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**CONSOLIDATED ANNUAL REPORT
on
State and Territorial
Public Health Laboratories
Fiscal Year 1979**

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

CONSOLIDATED ANNUAL REPORT
on
State and Territorial
Public Health Laboratories
Fiscal Year 1979

April 1980

A Collaborative Compilation
by the
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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

1979 - 1980

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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.

J. Mehsen Joseph, Ph.D.
Chairman, CAR Committee

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INTRODUCTION

This, the sixteenth 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). 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. Alaska and New York did not report to the CAR for fiscal year 1979. 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 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 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 and premarital examination laws.

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 1978 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 ASTPHLD in 1963. The report is designed to provide comprehensive data concerning state and territorial laboratories to ASTPHLD.

The Consolidated Annual Report is a joint activity of ASTPHLD and 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

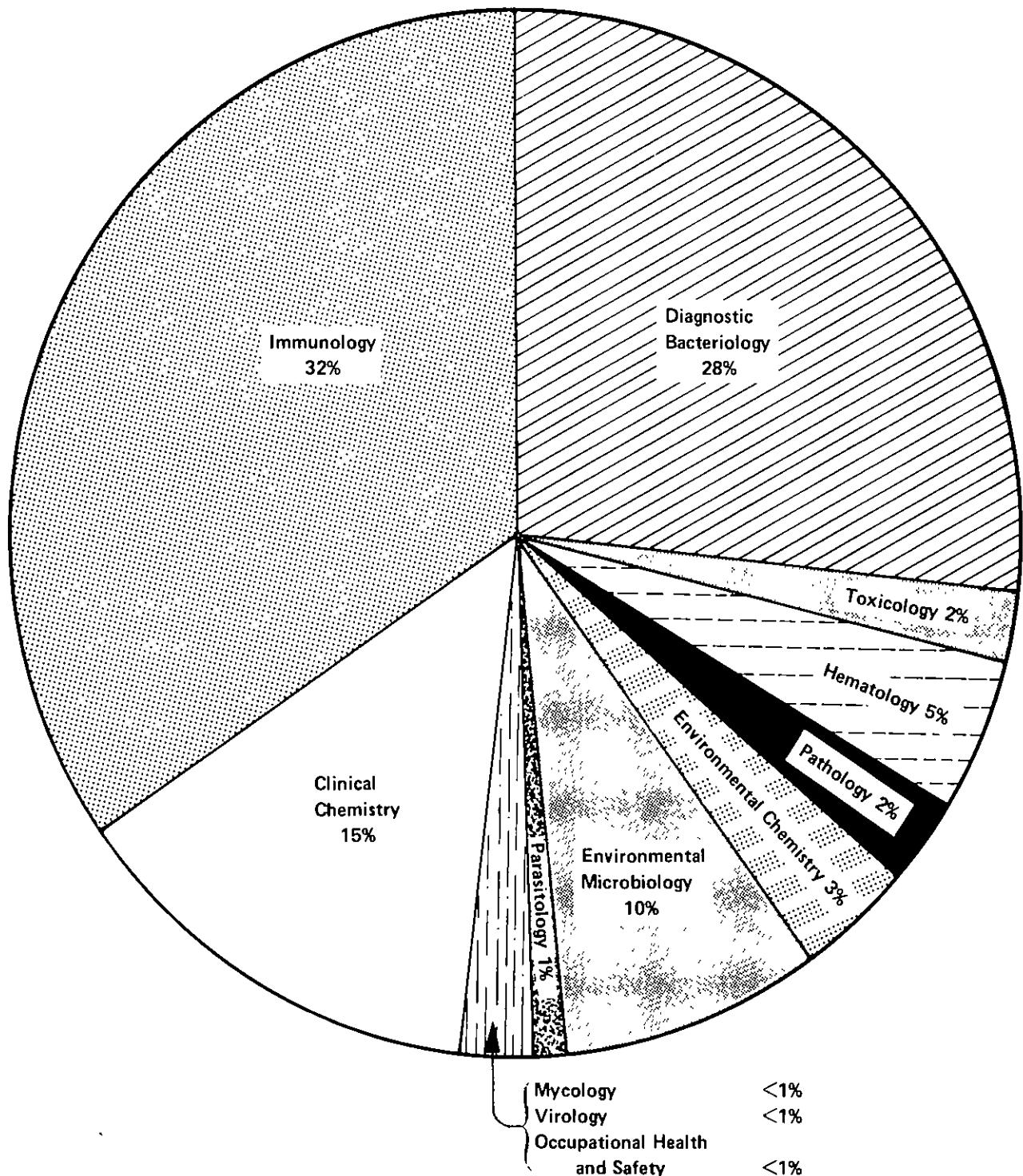


Table 1-2
SUMMARY OF LABORATORY EXPENDITURES, POSITIONS, AND SPECIMENS

Lab. & Region	Population X 1000	Expenditures		Laboratory Personnel						Specimens	
		Total Laboratory	Expenditure 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	196,167	115,634,338	0.590	5,674.7	1:34,569	20,377	3,505.3	1:55,963	32,988	26,847,473	0.137
Average	3,923	2,312,687	—	113.5	—	—	70.1	—	—	516,298	—
New England	12,244	12,191,173	0.996	671.5	1:18,234	18,155	423.5	1:28,911	28,787	2,169,657	0.177
Conn.	3,108	3,824,259	1.231	228.0	1:13,632	16,773	163.0	1:19,067	23,462	584,894	0.188
Mass.	5,782	4,069,498	0.704	235.0	1:24,604	17,317	120.0	1:48,183	33,912	690,165	0.119
Me.	1,085	1,139,386	1.050	50.0	1:21,700	22,788	34.0	1:31,912	33,511	133,436	0.123
N.H.	849	365,979	0.431	22.0	1:38,591	16,635	14.0	1:60,643	26,141	199,666	0.235
R.I.	935	2,307,674	2.468	109.0	1:8,578	21,171	74.0	1:12,635	31,185	389,809	0.417
Vt.	485	484,377	0.999	27.5	1:17,636	17,614	18.5	1:26,216	26,183	125,613	0.259
Middle Atlantic	19,114	7,299,067	0.382	332.0	1:57,572	21,985	211.0	1:90,588	34,593	831,452	0.044
N.J.	7,329	4,672,067	0.638	227.0	1:32,286	20,582	153.0	1:47,902	30,536	628,247	0.086
N.Y.	—	—	—	—	—	—	—	—	—	—	—
Pa.	11,785	2,625,000	0.223	105.0	1:112,238	25,000	58.0	1:203,190	45,259	125,613	0.011
East North Central	41,056	22,456,804	0.547	1,035.3	1:39,656	21,691	594.5	1:69,060	37,774	3,049,336	0.074
Ill.	11,245	2,965,835	0.264	172.0	1:65,378	17,243	102.0	1:110,245	29,077	426,662	0.038
Ind.	5,330	2,122,173	0.398	83.0	1:64,217	25,568	64.0	1:83,281	33,159	168,217	0.031
Mich.	9,129	9,927,490	1.088	416.3	1:21,929	23,847	224.0	1:40,754	44,319	1,035,509	0.113
Ohio	10,701	4,047,772	0.378	188.5	1:56,769	21,474	117.0	1:91,462	34,596	882,138	0.082
Wisc.	4,651	3,393,534	0.730	175.5	1:26,501	19,336	87.5	1:53,154	38,783	538,720	0.116
West North Central ...	16,884	9,471,904	0.561	440.2	1:38,355	21,517	273.7	1:61,688	34,607	2,209,688	0.131
Ia.	2,879	2,943,618	1.022	117.0	1:24,607	25,159	74.0	1:228,162	39,779	531,350	0.185
Kans.	2,326	1,561,380	0.671	82.0	1:28,366	19,041	50.0	1:46,520	31,228	304,394	0.131
— Minn.	3,975	1,724,345	0.434	88.5	1:44,915	19,484	47.0	1:84,574	36,688	420,005	0.106
Mo.	4,801	1,571,083	0.327	60.0	1:80,017	26,185	42.0	1:114,310	37,407	548,509	0.114
Nebr.	1,561	533,622	0.342	28.0	1:55,750	19,058	20.0	1:78,050	26,681	135,683	0.087
N.D.	653	609,162	0.933	34.0	1:19,206	17,917	20.0	1:32,650	30,458	167,614	0.257
S.D.	689	528,694	0.767	25.0	1:27,560	21,148	15.0	1:45,933	35,246	102,093	0.148
South Atlantic	29,171	18,612,465	0.638	1,078.2	1:27,055	17,263	704.4	1:41,413	26,423	7,458,944	0.256
Del.	582	549,696	0.945	32.1	1:18,131	17,124	22.1	1:26,335	24,873	150,493	0.259
D.C.	690	1,044,700	1.514	55.0	1:12,545	18,995	45.0	1:15,333	23,216	365,058	0.529
Fla.	8,452	4,569,125	0.541	258.0	1:32,760	17,710	168.0	1:50,310	27,197	2,127,860	0.252
Ga.	5,048	2,705,192	0.536	137.0	1:36,847	19,746	71.0	1:71,099	38,101	968,229	0.192
Md.	4,139	4,384,323	1.059	269.0	1:15,387	16,299	188.0	1:22,016	23,321	1,363,304	0.329
N.C.	5,525	2,739,532	0.496	151.0	1:36,589	18,143	96.0	1:57,552	28,537	785,214	0.142
S.C.	2,876	1,825,112	0.635	119.1	1:24,148	15,324	84.3	1:34,116	21,650	768,930	0.267
Va.	5,135	—	—	—	—	—	—	—	—	655,946	0.128
W. Va.	1,859	794,785	0.428	57.0	1:32,614	13,944	30.0	1:61,967	26,493	313,910	0.169
East South Central	13,836	8,693,634	0.628	486.5	1:28,440	17,870	289.0	1:47,875	30,082	3,430,027	0.248
Ala.	3,690	3,456,353	0.937	188.0	1:19,628	18,385	121.0	1:30,496	28,565	1,382,189	0.375
Ky.	3,458	2,066,731	0.598	88.5	1:39,073	23,353	58.0	1:59,621	35,633	308,819	0.089
Miss.	2,389	902,897	0.378	52.0	1:45,942	17,363	33.0	1:72,394	27,361	871,091	0.365
Tenn.	4,299	2,267,653	0.528	158.0	1:27,209	14,352	77.0	1:55,831	29,450	867,628	0.202
West South Central ...	21,706	9,252,973	0.426	447.0	1:48,559	20,700	271.0	1:80,096	34,144	4,514,164	0.208
Ark.	2,144	1,085,231	0.906	61.0	1:35,148	17,791	38.0	1:56,421	28,559	431,412	0.201
La.	3,921	2,273,135	0.580	134.0	1:29,261	16,964	58.0	1:67,603	39,192	610,485	0.156
Oklahoma	2,811	964,107	0.343	52.0	1:54,058	18,541	37.0	1:75,973	26,057	415,374	0.148
Tex.	12,830	4,930,500	0.384	200.0	1:64,150	24,653	138.0	1:92,971	35,728	3,056,893	0.238
Mountain	10,030	9,306,448	0.928	432.8	1:23,175	21,503	266.5	1:37,636	34,921	1,786,474	0.178
Ariz.	2,296	1,499,592	0.653	65.0	1:35,323	23,071	42.0	1:54,667	35,705	131,147	0.057
Colo.	2,619	1,537,209	0.587	78.0	1:33,577	19,708	50.0	1:52,380	30,744	516,598	0.187
Ida.	857	1,351,495	1.577	67.0	1:12,791	20,172	41.0	1:20,902	32,963	225,749	0.263
Mont.	761	514,230	0.676	28.5	1:26,702	18,043	20.0	1:38,050	25,712	96,113	0.126
Nev.	633	828,403	1.309	32.0	1:19,781	25,888	15.0	1:42,200	55,227	106,534	0.167
N.M.	1,190	1,684,177	1.415	77.5	1:15,355	21,731	43.5	1:27,356	38,717	273,959	0.230
Utah	1,268	1,619,369	1.277	70.0	1:18,114	23,134	45.0	1:28,178	35,986	208,228	0.164
Wyo.	406	271,973	0.670	14.8	1:27,432	18,377	10.0	1:40,600	27,197	229,138	0.564
Pacific	28,825	17,253,870	0.599	601.2	1:47,946	28,699	372.7	1:77,341	46,294	1,052,149	0.037
Alaska	—	—	—	—	—	—	—	—	—	—	—
Cal.	21,896	12,884,665	0.588	405.6	1:53,984	31,767	259.4	1:84,410	49,671	124,487	0.006
Hawaii	895	987,941	1.104	54.5	1:16,422	18,127	37.5	1:23,867	26,345	295,760	0.331
Ore.	2,376	1,531,804	0.645	62.1	1:38,261	24,667	40.8	1:58,235	37,544	452,621	0.191
Wash.	3,658	1,849,460	0.506	79.0	1:46,304	23,411	35.0	1:104,514	52,842	179,281	0.049
Territories	3,301	1,096,000	0.332	150.0	1:22,007	7,307	99.0	1:33,343	11,071	345,582	0.105
Guam	96	187,545	1.954	12.0	1:8,000	15,629	9.0	1:10,667	20,838	15,288	0.159
P.R.	3,205	908,455	0.283	138.0	1:23,225	6,583	90.0	1:35,611	10,094	277,724	0.087
V.I.	95	—	—	—	—	—	—	—	—	52,570	0.553

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		
						Budgeted Positions		Positions To Pop.		Expenditure Per Position	Budgeted Positions		Positions To Pop.		Expenditure Per Position					
	State	\$	State	Ratio	#	State	Ratio (X1000)	State	\$	State	Ratio (X1000)	State	Ratio	State	\$	State	#	State	Ratio	
Total		115,834		0.590		5,674.7		1:35		20,377		3,505.3		1:56		32,988		26,847		0.134
Average		2,313		—		113.5		—		70.1		—		—		—		516		—
1	Cal.	12,885	R I.	2.468	Mich	416.3	Guam	1:8	Cal.	31,767	Cal.	259.4	Guam	1:11	Nev.	55,227	Tex.	3,057	Wyo.	0.564
2	Mich	9,927	Guam	1.954	Cal.	405.6	R I.	1:9	Mo.	26,185	Mich	224.0	R I.	1:13	Wash.	52,842	Fla.	2,128	V I.	0.558
3	Tex.	4,931	Ida.	1,577	Md.	269.0	D C.	1:13	Nev.	25,888	Md.	188.0	D C.	1:15	Cal.	49,671	Ala.	1,382	D C.	0.529
4	N J	4,672	D C.	1,514	Fla.	258.0	Ind.	1:13	Ind.	25,568	Fla.	168.0	Conn.	1:19	Pa.	45,269	Md.	1,363	R I.	0.459
5	Fla.	4,569	N M.	1,415	Mass	235.0	Conn	1:14	Ida.	26,159	Conn	163.0	Ida.	1:21	Mich	44,319	Mich	1,036	Ala.	0.375
6	Md.	4,384	Nev.	1,309	Conn	228.0	N M.	1:15	Pa.	25,000	N J.	153.0	Md.	1:22	Ia.	39,779	Ga.	968	Miss.	0.365
7	Mass	4,069	Utah	1,277	N J.	227.0	Md.	1:15	Ore.	24,667	Tex.	138.0	Hawaii	1:24	La.	39,192	Ohio	882	Hawaii	0.330
8	Ohio	4,048	Conn	1,231	Tex.	200.0	Hawaii	1:16	Tex.	24,653	Ala.	121.0	Vt.	1:26	Wisc.	38,783	Miss.	871	Md.	0.329
9	Conn	3,824	Hawaii	1,104	Ohio	188.5	Vt.	1:18	Mich	23,847	Mass	120.0	Del.	1:26	N M.	38,717	Tenn.	868	S C.	0.267
10	Ala.	3,456	Mich	1,088	Ala.	188.0	Utah	1:18	Wash.	23,411	Ohio	117.0	N M.	1:27	Ga.	38,101	N C.	785	Ida.	0.264
11	Wisc.	3,394	Md.	1,059	Wisc.	175.5	Del.	1:18	Ky.	23,353	III.	102.0	Utah	1:28	Ore.	37,544	S C.	769	Vt.	0.260
12	III.	2,966	Me.	1,050	III.	172.0	N D.	1:19	Utah	23,134	N C.	96.0	Ala.	1:30	Mo.	37,407	Mass	690	Del.	0.258
13	Ia.	2,944	Ia.	1,022	Tenn.	158.0	Ala.	1:20	Ariz.	23,071	P R.	90.0	Me.	1:32	Minn.	36,688	Va.	656	N D.	0.257
14	N C.	2,740	Vt.	999	N C.	151.0	Nev.	1:20	Me.	22,788	Wisc.	87.5	N D.	1:33	Utah	35,986	N J.	628	Fla.	0.252
15	Ga.	2,705	Del.	945	P R.	138.0	Me.	1:22	N M.	21,731	S C.	84.3	Tenn.	1:34	Tex.	35,728	La.	610	Tex.	0.238
16	Pa.	2,625	Ala.	937	Ge.	137.0	Mich.	1:22	Ohio	21,474	Tenn.	77.0	P R.	1:36	Ariz.	35,705	Conn.	585	N M.	0.230
17	R I.	2,308	N D.	933	La.	134.0	P R.	1:23	R I.	21,171	R I.	74.0	Mont.	1:38	Ky.	35,633	Mo.	549	Tenn.	0.202
18	La.	2,273	S D.	767	S C.	119.1	S C.	1:24	S D.	21,148	Ia.	74.0	Wyo.	1:41	S D.	35,246	Wisc.	539	Ark.	0.201
19	Tenn.	2,268	Wisc.	730	Ia.	117.0	Mass	1:25	N J.	20,582	Ga.	71.0	Mich	1:41	Ohio	34,596	Ia.	531	Colo.	0.197
20	Ind.	2,122	Mass	704	R I.	109.0	Ia.	1:25	Ida.	20,172	Ind.	64.0	Nev.	1:42	Mass	33,912	Colo.	517	Ga.	0.192
21	Ky.	2,067	Mont.	676	Pa.	105.0	Wisc.	1:27	Ga.	19,746	Pa.	68.0	S D.	1:46	Me.	33,511	Ore.	453	Ore.	0.191
22	Wash.	1,849	Kans.	671	Minn.	88.5	Mont.	1:27	Colo.	19,708	Ky.	58.0	Kans.	1:47	Ind.	33,159	Ark.	431	Conn.	0.188
23	S C.	1,825	Wyo.	670	Ky.	88.5	Tenn.	1:27	Minn.	19,484	Ia.	58.0	N J.	1:48	Ida.	32,963	III.	427	Ia.	0.184
24	Minn.	1,724	Ariz.	653	Ind.	83.0	Wyo.	1:27	Wisc.	19,336	Kans.	50.0	Mass	1:48	Kans.	31,228	Minn.	420	W. Va.	0.169
25	N M.	1,684	Ore.	645	Kans.	82.0	S D.	1:28	Nebr.	19,058	Colo.	50.0	Fla.	1:50	R I.	31,185	Oklahoma	415	Nev.	0.167
26	Utah	1,619	N J.	638	Wash.	79.0	Kans.	1:28	Kans.	19,041	Minn.	47.0	Colo.	1:52	Colo.	30,744	R I.	390	Utah	0.164
27	Mo.	1,571	S C.	635	Colo.	78.0	La.	1:29	D C.	18,995	O C.	45.0	Wisc.	1:53	N J.	30,536	D C.	365	N H.	0.157
28	Kans.	1,561	Ky.	598	N M.	77.5	N J.	1:32	O k l a .	18,541	Utah	45.0	Ariz.	1:55	N D.	30,458	W. Va.	314	Guam	0.156
29	Colo.	1,537	Cal.	588	Utah	70.0	W. Va.	1:33	Ala.	18,385	N M.	43.5	Tenn.	1:56	Tenn.	29,450	Ky.	309	La.	0.156
30	Ore.	1,532	Colo.	587	Ida.	67.0	Fla.	1:33	Wyo.	18,377	Mo.	42.0	Ark.	1:56	III.	29,077	Kans.	304	Oklahoma	0.148
31	Ariz.	1,500	La.	580	Ariz.	65.0	Colo.	1:34	N C.	18,143	Ariz.	42.0	N C.	1:58	Ala.	28,565	Hawaii	295	S. D.	0.148
32	Ida.	1,351	Fla.	541	Ore.	62.1	Ark.	1:35	Hawaii	18,127	Ida.	41.0	Ore.	1:58	Ark.	28,559	P. R.	278	N C.	0.142
33	Me.	1,139	Ja.	536	Ark.	61.0	Ariz.	1:35	Mont.	18,043	Ore.	40.8	Ky.	1:60	N C.	28,537	N. M.	274	Kans.	0.131
34	Ark.	1,085	Tenn.	528	Mo.	60.0	N C.	1:37	N. D.	17,917	Ark.	38.0	N. H.	1:61	Miss.	27,361	Wyo.	229	Va.	0.128
35	D C.	1,045	Ark.	506	W. Va.	57.0	Ga.	1:37	Ark.	17,791	Hawaii	37.5	W. Va.	1:62	Ia.	27,197	Ida.	226	Mont.	0.126
36	Hawaii	988	Wash.	506	D C.	55.0	Ore.	1:38	Fla.	17,710	O k l a .	37.0	La.	1:68	Wyo.	27,197	Utah	208	Mass	0.119
37	Oklahoma	964	N C.	496	Hawaii	54.5	N H.	1:39	Vt.	17,614	Wash.	35.0	Ge.	1:71	Nebr.	26,681	Pa.	203	Wisc.	0.116
38	P R.	908	Minn.	434	Miss.	52.0	Ky.	1:39	Miss.	17,363	Me.	34.0	Miss.	1:72	W. Va.	26,493	Wash.	179	Mo.	0.114
39	Miss.	903	N H.	431	Oklahoma	52.0	Minn.	1:45	Mass	17,317	Miss.	33.0	Oklahoma	1:76	Hawaii	26,345	N H.	170	Mich	0.113
40	Nev.	828	W. Va.	428	Me.	50.0	Miss.	1:46	III.	17,243	W. Va.	30.0	Nebr.	1:78	Vt.	26,183	N D.	168	Minn.	0.106
41	W. Va.	795	Ind.	398	N D.	34.0	Wash.	1:46	Del.	17,124	Del.	22.1	Ind.	1:83	N H.	26,141	Ind.	166	Ky.	0.089
42	N D.	609	Tex.	384	Del.	32.1	Cal.	1:54	Ia.	16,964	Nebr.	20.0	Cal.	1:84	O k l a .	26,057	Del.	150	Nebr.	0.087
43	Del.	550	Ohio	378	Nev.	32.0	Oklahoma	1:54	Conn.	16,773	N D.	20.0	Minn.	1:85	Mont.	25,712	Nebr.	136	P. R.	0.087
44	Nebr.	534	Miss.	378	Mont.	28.5	Nebr.	1:56	N H.	16,635	Mont.	20.0	Ohio	1:91	Del.	24,873	Me.	133	N J.	0.086
45	S D.	529	Oklahoma	343	Nebr.	28.0	O h i o	1:57	M d .	16,299	Vt.	18.5	Tenn.	1:93	Conn.	23,462	Ariz.	131	Ohio	0.082
46	Mont.	514	Nebr.	342	Vt.	27.5	Tex.	1:64	Guam	15,629	S. D.	15.0	Wash.	1:105	M d .	23,321	Vt.	126	Ariz.	0.057
47	Vt.	484	Mo.	327	S. D.	25.0	Ind.	1:64	S. C.	15,324	Nev.	15.0	III.	1:110	D C.	23,216	Cal.	124	Wash.	0.049
48	N. H.	366	P. R.	283	N. H.	22.0	III.	1:65	Tenn.	14,352	N H.	14.0	Mo.	1:114	S. C.	21,650	Nev.	106	III.	0.038
49	Wyo.	272	III.	264	Wyo.	14.8	Mo.	1:80	W. Va.	13,944	Wyo.	10.0	Pa.	1:203	Guam	20,838	S. D.	102	Ind.	0.031
50	Guam	188	Pa.	0.223	P. R.	12.0	Pa.	1:112	P. R.	6,583	Guam	9.0	Ia.	1:228	P. R.	10,094	Mont.	96	Me.	0.023
51																		V. I.		
52																		53	Pa.	0.017
53																		15	Cal.	0.006
54																				

* 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	Expenditures Per Capita	Budgeted Positions					Budgeted Prof. & Tech. Persons					Total Lab. Specimens X1000	Specimens Per Capita						
			Budgeted Persons	Persons To Pop.	Expenditure Per Position	Budgeted Positions	Persons To Pop.	Expenditure Per Person												
	State	\$	State	Rate	State	#	State	Rate (X1000)	State	\$	State	#	State	Rate (X1000)	State	#	State	Rate		
Total	115,834	8.898			5,874.7			1:35		20,377		3,505.3		1:58		32,888		28,847		
Average	2,313	—			113.5			—		70.1		—		—		516		0.134		
New England	12,191	8.898			871.6			1:18		18,155		423.5		1:29		28,787		2,178		
1	4,060	R I	2,468	Mass.	236.0	R I	1:9	Me.	22,788	Conn.	183.0	R I	1:13	Mass.	33,912	Mass.	800	R I.	0.177	
2	3,824	Conn.	1,731	Conn.	226.0	Conn.	1:14	R I.	21,171	Mass.	120.0	Conn.	1:18	Me.	33,511	Conn.	585	Vt.	0.459	
3	2,308	R I.	1,050	R I.	109.0	Vt.	1:18	Vt.	17,614	R I.	74.0	Vt.	1:26	R I.	31,185	R I.	390	Conn.	0.260	
4	1,139	Me.	0.999	Me.	50.0	Me.	1:22	Mass.	17,317	Me.	34.0	Me.	1:32	Vt.	26,183	N.H.	170	N.H.	0.188	
5	484	Vt.	0.704	Vt.	27.5	Mass.	1:25	Conn.	16,773	Vt.	18.5	Mass.	1:48	N.H.	26,141	Me.	133	Mass.	0.157	
6	366	N.H.	0.431	N.H.	22.0	N.H.	1:39	N.H.	16,635	N.H.	14.0	N.H.	1:61	Conn.	23,462	Vt.	126	Me.	0.119	
Middle Atlantic	7,299	0.382			332.0			1:58		21,985		211.0		1:91		34,693		831		0.043
1	4,672	N.J.	0.638	N.J.	227.0	N.J.	1:32	Pa.	25,000	N.J.	153.0	N.J.	1:48	Pa.	45,259	N.J.	678	N.J.	0.086	
2	2,625	Pa.	0.223	Pa.	105.0	Pa.	1:112	N.J.	20,682	Pa.	58.0	Pa.	1:203	N.J.	30,536	Pa.	203	Pa.	0.017	
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
East North Central	22,457	0.647			1,035.3			1:40		21,691		594.5		1:69		37,774		3,049		0.074
1	9,927	Mich.	1,088	Mich.	416.3	Mich.	1:22	Ind.	25,568	Mich.	224.0	Mich.	1:41	Mich.	44,319	Mich.	1,036	Wisc.	0.116	
2	4,048	Ohio	0.730	Ohio	188.6	Wisc.	1:27	Mich.	23,847	Ohio	117.0	Wisc.	1:53	Ohio	38,783	Ohio	882	Mich.	0.113	
3	3,394	Wisc.	0.398	Wisc.	175.5	Ohio	1:57	Ohio	21,474	III.	102.0	Ind.	1:83	Ohio	34,506	Wisc.	539	Ohio	0.082	
4	2,966	Ohio	0.378	III.	172.0	Ind.	1:64	Wisc.	19,336	Ohio	87.5	Ohio	1:91	III.	33,159	III.	427	III.	0.038	
5	2,122	Ind.	0.264	Ind.	83.0	III.	1:65	Ind.	17,243	Ind.	64.0	III.	1:110	Ind.	29,077	Ind.	168	Ind.	0.031	
West North Central	8,472	0.581			440.2			1:38		21,517		273.7		1:62		34,807		2,210		0.131
1	2,944	Ia.	1,022	Ia.	117.0	N.D.	1:19	Mo.	26,185	Ia.	74.0	N.D.	1:33	Ia.	38,779	Mo.	549	N.D.	0.257	
2	1,724	N.D.	0.933	Minn.	88.5	Ia.	1:25	Ia.	25,159	Kans.	50.0	S.D.	1:46	Mo.	37,407	Ia.	531	Ia.	0.184	
3	1,571	S.D.	0.767	Kans.	82.0	S.D.	1:28	S.D.	21,148	Minn.	47.0	Kans.	1:47	Minn.	36,688	Minn.	420	S.D.	0.148	
4	1,561	Kans.	0.671	Mo.	60.0	Kans.	1:28	Minn.	19,484	Mo.	42.0	Nebr.	1:78	S.D.	35,246	Kans.	304	Nebr.	0.131	
5	609	Mo.	0.434	N.O.	34.0	Minn.	1:45	Nebr.	19,056	20.0	Minn.	1:85	Kans.	31,228	N.D.	168	Mo.	0.114		
6	534	Nebr.	0.342	Nebr.	28.0	Nebr.	1:58	Kans.	19,041	N.D.	20.0	Mo.	1:114	N.D.	30,468	Nebr.	138	Minn.	0.106	
7	529	Mo.	0.327	S.D.	25.0	Mo.	1:30	N.D.	17,917	S.D.	15.0	Ia.	1:228	Nebr.	26,681	S.D.	102	Nebr.	0.087	
South Atlantic	18,812	0.638			1,078.2			1:27		17,263		704.4		1:41		26,423		7,459		0.217
1	4,569	D.C.	1,514	Md.	266.0	D.C.	1:13	Ga.	19,746	Md.	188.0	D.C.	1:15	Ga.	38,101	Fla.	2,128	D.C.	0.529	
2	4,384	Md.	1,059	Fla.	258.0	Md.	1:15	D.C.	18,095	Fla.	168.0	Md.	1:22	N.C.	28,637	Md.	1,383	Md.	0.329	
3	2,740	N.C.	0.945	N.C.	151.0	Del.	1:18	N.C.	18,143	N.C.	96.0	Del.	1:26	Fla.	27,197	Fla.	968	S.C.	0.267	
4	2,705	Ga.	0.635	Ga.	137.0	S.C.	1:24	Fla.	17,710	S.C.	84.3	S.C.	1:34	W.Va.	26,493	N.C.	785	D.H.	0.258	
5	1,825	S.C.	0.541	S.C.	110.1	W.Va.	1:33	Del.	17,124	Ga.	71.0	Fla.	1:60	Del.	24,873	S.C.	769	Fla.	0.252	
6	1,045	Ga.	0.528	W.Va.	55.0	N.C.	1:33	Md.	16,299	D.C.	45.0	N.C.	1:58	Md.	23,321	Va.	656	Ga.	0.192	
7	795	N.C.	0.496	D.C.	55.0	N.C.	1:37	S.C.	15,324	W.Va.	30.0	W.Va.	1:62	D.C.	23,218	D.C.	365	W.Va.	0.169	
8	560	W.Va.	0.428	Del.	32.1	Ga.	1:37	W.Va.	13,944	Del.	22.1	Ga.	1:71	S.C.	21,650	W.Va.	314	N.C.	0.142	
9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	150	Va.	0.128	—	—
East South Central	8,894	0.628			485.5			1:28		17,870		289.0		1:48		30,082		3,430		0.248
1	3,456	Ala.	0.937	Ala.	188.0	Ala.	1:20	Ky.	23,353	Ala.	121.0	Ala.	1:30	Ky.	35,633	Ala.	1,382	Ala.	0.375	
2	2,268	Ky.	0.588	Tenn.	168.0	Tenn.	1:27	Ala.	18,385	Tenn.	77.0	Tenn.	1:56	Tenn.	29,450	Miss.	871	Miss.	0.385	
3	2,067	Tenn.	0.528	Ky.	88.5	Ky.	1:39	Miss.	17,383	Ky.	58.0	Ky.	1:80	Miss.	28,565	Tenn.	868	Tenn.	0.202	
4	903	Miss.	0.378	Miss.	52.0	Miss.	1:46	Tenn.	14,352	Miss.	33.0	Miss.	1:72	Miss.	27,361	Ky.	309	Ky.	0.080	
West South Central	9,253	0.426			447.0			1:49		20,700		271.0		1:80		34,144		4,514		0.208
1	4,931	Tex.	0.580	Tex.	200.0	La.	1:29	Tex.	24,663	Tex.	138.0	Ark.	1:56	La.	39,192	Tex.	3,057	Tex.	0.238	
2	2,273	Ark.	0.506	La.	134.0	Ark.	1:35	Oklahoma	18,541	La.	58.0	La.	1:68	Tex.	35,728	La.	610	Ark.	0.201	
3	1,085	Tex.	0.384	Ark.	61.0	Oklahoma	1:54	Ark.	17,791	Ark.	38.0	Oklahoma	1:76	Ark.	28,559	Ark.	431	La.	0.156	
4	964	Oklahoma	0.343	Oklahoma	52.0	Tex.	1:64	La.	16,964	Oklahoma	37.0	Tex.	1:92	Oklahoma	26,057	Oklahoma	415	Oklahoma	0.148	
Mountain	9,308	0.928			432.8			1:48		19,708		271.0		1:80		34,144		4,514		0.208
1	1,884	Ida.	1,577	Colo.	78.0	Ida.	1:13	Nev.	25,888	Colo.	50.0	Ida.	1:21	Nev.	55,227	Colo.	517	Wyo.	0.564	
2	1,619	N.M.	1,415	N.M.	77.5	N.M.	1:15	Utah	23,134	Utah	45.0	N.M.	1:27	N.M.	38,717	N.M.	274	Ida.	0.264	
3	1,537	Colo.	1,309	Utah	70.0	Utah	1:18	Ariz.	23,071	N.M.	43.5	Utah	1:28	Wyo.	35,988	Wyo.	229	N.M.	0.230	
4	1,500	Utah	1,277	Ida.	67.0	Nev.	1:20	N.M.	21,731	Ariz.	42.0	Mont.	1:38	Ariz.	35,705	Ida.	226	Colo.	0.197	
5	1,351	Ida.	0,676	Ariz.	65.0	Mont.	1:27	Ida.	20,172	Ida.	41.0	Wyo.	1:41	Ida.	32,963	Utah	208	Nev.	0.167	
6	828	Wyo.	0,670	Nev.	32.0	Wyo.	1:27	Colo.	19,708	Mont.	20.0	Nev.	1:42	Colo.	30,744	Ariz.	131	Utah	0.164	
7	514	Anz.	0,653	Mont.	28.5	Colo.	1:34	Wyo.	18,377	Nev.	15.0	Colo.	1:52	Wyo.	27,187	Nev.	106	Mont.	0.126	
8	272	Colo.	0,587	Wyo.	14.8	Anz.	1:35	Mont.	18,043	Wyo.	10.0	Anz.	1:55	Mont.	25,712	Mont.	86	Anz.	0.057	
Pacific	17,254	0.599			501.2			1:48		28,898		372.7		1:77		46,294		1,052		0.038
1	12,885	Hawaii	1,104	Cal.	405.6	Hawaii	1:16	Cal.	31,767	Cal.	259.4	Hawaii	1:24	Wyo.	52,842	Ore.	453	Hawaii	0.330	
2	1,849	Ore.	0,645	Wash.	79.0	Ore.	1:38	Ore.	24,667	Ore.	40.8	Ore.	1:58	Cal.	49,671	Hawaii	206	Ore.	0.191	
3	1,532	Cal.	0,588	Ore.	62.1	Wash.	1:46	Wash.	23,411	Hawaii	37.5	Cal.	1:84	Ore.	37,544	Wash.	179	Wash.	0.049	
4	988	Wash.	0,506	Hawaii	54.5	Cal.	1:54	Hawaii	18,127	Wash.	35.0	Wash.	1:105	Hawaii	26,345	Cal.	124	Cal.	0.006	
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Terminis	1,086	P.R.	0,332	Guam	150.0	Guam	1:22	P.R.	7,307	Guam	99.0	P.R.	1:33	Guam	11,071	P.R.	348	V.I.	0.102	
1	908	Guam	1,954	P.R.	138.0	Guam	1:18	Guam	15,829	P.R.	90.0	Guam	1:11	Guam	20,838	V.I.	278	V.I.	0.558	

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	52	52	—	52	28.5	47	0.2	297,285	1.1	106,170	0.7	8,514,830	31.7	1,453,047	5.4	4,068,098	15.2	612,730	1.9	2,629,005	9.8	831,069	3.3	68,187	0.2	544,730	2.0			
Total	26,847,473	7,648,958	28.5	59,566	0.2	—	—	1,267	—	5,717	—	3,723	—	163,743	—	41,516	—	88,437	—	39,441	—	53,653	—	21,489	—	3,188	—	14,722	—	
Average	516,298	146,942	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
New England	2,168,657	638,181	28.3	2,804	0.1	17,011	0.8	15,750	0.7	580,148	26.7	16,949	0.8	388,202	17.8	3,082	0.1	178,864	8.2	110,226	5.1	3,824	0.2	216,508	18.0					
Conn	16	584,894	132,308	22.6	1,532	0.3	10,751	1.8	9,178	1.6	168,572	28.8	15,524	2.7	116,324	19.0	3,082	0.5	23,467	4.0	28,800	4.9	2,672	0.5	72,684	12.4				
Mass	12	690,165	172,445	25.0	671	0.1	33	—	5,284	0.8	202,356	29.3	—	—	195,952	28.4	—	—	38	—	—	—	—	—	—	—	113,386	16.4		
Me	44	133,436	46,895	35.0	271	0.2	183	0.1	858	0.6	28,237	21.2	—	—	17,383	13.0	—	—	19,685	14.8	12,384	9.3	45	—	7,715	5.8				
N H	39	169,866	106,520	62.8	85	0.1	1,145	0.7	188	0.1	40,383	23.8	—	—	21,310	12.6	—	—	—	—	—	—	—	—	35	—	—			
R I.	26	389,909	139,030	35.7	88	—	2,307	0.6	72	—	94,320	24.2	1,425	0.4	37,253	9.6	—	—	29,810	7.6	65,872	16.9	1,107	0.3	18,525	4.8				
Vt	46	125,613	39,193	31.2	257	0.2	1,447	1.2	170	0.1	46,280	36.8	—	—	—	—	—	—	30,935	24.6	3,170	2.5	—	—	4,161	3.3				
Middle Atlantic	831,452	262,081	31.5	1,506	0.2	3,314	0.4	10,555	1.3	259,983	31.3	430	0.1	262,004	31.5	—	—	16,806	2.0	13,655	1.6	—	—	—	—	—	—			
N J	14	628,247	238,066	37.8	1,238	0.2	2,893	0.5	9,056	1.4	249,370	39.7	—	—	97,063	15.4	—	—	16,906	2.7	13,655	2.2	—	—	—	—	—	1,008	0.5	
N Y	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Pa	37	203,206	24,015	11.8	268	0.1	421	0.2	1,499	0.7	10,623	5.2	430	0.2	164,941	81.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
East North Central	3,049,338	914,759	30.0	7,391	0.2	13,306	0.4	48,733	1.6	751,188	24.6	48,559	1.6	819,304	20.3	100,134	1.3	360,266	11.8	132,791	4.4	16,950	0.6	34,955	1.1					
Ill	23	426,662	184,274	43.2	1,210	0.3	1,139	0.3	11,548	2.7	121,670	28.6	—	—	12,311	2.9	—	—	57,260	13.4	24,615	5.7	—	—	12,535	2.9				
Ind	41	166,217	11,907	7.2	730	0.4	2,323	1.4	3,324	2.0	64,762	39.0	—	—	—	—	—	—	58,767	35.4	24,385	14.7	—	—	39	—	—			
Mich	5	1,035,509	329,015	31.8	1,915	0.2	3,712	0.4	4,386	0.4	328,596	31.7	11,902	1.1	225,743	21.8	—	—	101,848	9.8	28,392	2.7	—	—	—	—	—	—		
Ohio	7	882,138	343,739	39.0	764	0.1	1,494	0.2	23,708	2.7	104,651	11.9	4,798	0.5	282,585	32.0	—	—	75,361	8.5	24,077	2.7	6,506	0.7	14,455	1.6				
Wisc	18	538,720	45,824	8.5	2,772	0.5	4,838	0.9	6,767	1.3	131,309	24.4	31,859	5.8	98,865	18.3	100,134	18.6	66,940	12.4	31,442	5.8	10,444	1.9	7,926	1.5				
West North Central	2,209,688	635,382	28.8	7,008	0.3	21,411	1.0	13,786	0.6	847,090	38.3	25,549	1.2	222,931	10.1	204	—	277,278	12.5	137,627	6.2	4,210	0.2	17,224	0.8					
Ia	19	531,350	133,958	25.2	1,120	0.2	2,033	0.4	2,857	0.5	40,879	45.3	—	—	2,985	0.6	—	—	45,736	8.6	91,071	17.1	3,285	0.6	7,426	1.4				
Kans	30	304,394	72,733	23.9	764	0.3	5,230	1.7	597	0.2	102,622	23.7	—	—	50,584	16.6	—	—	51,274	16.8	16,529	5.4	825	0.3	3,136	1.0				
Minn	24	420,006	124,023	29.5	3,023	0.9	10,798	2.6	5,335	1.3	207,197	49.3	—	—	68,566	16.3	204	—	—	—	—	—	—	—	—	—				
Mo	17	648,609	187,813	34.2	466	0.1	1,362	0.2	3,686	0.7	144,886	26.4	14,154	2.6	58,811	10.7	—	—	125,059	22.8	11,311	2.1	—	—	861	0.2	—	—		
Neb	43	135,683	27,034	19.9	55	—	399	0.3	800	0.4	66,473	49.0	—	—	2,772	2.0	—	—	23,896	17.6	8,653	6.4	—	—	5,801	4.3				
N D	40	167,614	56,820	33.9	523	0.3	1,177	0.7	452	0.3	47,553	28.4	11,395	6.8	39,214	23.4	—	—	10,490	6.3	—	—	—	—	—	—	—			
S D	49	102,093	32,981	32.3	155	0.2	412	0.4	269	0.3	37,380	36.6	—	—	—	—	—	—	20,833	20.4	10,063	9.9	—	—	—	—	—	—		
South Atlantic	7,458,944	2,013,353	27.0	10,903	0.1	125,259	1.7	37,384	0.5	2,333,300	31.3	517,480	6.9	1,198,327	18.1	388,123	5.2	528,236	7.1	133,655	1.8	16,925	0.2	156,019	2.1					
Del	42	150,493	32,282	21.6	—	—	210	0.1	1,192	0.8	39,568	26.3	1,972	1.3	8,602	5.7	47,441	31.5	11,800	7.8	4,023	3.3	—	—	2,502	1.7				
D C	27	365,058	112,502	30.8	—	—	294	0.1	63	—	118,611	32.5	53,304	14.6	41,629	11.4	16,976	4.7	1,191	0.3	1,673	0.5	—	—	18,815	5.2				
Fla	2	2,127,880	696,372	30.8	2,292	0.1	59,700	2.8	5,511	0.3	664,342	31.2	150,298	7.1	308,112	14.5	—	—	256,551	12.1	5,179	0.2	1,231	0.1	18,272	0.9				
Ga	6	968,229	270,493	27.9	807	0.1	22,749	2.3	11,523	1.2	461,293	47.6	49,507	5.1	112,479	11.6	—	—	183	—	—	—	—	—	—	—	97	—		
Md	4	1,263,304	407,901	29.9	2,343	0.2	8,140	0.6	4,597	0.3	372,100	27.3	94,076	6.9	201,565	14.8	73,766	5.4	103,569	7.6	48,930	3.6	9,264	0.7	37,053	2.7				
N C	10	785,214	22,924	2.8	1,897	0.2	5,863	0.7	3,112	0.4	236,038	30.1	53,951	6.9	161,318	19.3	204,633	26.1	75,621	9.6	19,883	2.5	4,956	0.6	5,218	0.7				
S C	11	769,930	240,428	31.3	1,683	0.2	13,489	1.8	8,631	1.1	238,579	31.0	70,566	9.2	155,276	20.2	—	—	15,160	2.0	12,773	1.7	—	—	12,355	1.6				
Va	13	655,946	160,310	24.4	1,632	0.2	12,186	1.9	1,971	0.3	168,870	25.7	42,557	6.5	150,471	22.9	—	—	53,586	8.2	40,294	6.1	1,377	0.2	22,692	3.5				
W Va	28	313,910	110,135	35.1	449	0.1	2,628	0.8	764	0.2	53,898	17.2	1,259	0.4	68,875	21.8	45,307	14.4	30,595	9.7	—	—	—	—	—	—	—	—		
East South Central	3,430,077	1,143,190	33.3	8,660	0.3	45,882	1.3	9,193	0.3	1,189,248	34.7	265,732	7.7	361,407	10.5	15,547	0.5	318,532	9.3	81,852	1.8	2,656	0.1	8,330	0.2					
Ala	3	1,382,189	448,868	32.5	3,873	0.3	28,377	2.1	4,073	0.3	47,417	34.1	77,251	5.6	151,933	11.0	14,700	1.1	125,264	9.1	51,387	3.7	—	—	5,026	0.4				
Ky.	29	308,819	30,383	9.8	276	0.1	683	0.2	1,977	0.6	142,167	46.0	19,376	6.3	54,161	17.5	847	0.3	45,604	14.8	7,380	2.4	2,656	0.9	3,304	1.1				
Mass	8	871,091	252,204	29.0	2,196	0.3	10,206	1.2	702	0.1	271,188	31.1	167,979	19.3	86,374	9.9	—													

