

## **Residential Fire Sprinklers Data Collection Project**

**Source:** Virginia Fire Incident Reporting System

**Reporting Period:** January 2000 to September 2008

### **Data Criteria**

- Incident Type – Structure Fire Codes
  - 111 – Building fire. Excludes confined fires (113-118)
  - 113 – Confined cooking fire in structure
  - 114 – Confined chimney fire in structure
  - 115 – Confined incinerator fire in structure
  - 116 – Confined boiler fire in structure
  - 117 – Confined compactor fire in structure
  - 118 – Confined trash fire in structure
- Property Use – Residential
  - 419 – 1 or 2 family dwelling
- Aid
  - None
  - Received
  - Other Aid
  - Blank

### **Note**

- Last database update November 21, 2008
- 2008 data is preliminary. Final 2008 stats will be released on April 1, 2009.
- Year 2008 data only includes incidents reported for January 2008 to September 2008.
- OUTLIERS - If an incident response time was 12 hours or greater or response time was less than 0 minutes, then the response time was not used in the calculation of average response time; 227 incidents' response times were impacted.
- If the incident was a fire in a structure confined to a non-combustible container (codes 113, 114, 115, 116, 117, or 118) and the fire spread was blank, then the fire spread code was changed to 1 (confined to object).

### **Point of Contact:**

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Virginia Residential Building Fires  
In 1-or-2 Family Dwellings  
**REPORTED FIRES PER YEAR**



Year	#	%	RT Avg	%≤6	Loss Tot	Loss/Inc	Civ Inj	Civ Death	FS Inj	FS Death	Total Inj/Death	Inj/Death Per 1k Inc.
2000	3,777	8.8%	7:55	56.3%	\$48,155,163	\$12,750	194	26	107	0	327	87
2001	3,741	8.7%	7:52	56.9%	\$47,998,062	\$12,830	190	18	81	0	289	77
2002	4,718	11.0%	7:49	51.5%	\$76,796,666	\$16,277	249	24	112	0	385	82
2003	5,081	11.8%	7:48	49.3%	\$204,634,885	\$40,275	243	37	111	0	391	77
2004	5,070	11.8%	8:33	42.4%	\$87,499,919	\$17,258	234	71	96	1	402	79
2005	5,169	12.0%	8:02	42.5%	\$107,836,293	\$20,862	201	31	83	0	315	61
2006	5,362	12.4%	7:55	43.3%	\$190,120,899	\$35,457	202	40	80	0	322	60
2007	5,888	13.7%	8:00	42.2%	\$139,928,586	\$23,765	245	58	91	1	395	67
2008	4,266	9.9%	7:31	44.4%	\$92,299,311	\$21,636	159	36	81	0	276	65
Total	43,072	100.0%	7:57	47.0%	\$995,269,784	\$23,107	1,917	341	842	2	3,102	72

Virginia Residential Building Fires  
In 1-or-2 Family Dwellings  
**Reported Fires by Locality**  
(Jan 2000-Sep 2008 Combined)



