Respiratory Virus Surveillance Report[1]

New Jersey Department of Health

Communicable Disease Service

Week ending February 13, 2016 (MMWR week 6)

SYNOPSIS

Influenza Activity Level[2]	
State Activity Week ending 2/13: MODERATE	
Current week Last year: HIGH	
Regional[3] Data	
Northwest	MODERATE
Northeast	HIGH
Central West	MODERATE
Central East	HIGH
South	LOW

ILI Activity[4]				
	Percent ILI/Absenteeism			**Baselines**
	Current week (range by county)	**Last week Current year**	**Current week Last year**	**Non-season[5] Season[6] (3 low, 3 high)**
Long Term Care Facilities	0.40 (0.00, 1.98)	0.46	1.09	0.58 (0.60, 0.77)
Schools (absenteeism)	5.16 (2.90, 8.46)	4.45	4.79	3.56 (4.49, 4.85)
Emergency Departments	2.83 (0.00, 6.12)	3.30	4.99	2.39 (3.21, 4.20)

Viral Activity[7]			
	Current Week	**Past 3 Weeks**	**Cumulative Total**
Influenza H1N1 (2009)	23	46	70
Influenza H3N2	1	6	18
Influenza B	10	23	44
Respiratory Syncytial Virus (RSV)	157	582	2378
Rapid Influenza Tests	125	304	731

ILINet Providers			
Current Week		**Previous Week**	
#of reporters	**%ILI**	**#of reporters**	**%ILI**
8	5.81	23	3.77

Report also available at: http://nj.gov/health/flu/fluinfo.shtml

Virologic Surveillance[7]

Influenza Positive Specimens (PCR) - Result by Week

Influenza Positive (PCR)
By Week

Legend: 2009 H1N1 | Type AH3 | Type B | A typing not performed
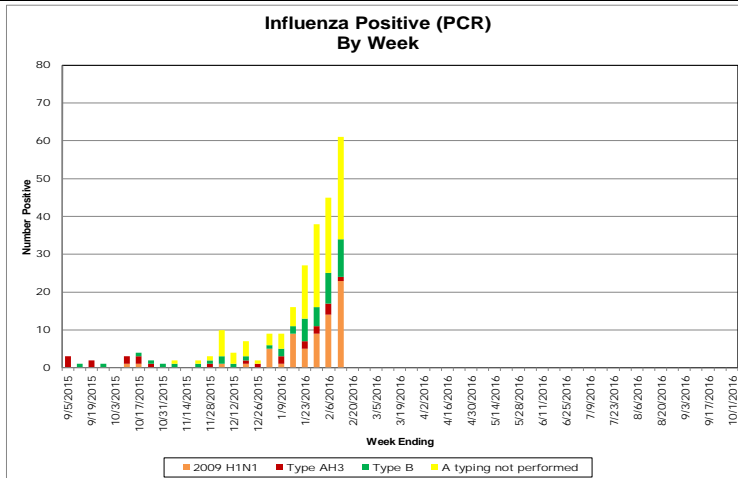
Influenza Positive Specimens (PCR)- Result by Region[3]

Positive Influenza

	2009 H1N1	AH3	A typing not performed	B	2009 H1N1	AH3	A typing not performed	B
	2015-2016 Cumulative Total (wk 40-20)				3 week Totals			
Central East	11	2	24	2	4	1	11	1
Central West	5	3	7	8	2	0	4	5
Northeast	32	14	52	21	27	5	29	9
Northwest	14	2	18	10	8	0	16	4
South	8	2	9	5	5	0	6	4
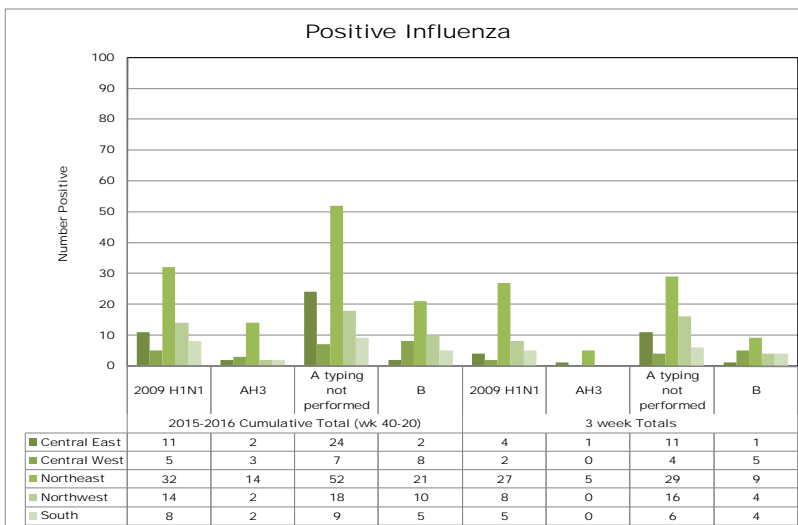
Influenza Rapid Antigen Result by Week