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	5,673.0	385.0	6.8	15.0	752.8	13.3	68.5	3,502.6	61.7	202.0	887.6	15.6	54.0	145.0	2.6	10.0	5,065.5	89.3
Average	111.2	7.6	6.8	0.3	14.8	13.3	1.3	68.7	61.7	4.0	17.4	15.6	1.1	2.8	2.6	0.2	99.3	89.3
New England	671.5	41.0	6.1	-	89.0	13.2	5.0	423.5	63.1	15.0	82.0	12.2	5.0	36.0	5.4	2.0	644.5	96.0
Conn	228.0	7.0	3.1	-	30.0	13.2	3.0	163.0	71.5	11.0	27.0	11.8	2.0	1.0	0.4	-	212.0	93.0
Mass	235.0	25.0	10.7	-	33.0	14.0	2.0	120.0	51.1	1.0	24.0	10.2	2.0	33.0	14.0	2.0	228.0	97.0
Me	50.0	2.0	4.0	-	7.0	14.0	-	34.0	68.0	2.0	7.0	14.0	-	-	-	-	48.0	96.0
N H	22.0	1.0	4.6	-	4.0	18.2	-	14.0	63.6	-	3.0	13.8	-	-	-	-	22.0	100.0
R I	109.0	5.0	4.6	-	11.0	10.1	-	74.0	67.9	1.0	17.0	15.6	1.0	2.0	1.8	-	107.0	98.2
Vt	27.5	1.0	3.7	-	4.0	14.5	-	18.5	67.3	-	4.0	14.5	-	-	-	-	27.5	100.0
Middle Atlantic	332.0	27.0	8.1	-	45.0	13.5	6.0	211.0	63.6	9.0	46.0	13.9	2.0	3.0	0.9	1.0	314.0	94.6
N J	227.0	8.0	3.5	-	27.0	11.9	1.0	153.0	67.4	6.0	39.0	17.2	2.0	-	-	-	218.0	96.0
N Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	105.0	19.0	18.1	-	18.0	17.1	5.0	58.0	55.2	3.0	7.0	6.7	-	3.0	2.9	1.0	96.0	91.4
East North Central	1,035.3	83.0	8.0	5.0	96.0	9.3	16.0	594.5	57.4	70.0	195.8	18.9	22.0	66.0	6.4	7.0	915.3	88.4
Ill	172.0	13.0	7.5	1.0	27.0	15.7	8.0	102.0	59.3	31.0	29.0	16.9	6.0	1.0	0.6	-	126.0	73.3
Ind.	83.0	7.0	8.4	-	-	-	-	64.0	77.1	2.0	12.0	14.5	1.0	-	-	-	80.0	96.4
Mich	416.3	15.0	3.6	2.0	27.0	6.5	1.0	224.0	63.8	19.0	94.3	22.7	9.0	56.0	13.4	6.0	379.3	91.1
Ohio	188.5	7.0	3.7	-	20.0	10.6	3.0	117.0	62.1	8.0	35.5	18.8	4.0	9.0	4.8	1.0	172.5	91.5
Wisc	175.5	41.0	23.4	2.0	22.0	12.5	4.0	87.5	49.9	10.0	25.0	14.2	2.0	-	-	-	157.5	89.7
West North Central ...	434.5	43.0	9.9	3.0	64.5	14.8	4.0	268.0	61.7	6.0	58.0	13.4	2.0	1.0	0.2	-	418.5	96.6
Ia	117.0	12.0	10.3	-	17.0	14.5	1.0	74.0	63.2	3.0	14.0	12.0	-	-	-	-	113.0	96.6
Kans	82.0	13.0	15.8	3.0	10.0	12.2	1.0	50.0	61.0	2.0	9.0	11.0	-	-	-	-	76.0	92.7
Minn	88.5	6.0	6.8	-	18.5	20.9	2.0	47.0	53.1	1.0	17.0	19.2	1.0	-	-	-	84.5	95.5
Mo.	60.0	3.0	5.0	-	7.0	11.7	-	42.0	70.0	-	7.0	11.7	-	1.0	1.6	-	60.0	100.0
Nebr	28.0	2.0	7.1	-	4.0	14.3	-	20.0	71.5	-	2.0	7.1	-	-	-	-	28.0	100.0
N D	34.0	3.0	8.8	-	5.0	14.7	-	20.0	58.8	-	6.0	17.7	-	-	-	-	34.0	100.0
S D	25.0	4.0	16.0	-	3.0	12.0	-	15.0	60.0	-	3.0	12.0	1.0	-	-	-	24.0	96.0
South Atlantic	1,078.2	50.0	4.7	1.0	144.8	13.4	8.0	704.4	65.3	24.6	162.0	15.0	3.0	17.0	1.6	-	783.8	72.7
Del.	32.1	1.0	3.1	-	4.0	12.5	-	22.1	68.8	2.0	5.0	15.6	-	-	-	-	30.1	93.8
D.C.	65.0	2.0	3.6	-	6.0	10.9	2.0	45.0	81.9	3.0	20	3.6	-	-	-	-	50.0	90.9
Fla.	258.0	12.0	4.6	-	35.0	13.6	-	168.0	65.1	-	41.0	15.9	-	2.0	0.8	-	-	-
Ge.	137.0	8.0	5.8	-	22.0	16.1	-	71.0	51.8	2.0	35.0	25.6	-	1.0	0.7	-	135.0	98.5
Md.	269.0	4.0	1.5	-	37.0	13.7	1.0	188.0	69.9	4.0	35.0	13.0	1.0	5.0	1.9	-	263.0	98.0
N C	151.0	9.0	5.9	-	19.0	12.6	1.0	96.0	63.6	4.0	25.0	16.6	-	2.0	1.3	-	146.0	96.7
S C	119.1	12.0	10.0	1.0	10.8	9.1	1.0	84.3	70.8	5.6	10.0	8.4	-	2.0	1.7	-	111.5	93.6
Va.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W Va.	57.0	2.0	3.5	-	11.0	19.3	3.0	30.0	52.6	4.0	9.0	15.8	2.0	5.0	8.8	-	48.0	84.2
East South Central	486.5	32.0	6.6	1.0	71.0	14.6	2.0	289.0	59.4	10.0	83.5	17.1	3.0	11.0	2.3	-	470.5	96.7
Ala	188.0	14.0	7.4	-	30.0	15.9	1.0	121.0	64.4	2.0	21.0	11.2	1.0	2.0	1.1	-	184.0	97.9
Ky	88.5	6.0	6.8	-	10.0	11.3	-	58.0	65.5	5.0	13.5	15.3	1.0	1.0	1.1	-	82.5	93.2
Miss	52.0	2.0	3.8	-	8.0	15.4	-	33.0	63.5	1.0	9.0	17.3	-	-	-	-	51.0	98.1
Tenn	158.0	10.0	6.3	1.0	23.0	14.6	1.0	77.0	48.7	2.0	40.0	25.3	1.0	8.0	5.1	-	153.0	96.8
West South Central	447.0	18.0	3.6	-	84.7	18.9	11.0	271.0	60.6	13.0	75.3	16.9	6.0	-	-	-	417.0	93.3
Ark	61.0	2.0	3.3	-	11.0	18.0	4.0	38.0	62.3	4.0	10.0	16.4	3.0	-	-	-	50.0	82.0
La.	134.0	9.0	6.7	-	35.0	26.1	-	58.0	43.3	-	32.0	23.9	2.0	-	-	-	132.0	98.5
Oklahoma	52.0	2.0	3.8	-	6.7	12.9	-	37.0	71.2	-	6.3	12.1	-	-	-	-	52.0	100.0
Tex	200.0	3.0	1.5	-	32.0	16.0	7.0	138.0	69.0	9.0	27.0	13.5	1.0	-	-	-	183.0	91.5
Mountain	432.8	47.0	10.8	1.0	60.0	13.9	2.0	266.5	61.6	7.0	52.3	12.1	2.0	7.0	1.6	-	420.8	97.2
Ariz	65.0	6.0	9.2	-	14.0	21.6	1.0	42.0	64.6	1.0	2.0	3.1	1.0	1.0	1.5	-	62.0	95.4
Colo	78.0	14.0	17.9	-	7.0	9.0	1.0	50.0	64.1	2.0	7.0	9.0	1.0	-	-	-	74.0	94.9
Ida	67.0	6.0	8.9	-	14.0	20.9	-	41.0	61.2	2.5	2.0	3.0	-	4.0	6.0	-	64.5	96.3
Mont	28.5	2.0	7.0	-	3.0	10.5	-	20.0	70.2	-	3.5	12.3	-	-	-	-	28.5	100.0
Nev	32.0	2.0	6.2	-	3.0	9.4	-	15.0	46.9	-	11.0	34.4	-	1.0	3.1	-	32.0	100.0
N M	77.5	8.0	10.4	1.0	7.0	9.0	-	43.5	56.1	1.5	18.0	23.2	-	1.0	1.3	-	75.0	96.8
Utah	70.0	8.0	11.4	-	10.0	14.3	-	45.0	64.3	-	7.0	10.0	-	-	-	-	70.0	100.0
Wyo	14.8	1.0	6.8	-	2.0	13.5	-	10.0	67.5	-	1.8	12.2	-	-	-	-	14.8	100.0
Pacific	601.2	31.0	5.2	3.0	80.8	13.4	6.5	372.7	62.0	18.4	115.7	19.2	8.0	1.0	0.2	-	565.3	94.0
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cal.	405.6	13.0	3.2	2.0	52.5	12.9	4.5	259.4	64.0	13.4	80.7	19.9	5.0	-	-	-	380.7	93.9
Hawaii	54.5	1.0	1.8	-	4.0	7.4	-	37.5	68.8	2.0	12.0	22.0	1.0	-	-	-	51.5	94.5
Ore	62.1	5.0	8.1	-	11.3	18.2	1.0	40.8	65.7	1.0	5.0	8.0	-	-	-	-	60.1	96.8
Wash	79.0	12.0	15.2	1.0	13.0	16.4	1.0	35.0	44.3	2.0	18.0	22.8	2.0	1.0	1.3	-	73.0	92.4
Territories	154.0	15.0	9.8	1.0	17.0	11.0	8.0	102.0	66.2	29.0	17.0	11.0	1.0	3.0	2.0	-	115.0	74.7
Guam	12.0	2.0	16.7	-	1.0	8.3	-	9.0	75.0	1.0	-	-	-	-	-	-	11.0	91.7
P.R.	138.0	13.0	9.4	1.0	15.0	10.9	8.0	90.0	65.2	27.0	17.0	12.3	1.0	3.0	2.2	-	101.0	73.2
V.I.	4.0	-	-	-	1.0	25.0	-	3.0	75.0	1.0	-	-	-	-	-	-	3.0	75.0

DEFINITIONS

- Management:** Include laboratory directors and assistant directors, lab supervisors, business managers, management officers and administrative officers who spend more than 50% of their time on administration and management of laboratory activities.
- Clerical:** Include secretaries, typists, and clerks in the office of the director, office services staff, budget and fiscal clerks and others. Do not include those covered in supportive services categories.
- Professional and Technical:** Those primarily engaged in examining and testing specimens and samples, or in a laboratory improvement program; including bacteriologists, chemists, microbiologists, medical technicians and technologists, and those laboratory assistants and laboratory helpers who contribute directly to the performance of laboratory tests or work in laboratory improvement programs.
- Supportive Services:** All those except maintenance personnel not included in the first three categories. Examples are those engaged in preparation of glassware,

Table 2-2
TURNOVER

Lab & Region	Total Filled Pos.	Total # Resig & Sep.	% Turnover Filled Pos.	Number of Resignations & Separations by Categories						
				Manage- ment	Clerical	Prof & Tech Positions			Supportive Services	Main- tenance
						# Pos.	Resig & Sep.	% Turn- over		
Total	5,065.5	748.3	14.8	31.0	174.5	3,334.6	369.0	11.1	150.8	29.0
Average	101.3	15.0	14.8	0.6	3.5	66.7	7.4	11.1	3.0	0.6
New England	644.5	55.0	8.5	1.0	15.0	423.5	27.0	6.4	8.0	4.0
Conn.	212.0	15.0	7.1	—	3.0	163.0	10.0	6.1	2.0	—
Mass.	228.0	17.0	7.5	1.0	6.0	120.0	3.0	2.5	3.0	4.0
Me.	48.0	3.0	6.3	—	1.0	34.0	1.0	2.9	1.0	—
N.H.	22.0	4.0	18.2	—	2.0	14.0	2.0	14.3	—	—
R.I.	107.0	15.0	14.0	—	2.0	74.0	11.0	14.9	2.0	—
Vt.	27.5	1.0	3.6	—	1.0	18.5	—	—	—	—
Middle Atlantic	314.0	49.0	15.6	—	19.0	211.0	19.0	9.0	10.0	1.0
N.J.	218.0	40.0	18.3	—	14.0	153.0	16.0	10.5	10.0	—
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	96.0	9.0	9.4	—	5.0	58.0	3.0	5.2	—	1.0
East North Central	915.3	162.0	17.7	5.0	23.0	594.5	83.0	14.0	38.0	13.0
Ill.	126.0	21.0	16.7	—	4.0	102.0	13.0	12.7	4.0	—
Ind.	80.0	10.0	12.5	—	—	64.0	7.0	10.9	3.0	—
Mich.	379.3	42.0	11.1	2.0	1.0	224.0	13.0	5.8	16.0	10.0
Ohio	172.5	65.0	37.7	1.0	14.0	117.0	37.0	31.6	10.0	3.0
Wisc.	157.5	24.0	15.2	2.0	4.0	87.5	13.0	14.9	5.0	—
West North Central	419.5	72.0	17.2	7.0	26.0	268.0	29.0	10.8	16.0	—
Ia.	113.0	18.0	15.9	1.0	6.0	74.0	9.0	12.2	2.0	—
Kans.	76.0	17.0	22.4	1.0	6.0	50.0	8.0	16.0	2.0	—
Minn.	84.5	18.0	21.3	—	11.0	47.0	2.0	4.3	5.0	—
Mo.	60.0	8.0	13.3	—	—	42.0	5.0	11.9	3.0	—
Nebr.	28.0	4.0	14.3	1.0	—	20.0	2.0	10.0	1.0	—
N.D.	34.0	2.0	5.9	—	—	20.0	1.0	5.0	1.0	—
S.D.	24.0	5.0	20.8	4.0	3.0	15.0	2.0	13.3	2.0	—
South Atlantic	783.6	125.6	16.0	5.0	29.0	536.4	76.6	14.3	11.0	4.0
Del.	30.1	5.0	16.6	—	2.0	22.1	2.0	9.1	1.0	—
D.C.	50.0	5.0	10.0	—	2.0	45.0	3.0	6.7	—	—
Fla.	—	—	—	—	—	—	—	—	—	—
Ga.	135.0	20.0	14.8	—	8.0	71.0	10.0	7.4	2.0	—
Md.	263.0	32.0	12.2	1.0	7.0	188.0	21.0	11.2	3.0	—
N.C.	146.0	24.0	16.4	1.0	2.0	96.0	18.0	18.8	3.0	—
S.C.	111.5	21.6	19.4	3.0	3.0	84.3	14.6	17.3	—	1.0
Va.	—	—	—	—	—	—	—	—	—	—
W. Va.	48.0	18.0	37.5	—	5.0	30.0	8.0	26.7	2.0	3.0
East South Central	470.5	72.0	15.3	8.0	18.0	289.0	29.0	10.0	16.0	1.0
Ala.	184.0	25.0	13.6	4.0	7.0	121.0	8.0	6.6	6.0	—
Ky.	82.5	10.0	12.1	—	4.0	58.0	4.0	6.9	2.0	—
Miss.	51.0	8.0	15.7	—	1.0	33.0	6.0	18.2	1.0	—
Tenn.	153.0	29.0	18.9	4.0	6.0	77.0	11.0	14.3	7.0	1.0
West South Central	417.0	81.0	19.4	—	18.0	271.0	41.0	15.1	22.0	—
Ark.	50.0	14.0	28.0	—	4.0	38.0	7.0	18.4	3.0	—
La.	132.0	27.0	20.5	—	4.0	58.0	12.0	20.7	11.0	—
Okl.	52.0	5.0	9.6	—	—	37.0	4.0	10.8	1.0	—
Tex.	183.0	35.0	19.1	—	10.0	138.0	18.0	13.0	7.0	—
Mountain	420.8	70.8	16.8	2.0	15.0	266.5	33.0	12.4	15.8	5.0
Ariz.	62.0	10.0	16.1	1.0	4.0	42.0	4.0	9.5	1.0	—
Colo.	74.0	12.0	16.2	—	3.0	50.0	5.0	10.0	4.0	—
Ida.	64.5	14.0	21.7	—	4.0	41.0	6.0	14.6	—	4.0
Mont.	28.5	3.0	10.5	—	—	20.0	3.0	15.0	—	—
Nev.	32.0	6.0	18.8	—	—	15.0	2.0	13.3	4.0	—
N.M.	75.0	12.0	16.0	1.0	1.0	43.5	6.0	13.8	3.0	1.0
Utah	70.0	10.0	14.3	—	3.0	45.0	5.0	11.1	2.0	—
Wyo.	14.8	3.8	25.7	—	—	10.0	2.0	20.0	1.8	—
Pacific	565.3	50.9	9.0	3.0	10.5	372.7	24.4	6.6	13.0	—
Alaska	—	—	—	—	—	—	—	—	—	—
Cal.	380.7	26.9	7.1	2.0	4.5	259.4	13.4	5.2	7.0	—
Hawaii	51.5	5.0	9.7	—	—	37.5	3.0	8.0	2.0	—
Ore.	60.1	13.0	21.6	—	5.0	40.8	6.0	14.7	2.0	—
Wash.	73.0	6.0	8.2	1.0	1.0	35.0	2.0	5.7	2.0	—
Territories	115.0	10.0	8.7	—	1.0	102.0	7.0	6.9	1.0	1.0
Guam	11.0	2.0	18.2	—	—	9.0	2.0	22.2	—	—
P.R.	101.0	4.0	4.0	—	—	90.0	2.0	2.2	1.0	1.0
V.I.	3.0	4.0	133.3	—	1.0	3.0	3.0	100.0	—	—

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. Pers. Reported in Workload Categories	Total Changes Reported		
	I Diagnostic Sect.	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 Improve. Program	XIV Biologic, Research, Media Prod.	XV Research and Develop.			
New England																		
Conn	23.0 +1.5	1.0	4.0	4.0	16.0 +4.8	3.0	17.0 +8.6	1.0	8.0 +0.8	36.0 +6.9	2.0 -3.0	27.0 +2.0	13.0 +2.0	8.0 -	-1.0	163.0 +2.6	+2.6	
Mass	21.0 +1.0	1.0	2.0	13.0 +1.0	11.0	-	14.0	-	14.0 +1.0	3.0 -1.0	40.0 +1.0	1.0 -1.0	12.0 +0.5	12.0 +2.0	-0.5	-0.5	34.0 +1.0	-1.0
Me	7.0 -	-1.0	-	3.5 +0.6	1.5	-	1.0	-	8.0	-	2.5	2.0	0.5	-	-	14.0	-	
N.H.	9.6 0.2	0.5	0.1	0.1	1.5	-	0.5	-	-	-	0.1	1.0	0.5	-	-	24.0 +2.0	+2.0	
R.I.	7.0 1	1	-	6.0	-	-	6.0 -1.0	-	10.0 -0.5	24.0 +3.0	4.0 +1.0	15.0 -2.0	2.0 +1.0	-	-	24.0 +1.5	-1.5	
Vt.	5.1 +1.0	0.3	1.0	1.6	3.5 -1.6	-	-	1.5 -0.5	1.5 -0.5	-	2.0 +1.0	0.1	1.0	-	-	18.5	-	
Middle Atlantic																		
N.J.	24.0 -7.0	2.0	1.0	24.0	12.0 +12.0	-	8.0 +5.0	-	6.0 -2.0	53.0 +21.0	-	-	-20.0	23.0 -2.0	-	-	153.0 +7.0	+7.0
N.Y.	-	-	-	-	11.0 +1.0	IV	11.0 -1.0	VI	-	-	-	6.0 +1.0	11.0	-	-	-	-	
Pa.	19.0 +4.0	1	1	11.0	-	-	-	-	-	-	-	-	-	-	-	58.0 +5.0	+5.0	
East North Central																		
Ill.	18.0 1.0	1.0	1.0	12.0 +2.0	9.0	-	-	-	11.0	13.0	-	10.0 +1.0	25.0 +19.0	2.0 +1.0	-	102.0 +2.0	+2.0	
Ind.	10.0 -5	1.5	1.5 +5	3.0	6.0	-	-	-	11.0	26.0 +1.0	-	-	2.0 +1.0	3.0 +1.0	-	-	64.0 +6.0	+6.0
Mich.	41.5 -3.0	1.0	1.0	16.0 +2.0	14.0 +1.0	2.5	-2.5	8.0 +2.5	-	6.5 -1.0	7.5 +1.0	-	14.0 +6.0	61.0 +5.0	52.0	224.0 +5.0	-5.0	
Ohio	49.0 +4.0	1	1	1	1	-	-	11.0	-	9.0 +3.0	32.0	X	5.0 -3.0	10.0 +4.0	1.0 -5.0	117.0 +5.0	+5.0	
Wis.	14.0 -1.5	1.0	1.0	16.0 +6.0	11.0 +1.0	-	-	17.0 -2.0	14.0	2.0 +2.0	8.0 +2.0	1.0 -1.0	3.0 +2.0	-	0.5 -1.3	87.5	-	
West North Central																		
Ia.	8.0 +2.0	2.0	0.5	7.0 -1.0	6.0	-	0.5	-	4.0 -1.0	27.0 +4.0	6.0 +1.0	0.5 -1.0	6.5 +2.0	6.0	-	74.0 +6.0	+6.0	
Kans.	12.0 1.0	2.0	2.0	5.0 +1.0	3.0	-	1.0 +1.0	3.0	4.0 +1.0	12.0 -3.4	1.0 -1.0	5.0 -1.0	4.0	-	-	50.0 -2.4	-2.4	
Minn.	7.8 2.0	2.3	2.3	9.0 -1.0	11.0	-	4.0 +1.0	-	-	-	-	6.0	3.0	-	-	47.0	-	
Mo.	10.0 0.5	0.5	0.5	5.0	6.0	-	3.0 +2.0	-	5.0	4.0	-	5.0 -1.0	10.0 +1.0	1.0 +1.0	-	42.0 +2.0	+2.0	
Nebr.	4.0 -0.5	-	-	2.0	-	-	3.0 -3.0	-	5.0 +2.0	5.0	-	1.0 +1.0	-	-0.5	-0.5	20.0 -1.0	-1.0	
N.D.	13.0 +6.5	1	1	1	1	-	1.0	-	1.0 -1.0	6.0 -1.0	-	-	-0.5	-1.0	-	20.0 +3.0	+3.0	
S.D.	2.0	0.5 +0.5	0.5 +0.5	2.0	1.0 -1.0	-	-	-	2.0	4.0	-	1.0	2.0 +2.0	-	-	15.0 +2.0	+2.0	
South Atlantic																		
Del.	3.9 0.1	0.1 -0.1	0.1 -0.1	4.0 +1.0	0.9 -0.7	0.8 +0.4	0.3 -0.5	6.0	2.6 -0.1	2.2 -0.3	-	-0.1	0.8 +0.3	0.4 -0.1	-	22.1	-0.2	
D.C.	5.0 -2.0	3.0 +1.0	1.0	-	6.0 -1.0	5.0	4.0 -2.0	6.0 -5.0	2.0 -2.0	2.0	-	7.0 +2.0	2.0 -1.0	-	-	46.0 -10.0	-	
Fla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ge.	25.5 -1.5	1.5	2.25 -1.26	5.25 -2.25	15.25 -0.75	2.25 -0.25	8.0 +4.0	-	-	0.5 +0.5	8.5 -0.5	-	4.0	-	-	71.0 -2.0	-2.0	
Md.	40.0 -4.0	1.0	1.0 -1.0	5.0 +1.0	28.0 +6.0	8.0 -2.0	20.0	14.0	21.0 +1.0	40.0 -2.0	7.0 +1.0	10.0 +2.0	2.0 +1.0	-	-	188.0 -2.0	-2.0	
N.C.	10.0 1.0	1.0	1.0	5.0	13.0	2.5	10.5 +2.0	21.0	7.0	12.5 +4.5	4.5 +1.0	7.0 +2.0	-	-	-	96.0 +2.0	+2.0	
S.C.	18.1 +1.1	4.0 +1.0	2.0 -2.0	3.6 -0.3	15.3 +1.2	10.2 +1.2	9.3 +1.0	-	6.8 +1.2	6.7 -1.9	-	8.1 +2.1	2.0 +2.0	0.2	-	84.3 +3.5	+3.5	
Va.	9.0 1	1	1	2.0	-10	2.0	-	5.0 +1.0	4.0	3.0 -1.0	-	-	-	4.0	1.0	-	30.0 -1.0	-1.0
W. Va.	-	-	-	-	-	-	-	5.0	-	-	-	-	-	-	-	-	-	
East South Central																		
Ala.	50.0 3.0	100	3.0	14.0 -1.0	3.0	5.0 +2.0	3.0	16.0 +1.0	-	3.0 -1.0	1.0 +1.0	2.0 +0.5	11.0 -2.0	-	-0.5	121.0 +2.0	+2.0	
Ky.	6.0 1.0	1.0	2.0	12.0 +1.0	3.0	7.0 +4.0	1.0 +1.0	5.0 -1.0	8.0	3.0 -1.0	6.0 +1.0	3.0	-	-	-	68.0 +5.0	+5.0	
Miss.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77.0 -5.0	-5.0	
Tenn.	38.0 -1.0	1.0	2.0 +1.0	6.0 -4.0	12.0 +3.0	2.0 +1.0	-	-	10.0 -1.0	-	-	7.0 +7.0	10 -11.0	-	-	-	-	
West South Central																		
Ark.	10.0 2.0	1.0	5.5 -0.5	IV	7.0	VI	-	6.0	-	-	-	-	2.5 +0.5	3.0	-	38.0	-	
La.	10.0 +1.0	1.0	1.0	1.0	12.0 +1.0	-	3.0 +2.0	-	14.0 +3.0	16.0 +5.0	-	-	-	-	-	68.0 +12.0	+12.0	
Oklahoma	9.4 +0.7	0.5	1.0 +0.2	3.0 +0.4	9.2 +0.3	0.8 +0.1	2.9 +0.8	-	6.5 +0.4	0.9 -0.2	-	2.5 +0.2	-	0.3 -0.5	-0.5	37.0 +4.0	+2.5	
Tex.	25.0 -14.0	1.0 +1.0	7.0	9.0 -3.0	13.0 +1.0	2.0 +2.0	20.0 +6.0	-	6.0	37.0 +1.0	2.0 +2.0	9.0 -1.0	7.0 -4.0	-	-	138.0 -4.0	-4.0	
Mountain																		
Ariz.	4.0 3.0	3.0	3.0	2.0	4.0	-	-	-	5.0	11.0 +3.0	1.0 -1.0	-	4.0	5.0	-	42.0 +2.0	+2.0	
Colo.	5.0 -2.0	0.5	1.0	1.5	4.0 +1.0	6.0	-	-	4.0	23.0 +10.0	1.0 -1.0	4.0 +2.0	1.0 -1.0	-	-	50.0 +14.0	+14.0	
Ida.	9.0 -1.0	1	1	3.0	1.0	1.5 +1.5	-	-	0.5 -1.5	7.0 -0.5	9.5	-	9.5	-	-	41.0 -1.5	-1.5	
Mont.	3.0 0.5	0.5	0.5	2.5	1.0	-	-	-	3.5 +1.0	7.5 -1.9	0.5	-	-0.2	1.0 -2.0	-	20.0 -3.1	-3.1	
Nev.	2.5 1	1	0.3	1.3	1.0	1.0	-	1.0	0.8	5.3	-	1.0	2.0	-	-	16.0	-	
N.M.	6.9 2.1 +2.1	-	-	3.0	4.6	V	-	0.9	1.0	5.5 -0.1	11.5 +1.5	X	7.0 +2.0	1.0 -1.0	-	43.5 +4.5	+4.5	
Utah	4.0 1.0	1.0	1.0	3.0	-	3.0 +3.0	-	2.0	15.0 +4.0	1.0	6.0 -3.0	6.0 +2.5	-	-1.0	-	45.0 +5.5	+5.5	
Wyo.	4.5 -	-	-	1.0	-	-	-	0.5	-	-	3.0	1.0	-	-	-	100	-	
Pacific																		
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cal.	15.5 8.5 +2.5	3.0	34.0 +9.0	18.0 +4.5	-	20.0 +6.0	-	5.0	69.5 +4.0	52.0	1.0	28.0 +2.0	-	4.0 +2.0	-	259.4 +29.9	+29.9	
Hawaii	13.5 +1.5	0.5	1.0	2.0	3.0	-	0.5	-	4.0 -1.5	11.6	-	1.5	-	-	-	37.5 -	-	
Ore.	6.8 +0.8	1.0	1.0	4.0 -1.0	14.0 +4.0	-	7.0 +0.2	-	3.0 -1.0	-	-	4.0	-	-	-	40.8 +3.0	+3.0	
Wash.	8.0 1.0	1.0	1.0	2.0	1.0	-	3.0	-	2.0	10.0	-	-	-	7.0	-	35.0 -	-	
Territories																		
Guam	4.0 +1.0	-	1.0	-	-1.0	1.0	2.0 +1.0	1.0	-	-	-	-	-	-	-	9.0 +1.0	+1.0	
P.R.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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	
Total	115,632,338	72,008,384	12,160,821	72.8	12,812,035	11.1	6,175,232	5.3	9,426,519	8.2	3,049,347	2.6
Average	2,312,647	1,440,168	243,216	—	256,241	—	123,505	—	188,530	—	60,987	—
New England	12,191,173	7,728,052	1,115,829	72.5	1,235,144	10.1	626,476	5.2	1,325,306	10.9	160,366	1.3
Conn.	3,824,259	2,594,649	615,451	83.9	367,084	9.6	135,820	3.6	103,234	2.7	8,021	0.2
Mass.	4,069,498	2,613,616	71,292	63.5	437,863	10.8	14,739	0.4	1,005,435	24.7	26,553	0.6
Me.	1,139,386	562,099	72,405	55.7	112,345	9.9	241,733	21.2	86,402	7.6	64,402	5.6
N.H.	365,979	221,003	32,910	69.4	57,586	15.7	180	0.1	53,950	14.7	350	0.1
R.I.	2,307,674	1,467,252	293,450	76.3	197,956	8.6	220,515	9.6	67,461	2.9	61,040	2.6
Vt.	484,377	369,433	30,321	82.5	62,310	12.9	13,489	2.8	8,824(A)	1.8	(A)	—
Middle Atlantic	7,287,067	4,265,873	1,144,084	74.1	600,244	8.2	188,084	2.6	494,069	6.8	604,713	8.3
N.J.	4,672,067	2,905,873	562,084	74.2	435,244	9.3	139,084	3.0	35,069	0.8	594,713(B)	12.7
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	2,625,000	1,360,000	582,000	73.9	165,000	6.3	49,000	1.9	459,000	17.5	10,000	0.4
East North Central	22,456,804	14,033,301	2,582,032	74.0	2,135,160	9.5	1,079,978	4.8	2,430,968	10.8	195,365	0.9
Ill.	2,965,835	1,986,274	279,042	75.4	326,201	11.0	237,544	8.0	146,487	4.9	20,287	0.7
Ind.	2,122,173	1,390,588	236,400	76.7	—	—	—	—	490,987	23.1	4,198	0.2
Mich.	9,927,490	6,202,881	1,445,182	77.0	638,731	6.4	251,526	2.6	1,324,268	13.3	64,902	0.7
Ohio	4,047,772	2,194,803	482,857	66.1	602,040	14.9	384,751	9.5	305,779	7.6	77,542	1.9
Wisc.	3,393,534	2,288,755	138,551	71.5	568,188	16.7	206,157	6.2	163,447	4.8	28,436	0.8
West North Central ...	9,471,904	5,492,260	839,502	66.8	1,497,844	15.8	623,065	6.6	783,177	8.4	226,056	2.4
Ia.	2,943,618	1,608,816	239,598	62.8	507,079	17.2	264,384	9.0	270,142	9.2	53,599	1.8
Kans.	1,561,380	969,809	152,391	71.8	138,623	8.9	10,718	0.7	271,544	17.4	18,295	1.2
Minn.	1,724,345	1,147,531	217,455	79.2	259,198	15.0	17,219	1.0	64,761	3.7	18,181	1.1
Mo.	1,571,083	864,267	107,312	61.8	321,983	20.5	150,171	9.6	85,656	5.5	41,694	2.6
Nebr.	533,622	282,492	33,799	59.3	88,339	16.6	53,890	10.1	61,577	11.5	13,525	2.5
N.D.	609,162	358,401	50,696	67.2	95,843	15.7	87,733	14.4	6,239	1.0	10,250	1.7
S.D.	528,694	260,944	38,251	56.6	86,779	16.4	38,950	7.4	33,258	6.3	70,512	13.3
South Atlantic	18,612,465	12,668,652	1,565,927	76.5	2,652,573	14.2	589,830	3.2	856,125	4.6	279,358	1.5
Del.	549,696	395,569	87,025	87.8	41,270	7.5	5,426	1.0	12,301	2.2	8,105	1.5
D.C.	1,044,700	800,700	78,000	84.1	120,400	11.5	45,600	4.4	—	—	—	—
Fla.	4,569,125	2,766,744	452,647	70.4	566,770	12.4	304,672	6.7	397,084	8.7	81,208	1.8
Ge.	2,705,192	1,744,885	396,077	79.1	364,065	13.5	72,945	2.7	34,860	1.3	92,360	3.4
Md.	4,384,323	3,369,595	—	76.9	723,510	16.5	31,105	0.7	254,670	5.8	5,443	0.1
N.C.	2,739,532	1,803,802	311,130	77.2	399,983	14.6	86,617	3.2	85,075	3.1	52,925	1.9
S.C.	1,825,112	1,228,969	193,947	78.0	327,072	17.9	6,663	0.4	39,509	2.1	28,952	1.6
Va.	—	—	—	—	—	—	—	—	—	—	—	—
W. Va.	794,785	558,388	47,101	76.2	109,503	13.8	36,802	4.6	32,626	4.1	10,365	1.3
East South Central	8,693,634	5,674,314	735,800	73.7	1,206,924	13.9	316,051	3.6	535,947	6.2	224,598	2.6
Ala.	3,456,353	2,482,587	224,009	78.3	589,634	17.1	83,323	2.4	64,800	1.9	12,000	0.3
Ky.	2,066,731	1,048,640	164,894	58.7	272,297	13.2	170,794	8.3	254,865	12.3	155,241	7.5
Miss.	902,897	557,940	99,753	72.8	156,957	17.4	4,694	0.5	79,477	8.8	4,076	0.5
Tenn.	2,267,653	1,585,147	247,144	80.8	188,036	8.3	57,240	2.5	136,805	6.0	53,281	2.4
West South Central ...	9,252,973	5,263,234	977,268	67.4	951,692	10.3	720,313	7.8	1,292,037	14.0	48,429	0.5
Ark.	1,085,231	598,187	118,518	66.0	123,626	11.4	7,891	0.7	236,159	21.8	850	0.1
La.	2,273,135	1,615,720	164,140	78.3	180,705	7.9	144,268	6.3	155,378	6.8	12,924	0.7
Okla.	964,107	646,827	143,110	81.9	105,361	10.9	21,654	2.3	32,500	3.4	14,665	1.5
Tex.	4,930,500	2,402,500	551,500	59.9	542,000	11.0	546,500	11.1	868,000	17.6	20,000	0.4
Mountain	9,306,448	5,925,566	857,079	72.9	1,043,701	11.2	622,658	6.7	730,235	7.8	127,209	1.4
Ariz.	1,499,592	905,343	180,432	72.4	142,198	9.5	49,161	3.3	196,644	13.1	25,814	1.7
Colo.	1,537,209	1,165,498	152,809	85.8	196,852	12.8	10,150	0.6	—	—	11,900	0.8
Ida.	1,351,495	965,199	—	71.4	314,813	23.3	71,483	5.3	—	—	—	—
Mont.	514,230	342,482	55,783	77.4	49,174	9.6	22,677	4.4	17,964	3.5	26,150	5.1
Nev.	828,403	473,178	74,755	66.1	52,841	6.4	168,026	20.3	43,080	5.2	16,523	2.0
N.M.	1,684,177	938,506	135,009	63.7	144,162	8.6	87,434	5.2	353,174	21.0	25,892	1.5
Utah.	1,619,369	952,229	230,962	73.1	124,707	7.7	198,346	12.3	102,663	6.3	10,462	0.6
Wyo.	271,973	183,131	27,329	77.4	18,954	7.0	15,381	5.7	16,710	6.1	10,468	3.8
Pacific	17,253,870	10,115,084	2,288,647	71.9	1,376,886	8.0	1,349,477	7.8	957,799	5.5	1,165,977	6.8
Alaska.	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	12,884,665	7,271,876	1,765,946	70.1	1,089,553	8.5	1,211,247	9.4	440,380	3.4	1,105,663	8.6
Hawaii.	987,941	700,155	142,031	85.2	67,617	6.8	67,443	6.8	8,595	1.0	2,100	0.2
Ore.	1,531,804	814,017	154,734	63.2	139,716	9.1	70,237	4.7	343,470	22.4	9,630	0.6
Wash.	1,849,460	1,329,036	225,936	84.0	80,000	4.3	550	0.1	165,354	9.0	48,584	2.6
Territories	1,096,000	842,048	54,653	81.8	111,867	10.2	59,300	5.4	10,856	1.0	17,276	1.6
Guam.	187,545	147,212	17,420	87.8	18,538	9.9	3,900	2.0	475	0.3	—	—
P.R.	908,455	694,836	37,233	80.6	93,329	10.3	55,400	6.1	10,381	1.1	17,276	1.9
V.I.	—	—	—	—	—	—	—	—	—	—	—	—

(A) "Other" included with "General Operating Expenditures" (B) Includes Indirect Cost

