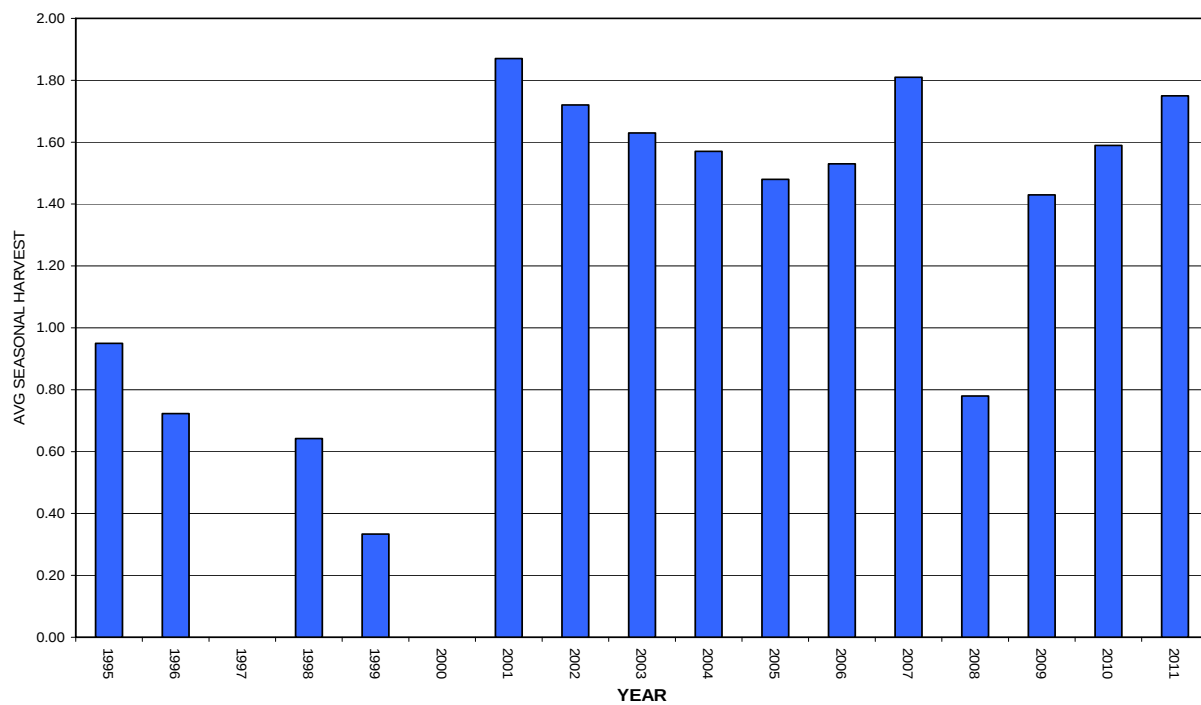


Figure 12. Trends in percent successful deer hunters for licensed non-resident hunters (1994-2011)

