

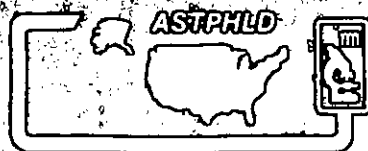
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CONSOLIDATED ANNUAL REPORT

on
State and Territorial
Public Health
Laboratories

Fiscal Year 1989

Association of State and Territorial
Public Health Laboratory Directors



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November 1990

**Association of State and Territorial
Public Health Laboratory Directors
1211 Connecticut Avenue, N.W., Suite 508
Washington, D.C. 20036**

This publication is based on data voluntarily submitted to ASTPHLD by the nation's state and territorial public health laboratories. These data were processed, analyzed, and published by the Public Health Foundation through a subcontract under Cooperative Agreement No. U60/CCU303019 with the Centers for Disease Control. The content of this publication does not necessarily reflect the views or policies of the Department of Health and Human Services.

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FOREWORD

The purpose of the Consolidated Annual Report (CAR) is to provide data to the members of the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD) for planning and laboratory management purposes and to other health organizations and government agencies interested in public health laboratories.

The CAR is the only resource containing quantitative information about the various procedures conducted by Association members. The Management and Information Systems Committee of the Association, after considerable deliberation, intends to enhance the CAR, making it more meaningful, timely, and useful not only for Association members but also for users in other health organizations and government agencies. The Committee will ensure that the CAR remains a *valued resource document*.

Special thanks are due the state and territorial public health laboratory directors and their staff for their continued efforts in providing data for this report. We are also indebted to our Project Officer, Carl H. Blank, Dr.P.H., Centers for Disease Control, for his support and helpful comments. The assistance of these individuals has enabled us to present this comprehensive picture of our public health laboratories.

Suggestions or comments on this report are invited. Please address communications to the Association of State and Territorial Public Health Laboratory Directors, 1211 Connecticut Avenue, N.W., Suite 508, Washington, D.C. 20036.

Loris W. Hughes, Ph.D.
President
Association of State and Territorial
Public Health Laboratory Directors

INTRODUCTION

This, the twenty-fifth edition of the Consolidated Annual Report (CAR), provides quantitative information about laboratory personnel and services identified in 15 workload areas. In addition to tabular displays, this year's CAR also includes graphic displays. The information for the tables and all but one of the graphics was provided by the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD), consisting of the public health laboratories in each of the 50 states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands. Information for the graphic on expenditures was collected by the Public Health Foundation in its annual survey of state health agencies.

The primary intent of the CAR is to aid Association members in planning, evaluating, budgeting, and effecting legislative activity at the state level. Principal users of this reporting system are State and Territorial Laboratory Directors, State and Territorial Health Officials, and the Centers for Disease Control.

Fifty-three of the 54 member laboratories provided data for this edition. The laboratory in New York did not report to the CAR for fiscal year 1989. National totals found in this edition, therefore, represent only 53 state and territorial public health laboratories.

The CAR deals with the personnel and workload activities of ASTPHLD. It omits those public health laboratory services provided by other state/territorial/local agencies. Therefore, this report understates the additional resources expended on public health laboratory services in nearly every state/territory having local health departments. If some type of activity is not reported in this CAR for a given Association member, it may indicate that a state or territorial agency other than the public health laboratory performs that service.

The basic unit of study in the Workload Reporting Section of the CAR is the laboratory specimen/sample. This is defined by ASTPHLD as "any material received in the laboratory for testing in a workload category or subcategory or a material which is divided into aliquots for testing in multiple categories or subcategories and is counted as one specimen for each category or subcategory." Specimens collected from the same site on the same patient (or same environmental sample) at the same time, are counted as one specimen in each category or subcategory in which it is tested.

The types of procedures routinely used (those tests performed as a standard operating procedure on a specimen or sample) in Association laboratories are identified by category and subcategory in the 15 workload areas. The ASTPHLD provides workload data in this report only for those procedures routinely followed in their laboratories and excludes those procedures they are capable of performing but do not do on a routine basis.

The questionnaire for the FY 1989 CAR was composed of two sections: personnel and workload reporting. The personnel section requested the type and number of budgeted positions in five categories and defined these categories by turnover, vacancies, and workload area. All budgeted positions are defined in terms of full-time equivalent (FTE) or man-year equivalent because the standard work week differs among reporting laboratories in terms of number of hours worked. The workload reporting section requested specific data concerning routine laboratory procedures and the number of specimens/samples tested under each procedure.

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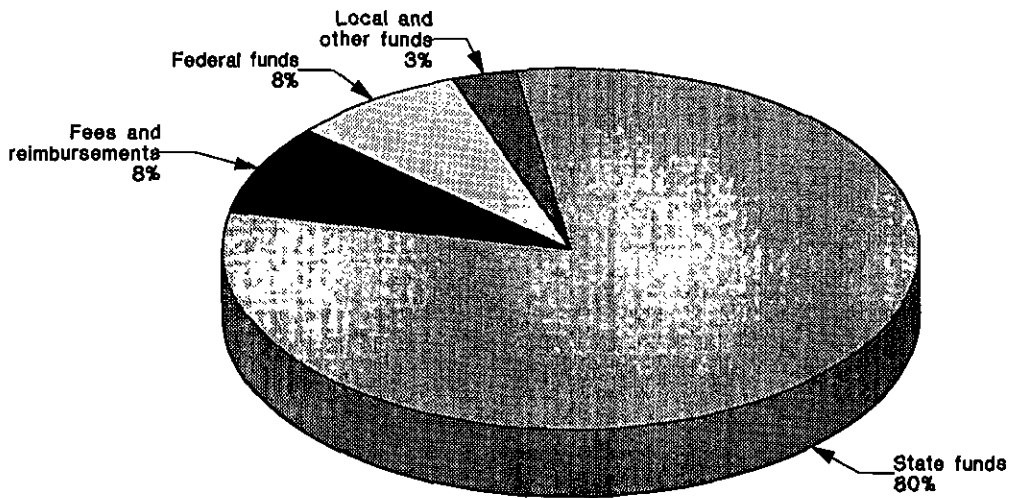
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SUMMARY

FIGURE 1.
STATE PUBLIC HEALTH LABORATORY PROGRAM EXPENDITURES,
BY SOURCE OF FUNDS, FISCAL YEAR 1988*

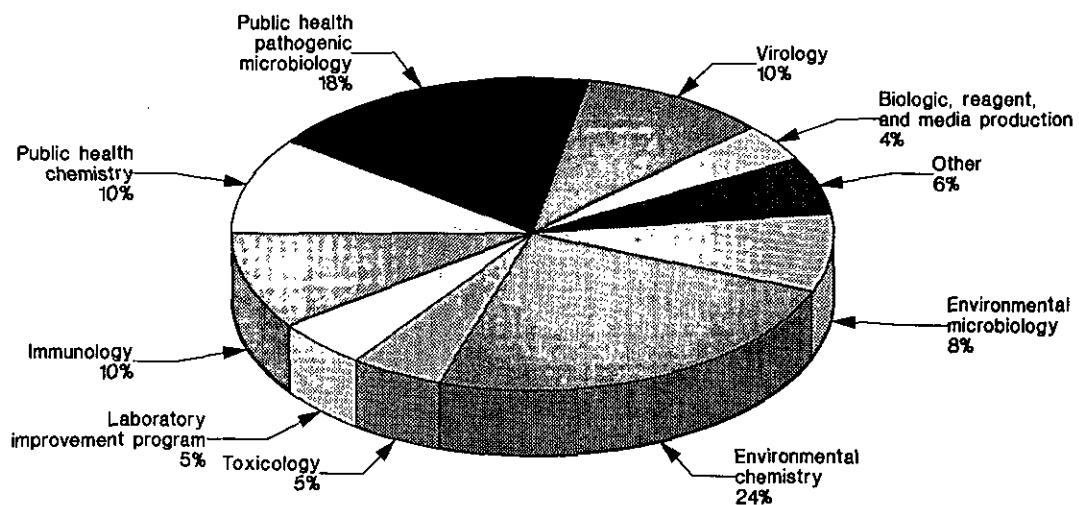


TOTAL: \$284.9 MILLION **

* Data were collected through the Public Health Foundation's annual survey of the nation's state health agencies.

** Laboratory expenditures were estimated for the state health agencies in Montana, Puerto Rico, and the Virgin Islands, which did not participate in the Foundation's FY 1988 annual survey.

FIGURE 2.
NUMBER OF STATE PUBLIC HEALTH LABORATORY PROFESSIONAL AND
TECHNICAL PERSONNEL, BY CATEGORY, FISCAL YEAR 1989



TOTAL: 3,863 PROFESSIONAL AND TECHNICAL PERSONNEL

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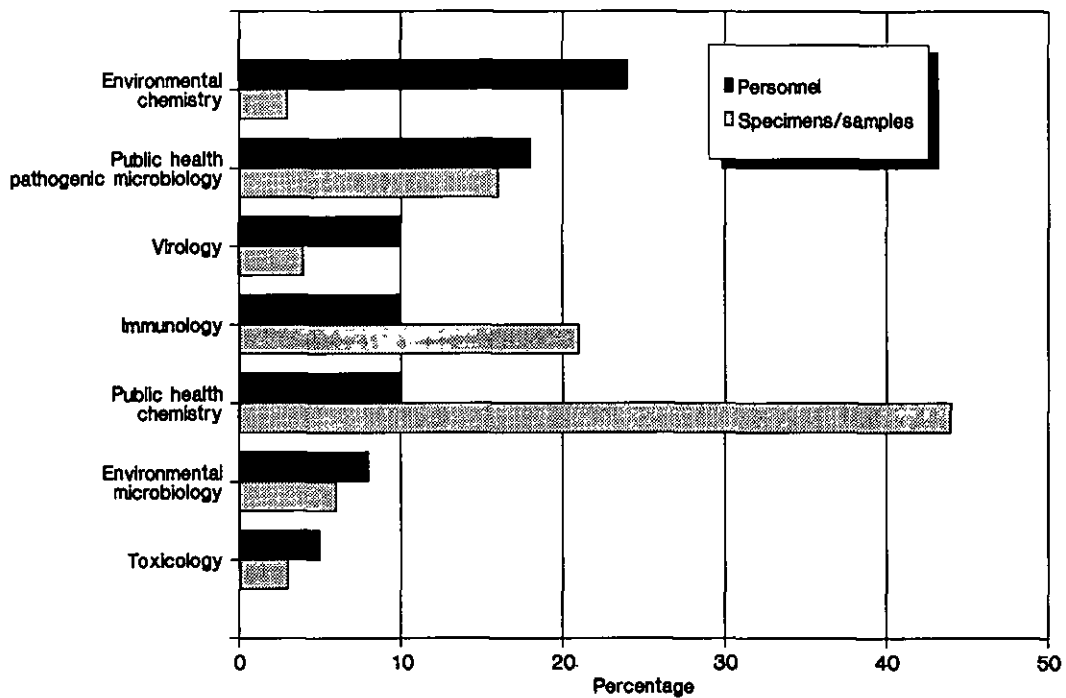


FIGURE 4.
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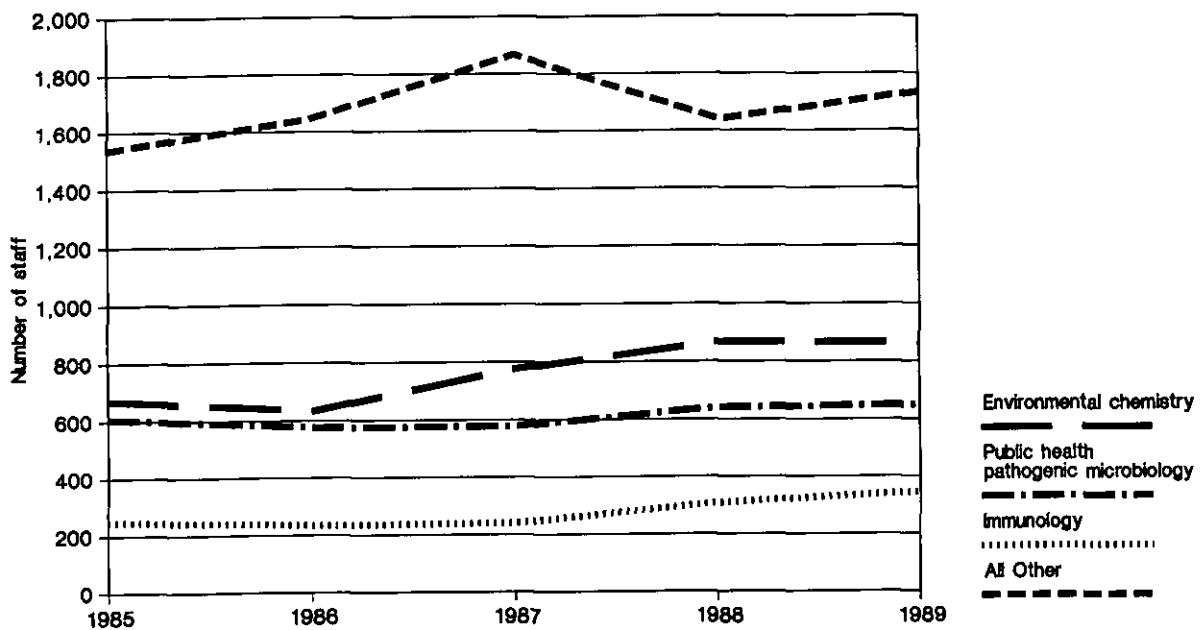


FIGURE 5.
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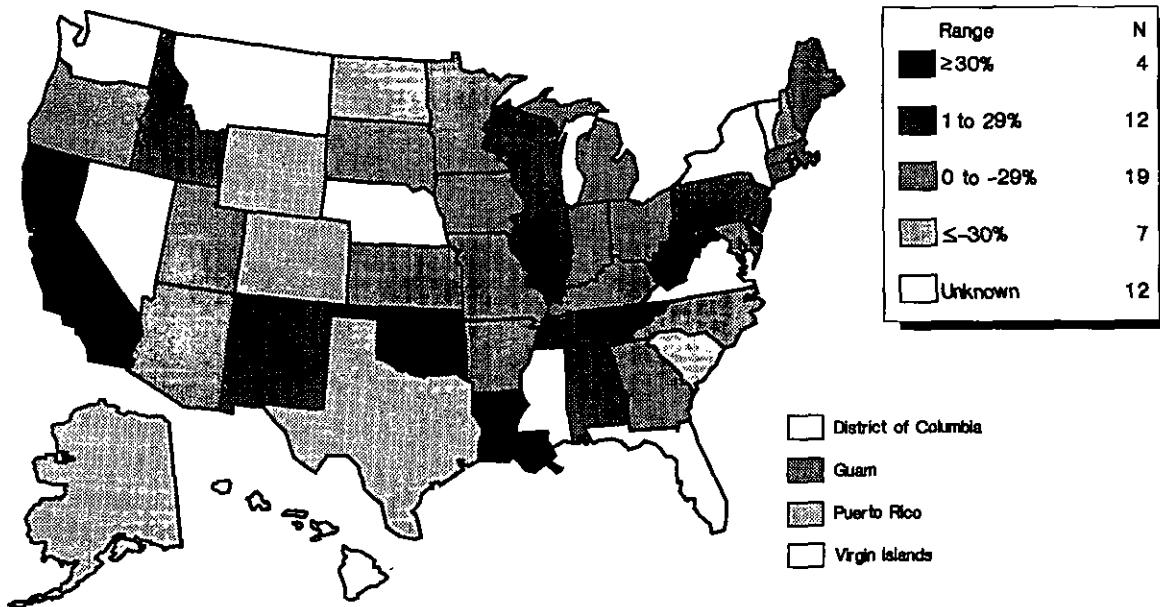


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 PERCENTAGE CHANGE IN THE NUMBER OF STATE PUBLIC HEALTH
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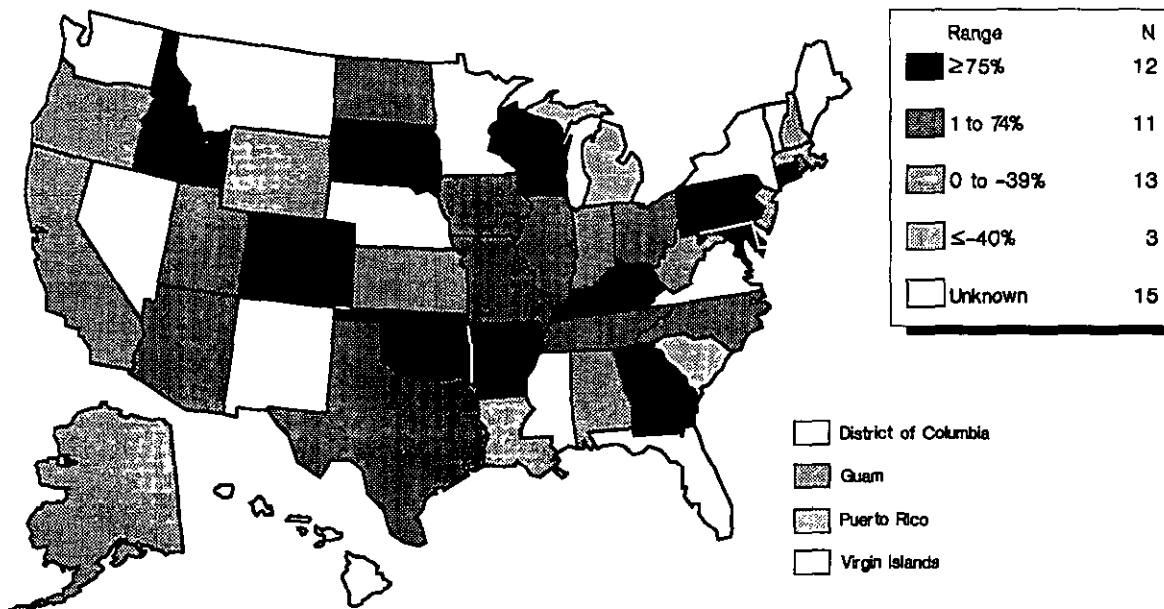


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 PERCENTAGE CHANGE IN THE NUMBER OF STATE PUBLIC HEALTH
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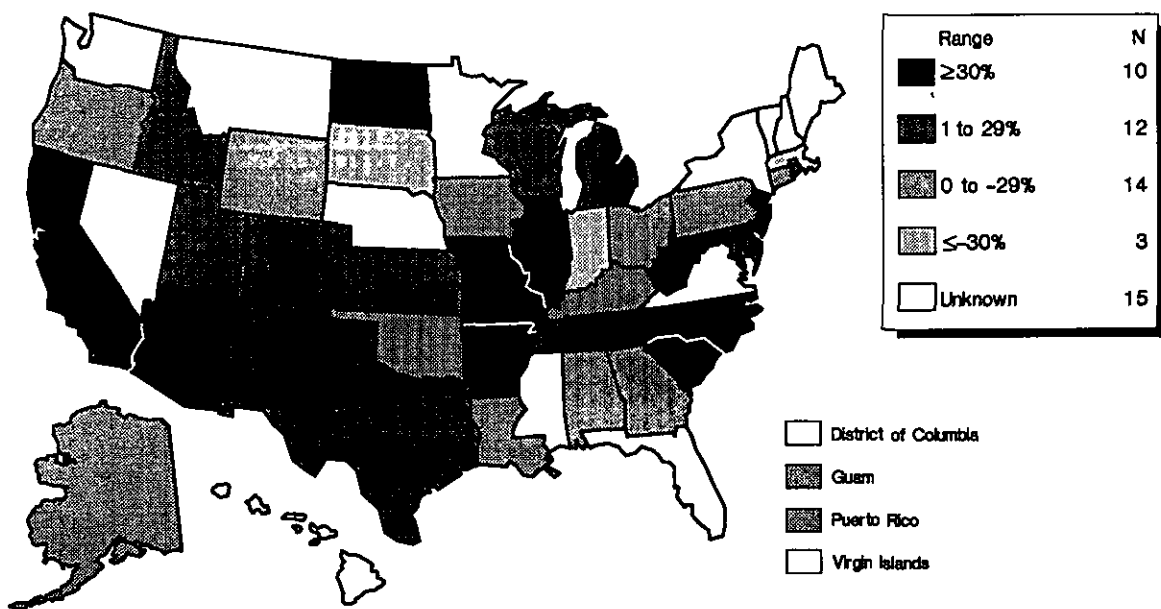


TABLE 1. NUMBER OF SPECIMENS, BY REPORTING CATEGORY

Lab & Region	Total Number of Specimens	Bacteriology		Mycology		Parasitology		Virology	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
No. of States Reporting	53	53		49		52		53	
TOTAL	35,825,417	5,283,955	14.83	77,507	0.22	324,513	0.91	1,360,218	3.82
AVERAGE	672,178	99,697		1,582		6,241		25,664	
NEW ENGLAND	2,591,144	207,319	8.00	3,830	0.15	12,247	0.47	40,364	1.56
Connecticut	432,694	38,750	8.96	1,302	0.30	2,585	0.60	11,718	2.71
Massachusetts	1,651,998	67,248	4.07	515	0.03	155	0.01	5,181	0.31
Maine	101,602	9,699	9.55	1,042	1.03	365	0.36	15,573	15.33
New Hampshire	46,824	13,759	29.32	408	0.87	221	0.47	2,899	6.18
Rhode Island	298,921	68,639	22.96	289	0.10	4,634	1.62	4,152	1.39
Vermont	59,005	9,224	15.63	276	0.47	4,087	6.93	841	1.43
MIDDLE ATLANTIC	1,002,710	166,178	16.57	283	0.03	1,682	0.17	14,603	1.48
New Jersey	621,345	157,969	25.42	283	0.06	1,535	0.25	11,648	1.87
New York*									
Pennsylvania	381,365	8,209	2.15	0	0.00	147	0.04	2,955	0.77
EAST NORTH CENTRAL	4,413,738	196,402	4.45	9,539	0.22	26,065	0.59	170,262	3.86
Illinois	467,925	58,973	12.60	712	0.15	3,364	0.72	9,374	2.00
Indiana	151,394	7,371	4.87	443	0.29	2,147	1.42	13,327	8.80
Michigan	1,439,616	42,185	2.93	1,821	0.13	9,491	0.66	15,116	1.05
Ohio	1,077,409	25,126	2.33	758	0.07	1,391	0.13	120,393	11.17
Wisconsin	1,277,394	62,747	4.91	5,905	0.45	9,672	0.76	12,052	0.94
WEST NORTH CENTRAL	2,074,447	301,972	14.56	3,472	0.17	22,034	1.06	114,938	5.54
Iowa	588,428	91,558	15.56	1,714	0.29	5,456	0.93	41,242	7.01
Kansas	223,034	33,757	15.14	864	0.39	6,307	2.83	18,924	8.48
Minnesota	456,340	75,844	16.62	449	0.10	3,233	0.71	12,153	2.66
Missouri	493,615	69,785	14.14	188	0.04	3,843	0.78	10,981	2.22
Nebraska	101,535	8,812	8.68	6	0.01	113	0.11	5,968	5.88
North Dakota	106,576	14,283	13.40	202	0.19	994	0.93	6,079	5.70
South Dakota	104,919	7,933	7.56	51	0.05	2,088	1.99	19,591	18.67
SOUTH ATLANTIC	9,841,512	1,735,310	17.63	16,028	0.16	111,666	1.13	466,655	4.74
Delaware	190,767	41,358	21.68	2,734	1.43	2,502	1.31	20,456	10.72
District of Columbia	486,665	80,441	16.53	3	0.00	0	0.00	10,450	2.15
Florida	2,518,545	630,705	25.04	1,647	0.07	56,524	2.24	69,185	2.75
Georgia	892,939	233,246	26.12	862	0.10	17,302	1.94	6,391	0.72
Maryland	3,265,384	434,869	13.32	4,903	0.15	17,108	0.52	220,273	6.75
North Carolina	1,019,552	24,395	2.39	1,307	0.13	5,875	0.58	53,904	5.29
South Carolina	592,840	93,804	15.82	1,440	0.24	4,313	0.73	27,929	4.71
Virginia	575,616	125,698	21.84	2,537	0.44	5,962	1.04	57,343	9.96
West Virginia	299,104	70,796	23.67	595	0.20	2,080	0.70	724	0.24
EAST SOUTH CENTRAL	2,868,496	845,743	29.48	8,244	0.29	21,594	0.75	52,102	1.82
Alabama	1,010,136	333,095	32.98	5,024	0.50	8,663	0.86	36,052	3.57
Kentucky	337,521	13,598	4.03	0	0.00	2,917	0.86	8,250	2.44
Mississippi	792,557	220,344	27.80	1,336	0.17	7,071	0.89	2,833	0.36
Tennessee	728,282	278,706	38.27	1,884	0.26	2,953	0.41	4,967	0.68
WEST SOUTH CENTRAL	5,427,537	822,956	15.18	7,991	0.15	16,824	0.31	92,789	1.71
Arkansas	404,516	89,305	22.08	2,213	0.55	1,567	0.39	1,478	0.37
Louisiana	765,420	151,240	19.76	255	0.03	6,078	0.79	1,539	0.20
Oklahoma	306,089	60,430	19.74	853	0.28	1,599	0.52	7,686	2.51
Texas	3,951,512	521,981	13.21	4,570	0.12	7,580	0.19	82,086	2.08
MOUNTAIN	2,828,239	228,525	8.08	2,226	0.08	9,347	0.33	117,545	4.16
Arizona	119,325	26,409	22.13	369	0.31	59	0.05	13,950	11.69
Colorado	1,735,363	18,708	1.08	194	0.01	1,947	0.11	17,451	1.01
Idaho	113,002	22,597	20.00	704	0.62	784	0.69	25,369	22.45
Montana	132,296	7,013	5.30	211	0.16	1,670	1.28	25,309	19.13
Nevada	119,253	44,277	37.13	46	0.04	2,303	1.93	10,650	8.93
New Mexico	349,958	30,391	8.68	492	0.14	2,179	0.62	11,522	3.29
Utah	164,821	20,539	12.46	89	0.05	245	0.15	7,141	4.33
Wyoming	94,221	58,591	62.18	121	0.13	160	0.17	6,153	6.53
PACIFIC	4,187,068	742,535	17.73	25,867	0.62	89,438	2.14	280,547	6.70
Alaska	116,792	56,508	48.38	266	0.23	3,471	2.97	4,284	3.67
California	1,934,937	569,628	29.44	20,606	1.06	78,044	4.03	174,677	9.03
Hawaii	282,301	76,385	27.06	315	0.11	558	0.20	4,024	1.43
Oregon	1,316,273	6,602	0.50	0	0.00	2,665	0.20	48,771	3.71
Washington	536,765	33,412	6.22	4,680	0.87	4,700	0.88	48,791	9.09
TERRITORIES	390,526	37,015	9.48	127	0.03	13,616	3.49	10,413	2.67
Guam	25,863	10,525	40.70	123	0.48	384	1.48	2,966	11.47
Puerto Rico	53,214	3,111	5.85	0	0.00	669	1.26	5,782	10.87
Virgin Islands	311,449	23,379	7.51	4	0.00	12,563	4.03	1,665	0.53

* New York did not report for fiscal year 1989.

TABLE 1. NUMBER OF SPECIMENS, BY REPORTING CATEGORY (continued)

Lab & Region (11)	Total Number of Specimens (12)	Immunology		Hematology		Clinical Chemistry		Pathology	
		Number (13)	Percent (14)	Number (15)	Percent (16)	Number (17)	Percent (18)	Number (19)	Percent (20)
No. of States Reporting	53	52		28		45		7	
TOTAL	35,625,417	7,393,642	20.76	544,137	1.53	15,563,089	43.66	416,215	1.17
AVERAGE	672,178	142,185		20,928		345,624		59,459	
NEW ENGLAND	2,591,144	272,285	10.51	443	0.02	1,485,322	56.55	0	0.00
Connecticut	432,694	85,692	19.80	443	0.10	158,350	36.13	0	0.00
Massachusetts	1,851,998	89,613	5.42	0	0.00	1,277,020	77.30	0	0.00
Maine	101,602	18,389	18.10	0	0.00	0	0.00	0	0.00
New Hampshire	46,924	13,448	28.66	0	0.00	0	0.00	0	0.00
Rhode Island	298,921	57,201	19.14	0	0.00	31,952	10.69	0	0.00
Vermont	59,005	7,942	13.46	0	0.00	0	0.00	0	0.00
MIDDLE ATLANTIC	1,002,710	198,173	19.76	29	0.00	488,418	48.71	0	0.00
New Jersey	621,345	194,702	31.34	0	0.00	127,723	20.56	0	0.00
New York*									
Pennsylvania	381,365	3,471	0.91	29	0.01	360,695	94.58	0	0.00
EAST NORTH CENTRAL	4,413,738	587,328	13.31	15,058	0.34	2,568,776	58.20	105,088	2.38
Illinois	467,925	80,851	17.28	0	0.00	231,890	49.56	0	0.00
Indiana	151,394	27,944	18.46	0	0.00	0	0.00	0	0.00
Michigan	1,439,816	259,009	17.99	0	0.00	931,830	64.73	0	0.00
Ohio	1,077,409	98,663	9.17	0	0.00	746,187	69.26	0	0.00
Wisconsin	1,277,394	122,661	9.62	15,058	1.18	658,869	51.58	105,088	8.23
WEST NORTH CENTRAL	2,074,447	389,501	18.78	4,890	0.23	768,900	37.07	0	0.00
Iowa	588,428	78,451	13.33	0	0.00	277,591	47.18	0	0.00
Kansas	223,034	40,179	18.01	0	0.00	48,136	21.58	0	0.00
Minnesota	456,340	43,997	9.64	0	0.00	285,720	62.61	0	0.00
Missouri	493,615	174,383	35.33	0	0.00	108,934	22.07	0	0.00
Nebraska	101,535	26,298	25.90	0	0.00	12,552	12.36	0	0.00
North Dakota	106,576	17,338	16.27	583	0.55	19,696	18.48	0	0.00
South Dakota	104,919	8,855	8.44	4,107	3.91	16,271	15.51	0	0.00
SOUTH ATLANTIC	9,841,512	2,374,134	24.12	344,695	3.50	3,369,138	34.23	288,503	2.91
Delaware	190,767	78,741	41.28	8,796	4.61	8,663	4.54	0	0.00
District of Columbia	486,665	196,532	40.38	59,089	12.14	49,047	10.08	14,320	2.94
Florida	2,518,545	889,135	35.30	59,091	2.35	497,154	19.74	0	0.00
Georgia	892,939	377,931	42.32	15,183	1.70	241,877	27.09	0	0.00
Maryland	3,265,384	320,917	9.83	138,738	4.25	1,687,347	51.67	51,327	1.57
North Carolina	1,019,552	191,266	18.76	19,617	1.92	465,448	45.65	154,323	15.14
South Carolina	592,940	129,720	21.88	26,416	4.45	204,203	34.44	0	0.00
Virginia	575,616	170,884	29.69	17,766	3.09	125,661	21.83	0	0.00
West Virginia	299,104	19,008	6.35	0	0.00	89,738	30.00	66,533	22.24
EAST SOUTH CENTRAL	2,868,496	904,849	31.54	73,913	2.58	695,447	24.24	0	0.00
Alabama	1,010,136	318,244	31.51	21,435	2.12	199,343	19.73	0	0.00
Kentucky	337,621	48,979	14.51	7,437	2.20	224,511	66.52	0	0.00
Mississippi	792,557	289,772	36.56	45,041	5.68	140,138	17.68	0	0.00
Tennessee	728,282	247,654	34.01	0	0.00	131,455	18.05	0	0.00
WEST SOUTH CENTRAL	5,427,537	1,033,730	19.05	71,713	1.32	2,789,144	51.39	0	0.00
Arkansas	404,516	88,899	21.98	6,494	1.61	121,207	29.96	0	0.00
Louisiana	765,420	188,848	24.67	3,900	0.51	211,964	27.69	0	0.00
Oklahoma	306,089	112,057	36.61	4,990	1.63	118,474	38.71	0	0.00
Texas	3,951,512	643,926	16.30	56,328	1.43	2,337,499	59.15	0	0.00
MOUNTAIN	2,828,239	432,788	15.30	7,377	0.26	1,625,231	57.46	24,624	0.87
Arizona	119,325	64,177	53.78	0	0.00	0	0.00	0	0.00
Colorado	1,735,363	155,694	8.97	0	0.00	1,338,403	77.13	0	0.00
Idaho	113,002	13,595	12.03	6,840	6.05	6,264	5.54	594	0.53
Montana	132,296	28,471	21.52	0	0.00	45,492	34.39	0	0.00
Nevada	119,253	37,934	31.81	0	0.00	610	0.51	0	0.00
New Mexico	349,958	80,399	22.97	0	0.00	162,623	46.47	24,030	6.87
Utah	164,821	43,490	26.39	0	0.00	71,839	43.59	0	0.00
Wyoming	94,221	9,028	9.58	537	0.57	0	0.00	0	0.00
PACIFIC	4,187,068	1,180,074	28.42	22	0.00	1,523,164	36.38	0	0.00
Alaska	116,792	47,178	40.39	0	0.00	0	0.00	0	0.00
California	1,934,937	957,451	49.48	22	0.00	1,058	0.05	0	0.00
Hawaii	282,301	32,360	11.46	0	0.00	0	0.00	0	0.00
Oregon	1,316,273	87,177	6.62	0	0.00	1,161,223	88.22	0	0.00
Washington	536,765	65,908	12.28	0	0.00	360,883	67.23	0	0.00
TERRITORIES	390,526	10,980	2.81	26,197	6.71	259,549	66.46	0	0.00
Guam	25,863	2,469	9.55	4,893	18.92	4,227	16.34	0	0.00
Puerto Rico	53,214	0	0.00	8,474	15.92	13,511	25.39	0	0.00
Virgin Islands	311,449	8,511	2.73	12,830	4.12	241,811	77.64	0	0.00

* New York did not report for fiscal year 1989.

TABLE 1. NUMBER OF SPECIMENS, BY REPORTING CATEGORY (continued)

Lab & Region	Total Number of Specimens	Environmental Microbiology		Environmental Chemistry		Occupational Safety and Health		Toxicology	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
No. of States Reporting	53	52		44		28		38	
TOTAL	35,625,417	2,278,528	6.40	1,137,381	3.19	136,209	0.38	1,120,023	3.14
AVERAGE	672,178	43,818		25,850		4,865		29,474	
NEW ENGLAND	2,591,144	80,585	3.11	117,113	4.52	15,082	0.58	376,574	14.53
Connecticut	432,694	15,394	3.58	33,958	7.85	11,590	2.68	74,912	17.31
Massachusetts	1,651,998	3,750	0.23	1,507	0.09	708	0.04	206,301	12.49
Maine	101,602	22,705	22.35	19,200	18.90	867	0.85	13,762	13.55
New Hampshire	48,924	1,938	4.13	4	0.01	1,808	3.85	12,441	26.51
Rhode Island	298,921	11,541	3.86	56,444	18.88	109	0.04	63,760	21.33
Vermont	59,005	25,237	42.77	6,000	10.17	0	0.00	5,398	9.15
MIDDLE ATLANTIC	1,002,710	7,581	0.76	5,992	0.60	2,004	0.20	117,787	11.74
New Jersey	621,345	7,485	1.20	5,992	0.96	2,004	0.32	112,024	18.03
New York*									
Pennsylvania	381,365	116	0.03	0	0.00	0	0.00	5,743	1.51
EAST NORTH CENTRAL	4,413,738	352,142	7.98	208,270	4.72	73,813	1.67	100,995	2.29
Illinois	467,925	40,015	8.55	7,148	1.53	9,990	2.13	25,808	5.47
Indiana	151,394	74,925	49.49	22,168	14.64	0	0.00	3,069	2.03
Michigan	1,439,816	103,281	7.17	75,599	5.26	1,250	0.09	34	0.00
Ohio	1,077,409	53,376	4.95	11,372	1.06	3,682	0.34	18,451	1.71
Wisconsin	1,277,394	80,545	6.31	91,983	7.20	68,881	4.81	53,833	4.21
WEST NORTH CENTRAL	2,074,447	285,262	13.75	152,170	7.34	9,589	0.46	21,919	1.06
Iowa	588,428	43,057	7.32	40,946	6.96	8,120	1.38	293	0.05
Kansas	223,034	45,943	20.60	28,812	12.92	112	0.05	0	0.00
Minnesota	458,340	12,260	2.69	21,485	4.71	1,199	0.26	0	0.00
Missouri	493,815	112,734	22.84	12,733	2.58	0	0.00	38	0.01
Nebraska	101,535	25,267	24.89	20,511	20.20	88	0.08	1,922	1.89
North Dakota	106,576	19,992	18.76	13,922	13.08	46	0.04	13,441	12.61
South Dakota	104,919	26,009	24.79	13,781	13.12	26	0.02	6,227	5.94
SOUTH ATLANTIC	9,841,512	582,484	5.92	277,377	2.82	22,748	0.23	254,774	2.59
Delaware	190,787	17,366	9.10	6,187	3.24	0	0.00	3,964	2.08
District of Columbia	486,665	173	0.04	218	0.04	0	0.00	76,392	15.70
Florida	2,518,545	264,947	10.52	29,208	1.16	292	0.01	20,857	0.82
Georgia	892,939	147	0.02	0	0.00	0	0.00	0	0.00
Maryland	3,265,384	126,880	3.89	203,446	6.23	10,589	0.32	48,987	1.50
North Carolina	1,019,552	50,409	4.94	31,394	3.08	45	0.00	21,569	2.12
South Carolina	592,940	10,089	1.70	0	0.00	11,822	1.99	83,205	14.03
Virginia	575,618	69,767	12.12	0	0.00	0	0.00	0	0.00
West Virginia	299,104	42,708	14.28	6,924	2.31	0	0.00	0	0.00
EAST SOUTH CENTRAL	2,868,496	228,768	7.97	26,300	0.92	1,907	0.07	9,841	0.34
Alabama	1,010,136	87,249	8.64	1,041	0.10	0	0.00	0	0.00
Kentucky	337,521	10,469	3.10	9,612	2.85	1,907	0.57	9,841	2.92
Mississippi	792,557	78,947	9.96	7,075	0.89	0	0.00	0	0.00
Tennessee	728,282	52,091	7.15	8,572	1.18	0	0.00	0	0.00
WEST SOUTH CENTRAL	5,427,537	454,629	8.38	62,724	0.97	9,623	0.18	75,514	1.39
Arkansas	404,518	82,344	20.36	3,900	0.96	1,519	0.38	5,590	1.38
Louisiana	765,420	108,575	14.19	25,090	3.28	0	0.00	67,931	8.87
Oklahoma	306,089	0	0.00	0	0.00	0	0.00	0	0.00
Texas	3,951,512	263,710	6.67	23,734	0.60	8,104	0.21	1,993	0.05
MOUNTAIN	2,828,239	130,088	4.60	98,884	3.50	1,375	0.05	150,249	5.31
Arizona	119,325	8,945	7.50	4,713	3.95	700	0.59	3	0.00
Colorado	1,735,363	21,248	1.22	49,504	2.85	55	0.00	132,159	7.62
Idaho	113,002	29,072	25.73	7,183	6.36	0	0.00	0	0.00
Montana	132,296	13,022	9.84	10,945	8.27	163	0.12	0	0.00
Nevada	119,253	19,878	16.67	3,555	2.98	0	0.00	0	0.00
New Mexico	349,958	17,338	4.95	14,916	4.28	0	0.00	6,088	1.73
Utah	164,821	7,922	4.81	8,048	4.88	457	0.28	5,051	3.06
Wyoming	84,221	12,683	13.44	0	0.00	0	0.00	6,968	7.40
PACIFIC	4,187,068	137,245	3.28	189,228	4.52	68	0.00	8,880	0.21
Alaska	116,792	201	0.17	0	0.00	0	0.00	4,684	4.18
California	1,934,937	103,825	5.37	25,802	1.32	68	0.00	3,958	0.20
Hawaii	282,301	11,228	3.98	157,433	55.77	0	0.00	0	0.00
Oregon	1,316,273	9,835	0.75	0	0.00	0	0.00	0	0.00
Washington	536,765	12,158	2.27	6,183	1.15	0	0.00	40	0.01
TERRITORIES	390,526	19,778	5.06	9,343	2.39	0	0.00	3,510	0.90
Guam	25,863	278	1.07	0	0.00	0	0.00	0	0.00
Puerto Rico	63,214	11,627	21.66	9,304	17.48	0	0.00	836	1.57
Virgin Islands	311,449	7,973	2.56	39	0.01	0	0.00	2,674	0.86

* New York did not report for fiscal year 1989.

