



2016 VERMONT WILDLIFE HARVEST REPORT – WILD TURKEY



VERMONT

FISH & WILDLIFE DEPARTMENT

(802) 828-1000 / www.vtfishandwildlife.com



Most of the programs described in this report are funded through the *Federal Aid in Wildlife Restoration Program*. This program was initiated in 1937 as the Federal Aid in Wildlife Act and created a system whereby taxes are paid on firearms, ammunition and archery equipment by the public who hunts. Today this excise tax generates over a hundred million dollars each year that are dedicated to state wildlife restoration and management projects across the United States. The State of Vermont uses these monies for acquiring land, and for restoring and managing wildlife. These excise tax dollars, coupled with state hunting license fees, have been the predominant source of money funding the successful restoration and management of Vermont's wildlife resources.

2016 Vermont Wild Turkey Harvest Report

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The MISSION of the Vermont Fish & Wildlife Department is the conservation of fish, wildlife, and plants and their habitats for the people of Vermont.

Vermont Fish & Wildlife Department

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2016 Wild Turkey Report

Wild Turkey Population Status

Vermont's wild turkey population was estimated at 45,000 to 60,000 birds in the fall of 2016. Wild turkeys occur throughout the state and are hunted in all 21 Wildlife Management Units (WMUs) during the spring and fall seasons. Examination of long-term trends of harvest and hunter effort suggests that Vermont's turkey population may have recently stabilized following a dramatic population increase from the mid-1990s through 2008. However, except for 2013, wild turkey populations in Vermont have experienced a slow decline since 2008 (Figures 1 and 2). The reasons for these declines are currently unknown at this time but could be related to stabilizing population levels after reintroduction, shifts in climate, disease, or other unknown causes.

Department staff conduct a brood survey during August and September. The results of the survey are important in tracking annual poult production in the population, as winter severity and spring weather conditions influence chick survival and overall population size. The wild turkey brood Production Index (PI) is the total poults/total adult hens (poults:hen ratio) compiled from the August data. In 2016, the statewide ratio was 2.6 poults:hen (PI). Results of the August brood surveys indicate that overall production was very close to the rolling 3-year average of 2.7 (2013-2015).



FIGURE 1. TOTAL SPRING HARVEST SHOWING DECLINING TREND.

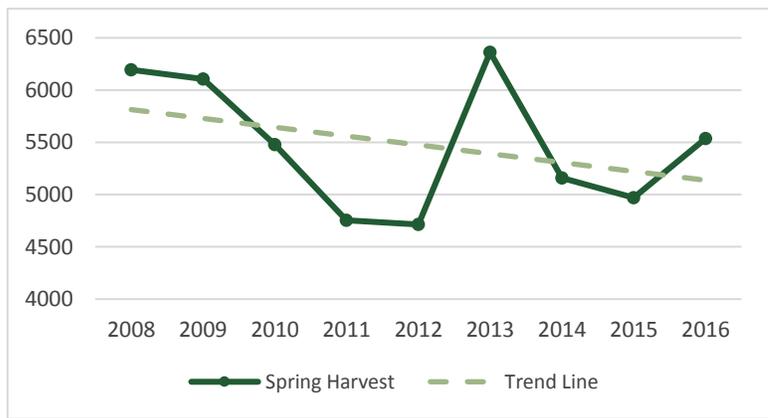
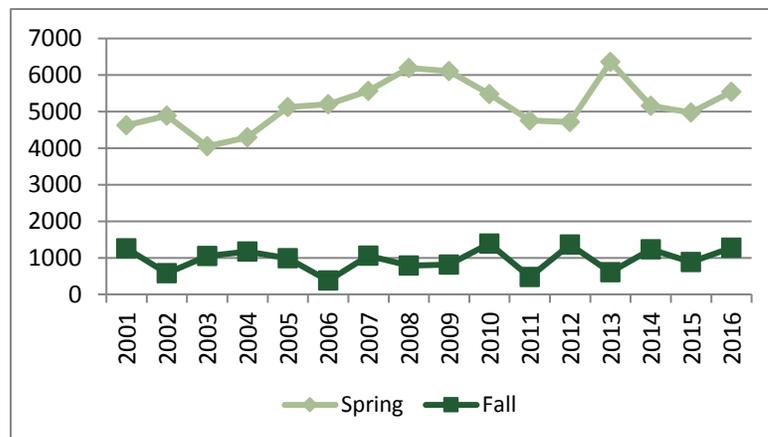


FIGURE 2. TOTAL HARVEST BY SEASON.



