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CONSOLIDATED ANNUAL REPORT
on
State and Territorial
Public Health Laboratories
Fiscal Year 1978



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333

CONSOLIDATED ANNUAL REPORT FY-1978

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A Collaborative Compilation
by the
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Center for Disease Control
Bureau of Laboratories
Atlanta, Georgia 30333
and the
Association of State and Territorial
Public Health Laboratory Directors

ASSOCIATION OF STATE AND TERRITORIAL
PUBLIC HEALTH LABORATORY DIRECTORS

1978 – 1979

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Preface

To Readers of the Consolidated Annual Report

The intent and purpose of the Consolidated Annual Report is to provide data for planning, management and evaluation to the members of the Association of State and Territorial Public Health Laboratory Directors.

Some readers have attempted to utilize the summary tables for comparison of specific state laboratories in relation to the national average and by rank. Comparisons were made as to expenditures, personnel, specimen load and services without studying the data in the detailed tables or consulting the state laboratory director. The conclusions reached were not valid as the comparisons were in error due to lack of knowledge of the state laboratory activities and budgetary system.

The CAR Committee strongly recommends that readers exercise caution when utilizing the summary tables in making comparisons between state laboratories and that the individual state laboratory director be consulted regarding the use of the comparative data.

Frank P. Pauls, Dr. P.H.
Chairman, CAR Committee

TABLE OF CONTENTS

<i>Table</i>	<i>Title</i>	<i>Page</i>
SECTION I		
SUMMARY TABLES		
1-1.	Specimens/Samples Received by the State and Territorial Public Health Laboratories	3
1-2.	Summary of Laboratory Expenditures, Positions and Specimens	4
1-3.	National Ranking of State and Territorial Public Health Laboratories by Expenditures, Positions, and Specimens	5
1-4.	Inter-Regional Ranking of State and Territorial Public Health Laboratories by Expenditures, Positions, and Specimens	6
1-5.	Summary of Laboratory Specimens by Category and Percent of Category to Total Specimens . . .	7
SECTION II		
PERSONNEL		
2-1.	Budgeted Positions by Categories and Position Vacancies	11
2-2.	Turnover.	12
2-3.	Staffing Pattern of Professional and Technical Personnel in the 15 Workload Reporting Categories and Position Changes Since Last Reporting Period (+ or -)	13
SECTION III		
FINANCE		
3-1.	Laboratory Expenditures by Category	17
3-2.	Sources of Laboratory Funds	18
3-3.	Summary of Total Laboratory Expenditure by Workload Category and Percentage of Category to Total Expenditure	19
3-4.	Grants, Contracts, or Special Service Agreements With Other Departments or Agencies (Private, Federal, State, or Local).	21
3-5.	States Reporting Charges for Laboratory Services	38
SECTION IV		
WORKLOAD REPORTING CATEGORIES		
4-1.	I. Diagnostic Bacteriology – Summary of Specimens by Category and Sub-Category	47
4-2.	A. Nasopharyngeal Specimens	
	1. Streptococcus, Beta Hemolytic, Group A	48
4-3.	2. Diphtheria.	49
4-4.	3. Pertussis	50
4-5.	4. Other Nasopharyngeal Specimens	51
4-6.	B. Mycobacteria Specimens	52
4-7.	C. Enteric Specimens	53
4-8.	D. Gonococcus Specimens	54
4-9.	E. Anaerobic Specimens	55
4-10.	F. Other Bacteriology Specimens	56
4-11.	II. Mycology	58
4-12.	III. Parasitology – Summary of Specimens by Category and Sub-Category	59
4-13.	A. Intestinal Specimens	60
4-14.	B. Other Parasitology Specimens	61
4-15.	IV. Virology – Summary of Specimens by Category and Sub-Category	62
4-16.	A. Rabies Specimens	63
4-17.	B. Viral Isolation Specimens	64
4-18.	C. Rickettsial Identification Specimens	65
4-19.	D. Other Virology Specimens	66

4-20.	V.	Immunology — Summary of Specimens by Category and Sub-Category	67
4-21.		A. Syphilis Serology Specimens	68
4-22.		B. Bacterial Serology Specimens	69
4-23.		C. Fungal Serology Specimens	70
4-24.		D. Parasitological Serology Specimens	71
4-25.		E. Viral and Rickettsial Serology Specimens	72
4-26.		F. Other Serology Specimens	73
4-27.	VI.	Hematology — Summary of Specimens by Category and Sub-Category	74
4-28.		A. Hematology Specimens	75
4-29.		B. Immunohematology Specimens	76
4-30.		C. Hemoglobinopathy Specimens	77
4-31.	VII.	Clinical Chemistry — Summary of Specimens by Category and Sub-Category	78
4-32.		A. Clinical Chemistry Specimens	79
4-33.		B. Urinalysis Specimens	80
4-34.		C. Inborn Errors of Metabolism Specimens	81
4-35.		D. Multiphasic Screening Specimens	82
4-36.		E. Other Specimens	83
4-37.	VIII.	Pathology	84
4-38.	IX.	Environmental Microbiology — Summary of Samples by Category and Sub-Category	85
4-39.		A. Water Samples	86
4-40.		B. Dairy Product Samples	87
4-41.		C. Food and Beverage Samples	88
4-41.		D. Other Samples	88
4-42.	X.	Environmental Chemistry — Samples by Category and Sub-Category	89
4-43.		A. Water Samples	90
4-43.		B. Dairy Products and Food Samples	90
4-44.		C. Pesticide Samples	91
4-45.		D. Air Pollution Samples	92
4-46.		E. Radiological Analysis	93
4-47.		F. Other Samples	94
4-48.	XI.	Occupational Health and Safety	95
4-49.	XII.	Toxicology — Samples by Category and Sub-Category	96
4-50.		A. Physical Samples	97
4-51.		B. Biological Samples	98
4-51.		1. Blood	98
4-52.		2. Urine	99
4-52.		3. Body Tissues	99
4-53.		4. Body Fluids	100
4-53.		5. Breath	100
4-53.		6. Other	100
4-54.	XIII.	Laboratory Improvement Program — Summary by Laboratory Category	101
4-55.		A. Clinical Laboratories	102
4-56.		B. Public Health Laboratories	104
4-57.		C. Dairy and Food Laboratories	106
4-58.		D. Water Laboratories	108
4-59.		E. Other Laboratories	111
4-60.	XIV.	Biologics, Reagents, and Media Produced for Distribution	112
4-61.	XV.	Research and Development	114
4-61.		A. Basic Research	114
4-62.		B. Applied Research	115
4-63.		C. Technical Development	116

**SECTION V
SPECIAL QUESTIONS**

5-1.	Laboratory Organizational Structure	119
5-2.	Laboratory Applications of Electronic Data Processing	121
5-3.	Scientific Services	122

INTRODUCTION

This, the fifteenth edition of the Consolidated Annual Report (CAR), provides quantitative information about laboratory personnel, expenditures, source of funds and services identified in fifteen workload areas. This information is provided by the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD). The ASTPHLD consists of the public health laboratories in each of the fifty states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

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 Officers and the Center for Disease Control, Bureau of Laboratories.

Fifty-two of the fifty-four member laboratories provided data for this edition. Arkansas and New York did not report to the CAR for fiscal year 1978. Therefore, national totals found in this edition represent only fifty-two state and territorial public health laboratories.

The CAR deals with financial, personnel, and workload activities of the ASTPHLD. Therefore, this report understates the additional resources expended on public health laboratory services in nearly every state/territory having local health departments. It totally omits those funds expended for public health laboratory services by other state/territorial agencies. 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 the ASTPHLD as any material received in the laboratory for testing in a workload category or sub-category or a material which is divided into aliquots for testing in multiple categories or sub-categories and is counted as one specimen for each category or sub-category. 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 sub-category 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 sub-category in the fifteen 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.

To assure complete coverage of laboratory activities the questionnaire for the 1978 CAR was composed of four sections: (1) financial, (2) personnel, (3) workload reporting, and (4) special questions. The *Financial Section* requested data in three areas: (1) expenditure, (2) source of funds, and (3) allocations of expenditure data into workload categories. 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 (FTE) full-time equivalent 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. The *Special Questions Section* requested information concerning current organizational structure, laboratory applications of electronic data processing, and scientific services activities.

NOTE: DATA COMPARISONS

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

USE OF SYMBOLS AND TERMS

Basically, the data display format is the same as that of the FY 1977 CAR. The following matrix identifies the symbols found in this edition.

SYMBOL	MEANING AND PURPOSE
*, #	Footnote
-	A report with no activity for that particular item
X	A positive response

The term "specimen" indicates an animal or human source, while "sample" indicates an environmental source; however, in Tables 1-2 through 1-5 the term "specimens" refers to both human sources and environmental samples. Average is the total divided by the number of participating laboratories reporting activity in a given category or sub-category.

PUBLICATION

The CAR was initiated by the ASTPHLD in 1963. The report is designed to provide comprehensive data concerning state and territorial laboratories to the ASTPHLD.

The Consolidated Annual Report is a joint activity of the ASTPHLD and the CDC, Bureau of Laboratories. Because it is compiled by CDC personnel all comments, suggestions, and correspondence on its contents should be forwarded to:

Center for Disease Control
Attn: CAR Editor
Laboratory Management
Consultation Office, BL
Chamblee 29-9
Atlanta, Georgia 30333

SECTION I
SUMMARY TABLES

Table 1 - 1

SPECIMENS/SAMPLES RECEIVED BY THE STATE AND TERRITORIAL PUBLIC HEALTH LABORATORIES

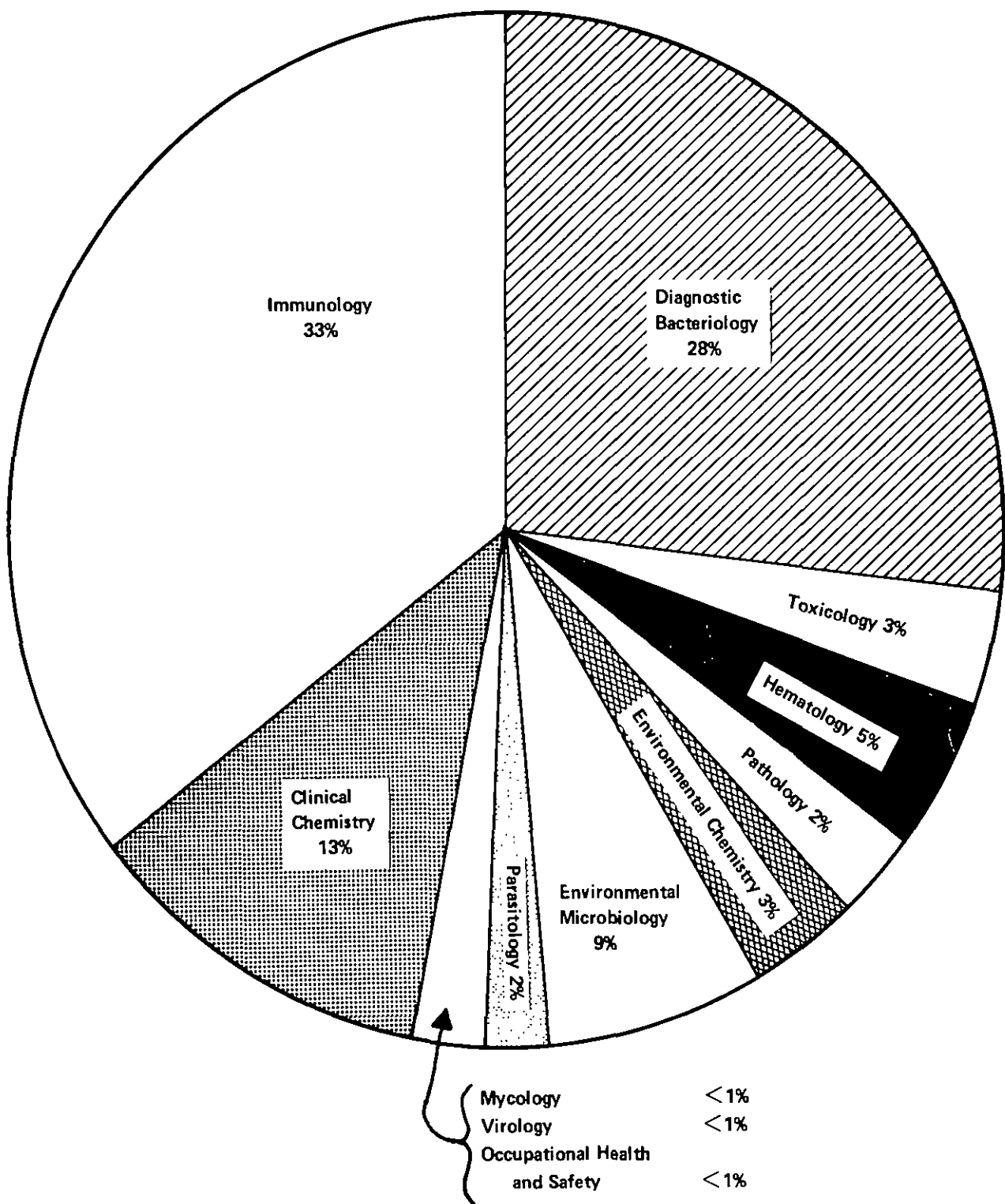


Table 1-2
SUMMARY OF LABORATORY EXPENDITURES, POSITIONS, AND SPECIMENS

Lab. & Region	Population X 1000	Expenditures		Laboratory Personnel						Specimens	
		Total Laboratory	Expenditures Per Capita	Budgeted Positions			Budgeted Prof. & Tech. Positions			Total Lab. Specimens	Specimens Per Capita
				Budgeted Positions	Positions To Population	Expenditure Per Position	Budgeted Positions	Positions To Population	Expenditure Per Position		
Total	199,860	111,865,208	0.560	6900.4	1:33,838	10,959	3,598.0	1:55,523	31,108	28,158,863	0.131
Average	3,840	2,151,264	-	113.8	-	-	69.2	-	-	503,096	-
New England	12,244	11,485,876	0.930	683.1	1:18,465	17,322	397.4	1:30,810	28,903	2,129,946	0.174
Conn.	3,108	3,811,134	1.226	224.1	1:13,869	17,006	140.4	1:22,137	27,146	578,627	0.186
Mass.	5,782	3,892,828	0.673	231.0	1:25,030	16,852	118.0	1:49,000	32,990	791,464	0.137
Me.	1,065	826,076	0.761	50.0	1:21,700	16,522	33.0	1:32,879	26,033	136,657	0.126
N.H.	849	372,032	0.438	22.0	1:38,591	16,911	14.0	1:60,643	26,674	162,517	0.191
R.I.	935	2,134,325	2.283	106.0	1:8,821	20,135	72.0	1:12,966	29,643	333,916	0.367
Vt.	485	449,581	0.927	30.0	1:16,167	14,986	20.0	1:24,250	22,479	128,766	0.261
Middle Atlantic	19,114	8,739,387	0.353	318.0	1:59,918	21,127	189.0	1:86,050	33,886	874,817	0.046
N.J.	7,329	4,195,867	0.573	216.0	1:33,931	19,425	146.0	1:50,199	28,739	764,975	0.104
N.Y.	-	-	-	-	-	-	-	-	-	-	-
Pa.	11,785	2,643,600	0.216	103.0	1:114,417	24,694	53.0	1:222,358	47,991	109,642	0.009
East North Central	41,056	19,886,871	0.484	1,000.5	1:41,838	19,878	568.3	1:72,260	34,997	3,004,903	0.073
Ill.	11,245	2,653,300	0.237	140.0	1:80,321	18,238	79.0	1:122,342	32,320	470,301	0.042
Ind.	8,330	3,326,853	0.436	83.0	1:57,312	25,010	82.0	1:85,858	37,615	171,218	0.032
Mich.	9,129	9,270,150	1.016	406.2	1:22,474	22,822	216.0	1:41,675	42,524	1,040,022	0.114
Ohio	10,701	2,789,688	0.261	188.0	1:56,920	14,839	122.0	1:87,713	22,866	896,268	0.066
Wis.	4,651	2,947,780	0.634	173.3	1:26,846	17,015	87.3	1:83,307	33,785	827,074	0.136
West North Central	16,884	8,013,709	0.475	419.4	1:40,258	19,106	258.4	1:85,341	31,013	2,050,389	0.122
Ia.	2,879	2,661,477	0.921	106.0	1:27,160	25,014	68.0	1:42,338	38,992	447,851	0.156
Kans.	2,326	1,467,628	0.631	82.4	1:26,228	17,810	52.4	1:44,369	28,006	330,422	0.142
Minn.	3,976	1,493,069	0.376	88.5	1:44,915	16,871	47.0	1:84,674	31,767	514,642	0.130
Mo.	4,801	967,799	0.202	57.0	1:84,228	16,979	40.0	1:120,025	24,195	330,389	0.069
Neb.	1,661	492,074	0.315	31.0	1:50,355	16,873	21.0	1:74,333	23,432	137,633	0.088
N.D.	663	585,120	0.850	31.5	1:20,730	17,623	17.0	1:38,412	32,654	182,573	0.295
S.D.	689	366,642	0.561	23.0	1:29,957	16,811	13.0	1:53,000	29,742	104,878	0.152
South Atlantic	34,306	23,178,051	0.676	1,375.4	1:24,943	16,850	916.8	1:37,419	25,279	7,330,699	0.214
Del.	692	820,234	0.894	33.0	1:17,636	16,765	22.0	1:26,465	23,647	146,963	0.253
D.C.	890	1,190,387	1.728	88.0	1:11,897	20,524	48.0	1:14,375	24,800	336,785	0.488
Fla.	8,482	4,812,818	0.569	249.0	1:33,944	19,327	159.0	1:83,157	30,267	2,001,368	0.237
Ga.	5,048	2,491,021	0.494	141.0	1:36,801	17,667	73.0	1:69,161	34,124	983,855	0.196
Md.	4,139	4,099,600	0.991	267.0	1:16,502	15,364	160.0	1:21,784	21,576	1,363,686	0.330
N.C.	6,625	2,482,601	0.448	146.0	1:37,842	16,867	64.0	1:56,777	26,199	917,310	0.166
S.C.	2,876	1,680,965	0.585	119.4	1:24,087	14,078	80.8	1:38,594	20,604	763,056	0.266
Va.	5,136	5,179,718	1.009	305.0	1:16,836	16,883	219.0	1:23,447	23,662	861,545	0.109
W.Va.	1,859	739,110	0.398	57.0	1:32,614	12,967	31.0	1:69,968	23,842	263,442	0.142
East South Central	13,836	8,007,705	0.579	479.5	1:28,855	16,700	289.0	1:47,875	27,708	3,240,521	0.234
Ala.	3,990	3,245,304	0.880	167.0	1:19,733	17,355	121.0	1:30,496	26,821	1,297,959	0.352
Ky.	3,458	1,863,348	0.545	79.5	1:43,497	23,690	83.0	1:85,245	35,635	307,489	0.089
Miss.	2,389	913,543	0.382	52.0	1:46,942	17,568	33.0	1:72,394	27,683	856,651	0.359
Tenn.	4,299	1,985,510	0.457	161.0	1:26,702	12,208	82.0	1:52,427	23,970	776,422	0.181
West South Central	19,562	7,366,708	0.377	417.5	1:46,856	17,645	247.5	1:79,038	29,784	4,056,408	0.207
Ark.	-	-	-	-	-	-	-	-	-	-	-
La.	3,921	2,071,462	0.528	155.0	1:25,135	13,279	71.0	1:55,225	29,176	719,113	0.183
Okl.	2,811	1,072,246	0.381	83.5	1:52,842	20,042	34.5	1:81,479	31,060	415,786	0.148
Tex.	12,830	4,223,000	0.329	208.0	1:61,683	20,303	142.0	1:90,362	29,739	2,920,609	0.228
Mountain	10,030	8,222,387	0.820	411.8	1:24,351	19,862	243.0	1:41,278	33,637	1,607,364	0.160
Ariz.	2,296	1,301,197	0.567	63.0	1:36,444	20,654	40.0	1:67,400	32,530	146,937	0.064
Colo.	2,619	1,423,000	0.543	71.0	1:36,887	20,042	36.0	1:72,750	39,628	521,196	0.199
Ida.	857	1,404,600	1.639	66.6	1:13,064	21,412	42.5	1:20,165	33,049	200,053	0.233
Mont.	761	337,334	0.443	30.5	1:24,951	11,060	21.0	1:36,238	16,064	91,217	0.120
Nev.	633	682,618	1.078	33.0	1:19,182	20,685	16.0	1:42,200	45,508	127,109	0.201
N.M.	1,190	1,395,200	1.172	70.0	1:17,000	19,931	39.0	1:30,513	35,774	264,609	0.239
Utah	1,268	1,309,253	1.033	64.0	1:19,813	20,457	39.5	1:32,101	33,146	196,280	0.154
Wyo.	406	369,185	0.909	14.8	1:27,432	24,945	10.0	1:40,600	36,919	241,763	0.596
Pacific	29,232	17,921,138	0.613	662.2	1:44,147	27,065	375.7	1:77,817	47,707	1,331,780	0.046
Alaska	407	1,376,000	3.378	39.0	1:10,436	35,255	13.0	1:31,306	105,769	189,278	0.465
Cal.	21,896	12,401,318	0.566	430.6	1:60,890	28,800	252.4	1:86,751	49,134	166,553	0.008
Hawaii	895	1,073,956	1.200	64.5	1:16,422	19,706	37.5	1:23,867	28,639	298,640	0.334
Ore.	2,378	1,309,545	0.551	59.1	1:40,237	22,177	37.8	1:62,940	34,660	504,209	0.212
Wash.	3,686	1,761,321	0.482	79.0	1:46,304	22,296	35.0	1:104,514	50,323	173,060	0.047
Territories	3,396	1,045,296	0.308	152.0	1:22,342	6,877	101.0	1:33,624	10,349	317,037	0.093
Guam	96	150,535	1.568	12.0	1:6,000	12,645	10.0	1:9,600	15,084	16,345	0.160
P.R.	3,205	783,800	0.245	136.0	1:23,866	5,781	87.0	1:36,839	9,006	268,264	0.081
V.I.	95	111,261	1.171	4.0	1:23,760	27,815	4.0	1:23,760	27,815	43,428	0.467

Table 1-3
 NATIONAL RANKING OF STATE & TERRITORIAL PUBLIC HEALTH LABORATORIES BY EXPENDITURES, POSITIONS, AND SPECIMENS*

Rank	Expenditures				Laboratory Personnel												Specimens			
	Total Laboratory X1000		Expenditure Per Capita		Budgeted Positions						Budgeted Prof. & Tech. Positions						Total Lab. Specimens X1000		Specimens Per Capita	
	State	\$	State	Ratio	Budgeted Positions		Positions To Pop.		Expenditure Per Position		Budgeted Positions		Positions To Pop.		Expenditure Per Position		State	#	State	Ratio
					State	#	State	Ratio (X1000)	State	\$	State	#	State	Ratio (X1000)	State	\$				
Total Average	111,865		0.560		5,900.4		1:34		18,959		3,596.0		1:56		31,108		26,159		0.131	
1	Cal	2,151	Alaska	3.378	Cal.	430.6	Guam	1.8	Alaska	35,256	Cal	262.4	Guam	1.10	Alaska	105,769	Tex.	2,921	Wyo.	0.596
2	Mich	9,270	R.I.	2.283	Mich	406.2	R.I.	1.9	Cal.	28,800	Va	219.0	Wash	1.13	Wash	50,323	Fla	2,001	D.C.	0.488
3	Va	5,180	D.C.	1.725	Va	305.0	Alaska	1.10	V.I.	27,815	Mich	218.0	D.C.	1.14	Col	49,134	Md	1,364	Alaska	0.465
4	Fla	4,813	Ida	1.639	Md	267.0	D.C.	1.12	Ida	25,014	Md	190.0	Ida.	1.20	Pa.	47,991	Ala	1,298	V.I.	0.467
5	Tex	4,223	Guam	1.568	Fla	249.0	Ida	1.13	Ind	25,010	Fla	159.0	Conn	1.22	Nev	46,606	Mich	1,040	Miss.	0.369
6	N.J.	4,196	Conn	1.226	Mass	231.0	Conn	1.14	Wyo	24,946	N.J.	146.0	Md	1.22	Mich	42,524	Ga	984	R.I.	0.357
7	Md	4,100	Hawaii	1.200	Conn	224.1	Md	1.16	Pa	24,894	Tex	142.0	Va	1.23	Colo	39,528	N.C.	917	Ala	0.352
8	Mass	3,893	N.M.	1.172	N.J.	216.0	Vt	1.16	Ky	23,680	Conn	140.4	Vt	1.24	La	38,992	Miss	859	Hawaii	0.334
9	Conn	3,811	V.I.	1.171	Tex	208.0	Hawaii	1.18	Mich	22,822	Ohio	122.0	Hawaii	1.24	Ind	37,518	Mass	791	Md	0.330
10	Ala	3,245	Nev.	1.078	Ohio	188.0	Va	1.17	Wash	22,295	Ala	121.0	V.I.	1.24	Wyo.	36,618	Tenn	776	N.D.	0.295
11	Wisc	2,848	Utah	1.033	Ala	187.0	N.M.	1.17	Ore	22,177	Mass	118.0	Del.	1.26	N.M.	35,774	N.J.	765	S.C.	0.266
12	Ohio	2,790	Mich	1.016	Wisc	173.3	Del.	1.16	Ida	21,412	N.C.	94.0	Ala	1.30	Ky	35,536	Vt	662	Vt.	0.261
13	Ida	2,651	Va	1.009	Tenn	161.0	Nev.	1.19	Nev	20,885	Wisc	87.3	N.M.	1.31	Ore	34,690	La	719	Del.	0.253
14	Ill	2,653	Md	0.991	La	156.0	Ala	1.20	Ariz	20,664	P.R.	87.0	Alaska	1.31	Ga.	34,124	Ohio	696	N.M.	0.239
15	Pa	2,544	Vt	0.927	N.C.	146.0	Utah	1.20	D.C.	20,524	Tenn	82.0	Utah	1.32	Wisc	33,786	Wisc.	627	Fla.	0.237
16	Ga	2,491	Ida	0.921	Ga	141.0	N.D.	1.21	Utah	20,457	S.C.	80.8	Me	1.33	Utah	33,148	Conn.	578	Ida	0.233
17	N.C.	2,463	Wyo	0.909	Ill	140.0	Me	1.22	Tex	20,303	Ill	79.0	S.C.	1.36	Va	33,046	Va	662	Tex.	0.228
18	Ind	2,326	Del	0.894	P.R.	136.0	Mich	1.22	R.I.	20,136	Ga	73.0	Mont	1.36	Mass	32,990	Colo	521	Ore.	0.212
19	R.I.	2,134	Ala	0.880	S.C.	119.4	P.R.	1.24	Okla	20,042	R.I.	72.0	P.R.	1.37	N.D.	32,654	Minn	515	Nev	0.201
20	La	2,071	N.D.	0.860	Ida	106.0	V.I.	1.24	Colo	20,042	La	71.0	N.D.	1.38	Ariz	32,530	Ore.	504	Colo.	0.199
21	Tenn	1,966	Me	0.761	R.I.	106.0	S.C.	1.24	N.M.	18,931	Ida	68.0	Wyo	1.41	Ill	32,320	Ill	470	Ge	0.195
22	Ky	1,893	Mass	0.673	Pa	103.0	Mont	1.25	Hawaii	19,706	Ind	62.0	Mich.	1.42	Minn	31,767	Ida	448	N.J.	0.191
23	Wash	1,761	Wisc	0.634	Ind	93.0	Mass	1.25	N.J.	19,425	Pa	53.0	Ida	1.42	Okla	31,080	Okla.	416	Conn	0.186
24	S.C.	1,681	Kans	0.631	Minn	88.5	La	1.26	Fla	19,327	Ky	53.0	Nev	1.42	Fla	30,267	D.C.	337	La	0.183
25	Minn	1,493	S.C.	0.685	Kans	82.4	Tenn	1.27	Ill	18,238	Kans	52.4	Kans	1.44	S.D.	29,742	R.I.	334	Tenn.	0.181
26	Kans	1,458	N.J.	0.573	Ky	79.5	Wisc.	1.27	Kans	17,810	D.C.	46.0	Mass	1.49	Tex	29,739	Kans	330	N.C.	0.166
27	Colo	1,423	Fla	0.569	Wash	79.0	Ida	1.27	Ga	17,667	Minn.	47.0	N.J.	1.50	R.I.	29,843	Mo	330	Guam	0.160
28	Ida	1,405	Ariz	0.567	Colo	71.0	Wyo	1.27	N.D.	17,623	Ida	42.6	Tenn	1.52	La	29,176	Ky	307	Ida	0.156
29	N.M.	1,395	Cal.	0.566	N.M.	70.0	Kans	1.28	Miss	17,568	Mo	40.0	Wisc.	1.53	N.J.	29,739	Hawaii	299	Utah	0.154
30	Alaska	1,376	S.D.	0.561	Ida	66.6	S.D.	1.30	Ala	17,355	Ariz.	40.0	S.D.	1.53	Hawaii	28,639	N.M.	285	S.D.	0.152
31	Ore	1,310	Ore	0.551	Utah	64.0	W.Va	1.33	Wisc.	17,015	Utah	39.6	Fla	1.53	Kans.	28,006	W.Va	263	Okla	0.148
32	Utah	1,209	Ky	0.545	Ariz	63.0	N.J.	1.34	Conn	17,006	N.M.	39.0	La	1.55	V.I.	27,815	P.R.	258	Kans	0.142
33	Ariz	1,201	Colo	0.542	Ore	59.1	Fla	1.34	Va	16,983	Ore	37.6	Ariz.	1.57	Miss	27,683	Wyo	242	W.Va	0.142
34	D.C.	1,190	La	0.528	D.C.	58.0	Ga	1.36	Mo	16,979	Hawaii	37.6	N.C.	1.59	Conn	27,145	Ida	200	Mass	0.137
35	Hawaii	1,074	Ga	0.494	Mo	57.0	Ariz	1.36	N.H.	16,911	Colo	36.0	W.Va	1.60	Ala	26,821	Utah	195	Wisc.	0.135
36	Okla	1,072	Wash	0.482	W.Va	57.0	Mont	1.37	Minn	16,871	Wash	35.0	N.H.	1.61	N.H.	26,574	N.D.	193	Minn	0.130
37	Mo	968	Tenn	0.457	N.C.	54.5	N.C.	1.38	N.C.	16,867	Okla	34.6	Ore	1.63	N.C.	26,198	Alaska	188	Me	0.126
38	Miss	914	N.C.	0.446	Okla	53.5	N.H.	1.39	Mass	16,862	Me	33.0	Ky	1.65	Me	25,003	Wash.	173	Mont.	0.120
39	Me	826	Mont	0.443	Miss	52.0	Ore	1.40	S.D.	16,811	Miss	33.0	Ga	1.68	D.C.	24,800	Ind	171	Mich.	0.114
40	P.R.	784	N.H.	0.438	Me	50.0	Ky.	1.43	Me	16,622	W.Va	31.0	Miss.	1.72	Mo	24,195	Cal.	167	Va	0.109
41	W.Va	739	Ind.	0.438	Alaska	39.0	Minn	1.45	Neb.	15,973	Del	22.0	Colo	1.73	Tenn	23,970	N.H.	163	N.J.	0.104
42	Nev	683	W.Va.	0.398	Del	33.0	Miss	1.46	Del	15,765	Neb.	21.0	Neb.	1.74	W.Va	23,842	Del.	147	Ky.	0.089
43	N.D.	555	Miss	0.382	Nev	33.0	Wash	1.46	Mo.	15,354	Mont	21.0	Okla	1.81	Va	23,652	Ariz.	146	Neb.	0.088
44	Del.	520	Okla	0.381	N.D.	31.5	Neb.	1.50	Vt.	14,986	Vt.	20.0	Minn	1.85	Del	23,647	Neb.	138	P.R.	0.081
45	Neb.	492	Minn.	0.376	Neb.	31.0	Cal	1.51	Ohio	14,938	N.D.	17.0	Ind.	1.86	Neb.	23,432	Me	137	Mo.	0.069
46	Vt.	450	Tex	0.329	Mont	30.6	Okla	1.53	S.C.	14,078	Nev.	15.0	Cal	1.87	Ohio	22,866	Vt	127	Ohio	0.065
47	S.D.	387	Neb.	0.315	Vt	30.0	Ohio	1.57	La	13,279	N.H.	14.0	Ohio	1.88	Vt	22,479	Nev.	127	Ariz.	0.064
48	N.H.	372	Ohio	0.261	S.D.	23.0	Ind	1.57	W.Va	12,967	S.D.	13.0	Tex	1.90	Md	21,576	Pa	110	Wash	0.047
49	Wyo.	369	P.R.	0.245	N.H.	22.0	Tex	1.62	Guam	12,645	Alaska	13.0	Wash.	1.105	S.C.	20,804	S.D.	105	Ill	0.042
50	Mont	337	Ill	0.227	Wyo	14.8	Ill	1.80	Tenn	12,208	Wyo	10.0	Mo	1.120	Mont	16,064	Mont	91	Ind	0.032
51	Guam	151	Pa	0.216	Guam	12.0	Mo	1.84	Mont	11,080	Guam	10.0	Ill.	1.142	Guam	15,054	V.I.	43	Pa	0.009
52	V.I.	111	Mo	0.202	V.I.	4.0	Pa	1.114	P.R.	5,761	V.I.	4.0	Pa	1.224	P.R.	9,006	Guam	15	Cal	0.008

*National averages indicated by underlining

Table 1-4
 INTER-REGIONAL RANKING OF STATE AND TERRITORIAL PUBLIC HEALTH LABORATORIES BY EXPENDITURES, POSITIONS, AND SPECIMENS

Rank	Expenditures				Laboratory Personnel										Specimens					
	Total Laboratory X1000		Expenditure Per Capita		Budgeted Positions					Budgeted Prof. & Tech Positions					Total Lab Specimens X1000		Specimens Per Capita			
	State	\$	State	Ratio	Budgeted Positions		Positions To Pop.		Expenditure Per Position		Budgeted Positions		Positions To Pop.		Expenditure Per Position		State	#	State	Ratio
					State	#	State	Ratio (X1000)	State	\$	State	#	State	Ratio (X1000)	State	\$				
Total Average	111,865	2,151	0.560	5,900.4	113.5	1.34	18,959	3,586.0	69.2	1.58	31,108	26,159	603	0.131						
New England	11,486	0.938	663.1	1.18	17,322	397.4	1.31	28,903	2,130	0.174										
1	Mass	3,893	R.I.	2,283	Mass	231.0	R.I.	1.9	R.I.	20,135	Conn	140.4	R.I.	1.13	Mass	32,990	Mass	791	R.I.	0.367
2	Conn	3,811	Conn	1,226	Conn	224.0	Conn	1.14	Conn	17,006	Mass	118.0	Conn	1.22	Conn	29,643	Conn	578	Vt.	0.261
3	R.I.	2,134	Vt.	0.927	R.I.	106.0	Vt.	1.16	N.H.	16,911	R.I.	72.0	Vt.	1.24	Conn	27,145	R.I.	334	N.H.	0.191
4	Me	826	Me	0.761	Me	50.0	Me	1.22	Mass	16,852	Me	33.0	Me	1.23	Me	26,574	H.	152	Conn	0.186
5	Vt.	450	Mass	0.673	Vt.	30.0	Mass	1.26	Me	16,522	Vt.	20.0	Mass	1.49	Me	25,033	Me	137	Mass	0.137
6	N.H.	372	N.H.	0.438	N.H.	22.0	N.H.	1.39	Vt.	14,986	N.H.	14.0	N.H.	1.61	Vt.	22,479	Vt.	127	Me	0.126
Middle Atlantic	6,739	0.353	319.0	1.60	21,127	199.0	1.96	33,868	875	0.046										
1	N.J.	4,198	N.J.	0.573	N.J.	216.0	N.J.	1.34	Pa.	24,894	N.J.	146.0	N.J.	1.50	Pa.	47,991	N.J.	765	N.J.	0.104
2	Pa.	2,544	Pa.	0.210	Pa.	103.0	Pa.	1.114	N.J.	19,425	Pa.	83.0	N.J.	1.222	N.J.	28,739	Pa.	110	Pa.	0.009
3	N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
East North Central	19,887	0.484	1,000.5	1.41	19,878	568.3	1.72	34,997	3,065	0.073										
1	Mich	9,270	Mich	1.016	Mich	406.2	Mich	1.22	Ind	25,010	Mich	218.0	Mich	1.42	Mich	42,524	Mich	1,040	Mich	0.135
2	Wis	2,948	Wis	0.634	Wis	188.0	Wis	1.27	Ind	22,822	Wis	122.0	Wis	1.53	Ind	37,515	Ohio	696	Wis	0.114
3	Ohio	2,790	Ind	0.428	Wis	173.3	Ohio	1.57	Ill	18,238	Wis	87.3	Ind	1.66	Wis	33,785	Wis	627	Ohio	0.066
4	Ill	2,853	Ohio	0.261	Ill	140.0	Ind	1.87	Wis	17,015	Ill	79.0	Ohio	1.88	Ill	32,320	Ill	470	Ill	0.042
5	Ind	2,326	Ill	0.227	Ind	93.0	Ill	1.80	Ohio	14,839	Ind	62.0	Ill	1.142	Ohio	22,866	Ind	171	Ind	0.032
West North Central	8,014	0.475	419.4	1.40	18,108	258.4	1.85	31,013	2,058	0.122										
1	Ia	2,661	Ia	0.921	Ia	106.0	N.D.	1.21	Ia	25,014	Ia	88.0	N.D.	1.38	Ia	38,992	Minn	515	N.D.	0.295
2	Minn	1,453	N.D.	0.850	Minn	89.5	Ia	1.27	Kans	17,810	Kans	52.4	Ia	1.42	N.D.	32,854	Ia	448	Ia	0.156
3	Kans	1,468	Kans	0.523	Kans	92.4	Kans	1.28	N.D.	17,623	Minn	47.0	Kans	1.44	Minn	31,767	Kans	330	S.D.	0.152
4	Mo	966	S.D.	0.561	Mo	57.0	S.D.	1.30	Mo	16,979	Mo	40.0	S.D.	1.53	S.D.	29,742	Mo	330	Kans	0.142
5	N.D.	555	Minn	0.376	N.D.	31.5	Minn	1.45	Minn	16,871	Nebr.	21.0	Nebr.	1.74	Kans	28,006	N.D.	193	Minn	0.130
6	Nebr.	492	Nebr.	0.315	Nebr.	31.0	S.D.	1.50	S.D.	16,811	N.D.	17.0	Minn	1.85	Mo	24,195	Nebr.	138	Nebr.	0.088
7	S.D.	387	Mo	0.202	S.D.	23.0	Mo	1.84	Nebr.	15,973	S.D.	13.0	Mo	1.120	Nebr.	23,432	S.D.	105	Mo	0.059
South Atlantic	23,176	0.676	1,375.4	1.25	16,850	916.8	1.37	25,279	7,339	0.214										
1	Va	5,180	D.C.	1.725	Va	305.0	D.C.	1.12	D.C.	20,524	Va	219.0	D.C.	1.14	Ge	34,124	Fla	2,001	D.C.	0.488
2	Fla	4,813	Va	1.009	Fla	267.0	Md	1.16	Fla	19,327	Fla	190.0	Md	1.22	Fla	30,267	Fla	1,364	Md	0.330
3	MD	4,100	MD	0.991	Fla	259.0	Va	1.17	Ga	17,687	Fla	159.0	Va	1.23	N.C.	26,198	Ga	964	S.C.	0.266
4	GA	2,491	Del	0.894	N.C.	166.0	Del	1.18	Va	16,083	N.C.	94.0	Del	1.26	D.C.	24,800	N.C.	917	Del	0.253
5	N.C.	2,463	S.C.	0.585	GA	141.0	S.C.	1.24	N.C.	16,867	S.C.	80.8	S.C.	1.36	W.Va	23,842	S.C.	764	Fla	0.237
6	S.C.	1,681	Fla	0.569	S.C.	119.4	W.Va	1.33	Del	15,765	GA	73.0	Fla	1.53	Va	23,652	Va	562	Fla	0.195
7	D.C.	1,190	GA	0.494	D.C.	58.0	Fla	1.34	MD	15,354	D.C.	48.0	N.C.	1.59	Del	23,647	D.C.	337	N.C.	0.166
8	W.Va	739	N.C.	0.446	W.Va	57.0	GA	1.36	S.C.	14,078	W.Va	31.0	W.Va	1.60	MD	21,676	W.Va	263	W.Va	0.142
9	Del	520	W.Va	0.308	Del	33.0	N.C.	1.38	W.Va	12,967	Del	22.0	GA	1.69	S.C.	20,804	Del	147	Va	0.108
East South Central	8,008	0.579	479.5	1.29	16,700	289.0	1.48	27,708	3,241	0.234										
1	Ala	3,245	Ala	0.880	Ala	187.0	Ala	1.20	Ky	23,690	Ala	121.0	Ala	1.30	Ala	35,535	Ala	1,298	Ala	0.359
2	Tenn	1,956	Ky	0.548	Tenn	161.0	Tenn	1.27	Miss	17,568	Tenn	82.0	Tenn	1.52	Miss	27,683	Miss	899	Ala	0.362
3	Ky	1,863	Tenn	0.457	Ky	79.5	Ky	1.43	Ala	17,355	Ky	53.0	Ky	1.58	Ala	26,821	Tenn	776	Tenn	0.181
4	Miss	914	Miss	0.362	Miss	52.0	Miss	1.46	Tenn	12,208	Miss	33.0	Miss	1.72	Tenn	23,970	Ky	307	Ky	0.089
West South Central	7,367	0.377	417.5	1.47	17,645	247.5	1.79	29,784	4,855	0.207										
1	Tex	4,223	La	0.529	Tex	208.0	La	1.25	Tex	20,303	Tex	142.0	La	1.35	Okla	31,060	Tex	4,921	Tex	0.228
2	La	2,071	Okla	0.381	La	156.0	Okla	1.53	Okla	20,042	La	71.0	Okla	1.81	Tex	29,739	La	719	La	0.183
3	Okla	1,072	Tex	0.329	Okla	53.5	Tex	1.62	La	12,279	Okla	34.5	Tex	1.90	La	29,176	Okla	416	Okla	0.146
4	Ark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mountain	8,222	0.820	411.9	1.24	19,952	243.0	1.41	33,637	1,807	0.180										
1	Colo	1,423	Ida	1.639	Colo	71.0	Ida	1.13	Wyo	24,945	Ida	42.5	Ida	1.20	Nev	45,506	Colo	821	Wyo	0.696
2	Ida	1,405	N.M.	1.172	N.M.	70.0	N.M.	1.17	Ida	21,412	Ariz	40.0	N.M.	1.31	Colo	39,528	N.M.	285	N.M.	0.238
3	N.M.	1,395	Nev	1.078	Ida	65.6	Nev	1.19	Nev	20,685	Utah	39.5	Utah	1.32	Wyo	36,919	Wyo	242	Ida	0.233
4	Utah	1,309	Utah	1.033	Utah	64.0	Utah	1.20	Ariz	20,654	N.M.	36.0	Mont	1.36	N.M.	36,774	Ida	200	Nev	0.201
5	Ariz	1,301	Wyo	0.909	Ariz	63.0	Mont	1.26	Utah	20,457	Colo	35.0	Utah	1.28	Utah	33,146	Utah	195	Colo	0.199
6	Nev	683	Ariz	0.567	Nev	33.0	Wyo	1.27	Colo	20,442	Mont	21.0	Nev	1.42	Ida	33,048	Ariz	146	Utah	0.154
7	Wyo	369	Colo	0.543	Mont	30.5	Ariz	1.36	N.M.	19,931	Nev	15.0	Ariz	1.57	Ariz	32,530	Nev	127	Mont	0.120
8	Mont	337	Mont	0.443	Wyo	14.8	Colo	1.37	Mont	11,660	Wyo	10.0	Colo	1.73	Mont	18,064	Mont	91	Ariz	0.084
Pacific	17,921	0.613	862.2	1.44	27,065	375.7	1.78	47,707	1,332	0.046										
1	Cal	12,401	Alaska	3,378	Cal	420.6	Alaska	1.10	Alaska	35,256	Cal	262.4	Hawaii	1.24	Alaska	105,769	Ore	504	Alaska	0.466
2	Wash	1,761	Hawaii	1,200	Wash	79.0	Hawaii	1.16	Cal	28,800	Ore	37.8	Alaska	1.31	Wash	50,323	Hawaii	299	Hawaii	0.334
3	Alaska	1,375	Cal	0.566	Ore	59.1	Ore	1.40	Wash	22,298	Hawaii	37.5	Ore	1.63	Cal	49,134	Alaska	189	Ore	0.212
4	Ore	1,310	Ore	0.551	Hawaii	54.6	Wash	1.46	Ore	22,177	Wash	35.0	Cal	1.87	Ore	34,690	Wash	173	Wash	0.047
5	Hawaii	1,074	Wash	0.492	Alaska	39.0	Cal	1.51	Hawaii	19,796	Alaska	13.0	Wash	1.105	Hawaii	26,639	Cal	167	Cal	0.048
Territories	1,045	0.308	152.0	1.22	6,877	101.0	1.34	10,349	317	0.093										
1	P.R.	784	Guam	1,568	P.R.	136.0	Guam	1.18	V.I.	27,815	P.R.	87.0	Guam	1.10	V.I.	27,815	P.R.	218	V.I.	0.467
2	Guam	151	V.I.	1,171	P.R.	12.0	P.R.	1.24	Guam	12,645	V.I.	14.0	Guam	1.14	Guam	18,054	V.I.	43	Guam	0.160
3	V.I.	111	P.R.	0.246	V.I.	4.0	V.I.	1.24	P.R.	5,781	V.I.	4.0	P.R.	1.37	P.R.	9,006	P.R.	15	P.R.	0.081