***LABORATORY
DIAGNOSTIC
WORKLOAD***

TABLE 2. BACTERIOLOGY SPECIMENS

Lab & Region (1)	Total Bacteriology Specimens (2)	Type of specimen					
		Nasopharyngeal (3)	Mycobacterial (4)	Enteric (5)	Gonococcus (6)	Anaerobic (7)	Other Bacteriology (8)
TOTAL	5,283,955	256,427	445,490	224,045	4,085,239	9,919	259,836
AVERAGE	99,697	4,989	9,092	4,227	77,080	261	5,303
NEW ENGLAND	207,319	24,059	42,244	16,457	119,139	205	5,216
Connecticut	38,750	3,770	4,386	3,178	26,576	40	800
Massachusetts	67,248	1,456	29,944	9,741	23,345	11	2,751
Maine	9,699	356	3,810	357	4,859	37	280
New Hampshire	13,759	342	2,026	217	10,497	6	671
Rhode Island	68,639	17,988	1,377	1,135	47,639	49	471
Vermont	9,224	167	701	1,629	6,222	62	243
MIDDLE ATLANTIC	166,178	6,584	9,350	8,651	140,785	67	741
New Jersey	157,969	6,557	6,747	3,768	140,687	33	207
New York*							
Pennsylvania	8,209	27	2,603	4,893	118	34	534
EAST NORTH CENTRAL	198,402	3,649	24,311	19,921	96,458	636	51,427
Illinois	58,973	1,047	5,460	8,306	42,704	61	1,395
Indiana	7,371	271	3,047	2,206	384	4	1,459
Michigan	42,185	1,099	9,993	3,266	17,630	166	10,041
Ohio	25,126	774	971	256	19,169	212	3,746
Wisconsin	62,747	459	4,850	6,888	16,572	193	34,786
WEST NORTH CENTRAL	301,972	30,757	19,410	11,879	229,325	357	10,244
Iowa	91,558	21,656	1,740	2,226	62,709	162	3,065
Kansas	33,757	114	4,125	2,298	26,489	165	568
Minnesota	75,844	139	8,890	2,130	64,624	0	61
Missouri	69,785	3,093	0	3,603	61,659	NA	1,230
Nebraska	8,812	3	460	68	8,069	0	212
North Dakota	14,283	5,339	2,047	378	1,937	29	4,693
South Dakota	7,933	413	2,148	976	3,668	1	427
SOUTH ATLANTIC	1,735,310	57,984	110,767	67,053	1,429,290	2,176	69,070
Delaware	41,358	3,862	1,091	697	31,694	0	3,814
District of Columbia	80,441	6,231	568	2,244	59,869	0	11,531
Florida	630,705	14,105	36,109	35,885	538,820	42	5,744
Georgia	233,246	4,472	13,815	2,741	206,909	96	5,214
Maryland	434,869	22,262	16,405	12,340	345,264	383	38,215
North Carolina	24,395	879	14,835	5,732	1,325	273	1,351
South Carolina	93,804	79	12,123	258	78,519	NA	2,825
Virginia	125,696	5,727	12,284	6,776	99,527	1,382	0
West Virginia	70,796	347	3,529	360	66,164	0	376
EAST SOUTH CENTRAL	845,743	28,775	62,922	10,803	705,513	1,429	36,301
Alabama	333,095	2,631	24,277	3,493	277,809	39	24,846
Kentucky	13,598	840	11,072	776	860	0	50
Mississippi	220,344	7,257	15,214	2,334	185,634	NA	9,905
Tennessee	278,708	18,047	12,359	4,200	241,210	1,390	1,500
WEST SOUTH CENTRAL	822,956	10,121	77,621	24,003	671,982	4,785	34,444
Arkansas	89,305	107	17,689	831	70,558	80	40
Louisiana	151,240	229	5,723	3,052	141,438	126	672
Oklahoma	60,430	1,032	0	1,104	57,644	85	565
Texas	521,981	8,753	54,209	19,016	402,342	4,494	33,167
MOUNTAIN	228,525	74,473	15,738	7,322	126,825	129	4,039
Arizona	26,409	1,692	2,581	792	21,148	15	181
Colorado	18,708	10,981	907	1,761	4,641	10	408
Idaho	22,597	4,439	2,716	447	14,393	39	563
Montana	7,013	359	1,585	869	3,826	NA	374
Nevada	44,277	1,307	1,610	1,660	38,908	14	778
New Mexico	30,391	437	5,198	1,432	22,377	50	897
Utah	20,539	0	898	332	18,471	0	838
Wyoming	58,591	55,258	243	29	3,061	0	0
PACIFIC	742,535	18,937	80,653	36,897	559,528	132	46,388
Alaska	56,508	676	6,609	1,774	47,168	44	237
California	569,628	15,152	58,856	29,758	422,925	NA	42,935
Hawaii	76,385	1,681	5,966	1,510	68,083	62	1,083
Oregon	6,602	204	4,066	1,870	267	1	174
Washington	33,412	1,224	5,134	1,985	23,085	25	1,959
TERRITORIES	37,015	4,108	2,484	21,060	7,394	4	1,966
Guam	10,525	14	2,484	270	5,791	0	1,966
Puerto Rico	3,111	2,788	0	216	103	4	0
Virgin Islands	23,379	1,306	0	20,573	1,500	0	0

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 3. BACTERIOLOGY-Nasopharyngeal Specimens-Streptococcus Beta Hemolytic, Group A

Lab & Region	Number of Specimens	Type of procedure						Other
		Culture	FA	Serogrouping	Serotyping	Bacitracin Disc		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
TOTAL	209,887	42	26	28	2	17		
AVERAGE	4,684							
NEW ENGLAND	13,814							
Connecticut	3,361	X	X	X		X		
Massachusetts	365	X	X					
Maine	10	X						
New Hampshire	125	X		X				
Rhode Island	9,953	X		X				
Vermont	0							
MIDDLE ATLANTIC	8							
New Jersey	0							
New York*								
Pennsylvania	8	X		X		X		
EAST NORTH CENTRAL	1,428							
Illinois	5	X		X		X		
Indiana	0							
Michigan	798	X		X		X		
Ohio	625			X				
Wisconsin	0							
WEST NORTH CENTRAL	29,965							
Iowa	21,420	X	X	X				
Kansas	38	X		X				
Minnesota	0							
Missouri	3,093	X	X	X				
Nebraska	3	X	X					
North Dakota	5,032		X					
South Dakota	378	X				X	Latex agglutination	
SOUTH ATLANTIC	47,588							
Delaware	3,862	X					Directigen	
District of Columbia	6,231	X		X	X	X		
Florida	8,303	X				X		
Georgia	3,769	X	X					
Maryland	21,198	X		X		X		
North Carolina	278	X	X	X				
South Carolina	78	X	X					
Virginia	5,586	X	X	X		X		
West Virginia	283	X	X					
EAST SOUTH CENTRAL	28,125							
Alabama	2,148	X	X					
Kentucky	811	X	X	X				
Mississippi	7,250	X	X					
Tennessee	17,916		X					
WEST SOUTH CENTRAL	1,007							
Arkansas	0							
Louisiana	22	X	X	X				
Oklahoma	590	X	X	X				
Texas	395	X	X	X		X		
MOUNTAIN	68,550							
Arizona	20	X		X		X		
Colorado	10,821	X	X					
Idaho	874	X	X	X		X	ELISA (solid phase)	
Montana	265	X		X			Baxter "Cards" kit	
Nevada	1,292	X		X		X		
New Mexico	20	X		X				
Utah	0							
Wyoming	55,258	X	X					
PACIFIC	17,188							
Alaska	468	X	X			X		
California	14,999	X	X	X	X	X		
Hawaii	1,538	X	X	X		X	Direct antigen	
Oregon	66	X	X					
Washington	117	X	X					
TERRITORIES	2,216							
Guam	NA							
Puerto Rico	910	X		X		X		
Virgin Islands	1,308	X						

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 3. BACTERIOLOGY-Nasopharyngeal Specimens-Diphtheria (continued)

Lab & Region	Number of Specimens	Type of procedure				
		Direct Smear	Culture	Confirmatory Sugars	Toxigenicity	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL	6,582	17	32	20	19	
AVERAGE	227					
NEW ENGLAND	6					
Connecticut	0					
Massachusetts	3	X	X	X	X	
Maine	0					
New Hampshire	0					
Rhode Island	3	X	X	X	X	
Vermont	0					
MIDDLE ATLANTIC	1					
New Jersey	0					
New York*						
Pennsylvania	1		X	X	X	
EAST NORTH CENTRAL	19					
Illinois	0					
Indiana	3		X			
Michigan	4	X	X	X	X	
Ohio	0					
Wisconsin	12		X	X	X	
WEST NORTH CENTRAL	42					
Iowa	6	X	X	X	X	
Kansas	2		X	X		
Minnesota	28	X	X		X	
Missouri	NA		X	X		
Nebraska	0					
North Dakota	2	X	X	X		
South Dakota	4		X	X		
SOUTH ATLANTIC	6,313					
Delaware	0					
District of Columbia	0					
Florida	6,303		X	X	X	
Georgia	2		X			
Maryland	7	X	X	X	X	
North Carolina	NA	X	X	X		
South Carolina	1	X	X	X		
Virginia	0					
West Virginia	0					
EAST SOUTH CENTRAL	15					
Alabama	11		X	X	X	
Kentucky	0					
Mississippi	1		X	X		
Tennessee	3	X	X	X	X	
WEST SOUTH CENTRAL	88					
Arkansas	4	X	X	X		
Louisiana	0					
Oklahoma	8	X	X	X		
Texas	76		X	X	X	
MOUNTAIN	43					
Arizona	11	X	X	X	X	
Colorado	10		X	X	X	
Idaho	8	X	X	X	X	
Montana	3		X	X		
Nevada	0					
New Mexico	11		X	X	X	Other biochemical reactions
Utah	0					
Wyoming	0					
PACIFIC	55					
Alaska	10	X	X	X		
California	NA	X	X	X	X	
Hawaii	6		X	X	X	
Oregon	0					
Washington	39	X	X	X	X	
TERRITORIES	NA					
Guam	NA					
Puerto Rico	0					
Virgin Islands	0					

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 3. BACTERIOLOGY-Nasopharyngeal Specimens-Pertussis (continued)

Lab & Region	Number of Specimens	Type of procedure			
		Culture	FA	Serological	Biochemicals
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	17,617	40	43	7	22
AVERAGE	419				
NEW ENGLAND	1,880				
Connecticut	148	X	X		
Massachusetts	1,088	X	X	X	X
Maine	346		X		
New Hampshire	119	X	X		X
Rhode Island	12	X	X		X
Vermont	167	X	X		X
MIDDLE ATLANTIC	18				
New Jersey	0				
New York*					
Pennsylvania	18	X	X		
EAST NORTH CENTRAL	2,202				
Illinois	1,042	X	X		
Indiana	268	X	X		X
Michigan	297	X	X		X
Ohio	149	X	X		
Wisconsin	446	X	X		X
WEST NORTH CENTRAL	530				
Iowa	230	X	X		X
Kansas	74		X		
Minnesota	111	X	X		X
Missouri	NA	X	X		X
Nebraska	0				
North Dakota	85	X	X		
South Dakota	30	X	X		
SOUTH ATLANTIC	4,065				
Delaware	0				
District of Columbia	0				
Florida	1,499	X	X	X	
Georgia	701	X	X		
Maryland	1,059	X	X	X	X
North Carolina	601	X	X		X
South Carolina	NA	X	X		X
Virginia	141		X		
West Virginia	64		X		
EAST SOUTH CENTRAL	452				
Alabama	289	X	X		X
Kentucky	29		X		
Mississippi	8	X			
Tennessee	128	X	X		X
WEST SOUTH CENTRAL	1,171				
Arkansas	24	X	X	X	X
Louisiana	207	X	X		
Oklahoma	260	X	X		X
Texas	680	X	X	X	X
MOUNTAIN	5,776				
Arizona	1,661	X	X		
Colorado	150	X	X		
Idaho	3,463	X	X		
Montana	91	X	X		
Nevada	5	X	X		X
New Mexico	408	X	X		
Utah	0				
Wyoming	0				
PACIFIC	1,521				
Alaska	178	X	X		
California	NA	X	X	X	X
Hawaii	137	X	X		X
Oregon	138	X	X		
Washington	1,068	X	X		
TERRITORIES	2				
Guam	NA				
Puerto Rico	2	X		X	X
Virgin Islands	0				

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 3. BACTERIOLOGY-Nasopharyngeal Specimens-Other (continued)

Lab & Region	Number of Specimens	Disease/Type of procedure
(1)	(2)	(3)
TOTAL	25,327	
AVERAGE	1,809	
NEW ENGLAND	8,359	
Connecticut	281	Legionnaire's disease (clinical and environmental) - FA, culture; Vincent's infection - smear; speciation - biochemicals
Massachusetts	0	
Maine	0	
New Hampshire	98	Pneumonia, pharyngitis other than GAS-culture, biochemicals, serogrouping
Rhode Island	8,000	Gonococcus (throat)-culture, biochemicals, serology
Vermont	0	
MIDDLE ATLANTIC	6,557	
New Jersey	6,557	Lyme disease & Legionella-IFA, DFA, culture
New York*		
Pennsylvania	0	
EAST NORTH CENTRAL	0	
Illinois	0	
Indiana	0	
Michigan	0	
Ohio	0	
Wisconsin	0	
WEST NORTH CENTRAL	220	
Iowa	0	
Kansas	0	
Minnesota	0	
Missouri	0	
Nebraska	0	
North Dakota	220	Legionella-culture, DFA
South Dakota	0	
SOUTH ATLANTIC	0	
Delaware	0	
District of Columbia	0	
Florida	0	
Georgia	0	
Maryland	0	
North Carolina	0	
South Carolina	0	
Virginia	0	
West Virginia	0	
EAST SOUTH CENTRAL	183	
Alabama	183	Legionella - primary, biochemical, FA
Kentucky	0	
Mississippi	0	
Tennessee	0	
WEST SOUTH CENTRAL	7,855	
Arkansas	79	Staphylococcus-culture
Louisiana	0	
Oklahoma	174	Referred N-P throat isolates for identification
Texas	7,602	Legionella, Francisella-culture, DFA; Staphylococcus-phage typing; Haemophilus-culture, serogrouping
MOUNTAIN	104	
Arizona	0	
Colorado	0	
Idaho	94	Miscellaneous
Montana	0	
Nevada	10	Miscellaneous-culture, biochemicals
New Mexico	0	
Utah	0	
Wyoming	0	
PACIFIC	173	
Alaska	20	Meningitidis-cult., bioch., serogrouping; Staphylococcus, pneumonia, and fevers of unknown origin-cult., microscopic exam, catalase.
California	153	Adult & infant botulism
Hawaii	0	
Oregon	0	
Washington	0	
TERRITORIES	1,876	
Guam	NA	
Puerto Rico	1,876	UTI-culture, identification, sensitivity
Virgin Islands	0	

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 4. BACTERIOLOGY-Mycobacterial Specimens

Lab & Region	Number of Specimens	Type of procedure								
		Direct Smear	Concentrate Smear	Culture	Direct Suscept.- No. of Drugs	Indirect Suscept.- No. of Drugs	No. of Biochemicals	Species Ident.	Genetic Probes	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TOTAL	445,490	31	45	46	-	-	-	41	22	
AVERAGE	9,092									
NEW ENGLAND	42,244									
Connecticut	4,386	X	X	X		9	19	X		
Massachusetts	29,944	X	X	X	9	9	10	X	X	
Maine	3,810	X	X	X	8	6	4,5,6	X	X	
New Hampshire	2,026	X	X	X			7			
Rhode Island	1,377		X	X		9	12	X	X	
Vermont	701		X	X			12	X		
MIDDLE ATLANTIC	9,350									
New Jersey	6,747	X	X	X		4	12	X	X	
New York*										
Pennsylvania	2,603				6	5,9	3-13	X	X	
EAST NORTH CENTRAL	24,311									
Illinois	5,460		X	X		5	9	X	X	
Indiana	3,047	X	X	X	6	6	6		X	
Michigan	9,983	X	X	X		9	15	X		
Ohio	971	X	X	X	10	10	10	X		
Wisconsin	4,850	X	X	X		5	13	X		
WEST NORTH CENTRAL	19,410									
Iowa	1,740	X	X	X	10	10	12-15	X		
Kansas	4,125		X	X	10	10	18	X		
Minnesota	8,890		X	X		4	10	X		
Missouri	0									
Nebraska	460	X	X	X		5	11			
North Dakota	2,047	X	X	X	10	10	15	X		
South Dakota	2,148		X	X		4	12	X	X	
SOUTH ATLANTIC	110,757									
Delaware	1,091	X	X	X						
District of Columbia	566	X		X		4	6	X		
Florida	36,109		X	X		7	12	X	X	
Georgia	13,815	X	X	X	9	9	11	X	X	
Maryland	16,405	X	X	X	11	11	14	X		Indirect susceptibility for rapid growers-11 drugs used
North Carolina	14,835		X	X	4	4	10	X	X	Second line drugs (8)
South Carolina	12,123	X	X	X	3	3	8	X	X	Bactec-radiometric
Virginia	12,284	X	X	X	4	4	12	X	X	Bactec
West Virginia	3,529	X	X	X		5	9	X		
EAST SOUTH CENTRAL	62,922									
Alabama	24,277		X	X	8	8	16	X		
Kentucky	11,072	X	X	X	8	8	9	X	X	Fluorochrome smear
Mississippi	15,214		X	X	7	7	6	X	X	
Tennessee	12,359	X	X	X		5	12		X	
WEST SOUTH CENTRAL	77,621									
Arkansas	17,689		X	X	5	5	16	X		
Louisiana	5,723	X	X			5		X	X	Bactec
Oklahoma	0									
Texas	54,209	X	X	X	4	8	6	X	X	HPLC mycolic acid profiles
MOUNTAIN	15,738									
Arizona	2,581		X	X	7	7	15	X		
Colorado	907		X	X						
Idaho	2,716	X	X	X	4	4	12	X		
Montana	1,585		X	X	6	6	8	X		
Nevada	1,610	X	X	X	4	7	15	X		
New Mexico	5,198		X	X	4	4	7	X		Bactec NAP test
Utah	898	X		X	11	11	18	X	X	
Wyoming	243	X	X	X				X		
PACIFIC	80,653									
Alaska	6,609	X	X			4-6	5-8	X	X	
California	58,858	X	X	X	5	5-9	10	X	X	
Hawaii	5,966	X	X	X			8			
Oregon	4,086		X	X	7	7	10	X	X	
Washington	5,134	X	X	X	8	8	8	X		
TERRITORIES	2,484									
Guam	2,484		X	X						
Puerto Rico	0									
Virgin Islands	0									

* New York did not report for fiscal year 1989.

TABLE 5. BACTERIOLOGY-Enteric Specimens

Lab & Region	Number of Specimens	Type of procedure							Other
		Primary Plating	Enrichment Plating	Biochemicals	FA	Sero-grouping	Sero-typing	Phage Typing, S. typhi	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
TOTAL	224,045	52	52	53	7	52	49	6	
AVERAGE	4,227								
NEW ENGLAND	16,457								
Connecticut	3,178	X	X	X		X	X		Mouse bioassay, Clostridium perfringens spore count
Massachusetts	9,741	X	X	X		X	X		
Maine	357	X	X	X		X	X		
New Hampshire	217	X	X	X		X	X		
Rhode Island	1,135	X	X	X		X	X		
Vermont	1,829	X	X	X		X	X		
MIDDLE ATLANTIC	8,651								
New Jersey	3,758	X	X	X		X	X		Plasmid analysis
New York*									
Pennsylvania	4,893	X	X	X		X	X		
EAST NORTH CENTRAL	19,921								
Illinois	8,306	X	X	X		X	X		
Indiana	2,206	X	X	X	X	X	X		
Michigan	3,268	X	X	X		X	X		
Ohio	255	X	X	X		X	X		
Wisconsin	5,888	X	X	X		X	X		Susceptibility tests
WEST NORTH CENTRAL	11,879								
Iowa	2,226	X	X	X		X	X		
Kansas	2,298	X	X	X		X	X		
Minnesota	2,130	X	X	X		X	X		
Missouri	3,803	X	X	X			X		
Nebraska	68		X	X	X	X			
North Dakota	378	X	X	X		X	X		
South Dakota	976	X	X	X		X	X		
SOUTH ATLANTIC	67,053								
Delaware	697	X	X	X		X	X		
District of Columbia	2,244	X	X	X		X	X		
Florida	35,885	X	X	X		X	X		
Georgia	2,741	X	X	X		X	X		
Maryland	12,340	X	X	X		X	X		Salmonella, Shigella, Escherichia coli, Vibrio, Yersinia, Campylobacter, & Clostridia
North Carolina	5,732	X	X	X	X	X	X		Clostridium difficile latex agglutination, antibiotic susceptibility
South Carolina	258	X	X	X		X	X		Tissue culture
Virginia	6,778	X	X	X		X	X		
West Virginia	380	X	X	X		X	X		
EAST SOUTH CENTRAL	10,803								
Alabama	3,493	X	X	X		X	X		
Kentucky	778	X	X	X		X	X		
Mississippi	2,334	X	X	X		X	X		
Tennessee	4,200	X	X	X		X	X		
WEST SOUTH CENTRAL	24,003								
Arkansas	831	X	X	X		X	X		
Louisiana	3,052	X	X	X		X	X		
Oklahoma	1,104	X	X	X		X	X		
Texas	19,016	X	X	X		X	X	X	
MOUNTAIN	7,322								
Arizona	792	X	X	X		X	X		
Colorado	1,781	X	X	X		X	X		
Idaho	447	X	X	X		X	X		Latex agglutination (campylobacter & Escherichia coli D157)
Montana	869	X	X	X		X			
Nevada	1,660	X	X	X		X			
New Mexico	1,432	X	X	X		X	X		
Utah	332	X	X	X		X	X		Verotoxin assays
Wyoming	29	X	X	X		X	X		
PACIFIC	36,897								
Alaska	1,774	X	X	X		X	X		
California	29,758	X	X	X	X	X	X	X	Sensitivity tests
Hawaii	1,510	X	X	X		X	X	X	
Oregon	1,870	X	X	X	X	X	X		Plasmids
Washington	1,985	X	X	X	X	X	X	X	Latex agglutination, plasmids
TERRITORIES	21,059								
Guam	270	X	X	X		X	X	X	
Puerto Rico	216	X	X	X		X			
Virgin Islands	20,573	X		X	X	X	X	X	

* New York did not report for fiscal year 1989.

TABLE 6. BACTERIOLOGY-Gonococcus Specimens

Lab & Region	Number of Specimens	Type of procedure								Other
		Smear	Culture	Oxidase Reaction	FA	Bio-chemical	Beta-Lactamase	Disc Diffusion Antibiotics		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
TOTAL	4,085,238	47	53	52	33	61	53			
AVERAGE	77,080									
NEW ENGLAND	119,138									
Connecticut	26,578	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin, ceftriaxone	Susceptibility	
Massachusetts	23,345	X	X	X	X	X	X	Penicillin, spectinomycin, tetracycline, cefoxitin, cefotaxime, ceftriaxone		
Maine	4,859	X	X	X	X	X	X	Tetracycline, spectinomycin, penicillin	Genetic Probe	
New Hampshire	10,497	X	X	X		X	X	Penicillin, tetracycline		
Rhode Island	47,639	X	X	X	X	X	X	Tetracycline, erythromycin, penicillin, ceftriaxone, spectinomycin	Agglutination	
Vermont	8,222	X	X	X	X	X	X	Tetracycline		
MIDDLE ATLANTIC	140,785									
New Jersey	140,687		X	X		X	X	Penicillin, spectinomycin, tetracycline, ceftriaxone		
New York*										
Pennsylvania	118		X	X		X	X	Penicillin, tetracycline, ceftriaxone, spectinomycin		
EAST NORTH CENTRAL	96,458									
Illinois	42,704	X	X	X		X	X	Penicillin, spectinomycin, tetracycline	Co-agglutination	
Indiana	384	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin		
Michigan	17,630	X	X	X		X	X	Penicillin, tetracycline, spectinomycin		
Ohio	19,168	X	X	X		X	X	Penicillin, tetracycline		
Wisconsin	16,572	X	X	X		X	X		Phagebact OMNI	
WEST NORTH CENTRAL	229,325									
Iowa	82,709	X	X	X	X	X	X			
Kansas	26,489		X	X	X	X	X	Penicillin, spectinomycin, ceftriaxone	Scott Identicut	
Minnesota	64,624		X	X		X	X	Penicillin, tetracycline, spectinomycin	EIA	
Missouri	61,859	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin	Gram stain	
Nebraska	8,069	X	X	X	X	X	X			
North Dakota	1,807	X	X	X		X	X		Abbott EIA (genozyme), Phagebact monoclonal GC	
South Dakota	3,968	X	X	X		X	X		Co-agglutination, EIA	
SOUTH ATLANTIC	1,428,290									
Delaware	31,894	X	X	X	X		X			
District of Columbia	59,869	X	X	X		X	X	Penicillin, tetracycline		
Florida	538,820	X	X	X		X	X	Penicillin, tetracycline, spectinomycin, ceftriaxone		
Georgia	206,908	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin	Co-agglutination(Phagebact)	
Maryland	345,264	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin, ceftriaxone	Co-agglutination	
North Carolina	1,325	X	X	X	X	X	X	Penicillin	Genetic probe, monoclonal antibody/EIA	
South Carolina	78,519	X	X	X	X	X	X	Penicillin, tetracycline, ceftriaxone, spectinomycin		
Virginia	99,527	X	X	X	X	X	X			
West Virginia	66,164	X	X	X	X	X	X	Penicillin G, spectinomycin, tetracycline, ceftriaxone		
EAST SOUTH CENTRAL	705,513									
Alabama	277,809	X	X	X	X	X	X	Tetracycline, spectinomycin, penicillin	Gram stain	
Kentucky	860	X	X	X	X	X	X	Penicillin, tetracycline		
Mississippi	185,634	X	X	X		X	X	Tetracycline, penicillin, ceftriaxone, spectinomycin	Co-agglutination	
Tennessee	241,210	X	X	X	X	X	X	Penicillin, tetracycline		
WEST SOUTH CENTRAL	871,982									
Arkansas	70,558	X	X	X		X	X	Penicillin		
Louisiana	141,438	X	X	X		X	X	Penicillin, tetracycline	Antibody	
Oklahoma	57,644	X	X	X	X	X	X	Tetracycline, spectinomycin, penicillin		
Texas	402,342	X	X	X		X	X	Penicillin, tetracycline, spectinomycin		
MOUNTAIN	126,825									
Arizona	21,148	X	X	X	X	X	X			
Colorado	4,641	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin, ceftriaxone		
Idaho	14,393	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin	Enzymatic tests	
Montana	3,826		X	X		X	X	Penicillin, tetracycline, spectinomycin		
Nevada	38,908	X	X	X	X	X	X	Spectinomycin, tetracycline	Gonogen	
New Mexico	22,377	X	X	X	X	X	X	Penicillin, spectinomycin, tetracycline	Agglutination (Gonogen)	
Utah	18,471	X	X	X	X	X	X			
Wyoming	3,081		X	X	X	X	X			
PACIFIC	559,528									
Alaska	47,188	X	X	X	X	X	X		Phagebact/gonogen	
California	422,825	X	X	X	X	X	X	Penicillin, spectinomycin, ceftriaxone, tetracycline		
Hawaii	68,083	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin		
Oregon	267	X	X	X	X	X	X			
Washington	23,085	X	X	X	X	X	X	Penicillin, tetracycline, spectinomycin	Meritec	
TERRITORIES	7,394									
Guam	5,791	X	X	X		X	X	Penicillin		
Puerto Rico	103	X	X	X		X	X	Tetracycline, penicillin, ceftriaxone, spectinomycin, cefoxitin		
Virgin Islands	1,500	X	X				X			

* New York did not report for fiscal year 1989.

TABLE 7. BACTERIOLOGY-Anaerobic Specimens

Lab & Region	Number of Specimens	Type of Technique		Type of procedure						
		Pre-Reduced Media	Gas Chromatography	Gram Stain	Plating	Sub-Culture	Bio-chemical	FA	GLC	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	10	(11)
TOTAL	8,919	28	24	41	41	42	41	13	28	
AVERAGE	261									
NEW ENGLAND	205									
Connecticut	40		X	X	X	X	X	X	X	
Massachusetts	11			X	X	X	X		X	Mouse neutralization
Maine	37	X	X	X	X	X	X		X	
New Hampshire	6	X		X	X	X	X			
Rhode Island	49	X								
Vermont	62			X	X	X	X		X	Susceptibility disc diffusion
MIDDLE ATLANTIC	67									
New Jersey	33			X		X	X		X	
New York*										
Pennsylvania	34	X		X	X	X	X			
EAST NORTH CENTRAL	636									
Illinois	61		X	X	X	X			X	
Indiana	4	X	X	X	X	X	X	X	X	
Michigan	166	X	X	X	X	X	X		X	
Ohio	212	X	X	X	X	X	X		X	Neutralization, culture
Wisconsin	193	X	X	X	X	X	X		X	
WEST NORTH CENTRAL	357									
Iowa	162	X	X	X	X	X	X		X	
Kansas	165	X		X	X	X	X			
Minnesota	0									
Missouri	NA	X	X	X	X	X	X	X	X	
Nebraska	0									
North Dakota	29	X		X	X	X	X			
South Dakota	1	X		X	X	X	X			
SOUTH ATLANTIC	2,178									
Delaware	0									
District of Columbia	0									
Florida	42	X		X	X	X	X			
Georgia	96		X	X	X	X	X		X	
Maryland	383		X	X	X	X	X	X	X	Mouse inoculation
North Carolina	273	X	X	X	X	X	X	X	X	Drug susceptibility for ID
South Carolina	NA	X	X	X	X	X	X	X	X	
Virginia	1,382	X	X	X	X	X	X		X	
West Virginia	0									
EAST SOUTH CENTRAL	1,429									
Alabama	39			X	X	X	X	X		
Kentucky	0									
Mississippi	NA				X	X	X			Micro scan
Tennessee	1,390		X	X	X	X	X		X	
WEST SOUTH CENTRAL	4,785									
Arkansas	80	X	X	X	X	X	X		X	
Louisiana	126	X	X	X	X	X	X	X	X	
Oklahoma	85			X	X	X	X	X		Rapid Ana ID system by Viatek
Texas	4,494	X	X	X	X	X	X	X	X	Botulinal & Difficil toxin testing
MOUNTAIN	128									
Arizona	15	X	X	X	X	X	X			
Colorado	10	X		X	X	X	X			
Idaho	39			X	X	X	X			
Montana	NA			X	X	X	X			
Nevada	14			X	X	X	X			
New Mexico	50	X	X	X	X	X	X	X	X	
Utah	0									
Wyoming	0									
PACIFIC	132									
Alaska	44	X		X	X	X	X			
California	NA	X	X	X	X	X	X	X	X	
Hawaii	62		X	X	X	X	X		X	
Oregon	1	X	X	X	X	X	X		X	
Washington	25	X	X	X	X	X	X	X	X	Fame, mouse toxin studies
TERRITORIES	4									
Guam	0									
Puerto Rico	4	X		X	X	X	X			
Virgin Islands	0									

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 8. BACTERIOLOGY-Other Bacteriology Specimens

Lab & Region	Number of Specimens	Disease/Type of procedure
(1)	(2)	(3)
TOTAL	259,836	
AVERAGE	5,303	
NEW ENGLAND	5,216	
Connecticut	800	Genital smears - smear; nosocomial infections - phage typing; clinical cultures - FA, culture
Massachusetts	2,751	Legionnaire's disease- CDC protocol procedures
Maine	280	Campylobacter, food poisoning, and miscellaneous reference-CDC procedures
New Hampshire	671	Wound infection, otitis, conjunctivitis, septicemia, UTI, meningitis, vaginitis, cervicitis-culture, biochemicals, serotyping, susceptibilities
Rhode Island	471	Septicemia, meningitis, wounds-culture, biochemicals, viatek
Vermont	243	Legionellosis-culture, DFA; miscellaneous respiratory, CNS, wound-standard bacteriology procedures
MIDDLE ATLANTIC	741	
New Jersey	207	Staph enterotoxin & Clostridium perfringens toxin-latex agglutination
New York*		
Pennsylvania	534	Botulism-mouse neutralization; Legionellosis, Lyme disease-culture, DFA; miscellaneous-standard procedures
EAST NORTH CENTRAL	51,427	
Illinois	1,395	Staphylococcus infections-phage typing, Vincent's angina-smear, Legionella and miscellaneous infections-culture.
Indiana	1,459	
Michigan	10,041	Food poisoning-cult., aerobic, anaerobic; toxin testing-Staph. aureus, Clostridium difficile; Salmonella, Shigella species, E. coli: 0157:H7-serotyping, cult.
Ohio	3,746	Ureaplasma, mycoplasma-culture; Legionnaire's disease-culture, FA
Wisconsin	34,786	Legionellosis-IFA; Lyme-IFA, cult.; toxic shock syndrome, bacterial food poisoning-cult., toxin analysis; Clostridium difficile-latex agglutination, toxin B, culture; miscellaneous primary cultures-cult., sensitivity; MIC's and serumcidal-microdilution; Group A streptococcus throat cultures-cult., FA, Bacitracin disc
WEST NORTH CENTRAL	10,244	
Iowa	3,065	Legionella-culture, identification, serotyping; miscellaneous clinical-culture, identification
Kansas	566	Legionellosis-DFA, culture
Minnesota	61	Legionella-culture, FA; Clostridium botulinum-culture, animal toxigenicity tests
Missouri	1,230	Bordetella pertussis, Francisella tularensis-culture, biochemical ID, DFA; Nesseria meningitidis-culture, serotyping; Haemophilus influenza-culture, serotyping; Legionnaire's disease-culture, FA; miscellaneous-culture, biochemical ID
Nebraska	212	
North Dakota	4,683	
South Dakota	427	UTI, Staphylococcus-gram stain, plating, subculture, biochemical
SOUTH ATLANTIC	69,070	
Delaware	3,814	Urine - culture, sensitivity
District of Columbia	11,531	Urine, wounds - culture, biochemicals, susceptibility
Florida	5,744	Ear, eye, spinal fluid, blood, urine, other exud. & body fluids - smear & culture; sensitivity testing - disc; Rheumatic fever prophylaxis - micro. Inhibition
Georgia	5,214	Haemophilus ducreyi - direct smear; miscellaneous - conventional chemicals
Maryland	38,215	Food poisoning-cult., bioch., animal inoculation; urinary tract infection-cult., sensitivity; misc. body site-cult., bioch.; cultures-staining, sensitivities
North Carolina	1,351	Legionellosis-culture, FA, serology
South Carolina	2,825	Pertussis-culture, FA; urinary tract, anaerobic/aerobic-culture, sensitivity
Virginia	0	
West Virginia	376	Isolate ID, foreign object (in food) ID, Legionella-plating, biochemical, serotyping, serotyping; Salmonella/Shigella-serotyping, plating, coliform counting
EAST SOUTH CENTRAL	36,301	
Alabama	24,848	Urinary tract infection - primary, biochemicals, sensitivities; food clinicals - primary, biochemicals, phage typing, toxicity
Kentucky	50	Miscellaneous cultures-biochemicals, coagulase, smear, serotyping; Legionnaire's disease-DFA
Mississippi	9,905	Miscellaneous waters-primary & enrichment plating, biochemicals, serotyping, serotyping, subculture; miscellaneous culture-plating, selective subculture biochemicals; urine culture-plating, biochemicals, subculture, bacterial sensitivity testing
Tennessee	1,500	Miscellaneous aerobic & capnophilic clinical specimens including fastidious microorganisms-gram stain, plating, culture, subculture, biochemical (serotyping)
WEST SOUTH CENTRAL	34,444	
Arkansas	40	Miscellaneous blood & CSF cultures
Louisiana	672	Non-fermenters Bacillus species-biochemical
Oklahoma	565	Respiratory-plating; blood/CSF-subculture; urogenital-biochemical; wounds/abscess-gram stain, miscellaneous
Texas	33,167	
MOUNTAIN	4,039	
Arizona	181	Legionella, Yersinia - DFA, culture; Francisella tularensis - cult., gram stain, bioch., serotyping; Leptospirosis - darkfield; Borrelia - blood smears
Colorado	408	Plague - biochemicals, FA phage; Diphtheria - biochemicals, in vitro toxigenicity
Idaho	563	
Montana	374	
Nevada	778	Urogenital culture, sputum, urines, miscellaneous-various procedures
New Mexico	897	Legionellosis, plague, tularemia-FA, culture; aerobic-MAFB, lysozyme susceptibility; actinomycetes-hydrolysis agars
Utah	838	Pneumonia meningitis, septicemia-culture, typing, biochemical
Wyoming	0	
PACIFIC	46,388	
Alaska	237	Miscellaneous aerobic infections-microscopic exam; eye, ear, wound-cult.; fluids, skin-bioch., serotyping
California	42,935	Plague-animal culture, FA; Legionnaire's disease-cultures, FA; relapsing fever-animals, culture; miscellaneous-culture
Hawaii	1,083	Leptospirosis-culture
Oregon	174	Nesseria meningitidis, Haemophilus influenza-culture, typing; Borrelia-smear
Washington	1,959	Botulism-bioch, mouse studies, GLC; Tularemia, plague-FA, bioch, fame; Legionellosis, T. pallidum-FA, fame, serology; Melioidosis, Brucellosis-fame, bioch.
TERRITORIES	1,966	
Guam	1,966	Trichomonas & Monilia-wet mount, culture; urine culture, ear/eye/wounds-culture, sensitivity testing
Puerto Rico	0	
Virgin Islands	0	

* New York did not report for fiscal year 1989.

TABLE 8. BACTERIOLOGY-Other Bacteriology Specimens (continued)

Lab & Region	Number of Specimens	Reference culture/Type of procedure
(4)	(5)	(6)
	269,836	
	5,303	
NEW ENGLAND	5,216	
Connecticut	800	
Massachusetts	2,751	Meningococcal typing, Haemophilus influenzae typing, Streptococcus pneumococcal typing
Maine	280	
New Hampshire	671	Clinical samples, swabs, isolates-culture, biochemicals, serogrouping, susceptibilities
Rhode Island	471	Miscellaneous & reference cultures-culture, biochemicals
Vermont	243	
MIDDLE ATLANTIC	741	
New Jersey	207	Non-enteric, non-mycobacteria, glucose non-fermenters, miscellaneous problem cultures-conventional biochemicals
New York*		
Pennsylvania	534	Miscellaneous bacterial cultures-gram stain, biochemicals, serogrouping, serotyping
EAST NORTH CENTRAL	51,427	
Illinois	1,395	
Indiana	1,459	Identification-biochemical, GLC; Staphylococcus phage typing-plating; Legionella-plating, IFA, GLC
Michigan	10,041	Wound culture-aerobic/anaerobic culture; urine culture-culture; referred aerobes-smear, culture, GLC, biochemical; Staphylococcus-phage typing; molecular biology-plasmid & restriction analyses, DNA probes, polymerase chain reaction (PCR)
Ohio	3,746	Staphylococcus, aerobic-culture
Wisconsin	34,788	Aerobes, facultatives-CDC methods; anaerobes-VPI methods
WEST NORTH CENTRAL	10,244	
Iowa	3,085	Miscellaneous diseases-biochemical identification, serogrouping
Kansas	568	Reference bacteriology-conventional procedures
Minnesota	81	
Missouri	1,230	
Nebraska	212	Reference cultures from hospitals-subculture identification
North Dakota	4,883	Blood culture, urine, CSF, miscellaneous-isolation, identification; antibiotic susceptibilities-Autoscan IV MIC
South Dakota	427	Miscellaneous reference cultures-gram stain, plating, subcultures, biochemicals, serotyping
SOUTH ATLANTIC	69,070	
Delaware	3,814	Reference, miscellaneous - culture, sensitivity
District of Columbia	11,531	Diagnostice - culture, biochemicals
Florida	5,744	Reference culture - smear & culture
Georgia	5,214	Miscellaneous - conventional chemicals
Maryland	38,215	Hospital clinical isolates-culture, biochemical, serology; phage typing (staph)-staph phage plating; strep grouping-precipitin test
North Carolina	1,351	Streptococcus/Staphylococcus-smear, culture, bioch, serology; Campylobacter-smear, culture, bioch, drug susceptibility; misc.-smear, culture, biochem
South Carolina	2,825	Clostridium difficile-ID, toxin testing; Salmonella, Neisseria meningitidis, Haemophilus influenzae-serotyping; general-ID, sensitivity
Virginia	0	
West Virginia	376	
EAST SOUTH CENTRAL	38,301	
Alabama	24,848	Special bacteriology - gram stain, plating, subculture, biochemicals, serotyping
Kentucky	50	
Mississippi	9,905	
Tennessee	1,500	Haemophilus, Listeria, Francisella, Legionella, Neisseria, misc. gram positive & negative microorganisms-gram stain, subculture, biochemical, serotyping
WEST SOUTH CENTRAL	34,444	
Arkansas	40	
Louisiana	672	
Oklahoma	565	Respiratory-gram stain; blood/CSF-plating; urogenital-subculture; wounds/abscess-biochemicals; miscellaneous-serology
Texas	33,167	Nonenterics-King/Weaver
MOUNTAIN	4,039	
Arizona	181	Haemophilus influenzae, Neisseria meningitidis, gram positive cocci and pavilli - culture, gram stain, biochemicals
Colorado	408	Miscellaneous gram (oxid. and ferment.), gram positive rods - biochemicals; gram positive cocci - biochemicals, serology
Idaho	563	Miscellaneous-API, King Weaver
Montana	374	Miscellaneous
Nevada	778	
New Mexico	897	Isolates for identification-tube tests, API, biology, serology
Utah	838	Enteric pathogens-culture, biochemicals, typing; Legionella-culture, FA
Wyoming	0	
PACIFIC	48,388	
Alaska	237	
California	42,935	Mycobacteriology-direct & concentrate smear, culture, direct & indirect susceptibility, biochemicals, species ID, genetic probes; enteric bacteriology-primary & enrichment plating, biochemicals, FA, serogrouping, serotyping, phage typing, sensitivity tests; aerobic & anaerobic bacteriology-species ID
Hawaii	1,083	
Oregon	174	Gram positive/negative organisms-culture, biochemicals; miscellaneous organisms for staining-FA stain
Washington	1,959	Miscellaneous bacteriology-fame, biochemicals
TERRITORIES	1,968	
Guam	1,968	Salmonella, Vibrio, & Shigella-serotyping, flagellar typing
Puerto Rico	0	
Virgin Islands	0	

* New York did not report for fiscal year 1989.

TABLE 9. MYCOLOGY SPECIMENS

Lab & Region	Number of Specimens	Type of procedure						Other
		Micro. Wet Mounts	Micro. Stains	Culture	FA	Biochemicals	Animal Inoculation	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL	77,507	48	44	49	7	48	9	
AVERAGE	1,582							
NEW ENGLAND	3,830							
Connecticut	1,302	X	X	X				Differentiation media
Massachusetts	515	X	X	X	X	X		Exoantigen tests
Maine	1,042	X	X	X		X		
New Hampshire	406		X	X		X		
Rhode Island	289	X	X	X		X		
Vermont	276	X	X	X		X		Hair culture, slide culture, amino acid requirements
MIDDLE ATLANTIC	283							
New Jersey	283	X	X	X		X		
New York*								
Pennsylvania	0							
EAST NORTH CENTRAL	9,539							
Illinois	712	X	X	X		X		
Indiana	443	X	X	X		X	X	Exoantigen test
Michigan	1,821	X	X	X		X		
Ohio	758	X	X	X		X	X	
Wisconsin	5,805	X	X	X	X	X	X	Sensitivities, bioassays
WEST NORTH CENTRAL	3,472							
Iowa	1,714	X	X	X	X	X		
Kansas	884	X	X	X		X		Immunodiffusion
Minnesota	449	X	X	X		X		Exoantigen, temperature studies
Missouri	188	X	X	X		X	X	
Nebraska	6			X		X		
North Dakota	202	X	X	X		X		Abbott yeast ID
South Dakota	51	X	X	X		X		
SOUTH ATLANTIC	18,028							
Delaware	2,734	X	X	X		X		
District of Columbia	3	X	X	X		X		
Florida	1,847	X	X	X		X		
Georgia	882	X	X	X		X		
Maryland	4,903	X	X	X		X		Slide culture, hair perforation test
North Carolina	1,307	X	X	X		X		
South Carolina	1,440	X	X	X			X	
Virginia	2,537	X	X	X		X	X	
West Virginia	595	X	X	X		X		
EAST SOUTH CENTRAL	8,244							
Alabama	5,024	X	X	X	X	X	X	Exoantigens
Kentucky	0							
Mississippi	1,336	X	X	X		X		Hair culture
Tennessee	1,884	X	X	X		X		
WEST SOUTH CENTRAL	7,891							
Arkansas	2,213	X	X	X		X		
Louisiana	255	X	X	X		X		
Oklahoma	853	X		X		X		Exoantigen
Texas	4,570	X	X	X		X		
MOUNTAIN	2,228							
Arizona	369	X		X		X		Exoantigen for Coccidioides immitis and Histoplasma capsulatum
Colorado	194	X	X	X		X		
Idaho	704	X	X	X	X	X		Exoantigen
Montana	211		X	X		X		
Nevada	46	X	X	X		X		
New Mexico	492	X		X		X		Exoantigen, immunodiffusion
Utah	89	X	X	X		X	X	
Wyoming	121	X	X	X		X		
PACIFIC	25,867							
Alaska	268	X	X	X		X		Germ tube, fermentation, trichophyton identification
California	20,606	X	X	X	X	X	X	Identification
Hawaii	315	X	X	X		X		Exoantigen
Oregon	0							
Washington	4,680	X	X	X		X		
TERRITORIES	127							
Guam	123	X		X		X		Lacto-phenol, cotton blue
Puerto Rico	0							
Virgin Islands	4	X	X	X	X			

* New York did not report for fiscal year 1989.

TABLE 10. PARASITOLOGY SPECIMENS

Lab & Region	Total Parasitology Specimens	Type of specimen	
		Intestinal	Other
(1)	(2)	(3)	(4)
TOTAL	324,513	299,129	25,384
AVERAGE	6,241	5,752	747
NEW ENGLAND	12,247	11,982	265
Connecticut	2,585	2,372	213
Massachusetts	155	108	47
Maine	385	385	0
New Hampshire	221	221	0
Rhode Island	4,834	4,829	5
Vermont	4,087	4,087	0
MIDDLE ATLANTIC	1,682	1,605	77
New Jersey	1,535	1,491	44
New York*			
Pennsylvania	147	114	33
EAST NORTH CENTRAL	26,065	25,731	334
Illinois	3,364	3,342	22
Indiana	2,147	2,119	28
Michigan	9,491	9,312	179
Ohio	1,391	1,391	0
Wisconsin	9,672	9,567	105
WEST NORTH CENTRAL	22,034	21,869	165
Iowa	5,456	5,313	143
Kansas	6,307	6,300	7
Minnesota	3,233	3,224	9
Missouri	3,843	3,843	0
Nebraska	113	113	0
North Dakota	994	988	6
South Dakota	2,088	2,088	0
SOUTH ATLANTIC	111,668	109,125	2,541
Delaware	2,502	352	2,150
District of Columbia	0	0	0
Florida	58,524	58,479	45
Georgia	17,302	17,287	15
Maryland	17,108	17,054	54
North Carolina	5,875	5,828	249
South Carolina	4,313	4,288	25
Virginia	5,982	5,982	0
West Virginia	2,080	2,077	3
EAST SOUTH CENTRAL	21,594	21,528	66
Alabama	8,853	8,601	52
Kentucky	2,917	2,917	0
Mississippi	7,071	7,071	0
Tennessee	2,953	2,939	14
WEST SOUTH CENTRAL	16,824	15,671	1,153
Arkansas	1,567	1,562	5
Louisiana	6,078	6,078	0
Oklahoma	1,599	1,591	8
Texas	7,580	6,440	1,140
MOUNTAIN	9,347	9,295	52
Arizona	59	49	11
Colorado	1,947	1,947	0
Idaho	784	754	30
Montana	1,670	1,670	0
Nevada	2,303	2,303	0
New Mexico	2,179	2,168	11
Utah	245	245	0
Wyoming	160	160	0
PACIFIC	89,438	88,720	20,718
Alaska	3,471	3,455	16
California	78,044	57,370	20,674
Hawaii	558	558	2
Oregon	2,665	2,659	6
Washington	4,700	4,680	20
TERRITORIES	13,616	13,603	13
Guam	384	384	0
Puerto Rico	669	669	0
Virgin Islands	12,563	12,550	13

* New York did not report for fiscal year 1989.

TABLE 11. PARASITOLOGY-Intestinal Specimens

Lab & Region	Number of Specimens	Type of procedure				
		Gross	Direct (including Pinworms)	Concentrate Smear	Stained Smear	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL	299,129	34	48	51	47	
AVERAGE	6,762					
NEW ENGLAND	11,982					
Connecticut	2,372	X	X	X	X	
Massachusetts	108	X	X	X	X	
Maine	365	X		X		
New Hampshire	221	X	X	X	X	FA (cryptosporidium)
Rhode Island	4,829		X	X		
Vermont	4,087	X	X	X	X	Worm identification, Giardia EIA
MIDDLE ATLANTIC	1,605					
New Jersey	1,491	X	X	X	X	
New York*						
Pennsylvania	114	X	X	X	X	
EAST NORTH CENTRAL	25,731					
Illinois	3,342	X	X	X	X	
Indiana	2,119	X	X	X	X	
Michigan	9,312		X	X	X	Acid fast stain (cryptosporidium)
Ohio	1,391		X	X	X	
Wisconsin	9,567	X	X		X	
WEST NORTH CENTRAL	21,869					
Iowa	5,313	X	X	X	X	
Kansas	6,300		X	X	X	
Minnesota	3,224	X	X	X	X	
Missouri	3,843		X	X	X	FA (cryptosporidium)
Nebraska	113		X	X	X	
North Dakota	988	X	X	X	X	Fluorochrome
South Dakota	2,088	X	X	X	X	
SOUTH ATLANTIC	109,125					
Delaware	352	X	X	X	X	
District of Columbia	0					
Florida	56,479		X	X	X	
Georgia	17,287		X	X	X	Worm identification
Maryland	17,054		X	X	X	
North Carolina	5,828	X	X	X	X	Mounted/stained worms, segments, concentrate/staining
South Carolina	4,288	X	X	X	X	Proglottid/worm, Cryptosporidium
Virginia	5,962	X	X	X	X	FA
West Virginia	2,077	X	X	X	X	
EAST SOUTH CENTRAL	21,528					
Alabama	8,801		X	X	X	
Kentucky	2,917	X	X	X	X	
Mississippi	7,071		X	X	X	
Tennessee	2,939		X	X	X	
WEST SOUTH CENTRAL	15,671					
Arkansas	1,562	X	X	X	X	
Louisiana	6,078	X	X	X	X	
Oklahoma	1,591	X	X	X	X	Cryptosporidium acid-fast stain
Texas	6,440	X	X	X	X	Acid-fast stain
MOUNTAIN	9,295					
Arizona	48	X	X	X	X	
Colorado	1,947			X	X	
Idaho	754	X	X	X	X	
Montana	1,670		X	X	X	
Nevada	2,303	X	X	X	X	
New Mexico	2,168	X		X	X	
Utah	245	X	X	X	X	
Wyoming	160	X	X	X	X	
PACIFIC	68,720					
Alaska	3,455	X	X	X	X	
California	57,370	X	X	X	X	
Hawaii	558	X	X	X	X	
Oregon	2,859		X	X	X	
Washington	4,680	X	X	X	X	Acid fast stain, auramine
TERRITORIES	13,603					
Guam	384		X	X		
Puerto Rico	669			X		
Virgin Islands	12,550		X	X		

* New York did not report for fiscal year 1989.