2016 Harvest

A total of 7,929 turkey licenses were purchased for the spring and fall turkey seasons, leading to an annual harvest of 6,809 wild turkeys. Of those, 6,065 were bearded turkeys, including bearded females. Turkeys were harvested statewide in all 21 WMUs (Figures 3 and 4). Most turkeys were harvested during the regular spring season (81%). The 2016 fall season harvest of 1,272 either-sex birds was above the rolling 3-year average of 909.

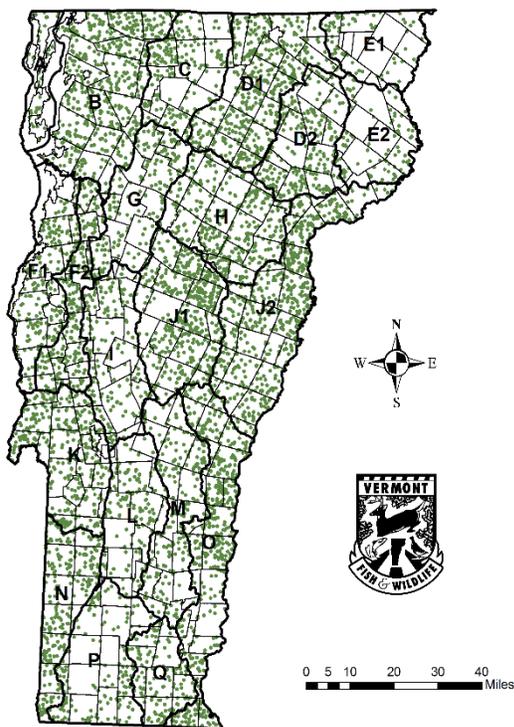
During the 2-day spring youth season, young hunters accompanied by older mentors harvested 662 bearded turkeys (Table 1) and enjoyed a success rate of 31%. This is higher than the previous two years (23%) and combined reflects a 26% rolling 3-year average.

TABLE 1. 2016 SPRING TURKEY HARVEST BY SEASON AND RESIDENCY

Season	Non-Resident	Resident	Total
Youth Turkey Season	22	640	662
Regular May Season	391	4,484	4,875
TOTAL	413	5,124	5,537

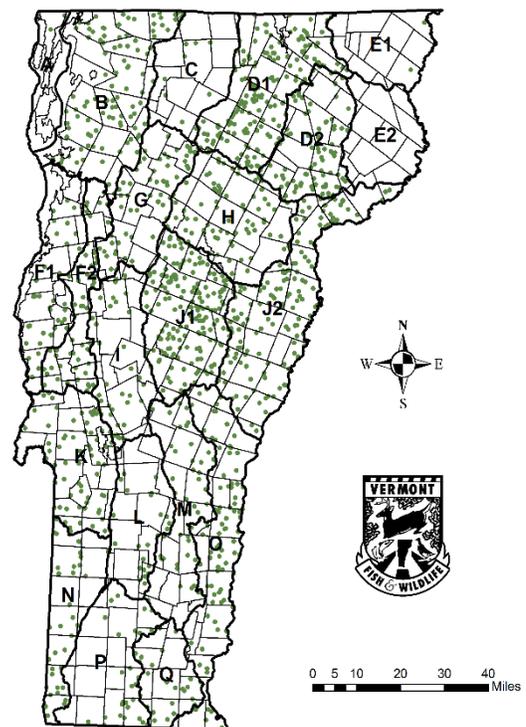
Vermont allows only half-day hunting during both the youth season and the regular spring season. The youth season is the last weekend in April, the regular spring season is through the month of May, while the fall season occurs as either a 9-day or a 16-day season in October with the length varying by WMU. The bag limit is 2 bearded birds in the spring and 1 bird of any sex in the fall. Harvest registration is mandatory for all successful turkey hunters.

FIGURE 3. 2016 SPRING HARVEST DISTRIBUTION BY TOWN AND WMU.