Table 1-5
SUMMARY OF LABORATORY SPECIMENS BY CATEGORY AND PERCENT OF CATEGORY TO TOTAL SPECIMENS

Lab & Region	Total No. of Specimens	Diagnostic Bacteriology		Mycology		Parasitology		Virology		Immunology		Hematology		Clinical Chemistry		Pathology		Environmental Microbiology		Environmental Chemistry		Occupational Health/Safety		Toxicology	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
No. States Reporting	57	57		47		52		60		52		36		44		11		50		42		20		40	
Total	28,158,833	7,524,578	26.8	52,172	0.2	404,194	1.5	215,532	0.8	8,730,848	33.4	1,271,881	4.5	3,458,804	13.2	531,381	2.0	2,433,493	9.3	700,286	2.7	51,648	0.2	772,973	3.0
Average	503,055	144,703		1,110		7,771		4,319		167,897		36,342		78,632		48,306		48,570		16,888		2,877		19,349	
New England	2,129,948	651,503	30.6	2,480	0.1	14,528	0.7	15,997	0.7	552,948	26.0	18,727	0.8	448,486	21.1	2,038	0.1	91,701	4.3	88,128	4.0	3,838	0.2	243,877	11.4
Conn	578,627	181,726	31.4	1,875	0.3	10,395	1.8	10,440	1.8	119,921	20.7	16,002	2.6	120,579	20.8	—	—	28,278	4.4	25,232	4.4	3,172	0.5	83,200	14.4
Mass	791,484	197,580	24.9	412	0.1	26	0.0	3,983	0.5	213,818	27.0	—	—	285,101	33.5	—	—	86	0.0	—	—	—	—	140,488	17.7
Me	138,667	44,062	32.2	97	0.1	78	0.1	821	0.6	32,837	24.0	—	—	14,425	12.2	—	—	21,013	15.4	11,886	8.7	41	0.0	9,198	6.7
N.H.	162,517	96,355	59.3	47	0.0	1,090	0.7	254	0.2	43,115	28.5	—	—	21,866	13.9	—	—	—	—	—	—	—	—	81	0.0
R.I.	233,916	136,979	58.6	89	0.0	1,841	0.8	71	0.0	97,782	29.3	1,728	0.8	24,912	7.4	—	—	21,781	8.9	41,018	12.9	620	0.2	7,428	2.2
Vt.	128,766	44,792	35.3	160	0.1	1,119	0.9	148	0.1	49,476	35.9	—	—	—	—	—	—	23,573	18.6	7,594	6.3	—	—	3,505	2.8
Middle Atlantic	874,517	251,638	28.8	1,858	0.2	3,354	0.4	14,543	1.7	220,572	25.2	25.2	0.1	182,020	18.5	14	0.0	14,480	1.6	17,788	2.0	—	—	187,912	21.5
N.J.	764,978	226,036	29.4	1,406	0.2	3,058	0.4	13,048	1.7	213,904	27.9	—	—	183,096	12.2	14	0.0	14,388	1.9	17,998	2.3	—	—	183,283	23.9
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pa.	109,642	26,602	24.3	263	0.2	290	0.3	1,498	1.4	6,668	6.1	617	0.6	68,924	62.8	—	—	132	0.1	—	—	—	—	4,640	4.2
East North Central	3,004,903	872,233	29.0	8,843	0.3	12,208	0.4	49,782	1.7	848,412	28.0	48,520	1.6	417,732	13.9	115,883	3.8	358,901	11.7	138,407	4.8	9,272	0.3	48,738	1.3
Ill.	470,301	196,282	41.7	1,420	0.3	9,203	0.2	9,273	0.2	146,800	31.1	—	—	—	—	—	—	81,390	13.1	41,597	8.9	—	—	12,696	2.7
Ind.	171,218	13,409	7.8	1,189	0.7	2,652	1.6	2,949	1.7	57,178	39.2	—	—	—	—	—	—	89,018	34.8	24,718	14.4	—	—	132	0.1
Mich.	1,040,022	384,410	36.9	2,288	0.2	3,919	0.4	3,474	0.3	330,085	32.6	—	—	—	—	—	—	93,408	9.0	20,684	2.0	—	—	—	—
Ohio	696,288	284,352	40.9	1,600	0.2	15,565	2.2	15,565	2.2	98,290	14.1	15,229	1.5	177,820	17.1	—	—	72,859	10.6	21,842	3.1	2,349	0.3	13,995	2.0
Wis.	627,074	93,780	15.0	2,904	0.5	3,184	0.5	18,500	2.9	89,779	30.3	29,806	4.7	59,858	9.4	115,883	18.5	64,150	10.2	29,300	4.7	6,223	1.1	14,007	2.2
West North Central	2,059,388	554,320	26.9	5,152	0.3	23,853	1.2	38,888	1.9	852,884	41.9	19,472	1.0	219,770	10.2	210	0.0	227,828	11.1	90,521	4.4	2,385	0.1	20,886	1.0
Mo.	447,951	126,978	28.3	755	0.2	1,882	0.4	2,844	0.6	234,044	52.3	—	—	5,741	1.3	—	—	40,608	9.1	26,278	6.6	—	—	8,304	1.8
Kans.	330,422	78,089	23.6	641	0.2	5,492	1.7	2,227	0.7	119,334	35.8	—	—	48,571	14.7	—	—	47,714	14.4	26,315	7.7	785	0.2	3,233	1.0
Minn.	814,642	140,132	17.2	3,873	0.5	13,486	1.6	5,537	1.1	276,448	33.7	—	—	75,158	14.6	210	0.1	—	—	—	—	—	—	—	—
Nebr.	330,389	97,213	29.4	506	0.2	1,348	0.4	2,486	0.8	80,681	24.4	6,908	2.1	60,408	18.3	—	—	74,301	22.8	6,093	1.8	—	—	450	0.1
Neb.	137,633	26,454	19.2	22	0.0	803	0.6	848	0.6	2,547	2.2	—	—	—	—	—	—	25,258	18.4	18,323	13.4	—	—	8,843	6.5
N.D.	192,973	50,814	26.4	432	0.2	6,850	3.5	24,951	13.0	85,598	28.8	12,564	6.5	17,951	9.3	—	—	19,740	10.3	9,401	4.9	—	—	36	0.0
S.D.	104,878	34,552	32.9	93	0.1	363	0.3	55	0.1	39,883	38.0	—	—	—	—	—	—	20,201	19.3	9,731	9.3	—	—	—	—
South Atlantic	7,338,899	1,925,506	26.2	11,097	0.2	135,394	1.8	33,381	0.5	2,421,522	33.0	538,873	7.3	1,091,318	14.9	397,834	5.4	499,731	6.8	133,800	1.8	15,405	0.2	138,318	1.8
Del.	345,985	111,515	32.2	—	—	202	0.1	1,777	0.5	31,088	9.0	—	—	10,344	3.3	—	—	12,400	3.8	4,984	2.8	—	—	2,128	1.8
D.C.	336,786	93,741	27.8	—	—	297	0.1	40	0.0	101,641	30.2	—	—	66,105	16.7	—	—	46,152	13.7	17,849	6.2	—	—	19,696	5.9
Fla.	2,001,368	619,615	31.0	2,688	0.1	61,200	3.1	6,125	0.3	621,116	31.0	182,819	7.6	271,836	13.6	—	—	236,783	11.8	4,897	0.2	1,190	0.1	22,982	1.2
Ga.	983,855	273,525	27.8	1,000	0.1	2,481	0.2	3,880	0.4	493,385	50.2	51,513	5.2	90,200	9.2	—	—	157	0.0	—	—	52	0.0	46,883	4.7
Mo.	1,363,685	406,781	29.8	2,398	0.2	8,444	0.6	4,895	0.4	413,317	30.3	99,664	7.3	185,753	13.6	76,874	5.6	92,689	6.8	88,171	4.0	7,729	0.6	10,210	0.8
N.C.	917,310	22,115	2.4	1,701	0.2	5,443	0.6	3,446	0.4	287,985	32.5	56,349	6.1	230,572	25.1	216,256	23.6	58,918	6.4	17,508	1.9	4,834	0.5	2,430	0.3
S.C.	783,986	242,187	31.0	1,630	0.2	20,079	2.6	6,850	0.9	247,741	32.4	85,550	11.2	128,155	16.8	—	—	13,902	1.8	8,904	1.2	—	—	9,079	1.2
Va.	561,848	141,999	25.3	1,138	0.2	13,127	2.4	1,226	0.2	167,612	29.9	33,168	6.9	90,805	14.3	—	—	56,167	9.8	42,637	7.6	1,800	0.3	23,170	4.1
W.Va.	283,442	89,374	31.5	859	0.3	2,616	1.0	6,684	2.1	47,627	18.1	825	0.3	42,151	16.0	41,664	15.8	—	—	28,372	10.8	—	—	—	—
West South Central	3,249,521	1,878,778	57.8	7,649	0.2	54,471	1.7	10,320	0.3	1,184,893	36.8	254,422	7.8	315,968	9.7	14,434	0.4	296,904	8.2	18,569	0.5	1,954	0.1	6,117	0.2
Ala.	1,297,959	431,267	33.2	2,817	0.2	33,441	2.6	3,358	0.3	501,265	38.6	70,740	5.5	116,510	9.0	14,434	1.1	119,814	9.2	—	—	—	—	4,282	0.3
Ky.	307,489	32,854	10.6	224	0.1	4,340	1.4	1,934	0.6	148,550	48.4	17,881	5.8	47,660	15.5	—	—	36,781	12.0	13,506	4.4	1,984	0.6	1,835	0.6
Miss.	868,851	238,805	27.5	2,443	0.3	9,383	1.1	1,300	0.2	272,779	31.8	163,865	19.1	96,261	11.2	—	—	70,842	8.2	3,003	0.3	—	—	—	—
Tenn.	776,422	374,023	48.2	2,168	0.3	7,337	0.9	3,728	0.5	262,298	33.8	1,866	0.2	89,678	7.2	—	—	69,467	6.9	—	—	—	—	—	—
West South Central	4,055,408	1,982,691	49.1	7,961	0.2	128,187	3.2	29,741	0.8	1,424,385	35.1	311,886	7.7	433,787	10.7	—	—	620,883	15.3	41,782	1.0	378	0.0	53,789	1.3
Ark.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
La.	719,113	185,216	25.9	1,619	0.2	115,046	16.0	2,892	0.4	216,624	30.1	—	—	51,382	7.2	—	—	134,340	18.7	11,024	1.5	—	—	—	—
Okl.	418,788	127,195	30																						

**SECTION II
PERSONNEL**

Table 2-1
BUDGETED POSITIONS BY CATEGORIES AND POSITION VACANCIES

Lab & Region	Total Budgeted Positions	Management			Clerical			Prof. & Tech.			Support Ser.			Maintenance			Total Filled Positions	
		#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%
Total	5,900.4	417.9	7.1	17.5	757.7	12.8	38.0	3,586.0	61.0	174.5	946.8	15.9	35.0	188.0	3.2	10.5	5,632.8	95.5
Average	113.5	8.0	7.1	0.3	14.8	12.9	0.6	69.2	61.0	3.4	18.1	15.9	0.7	3.6	3.2	0.2	108.3	95.8
Now England	683.1	59.0	8.9	4.5	93.2	14.1	5.0	397.4	58.9	20.6	78.5	11.8	7.0	35.0	5.3	1.0	625.6	94.3
Conn.	224.1	24.0	10.7	1.0	33.2	14.8	2.0	140.4	62.7	6.0	26.5	11.4	3.0	1.0	0.4	—	212.1	94.6
Mass.	231.0	24.0	10.4	3.6	34.0	14.7	3.0	118.0	51.0	11.0	23.0	10.0	4.0	32.0	13.9	1.0	208.0	90.3
Me.	50.0	4.0	8.0	—	7.0	14.0	—	33.0	66.0	1.0	6.0	12.0	—	—	—	—	49.0	98.0
N.H.	22.0	1.0	4.5	—	4.0	18.2	—	14.0	63.7	—	3.0	13.6	—	—	—	—	22.0	100.0
R.I.	106.0	5.0	4.7	—	10.0	9.4	—	72.0	67.9	2.0	17.0	16.1	—	2.0	1.8	—	104.0	98.1
Vt.	30.0	1.0	3.3	—	5.0	16.7	—	20.0	66.7	—	4.0	13.3	—	—	—	—	30.0	100.0
Middle Atlantic	318.0	24.0	7.5	—	35.0	11.0	1.0	198.0	62.4	5.0	15.0	4.7	—	48.0	14.4	4.0	308.0	98.8
N.J.	216.0	5.0	2.3	—	21.0	9.7	1.0	146.0	67.6	3.0	2.0	0.9	—	42.0	19.8	2.0	210.0	97.2
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	103.0	19.0	18.4	—	14.0	13.6	—	53.0	61.8	3.0	13.0	12.6	—	4.0	3.9	2.0	98.0	95.2
East North Central	1,009.5	78.8	7.9	4.0	109.0	10.8	6.8	568.3	56.8	54.0	177.3	17.7	12.0	87.0	8.7	4.0	920.5	92.0
Ill.	140.0	13.0	9.3	1.0	22.0	15.7	3.0	79.0	56.4	6.0	25.0	17.9	2.0	1.0	0.7	—	126.0	91.4
Ind.	93.0	7.0	7.5	—	13.0	14.0	—	62.0	66.7	4.0	11.0	11.8	—	—	—	—	89.0	95.7
Mich.	406.2	14.9	3.7	1.0	26.0	6.1	1.0	218.0	53.7	15.0	91.3	22.5	4.0	67.0	14.0	3.0	362.2	94.1
Ohio	188.0	8.0	4.2	—	25.0	13.3	2.0	122.0	64.9	18.0	24.0	12.8	4.0	9.0	4.8	1.0	183.0	86.7
Wisc.	173.3	36.0	20.8	2.0	24.0	13.8	—	87.3	50.4	11.0	26.0	15.0	2.0	—	—	—	158.3	91.3
West North Central	419.4	38.0	9.1	2.0	62.8	15.0	3.0	258.4	61.6	10.0	59.2	14.1	—	1.0	0.2	—	404.4	98.4
Ia.	108.0	10.0	9.4	—	16.0	14.2	—	68.0	64.2	1.0	13.0	12.2	—	—	—	—	105.0	99.1
Kans.	82.4	9.0	10.9	2.0	10.0	12.1	—	52.4	63.6	4.0	11.0	13.4	—	—	—	—	76.4	92.7
Minn.	88.6	6.0	6.8	—	18.0	20.5	1.0	47.0	53.1	1.0	17.0	19.2	—	—	—	—	86.6	97.7
Mo.	87.0	3.0	3.3	—	6.0	10.8	—	40.0	70.2	2.0	7.0	12.3	—	1.0	1.7	—	85.0	96.8
Nebr.	31.0	2.0	6.5	—	5.0	16.1	1.0	21.0	67.7	2.0	3.0	9.7	—	—	—	—	28.0	90.3
N.D.	31.5	5.0	15.9	—	5.3	16.8	—	17.0	54.0	—	4.2	13.3	—	—	—	—	31.5	100.0
S.D.	29.0	3.0	13.0	—	3.0	13.0	1.0	13.0	56.6	—	4.0	17.4	—	—	—	—	22.0	95.7
South Atlantic	1,375.4	68.0	4.9	2.0	161.8	11.7	5.0	916.8	66.7	22.5	206.8	15.0	6.0	23.0	1.7	1.0	1,338.9	97.4
Del.	33.0	1.0	3.0	—	4.0	12.1	—	22.0	66.7	—	6.0	18.2	—	—	—	—	33.0	100.0
D.C.	68.0	2.0	3.4	—	5.0	8.6	—	48.0	32.8	4.0	3.0	6.2	—	—	—	—	64.0	93.1
Fla.	249.0	12.0	4.8	—	35.0	14.0	—	159.0	63.9	—	41.0	16.8	—	2.0	0.8	—	249.0	100.0
Ga.	141.0	8.0	5.7	1.0	21.0	14.9	—	73.0	51.8	1.5	38.0	27.0	—	1.0	0.7	—	138.5	98.2
Md.	267.0	4.0	1.5	—	20.0	7.5	2.0	190.0	71.1	3.0	48.0	18.0	4.0	5.0	1.9	—	258.0	96.6
N.C.	146.0	9.0	6.2	—	17.0	11.6	—	94.0	64.4	3.0	24.0	16.4	—	2.0	1.4	—	143.0	98.0
S.C.	119.4	13.0	10.9	—	10.8	9.0	1.0	80.8	67.7	3.0	12.8	10.7	—	2.0	1.7	—	115.4	96.7
Va.	306.0	17.0	6.8	1.0	39.0	12.8	1.0	219.0	71.8	7.0	24.0	7.9	1.0	6.0	2.0	—	295.0	96.7
W.Va.	57.0	2.0	3.5	—	10.0	17.5	1.0	31.0	54.4	1.0	9.0	15.8	1.0	6.0	8.8	1.0	53.0	93.0
East South Central	479.5	35.0	7.3	—	64.0	13.4	2.0	289.0	60.3	7.0	87.5	18.2	3.0	4.0	0.8	—	467.5	97.5
Ala.	187.0	14.0	7.5	—	30.0	16.1	2.0	121.0	64.7	3.0	21.0	11.2	—	1.0	0.5	—	182.0	97.3
Ky.	79.5	6.0	7.5	—	6.0	7.5	—	53.0	66.7	1.0	13.5	17.0	—	1.0	1.3	—	78.5	98.7
Miss.	62.0	2.0	3.8	—	8.0	16.4	—	33.0	63.5	1.0	9.0	17.3	—	—	—	—	51.0	98.1
Tenn.	161.0	13.0	8.1	—	20.0	12.4	—	82.0	51.0	2.0	44.0	27.3	3.0	2.0	1.2	—	156.0	96.9
West South Central	417.5	18.0	4.3	1.0	70.0	16.8	—	247.5	59.3	4.0	82.0	19.6	1.0	—	—	—	411.5	98.5
Ark.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
La.	166.0	13.0	8.3	1.0	37.0	23.7	—	71.0	45.5	3.0	35.0	22.5	1.0	—	—	—	151.0	96.8
Okl.	83.5	2.0	3.7	—	5.0	9.4	—	34.5	64.5	—	12.0	22.4	—	—	—	—	83.5	100.0
Tex.	208.0	3.0	1.4	—	28.0	13.6	—	142.0	68.3	1.0	35.0	16.8	—	—	—	—	207.0	99.5
Mountain	411.9	47.0	11.4	3.0	53.8	13.0	—	243.0	59.0	14.0	63.3	15.4	4.0	5.0	1.2	0.5	390.4	94.8
Ariz.	63.0	6.0	9.5	—	14.0	22.2	—	40.0	63.5	3.0	2.0	3.2	—	1.0	1.6	—	60.0	95.2
Colo.	71.0	13.0	18.3	—	5.0	7.1	—	36.0	50.7	3.0	17.0	23.9	2.0	—	—	—	66.0	93.0
Ida.	65.6	8.0	9.2	—	11.1	16.9	—	42.5	64.8	1.0	4.0	6.1	1.0	3.0	0.5	—	63.1	96.2
Mont.	30.5	3.0	9.8	1.0	3.0	9.8	—	21.0	68.9	—	3.5	11.6	—	—	—	—	28.5	96.7
Neav.	33.0	3.0	9.1	—	3.0	9.1	—	15.0	45.5	—	11.0	33.3	—	1.0	3.0	—	33.0	100.0
N.M.	70.0	6.0	8.6	—	7.0	10.0	—	39.0	55.7	3.0	17.0	24.3	1.0	1.0	1.4	—	66.0	94.3
Utah	64.0	9.0	14.1	2.0	8.5	13.3	—	39.5	61.7	1.0	7.0	10.9	—	—	—	—	61.0	95.3
Wyo.	14.8	1.0	6.7	—	2.0	13.5	—	10.0	67.6	3.0	1.8	12.2	—	—	—	—	11.8	79.7
Pacific	682.2	35.0	6.3	—	85.3	14.4	2.0	375.7	56.7	4.0	155.2	23.4	1.0	1.0	0.2	—	655.2	98.9
Alaska	39.0	5.0	12.8	—	9.0	23.1	—	13.0	33.3	—	12.0	30.8	—	—	—	—	39.0	100.0
Cal.	430.6	13.0	3.0	—	69.0	13.7	—	252.4	58.6	—	106.2	24.7	—	—	—	—	430.6	100.0
Hawaii	64.6	1.0	1.8	—	4.0	7.4	1.0	37.5	68.8	3.0	12.0	22.0	1.0	—	—	—	49.5	90.8
Ore.	59.1	4.0	6.8	—	10.3	17.4	1.0	37.8	63.9	1.0	7.0	11.9	—	—	—	—	57.1	96.6
Wash.	79.0	12.0	15.2	—	13.0	16.4	—	35.0	44.3	—	18.0	22.8	—	1.0	1.3	—	79.0	100.0
Territories	152.0	15.0	9.9	1.0	13.0	8.5	6.0	101.0	66.5	33.0	17.0	11.2	1.0	6.0	3.8			

Table 2-2
TURNOVER

Lab & Region	Total Budgeted Pos.	Total # Resig & Sep.	% Turnover Budgeted Pos.	Number of Resignations & Separations by Categories						
				Management	Clerical	Prof & Tech Positions			Supportive Services	Maintenance
						# Pos.	Resig & Sep.	% Turn-over		
Total	5,900.4	698.4	11.8	22.0	142.0	3,586.0	351.4	9.8	147.0	36.0
Average	113.5	13.4	11.8	0.4	2.7	69.2	6.8	9.8	2.8	0.7
New England	663.1	81.0	12.2	—	21.0	397.4	37.0	9.3	17.0	6.0
Conn	224.1	20.0	8.9	—	5.0	140.4	11.0	7.8	4.0	—
Mass.	231.0	44.0	19.0	—	8.0	118.0	20.0	16.9	10.0	6.0
Me	50.0	5.0	10.0	—	3.0	33.0	1.0	3.0	1.0	—
N.H.	22.0	2.0	9.1	—	1.0	14.0	1.0	7.1	—	—
R.I.	106.0	6.0	5.7	—	1.0	72.0	4.0	5.6	1.0	—
Vt	30.0	4.0	13.3	—	3.0	20.0	—	—	1.0	—
Middle Atlantic	319.0	55.0	17.2	1.0	12.0	199.0	34.0	17.1	—	8.0
N.J.	216.0	17.0	7.9	—	4.0	146.0	8.0	5.5	—	6.0
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	103.0	38.0	36.9	1.0	8.0	53.0	26.0	49.1	—	3.0
East North Central	1,000.5	132.0	13.2	5.0	24.0	568.3	51.0	9.0	39.0	13.0
Ill	140.0	18.0	12.9	1.0	6.0	79.0	6.0	7.6	5.0	—
Ind	93.0	13.0	14.0	1.0	6.0	62.0	4.0	6.6	2.0	—
Mich	406.2	94.0	13.3	1.0	3.0	218.0	21.0	9.6	18.0	11.0
Ohio	188.0	34.0	18.1	—	4.0	122.0	15.0	12.3	13.0	2.0
Wisc	173.3	13.0	7.5	2.0	5.0	87.3	5.0	5.7	1.0	—
West North Central	419.4	71.4	17.0	3.0	17.0	258.4	32.4	12.5	18.0	1.0
Ia	108.0	15.0	14.2	—	3.0	68.0	9.0	13.2	3.0	—
Kans	82.4	13.4	16.3	3.0	5.0	52.4	3.4	6.5	2.0	—
Minn	88.5	17.0	19.2	—	3.0	47.0	7.0	14.9	7.0	—
Mo	57.0	6.0	10.5	—	—	40.0	4.0	10.0	1.0	1.0
Nebr.	31.0	7.0	22.6	—	1.0	21.0	5.0	23.8	1.0	—
N D	31.5	8.0	25.4	—	3.0	17.0	4.0	23.5	1.0	—
S D	23.0	5.0	21.7	—	2.0	13.0	—	—	3.0	—
South Atlantic	1,375.4	118.0	8.6	3.0	20.0	916.8	79.0	8.6	14.0	2.0
Del.	33.0	5.0	15.2	—	—	22.0	5.0	22.7	—	—
D.C.	58.0	8.0	13.8	—	1.0	48.0	6.0	12.5	1.0	—
Fla.	249.0	—	—	—	—	159.0	—	—	—	—
Ga.	141.0	16.0	11.3	—	4.0	73.0	9.0	12.3	3.0	—
Md.	267.0	32.0	12.0	—	6.0	190.0	20.0	10.5	7.0	—
N.C.	146.0	25.0	17.1	1.0	5.0	94.0	17.0	18.1	1.0	1.0
S.C.	119.4	18.0	15.1	1.0	3.0	80.8	14.0	17.3	—	—
Va	305.0	10.0	3.3	1.0	1.0	219.0	7.0	3.2	1.0	—
W Va.	57.0	4.0	7.0	—	1.0	31.0	1.0	3.2	1.0	1.0
East South Central	479.5	39.0	8.1	3.0	8.0	289.0	22.0	7.6	6.0	—
Ala	187.0	16.0	8.6	1.0	5.0	121.0	8.0	6.6	2.0	—
Ky	79.5	5.0	6.3	—	2.0	53.0	2.0	3.8	1.0	—
Miss	52.0	8.0	15.4	—	1.0	33.0	7.0	21.2	—	—
Tenn	161.0	10.0	6.2	2.0	—	82.0	5.0	6.1	3.0	—
West South Central	417.5	33.0	7.9	—	8.0	247.5	20.0	8.1	5.0	—
Ark.	—	—	—	—	—	—	—	—	—	—
La	196.0	—	—	—	—	71.0	—	—	—	—
Okla.	53.5	5.0	9.3	—	1.0	34.5	3.0	8.7	1.0	—
Tex.	208.0	28.0	13.5	—	7.0	142.0	17.0	12.0	4.0	—
Mountain	411.9	99.0	24.0	5.0	18.0	243.0	35.0	14.4	35.0	6.0
Ariz	63.0	17.0	27.0	—	9.0	40.0	6.0	15.0	2.0	—
Colo.	71.0	9.0	12.7	—	—	36.0	4.0	11.1	5.0	—
Ida.	65.6	13.0	19.8	1.0	3.0	42.5	4.0	9.4	1.0	4.0
Mont	30.5	4.0	13.1	—	—	21.0	3.0	14.3	1.0	—
Nev	33.0	—	—	3.0	3.0	15.0	—	—	11.0	1.0
N.M.	70.0	20.0	28.6	—	—	39.0	12.0	30.8	7.0	1.0
Utah	64.0	13.0	20.3	1.0	3.0	39.5	2.0	5.1	7.0	—
Wyo.	14.8	5.0	33.8	—	—	10.0	4.0	40.0	1.0	—
Pacific	662.2	52.0	7.9	1.0	9.0	375.7	30.0	8.0	12.0	—
Alaska	39.0	8.0	20.5	1.0	2.0	13.0	1.0	7.7	4.0	—
Cal.	430.6	33.0	7.7	—	4.0	252.4	24.0	9.5	5.0	—
Hawaii	54.5	5.0	9.2	—	1.0	37.5	3.0	8.0	1.0	—
Ore	59.1	4.0	6.8	—	2.0	37.8	1.0	2.6	1.0	—
Wash.	79.0	2.0	2.5	—	—	35.0	1.0	2.9	1.0	—
Territories	152.0	18.0	11.8	1.0	5.0	101.0	11.0	10.9	1.0	—
Guam	12.0	—	—	—	—	10.0	—	—	—	—
P.R.	136.0	17.0	12.5	1.0	5.0	87.0	10.0	11.5	1.0	—
V.I.	4.0	1.0	25.0	—	—	4.0	1.0	25.0	—	—

Table 2-3
STAFFING PATTERN OF PROFESSIONAL AND TECHNICAL PERSONNEL IN THE 15 WORKLOAD REPORTING CATEGORIES AND POSITION CHANGES SINCE LAST REPORTING PERIOD (+ OR -)

Lab & Region	WORKLOAD REPORTING CATEGORIES															Total Prof. and Tech. Personnel Reported in Workload Categories	Total Changes Reported														
	I Diagnostic Bact.	II Mycology	III Parasitology	IV Virology	V Immunology	VI Hematology	VII Clinical Chemistry	VIII Pathology	IX Env. Micro.	X Env. Chem.	XI Occup. Health & Safety	XII Toxicology	XIII Lab. Improv. Program	XIV Biologic. Resour. Media Prod.	XV Research and Develop.																
New England																															
Conn.	215	-15	10	40	+10	40	+10	112	-28	30	84	+14	10	72	+02	291	+31	50	250	-20	110	+30	80	+40	10	1404	+74				
Mass.	200		10	20	+10	120		110	-03		140					80		80	130	+40	40	+10	390	+20	20	1180	+78				
Me.	70	+10				30		15	-15		05							01	10	+05	05					330	+20				
N.H.	66	-10	02	05		01		60			70					100	210	+20	30	+10	170	+10	10			720	+40				
R.I.	70							60			20					20					20		01				200	+01			
Vt.	51	-07	03	10	+08	15	+08	50	-02																						
Middle Atlantic																															
N.J.	310		20	10		240	-110				30					80			320		200	+10	250				1460	-100			
N.Y.																															
Pa.	160					100					120										50		110				630				
East North Central																															
Ill.	180	-30	10	10		100	-10	90	-10							110			130		90	+10	50		10		790	-40			
Ind.	105		15	10		30		60								110	-10		250	+20			20		20		520	+10			
Mich.	445	+21	10	10	-07	140	-05	120	-12	50	+25	55	+20			65	+10	65	+28				80	+20	610	-14	520	+10			
Ohio	320	+40	10	10		110	+40	80		-10	110	+20				60	-50	200	+10	120		80	+60	60		60	+40	1220	+140		
Wisc.	155	-30	10	-05	10	-05	100	-50			190	+100	140	-20	20			60	-20	20		50	-20	50		18	873	-80			
West North Central																															
Ia.	70		20	05		80	-10	60			05	-15				50		230	+30	50	+10	15	-25	45	+20	50		680	+10		
Kans.	120		10	20		40		30	-10							30	-12	154	+12	20	+10	60	+10	40			524	+10			
Minn.	78		20	23		100		110	-10		30		30											50	+10	30		470			
Mo.	100	+10	05	05		50		60			10													60		20		400	+10		
Nebr.	45	-15				20	-06				60	-10				30	+15	50	+15							06		210			
N.D.	65										10															05		170			
S.D.	40	-10				20										20								10	+10			130	-10		
South Atlantic																															
Del.	38		01	02		30		16			04		08			60		27		25		01		05		05		220			
D.C.	70		20	10	+10			70	+20	46	+15	50		65		20		20		-30			60	-30	20	30		480	-15		
Fla.											40																				
Ga.	270	+10	15	35		75	+10	180		25	-20	200	+30	140	+10	200	+10	420	+10	70	+30		70	-10	20	-10	40		730	+20	
Md.	440	-40	10	20	+10	40		230		100		350	+10	210	+40	70		125	+10	45			10		70	+20		1900	+10		
N.C.	100		10	10		50		130	-10		25	+10																940	+70		
S.C.	170	-34	30	40		39	+09	152	-17	90	+27	83	+08					56	+17	86	+27		40	-25	20	02		808	+09		
Va.	160			40		90	+10	80								180	+20	640	+30	30			800	+30	40	60	10	2130*	+120		
W.Va.	90					30		20					40	-10	40	-10							40	-10	10			310	-30		
East South Central																															
Ala.	500	-20	30	100		30	-10	30			30		30			150	-10					10	+10	15	+15	130		05	+05	1210	
Ky.	60	+10	10	10		20		110		30			30			60		80		40			50		30			630	+10		
Miss.																															
Tenn.	370		10	10	-40	100		90	-80	10						110	+10									120		820	-110		
West South Central																															
Ark.																															
La.	90	+20	10	10		10		110	+10				10			110	+30														
Okla.	87	-01	05	08		26	-04	89	-02	07		20	+03			61		11	-03						23	+08	08	+01	345	+60	
Tex.	390	+10		70		120	+20	120	+20				150	+20												100	+70	110	-50	1420	+10*
Mountain																															
Ariz.	40		30	30		20		40								50	+20	80		20				40		50	-20	400			
Calif.	70	-10	05	10		15		30								40		130		20			20		130			360	-10		
Ida.	100	-05				30	+05	10					20			75	+10	95	+10				85	+10				425	+30		
Mont.	75	+06														25	+05	94	+10	05				02	+01	30		231	+22		
Nev.	25	+05				03	-03	13	-03	10		10				08	-03	53	+23					10		20		160	+20		
N.M.	59	-11				76	+18	19		19		09	-01	10	+10	56	-04	100		X			50		20	+10		390	+20		
Utah	40		10	10		30		30								20		110		10			90		10			395			
Wyo.	45					10										05							30		10			100			
Pacific																															
Alaska	100	+10				20												10										130	+10		
Cal.	155	+25	60	30		250	+70	138	15			150	+40			50	+30	655	-125	520	+180	10		250	-70	20	-10	2285*	+155		
Hawaii	120	+30	05	10		20		30				05	-05			95	-10	115	-10									375			
Ore.	60	+10	10	10		50	+20	100	-10							40	-03							40				378	+28		
Wash.	80	+10	10	10		20		10	-10							20	-20	100						70				350			
Territories																															
Guam	30			10		10		10																				80			
P.R.																															
V.I.																													20		

*Covers only those positions related to the 15 workload categories

SECTION III
FINANCE

Table 3-1
LABORATORY EXPENDITURES BY CATEGORY

Lab & Region	Total Laboratory Expenditures	EXPENDITURE CATEGORY										
		Personnel			Supplies & Materials		Equipment		General Operating Exp.		Other	
		Salaries	Benefits	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.
Total	111,965,208	70,557,898	10,817,342	72.7	12,040,359	10.8	5,014,225	4.5	10,891,583	9.7	2,543,991	2.3
Average	2,181,284	1,366,879	208,026	76.8	231,646	10.8	96,427	4.5	209,464	9.7	48,923	2.3
New England	11,485,976	7,871,924	1,034,774	76.8	1,150,506	10.0	447,819	3.9	1,085,891	9.5	95,062	0.8
Conn	3,811,134	2,649,021	562,436	84.0	283,166	7.4	282,116	6.6	61,083	1.3	13,224	0.4
Mass	3,892,828	2,490,606	—	64.0	493,601	12.7	18,744	0.4	876,433	22.8	16,944	0.4
Me	826,078	470,548	68,882	85.3	102,327	12.4	47,796	5.8	78,691	9.5	87,882	7.0
NH	372,032	227,051	33,822	70.1	66,488	18.2	948	0.2	53,376	14.4	360	0.1
RI	2,134,326	1,481,432	340,729	86.4	163,133	7.6	122,840	5.8	21,191	1.0	5,000	0.2
Vt.	449,581	363,366	28,926	86.0	51,904	11.6	8,376	1.9	6,118	1.1	1,892	0.4
Middle Atlantic	6,739,367	3,580,512	958,212	87.3	800,378	8.9	489,287	7.3	442,549	8.5	670,437	8.9
N.J.	4,195,867	2,130,612	608,212	85.3	395,870	9.4	436,287	10.4	40,649	1.0	584,437	13.9
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	2,543,500	1,450,000	349,000	70.7	204,500	8.0	63,000	2.1	402,000	15.8	86,000	3.4
East North Central	19,886,871	12,781,471	2,325,238	78.0	1,735,959	8.7	874,249	4.4	1,940,072	9.8	219,882	1.1
Ill	2,583,300	1,744,000	293,300	79.8	282,700	11.1	68,600	2.7	128,400	4.9	39,400	1.5
Ind.	2,325,953	1,577,749	268,217	79.4	287,700	—	—	—	477,024	20.5	2,963	0.1
Mich.	9,270,180	5,690,630	1,278,186	78.2	897,654	6.3	460,170	5.0	1,168,068	12.6	84,442	0.9
Ohio	2,789,868	1,758,218	389,243	78.1	303,503	10.9	183,687	6.5	123,680	4.4	85,859	3.1
Wisc.	2,947,780	2,009,876	131,692	72.7	662,102	19.1	191,892	6.5	45,000	1.5	7,218	0.2
West North Central	8,913,709	4,750,095	708,687	88.1	1,052,953	13.1	622,884	7.8	709,689	8.9	169,421	2.1
Ia	2,651,477	1,468,367	214,963	83.1	361,881	13.7	277,792	10.5	290,144	10.9	48,330	1.8
Kans	1,467,628	913,902	139,890	71.8	144,818	9.9	25,867	1.8	217,817	14.8	26,131	1.7
Minn	1,493,639	992,347	177,806	78.3	176,400	11.8	65,100	4.4	73,947	6.0	7,769	0.5
Mo	967,799	598,200	70,884	69.1	148,516	15.3	93,645	9.7	27,708	2.9	28,867	3.0
Neb.	492,074	286,753	30,710	68.4	80,776	16.4	64,890	13.2	46,925	9.6	12,021	2.4
ND	685,120	315,493	43,812	64.7	93,477	16.9	68,787	12.4	27,296	4.8	6,268	1.1
S.D.	386,642	216,033	30,918	63.6	47,087	12.2	26,703	6.9	26,862	6.7	41,648	10.6
South Atlantic	23,176,851	16,153,815	1,496,522	78.2	3,188,498	13.8	929,211	6.9	1,106,494	4.7	297,411	1.3
D.C.	520,234	361,660	72,312	83.4	61,807	11.9	16,382	3.2	6,916	1.3	1,287	0.2
Del.	1,190,387	884,713	80,074	61.0	171,000	14.4	54,600	4.6	—	—	—	—
Fla.	4,812,818	2,868,606	500,093	70.0	606,292	12.6	360,461	7.5	371,399	7.7	106,827	2.2
Ga.	2,491,021	1,552,117	354,592	77.0	419,524	16.8	96,818	3.8	22,170	0.9	37,000	1.6
Md.	4,099,600	3,267,717	—	79.5	606,440	14.8	23,473	0.5	208,740	5.1	3,130	0.1
N.C.	2,462,601	1,816,376	278,788	76.9	387,142	15.7	86,001	3.5	70,717	2.9	24,581	1.0
S.C.	1,680,965	1,198,169	187,744	81.3	248,481	14.8	19,831	1.1	38,038	2.2	9,704	0.6
Va.	5,179,715	3,866,960	—	74.7	893,070	11.4	261,885	5.1	383,415	6.8	104,215	2.0
W.Va.	739,110	638,798	42,922	78.7	105,742	14.3	11,890	1.6	28,161	3.8	11,597	1.6
East South Central	8,087,705	5,167,207	464,045	70.2	1,334,771	16.7	395,546	4.9	595,059	7.4	81,877	0.8
Ala	3,245,304	2,308,054	—	71.1	703,610	21.7	24,400	0.7	180,240	5.6	29,000	0.9
Ky	1,883,348	961,473	188,643	69.5	234,068	12.4	284,000	15.1	236,688	12.6	6,536	0.4
Miss	913,543	634,461	84,674	88.9	170,986	18.7	40,939	4.5	87,617	7.4	5,156	0.5
Tenn	1,966,510	1,383,219	200,728	79.8	226,487	11.5	46,207	2.4	110,514	6.6	18,385	0.9
West South Central	7,366,708	4,631,311	678,853	72.1	869,957	11.8	199,381	2.7	963,488	12.9	35,718	0.5
Ark.	—	—	—	—	—	—	—	—	—	—	—	—
La	2,071,462	1,615,718	163,815	85.9	121,228	5.9	18,381	0.9	140,937	6.8	11,383	0.5
Okla	1,072,246	702,693	188,038	80.1	186,729	17.4	—	—	17,561	1.6	9,335	0.9
Tex.	4,223,000	2,313,000	387,000	83.2	662,000	13.3	181,000	4.3	795,000	18.8	15,000	0.4
Mountain	8,222,387	5,156,957	813,382	73.8	694,134	8.5	408,519	4.9	621,629	7.6	429,766	5.2
Ariz.	1,301,197	915,235	162,012	74.3	121,622	9.4	34,443	2.6	182,335	11.7	25,550	2.0
Colo	1,423,000	1,067,268	132,714	88.7	141,869	10.0	—	—	17,183	1.2	19,742	1.4
Ida.	1,404,600	793,881	189,263	70.0	—	—	—	—	114,817	8.2	—	—
Mont	337,334	207,637	30,740	70.7	20,626	6.1	20,581	6.1	17,975	5.3	39,875	11.8
Nev.	682,816	440,666	74,061	75.5	69,169	10.1	27,957	4.1	63,100	6.3	6,616	1.0
N.M.	1,395,200	797,400	118,700	85.4	121,400	8.7	116,900	8.4	229,700	16.5	14,100	1.0
Utah	1,309,253	838,031	189,616	78.5	184,072	11.8	53,785	4.1	60,866	4.6	12,884	1.0
Wyo	366,188	176,909	28,367	65.5	66,676	17.8	20,852	5.7	73,240	19.8	4,141	1.1
Pacific	17,821,138	9,838,893	2,211,748	87.3	1,310,282	7.3	594,097	3.3	3,428,139	18.1	540,779	3.0
Alaska	1,379,000	702,300	180,300	84.2	215,400	16.7	9,200	0.6	243,300	17.7	24,500	1.8
Cal	12,401,318	6,543,599	1,537,802	68.2	791,125	6.4	479,365	3.8	2,732,428	22.0	321,000	2.6
Hawaii	1,075,956	791,617	158,617	88.5	61,470	6.7	61,247	4.8	7,798	0.7	3,210	0.3
Ore.	1,309,646	735,677	132,679	66.3	107,287	8.2	43,285	3.3	247,619	18.9	43,068	3.3
Wash	1,761,321	1,065,000	202,350	71.0	135,000	7.7	15,000	0.8	185,000	11.1	148,971	8.4
Territories	1,845,296	818,213	39,801	81.8	92,829	8.9	55,232	5.3	16,583	1.6	24,438	2.3
Guam	150,635	116,323	13,994	86.6	16,008	10.6	2,966	2.0	—	—	1,244	0.8
P.R.	783,600	678,890	35,907	83.2	61,660	7.9	47,266	6.0	9,583	1.2	13,194	1.7
V.I.	111,281	74,000	—	66.5	15,281	13.7	5,000	4.5	7,000	6.3	10,000	9.0