TABLE 12. PARASITOLOGY-Other Parasitology Specimens

Lab & Region	Number of Specimens	Type of specimen			
		Malaria	Trichinosis	Toxoplasmosis	Other Disease/Type of procedure
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	25,384	32	9	5	
AVERAGE	747				
NEW ENGLAND	285				
Connecticut	213	X	X		Material for identification, arthropod identification
Massachusetts	47	X			Babesiosis, prothopods, helmenths
Maine	0				
New Hampshire	0				
Rhode Island	5	X			
Vermont	0				
MIDDLE ATLANTIC	77				
New Jersey	44	X			
New York*					
Pennsylvania	33	X			Arthropods, fish worms
EAST NORTH CENTRAL	334				
Illinois	22	X			Worm, arthropods, proglottids
Indiana	28	X	X		Pinworm, arthropods
Michigan	179	X			Tissue worms for identification
Ohio	0				
Wisconsin	105	X			Arthropod ID, bugs
WEST NORTH CENTRAL	165				
Iowa	143	X	X	X	
Kansas	7	X			Insect identification
Minnesota	9	X			
Missouri	0				
Nebraska	0				
North Dakota	6	X			
South Dakota	0				
SOUTH ATLANTIC	2,541				
Delaware	2,150				Trichomonas
District of Columbia	0				
Florida	45	X		X	
Georgia	15	X			Ectoparasites, Acanthamoeba
Maryland	54	X	X		Acanthamoeba culture, Cryptosporidium species, pneumocystis smear
North Carolina	249	X			Arthropod ID, Giardia (water)
South Carolina	25	X			CSF
Virginia	0				
West Virginia	3				Insect identification
EAST SOUTH CENTRAL	66				
Alabama	62	X			Parasitology identification
Kentucky	0				
Mississippi	0				
Tennessee	14	X			
WEST SOUTH CENTRAL	1,153				
Arkansas	5	X			Ectoparasites
Louisiana	0				
Oklahoma	8	X			Other blood parasites
Texas	1,140	X	X	X	Naegleria, acanthamoeba, Pneumocystis tissue
MOUNTAIN	62				
Arizona	11	X			Ticks, lice, fly larvae
Colorado	0				
Idaho	30	X	X	X	
Montana	0				
Nevada	0				
New Mexico	11	X			
Utah	0				
Wyoming	0				
PACIFIC	20,718				
Alaska	18	X	X		Arthropod
California	20,674	X	X	X	Pinworm preps, proglottids, reference
Hawaii	2	X			Arthropod
Oregon	6	X	X		
Washington	20	X			
TERRITORIES	13				
Guam	0				
Puerto Rico	0				
Virgin Islands	13	X			

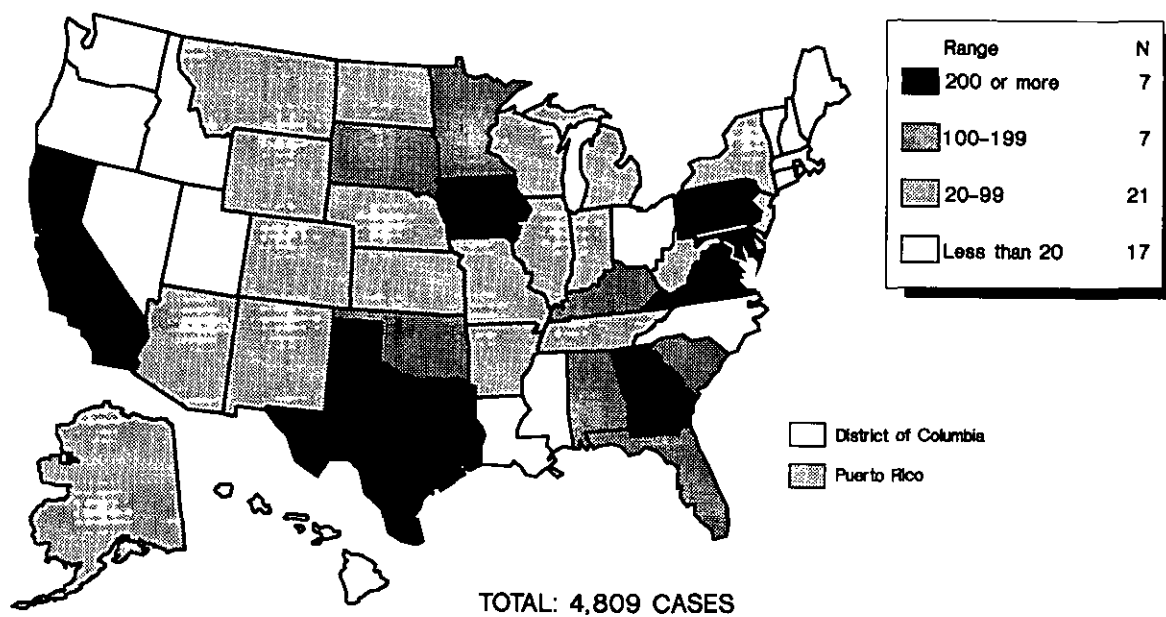
* New York did not report for fiscal year 1989.

TABLE 13. VIROLOGY SPECIMENS

Lab & Region	Total Virology Specimens	Rabies	Viral Isolation	Rickettsial Identification	HIV Identification	Chlamydia	Herpes Simplex	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL	1,360,218	80,027	264,585	10,885	166,047	743,162	68,341	29,171
AVERAGE	25,664	1,703	6,453	1,555	33,209	17,694	2,010	2,084
NEW ENGLAND	40,364	1,167	7,157	0	0	24,433	7,556	51
Connecticut	11,718	354	4,606	0	0	0	6,758	0
Massachusetts	5,181	256	673	0	0	3,755	267	0
Maine	15,573	138	1,593	0	0	13,842	0	0
New Hampshire	2,899	300	19	0	0	2,028	501	51
Rhode Island	4,152	59	0	0	0	4,083	0	0
Vermont	841	60	68	0	0	715	0	0
MIDDLE ATLANTIC	14,603	3,780	5,524	24	0	834	NA	4,441
New Jersey	11,648	1,623	4,726	24	0	834	NA	4,441
New York*								
Pennsylvania	2,955	2,157	798	0	0	0	0	0
EAST NORTH CENTRAL	170,262	10,848	120,972	2,379	835	21,583	13,528	319
Illinois	9,374	2,370	2,762	0	0	1,426	2,816	0
Indiana	13,327	2,114	261	0	0	10,357	595	0
Michigan	15,116	1,875	1,067	0	0	9,764	2,410	0
Ohio	120,393	2,412	111,977	2,379	0	36	3,270	319
Wisconsin	12,052	1,875	4,905	0	835	0	4,437	0
WEST NORTH CENTRAL	114,938	6,451	26,021	0	197	68,756	5,893	7,620
Iowa	41,242	618	21,302	0	197	15,701	2,601	623
Kansas	18,924	0	349	0	0	16,736	1,839	0
Minnesota	12,153	1,983	2,018	0	0	7,178	974	0
Missouri	10,981	2,461	1,750	0	0	0	0	6,770
Nebraska	5,968	758	0	0	0	5,210	0	0
North Dakota	6,079	471	407	0	0	5,121	80	0
South Dakota	19,591	160	195	0	0	18,810	399	27
SOUTH ATLANTIC	466,655	20,838	11,454	157	163,635	242,564	22,218	5,789
Delaware	20,456	353	1,768	0	0	16,248	0	86
District of Columbia	10,450	394	0	0	0	9,988	68	0
Florida	69,185	5,119	3,848	0	0	58,673	1,545	0
Georgia	6,391	2,056	666	0	0	0	3,669	0
Maryland	220,273	5,714	1,409	53	163,635	44,745	4,717	0
North Carolina	53,904	1,565	2,678	0	0	42,743	6,918	0
South Carolina	27,929	2,688	663	104	0	14,737	3,636	5,703
Virginia	57,343	2,227	222	0	0	53,429	1,465	0
West Virginia	724	724	0	0	0	0	0	0
EAST SOUTH CENTRAL	52,102	7,826	2,148	0	0	40,766	1,362	0
Alabama	36,052	3,080	221	0	0	32,751	0	0
Kentucky	8,250	2,012	318	0	0	5,835	85	0
Mississippi	2,633	653	0	0	0	2,180	0	0
Tennessee	4,967	2,081	1,609	0	0	0	1,277	0
WEST SOUTH CENTRAL	92,789	16,489	16,081	8,308	0	49,069	427	2,415
Arkansas	1,478	1,468	0	10	0	0	0	0
Louisiana	1,539	1,265	274	0	0	0	0	0
Oklahoma	7,686	2,940	1,838	0	0	2,668	213	27
Texas	82,086	10,816	13,969	8,298	0	46,401	214	2,388
MOUNTAIN	117,545	4,129	8,555	0	100	99,233	5,488	40
Arizona	13,950	1,941	3,948	0	0	6,362	1,699	0
Colorado	17,451	519	0	0	0	16,932	0	0
Idaho	25,369	305	832	0	0	23,537	695	0
Montana	25,309	0	764	0	0	23,031	1,474	40
Nevada	10,650	0	0	0	0	10,650	0	0
New Mexico	11,522	792	1,430	0	100	8,628	572	0
Utah	7,141	572	1,581	0	0	3,940	1,048	0
Wyoming	6,153	0	0	0	0	6,153	0	0
PACIFIC	280,547	8,444	66,673	17	1,280	194,259	9,869	5
Alaska	4,284	215	2,781	0	0	950	338	0
California	174,677	7,722	59,545	17	1,280	98,226	7,887	0
Hawaii	4,024	55	1,444	0	0	1,839	688	0
Oregon	48,771	131	1,478	0	0	47,184	0	0
Washington	48,791	321	1,427	0	0	48,080	958	5
TERRITORIES	10,413	257	0	0	0	1,665	0	8,491
Guam	2,966	0	0	0	0	0	0	2,966
Puerto Rico	5,782	257	0	0	0	0	0	5,525
Virgin Islands	1,665	0	0	0	0	1,665	0	0

* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

FIGURE 8.
NUMBER OF RABIES CASES IN ANIMALS, 1989



Source: The Centers for Disease Control, as reported by the state and territorial public health laboratories.

TABLE 14. VIROLOGY-Rabies Specimens

Lab & Region	Number of Specimens	Type of procedure					Other
		Stained Smear	FRA	Animal Inoculation	RFFIT		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
TOTAL	80,027	11	44	22	4		
AVERAGE	1,703						
NEW ENGLAND	1,187						
Connecticut	354		X				
Massachusetts	256		X				
Maine	138		X				
New Hampshire	300		X				
Rhode Island	59		X				
Vermont	60		X				
MIDDLE ATLANTIC	3,780						
New Jersey	1,623		X	X			
New York*							
Pennsylvania	2,157		X				
EAST NORTH CENTRAL	10,646						
Illinois	2,370	X	X				
Indiana	2,114	X	X				
Michigan	1,875	X		X			
Ohio	2,412		X				
Wisconsin	1,875		X	X	X		
WEST NORTH CENTRAL	6,451						
Iowa	618		X	X			
Kansas	0						
Minnesota	1,983		X	X			
Missouri	2,461		X				
Nebraska	758		X				
North Dakota	471		X				
South Dakota	160		X				
SOUTH ATLANTIC	20,838						
Delaware	353		X	X			
District of Columbia	394	X	X				
Florida	5,119		X				
Georgia	2,056		X				
Maryland	5,714	X		X			
North Carolina	1,565		X	X			
South Carolina	2,686		X	X			
Virginia	2,227		X	X			
West Virginia	724	X	X	X			
EAST SOUTH CENTRAL	7,826						
Alabama	3,080	X	X	X			
Kentucky	2,012	X	X	X			
Mississippi	653	X	X				
Tennessee	2,081	X	X	X			
WEST SOUTH CENTRAL	16,489						
Arkansas	1,468		X				
Louisiana	1,265		X		X		
Oklahoma	2,940		X	X			
Texas	10,816		X	X		Monoclonal antibody testing, cell culture isolation	
MOUNTAIN	4,129						
Arizona	1,941		X	X			
Colorado	519		X	X			
Idaho	305	X					
Montana	0						
Nevada	0						
New Mexico	792		X		X		
Utah	672		X	X			
Wyoming	0						
PACIFIC	8,444						
Alaska	215		X	X			
California	7,722		X	X	X		
Hawaii	55		X				
Oregon	131		X				
Washington	321		X	X			
TERRITORIES	257						
Guam	0						
Puerto Rico	257		X				
Virgin Islands	0						

* New York did not report for fiscal year 1989.

TABLE 15. VIROLOGY-Viral Isolation Specimens

Lab & Region	Number of Specimens	Type of specimen						Other
		Enteric	Arbovirus (Human Origin)	Arbovirus (Non-human Origin)	Respiratory	Exanthem		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
TOTAL	284,685	35	16	13	40	35		
AVERAGE	6,453							
NEW ENGLAND	7,157							
Connecticut	4,806	X			X	X		
Massachusetts	873						CMV	
Maine	1,593	X			X	X		
New Hampshire	19				X			
Rhode Island	0							
Vermont	66				X			
MIDDLE ATLANTIC	5,524							
New Jersey	4,728	X	X	X	X	X	CNS (non-arbovirus), STD (Chlamydia)	
New York*								
Pennsylvania	798	X			X	X		
EAST NORTH CENTRAL	120,972							
Illinois	2,762	X	X		X	X		
Indiana	281	X			X	X		
Michigan	1,067	X			X	X		
Ohio	111,977	X	X	X	X	X	Urine, CSF	
Wisconsin	4,905	X			X	X	Urines, leukocytes, CSF, biopsies, autopsy tissue	
WEST NORTH CENTRAL	26,021							
Iowa	21,302	X	X	X	X	X	Genital	
Kansas	349	X	X		X	X		
Minnesota	2,018	X			X	X	Transplant, CNS	
Missouri	1,750	X	X	X	X	X	Tissue, urine, CSF, throat, stool	
Nebraska	0							
North Dakota	407	X	X	X	X	X	CNS	
South Dakota	195	X			X	X		
SOUTH ATLANTIC	11,454							
Delaware	1,768	X	X	X	X	X	Genital	
District of Columbia	0							
Florida	3,948	X	X	X	X	X		
Georgia	668	X			X	X	CMV, Mumps	
Maryland	1,409	X	X	X	X	X		
North Carolina	2,678	X	X	X	X	X	Genital specimens, body tissue/fluids	
South Carolina	863	X			X	X	CMV (ocular and other)	
Virginia	222	X			X	X	Autopsy material	
West Virginia	0							
EAST SOUTH CENTRAL	2,148							
Alabama	221				X			
Kentucky	318	X	X		X	X	Autopsy material	
Mississippi	0							
Tennessee	1,609	X			X	X		
WEST SOUTH CENTRAL	18,081							
Arkansas	0							
Louisiana	274				X		Plague	
Oklahoma	1,838	X			X	X		
Texas	13,969	X	X	X	X	X		
MOUNTAIN	8,555							
Arizona	3,948	X	X	X	X	X		
Colorado	0							
Idaho	832				X			
Montana	764	X			X	X	CSF, urine	
Nevada	0							
New Mexico	1,430	X			X	X		
Utah	1,581	X	X		X	X	Tissue, urine, CSF	
Wyoming	0							
PACIFIC	68,673							
Alaska	2,781	X			X	X	CNS, miscellaneous	
California	59,545	X	X	X	X	X	Biopsy, autopsy, human brain, CSF, blood	
Hawaii	1,444	X			X	X	Genital, CSF, blood, tissue, urine	
Oregon	1,478	X			X	X		
Washington	1,427	X		X	X	X		
TERRITORIES	0							
Guam	0							
Puerto Rico	0							
Virgin Islands	0							

* New York did not report for fiscal year 1989.

TABLE 15. VIROLOGY-Viral Isolation Specimens (continued)

Lab & Region (9)	Number of Specimens (10)	Type of procedure										Other (20)
		Tissue Culture Hosts (11)	Eggs (12)	Animal Hosts (13)	HA/HI (14)	CF (15)	Neutralization Tests (16)	FA-Orig. Spec. (17)	FA-Other (18)	HAD/HADI (19)		
TOTAL	264,686	40	23	18	39	17	35	22	37	32		
AVERAGE	6,453											
NEW ENGLAND	7,157											
Connecticut	4,606	X			X		X	X	X	X	EIA	
Massachusetts	873	X	X		X		X		X	X		
Maine	1,593	X	X		X				X	X		
New Hampshire	19	X			X				X			
Rhode Island	0											
Vermont	66		X		X							
MIDDLE ATLANTIC	5,524											
New Jersey	4,726	X	X	X	X	X	X	X	X	X		
New York*												
Pennsylvania	798	X	X		X		X		X	X		
EAST NORTH CENTRAL	120,972											
Illinois	2,762	X			X		X	X		X	Latex agglutination	
Indiana	281	X	X		X	X	X		X	X		
Michigan	1,067	X	X		X		X		X	X		
Ohio	111,977	X		X	X		X		X	X	EIA	
Wisconsin	4,905	X	X	X	X		X		X	X	EIA, original specimens	
WEST NORTH CENTRAL	26,021											
Iowa	21,302	X	X	X	X	X	X		X	X	EIA	
Kansas	349	X	X		X		X	X	X			
Minnesota	2,018	X			X		X	X	X	X		
Missouri	1,750	X			X		X	X	X	X	EIA, latex agglutination	
Nebraska	0											
North Dakota	407	X			X	X	X		X	X		
South Dakota	195	X	X	X	X	X	X	X	X	X		
SOUTH ATLANTIC	11,454											
Delaware	1,768	X	X	X	X	X		X	X			
District of Columbia	0											
Florida	3,848	X	X	X	X	X	X	X	X	X		
Georgia	666	X	X		X		X		X	X	EIA, IgM	
Maryland	1,409	X	X	X	X		X	X	X		EIIsa	
North Carolina	2,678	X	X	X	X	X	X	X	X	X	Ag. detection-Rotavirus	
South Carolina	863	X	X	X	X	X	X	X	X	X		
Virginia	222	X	X	X	X	X	X		X			
West Virginia	0											
EAST SOUTH CENTRAL	2,148											
Alabama	221	X			X		X			X		
Kentucky	318	X			X	X	X		X			
Mississippi	0											
Tennessee	1,609	X		X	X		X	X	X	X		
WEST SOUTH CENTRAL	16,081											
Arkansas	0											
Louisiana	274	X	X		X			X				
Oklahoma	1,838	X			X		X		X	X		
Texas	13,969	X	X	X	X	X	X		X	X	Electron microscopy, enzyme immunoassay	
MOUNTAIN	8,555											
Arizona	3,948	X		X	X	X	X	X	X	X		
Colorado	0											
Idaho	832	X			X			X	X			
Montana	784	X					X	X	X	X		
Nevada	0											
New Mexico	1,430	X		X	X	X	X	X	X	X	EIA	
Utah	1,581	X		X	X		X		X	X	Immunoperoxidase	
Wyoming	0											
PACIFIC	66,673											
Alaska	2,781	X	X	X	X	X	X	X	X	X		
California	59,645	X					X	X	X	X	In situ EIA	
Hawaii	1,444	X	X		X	X	X	X	X	X		
Oregon	1,476	X			X	X	X	X	X	X		
Washington	1,427	X	X	X	X		X	X	X	X		
TERRITORIES	0											
Guam	0											
Puerto Rico	0											
Virgin Islands	0											

* New York did not report for fiscal year 1989.

TABLE 16. VIROLOGY-Rickettsial Identification Specimens

Lab & Region	Number of Specimens	Type of specimen		Type of procedure		
		Tick	Other	Tissue Culture	FA	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL	10,885	6		2	7	
AVERAGE	1,555					
NEW ENGLAND	0					
Connecticut	0					
Massachusetts	0					
Maine	0					
New Hampshire	0					
Rhode Island	0					
Vermont	0					
MIDDLE ATLANTIC	24					
New Jersey	24	X			X	
New York*						
Pennsylvania	0					
EAST NORTH CENTRAL	2,379					
Illinois	0					
Indiana	0					
Michigan	0					
Ohio	2,379	X		X	X	
Wisconsin	0					
WEST NORTH CENTRAL	0					
Iowa	0					
Kansas	0					
Minnesota	0					
Missouri	0					
Nebraska	0					
North Dakota	0					
South Dakota	0					
SOUTH ATLANTIC	157					
Delaware	0					
District of Columbia	0					
Florida	0					
Georgia	0					
Maryland	53	X	Skin biopsy		X	
North Carolina	0					
South Carolina	104	X			X	
Virginia	0					
West Virginia	0					
EAST SOUTH CENTRAL	0					
Alabama	0					
Kentucky	0					
Mississippi	0					
Tennessee	0					
WEST SOUTH CENTRAL	8,308					
Arkansas	10	X			X	
Louisiana	0					
Oklahoma	0					
Texas	8,298	X	Fleas		X	Microtus inoculation
MOUNTAIN	0					
Arizona	0					
Colorado	0					
Idaho	0					
Montana	0					
Nevada	0					
New Mexico	0					
Utah	0					
Wyoming	0					
PACIFIC	17					
Alaska	0					
California	17		Animal blood	X	X	
Hawaii	0					
Oregon	0					
Washington	0					
TERRITORIES	0					
Guam	0					
Puerto Rico	0					
Virgin Islands	0					

* New York did not report for fiscal year 1989.

TABLE 17. VIROLOGY-HIV Identification Specimens

Lab & Region	Number of Specimens	Type of procedure	
		Culture	Other
(1)	(2)	(3)	(4)
TOTAL	166,047	2	
AVERAGE	33,209		
NEW ENGLAND	0		
Connecticut	0		
Massachusetts	0		
Maine	0		
New Hampshire	0		
Rhode Island	0		
Vermont	0		
MIDDLE ATLANTIC	0		
New Jersey	0		
New York*			
Pennsylvania	0		
EAST NORTH CENTRAL	835		
Illinois	0		
Indiana	0		
Michigan	0		
Ohio	0		
Wisconsin	835		P24 antigen
WEST NORTH CENTRAL	197		
Iowa	197	X	Antigen detection
Kansas	0		
Minnesota	0		
Missouri	0		
Nebraska	0		
North Dakota	0		
South Dakota	0		
SOUTH ATLANTIC	163,835		
Delaware	0		
District of Columbia	0		
Florida	0		
Georgia	0		
Maryland	163,835	X	
North Carolina	0		
South Carolina	0		
Virginia	0		
West Virginia	0		
EAST SOUTH CENTRAL	0		
Alabama	0		
Kentucky	0		
Mississippi	0		
Tennessee	0		
WEST SOUTH CENTRAL	0		
Arkansas	0		
Louisiana	0		
Oklahoma	0		
Texas	0		
MOUNTAIN	100		
Arizona	0		
Colorado	0		
Idaho	0		
Montana	0		
Nevada	0		
New Mexico	100		P24 antigen
Utah	0		
Wyoming	0		
PACIFIC	1,280		
Alaska	0		
California	1,280		RIPA
Hawaii	0		
Oregon	0		
Washington	0		
TERRITORIES	0		
Guam	0		
Puerto Rico	0		
Virgin Islands	0		

* New York did not report for fiscal year 1989.

TABLE 18. VIROLOGY-Chlamydia Specimens

Lab & Region	Number of Specimens	Number of Positive Specimens	Type of procedure				
			Tissue Culture	Direct Specimen	EIA	IFA	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	743,162	84,818	17	17	23	12	
AVERAGE	17,694	1,752					
NEW ENGLAND	24,433	1,118					
Connecticut	0						
Massachusetts	3,755	402			X		
Maine	13,842	NA			X	X	
New Hampshire	2,028	99		X	X		Nucleic acid probe
Rhode Island	4,093	547			X		
Vermont	715	68		X	X		
MIDDLE ATLANTIC	834	17					
New Jersey	834	17	X				
New York*							
Pennsylvania	0						
EAST NORTH CENTRAL	21,583	1,702					
Illinois	1,426	195				X	
Indiana	10,357	859	X		X		
Michigan	9,784	841	X				
Ohio	98	7	X				
Wisconsin	0						
WEST NORTH CENTRAL	68,756	7,017					
Iowa	15,701	1,410	X		X		
Kansas	18,736	1,283	X				
Minnesota	7,178	821			X		
Missouri	0						
Nebraska	6,210	1,197			X		
North Dakota	5,121	538	X	X		X	DFA-Syva Microtrak
South Dakota	18,810	1,768			X		
SOUTH ATLANTIC	242,564	20,843					
Delaware	18,249	2,838	X	X			
District of Columbia	9,988	1,080			X		
Florida	68,673	NA			X		
Georgia	0						
Maryland	44,745	4,574	X	X			
North Carolina	42,743	4,257	X		X		
South Carolina	14,737	857	X		X		
Virginia	63,429	7,237			X		
West Virginia	0						
EAST SOUTH CENTRAL	40,768	5,727					
Alabama	32,751	4,722			X		
Kentucky	5,835	588			X		
Mississippi	2,180	419		X	X		
Tennessee	0						
WEST SOUTH CENTRAL	49,069	4,044					
Arkansas	0						
Louisiana	0						
Oklahoma	2,688	223		X		X	
Texas	46,401	3,821	X	X	X	X	
MOUNTAIN	99,233	7,328					
Arizona	8,362	671	X		X	X	
Colorado	18,932	1,474			X		DFA
Idaho	23,537	1,971		X			
Montana	23,031	1,160	X	X		X	
Nevada	10,650	NA		X	X		
New Mexico	8,628	1,035		X		X	
Utah	3,940	475	X	X			
Wyoming	8,153	542				X	
PACIFIC	194,259	17,024					
Alaska	950	NA	X			X	Geneprobe
California	98,226	9,830	X		X	X	
Hawaii	1,839	195		X		X	
Oregon	47,164	3,497		X			
Washington	46,080	3,502		X			
TERRITORIES	1,885	NA					
Guam	0						
Puerto Rico	0						
Virgin Islands	1,885	NA		X			

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 19. VIROLOGY-Herpes Simplex Specimens

Lab & Region	Number of Specimens	Number of Positive Specimens	Type of procedure	
			Cell Culture	Other
(1)	(2)	(3)	(4)	(5)
TOTAL	66,341	19,602	34	
AVERAGE	2,010	594		
NEW ENGLAND	7,666	1,942		
Connecticut	6,756	1,659	X	PAP
Massachusetts	297	95	X	FA
Maine	0			
New Hampshire	501	188	X	Culture amplified direct EIA, FA
Rhode Island	0			
Vermont	0			
MIDDLE ATLANTIC	NA	102		
New Jersey	NA	102	X	Direct FA
New York*				
Pennsylvania	0			
EAST NORTH CENTRAL	13,528	3,909		
Illinois	2,816	411	X	Latex agglutination, complement fixation
Indiana	695	289	X	
Michigan	2,410	809	X	
Ohio	3,270	1,020	X	
Wisconsin	4,437	1,380	X	
WEST NORTH CENTRAL	5,893	2,146		
Iowa	2,601	996	X	
Kansas	1,839	649	X	
Minnesota	974	364	X	
Missouri	0			
Nebraska	0			
North Dakota	80	12	X	
South Dakota	399	125	X	
SOUTH ATLANTIC	22,218	4,452		
Delaware	0			
District of Columbia	68	10	X	FA confirmation
Florida	1,645	353	X	DFA, CF, suckling mice
Georgia	3,669	1,379	X	EIA
Maryland	4,717	407	X	Elisa, IFA
North Carolina	6,918	1,333	X	
South Carolina	3,836	392	X	Typing
Virginia	1,466	578	X	
West Virginia	0			
EAST SOUTH CENTRAL	1,362	421		
Alabama	0			
Kentucky	85	10	X	Direct FA
Mississippi	0			
Tennessee	1,277	411	X	Indirect FA
WEST SOUTH CENTRAL	427	129		
Arkansas	0			
Louisiana	0			
Oklahoma	213	87	X	IFA
Texas	214	42	X	Direct FA
MOUNTAIN	6,488	1,895		
Arizona	1,699	682	X	Final detection by IFA
Colorado	0			
Idaho	695	220	X	FA confirmation for type
Montana	1,474	402	X	
Nevada	0			
New Mexico	572	286	X	Direct FA stain
Utah	1,048	305	X	
Wyoming	0			
PACIFIC	9,869	4,606		
Alaska	338	NA	X	IFA
California	7,887	3,943	X	DFA
Hawaii	686	163	X	
Oregon	0			
Washington	958	500	X	FA
TERRITORIES	0			
Guam	0			
Puerto Rico	0			
Virgin Islands	0			

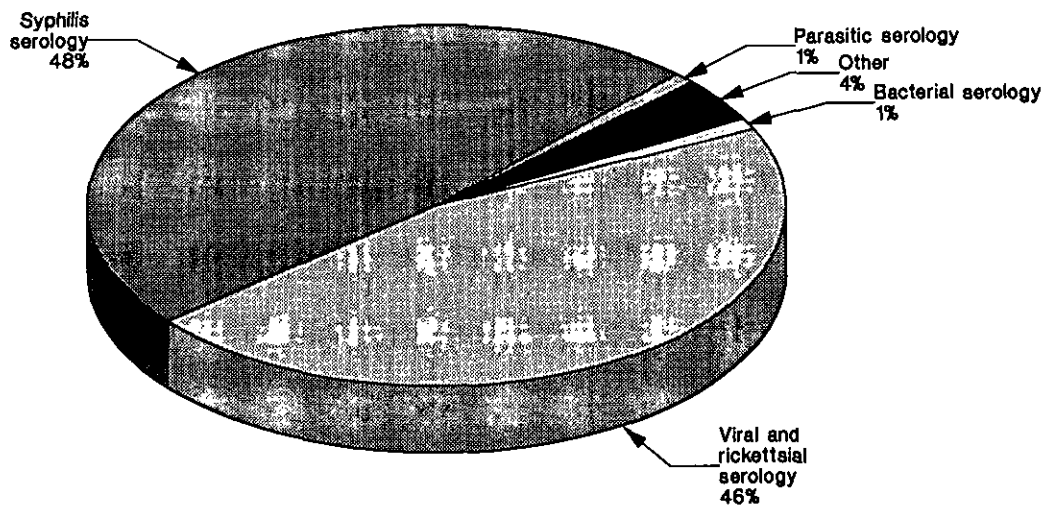
* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 20. VIROLOGY-Other Virology Specimens

Lab & Region	Number of Specimens	Disease/Type of procedure
(1)	(2)	(3)
TOTAL	29,171	
AVERAGE	2,084	
NEW ENGLAND	51	
Connecticut	0	
Massachusetts	0	
Maine	0	
New Hampshire	51	Rotavirus, Rous sarcoma virus-EIA
Rhode Island	0	
Vermont	0	
MIDDLE ATLANTIC	4,441	
New Jersey	4,441	Hepatitis, Rotavirus-EIA
New York*		
Pennsylvania	0	
EAST NORTH CENTRAL	319	
Illinois	0	
Indiana	0	
Michigan	0	
Ohio	319	Arthropods-EIA, culture, & neutralization
Wisconsin	0	
WEST NORTH CENTRAL	7,820	
Iowa	823	Gastroenteritis-Clostridium difficile toxin assay
Kansas	0	
Minnesota	0	
Missouri	6,770	Hepatitis-EIA
Nebraska	0	
North Dakota	0	
South Dakota	27	Rotavirus-EIA
SOUTH ATLANTIC	5,789	
Delaware	86	Rotavirus-EIA
District of Columbia	0	
Florida	0	
Georgia	0	
Maryland	0	
North Carolina	0	
South Carolina	5,703	Rous sarcoma virus, Hepatitis-EIA; mycoplasma-culture, ID
Virginia	0	
West Virginia	0	
EAST SOUTH CENTRAL	0	
Alabama	0	
Kentucky	0	
Mississippi	0	
Tennessee	0	
WEST SOUTH CENTRAL	2,415	
Arkansas	0	
Louisiana	0	
Oklahoma	27	Influenza serology-hemagglutination inhibition
Texas	2,388	Bird bloods-EIA
MOUNTAIN	40	
Arizona	0	
Colorado	0	
Idaho	0	
Montana	40	Rous sarcoma virus-direct IFA; rotavirus-direct latex
Nevada	0	
New Mexico	0	
Utah	0	
Wyoming	0	
PACIFIC	5	
Alaska	0	
California	0	
Hawaii	0	
Oregon	0	
Washington	5	Chlamydia psittacosis-animal host, Macchiavello stain
TERRITORIES	8,491	
Guam	2,966	Hepatitis-EIisa (HbSAq); Rubella-EIisa Rubella; AIDS-EIisa HTLV III
Puerto Rico	5,525	Hepatitis, Rubella, Rubella-EIA
Virgin Islands	0	

* New York did not report for fiscal year 1989.

FIGURE 9.
STATE PUBLIC HEALTH LABORATORY IMMUNOLOGY SPECIMENS,
BY CATEGORY, FISCAL YEAR 1989



TOTAL: 7.4 MILLION SPECIMENS

TABLE 21. IMMUNOLOGY SPECIMENS

Lab & Region	Total Immunology Specimens	Syphills Serology	Bacterial Serology	Fungal Serology	Parasitic Serology	Viral and Rickettsial Serology	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	7,393,842	3,572,073	58,486	32,568	42,806	3,399,223	288,688
AVERAGE	142,185	68,694	1,271	1,051	1,374	66,651	15,194
NEW ENGLAND	272,285	106,581	16,458	624	3,244	137,378	8,000
Connecticut	85,692	22,968	4,776	0	1,604	58,314	0
Massachusetts	89,613	53,647	806	414	0	26,746	8,000
Maine	18,389	1,616	416	138	1,130	15,089	0
New Hampshire	13,448	2,626	1,000	14	1	9,807	0
Rhode Island	67,201	23,377	9,251	0	0	24,573	0
Vermont	7,942	2,317	209	58	509	4,849	0
MIDDLE ATLANTIC	198,173	93,788	1,432	1,065	1,609	100,299	0
New Jersey	194,702	93,055	71	1,065	1,609	98,902	0
New York*							
Pennsylvania	3,471	713	1,361	0	0	1,397	0
EAST NORTH CENTRAL	587,328	134,999	9,506	7,588	11,691	410,343	13,201
Illinois	80,851	30,017	336	6,488	330	39,841	4,839
Indiana	27,944	11,658	164	644	245	15,243	0
Michigan	258,008	47,527	6,278	0	3,419	200,105	1,680
Ohio	96,663	10,406	480	162	197	85,418	0
Wisconsin	122,861	35,391	2,258	1,294	7,500	69,736	6,682
WEST NORTH CENTRAL	389,501	122,911	10,910	5,792	2,625	241,466	6,797
Iowa	78,451	24,680	10,616	4,340	2,545	36,270	0
Kansas	40,179	26,835	97	261	0	12,968	0
Minnesota	43,997	31,332	39	1,149	2	10,091	1,384
Missouri	174,383	21,195	0	0	0	163,188	0
Nebraska	26,298	6,514	2	0	0	19,782	0
North Dakota	17,338	7,797	15	9	73	5,091	4,413
South Dakota	8,855	4,558	141	13	5	4,138	0
SOUTH ATLANTIC	2,374,134	1,321,914	14,189	4,299	15,568	912,913	105,253
Delaware	78,741	21,267	263	0	0	55,878	1,313
District of Columbia	196,532	89,882	0	0	299	104,744	1,807
Florida	889,135	520,030	164	0	419	368,622	0
Georgia	377,931	269,804	1,642	246	921	56,836	48,482
Maryland	320,917	130,268	7,951	2,240	10,091	116,518	53,851
North Carolina	191,266	119,452	1,920	724	2,365	66,805	0
South Carolina	129,720	64,655	258	726	1,283	62,698	0
Virginia	170,884	90,593	1,991	363	168	77,749	0
West Virginia	19,008	15,745	0	0	0	3,263	0
EAST SOUTH CENTRAL	904,649	553,109	714	1,123	724	269,300	79,679
Alabama	318,244	227,027	523	624	300	70,729	19,041
Kentucky	48,979	24,392	46	0	424	24,117	0
Mississippi	289,772	195,008	5	0	0	34,121	60,638
Tennessee	247,654	106,682	140	499	0	140,333	0
WEST SOUTH CENTRAL	1,033,730	610,459	1,835	4,233	4,562	376,645	36,196
Arkansas	88,899	73,991	89	755	18	14,048	0
Louisiana	188,848	67,180	343	541	1,665	119,119	0
Oklahoma	112,057	45,306	30	0	0	68,721	0
Texas	643,926	423,982	1,173	2,937	2,879	176,759	36,196
MOUNTAIN	432,788	109,589	1,695	3,250	624	302,405	15,225
Arizona	64,177	14,597	9	3,103	272	46,196	0
Colorado	155,694	26,136	39	0	0	125,451	4,068
Idaho	13,595	2,363	20	15	0	11,197	0
Montana	28,471	5,082	790	57	302	20,826	1,414
Nevada	37,934	18,296	682	0	0	18,656	0
New Mexico	90,399	31,407	150	75	50	43,623	5,194
Utah	43,490	8,997	5	0	0	29,939	4,549
Wyoming	9,028	2,711	0	0	0	6,317	0
PACIFIC	1,190,074	508,262	1,947	4,580	1,961	647,989	25,335
Alaska	47,178	17,114	5	0	127	29,932	0
California	957,451	427,091	1,081	4,358	1,834	523,109	0
Hawaii	32,360	8,268	478	0	0	11,816	12,000
Oregon	87,177	35,764	353	224	0	37,501	13,335
Washington	65,908	20,025	52	0	0	45,831	0
TERRITORIES	10,980	10,481	0	14	0	485	0
Guam	2,469	2,469	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0
Virgin Islands	8,511	8,012	0	14	0	485	0

* New York did not report for fiscal year 1989.

TABLE 22. IMMUNOLOGY-Syphilis Serology Specimens

Lab & Region	Number of Specimens	Type of procedure										
		VDRL	RPR	ART	USR	RST	FTA-ABS	FTA-ABS (IgM)	DFATP	MHA-TP	Dark-field	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
TOTAL	3,572,073	47	38	2	5	2	47	3	8	21	8	
AVERAGE	68,694											
NEW ENGLAND	106,581											
Connecticut	22,998	X	X	X		X	X		X		X	
Massachusetts	53,647	X	X				X			X		
Maine	1,818	X	X				X					
New Hampshire	2,626	X	X				X		X			
Rhode Island	23,377	X	X				X					
Vermont	2,317	X	X				X		X			
MIDDLE ATLANTIC	93,768											
New Jersey	93,055	X	X				X					HATTS
New York*												
Pennsylvania	713	X	X				X					
EAST NORTH CENTRAL	134,999											
Illinois	30,017	X	X				X			X		
Indiana	11,858	X	X				X					
Michigan	47,527				X		X		X	X		
Ohio	10,406	X					X				X	
Wisconsin	35,391	X					X	X		X	X	
WEST NORTH CENTRAL	122,911											
Iowa	24,880	X					X	X	X			
Kansas	26,835	X					X					
Minnesota	31,332	X			X		X		X		X	
Missouri	21,185	X	X				X			X		
Nebraska	6,514		X							X		
North Dakota	7,797	X				X	X					
South Dakota	4,558	X	X							X		
SOUTH ATLANTIC	1,321,914											
Delaware	21,287	X	X				X				X	HATTS
District of Columbia	89,882	X			X		X			X		
Florida	520,030	X	X				X	X		X		TRUST
Georgia	269,804	X	X				X					
Maryland	130,266		X				X					
North Carolina	119,452	X	X				X		X	X		
South Carolina	64,855	X	X				X			X		
Virginia	90,593	X	X				X			X		
West Virginia	15,745		X				X			X		
EAST SOUTH CENTRAL	553,109											
Alabama	227,027	X	X				X			X		
Kentucky	24,392	X	X				X					
Mississippi	195,008	X	X				X					
Tennessee	106,682	X	X				X			X		
WEST SOUTH CENTRAL	610,459											
Arkansas	73,991	X	X				X		X	X		
Louisiana	67,180	X					X			X		
Oklahoma	45,306	X	X				X					
Texas	423,982	X	X				X			X		
MOUNTAIN	109,589											
Arizona	14,597	X					X			X		
Colorado	26,136	X					X					
Idaho	2,363	X			X		X					
Montana	5,082	X	X		X		X					
Nevada	18,296	X	X				X					HATTS
New Mexico	31,407	X	X									HATTS
Utah	8,997	X	X				X					
Wyoming	2,711		X				X					
PACIFIC	508,282											
Alaska	17,114	X	X				X					
California	427,091	X	X							X	X	
Hawaii	8,268	X	X				X					
Oregon	35,764	X	X				X					Total protein, FTA-ABS(OS)
Washington	20,025	X	X							X		
TERRITORIES	10,481											
Guam	2,489	X					X				X	
Puerto Rico	0											
Virgin Islands	8,012	X		X			X				X	

* New York did not report for fiscal year 1989.

TABLE 23. IMMUNOLOGY-Bacterial Serology Specimens

Lab & Region	Number of Specimens	Type of specimen					
		Brucellosis	Tularemia	Streptococcal Antibodies	Leptospirosis	Salmonellosis	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	58,486	35	34	6	14	10	
AVERAGE	1,271						
NEW ENGLAND	18,458						
Connecticut	4,776	X	X		X	X	Legionella pneumophila, Bordetella pertussis, Lyme disease
Massachusetts	806	X	X				Legionella, Pertussis
Maine	416						Legionella
New Hampshire	1,000						Legionella, Lyme
Rhode Island	9,251	X				X	Lyme disease, Legionnaire's
Vermont	209	X	X				Legionellosis
MIDDLE ATLANTIC	1,432						
New Jersey	71	X	X		X		
New York*							
Pennsylvania	1,361						Staphylococcus phage testing, Legionellosis, Lyme disease
EAST NORTH CENTRAL	9,508						
Illinois	336	X	X				Legionella, Lyme
Indiana	154	X	X		X		
Michigan	6,278						Legionellosis, Pertussis, Lyme
Ohio	480						Legionnaire's disease, Lyme-IFA
Wisconsin	2,256	X	X	X		X	Streptococcus (ASO, ADB)
WEST NORTH CENTRAL	10,910						
Iowa	10,616	X	X		X		
Kansas	97	X	X				
Minnesota	39	X	X				
Missouri	0						
Nebraska	2	X					
North Dakota	15	X	X	X		X	Weil-Felix
South Dakota	141	X	X				Lyme, Legionella
SOUTH ATLANTIC	14,189						
Delaware	263					X	
District of Columbia	0						
Florida	164				X		Legionella
Georgia	1,642	X	X				Legionnaire's disease, Lyme disease
Maryland	7,951	X	X	X	X	X	Lyme, diphtheria, pertussis, tetanus, Legionella, mycoplasma
North Carolina	1,920	X	X				Legionellosis
South Carolina	258	X	X		X		Legionnaire's disease
Virginia	1,991	X	X	X	X		Lyme, Legionnaire
West Virginia	0						
EAST SOUTH CENTRAL	714						
Alabama	523						Legionella, Lyme disease
Kentucky	46	X	X			X	Legionnaire's disease
Mississippi	5	X	X	X			
Tennessee	140	X	X				Legionella
WEST SOUTH CENTRAL	1,635						
Arkansas	89	X	X			X	Weil-Felix
Louisiana	343	X	X				Legionella pneumophila, Borrelia burgdorferi
Oklahoma	30	X	X				
Texas	1,173	X	X		X		Legionella
MOUNTAIN	1,695						
Arizona	9	X	X				
Colorado	39	X	X				
Idaho	20	X	X				
Montana	790	X	X		X		Legionella, Lyme's disease
Nevada	682			X		X	Shigellosis
New Mexico	150	X	X				Plague, Legionella
Utah	5		X				
Wyoming	0						
PACIFIC	1,947						
Alaska	5	X	X				
California	1,061	X	X		X	X	Legionellosis, pertussis
Hawaii	476				X		
Oregon	353	X	X		X		
Washington	52	X	X		X		
TERRITORIES	0						
Guam	0						
Puerto Rico	0						
Virgin Islands	0						

* New York did not report for fiscal year 1989.