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	114,723,883	81,100,176	70.7	25,569,648	22.3	6,266,550	5.5	1,787,509	1.5
Average	2,341,304	1,655,106	—	521,830	—	127,889	—	36,480	—
New England	12,191,173	9,825,976	80.6	1,604,071	13.2	725,867	5.9	35,259	0.3
Conn.	3,824,259	3,605,879	94.3	218,380	5.7	—	—	—	—
Mass.	4,069,498	3,645,705	89.6	423,793	10.4	—	—	—	—
Me.	1,139,386	227,086	19.9	151,174	13.3	725,867	63.7	35,259	3.1
N.H.	365,979	270,179	73.8	95,800	26.2	—	—	—	—
R.I.	2,307,674	1,781,359	77.2	526,315	22.8	—	—	—	—
Vt.	484,377	295,768	61.1	188,609	38.9	—	—	—	—
Middle Atlantic	7,297,067	5,815,722	79.7	1,095,521	15.0	385,824	5.3	—	—
N.J.	4,672,067	3,615,722	77.4	670,521	14.3	385,824	8.3	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	2,625,000	2,200,000	83.8	425,000	16.2	—	—	—	—
East North Central	22,456,804	13,208,241	58.8	6,292,698	28.0	2,248,998	10.0	706,867	3.2
Ill.	2,965,835	374,622	12.6	2,591,213	87.4	—	—	—	—
Ind.	2,122,173	1,861,547	87.7	260,626	12.3	—	—	—	—
Mich.	9,927,490	8,504,444	85.7	1,275,335	12.8	—	—	147,711	1.5
Ohio	4,047,772	670,644	16.6	1,996,588	49.3	821,384	20.3	559,156	13.8
Wisc.	3,393,534	1,795,984	52.9	168,936	5.0	1,427,614	42.1	—	—
West North Central	9,471,904	5,121,847	54.1	2,887,553	30.5	596,677	6.3	865,827	9.1
Ia.	2,943,618	1,471,351	50.0	144,594	4.9	520,000	17.7	807,673	27.4
Kans.	1,561,380	1,285,104	82.3	276,276	17.7	—	—	—	—
Minn.	1,724,345	1,251,531	72.6	472,814	27.4	—	—	—	—
Mo.	1,571,083	383,588	24.4	1,129,341	71.9	—	—	58,154	3.7
Nebr.	533,622	195,290	36.6	307,271	57.6	31,061	5.8	—	—
N.D.	609,162	258,068	42.4	346,970	57.0	4,124	0.6	—	—
S.D.	528,694	276,915	52.4	210,287	39.8	41,492	7.8	—	—
South Atlantic	18,612,465	14,058,871	75.5	3,728,181	20.0	645,857	3.5	179,556	1.0
Del.	549,696	348,398	63.4	201,298	36.6	—	—	—	—
D.C.	1,044,700	827,800	79.2	216,900	20.8	—	—	—	—
Fla.	4,569,125	2,949,795	64.6	1,428,924	31.3	10,850	0.2	179,556	3.9
Ga.	2,705,192	2,361,517	87.3	343,675	12.7	—	—	—	—
Md.	4,384,323	4,066,872	92.8	317,451	7.2	—	—	—	—
N.C.	2,739,532	1,854,371	67.7	600,433	21.9	284,728	10.4	—	—
S.C.	1,825,112	1,263,751	69.2	211,082	11.6	350,279	19.2	—	—
Va.	—	—	—	—	—	—	—	—	—
W. Va.	794,785	386,367	48.6	408,418	51.4	—	—	—	—
East South Central	8,693,634	6,191,314	71.2	2,053,916	23.6	448,404	5.2	—	—
Ala.	3,456,353	2,412,103	69.8	1,044,250	30.2	—	—	—	—
Ky.	2,066,731	1,438,200	69.6	430,582	20.8	197,949	9.6	—	—
Miss.	902,897	223,078	24.7	516,777	57.2	163,042	18.1	—	—
Tenn.	2,267,653	2,117,933	93.4	62,307	2.8	87,413	3.8	—	—
West South Central	9,252,973	7,323,563	79.1	1,913,982	20.7	15,428	0.2	—	—
Ark.	1,085,231	706,145	65.1	363,658	33.5	15,428	1.4	—	—
La.	2,273,135	2,146,459	94.4	126,676	5.6	—	—	—	—
Okl.	964,107	679,959	70.5	284,148	29.5	—	—	—	—
Tex.	4,930,500	3,791,000	76.9	1,139,500	23.1	—	—	—	—
Mountain	9,306,448	5,854,343	62.9	3,127,270	33.6	324,835	3.5	—	—
Ariz.	1,499,592	739,049	49.3	760,543	50.7	—	—	—	—
Colo.	1,537,209	778,196	50.6	700,013	45.6	59,000	3.8	—	—
Ida.	1,351,495	819,692	60.7	374,803	27.7	157,000	11.6	—	—
Mont.	514,230	175,143	34.0	266,680	51.9	72,407	14.1	—	—
Nev.	828,403	630,523	76.1	193,880	23.4	4,000	0.5	—	—
N.M.	1,684,177	1,375,577	81.7	308,600	18.3	—	—	—	—
Utah	1,619,369	1,177,313	72.7	409,628	25.3	32,428	2.0	—	—
Wyo.	271,973	158,850	58.4	113,123	41.6	—	—	—	—
Pacific	17,253,870	13,555,773	78.6	2,823,437	16.3	874,660	5.1	—	—
Alaska	—	—	—	—	—	—	—	—	—
Cal.	12,884,665	10,428,981	80.9	1,967,899	15.3	487,785	3.8	—	—
Hawaii	987,941	766,556	77.6	221,385	22.4	—	—	—	—
Ore.	1,531,804	904,929	59.1	371,225	24.2	255,650	16.7	—	—
Wash.	1,849,460	1,455,307	78.7	262,928	14.2	131,225	7.1	—	—
Territories	187,545	144,526	77.1	43,019	22.9	—	—	—	—
Guam	187,545	144,526	77.1	43,019	22.9	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—

Table 3-3
SUMMARY OF TOTAL LABORATORY EXPENDITURE BY WORKLOAD CATEGORY AND PERCENTAGE OF CATEGORY TO TOTAL EXPENDITURE

Lab & Region	Total Lab Expenditure	I Diagnostic Bacteriology		II Mycology		III Parasitology		IV Virology		V Immunology		VI Hematology		VII Clinical Chemistry		VIII Pathology		IX Environmental Microbiology		X Environmental Chemistry		XI Occupational Health/Safety		XII Toxicology		XIII Lab Improvement Program		XIV Biol., Reagent Media Prod.		XV Research & Development		XVI Administrative Support & Other					
		\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%						
New England																																					
Conn.	3,824,259	380,000	9.9	17,000	0.5	69,000	1.8	69,000	1.8	265,000	6.9	47,000	1.2	265,000	6.9	16,000	0.4	132,000	3.5	578,000	15.1	33,000	0.9	486,000	12.7	224,000	5.9	85,000	2.2	—	—	1,158,259	30.3				
Mass.	4,069,498	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Me.	1,139,386	268,864	23.6	4,436	0.4	2,115	0.2	37,176	3.3	121,482	10.7	—	—	53,918	4.7	—	—	78,076	6.8	204,131	17.9	226,910	19.9	—	—	30,569	2.7	—	—	33,918	3.0	77,791	6.8				
N.H.	365,979	242,995#	66.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99,696	27.2					
R.I.	2,307,674	271,473#	11.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	273,305	11.9	487,267	21.1	50,915	2.2	430,500	18.7	41,693	1.8	—	—	—	—	441,810	19.1		
Vt.	484,377	71,900	14.8	9,300	1.9	16,600	3.4	38,000	7.9	50,200	10.4	—	—	—	—	—	—	—	40,100	8.3	56,400	11.6	—	—	46,600	9.6	1,777	0.4	37,000	7.6	—	—	116,500	24.1			
Middle Atlantic																																					
N.J.	4,672,067	746,232	16.0	—	—	—	—	—	—	543,441	11.6	—	—	239,872	5.1	1,128,412	24.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12,420	0.3	1,471,583	31.5		
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Pa.	2,625,000	505,200#	19.3	—	—	—	—	—	—	399,950#	15.2	IV	—	365,200#	13.9	VI	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	739,550	28.2				
East North Central																																					
Ill.	2,965,835	460,000	15.5	29,000	1.0	31,000	1.0	269,000	9.1	200,000	6.7	—	—	—	—	—	—	245,000	8.3	260,000	8.8	—	—	406,000	13.7	420,000	14.2	200,335	6.7	—	—	445,500	15.0				
Ind.	2,122,173	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Mich.	9,927,490	2,684,391#	27.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,389,400	24.1					
Ohio	4,047,772	1,254,896#	31.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,115,278	11.2					
Wis.	3,393,534	302,029	8.9	62,741	1.8	—	—	365,063	10.8	325,332	9.6	—	—	436,708	12.9	407,980	12.0	166,756	4.9	IX	—	IX	—	—	—	—	156,264	4.6	—	—	101,211	3.0	—	—	1,069,450	31.5	
West North Central																																					
Ia.	2,943,618	188,387	6.4	46,240	1.6	15,962	0.5	174,750	5.9	119,917	4.1	—	—	12,036	0.4	—	—	82,586	2.8	843,171	28.6	178,793	6.1	14,658	0.5	210,190	7.1	125,215	4.3	—	—	931,713	31.7				
Kans.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Minn.	1,724,345	303,048	17.7	41,968	2.4	45,205	2.6	337,668	19.6	450,617	26.1	—	—	84,936	4.9	86,308	5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110,315	6.4			
Mo.	1,571,083	409,110	26.0	24,352	1.6	19,481	1.2	265,827	16.9	235,662	15.0	16,968	1.1	41,948	2.7	—	—	188,530	12.0	144,540	9.2	4,713#	0.3	XI	—	219,952#	14.0	XII	—	—	—	—	—				
Nebr.	533,622	131,440	24.6	—	—	—	—	—	—	49,723	9.3	—	—	13,766	2.6	—	—	110,536	20.7	106,504	20.0	—	—	—	—	121,653	22.8	—	—	17,056	2.8	20,102	3.3	—	—	139,498	22.9
N.D.	609,162	157,773#	25.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51,778	8.5	—	—	—	—	—	—	—	—	—	—	86,987	16.5	XVI	—	187,542#	35.4		
S.C.	528,694	129,316#	24.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
South Atlantic																																					
Del.	549,696	56,666	10.3	944	0.2	998	0.2																														

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	Costs
Ala.....	Federal Medicaid — Sickle Cell (Electrophoretic separation of filter paper blood specimens for the detection of abnormal hemoglobins)	Micro. IV Micro. III Micro. II Micro. I Lab. Tech. II Clerk Typist II	.15 .25 .35 .55 .35 .95	Pers. 33,062 Supp. 1,703 Equip. 2,658 Other 929 Total 38,352
	Medicaid — Intestinal Parasites (Microscopic examinations of formalized specimens for the detection of Helminth and protozoa)	Micro. III Micro. I Lab. Tech. II Clerk Steno III Clerk Typist II	.30 .20 .40 .15 .10	Pers. 16,041 Supp. 1,198 Equip. 1,312 Other 642 Total 19,193
	Medicaid — Pinworm (Microscopic examination of taped slide preparation for the detection of pin-worms.)	Micro. II Lab. Tech. II Clerk Typist II Lab. Tech. I	.12 .25 .10 .05	Pers. 6,784 Supp. 481 Equip. 583 Other 516 Total 8,364
	Medicaid — Lead (Epp. & Blood lead determination Pelvex Cup)	Micro. IV Micro. III Micro. I Clerk Typist II	.10 .20 .60 .25	Pers. 15,659 Supp. 910 Equip. 36,000 Other 220 Total 52,789
Ariz.....	Federal HIB (Medicare) (Laboratory certification)	Lab. Cons. Surveyor Typist II	1.0 1.0	Pers. 32,071 Supp. 1,949 Equip. 851 Other 13,158 Total 48,029
	EPA (Safe Drinking Water) (Environmental laboratory certification)	Lab. Cons. Surveyor Typist II	1.0 1.0	Pers. 26,972 Supp. 3,441 Other 1,099 Total 31,512
	EPA (Air Pollution) (Laboratory analysis of samples)	Chemist III	1.0	Pers. 23,771 Total 23,771
	EPA (Water Pollution) (Laboratory analysis of samples)	Chemist III	1.0	Pers. 23,346 Total 23,346
	State Arizona Dairy Commission (Laboratory analysis of dairy products)	Chemist II Lab. Tech. II Typist II	2.0 5.0 1.0	Pers. 94,819 Supp. 43,379 Equip. 33,056 Other 4,463 Total 175,717
	Arizona Industrial Commission (Laboratory analysis of industrial hygiene samples)	Chemist III Lab. Tech. I	1.0 1.0	Pers. 28,842 Supp. 526 Other 1,464 Total 30,832
Ark.....	Federal Development Grant (314d) (General Services)	—	23.0	Pers. 268,320 Supp. 29,794 Equip. 504 Other 75,040 Total 373,658
	Safe Drinking Water Act (Bacteriological Analysis)	—	2.0	Pers. 41,111 Supp. 11,599 Other 13,705 Total 66,415

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	Costs
Cal.....	Federal Federal Environmental Protection Agency (Calibration of particulate mass monitors)	Res. Spec. III Res. Spec. I Adm. Asst.	.25 .20 .10	Pers. 17,896 Supp. 2,000 Equip. 1,200 Other 8,859 Total 29,955
	Federal Environmental Protection Agency (Improvement & evaluation of methods for sulfate analysis)	Res. Spec. III Res. Chem. Chem. II Chem. III Std. Asst.	.15 .25 .70 .15 .60	Pers. 48,596 Supp. 2,196 Other 18,532 Total 69,324
	Federal Environmental Protection Agency (Improve design and validate sampler for inhaled particles)	Res. Spec. III Res. Spec. I Chem. II	0.5 0.5 0.15 1.0	Pers. 42,479 Supp. 4,000 Equip. 4,776 Other 38,526 Total 89,781
	BMSRG (Identify carcinogens by cell transformation tech.)	Chem. II	1.0	Pers. 23,724 Other 800 Total 24,524
	Federal Environmental Protection Agency (Conference on methods in air pollution studies)	Off. Asst.	0.5	Pers. 6,000 Other 11,200 Total 17,200
	DHEW Extramural Programs, National Institute of Allergy and Infectious Diseases (NIAID) (Studies on the pathogenesis of naegleria infections)	Research Spec. II P.H. Micro. I	1.0 0.6	Pers. 49,059 Supp. 3,879 Other 2,075 Total 55,013
	DHEW Extramural Programs, National Institute of Allergy and Infectious Diseases (NIAID) (Electron microscopic studies of selected viral agents.)	Laboratory Asst.	1.0	Pers. 13,689 Supp. 5,864 Equip. 553 Other 215 Total 20,321
	DHEW Extramural Programs, National Institute of Allergy and Infectious Diseases (NIAID) (Immunology and epidemiology of certain viral diseases)	Research Spec. P.H. Micro. I Lab. Asst./An. Tech. Postdoc. Fellow	1.0 3.8 4.0 1.0	Pers. 190,133 Supp. 17,000 Other 16,210 Total 223,343
	US Army Medical Research and Development Command (Development of psoralen photoactivated alphavirus and arenavirus vaccines.)	Research Spec. II P.H. Micro. I Lab. Asst.	1.0 0.5 0.8	Pers. 58,883 Supp. 5,675 Other 15,443 Total 80,001
	National Institutes of Health Procurement Branch/National Cancer Institute (NCI) (NCI collaborative studies (cancer virus studies))	P.H. Micro. I Animal Tech.	1.6 3.0	Pers. 89,461 Supp. 9,888 Other 26,149 Total 125,498
	National Science Foundation — Division of Cell Biology (Cytogenetic and immunological studies on virus-induced cell transformation in marsupial cell cultures.)	P.H. Micro. I	0.6	Pers. 12,073 Supp. 3,897 Other 4,030 Total 20,000
	Health Effects Research Laboratory — EPA (Studies on viruses in water and reclaimed waste-water.)	P.H. Micro. I Lab. Asst.	2.0 1.0	Pers. 60,720 Supp. 6,000 Other 25,444 Total 92,164

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	Costs	
Cal. (Cont.)	Environmental Protection Agency — 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. Services are part of the support for Sanitary Engineering Section.)	Res. Spec. IV P.H. Micro. II	1.0 1.0	Pers. Supp. Equip. Other	73,560 5,000 25,000 27,227
				Total	130,787
Col.....	State (State Department of Highways — Alcohol test laboratory)	—	2.0	Pers. Supp. Equip. Other	53,054 5,692 5,000 7,200
				Total	70,946
Conn.....	Federal Medicare (Laboratory improvement)	Sr. Clerk Supv. Med. Examiner Med. Examiners Asst. Biochemist Asst. Director	1.0 0.8 1.6 1.0 0.3	Pers. Total	76,632 76,632
	314D Block Grant (Toxicology reports)	Clerk-Typist	1.0	Pers	8,204
	(Lab. equip. maintainer)	Asst. Main. Foreman	1.0	Pers.	13,610
	(Parasitology)	Sr. Micro.	1.0	Pers.	16,525
	(Pub. Health Micro.)	Micro.	1.0	Pers.	11,040
	(Radiological monitoring)	Sr. Env. Chem.	1.0	Pers.	16,525
	(Potable water)	Chemist	1.0	Pers.	10,213
	(Genetic disease screening)	Med. Tech. I	1.0	Pers.	11,765
	(Diagnostic virology)	Micro.	0.8	Pers.	8,654
	Maternal and Child Hygiene (Streptococcus cultures)	Lab. Helper	1.0	Pers.	8,263
	(Genetic disease screening)	Lab. Helper	0.4	Pers.	3,384
	(Lead screening)	Biochem.	1.0	Pers.	12,790
	(PKU)	Med. Tech. I	0.4	Pers.	5,166
	(V.D. Control)	Sr. Micro.	1.0	Pers.	15,609
D.C.	Federal Lead Poisoning Prevention (Chemistry assays on human specimens)	Chemist Technician	2.0 2.0	Pers. Supp.	67,860 5,000
				Total	72,860
	MIC/C + Y (Various clinical tests on various specimens)	Chemist Technician	1.0 5.0	Pers. Total	80,281 80,281

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	Costs		
D.C. (Cont.)	GC Testing Program (Microbiological testing of male/female specimens)	Technician Clerk	2.0 0.5	Pers.	32,810	
				Supp.	32,000	
				Total	64,810	
Ga.	Federal Sexually Transmitted Disease Unit (GC culture program)	Lab. Manager Sr. Lab. Sci. Sr. Lab. Tech. Clerical	1.0 1.0 3.0 2.0	Pers. Supp.	103,635 39,500	
				Total	143,135	
	Division of Mental Health (Urine testing for abuse drugs)	Lab. Manager Lab. Associate Prin. Lab. Tech. Sr. Lab. Tech. Clerical	1.0 1.0 2.0 2.0 1.0	Pers. Supp. Other	125,012 38,000 18,540	
				Total	181,552	
	Adult Health Unit (Hypertension Screening Program)	Lab. Scientist	1.0	Pers. Supp.	14,488 4,500	
				Total	18,988	
Ia.	State Traffic Safety Commission (Analysis — blood/breath for alcohol & drugs (DWI))	Criminalists (Chemists) Secretaries	1.65 0.6	Pers. Supp. Equip.	40,372 18,154 25,785	
				Total	84,311	
	Department of Law Enforcement (Handling reports associated with alcohol testing)	Secretaries	1.5	Total	28,000	
	Law Enforcement Planning Commission (Support of satellite forensic lab services in two branch laboratories)	Criminalists	0.5	Pers. Supp. Equip.	7,886 8,500 1,134	
				Total	17,520	
	Federal Environmental Protection Agency (Establish and maintain certification program for water testing laboratories)	Microbiologist Chemist Secretary	0.25 0.25 0.5	Pers. Supp.	15,377 1,669	
				Total	17,046	
	Environmental Protection Agency (Studies of human effects due to pesticides and related products)	Coordinator Chemist Support Secretary	1.0 5.0 1.0 1.0	Pers. Supp. Equip.	151,897 39,240 290	
				Total	191,427	
	CDC — USPHS — Laboratory Improvement (2 grants) (To provide training, consultation & proficiency testing to physician office & other small laboratories)	Lab surveyor Lab. Tech. Sec. & Support	2.0 1.0 3.0	Pers. Supp.	62,066 42,129	
				Total	104,195	
III.	Federal (Laboratory Training Workshop (CDC))	Micro. III Micro. I	1.0 1.0	Pers. Supp. Equip. Other	29,500 4,500 1,200 7,000	
				Total	42,200	
Ia.	Federal Center for Disease Control (Continuing education contracts (2) to provide a continuing education program via a mobile library and through loaner training packets throughout Iowa)	—	2.3	Pers. Supp. Equip. Other	41,639 5,833 592 26,449	
				Total	74,513	
	(Proficiency testing contracts (2) to continue and expand existing proficiency testing programs)	—	1.0	Pers. Supp. Other	16,851 18,528 9,920	
				Total	45,299	

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	Costs
Ia. (Cont.)	Medicare (Surveys of hospital laboratories to insure compliance w/Medicare standards)	—	1.6	Pers. 45,041 Supp. 170 Other 16,137 Total 61,348
	NIOSH (Analytical services as part of a subcontract for a coal liquefaction study)	—	1.4	Pers. 22,928 Supp. 17,936 Equip. 12,227 Other 8,008 Total 61,099
	FDA (To provide field testing of diagnostic x-ray system for standards compliance)	—	0.2	Pers. 4,591 Supp. 44 Other 3,547 Total 8,182
	EPA (Water Quality/Bladder Cancer Study—Providing field sampling of water supplies and related data)	—	0.8	Pers. 11,187 Supp. 891 Other 4,522 Total 16,600
State	DEQ (Providing laboratory services for water quality surveillance)	—	7.2	Pers. 104,390 Supp. 57,312 Equip. 83,602 Other 43,142 Total 288,446
	DEQ (Providing laboratory services for air quality surveillance)	—	3.0	Pers. 60,634 Supp. 18,496 Equip. 107,835 Other 33,798 Total 220,763
	Rubella Screening (Screening of prenatal sera for rubella-susceptible mothers)	—	1.8	Pers. 27,828 Supp. 8,885 Other 804 Total 37,517
	Gonorrhea Culture Program (Providing culture services to physicians to detect asymptomatic patients)	—	1.0	Pers. 13,279 Supp. 7,705 Other 15,727 Total 36,711
	Industrial Hygiene (Providing laboratory services for Iowa Bureau of Labor)	—	3.5	Pers. 68,718 Supp. 9,298 Equip. 5,089 Other 18,684 Total 101,789
Kans.	Federal			
	Venereal Disease Control Project (Gonorrhea culture screening of OB/GYN patients in private & public clinics for gonorrhea detection & control)	Micro. I Lab. Tech. Clerical	1.0 0.5 0.2	Supp. 7,000 Total 7,000
	Water Pollution Control Project (EPA laboratory support for National Pollution Discharge Elimination System (PL 92-500))	Chem. II Chem. I Micro. I Lab. Tech.	.5 1.0 1.0 1.0	Pers. 43,053 Supp. 38,112 Total 81,165
	Water Supply Program (EPA laboratory support for Safe Drinking Water Act (PL 93-523) requirements in form of equipment grant from Federal funds)	Chem. III Chem. II Micro. I Rad. Chem. Lab. Tech.	1.0 1.5 1.0 1.0 1.0	Pers. 34,883 Supp. 73,320 Total 108,203

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	Costs
Kans. (Cont.)	Air Quality Program — EPA laboratory (Support for sulfur dioxide and suspended particulate monitoring including suspended particulate analysis from 56 air monitoring sites in State and continuous monitoring calibrations support for 5 sites in state.) Occupational Health Consultation (Provide analytical support for onsite consultation services at employers worksite in accordance with the requirements of 29 CFR 1908.) 314d Funds — Public Health (Laboratory Support) Title 18 Medicare Funds (Surveys of hospital laboratories to insure compliance with Medicare standards.) Private Harvard Air/Lung Study (Laboratory analytical services related to ambient air monitoring)	Chem. II Clerical Chem. II Chem. I Micro. III Micro. II Micro. I Chem. III Chem. II Chem. I Lab. Tech. Lab. Cert. Supervisor Micro.	0.75 0.1 .35 1.0 1.0 3.0 3.0 1.0 1.0 2.0 1.0 0.50 0.25	Pers. Total 17,556 17,556 Pers. Supp. Total 18,370 1,000 19,370 Pers. Total 168,210 168,210 Pers. Total 13,225 13,225 Other Total 7,000 7,000
Ky.	Federal Division for Maternal and Child Health (PKU, Rh, Galactosemia and T4 testing.) T&A funds from Department of Natural Resources & Environmental Protection (Bacterial and chemical testing of private and public water) T&A funds from Department of Labor (Analysis of occupational samples) Proficiency Testing (Proficiency testing for approximately 210 laboratories.) Laboratory Training (Training workshops for several clinical labs throughout the State.)	Microbiologist Microbiologist Chemist Surveyor Chemist Lab. Aide Lab. Aide Clerk Microbiologist Microbiologist Consultant Microbiologist Consultant	7.0 3.0 3.0 1.0 2.5 0.5 1.0 1.0 1.0 1.0 0.5 1.0 0.5	Pers. Supp. Equip. Other Pers. Supp. Total 71,480 18,578 67,333 3,950 161,341 Pers. Supp. Total 61,475 61,474 122,949 Pers. Supp. Total 37,500 37,500 75,000 Pers. Supp. Equip. Other Pers. Supp. Equip. Other Pers. Supp. Other Pers. Supp. Other Pers. Supp. Total 37,166 11,140 1,420 523 50,249 Pers. Supp. Other Pers. Supp. Other Pers. Supp. Other Pers. Supp. Total 10,976 2,130 812 13,918
Me.	Federal/State Medicare/Medicaid (Laboratory surveillance for hospital licensure and services) State Racing Comm. (Urine analysis—harness racing)		1.5	Pers. Supp. Total 22,569 850 23,419
Md.	Federal Cervical Cancer Screening Program (Pap Smear screening of women who are ineligible for other public health programs) Air Pollution Act, Air Quality Control Program (Constant monitoring of air throughout the state for pollutants)	Lab. Sci. III Lab. Sci. II Typ. Cik. Lab. Sci. Lab. Asst.	1.0 1.0 1.0 1.0 1.0	Pers. Supp. Total 30,532 3,606 34,138 Pers. Supp. Total 21,819 21,819

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	Costs
Md. (Cont.)	Occupational and Safety Health Act, Division of Labor and Industry (Laboratory testing of samples submitted by the MOSHA Program)	Lab. Sci. III Lab. Sci. I Lab. Asst.	2.0 1.0 3.0	Pers. 43,722 Supp. 4,389 Equip. 225 Other 10,476 Total 58,812
	Crippled Childrens Program for laboratory supplies (Testing for inborn errors of metabolism in newborns)	—	—	Supp. 75,852 Total 75,852
	Venereal Disease Control (Testing for GC and Syphilis)	—	—	Supp. 69,560 Total 69,560
	Certification, Training and Field Services (Licensure and inspection of laboratories for Medicare requirements)	Lab. Sci.	2.0	Pers. 36,300 Supp. 7,970 Equip. 2,000 Other 11,000 Total 57,270
Mass.....	Federal Center for Disease Control (Laboratory Training Contract—MHRI#31660—9/22/78-3/21/80)	—	4.0	Pers. 72,700 Supp. 6,800 Other 15,845 Total 95,345
	(Laboratory Training Contract—MHRI#31740—9/26/79-3/26/81)	—	4.0	Pers. 65,520 Supp. 7,470 Other 28,494 Total 101,484
	(Technical Consultation Contract—MHRI#31670—9/25/78-3/24/80)	—	4.0	Pers. 74,417 Supp. 1,500 Other 10,356 Total 86,237
	(Proficiency Testing Contract—MHRI#31690—7/12/79-1/12/81)	—	3.0	Pers. 64,776 Supp. 20,000 Other 26,871 Total 111,647
Mich.	Federal Cancer Contract (Special testing of cancer treatment drugs under development.)	Secret. 07 Micro. VII Lab. Tech. III Lab. Asst. II	0.5 1.0 1.0 0.5	Pers. 51,711 Supp. 3,069 Equip. 683 Total 55,463
	Brucellosis Contract (Development of effective brucellosis vaccine.)	P.H. Lab. Sci. 13 Lab. Asst. II	1.0 1.0	Pers. 44,219 Supp. 6,854 Equip. 2,423 Total 53,496
	Rabies Vaccine Contract (Research towards the improvement of rabies vaccine.)	Lab. Tech. 05	0.2	Pers. 2,283 Supp. 500 Total 2,783
	PBB Contract (Long term health study of persons exposed to PBB.)	Secret. IV B Med. Lab. Tech. 07 Typist II B Chem. 10 Lab. Tech. III Lab. Asst. II Stat. II Stat. 09 Stat. Tech. 07 Calt. Clerk IV B	1.0 3.0 1.0 1.0 2.0 2.0 0.4 1.0 1.0 0.2	Pers. 229,235 Supp. 52,175 Equip. 5,872 Other 14,011 Total 301,293
	314d Funds (General support for provision of vaccines & public health laboratory services.)	various levels & classes	27.5*	Pers. 508,500 Total 508,500

*Based on average Lab. Diag. Program Salaries.

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	Costs		
Mich. (Cont.)	<p>General Disease Contract (Enhanced case finding, education and treatment of V.D.)</p> <p>Pesticides Contract (Analysis of tissues for pesticides for monitoring performance of studies concerning pesticide exposure.)</p> <p>Laboratory Training Contract (Development, administration and evaluation of the effectiveness of a laboratory training program for clinical and public health laboratories.)</p> <p>Local Kent County Agreement (Provides certain local laboratory services for County.)</p> <p>Private Phillips Duphar Influenza Contract (Test the conditions for the preservation of attenuated influenza vaccine by freezedrying.)</p> <p>Red Cross Agreement (Research to develop or improve blood fractions.)</p> <p>Brucellosis Vaccine Contract with Meat Packing Companies (Development of effective brucellosis vaccine.)</p>	Lab. Tech. IV B Micro. VI B Micro. VI B P.H. Adm. 16 Steno. 05 Evn. Sanit. IX P.H. Field Rep. 09 Lab. Tech. III Lab. Sci. IX Lab. Asst. II Lab. Eval. Spec. VI B Typist Clerk II B	1.0 1.0 1.0 0.6 1.0 1.0 1.0 2.0 1.0 0.8 1.0 1.0	Pers. Supp. Equip. Other Pers. Supp. Equip. Other Pers. Supp. Other 1.0 1.0 1.0	64,685 125,744 26,551 2,397 8,989 163,681 28,370 1,876 1,167 31,413	64,685 125,744 26,551 2,397 8,989 163,681 28,370 1,876 1,167 31,413
Minn.	Federal HEW, CDC (Continuing education for laboratory personnel.)	Med. Techno. Med. Techni. Clerk-Typist	1.0 1.0 1.0	Pers. Supp. Equip. Other	18,332 2,220 184 8,111	18,332 2,220 184 8,111
Mo.	Federal FDA (Performance of lab tests on food samples.)	—	1.0	—	—	28,847
	State State Milk Board (Laboratory inspection and approval. Performance of laboratory tests on milk.)	—	0.5	—	—	—
	Dept. of Natural Resources (Public water supply testing bacteriological and chemical. Laboratory inspection.)	—	4.0	—	—	—
	Division of Highway Safety (Breath alcohol maintenance and calibration program.)	—	4.0	—	—	—
Mont.	Federal (CDC Developmental Assistance Contract. Laboratory Training—traveling workshops—continuing education and training for clinical laboratory techs.)	1 Med. Tech. 1 clerical	1.0 1.0	Pers. Supp. Equip. Other	13,385 1,893 4,179 5,211	13,385 1,893 4,179 5,211
	State Montana Air Pollution Study (Chemical laboratory support analysis of field samples for particulates, sulfate, nitrate, metals.)	1 Chemist 1 Lab. Tech.		Pers. Supp. Other	19,750 2,155 4	19,750 2,155 4
				Total	21,909	21,909

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs
Nev.	State Environmental Air and Water (Chemical and bacteriological tests on water and air.)	Chem. M.B. Lab. Asst. Admin. Stock Clerk Clerical	1.5 0.2 1.0 0.1 0.1 0.1	Pers. Supp. 10,610 Total 46,440 57,050
	Federal EPA Safe Drinking Water (Chemical and bacteriological exams of drinking water.)	M.B. Chem. Lab. Asst. Clerical Admin. Stock Clerk	0.4 1.5 2.3 0.2 0.1 0.2	Pers. Supp. Equip. 40,204 40,000 Total 66,270 146,474
	314D (Communicable disease service.)	(undesignated)	—	Other Total 35,198 35,198
N.J.	Federal VD Casefinding	—	—	Pers. Other 82,506 16,842 Total 99,348
	Pesticides Program	—	—	Pers. Supp. Equip. Other 2,328 1,997 845 463 Total 5,633
	CETA Program	—	—	Pers. 9,256 Total 9,256
	Immunization Project	—	—	Pers. Other 5,963 1,184 Total 7,147
	General Health Section 314d	—	—	Pers. Supp. 510,450 9,500 Total 519,950
	Spec. Child & Health Service Program	—	—	Pers. 18,905 Total 18,905
	Maternal & Child Health—Title V	—	—	Pers. 10,282 Total 10,282
	Private (Earned Funds) Rabies	—	—	Pers. Supp. 56,862 2,500 Total 59,362
	Laboratory Revolving Funds	—	—	Pers. Supp. Equip. Other 152,270 10,439 82,509 30,480 Total 275,698
	Drinking Water Certificate	—	—	Pers. Supp. Other 47,374 194 3,196 Total 50,764
	State (Total State Funds)	—	—	Pers. Supp. Equip. Other 2,571,761 410,614 55,730 577,617 Total 3,615,722

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	Costs
N.C.	Federal OSHA Program (Analytical testing support to field engineers investigating OSHA complaints.) VD Control Project (Gonorrhea lab advisor provides training PT to participating local health departments.) CDC Technical Assistance (Field training provided to local hospital labs) Highway Safety Program (Preparation & distribution of ethyl alcohol calibration standard solution for breathalyzers.) Solid Waste Project (Chemical analyses on land fill drainage.) Hazardous Waste Project (Identification of toxic chemical wastes.) EPA (Coliform analyses on public water systems)	Chem. I Lab. Tech. Lab. Imp. Consult. Med. Lab. Tech. II Lab. Imp. Consult. Clerk Typist III An. Chem. II An. Chem. I Chem. An. I Lab. Tech. Lab. Tech. An. Chem. I	1.0 1.0 0.5 1.0 1.0 1.0 0.05 0.05 0.05 0.05 0.05 1.0	Pers. 27.398 Supp. 2.874 Equip. 11.885 Other 1.258 Total 43.415 Pers. 28.167 Total 28.167 Pers. 7.996 Supp. 5.373 Equip. 16.349 Other 2.067 Total 31.785 Supp. 4.046 Total 4.046 Pers. 19.854 Total 19.854 Equip. 19.609 Total 19.609 Pers. 25.219 Supp. 5.344 Equip. 16.168 Other 48.981 Total 95.712
	State Hypothyroid Screening Project (Diagnosis of neonatal hypothyroidism) Perinatal Care Project (Blood typing grouping; antibody screen on pregnant women.) Sickle Cell Screening (Screening and diagnosis of hemoglobinopathies.)	Med. Lab. Tech. II Med. Lab. Tech. II Clerk Typist II Med. Lab. Tech. II P.H. Micro. II P.H. Micro. I Clerk Typist III	1.0 1.0 1.0 1.0 0.8 1.0 1.0	Pers. 6,504 Supp. 12,834 Total 19,338 Supp. 13,992 Total 13,992 Pers. 44,699 Equip. 5,119 Other 970 Total 50,788
N.D.	State N.D. State Dairy Commissioner (Milk testing)	Tech.	0.5	Pers. 4,200 Supp. 300 Total 4,500
N.M.	Federal Highway Traffic Safety (Alcohol) (Provide scientific and technical support to alcohol program of NM Traffic Safety Bureau (funded by National Highway Traffic Admin. grant.))	Chemist I-II Lab. Tech. Clerk IV	.77 .20 .30	Pers. 24,054 Supp. 1,400 Equip. 14,534 Other 16,200 Total 56,188
Ohio	Federal Maternal & Child Health (Newborn screening (Inborn errors Met.) Sickle Cell (Abnormal hemoglobin)	Chem. Sup. 1 Chem. 1 Lab. Tech. 2 Lab. Tech. 1 Typist 2 Micro. 1	1.0 1.0 2.0 2.0 1.0 1.0	Pers. 94,071 Supp. 27,395 Equip. 1,032 Other 493 Total 122,991 Pers. 14,000 Supp. 2,500 Total 16,500

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	Costs
Ohio (Cont.).	Genetics (Hypothyroid screening)	Micro. 1 Chem. 1	0.5 0.5	Pers. 17,603 Supp. 32,013 Equip. 705 Total 50,321
	S.T.D. (VD) Control (V.D. testing)	Micro. 3 Micro. 1 Lab. Tech. 2 Lab. Tech. 1 Lab. Tech. 1	1.0 1.5 1.0 2.0 1.0	Pers. 91,758 Supp. 67,480 Equip. 678 Other 55 Total 159,971
	Public Water Supply (Environmental chemistry)	—	—	Equip. 9,912 Total 9,912
	ORSANCO (Environmental chemistry)	—	—	Other 1,921 Total 1,921
State		—	—	
	Encephalitis (Viral test support)	—	—	Supp. 18,276 Total 18,276
Federal & State		—	—	
	Ohio Env. Prot. Agency (Environmental chemistry and microbiology)	Chem. Sup. 2 Chem. Sup. 1 Chem. 3 Chem. 2 Chem. 1 Lab. Tech. 1 Lab. Asst. Secret. 1 Typist 2 Clerk 1 Micro. Sup. 1 Micro. 2 Lab. Tech. 1	1.0 4.25 1.0 2.5 11.0 3.6 3.0 1.0 3.5 1.0 0.8 2.4 3.0	Pers. 560,000 Supp. 107,459 Equip. 33,020 Other 41,230 Total 182,269
	Industrial Commission (Occupational chemistry)	Chem. Sup. 1 Lab. Asst. Typist 2	.25 .25 .25	Pers. 9,308 Supp. 4,308 Other 2,912 Total 16,528
	Industrial Relations (Occupational chemistry)	Chem. Sup. 1	.25	Pers. 9,308 Supp. 684 Other 18,864 Total 28,856
	Department of Natural Resources (Environmental chemistry)	—	—	Other 157 Total 157
Oklahoma.....	Federal			
	Family Planning—Oklahoma State Department of Health (gonorrhea culture and syphilis serology)	—	—	—
	Corps of Engineers (Water microbiology)	—	—	—
	State and Federal			
	Veneral Disease Program—Oklahoma State Department of Health (Gonorrhea culture)	—	—	—
Ore.	Federal			
	Toxicology	—	4.0	Pers. 17,781 Supp. 5,831 Equip. 2,649 Other 11,993 Total 38,254
	Administration	—	5.5	Pers. 72,570 Supp. 124 Other 27,406 Total 100,100

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	Costs
Ore. (Cont.)	Lab. Inspection	—	3.3	Pers. 42,398 Supp. 350 Equip. 109 Other 13,972 Total 56,829
	Med. Micro.	—	2.0	Pers. 21,224 Supp. 3,472 Other 342 Total 25,038
	Metabolic	—	4.5	Pers. 72,781 Supp. 2,200 Other 7,544 Total 82,525
	Syphilis Serology	—	2.0	Pers. 34,355 Supp. 1,063 Other 289 Total 35,707
	Water	—	1.0 0.5	Pers. 35,366 Supp. 558 Other 3,681 Total 39,605
	State Administration	—	7.5	Pers. 155,571 Supp. 3,102 Equip. 408 Other 61,229 Total 220,310
	Med. Micro.	—	6.75	Pers. 130,477 Supp. 10,812 Equip. 3,572 Other 43,712 Total 188,573
	Metabolic	—	1.0	Pers. 24,795 Supp. 7,346 Equip. 69 Other 8,818 Total 40,928
	Syphilis Serology	—	7.0	Pers. 123,074 Supp. 49,990 Equip. 1,699 Other 44,993 Total 219,756
	Water	—	2.5	Pers. 50,778 Supp. 5,317 Other 22,666 Total 78,751
Private	Virus	—	9.0	Pers. 107,140 Supp. 23,726 Equip. 419 Other 25,216 Total 156,501
	Lab Inspection	—	2.0	Pers. 33,356 Supp. 202 Other 10,168 Total 43,726
	Other States	—	3.5	Pers. 47,085 Supp. 26,474 Equip. 61,312 Other 70,220 Total 205,091
	Metabolic	—		

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	Costs
Pa.	Federal Statewide Virology Proficiency Testing Program (CDC)	Micro. 4 M.R.S. 1 Micro. 3	.10 .20 .20	Pers. 8,086 Supp. 2,945 Equip. 2,500 Other 300 Total 13,831
R.I.	Federal Public Health Service (Block grant for general laboratory services)	Micro. Chemist	6.0 1.0	Pers. 150,475 Supp. 11,000 Equip. (a) Total 161,475
	Environmental Protection Agency (Water supply testing)	Chemist Micro.	7.0 2.0	Pers. 144,026 Supp. 25,815 Equip. (a) Other 164 Total 170,005
	Center for Disease Control (Training contract—micro. training program)	—	—	Supp. 101 Equip. 11,345 Other 1,117 Total 12,563
	Environmental Protection Agency (Hazardous waste testing)	—	—	Supp. 17,896 Equip. (a) Total 17,896
S.C.	Federal (Pesticides Contract—EPA funds for pesticides study. Laboratory analysis of human, animal & environmental samples for pesticides & herbicides are provided under sub-contract with MUSC, which has major contract with EPA to develop data on baseline levels in humans, animals & the environment for these toxic substances)	Chemist IV Chemist III Chemist I Dir., Div. Environ. Health Labs.	1.0 1.0 2.0 0.05	Pers. 56,990 Other 22,353 Total 79,343
	Forestry Contract (Note: Contract began after middle of fiscal year. Laboratory analysis of pine tree samples (needles, etc.) and samples of surrounding environment (water, soil, etc.) for presence of pesticide carbofuran & its degradation products.)	Chemist I	1.0	Pers. 2,173 Supp. 71 Equip. 19,623 Other 2,139 Total 24,006
	Blood Lead Agreement (Laboratory analysis of serum samples from high risk populations.)	Chemist II	0.5	Pers. 8,460 Supp. 4,701 Equip. 170 Other 218 Total 13,549
S.D.	Federal CDC—Consultation Contract	Fac. Spec. II Stat. Clerk	1.0 0.5	Pers. 17,789 Supp. 5,189 Equip. 69 Other 3,731 Total 26,778
	CDC—Training Contract	—	—	Total 60,208
	State Dept. of Water and Natural Resources (Environmental testing)	Chem. III Chem. II Chem. I Micro. II Lab. Tech.	1.2 1.2 0.6 0.6 0.6	Pers. 62,529 Supp. 7,972 Equip. 1,159 Other 3,247 Total 74,907
Tenn.	State Department of Safety (Blood alcohol exams)	—	—	Total 153,679
	U.T. Memphis (Medical ecology and toxicology)	—	—	Total 129,000

(a) included with supplies.