Table 3-2
SOURCES OF LABORATORY FUNDS

Lab & Region	Total Laboratory Budget	State Funds		Federal Funds		Earned Funds		Other Funds	
		Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.	Amount	% of Total Exp.
Total	111,754,947	79,986,346	71.6	23,048,285	20.6	7,175,596	6.4	1,544,720	1.4
Average	2,191,273	1,568,360	-	461,927	-	140,698	-	30,289	-
New England	11,485,976	9,581,041	83.4	1,450,653	12.6	454,282	4.0	-	-
Conn.	3,811,134	3,498,206	91.8	312,928	8.2	-	-	-	-
Mass.	3,892,828	3,500,951	89.9	391,877	10.1	-	-	-	-
Me.	826,076	198,784	24.1	173,010	20.9	454,282	55.0	-	-
N.H.	372,032	276,232	74.2	95,800	25.8	-	-	-	-
R.I.	2,134,325	1,845,896	86.5	288,429	13.5	-	-	-	-
Vt.	449,581	260,972	58.0	188,609	42.0	-	-	-	-
Middle Atlantic	6,739,367	5,106,894	75.8	1,311,679	19.5	320,794	4.7	-	-
N.J.	4,195,867	2,966,894	70.7	908,179	21.6	320,794	7.7	-	-
N.Y.	-	-	-	-	-	-	-	-	-
Pa.	2,543,500	2,140,000	84.1	403,500	15.9	-	-	-	-
East North Central	19,886,871	12,079,637	60.7	5,588,791	28.1	2,050,270	10.3	168,173	0.9
Ill.	2,553,300	9,400	0.4	2,543,900	99.6	-	-	-	-
Ind.	2,325,953	2,082,483	89.5	243,470	10.5	-	-	-	-
Mich.	9,270,150	7,834,401	84.5	1,317,134	14.2	-	-	118,615	1.3
Ohio	2,789,688	692,850	24.8	1,343,196	48.2	743,944	26.7	9,698	0.3
Wis.	2,947,780	1,460,503	49.6	141,091	4.8	1,306,326	44.3	39,860	1.3
West North Central	8,013,709	4,383,286	54.7	2,209,792	27.6	542,119	6.7	878,512	11.0
Ia.	2,651,477	1,342,750	50.7	54,056	2.0	453,379	17.1	801,292	30.2
Kans.	1,467,528	1,184,659	80.7	282,869	19.3	-	-	-	-
Minn.	1,493,069	1,109,688	74.3	383,481	25.7	-	-	-	-
Mo.	967,799	190,111	19.6	700,468	72.4	-	-	77,220	8.0
Nebr.	492,074	157,452	32.0	285,100	58.0	49,522	10.0	-	-
N.D.	555,120	217,006	39.1	338,114	60.9	-	-	-	-
S.D.	386,642	181,720	47.0	165,704	42.9	39,218	10.1	-	-
South Atlantic	23,177,051	18,430,184	79.5	4,123,080	17.8	520,237	2.2	103,550	0.5
Del.	520,234	341,926	65.7	178,308	34.3	-	-	-	-
D.C.	1,191,387	942,671	79.1	248,716	20.9	-	-	-	-
Fla.	4,812,518	2,865,258	59.5	1,836,678	38.2	7,032	0.1	103,550	2.2
Ga.	2,491,021	2,314,836	92.9	176,185	7.1	-	-	-	-
Md.	4,099,500	3,979,882	97.1	119,618	2.9	-	-	-	-
N.C.	2,462,601	1,508,698	61.3	577,198	23.4	376,706	15.3	-	-
S.C.	1,680,965	1,126,038	67.0	461,927	27.5	93,000	5.5	-	-
Va.	5,179,715	4,919,045	95.0	217,170	4.2	43,500	0.8	-	-
W. Va.	739,110	431,830	58.4	307,280	41.6	-	-	-	-
East South Central	8,007,705	5,571,780	69.6	2,066,128	25.8	146,173	1.8	223,624	2.8
Ala.	3,245,304	2,095,212	64.6	1,150,092	35.4	-	-	-	-
Ky.	1,883,348	1,332,330	70.7	327,394	17.4	-	-	223,624	11.9
Miss.	913,643	257,928	28.2	509,842	55.8	145,773	16.0	-	-
Tenn.	1,965,510	1,886,310	96.0	78,800	4.0	400	<0.1	-	-
West South Central	7,366,708	5,589,181	75.9	1,606,666	21.8	-	-	170,861	2.3
Ark.	-	-	-	-	-	-	-	-	-
La.	2,071,462	1,767,176	85.3	304,286	14.7	-	-	-	-
Okl.	1,072,246	537,005	50.1	364,380	34.0	-	-	170,861	15.9
Tex.	4,223,000	3,285,000	77.8	938,000	22.2	-	-	-	-
Mountain	8,222,387	5,132,337	62.4	2,792,417	34.0	297,633	3.6	-	-
Ariz.	1,301,197	599,852	46.1	701,345	53.9	-	-	-	-
Colo.	1,423,000	666,000	46.1	712,000	50.0	55,000	3.9	-	-
Ida.	1,404,600	851,027	60.6	448,573	31.9	105,000	7.5	-	-
Mont.	337,334	167,503	49.7	169,481	50.2	350	0.1	-	-
Nev.	682,618	463,152	67.9	213,666	31.3	5,800	0.8	-	-
N.M.	1,395,200	1,259,200	90.3	31,100	2.2	104,900	7.5	-	-
Utah	1,309,253	925,409	70.7	357,261	27.3	26,583	2.0	-	-
Wyo.	369,185	210,194	56.9	158,991	43.1	-	-	-	-
Pacific	17,921,138	13,275,563	74.1	1,801,487	10.0	2,844,088	15.9	-	-
Alaska	1,375,000	1,243,400	90.4	82,300	6.0	49,300	3.6	-	-
Cal.	12,401,316	8,827,080	71.2	1,006,169	8.1	2,568,067	20.7	-	-
Hawaii	1,073,966	956,971	89.0	117,985	11.0	-	-	-	-
Ore.	1,309,545	875,791	66.9	332,033	25.3	101,721	7.8	-	-
Wash.	1,761,321	1,373,321	78.0	263,000	14.9	125,000	7.1	-	-
Territories	934,035	836,443	89.6	97,592	10.4	-	-	-	-
Guam	150,535	98,228	65.3	52,307	34.7	-	-	-	-
P.R.	783,500	738,215	94.2	45,285	5.8	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE, OR LOCAL)

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ala.	Federal Medicaid - Sickle Cell (Electrophoretic separation of filter paper blood specimens for the detection of abnormal hemoglobins) Medicaid - Intestinal Parasites (Microscopic examination of formalized specimens for the detection of Helminth and Protozoa.) Medicaid - Pinworm, Microscopic (Examination of taped slide preparation for the detection of pinworm.) Medicaid - Lead	Micro V	.33	Pers.	72,936
		Micro IV	.50	Supp.	2,102
		Micro II	.75	Equip.	2,658
		Micro I	.75	Other	853
		Lab Tech II	.75	Total	78,549
		Clerk Typist II	.88		
		Micro IV	.30	Pers.	62,429
		Micro III	.50	Supp.	5,339
		Micro I	.85	Equip.	1,312
		Lab Tech II	.75	Other	2,571
		Lab Tech I	.33	Total	71,651
		Clerk Steno II	.33		
		Clerk Typist II	.31		
		Micro IV	.05	Pers.	6,557
		Micro III	.10	Supp.	1,056
		Lab Tech II	.20	Equip.	583
Clerk Steno I	.10	Other	992		
Clerk Typist II	.06	Total	9,188		
Micro V	.05	Pers.	22,540		
Micro IV	.33	Supp.	14,400		
Micro I	1.0	Equip.	36,000		
Clerk Typist II	.33	Other	1,800		
		Total	74,740		
Alaska	Federal VD Control (Laboratory support) Alaska Native Health Service - TB Contract (TB laboratory support) 314(d) Funds (Rubella serology screening) ANHS - Environmental Chemistry - U.S. Forest Service (Chemical analysis on well water samples) State Dept. of Public Safety (Breathalyzer documentation) Dept. of Fish and Game (IHNV vaccine preparation)	-	3.0	Pers.	33,900
				Total	33,900
		-	-	Supp.	18,700
				Total	18,700
		-	1.0	Pers.	28,000
				Total	28,000
		-	-	Supp.	8,000
				Total	8,000
		-	1.0	Pers.	26,000
				Supp.	4,000
		Other	4,000		
		Total	34,000		
		1.0	Pers.	15,000	
		Supp.	9,000		
		Equip.	5,000		
		Other	1,000		
		Total	30,000		
Ariz.	Federal Highway Safety Project (Blood alcohol certification) HIB (Medicare) (Laboratory certification)	Chemist III	.1	Supp.	1,560
		Typist II	.1	Total	1,560
		Lab. Cons.	1.0	Pers.	28,624
		Surveyor		Supp.	1,378
				Equip.	1,014
		Other	4,285		
		Total	35,301		

**Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued**

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ariz. (Cont.)	EPA – Safe Drinking Water (Environmental lab. certification)	Cons. Surveyor Typist II	1.0 1.0	Pers. 8,765 Supp. 1,826 Equip. 315 Other 3,346 Total 14,252	
	EPA – Air Pollution (Laboratory analysis of samples)	Chemist III	1.0	Pers. 21,927 Supp. 1,225 Other 221 Total 23,373	
	EPA – Water Pollution (Laboratory analysis of samples)	Chemist III	1.0	Pers. 21,060 Total 21,060	
	EPA – Lab. Training Project (Environmental laboratory personnel training)	—	—	Other 1,365 Total 1,365	
	FDA – Interstate Travelers Food-Plant Inspection (Laboratory analysis of samples)	Micro.	0.2	Supp. 520 Total 520	
	State State Dairy Commissioner (Laboratory analysis of samples)	Chemist II Lab. Tech. II Typist II	1.0 3.0 1.0	Pers. 65,927 Supp. 15,705 Equip. 4,482 Other 442 Total 86,556	
	Industrial Commission Contract (OSHA) (Laboratory analysis of samples)	Chemist III Lab. Tech. I	1.0 1.0	Pers. 31,559 Supp. 1,070 Other 1,091 Total 33,720	
	Cal.	Federal DHEW Extramural Programs, National Institute of Allergy and Infectious Diseases (NIAID) (Studies on the pathogenesis of Naegleria infections)	Research Spec. II Lab. Asst.	1.0 1.0	Pers. 46,327 Supp. 2,128 Other 900 Total 49,355
		U.S. Army Medical Research and Development Command (Development of psoralen photoinactivated alphavirus and arena- virus vaccines)	Research Spec. II Lab. Asst.	1.0 0.8	Pers. 38,510 Supp. 6,700 Other 17,270 Total 62,480
		National Institutes of Health, Procurement Branch/National Cancer Institute (NCI) (NCI collaborative studies – cancer virus studies)	P.H. Micro I P.H. Lab. Tech. Animal Tech.	1.0 1.0 2.0	Pers. 63,275 Supp. 10,021 Other 28,614 Total 101,910
DHEW Extramural Programs, NIAID (Electron microscopic studies of selected viral agents)		Research Asst. III Animal Tech. III	0.8 1.0	Pers. 34,487 Supp. 6,828 Equip. 1,000 Other 900 Total 43,215	
DHEW Extramural Programs National Institutes of Health (Postdoctoral training program in microbiology)		Lab. Asst. Post Doc's	1.0 3.0	Pers. 42,201 Supp. 3,000 Equip. 1,200 Other 7,012 Total 53,413	

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses		
Cal. (Cont.)	DHEW Extramural Programs, NIAID (Immunology and epidemiology of certain viral diseases)	Research Spec.	1.0	Pers.	124,810	
		P.H. Micro I	3.8	Supp.	9,800	
		Lab. Asst./	4.7	Equip.	2,100	
		An. Tech. II		Other	1,750	
				Total	138,460	
		Environmental Protection Agency (Improvement and evaluation of methods for sulfate analysis)	Res. Spec. III	0.5	Pers.	36,447
			Chem. II	1.0	Supp.	1,647
			Res. Tech.	0.5	Other	15,546
			Std. Asst.	0.5	Total	53,640
		(Calibration of particulate mass monitors)	Res. Spec. III	0.2	Pers.	13,423
			Res. Spec. I	0.5	Supp.	1,500
					Equip.	900
					Other	8,444
					Total	24,267
		(Conference on Methods in Air Pollution Studies)	Chem. III	0.3	Pers.	9,446
					Supp.	40
					Other	7,714
					Total	17,200
		(Community Study on Pesticides)	Res. Spec. III	2.0	Pers.	147,273
			Chem. II	2.0	Supp.	1,500
		Off. Asst. II	1.0	Other	44,164	
		Youth Aid	0.5	Total	192,937	
	(Pilot Study of Acute Bronchitis and Its Relation to Air Pollution)	Epidem. Interviewer II	—	Pers.	11,084	
				Equip.	488	
				Other	7,052	
				Total	18,624	
	State					
	Water Resources Control Board, Division of Planning and Research (Water Virology Laboratory Unit. Develop and evaluate procedures for virus concentration and removal from water. Develop laboratory techniques for virus assay of water samples, evaluation of waste water treatment systems, and health significance of viruses in water environment.)	Research Spec. IV	1.0	Pers.	81,725	
		P.H. Micro II	1.0	Other	18,275	
		Senior Lab. Asst.	1.0	Total	100,000	
	Department of Transportation (Air quality equipment calibration)	Chem. I	1.8	Pers.	40,847	
				Supp.	4,200	
				Equip.	10,000	
				Other	19,953	
				Total	75,000	
	Private					
	National Multiple Sclerosis Society (Immunology of Multiple Sclerosis – viral antibody studies)	P.H. Micro I	2.0	Pers.	47,817	
		Lab. Asst.	0.25	Supp.	4,796	
				Other	12,000	
				Total	64,615	
	National Science Foundation (Cytogenetic and Immunologic studies on virus – induced cell transformation in marsupial cell cultures.)	P.H. Micro. I	1.0	Pers.	9,054	
				Supp.	2,582	
				Other	3,364	
				Total	15,000	

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses										
Colo.	Federal Division of Highway Safety (D.O.T.) (Alcohol test laboratory)	Implied Consent Specialist	3.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">87,500</td></tr> <tr><td>Supp.</td><td style="text-align: right;">6,500</td></tr> <tr><td>Equip.</td><td style="text-align: right;">4,300</td></tr> <tr><td>Other</td><td style="text-align: right;">9,200</td></tr> <tr><td>Total</td><td style="text-align: right;">87,500</td></tr> </table>	Pers.	87,500	Supp.	6,500	Equip.	4,300	Other	9,200	Total	87,500
Pers.	87,500													
Supp.	6,500													
Equip.	4,300													
Other	9,200													
Total	87,500													
Conn.	Federal			<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">288,513</td></tr> <tr><td>Supp.</td><td style="text-align: right;">24,415</td></tr> <tr><td>Total</td><td style="text-align: right;">312,928</td></tr> </table>	Pers.	288,513	Supp.	24,415	Total	312,928				
Pers.	288,513													
Supp.	24,415													
Total	312,928													
	Maternal and Child Hygiene (Lead screening)	Chemist	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">16,396</td></tr> <tr><td>Total</td><td style="text-align: right;">16,396</td></tr> </table>	Pers.	16,396	Total	16,396						
Pers.	16,396													
Total	16,396													
	(Streptococcus cultures)	Lab. Helper	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">9,712</td></tr> <tr><td>Total</td><td style="text-align: right;">9,712</td></tr> </table>	Pers.	9,712	Total	9,712						
Pers.	9,712													
Total	9,712													
	(PKU program)	Lab. Helper	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">10,367</td></tr> <tr><td>Total</td><td style="text-align: right;">10,367</td></tr> </table>	Pers.	10,367	Total	10,367						
Pers.	10,367													
Total	10,367													
	Medicare (Laboratory improvement)	Clerk III Supv. Med. Exam. Med. Examiners	1.0 0.8 1.6	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">64,982</td></tr> <tr><td>Total</td><td style="text-align: right;">64,982</td></tr> </table>	Pers.	64,982	Total	64,982						
Pers.	64,982													
Total	64,982													
	EPA (Safe Water Act)	Conn. Careers Lab. Helper	0.08 1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">9,407</td></tr> <tr><td>Total</td><td style="text-align: right;">9,407</td></tr> </table>	Pers.	9,407	Total	9,407						
Pers.	9,407													
Total	9,407													
	Public Health Service Block Grants (Radiological health)	Sr. Env. Chem.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">21,867</td></tr> <tr><td>Total</td><td style="text-align: right;">21,867</td></tr> </table>	Pers.	21,867	Total	21,867						
Pers.	21,867													
Total	21,867													
	(Organohalides in water)	Chemist	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">15,947</td></tr> <tr><td>Total</td><td style="text-align: right;">15,947</td></tr> </table>	Pers.	15,947	Total	15,947						
Pers.	15,947													
Total	15,947													
	(Community health screening)	Assist. Biochem.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">21,867</td></tr> <tr><td>Total</td><td style="text-align: right;">21,867</td></tr> </table>	Pers.	21,867	Total	21,867						
Pers.	21,867													
Total	21,867													
	(Food-borne diseases testing)	Sr. Micro.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">19,936</td></tr> <tr><td>Total</td><td style="text-align: right;">19,936</td></tr> </table>	Pers.	19,936	Total	19,936						
Pers.	19,936													
Total	19,936													
	(Gonorrhea screening)	Micro.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">15,245</td></tr> <tr><td>Total</td><td style="text-align: right;">15,245</td></tr> </table>	Pers.	15,245	Total	15,245						
Pers.	15,245													
Total	15,245													
	(Inborn errors)	Med. Tech.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">13,834</td></tr> <tr><td>Total</td><td style="text-align: right;">13,834</td></tr> </table>	Pers.	13,834	Total	13,834						
Pers.	13,834													
Total	13,834													
	(Toxicology reports)	Typist	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">9,421</td></tr> <tr><td>Total</td><td style="text-align: right;">9,421</td></tr> </table>	Pers.	9,421	Total	9,421						
Pers.	9,421													
Total	9,421													
	(Laboratory animal care)	Pub. Health Lab. Asst. I	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">10,506</td></tr> <tr><td>Total</td><td style="text-align: right;">10,506</td></tr> </table>	Pers.	10,506	Total	10,506						
Pers.	10,506													
Total	10,506													
	(Lab. equipment maintainer)	Maintainer Foreman	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">15,673</td></tr> <tr><td>Total</td><td style="text-align: right;">15,673</td></tr> </table>	Pers.	15,673	Total	15,673						
Pers.	15,673													
Total	15,673													
	(Virology)	Micro.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">15,257</td></tr> <tr><td>Total</td><td style="text-align: right;">15,257</td></tr> </table>	Pers.	15,257	Total	15,257						
Pers.	15,257													
Total	15,257													
	(V.D. control)	Sr. Micro.	1.0	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Pers.</td><td style="text-align: right;">18,096</td></tr> <tr><td>Total</td><td style="text-align: right;">18,096</td></tr> </table>	Pers.	18,096	Total	18,096						
Pers.	18,096													
Total	18,096													

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
D.C.	Federal				
	Dept. of HEW (Lab tests for gonorrhoea)	Med. Tech. Clerk	2.0 .5	Pers. Supp.	26,500 31,000
				Total	57,500
	(Lab tests to detect lead level)	Chemist Tech.	2.0 1.0	Pers. Supp.	41,900 8,000
				Total	49,900
	HEW Children's Bureau (Lab tests to detect presence of disease in infants, youths, and mothers.)	Chemist Tech.	1.0 5.0	Pers. Total	80,000 80,000
Ga.	Federal				
	Sexually Transmitted Disease Unit (GC culture program)	Lab. Assoc. II Lab. Sc. II Lab. Tech. II Clerical	1.0 1.0 3.0 2.0	Pers. Supp. Total	68,004 38,853 106,857
	Division of Mental Health (Urine test for abuse drugs)	Lab. Assoc. II Lab. Assoc. I Lab. Tech. III Lab. Tech. II Clerical	1.0 1.0 2.0 2.0 1.0	Pers. Supp. Other Total	119,645 38,000 18,500 176,145
	Adult Health Unit (Hypertension program)	Lab. Sc. II	1.0	Pers. Supp. Total	12,288 10,000 22,288
Hawaii	Federal				
	314(d) (Public health laboratory support)	Micro. Lab Asst.	3.0 3.0	Pers. Total	77,237 77,237
	EPA (Water pollution studies)	—	—	Supp. Equip. Total	22,425 18,323 40,748
Ida.	Federal				
	Traffic Safety Commission (Analysis of blood and breath for alcohol – DWI)	Criminalist Chemist Sec.	2.4 — —	Pers. Supp. Equip. Total	35,799 26,282 3,609 65,690
	Dept. of Law Enforcement (Handling reports associated with alcohol testing)	Sec.	1.0	Pers. Supp. Total	9,644 18,356 28,000
	Environmental Protection Agency (Analysis of mothers' milk for pesticides)	Chem. III	0.25	Supp. Equip. Total	4,390 3,797 8,187
	(Establishment and maintenance of certification program for water testing labs.)	Chem. III Sec.	0.3 0.75	Pers. Supp. Equip. Total	12,750 3,156 4,735 20,641
	Law Enforcement Planning Commissions (Support of satellite forensic lab. services in two branch laboratories)	Chem. I Sec.	1.0 1.0	Pers. Supp. Equip. Total	14,330 5,655 32,428 52,413

**Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued**

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ia. (Cont.)	State Departments of Transportation, Parks and Recreation, Fish and Game, Water Resources, Agriculture, Correction, Probation and Parole. (Agreements to provide laboratory services on a cost/test basis.)	—	—	Funds not budgeted.	
	Local City of Spokane, Wash. (Bacteriological and chemical analyses of samples submitted from aquifer study)	Micro. III Chem. II	1.3 —	Pers. 17,252 Supp. 4,956 Equip. 1,541 Other 23,749	
Ia.	Federal CDC (To expand existing proficiency testing program)	—	1.0	Pers. 8,825 Supp. 3,299 Other 5,340 Total 17,464	
	(To provide a continuing education program via a mobile library to clinical labs throughout Iowa)	—	1.6	Pers. 12,334 Supp. 9,227 Equip. 4,099 Other 12,503 Total 38,163	
	FDA (To do national x-ray trend survey)	—	0.5	Pers. 3,015 Other 2,259 Total 5,274	
	Medicare (Surveys of hospital laboratories to insure compliance with Medicare standards.)	—	1.5	Pers. 33,054 Other 14,470 Total 47,524	
	NIOSH (Analytical services as part of a subcontract for a coal liquefaction study)	—	1.0	Supp. 3,145 Equip. 24,099 Total 27,244	
	State Industrial Hygiene (Providing laboratory services to the Iowa Bureau of Labor)	—	3.4	Pers. 52,421 Supp. 7,993 Equip. 3,768 Other 17,021 Total 81,203	
	Air Quality (Providing laboratory services for air quality monitoring to the Iowa Dept. of Environmental Quality)	—	3.0	Pers. 54,649 Supp. 25,136 Equip. 102,872 Other 21,331 Total 203,988	
	DEQ (Sampling and analytical services for a non-point runoff study)	—	1.5	Pers. 25,325 Supp. 5,418 Equip. 22,732 Other 10,120 Total 63,595	
	(Providing laboratory services for water quality surveillance)	—	5.0	Pers. 78,822 Supp. 7,169 Equip. 171,913 Other 30,694 Total 288,598	

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ia. (Cont.)	Rubella Screening (Screening of prenatal sera for rubella-susceptible mothers)	—	2.0	Pers.	27,283
				Supp.	2,908
				Other	4,256
				Total	34,447
	Gonorrhea Culture Program (Providing culture services to physicians to detect asymptomatic patients)	—	1.0	Pers.	11,988
				Supp.	4,724
				Other	17,826
				Total	34,538
Kans.	Federal				
	Venereal Disease Control Project (Gonorrhea culture screening of OB/GYN patients in private and public clinics)	Micro Lab. Tech. Clerical	1.0 0.5 0.2	Supp.	8,926
				Total	8,926
	EPA Water Pollution Control Project (Laboratory support for National Pollution Discharge Elimination System)	Chemist Micro Lab. Tech.	3.0 1.0 2.0	Pers.	41,551
				Total	41,551
	EPA Water Supply Program (Laboratory support for Safe Drinking Water Act requirements.)	Chemist Lab. Tech.	2.0 1.0	Pers.	29,922
				Total	29,922
	EPA Air Quality Program (Laboratory support for sulfur dioxide and particulate monitoring including suspended particulate analysis from 56 sites in state and continuous monitoring calibrations support for 5 sites.)	Chemist Clerical	0.75 0.1	Pers.	16,683
				Total	16,683
	Occupational Health (Provide analytical support for on-site consultation services at employer's work site.)	Chemist	1.0	Supp.	1,450
				Total	1,450
	Private				
	Harvard Air/Lung Study (Laboratory analytical services related to ambient air monitoring.)	Chemist	0.25	Other	5,380
				Total	5,380
Ky.	Federal				
	Division of Maternal and Child Health (PKU, Rh, and galactosemia testing)	Micro	3.0	Pers.	62,086
				Supp.	12,047
				Equip.	199
				Other	3,606
				Total	77,938
	Natural Resources and Environmental Protection (Bacterial and chemical testing of public water)	Micro Chemist Surveyor	3.0 3.0 1.0	Pers.	129,942
				Supp.	19,265
				Equip.	5,959
				Other	18,934
				Total	174,100
	Department of Labor (Analysis of occupational samples and specimens)	Chemist Lab Aid	2.5 0.5	Pers.	49,056
				Supp.	7,143
				Equip.	8,908
				Other	12,893
				Total	78,000
	Proficiency Testing (PT for approximately 210 laboratories)	Lab Aid Clerk Technologist Micro	1.0	Pers.	9,660
				Supp.	4,798
				Equip.	3,558
				Other	640
				Total	18,656

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ky. (Cont.)	Laboratory Training (Training workshop for several clinical laboratories throughout state)	Micro Consultant	0.5	Pers.	5,838
				Supp.	212
				Equip.	544
				Other	1,663
				Total	8,257
La.	Federal and State				
	Bureau of Personal Health Services (Maternal and child health)	—	—	Pers.	91,715
				Supp.	6,248
				Other	7,850
				Total	105,813
	(Women, infants and children—food)	—	—	Pers.	1,418
				Supp.	47
				Other	121
				Total	1,636
	Bureau of Environmental Services (Safe drinking water)	—	—	Pers.	165,437
				Supp.	11,270
				Other	14,161
				Total	190,868
	(Interstate carrier inspection)	—	—	Pers.	546
				Supp.	37
				Other	47
				Total	630
	(Food inspection)	—	—	Pers.	4,628
				Supp.	315
				Other	396
				Total	5,339
	State				
	Bureau of Personal Health Services (Venereal disease control)	—	—	Pers.	75,772
				Supp.	5,162
				Other	6,486
				Total	87,420
	(Early periodic screening and diagnostic testing)	—	—	Pers.	11,617
				Supp.	791
				Other	994
				Total	13,402
	(Family planning)	—	—	Pers.	62,223
				Supp.	4,238
				Other	5,326
				Total	71,787
	(Tuberculosis control)	—	—	Pers.	42,343
				Supp.	2,885
				Other	3,624
				Total	48,852
	(Other personal health activities)	—	—	Pers.	76,885
				Supp.	5,239
				Other	6,581
				Total	88,705

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses
La. (Cont.)	Bureau of Environmental Services (Retail Food Sanitarian)	—	—	Pers. 40,677 Supp. 2,771 Other 3,482 Total 46,930
	(Safe drinking water)	—	—	Pers. 53,325 Supp. 3,633 Other 4,564 Total 61,522
	(Water pollution)	—	—	Pers. 27,130 Supp. 1,848 Other 2,322 Total 31,300
	(Oyster seed)	—	—	Pers. 7,304 Supp. 498 Other 625 Total 8,427
	(Occupational health)	—	—	Pers. 43 Supp. 3 Other 4 Total 50
	(Food inspection)	—	—	Pers. 151,654 Supp. 10,331 Other 12,981 Total 174,966
	(Milk and dairy inspection)	—	—	Pers. 581,810 Supp. 39,635 Other 49,800 Total 671,245
	(Solid waste)	—	—	Pers. 83 Supp. 6 Other 7 Total 96
	(Retail Food Sanitarian)	—	—	Pers. 1,093 Supp. 74 Other 94 Total 1,261
	(Other environmental activities)	—	—	Pers. 6,816 Supp. 464 Other 584 Total 7,864
	Personal Health and Environmental Services (Administration and general support)	—	—	Pers. 377,014 Supp. 25,683 Equip. 18,381 Other 32,271 Total 453,349
	Me. Federal Medicare-Medicaid (Laboratory surveillance for hospital services licensure)	Lab Surveyor	1.0	Pers. 15,013 Supp. 2,000 Total 17,013

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Md.	Federal				
	Cervical Cancer Screening Program (Pap smear screening of women who are ineligible for other public health programs)	Lab. Asst. Lab. Sci. II Lab. Sci. I Typ. Clk. II	1.0 1.0 1.0 1.0	Pers. Supp. Equip. Other	18,834 1,581 329 3,475
				Total	24,219
	Air Quality Control Program (Constant monitoring of air throughout state for pollutants)	—	—	Pers.	30,613
				Total	30,613
	Safety and Occupational Health Act, Division of Labor and Industry (Laboratory testing of samples submitted by the MOSHA Program)	Lab. Sci. III Lab. Sci. I Lab. Assts.	2.0 1.0 3.0	Pers. Supp. Equip. Other	32,305 4,199 642 4,242
				Total	41,388
	State				
	Crippled Children's Program (Testing for inborn errors of metabolism in newborns)	—	—	Supp.	21,739
				Total	21,739
Mich.	Federal				
	Cancer Contract (Test of drugs for use in treatment)	Sec. Micro Lab. Asst.	1.0 1.0 1.5	Pers. Supp. Equip.	62,330 1,840 1,613
				Total	65,783
	Brucellosis (Development of vaccine for human use)	Lab. Spec. Lab. Asst.	1.0 0.8	Pers. Supp. Equip. Other	36,660 2,628 14 553
				Total	39,855
	Rabies (Development of improved vaccine)	Lab. Tech.	0.6	Pers. Supp. Other	9,662 3,202 245
				Total	13,109
	PBB (Testing of long-term study of exposed persons)	Sec. Med. Tech. Typist Student Asst. Chem. Lab. Asst. Stat.	1.0 5.0 0.5 0.3 2.0 4.8 1.4	Pers. Supp. Equip. Other Total	226,446 61,169 11,843 18,346 317,804
	Glyco-peptid (Preparation of anti-cancer compounds)	Chem.	0.4	Pers. Supp.	8,714 14,461
				Total	23,175
	Proficiency Testing Contract (Blind proficiency testing)	Lab. Eval. Lab. Spec.	0.3 —	Pers. Supp. Other	6,347 7,781 137
				Total	14,265
	Pesticides (Analysis of tissue for pesticides)	Adm. Steno. Sec. Field Rep. Lab. Asst. Chem.	0.6 1.0 1.0 2.0 2.0 1.0	Pers. Supp. Equip. Other Total	155,255 12,343 2,328 11,751 181,677
Neonatal Hypothyroid Testing (Thyroid function)	Lab. Asst. Micro.	2.0 0.4	Pers. Supp. Equip. Total	32,118 17,343 5,524 54,985	

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses
Mich. (Cont.)	Private Influenza contract (Lyophilization of vaccine)	—	—	Supp. 408 Total 408
	Red Cross (Research to develop blood fractions)	Chem. Lab. Tech.	1.0 1.0	Pers. 39,189 Supp. 16,199 Equip. 3,241 Other 445 Total 59,074
Minn.	Federal DHEW, CDC (Continuing education for medical laboratory personnel.)	Med. Technologist Med. Technician Clerk-Typist	1.0 1.0 1.0	Pers. 14,667 Supp. 3,187 Equip. 19,445 Other 3,000 Total 40,299
Mo.	Federal FDA (Laboratory tests on food samples)	Chemist	0.3	
	Division of Highway Safety (Breath alcohol maintenance and calibration program)	Chemist	0.4	
	State State milk board (1. Laboratory inspection and approval) (2. Performance of lab tests on milk.)	Micro.	0.5	
	Dept. of Natural Resources (1. Bacteriological and chemical testing of public water supply) (2. Laboratory inspection)	Micro. Chemist	4.0	
Mont.	Federal Maternal and Child Health (Neonatal testing for inborn errors of metabolism)	Bureau Chief Clerk Typist	0.25 1.0	Pers. 13,254 Supp. 2,730 Equip. 2,835 Other 33,266 Total 52,085
Nev.	Federal Gonorrhea (GC culture program)	Admin. Micro. Lab. Asst. Clerical Stock Clerk	0.3 2.0 1.8 0.4 0.2	Pers. 20,000 Supp. 16,900 Total 36,900
	Safe Drinking Water (Water chemistry and bacteriology)	Admin. Micro. Chem. Lab. Asst. Clerk Stock Clerk	0.1 0.4 1.5 2.3 0.2 0.2	Pers. 60,715 Supp. 30,238 Equip. 11,504 Other 2,310 Total 104,767
	EPA – Air, Water (Chemistry and bacteriology)	Admin. Micro. Chemist Lab. Asst. Clerk Stock Clerk	0.1 0.1 1.5 1.0 0.1 0.1	Pers. 27,000 Equip. 22,500 Other 7,500 Total 57,000
	314(d) (Communicable disease)	—	—	Other 15,000 Total 15,000

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses
N.J.	Federal			
	General Health	—	—	Pers. 476,653 Supp. 20,000 Equip. 47,030 Total 543,683
	Maternal and Child Health	—	—	Pers. 78 Total 78
	VD Case Finding			Pers. 90,137 Other 22,447 Total 112,584
	Crippled Children			Pers. 51,408 Supp. 2,000 Total 53,408
	Health Research Facilities			Equip. 20,915 Total 20,915
	CETA Title II			Pers. 11,344 Total 11,344
	Administrative Overhead			Equip. 47,506 Total 47,506
	State (Total State Funds)			Pers. 2,109,104 Supp. 373,870 Equip. 320,836 Other 602,539 Total 3,406,349
	N.M.	Federal		
Traffic Safety Program (Court testimony, training, auxiliary services in breath/blood alcohol testing)		Lab. Scientist (Chem)	0.9	Total 31,100
N.M. Family Planning Council (Analyses for venereal disease)		Lab. Sci. (Micro)	1.6	Total 45,000
VA Hospital (Analyses for tuberculosis and syphilis)		Lab. Sci. (Micro.)	0.4	Total 10,100
State Agencies outside Health and Social Services Dept. (Various laboratory analyses)		Lab. Sci. (Chem. and Micro.)	0.7	Total 21,000
State and Local Traffic Safety Program (Breath/blood analyses for local law enforcement agencies)	Lab. Sci. (Chem.)	1.0	Total 34,000	
N.C.	State			
	Sickle Cell Screening Program (Screening and diagnosis of hemoglobinopathies)	P.H. Micro. II P.H. Micro. I Clk-Typ. III	0.8 1.0 1.0	Pers. 40,745 Equip. 8,312 Other 1,064 Total 50,121
	Federal			
	Highway Safety Program (Preparation and distribution of ethyl alcohol solution used as calibration standard in Breathalyzers)	An. Chem. II An. Chem. I Chem. An. I Lab. Tech. Lab. Tech.	0.05 0.05 0.05 0.05 0.05	Supp. 1,368 Total 1,368

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
N.C. (Cont.)	Solid Waste Planning Project (Chemical analyses on landfill drainage)	An. Chem. 1	1.0	Pers.	17,380
				Total	17,380
	Safe Drinking Water Act (EPA) (Start up grant prior to assuming primary enforcement responsibility)			Equip.	480
				Other	766
			Total	1,246	
	OSHA Program Administered Jointly by N.C. Depts. of Health and Labor (Analytical testing support to field engineers investigating OSHA complaints)	An. Chem. 1 Lab. Tech.	1.0 1.0	Pers.	28,052
				Total	28,052
	VD Control Project – Gonorrhoea (Lab advisor who provides training/PT to participating local health depts.)	Lab. Impr.	0.5	Pers.	24,772
				Total	24,772
Ohio	Federal				
	Encephalitis			Supp.	2,584
				Total	2,584
	Maternal and Child Health (Newborn screening)	Chem. 3 Chem. 1 Technicians	1.0 1.0 2.0	Pers.	69,228
				Supp.	16,008
				Other	4,512
				Total	89,748
	Genetics (Hypothyroid screening)	Typist 2 Micro. 1	1.0 0.5	Pers.	4,905
				Total	4,905
	VD control	Micro. 2 Micro. 1 Technicians Technologist	1.0 1.0 3.0 1.0	Pers.	76,762
				Supp.	11,726
				Total	88,488
	Interstate Food (Food testing)	Micro. 1	0.5	Pers.	4,905
				Total	4,905
	Industrial Commission (Occupational chemistry)	Chem. Supv. 1 Lab. Asst. Typist 2	0.25 0.25 0.25	Pers.	11,000
			Supp.	12,905	
			Equip.	7,597	
			Other	11,943	
			Total	43,446	
Dept. Industrial Relations (Occupational chemistry)	Chem. Supv. 1 Chem. 2 Chem. 3 Lab. Asst. Typist 2	0.25 1.0 1.0 0.25 0.25	Pers.	15,000	
			Supp.	4,302	
			Equip.	2,532	
			Other	11,877	
			Total	33,711	
Ohio River San. Comm. (Environmental chemistry)	—	—	Supp.	16,805	
			Total	16,805	
Dept. Natural Resources (Environmental chemistry)	—	—	Supp.	6,060	
			Total	6,060	
State					
Sickle Cell Grant (Abnormal hemoglobin)	Chem. 1	0.5	Pers.	5,242	
			Supp.	2,059	
			Total	7,301	

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Ohio (Cont.)	Federal and State Ohio Environmental Protection Agency (Env. chemistry and microbiology)	Chem. Supv. 2	1.0	Pers. 482,897	
		Sec. 1	1.0	Supp. 102,525	
		Chem. Supv. 1	5.1	Equip. 37,929	
		Chem. 2	4.0	Other 19,753	
		Chem. 1	10.0	Total 643,104	
		Technologist	1.0		
		Lab. Asst.	1.25		
		Typist 2	1.75		
		Typist 1	1.0		
		Micro. Supv. 1	1.0		
		Micro. 2	1.0		
		Micro. 1	1.0		
		Technician	2.0		
		Typist 2	1.0		
Okla.	Federal			Total 17,121	
		Family Planning, Okla. State Dept. of Health (Gonorrhea culture and syphilis serology)	—	—	
		Corps of Engineers (Water microbiology)	—	—	Total 13,293
		State and Federal			
		Water Quality Service, Okla. State Dept. of Health (Pathogenic bacteria and virus in sewage)	—	—	Total 27,092
		Venereal Disease Program, OSDH (Gonorrhea culture)	—	—	Total 56,635
		Preventive Medical Services, OSDH (Miscellaneous lab. services)	—	—	Total 46,066
		Maternal and Child Health Service, OSDH (PKU testing)	—	—	Total 1,701
		State and Local			
		Commanche County Health Dept. (Miscellaneous lab. services)	—	—	Total 16,073
R.I.	Federal				
		Public Health Service (Block grant for laboratory services)	Sr. Micro-TB 1.0 Sr. Micro-Ref. 1.0 Sr. Micro-Food 1.0 Sr. Micro-PKU Scrn. 1.0 Prin. Chem. Rad. Hlth. 1.0 Tech.-Strep. Program 1.0 Electronic Tech.-Instru. Repair 1.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0	Pers. 152,000 Total 152,000
		(Gonorrhea screening)	Micro. 1.0 Tech. 1.0	1.0 1.0	Pers. 25,000 Supp. 25,000 Total 50,000
		EPA (Water chemistry)	Chemist 1.0	1.0	Pers. 12,000 Total 12,000
		(Air pollution monitoring)	Chemists 4.0	4.0	Pers. 66,000 Supp. 8,429 Total 74,429

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
S.C.	Federal Pesticides Contract (Laboratory analysis of human, animal and environmental samples for pesticides and herbicides are provided under sub-contract with Med. Univ. S.C. which holds major contract with EPA to develop data on baseline exposure levels to these toxic substances.)	Chemist IV	1.0	Pers.	51,397
		Chemist II	1.0	Total	51,397
		Chemist I	0.7		
		Dir., Div. Env. Hlth. Labs	0.25		
	Blood Lead Agreement (Analysis of blood samples for levels of lead content to determine geographical areas of high risk)	Chemist II	0.5	Pers.	7,762
				Supp.	2,723
				Total	10,485
	Private COBRA Hemoglobin Electrophoresis (Analysis of blood for abnormal hemoglobins, especially sickle cell)	Lab. Tech. II	0.1	Pers.	2,591
		Lab. Tech. I	0.1	Supp.	620
				Total	3,211
Federal and State Drug and Alcohol Rehabilitation Programs (Analysis of urine specimens for drugs of abuse and for ethanol)	Chemist III	0.9	Pers.	22,910	
	Lab. Spec.	0.9	Supp.	9,173	
			Equip.	304	
			Total	32,387	
S.D.	Federal Center for Disease Control Laboratory Improvement (Consultation)	Stat. Clerk	1.0	Pers.	8,938
		Health Spec. II	1.0	Supp.	575
				Other	1,206
				Total	10,719
	Center for Disease Control Laboratory Improvement (Training)	—	—	Other	42,014
				Total	42,014
	State DEP (Water quality & hygiene testing)	Chemist III	0.75	Pers.	9,787
		Chemist II	0.75	Supp.	11,783
		Chemist I	0.25	Equip.	12,043
		Lab. Tech. II	0.25	Total	33,613
Local Contract with Cities and Towns Environmental Section (Water testing)	Chemist III	0.5	Pers.	8,007	
	Chemist II	0.5	Supp.	9,640	
	Chemist I	0.25	Total	17,647	
	Lab. Tech. II	0.25			
Tenn.	State Department of Safety (Blood alcohol exams)	—	—	Supp.	12,000
				Equip.	5,000
				Other	128,120
				Total	145,120
	Medical Ecology and Toxicology (Drug analysis, solid dosage; toxicological autopsy, reimbursement)	—	—	Pers.	109,060
			Other	13,000	
		Total	122,060		
Tex.	Federal Safe Drinking Water (Chemical and bacteriological analysis of drinking water)	Micro.	1.0	Pers.	132,000
		Chemist	4.0	Supp.	184,680
		Technician	6.0	Equip.	165,800
				Total	482,480

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses		
Tex. (Cont.)	Cooperative Meat Inspection Program (Chemical analysis of meat products)	Chemist	1.0	Pers.	22,992	
		Support	1.0	Total	22,992	
	Health Maintenance (Hypertension screening)	Med. Tech.	1.0	Pers.	16,692	
				Total	16,692	
	State					
	Interagency Contract with Water Resources Board (Chemical and bacteriological analysis of drinking water)	Micro.	2.0	Pers.	164,694	
		Chemist	5.0	Total	164,694	
		Technician	5.0			
		Clerical	1.0			
	EPSDT (Screening for State Welfare Dept.)	Support	3.0			
Chemist		3.0	Pers.	149,406		
Med. Tech.		2.0	Supp.	28,814		
Technician		5.0	Other	1,000		
Clerical		1.0	Total	179,220		
Utah	Federal Center for Disease Control Laboratory Improvement (Consultation)	Microbiologist	1.0	Pers.	24,031	
		Microbiologist	0.5	Supp.	502	
		Typist	0.5	Other	1,260	
				Total	25,793	
Vt.	Federal VD Program (Gonorrhea culturing)	Micro. A	0.5	Pers.	5,321	
				Total	5,321	
	EPA (Safe Drinking Water Act)	Micro.	1.0	Pers.	19,654	
		Lab. Tech.	1.0	Total	19,654	
Va.	Federal Law Enforcement Assistance Administration (Training for law enforcement officers)	—	—	—	—	
Wisc.	Federal DHEW, PHS, NIH, WI, DHSS (Cytogenetics Unit)	—	1.75	Pers.	37,917	
				Supp.	4,718	
				Other	1,558	
				Total	44,193	
	(AFP screening)	—	2.0	Pers.	22,923	
				Supp.	5,225	
				Other	646	
				Total	28,794	
	DHEW, PHS, CDC (Erythrocyte protoporphyrin proficiency testing)	—	1.0	Pers.	10,791	
				Supp.	1,141	
			Other	1,581		
			Total	13,513		
(Proficiency testing)	—	1.0	Pers.	8,343		
			Supp.	12,222		
			Total	20,565		
DHEW, PHS, Health Resources Adm. (Training grant)	—	0.7	Pers.	10,075		
			Supp.	6,420		
			Total	16,495		

Table 3-4
GRANTS, CONTRACTS, OR SPECIAL SERVICE AGREEMENTS
WITH OTHER DEPARTMENTS OR AGENCIES (PRIVATE, FEDERAL, STATE,
OR LOCAL) – Continued

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Expenses	
Wisc. (Cont.)	State				
	Div. of Transportation (CNS depressants in Wisc. traffic fatalities)	—	1.0	Pers.	14,018
				Supp.	1,139
				Equip.	2,300
				Other	74
				Total	17,531
	Private				
	Becton-Dickinson (Hard Glass Study)	—	—	Equip.	9,232
				Other	875
				Total	10,107
	(Serum separator eval.)	—	—	Supp.	1,272
				Total	1,272
	Ortho Diagnostics (BKM evaluation)	—	1.0	Pers.	13,617
				Supp.	2,114
				Equip.	10,266
				Other	2,484
				Total	28,481
Wyo.	Federal				
	Governor's Office of Highway Safety (Alcohol analyses, training of law enforcement personnel)	Chem. I	1.0	Pers.	34,613
		Chem. III	0.5	Supp.	3,504
		Sec. I	1.0	Equip.	6,023
				Other	11,308
				Total	55,448
	LEAA (Toxicology analyses)	Chem. III	0.5	Pers.	15,707
		Chem. II	1.0	Equip.	9,062
				Other	267
				Total	25,036
	Medical Facilities (Lab. survey for Medicare compliance)	Med. Tech. III	0.3	Pers.	6,106
				Other	971
				Total	7,077

**Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES**

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ala.	Pinworms Intestinal Parasites Sickle Cell Lead, Initial Lead, Confirmation	1.25 3.58 2.75 2.00 3.00	Slide Spec. Spec. Spec. Spec.	75,136	Recycled to support services provided.
Alaska	Chemical Water Analysis	3-15	Test	8,000	Returns to General Fund.
Ariz.	VDRL (Qual. and Quant.) FTA Fungal Serology Toxoplasmosis Rubella CF or HI (CNS, Exanthem, Respiratory, Rickettsial, Enterovirus) TB Smear, Culture & Drug Susceptibility Mycology Bacterial Isolation and Identification Viral Isolation and Ident. Water Total Coliform - MF Coliform - Multiple tube Routine Chemistry Individual Chemistry	2.25 3.00 2.50 2.50 2.75 11.50 7.00 5.00 7.00 20.00 1.25 1.25 28.00 1.00	Spec. Spec. Test Test Test Test Spec. Spec. Spec. Spec. Sample Sample Sample Test	151,000	State General Fund.
Colo.	Urine Test for Drugs of Abuse	2.55	Spec.	55,000	Pays cost of operation of service.
Conn.	Environmental Microbiology Environmental Chemistry Strep. Throat Culture	1.89 1.71 1.00	Rel. Value Rel. Value Test	425,000	General Fund
Ida.	Water Analyses: Purity Tests Most Probable Number Tests BOD COD Complete Chemical Analyses: Potable Tests (Test for arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, potassium, selenium, silver, sodium, zinc, alkalinity, ammonia, calcium, chloride, hardness, fluoride, magnesium, nitrate, silica, sulfate, total dissolved solids, pH, turbidity, color) Surface Water (Test for turbidity, pH, BOD ₅ , COD, total solids, ammonia, nitrate, sulfate, nitrite, O-phosphate, chloride, specific conductance, alkalinity, iron, manganese, sodium, potassium) Waste Samples (Test for turbidity, pH, BOD ₅ , total solids, ammonia, nitrate, nitrite, O-phosphate, COD, suspended solids, volatile solids, volatile suspended solids, settleable solids, total Kjeldahl nitrogen, total inorganic phosphate, total phosphorus.) Non-Point Source Samples (Test for turbidity, BOD ₅ , total solids, pH, nitrite, ortho-phosphate, COD-low level, specific conductance, suspended solids, settleable solids, total Kjeldahl nitrogen, total inorganic phosphate, total phosphorus, potassium, and fecal coliforms.)	5.00-7.50 6.50-10.00 7.50-10.00 5.50-7.50 95-110.00 65-75.00 85-100.00 70-80.00	Test Test Test Test Test Test Test Test	128,000	\$79,600 included as portion of approved budget. \$25,400 supplemental appropriation for laboratory use. \$23,000 reverted to State General Fund.

**Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES — Continued**

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ida. (Cont.)	Individual Water Chemistry Tests	3.50-5.00	Test		
	Elemental analyses performed by Atomic Absorption Spectrophotometry	4.50-6.00	Test		
	pH, Color	2.00	Test		
	Suspended Particulate	5.00	Test		
	Total or Inorganic Phosphorus	8.00	Test		
	Chlorophyll a	6.50	Test		
	Rad. Health (gross alpha-beta)	9.00	Test		
	Kjeldahl Nitrogens, Phenols, Surfactants, Sulfur dioxide	10.00	Test		
	Arsenic, Mercury, Selenium, Cyanide	12.00	Test		
	Oil and Grease	15.00	Test		
	Fluoride, Vegetation	25.00	Test		
	Pesticide Residue Analysis	75.00	Sample		
	Trihalomethane	50.00	Sample		
	Lead (Tissue, Foods, etc.)	12.00	Spec.		
	Pottery	6.00	Sample		
	Throat Culture	6.00	Spec.		
	Urine Drug Screen	7.50	Spec.		
	Syphilis Serology	6.00	Spec.		
	Rubella Serology	5.00	Spec.		
	Cytogenetic Analysis	125.00	Spec.		
	Salmonella—Food	10.00	Sample		
	Cpliform—Food	7.50	Sample		
	Air Pollution (Microscopy)	25.00	Sample		
	EPSDT Testing:				
	F.E.P., Urine Culture	4.00	Test		
Urine Screen, Hematocrit	1.00	Test			
Ind.	Private Water Bacteriology or Chemistry	2.50	Test	45,195	General Fund — Except for Private Water Bact. Postage & Handling Fees (Up to \$2.25) Remain in State Board of Health Revolving Fund.
	Public Water Bacteriology	10.00	Annual		
	Premarital Syphilis Sero.	2.50	Spec.		
la.	MPN-Potable Water	3.00	Sample	398,500	Estimate of Receipts is Built into General Operational Budget.
	Membrane Filter — Water	12.00	Sample		
	Nitrate and Iron — Hardness	3.00	Sample		
	BOD Effluent	8.00	Sample		
	Urine Screening, Abused Drugs	7.50	Spec.		
	Trace Metals	10-14.00	Test		
	Other Water Quality Parameters	4-48.00	Test		
	Radiation	10.50-40.50	Test		
	Pesticides	48.00-104.50	Test		
Kans.	Water Microbiology	3.00	Sample	66,570	General Fund.
	Water Chemistry				
	Partial Chemical	15.00	Sample		
	Complete Chemical	35.00	Sample		
Me.	Throat (Strep A Screening)	3.00	Kit	454,282	To Support Activities not State or Federally Funded — Personnel, Supplies, Equipment.
	Enteric Pathogen Screening	6.00	Kit		
	Mycology	10.00	Kit		
	Parasitology	6.00	Kit		
	Pertussis — FA	3.00	Kit		
	Newborn Metabolic Diseases	3.00	Kit		
	Blood Lead	6.00	Kit		
	Blood Serology	4.00	Kit		
	Water Analysis — Bact.	3.00	Test		
	Water Analysis — Chem.:				
	New Water Supply	12.00	Sample		
	Group C (17 Parameters)	20.00	Sample		
	Sewage	20.00	Sample		
	Public Distribution System	25.00	Sample		
	Dump Leachate	30.00	Sample		
	Pesticide Screening (6)	65.00	Sample		
	Drug Identification	10.00	Hour		
	Breath or Blood Alcohol	20.00	Sample		
	Pesticides (EPA Min.)	75.00	Set (6)		
	Racing Chemistry	375.00	Week		
Mass.	Laboratory Certificate	5.00	Certificate	1,430	Turned Over to State Treasurer.

Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES -- Continued

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Miss.	Medicare-Medicaid Patents (Medicaid Rates)	-	-	210,400	General Laboratory Budget
	Throat Cultures for Group A Strep.	1.00	Spec.		
	TB Cultures (Mental Hosp.)	3,600	Year		
	Sickle Cells	1.51	Spec.		
	Intestinal Parasites	3.00	Spec.		
Mont.	Potable Water and Food:			38,360	\$38,000 -- Drinking Water Chemistry and Microbiology Earmarked Revenue Fund. \$360 -- Occupational Health Chemistry -- Laboratory Budget.
	Water Bacteriology	4.00	Sample		
	MPN	10.00	Sample		
	Fecal Coliform	6.00	Sample		
	Six-Dilution Plate Count -- Water	7.00	Sample		
	Standard Chemical -- Private	15.00	Sample		
	Drinking Water				
	EPA Standard Chemical -- Public				
	Drinking Water Supply	70.00	Sample		
	Individual Chemicals -- Private				
	Drinking Water	2.00	Sample		
	Bacteriological Analysis -- Food	15.80	Sample		
	Pesticides (Qual. and Quant.)	35.00 Min	Sample		
	Annual Fee for Public Drinking Water Supplies	170-1200	Year		
	Drinking Water -- Pesticide Analysis	55.00	Sample		
	Occupational Health Chemistry:				
	Metals by AAS -- First Component	8.00	Test		
	Each Additional Component	3.00	Test		
	AS, Hg, Se by AAS -- First Comp.	10.00	Test		
	Each Additional Component	5.00	Test		
	Organic Solvents by G.C. -- One				
	Component per Sample	25.00	Test		
	Free Silica -- 5 or Fewer Samples	60.00	Batch		
	Coal Tar Pitch Volatiles -- 4 or Fewer Samples	40.00	Batch		
	Air Quality Chemistry Analysis and Field Chemical Preparation:				
	Fluoride	1.20-4.00	Sample		
	Sulfur Dioxide	5.50-6.00	Sample		
	Oxides of Nitrogen	3.60	Sample		
	Sulfur -- Coal or Soil	20.00	Sample		
	Non-Potable Water:				
	Acidity	12.00	Test		
	Alkalinity and pH	10.50	Test		
	Aluminum	6.50	Test		
	Ammonia, pH	4.00	Test		
	Arsenic	12.00	Test		
	Beryllium, Fluoride, Molybdenum, Strontium, Sulfate, Tin, Lithium, Barium, Antimony	3.50	Test		
	Bio Algal Assay	7.50	Flask		
	BOD	92.00	Sample		
	Boron, TSS	8.50	Test		
	Cadmium, Calcium, Iron, Nitrate, Nitrite, Potassium, Scdlum, Turbidity,	3.00	Test		
	Chloride, Chromium, Copper, Lead, Manganese, Nickel, Silver, Specific Conductance, Zinc	2.00	Test		
	Chromium Hex	44.50	Sample		
	Cyanide	108.00	Test		
	Metals Digestion	9.00	Sample		
	Metals Extraction	12.50	Sample		
	Cobalt, Hardness, Ortho-P	1.50	Test		
	Mercury	5.50	Test		
	Nitrogen Kjeldahl, Vanadium	7.00	Test		
	Oil and Grease	30.50	Sample		
	TOC	37.50	Sample		
	Phenols	51.50	Sample		
	Total-P	5.00	Sample		
	Selenium	10.50	Test		
	Silica	35.00	Test		
	Sulfide	57.00	Test		

**Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES – Continued**

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Nebr.	Water Bact. Exam (Private)	3.00	Test	49,522	Special "Cash" Fund for Laboratory.
	Water Chem. Test (Private)	2-20.00	Test		
	Toxicology (Non-Forensic)	1-8.00	Test		
	Special Mailing Outfits	1.00	Kit		
Nev.	Lab. Licensure and Cert.	10.00	Each	7,800	Added to Operating Budget.
	Entitlement Renewal	1.00	Each		
	Water Chemistry	50.00	Each		
N.J.	VDRL	2.00	Spec.	319,822	Divisional Revolving Fund.
	Rubella	3.00	Spec.		
	Blood Lead	6.00	Spec.		
	Water	6.00	Sample		
N.M.	All Services Performed for Federal Agencies, Contractors, Grantees, or State Agencies Outside Health and Social Services Dept. are Charged per Relative Value Unit.	3.35	Relative Value Unit	104,900	Become Part of Laboratory Operating Budget.
N.C.	Microbiological Analyses of Public Water Supplies	*		272,439	State Appropriation to Laboratory is Reduced by the Amount of Estimated Receipts and In Effect, Becomes Part of Annual Operating Budget.
	Sale of Specimen Collection Outfits and Biological Products	Varies W/Type			
Ore.	Metabolic Disorders Screening	2.25	Spec.	121,109	Fees Assist in Supporting the Program.
	Metabolic Disorders – TSH Only	1.00	Spec.		
S.C.	Serological Test for Syphilis	1.00	Spec.	93,000	Salaries of Laboratory Personnel and General Operating Costs of Laboratory.
	Rh Determination	2.00	Spec.		
	Rubella Serology	2.00	Spec.		
	FTA–ABS	3.00	Spec.		
	Infectious Mononucleosis	3.00	Spec.		
	Toxoplasmosis	3.00	Spec.		
	Drug Analysis (Qual.)	3.00	Spec.		
	Drug Analysis (Quan.)	10.00	Spec.		
Blood Lead	2.50	Spec.			
S.D.	Environmental Chemistry	2.00	Test	53,448	\$18,218 – Deposited to Federal Fund \$35,230 – Deposited to Revolving Fund
	Microbiology	2.50	Culture		
Va.	–	–	–	43,500	Become Part of the Division's Funds.
Wash.	Metabolic	3.20	Test	125,000	Support Laboratory Operations.
	Water Bacteriology	6.00	Test		
	Premarital	5.00	Test		
	Water Chemistry	2.85	Test		
Wisc.	Handling Charge	3.00	Spec.	1,306,326	Salaries, Supplies, Capital Equipment.
V.I.	–	–	–	212,000	Placed into the Revolving Funds.

* Sliding Scale \$15-64/yr. depending on gross sales or number of connections.

SECTION IV
WORKLOAD REPORTING CATEGORIES

DIAGNOSTIC WORKLOAD SECTION

THE FOLLOWING DEFINITIONS APPLY TO CATEGORIES I THROUGH XII:

Workload is reported by the number of specimens in each category or sub-category. Types of procedures *routinely** used in your laboratory are to be indicated by checking the appropriate box. The Association (ASTPHLD) is interested in the type of procedures routinely followed in your laboratory. Therefore, do not check those procedures that you have the capability of performing but do not do so on a routine basis.

*Definition of *Routine* – Those tests performed as part of your standard operating procedures on a specimen or sample.

Specimen/Sample

Any material received in the lab for testing in a workload category or sub-category or a material which is divided into aliquots for testing in multiple categories or sub-categories is counted as *one specimen for each category or sub-category*. 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 sub-category in which it is tested.

Table 4-1
I. DIAGNOSTIC BACTERIOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Diagnostic Bacteriology Specimens	A	B	C	D	E	F
		Nasopharyngeal Specimens	Mycobacterial Specimens	Enteric Specimens	Gonococcus Specimens	Anaerobic Specimens	Other Bacteriology Specimens
Total	7,524,578	1,976,917	579,884	216,098	4,563,561	20,794	167,324
Average	144,703	38,763	12,338	4,237	89,482	462	3,803
New England	651,503	376,237	25,323	27,712	218,512	330	3,389
Conn.	161,725	121,588	6,700	8,953	23,132	78	1,274
Mass.	167,590	95,392	—	10,025	60,330	83	1,760
Me.	44,062	4,303	4,318	737	34,568	109	27
N.H.	96,355	55,383	11,417	2,843	26,712	—	—
R.I.	136,879	75,058	1,266	3,389	56,928	20	328
Vt.	44,792	24,513	1,632	1,765	16,842	40	—
Middle Atlantic	251,638	51	30,903	23,543	196,292	151	698
N.J.	225,036	—	18,565	10,076	196,276	119	—
N.Y.	—	—	—	—	—	—	—
Pa.	26,602	51	12,338	13,467	16	32	698
East North Central	972,233	461,163	42,233	31,132	394,804	11,344	31,557
Ill.	196,282	42,833	7,351	7,715	136,389	277	1,717
Ind.	13,409	15	4,254	2,587	5,223	145	1,185
Mich.	384,410	156,058	17,161	13,201	167,443	9,718	20,829
Ohio	284,352	204,207	7,518	1,402	67,611	291	3,323
Wisc.	93,780	58,050	5,949	6,227	18,138	913	4,603
West North Central	554,329	186,525	34,128	19,586	285,305	1,364	27,421
Ia.	126,975	48,414	3,897	1,526	69,365	296	3,477
Kans.	78,089	24,106	6,409	4,305	40,550	477	2,242
Minn.	140,132	1,900	14,839	6,171	116,713	279	230
Mo.	97,213	66,135	—	3,940	26,045	96	997
Nebr.	26,454	3,911	1,085	265	21,193	—	—
N.D.	50,914	19,858	3,865	2,319	5,840	216	18,816
S.D.	34,552	22,201	4,033	1,060	5,599	—	1,659
South Atlantic	1,925,506	189,593	157,756	49,955	1,497,963	3,258	26,981
Del.	31,619	660	—	707	29,361	—	891
D.C.	93,741	8,084	2,940	1,893	77,600	11	3,213
Fla.	619,615	35,942	52,447	22,156	498,478	930	9,662
Ga.	273,525	16,728	29,797	6,351	217,335	1,168	2,146
Md.	406,751	43,845	19,075	7,396	336,322	113	—
N.C.	22,115	841	14,713	4,003	862	415	1,281
S.C.	242,167	5,529	12,357	1,051	215,519	302	7,409
Va.	141,999	41,430	16,867	6,000	75,618	308	1,776
W. Va.	93,974	36,534	9,560	398	46,868	11	603
East South Central	1,076,779	239,984	104,190	16,020	708,662	1,561	6,362
Ala.	431,297	56,675	41,366	4,889	324,551	396	3,420
Ky.	32,654	3,382	14,903	1,199	12,554	74	542
Miss.	238,805	36,683	24,807	5,598	169,317	—	2,400
Tenn.	374,023	143,244	23,114	4,334	202,240	1,091	—
West South Central	1,002,691	35,038	124,734	19,207	797,480	1,343	24,889
Ark.	—	—	—	—	—	—	—
La.	186,216	6,589	62,581	7,824	105,069	420	3,733
Okla.	127,195	22,013	9,446	1,852	92,533	148	1,203
Tex.	689,280	6,436	52,707	9,531	599,878	775	19,953
Mountain	674,289	395,601	26,260	12,257	230,870	828	8,473
Ariz.	20,992	682	8,263	2,097	8,761	347	842
Colo.	172,722	140,047	1,978	2,061	28,588	48	—
Ida.	37,489	3,426	1,668	1,179	30,466	209	541
Mont.	17,903	754	3,406	169	13,132	110	332
Nev.	55,276	302	1,631	310	52,362	25	646
N.M.	101,517	9,928	7,479	3,013	75,145	64	5,888
Utah	61,544	37,178	1,520	3,289	19,456	25	76
Wyo.	206,846	203,284	315	139	2,960	—	148
Pacific	367,458	79,088	32,369	16,256	212,428	609	26,708
Alaska	100,314	20,756	10,340	2,206	54,597	206	12,209
Cal.	26,276	1,313	1,833	645	12,895	118	8,472
Hawaii	191,170	45,352	9,165	8,763	122,979	146	4,765
Ore.	18,148	9,035	3,672	2,264	2,502	68	707
Wash.	32,550	2,632	7,459	2,378	19,455	71	555
Territories	48,152	13,637	1,988	430	21,245	6	10,846
Guam	3,704	10	1,988	183	1,519	4	—
P.R.	31,983	4,063	—	247	19,726	2	7,945
V.I.	12,465	9,564	—	—	—	—	2,901

Table 4-2
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	1. Streptococcus Beta Hemolytic, Group A					
	Number of Specimens	Procedures Used				
		Culture	FA	Sero-grouping	Bacitracin Disc	Other
Total	1,862,963					
Average	38,812					
New England	369,919					
Conn.	121,629	X	X	X	X	—
Mass.	96,250	X	X	—	—	—
Me.	3,848	X	X	X	—	Coagulase staphylococci
N.H.	49,811	X	X	—	—	—
R.I.	74,998	X	X	—	—	—
Vt.	24,483	X	—	X	—	—
Middle Atlantic	39					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	39	X	—	X	—	—
East North Central	418,781					
Ill.	40,984	X	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	155,530	X	—	X	X	—
Ohio	200,187	X	X	X	—	—
Wisc.	22,080	X	X	—	—	—
West North Central	178,207					
Ia.	48,398	X	X	—	—	—
Kans.	23,850	X	X	—	—	—
Minn.	—	—	—	—	—	—
Mo.	65,726	X	X	X	—	—
Nebr.	3,891	X	X	X	X	—
N.D.	19,846	X	X	X	—	—
S.D.	16,496	X	X	—	—	—
South Atlantic	153,085					
Del.	660	X	X	—	X	—
D.C.	6,710	X	—	X	X	—
Fla.	17,971	X	—	—	X	—
Ga.	16,216	X	X	X	—	—
Md.	34,329	X	—	X	X	—
N.C.	841	X	X	X	—	—
S.C.	5,523	X	X	X	—	—
Va.	34,313	X	X	X	—	Biochemicals
W. Va.	36,522	—	X	—	—	—
East South Central	238,253					
Ala.	56,597	X	X	—	—	—
Ky.	3,332	X	X	X	—	—
Miss.	36,624	X	X	—	—	—
Tenn.	141,700	—	X	—	—	—
West South Central	34,649					
Ark.	—	—	—	—	—	—
La.	6,508	X	X	X	—	—
Okla.	21,773	X	X	X	—	—
Tex.	6,368	X	X	—	—	—
Mountain	395,081					
Ariz.	566	X	X	X	—	Biochemicals, serotyping
Colo.	140,019	X	X	—	—	—
Ida.	3,348	X	X	X	X	Biochemicals
Mont.	709	X	—	X	—	—
Nev.	302	X	—	—	—	—
N.M.	9,828	X	X	X	X	—
Utah	37,025	X	X	X	—	—
Wyo.	203,284	X	X	X	—	—
Pacific	72,873					
Alaska	19,574	X	X	X	X	Serotyping
Cal.	—	—	—	—	—	—
Hawaii	45,274	X	X	—	—	—
Ore.	6,487	X	X	—	—	—
Wash.	1,538	X	X	—	—	—
Territories	2,076					
Guam	10	X	—	—	X	—
P.R.	1,561	—	X	—	—	—
V.I.	505	X	X	—	X	—

Table 4-3
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	Number of Specimens	2. Diphtheria				
		Procedures Used				
		Direct Smear	Culture	Confirm. Sugars	Toxogenicity	Other
Total	26,052					
Average	668					
New England	<37					
Conn.	16	X	X	X	X	—
Mass.	4	X	X	X	X	FA
Me.	2	—	X	—	X	—
N.H.	—	—	—	—	—	—
R.I.	5	X	X	X	X	—
Vt.	<10	X	X	X	X	—
Middle Atlantic	—					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	651					
Ill.	218	—	X	X	X	—
Ind.	2	X	X	X	X	—
Mich.	177	—	X	X	X	—
Ohio	262	—	X	X	X	—
Wisc.	2	X	X	X	X	—
West North Central	5,819					
Ia.	4	X	X	—	X	—
Kans.	34	X	X	X	X	—
Minn.	45	—	X	—	X	Smear of 18 hr. culture
Mo.	12	X	X	X	X	—
Nebr.	15	X	X	X	X	—
N.D.	8	—	X	—	—	—
S.D.	5,701	X	X	X	X	—
South Atlantic	17,999					
Del.	—	—	—	—	—	—
D.C.	4	X	X	—	X	—
Fla.	17,971	—	X	X	X	—
Ga.	2	X	X	X	—	—
Md.	—	—	—	—	—	—
N.C.	—	X	X	X	—	—
S.C.	3	X	X	X	—	Tinsdale plates
Va.	19	X	X	—	X	—
W. Va.	—	—	—	—	—	—
East South Central	52					
Ala.	24	X	X	—	X	—
Ky.	17	X	X	X	X	—
Miss.	—	—	—	—	—	—
Tenn.	11	X	X	X	X	—
West South Central	113					
Ark.	—	—	—	—	—	—
La.	43	—	X	—	—	—
Okla.	2	X	X	X	X	—
Tex.	68	—	X	—	X	—
Mountain	252					
Ariz.	109	X	X	X	X	—
Colo.	20	X	X	X	X	FA
Ida.	4	X	X	X	X	—
Mont.	6	X	X	X	X	—
Nev.	—	—	—	—	—	—
N.M.	100	X	X	X	X	—
Utah	13	X	X	X	X	—
Wyo.	—	—	—	—	—	—
Pacific	1,129					
Alaska	209	X	X	X	X	—
Cal.	2	X	X	X	X	—
Hawaii	11	X	X	X	X	—
Ore.	10	X	X	X	X	—
Wash.	897	X	X	X	X	—
Territories	—					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	X	—	—	—

*Included with Other Bacteriology Specimens, Table 4-10.

Table 4-4
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

Lab & Region	3. Pertussis					
	Number of Specimens	Culture	FA	Serological	Biochemicals	Other
Total	17,042					
Average	448					
New England	181					
Conn.	43	X	X	X	X	—
Mass.	97	X	X	X	—	—
Me.	16	—	X	—	—	—
N.H.	—	—	—	—	—	—
R.I.	6	X	X	—	X	—
Vt.	20	X	X	—	X	—
Middle Atlantic	12					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	12	X	X	—	X	—
East North Central	2,133					
Ill.	1,631	X	X	—	X	—
Ind.	13	—	X	—	—	—
Mich.	239	X	X	—	X	—
Ohio	12	X	X	—	X	—
Wisc.	238	X	X	—	X	—
West North Central	389					
Ia.	12	X	X	—	—	—
Kans.	6	X	X	X	X	—
Minn.	14	X	—	X	X	—
Mo.	345	X	X	—	—	—
Nebr.	5	X	X	—	—	—
N.D.	4	X	X	—	—	—
S.D.	4	X	X	—	—	—
South Atlantic	663					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	—	—	—	—	—	—
Ga.	510	X	X	X	X	—
Md.	115	X	X	—	—	—
N.C.	*	X	X	—	X	—
S.C.	3	X	X	—	X	—
Va.	28	X	X	—	—	—
W. Va.	7	—	X	—	—	—
East South Central	1,642					
Ala.	17	X	X	—	—	—
Ky.	33	—	X	—	—	—
Miss.	59	—	X	—	—	—
Tenn.	1,533	X	X	—	X	Agglutinations
West South Central	166					
Ark.	—	—	—	—	—	—
La.	38	X	X	—	—	—
Okla.	128	X	X	—	—	—
Tex.	—	—	—	—	—	—
Mountain	143					
Ariz.	7	X	—	—	—	—
Colo.	8	X	X	—	X	—
Ida.	74	X	X	X	X	—
Mont.	39	X	X	—	—	—
Nev.	—	—	—	—	—	—
N.M.	*	X	X	—	X	—
Utah	15	X	—	—	X	—
Wyo.	—	—	—	—	—	—
Pacific	2,654					
Alaska	68	X	X	—	X	—
Cal.	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—
Ora.	2,389	X	X	—	—	—
Wash.	197	X	X	—	—	—
Territories	9,059					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	9,059	—	—	X	—	—

*Included with Other Bacteriology Specimens, Table 4-10.

Table 4-5
I. DIAGNOSTIC BACTERIOLOGY
A. Nasopharyngeal Specimens

4. Other Nasopharyngeal Specimens		
Lab	Number of Specimens	Disease – Procedures Used
Total	70,860	
Average	3,081	
Ala.	37	Coagulase Staphylococcus – culture and plasma
Alaska	905	<i>N. meningitidis</i> – culture, biochemicals; <i>H. influenzae</i> – culture, serotyping; Staphylococcus – culture.
Calif.	1,311	Infant botulism – culture, biochemicals, animal inoculation; Legionnaires' disease – culture, biochemicals, FA, animal inoculation.
D.C.	1,370	ENT – standard, lesions – standard, others – standard
Hawaii	67	Meningococcus – culture, Staphylococcus infection – culture, coagulase, Darkfield – microscopic.
Ida.	*	Mycoplasmal, rickettsial and chlamydial diseases – serology only; miscellaneous bacterial diseases – most standard procedures except base-pairing.
Kans.	217	Nasopharyngitis – smear, culture, biochemicals, serogrouping, serotyping
Me.	437	<i>Haemophilus influenzae</i> – typing and factors, <i>Neisseria meningitidis</i> – culture and typing, Gram negative (non-fermentors) – biochemical, identification, miscellaneous streptococci – biochemical identification
Md.	9,401	Bacteremia – culture, septic sore throat – culture
Mass.	41	Meningitis – culture, biochemical, serogrouping; staphylococcal infection – culture, coagulase test; Group B streptococcal infection – culture, serogrouping.
Mich.	112	<i>Vincent's</i> – slide examination.
Minn.	1,841	Referred cultures for identification (variety of human sources) – smear, biochemicals, serological, animal patho/toxin
Mo.	52	Leptospirosis – culture and Darkfield, <i>B. lact.</i> (<i>H. influenzae</i>) – iodometric.
N.H.	5,572	Miscellaneous specimens for bacterial identification – variable.
Ohio	3,756	Staphylococcus – culture, phage type, <i>N. meningitidis</i> – culture identification and typing, <i>H. influenzae</i> – culture, identification
Okla.	110	<i>Vincent's angina</i> – microscopic examination, staphylococcal disease – culture and biochemicals
Ore.	149	URI – culture
P.R.	2,502	–
R.I.	50	<i>Vincent's angina</i> – smear; <i>N. meningitidis</i> – culture, biochemical; pneumococcus – culture, biochemical
Utah	125	Referred isolates for identification – culture, biochemicals, and Gram stain.
Va.	7,070	Meningitidis (meningococcus) – serogrouping and biochemical, pneumococcus – typing, <i>H. influenzae</i> – serotyping, Staphylococcus – phage typing – coagulase
V.I.	–	<i>S. pneumoniae</i> – culture
W. Va.	5	Leptospirosis – culture, Legionnaires' disease – culture.
Wisc.	35,730	–

Table 4-6
I. DIAGNOSTIC BACTERIOLOGY
B. Mycobacterial Specimens

Lab & Region	Number of Specimens	Procedures Used							Other
		Direct Smear	Concentrate Smear	Culture	Direct Suscept. # of Drugs	Indirect Suscept. # of Drugs	# of Bio-chemicals	Species Ident.	
Total	579,884								
Average	12,338								
New England	25,323								
Conn.	6,700	—	X	X	—	9	14	X	—
Mass.	—	—	—	—	—	—	—	—	—
Me.	4,318	—	X	X	6	6	6	X	—
N.H.	11,417	X	X	X	—	—	—	—	—
R.I.	1,256	—	X	X	—	7	12	X	—
Vt.	1,632	—	X	X	6	6	6	X	—
Middle Atlantic	30,903								
N.J.	18,565	—	X	X	9	9	12	X	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	12,338	X	X	X	6	5	12	X	Rate of growth studies, temperature studies (37°, 25°, 45°)
East North Central	42,233								
Ill.	7,351	—	X	X	—	5	9	X	—
Ind.	4,254	—	X	X	3	3	9	X	—
Mich.	17,161	—	X	X	—	9	12	X	—
Ohio	7,518	—	X	X	8	8	8	X	—
Wisc.	5,949	X	X	X	8	8	12	X	—
West North Central	34,128								
Ia.	3,897	X	X	X	5	5	14	X	—
Kans.	6,409	—	X	X	6	6	16	X	—
Minn.	14,839	—	X	X	—	3	15	—	Drug sensitivities
Mo.	—	—	—	—	—	—	—	—	—
Nebr.	1,085	—	X	X	X	X	X	X	—
N.D.	3,865	—	X	X	4	4	13	X	—
S.D.	4,033	—	X	X	4	4	4	—	—
South Atlantic	157,756								
Del.	—	—	—	—	—	—	—	—	—
D.C.	2,940	—	X	X	—	7	10	X	—
Fla.	52,447	—	X	X	—	7	12	X	—
Ga.	29,797	—	X	X	6	6	17	X	—
Md.	19,075	X	X	X	9	9	—	X	—
N.C.	14,713	—	X	X	4	4	8	X	—
S.C.	12,357	X	X	X	6	6	10	X	—
Va.	16,867	X	X	X	—	4	10	—	—
W. Va.	9,560	—	X	X	5	5	9	X	—
East South Central	104,190								
Ala.	41,366	—	X	X	9	9	14	X	Serological typing of "Atypical" Mycobacteria, animal inoculation of spinal fluids
Ky.	14,903	—	X	X	9	9	9	X	Fluorochrome smear
Miss.	24,807	—	X	X	—	7	6	X	—
Tenn.	23,114	X	X	X	—	6	10	X	—
West South Central	124,734								
Ark.	—	—	—	—	—	—	—	—	—
La.	62,581	—	X	X	5	5	10	X	—
Okla.	9,446	—	X	X	—	5	12	X	—
Tex.	52,707	—	X	X	7	7	10	X	—
Mountain	26,260								
Ariz.	8,263	X	X	X	7	7	10	X	—
Colo.	1,978	—	X	X	—	—	3	X	—
Ida.	1,668	X	X	X	5	5	13	X	—
Mont.	3,406	X	X	X	5	5	—	X	—
Nev.	1,631	X	X	X	—	11	5	X	—
N.M.	7,479	—	X	X	4	4	6	X	—
Utah	1,520	X	X	X	4	9	15	X	—
Wyo.	315	—	X	X	—	—	—	—	—
Pacific	32,369								
Alaska	10,340	X	X	X	4	4	5	X	—
Cal.	1,833	—	X	X	5	5-9	10	X	—
Hawaii	9,165	X	X	X	5	5	5	X	—
Ore.	3,572	X	X	X	—	—	13	X	—
Wash.	7,459	—	X	X	5	5	10	X	—
Territories	1,988								
Guam	1,988	X	—	X	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	X	X	X	—	—	1	—	—

Table 4-7
I. DIAGNOSTIC BACTERIOLOGY
C. Enteric Specimens

Lab & Region	Number of Specimens	Procedures Used							
		Primary Plating	Enrichment Plating	Biochemicals	FA	Serogrouping	Serotyping	Phage Typing, S. Typhi	Other
Total	216,098								
Average	4,237								
New England	27,712								
Conn.	8,953	X	X	X	X	X	X	-	-
Mass.	10,025	X	X	X	-	X	X	-	-
Me.	737	X	X	X	-	X	-	-	-
N.H.	2,843	X	X	X	X	X	-	-	-
R.I.	3,389	X	X	X	-	X	-	-	-
Vt.	1,765	X	X	X	-	X	X	-	-
Middle Atlantic	23,543								
N.J.	10,076	X	X	X	X	X	X	-	Kirby-Bauer susceptibility testing
N.Y.	-	-	-	-	-	-	-	-	-
Pa.	13,467	X	X	X	-	X	X	X	-
East North Central	31,132								
Ill.	7,715	X	X	X	-	X	X	X	-
Ind.	2,587	X	X	X	-	X	X	-	-
Mich.	13,201	X	X	X	-	X	X	-	-
Ohio	1,402	X	X	X	-	X	X	-	-
Wis.	6,227	X	X	X	-	X	-	-	Enrichment (CE) for <i>Yersinia</i> , plating media for <i>Yersinia</i> and <i>Aeromonas</i> , plating from enrichment at 7, 14, and 21 days.
West North Central	19,586								
Ia.	1,526	X	X	X	X	X	X	-	-
Kans.	4,305	X	X	X	X	X	X	-	-
Minn.	6,171	X	X	X	-	X	X	X	Microscopic
Mo.	3,940	X	X	X	-	X	X	-	-
Nebr.	266	X	X	X	-	X	-	-	-
N.D.	2,319	X	X	X	-	X	X	-	-
S.D.	1,060	X	X	X	-	X	X	-	-
South Atlantic	49,955								
Del.	707	X	X	X	-	X	X	-	-
D.C.	1,893	X	X	X	-	X	X	-	-
Fla.	22,156	X	X	X	-	X	X	-	-
Ga.	6,351	X	X	X	-	X	X	X	-
Md.	7,396	X	X	X	-	X	X	-	Sensitivities
N.C.	4,003	X	X	X	-	X	X	-	-
S.C.	1,051	X	X	X	-	X	X	-	-
Va.	6,000	X	X	X	-	X	X	-	Species identification (e.g., <i>Yersinia</i> and <i>Vibrio</i>)
W. Va.	398	X	X	X	-	X	X	-	-
East South Central	16,020								
Ala.	4,889	X	X	X	-	X	X	-	-
Ky.	1,199	X	X	X	-	X	X	X	-
Miss.	5,598	X	X	X	X	X	X	-	Subculture
Tenn.	4,334	X	X	X	-	X	X	-	-
West South Central	19,207								
Ark.	-	-	-	-	-	-	-	-	-
La.	7,824	X	X	X	-	X	X	X	-
Okla.	1,852	X	X	X	-	X	X	-	-
Tex.	9,531	X	X	X	-	X	X	X	-
Mountain	12,257								
Ariz.	2,097	X	X	X	X	X	X	-	-
Colo.	2,061	X	X	X	-	X	X	-	-
Ida.	1,179	X	X	X	-	X	X	-	-
Mont.	169	X	X	X	-	X	-	-	-
Nev.	310	X	X	X	-	X	-	-	-
N.M.	3,013	X	X	X	-	X	X	-	-
Utah	3,289	X	X	X	-	X	X	-	-
Wyo.	139	X	X	X	-	X	-	-	-
Pacific	16,256								
Alaska	2,206	X	X	X	-	X	-	-	-
Cal.	645	X	X	X	X	X	X	X	Sensitivity tests
Hawaii	8,763	X	X	X	-	X	X	X	-
Ore.	2,264	X	X	X	-	X	X	-	-
Wash.	2,378	X	X	X	-	X	X	-	-
Territories	430								
Guam	183	X	X	X	-	X	X	-	-
P.R.	247	X	X	X	X	X	-	-	-
V.I.	-	X	X	X	-	X	X	-	-

Table 4-8
I. DIAGNOSTIC BACTERIOLOGY
D. Gonococcus Specimens

Lab & Region	Number of Specimens	Procedures Used						
		Smear	Culture	Oxidase Reaction	FA	Bio-chemical	Beta-Lactamase	Other
Total	4,563,561							
Average	89,482							
New England	218,512							
Conn.	23,132	X	X	X	X	X	X	Transformation
Mass.	60,330	X	X	X	X	X	X	—
Me.	34,568	X	X	X	X	X	X	—
N.H.	26,712	X	X	X	X	—	—	—
R.I.	56,928	X	X	X	X	X	X	—
Vt.	16,842	X	X	X	X	X	X	—
Middle Atlantic	196,292							
N.J.	196,276	X	X	X	—	X	X	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	16	X	—	X	—	X	X	—
East North Central	394,804							
Ill.	136,389	X	X	X	—	X	X	—
Ind.	5,223	X	—	—	—	—	—	—
Mich.	167,443	X	X	X	—	X	X	—
Ohio	67,611	X	X	X	X	X	X	—
Wisc.	18,138	X	X	X	—	X	X	—
West North Central	285,305							
Ia.	69,365	X	X	X	X	X	—	—
Kans.	40,550	X	X	X	X	X	X	—
Minn.	116,713	X	X	X	X	X	X	—
Mo.	26,045	X	X	X	X	X	X	—
Nebr.	21,193	X	X	X	X	X	X	—
N.D.	5,840	X	X	X	—	X	X	—
S.D.	5,599	X	X	X	X	X	X	—
South Atlantic	1,497,963							
Del.	29,361	X	X	X	—	X	X	—
D.C.	77,600	X	X	X	X	X	X	—
Fla.	498,478	X	X	X	—	—	X	—
Ga.	217,335	X	X	X	X	X	X	—
Md.	336,322	X	X	X	X	X	—	—
N.C.	862	X	X	X	X	X	X	—
S.C.	215,519	X	X	X	X	X	X	—
Va.	75,618	X	X	X	X	X	X	—
W. Va.	46,868	X	X	X	X	X	X	—
East South Central	708,662							
Ala.	324,551	X	X	X	X	X	X	—
Ky.	12,554	X	X	X	X	X	X	—
Miss.	169,317	X	X	X	—	X	X	Gram stain & culture, drug susceptibility
Tenn.	202,240	X	X	X	X	X	X	—
West South Central	797,480							
Ark.	—	—	—	—	—	—	—	—
La.	105,069	X	X	X	—	X	X	—
Okla.	92,533	X	X	X	X	X	X	—
Tex.	599,878	X	X	X	X	X	X	—
Mountain	230,870							
Ariz.	8,761	X	X	X	X	X	—	—
Colo.	28,588	X	X	X	—	X	X	—
Ida.	30,466	X	X	X	X	X	X	—
Mont.	13,132	X	X	X	X	X	X	Disc agar diffusion susceptibility test
Nev.	52,362	X	X	X	—	X	X	—
N.M.	75,145	X	X	X	X	X	X	—
Utah	19,456	X	X	X	X	X	X	—
Wyo.	2,960	X	X	X	X	X	—	—
Pacific	212,428							
Alaska	54,597	X	X	X	X	X	X	—
Cal.	12,895	X	X	X	X	X	X	—
Hawaii	122,979	X	X	X	X	X	X	—
Ore.	2,502	X	X	X	X	X	X	—
Wash.	19,455	X	X	X	X	X	X	—
Territories	21,245							
Guam	1,519	X	X	X	—	X	—	P-disk
P.R.	19,726	X	X	X	X	X	X	—
V.I.	—	X	X	X	X	X	—	—

Table 4-9
I. DIAGNOSTIC BACTERIOLOGY
E. Anaerobic Specimens

Lab & Region	Number of Specimens	Number of Cultures		Techniques Used		Procedures Used						
		Primary	Reference	Preduced Media	Gas Chromatography	Gram Stain	Plating	Subculture	Biochemical	FA	GLC	Other
Total	20,794											
Average	462											
New England	330											
Conn.	78	6	72	X	X	X	X	X	X	X	X	
Mass.	83	11	72		X	X	X	X	X		X	
Me.	109	13	96	X	X							
N.H.	—	—	—									
R.I.	20	—	20	X	X	X	X	X	X			
Vt.	40	5	35	X	X	X	X	X	X		X	
Middle Atlantic	151											
N.J.	119	—	119			X	X	X	X			
N.Y.	—	—	—									
Pa.	32	14	18		X	X	X	X	X		X	
East North Central	11,344											
Ill.	277	—	277	X	X	X	X	X	X		X	
Ind.	145	—	145	X	X	X	X	X	X		X	
Mich.	9,718	9,135	583	X	X	X	X	X	X		X	Sensitivity testing, animal inoculation
Ohio	291	—	291	X	X	X	X	X	X		X	
Wisc.	913	513	400	X	X	X	X	X	X		X	
West North Central	1,364											
Ia.	296	—	296	X	X	X	X	X	X		X	
Kans.	477	1	476	X	X	X	X	X	X		X	
Minn.	279	43	236			X	X	X	X			Animal toxogenicity tests, serological tests
Mo.	96	—	96		X	X	X	X	X		X	
Nebr.	—	—	—									
N.D.	216	141	75	X		X	X	X	X			
S.D.	—	—	—									
South Atlantic	3,258											
Del.	—	—	—									
D.C.	11	11	—	X		X	X	X	X			
Fla.	930	91	839	X	X	X	X	X	X		X	
Ga.	1,168	15	1,153		X	X	X	X	X		X	Animal inoc. for toxogenicity
Md.	113	—	113		X	X	X	X	X		X	
N.C.	415	406	9	X	X	X	X	X	X		X	
S.C.	302	12	290	X	X	X	X	X	X		X	Flagellar stains
Va.	30P	—	—	X		X	X	X	X		X	
W.Va.	1	3	8	X	X	X	X	X	X		X	
East South Central	1,561											
Ala.	396	—	396	X		X	X	X	X			Animal inoculation
Ky.	74	—	74		X	X	X	X	X		X	
Miss.	—	—	—									
Tenn.	1,091	—	1,091		X	X	X	X	X		X	Toxin
West South Central	1,343											
Ark.	—	—	—									
La.	420	—	420	X		X	X	X	X			
Okla.	148	—	148	X		X	X	X	X			
Tex.	775	28	615	X	X	X	X	X	X		X	
Mountain	828											
Ariz.	347	—	347	X	X	X	X	X	X		X	
Colo.	48	40	8	X		X	X	X	X		X	
Ida.	209	123	86	X	X	X	X	X	X		X	
Mont.	110	—	110	X		X	X	X	X		X	
Nav.	25	25	—	X		X	X	X	X		X	
N.M.	64	—	—	X	X	X	X	X	X		X	
Utah	25	—	25	X		X	X	X	X		X	
Wyo.	—	—	—									
Pacific	609											
Alaska	206	206	—			X	X	X	X			
Cal.	118	—	118	X	X	X	X	X	X		X	
Hawaii	146	16	130	X	X	X	X	X	X		X	
Ore.	68	18	50	X	X	X	X	X	X		X	
Wash.	71	10	61	X	X	X	X	X	X		X	Antibiograms, mouse toxicity testing
Territories	6											
Guam	4	3	1	X		X	X	X	X			
P.R.	2	—	2	X		X	X	X	X			
V.I.	—	X	—	X		X	X	X	X			

Table 4-10
I. DIAGNOSTIC BACTERIOLOGY
F. Other Bacteriology Specimens

Lab	Number of Specimens	Disease – Procedures Used
Total	167,324	
Average	3,810	
Ala.	3,420	Pathogenic <i>E. coli</i> – FA; Staphylococcus – culture; reference bacteriology – culture.
Alaska	12,209	Streptococcus – culture, serogrouping; urinary bacteremia – culture; EENT-skin-wound infections – culture; meningitis – culture, biochemicals
Ariz.	842	Miscellaneous bacteria – culture, isolation, biopsy, identification
Cal.	8,472	Plague – culture, animal inoculation, bacteriophage, FA; relapsing fever – stained smears, animal inoculation; reference cultures for identification.
Conn.	1,274	Reference culture and miscellaneous clinical – same procedures as anaerobic specimens Legionnaires' culture – FG medium.
Del.	891	Urine cultures, miscellaneous (wounds, etc.)
D.C.	3,213	Urinary tract infections – standardized procedures.
Fla.	9,662	Miscellaneous infections (eye, ear, kidney, wound and lesions) – culture and smear Referred cultures for identification – culture and smear Sensitivity testing – drug sensitivity Rheumatic fever prophylaxis (urine) – drug sensitivity Dental caries – culture
Ga.	2,146	Miscellaneous clinical specimens – same procedures as anaerobic specimens Referred cultures for identification – same procedures as anaerobic specimens
Hawaii	4,765	Staph phage typing; antibiotic sensitivity – Kirby Bauer; non-human enteric – culture, ID; Leptospirosis – culture, ID; reference – subculture, appropriate ID procedure.
Ida.	541	Ear, urine, etc.
Ill.	1,717	Food poisoning – culture; Leptospirosis – culture; Staphylococcus – phage typing; miscellaneous – smear, culture, biochemicals
Ind.	1,185	Reference culture (aerobic) – species ident. Reference culture – Staph. phage typing
Ia.	3,477	Miscellaneous wounds, fluids – direct plating; reference cultures – biochemicals, serotyping, serogrouping
Kans.	2,242	Staphylococcal infections – culture, coagulase, phage typing; Vincent's angina – smear; meningitis, bacterial pneumonias including Legionnaires' disease, blood cultures and other miscellaneous infections – smear, culture, biochemicals, serogrouping, serotyping and when requested antibiotic sensitivities.
Ky.	542	Staph bacteriophage – smear, coagulase, phage typing; miscellaneous culture – smear, biochemicals, coagulase, serogrouping
Me.	27	Reference for staphylococci coagulase.
Mass.	1,760	Aerobic and anaerobic infections – microscopic, culture, biochemicals, serological and GLC.
Mich.	20,829	Sepsis, general – culture (transudates/exudates); dental plaque – saliva culture; staphylococcal – phage typing; urinary infections – urine culture; salmonellosis – serotyping.
Minn.	230	Leptospirosis, botulism, Vincent's angina, blood, spinal fluids, tissues, food poisonings (bacterial)
Miss.	2,400	Water for Salmonella – primary plating, enrichment plating, biochemicals, serogrouping, serotyping, subculture Miscellaneous cultures – plating, selective subculture, biochemicals Blood cultures – culture, plating, biochemicals Urine cultures – plating, subculture, biochemicals, bacterial sensitivity testing Spinal fluid – plating, biochemicals, Gram stain, agglutination

Table 4-10
I. DIAGNOSTIC BACTERIOLOGY
F. Other Bacteriology Specimens – Continued

Lab	Number of Specimens	Disease – Procedures Used
Mo.	997	Miscellaneous aerobes (reference cultures) – Gram stain, plating, subculture, biochemicals, serogrouping.
Mont.	332	Special determinative bacteriology – many.
Nev.	646	Pus (abscess) – culture; urine (infection) – culture; other fluids – culture.
N.M.	5,888	Pertussis – direct FA; plague – direct FA; staphylococcal infections – cultures (phage typing if indicated); nosocomial infections (monitoring-preventive) – sterility spore test
N.C.	1,281	Reference specimens (all types) – smear, culture, biochemicals, serotyping Clinical specimens (all types other than fecal and throat swabs for strep.) – smear, culture, biochemicals, serotyping
N.D.	18,816	Blood and urine, susceptibility tests, miscellaneous, reference cultures.
Ohio	3,323	Mycoplasma infections – culture; urea plasma infections – culture; Legionnaires' – culture; miscellaneous – culture; referred cultures, aerobic – cultures, biochemicals, serology
Okla.	1,203	Urinary tract infections – culture; bacteremia – culture and serology; meningitis – culture and serology; wounds – culture and serology; unknown – culture and serology.
Ore.	707	Miscellaneous specimens and cultures for identification.
Pa.	698	Bacterial infections other than mycobacteria and enteric bacteria – GM stain, subculture, biochemicals, serogrouping, serotyping; staphylococcal food poisoning – stool culturing.
P.R.	7,945	–
R.I.	328	Miscellaneous reference cultures – culture, biochemicals.
S.C.	7,409	Diseases caused by miscellaneous Gram-positive and Gram-negative organisms – FA, biochemicals, serological tests, special stains, antibiograms.
S.D.	1,659	Septicemia – culture Wounds – biochemical Ears & eyes – susceptibility Sterility packs – culture Reference cultures
Tenn.	3,733	Cultures for identification – biochemicals, serotyping.
Tex.	19,953	Reference cultures – aerobic
Utah	76	Tularemia – culture Plague – Gram stain Brucella – biochemical Meningitis – typing
Va.	1,776	Wounds, lesions, body fluids, dental caries, sputum, referred cultures, autopsy, miscellaneous – blood and CSF, animal inoculation, <i>H. ducreyji</i> smears.
V.I.	2,901	Wound, fluid, exudates – aerobic and anaerobic primary plating, subculture, biochemicals; urine – primary plating, colony count, biochemicals; sensitivity – aerobic and anaerobic, Mueller Hinton Method.
Wash.	555	Legionnaires' disease – stains, plating, embryonated eggs and guinea pigs; Meningococcal meningitis – Gram stain, plating, serogrouping, subculture, sensitivity.
W.Va.	603	Miscellaneous – appropriate; food surveillance – appropriate.
Wisc.	4,503	Urinary tract infection – culture, biochemicals; blood cultures – culture, biochemicals; miscellaneous – culture, biochemicals; Brucella – culture, biochemicals; meningitis – CIE, antibiotic fluid levels, MIC determinations; Legionnaires' – culture.
Wyo.	148	Miscellaneous reference cultures – biochemicals, FA, stains.