Rapid Influenza Tests
Total Tested and Percent Positive

Legend: Total Tests Performed | Percent Positive
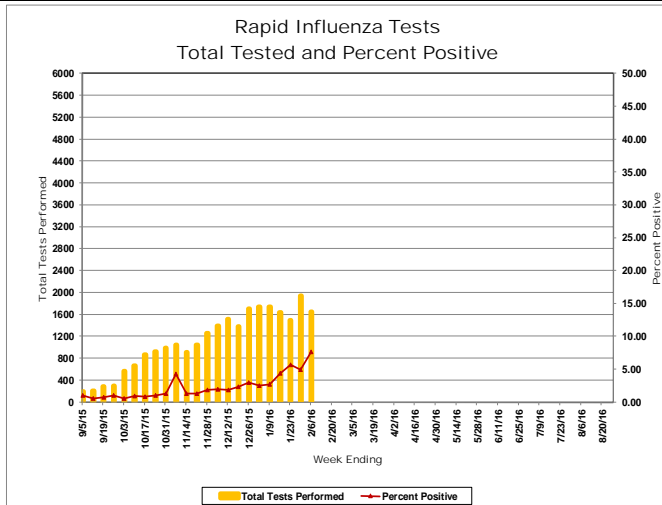
Respiratory Syncytial Virus (RSV) Results by Week

RSV
Percent Positive

Legend: % positive 2015-2016 | % positive (5 year average)
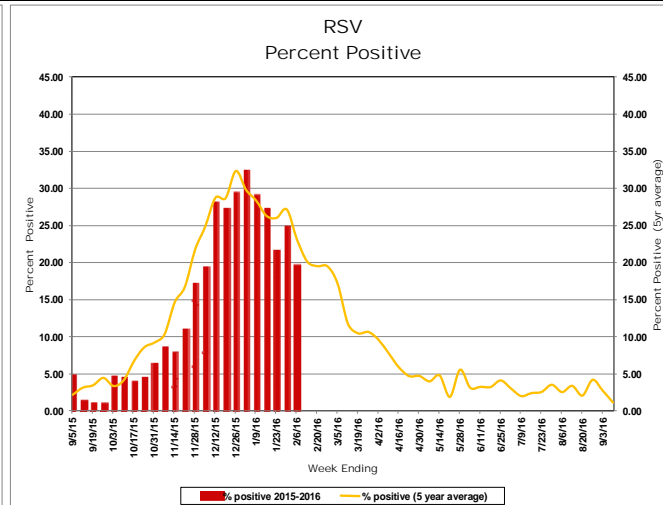
Influenza-like Illness Surveillance

Emergency Department[8]	
Daily Visits and Admission	Visits – Tuesday Only

Emergency Department
Percent ILI Visits and Admissions
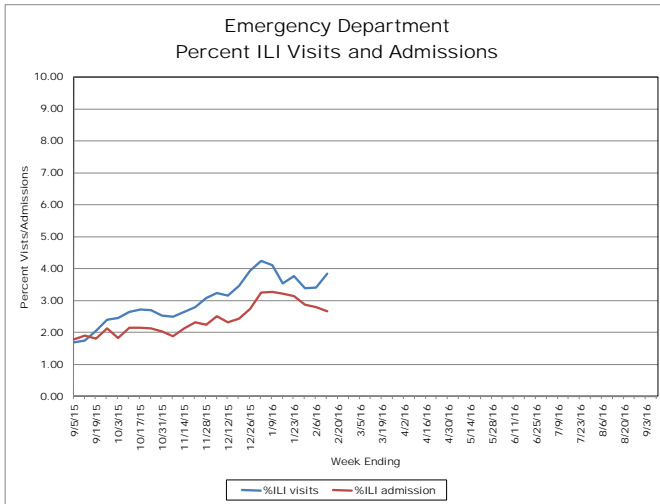
Emergency Department
Percent ILI (Weekly)