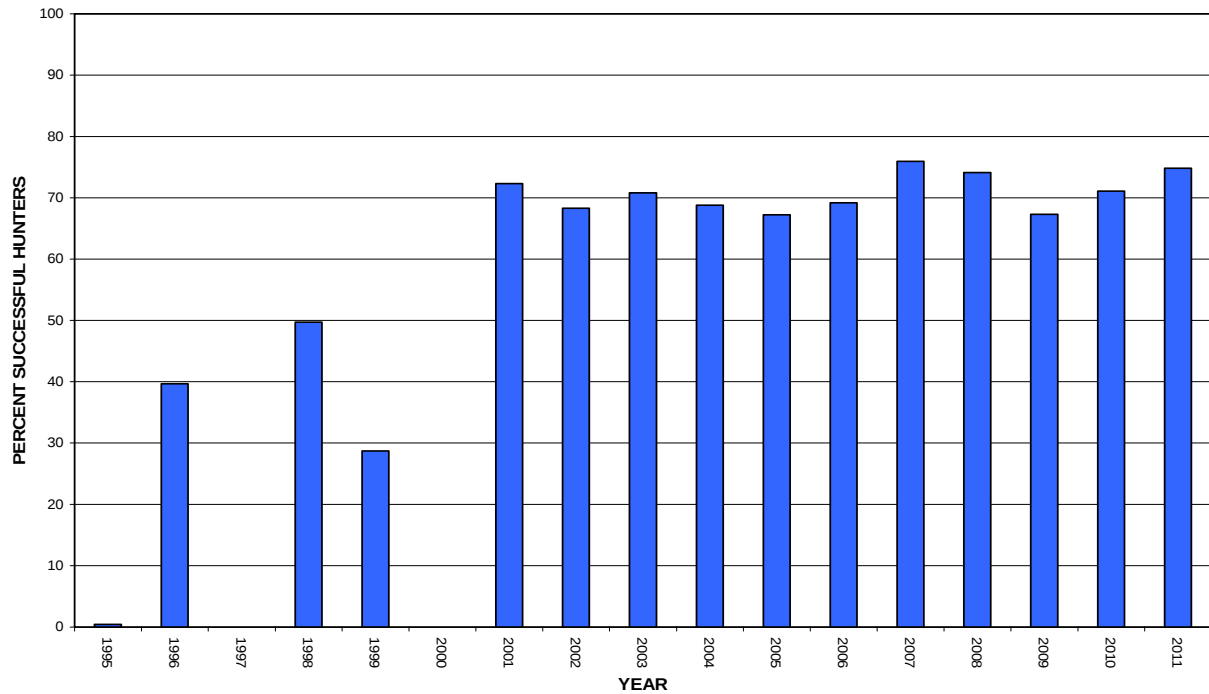


Figure 13. Trends in total man days deer hunting for licensed non-resident hunters (1994-2011)