Table 4-11
II. MYCOLOGY

Lab & Region	Number of Specimens	Procedures Used						Other
		Micro. Wet Mounts	Micro. Stains	Culture	FA	Bio-chemicals	Animal Inoculation	
Total	52,172							
Average	1,110							
New England	2,480							
Conn.	1,675	X	X	X	—	X	X	Differentiation media plating.
Mass.	412	X	X	X	—	X	—	—
Me.	97	X	X	X	—	X	X	—
N.H.	47	X	X	X	—	X	—	—
R.I.	89	X	X	X	—	X	—	—
Vt.	160	X	X	X	—	X	—	Slide culture
Middle Atlantic	1,659							
N.J.	1,406	X	—	X	—	X	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	253	X	X	X	—	X	—	—
East North Central	8,843							
Ill.	1,420	X	X	X	—	X	X	—
Ind.	1,158	X	X	X	—	X	—	—
Mich.	2,368	X	X	X	—	X	X	—
Ohio	993	X	X	X	—	X	X	—
Wisc.	2,904	X	X	X	—	X	X	Drug bioassays, drug susceptibility testing
West North Central	6,152							
Ia.	755	X	X	X	X	X	X	—
Kans.	681	X	X	X	—	X	X	—
Minn.	3,673	X	X	X	—	X	X	Assimilation tests
Mo.	506	X	X	X	—	X	X	—
Nebr.	12	X	X	X	—	X	—	—
N.D.	432	X	X	X	—	X	—	—
S.D.	93	—	X	X	—	—	—	—
South Atlantic	11,097							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	2,665	X	X	X	—	X	—	—
Ga.	1,009	X	X	X	—	X	X	Hair penetration
Md.	2,398	X	X	X	—	X	—	—
N.C.	1,701	X	X	X	—	X	—	—
S.C.	1,630	X	X	X	X	X	X	Sensitivities (MIC), exoantigen (extract prep.)
Va.	1,135	X	X	X	—	X	X	—
W.Va.	559	X	X	X	X	X	X	—
East South Central	7,649							
Ala.	2,817	X	X	X	—	X	—	—
Ky.	224	X	X	X	—	X	X	—
Miss.	2,443	X	X	X	—	X	—	Hair culture
Tenn.	2,165	X	X	X	—	X	X	—
West South Central	7,901							
Ark.	—	—	—	—	—	—	—	—
La.	1,619	X	X	X	—	X	X	—
Okla.	2,231	X	X	X	—	X	X	—
Tex.	4,051	X	X	X	—	X	X	—
Mountain	3,789							
Ariz.	1,360	X	X	X	—	X	X	In-vitro conversion.
Colo.	229	X	X	X	—	—	—	—
Ida.	964	X	X	X	X	X	X	Immunodiffusion, in-vitro hair test, nutritional tests
Mont.	337	X	X	X	—	X	—	—
Nev.	99	X	X	X	—	—	—	—
N.M.	607	X	X	X	—	X	X	—
Utah	293	X	X	X	—	X	X	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	1,879							
Alaska	309	X	X	X	—	X	—	—
Cal.	61	X	X	X	X	X	X	—
Hawaii	756	X	X	X	—	X	X	—
Ore.	403	X	X	X	—	X	—	—
Wash.	350	—	X	X	—	X	X	Tease mounts
Territories	723							
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	723	X	X	X	—	X	—	—

Table 4-12
III. PARASITOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Parasitology Specimens	A		B	
		Intestinal Specimens		Other Specimens	
Total	404,104	397,962		6,142	
Average	7,771	7,653		154	
New England	14,528	14,028		500	
Conn.	10,365	9,877		488	
Mass.	26	21		5	
Me.	78	78		—	
N.H.	1,099	1,096		3	
R.I.	1,841	1,840		1	
Vt.	1,119	1,116		3	
Middle Atlantic	3,354	3,312		42	
N.J.	3,055	3,037		18	
N.Y.	—	—		—	
Pa.	299	275		24	
East North Central	12,208	12,120		88	
Ill.	943	920		23	
Ind.	2,662	2,631		31	
Mich.	3,919	3,909		10	
Ohio	1,500	1,496		4	
Wisc.	3,184	3,164		20	
West North Central	23,953	23,639		314	
Ia.	1,682	1,670		12	
Kans.	5,493	5,488		5	
Minn.	13,486	13,215		271	
Mo.	1,346	1,328		18	
Nebr.	603	602		1	
N.D.	980	974		6	
S.D.	363	362		1	
South Atlantic	135,394	132,309		3,085	
Del.	202	202		—	
D.C.	297	295		2	
Fla.	61,700	61,687		13	
Ga.	23,481	20,478		3,003	
Md.	8,444	8,421		23	
N.C.	5,448	5,446		2	
S.C.	20,079	20,076		3	
Va.	13,127	13,104		23	
W.Va.	2,616	2,600		16	
East South Central	54,471	54,385		86	
Ala.	33,441	33,365		76	
Ky.	4,340	4,340		—	
Miss.	9,353	9,346		7	
Tenn.	7,337	7,334		3	
West South Central	128,187	126,376		1,811	
Ark.	—	—		—	
La.	115,046	115,042		4	
Okla.	4,027	2,247		1,780	
Tex.	9,114	9,087		27	
Mountain	8,282	8,250		32	
Ariz.	334	326		8	
Colo.	2,268	2,268		—	
Ida.	544	525		19	
Mont.	636	636		—	
Nev.	259	259		—	
N.M.	634	631		3	
Utah	3,512	3,510		2	
Wyo.	95	95		—	
Pacific	12,085	11,901		184	
Alaska	1,644	1,643		1	
Cal.	1,977	1,795		182	
Hawaii	4,007	4,007		—	
Ore.	1,309	1,309		—	
Wash.	3,148	3,147		1	
Territories	11,642	11,642		—	
Guam	946	946		—	
P.R.	2,236	2,236		—	
V.I.	8,460	8,460		—	

Table 4-13
 III. PARASITOLOGY
 A. Intestinal Specimens

Lab & Region	Number of Specimens	Procedures Used				
		Gross	Direct (Incl. Pinworms)	Concentrate Smear	Stained Smear	Other
Total	397,962					
Average	7,653					
New England	14,028					
Conn.	9,877	X	X	X	X	—
Mass.	21	X	X	X	X	—
Me.	78	X	X	X	X	—
N.H.	1,096	X	X	X	X	—
R.I.	1,840	X	X	X	—	—
Vt.	1,116	X	X	X	X	—
Middle Atlantic	3,312					
N.J.	3,037	X	X	X	X	—
N.Y.	—	—	—	—	—	—
Pa.	275	X	X	X	X	Clearing adult helminths and proglottids, egg hatching for <i>Schistosoma mansoni</i> miracidia
East North Central	12,120					
Ill.	920	X	X	X	X	Culture for <i>E. histolytica</i>
Ind.	2,631	X	X	X	X	—
Mich.	3,909	X	X	X	X	—
Ohio	1,496	X	X	X	—	Worm for identification
Wisc.	3,164	X	X	X	X	—
West North Central	23,639					
Ia.	1,670	X	X	X	X	—
Kans.	5,488	X	X	X	X	—
Minn.	13,215	X	X	X	X	—
Mo.	1,328	X	X	X	X	—
Nebr.	602	X	X	X	X	—
N.D.	974	X	X	X	X	—
S.D.	362	X	X	X	X	—
South Atlantic	132,309					
Del.	202	X	X	X	X	—
D.C.	295	X	X	X	—	—
Fla.	61,687	X	X	X	X	—
Ga.	20,478	X	X	X	X	—
Md.	8,421	X	X	X	X	—
N.C.	5,446	X	X	X	X	—
S.C.	20,076	X	X	X	X	Trichrome stain
Va.	13,104	X	X	X	X	—
W.Va.	2,600	X	X	X	X	PVA-Trichrome
East South Central	54,385					
Ala.	33,365	X	X	X	X	—
Ky.	4,340	X	X	X	X	—
Miss.	9,346	—	X	X	X	—
Tenn.	7,334	X	X	X	X	—
West South Central	126,376					
Ark.	—	—	—	—	—	—
La.	115,042	X	X	X	X	—
Okla.	2,247	X	X	X	X	—
Tex.	9,087	X	X	X	X	—
Mountain	8,250					
Ariz.	326	—	X	X	X	—
Colo.	2,268	—	—	X	X	PVA-Trichrome
Ida.	525	X	X	X	X	—
Mont.	636	X	X	X	X	—
Nev.	259	X	X	X	—	—
N.M.	631	X	X	X	X	—
Utah	3,510	X	X	X	X	—
Wyo.	95	—	X	X	—	—
Pacific	11,901					
Alaska	1,643	X	X	X	X	—
Cal.	1,795	X	X	X	X	—
Hawaii	4,007	X	X	X	X	—
Ore.	1,309	X	X	X	X	—
Wash.	3,147	X	X	X	X	—
Territories	11,642					
Guam	946	—	X	—	—	Kato Method
P.R.	2,236	X	X	X	X	—
V.I.	8,460	—	X	X	X	—

Table 4-14
 III. PARASITOLOGY
 B. Other Parasitology Specimens

Lab & Region	Number of Specimens	Types of Specimens			
		Malaria	Trichinosis	Toxoplasmosis	Other (Disease Entity- Procedures Used)
Total	6,142				
Average	154				
New England	500				
Conn.	488	X	X	-	Water for Giardia, "Swimmer's Itch" studies, materials for identification, soil for helminth eggs
Mass.	5	X	-	-	-
Me.	-	-	-	-	-
N.H.	3	X	-	-	-
R.I.	1	-	X	-	-
Vt.	3	X	X	-	-
Middle Atlantic	42				
N.J.	18	X	-	-	Identifications - artifacts, worm proglottids
N.Y.	-	-	-	-	-
Pa.	24	X	X	X	Insect ident., larval parasites in fish, water analysis for protozoa, babesiosis.
East North Central	88				
Ill.	23	X	X	X	-
Ind.	31	X	-	-	Filariasis, schistosomiasis, arthropod ID.
Mich.	10	X	-	-	-
Ohio	4	X	X	-	-
Wisc.	20	X	-	-	Bugs for ID
West North Central	314				
Ia.	12	X	-	-	-
Kans.	5	X	-	-	Arthropods
Minn.	271	X	-	-	Pinworm slide tape, worm and insect ID.
Mo.	18	X	-	-	Invert
Nebr.	1	X	-	-	-
N.D.	6	X	-	-	-
S.D.	1	X	-	-	-
South Atlantic	3,085				
Del.	-	-	-	-	-
D.C.	2	X	-	-	-
Fla.	13	X	-	-	-
Ga.	3,003	X	-	X	-
Md.	23	X	-	-	-
N.C.	2	X	-	-	Insect ID
S.C.	3	X	-	-	-
Va.	23	X	-	-	Parasites for identification
W.Va.	16	-	-	-	Insect ID
East South Central	86				
Ala.	76	X	-	-	-
Ky.	-	-	-	-	-
Miss.	7	X	-	-	-
Tenn.	3	X	-	-	-
West South Central	1,811				
Ark.	-	-	-	-	-
La.	4	X	X	-	-
Okl.	1,780	X	-	-	Arthropod ID, vaginal smears.
Tex.	27	X	X	-	Amebic meningoencephalitis, filariasis, relapsing fever.
Mountain	32				
Ariz.	8	X	-	-	-
Colo.	-	-	-	-	-
Ida.	19	X	X	-	Ectoparasites
Mont.	-	-	-	-	-
Nev.	-	-	-	-	-
N.M.	3	X	-	-	-
Utah	2	X	X	X	Ectoparasite identification, Borrelia (relapsing fever) Trichomonas
Wyo.	-	-	-	-	-
Pacific	184				
Alaska	1	X	-	-	-
Cal.	182	X	X	X	Tissue parasites
Hawaii	-	-	-	-	-
Ore.	-	-	-	-	-
Wash.	1	X	-	-	-
Territories	-				
Guam	-	-	-	-	-
P.R.	-	-	-	-	-
V.I.	-	-	-	-	-

Table 4-15
IV. VIROLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Virology Specimens	A	B	C	D
		Rabies Specimens	Viral Isolations	Rickettsial Ident. Isolations	Other
Total	215,932	57,813	111,801	6,435	39,883
Average	4,319	1,156	2,795	804	3,988
New England	15,697	1,870	13,790	37	-
Conn.	10,440	646	9,794	-	-
Mass.	3,963	602	3,324	37	-
Me.	821	192	629	-	-
N.H.	254	254	-	-	-
R.I.	71	71	-	-	-
Vt.	148	105	43	-	-
Middle Atlantic	14,543	2,835	8,627	16	3,065
N.J.	13,045	2,585	7,379	16	3,065
N.Y.	-	-	-	-	-
Pa.	1,498	250	1,248	-	-
East North Central	49,762	10,951	28,085	1,647	9,079
Ill.	9,273	2,296	6,977	-	-
Ind.	2,949	2,321	628	-	-
Mich.	3,474	882	2,544	-	48
Ohio	15,566	3,117	1,771	1,647	9,031
Wisc.	18,500	2,335	16,165	-	-
West North Central	38,698	5,467	8,713	-	24,518
Ia.	2,844	628	2,216	-	-
Kans.	2,227	1,381	846	-	-
Minn.	5,537	1,122	4,415	-	-
Mo.	2,486	1,250	1,236	-	-
Nebr.	598	598	-	-	-
N.D.	24,951	433	-	-	24,518
S.D.	55	55	-	-	-
South Atlantic	33,301	11,423	17,254	4,563	61
Del.	1,377	318	1,059	-	-
D.C.	40	40	-	-	-
Fla.	6,125	3,597	2,528	-	-
Ga.	3,880	2,066	1,766	-	48
Md.	4,885	2,019	2,853	-	13
N.C.	3,446	1,219	2,227	-	-
S.C.	6,659	1,097	999	4,563	-
Va.	1,225	516	709	-	-
W.Va.	5,664	551	5,113	-	-
East South Central	10,320	6,563	3,374	1	382
Ala.	3,358	1,835	1,140	1	382
Ky.	1,934	1,394	540	-	-
Miss.	1,300	527	773	-	-
Tenn.	3,728	2,807	921	-	-
West South Central	29,741	13,129	14,284	-	2,328
Ark.	-	-	-	-	-
La.	2,892	2,875	17	-	-
Okla.	4,586	2,967	1,619	-	-
Tex.	22,263	7,287	12,648	-	2,328
Mountain	9,260	3,656	5,550	54	-
Ariz.	3,876	1,418	2,458	-	-
Colo.	744	744	-	-	-
Ida.	870	139	679	52	-
Mont.	361	28	333	-	-
Nev.	-	-	-	-	-
N.M.	1,132	666	466	-	-
Utah	1,895	279	1,614	2	-
Wyo.	382	382	-	-	-
Pacific	14,358	1,667	12,124	117	450
Alaska	2,386	143	1,893	-	350
Cal.	6,038	860	4,961	117	100
Hawaii	2,108	3	2,105	-	-
Ore.	2,815	308	2,507	-	-
Wash.	1,011	353	658	-	-
Territories	252	252	-	-	-
Guam	11	11	-	-	-
P.R.	241	241	-	-	-
V.I.	-	-	-	-	-

Table 4-16
IV. VIROLOGY
A. Rabies Specimens

Lab & Region	Number of Specimens	Procedures Used		
		Stained Smear	FRA	Animal Inoculation
Total	57,813			
Average	1,156			
New England	1,870			
Conn.	646	X	X	X
Mess.	602	-	X	X
Me.	192	-	X	X
N.H.	254	X	X	X
R.I.	71	-	X	X
Vt.	106	-	X	X
Middle Atlantic	2,835			
N.J.	2,585	-	X	X
N.Y.	-	-	-	-
Pa.	250	-	X	X
East North Central	10,951			
Ill.	2,296	-	X	-
Ind.	2,321	X	X	-
Mich.	882	-	X	X
Ohio	3,117	X	X	X
Wisc.	2,335	-	X	X
West North Central	5,467			
Ia.	628	-	X	X
Kans.	1,381	-	X	X
Minn.	1,122	-	X	X
Mo.	1,250	X	X	X
Nebr.	598	-	X	-
N.D.	433	X	-	-
S.D.	55	-	X	-
South Atlantic	11,423			
Del.	318	X	X	-
D.C.	40	-	X	-
Fla.	3,597	X	X	-
Ga.	2,066	-	X	X
Md.	2,019	X	X	X
N.C.	1,219	X	X	-
S.C.	1,097	-	X	X
Va.	516	X	X	X
W.Va.	551	X	X	X
East South Central	6,583			
Ala.	1,835	X	X	X
Ky.	1,394	X	X	X
Miss.	527	X	X	-
Tenn.	2,807	-	X	X
West South Central	13,129			
Ark.	-	-	-	-
La.	2,875	-	X	X
Okla.	2,967	-	X	X
Tex.	7,287	-	X	X
Mountain	3,656			
Ariz.	1,418	-	X	-
Colo.	744	-	X	X
Ids.	139	-	X	-
Mont.	28	-	-	-
Nev.	-	-	-	-
N.M.	666	-	X	X
Utah	279	X	X	X
Wyo.	382	-	X	-
Pacific	1,667			
Alaska	143	-	X	X
Cal.	860	-	X	X
Hawaii	3	X	X	-
Ore.	308	X	X	X
Wash.	353	-	X	X
Territories	252			
Guam	11	-	X	-
P.R.	241	-	X	X
V.I.	-	-	-	-

Table 4-17
IV. VIROLOGY
B. Viral Isolation Specimens

Lab	Number of Specimens	Types of Specimens						Procedures Used										
		Enteric	Arbovirus Human Origin	Arbovirus Non-Human Orig.	Respiratory	Exanthem	Other	Tissue Culture Hosts	Eggs	Animal Hosts	HI/RIA	CF	Neutralization Tests	FA-Orig. Spec.	FA-Other	HA/II/HA/ID	Other	
Total	111,801																	
Average	2,795																	
Ala.	1,140	X	-	-	X	X	-	X	X	X	X	-	X	-	-	X	-	
Alaska	1,893	X	X	X	X	X	-	X	X	-	X	-	X	X	X	-	-	
Ariz.	2,458	X	X	-	X	X	Miscellaneous; i.e. central nervous system	X	X	-	-	-	X	-	-	-	-	
Cal.	4,951	X	-	X	X	X	Skin lesions, urine, pleural fluid, autopsy tissues, virus isolates for identifications, birds, mosquitoes, animal tissues (other than rabies specimens)	X	X	X	X	X	X	X	X	X	X	Electron microscopy
Conn.	9,794	X	X	-	X	X	Cytomegalovirus	X	X	X	X	X	X	-	X	X	-	
Del.	1,069	X	X	-	X	X	-	X	X	X	X	X	X	X	X	X	-	
Fla.	2,528	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	-	
Ga.	1,768	X	X	X	X	X	Cytomegalovirus	X	X	X	X	X	X	X	X	X	Electron microscopy, immunoelectron microscopy, histochemical stain, passive hemagglutination test.	
Hawaii	2,105	X	-	-	X	X	CMV, herpes	X	X	-	X	X	X	X	-	X	-	
Ida.	679	-	-	-	X	X	-	X	X	-	X	-	-	X	X	-	-	
Ill.	8,977	X	X	X	X	X	-	X	X	X	X	X	X	-	-	X	-	
Ind.	628	X	-	-	X	X	-	X	-	-	X	X	X	-	-	-	-	
Ia.	2,216	X	X	X	X	-	Blood, SF, tissue	X	X	X	X	-	X	-	-	-	-	
Kans.	848	X	X	X	X	X	Cytomegalovirus	X	X	X	X	X	X	-	-	X	-	
Ky.	540	X	X	-	X	X	Autopsy material	X	X	-	X	X	X	-	-	X	-	
La.	17	-	X	X	X	-	-	-	-	X	-	-	-	-	-	-	-	
Me.	829	X	-	-	X	X	Vesicles	X	X	-	X	-	-	-	X	-	-	
Md.	2,853	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	Electron microscopy, RIA - hepatitis	
Mass.	3,324	X	X	X	X	X	Tissues and fluids (human and animal), Mosquitoes (speciated and pooled), referred virus/rickettsial isolates.	X	X	-	X	X	X	-	-	X	Plaque formation (arbovirus detection), Plaque reduction (neutralization)	
Mich.	2,544	X	-	-	X	X	Genital, CNS	X	X	X	X	X	X	-	-	X	-	
Minn.	4,415	X	-	-	X	X	-	X	-	X	X	X	X	-	X	X	-	
Miss.	773	-	X	X	-	-	-	-	-	-	X	-	-	-	-	-	-	
Mo.	1,236	X	X	X	X	X	Mycoplasma	X	X	X	X	X	X	-	X	X	-	
Mont.	333	X	-	-	X	X	-	X	-	-	X	X	X	-	-	X	-	
N.J.	7,379	X	X	X	X	X	CNS specimens (non-arbovirus, mosquito pools)	X	X	X	X	-	X	X	X	X	Interference/Interference inhibition	
N.M.	466	X	-	-	X	X	-	X	X	X	X	X	X	-	X	-	-	
N.C.	2,227	X	X	X	X	X	-	X	X	X	X	X	X	-	X	X	-	
Ohio	1,771	X	X	-	X	X	-	X	X	X	X	X	X	X	X	X	-	
Okla.	1,619	X	-	-	X	X	Lesion, urine, tissue, CSF	X	X	X	X	-	X	-	-	X	-	
Ore.	2,507	X	-	-	X	X	Biopsy/autopsy tissue	X	X	-	X	X	X	-	-	X	-	
Pa.	1,248	X	X	-	X	X	CMV, herpes	X	X	X	X	-	X	-	-	X	-	
S.C.	993	X	X	X	X	X	Urine, tissue, vaginal swab	X	X	X	X	X	X	X	X	X	Mycoplasma (biphasic media)	
Tenn.	921	X	-	-	X	X	-	X	X	X	X	-	X	X	-	X	-	
Tex.	12,648	X	X	X	X	X	Herpes, CMV, rubella, LCM, reference	X	X	X	X	X	X	-	-	X	-	
Utah	1,614	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	-	
Vt.	43	-	-	-	X	-	-	-	X	-	X	-	-	-	-	-	-	
Va.	709	X	X	-	X	-	Tissue, urine, human organs, pleural fluid	X	X	X	-	-	X	-	-	-	-	
Wash.	858	X	-	X	X	X	Chlamydia - psittacosis in birds	X	X	X	X	-	X	-	-	X	Macchiavello stain	
W.Va.	5,113	X	-	-	X	X	CMV	X	X	X	X	X	X	X	X	X	-	
Wisc.	16,165	X	X	-	X	X	Tissue (biopsy/autopsy), CSF, blood	X	X	X	X	X	X	X	X	X	-	

Table 4-18
IV. VIROLOGY
C. Rickettsial Identification Specimens

Lab & Region	Number of Specimens	Type of Specimens		Procedures Used		
		Tick	Other	Hemolymph	FA	Other
Total	6,435					
Average	804					
New England	37					
Conn.	—	—	—	—	—	—
Mass.	37	—	X	—	—	CF
Me.	—	—	—	—	—	—
N.H.	—	—	—	—	—	—
R.I.	—	—	—	—	—	—
Vt.	—	—	—	—	—	—
Middle Atlantic	16					
N.J.	16	X	X	X	X	Egg inoculation (yolk sac), guinea pig inoculation
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	1,647					
Ill.	—	—	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	—	—	—	—	—	—
Ohio	1,647	X	—	X	X	—
Wisc.	—	—	—	—	—	—
West North Central	—					
Ia.	—	—	—	—	—	—
Kans.	—	—	—	—	—	—
Minn.	—	—	—	—	—	—
Mo.	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—
N.D.	—	—	—	—	—	—
S.D.	—	—	—	—	—	—
South Atlantic	4,563					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	—	—	—	—	—	—
Ge.	—	—	—	—	—	—
Md.	—	—	—	—	—	—
N.C.	—	—	—	—	—	—
S.C.	4,563	X	—	X	X	—
Va.	—	—	—	—	—	—
W.Va.	—	—	—	—	—	—
East South Central	1					
Ala.	1	X	—	—	—	—
Ky.	—	—	—	—	—	—
Miss.	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—
West South Central	—					
Ark.	—	—	—	—	—	—
La.	—	—	—	—	—	—
Okla.	—	—	—	—	—	—
Tex.	—	—	—	—	—	—
Mountain	54					
Ariz.	—	—	—	—	—	—
Colo.	—	—	—	—	—	—
Ida.	52	—	X	—	X	Plaquing.
Mont.	—	—	—	—	—	—
Nev.	—	—	—	—	—	—
N.M.	—	—	—	—	—	—
Utah	2	—	X	—	—	Stain
Wyo.	—	—	—	—	—	—
Pacific	117					
Alaska	—	—	—	—	—	—
Cal.	117	X	X	—	X	—
Hawaii	—	—	—	—	—	—
Ore.	—	—	—	—	—	—
Wash.	—	—	—	—	—	—
Territories	—					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

Table 4-19
IV. VIROLOGY
D. Other Virology Specimens

Lab	Number of Specimens	Disease Entity – Procedures Used
Total	39,883	
Average	3,988	
Ala.	382	SLE – HA/HI; herpes serology – NI.
Alaska	350	Infectious Hematopoietic Necrosis Virus (IHNV) – tissue culture (Salmon).
Cal.	100	Viral gastroenteritis – electron microscopy; sewage effluents/treated waters – virus concentration, recovery, and identification.
Ga.	48	<i>Herpes simplex</i> – FA.
Md.	13	Environmental samples.
Mich.	48	Viral isolates for identification – culture, HA/HI, CF, FA, HAd/HAdI.
N.J.	3,066	Psittacosis – Gimenez staining and animal inoculation; hepatitis – radioimmunoassay; E-B virus – Ox cell hemolysin; smallpox – vaccinia HAI test; Legionnaires' disease – indirect and direct FA.
N.D.	24,518	Rubella – HI; encephalitis – CF; herpes, mumps, E-B – immunofluorescence; V-Z, ANA.
Ohio	9,031	Arbovirus – mosquito pools – all cultures, suckling mice.
Tex.	2,328	Mycoplasma, psittacosis, bird blood (arbovirus).

Table 4-20
V. IMMUNOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Immunology Specimens	A	B	C	D	E	F
		Syphilis Serology	Bacterial Serology	Fungal Serology	Parasitological Serology	Viral and Rickettsial Serology	Other
Total	8,730,640	7,078,185	68,950	143,523	180,081	1,250,909	8,992
Average	167,897	136,119	1,436	4,630	5,297	25,529	1,124
New England	552,949	447,452	20,872	738	8,398	74,746	743
Conn.	119,921	97,325	828	—	2,839	18,699	230
Mass.	213,818	201,456	130	96	2,406	9,217	513
Me.	32,837	14,750	166	577	3,106	14,238	—
N.H.	43,116	43,116	—	—	—	—	—
R.I.	97,783	59,007	18,063	—	40	20,673	—
Vt.	45,475	31,799	1,685	66	7	11,919	—
Middle Atlantic	220,572	176,467	545	564	2,225	38,648	2,123
N.J.	213,904	175,538	448	—	1,782	35,123	1,013
N.Y.	—	—	—	—	—	—	—
Pa.	6,668	929	97	664	443	3,525	1,110
East North Central	840,412	632,761	4,904	19,522	16,805	161,524	4,896
Ill.	146,500	129,156	181	6,030	1,943	9,190	—
Ind.	67,178	57,916	607	2,182	580	5,893	—
Mich.	338,666	267,286	1,070	4,733	2,199	63,377	—
Ohio	98,290	77,085	396	3,791	2,118	14,900	—
Wisc.	189,779	101,318	2,650	2,786	9,965	68,164	4,896
West North Central	862,604	654,352	13,057	11,283	5,773	178,139	—
Ia.	234,044	149,375	7,246	1,657	2,696	73,070	—
Kans.	118,334	89,428	186	1,473	—	27,247	—
Minn.	276,448	218,891	1,772	4,141	1,706	49,938	—
Mo.	80,681	65,099	254	4,012	1,371	9,945	—
Nebr.	57,619	54,490	1,549	—	—	1,580	—
N.D.	55,595	51,977	1,449	—	—	2,169	—
S.D.	39,883	25,092	601	—	—	14,190	—
South Atlantic	2,421,522	2,005,374	15,564	13,036	20,589	365,975	984
Del.	31,098	30,008	—	—	250	840	—
D.C.	101,641	101,113	53	—	12	463	—
Fla.	621,116	559,879	1,365	—	1,280	58,592	—
Ga.	493,385	458,826	929	2,174	2,990	28,466	—
Md.	413,317	236,774	6,394	5,287	10,154	153,771	937
N.C.	297,985	235,772	750	2,597	3,104	55,762	—
S.C.	247,741	195,770	400	1,360	950	49,214	47
Va.	167,612	141,171	5,645	1,372	1,561	17,863	—
W.Va.	47,627	46,061	28	246	288	1,004	—
East South Central	1,184,993	1,067,561	1,552	11,572	5,572	98,736	—
Ala.	501,266	454,320	88	2,152	4,321	40,385	—
Ky.	148,650	124,564	83	3,802	1,251	18,950	—
Miss.	272,779	268,174	1,087	2,359	—	1,159	—
Tenn.	262,298	220,503	294	3,259	—	38,242	—
West South Central	1,424,365	1,275,599	6,534	36,389	4,715	101,128	—
Ark.	—	—	—	—	—	—	—
La.	216,624	138,955	3,333	7,483	984	65,869	—
Okla.	139,725	132,969	689	1,589	—	4,478	—
Tex.	1,068,016	1,003,675	2,512	27,317	3,731	30,781	—
Mountain	596,555	445,897	2,923	25,491	4,867	117,131	246
Ariz.	69,428	39,284	34	25,076	1,303	3,731	—
Colo.	214,214	155,732	95	—	—	58,387	—
Ida.	22,642	14,921	33	119	2,728	4,841	—
Mont.	53,419	28,694	264	296	123	24,042	—
Nev.	36,239	35,909	44	—	—	40	246
N.M.	101,184	89,882	—	—	—	11,302	—
Utah	78,695	69,839	2,379	—	713	5,764	—
Wyo.	20,734	11,636	74	—	—	9,024	—
Pacific	489,876	244,305	1,955	24,928	111,137	107,551	—
Alaska	66,658	52,823	27	—	—	13,808	—
Cal.	64,994	24,904	785	24,144	2,740	12,421	—
Hawaii	51,200	31,235	247	—	—	19,718	—
Ore.	263,870	98,960	699	784	108,397	55,030	—
Wash.	43,154	36,383	197	—	—	6,574	—
Territories	136,792	128,417	1,044	—	—	7,331	—
Guam	1,606	1,478	128	—	—	—	—
P.R.	126,530	118,283	916	—	—	7,331	—
V.I.	8,656	8,656	—	—	—	—	—

Table 4-21
V.IMMUNOLOGY
A. Syphilis Serology Specimens

Lab & Region	Number of Specimens	Procedures Used								
		VDRL	RPR	ART	USR	FTA-ABS	FTA-ABS (IgM)	MHA-TP	Dark-field	Other
Total	7,078,185									
Average	136,119									
New England	447,452									
Conn.	97,325	X	X	X	-	X	-	-	X	RST
Mass.	201,456	X	X	-	-	-	-	-	-	AFTA-ABS
Ma.	14,750	X	X	-	-	-	-	X	-	CSF-VDRL
N.H.	43,115	X	X	X	-	X	-	-	-	-
R.I.	69,007	X	-	-	-	X	-	-	-	-
Vt.	31,799	-	-	X	-	-	-	-	X	FA Darkfield
Middle Atlantic	176,467									
N.J.	175,538	X	-	-	-	X	-	-	-	-
N.Y.	-	-	-	-	-	-	-	-	-	-
Pa.	929	X	X	-	-	X	-	-	-	-
East North Central	632,761									
Ill.	129,156	X	X	-	-	X	-	X	-	-
Ind.	67,916	X	X	X	-	X	-	-	-	-
Mich.	267,286	X	-	-	-	X	-	X	X	-
Ohio	77,085	X	-	-	-	X	-	-	-	-
Wisc.	101,318	X	-	-	-	X	X	X	X	-
West North Central	654,352									
Ia.	149,375	X	-	-	-	X	X	-	X	AFTA-ABS
Kans.	89,428	X	-	-	-	X	-	-	-	-
Minn.	218,891	X	-	-	-	X	-	-	X	Quantitative VDRL
Mo.	65,099	X	X	-	-	X	-	-	-	-
Nebr.	54,490	X	-	-	X	X	-	-	X	-
N.D.	51,977	-	X	-	-	X	-	-	X	-
S.D.	26,092	X	X	-	-	X	-	X	-	-
South Atlantic	2,005,374									
Del.	30,008	X	-	-	-	X	-	-	X	-
D.C.	101,113	X	-	-	X	X	-	X	-	-
Fla.	559,879	X	-	-	-	X	-	-	-	-
Ga.	458,826	X	-	-	-	X	-	-	-	-
Md.	236,774	X	X	-	-	X	X	-	X	-
N.C.	235,772	X	-	-	-	X	-	-	-	DEATP
S.C.	195,770	X	X	-	-	X	-	-	X	-
Va.	141,171	X	X	-	-	X	-	-	-	-
W.Va.	46,061	X	X	X	-	X	-	-	-	-
East South Central	1,067,561									
Ala.	454,320	X	-	-	-	X	-	-	-	-
Ky.	124,564	X	X	-	-	X	-	-	X	-
Miss.	268,174	X	X	-	-	X	-	-	-	-
Tenn.	220,503	X	X	-	-	X	-	X	-	-
West South Central	1,275,599									
Ark.	-	-	-	-	-	-	-	-	-	-
La.	138,955	-	-	-	-	X	-	-	-	-
Okla.	132,969	X	X	-	-	X	-	-	X	VDRL-spinal fluid, total protein
Tex.	1,003,675	X	X	-	-	X	-	-	-	-
Mountain	445,897									
Ariz.	39,284	X	X	-	-	X	-	-	-	-
Colo.	155,732	X	X	-	-	X	-	-	-	-
Ida.	14,921	-	X	-	X	X	-	-	X	-
Mont.	26,694	X	-	-	-	X	-	-	-	-
Nev.	35,909	X	-	-	-	X	-	-	-	-
N.M.	89,882	X	X	-	-	X	-	-	-	-
Utah	69,839	X	X	-	-	X	-	-	-	FADF
Wyo.	11,636	X	-	-	-	X	-	-	-	-
Pacific	244,305									
Alaska	51,723	X	X	-	-	X	-	-	X	-
C.	2,004	X	-	-	-	X	-	-	X	DEATP
Hawaii	31,235	X	X	-	-	X	-	-	X	Gum mastic
Ore.	98,960	X	X	X	-	X	X	-	X	-
Wash.	36,383	X	X	-	-	X	-	-	-	-
Territories	128,417									
Guam	1,478	X	-	-	-	X	-	-	X	-
P.R.	118,283	X	-	-	-	X	-	-	-	-
V.I.	8,656	X	-	X	-	X	-	-	X	-

Table 4-22
V. IMMUNOLOGY
B. Bacterial Serology Specimens

Lab & Region	Number of Specimens	Types of Specimens					
		Brockeliosis	Tularamia	Strept. Antibodies	Leptospirosis	Salmonella	Other
Total	68,950						
Average	1,438						
New England	20,872						
Conn.	828	X	X	X	—	X	—
Mass.	130	X	X	—	—	X	Weil-Felix, pertussis-seroconversion
Me.	166	—	—	—	—	X	Haemophilus, N. meningitidis, Shigella
N.H.	—	—	—	—	—	—	—
R.I.	18,063	X	—	—	X	X	—
Vt.	1,685	X	X	—	—	X	Legionnaires' disease
Middle Atlantic	545						
N.J.	448	X	X	—	X	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	97	X	X	—	X	—	Tetanus, hepatitis, diphtheria
East North Central	4,904						
Ill.	181	X	X	—	—	X	—
Ind.	607	X	X	—	X	X	—
Mlch.	1,070	X	X	X	X	—	Legionnaires' disease, pertussis
Ohio	396	X	X	—	X	—	—
Wis.	2,650	X	X	X	—	X	—
West North Central	13,057						
Ia.	7,246	X	X	X	X	—	—
Kans.	186	X	X	—	X	—	—
Minn.	1,772	X	X	X	—	X	—
Mo.	264	X	X	—	—	—	—
Nebr.	1,649	X	X	—	X	—	—
N.D.	1,449	X	X	—	—	X	—
S.D.	601	X	X	X	—	X	—
South Atlantic	15,564						
Del.	—	—	—	—	—	—	—
D.C.	53	—	—	—	—	—	Legionnaires' disease
Fla.	1,366	X	—	—	X	—	Typhoid
Ga.	929	X	X	—	—	—	Proteus OX19
Md.	6,394	X	X	X	X	X	Gonococcus, pertussis, meningococcus, anti-ONase-B, anti-hyaluronidase, Listeria, Legionnaires' disease, tetanus antitoxin,
N.C.	750	X	X	—	—	—	Legionnaires'
S.C.	400	X	X	X	X	X	Proteus OX19, OXK & OX2
Va.	6,645	X	X	X	X	X	Legionnaires' disease
W.Va.	28	—	—	X	—	—	Weil-Felix
East South Central	1,552						
Ala.	88	X	X	—	—	—	—
Ky.	83	X	X	—	—	X	Typhoid D, H, VI
Miss.	1,067	X	X	X	—	—	—
Tenn.	294	X	X	—	—	—	—
West South Central	6,534						
Ark.	—	—	—	—	—	—	—
La.	3,333	X	X	—	X	X	Shigella, E. coli.
Okla.	689	X	X	—	X	—	—
Tex.	2,512	X	X	—	X	X	Legionnaires' disease - IFA.
Mountain	2,923						
Ariz.	34	X	X	—	—	—	—
Colo.	95	X	X	—	—	—	—
Ida.	33	X	X	—	—	—	—
Mont.	264	X	X	—	—	—	—
Nev.	44	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—
Utah	2,379	X	X	—	—	—	Proteus OX19
Wyo.	74	X	X	—	—	—	—
Pacific	1,955						
Alaska	27	X	X	X	—	—	—
Cal.	785	X	X	—	X	X	Yersinia enterocolitica, Yersinia pseudotuberculosis
Hawaii	247	X	X	X	X	X	Heterophile
Ore.	699	X	X	—	X	X	—
Wash.	197	X	X	—	X	—	Proteus OX2, OX11, OX19.
Territories	1,044						
Guam	128	—	—	—	—	X	Shigella, Vibrio cholerae, Haemophilus influenzae, gonococcus, meningitidis.
P.R.	916	X	—	X	—	X	—
V.I.	—	X	—	X	—	X	—

Table 4-23
V. IMMUNOLOGY
C. Fungal Serology Specimens

Lab & Region	Number of Specimens	Types of Specimens						Other
		Blastomycosis	Coccidioidomycosis	Histoplasmosis	Cryptococcus	Aspergillus	Candidiasis	
Total	143,523							
Average	4,630							
New England	738							
Conn.	—	—	—	—	—	—	—	—
Mass.	96	—	—	—	X	—	—	—
Me.	577	X	X	X	X	X	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	—	—	—	—	—	—	—	—
Vt.	65	X	X	X	—	—	—	—
Middle Atlantic	564							
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	564	X	X	X	X	X	X	Actinomyces
East North Central	19,522							
Ill.	6,030	X	X	X	—	—	—	—
Ind.	2,182	X	X	X	X	—	—	—
Mich.	4,733	X	X	X	—	—	—	—
Ohio	3,791	X	X	X	X	—	—	—
Wisc.	2,786	X	X	X	X	—	—	—
West North Central	11,283							
Ia.	1,657	X	X	X	X	—	—	—
Kans.	1,473	X	X	X	—	—	—	—
Minn.	4,141	X	X	X	—	—	—	—
Mo.	4,012	X	X	X	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	—	—	—	—
S.D.	—	—	—	—	—	—	—	—
South Atlantic	13,036							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—
Ge.	2,174	X	X	X	X	X	X	Sporotrichosis
Md.	5,287	X	X	X	X	X	X	—
N.C.	2,597	X	X	X	—	—	—	—
S.C.	1,360	X	X	X	X	X	X	—
Va.	1,372	X	X	X	—	—	—	—
W.Va.	246	X	X	X	—	—	—	—
East South Central	11,572							
Ala.	2,152	X	X	X	—	X	—	—
Ky.	3,802	X	X	X	—	—	—	—
Miss.	2,359	X	X	X	—	—	—	—
Tenn.	3,259	X	—	X	—	—	—	—
West South Central	36,389							
Ark.	—	—	—	—	—	—	—	—
La.	7,483	X	X	X	X	—	—	—
Okla.	1,589	X	X	X	X	X	—	—
Tex.	27,317	X	X	X	X	—	—	—
Mountain	25,491							
Ariz.	25,076	X	X	X	—	—	—	—
Colo.	—	—	—	—	—	—	—	—
Ida.	119	X	X	X	—	—	—	—
Mont.	296	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	24,928							
Alaska	—	—	—	—	—	—	—	—
Cal.	24,144	—	X	X	X	—	—	—
Hawaii	—	—	—	—	—	—	—	—
Ore.	784	X	X	X	X	X	X	—
Wash.	—	—	—	—	—	—	—	—
Territories	—							
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—