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	Costs
Tenn. (Cont.)	State Autopsy Fee Schedule (Autopsy reimbursement to pathologists.)	—	—	Total 64,000
Tex.	Federal Safe Drinking Water Grant (Chemical and bacteriological analysis of drinking water.)	Chemist Microbiologist Technician Clerical	8.0 1.0 5.0 1.0	Pers. 157,206 Supp. 66,811 Equip. 153,826 Total 377,843
	Cooperative Meat Inspection	Chemist Support	1.0 1.0	Pers. 22,686 Total 22,686
	Health Maintenance (Hypertension screening)	Med. Tech.	1.0	Pers. 16,876 Total 16,876
	State Interagency contract with Water Resources Board	Microbiologist Chemist Technician Clerical Support	2.0 5.0 5.0 1.0 3.0	Pers. 146,037 Total 146,037
	EPSDT	Chemist Med. Tech. Technician Clerical Support	2.0 2.0 5.0 1.0 1.0	Pers. 145,100 Supp. 23,391 Equip. 3,400 Other 1,455 Total 173,346
	(a) Included with Supplies.			
Utah	Federal Technical Consultation II Contract federal funds (Serves laboratory improvement section—laboratory technical consultation.)	Microbiologist 21	1.0	Pers. 12,824 Supp. 2,099 Other 632 Total 15,555
	Laboratory Training Contract federal funds (Serves laboratory improvement program—laboratory training.)	Microbiologist 23 Microbiologist 19 Typist	1.0 1.0 1.0	Pers. 22,847 Supp. 3,735 Equip. 745 Other 882 Total 28,209
	Technical Consultation I Contract federal funds (Serves laboratory improvement section—laboratory technical consultation.)	Microbiologist 21 Microbiologist 19 Typist	1.0 1.0 0.5	Pers. 18,112 Supp. 3,550 Other 641 Total 22,303
Wisc.	State Wisconsin Dept. of Transportation and U.S. Dept. of Transportation (Implementing controlled substances analysis-WI implied consent program.)	—	0.2	Pers. 2,700 Supp. 5,980 Total 8,680
	Wisconsin Dept. of Health and Social Services (Alpha-fetoprotein screening of maternal serum in mid-pregnancy.)	—	2.0	Pers. 35,800 Supp. 12,300 Other 660 Total 48,760
	Wisconsin Dept. of Health and Social Services (Operation of a cytogenetics unit)	—	2.0	Pers. 37,000 Supp. 10,000 Total 47,000
	Wisconsin Division of Highway Safety (CNS depressants on WI Traffic fatalities.)	—	1.0	Pers. 16,325 Supp. 2,669 Other 109 Total 19,103
	Federal DHEW, PHS, Health Research Administration (training grant)	—	1.0	Pers. 14,200 Total 14,200
	DHSS, DHEW, PHS, CDC (Erythrocyte protoporphyrin proficiency testing.)	—	1.0	Pers. 8,880 Supp. 755 Other 1,991 Total 11,626

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	Costs		
Wisc. (Cont.)	DHEW, PHS, CDC (Proficiency testing)	—	2.0	Pers.	29,508	
				Supp.	20,125	
				Other	4,591	
				Total	54,224	
Wyo.....	Federal Gov. Off. H'way Safety (Alcohol analyses, training of law enforcement personnel, court testimony.)	Chem. III Chem. I Sec.	0.5 1.0 0.5	Pers.	37,502	
				Supp.	746	
				Equip.	413	
				Other	6,909	
				Total	45,570	
	Medicare Survey (Laboratory surveys for Medicare compliance.)	Med. Tech. III	0.3	Pers.	5,962	
				Total	5,962	

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	Test Test Test Test Test	72,632	Recycled to support services provided.
Ariz.	—	—	—	124,000	State General Fund
Ark.	Pre-marital blood test certificates	1.00	Specimen	15,731	To pay off bonds on laboratory building.
Colo.	Drugs of Abuse Urine Screening	3.05	Specimen	59,000	Appropriated to the division to operate the program.
Conn.	Environmental Chemistry Strep. Mailers	1.81 1.00	Rel. Value Each maller & Culture	500,000	State General Fund
Idaho	Strep. Office Kits	.35	Each service		
	Purity Tests Most Probable Number Tests Water Pollution Testing—BOD Water Pollution Testing—COD Water Pollution Testing—TOC Water Pollution Testing—Total Aerobic plate count	5.00-7.00 6.50-10.00 14.00 8.50 25.00 4.00	Test Test Test Test Test Test	162,497	\$157,000 allotted to laboratories. Remaining \$5,497 reverted to State General Fund.
	Water Chemistry tests (Includes alkalinity, ammonia, bicarbonate alkalinity, boron, calcium, carbonate alkalinity, chloride, dissolved oxygen, fluoride hardness, hydrogen sulfide, nitrate, odor, ortho phosphate, settleable solids, silica, specific conductance, sulfate, suspended solids, total dissolved solids, total solids, turbidity)	5.50	Test		
	Elemental analyses performed by atomic absorption spectrophotometry (Includes aluminum, barium, cadmium, chromium, copper, iron, magnesium, manganese, molybdenum, nickel, potassium, silver, sodium, vanadium, zinc).	6.50	Test		
	pH color	2.50 2.50	Test Test		
	Complete Inorganic chemical testing for drinking water (Includes arsenic, barium, cadmium, chromium, fluoride lead, mercury, nitrate, selenium, silver)	75.00	Test		
	Individual tests for:				
	Arsenic	12.00	Test		
	Chlorophyll A	6.50	Test		
	Cyanide	15.00	Test		
	Fluoride, vegetation	25.00	Test		
	Kjeldahl Nitrogen	10.00	Test		
	Mercury	12.00	Test		
	Oil and grease	15.00	Test		
	Pesticide Residue Analysis	75.00	Test		
	Phenols	15.00	Test		
	Rad. Health (gross alpha-beta)	9.00	Test		
	Selenium	12.00	Test		
	Sulfur Dioxide (bubbler)	10.00	Test		
	Surfactants (detergents)	15.00	Test		
	Suspended Particulate	5.00	Test		
	Total or Inorganic Phosphorus	8.00	Test		
	Tannin & Lignin	10.00	Test		
	Trihalomethane	50.00	Test		
	Volatile Petroleum Prod.	20.00	Test		
	Mercury—Tissue, Urine, Blood, Foods	15.00	Test		
	Lead—Tissue, Urine, Blood, Foods	12.00	Test		
	Lead—Pottery	8.00	Test		

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Idaho (Cont.)	EPSDT Testing—Urine Culture EPSDT Testing—Urine Screen EPSDT Testing—Hematocrit Miscellaneous Tests Throat Culture Urine drug screen Syphilis Serology Rubella Serology Cytogenetic Analysis Analysis of food sample for Salmonella Analysis of food sample for coliform Microscopy	4.00 1.00 1.00 6.00 7.50 6.00 6.00 125.00 10.00 7.50 25.00	Test Test Test Test Test Test Test Test Test Test Test		
Ind.	Private Water Bact. (or chem) Public Water Bact. Premarital Syphilis Serology	2.50 + postage 10.00 2.50	Test Year Specimen	45,808	Money is forwarded to the State Treasury general fund — except for postage and handling fees (up to \$2.25) for sending out private water bact. sample bottles; these fees remain in a State Board of Health revolving fund.
Ia.	MPN Potable Water Membrane Filter Water Nitrate/Iron—Hardness BOD-Effluent Trade Metals Radiation Pesticides Urine Screen—Abused Drugs Other Water Quality Parameters	3.00 12.00 3.00 8.00 10-14.00 10-40.50 48-104.50 7.50 4-48.00	Sample Sample Sample Sample Test Test Test Specimen Test	450,900	Estimate of receipts is built into general operating budget.
Kans.	Environmental Lab. Cert. Water Microbiology Water Chemistry Partial Analysis Complete Analysis Complete chemical analysis consisting of: calcium, magnesium, sodium, potassium, total hardness, carbonate hardness, non-carbonate hardness, total alkalinity, bicarbonate alkalinity, carbonate, bicarbonate, chloride, sulfate, nitrate, fluoride, pH, turbidity, specific conductance, total dissolved solids, phosphate, silica, Iron, manganese Complete heavy metals consisting of: Iron, manganese, arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, zinc Partial chemical analysis consisting of: calcium, magnesium, sodium, total alkalinity, chloride, sulfate, nitrate, fluoride, iron, manganese, total hardness Total hardness consisting of: calcium, magnesium, chloride, and alkalinity Complete solids consisting of: total solids, total fixed solids, total volatile solids, total suspended solids, fixed suspended solids, volatile suspended solids, total dissolved solids, fixed dissolved solids, volatile dissolved solids	20.00 100.00 3.00 15.00 35.00 35.00 25.00 15.00 6.00 15.00	Parameter Micro Sample Sample Test	245,164	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
Kansas (Cont.)	Suspended solids (fixed and volatile)	5.00	Test		
	Alkalinity	2.00	Test		
	Chloride	2.00	Test		
	Iron	3.00	Test		
	Manganese	2.00	Test		
	Sodium	2.00	Test		
	Sulfate	3.00	Test		
	Phosphate	2.00	Test		
	Nitrate	2.00	Test		
	Fluoride	2.00	Test		
	Detergents	7.50	Test		
	Five-day biochemical oxygen demand	15.00	Test		
	Chemical oxygen demand	7.50	Test		
	Dissolved oxygen	2.00	Test		
	Phenol	15.00	Test		
	Volatile acids	15.00	Test		
	pH	2.00	Test		
	Total organic nitrogen	7.50	Test		
	Ammonia nitrogen	5.00	Test		
	Mercury	10.00	Test		
	Arsenic and selenium	7.50	Test		
	Other heavy metals	5.00	Each		
	Organic chemistry (Screen for toxic levels of pesticides and herbicides)	160.00	Test		
	Coliform determination	3.00	Test		
	Weekly coliform, pH and turbidity tests on swimming pool water:				
	Outdoor pools per season (sampling every week)	50.00	Sample		
	Indoor pools per season (sampling every two weeks)	100.00	Sample		
	Radiation chemistry (screen for gross alpha and gross beta activity)	28.00	Sample		
Me.	Microbiology			725,000	Support personnel provide all supplies and equipment not available from State and/or Federal funding.
	Culture Kits				
	Throat (Strep)	3.00	Sample		
	Enteric Pathogens	6.00	Sample		
	Mycology	10.00	Sample		
	Parasitology, Intestinal	6.00	Sample		
	Pertussis—FA	3.00	Sample		
	Newborn Metabolic Disease Screening	3.00	Sample		
	Blood Serology (Bact., Myco., Parasit., or Viral)	4.00	Sample		
	Torch	12.00	Sample		
	Water				
	Test for safety	7.00	Test		
	New H ₂ O Supply	15.00	Test		
	Complete Testing	25.00	Test		
	Sewage	25.00	Test		
	Purveyors of H ₂ O	30.00	Test		
	Purveyors of H ₂ O/coliform	34.00	Test		
	Dump Leachate	35.00	Test		
	Trihalomethanes	20.00	Test		
	Single Test—Turbidity	4.00	Test		
	Total Coliforms	4.00	Test		
	Fecal Coliforms	4.00	Test		
	Fecal Strep.	4.00	Test		
	Drug ID Toxicology	10.00	Hr.		
	Breath & Blood Alcohol	20.00	Sample		
	Pesticides (EPA min.)	65.00	Set of 6		
	Racing Chemistry	375/wk	50-70		
Mass.	Certificates — Lab. Imp. Biologic Products	5.00 10.00 & up	Lab Kit	21,358	State General Fund
Minn.	Handling Fee	1.50	Specimen	342,414	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
Miss.	Medicare/Medicaid Patients	Medicaid Rate 1.00 3,600.00	Specimen Specimen Yearly Specimen Specimen	264,587	General Laboratory Budget
	Throat culture for Group A Strep				
	TB cultures (Mental Hosp.)				
	Sickle Cell	1.51			
	Parasite	3.00			
Mont.	Water microbiology	4.00	Sample	79,016	Placed in earmarked revenue account
	Chem. analy. of private water supply	15.00	Sample		for laboratory testing of water, credited directly against laboratory expenses, or reverted back to those bureaus which have prepaid laboratory costs.
	Analyses of drinking water samples:				
	Sanitary quality	4.00	Sample		
	Most Probable Number	10.00	Sample		
	Fecal Coliform Analysis	4.00	Sample		
	Standard Chemical Analy.	15.00	Sample		
	Individual Constituents				
	Acidity	15.00	Test		
	Alkalinity & pH	13.00	Test		
	Aluminum	8.00	Test		
	Ammonia	5.00	Test		
	Antimony	4.50	Test		
	Arsenic	15.00	Test		
	Barium	4.50	Test		
	Beryllium	4.50	Test		
	Bioalgal Assay	9.50	Flask		
	BOD	115.00	Test		
	Boron	10.50	Test		
	Cadmium	4.00	Test		
	Calcium	4.00	Test		
	Chloride	2.50	Test		
	Chromium	2.50	Test		
	Chromium Hex	55.00	Test		
	Cobalt	2.00	Test		
	COD	30.00	Test		
	Color (2 tests-pH adjusted)	26.00	Test		
	Copper	2.50	Test		
	Cyanide	135.00	Test		
	Dissolved Oxygen	2.50	Test		
	Fluoride	4.50	Test		
	Hardness	2.00	Test		
	Iron	4.00	Test		
	Lead	2.00	Test		
	Lithium	4.50	Test		
	Manganese	2.50	Test		
	Mercury	7.00	Test		
	Metals Digestion	11.00	Test		
	Metals Extraction	15.50	Test		
	Molybdenum	4.50	Test		
	Nickel	2.50	Test		
	Nitrate	4.00	Test		
	Nitrite	4.00	Test		
	Nitrogen Kjeldahl	9.00	Test		
	Oil and Grease	38.00	Test		
	TOC	47.00	Test		
	Ortho-P	2.00	Test		
	pH	5.00	Test		
	Phenols	64.50	Test		
	Total-P	6.00	Test		
	Potassium	4.00	Test		
	Selenium	13.00	Test		
	Silica	44.00	Test		
	Silver	2.50	Test		
	Sodium	4.00	Test		
	Specific Conductance	2.50	Test		
	Strontium	4.50	Test		
	Sulfate	4.50	Test		
	Sulfide	71.00	Test		
	Tin	4.50	Test		
	TSS	10.50	Test		
	Turbidity	4.00	Test		
	Vanadium	9.00	Test		
	Zinc	2.50	Test		
	Lindane	29.00	Test		
	Endrin	29.00	Test		

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Mont. (Cont.)	Toxaphene Methoxychlor 2, 4-D Silvex All six organics Occupational Health Chem. Metals by AAS As, Hg, Se by AAS Organic Solvents by G.C. Free Silica Coal tar pitch volatiles Gross α or β -H ₂ O Gross α or β -H ₂ O Air Quality Chemistry Fluoride—plates Fluoride—paper Fluoride—vegetation Fluoride—coal Fluoride—soil Sulfur dioxide—bubbler Sulfur dioxide—plates Oxides of Nitrogen (NO _x) Sulfate and Nitrate Particulates Sulfur—coal, soil Metals—coal, soil	29.00 29.00 47.00 47.00 210.00 8.00 10.00 25.00 60.00 40.00 10.00 15.00 1.20 1.20 4.00 4.00 4.00 6.00 5.50 3.60 4.50 1.25 20.00 —	Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test		
Nebr.	Mailing containers Forensic alcohol Water microbiology Water chemistry Water organics	.50 8.00 4.00 5.00 10.00	Test Test Test Test Specimen	128,000	Laboratory cash fund and is used in the laboratory operating budget.
Nev.	Water Bacteriology Complete Water Chemistry Lab Licenser Personnel Certification Certification Renewal	5.00 110.00 10.00 10.00 1.00	Test Specimen Each Each —	9,000	It is added to the operating account.
N.J.	VORL Rubella Potable Water/Bact. Lead Poisoning	2.00 3.00 6.00 6.00	Specimen Specimen Sample Specimen	156,789	Divisional revolving fund.
N.M.	Analyses of all types provided for clients outside Health and Environment Dept (HED) and for federally assisted programs such as Safe Drinking Water Act.	Variable	Sample or Specimen	347,000	Become part of laboratory operating budget.
N.C.	Coliform Test Water Inorganic Chemicals—Water Organic Chemicals Water Radiological Sale of specimen collection outfits and biological products	5.00 100.00 120.00 50.00 Varies with type	Test Sample Sample Sample	284,728	State appropriation to laboratory is reduced by the amount of estimated receipts and in effect becomes part of annual operating budget. Receipts from N.C. Drinking Water Act used to fund positions and purchase supplies, postage, equipment, etc., necessary to perform analytical services.
Ore.	Metabolic Disorders	3.00	Specimen	174,000	They assist the program but are not the sole support.
S.C.	Rh Rubella serology STS (VDRL or RPR) Infectious Mono. FTA-ABS Toxoplasmosis (IFA) Blood Lead, qual. Blood Lead, quant. Drug Analysis, qual. Drug Analysis, quant.	5.00 5.00 1.00 8.00 8.00 14.00 3.00 7.00 3.00 10.00	Specimen Specimen Specimen Specimen Specimen Specimen Specimen Specimen Specimen Specimen	116,668	Salaries and operating expenses.
S.D.	Environmental samples	1.23	RV	76,207	24,584 Returned to general fund 51,623 Revolving fund

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Utah	Newborn Screening	2.50	Kit	100,000	Used to offset the cost of the tests.
V.I.	Serology Parasitology Toxicology FTA PKU Cultures Thyroids Profiles T ₃ & T ₄ Sickle Cell	3.00 5.00 10.00 8.00 3.00 10.00 8.00 5.00	—	—	Revolving funds.
Wash.	Metabolic Water Bacteriology Premarital Water Chemistries	3.20 6.00 5.00 2.00-85.00	Test Test Test	125,000	Support laboratory operations
Wisc.	Specimen Testing	3.00	Test	1,427,614	Salaries, supplies, capital equipment

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	7,640,958	1,956,612	511,219	218,355	4,777,785	12,675	164,312
Average	146,942	37,627	10,877	4,281	91,880	276	3,423
New England	636,191	326,806	24,114	22,968	249,343	517	12,443
Conn.	132,308	85,653	6,224	6,255	26,784	97	7,295
Mass.	172,445	97,907	—	10,270	61,803	128	2,337
Me.	46,695	3,925	4,507	664	37,439	160	—
N.H.	106,520	42,649	10,451	1,784	49,110	—	2,526
R.I.	139,030	75,253	1,347	2,498	59,627	20	285
Vt.	39,193	21,419	1,585	1,497	14,580	112	—
Middle Atlantic	262,081	78	30,148	18,680	211,290	145	1,740
N.J.	238,066	1	18,364	7,493	211,250	99	859
N.Y.	—	—	—	—	—	—	—
Pa.	24,015	77	11,784	11,187	40	46	881
East North Central	914,759	449,604	37,639	31,763	373,112	1,730	20,911
Ill.	184,274	38,265	7,402	6,969	128,908	262	2,468
Ind.	11,907	54	3,763	2,338	4,742	185	825
Mich.	329,015	143,986	15,647	12,366	144,491	174	12,351
Ohio	343,739	252,810	5,860	2,673	77,623	460	4,313
Wisc.	45,824	14,489	4,967	7,417	17,348	649	954
West North Central	635,362	230,084	31,176	17,496	324,994	1,251	30,361
Ia.	133,958	48,170	2,896	1,381	75,661	316	5,534
Kans.	72,733	20,377	5,801	4,646	39,245	360	2,304
Minn.	124,023	2,023	13,716	5,145	102,577	159	403
Mo.	187,813	111,731	—	2,725	72,298	76	983
Nebr.	27,034	4,194	727	424	21,689	—	—
N.D.	56,820	23,516	4,235	2,246	6,032	239	20,552
S.D.	32,981	20,073	3,801	929	7,492	101	585
South Atlantic	2,013,353	205,340	145,629	57,830	1,569,368	3,567	31,619
Del.	32,282	796	—	697	29,769	—	1,020
D.C.	112,502	6,767	2,196	2,615	94,586	—	6,338
Fla.	656,372	38,117	52,412	25,003	530,713	904	9,223
Ga.	270,499	16,620	24,258	6,630	218,464	997	3,530
Md.	407,901	40,657	18,150	8,487	339,460	543	604
N.C.	22,924	1,220	14,563	4,666	365	351	1,759
S.C.	240,428	4,239	12,851	1,564	214,971	453	6,350
Va.	160,310	48,847	12,793	7,692	88,289	309	2,380
W. Va.	110,135	48,077	8,406	476	52,751	10	415
East South Central	1,143,190	236,648	88,891	18,807	778,092	1,508	9,143
Ala.	448,868	48,351	38,542	4,846	353,411	322	3,396
Ky.	30,383	2,878	15,459	1,727	9,651	35	633
Miss.	252,204	41,217	23,167	5,624	179,077	*	3,119
Tenn.	411,735	144,202	21,723	6,710	235,953	1,152	1,995
West South Central	1,086,963	65,704	92,672	28,321	865,005	2,202	35,059
Ark.	117,166	16,367	21,633	2,556	75,958	218	434
La.	111,419	4,529	12,467	5,309	86,334	1,115	1,665
Okla.	136,317	26,460	10,373	1,841	96,074	99	1,470
Tex.	722,061	18,348	48,199	16,615	606,639	770	31,490
Mountain	653,580	379,739	25,288	10,772	229,640	941	7,200
Ariz.	21,904	296	8,247	2,275	10,063	518	505
Colo.	178,702	138,614	1,864	1,656	36,037	96	435
Ida.	35,107	2,222	2,002	829	29,565	79	410
Mont.	18,946	1,126	2,873	407	13,877	150	513
Nev.	39,896	219	2,003	356	36,420	25	873
N.M.	101,015	8,017	6,548	2,616	79,568	52	4,214
Utah	61,473	35,978	1,471	2,586	21,167	21	250
Wyo.	196,537	193,267	280	47	2,943	—	—
Pacific	251,304	50,804	23,710	13,179	155,026	605	7,980
Alaska	—	—	—	—	—	—	—
Cal.	15,476	223	1,392	354	13,253	109	145
Hawaii	188,424	43,421	11,657	8,029	119,373	216	5,728
Ore.	13,312	6,066	3,275	2,010	1,472	59	430
Wash.	34,092	1,094	7,386	2,786	20,928	221	1,677
Territories	44,175	11,805	1,952	439	21,915	208	7,856
Guam	3,348	70	1,952	175	1,018	3	130
P.R.	24,364	1,123	—	264	18,289	83	4,605
V.I.	16,463	10,612	—	—	2,608	122	3,121

* Included In Other Bacteriology Specimens, Table 4-10

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

Lab & Region	Number of Specimens	1. Streptococcus Beta Hemolytic, Group A					
		Procedures Used					
		Culture	FA	Sero- grouping	Sero- typing	Bacitracin Disc	Other
Total	1,878,203						
Average	39,129						
New England	325,864						
Conn.	85,504	X	X	X	—	X	—
Mass.	97,682	X	X	—	—	—	—
Me.	3,439	X	X	X	—	X	Coagulase activity — staphylococci
N.H.	42,649	X	X	—	—	—	—
R.I.	75,193	X	X	—	—	—	—
Vt.	21,397	X	X	X	—	—	—
Middle Atlantic	55						
N.J.	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	55	X	—	X	—	—	—
East North Central	442,123						
Ill.	36,996	X	—	—	—	—	—
Ind.	—	—	—	—	—	—	—
Mich.	143,424	X	—	X	—	X	—
Ohio	247,430	X	X	X	—	—	—
Wisc.	14,218	X	X	—	—	X	—
West North Central	222,888						
Ia.	48,163	X	X	—	—	—	—
Kans.	20,162	X	X	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	111,321	X	X	X	—	X	—
Nebr.	4,133	X	X	X	X	X	—
N.D.	23,507	X	X	—	—	—	—
S.D.	15,602	X	X	—	—	—	—
South Atlantic	164,906						
Del.	796	X	X	—	—	X	—
D.C.	6,767	X	—	—	—	X	—
Fla.	18,960	X	—	—	—	X	—
Ga.	15,794	—	X	—	—	—	—
Md.	31,943	X	—	X	—	X	—
N.C.	1,036	X	X	X	—	—	—
S.C.	4,186	X	X	X	—	—	—
Va.	37,523	X	X	X	—	X	—
W. Va.	47,901	X	X	—	—	—	—
East South Central	235,407						
Ala.	48,082	X	X	—	—	—	—
Ky.	2,750	X	X	X	—	—	—
Miss.	41,180	X	X	—	—	—	—
Tenn.	143,395	—	X	—	—	—	—
West South Central	56,063						
Ark.	16,161	X	X	X	X	—	—
La.	3,827	X	X	X	—	—	—
Okl.	26,252	X	X	—	—	—	—
Tex.	9,823	X	X	X	—	X	—
Mountain	379,426						
Ariz.	246	X	X	X	X	—	—
Colo.	138,600	X	X	—	—	—	—
Ida.	2,169	X	X	—	—	X	—
Mont.	1,041	X	—	X	—	—	—
Nev.	219	X	—	—	—	X	—
N.M.	7,964	X	X	X	—	X	—
Utah	35,920	X	X	—	—	—	—
Wyo.	193,267	X	X	—	—	—	—
Pacific	49,730						
Alaska	—	—	—	—	—	—	—
Cal.	—	X	X	X	—	—	—
Hawaii	43,310	X	X	X	X	X	—
Ore.	5,723	X	X	—	—	—	—
Wash.	697	X	X	—	—	—	—
Territories	1,741						
Guam	6	X	—	—	—	X	—
P.R.	1,123	—	X	—	—	—	—
V.I.	612	X	X	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	Toxo- genicity	Other
Total	25,549					
Average	639					
New England	43					
Conn.	18	—	×	—	—	—
Mass.	10	—	—	—	—	FA
Me.	—	—	—	—	—	—
N.H.	—	—	—	—	—	—
R.I.	5	×	—	—	—	—
Vt.	10	×	—	—	—	—
Middle Atlantic	1					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	1	—	—	—	—	—
East North Central	497					
Ill.	128	×	—	—	—	—
Ind.	23	—	—	—	—	—
Mich.	2	—	—	—	—	—
Ohio	287	—	—	—	—	—
Wisc.	57	—	—	—	—	—
West North Central	5,063					
Ia.	2	—	—	—	—	—
Kans.	5	—	—	—	—	—
Minn.	31	—	—	—	—	Smear of 18 hour culture
Mo.	26	—	—	—	—	—
Nebr.	38	—	—	—	—	—
N.D.	2	—	—	—	—	—
S.D.	4,418	—	—	—	—	—
South Atlantic	18,996					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	18,960	—	—	—	—	—
Ga.	—	—	—	—	—	—
Md.	4	—	—	—	—	—
N.C.	*	—	—	—	—	—
S.C.	—	—	—	—	—	—
Va.	32	—	—	—	—	—
W. Va.	3	—	—	—	—	FA
East South Central	302					
Ala.	246	—	—	—	—	—
Ky.	37	—	—	—	—	—
Miss.	9	—	—	—	—	—
Tenn.	10	—	—	—	—	—
West South Central	72					
Ark.	19	—	—	—	—	—
La.	40	—	—	—	—	—
Oklahoma	5	—	—	—	—	—
Tex.	8	—	—	—	—	—
Mountain	144					
Ariz.	47	—	—	—	—	—
Colo.	12	—	—	—	—	—
Ida.	12	—	—	—	—	—
Mont.	12	—	—	—	—	—
Nev.	—	—	—	—	—	—
N.M.	53	—	—	—	—	—
Utah	8	—	—	—	—	—
Wyo.	—	—	—	—	—	—
Pacific	430					
Alaska	—	—	—	—	—	—
Cal.	5	—	—	—	—	—
Hawaii	15	—	—	—	—	—
Ore.	16	—	—	—	—	—
Wash.	394	—	—	—	—	—
Territories	1					
Guam	1	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

*Included In 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	16,070					
Average	374					
New England	325					
Conn.	52	x	x	-	x	-
Mass.	174	x	x	-	x	-
Me.	82	-	-	-	-	-
N.H.	-					
R.I.	5	x	x	-	x	-
Vt.	12	x	x	-	-	-
Middle Atlantic	22					
N.J.	1	x	-	-	-	-
N.Y.	-	-	x	-	x	-
Pa.	21	x	-	-	-	-
East North Central	2,054					
Ill.	1,141	x	x	-	x	-
Ind.	31	-	x	-	-	-
Mich.	458	x	x	-	-	-
Ohio	188	x	x	-	x	-
Wisc.	214	x	x	-	x	-
West North Central	545					
Ia.	5	x	x	-	-	-
Kans.	26	x	x	-	x	-
Minn.	87	x	x	-	x	-
Mo.	348	x	x	-	x	-
Nebr.	23	x	x	-	x	-
N.D.	3	x	x	-	-	-
S.D.	53	x	-	-	-	-
South Atlantic	1,353					
Del.	-	-	-	-	-	-
D.C.	-	-	x	-	-	-
Fla.	197	-	x	-	-	-
Ga.	826	x	x	-	x	-
Md.	87	x	x	-	x	-
N.C.	184	x	x	-	x	-
S.C.	3	x	x	-	x	-
Va.	25	-	x	-	-	-
W. Va.	31	-	x	-	-	-
East South Central	939					
Ala.	23	x	x	-	-	-
Ky.	91	-	x	-	-	-
Miss.	28	-	x	-	-	-
Tenn.	797	x	x	-	-	Agglutinations
West South Central	542					
Ark.	187	x	-	-	x	-
La.	117	x	-	-	-	-
Okla.	186	x	-	-	-	-
Tex.	52	-	-	-	-	-
Mountain	169					
Ariz.	3	x	-	-	-	-
Colo.	2	x	-	-	-	-
Ida.	41	x	-	-	-	-
Mont.	73	-	-	-	-	-
Nev.	-	x	-	-	x	-
N.M.	*	x	-	-	x	-
Utah	50	x	-	-	x	-
Wyo.	-	-	-	-	-	-
Pacific	121					
Alaska	-					
Cal.	-	x	x	x	x	-
Hawaii	3	x	x	-	-	-
Ore.	115	x	x	-	-	-
Wash.	3	x	x	-	-	-
Territories	10,000					
Guam	-	-	-	-	-	-
P.R.	-	-	-	-	-	-
V.I.	10,000	-	-	-	-	-

* Included in 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	54,530	
Average	2,727	
Cal.	218	Infant botulism — Culture, biochemicals, animal inoculation; Legionnaires' disease — culture, biochemicals, FA, animal inoculation; miscellaneous blood cultures
Conn.	79	Vincent's Infection — smear — Crystal Violet
Guam	63	Sputum for fungus sp. — Sabauraud, 37° and room temperature; Sputum for general bacteria — culture and sensitivity
Hawaii	93	Meningococcus — culture, identification; Staphylococcus — culture, coagulase; Leptospiae — culture, darkfield; H. influenzae — culture, identification
Kans.	184	Nasopharyngitis — smear, culture, biochemicals, serogrouping, serotyping
La.	545	Legionnaires' disease — FA; Plague — animal inoculation
Me.	404	Hemophilus influenzae — typing and factors; Neisseria meningitidis — culture and typing; Gram negative non-fermenters — biochemical identification; Miscellaneous streptococci — biochemical identification
Md.	8,623	Bacteremia — culture; Bacterial; other — culture
Mass.	41	Meningococcal contacts or infections — culture, biochemical, serogrouping
Mich.	102	Vincent's Angina — slide
Minn.	1,905	Referred cultures for identification — smear, biochemical, serological, animal patho/toxin
Mo.	36	B. lact. (H. influenzae) — Iodometric
N.D.	4	Hemophilus — culture
Ohio	4,905	Staphylococcus — culture, phage typing; aerobic non-fermenters — culture; aerobic gram positive bacteria — culture
Okla.	17	Vincent's Angina — microscopic exam; Staphylococcal disease — culture
Ore.	212	Miscellaneous URI — isolation, culture identification
R.I.	50	Vincent's Angina — smear; N. meningitidis — culture, biochemical; Pneumococcus — culture, biochemical; Staphylococcus, culture, biochemical; H. influenzae — culture, biochemical
S.C.	50	Gram positive and gram negative rods, staphylococci — standard biochemical techniques
Tex.	8,465	Staphylococcus — phage typing
Va.	1,127	Meningitidis, Pneumococcus, H. influenzae, Staphylococcus (Phage)
V.I.	—	S. pneumoniae — culture
W. Va.	142	Staphylococcus, Meningococcus, Miscellaneous N-T-Culture

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

Lab & Region	Number of Specimens	Procedures Used							
		Direct Smear	Concen- trate Smear	Cul- ture	Direct Suscept. # of Drugs	Indirect Suscept. # of Drugs	# of Bio- chemicals	Species Ident.	Other
Total	511,219								
Average	10,877								
New England	20,011								
Conn.	6,224	—	X	X	—	9	14	X	—
Mass.	—	—	—	—	—	—	—	—	—
Me.	4,507	—	X	X	X	X	X	X	Atypical and/or classified
N.H.	10,451	X	X	X	—	—	—	—	—
R.I.	1,347	—	X	X	—	7	12	X	—
Vt.	1,585	—	X	X	6	6	12	X	—
Middle Atlantic	30,148								
N.J.	18,364	X	X	X	4	4	11	X	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	11,784	—	X	X	5	9	12	—	—
East North Central	37,639								
Ill.	7,402	X	X	X	—	5	9	X	—
Ind.	3,763	—	X	X	6	6	7	X	Growth, pigment formation
Mich.	15,647	—	X	X	—	—	—	X	—
Ohio	5,860	—	X	X	10	10	9	X	—
Wisc.	4,967	X	X	X	7	7	10	X	—
West North Central	31,176								
Ia.	2,896	X	X	X	8	8	14	X	—
Kans.	5,801	—	X	X	6	6	16	X	—
Minn.	13,716	—	X	X	X	3	15	X	Drug susceptibility
Mo.	—	—	—	—	—	—	—	—	—
Nebr.	727	X	X	X	5	5	11	X	—
N.D.	4,235	—	X	X	4	4	13	X	—
S.D.	3,801	X	X	X	3	3	5	X	—
South Atlantic	145,629								
Del.	—	—	—	—	—	—	—	—	—
D.C.	2,196	—	X	X	—	7	10	X	—
Fla.	52,412	—	X	X	—	7	12	X	—
Ga.	24,258	—	X	X	5	5	11	X	—
Md.	18,150	X	X	X	5	9	3-12	X	—
N.C.	14,563	—	X	X	4	4	8	X	—
S.C.	12,851	—	X	X	7	7	10	X	—
Va.	12,793	—	X	X	—	4	12	—	—
W. Va.	8,406	—	X	X	5	5	7	X	—
East South Central	98,891								
Ala.	38,542	X	X	X	9	9	14	X	Animal inoculation
Ky.	15,459	—	X	X	9	9	9	X	Fluorochrome smear
Miss.	23,167	—	X	X	—	7	6	X	—
Tenn.	21,723	X	X	X	—	6	10	X	—
West South Central	92,672								
Ark.	21,633	—	X	X	X	6	6	10	X
La.	12,467	X	X	X	—	5	14	X	—
Okla.	10,373	—	X	X	—	5	12	X	—
Tex.	48,199	—	X	X	7	7	10	X	—
Mountain	25,288								
Ariz.	8,247	X	X	X	8	8	10	X	—
Colo.	1,864	—	X	X	—	—	2	X	—
Ida.	2,002	X	X	X	6	6	11	X	—
Mont.	2,873	X	X	X	7	7	9	X	—
Nev.	2,003	X	X	X	—	11	5	X	—
N.M.	6,548	—	X	X	4	4	6	X	—
Utah	1,471	X	X	X	3	6	12	X	—
Wyo.	280	X	X	X	—	—	—	—	—
Pacific	23,710								
Alaska	—	—	—	—	—	—	—	—	—
Cal.	1,392	—	X	X	5	5-9	10	X	—
Hawaii	11,657	X	X	X	5	5	10	X	—
Ore.	3,275	X	X	X	—	—	13	X	—
Wash.	7,386	—	X	X	84	74	222	X	—
Territories	1,952								
Guam	1,952	X	—	X	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	X	X	X	—	—	4	—	—

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

Lab & Region	Number of Specimens	Procedures Used							
		Primary Plating	Enrichment Plating	Bio-chemicals	FA	Sero-grouping	Sero-typing	Phage Typing, S. Typhi	Other
Total	218,355								
Average	4,281								
New England	22,968								
Conn.	6,255	X	X	X	X	X	X	—	Mouse Toxicity Testing (anaerobe)
Mass.	10,270	X	X	X	—	X	X	—	—
Me.	664	X	X	X	—	X	—	—	—
N.H.	1,784	X	X	X	X	X	—	—	—
R.I.	2,498	X	X	X	—	X	X	—	—
Vt.	1,497	X	X	X	—	X	X	—	—
Middle Atlantic	18,680								
N.J.	7,493	X	X	X	—	X	X	—	Kirby Bauer Susceptibility
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	11,187	X	X	X	—	X	X	X	—
East North Central	31,763								
Ill.	6,969	X	X	X	—	X	X	X	—
Ind.	2,338	X	X	X	—	X	X	X	—
Mich.	12,366	X	X	X	—	X	X	—	—
Ohio	2,673	X	X	X	—	X	X	—	—
Wisc.	7,417	X	X	X	—	X	X	—	—
West North Central	17,496								
Ia.	1,381	X	X	X	X	X	X	—	—
Kans.	4,646	X	X	X	—	X	X	—	—
Minn.	5,145	X	X	X	—	X	X	X	Microscopic
Mo.	2,725	X	X	X	—	X	X	—	—
Nebr.	424	X	X	X	—	X	—	—	—
N.D.	2,246	X	X	X	—	X	X	—	—
S.D.	929	X	X	X	—	X	X	—	—
South Atlantic	57,830								
Dal.	697	X	X	X	—	X	X	—	—
D.C.	2,615	X	X	X	—	X	X	—	—
Fla.	25,003	X	X	X	—	X	X	—	—
Ga.	6,630	X	X	X	—	X	X	—	—
Md.	8,487	X	X	X	—	X	X	—	Sensitivities
N.C.	4,666	X	X	X	—	X	X	—	—
S.C.	1,564	X	X	X	—	X	X	—	—
Va.	7,692	X	X	X	—	X	X	—	—
W. Va.	476	X	X	X	—	X	X	—	—
East South Central	18,907								
Ala.	4,846	X	X	X	—	X	X	—	—
Ky.	1,727	X	X	X	—	X	X	X	—
Miss.	5,624	X	X	X	X	X	X	—	Subculture
Tenn.	6,710	X	X	X	—	X	X	—	—
West South Central	26,321								
Ark.	2,556	X	X	X	—	X	X	—	—
La.	5,309	X	X	X	—	X	X	X	—
Okla.	1,841	X	X	X	—	X	X	—	—
Tex.	16,615	X	X	X	—	X	X	X	—
Mountain	10,772								
Arlz.	2,275	X	X	X	X	X	X	—	—
Colo.	1,656	X	X	X	—	X	X	—	—
Ida.	829	X	X	X	—	X	X	—	—
Mont.	407	X	X	X	—	X	X	—	—
Nev.	356	X	X	X	—	X	—	—	—
N.M.	2,616	X	X	X	—	X	X	—	—
Utah	2,586	X	X	X	—	X	X	—	Antibiotic sensitivities
Wyo.	47	X	X	X	—	X	—	—	—
Pacific	13,179								
Alaska	—	—	—	—	—	—	—	—	—
Cal.	354	X	X	X	X	X	X	X	S. typhi bacteriophage typing, sensitivity tests, Campylobacter isolation
Hawaii	8,029	X	X	X	—	X	X	X	—
Ore.	2,010	X	X	X	X	X	X	—	—
Wash.	2,786	X	X	X	—	X	X	—	—
Territories	439								
Guam	175	X	X	X	—	X	X	—	—
P.R.	264	X	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	4,777,785							
Average	91,880							
New England	249,343							
Conn.....	26,784	X	X	X	X	X	X	—
Mass.....	61,803	X	X	X	X	X	X	—
Me.....	37,439	X	X	X	X	X	X	—
N.H.....	49,110	X	X	X	X	X	X	—
R.I.....	59,627	X	X	X	X	X	X	—
Vt.....	14,580	X	X	X	X	X	X	—
Middle Atlantic	211,290							
N.J.....	211,250	X	X	X	—	X	X	—
N.Y.....	—	—	—	—	—	—	—	—
Pa.....	40	X	X	X	—	X	—	—
East North Central	373,112							
Ill.....	128,908	X	X	X	—	X	—	—
Ind.....	4,742	X	X	X	X	X	X	—
Mich.....	144,491	X	X	X	—	X	X	—
Ohio.....	77,623	X	X	X	X	X	X	—
Wisc.....	17,348	X	X	X	—	X	X	—
West North Central	324,994							
Ia.....	75,661	X	X	X	X	X	—	Kirby Bauer
Kans.....	39,245	X	X	X	X	X	X	—
Minn.....	102,577	X	X	X	X	X	X	—
Mo.....	72,298	X	X	X	X	X	X	—
Nebr.....	21,689	X	X	X	X	X	X	Phadebact
N.D.....	6,032	X	X	X	—	X	X	—
S.D.....	7,492	X	X	X	X	X	X	—
South Atlantic	1,569,368							
Del.....	29,769	X	X	X	—	X	X	—
D.C.....	94,586	X	X	—	—	—	—	Phadebact co-agglutination
Fla.....	530,713	X	X	X	—	X	X	—
Ga.....	218,464	X	X	X	X	X	X	—
Md.....	339,460	X	X	X	X	X	X	—
N.C.....	365	X	X	X	X	X	X	—
S.C.....	214,971	X	X	X	X	X	X	—
Va.....	88,289	X	X	—	—	—	—	—
W. Va.....	52,751	X	X	X	X	X	X	—
East South Central	778,092							
Ala.....	353,411	X	X	X	X	X	X	X
Ky.....	9,651	X	X	X	X	X	X	—
Miss.....	179,077	X	X	X	—	X	X	Gram stain and culture, drug susceptibility
Tenn.....	235,953	X	X	X	X	—	—	—
West South Central	865,005							
Ark.....	75,958	X	X	X	—	X	X	—
La.....	86,334	X	X	X	—	X	X	—
Okla.....	96,074	X	X	X	X	X	X	—
Tex.....	606,639	X	X	X	X	X	X	—
Mountain	229,640							
Ariz.....	10,063	X	X	X	X	X	—	—
Colo.....	36,037	X	X	X	X	X	X	—
Ida.....	29,565	X	X	X	X	X	X	—
Mont.....	13,877	X	X	X	X	X	X	—
Nev.....	36,420	X	X	X	—	X	X	—
N.M.....	79,568	X	X	X	X	X	X	—
Utah.....	21,167	X	X	X	X	X	X	—
Wyo.....	2,943	X	X	X	X	X	—	—
Pacific	155,026							
Alaska.....	—	—	—	—	—	—	—	—
Cal.....	13,253	X	X	X	X	X	X	—
Hawaii.....	119,373	X	X	X	X	X	X	—
Ore.....	1,472	X	X	X	X	X	X	—
Wash.....	20,928	X	X	X	X	X	X	—
Territories	21,915							
Guam.....	1,018	X	X	X	—	X	—	Penicillin 10 units sensitivity testing
P.R.....	18,289	X	X	X	X	X	X	—
V.I.....	2,608	X	X	X	—	X	—	—