County/City	#	%	RT Avg	%≤6	Loss Tot	Loss/Inc	Civ Inj	Civ Fatal	FS Inj	FS Fatal	Total Inj/Death	Inj/Death Per 1k Inc.
Accomack County	337	0.8%	9:02	21.7%	\$5,944,760	\$17,640	4	2	0	0	6	18
Albemarle County	349	0.8%	9:41	20.1%	\$10,998,471	\$31,514	3	5	2	0	10	29
Alexandria	228	0.5%	4:13	89.9%	\$1,506,925	\$6,609	14	0	1	0	15	66
Alleghany County	152	0.4%	7:14	46.1%	\$2,228,740	\$14,663	1	0	2	0	3	20
Amelia County	44	0.1%	13:44	6.8%	\$1,761,600	\$40,036	0	0	0	0	0	0
Amherst County	265	0.6%	13:00	7.6%	\$1,997,860	\$7,539	9	0	3	0	12	45
Appomattox County	68	0.2%	11:46	8.8%	\$1,581,425	\$23,256	0	0	2	0	2	29
Arlington County	294	0.7%	5:54	66.4%	\$11,648,317	\$39,620	4	1	9	0	14	48
Augusta County	766	1.8%	10:27	17.3%	\$8,807,506	\$11,498	8	5	10	0	23	30
Bedford	183	0.4%	10:47	15.3%	\$2,365,100	\$12,924	0	0	0	0	0	0
Bedford County	313	0.7%	12:08	17.3%	\$4,111,701	\$13,136	1	3	0	0	4	13
Bland County	57	0.1%	18:17	10.5%	\$565,700	\$9,925	0	0	1	0	1	18
Botetourt County	147	0.3%	13:23	13.6%	\$611,350	\$4,159	0	2	1	0	3	20
Bristol	237	0.6%	4:09	81.4%	\$2,351,645	\$9,923	17	1	26	0	44	186
Brunswick County	147	0.3%	12:15	10.9%	\$2,071,350	\$14,091	0	0	0	0	0	0
Buchanan County	78	0.2%	17:50	9.0%	\$2,724,545	\$34,930	3	2	0	0	5	64
Buckingham County	90	0.2%	13:44	12.2%	\$423,500	\$4,706	0	1	0	0	1	11
Buena Vista	77	0.2%	6:19	44.2%	\$962,850	\$12,505	1	1	1	0	3	39
Campbell County	416	1.0%	11:11	17.8%	\$2,298,270	\$5,525	0	3	0	0	3	7
Caroline County	98	0.2%	12:46	6.1%	\$1,693,350	\$17,279	0	0	2	0	2	20
Carroll County	165	0.4%	12:20	5.5%	\$2,581,650	\$15,646	1	0	2	1	4	24
Charles City County	48	0.1%	15:04	4.2%	\$1,298,810	\$27,059	0	1	0	0	1	21
Charlotte County	68	0.2%	12:29	7.4%	\$2,061,235	\$30,312	0	1	1	0	2	29
Charlottesville	370	0.9%	4:55	75.1%	\$4,534,017	\$12,254	29	2	9	0	40	108
Chesapeake	1,482	3.4%	6:15	49.3%	\$27,607,978	\$18,629	112	6	25	0	143	96
Chesterfield County	1,571	3.6%	7:55	18.5%	\$28,002,405	\$17,825	110	12	25	0	147	94
Clarke County	139	0.3%	11:09	13.7%	\$1,919,780	\$13,811	3	0	2	0	5	36
Colonial Heights	155	0.4%	10:10	50.3%	\$1,358,685	\$8,766	9	2	6	0	17	110
Covington	101	0.2%	6:06	40.6%	\$1,088,854	\$10,781	7	1	7	0	15	149
Craig County	34	0.1%	7:51	41.2%	\$236,850	\$6,966	0	0	0	0	0	0
Culpeper County	193	0.4%	12:39	8.3%	\$6,368,852	\$32,999	2	1	1	0	4	21
Cumberland County	21	0.0%	10:14	38.1%	\$506,250	\$24,107	0	0	0	0	0	0
Danville	723	1.7%	4:48	79.9%	\$6,323,114	\$8,746	45	2	10	0	57	79
Dickenson County	117	0.3%	19:20	4.3%	\$2,892,720	\$24,724	2	1	10	0	13	111
Dinwiddie County	115	0.3%	12:53	17.4%	\$1,701,490	\$14,796	1	1	1	0	3	26
Emporia	48	0.1%	6:56	39.6%	\$830,500	\$17,302	0	0	0	0	0	0

Virginia Residential Building Fires  
In 1-or-2 Family Dwellings  
**Reported Fires by Locality**  
(Jan 2000-Sep 2008 Combined)