School Absenteeism	Long Term Care Facilities
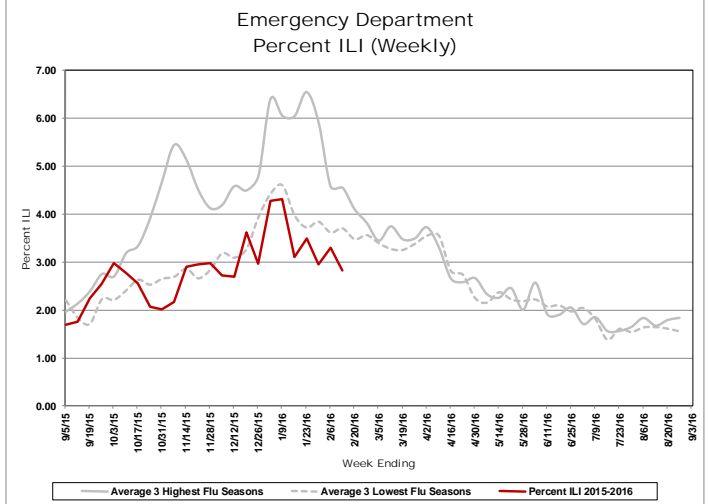
School
Percent Absenteeism
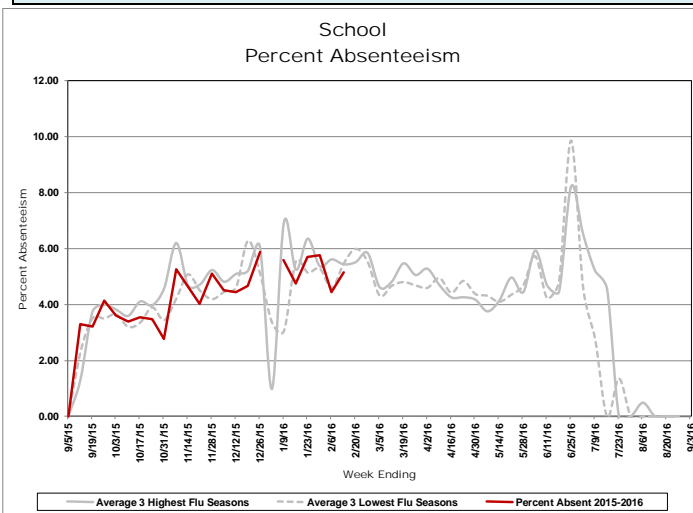
Long Term Care Facility
Percent ILI
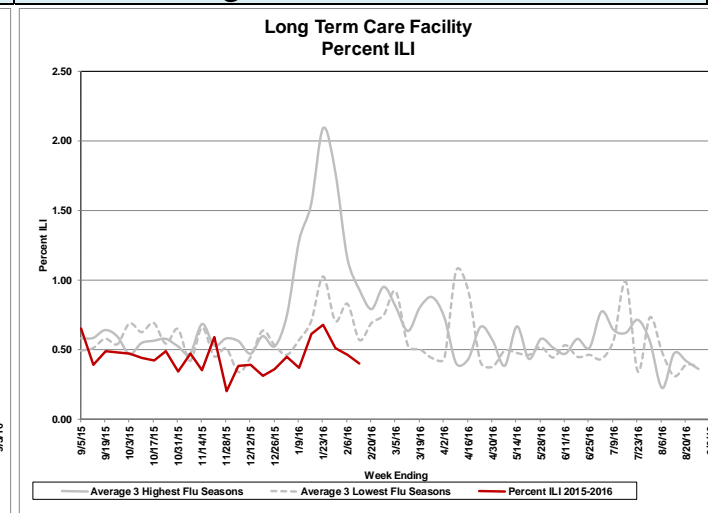
Respiratory Outbreaks in Long Term Care Facilities[9]

Cumulative outbreaks 2015-2016 season	9
No. outbreaks last 3 weeks	1
Regions with recent outbreaks	NE