TABLE 24. IMMUNOLOGY-Fungal Serology Specimens

Lab & Region	Number of Specimens	Type of specimen						
		Blastomycosis	Coccidioidomycosis	Histoplasmosis	Cryptococcosis	Aspergillosis	Candidiasis	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL	32,588	24	27	28	21	20	6	
AVERAGE	1,051							
NEW ENGLAND	824							
Connecticut	0							
Massachusetts	414				X	X		
Maine	138				X	X		
New Hampshire	14				X			
Rhode Island	0							
Vermont	58		X	X				
MIDDLE ATLANTIC	1,065							
New Jersey	1,065	X	X	X	X	X	X	
New York*								
Pennsylvania	0							
EAST NORTH CENTRAL	7,588							
Illinois	5,488	X	X	X		X		
Indiana	644	X	X	X	X	X	X	
Michigan	0							
Ohio	182	X	X	X	X	X		
Wisconsin	1,294	X	X	X	X			
WEST NORTH CENTRAL	5,792							
Iowa	4,340	X	X	X	X			
Kansas	281		X	X				
Minnesota	1,149	X	X	X	X	X	X	Farmer's lung
Missouri	0							
Nebraska	0							
North Dakota	9	X	X	X		X		
South Dakota	13	X	X	X	X	X		
SOUTH ATLANTIC	4,299							
Delaware	0							
District of Columbia	0							
Florida	0							
Georgia	248	X	X	X				
Maryland	2,240	X	X	X	X	X		
North Carolina	724	X	X	X	X	X		
South Carolina	728	X	X	X	X	X	X	Sporotrichosis
Virginia	363	X	X	X	X			
West Virginia	0							
EAST SOUTH CENTRAL	1,123							
Alabama	624	X	X	X		X		
Kentucky	0							
Mississippi	0							
Tennessee	499	X	X	X	X	X	X	
WEST SOUTH CENTRAL	4,233							
Arkansas	755	X	X	X	X	X		
Louisiana	541	X	X	X	X	X		
Oklahoma	0							
Texas	2,937	X	X	X	X	X		
MOUNTAIN	3,250							
Arizona	3,103		X					
Colorado	0							
Idaho	15	X	X	X				
Montana	67	X	X	X	X	X		
Nevada	0							
New Mexico	75	X	X	X	X	X	X	
Utah	0							
Wyoming	0							
PACIFIC	4,580							
Alaska	0							
California	4,356	X	X	X	X			
Hawaii	0							
Oregon	224	X	X	X				
Washington	0							
TERRITORIES	14							
Guam	0							
Puerto Rico	0							
Virgin Islands	14					X		

* New York did not report for fiscal year 1989.

TABLE 25. IMMUNOLOGY-Parasitic Serology Specimens

Lab & Region	Number of Specimens	Type of specimen					
		Trichinosis	Toxoplasmosis	Amebiasis	Echinococcosis	Trypanosomiasis	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	42,606	8	30	12	1	1	
AVERAGE	1,374						
NEW ENGLAND	3,244						
Connecticut	1,604		X				
Massachusetts	0						
Maine	1,130		X				
New Hampshire	1		X				
Rhode Island	0						
Vermont	509		X				
MIDDLE ATLANTIC	1,609						
New Jersey	1,609	X	X	X			
New York*							
Pennsylvania	0						
EAST NORTH CENTRAL	11,691						
Illinois	330		X				
Indiana	245	X	X	X			
Michigan	3,419		X				
Ohio	187		X	X			
Wisconsin	7,500		X				
WEST NORTH CENTRAL	2,625						
Iowa	2,545	X	X	X			
Kansas	0						
Minnesota	2	X					
Missouri	0						
Nebraska	0						
North Dakota	73		X				
South Dakota	6		X				
SOUTH ATLANTIC	15,566						
Delaware	0						
District of Columbia	299		X				
Florida	419		X				
Georgia	921	X	X	X			Toxocar/lasis, Babesiosis, Cysticercosis, Schistosomiasis, Malaria, Strongyloidiasis
Maryland	10,091	X	X	X			
North Carolina	2,385		X	X			
South Carolina	1,283		X	X			Lyme disease
Virginia	188		X				
West Virginia	0						
EAST SOUTH CENTRAL	724						
Alabama	300		X				
Kentucky	424		X				
Mississippi	0						
Tennessee	0						
WEST SOUTH CENTRAL	4,562						
Arkansas	18		X				
Louisiana	1,665		X	X			
Oklahoma	0						
Texas	2,879		X	X			
MOUNTAIN	624						
Arizona	272		X				
Colorado	0						
Idaho	0						
Montana	302	X	X	X	X	X	Toxocara
Nevada	0						
New Mexico	50		X				
Utah	0						
Wyoming	0						
PACIFIC	1,961						
Alaska	127		X				
California	1,834	X	X	X			
Hawaii	0						
Oregon	0						
Washington	0						
TERRITORIES	0						
Guam	0						
Puerto Rico	0						
Virgin Islands	0						

* New York did not report for fiscal year 1989.

TABLE 26. IMMUNOLOGY-Viral and Rickettsial Serology Specimens

Lab & Region	Number of Specimens	Type of specimen					Other
		Respiratory	CNS	STD (Including Herpes)	Exanthem	HIV	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	3,399,223	41	39	44	43	50	
AVERAGE	66,651						
NEW ENGLAND	137,378						
Connecticut	56,314	X	X	X	X	X	
Massachusetts	26,746	X	X	X	X	X	Rickettsia, Babesia, Q fever
Maine	15,089	X	X	X	X	X	
New Hampshire	9,807	X	X	X	X	X	
Rhode Island	24,573					X	Chlamydia
Vermont	4,849	X	X	X	X	X	Hepatitis
MIDDLE ATLANTIC	100,299						
New Jersey	98,902	X	X	X	X	X	
New York*							
Pennsylvania	1,397	X	X	X	X	X	
EAST NORTH CENTRAL	410,343						
Illinois	39,841	X	X	X	X	X	
Indiana	15,243	X	X	X	X	X	
Michigan	200,105	X	X	X	X	X	
Ohio	85,418	X	X	X	X	X	Vector borne
Wisconsin	89,736	X	X	X	X	X	GI, urogenital, cardiovascular, Hepatitis A, B, non A/B
WEST NORTH CENTRAL	241,466						
Iowa	36,270	X	X	X	X	X	Mononucleosis
Kansas	12,966	X	X	X	X	X	
Minnesota	10,091	X	X	X	X		
Missouri	153,188	X	X	X	X	X	
Nebraska	19,782			X		X	
North Dakota	6,031	X	X	X	X	X	
South Dakota	4,138	X	X	X	X	X	
SOUTH ATLANTIC	912,913						
Delaware	55,878	X	X	X	X	X	
District of Columbia	104,744			X	X	X	
Florida	368,522	X	X	X	X	X	
Georgia	66,836	X	X	X	X	X	Rickettsial-IFA
Maryland	118,518	X	X	X	X	X	
North Carolina	66,805	X	X	X	X	X	
South Carolina	62,598	X	X	X	X	X	Rubella
Virginia	77,749	X	X	X	X	X	Hepatitis
West Virginia	3,263					X	
EAST SOUTH CENTRAL	269,300						
Alabama	70,729	X		X		X	Maternity
Kentucky	24,117	X	X	X	X	X	
Mississippi	34,121					X	
Tennessee	140,333	X	X	X	X	X	Rickettsial
WEST SOUTH CENTRAL	376,645						
Arkansas	14,046					X	Rocky mountain spotted fever, Rubella, psittacosis
Louisiana	119,119	X	X	X	X	X	
Oklahoma	66,721		X	X	X	X	Hepatitis
Texas	176,759	X	X	X	X	X	
MOUNTAIN	302,405						
Arizona	46,196	X	X	X	X	X	Mycoplasma, Rickettsial, psittacosis, Hepatitis, Dengue, CMV
Colorado	125,451	X	X		X	X	
Idaho	11,197	X		X	X	X	Rubella, Rubeola
Montana	20,826	X	X	X	X	X	Chronic fatigue, Hepatitis
Nevada	18,956			X	X	X	
New Mexico	43,523	X	X	X	X	X	
Utah	29,939					X	Serum
Wyoming	6,317	X		X	X	X	
PACIFIC	647,989						
Alaska	29,932	X	X	X	X	X	Hepatitis, Rotavirus
California	523,109	X	X	X	X	X	Arbovirus, Rickettsial
Hawaii	11,616	X	X	X	X	X	Hepatitis B (HBsAg, anti-HBs, anti-HBc)
Oregon	37,501	X	X	X	X	X	
Washington	45,831	X	X	X	X	X	
TERRITORIES	485						
Guam	0						
Puerto Rico	0						
Virgin Islands	485					X	

* New York did not report for fiscal year 1989.

TABLE 27. IMMUNOLOGY-HIV Serology Specimens

Lab & Region	Number of Specimens	Type of procedure			
		EIA	IFA	Western Blot	Other
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	2,241,691	49	21	43	
AVERAGE	44,834				
NEW ENGLAND	89,673				
Connecticut	31,280	X	X	X	
Massachusetts	21,168	X	X	X	
Maine	8,802	X	X	X	
New Hampshire	7,866	X	X	X	
Rhode Island	22,288	X	X	X	
Vermont	471	X	X	X	
MIDDLE ATLANTIC	84,204				
New Jersey	83,189	X	X	X	
New York*					
Pennsylvania	1,015			X	
EAST NORTH CENTRAL	311,885				
Illinois	14,945	X		X	
Indiana	12,571	X		X	
Michigan	193,379	X	X	X	Dried blood spots
Ohio	73,254	X		X	
Wisconsin	17,716	X		X	
WEST NORTH CENTRAL	142,405				
Iowa	12,955	X	X	X	Recombinant assay
Kansas	8,282	X	X		
Minnesota	0				
Missouri	109,791	X		X	
Nebraska	4,324	X		X	
North Dakota	3,681	X	X		
South Dakota	3,372	X			
SOUTH ATLANTIC	451,724				
Delaware	2,575	X		X	
District of Columbia	27,282	X		X	
Florida	247,394	X	X	X	
Georgia	45,733	X		X	
Maryland	61	X	X	X	Latex
North Carolina	21,571	X		X	
South Carolina	48,782	X	X	X	HIV antigen, beta 2 microglobulin
Virginia	57,063	X		X	
West Virginia	3,263	X		X	
EAST SOUTH CENTRAL	205,287				
Alabama	37,003	X		X	
Kentucky	4,269	X		X	
Mississippi	34,121	X		X	P24 antigen
Tennessee	129,874	X		X	
WEST SOUTH CENTRAL	236,991				
Arkansas	14,011	X	X	X	
Louisiana	98,206	X	X	X	
Oklahoma	18,680	X		X	
Texas	106,094	X		X	
MOUNTAIN	257,338				
Arizona	23,527	X		X	
Colorado	125,071	X		X	
Idaho	10,001	X	X		
Montana	11,408	X		X	
Nevada	13,811	X		X	
New Mexico	41,976	X	X	X	
Utah	29,376	X		X	
Wyoming	2,167	X		X	
PACIFIC	481,741				
Alaska	6,754	X	X		
California	368,825	X	X	X	RIPA
Hawaii	6,820	X			
Oregon	36,313	X	X	X	
Washington	43,029	X		X	
TERRITORIES	485				
Guam	0				
Puerto Rico	0				
Virgin Islands	485	X			

* New York did not report for fiscal year 1989.

TABLE 28. IMMUNOLOGY-Other Serology Specimens

Lab & Region	Number of Specimens	Disease/Type of procedure
(1)	(2)	(3)
TOTAL	288,686	
AVERAGE	15,194	
NEW ENGLAND	8,000	
Connecticut	0	
Massachusetts	8,000	Lyme-IgM capture EIA, IgG Western Blot
Maine	0	
New Hampshire	0	
Rhode Island	0	
Vermont	0	
MIDDLE ATLANTIC	0	
New Jersey	0	
New York*		
Pennsylvania	0	
EAST NORTH CENTRAL	13,201	
Illinois	4,839	Arbor (bird bloods and human) - H.I.
Indiana	0	
Michigan	1,680	Pertussis, Legionella-DFA, Borrelia burgdorferi-IFA
Ohio	0	
Wisconsin	6,882	Autoimmune diseases-antinuclear antibodies, anti-thyroids, ENA, DNA, cold agglutinins, complement Immunoglobulins, B2M, Immunocompetency & monitor panels
WEST NORTH CENTRAL	5,797	
Iowa	0	
Kansas	0	
Minnesota	1,384	Rubella - EIA, IgG, IgM
Missouri	0	
Nebraska	0	
North Dakota	4,413	Rubella immune status-Abbott rubazyme
South Dakota	0	
SOUTH ATLANTIC	105,253	
Delaware	1,313	Rubella - rubascan
District of Columbia	1,607	CMV, Hepatitis, VZV - EIA
Florida	0	
Georgia	48,482	Rubella - latex agglutination (immunity screen only)
Maryland	53,851	Hepatitis-EIA; Immunohematology-slide agglutination; Immunological disorders-IFA, agglutination, radio immunodiffusion
North Carolina	0	
South Carolina	0	
Virginia	0	
West Virginia	0	
EAST SOUTH CENTRAL	79,679	
Alabama	19,041	Hepatitis - EIA
Kentucky	0	
Mississippi	60,638	Hepatitis, pregnancy, Lyme's disease, Rubella, measles-EIA
Tennessee	0	
WEST SOUTH CENTRAL	36,196	
Arkansas	0	
Louisiana	0	
Oklahoma	0	
Texas	36,196	Hepatitis A & B-EIA
MOUNTAIN	15,225	
Arizona	0	
Colorado	4,068	Hepatitis - EIA X 2; Rubella - LA
Idaho	0	
Montana	1,414	Hepatitis B-EIA
Nevada	0	
New Mexico	5,194	Rubella-PHA; Hepatitis-EIA
Utah	4,549	Rubella-latex agglutination, IFA; Rocky Mountain Spotted Fever-IFA; Hepatitis-EIA; Western equine encephalitis/St. Louis encephalitis-HI; measles-IFA
Wyoming	0	
PACIFIC	25,335	
Alaska	0	
California	0	
Hawaii	12,000	Special HIV study - EIA filter paper
Oregon	13,335	Rubella-latex agglutination; Hepatitis A & B - A-IgM, BsAg, BcAb, BsAb
Washington	0	
TERRITORIES	0	
Guam	0	
Puerto Rico	0	
Virgin Islands	0	

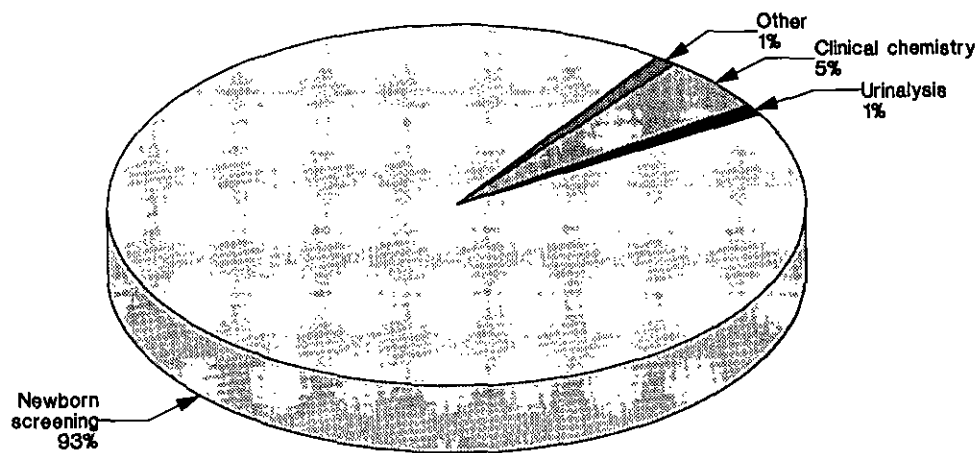
* New York did not report for fiscal year 1989.

TABLE 29. HEMATOLOGY SPECIMENS

Lab & Region (1)	Total Hematology Specimens (2)	Type of specimen	
		Hematology (3)	Immunohematology (4)
TOTAL	544,137	283,413	260,724
AVERAGE	20,828	16,671	13,722
NEW ENGLAND	443	443	0
Connecticut	443	443	0
Massachusetts	0	0	0
Maine	0	0	0
New Hampshire	0	0	0
Rhode Island	0	0	0
Vermont	0	0	0
MIDDLE ATLANTIC	29	29	0
New Jersey	0	0	0
New York*			
Pennsylvania	29	29	0
EAST NORTH CENTRAL	15,058	0	15,058
Illinois	0	0	0
Indiana	0	0	0
Michigan	0	0	0
Ohio	0	0	0
Wisconsin	15,058	0	15,058
WEST NORTH CENTRAL	4,690	4,107	583
Iowa	0	0	0
Kansas	0	0	0
Minnesota	0	0	0
Missouri	0	0	0
Nebraska	0	0	0
North Dakota	583	0	583
South Dakota	4,107	4,107	0
SOUTH ATLANTIC	344,695	217,969	126,736
Delaware	8,796	8,796	0
District of Columbia	59,089	49,196	9,823
Florida	59,091	38,964	20,127
Georgia	15,183	0	15,183
Maryland	138,738	118,962	21,776
North Carolina	19,617	932	18,685
South Carolina	26,415	3,139	23,276
Virginia	17,766	0	17,766
West Virginia	0	0	0
EAST SOUTH CENTRAL	73,913	18,840	55,073
Alabama	21,435	2,659	18,776
Kentucky	7,437	0	7,437
Mississippi	45,041	16,181	28,860
Tennessee	0	0	0
WEST SOUTH CENTRAL	71,713	22,464	49,249
Arkansas	6,494	97	6,397
Louisiana	3,900	0	3,900
Oklahoma	4,990	0	4,990
Texas	56,329	22,367	33,962
MOUNTAIN	7,377	6,840	637
Arizona	0	0	0
Colorado	0	0	0
Idaho	6,840	6,840	0
Montana	0	0	0
Nevada	0	0	0
New Mexico	0	0	0
Utah	0	0	0
Wyoming	537	0	537
PACIFIC	22	22	0
Alaska	0	0	0
California	22	22	0
Hawaii	0	0	0
Oregon	0	0	0
Washington	0	0	0
TERRITORIES	26,197	12,709	13,488
Guam	4,893	4,235	658
Puerto Rico	8,474	8,474	0
Virgin Islands	12,830	0	12,830

* New York did not report for fiscal year 1989.

FIGURE 10.
STATE PUBLIC HEALTH LABORATORY CLINICAL CHEMISTRY SPECIMENS,
BY CATEGORY, FISCAL YEAR 1989



TOTAL: 15.6 MILLION SPECIMENS

TABLE 30. CLINICAL CHEMISTRY SPECIMENS

Lab & Region (1)	Total Clinical Chemistry Specimens (2)	Type of specimen			
		Clinical Chemistry (3)	Urinalysis (4)	Newborn Screening (5)	Other Clinical Chemistry (6)
TOTAL	15,553,089	853,875	107,810	14,399,331	182,073
AVERAGE	345,624	34,155	7,187	351,203	38,415
NEW ENGLAND	1,465,322	770	0	1,281,055	183,497
Connecticut	156,350	770	0	155,580	0
Massachusetts	1,277,020	0	0	1,093,523	183,497
Maine	0	0	0	0	0
New Hampshire	0	0	0	0	0
Rhode Island	31,952	0	0	31,952	0
Vermont	0	0	0	0	0
MIDDLE ATLANTIC	488,418	1,819	12	486,587	0
New Jersey	127,723	180	0	127,543	0
New York*					
Pennsylvania	360,695	1,639	12	359,044	0
EAST NORTH CENTRAL	2,568,778	7,819	0	2,560,957	0
Illinois	231,890	0	0	231,890	0
Indiana	0	0	0	0	0
Michigan	931,830	0	0	931,830	0
Ohio	746,187	0	0	746,187	0
Wisconsin	658,869	7,819	0	651,050	0
WEST NORTH CENTRAL	768,900	11,934	2,950	752,629	1,387
Iowa	277,591	0	0	277,591	0
Kansas	48,138	0	0	48,138	0
Minnesota	285,720	0	0	285,720	0
Missouri	108,934	0	0	108,934	0
Nebraska	12,552	0	0	12,552	0
North Dakota	19,896	0	0	19,896	0
South Dakota	16,271	11,934	2,950	0	1,387
SOUTH ATLANTIC	3,369,138	428,417	70,701	2,866,234	3,788
Delaware	8,683	3,712	4,077	874	0
District of Columbia	49,047	9,333	29,797	9,917	0
Florida	497,154	176,105	869	321,180	0
Georgia	241,877	23,302	781	217,814	0
Maryland	1,687,347	183,375	35,009	1,458,713	250
North Carolina	465,448	10,549	0	454,899	0
South Carolina	204,203	11,184	188	189,315	3,536
Virginia	125,661	1,877	0	123,784	0
West Virginia	89,738	0	0	89,738	0
EAST SOUTH CENTRAL	695,447	125,847	5,457	564,143	0
Alabama	199,343	15,056	5,457	178,830	0
Kentucky	224,511	14,939	0	209,572	0
Mississippi	140,138	95,852	0	44,288	0
Tennessee	131,455	0	0	131,455	0
WEST SOUTH CENTRAL	2,789,144	45,347	0	2,743,797	0
Arkansas	121,207	2,212	0	118,995	0
Louisiana	211,984	62	0	211,912	0
Oklahoma	118,474	6,443	0	112,031	0
Texas	2,337,499	36,640	0	2,300,859	0
MOUNTAIN	1,625,231	24	6,578	1,618,629	0
Arizona	0	0	0	0	0
Colorado	1,338,403	0	0	1,338,403	0
Idaho	6,284	0	5,968	296	0
Montana	45,492	0	0	45,492	0
Nevada	610	0	610	0	0
New Mexico	162,623	24	0	162,599	0
Utah	71,839	0	0	71,839	0
Wyoming	0	0	0	0	0
PACIFIC	1,523,164	19	10	1,523,135	0
Alaska	0	0	0	0	0
California	1,058	19	10	1,029	0
Hawaii	0	0	0	0	0
Oregon	1,181,223	0	0	1,181,223	0
Washington	360,883	0	0	360,883	0
TERRITORIES	259,548	231,879	22,102	2,165	3,403
Guam	4,227	1,008	3,221	0	0
Puerto Rico	13,511	9,805	3,708	0	0
Virgin Islands	241,811	221,068	15,175	2,165	3,403

* New York did not report for fiscal year 1989.

TABLE 31. CLINICAL CHEMISTRY-Clinical Chemistry Specimens and Types of Tests

Lab & Region (1)	Number of Specimens (2)	Type of test												
		Glucose (3)	Cholesterol (4)	BUN (5)	Uric Acid (6)	Trans-aminases (7)	Alkaline Phosphatase (8)	Total Proteins (9)	Serum Iron (10)	Iron Binding Capacity (11)	Triglycerides (12)	Lactic Acid (13)	Bilirubin (14)	T4, T3, T3 Uptake (15)
TOTAL	853,875	21	17	17	17	17	15	12	8	8	15	3	18	11
AVERAGE	34,165													
NEW ENGLAND	770													
Connecticut	770													
Massachusetts	0													
Maine	0													
New Hampshire	0													
Rhode Island	0													
Vermont	0													
MIDDLE ATLANTIC	1,819													
New Jersey	180													
New York*														
Pennsylvania	1,639	X	X	X							X			
EAST NORTH CENTRAL	7,819													
Illinois	0													
Indiana	0													
Michigan	0													
Ohio	0													
Wisconsin	7,819	X	X	X	X	X	X	X	X	X	X		X	X
WEST NORTH CENTRAL	11,934													
Iowa	0													
Kansas	0													
Minnesota	0													
Missouri	0													
Nebraska	0													
North Dakota	0													
South Dakota	11,934	X	X	X	X	X	X	X			X	X	X	X
SOUTH ATLANTIC	428,417													
Delaware	3,712	X		X										
District of Columbia	9,333	X	X		X			X	X	X	X		X	X
Florida	175,105	X	X	X	X	X	X	X	X	X	X		X	X
Georgia	23,302	X	X		X									
Maryland	193,375	X	X	X	X	X	X	X	X	X	X	X	X	X
North Carolina	10,549	X	X	X	X	X	X	X	X	X	X		X	X
South Carolina	11,164	X	X	X	X	X	X	X			X		X	X
Virginia	1,877					X					X			
West Virginia	0													
EAST SOUTH CENTRAL	125,847													
Alabama	15,058	X	X	X	X	X	X	X	X	X	X		X	X
Kentucky	14,939	X	X	X	X	X	X	X			X		X	X
Mississippi	95,852	X	X	X	X	X	X				X		X	X
Tennessee	0													
WEST SOUTH CENTRAL	45,347													
Arkansas	2,212	X		X	X	X	X						X	
Louisiana	52	X	X	X	X	X	X						X	
Oklahoma	6,443	X	X	X	X	X	X	X	X	X	X	X	X	X
Texas	36,640	X												
MOUNTAIN	24													
Arizona	0													
Colorado	0													
Idaho	0													
Montana	0													
Nevada	0													
New Mexico	24													
Utah	0													
Wyoming	0													
PACIFIC	19													
Alaska	0													
California	19	X				X								
Hawaii	0													
Oregon	0													
Washington	0													
TERRITORIES	231,879													
Guam	1,008	X	X	X	X	X	X						X	
Puerto Rico	9,805	X	X	X	X	X	X	X			X		X	X
Virgin Islands	221,068	X	X	X	X	X	X	X	X	X	X		X	X

* New York did not report for fiscal year 1989.

TABLE 31. CLINICAL CHEMISTRY-Clinical Chemistry Specimens and Types of Tests (continued)

Lab & Region	Number of Specimens	Type of test									Other
		Sodium (18)	Potassium (19)	Phosphorous (20)	Calcium (21)	Creatinine (22)	Acid Phosphatase (23)	Albumin (24)	Chloride (25)	LDH (26)	
TOTAL	853,875	14	15	9	11	18	7	11	13	12	(27)
AVERAGE	34,155										
NEW ENGLAND	770										
Connecticut	770										Tay Sachs
Massachusetts	0										
Maine	0										
New Hampshire	0										
Rhode Island	0										
Vermont	0										
MIDDLE ATLANTIC	1,819										
New Jersey	180					X					
New York*											
Pennsylvania	1,839	X	X								HDL cholesterol
EAST NORTH CENTRAL	7,819										
Illinois	0										
Indiana	0										
Michigan	0										
Ohio	0										
Wisconsin	7,819	X	X	X	X	X		X	X	X	Amylase, GGT, HDL, lithium, stones, cortisol, ferritin, folate, TSH vitamin B-12
WEST NORTH CENTRAL	11,934										
Iowa	0										
Kansas	0										
Minnesota	0										
Missouri	0										
Nebraska	0										
North Dakota	0										
South Dakota	11,934	X	X	X	X	X	X	X	X	X	Amylase
SOUTH ATLANTIC	428,417										
Delaware	3,712	X	X			X			X		CO2, ketones
District of Columbia	9,333										X
Florida	175,105	X	X		X	X	X	X	X	X	
Georgia	23,302	X	X			X					
Maryland	193,375	X	X	X	X	X	X	X	X	X	HDL, CO2, cholinesterase, ferritin, glycohemoglobin, FEP magnesium, venipunctures, pregnancy blood test, CPK, GGTP
North Carolina	10,549	X	X	X	X	X	X	X	X	X	
South Carolina	11,184	X	X	X	X	X		X	X	X	HDL, LDL, AG ratio
Virginia	1,877										
West Virginia	0										
EAST SOUTH CENTRAL	125,847										
Alabama	15,056	X	X	X	X	X		X	X		HDL, TSH, ferritin, phenobarbital, phenytoin, theophylline, lithium, blood lead, EP
Kentucky	14,939	X	X	X	X	X		X	X	X	Lithium, GGTP, amylase, CPF, HDL
Mississippi	95,852	X	X			X			X	X	Anticonvulsants, HDL (cholesterol)
Tennessee	0										
WEST SOUTH CENTRAL	45,347										
Arkansas	2,212					X					
Louisiana	52					X					
Oklahoma	6,443	X	X	X	X	X	X	X	X	X	
Texas	38,640										Erythrocyte protoporphyrin
MOUNTAIN	24										
Arizona	0										
Colorado	0										
Idaho	0										
Montana	0										
Nevada	0										
New Mexico	24										Lithium, Pb/As
Utah	0										
Wyoming	0										
PACIFIC	19										
Alaska	0										
California	19										
Hawaii	0										
Oregon	0										
Washington	0										
TERRITORIES	231,879										
Guam	1,008					X					
Puerto Rico	9,805	X	X	X	X	X	X	X	X	X	Amylase, lithium, phenitoin, phenobarbital, primidone, carbamazepine, ethosuximide, valproic acid, theophylline
Virgin Islands	221,068		X		X	X	X	X	X	X	

* New York did not report for fiscal year 1989.

TABLE 32. CLINICAL CHEMISTRY-Urinalysis Specimens

Lab & Region	Number of Specimens	Type of procedure			
		Routine	Microscopic	Pregnancy Test	Other
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	107,810	16	14	7	
AVERAGE	7,187				
NEW ENGLAND	0				
Connecticut	0				
Massachusetts	0				
Maine	0				
New Hampshire	0				
Rhode Island	0				
Vermont	0				
MIDDLE ATLANTIC	12				
New Jersey	0				
New York*					
Pennsylvania	12	X	X		
EAST NORTH CENTRAL	0				
Illinois	0				
Indiana	0				
Michigan	0				
Ohio	0				
Wisconsin	0				
WEST NORTH CENTRAL	2,950				
Iowa	0				
Kansas	0				
Minnesota	0				
Missouri	0				
Nebraska	0				
North Dakota	0				
South Dakota	2,950	X	X	X	
SOUTH ATLANTIC	70,701				
Delaware	4,077	X	X	X	
District of Columbia	29,797	X	X	X	
Florida	889	X	X		
Georgia	781	X	X		
Maryland	35,009	X	X	X	Protein, quantitative, specific gravity
North Carolina	0				
South Carolina	188	X	X		
Virginia	0				
West Virginia	0				
EAST SOUTH CENTRAL	5,457				
Alabama	5,457	X	X		Cultures
Kentucky	0				
Mississippi	0				
Tennessee	0				
WEST SOUTH CENTRAL	0				
Arkansas	0				
Louisiana	0				
Oklahoma	0				
Texas	0				
MOUNTAIN	8,578				
Arizona	0				
Colorado	0				
Idaho	5,968	X	X	X	
Montana	0				
Nevada	610	X	X		
New Mexico	0				
Utah	0				
Wyoming	0				
PACIFIC	10				
Alaska	0				
California	10	X		X	
Hawaii	0				
Oregon	0				
Washington	0				
TERRITORIES	22,102				
Guam	3,221	X	X	X	
Puerto Rico	3,708	X	X		
Virgin Islands	15,175	X	X		

* New York did not report for fiscal year 1989.

TABLE 33. CLINICAL CHEMISTRY-Newborn Screening

Lab & Region	Number of Specimens	Type of Inborn error assay						
		PKU	Tyrosinemia	Galactosemia	MSUD	Hypothyroidism	Amino Acid Chromatography	Homocystinuria
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL	14,399,331	37	7	26	10	36	3	8
AVERAGE	351,203							
NEW ENGLAND	1,281,065							
Connecticut	155,580	X	X	X				
Massachusetts	1,093,523	X	X	X	X	X	X	X
Maine	0							
New Hampshire	0							
Rhode Island	31,852	X	X			X	X	
Vermont	0							
MIDDLE ATLANTIC	486,587							
New Jersey	127,543	X	X	X		X		
New York*								
Pennsylvania	359,044	X				X		
EAST NORTH CENTRAL	2,560,957							
Illinois	231,800	X		X		X		
Indiana	0							
Michigan	831,830	X		X	X	X		
Ohio	746,187	X		X		X		X
Wisconsin	651,050	X		X	X	X		X
WEST NORTH CENTRAL	752,629							
Iowa	277,591	X		X	X	X		
Kansas	48,136	X		X		X		
Minnesota	285,720	X		X		X		
Missouri	108,934	X		X		X		
Nebraska	12,552	X		X		X		
North Dakota	19,696	X				X		
South Dakota	0							
SOUTH ATLANTIC	2,866,234							
Delaware	874							
District of Columbia	9,917					X		
Florida	321,180	X		X		X		
Georgia	217,814	X	X	X	X	X		X
Maryland	1,458,713	X	X	X	X	X		
North Carolina	454,899	X		X		X		
South Carolina	189,315	X				X		
Virginia	123,784	X		X	X	X		X
West Virginia	89,738	X		X		X		
EAST SOUTH CENTRAL	564,143							
Alabama	178,830	X				X	X	
Kentucky	209,572	X		X		X		
Mississippi	44,266							
Tennessee	131,455	X				X		
WEST SOUTH CENTRAL	2,743,797							
Arkansas	118,995	X				X		
Louisiana	211,912	X				X		
Oklahoma	112,031	X				X		
Texas	2,300,859	X		X		X		
MOUNTAIN	1,618,829							
Arizona	0							
Colorado	1,338,403	X		X	X	X		X
Idaho	296	X						
Montana	45,492	X		X		X		
Nevada	0							
New Mexico	162,599	X		X	X	X		X
Utah	71,839	X		X		X		
Wyoming	0							
PACIFIC	1,523,135							
Alaska	0							
California	1,029	X		X		X		
Hawaii	0							
Oregon	1,161,223	X	X	X	X	X		X
Washington	360,883	X				X		
TERRITORIES	2,165							
Guam	0							
Puerto Rico	0							
Virgin Islands	2,165							

* New York did not report for fiscal year 1989.

TABLE 33. CLINICAL CHEMISTRY-Newborn Screening (continued)

Lab & Region	Number of Specimens	Type of inborn error assay			
		Maternal PKU	Amino Acid Disorders	Hemoglobinopathy	Other
(10)	(11)	(12)	(13)	(14)	(15)
TOTAL	14,399,331	7	1	26	
AVERAGE	351,203				
NEW ENGLAND	1,281,055				
Connecticut	155,580			X	
Massachusetts	1,093,523				<i>Congenital toxoplasmosis</i>
Maine	0				
New Hampshire	0				
Rhode Island	31,952			X	
Vermont	0				
MIDDLE ATLANTIC	486,587				
New Jersey	127,543				
New York*					
Pennsylvania	359,044	X			<i>Plasma phenylalanine, plasma tyrosine, serums: T4, TSH, TBG, FT4</i>
EAST NORTH CENTRAL	2,560,957				
Illinois	231,890			X	<i>HIV, Congenital adrenal hyperplasia</i>
Indiana	0				
Michigan	831,830			X	<i>Biotinidase deficiency</i>
Ohio	748,187			X	
Wisconsin	651,050			X	<i>Cystic fibrosis, HIV</i>
WEST NORTH CENTRAL	752,629				
Iowa	277,591			X	
Kansas	48,136				
Minnesota	285,720			X	
Missouri	108,834	X		X	
Nebraska	12,552				<i>Biotinidase</i>
North Dakota	19,696				
South Dakota	0				
SOUTH ATLANTIC	2,866,234				
Delaware	874			X	
District of Columbia	9,917			X	
Florida	321,180				
Georgia	217,814				
Maryland	1,456,713	X	X	X	
North Carolina	454,899	X		X	<i>Congenital adrenal hyperplasia</i>
South Carolina	189,315			X	
Virginia	123,784	X		X	<i>Biotinidase</i>
West Virginia	89,738			X	
EAST SOUTH CENTRAL	564,143				
Alabama	179,830	X			<i>Biotinidase</i>
Kentucky	209,572			X	
Mississippi	44,286			X	
Tennessee	131,455			X	
WEST SOUTH CENTRAL	2,743,797				
Arkansas	118,995			X	
Louisiana	211,912				
Oklahoma	112,031			X	
Texas	2,300,859			X	<i>Congenital adrenal hyperplasia</i>
MOUNTAIN	1,618,629				
Arizona	0				
Colorado	1,338,403			X	<i>Biotinidase deficiency, Cystic Fibrosis</i>
Idaho	296				
Montana	45,492				
Nevada	0				
New Mexico	162,599			X	<i>Serum phenylalanine</i>
Utah	71,839				
Wyoming	0				
PACIFIC	1,523,135				
Alaska	0				
California	1,029	X			
Hawaii	0				
Oregon	1,161,223				<i>CAH, biotinidase</i>
Washington	360,883			X	<i>Adrenal hyperplasia</i>
TERRITORIES	2,165				
Guam	0				
Puerto Rico	0				
Virgin Islands	2,165			X	

* New York did not report for fiscal year 1989.

TABLE 34. CLINICAL CHEMISTRY-Hemoglobinopathy Specimens

Lab & Region	Number of Specimens	Type of procedure							
		Hemoglobin Cellulose Acetate Electrophoresis	Citrate Agar Electrophoresis	Solubility Testing	Fetal Hemoglobin Assay	Hemoglobin A2 Quantitation	Densitometry	HPLC	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
TOTAL	1,778,131	21	20	16	6	7	7	3	
AVERAGE	69,271								
NEW ENGLAND	9,632								
Connecticut	6,936	X	X	X	X	X	X		IEF electrophoresis
Massachusetts	0								
Maine	0								
New Hampshire	0								
Rhode Island	3,696	X	X	X					
Vermont	0								
MIDDLE ATLANTIC	0								
New Jersey	0								
New York*	0								
Pennsylvania	0								
EAST NORTH CENTRAL	327,622								
Illinois	95,700								isoelectric focusing
Indiana	0								
Michigan	155,305								isoelectric focusing
Ohio	628	X	X	X					
Wisconsin	75,989								isoelectric focusing
WEST NORTH CENTRAL	116,468								
Iowa	43,690							X	isoelectric focusing
Kansas	0								
Minnesota	57,780								isoelectric focusing
Missouri	14,998	X	X	X					isoelectric focusing
Nebraska	0								
North Dakota	0								
South Dakota	0								
SOUTH ATLANTIC	324,611								
Delaware	874	X		X			X		
District of Columbia	9,120	X	X	X	X	X	X		
Florida	26,504	X	X	X	X	X			
Georgia	66,314	X	X	X					Bart's, pH 7 electrophoresis
Maryland	129,428	X	X	X	X	X	X		isoelectric focusing
North Carolina	67,870	X	X	X	X	X	X		
South Carolina	11,436	X	X	X	X			X	
Virginia	12,521	X		X					isoelectric focusing
West Virginia	744	X	X	X					
EAST SOUTH CENTRAL	195,289								
Alabama	69,077	X	X					X	Globin chain analysis
Kentucky	482								isoelectric focusing
Mississippi	44,286	X	X						
Tennessee	91,444								isoelectric focusing
WEST SOUTH CENTRAL	647,027								
Arkansas	38,202	X	X						Electrofocusing
Louisiana	44,363	X	X						
Oklahoma	4,439	X	X	X					
Texas	560,023	X	X			X	X		isoelectric focusing
MOUNTAIN	154,582								
Arizona	0								
Colorado	154,273								isoelectric focusing
Idaho	0								
Montana	0								
Nevada	0								
New Mexico	309		X			X	X		isoelectric focusing, Hb Barts quantitation
Utah	0								
Wyoming	0								
PACIFIC	735								
Alaska	0								
California	0								
Hawaii	0								
Oregon	0								
Washington	735	X	X	X					
TERRITORIES	2,165								
Guam	0								
Puerto Rico	0								
Virgin Islands	2,165	X	X	X					

* New York did not report for fiscal year 1989.

TABLE 35. CLINICAL CHEMISTRY-Other Clinical Chemistry Specimens

Lab & Region	Number of Specimens	Specimen/Type of procedure
(1)	(2)	(3)
TOTAL	192,073	
AVERAGE	38,415	
NEW ENGLAND	183,497	
Connecticut	0	
Massachusetts	183,497	HIV-ELISA
Maine	0	
New Hampshire	0	
Rhode Island	0	
Vermont	0	
MIDDLE ATLANTIC	0	
New Jersey	0	
New York*		
Pennsylvania	0	
EAST NORTH CENTRAL	0	
Illinois	0	
Indiana	0	
Michigan	0	
Ohio	0	
Wisconsin	0	
WEST NORTH CENTRAL	1,387	
Iowa	0	
Kansas	0	
Minnesota	0	
Missouri	0	
Nebraska	0	
North Dakota	0	
South Dakota	1,387	Occult blood-hemacult
SOUTH ATLANTIC	3,788	
Delaware	0	
District of Columbia	0	
Florida	0	
Georgia	0	
Maryland	250	Feces-white blood cells, fat, qualitative, occult blood, hemocult slide test
North Carolina	0	
South Carolina	3,538	Blood-alpha feta protein, thyroid panels
Virginia	0	
West Virginia	0	
EAST SOUTH CENTRAL	0	
Alabama	0	
Kentucky	0	
Mississippi	0	
Tennessee	0	
WEST SOUTH CENTRAL	0	
Arkansas	0	
Louisiana	0	
Oklahoma	0	
Texas	0	
MOUNTAIN	0	
Arizona	0	
Colorado	0	
Idaho	0	
Montana	0	
Nevada	0	
New Mexico	0	
Utah	0	
Wyoming	0	
PACIFIC	0	
Alaska	0	
California	0	
Hawaii	0	
Oregon	0	
Washington	0	
TERRITORIES	3,403	
Guam	0	
Puerto Rico	0	
Virgin Islands	3,403	Special chemistry-phenobarbital, dilantin, acid phosphatase, theophylline, digoxin, IGD, ganicyrmycin, TSH

* New York did not report for fiscal year 1989.

TABLE 36. PATHOLOGY SPECIMENS

Lab & Region	Total Pathology Specimens	Exfoliative Cytology Specimens	Cytogenetic Specimens	Other Pathology Specimen	
				Number of Specimens	Type of specimen
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	416,215	410,668	2,826	2,721	
AVERAGE	59,459	68,445	1,413	680	
NEW ENGLAND	0	0	0	0	
Connecticut	0	0	0	0	
Massachusetts	0	0	0	0	
Maine	0	0	0	0	
New Hampshire	0	0	0	0	
Rhode Island	0	0	0	0	
Vermont	0	0	0	0	
MIDDLE ATLANTIC	0	0	0	0	
New Jersey	0	0	0	0	
New York*					
Pennsylvania	0	0	0	0	
EAST NORTH CENTRAL	105,088	100,208	2,232	2,648	
Illinois	0	0	0	0	
Indiana	0	0	0	0	
Michigan	0	0	0	0	
Ohio	0	0	0	0	
Wisconsin	105,088	100,208	2,232	2,648	Non-gynecologic cytology
WEST NORTH CENTRAL	0	0	0	0	
Iowa	0	0	0	0	
Kansas	0	0	0	0	
Minnesota	0	0	0	0	
Missouri	0	0	0	0	
Nebraska	0	0	0	0	
North Dakota	0	0	0	0	
South Dakota	0	0	0	0	
SOUTH ATLANTIC	286,503	286,460	0	43	
Delaware	0	0	0	0	
District of Columbia	14,320	14,320	0	0	
Florida	0	0	0	0	
Georgia	0	0	0	0	
Maryland	51,327	51,319	0	8	Autopsies
North Carolina	154,323	154,323	0	0	
South Carolina	0	0	0	0	
Virginia	0	0	0	0	
West Virginia	66,533	66,498	0	35	Oral, breast, penis
EAST SOUTH CENTRAL	0	0	0	0	
Alabama	0	0	0	0	
Kentucky	0	0	0	0	
Mississippi	0	0	0	0	
Tennessee	0	0	0	0	
WEST SOUTH CENTRAL	0	0	0	0	
Arkansas	0	0	0	0	
Louisiana	0	0	0	0	
Oklahoma	0	0	0	0	
Texas	0	0	0	0	
MOUNTAIN	24,824	24,000	594	30	
Arizona	0	0	0	0	
Colorado	0	0	0	0	
Idaho	594	0	594	0	
Montana	0	0	0	0	
Nevada	0	0	0	0	
New Mexico	24,030	24,000	0	30	Breast discharge
Utah	0	0	0	0	
Wyoming	0	0	0	0	
PACIFIC	0	0	0	0	
Alaska	0	0	0	0	
California	0	0	0	0	
Hawaii	0	0	0	0	
Oregon	0	0	0	0	
Washington	0	0	0	0	
TERRITORIES	0	0	0	0	
Guam	0	0	0	0	
Puerto Rico	0	0	0	0	
Virgin Islands	0	0	0	0	

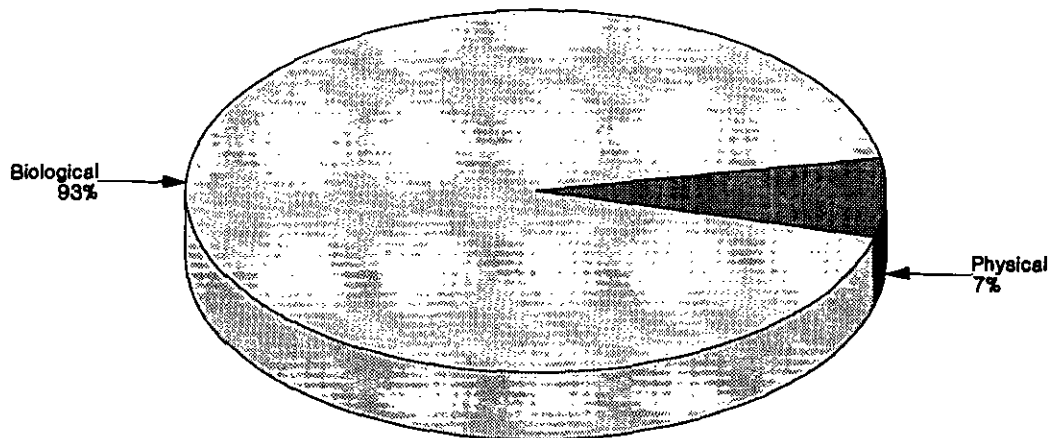
* New York did not report for fiscal year 1989.

TABLE 37. OCCUPATIONAL SAFETY AND HEALTH-Biological Samples

Lab & Region	Number of Samples
(1)	(2)
TOTAL	6,100
AVERAGE	555
NEW ENGLAND	4,778
Connecticut	2,338
Massachusetts	708
Maine	50
New Hampshire	1,682
Rhode Island	0
Vermont	0
MIDDLE ATLANTIC	0
New Jersey	0
New York*	
Pennsylvania	0
EAST NORTH CENTRAL	631
Illinois	0
Indiana	0
Michigan	350
Ohio	281
Wisconsin	0
WEST NORTH CENTRAL	20
Iowa	0
Kansas	0
Minnesota	0
Missouri	0
Nebraska	0
North Dakota	20
South Dakota	0
SOUTH ATLANTIC	328
Delaware	0
District of Columbia	0
Florida	7
Georgia	0
Maryland	0
North Carolina	0
South Carolina	321
Virginia	0
West Virginia	0
EAST SOUTH CENTRAL	0
Alabama	0
Kentucky	0
Mississippi	0
Tennessee	0
WEST SOUTH CENTRAL	0
Arkansas	0
Louisiana	0
Oklahoma	0
Texas	0
MOUNTAIN	343
Arizona	0
Colorado	0
Idaho	0
Montana	102
Nevada	0
New Mexico	0
Utah	241
Wyoming	0
PACIFIC	0
Alaska	0
California	0
Hawaii	0
Oregon	0
Washington	0
TERRITORIES	0
Guam	0
Puerto Rico	0
Virgin Islands	0

* New York did not report for fiscal year 1989.