Table 4-24
V. IMMUNOLOGY
D. Parasitological Serology Specimens

Lab & Region	Number of Specimens	Types of Specimens			
		Trichinosis	Toxoplasmosis	Amebiasis	Other
Total	180,081				
Average	5,297				
New England	8,398				
Conn.	2,839	X	X	-	-
Mess.	2,406	-	X	X	-
Me.	3,106	-	X	-	-
N.H.	-	-	-	-	-
R.I.	40	-	X	-	-
Vt.	7	X	-	-	-
Middle Atlantic	2,225				
N.J.	1,782	X	X	-	-
N.Y.	-	-	-	-	-
Pa.	443	X	X	X	Echinococcus, trypanosomiasis, giardiasis, filariasis, malaria, Strongyloides, schistosomiasis, Pneumocytosis, paragonimiasis
East North Central	16,805				
Ill.	1,943	-	X	-	-
Ind.	580	X	X	-	-
Mich.	2,199	X	X	-	-
Ohio	2,118	-	X	-	-
Wisc.	9,965	-	X	-	-
West North Central	5,773				
Ia.	2,696	X	X	-	-
Kans.	-	-	-	-	-
Minn.	1,706	-	X	-	-
Mo.	1,371	X	X	-	-
Nebr.	-	-	-	-	-
N.D.	-	-	-	-	-
S.D.	-	-	-	-	-
South Atlantic	20,589				
Del.	250	-	X	-	-
D.C.	12	-	X	-	-
Fla.	1,280	-	X	-	-
Ga.	2,990	-	X	-	-
Md.	10,154	X	X	X	Echinococcus, trypanosomiasis
N.C.	3,104	-	X	-	-
S.C.	950	-	X	X	-
Va.	1,561	X	X	-	-
W.Va.	288	-	X	-	-
East South Central	5,572				
Ala.	4,321	-	X	X	-
Ky.	1,251	-	X	-	-
Miss.	-	-	-	-	-
Tenn.	-	-	-	-	-
West South Central	4,715				
Ark.	-	-	-	-	-
La.	984	-	X	-	-
Okla.	-	-	-	-	-
Tex.	3,731	-	X	X	-
Mountain	4,867				
Ariz.	1,303	-	X	-	-
Colo.	-	-	-	-	-
Ida.	2,728	-	X	-	-
Mont.	123	-	-	-	-
Nev.	-	-	-	-	-
N.M.	-	-	-	-	-
Utah	713	-	X	-	-
Wyo.	-	-	-	-	-
Pacific	111,137				
Alaska	-	-	-	-	-
Cal.	2,740	X	X	-	-
Hawaii	-	-	-	-	-
Ore.	108,397	X	X	X	-
Wash.	-	-	-	-	-
Territories	-				
Guam	-	-	-	-	-
P.R.	-	-	-	-	-
V.I.	-	-	-	-	-

Table 4-26
V. IMMUNOLOGY
E. Viral and Rickettsial Serology Specimens

Lab & Region	Number of Specimens	Procedures Used											Other		
		CF	HI	HAAd	Immunodiffusion (Agar Gel)	Neut. (Tissue Cul.)	Neut. Rabies	FA	Radioimmunoassay	Passive Hemagglutination	Reverse Passive Hemagglutination	Ox-Cell Hemolysis		Slide Agglutination	Heterophile Tests
Total	1,250,909														
Average	25,529														
New England	74,746														
Conn.	18,699	X	X	-	X	X	-	-	X	-	X	X	-	-	Plaque reduction
Mass.	9,217	X	X	X	X	X	-	-	-	-	X	-	-	-	
Me.	14,238	X	X	X	-	-	-	X	X	-	X	-	-	X	
N.H.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R.I.	20,673	X	X	-	-	-	-	X	-	-	-	X	-	-	
Vt.	11,919	-	X	-	-	-	-	-	-	-	X	-	-	-	
Middle Atlantic	38,648														
N.J.	35,123	X	X	-	X	X	-	X	X	-	X	X	-	-	Neutralization (animals), Well-Felix
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pa.	3,525	X	X	-	-	X	-	X	-	-	-	-	-	-	
East North Central	161,524														
Ill.	9,190	X	X	-	-	-	-	-	-	-	-	-	X	-	
Ind.	5,893	X	X	-	-	X	-	-	-	-	-	X	X	-	
Mich.	63,377	X	X	-	-	X	-	-	X	-	-	X	X	-	
Ohio	14,900	X	X	-	-	-	-	-	-	-	-	X	X	-	
Wis.	68,164	X	X	X	X	X	X	X	X	X	X	-	-	-	Specific IgM (sucrose density gradient)
West North Central	178,139														
Ia.	73,070	X	X	-	-	X	-	-	X	-	-	-	-	X	
Kans.	27,247	X	X	-	-	X	-	-	X	X	-	-	-	-	
Minn.	49,938	X	X	X	-	X	-	X	X	-	-	-	-	-	
Mo.	9,945	X	X	X	-	-	-	-	-	-	-	X	X	-	
Nebr.	1,580	-	X	-	-	-	-	-	-	-	-	-	X	-	
N.D.	2,169	X	X	-	-	-	-	X	-	-	-	X	X	-	
S.D.	14,190	-	X	-	-	-	-	-	-	-	-	-	X	-	
South Atlantic	385,975														
Del.	840	X	X	X	-	X	-	X	-	-	-	-	-	-	
D.C.	463	X	X	-	-	-	-	-	-	-	-	-	-	-	
Fla.	58,592	X	X	X	-	X	-	-	-	-	X	-	-	-	
Ga.	28,466	X	X	-	-	X	-	-	-	X	-	-	-	-	
Md.	153,771	X	X	X	X	X	-	X	X	-	X	X	X	-	
N.C.	55,762	X	X	-	-	X	-	X	X	-	X	X	X	-	
S.C.	49,214	X	X	-	-	X	-	X	X	-	X	X	X	-	
Va.	17,863	X	X	X	-	-	-	X	-	-	X	X	X	-	
W.Va.	1,004	X	-	-	-	-	-	-	-	-	-	-	X	-	
East South Central	98,736														
Ala.	40,385	X	X	-	X	-	-	-	-	-	-	-	-	-	
Kv.	18,950	X	X	-	-	-	-	-	-	-	-	-	-	X	
Miss.	1,159	-	X	-	-	-	-	-	-	-	-	-	-	-	
Tenn.	38,242	X	X	-	-	X	-	-	-	-	-	-	-	-	
West South Central	101,128														
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
La.	65,869	X	X	-	-	-	-	-	-	-	-	-	-	-	
Okla.	4,478	X	X	-	-	-	-	-	-	-	-	X	X	-	
Tex.	30,781	X	X	-	-	-	-	-	-	X	-	-	-	-	
Mountain	117,131														
Ariz.	3,731	X	X	-	-	-	-	-	-	-	-	-	-	-	
Colo.	58,387	X	X	-	-	-	-	-	-	-	X	-	X	-	
Ida.	4,841	X	X	-	-	X	-	-	-	X	-	-	-	-	IFA
Mont.	24,042	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nev.	40	-	X	-	-	-	-	-	-	-	-	-	X	-	
N.M.	11,302	X	X	-	-	X	-	X	-	-	-	X	X	-	
Utah	5,764	X	X	X	-	X	-	-	-	-	-	-	X	-	Cold agglutination
Wyo.	9,024	-	X	-	-	-	-	-	-	-	-	X	-	-	
Pacific	107,551														
Alaska	13,808	X	X	-	-	X	-	-	-	-	-	X	X	-	Anticomplement FA
Cal.	12,421	X	X	X	X	X	X	X	X	X	-	-	-	-	
Hawaii	19,718	X	X	X	-	X	-	X	-	X	-	-	-	-	
Ore.	55,030	X	X	X	-	X	-	-	-	-	X	X	X	-	
Wash.	6,574	X	X	-	-	-	-	-	-	-	-	-	-	-	
Territories	7,331														
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P.R.	7,331	-	X	-	-	-	-	-	-	-	-	-	-	-	
V.I.	-	-	-	-	-	-	-	-	X	-	-	-	-	-	

Table 4-26
V. IMMUNOLOGY
F. Other Serology Specimens

Lab	Number of Specimens	Disease Entity - Procedures Used
Total	8,992	
Conn.	230	Legionnaires' - IFA; <i>B. pertussis</i> - agglutination
Md.	937	Gammopathies - electrophoresis and immunoelectrophoresis; carcinoembryonic antigen - RIA; asbestos - electron microscopy; complement - gel diffusion
Mass.	513	Rubella - single radial hemolysis, Legionnaires' disease.
Nev.	246	-
N.J.	1,013	Legionnaires' disease - IFA
Pa.	1,110	Legionnaires' disease - IFA
S.C.	47	Fungal disease - exoantigen immunodiffusion.
Wisc.	4,896	Autoimmune - RA-latex, ANA-FA, thyroid-latex

Table 4-27
VI. HEMATOLOGY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Hematology Specimens	A	B	C
		Hematology Specimens	Immunochemistry Specimens	Hemoglobinopathy Specimens
Total	1,271,961	559,313	207,072	505,576
Average	36,342	27,966	8,283	20,223
New England	16,727	7,322	679	8,726
Conn.	15,002	6,903	—	8,099
Mass.	—	—	—	—
Me.	—	—	—	—
N.H.	—	—	—	—
R.I.	1,725	419	679	627
Vt.	—	—	—	—
Middle Atlantic	617	496	100	21
N.J.	—	—	—	—
N.Y.	—	—	—	—
Pa.	617	496	100	21
East North Central	48,520	13,935	30,882	3,703
Ill.	—	—	—	—
Ind.	—	—	—	—
Mich.	15,226	13,782	1,444	—
Ohio	3,488	—	96	3,392
Wisc.	29,806	153	29,342	311
West North Central	19,472	—	12,564	6,908
Ia.	—	—	—	—
Kans.	—	—	—	—
Minn.	—	—	—	—
Mo.	6,908	—	—	6,908
Nebr.	—	—	—	—
N.D.	12,564	—	12,564	—
S.D.	—	—	—	—
South Atlantic	538,073	226,754	71,549	239,770
Del.	2,080	—	—	2,080
D.C.	56,105	43,722	1,828	10,555
Fla.	152,819	66,782	20,316	65,721
Ga.	51,513	—	15,619	35,894
Md.	99,664	55,186	17,691	26,787
N.C.	56,349	2,005	—	54,344
S.C.	85,550	58,765	6,844	19,941
Va.	33,168	—	9,251	23,917
W.Va.	825	294	—	531
East South Central	254,422	112,522	35,026	106,874
Ala.	70,740	—	10,360	60,380
Ky.	17,951	3,950	7,603	6,398
Miss.	163,865	108,572	15,197	40,096
Tenn.	1,866	—	1,866	—
West South Central	311,866	167,544	18,278	126,044
Ark.	—	—	—	—
La.	—	—	—	—
Okla.	8,531	1,438	3,096	3,997
Tex.	303,355	166,106	15,182	122,047
Mountain	37,183	6,237	21,128	9,818
Ariz.	8,343	—	—	8,343
Colo.	18,956	—	18,956	—
Ida.	5,785	5,785	—	—
Mont.	—	—	—	—
Nev.	1,339	452	719	168
N.M.	2,760	—	453	1,307
Utah	—	—	—	—
Wyo.	—	—	—	—
Pacific	7,960	90	4,784	3,086
Alaska	4,062	—	4,062	—
Cal.	90	90	—	—
Hawaii	722	—	722	—
Ore.	—	—	—	—
Wash.	3,086	—	—	3,086
Territories	37,121	24,413	12,082	626
Guam	4,819	4,446	373	—
P.R.	31,676	19,967	11,709	—
V.I.	626	—	—	626

Table 4-28
VI. HEMATOLOGY
A. Hematology Specimens

Lab & Region	Number of Specimens	Hematocrit	Hemoglobin	Cell Count	Sed. Rate	Reticulo-cyte Count	Differ-ential	Prothrombin Time	Platelet Count	Other
Total	559,313									
Average	27,986									
New England	7,322									
Conn.	6,803	X	X	X	X	X	X	X	--	--
Mass.	--	--	--	--	--	--	--	--	--	--
Me.	--	--	--	--	--	--	--	--	--	--
N.H.	--	--	--	--	--	--	--	--	--	--
R.I.	419	X	X	X	--	--	X	--	--	--
Vt.	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	496									
N.J.	--	--	--	--	--	--	--	--	--	--
N.Y.	--	--	--	--	--	--	--	--	--	--
Pa.	496	X	X	X	X	--	X	X	X	--
East North Central	13,935									
Ill.	--	--	--	--	--	--	--	--	--	--
Ind.	--	--	--	--	--	--	--	--	--	--
Mich.	13,782	X	X	X	X	X	X	X	X	--
Ohio	--	--	--	--	--	--	--	--	--	--
Wisc.	153	X	X	X	X	X	X	--	X	LE smear examination, nasal smear examination for eosinophilia
West North Central	--									
Ia.	--	--	--	--	--	--	--	--	--	--
Kans.	--	--	--	--	--	--	--	--	--	--
Minn.	--	--	--	--	--	--	--	--	--	--
Mo.	--	--	--	--	--	--	--	--	--	--
Nebr.	--	--	--	--	--	--	--	--	--	--
N.D.	--	--	--	--	--	--	--	--	--	--
S.D.	--	--	--	--	--	--	--	--	--	--
South Atlantic	226,754									
Del.	--	--	--	--	--	--	--	--	--	--
D.C.	43,722	X	X	X	--	--	--	--	--	--
Fla.	66,782	X	X	--	--	--	--	--	--	--
Ga.	--	--	--	--	--	--	--	--	--	--
Md.	56,186	X	X	X	X	--	X	--	X	L.E. prep., eosinophile count
N.C.	2,005	X	X	X	--	--	X	--	--	--
S.C.	58,765	X	X	X	X	X	X	X	--	Bleeding time
Va.	--	--	--	--	--	--	--	--	--	--
W.Va.	294	X	X	X	X	--	X	--	--	--
East South Central	112,522									
Ala.	--	--	--	--	--	--	--	--	--	--
Ky.	3,950	X	X	X	--	--	X	--	--	--
Miss.	108,572	X	X	X	--	--	--	--	--	MCV, MCH, MCHC
Tenn.	--	--	--	--	--	--	--	--	--	--
West South Central	167,544									
Ark.	--	--	--	--	--	--	--	--	--	--
La.	--	--	--	--	--	--	--	--	--	--
Okla.	1,438	X	X	X	--	--	--	--	--	--
Tex.	166,106	X	X	X	X	--	--	--	--	--
Mountain	6,237									
Ariz.	--	--	--	--	--	--	--	--	--	--
Colo.	--	--	--	--	--	--	--	--	--	--
Ida.	5,785	X	--	--	X	--	--	--	--	--
Mont.	--	--	--	--	--	--	--	--	--	--
Nev.	452	X	X	X	--	--	X	--	X	--
N.M.	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--
Wyo.	--	--	--	--	--	--	--	--	--	--
Pacific	90									
Alaska	--	--	--	--	--	--	--	--	--	--
Cal.	90	X	X	X	--	--	X	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--
Ore.	--	--	--	--	--	--	--	--	--	--
Wash.	--	--	--	--	--	--	--	--	--	--
Territories	24,413									
Guam	4,446	X	X	X	X	--	X	--	X	--
P.R.	19,967	X	X	X	X	X	X	--	X	Fibrinogen levels
V.I.	--	--	--	--	--	--	--	--	--	--

Table 4-29
VI. HEMATOLOGY
B. Immunohematology Specimens

Lab & Region	Number of Specimens	Blood Grouping	Blood Typing	Antibody Test	Other Test
Total	207,072				
Average	8,283				
New England	679				
Conn.	—	—	—	—	—
Mass.	—	—	—	—	—
Me.	—	—	—	—	—
N.H.	—	—	—	—	—
R.I.	679	X	—	X	—
Vt.	—	—	—	—	—
Middle Atlantic	100				
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	100	X	X	X	Coombs' test
East North Central	30,882				
Ill.	—	—	—	—	—
Ind.	—	—	—	—	—
Mich.	1,444	X	X	—	—
Ohio	96	X	X	—	—
Wisc.	29,342	X	X	X	—
West North Central	12,564				
Ia.	—	—	—	—	—
Kans.	—	—	—	—	—
Minn.	—	—	—	—	—
Mo.	—	—	—	—	—
Nebr.	—	—	—	—	—
N.D.	12,564	X	X	—	—
S.D.	—	—	—	—	—
South Atlantic	71,549				
Del.	—	—	—	—	—
D.C.	1,828	X	—	X	—
Fla.	20,316	—	X	—	—
Ga.	15,619	—	X	X	—
Md.	17,691	X	X	X	—
N.C.	—	—	—	—	—
S.C.	6,844	X	X	—	—
Va.	9,251	X	X	X	Du antigen
W.Va.	—	—	—	—	—
East South Central	35,026				
Ala.	10,360	—	X	X	Search, cyte screen
Ky.	7,603	X	X	X	—
Miss.	15,197	X	X	X	Indirect Coombs (identification, titration)
Tenn.	1,866	X	X	X	—
West South Central	18,278				
Ark.	—	—	—	—	—
La.	—	—	—	—	—
Okla.	3,096	X	X	—	—
Tex.	15,182	X	X	X	Asto, CRP, Coombs, mononucleosis
Mountain	21,128				
Ariz.	—	—	—	—	—
Colo.	18,956	—	—	X	—
Ida.	—	—	—	—	—
Mont.	—	—	—	—	—
Nev.	719	X	X	—	—
N.M.	1,453	X	X	X	—
Utah	—	—	—	—	—
Wyo.	—	—	—	—	—
Pacific	4,784				
Alaska	4,062	X	X	—	—
Cal.	—	—	—	—	—
Hawaii	722	X	X	—	—
Ore.	—	—	—	—	—
Wash.	—	—	—	—	—
Territories	12,082				
Guam	373	X	X	—	—
P.R.	11,709	X	X	X	Indirect Coombs, direct Coombs
V.I.	—	—	—	—	—

Table 4-30
VI. HEMATOLOGY
C. Hemoglobinopathy Specimens

Lab & Region	Number of Specimens	Procedures Used						Other
		Hemoglobin Cellulose Acetate Electro.	Citrate Agar Electrophoresis	Solubility Testing	Fetal Hemoglobin Assay	Hemoglobin A ₂ Quantitation	Densitometry	
Total	505,558							
Average	20,222							
New England	8,728							
Conn.	8,099	X	X	X	X	X		
Mass.	-							
Me.	-							
N.H.	-							
R.I.	627	X		X	X	X	X	
Vt.	-							
Middle Atlantic	21							
N.J.	-							
N.Y.	-							
Pa.	21	X	X	X		X		
East North Central	3,703							
Ill.	-							
Ind.	-							
Mich.	-							
Ohio	3,392	X	X	X				
Wisc.	311	X		X				
West North Central	6,908							
Ia.	-							
Kans.	-							
Minn.	-							
Mo.	6,908	X		X				
Nebr.	-							
N.D.	-							
S.D.	-							
South Atlantic	239,752							
Del.	2,080	X					X	
D.C.	10,555	X		X				
Fla.	65,721	X	X	X	X	X		
Ga.	35,894	X	X	X	X	X	X	
Md.	26,787	X	X	X	X	X	X	
N.C.	54,344	X	X	X	X	X	X	
S.C.	19,941	X	X	X				
Va.	23,917	X		X				
W.Va.	513	X	X	X				
East South Central	106,874							
Ala.	60,380	X	X					Globin chains electrophoresis
Ky.	6,398	X	X	X	X	X	X	
Miss.	40,096	X						
Tenn.	-							
West South Central	126,044							
Ark.	-							
La.	-							
Okla.	3,997	X	X	X				
Tex.	122,047	X	X				X	
Mountain	9,818							
Ariz.	8,343	X	X				X	
Colo.	-							
Ida.	-							
Mont.	-							
Nev.	168			X				
N.M.	1,307	X		X				
Utah	-							
Wyo.	-							
Pacific	3,086							
Alaska	-							
Cal.	-							
Hawaii	-							
Ore.	-							
Wash.	3,086	X	X	X				
Territories	626							
Guam	-							
P.R.	-						X	
V.I.	626	X						

Table 4-31
VII. CLINICAL CHEMISTRY
SUMMARY OF SPECIMENS BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Clinical Chemistry Specimens	A	B	C	D	E
		Clinical Chemistry Specimens	Urinalysis Specimens	Inborn Errors of Metabolism	Multiphasic Screening	Other Clinical Chemistry
Total	3,459,804	576,596	209,132	2,379,873	221,192	73,011
Average	78,632	22,177	11,007	61,022	24,577	10,430
New England	448,484	7,418	2,050	371,077	12,065	55,874
Conn.	120,579	6,083	2,049	103,618	8,829	—
Mass.	265,101	—	—	209,257	—	55,844
Me.	16,625	—	—	16,625	—	—
N.H.	21,566	—	—	18,330	3,236	—
R.I.	24,613	1,335	1	23,247	—	30
Vt.	—	—	—	—	—	—
Middle Atlantic	162,020	1,470	39	160,511	—	—
N.J.	93,096	450	—	92,646	—	—
N.Y.	—	—	—	—	—	—
Pa.	68,924	1,020	39	67,865	—	—
East North Central	417,732	64,476	9,005	327,380	16,871	—
Ill.	—	—	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	177,820	21,442	9,005	147,373	—	—
Ohio	181,054	—	—	171,429	9,625	—
Wisc.	58,858	43,034	—	8,578	7,246	—
West North Central	210,770	16,342	—	194,428	—	—
Ia.	5,741	—	—	5,741	—	—
Kans.	48,571	—	—	48,571	—	—
Minn.	75,156	—	—	75,156	—	—
Mo.	60,405	16,342	—	44,063	—	—
Nebr.	2,946	—	—	2,946	—	—
N.D.	17,951	—	—	17,951	—	—
S.D.	—	—	—	—	—	—
South Atlantic	1,091,318	265,577	111,936	529,794	183,433	578
Del.	16,344	—	387	15,957	—	—
D.C.	46,152	2,855	32,772	10,525	—	—
Fla.	271,536	60,224	872	81,591	128,849	—
Ga.	90,200	13,268	—	76,932	—	—
Md.	185,753	53,777	30,845	101,131	—	—
N.C.	230,522	104,968	126	85,425	40,003	—
S.C.	128,155	3,152	46,611	69,568	8,824	—
Va.	80,505	19,200	—	60,727	—	578
W.Va.	42,151	8,133	323	27,938	5,757	—
East South Central	315,969	103,709	1,131	193,483	8,823	8,823
Ala.	116,510	22,820	—	93,690	—	—
Ky.	47,660	2,274	1,131	44,255	—	—
Miss.	96,261	78,615	—	—	8,823	8,823
Tenn.	65,538	—	—	55,538	—	—
West South Central	433,797	73,605	74,153	285,707	—	332
Ark.	—	—	—	—	—	—
La.	51,352	—	—	51,352	—	—
Okla.	46,926	2,007	1,948	42,971	—	—
Tex.	335,519	71,598	72,205	191,384	—	332
Mountain	70,906	141	7,201	63,564	—	—
Ariz.	—	—	—	—	—	—
Colo.	25,910	—	—	25,910	—	—
Ida.	6,253	—	6,122	131	—	—
Mont.	—	—	—	—	—	—
Nev.	16,208	—	1,079	15,129	—	—
N.M.	22,485	91	—	22,394	—	—
Utah	50	50	—	—	—	—
Wyo.	—	—	—	—	—	—
Pacific	261,689	465	68	253,800	—	7,356
Alaska	—	—	—	—	—	—
Cal.	693	465	68	160	—	—
Hawaii	7,356	—	—	—	—	7,356
Ore.	176,866	—	—	176,866	—	—
Wash.	76,774	—	—	76,774	—	—
Territories	47,119	43,393	3,549	129	—	48
Guam	3,848	400	3,448	—	—	—
P.R.	41,676	41,675	101	—	—	—
V.I.	1,595	1,418	—	129	—	48

Table 4-32
 VII. CLINICAL CHEMISTRY
 A. Clinical Chemistry Specimens

Lab	Number of Specimens	Types of Tests																Other						
		Glucose	Cholesterol	BUN	Uric Acid	Transaminases	Alkaline Phos.	Total Protein	Serum Iron	Iron Binding Capacity	Triglycerides	Lactic Acid	Bilirubin	T ₄ , T ₃ , T ₃ Uptake	Sodium	Potassium	Phosphorous		Calcium	Creatinine	Acid Phosphatase	Albumin	Chloride	LDH
Total	576,596																							
Average	22,177																							
Ala.	22,820	X	-	-	-	-	X	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Cal.	465	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
Conn.	6,083	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
D.C.	2,855	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fla.	60,224	X	X	X	X	X	-	-	-	X	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Ga.	13,268	X	X	-	X	X	-	X	-	-	-	X	-	X	-	-	-	X	-	-	X	-	X	-
Guam.	400	X	X	X	X	X	X	-	-	-	-	X	-	X	X	X	X	X	-	X	-	X	-	X
Ky.	2,274	X	X	X	X	X	X	-	X	-	X	X	X	X	X	X	X	X	-	X	-	X	-	X
Md.	53,777	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	-
Mich.	21,442	X	X	X	X	X	X	X	-	-	-	X	-	X	X	X	X	X	X	X	X	X	X	-
Miss.	78,615	X	X	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mo.	16,342	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.J.	450	X	-	-	-	X	X	X	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
N.M.	91	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.C.	104,968	X	-	-	-	-	-	X	X	X	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	2,007	X	-	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	1,020	X	X	X	X	X	X	X	-	X	-	X	-	X	X	X	X	X	X	-	X	X	X	-
P.R.	41,575	X	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	-
R.I.	1,335	X	X	X	-	X	-	-	-	-	X	X	-	X	X	-	-	X	-	-	X	-	X	-
S.C.	3,152	X	X	X	X	X	X	X	-	-	-	X	-	X	X	X	X	X	X	-	X	X	-	-
Tex.	71,598	X	-	X	X	X	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Utah	50																							-
Va.	19,200	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V.I.	1,418	X	-	-	-	-	-	-	-	-	-	X	-	X	X	X	X	X	-	X	-	X	-	-
W.Va.	8,133	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-	X	X	X	-
Wisc.	43,034	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	-	X	X	X	X	-

Table 4-33
VII. CLINICAL CHEMISTRY
B. Urinalysis Specimens

Lab & Region	Number of Specimens	Procedures Used			
		Routine	Microscopic	Pregnancy Test	Other
Total	209,132				
Average	11,007				
New England	2,050				
Conn.	2,049	X	X	--	--
Mass.	--	--	--	--	--
Me.	--	--	--	--	--
N.H.	--	--	--	--	--
R.I.	1	X	X	--	--
Vt.	--	--	--	--	--
Middle Atlantic	39				
N.J.	--	--	--	--	--
N.Y.	--	--	--	--	--
Pa.	39	X	X	X	--
East North Central	9,005				
Ill.	--	--	--	--	--
Ind.	--	--	--	--	--
Mich.	9,005	X	X	--	--
Ohio	--	--	--	--	--
Wisc.	--	--	--	--	--
West North Central	--				
Ia.	--	--	--	--	--
Kans.	--	--	--	--	--
Minn.	--	--	--	--	--
Mo.	--	--	--	--	--
Nebr.	--	--	--	--	--
N.D.	--	--	--	--	--
S.D.	--	--	--	--	--
South Atlantic	111,936				
Del.	387	X	X	--	--
D.C.	32,772	X	X	X	--
Fla.	872	X	--	X	--
Ga.	--	--	--	--	--
Md.	30,845	X	X	X	--
N.C.	126	X	X	--	--
S.C.	46,611	X	X	X	--
Va.	--	--	--	--	--
W.Va.	323	X	X	--	--
East South Central	1,131				
Ala.	--	--	--	--	--
Ky.	1,131	X	X	X	--
Miss.	--	--	--	--	--
Tenn.	--	--	--	--	--
West South Central	74,153				
Ark.	--	--	--	--	--
La.	--	--	--	--	--
Okla.	1,948	X	X	X	--
Tex.	72,205	X	X	--	--
Mountain	7,201				
Ariz.	--	--	--	--	--
Colo.	--	--	--	--	--
Ida.	6,122	--	--	X	TB drug analysis
Mont.	--	--	--	--	--
Nev.	1,079	X	X	--	--
N.M.	--	--	--	--	--
Utah	--	--	--	--	--
Wyo.	--	--	--	--	--
Pacific	68				
Alaska	--	--	--	--	--
Cal.	68	X	--	X	--
Hawaii	--	--	--	--	--
Ore.	--	--	--	--	--
Wash.	--	--	--	--	--
Territories	3,549				
Guam	3,448	X	X	X	Acetone, bile
P.R.	101	--	--	--	Total protein
V.I.	--	--	--	--	--

Table 4-34
VII. CLINICAL CHEMISTRY
C. Inborn Errors of Metabolism Specimens

Lab & Region	Number of Specimens	Inborn Error Assays							Other
		PKU	Tyrosinemia	Galectosemia	MSUD	Hyperthyroidism	Amino Acid Chromatography	Homocystinuria	
Total	2,379,873								
Average	61,022								
New England	371,077								
Conn.	103,618	X	X	X	-	X	X	-	Tay-Sachs
Mass.	209,257	X	-	X	X	X	-	X	Maternal homocystinuria, Maternal histidinemia
Me.	16,825	X	X	X	X	X	-	X	
N.H.	18,330	X	-	-	-	-	-	-	
R.I.	23,247	X	X	X	-	-	X	X	
Vt.	-	-	-	-	-	-	-	-	
Middle Atlantic	160,511								
N.J.	92,646	X	-	-	-	-	-	-	
N.Y.	-	-	-	-	-	-	-	-	
Pa.	67,865	X	-	-	-	-	-	-	
East North Central	327,380								
Ill.	-	-	-	-	-	-	-	-	
Ind.	-	-	-	-	-	-	-	-	
Mich.	147,373	X	-	-	-	X	-	-	
Ohio	171,429	X	-	X	-	X	-	X	
Wisc.	8,578	X	-	X	X	X	-	-	
West North Central	194,428								
Ia.	5,741	X	-	-	-	-	-	-	
Kans.	48,571	X	-	-	-	X	-	-	
Minn.	75,156	X	-	X	-	X	-	X	
Mo.	44,063	X	-	-	-	-	-	-	
Nebr.	2,946	X	-	-	-	-	-	-	
N.D.	17,951	X	-	-	-	X	-	-	TSH on low T-4
S.D.	-	-	-	-	-	-	-	-	
South Atlantic	529,794								
Del.	15,957	X	-	-	-	-	-	-	
D.C.	10,525	-	-	-	-	-	-	-	Sickle cell
Fla.	81,591	X	-	-	-	-	-	-	
Ga.	76,932	X	-	X	X	-	-	X	
Md.	101,131	X	X	-	X	X	-	X	
N.C.	85,425	X	X	-	-	-	-	-	
S.C.	69,568	X	-	-	-	X	-	-	
Va.	60,727	X	-	-	-	X	-	-	
W.Va.	27,938	X	-	-	-	X	X	X	Amino acid disorders
East South Central	193,483								
Ala.	93,690	X	-	-	-	X	X	X	
Ky.	44,255	X	-	X	-	-	-	-	
Miss.	-	-	-	-	-	-	-	-	
Tenn.	55,538	X	-	-	-	-	-	-	
West South Central	285,707								
Ark.	-	-	-	-	-	-	-	-	
La.	51,352	X	-	-	-	-	-	-	Hemoglobin electrophoresis
Okla.	42,971	X	X	-	-	-	-	-	
Tex.	191,384	X	-	-	-	-	-	-	
Mountain	63,564								
Ariz.	-	-	-	-	-	-	-	-	
Colo.	25,910	X	-	-	-	-	-	-	
Ida.	131*	X	-	-	-	-	-	-	
Mont.	-	-	-	-	-	-	-	-	
Nev.	15,129	X	-	-	-	-	-	-	
N.M.	22,394	X	-	-	-	-	-	-	
Utah	-	-	-	-	-	-	-	-	
Wyo.	-	-	-	-	-	-	-	-	
Pacific	253,800								
Alaska	-	-	-	-	-	-	-	-	
Cal.	160	X	-	-	-	-	-	-	
Hawaii	-	-	-	-	-	-	-	-	
Ore.	176,866*	X	X	X	X	X	X	X	
Wash.	76,774	X	-	-	-	X	-	-	
Territories	129								
Guam	-	-	-	-	-	-	-	-	
P.R.	-	-	-	-	-	-	-	-	
V.I.	129	X	-	-	-	-	-	X	

*Oregon State Laboratory serves as regional metabolic testing center for the states of Alaska, Idaho, and Montana.

Table 4-35
VII. CLINICAL CHEMISTRY
D. Multiphasic Screening Specimens

Lab & Region	Number of Specimens	Procedures Used				
		Single or Discrete Analyz.	2 Channel Anal.	3-6 Channel Anal.	7-12 Channel Anal.	Other-Multichannel Analyzers
Total	221,192					
Average	24,577					
New England	12,065					
Conn.	8,829	X	X	X	-	-
Mass.	-	-	-	-	-	-
Me.	-	-	-	-	-	-
N.H.	3,236	X	-	-	-	-
R.I.	-	-	-	-	-	-
Vt.	-	-	-	-	-	-
Middle Atlantic	-					
N.J.	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-
Pa.	-	-	-	-	-	-
East North Central	16,871					
Ill.	-	-	-	-	-	-
Ind.	-	-	-	-	-	-
Mich.	-	-	-	-	-	-
Ohio	9,625	X	-	-	X	-
Wisc.	7,246	X	-	-	-	Ortho instruments "BASIC" (no longer used)
West North Central	-					
Ia.	-	-	-	-	-	-
Kans.	-	-	-	-	-	-
Minn.	-	-	-	-	-	-
Mo.	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-
N.D.	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
South Atlantic	183,433					
Del.	-	-	-	-	-	-
D.C.	-	-	-	-	-	-
Fla.	128,849	-	X	-	-	-
Ga.	-	-	-	-	-	-
Md.	-	-	-	-	-	-
N.C.	40,003	-	-	X	X	-
S.C.	8,824	X	-	-	-	-
Va.	-	-	-	-	-	-
W.Va.	5,757	-	-	-	X	-
East South Central	8,823					
Ala.	-	-	-	-	-	-
Ky.	-	-	-	-	-	-
Miss.	8,823	-	-	X	-	-
Tenn.	-	-	-	-	-	-
West South Central	-					
Ark.	-	-	-	-	-	-
La.	-	-	-	-	-	-
Okla.	-	-	-	-	-	-
Tex.	-	-	-	-	-	-
Mountain	-					
Ariz.	-	-	-	-	-	-
Colo.	-	-	-	-	-	-
Ida.	-	-	-	-	-	-
Mont.	-	-	-	-	-	-
Nev.	-	-	-	-	-	-
N.M.	-	-	-	-	-	-
Utah	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-
Pacific	-					
Alaska	-	-	-	-	-	-
Cal.	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-
Ore.	-	-	-	-	-	-
Wash.	-	-	-	-	-	-
Territories	-					
Guam	-	-	-	-	-	-
P.R.	-	-	-	-	-	-
V.I.	-	-	-	-	-	-

Table 4-36
VII. CLINICAL CHEMISTRY
E. Other Specimens

Lab	Number of Specimens	Type - Procedures Used
Total	73,011	
Hawaii	7,356	Stool - occult blood; urine - INH screen.
Mass.	55,844	Urine (filter paper) - paper chromatography.
Miss.	8,823	Electrolytes - flame photometer and chloride meter
R.I.	30	Heart muscle - transaminase
Tex.	332	Hypertension - 3-6 channel analyzer.
Va.	578	Plasma - fluorometric quantitation of phenylalanine and tyrosine.
V.I.	48	24-hour urinary estriol - colorimetric methods.

Table 4-37
VIII. PATHOLOGY

Lab & Region	Total Pathology Specimens	Exfoliative Cytology Specimens	Cytogenetic Specimens	Other Pathology Specimens	
				Number of Specimens	Types
Total	531,361	516,214	1,671	13,476	
Average	48,306				
New England	2,038	2,038			
Conn.	2,038	2,038	—	—	
Mass.	—	—	—	—	
Me.	—	—	—	—	
N.H.	—	—	—	—	
R.I.	—	—	—	—	
Vt.	—	—	—	—	
Middle Atlantic	14			14	
N.J.	14	—	—	14	Encephalitis specimens
N.Y.	—	—	—	—	
Pa.	—	—	—	—	
East North Central	115,883	101,203	1,229	13,451	
Ill.	—	—	—	—	
Ind.	—	—	—	—	
Mich.	—	—	—	—	
Ohio	—	—	—	—	
Wisc.	115,883	101,203	1,229	13,451	Surgical pathology
West North Central	210		210		
Ia.	—	—	—	—	
Kans.	—	—	—	—	
Minn.	210	—	210	—	
Mo.	—	—	—	—	
Nebr.	—	—	—	—	
N.D.	—	—	—	—	
S.D.	—	—	—	—	
South Atlantic	397,634	397,634			
Del.	45,401	45,401	—	—	
D.C.	17,649	17,649	—	—	
Fla.	—	—	—	—	
Ga.	—	—	—	—	
Md.	76,674	76,674	—	—	
N.C.	216,256	216,256	—	—	
S.C.	—	—	—	—	
Va.	—	—	—	—	
W.Va.	41,654	41,654	—	—	
East South Central	14,434	14,434			
Ala.	14,434	14,434	—	—	
Ky.	—	—	—	—	
Miss.	—	—	—	—	
Tenn.	—	—	—	—	
West South Central					
Ark.	—	—	—	—	
La.	—	—	—	—	
Okla.	—	—	—	—	
Tex.	—	—	—	—	
Mountain	1,148	905	232	11	
Ariz.	—	—	—	—	
Colo.	—	—	—	—	
Ida.	1,148	905	232	11	Buccal
Mont.	—	—	—	—	
Nev.	—	—	—	—	
N.M.	—	—	—	—	
Utah	—	—	—	—	
Wyo.	—	—	—	—	
Pacific					
Alaska	—	—	—	—	
Cal.	—	—	—	—	
Hawaii	—	—	—	—	
Ore.	—	—	—	—	
Wash.	—	—	—	—	
Territories					
Guam	—	—	—	—	
P.R.	—	—	—	—	
V.I.	—	—	—	—	

Table 4-38
IX. ENVIRONMENTAL MICROBIOLOGY
SUMMARY OF SAMPLES BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Environmental Microbiology	A	B	C	D
		Water Samples	Dairy Product Samples	Food and Beverage Samples	Other Micro. Samples
Total	2,433,493	1,978,594	396,023	56,120	2,756
Average	48,670	43,013	11,001	1,220	251
New England	91,701	62,222	23,255	5,768	456
Conn.	25,278	12,556	11,951	745	26
Mass.	86	—	—	86	—
Me.	21,013	20,870	—	—	143
N.H.	—	—	—	—	—
R.I.	21,751	5,415	11,304	4,745	287
Vt.	23,573	23,381	—	192	—
Middle Atlantic	14,490	11,589	2,294	574	33
N.J.	14,358	11,589	2,294	456	19
N.Y.	—	—	—	—	—
Pa.	132	—	—	118	14
East North Central	350,901	312,141	29,250	9,024	486
Ill.	61,390	41,224	15,878	4,288	—
Ind.	59,016	49,385	6,968	2,177	486
Mich.	93,486	85,661	6,351	1,474	—
Ohio	72,859	72,406	53	400	—
Wisc.	64,150	63,465	—	685	—
West North Central	227,928	211,474	11,168	5,286	—
Ia.	40,608	39,449	1,106	53	—
Kans.	47,714	47,621	—	93	—
Minn.	—	—	—	—	—
Mo.	74,301	68,854	1,632	3,815	—
Nebr.	25,355	25,355	—	—	—
N.D.	19,749	10,009	8,430	1,310	—
S.D.	20,201	20,186	—	15	—
South Atlantic	499,731	442,343	47,343	10,045	—
Del.	12,640	11,102	1,141	397	—
D.C.	1,045	62	141	842	—
Fla.	236,753	225,014	8,731	3,008	—
Ga.	157	—	—	157	—
Md.	92,689	75,093	15,742	1,854	—
N.C.	58,916	58,602	—	314	—
S.C.	13,992	—	12,271	1,721	—
Va.	55,167	48,369	5,294	1,504	—
W.Va.	28,372	24,101	4,023	248	—
East South Central	296,904	197,758	93,822	5,313	11
Ala.	119,814	77,684	40,826	1,304	—
Ky.	36,781	27,759	8,885	137	—
Miss.	70,842	49,407	21,056	368	11
Tenn.	69,467	42,908	23,055	3,504	—
West South Central	620,989	469,531	143,636	7,822	—
Ark.	—	—	—	—	—
La.	134,340	73,221	60,867	252	—
Okla.	77,400	67,385	9,504	511	—
Tex.	409,249	328,925	73,265	7,059	—
Mountain	215,171	175,345	34,926	4,900	—
Ariz.	36,017	28,346	7,340	331	—
Colo.	38,779	33,545	4,791	443	—
Ida.	45,557	27,242	16,122	2,193	—
Mont.	11,978	11,711	—	267	—
Nev.	9,024	5,234	3,479	311	—
N.M.	27,437	23,912	2,860	665	—
Utah	36,159	35,135	334	690	—
Wyo.	10,220	10,220	—	—	—
Pacific	90,673	83,922	3,259	1,801	1,691
Alaska	12,738	12,682	2	54	—
Cal.	17,561	15,644	331	907	679
Hawaii	10,236	6,919	2,926	391	—
Ore.	40,798	40,695	—	39	64
Wash.	9,340	7,982	—	410	948
Territories	25,005	12,269	7,070	5,587	79
Guam	405	29	176	200	—
P.R.	16,838	6,962	4,410	5,387	79
V.I.	7,762	5,278	2,484	—	—

Table 4-39
IX. ENVIRONMENTAL MICROBIOLOGY
A. Water Samples

Lab & Region	Number of Samples	Type & Procedure												
		Potable			Non-Potable			Swimming Pools			Sewage & Waste			
		Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	
Total	1,978,594													
Average	43,013													
New England	62,222													
Conn.	12,556	X	X	X	X	X	X	X	X	X	X	X	X	
Mass.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Me.	20,870	X	X	-	X	X	-	X	X	-	X	X	X	
N.H.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.I.	5,415	-	X	-	-	X	-	-	X	-	X	-	X	
Vt.	23,381	X	-	-	-	-	-	-	X	-	-	-	X	
Middle Atlantic	11,589													
N.J.	11,589	X	-	-	-	X	-	-	X	-	-	-	X	
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East North Central	312,141													
Ill.	41,224	X	X	-	X	X	-	-	X	X	-	X	X	
Ind.	49,385	X	X	-	X	X	-	-	X	X	X	X	X	
Mich.	85,861	X	-	-	X	-	-	-	X	-	-	-	-	-
Ohio	72,406	X	X	-	X	X	-	-	X	-	X	X	X	
Wisc.	63,465	X	X	-	X	X	-	-	-	X	-	X	X	
West North Central	211,474													
Is.	39,449	-	X	-	X	-	-	-	-	X	-	-	-	-
Kans.	47,621	X	-	-	X	-	-	-	-	-	-	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mo.	68,854	X	-	-	X	X	X	X	X	-	-	-	-	-
Nebr.	25,355	X	-	-	-	-	X	-	X	-	-	-	-	-
N.D.	10,009	X	X	-	-	X	-	-	-	-	-	X	X	
S.D.	20,186	X	X	-	X	X	-	-	-	X	-	X	X	
South Atlantic	442,343													
Del.	11,102	X	X	-	-	X	-	-	X	-	-	-	-	-
D.C.	62	X	-	-	-	-	-	-	-	-	-	-	-	-
Fla.	225,014	X	X	-	-	X	-	-	X	-	-	-	X	
Ge.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Md.	75,093	X	-	-	-	X	-	-	X	-	X	-	-	-
N.C.	58,602	X	X	-	X	X	-	-	X	X	-	X	X	
S.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Va.	48,369	X	X	-	X	X	-	-	X	X	-	X	X	
W.Va.	24,101	X	X	-	X	X	-	-	-	X	-	X	X	
East South Central	197,758													
Ala.	77,684	X	X	-	X	X	-	-	X	-	-	-	X	
Ky.	27,759	X	X	X	-	X	X	X	-	X	-	-	-	-
Miss.	49,407	X	X	-	-	X	-	-	-	-	-	-	-	-
Tenn.	42,908	X	X	-	X	-	-	-	X	-	-	-	-	-
West South Central	469,531													
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La.	73,221	X	X	X	-	X	-	-	X	-	-	-	X	
Okla.	67,385	X	-	-	X	-	-	-	X	-	X	-	-	-
Tex.	328,925	X	X	-	X	X	-	-	X	X	-	X	X	
Mountain	175,345													
Ariz.	28,346	X	X	X	X	X	X	-	-	X	X	X	X	X
Colo.	33,645	X	X	-	X	X	-	-	-	X	-	-	X	
Ida.	27,242	X	X	-	X	X	-	-	X	-	-	X	X	
Mont.	11,711	-	X	-	X	X	-	-	-	-	-	X	X	
Nev.	5,234	X	X	-	X	X	-	-	X	X	-	X	X	
N.M.	23,912	-	-	-	X	X	-	-	X	X	-	-	X	
Utah	35,135	X	X	-	X	X	-	-	X	X	-	-	X	
Wyo.	10,220	X	-	-	-	-	-	-	X	-	-	-	-	-
Pacific	83,922													
Alaska	12,682	X	X	-	-	X	-	-	-	X	-	-	X	
Cal.	15,644	X	X	X	-	X	X	X	-	X	X	-	X	X
Hawaii	6,919	X	X	X	X	X	X	X	-	-	X	X	X	X
Ore.	40,695	-	X	-	-	X	-	-	-	X	-	-	-	-
Wash.	7,982	X	X	-	-	X	-	-	-	X	-	-	X	
Territories	12,289													
Guam	29	-	X	-	-	-	-	-	-	X	-	-	-	X
P.R.	6,962	X	X	X	-	X	-	-	-	X	-	-	-	-
V.I.	5,278	X	-	-	-	X	-	-	X	-	-	-	-	-