Each dot represents a harvested bird in a town, but does not represent the specific location.

FIGURE 4. 2016 FALL HARVEST DISTRIBUTION BY TOWN AND WMU.



Each dot represents a harvested bird in a town, but does not represent the specific location.

Spring Turkey Season Summary

Vermont's 2016 spring seasons resulted in a harvest of 5,537 bearded birds, which is slightly above the rolling 3-year average of 5,497. The 2016 spring figure includes the 662 turkeys taken during the April youth turkey hunting weekend (Tables 1 and 3). The youth season contribution to the total spring turkey harvest was 12%, which is 2% higher than seen in 2015.

Resident hunters took 93% of the total spring harvest.

Hunter success rates for the regular spring season remained high in 2016 at 21%

(or 21 turkeys harvested for every 100 licensed hunters). As in most years, an impressive 33% of successful hunters also harvested a second bearded bird to fill the 2-bird regular spring season bag limit. Hunting pressure in 2016, measured in terms of spring turkey license sales sold by June 1, 2016 (16,655), was higher than the rolling 3-year average of 16,091 licenses.

TABLE 2. SEX AND AGE OF TOTAL SPRING 2016 HARVEST

Sex	Adult	Immature	Unknown	Total
Bearded Female	17	5	30	52
Male	3,313	2,164	8	5,485
TOTAL	3,330 (60%)	2,169 (39%)	38	5,537

TABLE 3. 2016 SEASON HARVEST BY WILDLIFE MANAGEMENT UNIT

WMU	Mi ² of Habitat	Spring Youth	Regular Spring	Fall Archery	Fall Shotgun	Total Harvest	Spring Harvest Per Mi ² of Harvest**
A	32	1	36	2	—	39	1.16
B	407	80	475	30	78	663	1.36
C	349	8	156	9	2*	176	0.47
D1	446	68	423	8	161	660	1.10
D2	345	36	203	3	85	327	0.69
E1	305	2	44	2	—	48	0.15
E2	325	9	67	—	—	76	0.23
F1	103	35	188	3	35	261	2.17
F2	154	29	245	6	49	329	1.78
G	360	12	128	11	48	199	0.39
H	464	45	343	12	66	466	0.84
I	405	17	129	8	28	182	0.36
J1	462	53	412	29	145	639	1.01
J2	630	76	552	19	128	775	1.00
K	354	50	313	4	60	427	1.03
L	343	15	115	4	20	154	0.38
M	423	13	193	10	32	248	0.49
N	173	34	222	6	29	291	1.48
O	475	47	369	17	72	505	0.88
P	444	7	112	2	25	146	0.27
Q	218	25	150	3	21	199	0.80
TOTAL	7,217	662	4,875	188	1,084	6,809	

*indicates possible illegal harvest

**calculation based on total of youth and regular spring harvest

In 2016, hunters aged 50 years and older could use crossbows to hunt wild turkey and other big game species. In 2015, prior to the new rule, the percentage of the harvest taken by crossbows by hunters with special disability permits was 0.002% (10 birds). The 2016 harvest by crossbow remained low, despite the new rule, at 0.003% (17 birds). Hunters harvested an additional 20 birds by vertical bow in the spring season.

Adult turkeys comprised 60% of the total spring harvest, which is slightly lower than the rolling 3-year average of 63%. The 2016 spring seasons also included 52 bearded hens in the tally (Table 2). Birds were harvested in 241 of Vermont's 253 towns, 32 more towns than were reported for 2015 (Appendix).

Wild turkeys were harvested in all of Vermont's 21 WMUs during the spring seasons (Table 3), including those whose boundaries were adjusted in 2014. Wildlife Management Unit J2 along the Connecticut River had the highest harvest with 628 birds reported. The second highest harvest came from WMU B in the

northern Champlain Valley with 555 birds reported. Lastly, WMU D1 in the Northeast Kingdom had the third highest harvest with 491 birds reported.

In conjunction with WMU boundary adjustments, updated analysis of land cover was also conducted in 2014 to model available turkey habitat based on the new WMU boundaries. Based on these updates, WMU F1 recorded the highest density of turkeys taken with 1.78 bearded turkeys harvested per square mile of forested habitat (Table 3).