FIGURE 11.
STATE PUBLIC HEALTH LABORATORY TOXICOLOGY SPECIMENS,
BY CATEGORY, FISCAL YEAR 1989



TOTAL: 1.1 MILLION SPECIMENS

TABLE 38. TOXICOLOGY-Biological Samples

Lab & Region (1)	Total Biological Samples (2)	Blood samples								Other (10)
		Ethyl Alcohol (3)	Other Volatiles (4)	Drugs and Narcotics (5)	Lead (6)	Other Metallic Poisons (7)	Other Poisons (8)	Insecticides (9)		
TOTAL	1,038,467									
AVERAGE	28,013									
NEW ENGLAND	330,560									
Connecticut	41,997	F		F	O					F-Typing
Massachusetts	203,885				O					O-Animal blood
Maine	13,166	F		F/O	F			F		
New Hampshire	12,197	F		F	O					O-EP (child); F-CO
Rhode Island	53,935	F/O	F/O	F/O	O					
Vermont	5,380	F								
MIDDLE ATLANTIC	117,484									
New Jersey	111,760				O					O-Erythrocyte protoporphyrin
New York*										
Pennsylvania	5,724	F	F	O	O	O	O			
EAST NORTH CENTRAL	92,217									
Illinois	17,478				O					O-Q.A. samples
Indiana	2,625				O					
Michigan	34					F		O		O-Pesticides (PBB, PCB, etc.)
Ohio	18,382	F/O	F	F/O	F/O					
Wisconsin	53,698	F/O	O	F/O	O	O	O			O-Therapeutic drugs, cholinesterase, CO, erythrocyte protoporphyrin
WEST NORTH CENTRAL	12,870									
Iowa	271				O	F/O				
Kansas	0									
Minnesota	0									
Missouri	36				O					
Nebraska	1,922	F			O					
North Dakota	5,978									
South Dakota	4,683	F/O	F/O							
SOUTH ATLANTIC	241,070									
Delaware	3,964				O					O-EPP
District of Columbia	76,280				O					
Florida	20,657				O					
Georgia	0									
Maryland	36,988			O	O					
North Carolina	21,241				O					
South Carolina	81,960				O					
Virginia	0									
West Virginia	0									
EAST SOUTH CENTRAL	9,660									
Alabama	0									
Kentucky	9,660	F	F	F	F	F				
Mississippi	0									
Tennessee	0									
WEST SOUTH CENTRAL	75,249									
Arkansas	5,389	O	O	O	O	O	O	O		
Louisiana	67,867				O					
Oklahoma	0									
Texas	1,993				O					
MOUNTAIN	150,061									
Arizona	3				O					
Colorado	132,109	F	F							
Idaho	0									
Montana	0									
Nevada	0									
New Mexico	6,000	F		F		F	F			F-Salicylates, acetaminophen, acid phosphatase, carbon monoxides
Utah	4,981	F	F	F			F			
Wyoming	6,968	F/O	F/O	F/O						
PACIFIC	6,460									
Alaska	4,884									
California	1,536	F			O					O-FEP
Hawaii	0									
Oregon	0									
Washington	40							O		
TERRITORIES	836									
Guam	0									
Puerto Rico	836	O								
Virgin Islands	0									

* New York did not report for fiscal year 1989.

NOTE: F = Forensic, O = Other.

TABLE 38. TOXICOLOGY-Biological Samples (continued)

Lab & Region	Urine samples							
	Ethyl Alcohol (12)	Other Volatiles (13)	Drugs and Narcotics (14)	Lead (15)	Other Metallic Poisons (16)	Other Poisons (17)	Insecticides (18)	Other (19)
NEW ENGLAND								
Connecticut	F		F	O	O			
Massachusetts				O				O-Drug metabolites
Maine	F/O	F/O	F/O	F/O	F/O	F/O	F/O	
New Hampshire				O				
Rhode Island	F	F	F/O	O	F	F/O		
Vermont	F/O		F					
MID-ATLANTIC								
New Jersey			O	O				
New York*								
Pennsylvania	O		O		O			
EAST NORTH CENTRAL								
Illinois								
Indiana								
Michigan								
Ohio	F/O	O	F/O					
Wisconsin	F/O	O	F/O	O	O	O		
WEST NORTH CENTRAL								
Iowa					O			
Kansas								
Minnesota								
Missouri								
Nebraska	F							
North Dakota	F		F					
South Dakota	F/O		F/O					
SOUTH ATLANTIC								
Delaware								
District of Columbia			O					
Florida								
Georgia								
Maryland			O					
North Carolina								
South Carolina	O		O					
Virginia								
West Virginia								
EAST SOUTH CENTRAL								
Alabama								
Kentucky		F	F		F	F		
Mississippi								
Tennessee								
WEST SOUTH CENTRAL								
Arkansas	O	O	O	O	O	O	O	
Louisiana								
Oklahoma								
Texas								
MOUNTAIN								
Arizona								
Colorado	F		F					
Idaho								
Montana								
Nevada								
New Mexico	F		F			F		
Utah	F	F	F					
Wyoming	F/O	F/O	F/O					
PACIFIC								
Alaska			O					
California			O	O				
Hawaii								
Oregon								
Washington								
TERRITORIES								
Guam								
Puerto Rico								
Virgin Islands								

* New York did not report for fiscal year 1989.

NOTE: F = Forensic, O = Other.

TABLE 38. TOXICOLOGY-Biological Samples (continued)

Lab & Region	Body tissue samples							
	Ethyl Alcohol (21)	Other Volatiles (22)	Drugs and Narcotics (23)	Lead (24)	Other Metallic Poisons (25)	Other Poisons (26)	Insecticides (27)	Other (28)
NEW ENGLAND								
Connecticut				O				
Massachusetts								O-PCBs
Maine	F	F	F/O	F	F	F	F	
New Hampshire								
Rhode Island	F	F	F/O		F/O	F		
Vermont								
MID-ATLANTIC								
New Jersey								
New York*								
Pennsylvania								
EAST NORTH CENTRAL								
Illinois								
Indiana								
Michigan								
Ohio	F/O	F/O	F/O					
Wisconsin								
WEST NORTH CENTRAL								
Iowa								
Kansas								
Minnesota								
Missouri								
Nebraska								
North Dakota								
South Dakota	F		F					
SOUTH ATLANTIC								
Delaware								
District of Columbia								
Florida								
Georgia								
Maryland								
North Carolina								
South Carolina								
Virginia								
West Virginia								
EAST SOUTH CENTRAL								
Alabama								
Kentucky	F	F	F	F	F	F		
Mississippi								
Tennessee								
WEST SOUTH CENTRAL								
Arkansas								
Louisiana								
Oklahoma								
Texas								
MOUNTAIN								
Arizona								
Colorado								
Idaho								
Montana								
Nevada								
New Mexico	F		F					
Utah	F		F			F		
Wyoming	F/O	F/O	F/O					
PACIFIC								
Alaska								
California								
Hawaii								
Oregon								
Washington								
TERRITORIES								
Guam								
Puerto Rico								
Virgin Islands								

* New York did not report for fiscal year 1988.
 NOTE: F = Forensic, O = Other.

TABLE 38. TOXICOLOGY-Biological Samples (continued)

Lab & Region	Body fluid samples							
	Ethyl Alcohol (29)	Other Volatiles (30)	Drugs and Narcotics (31)	Lead (32)	Other Metallic Poisons (33)	Other Poisons (34)	Insecticides (35)	Other (36)
NEW ENGLAND								
Connecticut			F					
Massachusetts								
Maine	F/O	F/O	F/O	F/O	F/O	F/O	F/O	
New Hampshire								
Rhode Island	F	F	F		F	F		
Vermont	F							
MID-ATLANTIC								
New Jersey								
New York*								
Pennsylvania								
EAST NORTH CENTRAL								
Illinois								
Indiana								
Michigan								
Ohio	F/O	F	F					
Wisconsin								
WEST NORTH CENTRAL								
Iowa								
Kansas								
Minnesota								
Missouri								
Nebraska								
North Dakota								F-Semen, saliva
South Dakota	F		F					
SOUTH ATLANTIC								
Delaware								
District of Columbia								
Florida								
Georgia								
Maryland								
North Carolina								
South Carolina								
Virginia								
West Virginia								
EAST SOUTH CENTRAL								
Alabama								
Kentucky	F	F	F	F	F	F	F	
Mississippi								
Tennessee								
WEST SOUTH CENTRAL								
Arkansas	O	O	O	O	O	O	O	
Louisiana								
Oklahoma								
Texas								
MOUNTAIN								
Arizona								
Colorado								
Idaho								
Montana								
Nevada								
New Mexico	F				F			
Utah	F	F	F			F		
Wyoming	F/O	F/O	F/O					
PACIFIC								
Alaska								
California								
Hawaii								
Oregon								
Washington								
TERRITORIES								
Guam								
Puerto Rico								
Virgin Islands								

* New York did not report for fiscal year 1989.

NOTE: F = Forensic, O = Other.

TABLE 38. TOXICOLOGY-Biological Samples (continued)

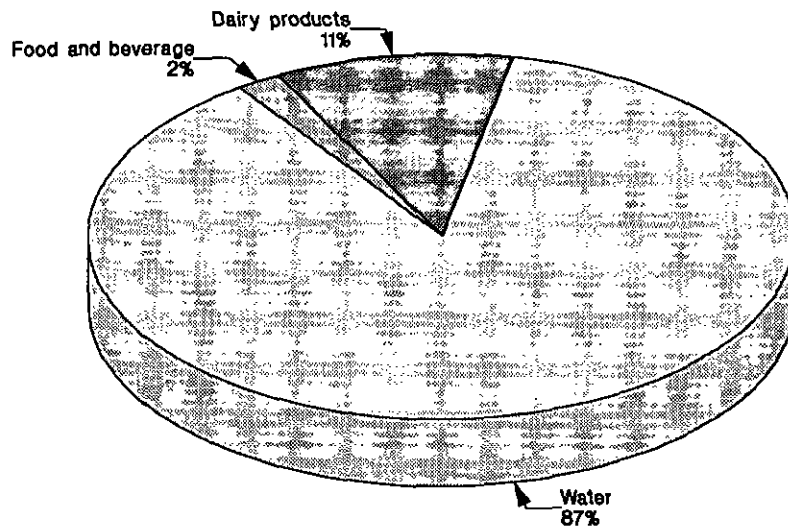
Lab & Region (38)	Breath samples		Other biological samples (41)
	Volatiles (39)	Other (40)	
NEW ENGLAND			
Connecticut	F		
Massachusetts			
Maine	F/O		
New Hampshire			
Rhode Island	F		F-Vaginal swabs & smears
Vermont		F-Ethyl alcohol	
MID-ATLANTIC			
New Jersey			
New York*			
Pennsylvania			
EAST NORTH CENTRAL			
Illinois			
Indiana			
Michigan			
Ohio	O		
Wisconsin			
WEST NORTH CENTRAL			
Iowa			
Kansas			
Minnesota			
Missouri			
Nebraska			
North Dakota			
South Dakota			
SOUTH ATLANTIC			
Delaware			
District of Columbia			
Florida			
Georgia			
Maryland			
North Carolina			
South Carolina			
Virginia			
West Virginia			
EAST SOUTH CENTRAL			
Alabama			
Kentucky			
Mississippi			
Tennessee			
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona			
Colorado	F/O	F - Toxic vapor	
Idaho			
Montana			
Nevada			
New Mexico			
Utah			
Wyoming			
PACIFIC			
Alaska			
California			
Hawaii			
Oregon			
Washington			
TERRITORIES			
Guam			
Puerto Rico			
Virgin Islands			

* New York did not report for fiscal year 1988.

NOTE: F = Forensic, O = Other.

***LABORATORY
ENVIRONMENTAL
WORKLOAD***

FIGURE 12.
STATE PUBLIC HEALTH LABORATORY ENVIRONMENTAL
MICROBIOLOGY SAMPLES, BY CATEGORY, FISCAL YEAR 1989



TOTAL: 2.3 MILLION SAMPLES

TABLE 39. ENVIRONMENTAL MICROBIOLOGY SAMPLES

Lab & Region (1)	Total Environmental Microbiology (2)	Type of sample			Other Environmental Microbiology (6)
		Water (3)	Dairy Products (4)	Food and Beverage (5)	
TOTAL	2,278,528	1,977,838	243,149	51,021	6,482
AVERAGE	43,818	40,360	7,151	1,160	325
NEW ENGLAND	80,565	69,889	7,203	3,281	192
Connecticut	16,394	12,163	2,776	307	148
Massachusetts	3,750	150	1,900	1,700	0
Maine	22,705	22,705	0	0	0
New Hampshire	1,938	256	1,132	514	36
Rhode Island	11,541	9,408	1,395	738	0
Vermont	25,237	25,207	0	22	8
MIDDLE ATLANTIC	7,581	3,849	3,024	650	58
New Jersey	7,485	3,842	3,024	553	48
New York*					
Pennsylvania	118	7	0	97	12
EAST NORTH CENTRAL	352,142	330,566	18,489	1,541	1,546
Illinois	40,015	30,701	7,395	452	1,467
Indiana	74,925	69,873	4,127	925	0
Michigan	103,281	103,202	0	0	79
Ohio	53,376	48,245	6,967	164	0
Wisconsin	80,545	80,545	0	0	0
WEST NORTH CENTRAL	285,262	271,186	8,071	4,981	1,024
Iowa	43,057	42,825	0	33	199
Kansas	45,943	45,933	0	10	0
Minnesota	12,280	12,280	0	0	0
Missouri	112,734	106,138	1,738	4,858	0
Nebraska	25,267	25,267	0	0	0
North Dakota	19,992	12,784	6,333	50	825
South Dakota	26,009	25,979	0	30	0
SOUTH ATLANTIC	582,484	517,794	37,116	27,558	16
Delaware	17,366	16,461	731	174	0
District of Columbia	173	0	0	173	0
Florida	264,947	261,759	1,502	1,686	0
Georgia	147	37	54	40	16
Maryland	126,880	99,149	6,487	21,244	0
North Carolina	50,409	50,032	126	251	0
South Carolina	10,089	0	9,463	626	0
Virginia	69,767	55,304	11,099	3,364	0
West Virginia	42,706	35,052	7,654	0	0
EAST SOUTH CENTRAL	228,756	173,687	64,334	732	3
Alabama	87,249	64,474	22,500	275	0
Kentucky	10,469	7,720	2,508	241	0
Mississippi	78,947	61,021	17,834	89	3
Tennessee	52,091	40,472	11,492	127	0
WEST SOUTH CENTRAL	454,629	377,029	72,376	4,125	1,099
Arkansas	82,344	64,189	17,170	985	0
Louisiana	108,575	68,921	38,437	1,217	0
Oklahoma	0	0	0	0	0
Texas	263,710	243,919	16,769	1,923	1,099
MOUNTAIN	130,088	117,106	10,918	1,833	231
Arizona	8,845	6,153	2,316	448	28
Colorado	21,248	19,491	1,419	237	101
Idaho	29,072	27,312	1,665	95	0
Montana	13,022	13,017	0	5	0
Nevada	19,878	17,099	2,584	215	0
New Mexico	17,338	13,757	2,954	625	102
Utah	7,922	7,645	0	277	0
Wyoming	12,663	12,632	0	31	0
PACIFIC	137,245	109,500	21,543	4,018	2,184
Alaska	201	188	0	13	0
California	103,825	81,473	19,157	2,248	947
Hawaii	11,226	7,196	2,396	447	1,197
Oregon	9,835	9,247	0	548	40
Washington	12,158	11,396	0	762	0
TERRITORIES	19,776	7,032	10,076	2,302	139
Guam	276	NA	NA	NA	48
Puerto Rico	11,527	4,222	4,912	2,302	91
Virgin Islands	7,973	2,810	5,163	0	0

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 40. ENVIRONMENTAL MICROBIOLOGY-Water Samples

Lab & Region (1)	Number of Samples (2)	Type of sample and procedure							
		Potable				Non-potable			
		Membrane Filter (3)	Multiple Tube (4)	Presence/Absence (5)	Other (6)	Membrane Filter (7)	Multiple Tube (8)	Presence/Absence (9)	Other (10)
TOTAL	1,977,638	46	34	2	6	28	36	3	4
AVERAGE	40,360								
NEW ENGLAND	69,889								
Connecticut	12,163	X	X			X	X		
Massachusetts	150	X							
Maine	22,705	X	X			X	X		
New Hampshire	256						X		
Rhode Island	9,408	X					X		
Vermont	25,207	X				X			
MIDDLE ATLANTIC	3,849								
New Jersey	3,842	X				X	X		
New York*									
Pennsylvania	7	X							
EAST NORTH CENTRAL	330,566								
Illinois	30,701	X	X				X		
Indiana	69,873	X	X			X			
Michigan	103,202	X				X			
Ohio	46,245	X				X	X		
Wisconsin	80,545	X	X		X	X			X
WEST NORTH CENTRAL	271,186								
Iowa	42,825	X	X		X	X	X		
Kansas	45,933	X				X			
Minnesota	12,260	X	X			X	X		
Missouri	106,138	X				X			
Nebraska	25,267	X	X						
North Dakota	12,784	X	X			X	X		
South Dakota	25,979	X	X			X	X		
SOUTH ATLANTIC	517,794								
Delaware	16,461	X	X				X		
District of Columbia	0								
Florida	261,759	X	X			X	X		
Georgia	37						X	X	
Maryland	99,149	X	X				X		
North Carolina	50,032	X	X	X		X	X	X	
South Carolina	0								
Virginia	55,304	X	X			X	X		
West Virginia	35,052	X	X			X	X		
EAST SOUTH CENTRAL	173,687								
Alabama	64,474	X				X	X		
Kentucky	7,720	X	X		X	X	X	X	X
Mississippi	61,021	X	X				X		
Tennessee	40,472	X				X	X		
WEST SOUTH CENTRAL	377,029								
Arkansas	64,189	X				X			
Louisiana	68,921	X	X				X		
Oklahoma	0								
Texas	243,919	X	X				X		
MOUNTAIN	117,106								
Arizona	6,153	X	X			X	X		
Colorado	19,491	X	X			X	X		X
Idaho	27,312	X	X			X	X		
Montana	13,017	X	X		X				
Nevada	17,099	X	X			X	X		
New Mexico	13,757	X	X			X	X		
Utah	7,645	X	X		X				X
Wyoming	12,632		X				X		
PACIFIC	109,500								
Alaska	188		X				X		
California	81,473	X	X	X			X		
Hawaii	7,196	X	X		X	X	X		
Oregon	9,247	X	X				X		
Washington	11,396	X	X				X		
TERRITORIES	7,032								
Guam	NA	X							
Puerto Rico	4,222	X	X				X		
Virgin Islands	2,810	X							

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 40. ENVIRONMENTAL MICROBIOLOGY-Water Samples (continued)

Lab & Region	Type of sample and procedure							
	Swimming Pools				Sewage and Waste			
	Membrane Filter	Multiple Tube	Presence/Absence	Other	Membrane Filter	Multiple Tube	Presence/Absence	Other
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
TOTAL	25	29	2	8	18	28	0	2
NEW ENGLAND								
Connecticut	X			X		X		
Massachusetts								
Maine	X	X			X	X		
New Hampshire								
Rhode Island				X		X		
Vermont	X			X				
MIDDLE ATLANTIC								
New Jersey	X					X		
New York*								
Pennsylvania								
EAST NORTH CENTRAL								
Illinois	X	X				X		
Indiana		X		X	X			
Michigan	X			X	X			
Ohio	X				X			
Wisconsin		X			X	X		
WEST NORTH CENTRAL								
Iowa		X			X	X		
Kansas								
Minnesota		X			X	X		
Missouri	X							
Nebraska								
North Dakota	X	X		X	X	X		
South Dakota	X	X			X	X		
SOUTH ATLANTIC								
Delaware	X	X						
District of Columbia								
Florida	X	X			X	X		
Georgia								
Maryland		X				X		
North Carolina	X	X	X			X		
South Carolina								
Virginia						X		
West Virginia		X			X	X		
EAST SOUTH CENTRAL								
Alabama								
Kentucky	X		X		X	X		
Mississippi								
Tennessee	X							
WEST SOUTH CENTRAL								
Arkansas	X							
Louisiana		X				X		
Oklahoma								
Texas								
MOUNTAIN								
Arizona		X			X	X		
Colorado	X	X				X		X
Idaho	X	X			X	X		
Montana	X	X		X	X	X		
Nevada	X	X			X	X		
New Mexico	X	X			X	X		
Utah	X	X		X	X	X		X
Wyoming		X						
PACIFIC								
Alaska		X				X		
California		X				X		
Hawaii	X	X				X		
Oregon	X	X						
Washington		X				X		
TERRITORIES								
Guam		X						
Puerto Rico		X						
Virgin Islands	X							

* New York did not report for fiscal year 1989.

TABLE 41. ENVIRONMENTAL MICROBIOLOGY-Dairy Products Samples

Lab & Region	Number of Samples	Type of sample						Other
		Milk and Cream	Ice Cream	Cheese	Other Dairy Products	Frozen Desserts	(8)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
TOTAL	243,149	33	27	16	28	21		
AVERAGE	7,151							
NEW ENGLAND	7,203							
Connecticut	2,776	X	X	X	X	X	Plant equipment, empty containers	
Massachusetts	1,900	X	X	X		X	Sweet water, single use containers	
Maine	0							
New Hampshire	1,132	X	X	X	X			
Rhode Island	1,395	X	X	X	X	X		
Vermont	0							
MIDDLE ATLANTIC	3,024							
New Jersey	3,024	X	X	X	X			
New York*								
Pennsylvania	0							
EAST NORTH CENTRAL	18,489							
Illinois	7,395			X	X	X		
Indiana	4,127	X	X	X	X	X		
Michigan	0							
Ohio	6,967	X			X			
Wisconsin	0							
WEST NORTH CENTRAL	8,071							
Iowa	0							
Kansas	0							
Minnesota	0							
Missouri	1,738	X	X	X	X	X		
Nebraska	0							
North Dakota	6,333	X	X	X	X	X		
South Dakota	0							
SOUTH ATLANTIC	37,116							
Delaware	731	X	X		X			
District of Columbia	0							
Florida	1,502	X	X			X		
Georgia	54	X	X					
Maryland	6,487	X	X		X	X	Listeria/Yersinia screening of products & environmental swabs.	
North Carolina	126	X						
South Carolina	9,463	X	X		X	X		
Virginia	11,099	X	X		X	X	Cultural products, milk cartons	
West Virginia	7,654	X			X			
EAST SOUTH CENTRAL	54,334							
Alabama	22,500	X	X		X	X		
Kentucky	2,508	X	X	X	X	X	Containers	
Mississippi	17,834	X			X			
Tennessee	11,492	X	X		X	X		
WEST SOUTH CENTRAL	72,376							
Arkansas	17,170	X	X	X	X	X		
Louisiana	38,437	X	X	X	X	X	Raw milks, containers	
Oklahoma	0							
Texas	16,769	X	X		X	X		
MOUNTAIN	10,918							
Arizona	2,316	X	X	X	X		Powdered milk	
Colorado	1,419	X	X		X			
Idaho	1,685	X						
Montana	0							
Nevada	2,564	X	X	X	X	X	Butterfats, solid non-fats	
New Mexico	2,954	X	X	X	X	X	Containers (milk)	
Utah	0							
Wyoming	0							
PACIFIC	21,543							
Alaska	0							
California	19,157	X						
Hawaii	2,386	X	X		X	X	Environmental swabs for dairy plant containers	
Oregon	0							
Washington	0							
TERRITORIES	10,075							
Guam	NA							
Puerto Rico	4,912	X	X	X	X	X		
Virgin Islands	5,163	X	X		X			

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 42. ENVIRONMENTAL MICROBIOLOGY-Food and Beverage Samples

Lab & Region	Number of Samples	Type of sample			
		Food Quality	Food-Associated Disease Outbreaks	Seafood	Environmental
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	51,021	23	44	23	25
AVERAGE	1,160				
NEW ENGLAND	3,281				
Connecticut	307	X	X	X	X
Massachusetts	1,700	X	X	X	
Maine	0				
New Hampshire	514	X	X	X	X
Rhode Island	738	X	X	X	X
Vermont	22		X		
MIDDLE ATLANTIC	650				
New Jersey	553	X	X	X	
New York*					
Pennsylvania	97		X		
EAST NORTH CENTRAL	1,541				
Illinois	452	X	X		X
Indiana	825	X	X		X
Michigan	0				
Ohio	164		X		
Wisconsin	0				
WEST NORTH CENTRAL	4,981				
Iowa	33		X		X
Kansas	10		X		
Minnesota	0				
Missouri	4,858	X	X		X
Nebraska	0				
North Dakota	50		X		X
South Dakota	30		X		
SOUTH ATLANTIC	27,558				
Delaware	174	X	X	X	
District of Columbia	173	X	X	X	X
Florida	1,686	X	X	X	X
Georgia	40		X		X
Maryland	21,244	X	X	X	X
North Carolina	251		X	X	
South Carolina	828		X		
Virginia	3,364	X	X	X	X
West Virginia	0				
EAST SOUTH CENTRAL	732				
Alabama	275	X	X	X	
Kentucky	241	X	X		X
Mississippi	89		X	X	X
Tennessee	127		X		
WEST SOUTH CENTRAL	4,125				
Arkansas	985	X	X		
Louisiana	1,217	X	X	X	X
Oklahoma	0				
Texas	1,923		X	X	X
MOUNTAIN	1,833				
Arizona	448	X	X	X	X
Colorado	237	X	X	X	
Idaho	95		X		
Montana	5		X		
Nevada	215		X		X
New Mexico	525	X	X	X	X
Utah	277		X		
Wyoming	31		X		
PACIFIC	4,018				
Alaska	13		X		
California	2,248	X	X	X	X
Hawaii	447	X	X	X	X
Oregon	548		X	X	X
Washington	762		X	X	X
TERRITORIES	2,302				
Guam	NA				
Puerto Rico	2,302	X	X	X	X
Virgin Islands	0				

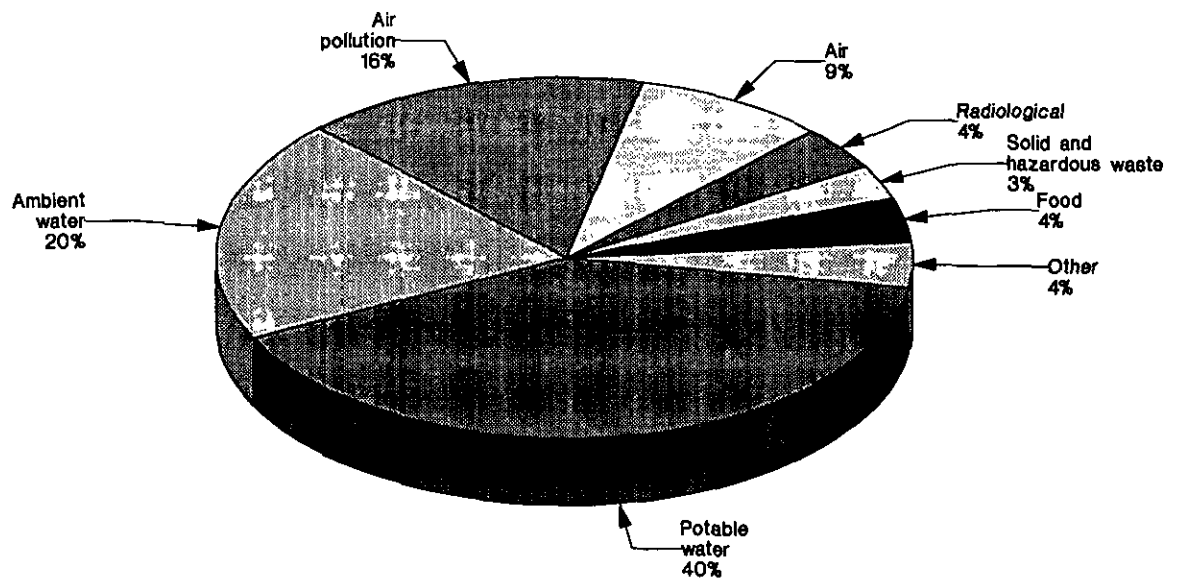
* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 43. ENVIRONMENTAL MICROBIOLOGY-Other Environmental Microbiology Samples

Lab & Region (1)	Number of Samples (2)	Type of sample (3)
TOTAL	6,492	
AVERAGE	325	
NEW ENGLAND	192	
Connecticut	148	Shellfish
Massachusetts	0	
Maine	0	
New Hampshire	36	Paralytic shellfish poison
Rhode Island	0	
Vermont	8	Swabs from drains, showerheads
MIDDLE ATLANTIC	58	
New Jersey	46	Prescription and over-the-counter drugs
New York*		
Pennsylvania	12	Infectious waste
EAST NORTH CENTRAL	1,546	
Illinois	1,467	QA and miscellaneous
Indiana	0	
Michigan	79	Iron bacteria, pseudomonas, DNR surface bacteriological
Ohio	0	
Wisconsin	0	
WEST NORTH CENTRAL	1,024	
Iowa	199	Soil, sterility checks
Kansas	0	
Minnesota	0	
Missouri	0	
Nebraska	0	
North Dakota	825	Sterilities, Aflatoxin B
South Dakota	0	
SOUTH ATLANTIC	16	
Delaware	0	
District of Columbia	0	
Florida	0	
Georgia	16	Equipment swabs (rehabilitation)
Maryland	0	
North Carolina	0	
South Carolina	0	
Virginia	0	
West Virginia	0	
EAST SOUTH CENTRAL	3	
Alabama	0	
Kentucky	0	
Mississippi	3	Filth samples
Tennessee	0	
WEST SOUTH CENTRAL	1,099	
Arkansas	0	
Louisiana	0	
Oklahoma	0	
Texas	1,099	Water suitability
MOUNTAIN	231	
Arizona	28	Virus and parasite samples from water
Colorado	101	Container rinse
Idaho	0	
Montana	0	
Nevada	0	
New Mexico	102	Botulism (clinical samples), meat serology, plant, insect & filth identification
Utah	0	
Wyoming	0	
PACIFIC	2,184	
Alaska	0	
California	947	Shellfish for PSP, drug surveillance
Hawaii	1,197	Milk plant (Yersinia, Listeria), Staphylococcus phage typing, ice, bottled water
Oregon	40	Bacillus thuringiensis, air sample, spa sample
Washington	0	
TERRITORIES	139	
Guam	48	Food microbiology
Puerto Rico	91	Milk containers
Virgin Islands	0	

* New York did not report for fiscal year 1989.

FIGURE 13.
STATE PUBLIC HEALTH LABORATORY ENVIRONMENTAL
CHEMISTRY SAMPLES, BY CATEGORY, FISCAL YEAR 1989



TOTAL: 1.1 MILLION SAMPLES

TABLE 44. ENVIRONMENTAL CHEMISTRY SAMPLES

Lab & Region (1)	Total Environmental Chemistry Samples (2)	Type of sample								
		Potable Water (3)	Ambient Water (4)	Air (5)	Air Pollution (6)	Solid and Hazardous Waste (7)	Food (8)	Body Fluids and Tissues (9)	Radiological (10)	Other (11)
TOTAL	1,137,381	449,439	232,287	103,740	186,298	36,165	42,471	1,766	42,029	43,188
AVERAGE	25,850	10,452	7,493	4,940	12,420	1,572	1,517	138	1,617	2,400
NEW ENGLAND	117,113	40,103	6,131	261	82,517	4,778	5,690	583	6,496	554
Connecticut	33,958	13,995	4,495	0	6,517	4,450	2,721	0	1,217	554
Massachusetts	1,507	657	0	0	0	0	267	583	0	0
Maine	19,200	14,374	0	261	0	202	0	0	4,363	0
New Hampshire	4	0	0	0	0	0	4	0	0	0
Rhode Island	56,444	5,953	1,483	0	48,000	117	2,695	0	196	0
Vermont	6,000	5,124	153	0	0	0	3	0	720	0
MIDDLE ATLANTIC	5,992	1,017	4,182	88	0	89	215	145	0	258
New Jersey	5,992	1,017	4,182	88	0	89	215	145	0	258
New York*										
Pennsylvania	0	0	0	0	0	0	0	0	0	0
EAST NORTH CENTRAL	208,270	120,400	59,690	10,978	785	212	2,759	48	10,520	3,000
Illinois	7,148	5,176	372	0	0	0	635	0	0	965
Indiana	22,168	17,421	3,480	0	0	28	1,239	0	0	0
Michigan	75,599	85,068	0	5,400	0	0	885	46	4,200	0
Ohio	11,372	5,852	111	28	785	184	0	0	2,397	2,036
Wisconsin	91,983	28,883	55,727	5,450	0	0	0	0	3,923	0
WEST NORTH CENTRAL	152,170	76,853	29,340	887	6,489	4,172	4,722	210	7,725	21,772
Iowa	40,948	19,951	14,172	112	2,923	720	58	210	2,800	0
Kansas	29,912	4,812	4,007	3	2,222	1,749	11	0	1,883	14,325
Minnesota	21,485	16,561	2,213	323	0	1,471	0	0	917	0
Missouri	12,733	7,938	254	0	0	0	4,512	0	29	0
Nebraska	20,511	18,173	390	11	0	0	0	0	1,937	0
North Dakota	13,922	3,989	2,310	438	0	76	135	0	81	8,893
South Dakota	13,761	5,629	5,994	0	1,344	156	6	0	78	554
SOUTH ATLANTIC	277,377	144,620	80,207	1,041	18,845	15,309	10,055	0	6,387	913
Delaware	6,187	6,012	0	0	0	0	0	0	175	0
District of Columbia	218	93	0	0	0	0	125	0	0	0
Florida	29,208	28,677	844	312	0	0	421	0	0	754
Georgia	0	0	0	0	0	0	0	0	0	0
Maryland	203,446	78,578	78,578	0	18,845	14,502	9,509	0	3,434	0
North Carolina	31,394	26,136	785	729	0	807	0	0	2,778	159
South Carolina	0	0	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0	0	0	0
West Virginia	6,924	6,924	0	0	0	0	0	0	0	0
EAST SOUTH CENTRAL	26,300	16,326	2,426	2,621	0	2,071	525	76	1,176	1,079
Alabama	1,041	1,041	0	0	0	0	0	0	0	0
Kentucky	9,612	7,932	0	0	0	0	525	76	0	1,079
Mississippi	7,075	7,075	0	0	0	0	0	0	0	0
Tennessee	8,572	278	2,426	2,621	0	2,071	0	0	1,176	0
WEST SOUTH CENTRAL	52,724	14,822	11,726	20	0	2,120	16,826	2	3,072	4,136
Arkansas	3,900	3,056	40	0	0	0	0	0	804	0
Louisiana	25,090	2,348	8,813	20	0	0	15,785	2	78	46
Oklahoma	0	0	0	0	0	0	0	0	0	0
Texas	23,734	9,420	4,873	0	0	2,120	1,041	0	2,190	4,090
MOUNTAIN	98,964	20,006	35,171	1,965	34,221	4,107	354	604	2,234	202
Arizona	4,713	487	1,925	1,438	0	768	67	8	0	22
Colorado	49,504	9,521	16,496	39	21,492	766	213	127	851	0
Idaho	7,183	838	3,973	0	1,858	201	1	67	245	0
Montana	10,945	1,789	2,134	119	6,284	234	3	202	0	180
Nevada	3,555	2,855	688	0	14	0	0	0	0	0
New Mexico	14,916	2,900	5,100	300	4,350	878	60	190	1,138	0
Utah	8,048	1,616	4,858	69	223	1,262	10	10	0	0
Wyoming	0	0	0	0	0	0	0	0	0	0
PACIFIC	189,228	12,549	3,414	85,981	73,459	3,297	1,325	100	4,419	4,684
Alaska	0	0	0	0	0	0	0	0	0	0
California	25,602	5,929	3,014	1,981	3,459	3,287	1,100	100	3,186	3,546
Hawaii	157,433	1,700	400	84,000	70,000	0	225	0	0	1,108
Oregon	0	0	0	0	0	0	0	0	0	0
Washington	6,193	4,920	0	0	0	10	0	0	1,233	30
TERRITORIES	9,343	2,743	0	0	0	0	0	0	0	6,600
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	8,304	2,704	0	0	0	0	0	0	0	6,600
Virgin Islands	39	39	0	0	0	0	0	0	0	0

* New York did not report for fiscal year 1989.

TABLE 45. ENVIRONMENTAL CHEMISTRY-Water Samples-Potable

Lab & Region	Number of Samples	Type of substance identified			
		Synthetic Organic Chemicals	Insecticides and Herbicides	Inorganic Chemicals	Radionuclides
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	449,439	37	39	42	18
AVERAGE	10,452				
NEW ENGLAND	40,103				
Connecticut	13,995	X	X	X	
Massachusetts	657	X	X	X	
Maine	14,374	X	X	X	
New Hampshire	0				
Rhode Island	6,953	X	X	X	X
Vermont	5,124	X	X	X	X
MIDDLE ATLANTIC	1,017				
New Jersey	1,017	X	X	X	
New York*					
Pennsylvania	0				
EAST NORTH CENTRAL	120,400				
Illinois	5,178	X	X	X	
Indiana	17,421	X	X	X	
Michigan	65,068	X	X	X	
Ohio	5,852	X	X	X	X
Wisconsin	26,883	X	X	X	
WEST NORTH CENTRAL	76,853				
Iowa	19,951	X	X	X	X
Kansas	4,612	X	X	X	
Minnesota	16,561	X	X	X	X
Missouri	7,935	X	X	X	
Nebraska	18,173	X	X	X	X
North Dakota	3,989	X	X	X	X
South Dakota	5,629			X	X
SOUTH ATLANTIC	144,620				
Delaware	6,012	X	X	X	
District of Columbia	93			X	
Florida	26,877	X	X	X	
Georgia	0				
Maryland	78,578	X	X	X	
North Carolina	26,136	X	X	X	X
South Carolina	0				
Virginia	0				
West Virginia	6,924		X	X	
EAST SOUTH CENTRAL	18,326				
Alabama	1,041			X	
Kentucky	7,932	X	X	X	
Mississippi	7,075	X	X	X	
Tennessee	278	X	X	X	X
WEST SOUTH CENTRAL	14,822				
Arkansas	3,056	X	X	X	X
Louisiana	2,348	X	X		X
Oklahoma	0				
Texas	9,420	X	X	X	X
MOUNTAIN	20,006				
Arizona	487	X	X	X	
Colorado	9,521	X	X	X	X
Idaho	838	X	X	X	X
Montana	1,789	X	X	X	
Nevada	2,855		X	X	X
New Mexico	2,900	X	X	X	X
Utah	1,616	X	X	X	X
Wyoming	0				
PACIFIC	12,549				
Alaska	0				
California	5,929	X	X	X	
Hawaii	1,700	X	X	X	
Oregon	0				
Washington	4,920	X	X	X	
TERRITORIES	2,743				
Guam	0				
Puerto Rico	2,704	X	X	X	
Virgin Islands	39			X	

* New York did not report for fiscal year 1989.

TABLE 45. ENVIRONMENTAL CHEMISTRY-Water Samples-Ambient (continued)

Lab & Region	Number of Samples	Type of substance identified			
		Synthetic Organic Chemicals	Insecticides and Herbicides	Inorganic Chemicals	Radionuclides
(7)	(8)	(9)	(10)	(11)	(12)
TOTAL	232,287	27	28	30	14
AVERAGE	7,493				
NEW ENGLAND	6,131				
Connecticut	4,495	X	X	X	
Massachusetts	0				
Maine	0				
New Hampshire	0				
Rhode Island	1,483	X		X	
Vermont	153				X
MIDDLE ATLANTIC	4,182				
New Jersey	4,182	X	X	X	
New York*					
Pennsylvania	0				
EAST NORTH CENTRAL	59,690				
Illinois	372	X	X	X	
Indiana	3,480	X	X	X	
Michigan	0				
Ohio	111	X	X	X	X
Wisconsin	55,727	X	X	X	
WEST NORTH CENTRAL	29,340				
Iowa	14,172	X	X	X	X
Kansas	4,007	X	X	X	
Minnesota	2,218	X	X	X	X
Missouri	254	X	X	X	X
Nebraska	390	X		X	
North Dakota	2,310	X	X	X	X
South Dakota	5,994			X	
SOUTH ATLANTIC	80,207				
Delaware	0				
District of Columbia	0				
Florida	844	X	X	X	
Georgia	0				
Maryland	78,578	X	X	X	
North Carolina	785	X	X	X	X
South Carolina	0				
Virginia	0				
West Virginia	0				
EAST SOUTH CENTRAL	2,426				
Alabama	0				
Kentucky	0				
Mississippi	0				
Tennessee	2,426	X	X	X	X
WEST SOUTH CENTRAL	11,726				
Arkansas	40	X	X	X	X
Louisiana	6,813			X	
Oklahoma	0				
Texas	4,873	X	X	X	X
MOUNTAIN	35,171				
Arizona	1,925	X	X	X	
Colorado	16,495	X	X	X	X
Idaho	3,973	X	X	X	
Montana	2,134	X	X	X	
Nevada	686		X	X	X
New Mexico	5,100	X	X	X	X
Utah	4,858	X	X	X	X
Wyoming	0				
PACIFIC	3,414				
Alaska	0				
California	3,014	X	X	X	
Hawaii	400	X	X	X	
Oregon	0				
Washington	0				
TERRITORIES	0				
Guam	0				
Puerto Rico	0				
Virgin Islands	0				

* New York did not report for fiscal year 1989.

TABLE 46. ENVIRONMENTAL CHEMISTRY-Air Samples

Lab & Region	Number of Samples	Type of sample		
		Particulates	Inorganics	Toxics
(1)	(2)	(3)	(4)	(5)
TOTAL	103,740	13	13	14
AVERAGE	4,940			
NEW ENGLAND	261			
Connecticut	0			
Massachusetts	0			
Maine	261	X	X	X
New Hampshire	0			
Rhode Island	0			
Vermont	0			
MIDDLE ATLANTIC	86			
New Jersey	86			X
New York*				
Pennsylvania	0			
EAST NORTH CENTRAL	10,878			
Illinois	0			
Indiana	0			
Michigan	5,400	X	X	X
Ohio	28	X		
Wisconsin	5,450	X	X	X
WEST NORTH CENTRAL	887			
Iowa	112	X	X	X
Kansas	3			X
Minnesota	323	X		
Missouri	0			
Nebraska	11			X
North Dakota	438	X		
South Dakota	0			
SOUTH ATLANTIC	1,041			
Delaware	0			
District of Columbia	0			
Florida	312	X	X	X
Georgia	0			
Maryland	0			
North Carolina	729	X	X	X
South Carolina	0			
Virginia	0			
West Virginia	0			
EAST SOUTH CENTRAL	2,621			
Alabama	0			
Kentucky	0			
Mississippi	0			
Tennessee	2,621	X	X	X
WEST SOUTH CENTRAL	20			
Arkansas	0			
Louisiana	20		X	
Oklahoma	0			
Texas	0			
MOUNTAIN	1,965			
Arizona	1,438	X	X	
Colorado	39			X
Idaho	0			
Montana	119		X	X
Nevada	0			
New Mexico	300		X	
Utah	69			X
Wyoming	0			
PACIFIC	85,981			
Alaska	0			
California	1,981	X	X	X
Hawaii	84,000	X	X	
Oregon	0			
Washington	0			
TERRITORIES	0			
Guam	0			
Puerto Rico	0			
Virgin Islands	0			

* New York did not report for fiscal year 1989.