County/City	#	%	RT Avg	%≤6	Loss Tot	Loss/Inc	Civ Inj	Civ Fatal	FS Inj	FS Fatal	Total Inj/Death	Inj/Death Per 1k Inc.
Essex County	45	0.1%	11:36	15.6%	\$1,750,500	\$38,900	2	7	1	0	10	222
Fairfax	106	0.2%	8:39	81.1%	\$3,326,110	\$31,378	4	0	0	0	4	38
Fairfax County	3,623	8.4%	10:43	69.1%	\$134,750,299	\$37,193	132	24	62	0	218	60
Fauquier County	450	1.0%	11:12	18.3%	\$10,365,125	\$23,034	5	1	5	0	11	24
Floyd County	126	0.3%	15:27	6.3%	\$30,500	\$242	0	2	0	0	2	16
Fluvanna County	20	0.0%	8:21	40.0%	\$0	\$0	0	0	0	0	0	0
Franklin	151	0.4%	5:46	55.0%	\$1,495,310	\$9,903	2	2	1	0	5	33
Franklin County	443	1.0%	10:54	28.0%	\$7,996,310	\$18,050	10	5	6	0	21	47
Frederick County	651	1.5%	9:47	26.7%	\$3,367,186	\$5,172	8	1	11	0	20	31
Fredericksburg	116	0.3%	4:25	81.0%	\$1,666,799	\$14,369	4	1	2	0	7	60
Galax	180	0.4%	10:46	8.9%	\$1,013,550	\$5,631	0	0	1	0	1	6
Giles County	79	0.2%	8:43	27.8%	\$1,981,427	\$25,081	2	2	0	0	4	51
Gloucester County	312	0.7%	7:49	31.8%	\$14,033,707	\$44,980	15	2	7	0	24	77
Goochland County	163	0.4%	17:06	7.4%	\$1,089,656	\$6,685	5	2	0	0	7	43
Grayson County	137	0.3%	15:41	7.4%	\$24,040,050	\$175,475	0	0	0	0	0	0
Greene County	71	0.2%	11:35	19.7%	\$7,950	\$112	1	0	0	0	1	14
Halifax County	290	0.7%	8:11	43.1%	\$5,121,128	\$17,659	1	1	0	0	2	7
Hampton	891	2.1%	4:17	80.0%	\$10,095,269	\$11,330	47	2	13	0	62	70
Hanover County	464	1.1%	10:11	16.6%	\$7,072,697	\$15,243	7	0	13	0	20	43
Harrisonburg	27	0.1%	4:58	66.7%	\$93,205	\$3,452	0	0	0	0	0	0
Henrico County	1,900	4.4%	5:52	47.8%	\$34,214,671	\$18,008	124	8	43	0	175	92
Henry County	424	1.0%	10:54	20.3%	\$10,709,150	\$25,257	7	9	5	0	21	50
Hopewell	363	0.8%	4:33	76.6%	\$2,477,960	\$6,826	26	2	4	0	32	88
Isle of Wight County	181	0.4%	7:26	37.4%	\$3,062,237	\$16,918	4	2	6	0	12	66
James City County	424	1.0%	6:08	50.5%	\$10,807,821	\$25,490	18	3	12	0	33	78
King and Queen County	30	0.1%	8:56	14.8%	\$370	\$12	0	0	0	0	0	0
King George County	150	0.3%	11:14	18.0%	\$3,055,380	\$20,369	5	2	4	0	11	73
King William County	25	0.1%	12:10	4.0%	\$474,000	\$18,960	1	0	0	0	1	40
Lancaster County	21	0.0%	7:09	33.3%	\$571,000	\$27,190	0	0	0	0	0	0
Lee County	226	0.5%	12:18	7.1%	\$8,383,300	\$37,094	3	7	0	0	10	44
Lexington	45	0.1%	7:43	33.3%	\$1,816,774	\$40,373	0	0	0	0	0	0
Loudoun County	610	1.4%	7:39	37.1%	\$20,432,953	\$33,497	32	0	25	0	57	93
Louisa County	203	0.5%	11:56	11.4%	\$6,041,550	\$29,761	1	1	0	0	2	10
Lunenburg County	64	0.1%	8:35	48.4%	\$1,526,475	\$23,851	1	2	0	0	3	47
Lynchburg	725	1.7%	3:55	88.4%	\$5,413,160	\$7,466	30	4	22	0	56	77
Madison County	116	0.3%	6:55	51.7%	\$0	\$0	0	0	0	0	0	0

Virginia Residential Building Fires  
In 1-or-2 Family Dwellings  
**Reported Fires by Locality**  
(Jan 2000-Sep 2008 Combined)