**ILINet Provider
Percent ILI**

Legend: 2015-2016 | 2014-2015 | 5 year % ILI (avg)
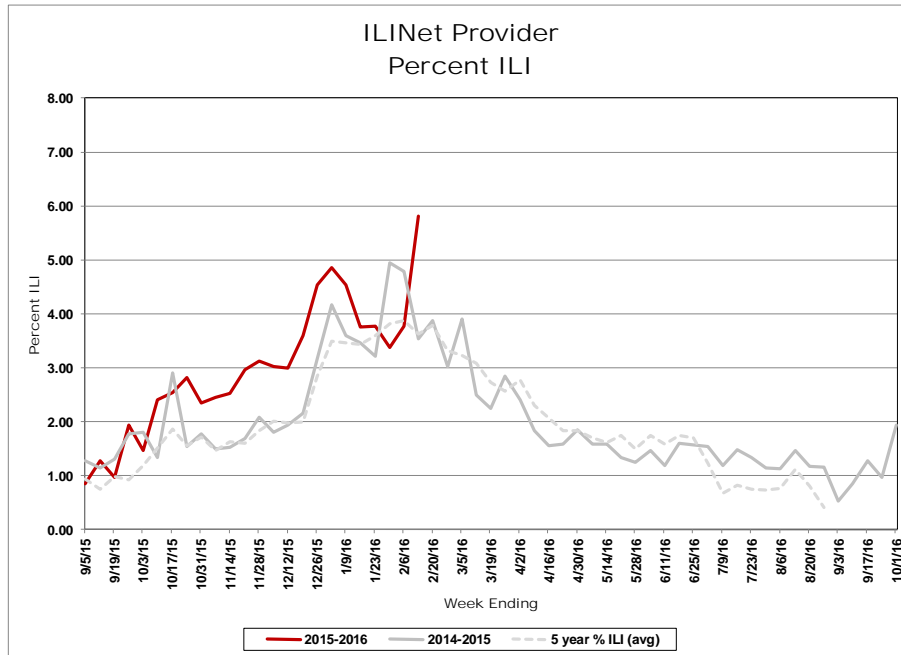
Pediatric Influenza Mortality[10]

Influenza season	Number of Pediatric Influenza Deaths Reported to CDC	
	NJ	US (includes NJ)
2010-2011	4	123
2011-2012	1	35
2012-2013	7	171
2013-2014	6	108
2014-2015	1	146
2015-2016	0	11

For additional information regarding influenza surveillance please visit the following websites.
http://nj.gov/health/flu/surveillance.shtml
http://www.cdc.gov/flu/

1. This report represents activity occurring in New Jersey related to influenza and RSV. In addition, reports of other circulating respiratory viruses or regarding illness severity (i.e., hospitalization) will be included when available.
2. Activity levels for the state and region are defined in Table 1 and 2 at the end of this document.
3. The following is a breakdown of counties contained within each public health region: Northwest: Morris, Passaic, Sussex, Warren; Northeast: Bergen, Essex, Hudson; Central west: Hunterdon, Mercer, Somerset; Central East: Middlesex, Monmouth, Ocean, Union; South: Atlantic, Burlington, Camden, Cape May, Salem, Cumberland, Gloucester
4. Influenza-like illness (ILI) is defined as fever (> 100°F [37.8°C], oral or equivalent) and cough and/or sore throat (in the absence of a known cause other than influenza). For long term care facilities, fever is defined as 2° above baseline temperature.
5. Non-season baseline is calculated by taking the average of statewide percentages of ILI for a 10 year (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015) period during months when influenza is less likely to be circulating (May-August).
6. Three year seasonal averages are determined by calculating the average percent ILI/absenteeism for each influenza season (October to May). These averages are ranked and the three highest and lowest overall season averages were selected. The three highest and lowest numbers were then averaged to obtain a single high and single low value. The season which contribute to the high and low value vary by entity type and are as follows : LTCF (High: 09-10, 12-13, 14-15; Low: 10-11,11-12,13-14), ED (High:09-10, 12-13, 14-15; Low: 10-11, 11-12,13-14) and schools (High: 09-10, 10-11, 12-13; Low: 11-12,13-14, 14-15). A week by week average was also calculated using the average of the seasons listed above for each entity type.
7. Viral activity: Real-time polymerase chain reaction (PCR) results are obtained from electronic laboratory transmission submitted by acute care, commercial and public health laboratories to CDRSS. Rapid influenza test data and respiratory syncytial virus data are acquired from facilities reporting rapid influenza tests via the National Respiratory and Enteric Virus Surveillance System (NREVSS) or CDRSS ILI module. Counts for cumulative totals begin with week ending October 10, 2015. Three week count data includes current week and two prior weeks. Data presented for RSV and rapid influenza testing represent information for the week prior to the current report week.
8. Daily visits and admissions associated with ILI from emergency department data is collected via EpiCenter and Hippocrates. Prior to these systems, data on ILI visits were only recorded one day per week usually on Tuesday. This system is maintained as a large amount of historical data allows for better seasonal comparisons.
9. Only LTCF outbreaks reported to NJDOH that receive an outbreak number are recorded in this report.
10. Data presented for New Jersey are for cases confirmed as of the current reporting week. Data presented for the United States represent data reported for the prior MMWR week. This data can be viewed at: http://www.cdc.gov/flu/weekly/.