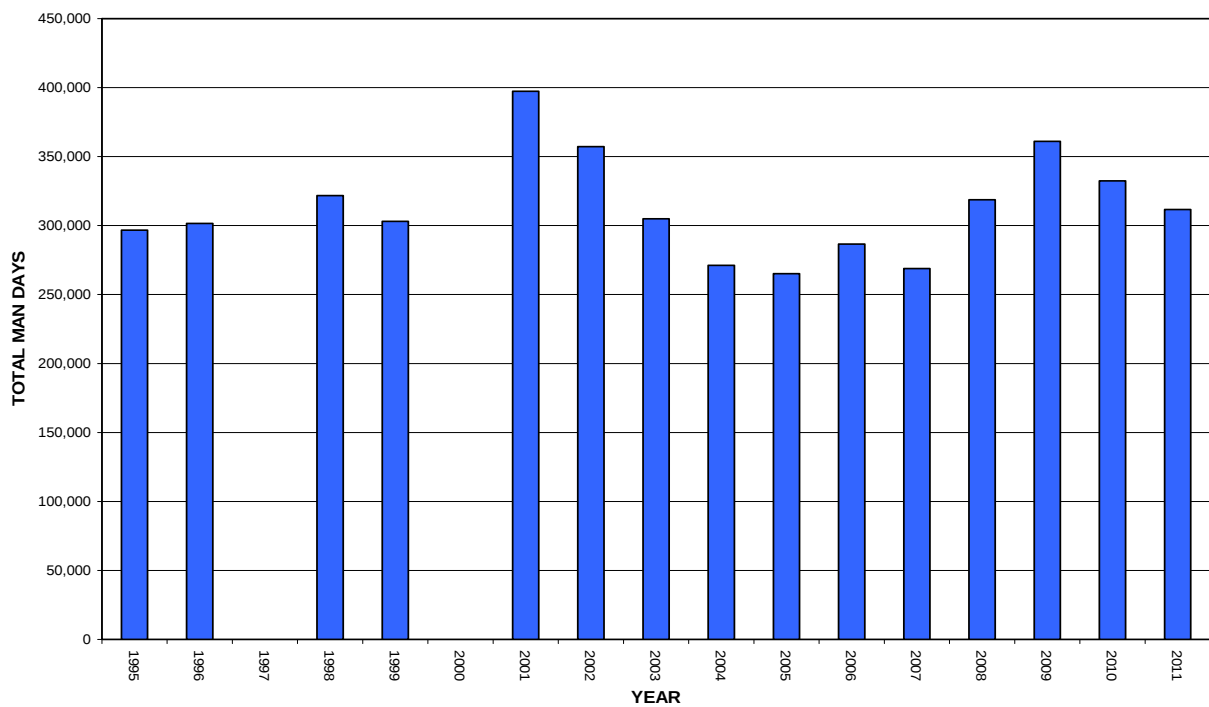


Figure 14. Trends in average seasonal days deer hunting for licensed non-resident hunters (1994-2011)

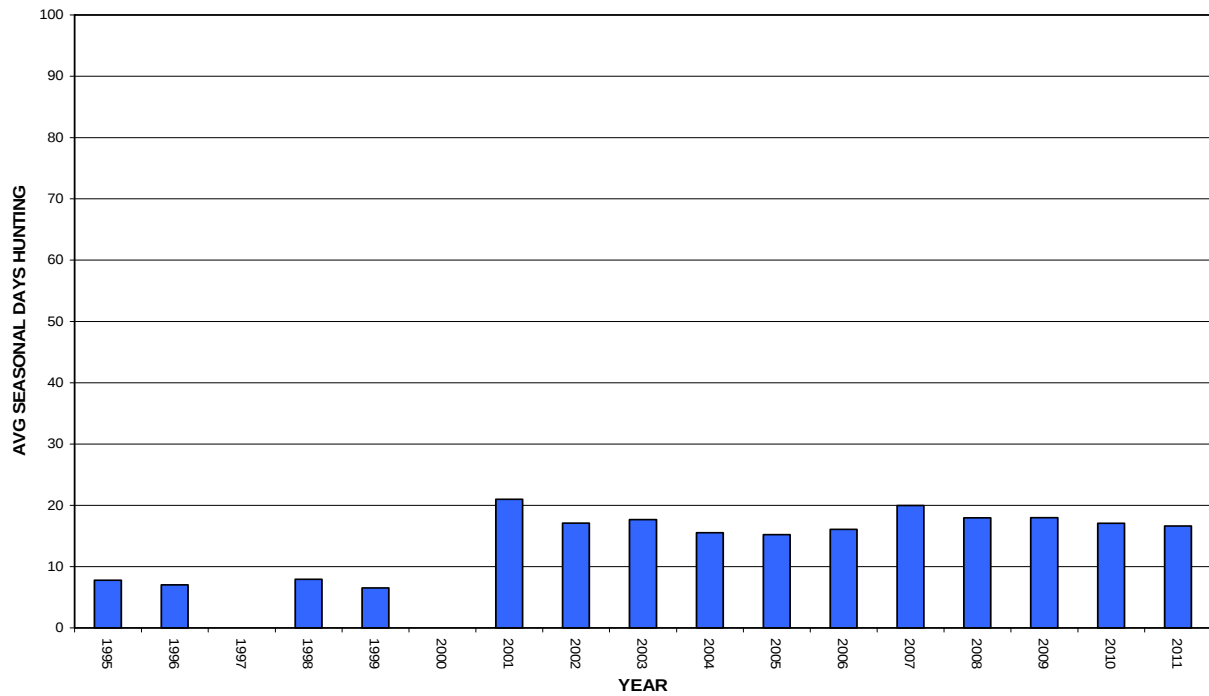


Figure 15. Trends in total deer hunters for licensed non-resident hunters (1994-2011)