TABLE 47. ENVIRONMENTAL CHEMISTRY-Air Pollution Samples

Lab & Region	Number of Samples	Type of activity								Number of Continuous Sampling Stations
		Discrete Sampling Stations								
		Number of Stations	Particulate				Gaseous	Other		
Solids	Metals		Organics	Other						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
TOTAL	188,296	969	13	12	4	4	3	1	111	
AVERAGE	12,420									
NEW ENGLAND	52,517									
Connecticut	6,517	53	X	X		X			5	
Massachusetts	0									
Maine	0									
New Hampshire	0									
Rhode Island	48,000	12	X	X	X				5	
Vermont	0									
MIDDLE ATLANTIC	0									
New Jersey	0									
New York*	0									
Pennsylvania	0									
EAST NORTH CENTRAL	765									
Illinois	0									
Indiana	0									
Michigan	0									
Ohio	765	12	X						0	
Wisconsin	0									
WEST NORTH CENTRAL	6,489									
Iowa	2,923	53	X	X			X		12	
Kansas	2,222	37	X	X					0	
Minnesota	0									
Missouri	0									
Nebraska	0									
North Dakota	0									
South Dakota	1,344	28	X						0	
SOUTH ATLANTIC	18,845									
Delaware	0									
District of Columbia	0									
Florida	0									
Georgia	0									
Maryland	18,845	15	X	X	X	X			62	
North Carolina	0									
South Carolina	0									
Virginia	0									
West Virginia	0									
EAST SOUTH CENTRAL	0									
Alabama	0									
Kentucky	0									
Mississippi	0									
Tennessee	0									
WEST SOUTH CENTRAL	0									
Arkansas	0									
Louisiana	0									
Oklahoma	0									
Texas	0									
MOUNTAIN	34,221									
Arizona	0									
Colorado	21,492	633	X	X	X					
Idaho	1,858	31	X	X					3	
Montana	6,284	30	X	X			X		0	
Nevada	14	NA						X	NA	
New Mexico	4,350	32	X	X		X			20	
Utah	223	4		X					0	
Wyoming	0									
PACIFIC	73,459									
Alaska	0									
California	3,459	15	X	X	X	X			0	
Hawaii	70,000	14	X	X			X		4	
Oregon	0									
Washington	0									
TERRITORIES	0									
Guam	0									
Puerto Rico	0									
Virgin Islands	0									

* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 48. ENVIRONMENTAL CHEMISTRY-Solid and Hazardous Waste Samples

Lab & Region	Number of Samples	Type of substance identified			
		Synthetic Organic Chemicals	Insecticides and Herbicides	Inorganic Chemicals	Radionuclides
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	38,155	20	19	19	12
AVERAGE	1,572				
NEW ENGLAND	4,778				
Connecticut	4,459			X	X
Massachusetts	0				
Maine	202	X	X		
New Hampshire	0				
Rhode Island	117	X			
Vermont	0				
MIDDLE ATLANTIC	89				
New Jersey	89	X	X		
New York*	0				
Pennsylvania	0				
EAST NORTH CENTRAL	212				
Illinois	0				
Indiana	28	X	X	X	
Michigan	0				
Ohio	184	X	X	X	X
Wisconsin	0				
WEST NORTH CENTRAL	4,172				
Iowa	720			X	X
Kansas	1,749	X	X	X	X
Minnesota	1,471	X	X	X	X
Missouri	0				
Nebraska	0				
North Dakota	76	X	X	X	X
South Dakota	156			X	X
SOUTH ATLANTIC	15,309				
Delaware	0				
District of Columbia	0				
Florida	0				
Georgia	0				
Maryland	14,502	X	X	X	
North Carolina	807	X	X	X	X
South Carolina	0				
Virginia	0				
West Virginia	0				
EAST SOUTH CENTRAL	2,071				
Alabama	0				
Kentucky	0				
Mississippi	0				
Tennessee	2,071	X	X	X	
WEST SOUTH CENTRAL	2,120				
Arkansas	0				
Louisiana	0				
Oklahoma	0				
Texas	2,120	X	X	X	X
MOUNTAIN	4,107				
Arizona	766	X	X	X	
Colorado	766	X	X	X	X
Idaho	201	X	X	X	
Montana	234	X	X	X	
Nevada	0				
New Mexico	878	X	X	X	X
Utah	1,262	X	X	X	X
Wyoming	0				
PACIFIC	3,297				
Alaska	0				
California	3,287	X	X	X	
Hawaii	0				
Oregon	0				
Washington	10	X	X		
TERRITORIES	0				
Guam	0				
Puerto Rico	0				
Virgin Islands	0				

* New York did not report for fiscal year 1989.

TABLE 49. ENVIRONMENTAL CHEMISTRY-Food Samples

Lab & Region	Number of Samples	Type of substance identified			
		Synthetic Organic Chemicals	Insecticides and Herbicides	Inorganic Chemicals	Radionuclides
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	42,471	20	18	19	4
AVERAGE	1,517				
NEW ENGLAND	5,690				
Connecticut	2,721			X	
Massachusetts	267	X	X	X	
Maine	0				
New Hampshire	4			X	
Rhode Island	2,695	X	X	X	
Vermont	3	X			
MIDDLE ATLANTIC	215				
New Jersey	215	X	X		
New York*					
Pennsylvania	0				
EAST NORTH CENTRAL	2,759				
Illinois	635	X			
Indiana	1,239	X	X		
Michigan	885	X	X	X	
Ohio	0				
Wisconsin	0				
WEST NORTH CENTRAL	4,722				
Iowa	58				X
Kansas	11	X	X		X
Minnesota	0				
Missouri	4,512			X	
Nebraska	0				
North Dakota	135	X	X	X	
South Dakota	6			X	
SOUTH ATLANTIC	10,055				
Delaware	0				
District of Columbia	125	X		X	
Florida	421	X	X	X	
Georgia	0				
Maryland	9,509	X	X	X	
North Carolina	0				
South Carolina	0				
Virginia	0				
West Virginia	0				
EAST SOUTH CENTRAL	525				
Alabama	0				
Kentucky	525		X	X	
Mississippi	0				
Tennessee	0				
WEST SOUTH CENTRAL	16,826				
Arkansas	0				
Louisiana	15,785	X	X	X	X
Oklahoma	0				
Texas	1,041	X	X	X	X
MOUNTAIN	354				
Arizona	67	X	X	X	
Colorado	213	X	X		
Idaho	1			X	
Montana	3	X			
Nevada	0				
New Mexico	60	X	X	X	
Utah	10	X	X	X	
Wyoming	0				
PACIFIC	1,325				
Alaska	0				
California	1,100	X	X	X	
Hawaii	225		X		
Oregon	0				
Washington	0				
TERRITORIES	0				
Guam	0				
Puerto Rico	0				
Virgin Islands	0				

* New York did not report for fiscal year 1989.

TABLE 50. ENVIRONMENTAL CHEMISTRY-Body Tissue and Fluid Samples

Lab & Region	Number of Samples	Type of substance identified	
		Organic Chemicals	Inorganic Chemicals
(1)	(2)	(3)	(4)
TOTAL	1,766	9	8
AVERAGE	136		
NEW ENGLAND	583		
Connecticut	0		
Massachusetts	583	X	X
Maine	0		
New Hampshire	0		
Rhode Island	0		
Vermont	0		
MIDDLE ATLANTIC	145		
New Jersey	145	X	X
New York*			
Pennsylvania	0		
EAST NORTH CENTRAL	46		
Illinois	0		
Indiana	0		
Michigan	46	X	X
Ohio	0		
Wisconsin	0		
WEST NORTH CENTRAL	210		
Iowa	210		X
Kansas	0		
Minnesota	0		
Missouri	0		
Nebraska	0		
North Dakota	0		
South Dakota	0		
SOUTH ATLANTIC	0		
Delaware	0		
District of Columbia	0		
Florida	0		
Georgia	0		
Maryland	0		
North Carolina	0		
South Carolina	0		
Virginia	0		
West Virginia	0		
EAST SOUTH CENTRAL	76		
Alabama	0		
Kentucky	76	X	
Mississippi	0		
Tennessee	0		
WEST SOUTH CENTRAL	2		
Arkansas	0		
Louisiana	2	X	
Oklahoma	0		
Texas	0		
MOUNTAIN	604		
Arizona	8		X
Colorado	127		X
Idaho	67	X	
Montana	202		X
Nevada	0		
New Mexico	190	X	X
Utah	10	X	
Wyoming	0		
PACIFIC	100		
Alaska	0		
California	100	X	
Hawaii	0		
Oregon	0		
Washington	0		
TERRITORIES	0		
Guam	0		
Puerto Rico	0		
Virgin Islands	0		

* New York did not report for fiscal year 1989.

TABLE 51. ENVIRONMENTAL CHEMISTRY-Radiological Analysis Samples

Lab & Region	Number of Samples	Type of sample								Other
		Air	Water	Milk	Food	Silt	Soil	Wipes from Instruments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
TOTAL	42,029	20	24	20	16	13	18	18		
AVERAGE	1,617									
NEW ENGLAND	6,496									
Connecticut	1,217	X	X	X	X		X	X	Vegetation, charcoal filters	
Massachusetts	0									
Maine	4,363	X	X	X	X			X	Seaweed	
New Hampshire	0									
Rhode Island	196	X						X		
Vermont	720	X	X	X	X	X	X	X		
MIDDLE ATLANTIC	0									
New Jersey	0									
New York*	0									
Pennsylvania	0									
EAST NORTH CENTRAL	10,520									
Illinois	0									
Indiana	0									
Michigan	4,200	X	X	X			X	X	Contamination wipes, recovered sources	
Ohio	2,397	X	X	X			X			
Wisconsin	3,923	X	X	X	X	X	X		Sludge, vegetation	
WEST NORTH CENTRAL	7,725									
Iowa	2,800	X	X	X	X	X	X		Biological	
Kansas	1,883	X	X	X	X		X	X	Charcoal cartridge, biota, shoreline & bottom sediment, algae, root aquatic, SWAP	
Minnesota	917	X	X	X	X			X		
Missouri	29		X					X		
Nebraska	1,937	X	X	X	X	X	X	X		
North Dakota	81	X	X	X	X	X	X			
South Dakota	78							X		
SOUTH ATLANTIC	6,387									
Delaware	175		X							
District of Columbia	0									
Florida	0									
Georgia	0									
Maryland	3,434	X	X	X		X		X		
North Carolina	2,778	X	X	X	X	X	X	X		
South Carolina	0									
Virginia	0									
West Virginia	0									
EAST SOUTH CENTRAL	1,176									
Alabama	0									
Kentucky	0									
Mississippi	0									
Tennessee	1,176	X	X	X	X	X	X	X	Sludge, vegetation (grass)	
WEST SOUTH CENTRAL	3,072									
Arkansas	804	X	X	X	X	X	X	X		
Louisiana	78		X	X	X		X			
Oklahoma	0									
Texas	2,190		X	X	X	X	X	X		
MOUNTAIN	2,234									
Arizona	0									
Colorado	851	X	X	X			X			
Idaho	245		X							
Montana	0									
Nevada	0									
New Mexico	1,138	X	X			X	X	X	Charcoal canisters (radon)	
Utah	0									
Wyoming	0									
PACIFIC	4,419									
Alaska	0									
California	3,186	X	X	X	X	X	X	X		
Hawaii	0									
Oregon	0									
Washington	1,233	X	X	X	X	X	X	X	Thermoluminescent dosimeters	
TERRITORIES	0									
Guam	0									
Puerto Rico	0									
Virgin Islands	0									

* New York did not report for fiscal year 1989.

TABLE 52. ENVIRONMENTAL CHEMISTRY-Other Environmental Chemistry Samples

Lab & Region	Number of Samples	Type of sample
(1)	(2)	(3)
TOTAL	43,198	
AVERAGE	2,400	
NEW ENGLAND	554	
Connecticut	554	Vegetation, soil
Massachusetts	0	
Maine	0	
New Hampshire	0	
Rhode Island	0	
Vermont	0	
MIDDLE ATLANTIC	258	
New Jersey	258	Biota (fish), swabs
New York*		
Pennsylvania	0	
EAST NORTH CENTRAL	3,000	
Illinois	965	O.A. and miscellaneous samples
Indiana	0	
Michigan	0	
Ohio	2,035	Organics, special problems
Wisconsin	0	
WEST NORTH CENTRAL	21,772	
Iowa	0	
Kansas	14,325	O.C., miscellaneous, private samples, remediation & regulatory samples
Minnesota	0	
Missouri	0	
Nebraska	0	
North Dakota	6,893	Feeds, fertilizers, pesticide formulations, petroleum
South Dakota	554	Ground water monitoring wells
SOUTH ATLANTIC	913	
Delaware	0	
District of Columbia	0	
Florida	754	Fish
Georgia	0	
Maryland	0	
North Carolina	159	Isocyanates, ozone, benzidines, silica, cotton, and dust weight
South Carolina	0	
Virginia	0	
West Virginia	0	
EAST SOUTH CENTRAL	1,079	
Alabama	0	
Kentucky	1,079	Milk for pesticides, sulfamethazine; air sampling in CHR building; other pesticide and miscellaneous
Mississippi	0	
Tennessee	0	
WEST SOUTH CENTRAL	4,136	
Arkansas	0	
Louisiana	46	Cosmetics, sewage & waste, sanitizing agent
Oklahoma	0	
Texas	4,090	Fluoridation check samples
MOUNTAIN	202	
Arizona	22	Miscellaneous
Colorado	0	
Idaho	0	
Montana	180	Non-food, fish, tissue
Nevada	0	
New Mexico	0	
Utah	0	
Wyoming	0	
PACIFIC	4,684	
Alaska	0	
California	3,546	Gasoline additives (Pb, Mn, S, P), drugs
Hawaii	1,108	Potable water for turbidity and residual chlorine.
Oregon	0	
Washington	30	Sediment (insecticides/herbicides)
TERRITORIES	6,600	
Guam	0	
Puerto Rico	6,600	Milk (raw and pastuerized) and milk products for natural organic chemicals, food samples for natural organic and entomology determinations
Virgin Islands	0	

* New York did not report for fiscal year 1989.

TABLE 53. OCCUPATIONAL SAFETY AND HEALTH-Environmental Samples

Lab & Region	Total Environmental Samples	Type of sample	
		Asbestos	Other
(1)	(2)	(3)	(4)
TOTAL	130,109	66,647	63,462
AVERAGE	4,819	2,898	3,022
NEW ENGLAND	10,304	8,490	814
Connecticut	9,252	8,583	669
Massachusetts	0	0	0
Maine	817	817	0
New Hampshire	126	79	47
Rhode Island	109	11	98
Vermont	0	0	0
MIDDLE ATLANTIC	2,004	1,700	304
New Jersey	2,004	1,700	304
New York*			
Pennsylvania	0	0	0
EAST NORTH CENTRAL	73,182	28,985	44,197
Illinois	9,990	9,990	0
Indiana	0	0	0
Michigan	900	600	300
Ohio	3,411	0	3,411
Wisconsin	58,881	18,395	40,486
WEST NORTH CENTRAL	9,569	8,205	1,364
Iowa	8,120	8,057	63
Kansas	112	0	112
Minnesota	1,199	46	1,153
Missouri	0	0	0
Nebraska	86	86	0
North Dakota	26	16	10
South Dakota	26	0	26
SOUTH ATLANTIC	22,420	10,593	11,827
Delaware	0	0	0
District of Columbia	0	0	0
Florida	285	110	175
Georgia	0	0	0
Maryland	10,589	175	10,414
North Carolina	45	45	0
South Carolina	11,501	10,263	1,238
Virginia	0	0	0
West Virginia	0	0	0
EAST SOUTH CENTRAL	1,907	249	1,658
Alabama	0	0	0
Kentucky	1,907	249	1,658
Mississippi	0	0	0
Tennessee	0	0	0
WEST SOUTH CENTRAL	8,823	6,987	2,636
Arkansas	1,519	1,519	0
Louisiana	0	0	0
Oklahoma	0	0	0
Texas	8,104	5,468	2,636
MOUNTAIN	1,032	428	604
Arizona	700	160	540
Colorado	55	52	3
Idaho	0	0	0
Montana	81	0	81
Nevada	0	0	0
New Mexico	0	0	0
Utah	216	216	0
Wyoming	0	0	0
PACIFIC	88	10	58
Alaska	0	0	0
California	88	10	58
Hawaii	0	0	0
Oregon	0	0	0
Washington	0	0	0
TERRITORIES	0	0	0
Guam	0	0	0
Puerto Rico	0	0	0
Virgin Islands	0	0	0

* New York did not report for fiscal year 1989.

TABLE 54. TOXICOLOGY-Physical Samples

Lab & Region	Number of Samples	Type of sample						
		Liquids for Alcohol	Pesticides	PCB's	Plant and Plant Materials	Drugs and Narcotics	Articles for Blood Stains	Paint - Comparison
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL	83,556							
AVERAGE	3,085							
NEW ENGLAND	46,014							
Connecticut	32,915	F			F	F	O	
Massachusetts	2,418	O	O	O				
Maine	596	F	F	F	F	F		
New Hampshire	244	F						O
Rhode Island	9,825	F/O	O	O	F/O	F/O	F	
Vermont	18	F/O						
MIDDLE ATLANTIC	283							
New Jersey	264							
New York*								
Pennsylvania	19	O				O		
EAST NORTH CENTRAL	8,778							
Illinois	8,130	O	O					
Indiana	444					O	O	
Michigan	NA							F
Ohio	69	F			F	F		
Wisconsin	135				O	O		
WEST NORTH CENTRAL	9,049							
Iowa	22							
Kansas	0							
Minnesota	0							
Missouri	0							
Nebraska	0							
North Dakota	7,463	F			F	F	F	
South Dakota	1,564	F			F	F		
SOUTH ATLANTIC	13,704							
Delaware	0							
District of Columbia	132							
Florida	0							
Georgia	0							
Maryland	11,999					F		O
North Carolina	328		O	O				
South Carolina	1,245					O		
Virginia	0							
West Virginia	0							
EAST SOUTH CENTRAL	181							
Alabama	0							
Kentucky	181	F/O			F	F		
Mississippi	0							
Tennessee	0							
WEST SOUTH CENTRAL	265							
Arkansas	221						O	
Louisiana	44					O		
Oklahoma	0							
Texas	0							
MOUNTAIN	188							
Arizona	0							
Colorado	50					F		
Idaho	0							
Montana	0							
Nevada	0							
New Mexico	68	F			F	F		
Utah	70					F		
Wyoming	0							
PACIFIC	2,420							
Alaska	0							
California	2,420	F				O		
Hawaii	0							
Oregon	0							
Washington	0							
TERRITORIES	2,674							
Guam	0							
Puerto Rico	0							
Virgin Islands	2,674					F		

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available; F = Forensic, O = Other.

TABLE 54. TOXICOLOGY-Physical Samples (continued)

Lab & Region	Number of Samples	Type of sample			
		Paint - Lead	Fibers and Hairs	Gunpowder Residues	Other
(10)	(11)	(12)	(13)	(14)	(15)
TOTAL	83,556				
AVERAGE	3,095				
NEW ENGLAND	46,014				
Connecticut	32,916	F			F-Clothing for seminal stains, fire accelerants, other volatiles, metallic poisons
Massachusetts	2,416	O			O-Water, pottery/glassware, miscellaneous
Maine	598	F			
New Hampshire	244				O-lead (soil, wipes, solder.), earthenware (lead, Cd)
Rhode Island	9,825	O			
Vermont	18	O			
MIDDLE ATLANTIC	283				
New Jersey	264	O			O-Unknowns
New York*					
Pennsylvania	19				O-Water lead
EAST NORTH CENTRAL	8,778				
Illinois	8,130		O		O-Food, milk for aflatoxin ml, water for VOCs, gas chromatography
Indiana	444	O			O-Soil (lead)
Michigan	NA				O-Carpet, air, filter wipes
Ohio	89				F-Pipes, containers, syringes
Wisconsin	135		O		
WEST NORTH CENTRAL	9,049				
Iowa	22	O			
Kansas	0				
Minnesota	0				
Missouri	0				
Nebraska	0				
North Dakota	7,483			F	F-Latent fingerprints, paint chips, glass, tool marks, firearms, arson
South Dakota	1,564				
SOUTH ATLANTIC	13,704				
Delaware	0				
District of Columbia	132	O			
Florida	0				
Georgia	0				
Maryland	11,999				F-Special investigations, miscellaneous (USP), O-lead (ceramics, dust, EPA project), cadmium (ceramics)
North Carolina	328	O			
South Carolina	1,245				
Virginia	0				
West Virginia	0				
EAST SOUTH CENTRAL	181				
Alabama	0				
Kentucky	181				O-Lead in toys, pottery
Mississippi	0				
Tennessee	0				
WEST SOUTH CENTRAL	265				
Arkansas	221				
Louisiana	44	O			
Oklahoma	0				
Texas	0				
MOUNTAIN	188				
Arizona	0				
Colorado	50				
Idaho	0				
Montana	0				
Nevada	0				
New Mexico	68				
Utah	70				
Wyoming	0				
PACIFIC	2,420				
Alaska	0				
California	2,420				O-Soil lead
Hawaii	0				
Oregon	0				
Washington	0				
TERRITORIES	2,674				
Guam	0				
Puerto Rico	0				
Virgin Islands	2,674				

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available; F = Forensic, O = Other.

***OTHER
LABORATORY
WORKLOADS***

TABLE 55. LABORATORY IMPROVEMENT PROGRAM-Number of Laboratories and LIP Personnel

Lab & Region	Number of Professional/ Technical and Non-Technical Positions in LIP	Number of laboratories				
		Clinical	Public Health	Physicians' Office	Dairy and Food	Water
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL	259.90	11,957	685	18,678	249	2,004
AVERAGE	6.04	386	17	1,167	11	67
NEW ENGLAND	15.50	348	118	200	64	220
Connecticut	11.00	172	116	NA	25	158
Massachusetts	1.00	NA	NA	NA	29	NA
Maine	1.10	70	1	200	NA	25
New Hampshire	0.10	NA	NA	NA	1	NA
Rhode Island	1.80	80	0	NA	1	22
Vermont	0.50	26	1	NA	8	15
MIDDLE ATLANTIC	41.00	1,538	4	5,528	NA	NA
New Jersey	18.00	563	1	22	NA	NA
New York*						
Pennsylvania	23.00	975	3	5,506	NA	NA
EAST NORTH CENTRAL	31.00	918	49	3,700	NA	400
Illinois	8.00	467	3	NA	NA	NA
Indiana	4.00	NA	6	NA	NA	NA
Michigan	9.00	451	32	3,700	NA	NA
Ohio	4.00	NA	8	NA	NA	400
Wisconsin	6.00	NA	NA	NA	NA	NA
WEST NORTH CENTRAL	14.20	1,202	27	109	24	184
Iowa	2.00	158	8	NA	NA	45
Kansas	8.00	NA	1	NA	NA	NA
Minnesota	2.00	695	NA	NA	NA	53
Missouri	1.00	NA	NA	NA	NA	NA
Nebraska	0.20	114	4	NA	NA	15
North Dakota	1.00	172	12	24	12	32
South Dakota	0.00	63	2	85	12	39
SOUTH ATLANTIC	38.55	1,146	144	2,000	52	249
Delaware	0.35	25	3	0	1	6
District of Columbia	0.00	NA	NA	NA	NA	0
Florida	0.00	862	14	NA	NA	NA
Georgia	0.00	NA	NA	NA	NA	NA
Maryland	14.80	258	7	2,000	25	107
North Carolina	14.00	NA	101	NA	NA	NA
South Carolina	2.40	NA	5	NA	8	NA
Virginia	0.00	NA	11	NA	18	136
West Virginia	7.00	NA	3	NA	NA	NA
EAST SOUTH CENTRAL	11.00	762	152	1,415	62	211
Alabama	1.00	NA	5	NA	5	23
Kentucky	3.00	232	137	1,415	21	NA
Mississippi	0.00	200	3	NA	NA	12
Tennessee	7.00	320	7	NA	36	176
WEST SOUTH CENTRAL	42.00	NA	35	NA	4	NA
Arkansas	40.00	NA	4	NA	NA	NA
Louisiana	0.00	NA	NA	NA	NA	NA
Oklahoma	1.00	NA	3	NA	NA	NA
Texas	1.00	NA	28	NA	4	NA
MOUNTAIN	21.70	1,253	54	5,122	17	239
Arizona	8.00	558	21	1,250	NA	61
Colorado	2.00	175	10	3,000	8	69
Idaho	4.00	60	6	222	NA	26
Montana	0.20	NA	NA	150	NA	14
Nevada	0.50	NA	NA	NA	5	13
New Mexico	1.00	130	3	NA	3	38
Utah	5.00	50	13	500	NA	NA
Wyoming	1.00	280	1	NA	1	18
PACIFIC	38.95	4,233	92	600	13	483
Alaska	0.80	42	3	100	3	20
California	35.00	4,050	58	NA	NA	357
Hawaii	0.15	NA	1	NA	10	14
Oregon	3.00	141	30	500	NA	45
Washington	0.00	NA	NA	NA	NA	47
TERRITORIES	6.00	568	10	4	13	18
Guam	0.00	3	2	NA	NA	NA
Puerto Rico	6.00	564	7	0	12	17
Virgin Islands	0.00	1	1	4	1	1

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 56. LABORATORY IMPROVEMENT PROGRAM-Clinical Laboratories

Lab & Region (1)	Number of Labs in State (2)	Number of Labs Licensed/Registered/Approved/Certified by State (3)	Number by LIP				Other Agency or Department Responsible for Licensing, Registering, Approving, Certifying Laboratories (8)
			Licensed/Permitted/Approved (4)	Registered (5)	Certified (6)	Other (7)	
TOTAL	11,957	9,783	8,774	573	1,597		
AVERAGE	388	272	295	143	108		
NEW ENGLAND	348	368	316	0	20		
Connecticut	172	218	218	0	0	12-Dog laboratories	
Massachusetts	NA	NA	0	0	0		Div. of Health Quality, MA Dept. of Public Health, Laboratory Section
Maine	70	70	20	0	20		48 Hospital labs included; not routinely surveyed by LIP, but by JCAH, AOA, and CAP.
New Hampshire	NA	NA	0	0	0		Bureau of Health Facilities Administration
Rhode Island	80	80	80	0	0		
Vermont	26	0	0	0	0		
MIDDLE ATLANTIC	1,538	1,538	1,538	0	390		
New Jersey	563	563	563	0	120		
New York*							
Pennsylvania	975	975	975	0	270	102-CLIA licensure	
EAST NORTH CENTRAL	818	1,148	1,310	NA	289		
Illinois	467	467	467	0	162		
Indiana	NA	NA	162	0	0		Responsibility split between Lab Support Div. & the Div. of Acute Care Facilities.
Michigan	451	424	424	0	127		
Ohio	NA	257	257	0	0		
Wisconsin	NA	NA	NA	NA	NA		Section of Lab Certification, Bureau of Prevention, WI Dept. of Health
WEST NORTH CENTRAL	1,202	746	316	89	83		
Iowa	158	158	4	89	0		
Kansas	NA	193	160	0	53		
Minnesota	695	20	NA	NA	NA	20-Lic. alcohol/drug labs	Div. of Health Systems, Survey & Compliance, MN Dept. of Health
Missouri	NA	250	152	0	30		Medicare/Medicaid/CLIA-Bureau of Hospital Licensing & Certification
Nebraska	114	62	0	0	0		Division of Licensure & Standards
North Dakota	172	NA	0	0	0		Division of Health Facilities
South Dakota	63	63	0	0	0		Licensure & Certification Program, Div. of Public Health, Dept. of Health
SOUTH ATLANTIC	1,145	1,358	303	NA	344		
Delaware	25	15	15	0	0		
District of Columbia	NA	NA	0	0	0		Dept. of Consumer and Regulatory Affairs
Florida	882	862	0	0	0		HRS Office of Licensure & Certification
Georgia	NA	NA	0	0	0		Lab Licensure & Development, Office of Reg. Services, GA Dept. of Human Resources
Maryland	258	258	258	0	258		
North Carolina	NA	NA	NA	NA	NA		Div. of Facility Services, Dept. of Human Resources
South Carolina	NA	0	0	0	0		Medicare certification-Div. of Licensing & Certification, Dept. of Health & Env. Control
Virginia	NA	104	0	0	0	104-Prenat. Syphilis appr.	
West Virginia	NA	119	30	0	86		
EAST SOUTH CENTRAL	752	560	107	NA	NA		
Alabama	NA	NA	NA	NA	NA		All premarital labs are certified by state health dept. Licensure and Certification Div.
Kentucky	232	107	107	0	0		Lic. & Regulation Div. is resp. for licensing labs in accordance with KY Medical Lab Act, CLIA & Medicare. Lab services approves labs for performance of prenatal syphilis tests.
Mississippi	200	133	0	0	0		Health Facilities Licensure & Certification
Tennessee	320	320	0	0	0		Lab Licensure Service, Bureau of Manpower & Facilities, Dept. of Health & Env.
WEST SOUTH CENTRAL	NA	281	58	0	206		
Arkansas	NA	75	58	0	0		Medicare and Medicaid labs are independent and licensed by the Div. of Health Health Facilities, AR Dept. of Health
Louisiana	NA	NA	0	0	0		LA Div. of Licensing & Certification, Dept. of Health & Hospitals
Oklahoma	NA	206	0	0	206		
Texas	NA	NA	0	0	0	700-Prenat. Syphilis appr.	TX Dept. of Health, Bureau of Licensing & Certification (CLIA, Medicare)
MOUNTAIN	1,253	942	644	120	187		
Arizona	558	257	199	0	78		
Colorado	175	111	0	0	21		Labs approved for Medicare, CLIA'87, and state licensed hospitals (non-JCAHQ, AOA) approx. 90 facilities are inspected by Health Facilities Reg. Div., CO Dept. of Health
Idaho	60	60	60	60	40		
Montana	NA	60	0	60	0		
Nevada	NA	NA	NA	NA	NA		Dept. of Human Resources, Bureau of Regulatory Health
New Mexico	130	124	105	0	0	36-Hth & Env. Dept. insp.	
Utah	50	50	0	0	50		
Wyoming	280	280	280	0	0		
PACIFIC	4,233	2,280	2,182	384	78		
Alaska	42	30	0	0	0		Division of Medical Assistance, Dept. of Health & Social Services
California	4,050	2,041	2,041	0	0		
Hawaii	NA	68	0	0	0		Hospitals & Medical Facilities Branch, HI Dept. of Health
Oregon	141	141	141	0	78		
Washington	NA	NA	0	384	0		Laboratory Quality Assurance, Office of Licensing & Certification
TERRITORIES	568	564	0	0	0		
Guam	3	NA	0	0	0		Health Care Financing Administration
Puerto Rico	564	564	0	0	0	564-Proficiency testing	Office for Certification of Clinical Labs, Dept. of Health
Virgin Islands	1	0	0	0	0		

* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 56. LABORATORY IMPROVEMENT PROGRAM-Clinical Laboratories-Activity of LIP Staff (continued)

Lab & Region	Proficiency Testing										
	Bacteriology	Mycology	Parasitology	Virology	Immunology		Hematology	Clinical Chemistry	Pathology	Environmental Microbiology	Environmental Chemistry
					Syphillis Serology	Non-Syphillis Serology					
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
TOTAL	18	13	16	7	28	15	16	16	3	4	3
NEW ENGLAND											
Connecticut	X	X	X	X	X	X	X	X			
Massachusetts											
Maine											
New Hampshire											
Rhode Island											
Vermont											
MIDDLE ATLANTIC											
New Jersey	X	X	X	X	X	X	X	X			
New York*											
Pennsylvania	X	X	X	X	X	X	X	X			
EAST NORTH CENTRAL											
Illinois					X			X			
Indiana					X						
Michigan	X		X		X	X	X	X			
Ohio	X	X	X		X	X	X	X			
Wisconsin	X	X	X		X	X	X	X			
WEST NORTH CENTRAL											
Iowa	X	X	X		X	X	X	X			
Kansas	X	X	X	X	X	X	X	X			
Minnesota							X				
Missouri					X					X	
Nebraska											
North Dakota											
South Dakota											
SOUTH ATLANTIC											
Delaware					X						
District of Columbia											
Florida											
Georgia											
Maryland	X	X	X	X	X	X	X	X	X	X	X
North Carolina	X				X						
South Carolina	X	X	X		X						
Virginia					X						
West Virginia	X		X		X		X	X		X	X
EAST SOUTH CENTRAL											
Alabama					X						
Kentucky	X				X		X	X			
Mississippi											
Tennessee											
WEST SOUTH CENTRAL											
Arkansas	X	X	X		X						
Louisiana											
Oklahoma					X						
Texas											
MOUNTAIN											
Arizona											
Colorado						X					
Idaho	X		X		X	X	X	X			
Montana											
Nevada					X						
New Mexico					X	X					
Utah	X	X	X	X	X	X	X	X	X	X	X
Wyoming											
PACIFIC											
Alaska					X						
California											
Hawaii											
Oregon	X	X	X	X	X	X	X	X	X		
Washington											
TERRITORIES											
Guam											
Puerto Rico	X	X	X		X	X	X	X			
Virgin Islands											

* New York did not report for fiscal year 1989.

TABLE 56. LABORATORY IMPROVEMENT PROGRAM-Clinical Laboratories-Activity of LIP Staff (continued)

Lab & Region (21)	Proficiency Testing (continued)		Field Visits - LIP Program		
	Dairy/ Food (22)	Other (23)	Licensed/ Permit/ Approved (24)	Certified (25)	Other (26)
TOTAL	3		24	9	
NEW ENGLAND					
Connecticut			X	X	Dog labs, blood banks and collection facilities, QC research & training
Massachusetts					
Maine			X		
New Hampshire					
Rhode Island			X		
Vermont					
MIDDLE ATLANTIC					
New Jersey			X		
New York*					
Pennsylvania			X		
EAST NORTH CENTRAL					
Illinois			X	X	
Indiana					
Michigan			X	X	
Ohio					
Wisconsin			X		
WEST NORTH CENTRAL					
Iowa			X	X	
Kansas			X		State hospital licensure
Minnesota					
Missouri	X		X		
Nebraska					
North Dakota					
South Dakota					
SOUTH ATLANTIC					
Delaware			X		
District of Columbia					
Florida					
Georgia					
Maryland		Water, drug abuse testing	X	X	Investigating citizen's complaints
North Carolina					
South Carolina					
Virginia			X		
West Virginia	X		X	X	
EAST SOUTH CENTRAL					
Alabama	X		X	X	
Kentucky					
Mississippi					
Tennessee					
WEST SOUTH CENTRAL					
Arkansas			X		
Louisiana					
Oklahoma				X	
Texas					
MOUNTAIN					
Arizona			X		Complaint investigation
Colorado					
Idaho					
Montana					
Nevada		Urinalysis			
New Mexico			X		
Utah			X		
Wyoming			X		
PACIFIC					
Alaska					
California			X		
Hawaii					
Oregon			X		
Washington					Medicare certification (121), certify 10 labs for Dept. of Ecology
TERRITORIES					
Guam					
Puerto Rico		HIV	X	X	Investigation
Virgin Islands					

* New York did not report for fiscal year 1989.

TABLE 56. LABORATORY IMPROVEMENT PROGRAM-Clinical Laboratories-Activity of LIP Staff (continued)

Lab & Region (27)	Field Visits - Other Programs		
	Licensed/ Permit/ Approved (28)	Certified (29)	Other (30)
TOTAL	15	16	
NEW ENGLAND			
Connecticut	X	X	
Massachusetts			
Maine	X	X	
New Hampshire			
Rhode Island	X	X	
Vermont			
MIDDLE ATLANTIC			
New Jersey	X	X	
New York*			
Pennsylvania	X	X	
EAST NORTH CENTRAL			
Illinois			
Indiana			
Michigan	X	X	
Ohio	X		
Wisconsin			
WEST NORTH CENTRAL			
Iowa	X	X	
Kansas		X	
Minnesota			
Missouri			
Nebraska			
North Dakota			
South Dakota			
SOUTH ATLANTIC			
Delaware	X	X	
District of Columbia			
Florida			
Georgia			
Maryland	X	X	
North Carolina			
South Carolina			
Virginia			
West Virginia			
EAST SOUTH CENTRAL			
Alabama			
Kentucky			
Mississippi			
Tennessee			
WEST SOUTH CENTRAL			
Arkansas	X		
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona	X	X	Statute and rule development
Colorado		X	
Idaho		X	
Montana			
Nevada			
New Mexico	X	X	
Utah	X		
Wyoming			
PACIFIC			
Alaska			
California		X	
Hawaii			
Oregon	X		
Washington			
TERRITORIES			
Guam			
Puerto Rico		X	
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 56. LABORATORY IMPROVEMENT PROGRAM-Clinical Laboratories-Activity of LIP Staff (continued)

Lab & Region (31)	Training (32)	Consultation (33)	Other (34)
TOTAL	30	31	
NEW ENGLAND			
Connecticut	X	X	
Massachusetts	X		
Maine	X	X	
New Hampshire			
Rhode Island	X	X	
Vermont	X	X	
MIDDLE ATLANTIC			
New Jersey	X	X	
New York*			
Pennsylvania	X	X	
EAST NORTH CENTRAL			
Illinois		X	
Indiana		X	
Michigan			
Ohio	X	X	
Wisconsin	X	X	
WEST NORTH CENTRAL			
Iowa			
Kansas	X	X	Proficiency test evaluations
Minnesota			
Missouri	X	X	
Nebraska			
North Dakota	X	X	
South Dakota		X	
SOUTH ATLANTIC			
Delaware	X	X	
District of Columbia			
Florida	X		
Georgia			
Maryland	X		
North Carolina	X	X	Newsletter
South Carolina	X	X	
Virginia			
West Virginia	X	X	
EAST SOUTH CENTRAL			
Alabama	X	X	
Kentucky	X	X	
Mississippi	X	X	
Tennessee	X	X	
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas	X	X	
MOUNTAIN			
Arizona			
Colorado	X	X	
Idaho	X	X	Newsletter
Montana		X	
Nevada			
New Mexico	X	X	
Utah	X	X	
Wyoming			
PACIFIC			
Alaska	X	X	
California			
Hawaii			
Oregon		X	
Washington	X		
TERRITORIES			
Guam			
Puerto Rico	X	X	
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 57. LABORATORY IMPROVEMENT PROGRAM-Public Health Laboratories

Lab & Region	Number of Labs in State	Number of Labs Licensed/Registered/Approved/Certified by State	Number by LIP				Other Agency or Department Responsible for Licensing, Registering, Approving, Certifying Laboratories
			Licensed/Permit/Approved	Registered	Certified	Other	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	685	405	332	26	37		
AVERAGE	17	14	18	13	3		
NEW ENGLAND	118	166	181	0	0		
Connecticut	118	166	181	0	0	102-Blood drawing	
Massachusetts	NA	NA	0	0	0		Div. of Health Quality, MA Dept. of Public Health, Laboratory Section
Maine	1	0	0	0	0		
New Hampshire	NA	NA	0	0	0		Bureau of Health Facilities Administration
Rhode Island	0	0	0	0	0		
Vermont	1	0	0	0	0		
MIDDLE ATLANTIC	4	3	2	0	1		
New Jersey	1	1	0	0	1		
New York*							
Pennsylvania	3	2	2	0	0		
EAST NORTH CENTRAL	48	20	22	NA	7		
Illinois	3	3	0	0	3		
Indiana	6	NA	5	0	0		Responsibility split between Lab Support Div. & the Div. of Acute Care Facilities.
Michigan	32	9	9	0	4		
Ohio	8	8	8	0	0		
Wisconsin	NA	NA	NA	NA	NA		Sect. of Lab Certification, Bureau of Prevention, WI Dept. of Health
WEST NORTH CENTRAL	27	24	7	NA	10		
Iowa	8	8	0	0	0		
Kansas	1	0	0	0	0		
Minnesota	NA	NA	NA	NA	NA		Div. of Health Systems, Survey & Compliance, MN Dept. of Health
Missouri	NA	7	7	0	4		Medicare/Medicaid/CLIA-Bureau of Hospital Licensing & Certification
Nebraska	4	4	0	0	3		
North Dakota	12	3	0	0	3		
South Dakota	2	2	0	0	0		Licensure & Certification Program, Div. of Public Health, Dept. of Health
SOUTH ATLANTIC	144	31	7	NA	3		
Delaware	3	0	0	0	0		
District of Columbia	NA	NA	0	0	0		Dept. of Consumer and Regulatory Affairs
Florida	14	14	0	0	0		HRS Office of Licensure & Certification
Georgia	NA	NA	0	0	0		Lab Lic. & Development, Office of Reg. Svcs, GA Dept. of Human Resources
Maryland	7	7	7	0	2		
North Carolina	101	NA	NA	NA	NA		Div. of Facility Services, Dept. of Human Resources
South Carolina	5	0	NA	NA	NA		Medicare certification-Div. of Lic. & Certification, Dept. of Health & Env. Control
Virginia	11	10	0	0	0	10-Prenat. Syphilis approved	
West Virginia	3	0	0	0	1		
EAST SOUTH CENTRAL	152	19	8	0	0		
Alabama	6	5	6	0	0		
Kentucky	137	3	3	0	0		Lic. & Reg. Div. responsible for lic. labs in accord with KY Medical Lab Act, CLIA & Medicare. Lab services approves labs for prenatal syphilis testing.
Mississippi	3	3	0	0	0		Health Facilities Licensure & Certification
Tennessee	7	7	0	0	0	5-Enteric, gonorrhea screening	Lab Licensure Service, Bureau of Manpower & Facilities, Dept. of Health & Env.
WEST SOUTH CENTRAL	35	33	2	0	3		
Arkansas	4	2	2	0	0		
Louisiana	NA	0	0	0	0		
Oklahoma	3	3	0	0	3		
Texas	28	28	0	0	0	28-Prenatal Syphilis approv.	TX Dept. of Health, Bureau of Licensing & Certification (CLIA, Medicare)
MOUNTAIN	54	42	35	6	13		
Arizona	21	18	16	0	0		
Colorado	10	1	0	0	1		
Idaho	6	6	6	6	6		
Montana	NA	15	9	0	6		
Nevada	NA	NA	0	0	0		Dept. of Human Resources, Bureau of Regulatory Health
New Mexico	3	3	3	0	0		
Utah	13	0	0	0	0		
Wyoming	1	1	1	0	0		
PACIFIC	92	61	61	20	0		
Alaska	3	0	0	0	0		Division of Medical Assistance, Dept. of Health & Social Services
California	58	58	58	0	0		
Hawaii	1	0	0	0	0		
Oregon	30	3	3	0	0		
Washington	NA	NA	0	20	0		Laboratory Quality Assurance, Office of Licensing & Certification
TERRITORIES	10	7	7	0	0		
Guam	2	NA	0	0	0		Health Care Financing Administration
Puerto Rico	7	7	7	0	0		
Virgin Islands	1	0	0	0	0		

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 57. LABORATORY IMPROVEMENT PROGRAM-Public Health Laboratories-Activity of LIP Staff (continued)

Lab & Region	Proficiency Testing										
	Bacteriology	Mycology	Parasitology	Virology	Immunology		Hematology	Clinical Chemistry	Pathology	Environmental Microbiology	Environmental Chemistry
					Syphilis Serology	Non-Syphilis Serology					
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
TOTAL	16	6	11	6	22	13	10	10	2	11	6
NEW ENGLAND											
Connecticut	X	X	X	X	X	X	X	X		X	X
Massachusetts											
Maine											
New Hampshire											
Rhode Island											
Vermont											
MIDDLE ATLANTIC											
New Jersey											
New York*											
Pennsylvania	X	X	X	X	X	X	X	X			
EAST NORTH CENTRAL											
Illinois					X			X			
Indiana											
Michigan	X		X		X	X	X	X			
Ohio	X				X						
Wisconsin	X	X	X		X	X	X	X			X
WEST NORTH CENTRAL											
Iowa											
Kansas											
Minnesota											
Missouri					X					X	
Nebraska											
North Dakota										X	X
South Dakota											
SOUTH ATLANTIC											
Delaware											
District of Columbia											
Florida											
Georgia											
Maryland	X	X	X	X	X	X	X	X	X	X	X
North Carolina	X				X		X	X		X	
South Carolina	X		X		X						
Virginia					X						
West Virginia											
EAST SOUTH CENTRAL											
Alabama						X					
Kentucky	X				X		X	X			
Mississippi										X	
Tennessee	X										
WEST SOUTH CENTRAL											
Arkansas	X				X						
Louisiana											
Oklahoma					X						
Texas	X		X	X	X					X	
MOUNTAIN											
Arizona											
Colorado						X					
Idaho	X		X		X	X	X				
Montana					X	X				X	X
Nevada					X						
New Mexico					X	X					
Utah										X	
Wyoming											
PACIFIC											
Alaska	X	X	X	X	X	X				X	
California											
Hawaii											
Oregon	X	X	X	X	X	X	X	X	X		
Washington											
TERRITORIES											
Guam											
Puerto Rico	X		X		X	X	X	X		X	X
Virgin Islands											

* New York did not report for fiscal year 1989.

TABLE 57. LABORATORY IMPROVEMENT PROGRAM-Public Health Laboratories-Activity of LIP Staff (continued)

Lab & Region (21)	Proficiency Testing (continued)			Field Visits - LIP Programs	
	Dairy/ Food (22)	Other (23)	Licensed/ Permit/ Approved (24)	Certified (25)	Other (26)
TOTAL	12		15	9	
NEW ENGLAND					
Connecticut	X				Dog laboratories
Massachusetts					
Maine					
New Hampshire					
Rhode Island					
Vermont					
MIDDLE ATLANTIC					
New Jersey				X	
New York*					
Pennsylvania			X		
EAST NORTH CENTRAL					
Illinois			X		
Indiana	X				
Michigan			X	X	
Ohio					
Wisconsin	X		X		
WEST NORTH CENTRAL					
Iowa					
Kansas					
Minnesota					
Missouri	X		X		
Nebraska				X	
North Dakota				X	
South Dakota					
SOUTH ATLANTIC					
Delaware			X		
District of Columbia					
Florida					
Georgia					
Maryland	X	Water, shellfish, & drug abuse testing	X	X	Investigating citizen's complaints
North Carolina	X				
South Carolina					
Virginia	X		X		Certification of veterinary labs in Dept. of Agriculture and Consumer Services for dairy products
West Virginia					
EAST SOUTH CENTRAL					
Alabama			X	X	
Kentucky	X				
Mississippi					
Tennessee					
WEST SOUTH CENTRAL					
Arkansas			X		
Louisiana					
Oklahoma				X	
Texas	X				Rabies testing
MOUNTAIN					
Arizona			X		Complaint investigation
Colorado	X				
Idaho					
Montana			X	X	
Nevada		Urinalysis			
New Mexico					
Utah				X	
Wyoming					
PACIFIC					
Alaska	X				
California			X		
Hawaii					
Oregon			X		
Washington					Certify 10 labs for Dept. of Ecology
TERRITORIES					
Guam					
Puerto Rico	X	HIV	X		
Virgin Islands					

* New York did not report for fiscal year 1989.