County/City	#	%	RT Avg	%≤6	Loss Tot	Loss/Inc	Civ Inj	Civ Fatal	FS Inj	FS Fatal	Total Inj/Death	Inj/Death Per 1k Inc.
Manassas	169	0.4%	5:02	67.5%	\$3,661,455	\$21,665	17	0	3	0	20	118
Manassas Park	50	0.1%	3:20	80.0%	\$2,092,930	\$41,859	1	0	0	0	1	20
Martinsville	210	0.5%	4:13	79.0%	\$2,703,889	\$12,876	19	3	3	0	25	119
Mathews County	59	0.1%	8:17	11.9%	\$2,655,350	\$45,006	0	0	1	0	1	17
Mecklenburg County	474	1.1%	7:37	43.7%	\$4,082,145	\$8,612	2	7	4	0	13	27
Middlesex County	13	0.0%	17:05	0.0%	\$75,375,500	\$5,798,115	0	0	0	0	0	0
Montgomery County	351	0.8%	6:57	49.0%	\$3,924,355	\$11,180	2	3	1	0	6	17
Nelson County	89	0.2%	15:55	13.5%	\$1,809,700	\$20,334	0	3	0	0	3	34
New Kent County	51	0.1%	10:00	23.5%	\$5,700	\$112	0	0	0	0	0	0
Newport News	1,116	2.6%	4:44	68.8%	\$13,258,870	\$11,881	108	11	20	0	139	125
Norfolk	1,260	2.9%	3:53	91.3%	\$12,833,051	\$10,185	74	6	68	0	148	117
Northampton County	64	0.1%	10:34	20.3%	\$1,028,900	\$16,077	4	2	0	0	6	94
Northumberland County	48	0.1%	11:06	10.4%	\$1,850,450	\$38,551	1	1	0	0	2	42
Norton	21	0.0%	6:34	42.9%	\$47,500	\$2,262	0	0	0	0	0	0
Nottoway County	78	0.2%	7:37	33.3%	\$549,020	\$7,039	0	0	1	0	1	13
Orange County	136	0.3%	12:41	11.8%	\$2,124,220	\$15,619	2	0	1	0	3	22
Page County	190	0.4%	8:37	36.8%	\$2,430,200	\$12,791	4	0	0	0	4	21
Patrick County	111	0.3%	12:11	10.8%	\$3,023,520	\$27,239	1	3	0	0	4	36
Petersburg	620	1.4%	5:00	67.1%	\$5,421,666	\$8,745	71	13	14	0	98	158
Pittsylvania County	461	1.1%	10:49	13.7%	\$8,521,176	\$18,484	4	4	2	0	10	22
Poquoson	76	0.2%	3:44	85.5%	\$804,700	\$10,588	1	0	1	0	2	26
Portsmouth	966	2.2%	5:41	70.9%	\$11,188,075	\$11,582	11	7	10	0	28	29
Powhatan County	172	0.4%	10:48	19.8%	\$5,355,330	\$31,136	10	2	8	0	20	116
Prince Edward County	103	0.2%	9:48	11.7%	\$2,163,485	\$21,005	4	4	0	0	8	78
Prince George County	202	0.5%	9:54	18.3%	\$1,667,400	\$8,254	1	1	1	0	3	15
Prince William County	566	1.3%	6:28	46.1%	\$410,000	\$724	2	1	0	1	4	7
Pulaski County	285	0.7%	5:49	60.9%	\$5,805,807	\$20,371	6	3	6	0	15	53
Radford	90	0.2%	4:05	80.0%	\$1,557,272	\$17,303	2	4	0	0	6	67
Rappahannock County	96	0.2%	12:39	9.4%	\$2,859,607	\$29,788	0	1	0	0	1	10
Richmond	1,951	4.5%	5:27	78.4%	\$36,876,337	\$18,901	172	26	70	0	268	137
Richmond County	6	0.0%	10:20	16.7%	\$25,500	\$4,250	1	0	0	0	1	167
Roanoke	928	2.2%	4:31	80.4%	\$15,940,867	\$17,178	69	9	23	0	101	109
Roanoke County	418	1.0%	8:34	20.1%	\$6,214,973	\$14,868	11	2	13	0	26	62
Rockbridge County	200	0.5%	12:59	16.0%	\$1,732,450	\$8,662	0	1	1	0	2	10
Rockingham County	483	1.1%	11:02	16.8%	\$3,827,900	\$7,925	10	0	5	0	15	31
Russell County	75	0.2%	11:34	18.7%	\$1,188,150	\$15,842	0	1	0	0	1	13