Windsor County led among Vermont counties in 2016 with the highest harvest number reported (653 birds) followed by Orange County (577 birds), and Rutland County (531 birds). (Table 4).

Management strategies for wild turkeys in Vermont continue to emphasize high quality spring hunting. The Vermont Fish & Wildlife Department believes this management strategy has helped stimulate a three-fold population increase over the history of the turkey project.

TABLE 4. 2016 REGULAR SPRING AND YOUTH SEASON HARVEST BY COUNTY

County	Adult	Immature	Unknown	Total
Addison	309	157	0	466
Bennington	239	80	0	319
Caledonia	278	235	1	514
Chittenden	178	100	1	279
Essex	65	61	0	126
Franklin	229	266	1	496
Grand Isle	26	11	0	37
Lamoille	151	102	0	253
Orange	332	240	5	577
Orleans	241	230	0	471
Rutland	363	168	0	531
Washington	248	182	0	430
Windham	239	146	0	385
Windsor	450	201	2	653
TOTAL	3,348	2,179	10	5,537

Fall Turkey Season Summary

The 2016 fall season resulted in a harvest of 1,272 either-sex turkeys (Table 3), above the rolling 3-year average of 909. The fall harvest accounted for 19% of the overall harvest for 2016. The annual fall mast surveys indicate both fruits (e.g., apples, berries) and nuts (i.e., acorns and beechnuts) availability was lower than previous years. The higher than average fall harvest may be a reflection consistently stable brood production in 2015 and 2016, and low fall mast production in 2016.

The 2016 fall archery-only season accounted for 188 (15%) of the fall harvested birds, with the balance of the birds (1,084) taken in the shotgun season. Fall birds were taken in 209 Vermont towns. Wildlife Management Unit D1 reported the highest number of fall birds with 169 taken, followed by WMU J1 with 154 birds, and J2 with 147 (Table 3). The region of the state with a 9-day season harvested 0.20 birds per square mile of habitat, while the region of the state open for a 16-day season reported a

harvest of 0.24 birds per square mile of habitat (Table 5). The archery-only portion of the state (open for a 21-day season) harvested very few birds per square mile of habitat (0.01).

As with the spring season, a new rule allowed hunters 50 years or older to use a crossbow to harvest a turkey starting in 2016. Birds taken by crossbows in the 2016 fall season totaled 5% (64 birds) of the total harvest, or 30% of the archery harvest. Vertical bows were used to harvest 11% (146 birds) of the total harvest, or 70% of the archery harvest.

Immature birds comprised 36% of the fall hunting season harvest, while the female cohort accounted for 34% of the fall harvest (Figure 5). There was one immature bird for every adult hen harvested in the fall. A total of 374 adult males were taken in the fall season and 3,313 adult males taken in the spring season, for a total of 3,687 adult male birds in all of 2016.

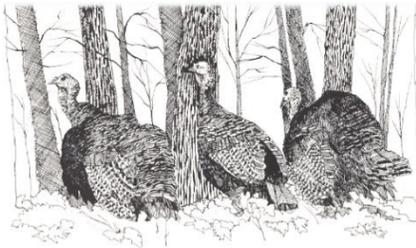


FIGURE 5. 2016 AGE DISTRIBUTION OF FALL HARVEST

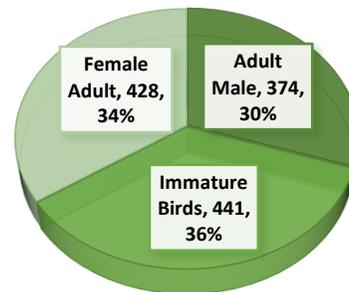


TABLE 5. 2016 FALL HARVEST BY SQUARE MILE AND SEASON LENGTH

Region (WMUs)	Season Length	Birds Harvested Per Mi ² Habitat
F1, F2, K, and N	16-day season	0.24
B, D1, D2, G, H, I, J1, J2, L, M, O, P, and Q	9-day season	0.20
Archery-only A, C, E1, and E2	21-day season	0.01