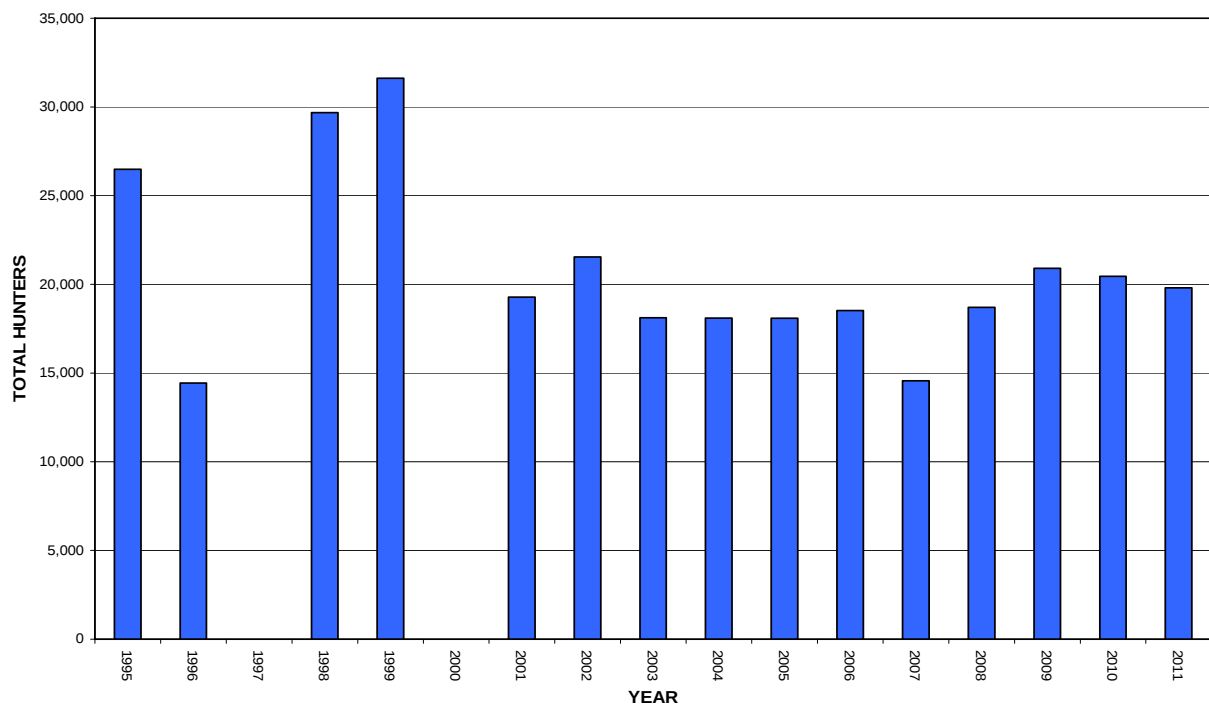
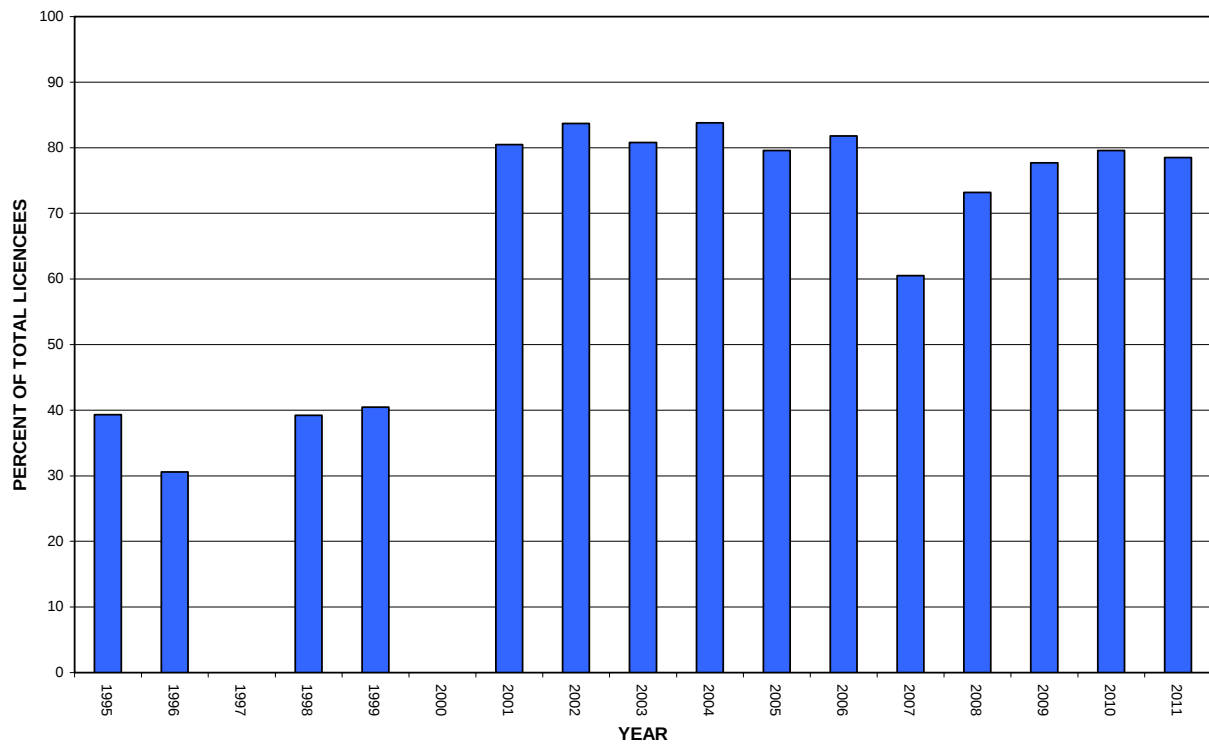