Table 4-40
IX. ENVIRONMENTAL MICROBIOLOGY
B. Dairy Product Samples

Lab & Region	Number of Samples	Types of Samples					Other
		Milk & Cream	Ice Cream	Cheese	Other Dairy Products	Frozen Desserts	
Total	396,023						
Average	11,001						
New England	23,255						
Conn.	11,951	X	X	X	X	X	Yogurt
Mass.	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—
R.I.	11,304	X	X	X	X	X	—
Vt.	—	—	—	—	—	—	—
Middle Atlantic	2,294						
N.J.	2,294	X	X	X	X	—	Milk containers, non-dairy creamers
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	29,250						
Ill.	15,878	X	X	X	X	X	—
Ind.	6,968	X	X	X	X	X	—
Mich.	6,351	X	—	—	—	—	—
Ohio	53	X	—	X	X	—	—
Wisc.	—	—	—	—	—	—	—
West North Central	11,168						
Ia.	1,106	X	—	—	X	—	—
Kans.	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	1,632	X	—	—	—	X	—
Nebr.	—	—	—	—	—	—	—
N.D.	8,430	X	X	X	X	X	—
S.D.	—	—	—	—	—	—	—
South Atlantic	47,343						
Del.	1,141	X	X	X	X	X	—
D.C.	141	X	X	—	—	X	—
Fla.	8,731	X	X	X	X	X	—
Ga.	—	—	—	—	—	—	—
Md.	15,742	X	X	X	X	X	—
N.C.	—	—	—	—	—	—	—
S.C.	12,271	X	X	—	X	X	—
Va.	5,294	X	X	—	X	X	Yogurt, milk shake, counter freezes, milk cartons
W.Va.	4,023	X	—	—	—	—	—
East South Central	93,822						
Ala.	40,826	X	X	—	X	X	Empty cartons
Ky.	8,885	X	X	X	X	X	—
Miss.	21,056	X	—	—	X	—	—
Tenn.	23,055	X	X	X	X	X	—
West South Central	143,636						
Ark.	—	—	—	—	—	—	—
La.	60,867	X	X	X	X	X	—
Okla.	9,504	X	—	—	—	—	—
Tex.	73,265	X	X	—	X	—	—
Mountain	34,926						
Ariz.	7,340	X	X	—	X	X	—
Colo.	4,791	X	X	X	X	X	—
Ida.	16,122	X	—	—	—	—	—
Mont.	—	—	—	—	—	—	—
Nev.	3,479	X	X	X	X	X	Novelty items
N.M.	2,860	X	X	X	X	X	—
Utah	334	—	X	—	—	X	—
Wyo.	—	—	—	—	—	—	—
Pacific	3,259						
Alaska	2	—	—	—	—	X	—
Cal.	331	X	—	—	—	—	—
Hawaii	2,926	X	X	X	X	X	—
Ore.	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—
Territories	7,070						
Guam	176	—	—	—	X	—	—
P.R.	4,410	X	X	—	X	X	—
V.I.	2,484	X	X	—	X	—	—

**Table 4-41
IX. ENVIRONMENTAL MICROBIOLOGY**

Lab & Region	C. Food and Beverage Samples Types					D. Other Samples	
	Number of Samples	Food Quality	Food-Associated Disease Outbreaks	Seafood	Environmental	Number of Samples	Other
Total	56,120					2,756	
Average	1,220					250	
New England	5,768					456	
Conn.	745	X	X	X	X	26	Bottled water, ice
Mass.	86	—	X	—	—	—	—
Me.	—	—	—	—	—	143	Toys-analysis of stuffing for sanitary quality.
N.H.	—	—	—	—	—	—	—
R.I.	4,745	X	X	X	X	287	P.S.P. (red tide)
Vt.	192	—	X	—	X	—	—
Middle Atlantic	574					33	
N.J.	456	X	X	—	—	19	APC on spring and bottled waters
N.Y.	—	—	—	—	—	—	—
Pa.	118	—	X	—	X	14	Enteric pathogens, water, membrane filter, sera botulism detection, mouse neutralization
East North Central	9,024					486	
Ill.	4,288	X	X	X	X	—	—
Ind.	2,177	X	X	X	X	486	Meat products
Mich.	1,474	—	X	—	X	—	—
Ohio	400	X	X	—	X	—	—
Wisc.	685	—	X	—	X	—	—
West North Central	5,286						
Ia.	53	—	X	—	—	—	—
Kans.	93	X	X	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	3,815	X	X	—	X	—	—
Nebr.	—	—	—	—	—	—	—
N.D.	1,310	—	—	—	X	—	—
S.D.	15	—	X	—	—	—	—
South Atlantic	10,045						
Del.	397	X	X	X	—	—	—
D.C.	842	X	X	X	—	—	—
Fla.	3,008	X	X	X	X	—	—
Ga.	157	—	X	—	X	—	—
Md.	1,854	X	X	X	X	—	—
N.C.	314	—	X	X	—	—	—
S.C.	1,721	X	X	X	X	—	—
Va.	1,504	X	X	—	—	—	—
W.Va.	248	X	X	—	—	—	—
East South Central	5,313					11	
Ala.	1,304	—	X	X	X	—	—
Ky.	137	—	X	—	X	—	—
Miss.	368	—	X	X	X	11	Filth samples
Tenn.	3,504	—	X	—	X	—	—
West South Central	7,822						
Ark.	—	—	—	—	—	—	—
La.	252	X	X	X	X	—	—
Okla.	511	X	X	—	X	—	—
Tex.	7,059	X	X	X	X	—	—
Mountain	4,900						
Ariz.	331	X	X	—	—	—	—
Colo.	443	X	X	—	—	—	—
Ida.	2,193	X	X	—	X	—	—
Mont.	267	X	X	—	—	—	—
Nev.	311	—	X	—	—	—	—
N.M.	665	X	X	—	X	—	—
Utah	690	—	X	—	X	—	—
Wyo.	—	—	—	—	—	—	—
Pacific	1,801					1,691	
Alaska	54	X	X	—	X	—	—
Cal.	907	X	X	X	X	679	Shellfish (for paralytic shellfish poison), drug surveillance, HACCP Project
Hawaii	391	X	X	X	X	—	—
Ore.	39	—	X	X	—	64	Shellfish toxicity, shellfish bacteriology.
Wash.	410	—	X	X	X	948	Spore strips (monitoring autoclaving)
Territories	5,587					79	
Guam	200	X	X	X	X	—	—
P.R.	5,387	X	X	X	X	79	Stools, vomits, containers
V.I.	—	—	—	—	—	—	—

Table 4-42
X. ENVIRONMENTAL CHEMISTRY
SAMPLES BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Envir. Chem. Samples	A	B	C	D	E	F
		Water Samples	Dairy Prod. and Food Samples	Pesticide Samples	Air Pollution Samples	Radiological Samples	Other Samples
Total	709,296	404,210	105,626	22,286	146,600	27,035	3,539
Average	16,888	10,637	3,772	768	6,664	1,229	272
New England	86,126	37,878	20,397	1,159	24,928	1,762	2
Conn.	25,232	13,790	4,926	96	5,628	792	—
Mass.	—	—	—	—	—	—	—
Me.	11,885	10,679	—	696	—	508	2
N.H.	—	—	—	—	—	—	—
R.I.	41,015	5,415	15,471	367	19,300	462	—
Vt.	7,994	7,994	—	—	—	—	—
Middle Atlantic	17,798	10,719	2,483	3,847	749	—	—
N.J.	17,798	10,719	2,483	3,847	749	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	138,407	90,424	17,815	5,823	19,338	4,918	89
Ill.	41,897	37,635	1,866	979	—	1,417	—
Ind.	24,714	11,940	9,598	3,176	—	—	—
Mich.	20,654	14,303	6,351	—	—	—	—
Ohio	21,842	9,210	—	791	9,538	2,214	89
Wisc.	29,300	17,336	—	877	9,800	1,287	—
West North Central	90,921	68,411	1,524	1,124	14,881	4,811	170
Ia.	25,278	20,106	—	333	3,250	1,589	—
Kans.	25,315	15,796	—	510	8,179	831	—
Minn.	—	—	—	—	—	—	—
Mo.	6,093	3,806	1,524	281	—	482	—
Nebr.	15,103	15,103	—	—	—	—	—
N.D.	9,401	5,272	—	—	2,220	1,909	—
S.D.	9,731	8,329	—	—	1,232	—	170
South Atlantic	133,600	68,559	26,475	3,341	29,190	5,221	814
Del.	4,064	4,064	—	—	—	—	—
D.C.	419	—	—	—	—	—	419
Fla.	4,897	4,362	104	23	365	—	43
Ga.	—	—	—	—	—	—	—
Md.	55,171	21,388	13,598	775	17,185	1,946	279
N.C.	17,508	15,422	—	811	—	1,275	—
S.C.	8,904	—	8,176	655	—	—	73
Va.	42,637	23,323	4,597	1,077	11,640	2,000	—
W.Va.	—	—	—	—	—	—	—
East South Central	16,509	14,659	876	974	—	—	—
Ala.	—	—	—	—	—	—	—
Ky.	13,506	11,656	876	974	—	—	—
Miss.	3,003	3,003	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—
West South Central	41,792	15,045	17,546	1,195	4,072	3,144	790
Ark.	—	—	—	—	—	—	—
La.	11,024	2,287	8,348	366	—	24	—
Okla.	5,165	—	5,165	—	—	—	—
Tex.	26,603	12,758	4,033	830	4,072	3,120	790
Mountain	118,270	83,415	4,768	2,729	22,654	4,161	543
Ariz.	5,022	1,108	536	1,466	1,912	—	—
Colo.	19,388	7,600	1,600	672	5,868	3,648	—
Ida.	52,199	49,362	—	368	2,396	83	—
Mont.	6,413	3,159	345	75	2,619	38	177
Nev.	8,665	3,906	2,262	45	2,452	—	—
N.M.	18,882	10,852	22	75	7,376	191	366
Utah	7,701	7,428	3	38	31	201	—
Wyo.	—	—	—	—	—	—	—
Pacific	56,757	12,098	7,630	2,094	30,788	3,018	1,129
Alaska	606	474	16	—	—	—	116
Cal.	21,603	9,463	5,028	385	3,419	2,295	1,013
Hawaii	31,070	1,025	2,577	99	27,369	—	—
Ore.	—	—	—	—	—	—	—
Wash.	3,478	1,136	9	1,610	—	723	—
Territories	9,116	3,002	6,112	—	—	—	2
Guam	6	—	4	—	—	—	2
P.R.	6,285	2,661	3,624	—	—	—	—
V.I.	2,825	341	2,484	—	—	—	—

Table 4-43
X. ENVIRONMENTAL CHEMISTRY

Lab & Region	Number of Samples	A. Water Samples				B. Dairy Products and Food Samples		
		Types				Number of Samples	Types	
		Potable	Non-Potable	Swimming Pools	Sewage & Waste		Milk & Cream	Foods
Total	404,210					105,626		
Average	10,637					3,772		
New England	37,878					20,397		
Conn.	13,790	X	X	X	X	4,926	X	X
Mass.	—	—	—	—	—	—	—	—
Me.	10,679	X	X	—	X	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	5,415	X	X	X	X	15,471	X	X
Vt.	7,994	X	—	—	—	—	—	—
Middle Atlantic	10,719					2,483		
N.J.	10,719	X	X	—	X	2,483	X	X
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central	90,424					17,815		
Ill.	37,635	X	X	X	X	1,866	X	X
Ind.	11,940	X	X	—	X	9,598	X	X
Mich.	14,303	X	X	—	X	6,351	X	—
Ohio	9,210	X	X	X	X	—	—	—
Wisc.	17,336	X	X	—	—	—	—	—
West North Central	68,411					1,524		
Ia.	20,106	X	X	—	X	—	—	—
Kans.	15,795	X	X	X	X	—	—	—
Minn.	—	—	—	—	—	—	—	—
Mo.	3,806	X	X	—	—	1,524	X	X
Nebr.	15,103	X	—	—	—	—	—	—
N.D.	5,272	X	X	—	X	—	—	—
S.D.	8,329	X	X	—	X	—	—	—
South Atlantic	68,559					26,475		
Del.	4,064	X	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	4,362	X	X	—	—	104	—	X
Ga.	—	—	—	—	—	—	—	—
Md.	21,388	X	X	X	X	13,598	X	X
N.C.	15,422	X	X	X	X	—	—	—
S.C.	—	—	—	—	—	8,176	X	X
Va.	23,323	X	X	—	X	4,597	X	—
W. Va.	—	—	—	—	—	—	—	—
East South Central	14,659					876		
Ala.	—	—	—	—	—	—	—	—
Ky.	11,656	X	X	X	—	876	X	X
Miss.	3,003	X	X	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—
West South Central	15,045					17,546		
Ark.	—	—	—	—	—	—	—	—
La.	2,287	X	X	—	X	8,348	X	X
Okle.	—	—	—	—	—	5,165	X	X
Tex.	12,758	X	X	—	X	4,033	X	X
Mountain	83,415					4,768		
Ariz.	1,108	X	X	X	X	536	X	X
Colo.	7,600	X	X	—	X	1,600	X	X
Ida.	49,362	X	X	—	X	—	—	—
Mont.	3,159	X	X	—	X	345	—	X
Nev.	3,906	X	X	X	X	2,262	X	X
N.M.	10,852	X	X	X	X	22	X	X
Utah	7,428	X	X	—	X	3	—	X
Wyo.	—	—	—	—	—	—	—	—
Pacific	12,098					7,630		
Alaska	474	X	X	—	—	16	—	X
Cal.	9,463	X	X	X	X	5,028	—	X
Hawaii	1,025	X	X	X	X	2,577	X	X
Ore.	—	—	—	—	—	—	—	—
Wash.	1,136	X	X	—	—	9	—	X
Territories	3,002					6,112		
Guam	—	—	—	—	—	4	X	—
P.R.	2,661	X	—	—	—	3,624	X	X
V.I.	341	X	X	—	—	2,484	X	—

Table 4-44
X. ENVIRONMENTAL CHEMISTRY
C. Pesticide Samples

Lab & Region	Number of Samples	Types				Other
		Human Source	Water	Milk	Foods	
Total	22,286					
Average	768					
New England	1,159					
Conn.	96	-	X	-	-	Fish, leachates, oil, sugar
Mass.	-	-	-	-	-	-
Me.	696	X	X	-	-	Formulations, environmental
N.H.	-	-	-	-	-	-
R.I.	367	-	X	X	X	-
Vt.	-	-	X	-	-	-
Middle Atlantic	3,847					
N.J.	3,847	X	X	X	X	Blood
N.Y.	-	-	-	-	-	-
Pa.	-	-	-	-	-	-
East North Central	5,823					
Ill.	979	-	X	X	X	-
Ind.	3,176	-	X	X	X	-
Mich.	-	-	-	-	-	-
Ohio	791	-	X	-	X	-
Wisc.	877	-	X	-	-	Waste water, fish (game)
West North Central	1,124					
Ia.	333	X	X	-	X	-
Kans.	510	-	X	-	-	-
Minn.	-	-	-	-	-	-
Mo.	281	-	X	X	-	-
Nebr.	-	-	-	-	-	-
N.D.	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
South Atlantic	3,341					
Del.	-	-	-	-	-	-
D.C.	-	-	-	-	-	-
Fla.	23	-	X	-	X	-
Ga.	-	-	-	-	-	-
Md.	775	-	X	X	X	Seafood
N.C.	811	-	X	-	-	-
S.C.	655	X	-	X	X	Animal tissues and fluids
Va.	1,077	-	X	-	-	Fish, sediment/soil, shellfish
W. Va.	-	-	-	-	-	-
East South Central	974					
Ala.	-	-	-	-	-	-
Ky.	974	X	X	X	X	-
Miss.	-	-	-	-	-	-
Tenn.	-	-	-	-	-	-
West South Central	1,195					
Ark.	-	-	-	-	-	-
La.	365	-	X	X	X	-
Okla.	-	-	-	-	-	-
Tex.	830	-	X	X	X	-
Mountain	2,729					
Ariz.	1,466	-	X	X	X	Fish
Colo.	672	-	X	X	X	-
Ida.	358	X	X	X	-	Tissue (fish), plant, air
Mont.	75	-	-	-	-	-
Nev.	45	-	X	-	-	-
N.M.	75	-	X	X	X	Soils
Utah	38	X	X	X	-	Animals (e.g., fish, birds, bats, etc.)
Wyo.	-	-	-	-	-	-
Pacific	2,094					
Alaska	-	-	-	-	-	-
Cal.	385	-	X	-	X	Oils (for PCB's)
Hawaii	99	-	X	X	X	Sediment
Ore.	-	-	-	-	-	-
Wash.	1,610	X	X	-	X	Botanicals, soil, urine, blood, wildlife
Territories	-					
Guam	-	-	-	-	-	-
P.R.	-	-	-	-	-	-
V.I.	-	-	-	-	-	-

Table 4-45
 X. ENVIRONMENTAL CHEMISTRY
 D. Air Pollution Samples

Lab & Region	Number of Samples	Types of Activity							Continuous Samp. Stations
		Discrete Sampling Stations					Gaseous	Other	
		Number of Stations	Particulate						
			Solids	Metals	Organics	Other			
Total	146,600	2,898							76
Average	6,664	170							8
New England	24,928	64							18
Conn.	5,628	52	X	X	X	X	X	X	13
Mass.	—	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—	—
R.I.	19,300	12	X	X	X	X	X	—	5
Vt.	—	—	—	—	—	—	—	—	—
Middle Atlantic	749								
N.J.	749	—	X	X	X	X	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—
East North Central	19,338	165							9
Ill.	—	—	—	—	—	—	—	—	—
Ind.	—	—	—	—	—	—	—	—	—
Mich.	—	—	—	—	—	—	—	—	—
Ohio	9,538	80	X	X	X	X	X	—	—
Wisc.	9,800	85	X	—	—	—	X	—	9
West North Central	14,881	125							8
Ia.	3,250	—	X	X	—	—	X	—	—
Kans.	8,179	67	X	X	—	X	X	—	5
Minn.	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—	—
N.D.	2,220	37	X	—	—	X	X	—	3
S.D.	1,232	21	X	—	—	—	X	—	—
South Atlantic	29,190	2,260							
Del.	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—
Fla.	365	1	X	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—
Md.	17,185	84	X	X	X	—	X	—	—
N.C.	—	—	—	—	—	—	—	—	—
S.C.	—	—	—	—	—	—	—	—	—
Va.	11,640	2,175	X	X	—	X	—	—	—
W. Va.	—	—	—	—	—	—	—	—	—
East South Atlantic									
Ala.	—	—	—	—	—	—	—	—	—
Ky.	—	—	—	—	—	—	—	—	—
Miss.	—	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—
West South Central	4,072								
Ark.	—	—	—	—	—	—	—	—	—
La.	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	—
Tex.	4,072	—	X	X	—	—	X	—	—
Mountain	22,654	216							31
Ariz.	1,912	34	X	X	X	X	X	X	13
Colo.	5,868	74	X	X	X	X	—	—	4
Ida.	2,396	34	X	X	—	X	—	—	6
Mont.	2,619	—	X	X	—	X	X	X	—
Nev.	2,452	8	X	X	X	—	—	—	8
N.M.	7,376	66	X	X	—	X	X	—	—
Utah	31	—	X	X	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—	—
Pacific	30,788	68							10
Alaska	—	—	—	—	—	—	—	—	—
Cal.	3,419	50	X	X	X	—	X	X	10
Hawaii	27,369	18	X	—	—	—	X	X	—
Ore.	—	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	—
Territories									
Guam	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—

Table 4-46
X. ENVIRONMENTAL CHEMISTRY
E. Radiological Analysis

Lab & Region	Number of Samples	Types							
		Air	Water	Milk	Food	Silt	Soil	Wipes	Other
Total	27,035								
Average	1,229								
New England	1,762								
Conn.	792	X	X	X	X	X	-	X	Surface water, sewage, fish, silage, grass, seaweed
Mass.	-	-	-	-	-	-	-	-	-
Me.	508	X	X	X	X	X	X	X	-
N.H.	-	-	-	-	-	-	-	-	-
R.I.	462	X	X	X	X	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-
Middle Atlantic	-								
N.J.	-	-	-	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-	-	-	-
Pa.	-	-	-	-	-	-	-	-	-
East North Central	4,918								
Ill.	1,417	X	X	X	X	-	-	X	-
Ind.	-	-	-	-	-	-	-	-	-
Mich.	-	-	-	-	-	-	-	-	-
Ohio	2,214	-	X	X	-	-	-	-	-
Wisc.	1,287	X	X	X	-	-	X	-	-
West North Central	4,811								
Ia.	1,589	X	X	X	-	-	-	-	-
Kans.	831	X	X	X	-	-	-	X	-
Minn.	-	-	-	-	-	-	-	-	-
Mo.	482	-	X	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-
N.D.	1,909	X	X	-	-	-	-	X	-
S.D.	-	-	-	-	-	-	-	-	-
South Atlantic	5,221								
Del.	-	-	-	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-
Fla.	-	-	-	-	-	-	-	-	-
Ga.	-	-	-	-	-	-	-	-	-
Md.	1,946	X	X	X	X	X	X	X	-
N.C.	1,275	X	X	X	X	X	X	X	-
S.C.	-	-	-	-	-	-	-	-	-
Va.	2,000	X	X	-	-	X	X	X	-
W. Va.	-	-	-	-	-	-	-	-	-
East South Central	-								
Ala.	-	-	-	-	-	-	-	-	-
Ky.	-	-	-	-	-	-	-	-	-
Miss.	-	-	-	-	-	-	-	-	-
Tenn.	-	-	-	-	-	-	-	-	-
West South Central	3,144								
Ark.	-	-	-	-	-	-	-	-	-
La.	24	-	X	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	-	-	-
Tex.	3,120	X	X	X	X	X	X	X	-
Mountain	4,161								
Ariz.	-	-	-	-	-	-	-	-	-
Colo.	3,648	X	X	-	-	X	X	-	-
Ida.	83	-	X	-	-	-	-	-	-
Mont.	38	-	X	-	-	-	-	-	-
Nev.	-	-	-	-	-	-	-	-	-
N.M.	191	-	X	-	-	-	-	-	-
Utah	201	-	X	-	-	-	X	-	-
Wyo.	-	-	-	-	-	-	-	-	-
Pacific	3,018								
Alaska	-	-	-	-	-	-	-	-	-
Cal.	2,295	X	X	X	X	X	X	X	-
Hawaii	-	-	-	-	-	-	-	-	-
Ore.	-	-	-	-	-	-	-	-	-
Wash.	723	X	X	X	X	-	X	X	-
Territories	-								
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-

Table 4-47
ENVIRONMENTAL CHEMISTRY
F. Other Samples

Lab	Number of Samples	Types
Total	3,539	
Alaska	116	Shellfish — PSP monitoring.
Cal.	1,013	Drugs, cosmetics and hazardous substances, air monitoring instrument calibration.
D.C.	419	Heavy metals in soils and plants.
Fla.	43	Bedding
Guam	2	Rice (for enrichment).
Me.	2	—
Md.	279	Bedding and upholstery.
Mont.	177	Vegetation — metals, fluoride.
N.M.	366	Heavy metals in/on soils, muds, filters.
Ohio	89	Water — organics.
S.C.	73	Heavy metals in oysters and clover.
S.D.	170	Fish for Hg analysis.
Tex.	790	PKU, metals (sediment), mercury (blood), lead (paint)

Table 4-48
XI. OCCUPATIONAL HEALTH AND SAFETY

Lab & Region	Total Occup. Health & Safety Samples	Number of Environmental Samples	Number of Biological Samples
Total	51,549	47,736	3,813
Average	2,577	2,387	424
New England	3,836	1,536	2,300
Conn.	3,172	1,055	2,117
Mass.	—	—	—
Me.	41	41	—
N.H.	—	—	—
R.I.	623	440	183
Vt.	—	—	—
Middle Atlantic	—	—	—
N.J.	—	—	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central	9,272	9,245	27
Ill.	—	—	—
Ind.	—	—	—
Mich.	—	—	—
Ohio	2,349	2,349	—
Wisc.	6,923	6,896	27
West North Central	2,385	1,870	515
Ia.	1,620	1,105	515
Kans.	765	765	—
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	—	—	—
South Atlantic	15,405	15,405	—
Del.	—	—	—
D.C.	—	—	—
Fla.	1,190*	1,190	—
Ga.	52	52	—
Md.	7,729	7,729	—
N.C.	4,634	4,634	—
S.C.	—	—	—
Va.	1,800	1,800	—
W. Va.	—	—	—
East South Central	1,954	1,617	337
Ala.	—	—	—
Ky.	1,954	1,617	337
Miss.	—	—	—
Tenn.	—	—	—
West South Central	370	358	12
Ark.	—	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	370	358	12
Mountain	5,387	5,137	250
Ariz.	565	565	—
Color.	3,140	3,140	—
Ida.	—	—	—
Mont.	164	112	52
Nev.	—	—	—
N.M.	29	29	—
Utah	1,489	1,291	198
Wyo.	—	—	—
Pacific	12,940	12,568	372
Alaska	—	—	—
Cal.	12,940	12,568	372
Hawaii	—	—	—
Ore.	—	—	—
Wash.	—	—	—
Territories	—	—	—
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

*Includes Biological Samples.

Table 4-49
XII. TOXICOLOGY
SAMPLES BY CATEGORY AND SUB-CATEGORY

Lab & Region	Total Toxicology Samples	A	B
		Physical Samples	Biological Samples
Total	773,973	73,031	700,942
Average	19,349	2,705	18,446
New England	243,877	50,711	193,166
Conn.	83,200	45,859	37,341
Mass.	140,468	756	139,712
Me.	9,198	1,206	7,992
N.H.	81	—	81
R.I.	7,425	2,890	4,535
Vt.	3,505	—	3,505
Middle Atlantic	187,912	1,630	186,282
N.J.	183,263	1,620	181,643
N.Y.	—	—	—
Pa.	4,649	10	4,639
East North Central	40,730	1,405	39,325
Ill.	12,596	1,043	11,553
Ind.	132	48	84
Mich.	—	—	—
Ohio	13,995	57	13,938
Wisc.	14,007	257	13,750
West North Central	20,966	5,194	15,772
Ia.	8,304	402	7,902
Kans.	3,233	164	3,069
Minn.	—	—	—
Mo.	450	60	390
Nebr.	8,943	4,568	4,375
N.D.	36	—	36
S.D.	—	—	—
South Atlantic	136,318	11,295	125,023
Del.	2,128	—	2,128
D.C.	19,696	—	19,696
Fla.	22,952	28	22,924
Ga.	46,653	—	46,653
Md.	10,210	640	9,570
N.C.	2,430	18	2,412
S.C.	9,079	639	8,440
Va.	23,170	9,970	13,200
W. Va.	—	—	—
East South Central	6,117	458	5,659
Ala.	4,282	—	4,282
Ky.	1,335	458	1,377
Miss.	—	—	—
Tenn.	—	—	—
West South Central	53,709	—	53,709
Ark.	—	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	53,709	—	53,709
Mountain	67,124	1,555	65,569
Ariz.	—	—	—
Colo.	24,846	—	24,846
Ida.	26,602	476	26,126
Mont.	6	—	6
Nev.	—	—	—
N.M.	8,242	—	8,242
Utah	3,942	1,079	2,863
Wyo.	3,486	—	3,486
Pacific	16,105	451	15,654
Alaska	561	—	561
Cal.	15,360	392	14,968
Hawaii	15	15	—
Ore.	—	—	—
Wash.	169	44	125
Territories	1,115	332	783
Guam	—	—	—
P.R.	799	16	783
V.I.	316	316	—

Table 4-50
XII. TOXICOLOGY
A. Physical Samples (F-Forensic, O-Other)

Lab	Number of Samples	Types										Other
		Liquids for Alcohol	Pesticides	PCB's	Plant and Plant Material	Drugs and Narcotics	Articles for Blood Stains	Paint - Comparison	Paint - Lead	Fibers and Hairs	Gunpowder Residues	
Total	73,115											
Average	2708											
Cal.	392	-	-	-	-	-	-	-	O	F	-	Mutagenic screening by Ames Bloassey
Conn.	45,859	F	-	-	F	F	F	F	F/O	F	F	F/Clay, sand, concrete, fire accelerants, clothing for seminal stains
Del.	28	O	O	-	-	O	-	-	O	-	-	-
Hawaii	15	-	-	-	-	O	-	-	-	-	-	-
Ida.	476	F	O	O	F	F	F	F	-	F	F	-
Ill.	1,043	F/O	-	-	F/O	F/O	-	-	O	-	-	Foodstuffs
Ind.	132	-	-	-	O	O	-	-	O	-	-	-
Ia.	402	-	-	-	-	-	-	-	O	-	-	-
Kans.	164	F	-	-	-	F	-	-	O	-	-	-
Ky.	458	F/O	F/O	F/O	F	F	-	-	O	-	-	-
Me.	1,206	F	O	O	F	F	-	-	F	-	-	Isotocarbons (Argon)
Md.	640	O	-	-	F	F/O	-	-	-	-	-	-
Mass.	756	-	-	-	-	-	-	-	F/O	-	-	F/O - Water, soil, pottery, toys
Mo.	60	-	-	-	-	-	-	-	O	O	-	-
Nebr.	4,568	F/O	-	-	F	F/O	-	-	-	-	-	-
N.J.	1,620	-	-	-	-	-	-	-	O	-	-	-
N.C.	18	-	-	O	-	-	-	-	-	-	-	-
Ohio	57	F/O	O	O	F/O	F/O	-	-	O	-	-	-
Pa.	10	-	-	-	-	O	-	-	-	-	-	-
P.R.	16	O	-	-	O	O	-	-	O	O	-	Label claim and quality control of drug pharmaceutical products.
R.I.	2,890	F	-	-	F	F	-	-	-	-	-	F/Toluene, toxic chemicals, tear gas.
S.C.	639	O	O	O	O	O	-	-	O	-	-	% NaCl in fat back; total solids in wax; Strychnine in soil, powder and food; bloassey of food, animals and cosmetics; heavy metal in food, water, air, pills, pottery way, paper, and Christmas ornament; pH in food and water; microscopic examination of food; ammonia in food
Utah	1,079	F	F/O	F/O	F	F	-	-	-	-	-	-
Va.	9,970	F	O	O	F	F	F	F	-	F	F	F/Fire arms and tool marks, numbers restoration, latent fingerprints, shoeprints, tire treads, questioned fingerprints, handwriting, glass, soil, arson.
V.I.	316	-	-	-	-	X	-	-	-	-	-	-
Wash.	44	-	-	-	-	-	-	-	O	-	-	O/Ceramic ware
Wisc.	257	-	-	-	-	O	-	-	O	-	-	O/Soil for lead, marijuana for paraquat.

Table 4-51
 XII. TOXICOLOGY
 B. Biological Samples (F-Forensic, O-Other)

Lab & Region	Number of Samples	1. Blood							
		Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other
Total	700,942								
Average	18,446								
New England	193,166								
Conn.	37,341	F	F	F	F/O	F/O	-	-	
Mass.	139,712	-	-	-	F/O	-	-	-	F/O - Erythrocyte protoporphyrin
Me.	7,992	F	F	F	O	F	F	O	
N.H.	81	-	-	-	-	-	-	-	
R.I.	4,535	F	F	F	-	F	F	-	
Vt.	3,505	F	F	-	-	-	-	-	
Middle Atlantic	186,282								
N.J.	181,643	-	-	-	O	-	-	-	O/Erythrocyte protoporphyrin, microhematocrit
N.Y.	-	-	-	-	-	-	-	-	
Pa.	4,639	F/O	F/O	O	O	O	-	-	
East North Central	39,325								
Ill.	11,653	F/O	F/O	F/O	F/O	F/O	F/O	-	
Ind.	84	-	-	-	O	-	-	-	
Mich.	-	-	-	-	O	-	-	-	
Ohio	13,938	F/O	F/O	F/O	O	O	-	O	F/O - Paraquat
Wisc.	13,750	F/O	O	O	O	O	-	-	O/Cholinesterase, carbon monoxide, erythrocyte protoporphyrin
West North Central	15,772								
Ia.	7,902	-	-	F/O	O	-	-	O	O/Pesticides
Kans.	3,069	F	-	F	O	O	-	O	
Minn.	-	-	-	-	-	-	-	-	
Mo.	390	-	-	-	O	-	-	-	
Nebr.	4,375	F/O	-	O	O	O	O	-	
N.D.	36	-	-	-	O	-	-	-	
S.D.	-	-	-	-	-	-	-	-	
South Atlantic	125,023								
Del.	2,128	-	-	-	O	-	-	-	
D.C.	19,696	O	-	-	O	-	-	-	O/Erythrocyte protoporphyrin
Fla.	22,824	F	O	O	O	O	O	O	
Ga.	46,653	-	-	-	O	-	-	-	
Md.	9,570	-	-	-	O	-	-	-	
N.C.	2,412	-	-	-	O	-	-	-	
S.C.	8,440	O	O	O	O	O	O	O	Erythrocyte protoporphyrin
Va.	13,200	F	F	F	O	-	-	-	O/EP
W. Va.	-	-	-	-	-	-	-	-	
East South Central	5,659								
Ala.	4,282	-	-	-	O	-	-	-	
Ky.	1,377	F	F	F	F	F	F	-	
Miss.	-	-	-	-	-	-	-	-	
Tenn.	-	-	-	-	-	-	-	-	
West South Central	53,709								
Ark.	-	-	-	-	-	-	-	-	
La.	-	-	-	-	-	-	-	-	
Okla.	-	-	-	-	-	-	-	-	
Tex.	53,709	F	-	O	O	-	-	-	O/Erythrocyte protoporphyrin
Mountain	65,569								
Ariz.	-	-	-	-	-	-	-	-	
Colo.	24,846	F	-	-	-	-	-	-	
Ida.	26,126	F/O	F/O	F/O	F/O	F/O	F/O	F/O	Blood typing, miscellaneous
Mont.	6	-	-	-	O	-	-	-	
Nev.	-	-	-	-	-	-	-	-	
N.M.	8,242	F	-	O	O	O	-	-	
Utah	2,863	F	F	F	-	-	-	F/O	
Wyo.	3,486	F/O	-	F/O	O	O	O	-	
Pacific	15,654								
Alaska	561	-	-	O	-	-	-	-	
Cal.	14,968	F/O	-	-	O	-	-	-	O/FEP
Hawaii	-	-	-	-	-	-	-	-	
Ore.	-	-	-	-	-	-	-	-	
Wash.	125	-	-	-	O	-	-	-	
Territories	783								
Guam	-	-	-	-	-	-	-	-	
P.R.	783	O	O	-	-	-	-	-	
V.I.	-	-	-	-	-	-	-	-	

Table 4-52
 XII. TOXICOLOGY
 B. Biological Samples (F-Forensic, O-Other)

Lab & Region	2. Urine							3. Body Tissues								
	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other
New England																
Conn.	F	F	F	O	F/O	F	F		F	F	F	O	F/O	F	F	
Mass.	F	F	F	O	F	F	F		F	F	F	O	F	F	F	
Me.	F	F	F	O	F	F	F		F	F	F	O	F	F	F	
N.H.	F	F	F	O	F	F	F		F	F	F	O	F	F	F	
R.I.	F	F	F	O	F	F	F		F	F	F	O	F	F	F	
Vt.	F	F	F	O	F	F	F		F	F	F	O	F	F	F	
Middle Atlantic																
N.J.	F	F	O	F	F	F	F		F	F	F	O	F	F	F	
N.Y.	F	F	O	F	F	F	F		F	F	F	O	F	F	F	
Pa.	F	F	O	F	F	F	F		F	F	F	O	F	F	F	
East North Central																
Ill.	F/O	F/O	F/O	F	F/O	F/O	F/O		F	F	F	F	F	F	F	
Ind.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Mich.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Ohio	F/O	F/O	F/O	O	O	O	O		F/O	F/O	F/O	O	O	O	O	
Wis.	F/O	F	O	O	O	O	O		F	F	F	O	O	O	O	
								F/O-Paraquat O/Radioimmunoassay for morphine, barbiturates— TLC, arsenic								F/O-Paraquat
West North Central																
Ia.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Kans.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Minn.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Mo.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Nebr.	F/O	F	O	O	O	O	O		F	F	F	O	O	O	O	
N.D.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
S.D.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
South Atlantic																
Del.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
D.C.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Fla.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Ga.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Md.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
N.C.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
S.C.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
Va.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
W.Va.	F	F	O	O	O	O	O		F	F	F	O	O	O	O	
East South Central																
Ala.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Ky.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Miss.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Tenn.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
West South Central																
Ark.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
La.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Okla.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Tex.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Mountain																
Ariz.	O	F	F/O	F	F	F	F	O/Antiepileptics	F	F	F	F	F	F	F	
Colo.	F/O	F/O	F/O	F/O	F/O	F/O	F/O		F/O	F/O	F/O	F/O	F/O	F/O	F/O	
Ida.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Mont.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Nev.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
N.M.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Utah	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Wyo.	F/O	F	F/O	F	F	F	F		F	F	F	F	F	F	F	
Pacific																
Alaska	F	F	O	O	F	F	F		F	F	O	O	F	F	F	
Cal.	F	F	O	O	F	F	F		F	F	O	O	F	F	F	
Hawaii	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Ore.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Wash.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
Territories																
Guam	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
P.R.	F	F	F	F	F	F	F		F	F	F	F	F	F	F	
V.I.	F	F	X	F	F	F	F		F	F	X	F	F	F	F	

Table 4-53
 XII. TOXICOLOGY
 B. Biological Samples (F-Forensic, O-Other)

Lab & Region	4. Body Fluids							5. Breath		6. Other
	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Volatiles	Other	
New England										
Conn.	F	F	F		F			F		
Mass.										
Me.	F	F	F	O	F	F	O	F		
N.H.										O/Red tide
R.I.	F	F	F		F	F				F/Acid phosphatase
Vt.								F	F/Ethyl alcohol	
Middle Atlantic										
N.J.										
N.Y.										
Pa.										
East North Central										
Ill.	F/O	F/O	F/O		F/O	F/O	F/O			
Ind.										
Mich.										
Ohio	F/O	F/O	F/O					F/O		O/Paraquat (body fluids)
Wisc.	O		O							
West North Central										
Ia.										
Kans.			F							O/As (hair, nails)
Minn.										
Mo.										
Nebr.								F		
N.D.										
S.D.										
South Atlantic										
Del.										
D.C.	O		O							
Fla.	O	O	O		O	O	O			
Ga.										
Md.										
N.C.										
S.C.	O	O	O		O	O	O			O/Hydrocarbons (body fluids)
Va.			F							
W.Va.										
East South Central										
Ala.										
Ky.	F	F	F	F	F	F				
Miss.										
Tenn.										
West South Central										
Ark.										
La.										
Okl.										
Tex.										
Mountain										
Ariz.										
Colo.										
Ida.	F/O	F/O	F/O	F/O	F/O	F/O	F/O	F		
Mont.										
Nav.										
N.M.								F		
Utah	F	F	F				F/O			
Wyo.			O					F		
Pacific										
Alaska										
Cal.									F/Ethyl alcohol	F/Ethyl alcohol (water)
Hawaii										
Ore.										
Wash.										
Territories										
Guam										
P.R.										
V.I.										