Virginia Residential Building Fires  
In 1-or-2 Family Dwellings  
**Reported Fires by Locality**  
(Jan 2000-Sep 2008 Combined)



County/City	#	%	RT Avg	%≤6	Loss Tot	Loss/Inc	Civ Inj	Civ Fatal	FS Inj	FS Fatal	Total Inj/Death	Inj/Death Per 1k Inc.
Salem	117	0.3%	10:54	59.8%	\$1,202,208	\$10,275	7	1	6	0	14	120
Scott County	172	0.4%	13:53	18.0%	\$3,680,300	\$21,397	2	1	1	0	4	23
Shenandoah County	253	0.6%	12:34	18.2%	\$1,964,210	\$7,764	2	7	0	0	9	36
Smyth County	220	0.5%	10:46	19.1%	\$3,378,470	\$15,357	1	1	0	0	2	9
Southampton County	102	0.2%	9:51	13.7%	\$1,847,650	\$18,114	3	7	3	0	13	127
Spotsylvania County	658	1.5%	8:13	26.7%	\$137,217,579	\$208,537	28	3	16	0	47	71
Stafford County	246	0.6%	7:43	39.0%	\$3,898,426	\$15,847	5	0	2	0	7	28
Staunton	205	0.5%	4:19	77.0%	\$1,172,231	\$5,718	6	1	5	0	12	59
Suffolk	1,006	2.3%	5:23	63.6%	\$11,600,775	\$11,532	39	4	26	0	69	69
Surry County	31	0.1%	13:26	10.0%	\$796,850	\$25,705	0	1	2	0	3	97
Sussex County	83	0.2%	7:47	39.8%	\$1,860,600	\$22,417	1	2	2	0	5	60
Tazewell County	187	0.4%	8:49	28.3%	\$2,905,660	\$15,538	12	5	5	0	22	118
Virginia Beach	2,357	5.5%	7:40	29.6%	\$60,609,930	\$25,715	222	24	70	0	316	134
Warren County	95	0.2%	9:18	30.5%	\$1,367,190	\$14,391	5	3	4	0	12	126
Washington County	273	0.6%	12:13	7.7%	\$5,477,100	\$20,063	7	7	4	0	18	66
Waynesboro	197	0.5%	3:39	90.8%	\$1,838,668	\$9,333	10	3	4	0	17	86
Westmoreland County	110	0.3%	9:27	20.9%	\$1,919,240	\$17,448	1	0	2	0	3	27
Williamsburg	59	0.1%	4:26	78.0%	\$309,675	\$5,249	6	0	2	0	8	136
Winchester	223	0.5%	3:19	92.4%	\$1,433,965	\$6,430	18	0	9	0	27	121
Wise County	162	0.4%	9:41	34.0%	\$2,906,055	\$17,939	8	4	3	0	15	93
Wythe County	255	0.6%	9:44	22.4%	\$3,973,380	\$15,582	12	1	7	0	20	78
York County	325	0.8%	4:47	69.5%	\$4,640,438	\$14,278	29	0	11	0	40	123
<b>Total</b>	<b>43,072</b>	<b>100.0%</b>	<b>7:57</b>	<b>47.0%</b>	<b>\$995,269,784</b>	<b>\$23,107</b>	<b>1,917</b>	<b>341</b>	<b>842</b>	<b>2</b>	<b>3,102</b>	<b>72</b>

Virginia Residential Building Fires  
**Number of 1-or-2 Family Dwelling Fires**  
**with Fire Confined to a Non-Combustible Container**  
 (Jan 2000 - Sep 2008 Combined)