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

Lab & Region	Number of Specimens	Techniques Used		Procedures Used						Other
		Prereduced Media	Gas Chromatography	Gram Stain	Plating	Subculture	Biochemical	FA	GLC	
Total	13,579									
Average	295									
New England	517									
Conn.	97	-	X	X	X	X	X	X	X	-
Mass.	128	X	X	X	X	X	X	X	X	-
Me.	160	-	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-
R.I.	20	X	-	-	-	-	-	-	-	-
Vt.	112	X	-	X	X	X	X	X	X	-
Middle Atlantic	145									
N.J.	99	-	-	-	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-	-	-	-	-
Pa.	46	-	-	-	-	-	-	-	-	-
East North Central	1,730									
Ill.	262	-	-	X	X	X	X	X	X	-
Ind.	185	X	-	X	X	X	X	X	X	-
Mich.	174	X	-	X	X	X	X	X	X	-
Ohio	460	X	-	X	X	X	X	X	X	-
Wisc.	649	X	-	X	X	X	X	X	X	-
West North Central	1,251									
Ia.	316	X	-	X	X	X	X	X	X	-
Kans.	360	X	-	X	X	X	X	X	X	-
Minn.	159	-	-	-	-	-	-	-	-	-
Mo.	76	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-
N.D.	239	X	-	X	X	X	X	X	X	-
S.D.	101	X	-	X	X	X	X	X	X	-
South Atlantic	3,567									
Del.	-	-	-	-	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-
Fla.	904	X	-	X	X	X	X	X	X	-
Ga.	997	X	-	X	X	X	X	X	X	-
Md.	543	X	-	X	X	X	X	X	X	-
N.C.	351	X	-	X	X	X	X	X	X	-
S.C.	453	X	-	X	X	X	X	X	X	-
Va.	309	X	-	X	X	X	X	X	X	-
W. Va.	10	X	-	X	X	X	X	X	X	-
East South Central	1,509									
Ala.	322	-	-	-	-	-	-	-	-	-
Ky.	35	-	-	-	-	-	-	-	-	-
Miss.	*	-	-	-	-	-	-	-	-	-
Tenn.	1,152	X	-	X	X	X	X	X	X	-
West South Central	2,202									
Ark.	218	X	-	X	X	X	X	X	X	-
La.	1,115	X	-	X	X	X	X	X	X	-
Okl.	99	X	-	X	X	X	X	X	X	-
Tex.	770	X	-	X	X	X	X	X	X	-
Mountain	941									
Ariz.	518	X	-	X	X	X	X	X	X	-
Colo.	96	X	-	X	X	X	X	X	X	-
Ida.	79	X	-	X	X	X	X	X	X	-
Mont.	150	-	-	-	-	-	-	-	-	-
Nev.	25	X	-	X	X	X	X	X	X	-
N.M.	52	X	-	X	X	X	X	X	X	-
Utah	21	X	-	X	X	X	X	X	X	-
Wyo.	-	-	-	-	-	-	-	-	-	-
Pacific	605									
Alaska	-	-	-	-	-	-	-	-	-	-
Cal.	109	X	-	X	X	X	X	X	X	-
Hawaii	216	-	-	X	X	X	X	X	X	-
Ore.	59	X	-	X	X	X	X	X	X	-
Wash.	221	X	-	X	X	X	X	X	X	-
Territories	208									
Guam	3	X	-	X	X	X	X	X	X	-
P.R.	83	X	-	X	X	X	X	X	X	-
V.I.	122	X	-	X	X	X	X	X	X	-

* Included in other bacteriology specimens, Table 4-10

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

Lab	Number Of Specimens	Disease — Procedures Used
Total	166,312	
Average	3,423	
Ala.	3,396	Pathogenic E. coli — FA; Staphylococcus, reference bacteriology, Brucella — culture
Ark.	434	Blood culture, Spinal fluids, Staphylococcus, Legionnaires' Disease
Arlz.	505	Miscellaneous bacteria — culture, Isolation, biopsy, identification
Cal.	7,514	Plague — culture, animal inoculation, bacteriophage, FA; relapsing fever — stained smears, animal inoculation Reference cultures for Identification — Mycobacteriology, including drug susceptibility tests; Mycology; enteric bacteriology, including drug susceptibility tests; aerobic bacteriology
Colo.	435	Miscellaneous reference specimens, e.g., Pasteurella sp., N. meningitis, Listeria, Haemophilus, Campylobacter — Gram Stain, plating, subcultures, biochemical, Serogrouping.
Conn.	7,295	Phage — Staph phage typing; Trichomonas/Candida-Smear, Giemsa; Clinical specimens (misc.) — Culture, Biochemicals; Referred Cultures — Culture, Biochemicals, Serology
Del.	1,020	Urine cultures, reference cultures for identification.
D.C.	6,338	Urinary tract infections — Culture ("Testuris"), miscellaneous exudates, skin lesions, vaginalis (non-GC), etc.
Fla.	9,223	Miscellaneous Infections
Ga.	3,530	Miscellaneous clinical specimens, Referred cultures for Identification — Gram stain, plating, subculture, biochemical, GLC.
Guam		Urine — general bacterial culture; vaginal, cervical, urethral — general bacterial culture; miscellaneous (wounds, etc.) general bacterial culture; cervical — T and M
Hawaii	5,728	Staph phage; antibiotic sensitivity — Kirby Bauer; non-human enterics — culture, identification; leptospirosis — culture, identification; reference specimens — sub-culture, appropriate identification procedures
Ida.	410	Most communicable diseases — most cultural and serological techniques
Ill.	2,468	Miscellaneous Infections — Smear, biochemicals; Staphylococcus Infections — phage typing
Ind.	825	Nosocomial Staphylococcal Infections — phage typing, aerobic bacterial infections — culture identification
Ia.	5,534	Miscellaneous wounds, infections-famicroscopy; body fluids, urine — serotyping; toxin studies, gas chromatography; Salmonella, Flagellar strains — Kirby Bauer
Kans.	2,304	Staphylococcal infections — culture, coagulase, biochemicals, phage typing; Vincent's Angina — smear; bacterial meningitis and pneumonias, septicemia and other miscellaneous infections — smear, culture, biochemicals, serogrouping, serotyping, and when requested antibiotic sensitivities; Legionnaires' Disease — smear, culture, direct FA, biochemicals
Ky.	633	Staph bacteriophage — Smear, Coagulase, phage typing miscellaneous cultures — smear, biochemicals, coagulase, serogrouping
La.	1,665	Cultures for identification — biochemical, serotyping
Md.	604	Referred cultures for identification.
Mass.	2,337	Miscellaneous Infections and reference cultures — microscopic, culture, biochemicals, serogrouping, serotyping, FA, special stains; Legionnaires' disease — culture, FA.
Mich.	12,351	Transudates/exudates — isolation; saliva cultures — Lactobacilli; urine cultures — culture; staphylococci — phage typing; aerobic referred cultures — identification; miscellaneous — culture
Minn.	403	Leptospirosis — microscopic; botulism — culture; Vincent's angina — serology; Blood, spinal fluid, tissues, etc., food poisoning (bacterial) — animal patho/toxins

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

Lab	Number Of Specimens	Disease — Procedures Used
Miss.	3,119	Salmonella (waters) — 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
Mo.	983	Reference cultures — Gram stain, plating, subculture, biochemicals, FH when applicable, enrichment plating, serogrouping, serotyping
Mont.	513	Special determinative bacteriology
Nev.	873	Urine infection; eye, ear, etc. infection; vaginitis — culture
N.H.	2,526	Miscellaneous cultures for various bacteria — variable, but use CDC procedures.
N.J.	859	NFB predominantly — all organisms not GC, TB, enteric, or mycology — oxidative or fermentative biochemicals; Hemophilus infections — modified Kirby Bauer.
N.M.	4,214	Pertussis — direct FA; plaque — direct FA; Staphylococcal infections — cultures, with phage typing if indicated; nosocomial infections (monitoring — preventive) — sterility spore test.
N.C.	1,759	Reference specimens (all types) — smear culture, biochemicals, serotyping; clinical specimens (all types) other than fecal and throat swab for strep. — smear culture, biochemicals, serotyping.
N.D.	20,552	Blood and urine, susceptibility tests, miscellaneous, reference
Okla.	1,470	Urinary tract infections — culture Bacteremia — culture and serology Meningitis — culture and serology Wounds — culture and serology Legionnaires' Disease — direct FA Hemophilus infections — culture and serology Tularemia — culture and direct FA Leptospirosis — culture and darkfield exam
Ohio	4,313	Mycoplasma inf. — culture; urea plasma inf. — culture; Legionnaires' disease — culture, FA; Leptospirosis — culture, referred cultures — culture, biochemical; aerobic — serological
Ore.	430	Miscellaneous specimens for identification
Pa.	881	Bacterial infections other than mycobacteria — standard bacteriologic techniques; Food poisoning — Bacterial analytical manual (BAM); Botulism — Mouse neutralization.
R.I.	285	Miscellaneous reference cultures — culture, biochemical
S.C.	6,350	Diseases caused by miscellaneous Gram positive and Gram negative organisms — FA, biochemicals, serological tests, special stains, antibiograms
S.D.	585	—
Tenn.	1,995	Aerobic identification — primary plating, enrichment plating, biochemical differentiation, serotyping, serogrouping, toxin studies, Gram stain
Tex.	31,490	Reference cultures — aerobic; urine cultures — aerobic; miscellaneous wounds and lesions — aerobic
Utah	250	Meningitis — culture, typing (agglutination); Legionnaires' disease — direct FA; Infant botulism — culture, mouse inoculation, toxin neutralization; referred cultures for identification.
Va.	2,380	Dental caries, wounds, lesions, body fluid, sputum, urine, autopsy, misc. (blood), animal inoculation, H. ducreyi (smears), environmental, food
V.I.	3,121	Wound fluid exudates — aerobic and anaerobic primary plates, subculture, biochemicals; urine — primary plates, biochemicals; Sensitivity — aerobic and anaerobic biochemicals

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

Lab	Number Of Specimens	Disease — Procedures Used
Wash.	1,677	Legionnaires' disease — stains, plating, embryonated eggs, Guinea pigs; meningitis — Gram stain, plating, serogrouping, subculture; paralytic shellfish poison — mouse inoculation
W. Va.	515	Urinary tract infection, Legionnaires' Disease, Leptospirosis, miscellaneous — culture
Wisc.	954	Legionnaires' disease — IFA, DFA, Culture, foodborne disease — smear, culture, toxin testing.

**Table 4-11
II. MYCOLOGY**

Lab & Region	Number of Specimens	Procedures Used						
		Micro. Wet Mounts	Micro. Stains	Culture	FA	Bio-chemicals	Animal Inoculation	Other
Total	59,566							
Average	1,267							
New England	2,904							
Conn.	1,532	X	X	X	—	X	X	Differential Media
Mass.	671	X	X	X	—	X	—	—
Me.	271	X	X	X	—	X	—	—
N.H.	85	X	X	X	—	X	—	—
R.I.	88	X	X	X	—	X	—	—
Vt.	257	X	X	X	—	X	—	Slide culture
Middle Atlantic	1,506							
N.J.	1,238	X	X	X	—	X	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	268	—	—	—	—	—	—	—
East North Central	7,391							
Ill.	1,210	X	X	X	—	X	X	—
Ind.	730	X	X	X	—	X	—	—
Mich.	1,915	X	X	X	—	X	X	—
Ohio	764	X	X	X	—	X	X	—
Wisc.	3,772	X	X	X	X	X	X	Susceptibility testing, drug bioassays
West North Central	7,006							
Ia.	1,120	X	X	X	X	X	X	—
Kans.	764	X	X	X	—	X	X	—
Minn.	3,923	X	X	X	—	X	X	Assimilation tests
Mo.	466	X	X	X	—	X	X	—
Nebr.	55	—	—	—	—	—	—	—
N.D.	523	—	—	—	—	—	—	—
S.D.	155	X	X	X	—	—	—	—
South Atlantic	10,903							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	2,292	X	X	X	—	X	—	—
Ga.	807	X	X	X	—	X	X	—
Md.	2,343	X	X	X	—	X	—	—
N.C.	1,697	X	X	X	—	X	—	—
S.C.	1,683	X	X	X	X	X	X	Sensitivities (MIC), exoantigen (extract prep.), lysozyme test
Va.	1,632	X	X	X	—	X	X	X
W. Va.	449	X	X	X	—	X	X	—
East South Central	8,660							
Ala.	3,873	X	X	X	—	X	X	—
Ky.	276	X	X	X	—	X	X	—
Miss.	2,196	X	X	X	—	X	X	Hair culture
Tenn.	2,315	X	X	X	—	X	X	—
West South Central	13,378							
Ark.	1,836	X	X	X	—	X	—	—
La.	2,698	X	X	X	—	X	—	—
Okl.	3,925	X	X	X	—	X	—	—
Tex.	4,919	X	X	X	X	X	X	Micro. concentration, gel diffusion
Mountain	5,155							
Ariz.	1,502	X	X	X	—	X	X	In-vitro conversion
Colo.	262	X	X	X	—	—	—	—
Ida.	1,917	X	X	X	—	X	—	—
Mont.	344	X	X	X	—	X	—	—
Nev.	81	X	X	X	—	X	—	—
N.M.	751	X	X	X	—	X	—	—
Utah	298	X	X	X	—	X	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	1,335							
Alaska	—	—	—	—	—	—	—	—
Cal.	55	X	X	X	X	X	X	—
Hawaii	776	X	X	X	—	X	X	—
Ore.	266	X	X	X	—	X	X	—
Wash.	238	—	X	X	—	X	X	Tease mounts
Territories	1,328							
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	1,328	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	297,285	282,230	13,919
Average	5,717	5,428	324
New England	17,011	15,811	55
Conn.	10,751	10,720	31
Mass.	33	21	12
Me.	183	183	—
N.H.	1,145	1,142	3
R.I.	2,307	2,305	2
Vt.	1,447	1,440	7
Middle Atlantic	3,314	3,163	160
N.J.	2,893	2,858	44
N.Y.	—	—	—
Pa.	421	305	116
East North Central	13,306	13,211	95
Ill.	1,139	1,121	18
Ind.	2,323	2,310	13
Mich.	3,712	3,708	4
Ohio	1,494	1,481	13
Wisc.	4,638	4,591	47
West North Central	21,411	21,128	283
Ia.	2,033	2,012	21
Kans.	5,230	5,214	16
Minn.	10,798	10,567	231
Mo.	1,362	1,351	11
Nebr.	399	397	2
N.D.	1,177	1,175	2
S.D.	412	412	—
South Atlantic	125,259	122,485	2,774
Del.	210	204	6
D.C.	294	293	1
Fla.	59,700	59,677	23
Ga.	22,749	20,126	2,623
Md.	8,140	8,083	57
N.C.	5,863	5,821	42
S.C.	13,489	13,488	1
Va.	12,186	12,184	2
W. Va.	2,628	2,609	19
East South Central	45,682	45,383	299
Ala.	28,377	28,098	279
Ky.	688	683	5
Miss.	10,206	10,200	6
Tenn.	6,411	6,402	9
West South Central	36,355	26,269	10,086
Ark.	1,387	1,382	5
La.	18,767	18,763	4
Okla.	5,616	2,832	2,784
Tex.	10,585	3,292	7,293
Mountain	8,092	8,064	28
Ariz.	249	231	18
Colo.	1,350	1,344	6
Ida.	1,163	1,162	1
Mont.	997	997	—
Nev.	145	145	—
N.M.	467	467	—
Utah	3,648	3,645	3
Wyo.	73	73	—
Pacific	12,466	12,328	138
Alaska	—	—	—
Cal.	942	825	117
Hawaii	5,901	5,889	12
Ore.	974	974	11
Wash.	4,649	4,640	9
Territories	14,389	11,865	1
Guam	985	985	—
P.R.	2,523	2,523	—
V.I.	10,881	10,880	1

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	282,230					
Average	5,428					
New England	15,811					
Conn.	10,720	X	X	X	X	—
Mass.	21	X	X	X	X	Schistosome egg hatching—2
Me.	183	X	X	X	X	—
N.H.	1,142	X	X	X	X	—
R.I.	2,305	X	X	X	—	—
Vt.	1,440	X	X	X	X	—
Middle Atlantic	3,163					
N.J.	2,858	X	X	X	X	—
N.Y.	—	—	—	—	—	—
Pa.	305	X	X	X	X	Clearing adult helminths; egg counting of Schistosomes
East North Central	13,211					
Ill.	1,121	X	X	X	X	—
Ind.	2,310	X	X	X	X	—
Mich.	3,708	X	X	X	X	—
Ohio	1,481	X	X	X	—	Worm for identification
Wisc.	4,591	X	X	X	X	—
West North Central	21,128					
Ia.	2,012	X	X	X	X	—
Kans.	5,214	X	X	X	X	—
Minn.	10,567	X	X	X	—	—
Mo.	1,351	X	X	X	X	—
Nebr.	397	X	X	X	X	—
N.D.	1,175	X	X	X	X	—
S.D.	412	X	X	X	X	—
South Atlantic	122,485					
Del.	204	X	X	X	X	—
D.C.	293	X	X	X	X	—
Fla.	59,677	X	X	X	X	—
Ga.	20,126	X	X	X	X	—
Md.	8,083	X	X	X	X	—
N.C.	5,821	X	X	X	X	—
S.C.	13,488	X	X	X	X	Trichrome stain
Va.	12,814	X	X	—	—	—
W. Va.	2,609	X	X	X	X	—
East South Central	45,383					
Ala.	28,098	X	X	X	X	—
Ky.	683	X	X	X	X	—
Miss.	10,200	—	X	X	X	—
Tenn.	6,402	X	X	X	X	—
West South Central	26,269					
Ark.	1,382	X	X	X	X	—
La.	18,763	X	X	X	—	—
Okl.	2,832	X	X	X	X	—
Tex.	3,292	X	X	X	X	—
Mountain	8,064					
Ariz.	231	—	X	X	X	—
Colo.	1,344	—	X	X	X	PVA
Ida.	1,162	X	X	X	X	—
Mont.	997	X	X	X	X	—
Nev.	145	X	X	X	X	—
N.M.	467	X	X	X	X	—
Utah	3,645	X	X	X	X	—
Wyo.	73	X	X	X	—	—
Pacific	12,328					
Alaska	—	—	—	—	—	—
Cal.	825	X	X	X	X	—
Hawaii	5,889	X	X	X	X	—
Ore.	974	X	X	X	X	—
Wash.	4,640	X	X	X	X	—
Territories	11,865					
Guam	985	—	X	—	—	—
P.R.	2,523	X	X	X	X	—
V.I.	10,880	—	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	13,919				
Average	324				
New England	55				
Conn.	31	X	X	—	Materials mistaken for parasites
Mass.	12	X	—	—	Amebiasis — Smear
Me.	—	—	—	—	—
N.H.	3	X	X	—	—
R.I.	2	—	X	—	—
Vt.	7	X	X	—	—
Middle Atlantic	160				
N.J.	44	X	X	—	Identifications and examinations of water for Giardia
N.Y.	—	—	—	—	—
Pa.	116	X	X	—	Arthropod identification
East North Central	95				
Ill.	18	X	—	—	—
Ind.	13	X	—	—	Arthropods
Mich.	4	X	—	—	—
Ohio	13	X	X	—	Occult blood
Wisc.	47	X	—	—	Insect identification
West North Central	283				
Ia.	21	X	—	—	—
Kans.	16	—	—	—	Arthropods
Minn.	231	X	—	—	Pinworm slide, tape worm and insect identification
Mo.	11	X	—	—	Miscellaneous invert
Nebr.	2	X	—	—	—
N.D.	2	—	X	—	—
S.D.	—	—	—	—	—
South Atlantic	2,774				
Del.	6	—	—	—	Vincent's angina
D.C.	1	X	—	—	—
Fla.	23	X	—	—	—
Ga.	2,623	X	—	X	—
Md.	57	X	—	—	—
N.C.	42	X	—	—	Insect identification, water
S.C.	1	X	—	—	—
Va.	2	X	—	—	Parasites for identification
W. Va.	19	—	—	—	Insect identification
East South Central	299				
Ala.	279	X	—	—	Insects, mosquito larvae, spiders
Ky.	5	X	—	—	—
Miss.	6	X	—	—	—
Tenn.	9	X	—	—	—
West South Central	10,086				
Ark.	5	X	—	—	—
La.	4	—	X	—	—
Okl.	2,784	X	—	—	Arthropod identification, vaginal wet preps
Tex.	7,293	—	—	—	Mosquito and tick identification, Trichomonas exam
Mountain	28				
Ariz.	18	X	—	—	—
Colo.	6	X	—	—	—
Ida.	1	X	—	—	—
Mont.	—	—	—	—	Toxoplasma serologies referred to CDC
Nev.	—	—	—	—	—
N.M.	—	—	—	—	—
Utah	3	X	—	—	—
Wyo.	—	—	—	—	—
Pacific	138				
Alaska	—	—	—	—	—
Cal.	117	X	X	X	Tissue parasites
Hawaii	12	X	—	X	Insect identification
Ore.	—	X	X	X	—
Wash.	9	X	—	—	Microfilariae
Territories	1				
Guam	—	—	—	—	—
P.R.	—	—	—	—	—
V.I.	1	X	—	—	—

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	186,170	66,737	86,504	9,206	23,993
Average	3,723	1,420	2,218	767	2,666
New England	15,750	1,907	14,383	—	—
Conn.	9,178	584	9,134	—	—
Mass.	5,284	576	4,708	—	—
Me.	858	349	509	—	—
N.H.	188	188	—	—	—
R.I.	72	72	—	—	—
Vt.	170	138	32	—	—
Middle Atlantic	10,555	2,343	8,095	35	82
N.J.	9,056	2,031	6,938	5	82
N.Y.	—	—	—	—	—
Pa.	1,499	312	1,157	30	—
East North Central	49,733	10,539	20,702	2,103	16,389
Ill.	11,548	2,436	9,112	—	—
Ind.	3,324	2,720	604	—	—
Mich.	4,386	1,154	3,063	—	169
Ohio	23,708	2,591	2,794	2,103	16,220
Wisc.	6,767	1,638	5,129	—	—
West North Central	13,796	5,883	7,628	10	5
Ia.	2,857	636	1,946	—	5
Kans.	597	—	597	—	—
Minn.	5,335	1,197	4,138	—	—
Mo.	3,686	2,865	821	—	—
Nebr.	600	600	—	—	—
N.D.	452	442	—	10	—
S.D.	269	143	126	—	—
South Atlantic	37,364	12,596	10,434	6,905	7,429
Del.	1,192	229	963	—	—
D.C.	63	63	—	—	—
Fla.	5,511	3,472	2,039	—	—
Ga.	11,523	2,509	1,591	—	7,423
Md.	4,597	2,130	2,457	9	1
N.C.	3,112	1,396	1,716	—	—
S.C.	8,631	1,639	906	6,086	—
Va.	1,971	602	559	810	—
W. Va.	764	556	203	—	5
East South Central	9,193	7,235	1,909	1	48
Ala.	4,073	3,052	972	1	48
Ky.	1,977	1,642	335	—	—
Miss.	702	702	—	—	—
Tenn.	2,441	1,839	602	—	—
West South Central	32,159	21,029	11,109	21	—
Ark.	2,282	2,282	—	—	—
La.	2,262	2,230	32	—	—
Okla.	4,786	3,201	1,585	—	—
Tex.	22,829	13,316	9,492	21	—
Mountain	8,123	3,668	4,448	7	—
Ariz.	3,440	1,506	1,934	—	—
Colo.	626	626	—	—	—
Ida.	247	120	127	—	—
Mont.	380	10	363	7	—
Nev.	—	—	—	—	—
N.M.	1,174	722	452	—	—
Utah	1,816	244	1,572	—	—
Wyo.	440	440	—	—	—
Pacific	9,241	1,281	7,796	124	40
Alaska	—	—	—	—	—
Cal.	4,144	663	3,329	112	40
Hawaii	1,741	7	1,734	—	—
Ore.	2,413	218	2,195	—	—
Wash.	943	393	538	12	—
Territories	256	256	—	—	—
Guam	8	8	—	—	—
P.R.	248	248	X	—	—
V.I.	—	—	—	—	—

Table 4-16
IV. VIROLOGY
A. Rabies Specimens

Lab & Region	Number of Specimens	Procedures Used			
		Stained Smear	FRA	Animal Inoculation	Other
Total	66,737				
Average	1,420				
New England	1,907				
Conn.	584	X	X	X	—
Mass.	576	—	—	—	—
Me.	349	—	X	X	—
N.H.	188	X	X	X	—
R.I.	72	—	X	X	—
Vt.	138	—	X	X	—
Middle Atlantic	2,343				
N.J.	2,031	—	X	X	—
N.Y.	—	—	—	—	—
Pa.	312	—	X	X	—
East North Central	10,539				
Ill.	2,436	—	X	—	—
Ind.	2,720	X	X	—	—
Mich.	1,154	—	X	X	—
Ohio	2,591	X	X	X	—
Wis.	1,638	—	X	X	—
West North Central	5,883				
Ia.	636	—	X	X	—
Kans.	—	—	—	—	—
Minn.	1,197	—	X	X	—
Mo.	2,865	X	X	X	—
Nebr.	600	—	X	—	—
N.D.	442	X	X	—	—
S.D.	143	—	X	X	—
South Atlantic	12,596				
Del.	229	X	X	—	—
D.C.	63	—	X	—	—
Fla.	3,472	X	X	—	—
Ga.	2,509	—	X	X	—
Md.	2,130	X	X	X	Mouse neutralization test for antibody
N.C.	1,396	X	X	—	—
S.C.	1,639	X	X	X	—
Va.	602	X	X	X	—
W. Va.	556	—	X	X	—
East South Central	7,235				
Ala.	3,052	X	X	X	Check specimens, FA
Ky.	1,642	X	X	X	—
Miss.	702	X	X	—	—
Tenn.	1,839	X	X	X	—
West South Central	21,029				
Ark.	2,282	X	X	—	—
La.	2,230	—	X	X	—
Oklahoma	3,201	—	X	X	—
Tex.	13,316	—	X	X	—
Mountain	3,668				
Ariz.	1,506	—	X	—	—
Colo.	626	—	X	X	—
Ida.	120	—	X	—	—
Mont.	10	—	—	—	—
Nev.	—	—	—	—	—
N.M.	722	—	X	X	—
Utah	244	X	X	X	Sellers Stain
Wyo.	440	—	X	—	—
Pacific	1,281				
Alaska	—	—	—	—	—
Cal.	663	—	X	X	—
Hawaii	7	X	X	—	—
Ore.	218	X	X	X	—
Wash.	393	—	X	X	—
Territories	258				
Guam	8	—	X	—	—
P.R.	248	—	X	—	—
V.I.	—	—	—	—	—

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

Lab	Number of Specimens	Types of Specimens						Procedures Used									
		Enteric	Arbovirus Human Orig.	Arbovirus Non-Human Orig.	Respiratory	Exanthem	Other	Tissue Culture Hosts	Eggs	Animal Hosts	HI/HA	CF	Neutralization Tests	FA—Orig. Spec.	FA—Other	HAI/HAD	Other
Total	88,504																
Average	2,218																
Ala.	972	X	—	—	X	—	Body tissues	X	X	X	X	—	X	—	X	—	
Ariz.	1,934	X	X	—	X	X	Misc., e.g., CNS	X	X	—	—	—	X	—	—	—	
Cal.	3,329	X	X	X	X	X	Isolates for identification, urine, autopsy tissues, birds, mosquitoes, animal tissues (other than rabies specimens).	X	X	X	X	X	X	X	X	Electron microscopy	
Conn.	8,134	X	X	—	X	X	Cytomegalovirus	X	X	X	X	X	—	X	X	—	
Del.	963	X	X	—	X	X	—	X	X	X	X	X	X	X	X	—	
Fla.	2,039	X	X	X	X	X	CNS	X	X	X	X	X	X	X	X	—	
Ga.	1,591	X	X	X	X	X	CMV, Chlamydia	X	X	X	X	X	X	X	X	PHAI, IEM, Direct EM	
Hawaii	1,734	X	—	—	X	X	Skin lesions, tissue fluids	X	X	—	X	X	X	X	—	X	—
Ida.	127	—	—	—	X	X	—	X	X	X	X	—	X	X	X	—	
Ill.	9,112	X	X	X	X	X	—	X	X	X	X	X	X	—	—	X	—
Ind.	604	X	—	—	X	X	—	X	—	—	X	X	X	—	—	—	—
Ia.	1,946	X	X	X	X	—	Blood, SF, tissue	X	X	X	X	—	X	—	—	—	—
Kans.	597	X	X	X	X	X	Cytomegalovirus	X	X	X	X	X	X	—	—	X	—
Ky.	335	X	X	—	X	X	Autopsy Material	X	X	—	X	X	X	—	—	X	—
La.	32	—	X	X	X	—	—	—	X	X	X	X	—	—	—	—	—
Me.	509	X	—	—	X	X	Vesicles	X	X	—	X	—	—	—	X	—	—
Md.	2,457	X	X	X	X	X	Venereal—genital, ocular, urinary tract	X	X	X	X	X	X	X	X	ELISA, electron microscopy	
Mass.	4,708	X	X	X	X	X	CNS	X	X	—	X	—	X	—	X	Interference, plaque formation	
Mich.	3,063	X	—	—	X	X	CNS, autopsy/biopsy, blood	X	X	X	X	X	X	X	X	X	—
Minn.	4,138	X	—	—	X	X	Urine, CSF	X	X	X	X	X	X	X	X	X	—
Mo.	821	X	X	X	X	X	Mycoplasma	X	X	X	X	X	X	—	X	X	—
Mont.	363	X	—	—	X	X	CNS, glu, etc.	X	—	—	X	X	X	—	—	X	—
N.J.	6,938	X	X	X	X	X	CNS Specimens (non-arbovirus) mosquito pools	X	X	X	X	—	X	X	X	Interference/interference inhibition	
N.M.	452	X	—	—	X	X	—	X	X	X	X	X	X	—	X	—	—
N.C.	1,716	X	X	X	X	X	—	X	X	X	X	X	X	—	X	X	—
Okl.	1,585	X	—	—	X	X	Lesion, urine, tissue, CSF	X	X	X	X	—	X	—	X	—	
Ohio	2,784	X	X	—	X	X	Tissues	X	X	X	X	X	X	X	X	X	—
Ore.	2,195	X	—	—	X	X	Biopsy/autopsy tissues	X	X	—	X	X	X	—	—	X	—
Pa.	1,157	X	X	—	X	X	—	X	X	X	X	X	X	X	—	X	—
S.C.	906	X	—	—	X	X	Urine, tissue, vaginal swabs, body fluids	X	X	X	X	X	X	X	X	Mycoplasma (biphasic media), Chlamydia (iodine stain of TC)	
S.D.	126	X	X	—	X	X	—	X	X	X	X	X	X	—	—	X	—
Tenn.	602	X	—	—	X	X	—	X	X	X	X	—	X	—	—	X	—
Tex.	9,492	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Utah	1,572	X	X	X	X	X	CMV-Urine, Herpes-lesion, Psittacosis ~ birds	X	X	X	X	X	X	X	—	X	—
Va.	559	X	—	—	X	X	Tissue isolates	X	X	X	—	X	X	—	—	—	—
Vt.	32	—	—	—	X	—	—	—	X	—	X	—	—	—	—	—	—
Wash.	538	X	—	—	X	X	Chlamydia-Psittacosis in birds	X	X	X	X	—	X	—	X	Machiavello Stain	
Wis.	5,129	X	X	X	X	X	Bioxy, autopsy	X	X	X	X	X	X	X	X	RFFIT	
W. Va.	203	X	—	—	X	X	CNS — other than arbovirus	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	ELISA	Other	
Total	9,206							
Average	767							
New England								
Conn.	—	—	—	—	—	X	X	
Mass.	—	—	—	—	—	—		
Me.	—	—	—	—	—	—		
N.H.	—	—	—	—	—	—		
R.I.	—	—	—	—	—	—		
Vt.	—	—	—	—	—	—		
Middle Atlantic								
N.J.	5	X	X	X	X	X	Gimenez stain, egg inoculation (yolk sac), Guinea pig inoculation	
N.Y.	—	—	—	—	—	—		
Pa.	30	X	—	X	—	—		
East North Central								
Ill.	—	—	—	—	—	—		
Ind.	—	—	—	—	—	—		
Mich.	—	—	—	—	—	—		
Ohio	—	X	—	X	X	—		
Wisc.	—	—	—	—	—	—		
West North Central								
Ia.	—	—	—	—	—	—		
Kans.	—	—	—	—	—	—		
Minn.	—	—	—	—	—	—		
Mo.	—	—	—	—	—	—		
Nebr.	—	—	—	—	—	—		
N.D.	10	X	—	—	—	X		
S.D.	—	—	—	—	—	—		
South Atlantic								
Del.	—	—	—	—	—	—		
D.C.	—	—	—	—	—	—		
Fla.	—	—	—	—	—	—		
Ga.	—	—	—	—	—	—		
Md.	9	X	X	X	X	X	ELISA	
N.C.	—	—	—	—	—	—		
S.C.	—	X	—	X	X	X		
Va.	6,086	—	—	—	—	—		
W. Va.	810	—	X	—	—	—		
East South Central								
Ala.	1	X	—	—	—	—		
Ky.	—	—	—	—	—	—		
Miss.	—	—	—	—	—	—		
Tenn.	—	—	—	—	—	—		
West South Central								
Ark.	—	X	—	—	X	—		
La.	—	—	—	—	—	—		
Okl.	—	—	—	—	—	—		
Tex.	21	X	X	X	X	X	Microtus inoculations	
Mountain								
Ariz.	—	—	—	—	—	—		
Colo.	—	—	—	—	—	—		
Ida.	—	—	—	—	—	—		
Mont.	7	X	—	—	X	—		
Nev.	—	—	—	—	—	—		
N.M.	—	—	—	—	—	—		
Utah	—	—	—	—	—	—		
Wyo.	—	—	—	—	—	—		
Pacific								
Alaska	—	—	—	—	—	—		
Cal.	112	X	X	X	X	X	Animal inoculation	
Hawaii	—	—	—	—	—	—		
Ore.	—	X	—	—	—	—		
Wash.	12	X	—	—	—	—		
Territories								
Guam	—	—	—	—	—	—		
P.R.	—	—	—	—	—	—		
V.I.	—	—	—	—	—	—		

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

Lab	Number of Specimens	Disease Entity — Procedures Used
Total	22,993	
Average	2,666	
Ala.	48	SLE — HA/AI; Herpes serology — NI
Cal.	40	Water waste effluent — large volume virus concentrations, virus isolations in cell cultures
Ga.	7,423	Rubella — PHA
Ia.	5	Influenza — Kirby Bauer
Md.	1	Environmental sample — tissue culture
Mich.	169	Referred viruses — identification
N.J.	82	Legionnaires' Disease — FA; Psittacosis — Gimenez; Hepatitis — ELISA; Smallpox — Vaccinia HAI test; EB virus — Slide/FA.
Ohio	16,220	Arbovirus mosquito pools — Cell culture, mouse inoculation; bird blood — HI.
Tex.	—	Mycoplasma, psittacosis, arbovirus (bird blood)
W. Va.	5	Mycoplasma pneumoniae — FA, isolation on solid media

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	8,514,630	6,727,757	56,195	120,269	171,560	1,295,052	88,801
Average	163,743	129,380	1,196	3,645	4,766	26,430	6,831
New England	580,148	411,849	12,720	706	8,176	88,714	2,987
Conn.	168,572	81,272	634	—	2,971	26,276	2,423
Mass.	202,356	191,168	265	279	2,275	8,369	—
Me.	28,237	10,376	296	322	2,882	14,361	—
N.H.	40,383	40,383	—	—	—	—	—
R.I.	94,320	57,613	10,034	—	40	26,633	—
Vt.	46,280	31,037	1,491	105	8	13,075	564
Middle Atlantic	259,993	202,360	613	488	2,014	51,417	3,101
N.J.	249,370	201,648	512	—	1,626	44,137	1,447
N.Y.	—	—	—	—	—	—	—
Pa.	10,623	712	101	488	388	7,280	1,654
East North Central	751,188	583,148	7,164	18,535	20,449	115,964	5,928
Ill.	121,870	105,804	417	5,722	1,465	8,462	—
Ind.	64,762	58,601	664	3,432	814	1,251	—
Mich.	328,596	244,914	3,355	4,343	3,395	72,589	—
Ohio	104,651	84,796	287	2,546	3,137	12,404	1,481
Wisc.	131,309	89,033	2,441	2,492	11,638	21,258	4,447
West North Central	847,090	600,575	11,556	11,221	7,921	214,941	876
Ia.	240,879	150,115	6,394	1,885	4,481	77,194	810
Kans.	102,622	75,530	175	1,350	—	25,567	—
Minn.	207,197	148,759	1,328	3,732	2,014	51,364	—
Mo.	144,986	103,598	291	4,236	1,282	35,579	—
Nebr.	66,473	54,355	1,383	—	—	10,669	66
N.D.	47,553	44,896	1,153	—	144	1,360	—
S.D.	37,380	23,322	832	18	—	13,208	—
South Atlantic	2,333,300	1,954,142	10,159	11,433	20,524	333,231	3,811
Del.	39,569	34,525	—	—	—	5,044	—
D.C.	118,611	115,251	10	—	12	442	2,896
Fla.	664,342	566,953	1,576	—	1,293	74,520	—
Ga.	461,293	447,309	664	3,287	2,610	7,423	—
Md.	372,100	232,642	2,256	3,276	11,597	121,563	766
N.C.	236,038	181,590	358	1,925	2,402	49,763	—
S.C.	238,579	189,533	852	1,417	1,010	45,618	149
Va.	168,870	139,210	4,433	1,289	1,242	22,696	—
W. Va.	53,898	47,129	10	239	358	6,162	—
East South Central	1,189,246	1,031,057	3,191	16,157	3,794	135,047	—
Ala.	471,417	441,453	84	2,817	2,158	25,205	—
Ky.	142,167	116,968	87	3,453	1,636	20,023	—
Miss.	271,188	265,775	895	2,333	—	2,185	—
Tenn.	304,174	206,861	2,125	7,554	—	87,634	—
West South Central	1,490,861	1,240,561	3,905	23,483	6,930	144,484	71,498
Ark.	123,901	110,529	497	2,960	623	9,292	—
La.	284,721	144,776	369	1,720	1,536	64,822	71,498
Okla.	133,211	127,106	772	1,631	—	3,702	—
Tex.	949,028	858,150	2,267	17,172	4,771	66,668	—
Mountain	557,970	399,277	2,879	25,310	5,016	124,888	600
Arlz.	69,298	39,340	42	24,844	1,379	3,693	—
Colo.	208,058	147,600	110	—	—	60,348	—
Ida.	19,967	10,916	63	199	2,875	5,642	272
Mont.	56,041	29,168	393	267	242	25,971	—
Nev.	24,065	23,671	51	—	—	15	328
N.M.	90,174	76,249	—	—	—	13,925	—
Utah	69,503	61,006	2,123	—	520	5,854	—
Wyo.	20,864	11,327	97	—	—	9,440	—
Pacific	358,975	164,335	3,466	12,936	96,736	81,502	—
Alaska	—	—	—	—	—	—	—
Cal.	47,584	21,301	1,971	12,188	2,603	9,521	—
Hawaii	48,783	32,253	397	—	—	16,133	—
Ore.	228,369	78,112	827	748	94,133	54,549	—
Wash.	34,239	32,669	271	—	—	1,299	—
Territories	145,859	140,453	542	—	—	4,864	—
Guam	1,579	1,579	—	—	—	—	—
P.R.	133,060	127,654	542	—	—	4,864	—
V.I.	11,220	11,220	—	—	—	—	—

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

Lab & Region	Number of Specimens	Procedures Used											
		VDRL	RPR	ART	USR	RST	FTA-ABS	APTA-ABS	FTA-ABS (IgM)	DEATP	MHA-TP	Dark-field	Other
Total	6,727,757												
Average	129,380												
New England	411,849												
Conn.	81,272	X	X	-	-	-	-	-	-	-	-	-	-
Mass.	191,168	X	X	-	-	-	-	X	-	-	-	-	-
Me.	10,376	X	X	-	-	-	-	-	-	-	-	-	-
N.H.	40,383	X	X	-	-	-	-	-	-	-	-	-	-
R.I.	57,613	X	-	-	-	-	-	X	-	-	-	-	-
Vt.	31,037	-	-	X	-	-	X	-	-	-	-	X	FA darkfield
Middle Atlantic	202,360												
N.J.	201,648	X	X	-	-	-	X	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	712	X	X	-	-	-	X	-	-	-	-	-	-
East North Central	583,148												
Ill.	105,804	X	X	-	-	-	X	-	-	-	X	X	-
Ind.	58,601	X	X	X	-	-	X	-	-	-	-	-	-
Mich.	244,914	X	-	-	-	-	X	-	-	X	X	-	-
Ohio	84,796	X	-	-	-	-	X	-	-	-	-	-	-
Wisc.	89,033	X	-	-	-	-	X	-	X	-	X	X	-
West North Central	600,575												
Ia.	150,115	X	-	-	-	-	X	X	X	-	-	X	Spinal fluid, Kirby Bauer
Kans.	75,530	X	-	-	-	-	X	-	-	-	-	-	-
Minn.	148,759	X	-	-	-	-	X	-	-	-	-	X	-
Mo.	103,598	X	X	-	-	-	X	-	-	-	-	X	-
Nebr.	54,355	X	-	-	X	-	X	-	-	-	-	X	-
N.D.	44,896	-	X	-	-	-	X	-	-	-	-	X	-
S.D.	23,322	X	X	-	-	-	X	-	-	-	X	-	-
South Atlantic	1,954,142												
Del.	34,525	-	X	-	-	-	X	-	-	-	-	X	-
D.C.	116,251	X	-	-	X	-	X	-	-	-	-	-	FTA - CSF (experimental for other neurologists)
Fla.	566,953	X	-	-	-	-	X	-	X	-	-	-	
Ga.	447,309	X	X	-	-	-	X	-	-	-	-	-	-
Md.	232,642	X	X	-	-	-	X	-	X	-	-	X	-
N.C.	181,590	X	-	-	-	-	X	-	-	X	-	-	
S.C.	189,533	X	X	-	-	-	X	-	-	-	-	-	Direct FA
Va.	139,210	X	-	-	-	-	X	-	-	-	-	-	-
W. Va.	47,129	X	X	-	-	-	X	-	-	-	-	-	-
East South Central	1,031,057												
Ala.	441,453	X	-	-	-	-	X	-	-	-	-	-	-
Ky.	116,968	X	X	-	-	-	X	-	-	-	-	X	-
Miss.	265,775	X	X	-	-	-	X	-	-	-	-	-	-
Tenn.	206,861	X	X	-	-	-	X	-	-	-	X	-	-
West South Central	1,240,561												
Ark.	110,529	X	-	-	-	-	X	-	-	-	-	X	-
La.	144,776	X	-	-	-	-	X	-	-	-	-	-	-
Okl.	127,106	X	X	-	-	-	X	-	-	-	-	X	-
Tex.	858,150	X	X	-	-	-	X	-	-	-	X	X	-
Mountain	399,277												
Ariz.	39,340	X	X	-	-	-	X	-	-	-	-	-	-
Colo.	147,600	X	-	-	-	-	X	-	-	-	-	-	-
Ida.	10,916	-	X	-	-	-	X	-	-	-	-	-	-
Mont.	29,168	X	-	-	-	-	X	-	-	-	-	-	Direct FA
Nev.	23,671	X	X	-	-	-	X	-	-	-	-	X	-
N.M.	76,249	X	X	-	-	-	X	-	-	-	-	-	-
Utah	61,006	X	X	-	-	-	X	-	-	-	-	X	-
Wyo.	11,327	X	-	-	-	-	X	-	-	-	-	-	-
Pacific	164,335												
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-
Cal.	21,301	X	-	-	-	-	X	-	-	-	X	X	-
Hawaii	32,253	X	X	-	-	-	X	-	-	-	-	X	-
Ore.	78,112	X	-	X	-	-	X	-	X	-	-	X	-
Wash.	32,669	X	X	-	-	-	X	-	-	-	-	-	-
Territories	140,453											X	CRP, ASO, RA
Guam	1,579	X	-	-	-	-	X	-	-	-	-	-	-
P.R.	127,654	X	-	-	X	-	X	-	-	-	-	-	-
V.I.	11,220	X	-	X	-	-	X	-	-	-	X	-	-