TABLE 57. LABORATORY IMPROVEMENT PROGRAM-Public Health Laboratories-Activity of LIP Staff (continued)

Lab & Region (27)	Field Visits - Other Programs		
	Licensed/ Permit/ Approved (28)	Certified (29)	Other (30)
TOTAL	4	8	
NEW ENGLAND			
Connecticut	X		
Massachusetts			
Maine			
New Hampshire			
Rhode Island			
Vermont			
MIDDLE ATLANTIC			
New Jersey		X	
New York*			
Pennsylvania		X	
EAST NORTH CENTRAL			
Illinois			
Indiana			
Michigan	X	X	
Ohio			
Wisconsin			
WEST NORTH CENTRAL			
Iowa			
Kansas			
Minnesota			
Missouri			
Nebraska			
North Dakota			
South Dakota			
SOUTH ATLANTIC			
Delaware			
District of Columbia			
Florida			
Georgia			
Maryland	X	X	
North Carolina			
South Carolina			
Virginia			
West Virginia			
EAST SOUTH CENTRAL			
Alabama			
Kentucky			
Mississippi			
Tennessee			
WEST SOUTH CENTRAL			
Arkansas	X		
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona			
Colorado			
Idaho		X	
Montana			
Nevada			
New Mexico			
Utah			
Wyoming			
PACIFIC			
Alaska			
California		X	
Hawaii			
Oregon			
Washington			
TERRITORIES			
Guam			
Puerto Rico			
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 57. LABORATORY IMPROVEMENT PROGRAM-Public Health Laboratories-Activity of LIP Staff (continued)

Lab & Region (31)	Training (32)	Consultation (33)	Other (34)
TOTAL	25	25	
NEW ENGLAND			
Connecticut	X	X	
Massachusetts	X		
Maine	X	X	
New Hampshire			
Rhode Island			
Vermont			
MIDDLE ATLANTIC			
New Jersey			
New York*			
Pennsylvania	X	X	
EAST NORTH CENTRAL			
Illinois		X	
Indiana			
Michigan			
Ohio			
Wisconsin	X	X	
WEST NORTH CENTRAL			
Iowa			
Kansas			
Minnesota			
Missouri	X	X	
Nebraska			
North Dakota	X	X	
South Dakota		X	
SOUTH ATLANTIC			
Delaware	X	X	
District of Columbia			
Florida	X		
Georgia			
Maryland	X	X	
North Carolina	X	X	Newsletter, on-site visits
South Carolina			
Virginia			
West Virginia			
EAST SOUTH CENTRAL			
Alabama	X	X	
Kentucky	X	X	
Mississippi	X	X	
Tennessee	X	X	
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas	X	X	
MOUNTAIN			
Arizona	X	X	Statute and rule development
Colorado	X	X	
Idaho	X	X	Newsletter
Montana		X	
Nevada			
New Mexico	X	X	
Utah	X	X	
Wyoming			
PACIFIC			
Alaska	X	X	
California			
Hawaii			
Oregon	X	X	
Washington	X		
TERRITORIES			
Guam			
Puerto Rico	X	X	
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 57. LABORATORY IMPROVEMENT PROGRAM-Regulation of State Public Health Laboratory (continued)

Lab & Region (1)	Type of licensure/certification/accreditation								
	CLIA (2)	Medicare (3)	FDA (4)	CAP (5)	SDWA (6)	OSHA (7)	NVLAP (8)	AIHA (9)	Other (10)
TOTAL	23	26	18	5	23	5	8	4	
NEW ENGLAND									
Connecticut		X	X		X	X	X	X	
Massachusetts	X	X	X						
Maine	X	X			X				
New Hampshire		X	X			X	X		
Rhode Island			X						EPA
Vermont					X				
MIDDLE ATLANTIC									
New Jersey		X							
New York*									
Pennsylvania									
EAST NORTH CENTRAL									
Illinois									
Indiana									
Michigan	X	X	X				X		
Ohio		X			X		X	X	
Wisconsin	X	X	X		X	X			NRC, Great Lakes Assoc. Regional Genetics Srvc.
WEST NORTH CENTRAL									
Iowa	X	X			X				
Kansas	X				X		X		
Minnesota		X			X	X			
Missouri					X				
Nebraska					X		X		
North Dakota	X	X	X		X				
South Dakota	X	X			X				
SOUTH ATLANTIC									
Delaware		X							
District of Columbia	X	X							Dept. of Consumer & Regulatory Affairs, HCFA
Florida									
Georgia									State licensure of clinical labs and clinical lab directors, state certification of clinical lab personnel
Maryland	X	X			X				State licensure
North Carolina								X	
South Carolina	X	X	X	X		X	X	X	
Virginia			X		X				
West Virginia			X		X				
EAST SOUTH CENTRAL									
Alabama									
Kentucky									
Mississippi		X							
Tennessee	X	X							State license
WEST SOUTH CENTRAL									
Arkansas			X		X				
Louisiana									
Oklahoma	X	X							
Texas	X	X					X		
MOUNTAIN									
Arizona	X								
Colorado	X		X		X				State alcohol/drug
Idaho		X							
Montana	X		X		X				EPA
Nevada	X	X		X	X				
New Mexico	X	X	X		X				
Utah	X	X	X		X				
Wyoming	X	X	X						
PACIFIC									
Alaska	X								
California									
Hawaii					X				
Oregon	X	X		X					
Washington				X					
TERRITORIES									
Guam									
Puerto Rico			X	X					State, EPA
Virgin Islands			X		X				

* New York did not report for fiscal year 1989.

TABLE 58. LABORATORY IMPROVEMENT PROGRAM-Physicians' Office Laboratories

Lab & Region	Number of Labs in State	Number of Labs Licensed/Registered/Approved/Certified by State	Number by LIP				Other Agency or Department Responsible for Licensing, Registering, Approving, Certifying Laboratories
			Licensed/Permit/Approved	Registered	Certified	Other	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TOTAL	18,678	5,948	5,901	222	30		
AVERAGE	1,167	744	738	222	15		
NEW ENGLAND	200	NA	46	0	0		
Connecticut	NA	NA	46	0	0	29-Blood banks	
Massachusetts	NA	NA	0	0	0		Div. of Health Quality, MA Dept. of Public Health, Laboratory Section
Maine	200	0	0	0	0		Maine state public health lab monitors 200 POLs mandatory proficiency test results.
New Hampshire	NA	0	0	0	0		
Rhode Island	NA	0	0	0	0		
Vermont	NA	0	0	0	0		
MIDDLE ATLANTIC	5,628	5,278	5,278	0	0		
New Jersey	22	22	22	0	0		
New York*							
Pennsylvania	5,506	5,256	5,256	0	0		
EAST NORTH CENTRAL	3,700	44	44	NA	NA		
Illinois	NA	0	0	0	0		
Indiana	NA	NA	0	0	0		
Michigan	3,700	44	44	0	0		
Ohio	NA	NA	NA	NA	NA		
Wisconsin	NA	NA	NA	NA	NA		Sect. of Lab Certification, Bureau of Prevention, WI Dept. of Health
WEST NORTH CENTRAL	109	NA	NA	NA	NA		
Iowa	NA	0	0	0	0		
Kansas	NA	0	0	0	0		
Minnesota	NA	NA	NA	NA	NA		Div. of Health Systems, Survey and Compliance, MN Dept. of Health
Missouri	NA	0	0	0	0		
Nebraska	NA	0	0	0	0		
North Dakota	24	0	0	0	0		
South Dakota	85	0	0	0	0		
SOUTH ATLANTIC	2,000	313	230	NA	21		
Delaware	0	0	0	0	0		
District of Columbia	NA	NA	0	0	0		Dept. of Consumer and Regulatory Affairs
Florida	NA	0	0	0	0		
Georgia	NA	0	0	0	0		Lab Licensure & Development, Office of Reg. Svcs., GA Dept. of Human Resources
Maryland	2,000	210	108	0	0	102-permit exceptions	
North Carolina	NA	NA	NA	NA	NA		Div. of Facility Services, Dept. of Human Resources
South Carolina	NA	0	0	0	0		Medicare certification-Div. of Licensing & Certification, Dept. of Health & Env. Control
Virginia	NA	0	0	0	0		
West Virginia	NA	103	122	0	21		
EAST SOUTH CENTRAL	1,415	NA	0	0	0		
Alabama	NA	NA	0	0	0		
Kentucky	1,415	0	0	0	0		
Mississippi	NA	0	0	0	0		
Tennessee	NA	NA	0	0	0		Lab Licensure Service, Bur. of Manpower & Facilities, Dept. of Health & Environment
WEST SOUTH CENTRAL	NA	10	0	0	0		
Arkansas	NA	10	0	0	0	10-Syphilis sero. approval	Medicare and Medicaid are independent labs that are licensed by the Div. of Health Facilities, AR Dept. of Health
Louisiana	NA	0	0	0	0		
Oklahoma	NA	0	0	0	0		
Texas	NA	0	0	0	0		
MOUNTAIN	5,122	222	222	222	0		
Arizona	1,250	0	0	0	0		
Colorado	3,000	0	0	0	0		
Idaho	222	222	222	222	0		
Montana	150	0	0	0	0		
Nevada	NA	NA	0	0	0		
New Mexico	NA	0	0	0	0		
Utah	500	0	0	0	0		
Wyoming	NA	NA	NA	0	0		
PACIFIC	600	81	81	0	9		
Alaska	100	0	0	0	0		Division of Medical Assistance, Dept. of Health & Social Services
California	NA	0	0	0	0		
Hawaii	NA	0	0	0	0		
Oregon	500	81	81	0	9		
Washington	NA	NA	0	0	0		
TERRITORIES	4	NA	0	0	0		
Guam	NA	NA	0	0	0		
Puerto Rico	0	0	0	0	0		
Virgin Islands	4	0	0	0	0		

* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 58. LABORATORY IMPROVEMENT PROGRAM-Physicians' Office Laboratories-Activity of LIP Staff (continued)

Lab & Region (9)	Proficiency Testing										
	Bacteriology (10)	Mycology (11)	Parasitology (12)	Virology (13)	Immunology		Hematology (18)	Clinical Chemistry (17)	Pathology (18)	Environmental Microbiology (19)	Environmental Chemistry (20)
					Syphilis Serology (14)	Non-Syphilis Serology (15)					
TOTAL	11	6	8	4	12	8	9	9	2	1	2
NEW ENGLAND											
Connecticut											
Massachusetts											
Maine											
New Hampshire											
Rhode Island											
Vermont											
MIDDLE ATLANTIC											
New Jersey	X	X	X	X	X	X	X	X			
New York*											
Pennsylvania	X	X	X	X	X	X	X	X			
EAST NORTH CENTRAL											
Illinois											
Indiana											
Michigan	X		X		X	X	X	X			
Ohio											
Wisconsin	X	X	X		X	X	X	X			
WEST NORTH CENTRAL											
Iowa											
Kansas											
Minnesota											
Missouri											
Nebraska										X	X
North Dakota											
South Dakota											
SOUTH ATLANTIC											
Delaware											
District of Columbia											
Florida											
Georgia											
Maryland	X	X	X	X	X	X	X	X	X		
North Carolina	X				X						
South Carolina											
Virginia											
West Virginia	X		X		X		X	X			
EAST SOUTH CENTRAL											
Alabama											
Kentucky	X				X		X	X			
Mississippi											
Tennessee											
WEST SOUTH CENTRAL											
Arkansas	X	X			X						
Louisiana											
Oklahoma											
Texas											
MOUNTAIN											
Arizona											
Colorado							X				
Idaho	X		X		X	X	X	X			X
Montana											
Nevada					X						
New Mexico											
Utah											
Wyoming											
PACIFIC											
Alaska											
California											
Hawaii											
Oregon	X	X	X	X	X	X	X	X	X		
Washington											
TERRITORIES											
Guam											
Puerto Rico											
Virgin Islands											

* New York did not report for fiscal year 1989.

TABLE 58. LABORATORY IMPROVEMENT PROGRAM-Physicians' Office Laboratories-Activity of LIP Staff (continued)

Lab & Region (21)	Proficiency Testing (continued)		Field Visits - LIP Programs		
	Dairy/ Food (22)	Other (23)	Licensed/ Permit/ Approved (24)	Certified (25)	Other (25)
TOTAL	1		9	1	
NEW ENGLAND					
Connecticut					
Massachusetts					
Maine					
New Hampshire					
Rhode Island					
Vermont					
MIDDLE ATLANTIC					
New Jersey			X		
New York*					
Pennsylvania			X		
EAST NORTH CENTRAL					
Illinois					
Indiana					
Michigan			X		
Ohio					
Wisconsin			X		
WEST NORTH CENTRAL					
Iowa					
Kansas					
Minnesota					
Missouri					
Nebraska					
North Dakota					
South Dakota					
SOUTH ATLANTIC					
Delaware					
District of Columbia					
Florida					
Georgia					
Maryland			X		Grant permit exceptions, investigating citizen's complaints
North Carolina					
South Carolina					
Virginia					
West Virginia			X	X	
EAST SOUTH CENTRAL					
Alabama					
Kentucky					
Mississippi					
Tennessee					
WEST SOUTH CENTRAL					
Arkansas			X		
Louisiana					
Oklahoma					
Texas					
MOUNTAIN					
Arizona					
Colorado					
Idaho	X				
Montana					
Nevada		Urinalysis			
New Mexico					
Utah					
Wyoming			X		
PACIFIC					
Alaska					
California					
Hawaii					
Oregon			X		
Washington					
TERRITORIES					
Guam					
Puerto Rico					
Virgin Islands					

* New York did not report for fiscal year 1989.

TABLE 58. LABORATORY IMPROVEMENT PROGRAM-Physicians' Office Laboratories-Activity of LIP Staff (continued)

Lab & Region (26)	Field Visits - Other Programs		
	Licensed/ Permit/ Approved (27)	Certified (28)	Other (29)
TOTAL	3	2	
NEW ENGLAND			
Connecticut			
Massachusetts			
Maine			
New Hampshire			
Rhode Island			
Vermont			
MIDDLE ATLANTIC			
New Jersey	X		
New York*			
Pennsylvania		X	
EAST NORTH CENTRAL			
Illinois			
Indiana			
Michigan			
Ohio			
Wisconsin			
WEST NORTH CENTRAL			
Iowa			
Kansas			
Minnesota			
Missouri			
Nebraska			
North Dakota			
South Dakota			
SOUTH ATLANTIC			
Delaware			
District of Columbia			
Florida			
Georgia			
Maryland	X	X	
North Carolina			
South Carolina			
Virginia			
West Virginia			
EAST SOUTH CENTRAL			
Alabama			
Kentucky			
Mississippi			
Tennessee			
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona			
Colorado			
Idaho			
Montana			
Nevada			
New Mexico			
Utah			
Wyoming			
PACIFIC			
Alaska			
California			
Hawaii			
Oregon	X		
Washington			
TERRITORIES			
Guam			
Puerto Rico			
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 58. LABORATORY IMPROVEMENT PROGRAM-Physicians' Office Laboratories-Activity of LIP Staff (continued)

Lab & Region (30)	Training (31)	Consultation (32)	Other (33)
TOTAL	16	17	
NEW ENGLAND			
Connecticut			
Massachusetts	X		
Maine	X	X	Review proficiency test results.
New Hampshire			
Rhode Island			
Vermont		X	
MIDDLE ATLANTIC			
New Jersey	X	X	
New York*			
Pennsylvania	X	X	
EAST NORTH CENTRAL			
Illinois			
Indiana			
Michigan			
Ohio			
Wisconsin	X	X	
WEST NORTH CENTRAL			
Iowa			
Kansas	X	X	
Minnesota			
Missouri			
Nebraska			
North Dakota	X	X	
South Dakota		X	
SOUTH ATLANTIC			
Delaware			
District of Columbia			
Florida			
Georgia			
Maryland	X		
North Carolina	X	X	Newsletter, on-site visits
South Carolina			
Virginia			
West Virginia	X	X	
EAST SOUTH CENTRAL			
Alabama			
Kentucky	X	X	
Mississippi			
Tennessee			
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona	X	X	
Colorado		X	
Idaho	X	X	Newsletter
Montana			
Nevada			
New Mexico			
Utah	X	X	
Wyoming			
PACIFIC			
Alaska	X	X	
California			
Hawaii			
Oregon	X	X	
Washington			
TERRITORIES			
Guam			
Puerto Rico			
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 59. LABORATORY IMPROVEMENT PROGRAM-Dairy and Food Laboratories

Lab & Region	Number of Labs in State	Number of Labs Licensed/Registered/Approved/Certified by State	Number by LIP			Other Agency or Department Responsible for Licensing, Registering, Approving, Certifying Laboratories
			Licensed/Permit/Approved	Registered	Certified	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL	249	312	61	NA	217	
AVERAGE	11	12	12	NA	11	
NEW ENGLAND	64	63	26	0	31	
Connecticut	25	25	25	0	0	
Massachusetts	29	29	0	0	29	
Maine	NA	NA	0	0	0	Dept. of Agriculture
New Hampshire	1	1	0	0	1	
Rhode Island	1	1	1	0	1	
Vermont	8	7	0	0	0	VT Dept. of Agriculture
MIDDLE ATLANTIC	NA	12	0	0	0	
New Jersey	NA	12	0	0	0	Bacteriology Section, Public Health Laboratory Services
New York*						
Pennsylvania	NA	NA	0	0	0	PA Dept. of Agriculture
EAST NORTH CENTRAL	NA	62	9	0	53	
Illinois	NA	33	0	0	33	
Indiana	NA	20	0	0	20	
Michigan	NA	NA	0	0	0	MI Dept. of Agriculture
Ohio	NA	9	9	0	0	
Wisconsin	NA	NA	0	0	0	Sect. of Certification, Bureau of Prevention, WI Dept. of Health
WEST NORTH CENTRAL	24	33	0	0	11	
Iowa	NA	NA	0	0	0	Iowa Dept. of Agriculture & Land Stewardship
Kansas	NA	NA	0	0	0	State Board of Agriculture
Minnesota	NA	NA	0	0	0	Dept. of Agriculture
Missouri	NA	9	0	0	9	
Nebraska	NA	NA	0	0	0	Division of Licensure & Standards
North Dakota	12	12	0	0	2	State Agriculture Dept., Dairy Division
South Dakota	12	12	0	0	0	State Dairy Lab, South Dakota State University
SOUTH ATLANTIC	62	45	23	0	45	
Delaware	1	0	0	0	0	
District of Columbia	NA	NA	0	0	0	Dept. of Consumer and Regulatory Affairs
Florida	NA	NA	0	0	0	Florida Dept. of Agriculture & Consumer Services
Georgia	NA	NA	0	0	0	GA Dept. of Agriculture
Maryland	25	19	0	0	19	
North Carolina	NA	NA	23	0	0	NC Dept. of Agriculture
South Carolina	8	5	0	0	5	Dairy section personnel
Virginia	18	18	0	0	18	
West Virginia	NA	3	0	0	3	
EAST SOUTH CENTRAL	62	46	0	0	33	
Alabama	5	5	0	0	5	
Kentucky	21	17	0	0	17	
Mississippi	NA	3	0	0	0	MS Health Care Commission
Tennessee	36	21	0	0	11	FDA (2), TN Dept. of Agriculture (2), TN Dept. of Health & Env. (19)
WEST SOUTH CENTRAL	4	22	0	0	22	
Arkansas	NA	0	0	0	0	
Louisiana	NA	18	0	0	18	
Oklahoma	NA	NA	0	0	0	State environmental laboratory
Texas	4	4	0	0	4	
MOUNTAIN	17	26	0	0	22	
Arizona	NA	NA	0	0	0	State agriculture laboratory
Colorado	8	7	0	0	7	
Idaho	NA	14	0	0	14	
Montana	NA	NA	0	0	0	MT Dept. of Livestock
Nevada	5	4	0	0	1	
New Mexico	3	1	0	0	0	
Utah	NA	NA	0	0	0	State Dept. of Agriculture
Wyoming	1	0	0	0	0	Dept. of Agriculture
PACIFIC	13	3	3	0	0	
Alaska	3	0	0	0	0	Dept. of Environmental Conservation, FDA Region X
California	NA	NA	0	0	0	
Hawaii	10	3	3	0	0	
Oregon	NA	NA	0	0	0	Dept. of Agriculture
Washington	NA	NA	0	0	0	Dept. of Agriculture
TERRITORIES	13	NA	NA	NA	NA	
Guam	NA	NA	NA	NA	NA	
Puerto Rico	12	0	0	0	0	
Virgin Islands	1	0	0	0	0	FDA

* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 59. LABORATORY IMPROVEMENT PROGRAM-Dairy and Food Laboratories-Activity of LIP Staff (continued)

Lab & Region (8)	Proficiency Testing (9)	Field Visits - LIP Programs		
		Licensed/ Permit/ Approved (10)	Certified (11)	Other (12)
TOTAL	23	6	20	
NEW ENGLAND				
Connecticut	X	X		
Massachusetts	X		X	
Maine				
New Hampshire			X	
Rhode Island		X	X	
Vermont				
MIDDLE ATLANTIC				
New Jersey	X		X	
New York*				
Pennsylvania				
EAST NORTH CENTRAL				
Illinois	X		X	
Indiana	X		X	
Michigan				
Ohio	X	X		
Wisconsin	X			
WEST NORTH CENTRAL				
Iowa				
Kansas				
Minnesota				
Missouri	X		X	
Nebraska				
North Dakota	X		X	
South Dakota				
SOUTH ATLANTIC				
Delaware				
District of Columbia				
Florida				
Georgia				
Maryland	X		X	Review new personnel/procedures/changes in equipment & facilities.
North Carolina	X	X		
South Carolina	X		X	
Virginia	X		X	
West Virginia	X		X	Consultation
EAST SOUTH CENTRAL				
Alabama	X		X	
Kentucky	X		X	
Mississippi				
Tennessee	X	X		
WEST SOUTH CENTRAL				
Arkansas				
Louisiana	X		X	
Oklahoma				
Texas	X		X	
MOUNTAIN				
Arizona				
Colorado	X		X	
Idaho	X		X	
Montana				
Nevada				
New Mexico	X		X	
Utah				
Wyoming				
PACIFIC				
Alaska				
California				
Hawaii	X	X	X	
Oregon				
Washington				
TERRITORIES				
Guam				
Puerto Rico				
Virgin Islands				

* New York did not report for fiscal year 1989.

TABLE 59. LABORATORY IMPROVEMENT PROGRAM-Dairy and Food Laboratories-Activity of LIP Staff (continued)

Lab & Region (13)	Field Visits - Other Programs			Training (17)	Consultation (18)	Other (19)
	Licensed/ Permit/ Approved (14)	Certified (15)	Other (16)			
TOTAL	0	3		17	19	
NEW ENGLAND						
Connecticut				X	X	
Massachusetts						
Maine						
New Hampshire						
Rhode Island				X	X	
Vermont						
MIDDLE ATLANTIC						
New Jersey						
New York*						
Pennsylvania				X	X	
EAST NORTH CENTRAL						
Illinois				X		Education-annual seminar for personnel.
Indiana				X	X	
Michigan						
Ohio		X		X	X	
Wisconsin				X	X	
WEST NORTH CENTRAL						
Iowa						
Kansas						
Minnesota						
Missouri					X	
Nebraska						
North Dakota				X	X	
South Dakota						
SOUTH ATLANTIC						
Delaware						
District of Columbia						
Florida						
Georgia						
Maryland						
North Carolina				X	X	
South Carolina						
Virginia						
West Virginia				X	X	
EAST SOUTH CENTRAL						
Alabama				X	X	
Kentucky				X	X	
Mississippi					X	
Tennessee			Water quality-turbidity testing	X	X	
WEST SOUTH CENTRAL						
Arkansas						
Louisiana						
Oklahoma						
Texas				X	X	
MOUNTAIN						
Arizona						
Colorado						
Idaho		X		X	X	
Montana					X	
Nevada						
New Mexico		X		X	X	
Utah						
Wyoming						
PACIFIC						
Alaska						
California						
Hawaii						
Oregon						
Washington						
TERRITORIES						
Guam						
Puerto Rico				X	X	
Virgin Islands						

* New York did not report for fiscal year 1989.

TABLE 60. LABORATORY IMPROVEMENT PROGRAM-Water Laboratories

Lab & Region	Number of Labs in State	Number of Water Labs in State			Other Agency or Department Responsible for Licensing, Registering, Approving, Certifying Laboratories
		Licensed/ Permit/ Approved	Registered	Certified	
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	2,004	742	NA	1,848	
AVERAGE	67	82	NA	60	
NEW ENGLAND	220	128	NA	140	
Connecticut	158	108	0	108	
Massachusetts	NA	NA	NA	NA	Massachusetts EPA, Lawrence Experimental Station
Maine	26	0	0	24	
New Hampshire	NA	NA	NA	NA	Dept. of Environmental Services
Rhode Island	22	22	0	0	
Vermont	15	0	0	10	
MIDDLE ATLANTIC	NA	NA	NA	NA	
New Jersey	NA	NA	NA	NA	Dept. of Environmental Protection
New York*					
Pennsylvania	NA	NA	NA	NA	Dept. of Environmental Resources
EAST NORTH CENTRAL	400	NA	NA	524	
Illinois	NA	0	0	78	
Indiana	NA	0	0	61	
Michigan	NA	NA	NA	NA	Water Supply Division, Bureau of Environmental and Occupational Health
Ohio	400	0	0	385	
Wisconsin	NA	NA	NA	NA	Sect. of Lab Certification, WI Dept. of Health, Office of Tech. Svcs., WI Dept. of Natural Resources
WEST NORTH CENTRAL	184	0	0	322	
Iowa	45	0	0	45	
Kansas	NA	0	0	132	
Minnesota	53	0	0	53	
Missouri	NA	0	0	38	
Nebraska	15	0	0	15	
North Dakota	32	0	0	32	
South Dakota	39	0	0	7	
SOUTH ATLANTIC	249	5	NA	438	
Delaware	6	5	0	0	
District of Columbia	0	0	0	0	
Florida	NA	0	0	218	
Georgia	NA	NA	NA	NA	GA Dept. of Natural Resources
Maryland	107	0	0	81	
North Carolina	NA	NA	NA	NA	
South Carolina	NA	NA	NA	NA	Bureau of Field & Analytical Services, Dept. of Health
Virginia	138	0	0	84	Quality Assurance Section, VA Consolidated Laboratories
West Virginia	NA	0	0	53	
EAST SOUTH CENTRAL	211	137	NA	119	
Alabama	23	0	0	21	
Kentucky	NA	NA	NA	NA	Cabinet for Natural Resources
Mississippi	12	0	0	12	
Tennessee	176	137	0	88	
WEST SOUTH CENTRAL	NA	5	NA	49	
Arkansas	NA	5	0	0	
Louisiana	NA	0	0	18	
Oklahoma	NA	NA	NA	NA	State environmental laboratory
Texas	NA	0	0	31	
MOUNTAIN	239	69	NA	189	
Arizona	61	61	0	0	
Colorado	69	0	0	69	
Idaho	28	0	0	28	
Montana	14	8	0	6	
Nevada	13	0	0	13	
New Mexico	38	0	0	38	
Utah	NA	0	0	37	
Wyoming	18	NA	NA	NA	Environmental Protection Agency region 7
PACIFIC	483	398	NA	55	
Alaska	20	NA	NA	NA	Dept. of Environmental Conservation
California	357	357	0	0	
Hawaii	14	0	0	10	
Oregon	45	41	0	0	DEQ (inorganics, TTHM, & VOCs); Dept. of Agriculture (organic chemistry)
Washington	47	0	0	45	Laboratory Quality Assurance, Office of Licensing & Certification
TERRITORIES	18	NA	NA	14	
Guam	NA	NA	NA	NA	
Puerto Rico	17	0	0	14	
Virgin Islands	1	0	0	0	

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 60. LABORATORY IMPROVEMENT PROGRAM-Water Laboratories (continued)

Lab & Region	Number of Water Testing Laboratories in Laboratory Improvement Program											
	Licensed/Granted Permits/Approved				Registered				Certified			
	Total	Microbiology	Chemistry	Microbiol. and Chemistry	Total	Microbiology	Chemistry	Microbiol. and Chemistry	Total	Microbiology	Chemistry	Microbiol. and Chemistry
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
TOTAL	794	172	280	342	158	8	51	99	1,811	804	558	449
AVERAGE	88	22	58	57	158	8	51	99	58	27	23	19
NEW ENGLAND	180	22	51	107	158	8	51	99	34	11	1	22
Connecticut	158	8	51	99	158	8	51	99	0			
Massachusetts	0				0				0			
Maine	0				0				24	6	0	18
New Hampshire	0				0				0			
Rhode Island	22	14	0	8	0				0			
Vermont	0				0				10	5	1	4
MIDDLE ATLANTIC	0	0	0	0	0	0	0	0	0	0	0	0
New Jersey	0				0				0			
New York*												
Pennsylvania	0				0				0			
EAST NORTH CENTRAL	0	0	0	0	0	0	0	0	523	148	258	117
Illinois	0				0				78	78	0	0
Indiana	0				0				60	60	0	0
Michigan	0				0				0			
Ohio	0				0				385	10	258	117
Wisconsin	0				0				0			
WEST NORTH CENTRAL	0	0	0	0	0	0	0	0	322	118	143	61
Iowa	0				0				45	17	3	25
Kansas	0				0				132	4	108	20
Minnesota	0				0				53	53	0	0
Missouri	0				0				38	34	4	0
Nebraska	0				0				15	3	4	8
North Dakota	0				0				32	6	20	6
South Dakota	0				0				7	1	4	2
SOUTH ATLANTIC	5	2	0	3	0	0	0	0	579	322	85	172
Delaware	5	2	0	3	0				0			
District of Columbia	0				0				0			
Florida	0				0				218	96	36	88
Georgia	0				0				0			
Maryland	0				0				81	35	13	33
North Carolina	0				0				143	113	4	26
South Carolina	0				0				0			
Virginia	0				0				84	58	4	24
West Virginia	0				0				53	22	28	3
EAST SOUTH CENTRAL	137	0	137	0	0	0	0	0	48	44	1	1
Alabama	0				0				21	21		
Kentucky	0				0				0			
Mississippi	0				0				12	11	0	1
Tennessee	137	0	137	0	0				13	12	1	0
WEST SOUTH CENTRAL	5	5	0	0	0	0	0	0	49	43	1	5
Arkansas	5	5	0	0	0				0			
Louisiana	0				0				18	12	1	5
Oklahoma	0				0				0			
Texas	0				0				31	31	0	0
MOUNTAIN	69	25	12	32	0	0	0	0	189	77	54	58
Arizona	61	17	12	32	0				0			
Colorado	0				0				69	25	23	21
Idaho	0				0				26	18	2	6
Montana	8	8	0	0	0				6	0	5	1
Nevada	0				0				13	2	4	7
New Mexico	0				0				38	26	2	10
Utah	0				0				37	6	18	13
Wyoming	0				0				0			
PACIFIC	398	118	80	200	0	0	0	0	55	30	13	12
Alaska	0				0				0			
California	357	97	77	183	0				0			
Hawaii	0				0				10	5	2	3
Oregon	41	21	3	17	0				0			
Washington	0				0				45	25	11	9
TERRITORIES	0	0	0	0	0	0	0	0	14	11	2	1
Guam	0				0				0			
Puerto Rico	0				0				14	11	2	1
Virgin Islands	0				0				0			

* New York did not report for fiscal year 1989.

TABLE 60. LABORATORY IMPROVEMENT PROGRAM-Water Laboratories-Activity of LIP Staff (continued)

Lab & Region (20)	Proficiency Testing		Field Visits - LIP Program		
	Water Microbiology (21)	Water Chemistry (22)	Licensed/ Permit/ Approved (23)	Certified (24)	Other (25)
TOTAL	15	23	8	20	
NEW ENGLAND					
Connecticut	X	X	X	X	Laboratories analyzing for asbestos
Massachusetts					
Maine		X		X	
New Hampshire					
Rhode Island			X		
Vermont		X		X	
MID-ATLANTIC					
New Jersey					
New York*					
Pennsylvania					
EAST NORTH CENTRAL					
Illinois				X	
Indiana				X	
Michigan					
Ohio			X		
Wisconsin		X			
WEST NORTH CENTRAL					
Iowa	X			X	
Kansas		X		X	
Minnesota				X	
Missouri				X	
Nebraska	X	X		X	
North Dakota	X	X		X	
South Dakota				X	
SOUTH ATLANTIC					
Delaware					
District of Columbia					
Florida	X	X		X	
Georgia					
Maryland	X	X		X	Review changes in personnel/facilities/methodology, unscheduled spot checks
North Carolina	X	X		X	
South Carolina					
Virginia		X			
West Virginia	X	X		X	Consultation
EAST SOUTH CENTRAL					
Alabama				X	
Kentucky					
Mississippi				X	
Tennessee		X		X	Microbiology consulting visits
WEST SOUTH CENTRAL					
Arkansas			X		
Louisiana				X	
Oklahoma					
Texas				X	
MOUNTAIN					
Arizona	X	X	X		Complaint investigation
Colorado		X		X	On-site
Idaho		X		X	
Montana	X	X	X	X	
Nevada		X		X	
New Mexico				X	
Utah	X	X		X	
Wyoming					
PACIFIC					
Alaska					
California	X	X	X		
Hawaii	X	X		X	
Oregon	X	X	X		
Washington					
TERRITORIES					
Guam					
Puerto Rico	X	X		X	
Virgin Islands					

* New York did not report for fiscal year 1989.

TABLE 60. LABORATORY IMPROVEMENT PROGRAM-Water Laboratories-Activity of LIP Staff (continued)

Lab & Region (26)	Field Visits - Other Programs		
	Licensed/ Permit/ Approved (27)	Certified (28)	Other (29)
TOTAL	0	2	
NEW ENGLAND			
Connecticut			
Massachusetts			
Maine			
New Hampshire			
Rhode Island			
Vermont			
MID-ATLANTIC			
New Jersey			
New York*			
Pennsylvania			
EAST NORTH CENTRAL			
Illinois			
Indiana			
Michigan			
Ohio		X	
Wisconsin			
WEST NORTH CENTRAL			
Iowa			
Kansas			
Minnesota			
Missouri			
Nebraska			
North Dakota			
South Dakota			
SOUTH ATLANTIC			
Delaware			
District of Columbia			
Florida			
Georgia			
Maryland			Review waste water testing protocol in relation to function of drinking water quality labs
North Carolina			
South Carolina			
Virginia			
West Virginia			
EAST SOUTH CENTRAL			
Alabama			
Kentucky			
Mississippi			
Tennessee		X	
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona			
Colorado			
Idaho			
Montana			Reciprocal license if it benefits the State of Montana program.
Nevada			
New Mexico			Certification for Environment Improvement Div.
Utah			
Wyoming			
PACIFIC			
Alaska			
California			
Hawaii			Methodologies
Oregon			
Washington			
TERRITORIES			
Guam			
Puerto Rico			
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 60. LABORATORY IMPROVEMENT PROGRAM-Water Laboratories-Activity of LIP Staff (continued)

Lab & Region (30)	Training (31)	Consultation (32)	Other (33)
TOTAL	24	22	
NEW ENGLAND			
Connecticut	X	X	
Massachusetts			
Maine			
New Hampshire			
Rhode Island	X	X	
Vermont	X	X	
MID-ATLANTIC			
New Jersey	X	X	Implementation and/or interpretation of procedural and regulatory changes, trouble-shooting problem areas
New York*			
Pennsylvania			
EAST NORTH CENTRAL			
Illinois	X		Annual seminar
Indiana	X	X	
Michigan			
Ohio	X	X	
Wisconsin	X	X	
WEST NORTH CENTRAL			
Iowa			
Kansas			
Minnesota			
Missouri		X	
Nebraska			
North Dakota	X	X	
South Dakota			
SOUTH ATLANTIC			
Delaware			
District of Columbia			
Florida	X		
Georgia			
Maryland	X	X	Workshops, lectures
North Carolina	X	X	
South Carolina			
Virginia			
West Virginia	X	X	
EAST SOUTH CENTRAL			
Alabama	X	X	
Kentucky			
Mississippi			
Tennessee	X		Microbiology bench training; consulting visits on new or remodeled facilities.
WEST SOUTH CENTRAL			
Arkansas			
Louisiana			
Oklahoma			
Texas			
MOUNTAIN			
Arizona	X	X	Environmental laboratory legislation and rule development.
Colorado			
Idaho			
Montana	X	X	Autoclave efficacy program-supply spore strips to labs as requested; strip returned after autoclaving for test
Nevada			
New Mexico	X	X	
Utah	X	X	
Wyoming			
PACIFIC			
Alaska	X	X	
California	X	X	
Hawaii	X	X	
Oregon	X	X	
Washington			
TERRITORIES			
Guam			
Puerto Rico	X	X	
Virgin Islands			

* New York did not report for fiscal year 1989.

TABLE 61. LABORATORY IMPROVEMENT PROGRAM-Other LIP Activities for All Types of Laboratories

Lab (1)	Program Activity (2)
Alaska	Provide reference and proficiency testing for syphilis serology and provide stock cultures to clinical labs for reference bacteriology.
Arizona	Blood Alcohol program - Prepare, distribute, and follow-up blood alcohol proficiency specimens; License lab personnel to analyze blood for alcohol content; Issue permits to officers to operate breath alcohol testing devices.
California	Hazardous waste testing laboratory certification (260); environmental lab accreditation (42)
Colorado	Air pollution - odor school; microbiology - in-service training; alcohol lab - training; National Laboratory Training Network participation
Connecticut	Recombinant DNA registration-prepare and administer exams for personnel to work in dairy labs. Qualify lab directors by training and experience for environmental labs. NPDES approval, inspection, and proficiency testing. 20 labs only NPDES registered, 25 labs only SDWA registered, 63 labs NPDES and SDWA registered.
Florida	Certification of 164 environmental laboratories.
Hawaii	Approval of shellfish and shellfish growing waters laboratories.
Iowa	Annual laboratory symposium on water analysis laboratory analytical topics.
Kansas	Breath alcohol operator training (1173 certified as of 09/30/89); Certification of breath alcohol agencies (93 agencies, 75 instruments); quarterly proficiency test program for breath alcohol operators (519 new operators trained); hazardous waste certification for environmental labs (29 certified labs).
Maine	Prepare/edit LAB GAB (quarterly public health laboratory newsletter); provide consultation to Medicaid program regarding client testing, reimbursement, fraud, and abuse.
Maryland	Monitor proficiency testing requirements for all clinical, public health, and physicians' office labs; regulate all cholesterol testing performed outside licensed clinical labs.
Massachusetts	Site of New England ARO for ASTPHLD/CDC National Laboratory Training Network.
Michigan	The program licenses office practice labs, operated by groups of 6 or more physicians.
Minnesota	Eighty-five clinical labs have QA program for hematology proficiency testing.
New Mexico	Training for microbiology and water labs in the field. (i.e. utility companies)
North Carolina	Quarterly newsletter; quality control for culture media-GC control-STD branch; stock bacterial cultures-maintenance and distribution; audio-visual training materials for loan.
North Dakota	CDC workshops, FDA grade A dairy products & manufacturing, grade dairy products workshops, pH certification school for NPDES permittees, radiological health workshop-approved users of radioactive materials, LEND teleconferences, inhouse seminars.
Pennsylvania	Hematology proficiency testing of 280 WIC clinics. These clinics perform microhematocrit determinations. Training and consultation are also provided to WIC clinics.
South Carolina	Program for proficiency testing for county health dept. nurses performing lab tests - hematocrit, hemoglobin, EP, urinalysis, gram stains, blood glucose, pregnancy tests; program for training VD inspectors in gram stains and dark field microscopy. Program for instrument repair and maintenance for instruments used in county health depts. (microscopes, centrifuges, blood pressure cuffs, audiometers, EP hematologyfluorometers, baby scales).
South Dakota	Intoxilyzer training and certification of instruments and operators; proficiency testing for operators of intoxilyzers.
Tennessee	Microbiology training program: prepare B.S. microbiological graduates for state licensure; serves as 4th academic year of education for B.S. clinical microbiological degree for future state licensure.
Utah	Pulmonary testing for a voluntary approval program includes on-site visits, proficiency testing monitoring, and consultation.
Vermont	The Vermont Public Health Laboratory is responsible for establishing standards and approving labs engaged in testing for drugs of abuse in Vermont-employed workers and testing for HIV antibodies in life insurance applicants in Vermont. Labs need to be approved irrespective of location. Currently all approved labs in these programs have been out-of-state labs.
Virginia	Laboratory is responsible for the inspection and recommendation for approval/disapproval of four commercial blood banks.

NOTE: Laboratories that did not report information relating to this table are not listed.

TABLE 62. BIOLOGICS, REAGENTS, AND MEDIA PRODUCTION-Production of Biologics, Reagents, and Media for Distribution

Lab (1)	No. FTE'S (2)	Biologics		Reagents (5)	Media (6)	Materials Produced for Distribution (7)
		Human Use (3)	Lab Use (4)			
TOTAL	168.1	0	6	14	20	
Alabama	3.70			X	X	Jones-Kendrick media, Rodao plates, modified Thayer-Martin plates, glycerine saline (enteric collection bottles), collection bottles: intestinal parasite, TB, public and private water, and milk.
Arizona	6.00			X	X	Blood and health infusion agar plates, phenylethylalcohol, Mueller Hinton, chocolate, MacConkeys, Hekiden-Enteric, and urea agars, chopped meat medium, GN, trypticase soy, and thioglycollate broths, sulfur inoole motility, 6.5 NaCl, nitrate reagent, triple sugar iron, Kovak's reagent, KOH, and Hank's solutions, ferric chloride, polyvinyl alcohol buffered glycerol saline, Cary Blair and Regan Lowe transports
California	0.50		X			Anti-rabies conjugated immune sera, anti-influenza A H1N1 conjugated monoclonal, anti-influenza A H2N2 conjugated monoclonal
Colorado	2.00				X	Media for clinical and environmental microbiology labs and specimen collection kits for the laboratory division.
Connecticut	1.50			X		VDRL antigen and buffered saline, serum controls for Syphilis and Lyme disease.
Florida	NA				X	Lowenstein Jensen media used in TB testing for HRS branch laboratories.
Hawaii	1.50				X	Leptospira media
Indiana	4.00			X	X	
Kansas	2.00			X	X	
Massachusetts	7.00		X	X	X	218,900 tubes of culture media, 16,300 bulk size containers of buffers and/or reagents, 59,600 microbiological agar plates, 10,000 bacteriological culture kits containing microbiological media.
Michigan	106.00			X	X	Human use-albumin, anthrax vaccine, Diphtheria toxoid, Diphtheria & tetanus toxoid (ped. & adult), Diphtheria & tetanus toxoids & Pertussis vaccine absorbed, immune globulin, Pertussis vaccine ads., rabies vaccine, tetanus toxoid, Botulinum type B toxoid (veterinary), Pertussis cell conc., simulator test solution (for breathalyzer), Legionella typing sera, media for diagnostic labs
Minnesota	1.00				X	Thayer-Martin plates for GC culture
Montana	NA		X			Stock cultures for quality control (bacteria & fungi)
Nebraska	0.60			X	X	
New Mexico	4.00		X	X	X	Gram stain reagents, mediums: modified Martin-Lewis, Cary Blair, viral transport, Aimes transport, caseamino acids
North Dakota	0.80		X	X	X	Modified Thayer Martin, Jembec, Aimes transport agar, Sabouraud's agar, Jones-Kendrick agar, PM-indicator agar, phosphate buffered saline, 5% buffered formalin
Ohio	3.50				X	Martin-Lewis & chocolate agar plates, Cary-Blair medium, throat swab medium (Hank's balanced salt solution)
Pennsylvania	2.00			X	X	Parasitology, enteric bacteriology, & throat washing kits, lyophilized bacteria & fungi for OC, rabies absorbed sera
South Dakota	4.00				X	Jembec plates
Tennessee	9.00		X	X	X	Isovitalex, VCAT, plates: Butzler, "gonopek", Martin-Lewis, sheep blood agar, PAI agar & trypticase soy slants, Pertussis & formalized saline kits, group A Streptococcus conjugate, Cary-Blair medium, brain heart infusion & tryptose phosphate broths, mouse brain tissue, water collection bottles
Texas	5.00			X	X	Heart infusion & chocolate agar slants, GC supplement, Middlebrook conc. (regular & low pH), mediums: arylsulfatase test, Tween 80 degradation, NaCl test, iron uptake Wickerham carbohydrate and nitrate, casein, tyrosine, xanthine, urea broth, Lowenstein deeps GCMI inhibitor, urea #41, cornmeal & modified MacConkey agars, antimicrobial drugs, isoniazid, ethambutol, rifampin, ethionamide, streptomycin, PAS & PZA, Elek toxigenicity test set, Levonowitz-Weber stain, Penicillin .008 u/ml. standard, buffer stock & acetone-alcohol solutions, & dimethylformamide diluent
Washington	1.50			X	X	
West Virginia	2.50				X	Media for Neisseria gonorrhoeae screening program

NOTE: Laboratories that did not report information relating to this table are not listed.

NA = Data not available.

TABLE 63. RESEARCH AND DEVELOPMENT-Basic Research

Lab (1)	Titles of Research Projects (2)	Funding Support				
		Number of Positions (3)	Federal		State Funds (6)	Other Funds (7)
			Grants (4)	Contracts (5)		
TOTAL		40.04	1,090,214	180,000	884,479	180,471
California	NCI-California collaborative project	4.00		180,000		
Connecticut	Bimonitoring of water quality as determined by viability of fish eggs with confirmation by fish and mammalian cells in vitro	1.00	21,235		41,879	
	Assessment of role of Atrazine and degradation products in soil and water contamination	1.00	19,338		30,510	
Hawaii	Leptospirosis incidence study	1.50			8,000	
	Data acquisition QA computer program	2.00	5,000			
Maryland	Development of EIA & HPLC test for detection of neuroblastoma in infants	1.00				100,000
	Correlation of soil/dust lead levels around home and relationship to children's blood lead levels	7.00	686,641			
Michigan	Acellular Pertussis vaccine development	6.00			290,000	
	Continue developing molecular biology capability	4.00			170,000	
New Hampshire	Drug-impaired drivers	1.00				58,821
New Mexico	Lyme disease	0.04			2,000	
North Dakota	Gene probe Chlamydia comparative study	0.00			370	750
	Abbott Chlamydia EIA comparative study	0.00			320	600
	Bartels Chlamydia comparative study	0.00			300	300
Texas	HPLC microbiology	NA				
	Lyme epidemiology	NA				
Washington	Ecologic studies of <i>Berriella burgdorferi</i> in Washington	0.50			NA	
Wisconsin	Cystic Fibrosis screening of newborn infants	2.50	115,000			
	Marijuana testing	1.00			132,000	
	Detoxification of Sheboygan Harbor PCBs	1.50			122,000	
	Bacteriology methods development	1.00			60,000	
	Effects of variables on breath alcohol analysis results	0.50			32,000	
	Mutagenicity of selected toxicants	1.00			30,000	
	Seroprevalence of HIV in newborns	2.50	243,000			
	Pesticide metabolism	1.00			25,000	
	Environmental methods development	1.00			40,000	

NOTE: Laboratories that did not report information relating to this table are not listed.
NA = Data not available.