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
ADDISON	Addison	22	4	26
	Bridport	24	7	31
	Bristol	25	10	35
	Cornwall	23	5	28
	Ferrisburgh	31	3	34
	Goshen	3	1	4
	Granville	6	0	6
	Hancock	8	2	10
	Leicester	9	3	12
	Lincoln	24	6	30
	Middlebury	32	4	36
	Monkton	35	5	40
	New Haven	43	6	49
	Orwell	39	5	44
	Panton	9	1	10
	Ripton	9	0	9
	Salisbury	27	6	33
	Shoreham	28	8	36
	Starksboro	31	13	44
	Waltham	6	0	6
	Weybridge	16	6	22
	Whiting	16	1	17
	TOTAL	466	96	562
BENNINGTON	Arlington	35	4	39
	Bennington	31	8	39
	Dorset	31	2	33
	Glastenbury	4	0	4
	Landgrove	5	2	7
	Manchester	28	0	28
	Peru	6	0	6
	Pownal	45	4	49
	Readsboro	12	5	17
	Rupert	27	7	34
	Sandgate	21	1	22
	Searsburg	4	1	5
	Shaftsbury	38	4	42
	Stamford	12	1	13
	Sunderland	8	1	9
Winhall	8	2	10	

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
BENNINGTON (cont.)	Woodford	4	0	4
	TOTAL	319	42	361
CALEDONIA	Barnet	52	7	59
	Burke	21	5	26
	Danville	62	18	80
	Groton	33	2	35
	Hardwick	46	18	64
	Kirby	16	3	19
	Lyndon	28	15	43
	Newark	9	2	11
	Peacham	28	4	32
	Ryegate	74	10	84
	St. Johnsbury	22	14	36
	Sheffield	15	5	20
	Stannard	7	0	7
	Sutton	26	8	34
	Walden	30	9	39
	Waterford	40	16	56
	Wheelock	5	4	9
		TOTAL	514	140
CHITTENDEN	Bolton	7	2	9
	Charlotte	38	6	44
	Colchester	23	8	31
	Essex	20	1	21
	Hinesburg	31	1	32
	Huntington	13	6	19
	Jericho	11	7	18
	Milton	34	10	44
	Richmond	25	7	32
	St. George	2	1	3
	Shelburne	10	3	13
	Underhill	16	6	22
	Unknown	2	0	2
	Westford	24	3	27
	Williston	22	2	24
	TOTAL	278	63	341

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
ESSEX	Bloomfield	8	1	9
	Brighton	19	3	22
	Brunswick	5	0	5
	Canaan	7	1	8
	Concord	8	2	10
	East Haven	1	0	1
	Ferdinand	3	0	3
	Granby	4	0	4
	Guildhall	10	0	10
	Lemington	4	0	4
	Lunenburg	22	2	24
	Maidstone	15	0	15
	Norton	16	0	16
	Victory	4	0	4
	TOTAL		126	9
FRANKLIN	Bakersfield	22	2	24
	Berkshire	41	10	51
	Enosburg	50	1	51
	Fairfax	36	10	46
	Fairfield	48	8	56
	Fletcher	25	5	30
	Franklin	49	4	53
	Georgia	33	5	38
	Highgate	55	14	69
	Montgomery	22	4	26
	Richford	23	6	29
	St. Albans	23	1	24
	Sheldon	37	6	43
	Swanton	32	1	33
	TOTAL		496	77
GRAND ISLE	Alburgh	12	0	12
	Grand Isle	9	0	9
	Isle LaMotte	2	0	2
	North Hero	7	0	7
	South Hero	7	2	9
	TOTAL		37	2

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
LAMOILLE	Belvidere	1	0	1
	Cambridge	42	8	50
	Eden	23	1	24
	Elmore	17	11	28
	Hyde Park	35	14	49
	Johnson	30	2	32
	Morristown	37	16	53
	Stowe	35	12	47
	Waterville	9	1	10
	Wolcott	24	6	30
	TOTAL	253	71	324
ORANGE	Bradford	36	8	44
	Braintree	31	21	52
	Brookfield	45	24	69
	Chelsea	34	13	47
	Corinth	39	4	43
	Fairlee	13	7	20
	Newbury	71	14	85
	Orange	22	5	27
	Randolph	39	9	48
	Strafford	22	5	27
	Thetford	31	6	37
	Topsham	30	18	48
	Tunbridge	41	13	54
	Vershire	13	3	16
	Washington	26	11	37
	West Fairlee	8	0	8
	Williamstown	77	20	97
	TOTAL	578	181	759
ORLEANS	Albany	31	19	50
	Barton	41	10	51
	Brownington	22	7	29
	Charleston	30	12	42
	Coventry	25	12	37
	Craftsbury	40	19	59
	Derby	30	14	44
	Glover	32	8	40
	Greensboro	32	10	42
	Holland	23	4	27