Table 1 Influenza Activity Level – Definitions for State Activity				
NJ Level	**CSTE Level**	**Definition**		
		ILI Activity/Outbreaks		**Lab Activity**
Low	No Activity	ILI activity at or below baseline AND no detected outbreaks	AND	No lab confirmed cases
	Sporadic	Low ILI activity detected OR one lab confirmed outbreaks anywhere in the state	AND	Sporadic isolation of laboratory confirmed influenza
Moderate	Local	Increase in ILI activity OR two or more lab confirmed outbreaks in one public health region (Other regions not experiencing increased ILI activity)	AND	Recent (within 3 weeks) laboratory activity in the region with increased ILI
	Regional	Increase in ILI activity OR two or more lab confirmed outbreaks in at least 2 public health regions (Other regions not experiencing increased ILI activity)	AND	Recent (within 3 weeks) laboratory activity in the region with increased ILI
High	Widespread	Increase in ILI activity OR two or more lab confirmed outbreaks in > 2 public health regions	AND	Recent (within 3 weeks) laboratory activity in the region with increased ILI

Table 2 Influenza Activity Level – Definitions for Public Health Regions			
NJ Level	**Definition**		
	ILI Activity/Outbreaks		**Lab Activity**
Low	Low ILI activity detected OR one lab confirmed outbreaks anywhere in the region	AND	Sporadic isolation of laboratory confirmed influenza anywhere in the region
Moderate	Increased ILI activity in less than half of the counties in the region OR two lab confirmed outbreaks in the public health region	AND	Recent (within 3 weeks) laboratory activity in same counties of the region with increased ILI
High	Increased ILI activity in more than half of the counties in the region OR three or more lab confirmed outbreaks in the region	AND	Recent (within 3 weeks) laboratory activity in more than half of the counties in the region with increased ILI

Notes:
ILI activity: Systems used to detect increases in ILI activity include: ILINet (i.e., sentinel providers), school absenteeism data, ED ILI visits and admissions collected via Hippocrates and EpiCenter systems, LTCF ILI data, LTCF outbreak data, and information on influenza mortality (122 city, influenza associated death report).
Lab Activity: Virologic surveillance data from PHEL and commercial laboratories will be used as the primary data source for the above levels. However, rapid influenza test data will also be considered when determining the appropriate activity levels.

INFLUENZA LABORATORY REPORTS BY COUNTY

Counts represent total positive specimens
from week ending October 10, 2015 to current MMWR week

Source: CDRSS

Frequency	RESULT				
COUNTY(COUNTY)	Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B	Total
ATLANTIC	22	2	1	1	26
BERGEN	48	26	11	22	107
BURLINGTON	10	3	1	11	25
CAMDEN	13	3	0	9	25
CUMBERLAND	1	0	0	0	1
ESSEX	29	3	2	4	38
GLOUCESTER	0	0	0	1	1
HUDSON	15	4	1	5	25
HUNTERDON	2	1	1	2	6
MERCER	8	0	3	10	21
MIDDLESEX	16	4	1	2	23
MONMOUTH	58	1	0	23	82
MORRIS	8	2	0	5	15
OCEAN	27	0	1	4	32
PASSAIC	18	7	1	7	33
SOMERSET	10	4	1	2	17
SUSSEX	2	0	0	0	2
UNION	26	6	0	1	33
WARREN	2	5	1	1	9
Total	315	71	25	110	521