TABLE 64. RESEARCH AND DEVELOPMENT-Applied Research

Lab (1)	Titles of Research Projects (2)	Funding Support				
		Number of Positions (3)	Federal		State Funds (6)	Other Funds (7)
			Grants (4)	Contracts (5)		
TOTAL		62.26	408,845	313,811	1,813,278	102,649
Alaska	Comparative evaluation of GeneProbe vs. Microtrak for Chlamydia testing.	0.50			20,000	
Arizona	Field screening tests	0.20			10,000	
	Analysis of Carbamate pesticides (EPA 632)	0.20			35,000	
Connecticut	Developed robotic system for use in ELISA tests	NA	NA	NA	NA	NA
Hawaii	Automation of manual stations	2.0			NA	
Iowa	U.S. NRC	0.87		28,528		
	U.S. Army Asbestos	0.30		27,588		
	U.S. EPA contract laboratory program	4.89		209,315		
	U.S. EPA cooperative agreement	1.07	97,517			
	Missouri pesticide residue	0.79			31,818	
	U.S. EPA cooperative program	1.20	190,057			
	Iowa DNR rural water quality	5.96			174,051	
	Iowa DNR compliance screening inspection	0.27			25,000	
	Iowa DNR Iowa lake	0.84			24,195	
	Iowa Dept. of Agriculture	3.03			94,700	
	Iowa DNR Big Springs	3.64			125,000	
	U.S. Dept. of Interior Fish & Wildlife	0.13		6,398		
	Iowa Dept. of Public Health-HIV medical device	0.27			18,578	
	U.S. EPA pesticide formulation & residue	0.50		23,932		
	Iowa Dept. of Public Health-HIV testing	3.0			163,604	
	Iowa Dept. of Inspections & Appeals-Medicare	1.05			67,408	
	Iowa Dept. of Health-Gonorrhea culture	1.95			48,007	
	Iowa Dept. of Labor-enforcement	1.06			58,000	
	Iowa Dept. of Labor-consultation	0.37			16,144	
	Iowa DNR-water quality	3.90			253,310	
	Iowa DNR-air quality	3.50			217,343	
	Iowa DNR-data transmission	1.61			71,781	
	Iowa DNR-hazardous waste	0.62			48,938	
	Iowa DNR-priority pollutants	0.28			13,501	
Maryland	HPV detection in cervical PAP smears by gene probe technology and correlation with cervical cancer.	1.0			75,000	
Massachusetts	Liver transplant associated CMV prevention	2.90	121,271			
	Viral immunity studies	2.0				85,849
	Influenza studies	0.40				16,800
New Mexico	Chlamydia EIA kit evaluation	0.17			8,500	
	HTLV-I EIA prevalence in drug users	0.25			12,500	
	Lyme disease prevalence in canine population	0.04			2,000	
North Carolina	Maternal HIV seroprevalence study	1.0		18,052		
North Dakota	Accounting program laboratory computer system	NA			7,000	
	Stability of trihalomethanes over time on preserved samples	NA			5,900	
Texas	Arbovirus monoclonal	NA				
Washington	Etiology of indeterminate HIV Western blot test results	0.50			NA	

NOTE: Laboratories that did not report information relating to this table are not listed.
NA = Data not available.

TABLE 65. RESEARCH AND DEVELOPMENT-Technical Development

Lab (1)	Titles of Research Projects (2)	Funding Support				
		Number of Positions (3)	Federal		State Funds (6)	Other Funds (7)
			Grants (4)	Contracts (5)		
TOTAL		4.02	NA	NA	208,950	NA
Connecticut	Comparison of methods for mycoplasma antibody	NA	NA	NA	NA	NA
	O.D. ratios of HIV tests from drug abusers	NA	NA	NA	NA	NA
	Virai antibodies in transient hypo gammaglobulins	NA	NA	NA	NA	NA
Maryland	Evaluation of HIV antigen detection system in comparison to culture	1.00			70,000	
Michigan	HIV antigen antibody detection	1.00			45,000	
	Development of new culture method for Borrelia	0.60			20,000	
	Develop PCR for identification of components of HIV	1.00			50,000	
New Mexico	Evaluation of colliert kits	0.02			1,000	
	Improve transport media	0.05			2,600	
North Dakota	Development of separation method for unregulated VOCs	NA			2,950	
Ohio	Rapid diagnosis of Herpes using the DNA probe	NA				NA
Pennsylvania	Evaluation of transport media	0.05			2,600	
	Comparison of parasitology methods	0.05			2,500	
	Hemo-De as a solvent	0.05			2,500	
Vermont	SDWA method development	0.30			8,000	

NOTE: Laboratories that did not report information relating to this table are not listed.
 NA = Data not available.

**LABORATORY
PERSONNEL AND
STAFFING PATTERNS**

TABLE 66. NUMBER OF BUDGETED POSITIONS

Lab & Region (1)	Total Budgeted Positions (2)	Management			Clerical			Professional & Technical		
		Number (3)	Percent of total (4)	Number of Vacancies (5)	Number (6)	Percent of total (7)	Number of Vacancies (8)	Number (9)	Percent of total (10)	Number of Vacancies (11)
TOTAL	6,035.51	496.95	8.23%	16.00	774.00	12.82%	57.00	3,863.02	64.00%	287.00
AVERAGE	113.89	9.38		1.23	14.88		2.28	72.89		7.00
NEW ENGLAND	840.40	42.00	6.56%	0.00	81.50	12.73%	10.00	423.90	66.19%	36.00
Connecticut	238.00	12.00	5.04%	0.00	34.00	14.29%	3.00	166.00	69.75%	8.00
Massachusetts	172.00	11.00	6.40%	0.00	22.00	12.79%	2.00	104.00	60.47%	2.00
Maine	54.80	2.00	3.65%	0.00	7.00	12.77%	1.00	39.50	72.08%	5.00
New Hampshire	35.90	4.00	11.14%	0.00	4.50	12.53%	0.00	23.90	66.57%	2.00
Rhode Island	97.80	5.00	5.11%	0.00	8.00	8.18%	3.00	69.80	71.37%	14.00
Vermont	41.90	8.00	19.09%	0.00	6.00	14.32%	1.00	20.70	49.40%	5.00
MIDDLE ATLANTIC	338.00	33.00	9.76%	1.00	43.00	12.72%	3.00	225.00	66.57%	9.00
New Jersey	288.00	15.00	5.60%	0.00	31.00	11.57%	0.00	190.00	70.90%	0.00
New York*										
Pennsylvania	70.00	18.00	25.71%	1.00	12.00	17.14%	3.00	35.00	50.00%	9.00
EAST NORTH CENTRAL	949.00	119.75	12.62%	1.00	121.00	12.75%	2.00	549.05	57.86%	42.00
Illinois	136.00	14.00	10.29%	0.00	25.00	18.38%	0.00	76.00	55.88%	12.00
Indiana	116.00	10.00	8.62%	0.00	12.00	10.34%	0.00	75.60	65.17%	6.00
Michigan	286.00	41.00	14.34%	0.00	28.00	9.79%	0.00	155.00	54.20%	10.00
Ohio	130.00	7.00	5.38%	0.00	21.00	16.15%	1.00	78.00	60.00%	4.00
Wisconsin	281.00	47.75	16.99%	1.00	35.00	12.46%	1.00	164.45	58.52%	10.00
WEST NORTH CENTRAL	489.55	42.20	8.99%	3.00	68.50	14.59%	5.00	288.35	60.98%	23.00
Iowa	102.10	8.70	8.52%	0.00	14.90	14.59%	0.00	57.00	55.83%	0.00
Kansas	72.00	10.00	13.89%	1.00	8.00	11.11%	1.00	49.00	68.06%	5.00
Minnesota	99.30	6.00	6.04%	1.00	13.80	13.90%	2.00	58.25	58.66%	10.00
Missouri	92.00	2.00	2.17%	0.00	16.00	17.39%	2.00	62.00	67.39%	5.00
Nebraska	26.50	3.50	13.21%	0.00	4.40	16.60%	0.00	15.10	56.98%	0.00
North Dakota	48.25	7.00	14.51%	1.00	7.00	14.51%	0.00	30.00	62.18%	3.00
South Dakota	29.40	5.00	17.01%	0.00	4.40	14.97%	0.00	15.00	51.02%	0.00
SOUTH ATLANTIC	1,371.00	78.25	5.71%	6.00	208.00	15.17%	14.00	900.75	65.70%	39.00
Delaware	51.50	5.25	10.19%	1.00	7.00	13.59%	1.00	31.25	60.68%	1.00
District of Columbia	64.00	8.00	12.50%	NA	6.00	9.38%	NA	44.00	68.75%	NA
Florida	339.00	24.00	7.08%	3.00	50.00	14.75%	5.00	223.00	65.78%	15.00
Georgia	135.00	9.00	6.67%	0.00	34.00	25.19%	4.00	64.00	47.41%	4.00
Maryland	340.00	4.00	1.18%	0.00	45.00	13.24%	2.00	259.00	76.18%	7.00
North Carolina	182.00	9.00	4.95%	0.00	28.00	15.38%	1.00	118.00	64.84%	3.00
South Carolina	102.00	8.00	7.84%	0.00	15.00	14.71%	1.00	62.00	60.78%	1.00
Virginia	102.50	6.00	5.85%	0.00	15.00	14.63%	0.00	64.50	62.93%	0.00
West Virginia	55.00	5.00	9.09%	2.00	8.00	14.55%	0.00	35.00	63.64%	8.00
EAST SOUTH CENTRAL	446.50	36.50	8.17%	1.00	55.00	12.32%	3.00	305.00	68.31%	11.00
Alabama	136.00	4.00	2.94%	0.00	19.00	13.97%	0.00	98.00	72.06%	0.00
Kentucky	65.50	5.50	8.40%	0.00	9.00	13.74%	2.00	42.00	64.12%	0.00
Mississippi	57.00	2.00	3.51%	0.00	9.00	15.79%	0.00	40.00	70.18%	1.00
Tennessee	188.00	25.00	13.30%	1.00	18.00	9.57%	1.00	125.00	66.49%	10.00
WEST SOUTH CENTRAL	488.00	30.00	6.15%	1.00	42.00	8.61%	2.00	323.00	66.19%	27.00
Arkansas	101.00	3.00	2.97%	0.00	18.00	15.84%	0.00	71.00	70.30%	4.00
Louisiana	124.00	11.00	8.87%	1.00	19.00	15.32%	1.00	80.00	64.52%	11.00
Oklahoma	48.00	3.00	6.25%	0.00	4.00	8.33%	1.00	38.00	79.17%	3.00
Texas	215.00	13.00	6.05%	0.00	3.00	1.40%	0.00	134.00	62.33%	9.00
MOUNTAIN	455.08	43.25	9.50%	3.00	56.50	12.42%	2.00	299.47	65.81%	15.00
Arizona	78.00	7.00	8.97%	1.00	12.00	15.38%	2.00	50.00	64.10%	4.00
Colorado	84.00	6.00	7.69%	1.00	13.00	15.48%	0.00	57.00	67.86%	1.00
Idaho	55.81	9.00	16.13%	0.00	6.50	11.65%	0.00	33.72	60.42%	2.00
Montana	26.00	2.00	7.69%	0.00	3.00	11.54%	0.00	19.00	73.08%	0.00
Nevada	31.25	4.25	13.60%	0.00	4.00	12.80%	0.00	11.75	37.60%	0.00
New Mexico	99.00	7.00	7.07%	1.00	7.00	7.07%	0.00	73.00	73.74%	5.00
Utah	83.00	5.00	7.94%	0.00	9.00	14.29%	0.00	44.00	69.84%	2.00
Wyoming	19.00	3.00	16.67%	0.00	2.00	11.11%	0.00	11.00	61.11%	1.00
PACIFIC	766.50	45.00	5.87%	0.00	89.50	11.65%	9.00	503.00	65.62%	81.00
Alaska	38.00	3.00	7.89%	0.00	11.00	28.95%	0.00	15.00	39.47%	0.00
California	495.00	14.00	2.83%	0.00	56.50	11.41%	8.00	343.50	69.39%	64.00
Hawaii	79.00	10.00	13.70%	0.00	4.00	5.48%	0.00	46.00	63.01%	14.00
Oregon	59.50	8.00	13.45%	0.00	9.00	15.13%	0.00	37.50	63.03%	1.00
Washington	101.00	10.00	9.90%	0.00	8.00	7.92%	1.00	61.00	60.40%	2.00
TERRITORIES	111.50	27.00	24.22%	0.00	10.00	8.97%	7.00	47.50	42.60%	4.00
Guam	11.00	3.00	27.27%	0.00	0.00	0.00%	0.00	8.00	72.73%	1.00
Puerto Rico	89.50	23.00	25.70%	0.00	9.00	10.06%	7.00	32.50	36.31%	0.00
Virgin Islands	11.00	1.00	9.09%	0.00	1.00	9.09%	0.00	7.00	63.64%	3.00

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 66. NUMBER OF BUDGETED POSITIONS (continued)

Lab & Region	Total Budgeted Positions	Support Services			Maintenance			Total Filled Positions	
		Number	Percent of total	Number of Vacancies	Number	Percent of total	Number of Vacancies	Number	Percent of total
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
TOTAL	6,035.51	819.21	13.57%	48.00	82.33	1.36%	NA	5,563.51	92.18%
AVERAGE	113.88	15.75		2.40	2.74		NA	106.99	
NEW ENGLAND	640.40	74.70	11.66%	7.00	18.30	2.88%	0.00	587.40	91.72%
Connecticut	238.00	24.00	10.08%	2.00	2.00	0.84%	0.00	225.00	94.54%
Massachusetts	172.00	21.00	12.21%	0.00	14.00	8.14%	0.00	168.00	97.67%
Maine	64.80	6.00	10.95%	1.00	0.30	0.65%	0.00	47.80	87.23%
New Hampshire	35.90	3.50	9.75%	0.00	0.00	0.00%	0.00	33.90	94.43%
Rhode Island	87.80	13.00	13.29%	3.00	2.00	2.04%	0.00	77.80	79.55%
Vermont	41.90	7.20	17.18%	1.00	0.00	0.00%	0.00	34.90	83.29%
MIDDLE ATLANTIC	338.00	36.00	10.65%	1.00	1.00	0.30%	0.00	324.00	95.86%
New Jersey	268.00	32.00	11.94%	0.00	0.00	0.00%	0.00	268.00	100.00%
New York*									
Pennsylvania	70.00	4.00	5.71%	1.00	1.00	1.43%	0.00	56.00	80.00%
EAST NORTH CENTRAL	949.00	147.20	15.51%	7.00	12.00	1.26%	0.00	897.00	94.52%
Illinois	136.00	20.00	14.71%	3.00	1.00	0.74%	0.00	121.00	88.97%
Indiana	116.00	16.40	14.14%	0.00	2.00	1.72%	0.00	110.00	94.83%
Michigan	286.00	59.00	20.63%	0.00	3.00	1.05%	0.00	276.00	96.50%
Ohio	130.00	18.00	14.62%	0.00	5.00	3.85%	0.00	125.00	96.15%
Wisconsin	281.00	32.80	11.67%	4.00	1.00	0.36%	0.00	265.00	94.31%
WEST NORTH CENTRAL	469.65	69.25	14.75%	5.00	3.25	0.69%	0.00	433.55	92.33%
Iowa	102.10	20.50	20.08%	0.00	1.00	0.98%	0.00	102.10	100.00%
Kansas	72.00	5.00	6.94%	0.00	0.00	0.00%	0.00	65.00	90.28%
Minnesota	99.30	21.25	21.40%	2.00	0.00	0.00%	0.00	84.30	84.89%
Missouri	92.00	11.00	11.96%	2.00	1.00	1.09%	0.00	83.00	90.22%
Nebraska	26.50	3.50	13.21%	0.00	0.00	0.00%	0.00	26.50	100.00%
North Dakota	48.25	4.00	8.29%	0.00	0.25	0.52%	0.00	44.25	91.71%
South Dakota	29.40	4.00	13.61%	1.00	1.00	3.40%	0.00	28.40	96.60%
SOUTH ATLANTIC	1,371.00	167.00	12.18%	3.00	17.00	1.24%	NA	1,245.00	90.81%
Delaware	51.50	7.00	13.59%	1.00	1.00	1.94%	0.00	47.50	92.23%
District of Columbia	64.00	6.00	9.38%	NA	0.00	0.00%	NA	NA	NA
Florida	339.00	41.00	12.09%	0.00	1.00	0.29%	0.00	316.00	93.22%
Georgia	135.00	27.00	20.00%	0.00	1.00	0.74%	0.00	127.00	94.07%
Maryland	340.00	28.00	8.24%	1.00	4.00	1.18%	0.00	330.00	97.06%
North Carolina	182.00	24.00	13.19%	1.00	3.00	1.65%	0.00	177.00	97.25%
South Carolina	102.00	12.00	11.76%	0.00	5.00	4.90%	0.00	100.00	98.04%
Virginia	102.50	17.00	16.59%	0.00	0.00	0.00%	0.00	102.50	100.00%
West Virginia	55.00	5.00	9.09%	0.00	2.00	3.64%	0.00	45.00	81.82%
EAST SOUTH CENTRAL	446.50	40.00	8.96%	0.00	10.00	2.24%	0.00	431.50	96.64%
Alabama	136.00	5.00	3.68%	0.00	10.00	7.35%	0.00	136.00	100.00%
Kentucky	65.50	9.00	13.74%	0.00	0.00	0.00%	0.00	63.50	96.95%
Mississippi	67.00	6.00	10.53%	0.00	0.00	0.00%	0.00	56.00	98.25%
Tennessee	188.00	20.00	10.64%	0.00	0.00	0.00%	0.00	176.00	93.62%
WEST SOUTH CENTRAL	488.00	92.00	18.85%	8.00	1.00	0.20%	0.00	452.00	92.62%
Arkansas	101.00	11.00	10.89%	0.00	0.00	0.00%	0.00	97.00	96.04%
Louisiana	124.00	14.00	11.29%	0.00	0.00	0.00%	0.00	111.00	89.52%
Oklahoma	48.00	3.00	6.25%	0.00	0.00	0.00%	0.00	44.00	91.67%
Texas	215.00	64.00	29.77%	6.00	1.00	0.47%	0.00	200.00	93.02%
MOUNTAIN	455.06	50.06	11.00%	1.00	5.78	1.27%	0.00	434.06	95.39%
Arizona	78.00	7.00	8.97%	0.00	2.00	2.56%	0.00	71.00	91.03%
Colorado	84.00	8.00	9.52%	0.00	0.00	0.00%	0.00	82.00	97.62%
Idaho	55.81	4.06	7.27%	0.00	2.53	4.53%	0.00	63.81	96.42%
Montana	26.00	2.00	7.69%	0.00	0.00	0.00%	0.00	26.00	100.00%
Nevada	31.25	11.00	35.20%	0.00	0.25	0.80%	0.00	31.25	100.00%
New Mexico	99.00	11.00	11.11%	0.00	1.00	1.01%	0.00	83.00	93.94%
Utah	63.00	5.00	7.94%	1.00	0.00	0.00%	0.00	60.00	95.24%
Wyoming	18.00	2.00	11.11%	0.00	0.00	0.00%	0.00	17.00	94.44%
PACIFIC	766.50	121.00	15.79%	17.00	9.00	1.17%	0.00	659.50	86.04%
Alaska	38.00	9.00	23.68%	0.00	0.00	0.00%	0.00	38.00	100.00%
California	495.00	81.00	16.36%	14.00	0.00	0.00%	0.00	409.00	82.63%
Hawaii	73.00	9.00	12.33%	1.00	4.00	0.81%	0.00	58.00	11.72%
Oregon	59.50	5.00	8.40%	1.00	0.00	0.00%	0.00	57.50	96.64%
Washington	101.00	17.00	16.83%	1.00	5.00	4.95%	0.00	97.00	96.04%
TERRITORIES	111.50	22.00	19.73%	1.00	5.00	4.48%	0.00	99.50	89.24%
Guam	11.00	0.00	0.00%	0.00	0.00	0.00%	0.00	10.00	90.91%
Puerto Rico	89.50	20.00	22.35%	1.00	5.00	5.59%	0.00	81.50	91.06%
Virgin Islands	11.00	2.00	18.18%	0.00	0.00	0.00%	0.00	8.00	72.73%

* New York did not report for fiscal year 1989.

NOTE: NA = Data not available.

TABLE 67. TURNOVER

Lab & Region	Total Positions Staffed	Total Number Resignations and Separations	Percent Turnover Filled Positions	Management	Clerical	Prof. and Tech. Positions			Supportive Services	Maintenance
						Number of Budgeted Positions	Resignations & Separations	Percent Turnover		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TOTAL	6,035.51	701.90	11.63%	25.50	118.50	3,863.02	464.40	12.02%	88.50	5.00
AVERAGE	113.88	14.82		1.59	3.29	72.89	10.10		2.53	1.25
NEW ENGLAND	840.40	59.50	9.29%	2.00	14.00	423.90	32.00	7.55%	11.50	0.00
Connecticut	238.00	13.00	5.46%	0.00	4.00	166.00	7.00	4.22%	2.00	0.00
Massachusetts	172.00	22.00	12.79%	2.00	6.00	104.00	11.00	10.58%	3.00	0.00
Maine	54.80	1.00	1.82%	0.00	0.00	39.50	0.00	0.00%	1.00	0.00
New Hampshire	35.90	5.50	15.32%	0.00	0.00	23.90	5.00	20.92%	0.50	0.00
Rhode Island	97.80	14.00	14.31%	0.00	2.00	69.80	8.00	11.46%	4.00	0.00
Vermont	41.90	4.00	9.55%	0.00	2.00	20.70	1.00	4.83%	1.00	0.00
MIDDLE ATLANTIC	338.00	8.00	2.37%	1.00	2.00	225.00	4.00	1.78%	1.00	0.00
New Jersey	268.00	0.00	0.00%	0.00	0.00	190.00	0.00	0.00%	0.00	0.00
New York*										
Pennsylvania	70.00	8.00	11.43%	1.00	2.00	35.00	4.00	11.43%	1.00	0.00
EAST NORTH CENTRAL	949.00	77.40	8.16%	3.00	15.00	549.05	52.40	9.54%	6.00	1.00
Illinois	136.00	7.00	5.15%	1.00	0.00	78.00	4.00	5.26%	2.00	0.00
Indiana	116.00	18.40	15.88%	2.00	4.00	75.60	11.40	15.08%	1.00	0.00
Michigan	286.00	12.00	4.20%	0.00	1.00	155.00	10.00	6.45%	1.00	0.00
Ohio	130.00	12.00	9.23%	0.00	5.00	78.00	6.00	7.69%	0.00	1.00
Wisconsin	281.00	28.00	9.96%	0.00	5.00	164.45	21.00	12.77%	2.00	0.00
WEST NORTH CENTRAL	469.55	65.00	13.84%	4.00	8.00	286.35	46.00	16.06%	7.00	0.00
Iowa	102.10	12.00	11.75%	0.00	1.00	57.00	10.00	17.54%	1.00	0.00
Kansas	72.00	12.00	16.67%	1.00	2.00	49.00	8.00	16.33%	1.00	0.00
Minnesota	99.30	17.00	17.12%	0.00	0.00	58.25	15.00	25.75%	2.00	0.00
Missouri	92.00	9.00	9.78%	0.00	2.00	62.00	5.00	8.06%	2.00	0.00
Nebraska	26.50	1.00	3.77%	0.00	1.00	15.10	0.00	0.00%	0.00	0.00
North Dakota	49.25	13.00	26.94%	3.00	2.00	30.00	7.00	23.33%	1.00	0.00
South Dakota	29.40	1.00	3.40%	0.00	0.00	15.00	1.00	6.67%	0.00	0.00
SOUTH ATLANTIC	1,371.00	182.00	13.27%	7.50	37.00	900.75	120.50	13.38%	17.00	NA
Delaware	51.50	12.00	23.30%	1.50	2.00	31.25	7.50	24.00%	1.00	0.00
District of Columbia	64.00	NA	NA	NA	NA	44.00	NA	NA	NA	NA
Florida	339.00	79.00	23.30%	3.00	18.00	223.00	54.00	24.22%	4.00	0.00
Georgia	135.00	10.00	7.41%	0.00	4.00	64.00	5.00	7.81%	1.00	0.00
Maryland	340.00	31.00	9.12%	0.00	6.00	259.00	21.00	8.11%	4.00	0.00
North Carolina	182.00	20.00	10.99%	0.00	3.00	118.00	14.00	11.86%	3.00	0.00
South Carolina	102.00	8.00	7.84%	0.00	1.00	62.00	6.00	9.68%	1.00	0.00
Virginia	102.50	0.00	0.00%	0.00	0.00	64.50	0.00	0.00%	0.00	0.00
West Virginia	55.00	22.00	40.00%	3.00	3.00	35.00	13.00	37.14%	3.00	0.00
EAST SOUTH CENTRAL	446.50	70.00	15.68%	2.00	11.00	305.00	50.00	16.39%	4.00	3.00
Alabama	136.00	12.00	8.82%	0.00	6.00	98.00	4.00	4.08%	0.00	2.00
Kentucky	65.50	11.00	16.79%	1.00	3.00	42.00	4.00	9.52%	2.00	1.00
Mississippi	57.00	10.00	17.54%	0.00	0.00	40.00	8.00	20.00%	2.00	0.00
Tennessee	188.00	37.00	19.68%	1.00	2.00	125.00	34.00	27.20%	0.00	0.00
WEST SOUTH CENTRAL	488.00	107.00	21.93%	0.00	7.00	323.00	77.00	23.84%	23.00	0.00
Arkansas	101.00	22.00	21.78%	0.00	4.00	71.00	16.00	22.54%	2.00	0.00
Louisiana	124.00	10.00	8.06%	0.00	0.00	80.00	10.00	12.50%	0.00	0.00
Oklahoma	48.00	5.00	10.42%	0.00	2.00	38.00	3.00	7.89%	0.00	0.00
Texas	215.00	70.00	32.56%	0.00	1.00	134.00	48.00	35.82%	21.00	0.00
MOUNTAIN	455.06	61.00	13.40%	3.00	12.50	299.47	39.50	13.19%	6.00	0.00
Arizona	78.00	23.50	30.13%	2.00	7.00	50.00	13.50	27.00%	1.00	0.00
Colorado	84.00	6.00	7.14%	0.00	1.00	57.00	5.00	8.77%	0.00	0.00
Idaho	55.81	1.00	1.79%	0.00	0.00	33.72	1.00	2.97%	0.00	0.00
Montana	26.00	2.50	9.62%	0.00	0.50	19.00	2.00	10.53%	0.00	0.00
Nevada	31.25	0.00	0.00%	0.00	0.00	11.75	0.00	0.00%	0.00	0.00
New Mexico	99.00	26.00	26.26%	1.00	4.00	73.00	17.00	23.29%	4.00	0.00
Utah	63.00	NA	NA	NA	NA	44.00	NA	NA	NA	NA
Wyoming	18.00	2.00	11.11%	0.00	0.00	11.00	1.00	9.09%	1.00	0.00
PACIFIC	766.50	52.00	6.78%	2.00	11.00	503.00	28.00	5.57%	10.00	1.00
Alaska	38.00	3.00	7.89%	0.00	1.00	15.00	2.00	13.33%	0.00	0.00
California	495.00	27.00	5.45%	0.00	5.00	343.50	15.00	4.37%	7.00	0.00
Hawaii	73.00	8.00	10.96%	1.00	0.00	46.00	6.00	13.04%	1.00	0.00
Oregon	59.50	6.00	10.08%	0.00	2.00	37.50	3.00	8.00%	1.00	0.00
Washington	101.00	8.00	7.92%	1.00	3.00	61.00	2.00	3.28%	1.00	1.00
TERRITORIES	111.50	20.00	17.94%	1.00	1.00	47.50	15.00	31.58%	3.00	0.00
Guam	11.00	1.00	9.09%	0.00	0.00	8.00	1.00	12.50%	0.00	0.00
Puerto Rico	89.50	16.00	17.88%	1.00	1.00	32.50	11.00	33.85%	3.00	0.00
Virgin Islands	11.00	3.00	27.27%	0.00	0.00	7.00	3.00	42.86%	0.00	0.00

* New York did not report for fiscal year 1989.
NOTE: NA = Data not available.

TABLE 68. STAFFING PATTERN OF PROFESSIONAL AND TECHNICAL PERSONNEL

Lab & Region (1)	Public Health Pathogenic Microbiology		Virology		Immunology		Public Health Chemistry		Environmental Microbiology	
	Number (2)	Changes (3)	Number (4)	Changes (5)	Number (6)	Changes (7)	Number (8)	Changes (9)	Number (10)	Changes (11)
TOTAL	650.52	26.56	387.85	22.80	348.10	31.35	376.10	34.45	276.25	-4.45
NEW ENGLAND	66.90	-1.30	36.00	7.20	36.00	2.50	9.00	0.00	24.90	-0.40
Connecticut	20.00	0.00	10.00	2.00	15.00	1.00	0.00	0.00	8.00	0.00
Massachusetts	22.00	0.00	14.00	4.50	10.00	1.50	5.00	0.00	7.00	1.00
Maine	9.00	1.00	5.00	0.00	0.00	0.00	0.00	0.00	(13)**	
New Hampshire	4.70	0.00	5.00	0.20	3.00	0.00	0.00	0.00	2.90	-0.60
Rhode Island	7.00	-1.00	0.00	0.00	6.00	0.00	4.00	0.00	6.00	0.00
Vermont	4.20	-1.30	2.00	0.50	2.00	0.00	0.00	0.00	1.00	-0.80
MIDDLE ATLANTIC	36.00	1.00	42.00	0.00	11.00	0.00	29.00	0.00	3.00	0.00
New Jersey	30.00	0.00	36.00	0.00	9.00	0.00	28.00	0.00	3.00	0.00
New York*										
Pennsylvania	6.00	1.00	6.00	0.00	2.00	0.00	1.00	0.00	(4)**	
EAST NORTH CENTRAL	89.50	2.00	67.00	NA	67.40	0.10	66.50	2.00	34.60	-1.00
Illinois	18.00	0.00	2.00	0.00	12.00	0.00	15.00	5.00	9.00	0.00
Indiana	12.00	0.00	7.00	0.00	5.60	-0.70	10.00	0.00	12.60	-1.00
Michigan	29.00	NA	23.00	NA	7.00	NA	16.00	NA	5.00	0.00
Ohio	14.00	2.00	7.00	0.00	5.00	0.00	8.00	0.00	5.00	0.00
Wisconsin	16.50	0.00	18.00	0.00	27.80	0.80	17.50	-3.00	3.00	0.00
WEST NORTH CENTRAL	44.30	2.00	25.95	-1.00	23.50	1.00	27.80	1.00	58.45	13.45
Iowa	5.70	0.00	4.70	0.00	5.40	0.00	6.00	0.00	1.80	0.00
Kansas	11.00	0.00	5.00	1.00	2.00	-1.00	4.00	0.00	3.00	0.00
Minnesota	10.00	2.00	8.00	-2.00	(4)**		6.00	1.00	34.25	7.25
Missouri	10.00	0.00	5.00	0.00	11.00	2.00	10.00	0.00	11.00	6.00
Nebraska	2.10	0.00	0.00	0.00	1.50	0.00	0.80	0.00	2.00	0.00
North Dakota	3.50	0.00	2.25	0.00	1.60	0.00	1.00	0.00	3.40	0.20
South Dakota	2.00	0.00	1.00	0.00	2.00	0.00	(22)**		3.00	0.00
SOUTH ATLANTIC	133.20	-3.50	82.40	12.10	77.20	5.75	90.80	15.45	61.80	0.50
Delaware	8.75	0.05	6.40	-2.40	2.20	0.50	2.20	-0.65	3.80	0.00
District of Columbia	5.00	0.00	0.50	0.00	7.50	4.00	14.00	10.50	1.00	0.50
Florida	NA		NA		NA		NA		NA	
Georgia	21.25	-3.25	9.00	2.00	18.00	3.25	10.00	-1.00	(2)**	
Maryland	43.00	1.00	33.00	0.00	19.00	2.00	29.00	1.00	14.00	0.00
North Carolina	11.00	0.00	8.50	1.00	10.50	1.00	12.00	0.00	8.00	0.00
South Carolina	13.20	0.70	12.50	9.00	6.00	-5.00	11.80	3.60	4.00	0.00
Virginia	22.00	0.00	11.50	2.50	12.00	1.00	8.00	2.00	11.00	0.00
West Virginia	9.00	-2.00	1.00	0.00	2.00	-1.00	4.00	0.00	10.00	0.00
EAST SOUTH CENTRAL	76.00	2.00	15.00	4.50	37.00	7.00	31.00	5.00	23.00	-4.00
Alabama	33.00	0.00	6.00	1.00	15.00	-3.00	10.00	1.00	12.00	0.00
Kentucky	4.00	0.00	4.00	1.50	9.00	4.00	9.00	-3.00	3.00	0.00
Mississippi	NA		NA		NA		NA		NA	
Tennessee	39.00	2.00	5.00	2.00	13.00	6.00	12.00	7.00	8.00	-4.00
WEST SOUTH CENTRAL	77.00	1.00	22.00	1.00	62.00	6.00	41.00	6.00	31.00	-3.00
Arkansas	12.00	0.00	1.00	0.00	9.00	0.00	8.00	0.00	12.00	0.00
Louisiana	22.00	1.00	3.00	0.00	15.00	0.00	7.00	1.00	15.00	-3.00
Oklahoma	20.00	1.00	4.00	1.00	10.00	1.00	3.00	1.00	0.00	0.00
Texas	23.00	-1.00	14.00	0.00	18.00	5.00	23.00	4.00	4.00	0.00
MOUNTAIN	41.12	4.86	25.00	0.00	24.50	6.00	20.00	1.00	24.30	2.00
Arizona	5.00	1.00	3.00	-2.00	7.00	3.00	0.00	0.00	5.00	-0.50
Colorado	5.50	2.40	1.00	0.00	7.00	3.00	10.00	1.00	4.50	2.50
Idaho	10.12	1.46	3.00	0.00	1.00	0.00	0.00	0.00	4.80	0.00
Montana	3.00	0.00	5.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
Nevada	3.50	0.00	0.00	0.00	2.50	0.00	(2)**	0.00	1.50	0.00
New Mexico	9.00	0.00	10.00	2.00	(4)**		4.00	0.00	4.50	0.00
Utah	3.00	0.00	3.00	0.00	5.00	0.00	4.00	0.00	1.00	0.00
Wyoming	2.00	0.00	(6)**		2.00	0.00	0.00	0.00	1.00	0.00
PACIFIC	79.50	18.50	59.50	0.00	27.50	3.00	57.00	5.00	15.20	3.00
Alaska	6.50	0.00	4.00	0.00	3.00	0.00	0.00	0.00	0.20	0.00
California	41.00	16.00	35.00	0.00	13.50	0.00	40.00	5.00	0.00	0.00
Hawaii	9.00	0.00	4.00	0.00	4.00	0.00	0.00	0.00	7.00	1.00
Oregon	6.00	0.00	11.50	3.00	4.00	0.00	10.00	0.00	3.00	0.00
Washington	17.00	2.50	5.00	-3.00	3.00	3.00	7.00	0.00	5.00	2.00
TERRITORIES	7.00	0.00	3.00	-1.00	2.00	0.00	4.00	-1.00	10.00	-15.00
Guam	3.00	-1.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00
Puerto Rico	4.00	1.00	2.00	-1.00	0.00	0.00	1.00	-1.00	7.00	-15.00
Virgin Islands	(9)**		(9)**		2.00	0.00	2.00	0.00	1.00	0.00

* New York did not report for fiscal year 1989.

** Personnel are included in entry of column number.

NOTE: NA = Data not available.

TABLE 68. STAFFING PATTERN OF PROFESSIONAL AND TECHNICAL PERSONNEL (continued)

Lab & Region (12)	Environmental Chemistry		Toxicology		Laboratory Improvement Program		Biologic, Reagent, Media Production		Other Professional/ Technical		Total Prof. and Tech. Positions Reported in Workload Categories (23)	Total Net Changes Reported (24)
	Number (13)	Changes (14)	Number (15)	Changes (16)	Number (17)	Changes (18)	Number (19)	Changes (20)	Number (21)	Changes (22)	Number	Changes
TOTAL	885.80	34.58	197.45	-3.85	174.20	28.70	138.40	-6.60	205.35	1.84	3,883.02	165.18
NEW ENGLAND	101.70	1.70	95.00	7.10	14.20	2.10	23.00	-3.50	17.20	-4.70	423.90	10.70
Connecticut	46.00	-2.00	38.00	-1.00	9.00	0.00	4.00	-1.00	16.00	-1.00	168.00	-2.00
Massachusetts	10.00	1.00	19.00	0.00	1.00	0.00	16.00	-2.50	0.00	-3.50	104.00	2.00
Maine	12.20	4.20	8.30	1.30	2.00	1.00	3.00	0.00	0.00	0.00	39.50	7.50
New Hampshire	(16)**		7.20	0.30	0.10	0.00	0.00	0.00	1.00	0.10	23.90	0.00
Rhode Island	26.00	0.00	19.00	5.00	1.80	0.80	0.00	0.00	0.00	0.00	69.80	4.80
Vermont	7.50	-1.50	3.50	1.50	0.30	0.30	0.00	0.00	0.20	-0.30	20.70	-1.60
MIDDLE ATLANTIC	58.00	0.00	20.00	0.00	24.00	5.00	0.00	0.00	2.00	0.00	225.00	6.00
New Jersey	58.00	0.00	15.00	0.00	11.00	0.00	0.00	0.00	(16)**		190.00	0.00
New York*												
Pennsylvania	0.00	0.00	5.00	0.00	13.00	5.00	(2)**		2.00	0.00	35.00	6.00
EAST NORTH CENTRAL	98.45	1.50	17.00	-2.50	27.50	1.00	57.60	1.60	45.50	3.00	549.05	7.70
Illinois	12.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	76.00	5.00
Indiana	21.80	1.50	0.00	-1.50	4.00	1.00	1.80	1.60	1.00	0.00	75.60	0.90
Michigan	14.00	0.00	0.00	NA	8.00	0.00	53.00	NA	NA	0.00	155.00	NA
Ohio	18.00	0.00	8.00	0.00	4.00	0.00	3.00	0.00	6.00	2.00	78.00	4.00
Wisconsin	30.65	0.00	9.00	-1.00	3.50	0.00	0.00	0.00	38.50	1.00	164.45	-2.20
WEST NORTH CENTRAL	77.70	1.00	4.90	1.00	9.20	0.00	3.80	-2.20	10.75	0.00	286.35	16.25
Iowa	27.30	0.00	0.00	0.00	0.80	0.00	2.50	0.00	2.80	0.00	57.00	0.00
Kansas	16.00	1.00	0.00	0.00	7.00	1.00	(2)**		1.00	0.00	49.00	2.00
Minnesota	(11)**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58.25	8.25
Missouri	11.00	1.00	0.00	0.00	1.00	-1.00	0.00	-2.00	3.00	0.00	62.00	8.00
Nebraska	8.40	0.00	0.90	0.00	0.20	0.00	0.50	0.00	0.70	0.00	15.10	0.00
North Dakota	14.00	-1.00	3.00	1.00	0.20	0.00	0.80	-0.20	0.25	0.00	30.00	0.00
South Dakota	3.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	15.00	0.00
SOUTH ATLANTIC	113.65	2.88	11.05	-2.45	27.75	4.85	14.00	-3.00	75.90	-4.41	900.75	28.15
Delaware	3.35	0.58	1.05	0.05	0.35	-0.05	0.00	0.00	3.15	-0.41	31.25	-2.35
District of Columbia	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	12.00	0.00	44.00	15.00
Florida	NA		NA		NA		NA		NA		223.00	NA
Georgia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.75	1.00	64.00	2.00
Maryland	71.00	1.00	2.00	0.00	11.00	2.00	13.00	0.00	24.00	-4.00	259.00	3.00
North Carolina	24.00	-1.00	2.00	0.00	11.00	3.00	0.00	0.00	31.00	-1.00	118.00	3.00
South Carolina	8.30	2.30	4.00	-2.50	2.40	-0.10	0.00	-3.00	(13)**		62.00	5.00
Virginia	0.00	0.00	0.00	0.00	(8)**		0.00	0.00	0.00	0.00	64.50	5.50
West Virginia	5.00	0.00	0.00	0.00	3.00	0.00	1.00	0.00	0.00	0.00	35.00	-3.00
EAST SOUTH CENTRAL	37.00	0.00	5.00	0.00	11.00	4.75	21.00	-1.00	9.00	1.75	305.00	20.00
Alabama	0.00	0.00	0.00	0.00	1.00	-1.00	15.00	2.00	6.00	2.00	98.00	2.00
Kentucky	2.00	0.00	5.00	0.00	3.00	0.75	0.00	0.00	3.00	-0.25	42.00	3.00
Mississippi	NA		NA		NA		NA		NA		40.00	NA
Tennessee	35.00	0.00	0.00	0.00	7.00	5.00	8.00	-3.00	0.00	0.00	125.00	15.00
WEST SOUTH CENTRAL	72.00	5.00	7.00	0.00	4.00	1.00	8.00	0.00	9.00	1.00	323.00	18.00
Arkansas	21.00	0.00	5.00	0.00	2.00	0.00	0.00	0.00	1.00	0.00	71.00	0.00
Louisiana	14.00	2.00	1.00	0.00	0.00	0.00	2.00	0.00	1.00	1.00	80.00	2.00
Oklahoma	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	38.00	4.00
Texas	37.00	3.00	1.00	0.00	1.00	1.00	6.00	0.00	7.00	0.00	134.00	12.00
MOUNTAIN	93.80	4.00	34.00	-7.00	19.75	4.00	8.00	2.00	9.00	-1.00	299.47	15.88
Arizona	23.00	-2.50	(11)**		8.00	1.00	1.00	1.00	0.00	-1.00	50.00	0.00
Colorado	15.00	-1.50	10.00	0.00	2.00	2.00	2.00	1.00	0.00	0.00	57.00	10.40
Idaho	4.80	2.00	5.00	-7.00	2.00	0.00	0.00	0.00	3.00	0.00	33.72	-3.54
Montana	5.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	19.00	0.00
Nevada	4.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	11.75	0.00
New Mexico	25.00	6.00	10.00	0.00	4.50	1.00	3.00	0.00	3.00	0.00	73.00	9.00
Utah	17.00	0.00	4.00	0.00	4.00	0.00	0.00	0.00	3.00	0.00	44.00	0.00
Wyoming	0.00	0.00	5.00	0.00	1.00	0.00	0.00	0.00	(8)**		11.00	0.00
PACIFIC	201.00	25.50	0.50	0.00	33.80	7.00	3.00	-0.50	26.00	8.00	503.00	69.50
Alaska	0.00	0.00	0.50	0.00	0.80	0.00	0.00	0.00	(2)**		15.00	0.00
California	157.00	25.50	0.00	0.00	30.00	7.00	2.00	0.00	25.00	7.00	343.50	60.50
Hawaii	22.00	0.00	0.00	0.00	(11),(13)**		0.00	0.00	0.00	0.00	46.00	1.00
Oregon	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	37.50	3.00
Washington	22.00	0.00	0.00	0.00	0.00	0.00	1.00	-0.50	1.00	1.00	61.00	5.00
TERRITORIES	14.50	-7.00	3.00	0.00	3.00	-1.00	0.00	0.00	1.00	-2.00	47.50	-27.00
Guam	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	8.00	-1.00
Puerto Rico	13.50	-7.00	2.00	0.00	2.00	-1.00	0.00	0.00	1.00	-2.00	32.50	-26.00
Virgin Islands	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00

* New York did not report for fiscal year 1989.

** Personnel are included in entry of column number.

NOTE: NA = Data not available.

NOTES AND DEFINITIONS

Every attempt has been made to ensure the accuracy of the raw data which are included in this report. However, because of the various accounting practices employed, great diversity exists among Association laboratories. Therefore, the reader is advised to exercise great care in making comparative analyses without first consulting the laboratory director involved.

An "average," in a table, is the total divided by the number of participating laboratories reporting activity in a given category or subcategory.

SYMBOLS

Basically, the data display format is the same as that of previous CAR reports. The following matrix identifies the symbols found in this edition.

<i>Symbol</i>	<i>Meaning and Purpose</i>
Blank or 0	A report with no activity for that particular item
X	A positive response
NA	The laboratory reported that data were not available.

THE FOLLOWING DEFINITIONS APPLY TO TABLES 1 THROUGH 54:

Workload

Workload is reported by the number of specimens/samples in each category or subcategory. Workload includes procedures routinely followed in the laboratory. It does not include those procedures that the laboratory has the capability of performing but does not do on a routine basis. Routine tests are those tests performed as part of a standard operating procedure on a specimen or sample.

Specimen/Sample

Any material received in the laboratory for testing in a workload category or subcategory or a material which is divided into aliquots for testing in multiple categories or subcategories is counted as one specimen for each category or subcategory. Specimens collected from the same site on the same patient (or same environmental source) at the same time are to be counted as one specimen in each category or subcategory in which it is tested. The term "specimen" indicates an animal or human source, while "sample" indicates an environmental source.