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
ORLEANS (cont.)	Irasburg	31	5	36
	Jay	6	0	6
	Lowell	11	3	14
	Morgan	19	2	21
	Newport	48	9	57
	Troy	24	7	31
	Westfield	19	2	21
	Westmore	7	2	9
	TOTAL	471	145	616
RUTLAND	Benson	36	4	40
	Brandon	31	7	38
	Castleton	21	5	26
	Chittenden	22	7	29
	Clarendon	18	2	20
	Danby	25	3	28
	Fair Haven	9	4	13
	Hubbardton	19	2	21
	Ira	9	1	10
	Killington	6	0	6
	Mendon	8	0	8
	Middletown Springs	18	6	24
	Mount Holly	27	3	30
	Mount Tabor	5	2	7
	Pawlet	51	10	61
	Pittsfield	7	1	8
	Pittsford	35	13	48
	Poultney	25	4	29
	Proctor	3	0	3
	Rutland	14	7	21
	Shrewsbury	24	2	26
	Sudbury	15	1	16
	Tinmouth	17	5	22
	Wallingford	24	1	25
	Wells	10	4	14
	West Haven	28	0	28
West Rutland	24	6	30	
TOTAL	531	100	631	

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
WASHINGTON	Barre	45	10	55
	Berlin	53	10	63
	Cabot	39	7	46
	Calais	15	3	18
	Duxbury	8	1	9
	East Montpelier	40	8	48
	Fayston	8	2	10
	Marshfield	26	7	33
	Middlesex	17	7	24
	Montpelier	4	3	7
	Moretown	21	15	36
	Northfield	39	20	59
	Plainfield	24	3	27
	Roxbury	7	5	12
	Waitsfield	15	7	22
	Warren	18	4	22
	Waterbury	21	10	31
	Woodbury	12	3	15
	Worcester	18	2	20
		TOTAL	430	127
WINDHAM	Athens	1	0	1
	Brattleboro	18	6	24
	Brookline	7	1	8
	Dover	25	5	30
	Dummerston	32	3	35
	Grafton	2	4	6
	Guilford	43	2	45
	Halifax	34	5	39
	Jamaica	13	5	18
	Londonderry	17	7	24
	Marlboro	13	2	15
	Newfane	9	0	9
	Putney	11	1	12
	Rockingham	15	9	24
	Stratton	8	2	10
	Townshend	22	1	23
	Vernon	23	4	27
	Wardsboro	17	2	19
	Westminster	9	5	14
	Whitingham	15	8	23

APPENDIX. HARVEST BY TOWN (SPRING 2016 AND FALL 2016)

County	Town	Spring 2016 Harvest	Fall 2016 Harvest	Town Total
WINDHAM (cont.)	Wilmington	37	6	43
	Windham	14	0	14
	TOTAL	385	78	463
WINDSOR	Andover	16	5	21
	Baltimore	3	1	4
	Barnard	17	5	22
	Bethel	30	10	40
	Bridgewater	18	4	22
	Cavendish	21	7	28
	Chester	37	6	43
	Hartford	31	4	35
	Hartland	48	5	53
	Ludlow	12	3	15
	Norwich	40	4	44
	Plymouth	22	2	24
	Pomfret	28	6	34
	Reading	12	5	17
	Rochester	27	6	33
	Royalton	29	5	34
	Sharon	26	7	33
	Springfield	66	15	81
	Stockbridge	16	8	24
	Weathersfield	43	14	57
	West Windsor	39	2	41
Weston	12	4	16	
Windsor	26	8	34	
Woodstock	34	5	39	
	TOTAL	653	141	794
STATE TOTAL		5,537	1,272	6,809