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

Lab & Region	Number of Specimens	Types of Specimens					
		Brucellosis	Tularemia	Strept. Antibodies	Leptospirosis	Salmonella	Other
Total	56,195						
Average	1,196						
New England	12,720						
Conn.	634	X	X	X	-	X	-
Mass.	265	X	X	-	-	X	Seroconversion Bond-pertussis
Me.	296	X	-	X	-	X	Shigella, Hemophilus, N. meningitidis
N.H.	-	-	-	-	-	-	-
R.I.	10,034	X	X	-	-	X	Legionnaires' Disease
Vt.	1,491	X	X	-	-	X	Legionnaires' Disease
Middle Atlantic	613						
N.J.	512	X	X	-	X	-	-
N.Y.	-	-	-	-	-	-	-
Pa.	101	X	X	-	X	-	Tetanus, Diphtheria
East North Central	7,164						
Ill.	417	X	X	-	-	X	Weil-Felix
Ind.	664	X	X	-	X	X	-
Mich.	3,355	X	X	-	X	-	Legionellosis, Pertussis
Ohio	287	X	X	-	X	-	-
Wisc.	2,441	X	X	X	-	X	-
West North Central	11,558						
Ia.	6,394	X	X	X	X	-	-
Kans.	175	X	X	-	X	-	-
Minn.	1,328	X	X	X	-	X	-
Mo.	291	X	X	X	-	-	-
Nebr.	1,383	X	X	-	X	-	-
N.D.	1,153	X	X	X	-	X	-
S.D.	832	X	X	X	-	X	-
South Atlantic	10,159						
Del.	-	-	-	-	-	-	-
D.C.	10	X	X	-	-	-	-
Fla.	1,576	X	-	-	X	-	Typhoid
Ga.	664	X	X	-	X	X	OX-19
Md.	2,256	X	X	X	X	X	Pasteurella multocida, tetanus antitoxin, diphtheria antitoxin, pertussis
N.C.	358	X	X	X	-	-	Legionellosis
S.C.	852	X	X	X	-	X	Legionnaires' Disease; Proteus
Va.	4,433	X	X	X	X	X	OX19, OXK, OX2
W. Va.	10	-	-	X	-	-	Weil-Felix, Typhoid O, Paratyphi B
East South Central	3,191						
Ala.	84	X	X	-	-	-	-
Ky.	87	X	X	-	-	X	Typhoid O, H, Vi
Miss.	895	X	X	X	-	-	-
Tenn.	2,126	X	X	-	-	-	Legionella pneumophila
West South Central	3,905						
Ark.	497	X	X	-	X	X	-
La.	369	X	X	-	X	-	-
Okla.	772	X	X	-	X	-	-
Tex.	2,267	X	X	-	X	X	Legionnaires' Disease IFA
Mountain	2,879						
Ariz.	42	X	X	-	-	-	-
Colo.	110	X	X	-	-	-	-
Ida.	63	X	X	-	-	-	-
Mont.	393	X	X	-	X	-	-
Nev.	51	X	X	-	-	X	-
N.M.	-	-	-	-	-	-	-
Utah	2,123	X	X	-	-	-	Cold agglutination, Weil-Felix
Wyo.	97	X	X	-	-	-	-
Pacific	3,466						
Alaska	-	-	-	-	-	-	-
Cal.	1,971	X	X	-	X	X	Yersinia enterocolitica, Yersinia pseudotuberculosis, Legionnaires' Disease.
Hawaii	397	X	X	X	X	X	-
Ore.	827	X	X	-	X	-	-
Wash.	271	X	X	-	X	-	Proteus OX2, OX11, OX19
Territories	542						
Guam	-	-	-	-	-	-	-
P.R.	542	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						
		Blastomycosis	Coccidioidomycosis	Histoplasmosis	Cryptococcus	Aspergillosis	Candidiasis	Other
Total	120,269							
Average	3,645							
New England	706							
Conn.	—							
Mass.	279							
Me.	322							
N.H.	—							
R.I.	—							
Vt.	105	X — —	X — — X — —	X — — X — —	X — — X — —	X — — X — —	X — — X — —	X — — X — —
Middle Atlantic	488	X — —	X — —	X — —	X — —	X — —	X — —	X — —
N.J.	—							
N.Y.	—							
Pa.	488	X — —	X — —	X — —	X — —	X — —	X — —	X — —
East North Central	18,535	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ill.	5,722	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ind.	3,432	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Mich.	4,343	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ohio	2,546	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Wisc.	2,492	X — —	X — —	X — —	X — —	X — —	X — —	X — —
West North Central	11,221	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ia.	1,885	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Kans.	1,350	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Minn.	3,732	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Mo.	4,236	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Nebr.	—							
N.D.	—							
S.D.	18	X — —	X — —	X — —	X — —	X — —	X — —	X — —
South Atlantic	11,433	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Del.	—							
D.C.	—							
Fla.	—							
Ga.	3,287	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Md.	3,276	X — —	X — —	X — —	X — —	X — —	X — —	X — —
N.C.	1,925	X — —	X — —	X — —	X — —	X — —	X — —	X — —
S.C.	1,417	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Va.	1,289	X — —	X — —	X — —	X — —	X — —	X — —	X — —
W. Va.	239	X — —	X — —	X — —	X — —	X — —	X — —	X — —
East South Central	16,157	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ala.	2,817	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ky.	3,453	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Miss.	2,333	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Tenn.	7,554	X — —	X — —	X — —	X — —	X — —	X — —	X — —
West South Central	23,483	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ark.	2,960	X — —	X — —	X — —	X — —	X — —	X — —	X — —
La.	1,720	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Okl.	1,631	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Tex.	17,172	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Mountain	25,310	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Ariz.	24,844	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Colo.	—							
Ida.	199	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Mont.	267	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Nev.	—							
N.M.	—							
Utah	—							
Wyo.	—							
Pacific	12,936	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Alaska	—	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Cal.	12,188	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Hawaii	—							
Ore.	748	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Wash.	—	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Territories	—	X — —	X — —	X — —	X — —	X — —	X — —	X — —
Guam	—	X — —	X — —	X — —	X — —	X — —	X — —	X — —
P.R.	—	X — —	X — —	X — —	X — —	X — —	X — —	X — —
V.I.	—	X — —	X — —	X — —	X — —	X — —	X — —	X — —

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

Lab & Region	Number of Specimens	Types of Specimens					
		Trichinosis	Toxoplas- mosis	Amebi- asis	Echino- cocciosis	Trypano- somiasis	Other
Total	171,560						
Average	4,766						
New England	8,176						
Conn.....	2,971	X	X	—	—	—	—
Mass.....	2,275	X	X	X	—	—	—
Me.....	2,882	—	X	—	—	—	—
N.H.....	—	—	—	—	—	—	—
R.I.....	40	—	X	—	—	—	—
Vt.....	8	X	—	—	—	—	—
Middle Atlantic	2,014						
N.J.....	1,626	X	X	—	—	—	—
N.Y.....	—	—	—	—	—	—	—
Pa.....	388	X	X	X	X	X	Filariasis, Giardiasis, Malaria, Strongyloides, Schistosomiasis, Pneumocystosis, Paragonimiasis
East North Central	20,449						
Ill.....	1,465	—	X	—	—	—	—
Ind.....	814	X	X	—	—	—	—
Mich.....	3,395	—	X	—	—	—	—
Ohio.....	3,137	—	X	X	—	—	—
Wisc.....	11,638	—	X	—	—	—	—
West North Central	7,921						
Ia.....	4,481	X	X	—	—	—	—
Kans.....	—	—	—	—	—	—	—
Minn.....	2,014	—	X	—	—	—	—
Mo.....	1,282	X	X	—	—	—	—
Nebr.....	—	—	—	—	—	—	—
N.D.....	144	—	X	—	—	—	—
S.D.....	—	—	—	—	—	—	—
South Atlantic	20,524						
Del.....	—	—	—	—	—	—	—
D.C.....	12	—	X	—	—	—	—
Fla.....	1,293	—	X	—	—	—	—
Ga.....	2,610	—	X	—	—	—	—
Md.....	11,597	X	X	X	X	—	—
N.C.....	2,402	—	X	—	—	—	—
S.C.....	1,010	—	X	X	—	—	—
Va.....	1,242	X	X	—	—	—	—
W. Va.....	358	—	X	—	—	—	—
East South Central	3,784						
Ala.....	2,158	—	X	X	—	—	—
Ky.....	1,636	—	X	—	—	—	—
Miss.....	—	—	—	—	—	—	—
Tenn.....	—	—	—	—	—	—	—
West South Central	6,930						
Ark.....	623	X	X	X	—	—	—
La.....	1,536	—	X	—	—	—	—
Oklahoma.....	—	—	—	—	—	—	—
Tex.....	4,771	—	X	X	—	—	—
Mountain	5,016						
Ariz.....	1,379	—	X	—	—	—	—
Colo.....	—	—	—	—	—	—	—
Ida.....	2,875	—	X	—	—	—	—
Mont.....	242	—	—	—	—	—	—
Nev.....	—	—	—	—	—	—	—
N.M.....	—	—	—	—	—	—	—
Utah.....	520	—	X	—	—	—	—
Wyo.....	—	—	—	—	—	—	—
Pacific	96,736						
Alaska.....	—	—	—	—	—	—	—
Cal.....	2,603	X	X	—	—	—	—
Hawaii.....	—	—	—	—	—	—	—
Ore.....	94,133	—	X	—	—	—	—
Wash.....	—	—	—	—	—	—	—
Territories	—						
Guam.....	—	—	—	—	—	—	—
P.R.....	—	—	—	—	—	—	—
V.I.....	—	—	—	—	—	—	—

Table 4-25
V. IMMUNOLOGY
E. Viral and Rickettsial Serology Specimens

Lab & Region	Number of Specimens	Procedures Used													Other
		CF	HI	HAdI	Immunodiffusion (Agar Gel)	Neut. (Tissue Cul.)	FA	Radioimmunoassay	Passive Hemagglutination	Reverse Passive Hemagglutination	OX-Cell Hemolysin	Slide Agglutination	Heterophile Tests		
Total	1,295,052														
Average	26,430														
New England	88,714														
Conn.	26,276	X	X	-	X	-	-	-	-	-	-	-	-	-	Hemolysis in Gel (SRH), Plaque reduction
Mass.	8,369	X	X	-	X	-	-	-	-	-	-	-	-	-	
Me.	14,361	X	X	-	X	-	-	-	-	-	-	-	-	-	
N.H.	-	-	-	-	X	-	-	-	-	-	-	-	-	-	
R.I.	26,633	-	X	-	X	-	-	-	-	-	-	-	-	-	
Vt.	13,075	X	X	-	-	-	-	-	-	-	-	-	-	-	
Middle Atlantic	51,417														
N.J.	44,137	X	X	-	-	-	-	-	-	-	-	-	-	-	ELISA, Weil-Felix Proteus agglutination.
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pa.	7,280	X	X	-	X	-	-	-	-	-	-	-	-	-	
East North Central	115,964														
Ill.	8,462	X	X	-	X	-	-	-	-	-	-	-	-	-	
Ind.	1,251	X	X	-	-	-	-	-	-	-	-	-	-	-	
Mich.	72,589	X	X	-	X	-	-	-	-	-	-	-	-	-	
Ohio	12,404	X	X	-	X	-	-	-	-	-	-	-	-	-	
Wisc.	21,258	X	-	-	-	-	-	-	-	-	-	-	-	-	Chlamidia and mycoplasma isolations, cold agglutinins
West North Central	214,941														
Ia.	77,194	X	X	-	-	-	-	-	-	-	-	-	-	-	
Kans.	25,567	X	X	-	X	-	-	-	-	-	-	-	-	-	
Minn.	51,364	X	X	-	X	-	-	-	-	-	-	-	-	-	
Mo.	35,579	X	X	-	X	-	-	-	-	-	-	-	-	-	
Nebr.	10,669	-	-	-	-	-	-	-	-	-	-	-	-	-	
N.D.	1,360	X	-	-	-	-	-	-	-	-	-	-	-	-	Immunofluorescence
S.D.	13,208	X	X	-	-	-	-	-	-	-	-	-	-	-	
South Atlantic	333,231														
Del.	5,044	X	X	-	X	-	-	-	-	-	-	-	-	-	
D.C.	442	X	X	-	-	-	-	-	-	-	-	-	-	-	
Fla.	74,520	X	X	-	X	-	-	-	-	-	-	-	-	-	
Ga.	7,423	X	X	-	-	-	-	-	-	-	-	-	-	-	
Md.	121,563	X	X	-	X	-	-	-	-	-	-	-	-	-	Legionella pneumophila
N.C.	49,763	X	X	-	-	-	-	-	-	-	-	-	-	-	
S.C.	45,618	X	X	-	-	-	-	-	-	-	-	-	-	-	
Va.	22,696	X	X	-	X	-	-	-	-	-	-	-	-	-	Flocculation, latex
W. Va.	6,162	X	X	-	-	-	-	-	-	-	-	-	-	-	
East South Central	135,047														
Ala.	25,205	X	X	-	-	-	-	-	-	-	-	-	-	-	
Ky.	20,233	X	X	-	-	-	-	-	-	-	-	-	-	-	
Miss.	2,185	-	X	-	-	-	-	-	-	-	-	-	-	-	
Tenn.	87,634	X	X	-	-	-	-	-	-	-	-	-	-	-	
West South Central	144,484														
Ark.	9,292	X	X	-	-	-	-	-	-	-	-	-	-	-	
La.	64,822	X	X	-	-	-	-	-	-	-	-	-	-	-	
Okla.	3,702	X	X	-	-	-	-	-	-	-	-	-	-	-	
Tex.	66,668	X	X	-	-	-	-	-	-	-	-	-	-	-	
Mountain	124,888														
Ariz.	3,693	X	X	-	-	-	-	-	-	-	-	-	-	-	
Colo.	60,348	X	X	-	X	-	-	-	-	-	-	-	-	-	
Ida.	5,642	X	X	-	X	-	-	-	-	-	-	-	-	-	
Mont.	26,971	X	X	-	X	-	-	-	-	-	-	-	-	-	
Nev.	15	-	-	-	-	-	-	-	-	-	-	-	-	-	
N.M.	13,925	X	X	-	-	-	-	-	-	-	-	-	-	-	
Utah	5,854	X	X	-	-	-	-	-	-	-	-	-	-	-	
Wyo.	9,440	-	X	-	-	-	-	-	-	-	-	-	-	-	
Pacific	81,502														
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cal.	9,521	X	X	-	X	-	-	-	-	-	-	-	-	-	ACIF
Hawaii	16,133	X	X	-	X	-	-	-	-	-	-	-	-	-	
Ore.	54,549	X	X	-	-	-	-	-	-	-	-	-	-	-	
Wash.	1,299	X	X	-	-	-	-	-	-	-	-	-	-	-	
Territories	4,864	-	-	X	-	-	-	-	-	-	-	-	-	-	
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P.R.	4,864	-	-	X	-	-	-	-	-	-	-	-	-	-	
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Lab	Number Of Specimens	Disease Entity - Procedures Used
Total	88,801	
Average	6,831	
Conn.	2,423	Legionnaires' - IFA; Bipertussis - Agglutination
D.C.	2,896	Rubella - HAI
Ida.	272	Hepatitis - Elisa
Ia.	810	RA - latex agglutination, nonspecific - CKP
La.	71,498	PKU - Guthrie Screen
Md.	766	Gammopathies, Complement -
Nebr.	66	Legionnaires' Disease - IFA
Nev.	328	Rubella - HAI
N.J.	1,447	Legionnaires' Disease - IFA
Ohio	1,481	Legionnaires' Disease - IFA
Pa.	1,654	Legionnaires' Disease - IFA
S.C.	149	Systemic fungal disease - exoantigen (Immunodiffusion)
Vt.	564	Legionnaires' Disease - IFA
Wisc.	4,447	Rheumatoid arthritis - latex agglutination, antinuclear antibody - FA, thyroid antibody - PHA

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

Lab & Region	Total Hematology Specimens	A	B	C
		Hematology Specimens	Immunohematology Specimens	Hemoglobinopathy Specimens
Total	1,453,047	690,882	238,372	523,793
Average	41,516	32,899	9,168	19,400
New England	16,949	7,270	600	9,079
Conn.	15,524	6,929	15	8,580
Mass.	—	—	—	—
Me.	—	—	—	—
N.H.	—	—	—	—
R.I.	1,425	341	585	499
Vt.	—	—	—	—
Middle Atlantic	430	352	44	34
N.J.	—	—	—	—
N.Y.	—	—	—	—
Pa.	430	352	44	34
East North Central	48,559	12,411	30,945	5,203
Ill.	—	—	—	—
Ind.	—	—	—	—
Mich.	11,902	11,902	—	—
Ohio	4,798	—	—	4,798
Wis.	31,859	509	30,945	405
West North Central	25,549	—	17,992	7,557
Ia.	—	—	—	—
Kans.	—	—	—	—
Minn.	—	—	—	—
Mo.	14,154	—	6,597	7,557
Nebr.	—	—	—	—
N.D.	11,395	—	11,395	—
S.D.	—	—	—	—
South Atlantic	517,480	215,106	79,241	223,133
Del.	1,972	—	—	1,972
D.C.	53,304	40,559	1,960	10,785
Fla.	150,298	71,192	20,299	58,807
Ga.	49,507	—	12,170	37,337
Md.	94,076	53,591	17,312	23,173
N.C.	53,951	2,789	2,299	48,863
S.C.	70,556	46,235	7,913	16,408
Va.	42,557	—	17,288	25,269
W. Va.	1,259	740	—	519
East South Central	265,732	116,627	33,219	115,886
Ala.	77,251	—	10,174	67,077
Ky.	19,376	4,148	6,938	8,290
Miss.	167,979	112,479	14,981	40,519
Tenn.	1,126	—	1,126	—
West South Central	468,722	277,268	48,938	142,516
Ark.	44,980	22,300	5,650	17,030
La.	—	—	—	—
Okl.	9,321	1,899	3,867	3,555
Tex.	414,421	253,069	39,421	121,931
Mountain	40,291	5,676	18,514	16,101
Ariz.	2,886	—	—	2,886
Colo.	29,100	—	16,600	12,500
Ida.	5,139	5,139	—	—
Mont.	—	—	—	—
Nev.	1,166	537	629	—
N.M.	2,000	—	1,285	715
Utah	—	—	—	—
Wyo.	—	—	—	—
Pacific	3,101	43	175	2,883
Alaska	—	—	—	—
Cal.	43	43	—	—
Hawaii	175	—	175	—
Ore.	—	—	—	—
Wash.	2,883	—	—	2,883
Territories	66,234	56,129	8,704	1,401
Guam	4,333	3,923	410	—
P.R.	60,735	52,206	8,294	235
V.I.	1,166	—	—	1,166

Table 4-28
VI. HEMATOLOGY
A. Hematology Specimens

Lab & Region	Number of Specimens	Hematocrit	Hemoglobin	Cell Count	Sed. Rate	Reticulo-cyte Count	Differential	Prothrombin Time	Platelet Count	Other
Total	690,882									
Average	32,899									
New England	7,270									
Conn.	6,929	X	X	X	X	X	X	X	-	Coulter CBC (7 Parameter)
Mass.	-	-	-	-	-	-	-	-	-	-
Me.	-	-	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-
R.I.	341	X	X	X	-	X	X	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-
Middle Atlantic	352									
N.J.	-	-	-	-	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-	-	-	-	-
Pa.	352	X	X	X	X	-	X	X	-	MCV, MCH, MCHC, Photomicrographs
East North Central	12,411									
Ill.	-	-	-	-	-	-	-	-	-	-
Ind.	-	-	-	-	-	-	-	-	-	-
Mich.	11,902	X	X	X	X	X	X	X	X	-
Ohio	-	-	-	-	-	-	-	-	-	-
Wisc.	509	X	X	X	X	X	X	-	X	LE preps.
West North Central	-									
Ia.	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-
Mo.	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-
N.D.	-	-	-	-	-	-	-	-	-	-
S.D.	-	-	-	-	-	-	-	-	-	-
South Atlantic	215,106									
Del.	-	-	-	-	-	-	-	-	-	-
D.C.	40,669	X	X	X	X	-	X	-	X	-
Fla.	71,192	X	X	-	-	-	-	-	-	-
Ga.	-	-	-	-	-	-	-	-	-	-
Md.	53,591	X	X	X	X	X	X	X	X	LE Prep
N.C.	2,789	X	X	X	-	-	X	-	-	-
S.C.	46,235	X	X	X	X	X	X	X	X	Bleeding time
Va.	-	-	-	-	-	-	-	-	-	-
W. Va.	740	X	X	X	X	-	X	-	-	-
East South Central	116,627									
Ala.	-	-	-	-	-	-	-	-	-	-
Ky.	4,148	X	X	X	-	-	X	-	-	-
Miss.	112,479	X	X	X	-	-	-	-	-	MCV, MCH, MCHC
Tenn.	-	-	-	-	-	-	-	-	-	-
West South Central	277,268									
Ark.	22,300	X	X	X	-	-	X	-	-	-
La.	-	-	-	-	-	-	-	-	-	-
Okl.	1,899	X	X	X	-	-	X	-	-	-
Tex.	253,069	X	X	X	X	-	X	-	-	-
Mountain	5,676									
Ariz.	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	-	-	-	-	-	-	-	-
Ida.	5,139	X	-	-	X	-	-	-	-	-
Mont.	-	-	-	-	-	-	-	-	-	-
Nev.	537	X	X	X	-	-	X	-	-	-
N.M.	-	-	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-
Pacific	43									
Alaska	-	-	-	-	-	-	-	-	-	-
Cal.	43	X	X	X	-	-	X	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-
Ore.	-	-	-	-	-	-	-	-	-	-
Wash.	-	-	-	-	-	-	-	-	-	-
Territories	56,129									
Guam	3,923	X	X	X	X	X	X	-	X	RBC, Sperm count
P.R.	52,206	X	X	X	X	X	X	X	X	-
V.I.	-	-	-	-	-	-	-	-	-	-

Table 4-29
VI. HEMATOLOGY
B. Immunohematology Specimens

Lab & Region	Number of Specimens	Blood Grouping	Blood Typing	Other Test
Total	238,372			
Average	9,168			
New England	600			
Conn.	15	X	X	—
Mass.	—	—	—	—
Me.	—	—	—	—
N.H.	—	—	—	—
R.I.	585	—	X	X
Vt.	—	—	—	—
Middle Atlantic	44			
N.J.	—	—	—	—
N.Y.	—	—	—	—
Pa.	44	X	X	—
East North Central	30,945			
Ill.	—	—	—	—
Ind.	—	—	—	—
Mich.	—	—	—	—
Ohio	—	—	—	—
Wisc.	30,945	X	X	Atypical Blood Factor Antibody (antibody screening)
West North Central	17,992			
Ia.	—	—	—	—
Kans.	—	—	—	—
Minn.	—	—	—	—
Mo.	6,597	—	—	X
Nebr.	—	—	—	—
N.D.	11,395	X	X	—
S.D.	—	—	—	—
South Atlantic	79,241			
Del.	—	—	—	—
D.C.	1,960	X	X	X
Fla.	20,299	—	X	—
Ga.	12,170	—	—	Rh determination, irregular antibody screen
Md.	17,312	X	X	X
N.C.	2,299	X	X	X
S.C.	7,913	X	X	—
Va.	17,288	X	X	Du antigen, atypical antibody screens
W. Va.	—	—	—	—
East South Central	33,219			
Ala.	10,174	—	X	X
Ky.	6,938	X	X	Antibody identification
Miss.	14,981	X	X	Indirect Coombs (identification titration)
Tenn.	1,126	X	X	X
West South Central	48,938			
Ark.	5,650	X	X	X
La.	—	—	—	—
Okla.	3,867	X	X	—
Tex.	39,421	X	X	X
Mountain	18,514			
Ariz.	—	—	—	—
Colo.	16,600	—	—	—
Ida.	—	—	—	—
Mont.	—	—	—	—
Nev.	629	X	X	—
N.M.	1,285	X	X	X
Utah	—	—	—	—
Wyo.	—	—	—	—
Pacific	175			
Alaska	—	—	—	—
Cal.	—	—	—	—
Hawaii	175	X	—	—
Ore.	—	—	—	—
Wash.	—	—	—	—
Territories	8,704			
Guam	410	X	X	—
P.R.	8,294	X	X	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	523,793							
Average	19,400							
New England	9,079							
Conn.	8,580	x	x	x	x	x	x	
Mass.	-							
Me.	-							
N.H.	-							
R.I.	499							
Vt.	-							
Middle Atlantic	34							
N.J.	-							
N.Y.	-							
Pa.	34							
East North Central	5,203							
Ill.	-							
Ind.	-							
Mich.	-							
Ohio	4,798	x	x	x	x	x	x	
Wisc.	405							
West North Central	7,557							
Ia.	-							
Kans.	-							
Minn.	-							
Mo.	7,557	x	x	x	x	x	x	
Nebr.	-							
N.D.	-							
S.D.	-							
South Atlantic	223,133							
Del.	1,972	x	x	x	x	x	x	
D.C.	10,785	x	x	x	x	x	x	
Fla.	58,807	x	x	x	x	x	x	
Ga.	37,337	x	x	x	x	x	x	
Md.	23,173	x	x	x	x	x	x	
N.C.	48,863	x	x	x	x	x	x	
S.C.	16,408	x	x	x	x	x	x	
Va.	25,269	x	x	x	x	x	x	
W. Va.	519	x	x	x	x	x	x	
East South Central	115,886							
Ala.	67,077	x	x	x	x	x	x	
Ky.	8,290	x	x	x	x	x	x	
Miss.	40,519	x	x	x	x	x	x	
Tenn.	-							
West South Central	142,516							
Ark.	17,030	x	x	x	x	x	x	
La.	-							
Okl.	3,555	x	x	x	x	x	x	
Tex.	121,931	x	x	x	x	x	x	
Mountain	16,101							
Ariz.	2,886	x	x	x	x	x	x	
Colo.	12,500	x	x	x	x	x	x	
Ida.	-							
Mont.	-							
Nev.	-							
N.M.	715	x	x	x	x	x	x	
Utah	-							
Wyo.	-							
Pacific	2,883							
Alaska	-	x	x	x	x	x	x	
Cal.	-	x	x	x	x	x	x	
Hawaii	-	x	x	x	x	x	x	
Ore.	--	x	x	x	x	x	x	
Wash.	2,883	x	x	x	x	x	x	
Territories	1,401							
Guam	-	x	x	x	x	x	x	
P.R.	235	x	x	x	x	x	x	
V.I.	1,166	x	x	x	x	x	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	4,068,096	481,756	170,621	3,047,686	224,390	144,010
Average	88,437	19,270	8,125	74,334	28,049	36,003
New England	388,202	18,176	2,359	241,498	1,115	125,411
Conn.	116,324	7,196	2,348	106,022	1,115	—
Mass.	195,952	—	—	70,541	—	125,411
Me.	17,363	—	—	17,363	—	—
N.H.	21,310	—	—	21,310	—	—
R.I.	37,253	10,980	11	26,262	—	—
Vt.	—	—	—	—	—	—
Middle Atlantic	262,004	961	44	261,009	—	—
N.J.	97,063	—	—	97,063	—	—
N.Y.	—	—	—	—	—	—
Pa.	164,941	961	44	163,946	—	—
East North Central	619,304	46,022	8,908	555,003	9,319	52
Ill.	12,311	—	—	12,311	—	—
Ind.	—	—	—	—	—	—
Mich.	225,743	16,588	8,908	200,247	—	—
Ohio.	282,585	4,123	—	271,319	7,143	—
Wisc.	98,665	25,311	—	71,126	2,176	52
West North Central	222,931	2,232	—	220,699	—	—
Ia.	2,985	—	—	2,985	—	—
Kans.	50,584	—	—	50,584	—	—
Minn.	68,565	—	—	68,565	—	—
Mo.	58,811	2,232	—	56,579	—	—
Nebr.	2,772	—	—	2,772	—	—
N.D.	39,214	—	—	39,214	—	—
S.D.	—	—	—	—	—	—
South Atlantic	1,198,327	192,891	102,411	684,380	207,027	11,618
Del.	8,602	—	421	8,181	—	—
D.C.	41,629	—	30,011	—	—	11,618
Fla.	308,112	69,194	458	87,283	151,177	—
Ga.	112,479	10,438	—	102,041	—	—
Md.	201,565	62,788	28,936	109,841	—	—
N.C.	151,318	20,955	52	90,108	40,203	—
S.C.	155,276	3,439	41,976	100,552	9,309	—
Va.	150,471	17,409	—	133,062	—	—
W. Va.	68,875	8,668	557	53,312	6,338	—
East South Central	361,407	85,403	1,277	260,869	6,929	6,929
Ala.	151,933	5,516	—	146,417	—	—
Ky.	54,161	7,371	1,277	45,513	—	—
Miss.	86,374	72,516	—	—	6,929	6,929
Tenn.	68,939	—	—	68,939	—	—
West South Central	620,291	108,575	36,046	475,670	—	—
Ark.	71,641	5,047	53	66,541	—	—
La.	54,732	—	—	54,732	—	—
Okl.	50,139	1,503	1,970	46,666	—	—
Tex.	443,779	102,025	34,023	307,731	—	—
Mountain	83,969	44	5,721	78,204	—	—
Ariz.	—	—	—	—	—	—
Colo.	29,600	—	—	29,600	—	—
Ida.	4,579	—	4,455	124	—	—
Mont.	—	—	—	—	—	—
Nev.	8,925	—	1,266	7,659	—	—
N.M.	21,686	44	—	21,642	—	—
Utah	19,179	—	—	19,179	—	—
Wyo.	—	—	—	—	—	—
Pacific	278,486	466	7,926	270,094	—	—
Alaska	—	—	—	—	—	—
Cal.	510	466	12	32	—	—
Hawaii	7,914	—	7,914	—	—	—
Ore.	180,807	—	—	180,807	—	—
Wash.	89,255	—	—	89,255	—	—
Territories	33,175	26,986	5,929	260	—	—
Guam	3,640	638	3,002	—	—	—
P.R.	28,653	25,726	2,927	—	—	—
V.I.	882	622	—	260	—	—

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

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

Lab & Region	Number of Specimens	Procedures Used			
		Routine	Microscopic	Pregnancy Test	Other
Total	170,621				
Average	8,125				
New England	2,359				
Conn.	2,348	X	X	—	—
Mass.	—	—	—	—	—
Me.	—	—	—	—	—
N.H.	—	—	—	—	—
R.I.	11	X	X	—	—
Vt.	—	—	—	—	—
Middle Atlantic	44				
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	44	X	X	X	—
East North Central	8,908				
Ill.	—	—	—	—	—
Ind.	—	—	—	—	—
Mich.	8,908	X	X	—	—
Ohio	—	—	—	—	—
Wisc.	—	—	—	—	—
West North Central	—				
Ia.	—	—	—	—	—
Kans.	—	—	—	—	—
Minn.	—	—	—	—	—
Mo.	—	—	—	—	—
Nebr.	—	—	—	—	—
N.D.	—	—	—	—	—
S.D.	—	—	—	—	—
South Atlantic	102,411				
Del.	421	X	X	—	—
D.C.	30,011	X	X	X	—
Fla.	458	X	—	—	—
Ga.	—	—	—	—	—
Md.	28,936	X	X	X	—
N.C.	52	X	X	—	—
S.C.	41,976	X	X	X	—
Va.	—	—	—	—	—
W. Va.	557	X	X	—	—
East South Central	1,277				
Ala.	—	—	—	—	—
Ky.	1,277	X	X	X	—
Miss.	—	—	—	—	—
Tenn.	—	—	—	—	—
West South Central	36,046				
Ark.	53	X	X	—	—
La.	—	—	—	—	—
Okl.	1,970	X	X	X	—
Tex.	34,023	X	X	X	—
Mountain	5,721				
Ariz.	—	—	—	—	—
Colo.	—	—	—	—	—
Ida.	4,455	X	—	—	X
Mont.	—	—	—	—	—
Nev.	1,266	X	X	—	—
N.M.	—	—	—	—	—
Utah	—	—	—	—	—
Wyo.	—	—	—	—	—
Pacific	7,926				
Alaska	—	—	—	—	—
Cal.	12	X	—	X	—
Hawaii	7,914	—	—	—	INH
Ore.	—	—	—	—	—
Wash.	—	—	—	—	—
Territories	5,929				
Guam	3,002	X	X	X	—
P.R.	2,927	X	X	—	—
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	Galactosemia	MSUD	Hypothyroidism	Amino Acid Chromatography	Homocystinuria	Maternal PKU	
Total	3,047,686									
Average	74,334									
New England	241,498									
Conn.	106,022	X	-	X	-	X	-	-	-	Tay Sachs (serum and leucocytes)
Mass.	70,541	X	-	X	-	X	-	-	-	
Me.	17,363	X	-	X	-	X	-	-	-	
N.H.	21,310	X	-	X	-	X	-	-	-	
R.I.	26,262	X	-	X	-	X	-	-	-	
Vt.	-	-	-	-	-	-	-	-	-	
Middle Atlantic	261,009									
N.J.	97,063	X	-	X	-	X	-	-	-	
N.Y.	-	-	-	-	-	-	-	-	-	
Pa.	163,946	X	-	X	-	X	-	-	-	
East North Central	555,003									
Ill.	12,311	X	-	-	-	-	-	-	-	
Ind.	-	-	-	-	-	-	-	-	-	
Mich.	200,247	X	-	X	-	X	-	-	-	
Ohio	271,319	X	-	X	-	X	-	-	-	
Wisc.	71,126	X	-	X	-	X	-	-	-	
West North Central	220,699									
Ia.	2,985	X	-	-	-	-	-	-	-	
Kans.	50,584	X	-	-	-	-	-	-	-	
Minn.	68,565	X	-	-	-	-	-	-	-	
Mo.	56,579	X	-	-	-	-	-	-	-	
Nebr.	2,772	X	-	-	-	-	-	-	-	
N.D.	39,214	X	-	-	-	-	-	-	-	
S.D.	-	-	-	-	-	-	-	-	-	
South Atlantic	684,380									
Del.	8,181	X	-	-	-	-	-	-	-	
D.C.	-	-	-	-	-	-	-	-	-	
Fla.	87,283	X	-	-	-	-	-	-	-	
Ga.	102,041	X	X	X	X	X	X	-	-	
Md.	109,841	X	X	X	X	X	X	-	-	
N.C.	90,108	X	X	X	X	X	X	-	-	
S.C.	100,552	X	X	X	X	X	X	-	-	
Va.	133,062	X	X	X	X	X	X	-	-	
W. Va.	53,312	X	X	X	X	X	X	-	-	
East South Central	260,869									
Ala.	146,417	X	-	-	-	-	-	-	-	
Ky.	45,513	X	-	-	-	-	-	-	-	
Miss.	-	-	-	-	-	-	-	-	-	
Tenn.	68,939	X	-	-	-	-	-	-	-	
West South Central	475,670									
Ark.	66,541	X	-	-	-	-	-	-	-	
La.	54,732	X	-	-	-	-	-	-	-	Hemoglobin electrophoresis (Sickle cell)
Okla.	46,666	X	-	-	-	-	-	-	-	
Tex.	307,731	X	X	X	X	X	X	-	-	
Mountain	78,204									
Ariz.	-	-	-	-	-	-	-	-	-	
Colo.	29,600	X	-	-	-	-	-	-	-	
Ida.	124*	X	-	-	-	-	-	-	-	
Mont.	-*	-	-	-	-	-	-	-	-	
Nev.	7,659	X	-	-	-	-	-	-	-	
N.M.	21,642	X	-	-	-	-	-	-	-	
Utah	19,179	X	-	-	-	-	-	-	-	
Wyo.	-	-	-	-	-	-	-	-	-	
Pacific	270,094									
Alaska	-*	-	-	-	-	-	-	-	-	
Cal.	32	X	-	-	-	-	-	-	-	
Hawaii	-	-	-	-	-	-	-	-	-	
Ore.	180,807*	X	X	X	X	X	X	-	-	
Wash.	89,255	X	-	-	-	-	-	-	-	
Territories	260									
Guam	-	-	-	-	-	-	-	-	-	
P.R.	-	-	-	-	-	-	-	-	-	
V.I.	260	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 & Regions	Number of Specimens	Procedures Used				
		Single or Discrete Analyzer	2 Channel Anal.	3-6 Channel Anal.	7-12 Channel Anal.	Other Multichannel Analyzers
Total	224,390					
Average	28,049					
New England	1,115					
Conn.	1,115	x	x	x	-	-
Mass.	-	-	-	-	-	-
Me.	-	-	-	-	-	-
N.H.	-	-	-	-	-	-
R.I.	-	-	-	-	-	-
Vt.	-	-	-	-	-	-
Middle Atlantic	-					
N.J.	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-
Pa.	-	-	-	-	-	-
East North Central	9,319					
Ill.	-	-	-	-	-	-
Ind.	-	-	-	-	-	-
Mich.	-	-	-	-	-	-
Ohio	7,143	-	-	-	-	x
Wisc.	2,176	x	-	-	-	-
West North Central	-					
Ia.	-	-	-	-	-	-
Kans.	-	-	-	-	-	-
Minn.	-	-	-	-	-	-
Mo.	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-
N.D.	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
South Atlantic	207,027					
Del.	-	-	-	-	-	-
D.C.	-	-	-	-	-	-
Fla.	151,177	-	-	x	-	-
Ga.	-	-	-	-	-	-
Md.	-	-	-	-	-	-
N.C.	40,203	-	-	-	x	-
S.C.	9,309	x	-	-	-	-
Va.	-	-	-	-	-	-
W. Va.	6,338	-	-	-	-	x
East South Central	6,929					
Ala.	-	-	-	-	-	-
Ky.	-	-	-	-	-	-
Miss.	6,929	-	-	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	144,010	
Average	36,003	
D.C.	11,618	Sickle cell anemia — electrophoresis, solubility test
Mass.	125,411	Umbilical cord blood (filter paper) — Phenylalanine (Guthrie) for maternal PKU, Histidine (Guthrie) for maternal histidinemia; Urine (filter paper) — AA chromatography (for methylmalonic aciduria)
Miss.	6,929	Electrolytes — flame photometer, chloride meter
Wisc.	52	Renal calculi (Stones) — qualitative analysis

Table 4-37
VIII. PATHOLOGY

Lab & Region	Total Pathology Specimens	Exfoliative Cytology Specimens	Cytogenetic Specimens	Other Pathology Specimens	
				Number of Specimens	Types
Total	512,730	495,931	2,093	14,706	
Average	39,441				
New England	3,082	3,082	—	—	—
Conn.	3,082	3,082	—	—	—
Mass.	—	—	—	—	—
Me.	—	—	—	—	—
N.H.	—	—	—	—	—
R.I.	—	—	—	—	—
Vt.	—	—	—	—	—
Middle Atlantic	—	—	—	—	—
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	—	—	—	—	—
East North Central	100,134	86,879	1,598	11,657	—
Ill.	—	—	—	—	—
Ind.	—	—	—	—	—
Mich.	—	—	—	—	—
Ohio	—	—	—	—	—
Wisc.	100,134	86,879	1,598	11,657	Surgical pathology
West North Central	204	—	204	—	—
Ia.	—	—	—	—	—
Kans.	—	—	—	—	—
Minn.	204	—	204	—	—
Mo.	—	—	—	—	—
Nebr.	—	—	—	—	—
N.D.	—	—	—	—	—
S.D.	—	—	—	—	—
South Atlantic	388,123	385,940	—	2,183	—
Del.	47,441	45,313	—	2,128	Hemoccult (occult blood)
D.C.	16,976	16,976	—	—	—
Fla.	—	—	—	—	—
Ga.	—	—	—	—	—
Md.	73,766	73,766	—	—	—
N.C.	204,633	204,633	—	—	—
S.C.	—	—	—	—	—
Va.	—	—	—	—	—
W. Va.	45,307	45,252	—	55	Breast, sputum, rectal, perineal, urine, penis
East South Central	15,547	14,700	—	847	—
Ala.	14,700	14,700	—	—	—
Ky.	847	—	—	847	Investigations of coroner's cases for cause of death
Miss.	—	—	—	—	—
Tenn.	—	—	—	—	—
West South Central	—	—	—	—	—
Ark.	—	—	—	—	—
La.	—	—	—	—	—
Okl.	—	—	—	—	—
Tex.	—	—	—	—	—
Mountain	4,547	4,237	291	19	—
Ariz.	—	—	—	—	—
Colo.	—	—	—	—	—
Ida.	1,480	1,170	291	19	Buccal Smears
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	3,067	3,067	—	—	—
Utah	—	—	—	—	—
Wyo.	—	—	—	—	—
Pacific	—	—	—	—	—
Alaska	—	—	—	—	—
Cal.	—	—	—	—	—
Hawaii	—	—	—	—	—
Ore.	—	—	—	—	—
Wash.	—	—	—	—	—
Territories	1,093	1,093	—	—	—
Guam	1,093	1,093	—	—	—
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	2,629,005	2,117,215	378,229	49,782	8,850
Average	53,653	47,049	10,506	1,106	590
New England	178,864	74,929	22,147	6,212	647
Conn.	23,467	11,918	10,842	691	16
Mass.	38	—	—	38	—
Me.	19,685	19,519	—	—	166
N.H.	—	—	—	—	—
R.I.	29,810	12,844	11,305	5,196	465
Vt.	30,935	30,648	—	287	—
Middle Atlantic	18,906	12,896	3,245	959	6
N.J.	16,906	12,696	3,245	959	6
N.Y.	—	—	—	—	—
Pa.	—	—	—	—	—
East North Central	380,266	330,687	25,267	3,862	450
Ill.	57,620	42,534	13,584	1,232	—
Ind.	58,767	50,280	6,003	2,034	450
Mich.	101,848	96,155	5,362	331	—
Ohio	75,361	74,778	318	265	—
Wisc.	66,940	66,940	—	—	—
West North Central	277,278	260,710	9,749	4,048	2,771
Ia.	45,736	44,863	856	17	—
Kans.	51,274	51,063	—	211	—
Minn.	—	—	—	—	—
Mo.	125,059	119,051	2,186	3,755	67
Nebr.	23,896	23,896	—	—	—
N.D.	10,480	1,059	6,707	10	2,704
S.D.	20,833	20,778	—	55	—
South Atlantic	528,236	471,622	45,444	10,356	814
Del.	11,800	10,437	1,057	306	—
D.C.	1,191	78	386	727	—
Fla.	256,551	226,564	7,384	2,603	—
Ga.	163	—	—	163	—
Md.	103,569	86,972	15,150	1,447	—
N.C.	75,621	75,274	—	347	—
S.C.	15,160	—	11,348	3,812	—
Va.	53,586	46,831	5,115	826	814
W. Va.	30,595	25,466	5,004	125	—
East South Central	318,632	224,010	92,718	1,778	26
Ala.	125,284	86,811	37,475	998	—
Ky.	45,604	36,069	9,367	168	—
Miss.	77,157	56,183	20,472	502	—
Tenn.	70,487	44,947	25,404	110	26
West South Central	653,116	507,377	134,520	8,470	2,749
Ark.	61,972	53,538	7,592	842	—
La.	119,391	77,950	37,712	980	2,749
Okl.	67,211	57,118	9,649	444	—
Tex.	404,542	318,771	79,567	6,204	—
Mountain	208,435	170,916	32,691	4,787	41
Ariz.	24,890	18,136	6,235	519	—
Colo.	36,110	31,712	4,104	294	—
Ida.	41,039	23,230	15,859	1,909	41
Mont.	10,807	10,609	—	207	—
Nev.	22,259	19,127	2,810	322	—
N.M.	27,175	23,285	3,254	636	—
Utah	36,705	35,376	429	900	—
Wyo.	9,441	9,441	—	—	—
Pacific	59,140	51,321	3,949	2,580	1,290
Alaska	—	—	—	—	—
Cal.	14,629	13,416	360	282	571
Hawaii	11,447	6,612	3,589	544	702
Ore.	26,480	26,419	—	44	17
Wash.	6,584	4,874	—	1,710	—
Territories	28,232	12,947	8,499	6,730	66
Guam	302	—	80	222	—
P.R.	19,352	7,584	5,460	6,252	56
V.I.	8,578	5,363	2,959	256	—