Figure 16. Trends in proportion of licensed non-resident hunters who hunted for deer (1994-2011)



Total Buck Hunting Effort and Harvest Trends for Licensed Resident and Non-resident Hunters: 1980 to the Present

TABLE 3. Mississippi total buck hunting effort and harvest trends for licensed resident hunters (1980-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1981	158,102	4,274	0.061	0.91	45.1
1982	166,276	7,580	0.062	1.00	47.6
1983	190,259	8,314	0.059	1.00	48.1
1984	151,093	6,742	0.054	0.83	44.2
1985	182,414	6,551	0.060	0.97	48.0
1986	183,164	4,406	0.061	0.98	49.1
1987	196,243	7,134	0.058	0.99	48.9
1988	210,154	7,420	0.057	1.06	53.4
1989	-	-	-	-	-
1990	186,337	7,069	0.058	0.99	48.6
1991	175,304	6,581	0.057	1.05	51.8
1992	197,006	6,261	0.058	1.11	49.8
1993	211,820	6,376	0.060	1.20	54.0
1994	178,083	3,638	0.063	1.28	58.4
1995	193,733	5,336	0.055	1.12	55.0
1996	164,466	5,264	0.047	0.99	53.3
1997	159,952	4,852	0.047	0.97	51.4
1998	166,077	5,245	0.048	0.98	50.4
1999	142,027	3,320	0.045	0.88	49.1
2000	-	-	-	-	-
2001	145,167	4,006	0.040	0.99	54.3
2002	145,117	5,307	0.040	0.95	54.7
2003	146,764	4,858	0.040	1.05	59.9
2004	118,938	5,274	0.020	0.26	21.9
2005	125,750	6,351	0.040	0.97	54.2
2006	130,629	4,304	0.040	1.02	59.2
2007	141,115	4,877	0.08	1.21	67.3
2008	125,788	4,682	0.04	1.06	61.1
2009	117,245	5,449	0.040	1.05	58.5
2010	108,483	4,588	0.04	1.02	57.5
2011	128,584	4,934	0.04	1.03	59.7