Table 4-54
XIII. LABORATORY IMPROVEMENT PROGRAM
SUMMARY BY LABORATORY CATEGORY

Lab & Region	Number of Professional & Technical Positions in LIP	A	B	C	D	E
		Clinical	Public Health	Dairy & Food	Water	Other
Total	264.9	14,236	265	535	2,690	
Average	6.2	365	9.1	18.4	84.1	
New England	15.6	710	8	73	121	
Conn.	11.0	185	8	26	82	X
Mass.	—	400	—	45	—	X
Me.	2.5	58	—	—	35	—
N.H.	1.0	35	—	—	—	—
R.I.	1.0	—	—	2	4	—
Vt.	0.1	32	—	—	—	—
Middle Atlantic	60.6	2,456	2	—	401	
N.J.	25.0	456	—	—	127	—
N.Y.	—	—	—	—	—	—
Pa.	35.6	2,000	2	—	274	—
East North Central	22.5	2,883	112	179	870	
Ill.	6.0	1,800	10	39	—	—
Ind.	2.0	—	67	14	55	X
Mich.	8.0	—	13	—	145	—
Ohio	6.5	409	13	21	566	—
Wisc.	—	675	9	105	104	—
West North Central	31.3	1,332	8	48	52	
Ia.	4.5	227	—	31	24	—
Kans.	6.0	230	2	—	—	X
Minn.	10.3	695	—	—	—	—
Mo.	8.0	—	1	12	—	—
Nebr.	—	—	—	—	13	—
N.D.	0.5	60	—	5	10	—
S.D.	2.0	120	5	—	5	—
South Atlantic	53.0	1,378	11	87	299	
Del.	0.5	24	—	—	8	—
D.C.	2.0	70	1	—	—	—
Fla.	25.0	816	9	—	170	X
Ga.	—	—	—	—	—	—
Md.	5.0	159	—	15	45	X
N.C.	8.0	—	—	39	—	—
S.C.	4.0	95	1	7	—	—
Va.	4.5	—	—	17	76	—
W.Va.	4.0	214	—	9	—	X
East South Central	11.5	1,325	7	87	120	
Ala.	1.5	—	—	9	15	—
Ky.	3.0	1,125	3	30	—	—
Miss.	—	200	4	5	16	—
Tenn.	7.0	—	—	43	89	—
West South Central	2.8	324	29	37	—	
Ark.	—	—	—	—	—	—
La.	0.5	—	—	7	—	—
Okla.	2.3	324	5	6	—	—
Tex.	—	—	24	24	—	—
Mountain	28.2	1,063	38	17	150	
Ariz.	8.0	164	12	—	23	—
Colo.	3.0	185	9	7	25	—
Ida.	3.5	207	7	7	—	X
Mont.	1.0	126	2	—	29	X
Nev.	5.2	139	4	2	20	—
N.M.	2.0	95	3	1	23	X
Utah	4.5	97	1	—	23	X
Wyo.	1.0	50	—	—	7	—
Pacific	30.5	2,408	45	5	666	
Alaska	1.0	65	—	1	—	X
Cal.	24.0	2,070	39	—	626	—
Hawaii	1.5	72	4	4	7	—
Ore.	4.0	201	2	—	33	X
Wash.	—	—	—	—	—	—
Territories	9.0	357	5	2	11	
Guam	—	6	—	—	3	—
P.R.	9.0	350	4	2	8	—
V.I.	—	—	1	—	—	—

Table 4-55
XIII. LABORATORY IMPROVEMENT PROGRAM
A. Clinical Laboratories

Lab & Region	1. No. Labs in State	2. No. Labs Lic./Reg./App./Cert. by State	3. No. by LIP				4. Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
			Lic.	Reg.	App.	Cert.	
Total	14,238	10,586	4,838	1,245	3,851	2,938	
Average	366.0	251.6	302.4	177.9	148.1	163.2	
New England	710	618	187	94	374	225	
Conn.	185	185	123	62	74	71	
Mass.	400	330	—	—	300	117	Div. of Hospital and Ambulatory Care; MDPH
Me.	68	2	2	—	—	—	
N.H.	35	7	—	—	—	7	
R.I.	—	62	62	—	—	30	
Vt.	32	32	—	32	—	—	
Middle Atlantic	2,456	965	965	—	—	—	
N.J.	456	456	466	—	—	—	
N.Y.	—	—	—	—	—	—	
Pa.	2,000	509	509	—	—	—	
East North Central	2,883	1,379	482	53	1,062	1,169	
Ill.	1,800	294	—	—	563	—	
Ind.	—	154	—	—	154	2	
Mich.	—	530	441	53	35	146	
Ohio	408	—	41	—	310	1,021	
Wis.	675	401	—	—	—	—	Wis. Div. of Health, Section of Laboratory Certification
West North Central	1,332	629	156	—	580	207	
Ia.	227	99	—	—	99	—	
Kans.	230	201	156	—	168	53	
Minn.	696	—	—	—	—	—	Div. of Health Facilities, Minn. Dept. of Health
Mo.	—	271	—	—	268	154	
Nebr.	—	—	—	—	—	—	Laboratory Improvement Program assigned to Bureau of Health Care Services, Division of Standards, State Department of Health
N.D.	60	13	—	—	—	—	Div. of Health Facilities
S.D.	120	46	—	—	45	—	
South Atlantic	1,378	1,181	170	681	647	336	
Del.	24	11	11	—	11	—	
D.C.	70	65	—	—	38	43	
Fla.	816	681	—	681	416	195	
Ga.	—	—	—	—	—	—	
Md.	159	159	159	—	24	86	
N.C.	—	—	—	—	—	—	N.C. Division of Facility Services
S.C.	95	94	—	—	—	—	Medicare certification is responsibility of Division of Licensing and Certification in DHEC.
Ve.	—	—	—	—	—	—	
W.Va.	214	171	—	—	158	13	Health Facilities Evaluation Program, State HD
East South Central	1,325	653	250	—	398	35	
Ala.	—	91	—	—	86	—	Licensure and Certification—other than premarital approval and quality control.
Ky.	1,125	203	—	—	203	—	Div. of Licensure and Regulation certifies labs.
Miss.	200	109	—	—	109	—	
Tenn.	—	250	250	—	—	35	
West South Central	324	1,705	—	—	181	—	
Ark.	—	—	—	—	—	—	
La.	—	—	—	—	—	—	Office of Management, Dept. of Health and Human Resources licenses clinical laboratories.
Okla.	324	181	—	—	181	—	
Tex.	—	1,524	—	—	—	—	Licensing and Certification Bureau, Tex. Dept. of Health
Mountain	1,063	823	83	417	595	89	
Ariz.	164	153	28	—	74	51	
Colo.	185	—	—	—	116	18	
Ida.	207	207	—	207	207	—	
Mont.	126	126	—	126	—	—	
Nev.	139	139	55	84	—	—	
N.M.	95	92	—	—	92	—	Inspection performed under agreement with Licensing and Certification Section of Health Serv. Div.
Utah.	97	56	—	—	56	—	
Wyo.	50	50	—	—	50	—	
Pacific	2,408	2,262	2,198	—	14	897	
Alaska	65	14	—	—	14	—	
Cal.	2,070	1,995	1,995	—	—	846	
Hawaii	72	52	—	—	—	52	
Ore.	201	201	201	—	—	—	
Wash.	—	—	—	—	—	—	
Territories	357	351	350	—	—	—	
Guam	6	—	—	—	—	—	HEW
P.R.	350	360	350	—	—	—	
V.I.	1	1	—	—	—	—	

Table 4-56
XIII. LABORATORY IMPROVEMENT PROGRAM
B. Public Health Laboratories

Lab & Reg.	1. No. Labs in State	2. No. Labs Lic./Reg./App. Cert. By State	3. No. by LIP				4. Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
			Lic.	Reg.	App.	Cert.	
Total	397	265	44	26	77	122	
Average	9.9	9.1	7.3	6.5	5.5	20.3	
New England	11	8	—	8	5	—	
Conn.	8	8	—	8	5	—	
Mass.	—	—	—	—	—	—	Div. of Hospital and Ambulatory Care, MDPH
Me.	—	—	—	—	—	—	
N.H.	1	—	—	—	—	—	
R.I.	1	—	—	—	—	—	
Vt.	1	—	—	—	—	—	
Middle Atlantic	3	2	2	—	—	—	
N.J.	—	—	—	—	—	—	
N.Y.	—	—	—	—	—	—	
Pa.	3	2	2	—	—	—	
East North Central	115	112	13	—	20	68	
Ill.	13	10	—	—	8	—	
Ind.	67	67	—	—	—	67	
Mich.	13	13	13	—	—	—	
Ohio	13	13	—	—	12	1	
Wisc.	9	9	—	—	—	—	Wisc. Div. of Health, Div. of Laboratory Certification
West North Central ...	27	8	—	—	15	2	
Ia.	—	—	—	—	—	—	
Kans.	3	2	—	—	2	—	
Minn.	5	—	—	—	—	—	Division of Health Facilities, Minn. Dept. of Health
Mo.	8	1	—	—	8	2	
Nebr.	—	—	—	—	—	—	Department of Agriculture
N.D.	—	—	—	—	—	—	
S.D.	11	5	—	—	5	—	
South Atlantic	40	11	—	9	9	—	
Del.	1	—	—	—	—	—	
D.C.	2	1	—	—	—	—	
Fla.	9	9	—	9	9	—	
Ga.	—	—	—	—	—	—	
Md.	9	—	—	—	—	—	
N.C.	—	—	—	—	—	—	N.C. Division of Facility Services
S.C.	8	1	—	—	—	—	Medicare certification is responsibility of Division of Licensing and Certification in DHEC.
Va.	10	—	—	—	—	—	
W. Va.	1	—	—	—	—	—	
East South Central	95	7	—	—	12	—	
Ala.	9	—	—	—	5	—	
Ky.	75	3	—	—	3	—	Division of Licensure and Regulation certifies labs.
Miss.	5	4	—	—	4	—	
Tenn.	6	—	—	—	—	—	
West South Central ...	6	29	11	—	5	—	
Ark.	—	—	—	—	—	—	
La.	—	—	11	—	—	—	
Okla.	6	5	—	—	5	—	
Tex.	—	24	—	—	—	—	Licensing and Certification Bureau, Tex. Dept. of Health
Mountain	45	38	12	9	11	9	
Ariz.	14	12	12	—	—	—	
Colo.	9	9	—	—	—	9	
Ida.	7	7	—	7	7	—	
Mont.	2	2	—	2	—	—	
Nev.	4	4	—	—	—	—	
N.M.	3	3	—	—	3	—	Licensing and Certification Section of Health Serv. Div.
Utah	6	1	—	—	1	—	
Wyo.	—	—	—	—	—	—	
Pacific	48	45	2	—	—	43	
Alaska	3	—	—	—	—	—	
Cal.	39	39	—	—	—	39	
Hawaii	4	4	—	—	—	4	
Ore.	2	2	2	—	—	—	
Wash.	—	—	—	—	—	—	
Territories	7	5	4	—	—	—	
Guam	2	—	—	—	—	—	HEW
P.R.	4	4	4	—	—	—	
V.I.	1	1	—	—	—	—	

Table 4-57
XIII. LABORATORY IMPROVEMENT PROGRAM
C. Dairy and Food Laboratories

Lab & Reg.	1 No. Labs in State	2 No. Labs Lic./Reg./App./ Cert. by State	3 No. by LIP				4 Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
			Lic.	Reg.	App.	Cert.	
Total	372	535	54	-	237	179	
Average	16.9	18.4	18.0	-	18.2	14.9	-
New England	31	73	2	-	71	45	
Conn.	26	26	-	-	26	-	-
Mass.	-	45	-	-	45	45	Div. Food & Drugs, MDPH
Me.	3	-	-	-	-	-	Department of Agriculture
N.H.	-	-	-	-	-	-	-
R.I.	2	2	2	-	-	-	-
Vt.	-	-	-	-	-	-	-
Middle Atlantic	-	-	-	-	-	-	
N.J.	-	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-	-
Pa.	-	-	-	-	-	-	-
East North Central	126	179	-	-	60	14	
Ill.	-	39	-	-	39	-	-
Ind.	-	14	-	-	-	14	-
Mich.	-	-	-	-	-	-	Mich. Dept. of Agriculture
Ohio	21	21	-	-	21	-	-
Wisc.	105	105	-	-	-	-	Wisc. Div. of Health, Section of Laboratory Certification
West North Central ...	47	48	-	-	5	6	
Ia.	31	31	-	-	-	-	Department of Agriculture
Kans.	11	-	-	-	-	-	-
Minn.	-	-	-	-	-	-	-
Mo.	-	12	-	-	-	6	-
Nebr.	-	-	-	-	-	-	Department of Agriculture
N.D.	5	6	-	-	5	-	-
S.D.	-	-	-	-	-	-	-
South Atlantic	73	87	-	-	56	39	
Del.	1	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-
Fla.	40	-	-	-	-	8	State Department of Agriculture and Consumer Services
Ga.	-	-	-	-	-	-	-
Md.	-	15	-	-	-	15	-
N.C.	-	39	-	-	39	-	-
S.C.	15	7	-	-	-	7	-
Va.	17	17	-	-	17	-	-
W. Va.	-	9	-	-	-	9	-
East South Central	72	87	46	-	5	67	
Ala.	9	9	-	-	-	9	-
Ky.	-	30	-	-	-	30	-
Miss.	6	5	-	-	5	-	-
Tenn.	57	43	46	-	-	28	-
West South Central ...	-	37	6	-	30	-	
Ark.	-	-	-	-	-	-	-
La.	-	7	6	-	-	-	-
Okla.	-	6	-	-	6	-	-
Tex.	-	24	-	-	24	-	-
Mountain	13	17	-	-	10	6	
Ariz.	-	-	-	-	-	-	-
Colo.	7	7	-	-	-	6	-
Ida.	-	7	-	-	7	-	-
Mont.	-	-	-	-	-	-	Dept. of Livestock
Nev.	2	2	-	-	2	-	-
N.M.	4	1	-	-	1	-	FDA
Utah	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	Dept. of Agriculture
Pacific	5	5	-	-	-	-	
Alaska	1	1	-	-	-	-	Dept. of Natural Resources - Div. of Agriculture
Cal.	-	-	-	-	-	-	-
Hawaii	4	4	-	-	-	-	-
Ore.	-	-	-	-	-	-	Dept. of Agriculture
Wash.	-	-	-	-	-	-	-
Territories	5	2	-	-	-	2	
Guam	2	-	-	-	-	-	-
P.R.	3	2	-	-	-	2	-
V.I.	-	-	-	-	-	-	-

Table 4-57
XIII. LABORATORY IMPROVEMENT PROGRAM
C. Dairy and Food Laboratories — Continued

Lab & Region	Activity of Laboratory Improvement Program Staff										
	5 Proficiency Testing	6. Field Visits								7 Training	8 Consult.
		LIP Programs				Other Programs					
		Cert.	Lic.	App.	Other	Cert.	Lic.	App.	Other		
New England											
Conn.	X	-	-	X	-	-	-	-	-	X	X
Mass.	-	-	-	-	-	-	-	-	-	-	-
Me.	-	-	-	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-	-
R.I.	X	-	X	-	-	-	-	-	-	X	X
Vt.	-	-	-	X	-	-	-	-	-	X	X
Middle Atlantic											
N.J.	X	X	X	-	-	X	X	-	-	X	X
N.Y.	-	-	-	-	-	-	-	-	-	-	-
Pa.	-	-	-	-	-	-	-	-	-	-	-
East North Central											
Ill.	X	-	-	X	-	-	-	-	-	X	X
Ind.	X	-	-	X	-	-	-	-	-	X	X
Mich.	-	-	-	-	-	-	-	-	-	-	-
Ohio	X	X	-	-	-	-	X	-	-	-	X
Wisc.	X	X	-	-	-	X	-	-	-	X	X
West North Central											
Ia.	-	X	-	-	-	-	-	-	-	-	-
Kans.	X	-	-	-	-	-	-	X	-	-	X
Minn.	-	-	-	-	-	-	-	-	-	-	-
Mo.	X	-	-	-	-	X	-	-	-	X	X
Nebr.	-	-	-	-	-	-	-	-	-	-	-
N.D.	X	-	-	X	-	-	-	-	-	X	X
S.D.	-	-	-	-	-	-	-	-	-	-	-
South Atlantic											
Del.	-	-	-	-	-	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-
Fla.	X	X	-	-	-	-	-	-	-	X	X
Ga.	-	-	-	-	-	-	-	-	-	-	-
Md.	X	X	-	-	-	-	-	-	-	-	-
N.C.	X	-	-	X	-	-	-	-	-	-	X
S.C.	X	X	-	-	-	-	-	-	-	X	X
Va.	X	-	-	X	-	-	-	-	-	X	X
W. Va.	X	X	-	-	-	-	-	-	-	X	-
East South Central											
Ala.	X	X	-	-	-	-	-	-	-	X	X
Ky.	X	X	-	-	-	-	-	-	-	X	-
Miss.	-	-	-	X	-	-	-	-	-	-	-
Tenn.	X	X	-	-	-	X	-	-	-	X	X
West South Central											
Ark.	-	-	-	-	-	-	-	-	-	-	-
La.	X	X	-	-	-	-	-	-	-	X	X
Okla.	X	-	-	X	-	-	-	X	-	X	X
Tex.	X	-	-	-	-	-	-	-	-	-	-
Mountain											
Ariz.	-	-	-	-	-	-	-	-	-	-	-
Colo.	X	X	-	-	-	X	-	-	-	X	X
Ida.	X	X	-	X	-	X	-	X	-	X	X
Mont.	-	-	-	-	-	-	-	-	-	-	-
Nev.	X	X	X	-	-	-	-	-	-	-	-
N.M.	X	-	-	-	-	X	-	-	-	X	X
Utah	-	-	-	-	-	-	-	-	-	-	-
Wyo.	X	-	-	X	-	X	-	-	-	X	X
Pacific											
Alaska	-	-	-	-	-	-	-	-	-	-	-
Cal.	-	-	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	X
Ore.	X	X	X	-	-	X	X	-	-	X	X
Wash.	-	-	-	-	-	-	-	-	-	-	-
Territories											
Guam	-	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	X	-	-	-	-	X	X
V.I.	-	-	-	-	-	-	-	-	-	-	-

Table 4-58
XIII. LABORATORY IMPROVEMENT PROGRAM
D. Water Laboratories

Lab & Region	1. No. Labs in State	2. No. Water Laboratories in State				3. Other Agency or Department Responsible for Licensure, Registration, Approval, Certifying Laboratories
		Lic.	Reg.	App.	Cert.	
Total	2,690	4	—	1,872	597	
Average	84.1	4.0	—	81.4	33.2	
New England	121	4	—	102	18	
Conn.	82	—	—	82	—	
Mass.	—	—	—	—	—	Mass. Dept. of Environmental & Quality Engineering
Me.	35	—	—	20	18	
N.H.	—	—	—	—	—	
R.I.	4	4	—	—	—	
Vt.	—	—	—	—	—	
Middle Atlantic	401	—	—	274	127	
N.J.	127	—	—	—	127	
N.Y.	—	—	—	—	—	
Pa.	274	—	—	274	—	
East North Central	870	—	—	472	159	
Ill.	—	—	—	77	—	Micro: State Health Dept.; Chem.: State Environ. Protection Agency
Ind.	55	—	—	—	55	
Mich.	145	—	—	120	—	Bureau Environmental and Occupational Health and State Lab.
Ohio	566	—	—	275	—	
Wisc.	104	—	—	—	104	Wisc. Div. of Health, Section of Laboratory Certification
West North Central	52	—	—	34	75	
Ia.	24	—	—	24	—	
Kans.	—	—	—	—	19	
Minn.	—	—	—	—	—	
Mo.	—	—	—	—	43	
Nebr.	13	—	—	—	13	
N.D.	10	—	—	10	—	
S.D.	5	—	—	—	—	EPA, Denver, Colorado
South Atlantic	299	—	—	175	32	
Del.	8	—	—	7	7	
D.C.	—	—	—	—	7	
Fla.	170	—	—	74	—	
Ga.	—	—	—	—	—	
Md.	45	—	—	—	25	
N.C.	—	—	—	—	—	Region IV EPA, Atlanta
S.C.	—	—	—	—	—	Bureau of Field and Analytical Services, DHEC.
Va.	76	—	—	68	—	
W. Va.	—	—	—	26	—	
East South Central	120	—	—	16	82	
Ala.	15	—	—	—	16	
Ky.	—	—	—	—	28	
Miss.	16	—	—	16	—	
Tenn.	89	—	—	—	39	
West South Central	—	—	—	69	13	
Ark.	—	—	—	—	—	
La.	—	—	—	—	13	
Okla.	—	—	—	13	—	
Tex.	—	—	—	66	—	
Mountain	150	—	—	64	90	
Ariz.	23	—	—	23	—	
Colo.	25	—	—	—	25	
Ida.	—	—	—	—	23	
Mont.	29	—	—	8	21	
Nev.	20	—	—	3	—	
N.M.	23	—	—	23	—	
Utah	23	—	—	—	21	
Wyo.	7	—	—	7	—	EPA
Pacific	666	—	—	666	—	
Alaska	—	—	—	—	—	
Cal.	626	—	—	626	—	
Hawaii	7	—	—	7	—	
Ore.	33	—	—	33	—	
Wash.	—	—	—	—	—	
Territories	11	—	—	—	1	
Guam	3	—	—	—	—	Guam Environmental Protection Agency
P.R.	8	—	—	—	1	
V.I.	—	—	—	—	—	

Table 4-58
XIII. LABORATORY IMPROVEMENT PROGRAM
D. Water Laboratories – Continued

Lab & Region	4. No. Water Testing Laboratories in Laboratory Improvement Program														
	Licensed				Registered				Approved				Certified		
	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry
Total	4	—	—	4	—	—	—	1,076	374	419	1,869	400	43	133	576
<i>Average</i>	<i>4</i>	—	—	<i>4</i>	—	—	—	<i>48.9</i>	<i>62.3</i>	<i>46.6</i>	<i>81.3</i>	<i>28.6</i>	<i>7.2</i>	<i>19.0</i>	<i>38.4</i>
New England	4	—	—	4	—	—	—	24	17	61	102	13	—	5	18
Conn.	—	—	—	—	—	—	—	11	17	54	82	—	—	—	—
Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	13	—	7	20	13	—	5	18
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	4	—	—	4	—	—	—	—	—	—	—	—	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	—	—	—	—	—	—	—	274	—	—	274	28	9	90	127
N.J.	—	—	—	—	—	—	—	—	—	—	—	28	9	90	127
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	274	—	—	274	—	—	—	—
East North Central	—	—	—	—	—	—	—	385	87	—	472	159	—	—	159
Ill.	—	—	—	—	—	—	—	77	—	—	77	—	—	—	—
Ind.	—	—	—	—	—	—	—	—	—	—	—	55	—	—	55
Mich.	—	—	—	—	—	—	—	120	—	—	120	—	—	—	—
Ohio	—	—	—	—	—	—	—	188	87	—	275	—	—	—	—
Wisc.	—	—	—	—	—	—	—	—	—	—	—	104	—	—	104
West North Central	—	—	—	—	—	—	—	34	—	—	34	51	17	7	75
Ia.	—	—	—	—	—	—	—	24	—	—	24	—	—	—	—
Kans.	—	—	—	—	—	—	—	—	—	—	—	—	17	2	19
Minn.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	—	—	—	43	—	—	43
Nebr.	—	—	—	—	—	—	—	—	—	—	—	8	—	5	13
N.D.	—	—	—	—	—	—	—	10	—	—	10	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic	—	—	—	—	—	—	—	146	1	28	175	25	—	—	25
Del.	—	—	—	—	—	—	—	1	1	5	7	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	74	—	—	74	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	—	—	—	—	—	—	—	25	—	—	25
N.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Va.	—	—	—	—	—	—	—	45	—	23	68	—	—	—	—
W. Va.	—	—	—	—	—	—	—	26	—	—	26	—	—	—	—
East South Central	—	—	—	—	—	—	—	15	—	1	16	78	4	—	82
Ala.	—	—	—	—	—	—	—	—	—	—	—	15	—	—	15
Ky.	—	—	—	—	—	—	—	—	—	—	—	24	4	—	28
Miss.	—	—	—	—	—	—	—	15	—	1	16	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—	—	—	39	—	—	39
West South Central	—	—	—	—	—	—	—	69	—	—	69	—	—	—	—
Ark.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
La.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	13	—	—	13	—	—	—	—
Tex.	—	—	—	—	—	—	—	56	—	—	56	—	—	—	—
Mountain	—	—	—	—	—	—	—	35	8	20	63	46	13	31	90
Ariz.	—	—	—	—	—	—	—	14	—	9	23	—	—	—	—
Colo.	—	—	—	—	—	—	—	—	—	—	—	10	6	—	25
Ida.	—	—	—	—	—	—	—	—	—	—	—	12	2	9	23
Mont.	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—
Nev.	—	—	—	—	—	—	—	2	—	—	2	—	—	—	—
N.M.	—	—	—	—	—	—	—	12	—	—	12	—	—	—	—
Utah	—	—	—	—	—	—	—	—	—	—	—	3	5	13	21
Wyo.	—	—	—	—	—	—	—	7	—	—	7	—	—	—	—
Pacific	—	—	—	—	—	—	—	94	261	309	664	—	—	—	—
Alaska	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	54	260	307	621	—	—	—	—
Hawaii	—	—	—	—	—	—	—	7	1	2	10	—	—	—	—
Ore.	—	—	—	—	—	—	—	33	—	—	33	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Territories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 4-58
 XIII. LABORATORY IMPROVEMENT PROGRAM
 D. Water Laboratories -- Continued

Lab & Region	Activity of Laboratory Improvement Program Staff												
	5. Proficiency Testing		6. Field Visits								7. Trng	8. Consult	
			LIP Program				Other Program						
	Water Microbiology	Water Chemistry	Cert.	Lic.	App.	Other	Cert.	Lic.	App.	Other			
New England													
Conn.	X	X	-	-	X	-	-	-	-	-	-	X	X
Mass.	-	-	-	-	-	-	-	-	-	-	-	-	-
Me.	X	X	X	-	X	-	-	-	-	-	-	X	X
N.H.	-	-	-	-	-	-	-	-	-	-	-	-	-
R.I.	X	-	X	X	-	-	-	-	-	-	-	X	X
Vt.	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Atlantic													
N.J.	X	X	-	-	-	-	X	-	-	-	-	X	X
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	-	-	-	-	-	-	-	X	-	-	-	-	-
East North Central													
Ill.	-	-	-	-	X	-	-	-	-	-	-	X	X
Ind.	-	-	-	-	X	-	-	-	-	-	-	X	X
Mich.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	X	X	-	-	X	-	-	-	-	-	-	X	-
Wis.	-	-	X	-	-	-	-	-	-	X	-	X	X
West North Central													
Ia.	-	-	-	-	X	-	-	-	-	-	-	-	-
Kans.	-	X	X	-	-	-	-	-	-	-	-	-	X
Minn.	-	-	-	-	-	-	-	-	-	-	-	-	-
Mo.	-	-	X	-	-	-	X	-	-	-	-	X	X
Nebr.	-	-	X	-	-	-	-	-	-	-	-	-	X
N.D.	-	-	-	-	X	-	-	-	-	-	-	X	X
S.D.	-	-	-	-	-	-	-	-	-	-	-	-	-
South Atlantic													
Dal.	-	-	X	-	X	-	-	-	-	-	-	-	-
D.C.	-	-	X	-	-	-	-	-	-	-	-	-	-
Fla.	-	-	X	-	-	-	-	-	-	-	-	X	X
Ge.	-	-	-	-	-	-	-	-	-	-	-	-	-
Md.	X	-	X	-	-	-	-	-	-	-	-	X	X
N.C.	-	-	-	-	-	-	-	-	-	-	-	-	-
S.C.	-	-	-	-	-	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	X	-	-	-	-	-	-	X	X
East South Central													
Ala.	X	-	X	-	-	-	-	-	-	-	-	X	X
Ky.	-	-	X	-	-	-	-	-	-	-	-	-	-
Miss.	-	-	-	-	X	-	-	-	-	-	-	-	-
Tenn.	-	X	X	-	-	-	-	-	-	-	-	X	X
West South Central													
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-
La.	X	-	X	-	-	-	-	-	-	-	-	X	X
Okla.	-	-	-	-	X	-	-	-	X	-	-	X	X
Tex.	-	-	-	-	X	-	-	-	-	-	-	X	X
Mountain													
Ariz.	-	-	-	-	X	-	-	-	-	-	-	-	-
Colo.	X	X	X	-	-	-	X	-	-	-	-	X	X
Ida.	-	X	X	-	-	-	-	-	-	-	-	-	X
Mont.	-	X	X	-	X	-	-	-	-	-	-	X	X
Nev.	-	X	X	X	-	X	-	-	-	-	-	-	X
N.M.	-	-	-	-	X	-	-	-	-	-	-	X	X
Utah	X	X	X	-	-	-	-	-	X	-	-	X	X
Wyo.	-	-	-	-	X	-	-	-	X	-	-	X	X
Pacific													
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-
Cal.	X	X	-	-	X	X	-	-	-	-	-	X	X
Hawaii	X	-	-	-	X	-	-	-	X	-	-	X	X
Ore.	X	-	-	-	X	-	-	-	-	-	-	X	X
Wash.	-	-	-	-	-	-	-	-	-	-	-	-	-
Territories													
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	X	-	-	-	-	-	-	-	-	X	X
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4-59
XIII. LABORATORY IMPROVEMENT PROGRAM
E. Other Laboratories

Lab	Program Activity
Alaska	Certification of chemistry laboratories for analysis of Breathalyzer ampoules utilized in breath alcohol testing. (1 laboratory certified in state, one annual site visit).
Conn.	Prepare and administer examinations to approve laboratory directors for dairy, food, and water.
Fla.	Implied Consent — permits issued to 3,360 alcohol breath test (law enforcement) technicians and 68 chemists and technologists for blood alcohol analysis; inspections and certification of 704 breath testing machines in 324 law enforcement agencies.
Ida.	Voluntary clearing house. Job applicants and positions available.
Ind.	All Bureau laboratories participate in proficiency testing programs sponsored by various Federal agencies and professional organizations: (a) dairy and food microbiology, (b) food chemistry, (c) clinical microbiology, (d) virology, (e) serology, and (f) blood lead.
Kans.	Lab. certifies law enforcement agencies for breath alcohol. Presently 34 agencies and 369 operators certified. Lab. provides standards, proficiency testing samples, field visits, consultation, and training.
Md.	Shellfish and overlying shellfish waters.
Mass.	Resource to Advisory Committee on Clinical Laboratory in implementation of Laboratory Licensing Law.
Mont.	Inspected two city/county air quality laboratories and prepared written critiques.
N.M.	Internal analytical quality control program. Activities: (1) monitor precision and accuracy of analytical methods, (2) monitor performance in "check-testing" and "proficiency testing" program to which laboratory subscribes.
Ore.	Beginning telelecture program.
Utah	CDC technical consultation contract — Consultation to clinical laboratories using on-site P.T. in the areas of clinical chemistry, bacteriology, and parasitology.
W. Va.	Continuing education program for 1977-78 included presentation of 14 workshops attended by 497 people.

Table 4-60
XIV. BIOLOGICS, REAGENTS, AND MEDIA PRODUCED FOR DISTRIBUTION

Lab	Number FTE's	Biologics		Reagents	Media	Materials Produced for Distribution
		Human	Lab			
Ariz.	<1	-	X	-	X	MacConkey agar plates T-soy broth Thioglycollate medium
Cal.	-	-	X	X	-	Bacterial antigens: <i>Salmonella paratyphi A</i> <i>Salmonella paratyphi B</i> <i>Salmonella typhi "O"</i> <i>Salmonella typhi "H"</i> <i>Brucella abortus</i> <i>Francisella tularensis</i> Immune sera: <i>Brucella abortus</i> <i>Salmonella paratyphi A</i> <i>Salmonella paratyphi B</i> <i>Salmonella typhi "H"</i> <i>Salmonella typhi "O"</i> <i>Francisella tularensis</i> Anti-sheep hemolysin
Colo.	3	-	-	X	X	Jembec
Conn.	9	-	X	-	X	Kits for isolation of Group A streptococcus from nasopharyngeal specimens, 131,772 units; kits for the identification of <i>Bordetella pertussis</i> , 300 units; VDRL stock antigen, 1,730 units of 5.2 ml each; VDRL buffered saline, 1,730 units of 5.2 ml each; controls for syphilis serology, 118 units.
D.C.7	-	-	X	X	Special sickle cell reagent, enteric media.
Ga.	4	-	-	-	X	Improved Thayer-Martin media.
Ill.	10	-	-	X	X	Alcohol standard solution used for calibration of breath testing equipment.
Ia.	5	-	-	X	X	The media production unit serves the various diagnostic and environmental microbiology units of the Univ. Hygenic Lab. Approximately 50% of the media produced is by contract for the Univ. of Iowa hospital microbiology lab. A large range of items are produced from primary plating and enrichment media to a large number of specific media for biochemical identification of almost anything capable of being cultured.
Ia.	1	-	-	-	X	Modified Thayer-Martin
Mass.	51	X	X	-	-	Human albumin DTP vaccine DT vaccine Human immune globulin Rho immune globulin Tetanus immune globulin Td toxoids Tetanus toxoid, adsorbed Typhoid vaccine Diphtheria antitoxin Tetanus antitoxin Schick test outfit
Mich.	61	X	-	-	-	Human blood derivatives: Antihemophilic factor (factor VIII) Immune serum globulin Normal serum albumin Bacterial: Typhoid vaccine Tetanus toxoid adsorbed Diphtheria and tetanus toxoids adsorbed Diphtheria and tetanus toxoids and pertussis vaccine combined adsorbed Tetanus and diphtheria toxoids adsorbed (adult) Pertussis vaccine adsorbed Diphtheria and tetanus toxoids and poliomyelitis vaccine combined adsorbed Diphtheria toxoid adsorbed
Minn.	1	-	-	-	X	71,500 Thayer-Martin plates for GC screening program

Table 4-60

XIV. BIOLOGICS, REAGENTS, AND MEDIA PRODUCED FOR DISTRIBUTION – Continued

Lab	Number FTE's	Biologics		Reagents	Media	Materials Produced for Distribution
		Human	Lab			
Mont.	—	—	—	X	X	Jembec plates with MTM medium. Various transport media for all types of specimens.
N.H.	0.6	—	—	X	X	—
N.M.	4	—	—	X	X	Polyvinyl alcohol 10% formalin Buffered glycerol saline 0.6 % NaCl saline Sterile collection bottle with sodium thiosulfate Sterile collection bottle with sodium phosphate Thayer-Martin (modified) PAI Jones-Kendrick (charcoal) Tryptose phosphate broth (buffered) with gelatin
N.C.	5	—	—	X	X	—
N.D.	1	—	—	X	X	Thayer-Martin (modified), Jembec plates
Ohio	3.25	—	—	—	X	Thayer-Martin plates.
S.C.	0.2	—	—	X	X	Media and reagents supplied to Environmental Quality Control laboratories in DHEC — about 47 varieties of media for isolation and identification of bacteria from water samples, and 20 separate reagents, stains and solutions.
S.D.	1	—	—	—	X	Loeffler's slants
Tenn.	12	—	X	X	X	Isovitalex Saline, physiological Thayer-Martin plate media Transgrow system media VCN Gonopak media Jones-Kendrick medium OADC media Streptococcus medium
Tex.	—	X	X	—	—	<i>N. gonorrhoeae</i> transport medium Lowenstein-Jensen medium FTA-ABS sorbent VDRL antigen and saline Sheep blood and cells Bacterial agglutinating antigens D-T pediatric, D-T-P, diphtheria toxoid Schick test toxin and control Smallpox vaccine Tetanus-diphtheria adult Tetanus toxoid Typhoid vaccine Silver nitrate solution
Vt.	1	—	—	X	X	—
Wash.	3	—	X	X	X	Tabco ₂ — GC media Thayer-Martin plates
W. Va.	4	—	—	X	X	Transgrow (bottles and plates) Typhoid preservative (buffered glycerol NaCl) PVA fixative (2 oz. bottles) TB bottles (50 mg of Na ₂ CO ₃ /bottle) Parasite bottles (1 and 2 oz.) Influenza preservative (tryptose PO ₄ + 0.5/gelatin) Gastric lavage (1.5 ml of 40% Na ₂ HPO ₄) 10% formalin (2 oz. bottles) Water sample bottles (4 oz. containing 0.01 g. Na ₂ S ₂ O ₃) Blood vials (syphilis serology)

Table 4-61
XV. RESEARCH AND DEVELOPMENT
A. Basic Research

Lab	Titles of Research Projects	Number of Positions	Funding Support			
			Federal Grant	Contract	State Funds	Other Funds
Cal.	Immunology of Viral Diseases	9.5	197,800			
	Electron Microscopic Studies	1.8	43,215			
	Studies of Naegleria Infections	2.0	49,365			
	Cancer Virus Studies	4.0		101,910		
	Photochemical Inactivation of Viruses	1.8		62,480		
	Serologic Studies of Multiple Sclerosis	2.25				64,615
	Improvement and Evaluation of Sulfate Analysis Methods	2.5	51,993			
	Calibration of Particulate Mass Monitors	0.7	22,467			
Ida.	HEMB — Epidemiological Studies	9.0		192,000		
Ia.	Developing Methods for Separation, Identification and Quantification of Complex Hydrocarbons Found in Coal Liquefaction Plants.	.25				X
Mass.	Biologics Production	—			X	
Okla.	Virus in Treated Sewage	.4	X		X	
	Viral Titers in Transplant Patients	.2			X	

Table 4-62
 XV. RESEARCH AND DEVELOPMENT
 B. Applied Research

Lab	Titles of Research Projects	Number of Positions	Funding Support			
			Federal Grant	Contract	State Funds	Other Funds
Alaska	Rabies Virus-Tissue Punch IHNV Vaccine Development				X 5,000	
Cal.	Water Virology Project Marsupial Cytology Studies Conf. on Methods In Air Pollution Studies	3.0 1.0 0.3	2,000 17,200		100,000	
Conn.	Extraction of Drugs from Biofluids and Tissues with XAD-2 Resin Isolation of <i>V. parahemolyticus</i> from Mussels Isolation and Identification of <i>Yersinia enterocolitis</i> from Stools Starch Hydrolysis as a Basis for Differentiating <i>N. gonorrhoeae</i> from <i>N. meningitidis</i>	4			X	
Fla.	SW Wastewater Treatment Plant Virus Monitoring Project EPA—Monitoring for Pathogenic Naegleria Rockefeller-Virus Fate in Waste Water Used for Cypress Wetlands Recharge	4 4 2	X	X		
Ga.	Preparation of Acid-fast Microscopy Smears for Proficiency Testing Quality Control Distribution of Serotypes of the <i>Mycobacterium avium</i> Complex in Georgia				X X	
Ia.	Legionnaires' Disease Nonpoint Source Pollution Study Arbovirus Stream Water Quality Survey Insulation Formaldehyde Emission	1 1 .5 1.5 .25				X X X X X
La.	Stabilization of Microorganisms in Water					
Mass.	Plasma Screening Program	2		X		
Pa.	Rapid Diagnosis of HSV Legionnaires' Disease Research	2 2			X X	

Table 4-63
 XV. RESEARCH & DEVELOPMENT
 C. Technical Development

Lab	Titles of Research Projects	Number of Positions	Funding Support			
			Federal Grant	Contract	State Funds	Other Funds
Conn.	Spectrophotometric Determination of Cyanide in Biologic Material	—	—	—	X	—
	Modification Strip Test Yeast Identification				X	
Okla.	Tuberculosis Specimen Centrifugation	.2			X	

SECTION V
SPECIAL QUESTIONS

**Table 5-1
LABORATORY ORGANIZATIONAL STRUCTURE**

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1978	Description of Organizational Change
	State Health Department	State Laboratory		
Ala.	01/01/75	01/01/75	-	-
Alaska	08/01/78	08/01/78	-	-
Ariz.	11/01/76	07/20/78	X	Administrative Section has combined the Billing/Reporting and Disease Surveillance/Immunization Units to develop the Statistical Support Unit. Scientific Services Section has deleted the Stores Unit.
Ark.	07/01/77	07/01/77	-	-
Cal.	02/18/77	10/04/77	-	-
Colo.	10/01/76	09/01/76	-	-
Conn.	06/30/78	06/30/78	-	-
Del.	06/01/72	11/01/75	-	-
D.C.	-	08/02/78	-	-
Fla.	07/01/76	01/01/77	X	Central Operations Services Unit, of which the Office of Laboratory Services is a part, was expanded.
Ga.	09/14/77	07/01/78	X	The Laboratory Unit became one of five major sections in the Division of Physical Health in the Department of Human Resources. Previously was a unit in the Epidemiology Section in the Community Health Activity in the Division of Physical Health.
Hawaii	05/30/77	06/30/78	-	-
Ida.	10/21/77	10/21/77	-	-
Ill.	04/01/77	10/07/77	-	-
Ind.	07/01/78	01/06/78	X	As a part of State Agency reorganization clerical personnel placed in a laboratory support center and a laboratory reporting center placed under the Bureau of Management and Service.
Ia.	-	08/01/78	-	-
Kans.	09/30/78	08/31/78	-	-
Ky.	09/01/78	09/01/78	X	Office of Laboratory Services has been made a Division within the Bureau for Health Services responsible directly to the Deputy Commissioner for Public Health.
La.	08/01/77	07/01/77	-	-
Ma.	07/01/77	07/01/77	-	-
Md.	07/01/76	01/01/77	-	-
Mass.	1977	03/15/77	-	-
Mich.	09/24/75	10/01/77	-	-
Minn.	05/31/78	01/15/77	-	-
Miss.	10/31/74	10/23/78	X	Parasitology is now included in Unit II. Last Fiscal Year it was a separate cost center.
Mo.	07/01/78	10/01/76	-	-
Mont.	07/01/75	01/26/77	X	Toxic Substances Section (alcohol, drugs) of Chemistry Laboratory was transferred from Department of Health and Environmental Sciences to Department of Justice.
Nebr.	09/01/76	01/01/78	X	Minor reassignment of lab. support duties.
Nev.	07/01/75	03/01/76	-	-
N.H.	06/13/73	06/13/73	-	-
N.J.	09/15/78	09/15/78	X	(1) Rabies moved from Bacteriology to Virology. (2) Creation of Inborn Errors of Metabolism (PKU and hypothyroidism).

**Table 5-1
LABORATORY ORGANIZATIONAL STRUCTURE— Continued**

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1978	Description of Organizational Change
	State Health Department	State Laboratory		
N.M.	03/31/78	03/31/78	X	As part of a general state government reorganization, Health and Social Services Dept. was disestablished March 31, 1978, and Health and Environment Dept. was established. The following components of HSSD were reassigned to HED with indicated title changes: Scientific Laboratory System to Scientific Lab. Division; Environmental Improvement Agency to Environmental Improvement Division; State Health Agency to Health Services Division. The former Dept. of Hospitals and Institutions became the Behavioral Health Services Division of Health and Environment Dept.; Internal changes were relatively minor; "Divisions" were redesignated as "Bureaus". Scientific Laboratory Div. includes Quality Control, Chemistry, Biological Sciences and Program Support Bureaus.
N.Y.	—	—	—	—
N.C.	12/01/77	01/01/78	X	The responsibility for certification of laboratories performing premarital and prenatal syphills serology and premarital rubella serology was transferred to the Division of Facility Services — Department of Human Resources effective January 1, 1978.
N.D.	07/01/75	07/19/77	—	—
Ohio	05/15/75	06/20/78	X	Supportive Services reorganized to include all fiscal-budgetary responsibilities. Also, a personnel position was added to the laboratory to handle all managerial functions in this area.
Okla.	09/05/78	09/01/78	X	Media and Glassware Activity now reports directly to the Chief, Laboratory Service.
Ore.	05/01/78	05/01/78	—	—
Pa.	05/20/77	—	—	—
R.I.	09/01/76	09/25/75	—	—
S.C.	06/01/78	06/01/78	—	—
S.D.	07/01/77	07/01/77	—	—
Tenn.	02/01/78	02/01/78	X	Clinical Laboratory Certification and Licensure joined the Division of Laboratory Services.
Tex.	11/01/78	09/01/78	X	Laboratory moved from Health Maintenance deputyship to Preventable Diseases.
Utah	08/03/78	06/30/78	—	—
Vt.	07/01/74	07/01/74	—	—
Va.	07/01/77	07/01/77	—	—
Wash.	08/01/76	03/01/77	—	—
W. Va.	08/01/78	07/01/77	X	Formerly, the State Hygienic Laboratory was placed with the Preventive Medical Services Section of the State Department of Health. Under the new structure the Laboratory is within the Office of Community Health Services. There is no change within the State Hygienic Laboratory.
Wisc.	03/15/76	02/20/78	—	—
Wyo.	1974	1974	—	—
Guam	07/01/76	06/14/78	—	—
P.R.	—	—	—	—
V.I.	—	—	X	Title of Director has changed from Director of Public Health Laboratory Services to Coordinator of Laboratory Services.

Table 5-2
LABORATORY APPLICATIONS OF ELECTRONIC DATA PROCESSING

Lab & Region	Activities Currently Considered Computer Activities in State Labs														Other	
	Diagnostic Reporting							Worldwide Statistics	Management Information	Purchasing	Personnel Records	Supply Inventory	Clinical Chem. Calculations	Control of Instruments		Training
	Diag. Rept.	Parasitology	Clinical Chem.	Pathology	Imm. Micro	Imm. Chemistry	LIP									
New England																
Conn.																
Mass.																
Me.			X													All expenditures
N.H.																
R.I.																Toxicology
Vt.																
Middle Atlantic																
N.J.																
N.Y.																
Pa.																
East North Central																
Ill.									X							
Ind.																X
Mich.																Water chemistry calculations
Ohio	X								X							
Wisc.		X							X							Rebills, parts of immunology, bacteriology, pathology, & toxicology. Also various lab. evaluation programs.
West North Central																
Ia.																
Kans.									X							
Minn.										X						
Mo.																
Nebr.																
N.D.						X										
S.D.							X									
South Atlantic																
Del.																
D.C.																
Fla.																
Ga.								X								Analytical chemistry— toxicology reporting
Md.																
N.C.				X												
S.C.									X							Billing for lab test fees.
Va.			X													
W. Va.																
East South Central																
Ala.																
Ky.			X													
Miss.																
Tenn.																
West South Central																
Ark.																
La.																
Okla.																
Tex.																
Mountain																
Ariz.									X							
Colo.																
Ida.										X						
Mont.																Air pollution testing calculations. Environmental chemistry calculations
Nev.																
N.M.									X							Quality control charts and standard deviations within Chemistry Bureau.
Utah																
Wyo.																
Pacific																
Alaska																
Cal.						X		X								Reduction of instrumentally produced data (gamma spectrometry, mass spectrometry, etc.), quality control.
Hawaii																
Ore.																
Wash.	X	X							X							
Territories																
Guam																
P.R.																
V.I.																

Table 5-3
SCIENTIFIC SERVICES

Lab & Region	Is Scientific Support		Functions Included in Scientific Services Section											Other	
	Decentralized	Centralized		Glassware Washing	Med. Prep.	Purchasing Supplies	Inventory Supplies	Stockroom	Preventive Maintenance	Animal Care	Records & Reports	Specimen Receipt & Distribution	Outfit Distribution		Housekeeping
		Is One Person Responsible	Is This Person Trained in Scientific Services Mgmt.												
New England															
Conn.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	Sterilization of contaminated materials
Mass.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	Central duplication (Xerox, offset press); U.S. Mail, inter and intra laboratory messenger service; shipping and receiving.
Me.	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.H.	-	X	-	X	X	X	X	X	X	X	X	X	X	-	-
R.I.	-	X	-	X	X	X	X	X	X	X	X	X	X	-	-
Vt.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
Middle Atlantic															
N.J.	-	X	X	X	X	-	-	X	-	X	-	X	X	-	Maintenance of guns for immunization Program.
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	-	X	X	-	-	X	X	X	X	X	X	X	X	X	-
East North Central															
Ill.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Ind.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Mich.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Ohio	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Wis.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
West North Central															
Ia.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	Carpool maintenance
Kans.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Minn.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Mo.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Nebr.	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.D.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S.D.	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
South Atlantic															
Del.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
D.C.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
Fla.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	Kit preparation
Ga.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	Budget management & control
Md.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	Outfit preparation
N.C.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
S.C.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
Va.	X	X	X	X	X	-	X	-	-	X	-	-	X	-	Safety, inventory of equip., instrument repair
W. Va.	-	-	-	X	X	-	X	-	-	X	-	-	X	X	Ordering, maintaining inventory and distribution of biologics for state and county immunization programs.
East South Central															
Ala.	-	X	-	X	X	X	X	X	X	X	-	-	X	X	Inventory of equip., distribution of vaccines and GC media.
Ky.	-	X	-	X	X	X	X	X	X	X	X	X	X	X	-
Miss.	-	X	-	X	X	X	X	X	X	X	X	X	X	X	-
Tenn.	-	X	-	X	X	X	X	X	X	X	X	X	X	X	-
West South Central															
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La.	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okl.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
Tex.	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-
Mountain															
Ariz.	-	X	-	X	X	-	-	-	X	-	-	X	X	X	-
Colo.	-	X	-	X	X	-	-	-	-	-	-	X	X	X	Kit preparation
Ida.	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mont.	-	X	X	X	X	-	-	X	-	-	-	-	-	X	Acid reagent dilution; distilled/ deionized water preparation
Nev.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Buildings and grounds
N.M.	-	X	-	X	X	-	-	-	-	X	-	X	X	X	-
Utah	-	X	-	X	X	-	-	-	X	X	-	X	X	X	Media QC and Safety Office
Wyo.	-	X	-	X	X	-	-	-	-	-	-	X	X	X	-
Pacific															
Alaska	-	X	-	X	X	-	X	X	-	X	-	-	X	X	-
Cal.	-	-	-	X	X	X	X	X	X	X	X	X	X	X	-
Hawaii	-	X	-	X	X	X	X	X	X	X	X	X	X	X	-
Ore.	-	X	-	X	X	-	-	-	X	X	X	X	X	X	-
Wash.	-	X	-	X	X	-	X	X	X	X	X	X	X	X	Data processing—fee for services
Territories															
Guam	X	-	-	X	X	-	-	-	-	-	-	-	-	X	-
P.R.	-	X	-	X	X	-	-	-	-	-	-	X	-	-	-
V.I.	X	-	-	X	X	-	-	-	-	-	-	-	-	-	-