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									
Total	2,117,215												
Average	47,049												
New England	74,929												
Conn.	11,918	X											
Mass.		-											
Me.	19,519	X											
N.H.		-											
R.I.	12,844	-											
Vt.	30,648	X											
Middle Atlantic	12,696												
N.J.	12,696	-											
N.Y.	-												
Pa.	-	-											
East North Central	330,887												
Ill.	42,534	X											
Ind.	50,280	X											
Mich.	96,155	X											
Ohio	74,778	X											
Wisc.	66,940	X											
West North Central	260,710												
Ia.	44,863	-											
Kans.	51,063	X											
Minn.	-	-											
Mo.	119,051	X											
Nebr.	23,896	X											
N.D.	1,059	X											
S.D.	20,778	X											
South Atlantic	471,622												
Del.	10,437	X											
D.C.	78	X											
Fla.	226,564	X											
Ga.	-	-											
Md.	86,972	X											
N.C.	75,274	X											
S.C.	-												
Va.	46,831	X											
W. Va.	25,466	X											
East South Central	224,010												
Ala.	86,811	X											
Ky.	36,069	X											
Miss.	56,183	X											
Tenn.	44,947	X											
West South Central	507,377												
Ark.	53,538	X											
La.	77,950	X											
Okl.	57,118	X											
Tex.	318,771	X											
Mountain	170,916												
Ariz.	18,136	X											
Colo.	31,712	X											
Ida.	23,230	X											
Mont.	10,609	-											
Nev.	19,127	X											
N.M.	23,285	X											
Utah	35,376	X											
Wyo.	9,441	-											
Pacific	51,321												
Alaska	-												
Cal.	13,416	X											
Hawaii	6,612	X											
Ore.	26,419	-											
Wash.	4,874	-											
Territories	12,947												
Guam	-	X											
P.R.	7,584	X											
V.I.	5,363	X											

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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	378,229						
Average	10,506						
New England	22,147						
Conn.....	10,842	X	X	X	X	X	Yogurt, empty containers
Mass.....	—	—	—	—	—	—	—
Me.....	—	—	—	—	—	—	—
N.H.....	—	—	—	—	—	—	—
R.I.....	11,305	X	X	X	X	X	X
Vt.....	—	—	—	—	—	—	—
Middle Atlantic	3,245						
N.J.....	3,245	X	X	X	X	X	Non-dairy creamers, reconstituted powdered dairy products
N.Y.....	—	—	—	—	—	—	—
Pa.....	—	—	—	—	—	—	—
East North Central	25,267						
Ill.....	13,584	X	X	X	X	X	—
Ind.....	6,003	X	X	X	X	X	—
Mich.....	5,362	X	X	X	X	—	—
Ohio.....	318	X	X	X	X	—	—
Wisc.....	—	—	—	—	—	—	—
West North Central	9,749						
Ia.....	856	X	—	—	X	—	—
Kans.....	—	—	—	—	—	—	—
Minn.....	—	—	—	—	—	—	—
Mo.....	2,186	X	X	X	X	X	—
Nebr.....	—	—	—	—	—	—	—
N.D.....	6,707	X	X	X	X	X	—
S.D.....	—	—	—	—	—	—	—
South Atlantic	45,444						
Del.....	1,057	X	X	—	—	—	—
D.C.....	386	X	X	X	—	X	—
Fla.....	7,384	X	X	X	X	X	—
Ga.....	—	—	—	—	—	—	—
Md.....	15,150	X	X	X	X	X	—
N.C.....	—	—	—	—	—	—	—
S.C.....	11,348	X	X	—	X	X	—
Va.....	5,115	X	X	—	X	—	Cultured products, milk shakes, counter freezies, milk cartons
W. Va.....	5,004	X	—	—	X	—	—
East South Central	92,718						
Ala.....	37,475	X	X	X	X	X	Empty cartons, sandwich spreads, yogurt, check specimens
Ky.....	9,367	X	X	X	X	X	—
Miss.....	20,472	X	—	—	X	—	—
Tenn.....	25,404	X	X	—	X	X	—
West South Central	134,520						
Ark.....	7,592	X	X	X	X	X	—
La.....	37,712	X	X	X	X	X	Plastic milk containers
Oklahoma.....	9,649	X	—	—	—	—	—
Tex.....	79,567	X	X	—	—	X	—
Mountain	32,691						
Ariz.....	6,235	X	X	—	X	X	—
Colo.....	4,104	X	X	X	X	—	—
Ida.....	15,859	X	—	—	—	—	—
Mont.....	—	—	—	—	—	—	—
Nev.....	2,810	X	X	—	X	—	—
N.M.....	3,254	X	X	X	X	X	—
Utah.....	429	X	X	—	—	X	—
Wyo.....	—	—	—	—	—	—	—
Pacific	3,949						
Alaska.....	—	—	—	—	—	—	—
Cal.....	360	X	—	—	—	—	—
Hawaii.....	3,589	X	X	—	X	X	—
Ore.....	—	—	—	—	—	—	—
Wash.....	—	—	—	—	—	—	—
Territories	8,499						
Guam.....	80	—	—	—	—	—	Raw milk
P.R.....	5,460	X	X	—	X	X	—
V.I.....	2,959	X	X	—	—	—	—

43,052
Table 4-41
IX. ENVIRONMENTAL MICROBIOLOGY

Lab & Region	C. Food and Beverage Samples					D. Other Samples	
	Number of Samples	Food Quality	Types			Number of Samples	Other
			34	38	Food-Associated Disease Outbreaks		
Total	49,782					8,850	
Average	1,106					590	
New England	6,212					647	
Conn.	691	X	X	X	X	16	Shellfish
Mass.	38	—	X	—	—	—	—
Me.	—	—	—	—	—	166	Toys-analysis of stuffing for sanitary quality
N.H.	—	—	—	—	—	—	—
R.I.	5,196	—	—	—	—	465	P.S.P. (Red Tide)
Vt.	287	—	X	—	X	—	—
Middle Atlantic	959					6	
N.J.	959	X	X	—	X	6	Milk for penicillin residue
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	3,862					450	
Ill.	1,232	X	X	X	X	—	—
Ind.	2,034	X	X	X	X	450	Meat products
Mich.	331	—	X	—	—	—	—
Ohio	265	X	X	X	X	—	—
Wisc.	—	—	—	—	—	—	—
West North Central	4,048					2,771	
Ia.	17	—	X	—	—	—	—
Kans.	211	X	X	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	3,755	X	X	—	X	67	Miscellaneous
Nebr.	—	—	—	—	—	—	—
N.D.	10	—	X	—	X	2,704	RODAC, sterility controls from hospitals
S.D.	55	—	X	—	—	—	—
South Atlantic	10,356					814	
Del.	306	X	X	X	X	—	—
D.C.	727	X	X	—	X	—	—
Fla.	2,603	X	X	X	X	—	—
Ga.	163	—	X	X	X	—	—
Md.	1,447	—	X	X	X	—	—
N.C.	347	—	X	X	—	—	—
S.C.	3,812	X	X	X	X	—	—
Va.	826	X	X	—	—	814	Medicated feeds, animal remedies, bioassay
W. Va.	125	X	X	—	—	—	—
East South Central	1,778					26	
Ala.	998	X	X	X	X	—	—
Ky.	168	X	X	—	X	—	—
Miss.	502	—	X	X	X	—	—
Tenn.	110	—	X	—	X	26	Water analysis for enteric pathogens
West South Central	8,470					2,749	
Ark.	842	X	X	—	X	—	—
La.	980	X	—	X	X	2,749	Cholerae (environmental), nuisance organisms
Okl.	444	X	X	—	X	—	—
Tex.	6,204	—	—	—	—	—	—
Mountain	4,787					41	
Ariz.	519	X	X	—	—	—	—
Colo.	294	—	X	—	X	—	—
Ida.	1,909	—	X	—	X	41	Miscellaneous sanitation
Mont.	207	X	X	—	—	—	—
Nev.	322	—	X	—	—	—	—
N.M.	636	X	X	—	X	—	—
Utah	900	X	X	—	X	—	—
Wyo.	—	—	—	—	—	—	—
Pacific	2,580					1,290	
Alaska	—	—	—	—	—	—	—
Cal.	282	X	X	X	X	571	Drug surveillance, HACCP Project, Shellfish for PSP
Hawaii	544	X	X	X	X	702	Hog viscera Salmonella survey
Ore.	44	—	X	X	—	17	Shellfish toxicity
Wash.	1,710	—	—	—	—	—	—
Territories	6,730					56	
Guam	222	X	—	—	—	—	—
P.R.	6,252	X	X	X	X	56	Stools, vomits, containers
V.I.	256	—	X	—	X	—	—

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	881,069	443,965	134,274	31,668	232,069	33,280	5,813
Average	21,489	11,999	4,796	1,056	10,549	1,664	727
New England	110,226	35,439	8,150	1,293	62,982	2,358	4
Conn.	28,800	13,576	5,283	135	9,193	613	—
Mass.	—	—	—	—	—	—	—
Me.	12,384	10,659	—	639	—	1,082	4
N.H.	—	—	—	—	—	—	—
R.I.	65,872	8,051	2,867	502	53,789	663	—
Vt.	3,170	3,153	—	17	—	—	—
Middle Atlantic	13,655	9,917	2,478	1,260	—	—	—
N.J.	13,655	9,917	2,478	1,260	—	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	132,791	90,638	14,880	5,027	18,263	3,465	518
Ill.	24,515	16,199	6,215	708	—	1,393	—
Ind.	24,365	12,824	8,665	2,876	—	—	—
Mich.	28,392	28,392	—	—	—	—	—
Ohio	24,077	13,198	—	886	7,403	2,072	518
Wisc.	31,442	20,025	—	557	10,860	—	—
West North Central	137,827	62,831	5,460	2,911	62,656	3,769	—
Ia.	91,071	31,247	911	557	57,391	965	—
Kans.	16,529	8,920	—	741	4,544	2,324	—
Minn.	—	—	—	—	—	—	—
Mo.	11,311	5,529	4,549	753	—	480	—
Nebr.	8,653	7,793	—	860	—	—	—
N.D.	—	—	—	—	—	—	—
S.D.	10,063	9,342	—	—	721	—	—
South Atlantic	133,655	71,475	29,935	6,223	16,373	8,156	1,493
Del.	4,923	3,975	—	—	—	948	—
D.C.	1,673	—	450	—	25	—	1,198
Fla.	5,179	4,484	52	274	365	—	4
Ga.	—	—	—	—	—	—	—
Md.	48,930	21,310	13,487	1,494	9,269	3,079	291
N.C.	19,883	17,794	—	792	—	1,297	—
S.C.	12,773	—	11,393	1,380	—	—	—
Va.	40,294	23,912	4,553	2,283	6,714	2,832	—
W. Va.	—	—	—	—	—	—	—
East South Central	61,852	48,480	12,155	1,217	—	..	—
Ala.	51,387	39,768	11,619	—	—	—	—
Ky.	7,380	5,627	536	1,217	—	—	—
Miss.	3,085	3,085	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—
West South Central	72,321	24,591	24,926	6,564	8,271	7,969	—
Ark.	6,247	—	6,247	—	—	—	—
La.	16,495	5,176	9,096	408	2	1,813	—
Okl.	4,848	—	4,848	—	—	—	—
Tex.	44,731	19,415	4,735	6,156	8,269	6,156	—
Mountain	151,286	84,781	23,017	2,873	32,473	4,538	3,604
Ariz.	6,136	673	2,282	1,274	1,907	—	—
Colo.	16,920	3,593	2,570	744	6,088	3,925	—
Ida.	84,521	57,527	15,839	618	9,039	—	1,498
Mont.	8,418	3,219	352	44	4,789	14	—
Nev.	8,997	4,322	1,954	60	2,661	—	—
N.M.	18,514	8,061	—	133	7,663	551	2,106
Utah	7,780	7,386	20	—	326	48	—
Wyo.	—	—	—	—	—	—	—
Pacific	57,763	11,152	8,041	4,300	31,051	3,025	194
Alaska	—	—	—	—	—	—	—
Cal.	22,830	7,759	4,808	1,928	5,572	2,569	194
Hawaii	30,566	1,692	3,231	164	25,479	—	—
Ore.	—	—	—	—	—	—	—
Wash.	4,367	1,701	2	2,208	—	456	—
Territories	9,893	4,661	5,232	—	—	—	—
Guam	—	—	—	—	—	—	—
P.R.	8,143	2,911	5,232	—	—	—	—
V.I.	1,750	1,750	—	—	—	—	—

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	443,965					134,274		
Average	11,999					4,796		
New England	35,439					8,150		
Conn.	13,576	X	X	X	X	5,283	X	X
Mass.	—	—	—	—	—	—	—	—
Me.	10,659	X	X	X	X	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	8,051	X	X	X	X	2,867	X	X
Vt.	3,153	X	—	—	—	—	—	—
Middle Atlantic	9,917					2,478		
N.J.	9,917	X	X	—	X	2,478	X	X
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central	90,638					14,880		
Ill.	16,199	X	X	X	X	6,215	X	X
Ind.	12,824	X	X	—	X	8,665	X	X
Mich.	28,392	X	X	—	X	—	—	—
Ohio	13,198	X	X	—	X	—	—	—
Wisc.	20,025	X	X	X	X	—	—	—
West North Central	62,831					5,460		
Ia.	31,247	X	X	X	X	911	X	X
Kans.	8,920	X	X	—	—	—	—	—
Minn.	—	—	—	—	—	—	—	—
Mo.	5,529	X	X	—	—	4,549	X	X
Nebr.	7,793	X	—	—	—	—	—	—
N.D.	—	—	—	—	—	—	—	—
S.D.	9,342	X	X	X	X	—	—	—
South Atlantic	71,475					29,935		
Del.	3,975	X	—	—	—	—	—	—
D.C.	—	—	—	—	—	450	X	X
Fla.	4,484	X	X	—	—	52	—	—
Ga.	—	—	—	—	—	—	—	—
Md.	21,310	X	X	X	X	13,487	X	X
N.C.	17,794	X	X	X	X	—	—	—
S.C.	—	—	—	—	—	11,393	X	X
Va.	23,912	X	X	—	—	4,553	X	X
W. Va.	—	—	—	—	—	—	—	—
East South Central	48,480					12,155		
Ala.	39,768	X	X	X	—	11,619	X	X
Ky.	5,627	X	X	X	—	536	—	—
Miss.	3,085	X	X	X	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—
West South Central	24,591					24,926		
Ark.	—	—	—	—	—	6,247	X	X
La.	5,176	X	X	—	—	9,096	X	X
Okla.	—	—	—	—	—	4,848	X	X
Tex.	19,415	X	X	X	X	4,735	—	X
Mountain	84,781					23,017		
Ariz.	673	X	X	X	X	2,282	X	X
Colo.	3,593	X	X	X	X	2,570	—	X
Ida.	57,527	X	X	X	X	15,839	X	X
Mont.	3,219	X	X	X	X	352	—	X
Nev.	4,322	X	X	X	X	1,954	X	X
N.M.	8,061	X	X	X	X	—	—	—
Utah	7,386	X	X	X	X	20	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	11,152					8,041		
Alaska	—	—	—	—	—	—	—	—
Cal.	7,759	X	X	X	X	4,808	—	X
Hawaii	1,692	X	X	—	—	3,231	X	X
Ore.	—	—	—	—	—	—	—	—
Wash.	1,701	X	X	—	—	2	—	X
Territories	4,661					5,232		
Guam	—	—	—	—	—	—	—	—
P.R.	2,911	X	—	—	—	5,232	X	X
V.I.	1,750	X	X	—	—	—	—	—

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

Lab & Region	Number of Samples	Types			Other
		Human Source	Water	Milk	
Total	31,668				
Average	1,056				
New England	1,293				
Conn.	135	—	×	—	×
Mass.	—	—	—	—	Oils, fish, sediments — muds, sewage, industrial waste
Me.	639	×	×	—	—
N.H.	—	—	—	—	Miscellaneous
R.I.	502	×	×	×	—
Vt.	17	—	×	—	—
Middle Atlantic	1,260				
N.J.	1,260	×	×	×	—
N.Y.	—	—	—	—	Marijuana (paraquat), air and soil, Misc.
Pa.	—	—	—	—	—
East North Central	5,027				
Ill.	708	—	×	×	—
Ind.	2,876	—	—	×	Soil, vegetation, fish
Mich.	—	—	—	—	—
Ohio	886	—	×	×	—
Wisc.	557	—	×	—	Soils, Industrial
West North Central	2,911				
Ia.	557	×	×	—	air, silt
Kans.	741	—	—	—	—
Minn.	—	—	—	—	—
Mo.	753	×	—	—	—
Nebr.	860	—	—	—	—
N.D.	—	—	—	—	—
S.D.	—	—	—	—	—
South Atlantic	6,223				
Del.	—	—	—	—	—
D.C.	—	—	—	—	—
Fla.	274	—	—	—	—
Ga.	—	—	—	—	—
Md.	1,494	—	—	—	Seafood
N.C.	792	—	—	—	—
S.C.	1,380	×	—	—	—
Va.	2,283	—	—	—	Cigars, transformer oil, vegetation
W. Va.	—	—	—	—	Miscellaneous environmental samples
East South Central	1,217				
Ala.	—	—	—	—	—
Ky.	1,217	×	—	—	—
Miss.	—	—	—	—	—
Tenn.	—	—	—	—	—
West South Central	6,564				
Ark.	—	—	—	—	—
La.	408	—	—	—	—
Okl.	—	—	—	—	Soil, Mud, air filter, transformer oil
Tex.	6,156	—	—	—	—
Mountain	2,873				
Ariz.	1,274	—	—	—	—
Colo.	744	—	—	—	—
Ida.	618	×	—	—	—
Mont.	44	—	—	—	Soil
Nev.	60	—	—	—	Air, formulations, soil
N.M.	133	—	—	—	—
Utah	—	—	—	—	Soils
Wyo.	—	—	—	—	—
Pacific	4,300				
Alaska	—	—	—	—	—
Cal.	1,928	—	—	—	—
Hawaii	164	—	—	—	Soil/sediment, wastes
Ore.	—	—	—	—	Sediment
Wash.	2,208	×	—	—	—
Territories	—				
Guam	—	—	—	—	—
P.R.	—	—	—	—	—
V.I.	—	—	—	—	—

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

Lab & Region	Number of Samples	Types of Activity							Number of Continuous Samp. Stations	
		Discrete Sampling Stations					Gaseous	Other		
		Number of Stations	Particulate							
			Solids	Metals	Organics	Other				
Total	232,069									
Average	10,549									
New England	62,982									
Conn.	9,193	80	X	X	X	—	X	—	46	
Mass.	—	—	—	—	—	—	—	—	—	
Me.	—	—	—	—	—	—	—	—	—	
N.H.	—	—	—	—	—	—	—	—	—	
R.I.	53,789	12	X	X	—	—	—	—	4	
Vt.	—	—	—	—	—	—	—	—	—	
Middle Atlantic	—									
N.J.	—	—	—	—	—	—	—	—	—	
N.Y.	—	—	—	—	—	—	—	—	—	
Pa.	—	—	—	—	—	—	—	—	—	
East North Central	18,263									
Ill.	—	—	—	—	—	—	—	—	—	
Ind.	—	—	—	—	—	—	—	—	—	
Mich.	—	—	—	—	—	—	—	—	—	
Ohio	7,403	80	X	X	—	—	X	—	—	
Wisc.	10,860	90	X	—	—	—	X	—	20	
West North Central	62,656									
Ia.	57,391	1	X	X	—	—	X	—	9	
Kans.	4,544	34	—	X	—	—	X	—	4	
Minn.	—	—	—	—	—	—	—	—	—	
Mo.	—	—	—	—	—	—	—	—	—	
Nebr.	—	—	—	—	—	—	—	—	—	
N.D.	—	—	—	—	—	—	—	—	—	
S.D.	721	—	X	—	X	—	—	—	—	
South Atlantic	16,373									
Del.	—	—	—	—	—	—	—	—	—	
D.C.	25	25	—	X	—	—	—	—	—	
Fla.	365	1	X	—	—	—	—	—	—	
Ga.	—	—	—	—	—	—	—	—	—	
Md.	9,269	137	X	X	X	X	X	X	16	
N.C.	—	—	—	—	—	—	—	—	—	
S.C.	—	—	—	—	—	—	—	—	—	
Va.	6,714	90	X	X	—	—	—	—	—	
W. Va.	—	—	—	—	—	—	—	—	—	
East South Central	—									
Ala.	—	—	—	—	—	—	—	—	—	
Ky.	—	—	—	—	—	—	—	—	—	
Miss.	—	—	—	—	—	—	—	—	—	
Tenn.	—	—	—	—	—	—	—	—	—	
West South Central	8,271									
Ark.	—	—	—	—	—	—	—	—	—	
La.	2	—	X	—	—	—	—	—	—	
Okl.	—	—	—	—	—	—	—	—	—	
Tex.	8,269	—	—	X	—	—	X	—	—	
Mountain	32,473									
Ariz.	1,907	40	X	X	X	X	X	X	19	
Colo.	6,088	74	X	X	X	—	—	—	4	
Ida.	9,039	34	X	X	X	—	—	—	6	
Mont.	4,789	50	X	X	X	X	X	X	—	
Nev.	2,661	16	X	X	X	—	—	—	3	
N.M.	7,663	66	X	X	X	X	X	—	—	
Utah	326	3	—	X	—	—	—	—	1	
Wyo.	—	—	—	—	—	—	—	—	—	
Pacific	31,051									
Alaska	—	—	—	—	—	—	—	—	—	
Cal.	5,572	60	X	X	X	—	X	X	10	
Hawaii	25,479	12	X	—	—	—	X	X	8	
Ore.	—	—	—	—	—	—	—	—	—	
Wash.	—	—	—	—	—	—	—	—	—	
Territories	—									
Guam	—	—	—	—	—	—	—	—	—	
P.R.	—	—	—	—	—	—	—	—	—	
V.I.	—	—	—	—	—	—	—	—	—	

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

Lab & Region	Number of Samples	Types								Other
		Air	Water	Milk	Food	Silt	Soil	Wipes		
Total	33,280									
Average	1,664									
New England	2,358									
Conn.	613	x	x	x	x	x	x	x		Shellfish, fish, feed, Industrial waste
Mass.	-	-	-	-	-	-	-	-		-
Me.	1,082	x	x	x	x	x	x	x		Seaweed
N.H.	-	-	-	-	-	-	-	-		-
R.I.	663	x	x	-	-	-	-	x		-
Vt.	-	-	-	-	-	-	-	-		-
Middle Atlantic	-									
N.J.	-	-	-	-	-	-	-	-		-
N.Y.	-	-	-	-	-	-	-	-		-
Pa.	-	-	-	-	-	-	-	-		-
East North Central	3,465									
Ill.	1,393	x	x	x	x	-	-	x		-
Ind.	-	-	-	-	-	-	-	-		-
Mich.	-	-	-	-	-	-	-	-		-
Ohio	2,072	-	x	x	-	x	-	x		-
Wis.	-	-	-	-	-	-	-	-		-
West North Central	3,769									
Ia.	965	x	x	x	-	-	-	-		-
Kans.	2,324	x	x	x	-	-	x	x		-
Minn.	-	-	-	-	-	-	-	-		-
Mo.	480	x	x	-	-	-	-	-		-
Nebr.	-	-	-	-	-	-	-	-		-
N.D.	-	-	-	-	-	-	-	-		-
S.D.	-	-	-	-	-	-	-	-		-
South Atlantic	8,156									
Del.	948	-	x	-	-	-	-	-		-
D.C.	-	-	-	-	-	-	-	-		-
Fla.	-	-	-	-	-	-	-	-		-
Ga.	-	-	-	-	-	-	-	-		-
Md.	3,079	x	x	x	x	x	x	x		-
N.C.	1,297	x	x	x	x	x	x	x		-
S.C.	-	-	-	-	-	-	-	-		-
Va.	2,832	x	x	x	-	-	x	x		-
W. Va.	-	-	-	-	-	-	-	-		-
East South Central	-									
Ala.	-	-	-	-	-	-	-	-		-
Ky.	-	-	-	-	-	-	-	-		-
Miss.	-	-	-	-	-	-	-	-		-
Tenn.	-	-	-	-	-	-	-	-		-
West South Central	7,969									
Ark.	-	-	-	-	-	-	-	-		-
La.	1,813	-	x	-	-	-	-	-		-
Okla.	-	-	-	-	-	-	-	-		-
Tex.	6,156	-	x	x	-	-	x	x		-
Mountain	4,538									
Ariz.	-	-	-	-	-	-	-	-		-
Colo.	3,925	x	x	x	x	x	x	-		-
Ida.	*	-	x	-	-	-	-	-		-
Mont.	14	-	x	-	-	-	-	-		Rock/slag
Nev.	-	-	-	-	-	-	-	-		-
N.M.	551	-	x	-	-	-	-	-		-
Utah	48	x	x	x	-	-	x	x		Luminescent dials
Wyo.	-	-	-	-	-	-	-	-		-
Pacific	3,025									
Alaska	-	-	-	-	-	-	-	-		-
Cal.	2,569	x	x	x	x	x	x	x		Vegetation
Hawaii	-	-	-	-	-	-	-	-		-
Ore.	-	-	-	-	-	-	-	-		-
Wash.	456	x	x	x	x	x	x	x		Wipes and liquids from disposal sites
Territories	-									
Guam	-	-	-	-	-	-	-	-		-
P.R.	-	-	-	-	-	-	-	-		-
V.I.	-	-	-	-	-	-	-	-		-

* Included in water samples, Table 4-43

Table 4-47
ENVIRONMENTAL CHEMISTRY
F. Other Samples

Lab	Number of Samples	Types
Total	5,813	
Average	727	
Cal.	194	Air monitoring instrument calibration
D.C.	1,198	Soil (metals), vegetables (metals)
Fla.	4	Bedding
Ida.	1,498	Utensil counts, miscellaneous
Me.	4	—
Md.	291	Bedding and upholstery
N.M.	2,106	Heavy metals in/on soils; muds; water
Ohio	518	All matrices — organics, all matrices — inorganics

Table 4-48
XI. OCCUPATIONAL HEALTH AND SAFETY

Lab & Region	Total Occup. Health & Safety Samples	Number of Environmental Samples	Number of Biological Samples
Total	60,187	58,956	2,903
Average	3,168	3,103	363
New England	3,824	1,958	1,866
Conn.	2,672	806	1,866
Mass.	—	—	—
Me.	45	45	—
N.H.	—	—	—
R.I.	1,107	1,107	—
Vt.	—	—	—
Middle Atlantic	—	—	—
N.J.	—	—	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central	16,950	16,802	148
Ill.	—	—	—
Ind.	—	—	—
Mich.	—	—	—
Ohio	6,506	6,502	4
Wisc.	10,444	10,300	144
West North Central	4,210	4,145	65
Ia.	3,285	3,220	65
Kans.	925	925	—
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	—	—	—
South Atlantic	16,925	16,848	77
Del.	—	—	—
D.C.	—	—	—
Fla.	1,231	1,231	—
Ga.	97	97	—
Md.	9,264	9,264	—
N.C.	4,956	4,956	—
S.C.	—	—	—
Va.	1,377	1,300	77
W. Va.	—	—	—
East South Central	2,656	2,656	—
Ala.	—	—	—
Ky.	2,656	2,656	—
Miss.	—	—	—
Tenn.	—	—	—
West South Central	—	—	—
Ark.	—	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	—	—	—
Mountain	3,899	3,182	717
Ariz.	842	842	—
Colo.	473	473	—
Ida.	—	—	—
Mont.	178	117	61
Nev.	—	—	—
N.M.	208	208	—
Utah	2,198	1,542	656
Wyo.	—	—	—
Pacific	11,723	11,693	30
Alaska	—	—	—
Cal.	11,723	11,693	30
Hawaii	—	—	—
Ore.	—	—	—
Wash.	—	—	—
Territories	—	—	—
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

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

Lab & Region	Total Toxicology Samples	A	B
		Physical Samples	Biological Samples
Total	544,730	78,523	466,207
Average	11,590	3,020	14,127
New England	216,506	46,824	169,682
Conn.	72,684	42,455	30,229
Mass.	113,386	250	113,136
Me.	7,715	802	6,913
N.H.	35	—	35
R.I.	18,525	3,098	15,427
Vt.	4,161	219	3,942
Middle Atlantic	1,008	8	1,000
N.J.	—	—	—
N.Y.	—	—	—
Pa.	1,008	8	1,000
East North Central	34,955	662	34,293
Ill.	12,535	399	12,136
Ind.	39	39	—
Mich.	—	—	—
Ohio	14,455	144	14,311
Wisc.	7,926	80	7,846
West North Central	17,224	5,110	12,114
Ia.	7,426	740	6,686
Kans.	3,136	107	3,029
Minn.	—	—	—
Mo.	861	332	529
Nebr.	5,801	3,931	1,870
N.D.	—	—	—
S.D.	—	—	—
South Atlantic	156,019	1,562	154,457
Del.	2,502	—	2,502
D.C.	18,815	—	18,815
Fla.	18,272	60	18,212
Ga.	39,112	—	39,112
Md.	37,053	622	36,431
N.C.	5,218	—	5,218
S.C.	12,355	188	12,167
Va.	22,692	692	22,000
W. Va.	—	—	—
East South Central	8,330	571	7,759
Ala.	5,026	—	5,026
Ky.	3,304	571	2,733
Miss.	—	—	—
Tenn.	—	—	—
West South Central	39,998	—	39,998
Ark.	—	—	—
La.	—	—	—
Okl.	—	—	—
Tex.	39,998	—	39,998
Mountain	61,127	21,533	39,594
Ariz.	—	—	—
Colo.	15,397	—	15,397
Ida.	30,590	20,594	9,996
Mont.	2	2	—
Nev.	—	—	—
N.M.	7,728	—	7,728
Utah	5,626	937	4,689
Wyo.	1,784	—	1,784
Pacific	8,615	1,951	6,664
Alaska	—	—	—
Cal.	6,551	1,523	5,028
Hawaii	33	33	—
Ore.	—	—	—
Wash.	2,031	395	1,636
Territories	948	302	646
Guam	—	—	—
P.R.	646	—	646
V.I.	302	302	—

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

Lab	Number of Samples	Types										Other
		Liquids for Alcohol	Pesticides	PCBs	Plant and Plant Material	Drugs and Narcotics	Articles for Blood Stains	Paint- Comparison	Paint- Lead	Fibers and Hairs	Gunpowder Residues	
Total	78,523											
Average	3,020											
Cal.	1,523	O	—	—	—	O	—	—	O	—	—	Mutagenic screening
Conn.	42,455	F	—	—	F	F	F	F	O	F/O	F	F/Clay, sand, concrete, fire accelerants, clothing for seminal stains
Fla.	60	O	O	—	—	O	—	—	O	—	—	—
Hawaii	33	—	—	—	O	O	—	—	—	—	—	—
Ida.	20,594	F	—	—	F	F	F	—	—	F	—	Arson and glass samples
Ill.	399	F/O	—	—	F/O	F/O	—	—	—	—	—	F/O foodstuffs
Ind.	39	—	—	—	O	O	—	—	X	—	—	—
Ia.	740	—	O	O	—	—	—	—	O	—	—	—
Kans.	107	F	—	—	—	F/O	—	—	O	—	—	F — foodstuffs
Ky.	571	F/O	F/O	F/O	F	F	—	—	O	—	—	—
Me.	802	F	O	O	F	F	—	—	F	—	—	—
Md.	622	O	—	—	F	F/O	—	—	—	—	—	—
Mass.	250	—	—	—	—	—	—	—	O	—	—	—
Mo.	332	—	O	—	O	—	—	—	O	O	—	—
Mont.	2	—	—	—	—	—	—	—	O	—	—	O/Pottery — leachable lead
Nebr.	3,931	O	—	—	F	F	—	—	—	—	—	—
Ohio	144	F/O	O	O	F/O	F/O	—	—	O	—	—	—
Pa.	8	O	—	—	—	O	—	—	—	—	—	—
R.I.	3,098	F	—	—	F	F	—	—	—	—	—	tear gas, liquids and materials containing dangerous substances, glues for volatiles
S.C.	188	—	O	—	—	O	—	—	O	—	—	O/Food and drink for lead, heavy metals, hydrocarbons, and ammonia; utensils, toys, etc. for lead and other heavy metals
Utah	937	F	—	—	F	F	—	—	—	—	—	—
Va.	692	—	—	—	—	—	—	—	O	—	—	Soils for lead
Vt.	302	—	—	—	—	X	—	—	—	—	—	—
Wash.	219	—	—	—	—	F	—	—	O	—	—	Pottery
Wisc.	395	—	O	O	—	—	—	—	—	—	—	—
	80	—	—	—	O	O	—	—	O	—	—	—

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	468,207								
Average	14,127								
New England	169,682								
Conn.....	30,229	F	F	F	O	O	-	-	
Mass.....	113,136	-	-	F	O	-	F	-	
Me.....	6,913	F	F	-	O	F	-	O	
N.H.....	35	-	-	F	O	-	F	-	
R.I.....	15,427	F	F	-	O	F	-	-	
Vt.....	3,942	F	F	-	O	-	-	-	
Middle Atlantic	1,000								
N.J.....	-	-	-	-	-	-	-	-	
N.Y.....	-	-	-	-	-	-	-	-	
Pa.....	1,000	F	O	O	O	-	-	-	
East North Central	34,293								
Ill.....	12,136	F/O	F/O	F/O	F/O	F/O	F/O	F/O	F/O Erythrocyte protoporphyrin
Ind.....	-	-	-	-	-	-	-	-	-
Mich.....	-	-	-	-	-	-	-	-	-
Ohio.....	14,311	F/O	F/O	F/O	O	O	-	O	F/O paraquat
Wisc.....	7,846	F/O	O	O	O	O	O	-	CO ₂ , Cholinesterase, erythrocyte protoporphyrin
West North Central	12,114								
Ia.....	6,686	-	-	-	O	-	-	O	O/pesticides
Kans.....	3,029	F	F	F/O	O	F/O	-	-	-
Minn.....	-	-	-	-	-	-	-	-	-
Mo.....	529	O	-	O	O	-	-	-	-
Nebr.....	1,870	F/O	F	F	O	-	-	-	-
N.D.....	-	-	-	-	-	-	-	-	-
S.D.....	-	-	-	-	-	-	-	-	-
South Atlantic	154,457								
Del.....	2,502	-	-	-	O	-	-	-	
D.C.....	18,815	-	-	-	O	-	-	-	O/Erythrocyte protoporphyrin
Fla.....	18,212	F	O	O	O	O	-	O	-
Ga.....	39,112	-	-	-	O	-	-	-	-
Md.....	36,431	-	-	O	O	-	-	-	-
N.C.....	5,218	-	-	-	O	-	-	-	-
S.C.....	12,167	O	-	O	O	O	-	O	Erythrocyte protoporphyrin lead screen
Va.....	22,000	-	-	-	O	-	-	-	-
W. Va.....	-	-	-	-	-	-	-	-	-
East South Central	7,759								
Ala.....	5,026	-	-	-	O	-	-	-	-
Ky.....	2,733	F	F	F	F	F	-	-	-
Miss.....	-	-	-	-	-	-	-	-	-
Tenn.....	-	-	-	-	-	-	-	-	-
West South Central	39,998								
Ark.....	-	-	-	-	-	-	-	-	-
La.....	-	-	-	-	-	-	-	-	-
Oklahoma.....	-	-	-	-	-	-	-	-	-
Tex.....	39,998	-	-	O	O	-	-	-	-
Mountain	39,594								
Ariz.....	-	-	-	-	-	-	-	-	-
Colo.....	15,397	F	-	F	-	-	-	-	
Ida.....	9,996	F	O	F	-	-	-	-	Serology
Mont.....	-	-	-	-	-	-	-	-	-
Nev.....	-	-	-	-	-	-	-	-	-
N.M.....	7,728	F	-	O	O	-	-	-	-
Utah.....	4,689	F	F	F	-	-	-	-	-
Wyo.....	1,784	F/O	F/O	F/O	O	O	-	-	-
Pacific	6,664								
Alaska.....	-	-	-	-	-	-	-	-	
Cal.....	5,028	O	-	-	O	-	-	-	FEP
Hawaii.....	-	-	-	-	-	-	-	-	-
Ore.....	-	-	-	-	-	-	-	-	-
Wash.....	1,636	-	-	-	O	-	-	-	O-Pesticides
Territories	646								
Guam.....	-	-	-	-	-	-	-	-	-
P.R.....	646	-	-	-	-	-	-	-	-
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 Persons	Insecticides	Other	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Persons	Insecticides	Other				
	F	F	F	O	F/O	O	O	-	F	F	F	-	O	F	O	O	O	O	O	O
New England																				
Conn.	F	F	F	O	F/O	O	O	-	F	F	F	-	O	F	O	O	O	O	O	O
Mass.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Me.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Atlantic																				
N.J.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East North Central																				
Ill.	F/O	F/O	F/O	-	F/O	O	F/O	-	F/O	F/O	F	-	F	F	F	F	F	F	F	F
Ind.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mich.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	F/O	F/O	F/O	O	F/O	O	F/O	-	F/O	F/O	F/Q	-	F/Q	F/O	F/O	F/O	F/O	F/O	F/O	F/O
Wisc.	F/O	O	F/O	O	F/O	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
West North Central																				
Ia.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nebr.	F/O	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.D.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S.D.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Atlantic																				
Del.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ga.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Md.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East South Central																				
Ala.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ky.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miss.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tenn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West South Central																				
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tex.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mountain																				
Ariz.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ida.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mont.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nev.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N.M.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wyo.	F/O	-	F/O	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific																				
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cal.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ore.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wash.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Territories																				
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Lab & Region	4. Body Fluids							5. Breath			6. Other	
	Ethyl Alcohol	Other Volatile	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other	Volatile	Other		
New England												
Conn.	F	F	F	O	F/O	-	-	-	F	-	-	
Mass.	-	-	-	F	-	F/O	O	-	F	-	-	
Me.	F	F	F	O	-	-	-	-	-	-	-	
N.H.	-	-	-	-	-	-	-	-	-	-	O Red Tide (Shellfish)	
R.I.	F	-	F	-	F	-	-	F	-	-	-	
Vt.	-	-	-	-	-	-	-	-	-	Breath alcohol	-	
Middle Atlantic												
N.J.	-	-	-	-	-	-	-	-	-	-	-	
N.Y.	-	-	-	-	-	-	-	-	-	-	-	
Pa.	-	-	-	-	-	-	-	-	-	-	-	
East North Central												
Ill.	F/O	F/O	F/O	F/O	F/O	F/O	F/O	-	-	-	-	
Ind.	-	-	-	-	-	-	-	-	-	-	-	
Mich.	-	-	-	-	-	-	-	-	-	-	-	
Ohio	F/O	F/O	F/O	-	-	-	-	F/O	F/O	-	F/O-beverages, pills, capsules	
Wisc.	O	O	O	-	-	-	-	-	-	-	-	
West North Central												
Ia.	-	-	-	-	-	-	-	-	-	-	-	
Kans.	F/O	F/O	F/O	-	O	-	-	-	-	-	O-hair and nails for arsenic	
Minn.	-	-	-	-	-	-	-	-	-	-	-	
Mo.	-	-	-	-	-	-	-	-	-	-	-	
Nebr.	-	-	-	-	-	-	-	-	-	-	-	
N.D.	-	-	-	-	-	-	-	-	-	-	-	
S.D.	-	-	-	-	-	-	-	-	-	-	-	
South Atlantic												
Del.	-	-	-	-	-	-	-	-	-	-	-	
D.C.	-	-	-	-	-	-	-	-	-	-	-	
Fla.	O	O	O	O	O	O	O	-	-	-	-	
Ga.	-	-	-	-	-	-	-	-	-	-	-	
Md.	-	-	-	-	-	-	-	-	-	-	-	
N.C.	-	-	-	-	-	-	-	-	-	-	-	
S.C.	-	-	-	-	-	-	-	-	-	-	-	
Va.	-	-	-	-	-	-	-	-	-	-	-	
W. Va.	-	-	-	-	-	-	-	-	-	-	-	
East South Central												
Ala.	-	-	-	-	-	-	-	-	-	-	-	
Ky.	F	F	F	F	F	F	-	-	-	-	-	
Miss.	-	-	-	-	-	-	-	-	-	-	-	
Tenn.	-	-	-	-	-	-	-	-	-	-	-	
West South Central												
Ark.	-	-	-	-	-	-	-	-	-	-	-	
La.	-	-	-	-	-	-	-	-	-	-	-	
Oklia.	-	-	-	-	-	-	-	-	-	-	-	
Tex.	-	-	-	-	-	-	-	-	-	-	-	
Mountain												
Ariz.	-	-	-	-	-	-	-	-	-	-	-	
Colo.	-	-	-	-	-	-	-	-	-	-	-	
Ida.	-	-	F/O	-	-	-	-	-	-	-	-	
Mont.	-	-	-	-	-	-	-	-	-	-	-	
Nav.	-	-	-	-	-	-	-	-	-	-	-	
N.M.	-	-	-	-	-	-	-	-	-	-	Ethyl alcohol	
Utah	-	-	F	-	-	-	-	-	-	-	-	
Wyo.	F/O	F/O	F/O	-	-	-	-	-	F	-	-	
Pacific												
Alaska	-	-	-	-	-	-	-	-	-	-	-	
Cal.	-	-	-	-	-	-	-	-	O	-	-	
Hawaii	-	-	-	-	-	-	-	-	-	-	-	
Ore.	-	-	-	-	-	-	-	-	-	-	-	
Wash.	-	-	-	-	-	-	-	O	-	-	-	
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	290.4	16,736	406	377	2,565	—
Average	7.3	429	8.8	17.1	73.3	
New England	15	249	118	33	120	—
Conn.	11.0	156	113	28	72	x
Mass.	—	—	—	—	—	
Me.	—	57	2	3	35	x
N.H.	1.0	36	1	—	—	
R.I.	3.0	—	1	2	13	
Vt.	—	—	1	—	—	
Middle Atlantic	44.5	2,464	11	—	410	—
N.J.	23.0	464	8	—	133	
N.Y.	—	—	—	—	—	
Pa.	21.5	2,000	3	—	277	x
East North Central	32.1	3,197	55	154	450	—
Ill.	8.0	1,800	13	—	—	
Ind.	2.1	—	6	—	57	
Mich.	12.0	—	18	—	—	
Ohio	10.0	397	10	—	350	
Wisc.	—	1,000	8	154	43	
West North Central	33.5	1,540	26	48	200	—
Ia.	7.0	366	—	31	30	
Kans.	5.0	212	3	13	100	x
Minn.	10.3	695	5	—	—	
Mo.	6.0	—	8	—	39	
Nebr.	2.2	137	3	—	17	
N.D.	1.0	63	4	4	14	
S.D.	2.0	67	3	—	—	
South Atlantic	59.1	1,438	39	58	305	—
Del.	0.3	25	1	1	8	
D.C.	2.0	65	1	1	3	
Fla.	28.0	850	9	—	179	x
Ga.	—	—	—	—	—	
Md.	6.0	173	9	20	39	
N.C.	10.0	—	—	—	—	
S.C.	5.5	93	8	17	—	
Va.	3.3	—	10	19	76	
W. Va.	4.0	232	1	—	—	
East South Central	9.0	1,547	27	55	133	—
Ala.	—	—	9	9	20	
Ky.	3.0	1,117	8	—	—	
Miss.	—	200	5	6	13	
Tenn.	6.0	230	5	40	100	
West South Central	5.5	484	15	—	40	—
Ark.	3.0	160	2	—	40	
La.	—	—	7	—	—	
Okla.	2.5	324	6	—	—	
Tex.	—	—	—	—	—	
Mountain	32.7	1,116	43	20	206	—
Ariz.	8.0	171	10	—	31	
Colo.	3.0	185	10	7	30	
Ida.	7.5	212	7	7	35	x
Mont.	2.7	126	2	—	26	
Nev.	5.2	160	4	2	24	
N.M.	2.3	95	4	4	30	x
Utah	4.0	115	6	—	23	x
Wyo.	—	52	—	—	7	
Pacific	51.0	4,274	65	4	690	—
Alaska	—	—	—	—	—	
Cal.	40.0	4,000	39	—	643	
Hawaii	1.0	74	4	4	8	
Ore.	4.0	200	3	—	39	
Wash.	6.0	—	19	—	—	
Territories	8.0	427	7	5	11	—
Guam	—	7	2	2	3	
P.R.	8.0	419	4	3	8	
V.I.	—	1	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 Licensing, Registering, Approving, Certifying Laboratories
			Lic./App.	Reg.	Cert.	
Total	16,736	11,446	8,674	746	2,715	
Average	429	260	234	93	118	
New England	249	543	518	32	121	
Conn.	156	182	182	—	81	—
Mass.	—	254	254	—	—	Laboratory Regulation Program of the Division of Health Facility Regulation
Me.	57	2	2	—	2	Hospital Services Division approves hospital laboratories for Medicare-Medicaid reimbursement
N.H.	36	6	—	—	6	—
R.I.	—	67	67	—	32	—
Vt.	—	32	13	32	—	—
Middle Atlantic	2,464	981	981	—	97	
N.J.	464	464	464	—	97	—
N.Y.	—	—	—	—	—	—
Pa.	2,000	517	517	—	—	—
East North Central	3,197	1,389	1,505	55	687	
Ill.	1,800	287	567	—	—	—
Ind.	—	156	153	—	3	Division of Medical Care Administration—Medicare/Medicaid
Mich.	—	533	478	55	150	—
Ohio	397	—	307	—	121	—
Wisc.	1,000	413	—	—	413	—
West North Central	1,540	692	586	24	315	
Ia.	366	99	99	—	—	—
Kans.	212	212	198	12	107	—
Minn.	695	—	—	—	—	Division of Health Systems (Medicare and CLIA-67 only)
Mo.	—	271	220	—	160	—
Nebr.	137	62	62	—	—	—
N.D.	63	—	—	—	—	Division of Health Facilities for Medicare
S.D.	67	48	7	12	48	—
South Atlantic	1,438	1,297	767	—	352	
Del.	25	16	16	—	—	—
D.C.	65	65	38	—	39	—
Fla.	850	770	409	—	212	—
Ga.	—	—	—	—	—	—
Md.	173	173	173	—	—	—
N.C.	—	14	—	—	14	Division of Facility Service (Medicare, Medicaid, Syphilis Serology)
S.C.	93	93	—	—	—	Bureau of Health Licensing and Certification (Certificates for Medicare)
Va.	—	—	—	—	—	Dept. of Health, except water, milk, blood banks, Syphilis Serology
W. Va.	232	166	131	—	87	—
East South Central	1,547	559	559	—	33	
Ala.	—	—	—	—	—	Bureau of Licensure and Certification
Ky.	1,117	203	203	—	—	Division for Licensure and Regulation certifies labs