INFLUENZA LABORATORY REPORTS BY REGION

Counts represent total positive specimens
from week ending October 10, 2015 to current MMWR week

Source: CDRSS

Frequency	Table of REGION by RESULT				
	RESULT				
REGION	**Influenza A - Typing not performed**	**Influenza A 2009 H1N1**	**Influenza AH3**	**Influenza B**	**Total**
Central East	127	11	2	30	170
Central West	20	5	5	14	44
Northeast	92	33	14	31	170
Northwest	30	14	2	13	59
South	46	8	2	22	78
Total	315	71	25	110	521

The following is a breakdown of counties contained within each public health region:
Northwest: Morris, Passaic, Sussex, Warren; Northeast: Bergen, Essex, Hudson
Central west: Hunterdon, Mercer, Somerset
Central East: Middlesex, Monmouth, Ocean, Union
South: Atlantic, Burlington, Camden, Cape May, Salem, Cumberland, Gloucester

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 02/09/2016

NJ Health — New Jersey Department of Health

COUNTY	Long Term Care			Schools			Hospital Emergency Dept		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
February 9, 2016 MMWR WEEK 6									
ATLANTIC	6	2	0.00	41	33	8.46	4	4	1.92
BERGEN	4	2	0.00	34	26	3.68	5	5	2.22
BURLINGTON	6	2	0.30	79	45	4.81	4	4	2.22
CAMDEN	0	0	0.00	1	0	0.00	7	7	3.39
CAPE MAY	3	0	0.00	14	11	5.39	1	1	6.12
CUMBERLAND	5	1	0.00	11	3	6.60	3	3	3.62
ESSEX	2	1	0.00	4	4	4.00	8	6	2.75
GLOUCESTER	3	2	0.00	4	4	5.97	2	2	1.83
HUDSON	4	3	1.98	13	7	4.12	6	6	2.56
HUNTERDON	4	4	0.00	8	7	4.43	1	1	0.00
MERCER	3	0	0.00	22	19	4.50	5	4	2.78
MIDDLESEX	4	1	0.34	21	17	3.99	6	6	3.62
MONMOUTH	5	2	1.80	16	14	6.07	5	5	2.95
MORRIS	0	0	0.00	8	7	3.58	4	4	1.01
OCEAN	1	0	0.00	5	5	7.41	4	4	1.79
PASSAIC	6	4	0.00	26	14	2.90	3	3	5.71
SALEM	0	0	0.00	3	3	6.11	1	1	6.06
SOMERSET	3	2	0.00	22	17	3.79	1	1	1.33
SUSSEX	2	2	0.00	5	5	3.57	2	2	0.00
UNION	1	0	0.00	49	32	5.84	5	5	3.60
WARREN	4	1	0.00	20	16	5.13	2	2	1.37
NW Region	12	7	0.00	59	42	3.65	11	11	3.23
NE Region	10	6	0.86	51	37	3.82	19	17	2.53
CW Region	10	6	0.00	52	43	4.20	7	6	2.12
CE Region	11	3	1.05	91	68	5.41	20	20	3.03
South Region	23	7	0.11	153	99	6.25	22	22	2.95
State Total	**66**	**29**	**0.40**	**406**	**289**	**5.16**	**79**	**76**	**2.83**

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 02/09/2016

NJ Health
New Jersey Department of Health

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
February 9, 2016 MMWR WEEK 6				
ATLANTIC	11	44	4	90
BERGEN	2	12	17	151
BURLINGTON	0	0	0	0
CAMDEN	6	17	5	165
CAPE MAY	4	13	0	24
CUMBERLAND	0	0	0	0
ESSEX	15	107	24	302
GLOUCESTER	2	9	3	51
HUDSON	3	27	11	78
HUNTERDON	2	10	5	49
MERCER	0	7	1	40
MIDDLESEX	12	69	2	39
MONMOUTH	49	134	19	384
MORRIS	12	151	0	0
OCEAN	8	33	5	88
PASSAIC	10	41	26	130
SALEM	0	0	0	0
SOMERSET	0	0	0	0
SUSSEX	0	0	0	0
UNION	18	109	1	14
WARREN	3	31	2	45
NW Region	25	223	28	175
NE Region	20	146	52	531
CW Region	2	17	6	89
CE Region	87	345	27	525
South Region	23	83	12	330
State Total	157	814	125	1650