TABLE 4. Mississippi total buck hunting effort and harvest trends for licensed non-resident hunters (1994-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1995	18,173	-	0.068	0.49	29.5
1996	13,846	-	0.045	0.30	23.7
1997	-	-	-	-	-
1998	15,446	-	0.050	0.39	27.9
1999	13,676	-	0.058	0.32	28.4
2000	-	-	-	-	-
2001	16,565	489	0.040	0.86	52.0
2002	18,199	754	0.040	0.84	51.6
2003	13,872	641	0.040	0.76	51.9
2004	13,272	508	0.040	0.73	48.5
2005	12,898	546	0.040	0.71	48.1
2006	13,489	519	0.010	0.73	49.4
2007	12,784	762	0.04	0.86	56.48
2008	14,654	774	0.04	0.85	54.61
2009	14,408	851	0.040	0.69	45.9
2010	14,222	793	0.04	0.7	50.2
2011	14,087	846	0.040	0.71	49.2

Total Doe Hunting Effort and Harvest Trends for Licensed Resident and Non-resident Hunters: 1980 to the Present

TABLE 5. Mississippi total doe hunting effort and harvest trends for licensed resident hunters (1980-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1981	43,558	2,471	0.016	0.25	15.8
1982	45,373	3,623	0.017	0.27	17.6
1983	53,537	3,701	0.017	0.28	20.4
1984	45,220	3,598	0.017	0.25	16.5
1985	44,634	2,839	0.015	0.24	16.6
1986	51,882	2,182	0.017	0.28	19.3
1987	58,564	3,575	0.017	0.30	21.1
1988	55,030	3,663	0.015	0.28	18.7
1989	-	-	-	-	-
1990	72,856	4,781	0.022	0.38	22.6
1991	72,439	3,935	0.024	0.44	26.9
1992	80,874	4,420	0.022	0.46	26.8
1993	90,191	3,982	0.026	0.51	30.9
1994	84,324	2,338	0.030	0.61	36.1
1995	116,447	4,447	0.033	0.68	36.6
1996	170,629	6,668	0.050	1.03	46.9
1997	174,178	5,966	0.050	1.06	47.5
1998	166,495	5,988	0.048	0.98	45.4
1999	133,565	3,492	0.043	0.83	43.2
2000	-	-	-	-	-
2001	139,989	4,819	0.040	0.96	48.1
2002	142,423	6,082	0.040	0.93	48.7
2003	150,018	5,546	0.040	1.07	54.2
2004	127,912	5,895	0.040	0.64	45.5
2005	129,982	7,285	0.040	1.00	50.6
2006	126,241	4,859	0.040	0.98	51.6
2007	155,992	5,749	0.02	1.34	64.4
2008	138,804	5,538	0.05	1.17	58.6
2009	132,519	6,500	0.040	1.19	57.5
2010	129,970	5,534	0.05	1.22	58.6
2011	159,089	6,714	0.05	1.27	57.9

TABLE 6. Mississippi total doe hunting effort and harvest trends for licensed non-resident hunters (1994-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS
1995	12,365	-	0.070	0.45	27.5
1996	16,748	-	0.070	0.42	28.5
1997	-	-	-	-	-
1998	21,505	-	0.068	0.53	31.6
1999	17,359	-	0.153	0.34	29.1
2000	-	-	-	-	-
2001	19,469	580	0.040	0.47	34.2
2002	18,945	1,295	0.040	0.87	46.3
2003	15,706	790	0.040	0.87	49.9
2004	15,190	586	0.050	0.84	49.4
2005	13,821	642	0.040	0.76	45.3
2006	14,771	599	0.040	0.80	47.7
2007	14,133	945	0.04	0.95	52.55
2008	15,880	930	0.07	0.76	49.65
2009	15,490	974	0.040	0.74	46.1
2010	18,215	1,067	0.05	0.89	51.8
2011	20,527	1,238	0.050	1.04	56.7