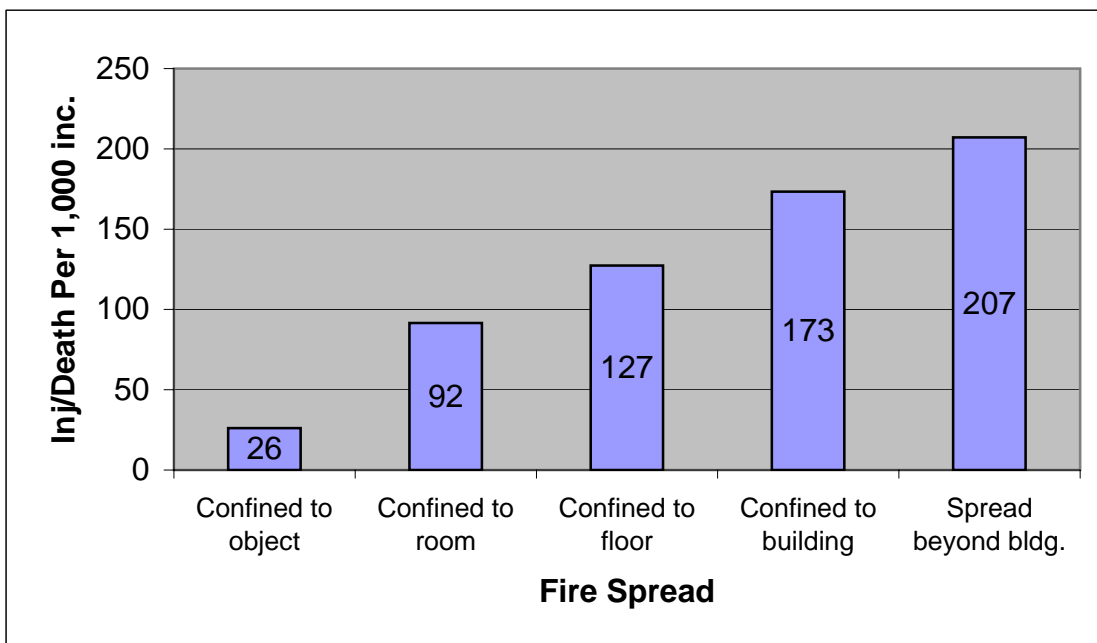


Confined/Non-Confined	#	%	RT Avg	%<=6	Loss Tot	Loss/Inc	Civ Inj	Civ Fatal	FS Inj	FS Fatal	Total Inj/Death	Inj/Death Per 1k Inc.
Building Fire - Not confined	30,189	70.1%	8:00	49.3%	\$988,709,796	\$32,751	1,749	340	824	2	2,915	97
Building Fire, Confined	12,883	29.9%	7:51	41.4%	\$6,559,988	\$509	168	1	18	0	187	15
<b>Total</b>	<b>43,072</b>	<b>100.0%</b>	<b>7:57</b>	<b>47.0%</b>	<b>\$995,269,784</b>	<b>\$23,107</b>	<b>1,917</b>	<b>341</b>	<b>842</b>	<b>2</b>	<b>3,102</b>	<b>72</b>

Virginia Residential Building Fires  
In 1-or-2 Family Dwellings  
**Extent of Fire Spread**  
(Jan 2000 to Sep 2008 Combined)



Fire Spread Group	#	%	RT Avg	%≤6	Loss Tot	Loss/Inc	Civ Inj	Civ Fatal	FS Inj	FS Fatal	Inj/Death	Inj/Death Per 1k Inc.
Blank	10,729	24.9%	7:48	44.1%	\$22,462,619	\$2,094	128	9	29	1	167	16
Confined to object	12,010	27.9%	7:38	44.6%	\$45,756,030	\$3,810	264	12	37	0	313	26
Confined to room	10,338	24.0%	6:48	55.0%	\$174,062,725	\$16,837	787	49	111	0	947	92
Confined to floor	2,230	5.2%	8:30	54.1%	\$73,650,025	\$33,027	172	30	82	0	284	127
Confined to building	6,442	15.0%	9:34	42.0%	\$558,842,329	\$86,750	475	187	454	1	1,117	173
Spread beyond bldg.	1,323	3.1%	11:41	41.5%	\$120,496,056	\$91,078	91	54	129	0	274	207
<b>Total</b>	<b>43,072</b>	<b>100.0%</b>	<b>7:56</b>	<b>47.0%</b>	<b>\$995,269,784</b>	<b>\$23,107</b>	<b>1,917</b>	<b>341</b>	<b>842</b>	<b>2</b>	<b>3,102</b>	<b>72</b>





Virginia Residential Building Fires  
in 1-or-2 Family Dwellings  
(Jan 2000- Sep 2008 Combined)



## 1-or-2 Family Dwelling Fires by Time of Day