Table 4-55
XIII. LABORATORY IMPROVEMENT PROGRAM – Continued
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 Licensing, Registering, Approving, Certifying Laboratories
			Lic./App.	Reg.	Cert.	
Miss.	200	126	126	—	—	—
Tenn.	230	230	230	—	33	—
West South Central ...	484	1,945	425	—	14	—
Ark.	160	120	120	—	—	—
La.	—	—	—	—	—	Office of Licensing Certification is responsible for certification of clinical labs
Oklahoma.	324	185	185	—	9	—
Tex.	—	1,640	120	—	5	Medicare—Licensing and Certification Bureau of the Texas Department of Health
Mountain ...	1,116	1,011	714	279	55	—
Arlz.	171	171	123	48	—	—
Colo.	185	134	116	—	—	—
Ida.	212	212	212	—	55	—
Mont.	126	126	—	126	—	—
Nev.	160	160	55	105	—	—
N.M.	95	95	95	—	—	—
Utah	115	61	61	—	—	—
Wyo.	52	52	52	—	—	—
Pacific ...	4,274	2,009	2,200	356	1,041	—
Alaska	—	—	—	—	—	—
Cal.	4,000	2,000	2,000	—	850	—
Hawaii	74	53	—	—	53	—
Ore.	200	200	200	—	—	—
Wash.	—	356	—	356	138	—
Territories ...	427	420	419	—	—	—
Guam	7	—	—	—	—	—
P.R.	419	419	419	—	—	—
V.I.	1	1	—	—	—	—

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

Lab & Region	Activity of Laboratory Improvement Program Staff																		7. Trng	8. Consult			
	5. Proficiency Testing																						
	Diag. Bact.	Mycology	Parasitology	Virology	Immunology		Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dairy/Food	Other			Lic./App.	Cert.	Other	Lic./App.	Cert.	Other		
					Syphilis Serology	Non-Syphilis Serology							Other										
New England																							
Conn.	x	x	x	x	-	-	x	x	-	-	-	-				x	x	x	x	x	x	x	
Mass.	x	-	x	-	-	-	x	x	-	-	-	-				x	-	-	-	x	x	x	
Me.	x	x	-	-	-	-	x	-	-	-	-	-				x	-	x	-	x	x	x	
N.H.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
R.I.	x	x	x	-	-	-	x	-	-	-	-	-				x	-	-	-	x	x	x	
Vt.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	x	x	x	
Middle Atlantic																							
N.J.	x	x	x	-	-	x	x	x	x	x	x	x				x	x	x	x	x	x	x	
N.Y.	-	-	-	x	-	-	x	-	-	-	-	-				-	-	-	-	-	x	x	
Pa.	x	x	x	x	-	-	x	x	-	-	-	-				x	-	x	x	x	x	x	
East North Central																							
Ill.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	x	-	x	x	
Ind.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	-	x	x	x	
Mich.	x	x	x	-	-	-	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	x	x	x	x	
Wisc.	x	x	x	-	-	-	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	-	x	x	
Kans.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	x	-	x	x	
Minn.	x	x	x	-	-	-	x	x	x	x	x	x				x	-	-	x	-	x	x	
Mo.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	
N.D.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	-	-	
S.D.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	-	-	
South Atlantic																							
Del.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
D.C.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Fla.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Ga.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	-	-	
Md.	x	x	x	x	-	-	x	x	x	x	x	x				x	x	x	x	x	x	x	
N.C.	x	x	x	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
S.C.	x	x	x	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Va.	-	-	-	x	-	-	x	-	-	-	-	-				-	-	-	-	-	x	x	
W. Va.	x	-	x	-	-	-	x	-	-	-	-	-				x	-	x	x	x	x	x	
East South Central																							
Ala.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	x	x	
Ky.	x	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	-	-	
Miss.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	-	-	
Tenn.	-	-	-	-	-	-	x	-	-	-	-	-				-	-	-	-	-	-	-	
West South Central																							
Ark.	x	x	x	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
La.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Okl.	-	-	-	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Tex.	x	-	x	x	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Mountain																							
Ariz.	-	-	-	-	-	-	-	x	-	-	-	-				x	x	-	-	x	x	x	
Colo.	x	x	x	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Ida.	x	x	x	-	-	-	x	-	-	-	-	-				x	x	-	-	-	x	x	
Mont.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
Nev.	x	x	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
N.M.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
Utah	x	x	x	-	-	-	x	-	-	-	-	-				-	-	-	-	-	x	x	
Wyo.	x	-	x	-	-	-	x	-	-	-	-	-				-	-	-	-	-	x	x	
Pacific																							
Alaska	-	-	-	-	-	-	-	x	-	-	-	-				-	-	-	-	-	-	-	
Cal.	x	x	x	x	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-				x	-	-	-	-	x	x	
Ore.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
Wash.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
Territories																							
Guam	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	
P.R.	x	x	x	-	-	-	x	-	-	-	-	-				x	-	-	-	-	x	x	
V.I.	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	x	x	
Blood banks	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	

Table 4-56
XIII. LABORATORY IMPROVEMENT PROGRAM
B. Public Health 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 Licensing, Registering, Approving, Certifying Laboratories
			Lic./App.	Reg.	Cert.	
Total	406	433	262	28	150	
Average	6.8	12.4	11.9	7	18.8	
New England	118	114	114	1	—	
Conn.	113	113	113	—	—	—
Mass.	—	—	—	—	—	—
Me.	2	—	—	—	—	—
N.H.	1	—	—	—	—	—
R.I.	1	—	—	—	—	—
Vt.	1	1	1	1	—	—
Middle Atlantic	11	10	10	—	—	
N.J.	8	8	8	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	3	2	2	—	—	—
East North Central	55	105	38	6	77	
Ill.	13	10	8	—	—	—
Ind.	69	69	—	—	69	—
Mich.	18	18	24	6	—	—
Ohio	10	—	6	—	—	—
Wisc.	8	8	—	—	8	—
West North Central	26	14	5	—	—	
Ia.	—	—	—	—	—	—
Kans.	3	2	2	—	—	—
Minn.	5	—	—	—	—	Division of Health Systems (Medicare and CLIA-67 only)
Mo.	8	5	—	—	—	—
Nebr.	3	3	3	—	—	—
N.D.	4	4	—	—	—	Division of Health Facilities (Medicare only)
S.D.	3	—	—	—	—	—
South Atlantic	39	35	9	—	25	
Del.	1	—	—	—	—	—
D.C.	1	—	—	—	—	P.H. Lab performs the inspections and cooperates with the State agency
Fla.	9	9	9	—	—	—
Ga.	—	—	—	—	—	—
Md.	9	—	—	—	—	—
N.C.	—	25	—	—	25	Div. of Facility Services (Medicare, Medicaid, Syphilis Serology)
S.C.	8	1	—	—	—	Bureau of Health Licensing and Certification (certifies for Medicare)
Va.	10	—	—	—	—	Dept. of Health, except water, milk, blood banks, Syphilis Serology
W. Va.	1	—	—	—	—	—
East South Central	27	12	12	—	—	
Ala.	9	—	—	—	—	Bureau of Licensure and Certification
Ky.	8	3	3	—	—	Division for Licensure and Regulation (except premarital tests for syphilis)
Miss.	5	4	4	—	—	—
Tenn.	5	5	5	—	—	—
West South Central	16	38	7	—	12	
Ark.	2	1	1	—	—	—
La.	7	6	—	—	6	—
Okl.	6	6	6	—	6	—
Tex.	—	23	—	—	—	Licensing and Certification Bureau (Medicare)
Mountain	43	37	21	2	17	
Ariz.	10	10	10	—	—	—
Colo.	10	10	—	—	10	—
Ida.	7	7	7	—	7	—
Mont.	2	2	—	2	—	—
Nev.	4	4	—	—	—	—
N.M.	1	*3	3	—	—	—
Utah	6	1	1	—	—	—
Wyo.	—	—	—	—	—	—
Pacific	65	65	42	19	19	
Alaska	—	—	—	—	—	—
Cal.	39	39	39	—	—	—
Hawaii	4	4	—	—	X	—
Ore.	3	3	3	—	—	—
Wash.	—	19	—	19	19	—
Territories	7	5	4	—	—	
Guam	2	—	—	—	—	—
P.R.	4	4	4	—	—	—
V.I.	1	1	—	—	—	—

*Branch Laboratories

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

Lab & Region	Activity of Laboratory Improvement Program Staff																		7. Trng	8. Consult		
	5. Proficiency Testing												6. Field Visits									
	Diag.	Bact.	Mycology	Parasitology	Virology	Immunology		Syrphid Serology	Non-Syrphid Serology	Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dairy/Food	Other	LIP Programs		Other Programs			
						Syphilis Serology	Non-Syphilis Serology										Lic./App.	Cert.	Other	Lic./App.	Cert.	Other
New England																						
Conn.	X	-	X	-	X	-	-	X	-	X	-	-	-	-	-	I			X		X	
Mass.	-	-	-	t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Me.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N.H.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vt.	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
Middle Atlantic																						
N.J.	X	X	-	X	-	-	-	X	-	X	X	-	-	-	X	-	-	-	-	X	X	
N.Y.	-	-	X	-	X	-	-	X	-	X	X	-	-	-	-	-	-	-	-	X	X	
Pa.	X	-	X	-	X	-	-	X	-	X	X	-	-	-	-	-	-	-	-	X	X	
East North Central																						
Ill.	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	X	
Ind.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X	
Mich.	X	X	X	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	X	
Ohio	X	-	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	X	
Wisc.	X	X	X	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	X	
West North Central																						
Ia.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kans.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Minn.	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N.D.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S.D.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
South Atlantic																						
Del.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
D.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ga.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Md.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N.C.	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Va.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Agriculture labs	-	-	-	-	
W. Va.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
East South Central																						
Ala.	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ky.	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Miss.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tenn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
West South Central																						
Ark.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
La.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Okl.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tex.	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mountain																						
Ariz.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Monitoring	-	-	-	-	
Colo.	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ida.	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	Forensic Chemistry, Pesticide Analysis	-	-	-	-	
Mont.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nev.	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N.M.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pacific																						
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cal.	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ore.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wash.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Territories																						
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P.R.	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	
V.I.	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	

Table 4-57
XIII. LABORATORY IMPROVEMENT PROGRAM
C. Dairy and Food 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 Licensing, Registering, Approving, Certifying Laboratories
			Lic./App.	Reg.	Cert.	
Total	377	530	107	7	369	
Average	17.1	18.9	11.9	7	19.4	
New England	33	73	30	—	2	
Conn.	28	28	28	—	—	
Mass.	—	43	—	—	—	
Me.	3	—	—	—	—	
N.H.	—	—	—	—	—	
R.I.	2	2	2	—	2	
Vt.	—	—	—	—	—	
Middle Atlantic	—	12	12	—	—	
N.J.	—	12	12	—	—	
N.Y.	—	—	—	—	—	
Pa.	—	—	—	—	—	
East North Central	154	224	36	—	188	
Ill.	—	36	36	—	—	
Ind.	—	15	—	—	15	
Mich.	—	—	—	—	—	
Ohio	—	19	—	—	19	
Wisc.	154	154	—	—	154	
West North Central ...	48	61	15	—	26	
Ia.	31	31	—	—	—	
Kans.	13	12	12	—	12	
Minn.	—	—	—	—	—	
Mo.	—	14	—	—	14	
Nebr.	—	—	—	—	—	
N.D.	4	4	3	—	—	
S.D.	—	—	—	—	—	
South Atlantic	58	47	—	—	86	
Del.	1	—	—	—	—	
D.C.	1	—	—	—	—	
Fla.	—	—	—	—	—	
Ga.	—	—	—	—	—	
Md.	20	15	—	—	15	
N.C.	—	—	—	—	39	
S.C.	17	9	—	—	9	
Va.	19	17	—	—	17	
W. Va.	—	6	—	—	6	
East South Central ...	55	62	6	—	54	
Ala.	9	9	—	—	9	
Ky.	—	30	—	—	30	
Miss.	6	6	—	—	—	
Tenn.	40	17	—	—	15	Joint responsibility of Departments of Agriculture and Public Health
West South Central ...	—	32	6	—	3	
Ark.	—	2	—	—	2	
La.	—	7	6	—	—	
Okl.	—	—	—	—	—	
Tex.	—	23	—	—	1	
Mountain	20	17	2	7	8	
Ariz.	—	—	—	—	—	
Colo.	7	7	—	7	—	
Ida.	7	7	—	—	7	
Mont.	—	—	—	—	—	
Nev.	2	2	2	—	—	
N.M.	4	1	—	—	1	3 public health labs certified by FDA
Utah	—	—	—	—	—	
Wyo.	—	—	—	—	—	
Pacific	4	—	—	—	—	
Alaska	—	—	—	—	—	
Cal.	—	—	—	—	—	
Hawaii	4	—	—	—	—	
Ore.	—	—	—	—	—	
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 Staff								7. Training	8. Consult.		
	5. Proficiency Testing	6. Field Visits										
		LIP Program			Other Program							
		Lic./App.	Cert.	Other	Lic./App.	Cert.	Other					
New England												
Conn.	x	x	—	—	—	—	—	—	x	x		
Mass.	—	x	—	—	—	—	—	—	—	—		
Me.	—	—	x	—	—	—	—	—	x	—		
N.H.	—	—	—	—	—	—	—	—	—	—		
R.I.	x	x	x	—	—	—	—	—	x	—		
Vt.	—	—	—	—	—	—	—	—	—	—		
Middle Atlantic												
N.J.	x	x	x	x	—	—	—	—	x	x		
N.Y.	—	—	—	—	—	—	—	—	—	—		
Pa.	—	—	—	—	—	—	—	—	—	—		
East North Central												
Ill.	x	x	—	—	—	—	—	—	x	x		
Ind.	x	—	x	—	—	—	—	—	x	x		
Mich.	x	—	—	—	—	—	—	—	—	—		
Ohio	x	—	x	—	—	—	—	—	x	x		
Wisc.	—	x	x	—	x	x	—	—	x	x		
West North Central												
Ia.	—	—	—	—	—	—	—	—	—	—		
Kans.	x	x	—	x	—	—	x	—	—	x		
Minn.	—	—	—	—	—	—	x	—	—	x		
Mo.	x	—	—	—	—	—	x	—	x	—		
Nebr.	—	—	—	—	—	—	—	—	—	—		
N.D.	x	—	—	—	—	—	—	—	—	—		
S.D.	—	—	—	—	—	—	—	—	—	—		
South Atlantic												
Del.	—	—	—	—	—	—	—	—	x	—		
D.C.	—	—	x	—	—	—	—	—	—	x		
Fla.	x	—	—	—	—	—	—	—	x	x		
Ga.	—	—	—	—	—	—	—	—	—	—		
Md.	x	x	—	x	—	—	x	—	x	x		
N.C.	x	—	—	x	—	—	—	—	x	x		
S.C.	x	—	—	x	—	—	—	—	x	x		
Va.	x	—	—	x	—	—	—	—	x	x		
W. Va.	x	—	—	x	—	—	—	—	x	x		
East South Central												
Ala.	x	—	—	x	—	—	—	—	x	x		
Ky.	x	—	x	—	x	—	—	—	x	—		
Miss.	—	—	—	—	—	—	—	—	—	—		
Tenn.	x	—	—	x	—	—	x	—	x	x		
West South Central												
Ark.	—	—	—	x	—	—	—	—	—	x		
La.	x	—	—	x	—	—	—	—	x	x		
Okla.	—	—	—	—	—	—	—	—	—	x		
Tex.	x	—	x	—	—	—	—	—	x	x		
Mountain												
Ariz.	—	—	—	—	x	—	—	—	—	x		
Colo.	—	—	x	—	x	—	—	—	x	x		
Ida.	x	—	—	x	—	x	—	—	—	x		
Mont.	—	—	x	—	—	x	—	—	x	x		
Nev.	x	—	x	—	—	—	—	—	—	x		
N.M.	x	—	—	x	—	—	x	—	x	x		
Utah	—	—	—	—	—	—	—	—	—	—		
Wyo.	—	—	—	—	—	—	—	—	—	—		
Pacific												
Alaska	—	—	—	—	—	—	—	—	—	—		
Cal.	—	—	—	—	—	—	—	—	—	—		
Hawaii	—	—	—	—	—	—	—	—	—	—		
Ore.	—	—	—	—	—	—	—	—	—	—		
Wash.	x	—	x	x	—	—	x	—	x	x		
Territories												
Guam	—	—	—	—	—	—	—	—	—	—		
P.R.	—	—	—	—	—	—	—	—	x	—		
V.I.	—	—	—	—	—	—	—	—	—	—		

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

Lab & Region	1. No. Labs in State	2. No. Water Labs in State			3. Other Agency or Department Responsible for Licensing Registering, Approving, Certifying Laboratories
		Lic./App.	Reg.	Cert.	
Total	2,565	1,506	—	1,462	
Average	73.3	71.7	—	56.2	
New England	120	241	—	93	
Conn.	72	72	—	72	—
Mass.	—	135	—	—	Dept. of Environmental and Quality Engineering
Me.	35	21	—	21	—
N.H.	—	—	—	—	—
R.I.	13	13	—	—	—
Vt.	—	—	—	—	—
Middle Atlantic	410	—	—	410	
N.J.	133	—	—	133	—
N.Y.	—	—	—	—	—
Pa.	277	—	—	277	—
East North Central	450	75	—	517	
Ill.	—	75	—	—	—
Ind.	57	—	—	57	—
Mich.	—	—	—	—	—
Ohio	350	—	—	417	Certificates are granted by Ohio EPA. ODH conducts surveys and recommends to Ohio EPA
Wisc.	43	—	—	43	—
West North Central	200	144	—	56	
Ia.	30	30	—	—	—
Kans.	100	100	—	—	—
Minn.	—	—	—	—	—
Mo.	39	—	—	39	—
Nebr.	17	—	—	17	—
N.D.	14	14	—	—	—
S.D.	—	—	—	—	—
South Atlantic	305	202	—	117	
Del.	8	7	—	—	—
D.C.	3	—	—	—	—
Fla.	179	179	—	—	—
Ga.	—	—	—	—	—
Md.	39	—	—	17	—
N.C.	—	—	—	17	Environmental Sciences Branch
S.C.	—	—	—	—	—
Va.	76	—	—	76	—
W. Va.	—	16	—	7	—
East South Central	133	13	—	90	
Ala.	20	—	—	20	—
Ky.	—	—	—	28	—
Miss.	13	13	—	—	—
Tenn.	100	—	—	42	The Divisions of Water Control and Radiological Health
West South Central	40	32	—	37	
Ark.	40	—	—	16	—
La.	—	—	—	13	—
Okl.	—	—	—	8	—
Tex.	—	32	—	—	—
Mountain	206	110	—	101	
Ariz.	31	29	—	29	—
Colo.	30	30	—	—	—
Ida.	35	—	—	23	—
Mont.	26	—	—	18	—
Nev.	24	14	—	10	—
N.M.	30	30	—	—	—
Utah	23	—	—	21	—
Wyo.	7	7	—	—	—
Pacific	690	689	—	40	
Alaska	—	—	—	—	—
Cal.	643	643	—	—	—
Hawaii	8	7	—	—	—
Ore.	39	39	—	—	—
Wash.	—	—	—	40	Non-potable water — Department of Ecology
Territories	11	—	—	1	
Guam	3	—	—	—	Guam EPA — Public Utility Agency of Guam Laboratory
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/Approved				Registered				Certified			
	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total
Total	399	381	509	1,289					940	281	237	1,458
Average	28.5	63.5	39.2	80.6					37.6	23.4	18.2	58.3
New England	32	9	65	106					24	9	60	93
Conn.	11	9	52	72					11	9	52	72
Mass.	—	—	—	—					—	—	—	—
Me.	11	—	10	21					13	—	8	21
N.H.	—	—	3	13					—	—	—	—
R.I.	10	—	—	—					—	—	—	—
Vt.	—	—	—	—					—	—	—	—
Middle Atlantic	—	—	—	—					311	6	93	410
N.J.	—	—	—	—					34	6	93	133
N.Y.	—	—	—	—					277	—	—	277
Pa.	—	—	—	—					—	—	—	—
East North Central	75	—	—	75					292	225	—	517
Ill.	75	—	—	75					—	—	—	—
Ind.	—	—	—	—					57	—	—	57
Mich.	—	—	—	—					—	—	—	—
Ohio	—	—	—	—					192	225	—	417
Wis.	—	—	—	—					43	—	—	43
West North Central	30	93	21	144					44	4	8	56
Ia.	20	—	10	30					—	—	—	—
Kans.	—	91	9	100					—	—	—	—
Minn.	—	—	—	—					39	—	—	39
Mo.	—	—	—	—					5	4	8	17
Nebr.	—	—	—	—					—	—	—	—
N.D.	10	2	2	14					—	—	—	—
S.D.	—	—	—	—					—	—	—	—
South Atlantic	99	6	81	186					98	—	19	117
Del.	1	1	5	7					—	—	—	—
D.C.	—	—	—	—					—	—	—	—
Fla.	98	5	76	179					—	—	—	—
Ga.	—	—	—	—					17	—	—	—
Md.	—	—	—	—					17	—	—	17
N.C.	—	—	—	—					—	—	—	—
S.C.	—	—	—	—					57	—	19	76
Va.	—	—	—	—					7	—	—	7
W. Va.	—	—	—	—					—	—	—	—
East South Central	12	—	1	13					59	4	—	63
Ala.	—	—	—	—					20	—	—	20
Ky.	—	—	—	—					24	4	—	28
Miss.	12	—	1	13					—	—	—	—
Tenn.	—	—	—	—					15	—	—	15
West South Central	31	—	1	32					24	—	—	24
Ark.	—	—	—	—					16	—	—	16
La.	—	—	—	—					8	—	—	8
Okla.	—	—	—	—					—	—	—	—
Tex.	31	—	1	32					—	—	—	—
Mountain	26	—	25	51					61	21	49	131
Ariz.	—	—	—	—					17	2	10	29
Colo.	—	—	—	—					20	6	4	30
Ida.	—	—	—	—					12	3	8	23
Mont.	—	—	—	—					9	5	4	18
Nev.	—	—	14	14					—	—	10	10
N.M.	19	—	11	30					—	—	—	—
Utah	—	—	—	—					3	5	13	21
Wyo.	7	—	—	7					—	—	—	—
Pacific	94	273	315	682					27	12	8	47
Alaska	—	—	—	—					—	—	—	—
Cal.	55	273	315	643					—	—	—	—
Hawaii	—	—	—	39					4	1	2	7
Ore.	39	—	—	—					—	—	—	—
Wash.	—	—	—	—					23	11	6	40
Territories	—	—	—	—					—	—	—	—
Guam	—	—	—	—					—	—	—	—
P.R.	—	—	—	—					—	—	—	—
V.I.	—	—	—	—					—	—	—	—

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

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

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

Lab	Program Activity
Conn.	Recombinant DNA registration and inspection; physicians' offices proficiency testing; preparation and administration of examinations to approve laboratory directors for dairy, food, and water; NPDES approval, inspection, and proficiency testing; air registration.
Fla.	Implied Consent — permits issued to 3,535 alcohol breath test (law enforcement) technicians and 62 chemists and technologists for blood alcohol analysis; inspection and certification of 741 breath testing machines in 333 law enforcement agencies.
Ida.	Rubella proficiency testing — 30 laboratories approved, forensic alcohol testing — 10 laboratories approved
Kans.	Breath Alcohol Program for law enforcement agencies — approval, proficiency testing, field visits, training, and consultation.
Me.	Implied consent; breath and blood alcohol testing; certification of chemists, laboratories, and phlebotomists.
Pa.	Methods investigations and development, evaluation of selected methods.
Utah	Technical consultation and training contracts from CDC; include on-site visits and workshop preparation and presentation.

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

Lab	Number FTE's	Biologics		Reagents	Media	Materials Produced for Distribution
		Human	Lab			
Ala.	<0.1	—	—	—	X	Rodac plates
Arlz.	5	—	—	—	X	McConkeys agar, TSB broth, Hanks solution, charcoal agar slants
Ark.	3.0	—	—	X	X	Martin-Lewis Agar, Polyvinyl Alcohol for intestinal parasites
Cal.	3.5	—	X	X	—	Reagents Febrile, bacterial antigens <i>Salmonella typhi</i> "O", <i>S. typhi</i> "H", <i>S. paratyphi</i> A, <i>S. paratyphi</i> B, <i>Franciscella tularensis</i> , <i>Brucella abortus</i> Febrile, immune sera <i>Brucella abortus</i> , <i>S. paratyphi</i> A, <i>S. paratyphi</i> B, <i>S. typhi</i> "H," <i>S. typhi</i> "O", <i>Franciscella tularensis</i> , Anti-sheep hemolysin
Colo.	3	—	—	—	X	JEMBEC plates
Conn.	1	—	—	X	X	Group A Streptococcus FA Conjugate; Group A Streptococcus office culture kits; Syphilis serology control sera; VDRL antigen and buffered saline.
Ga.	4	—	—	—	X	Improved Thayer-Martin Medium
Ill.	1.5	—	—	X	—	Alcohol standard solution used for calibration of breath testing equipment
Ia.	5.5	—	—	X	X	—
La.	—	—	—	—	X	Modified Thayer-Martin
Mass.	40.0	X	X	X	—	Albumin-human, DTP vaccine, DT vaccine, Immune globulin, RHO immune globulin, cross match reagent for RHO immune globulin, tetanus immune globulin, tetanus toxoid adsorbed, TD toxoids, typhoid vaccine, diphtheria antitoxin, tetanus antitoxin, Schick test outfit, silver nitrate, cytomegalovirus globulin (experimental), varicella zoster immune globulin (experimental)
Mich.	—	X	—	—	—	Immune serum globulin; normal serum albumin; anthrax vaccine; diphtheria antitoxin; diphtheria toxoid adsorbed; diphtheria and tetanus toxoids adsorbed; diphtheria and tetanus toxoids and pertussis vaccine combined; adsorbed; tetanus toxoid adsorbed; tetanus and diphtheria toxoids adsorbed (adult); typhoid vaccine, pertussis vaccine adsorbed
Minn.	1.0	—	—	—	X	Thayer-Martin plates
Mo.	2.0	—	—	—	X	Gonorrhea culture media, total media required in state-wide culture screening program
Mont.	3	—	—	X	X	JEMBEC plates with MTM medium, various transport media for all types of specimens, preservatives for water samples (redistilled acids, CuSO ₄), sampling solutions and media for air monitoring (bubbler solutions, sulfation plates)
Nev.	0.6	—	—	—	X	MTM plates

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			
N.H.	0.5	—	—	X	X	—
N.C.	5	—	—	X	X	—
N.D.	0.4	—	—	—	X	JEMBEC and modified Thayer-Martin media, transport media
Ohio	6.5	—	—	X	X	Thayer-Martin plates
S.C.	0.2	—	—	X	X	47 types of media and 20 separate reagents, stains, and solutions produced for water bacteriology and chemistry laboratories
Tenn.	9.5	—	—	X	X	Sterile distilled water, sterile, physiological saline, buffered glycerol saline, modified Thayer-Martin enrichment, VCN-T TM inhibitors, modified Thayer-Martin media, Jones Kndrick charcoal agar, tryptic soy agar slants, pal media for diphtheria.
Tex.	—	X	X	X	X	N. gonorrhoeae transport medium, Lowenstein Jensen medium, VDRL antigen and saline, Sheep blood and cells, bacterial agglutination antigens, silver nitrate solution
Wash.	3.0	—	X	X	X	Tabco, — G. C. media, Thayer-Martin plates
W. Va.	4	—	—	X	X	Improved-modified Transgrow medium (plate), Specimen containers with: buffered glycerol solution for enterics; formalin or PVA for parasites; sodium carbonate for mycobacteriological specimens; sodium thiosulfate for waters; tryptose phosphate with glycerine for viral preservative
Wisc.	5.5	—	—	X	X	Buffered glycerol, charcoal transport, chemistry tubes with sodium fluoride and thymol, chlamydia, formaline, PVA, Resazurin agar indicator, transport, transport for PPLO, veal for virus

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

Lab	Titles of Research Projects	Funding Support				
		Number of Positions	Federal Grant	Contract	State Funds	Other Funds
Cal.	Calibration of Mass Monitors	1	X	—	—	—
	Evaluation of Methods for Sulphate	2	X	—	—	—
	Validation of Samplers	1.6	X	—	—	—
	Env. Carcinogens by Cell Trans	1	X	—	—	—
	Studies of Naegleria Infections	1.6	X	—	—	—
	Electron Microscopic Studies	1.0	X	—	—	—
	Viral Diseases Study	9.8	X	—	—	—
	Inactivation of viruses for Vaccination	2.3	X	—	—	—
	Cancer Virus Studies	4.6	—	X	—	—
	Marsupial Cytology Studies	0.6	X	—	—	—
Fla.	Mobility and Survival Characteristics of Viruses in Cypress Dome Wetlands	2	X	—	X	X
	Virus Monitoring of Waste water used for Spray Irrigation of Public and Private Lands	5	—	X	X	X
	Determination of Lake Characteristics which do and do not support Pathogenic Naegleria Populations.	4	—	X	X	X
III.	Marijuana Detection Analyses	0.3	—	—	—	X
Ia.	Developing Methods for Separation, Identification, and Quantification of Complex Hydrocarbons Found in Coal Liquefaction and Gasification Plants	1.4	—	X	—	—
Mass.	Rapid Diagnosis of Respiratory Viruses by Immunochemical Methods — In collaboration with Harvard School of Public Health	1.6	—	X	—	—
Ore.	Toxoplasmosis	4.0	X	—	—	—
Pa.	Rapid diagnosis of LD	1	—	—	X	—
	Investigation of glycosylated hemoglobin assays and control materials	1	—	—	X	—
Wisc.	Epidemiology and Course of Viral Myopericarditis	4.0	X	—	—	—

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

Lab	Titles of Research Projects	Funding Support				
		Number of Positions	Federal Grant	Contract	State Funds	Other Funds
Cal.	Conf on Methods in Air Pollution Studies Viruses in Water and Reclaimed Wastewater	0.5 3.0	X X	— —	— —	— —
Conn.	Identification of L.D. Antigen In Serum Forensic Electrophoretic Serotyping Immunological Detection of Mucoprotein, Pyrolysis Products of Building Materials Microscopic Differentiation of Sterolsomers	— — — — —	— — — — —	— — — — —	X X X X X	— — — — —
D.C.	Enteropathogenic E. coli	—	—	—	X	—
Ga.	A Modified Procedure for the Phadebact Gonococcus Test, Virus Serologic Survey of a Normal Population, Distribution of Serotypes of the MAIS Complex in Georgia, A New Method for Performing Acid-Fast Smear Examinations, Prestudy for Developing "In-house" Procedures for Sputum Digestion Using CPC	.03 .03 .06 .05 .08	— — — — —	— — — — —	X X X X X	— — — — —
Ida.	Idaho Epidemiologic Studies Project Human Monitoring Method Development Health Effects Incident Investigations	2.0 2.0 2.0 1.0	X X X X	X X X X	— — — —	— — — —
Ia.	Legionnaires' Arbovirus Water Supply Quality Insulation Formaldehyde Emission	1.0 0.5 0.5 0.25	— — X —	— — — —	— X — —	X — — X
Kans.	Beverage Alcohol Measurements by Headspace Gas Chromatography Detection of Coliform Species in Kansas Drinking Waters	— —	— —	— —	X X	— —
Mass.	Application of SRH to Serodiagnosis of Influenza, Measles, Mumps, and N. pneumoniae	—	—	—	—	—
Pa.	Evaluation of virus transport systems. Drug susceptibility patterns of pigmented and non-pigmented Mycobacterium intracellulare. Development of Standards for T ₄ and TSH in Hypothyroidism Screening Program.	1.0 1.0 2.0	— — —	— — —	X X X	— — —
Wisc.	Erythrocyte Protoporphyrin Proficiency Testing Drugs in Drivers Septra Streak Plate Evaluation Ticarcillin Study Evaluation of Co-agglutination for Strep and GC	2.0 2.0 1.0 — 0.5	— — — — —	X X — X X	— — X — —	— — — — —

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

Lab	Titles of Research Projects	Funding Support				
		Number of Positions	Federal Grant	Contract	State Funds	Other Funds
Cal.	Water Virology Laboratory	2.0	X	—	—	—
Conn.	High Pressure Liquid Chromatography of Drugs of Abuse	—	—	—	X	—
	Radioimmunoassay of Drugs of Abuse	—	—	—	X	—
Ga.	Isolation of Chlamydia in Cell Culture, Identification of HSV Isolates by IF, Poliovirus Micro Neutralization, Rickettsial PHA, Preparation of Chlamydia Antigen	.05 .05 .02 .02 .01	— — — — —	— — — — —	X X X X X	— — — — —
III.	Modified Guthrie Test	0.1	—	—	X	—
Mass.	Application of SRH to Rubella and Serodiagnosis of Rubella	0.3	—	—	—	—
Ohio	Virus Isolation Methods	0.5	—	—	—	—
Okla.	Hypothyroidism methodology	0.1	—	—	X	—
Ore.	Metabolic Innovative Metabolic MCH	2.0 2.5	X —	— —	— —	X —
Pa.	Direct FA for Viruses Modification of Calcium Method (complexone) Evaluation of proposed selected methods for prothrombin time and Inorganic PO ₄	2 1 2	— — —	— — —	X X X	— — —

SECTION V SPECIAL QUESTIONS

Table 5-1
I. LABORATORY ORGANIZATIONAL STRUCTURE

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1979	Description of Organizational Change
	State Health Department	State Laboratory		
Ala.	08/01/79	09/01/79	—	—
Alaska	—	—	—	—
Arlz.	11/01/76	07/20/78	—	—
Ark.	02/78	06/30/79	X	Consolidated Sections of the laboratory from 9 to 7. As of December 1, 1979, the Division of Public Health Laboratories was reorganized along with the State Department of Health to include both the former P.H. Labs and the Division of Environmental Laboratories.
Cal.	—	—	—	—
Colo.	10/76	1968	—	—
Conn.	06/01/79	06/30/79	X	The Laboratory Division now reports to the Chief, Bureau of Health Promotion and Disease Prevention rather than the Deputy Commissioner of the Health Department.
Del.	—	—	—	—
D.C.	—	—	—	—
Fla.	07/01/76	01/01/77	—	—
Ga.	09/14/77	07/01/78	—	—
Guam	—	06/78	—	—
Hawaii	07/01/79	07/01/79	—	—
Ida.	07/01/79	01/01/78	—	—
Ill.	02/01/79	10/01/79	—	—
Ind.	01/79	01/79	—	—
Ia.	—	12/01/78	X	A separate Laboratory Extension Division was established.
Kans.	06/79	07/01/79	—	—
Ky.	09/01/78	09/01/78	—	—
La.	03/01/79	03/01/79	—	—
Me.	07/01/78	07/01/78	—	—
Md.	07/02/79	01/12/79	—	—
Mass.	1979	03/15/77	—	—
Mich.	—	—	—	—
Minn.	05/78	—	—	—
Miss.	—	10/23/78	—	—
Mo.	07/01/78	08/15/79	X	The Bureau of Laboratory Services was changed to the Section of Laboratory Services. The 2 branch laboratories are now under the jurisdiction of the Section of Laboratory Services.
Mont.	07/01/79	07/01/79	X	The position of Administrator, Laboratory Division was abolished by legislative action.
Nebr.	09/01/76	01/01/78	—	—
Nev.	07/01/79	10/01/78	—	—
N.H.	06/13/73	06/13/73	—	—
N.J.	09/15/78	09/15/78	—	—
N.M.	06/30/79	09/30/79	X	The Cytopathology Section and Veterinary Diagnostic Services were established as elements of the Biological Sciences Bureau. A separate Fiscal Office was established 7/1/79.

Table 5-1
I. LABORATORY ORGANIZATIONAL STRUCTURE – Continued

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1979	Description of Organizational Change
	State Health Department	State Laboratory		
N.Y.	—	—	—	—
N.C.	12/01/77	01/78	—	—
N.D.	—	—	—	—
Ohio	05/15/78	06/20/78	—	—
Oklahoma	09/78	09/78	—	—
Ore.	05/78	05/78	—	—
Pa.	—	—	X	Changes pending
P.R.	—	—	—	—
R.I.	09/01/76	09/25/75	—	—
S.C.	06/01/79	06/01/79	X	A new position, Deputy Chief, was created with responsibility for day-to-day administration of the laboratory
S.D.	—	—	—	—
Tenn.	02/08/79	10/20/78	X	Dr. Michael Kimberly became Director of the Division of Laboratories with Dr. J. Howard Barrick as Associate Director in charge of the branch laboratories and Ms. Mary Jane Sassaman as Assistant Director in charge of the Central laboratory.
Tex.	—	—	—	—
Utah	08/17/79	08/23/79	—	The Environmental Monitoring Section was established by combining the Environmental Chemistry and Environmental Microbiology Sections.
Vt.	—	—	—	—
Va.	05/28/78	07/01/78	—	—
V.I.	—	—	—	—
Wash.	11/79	11/78	X	A Family Planning Section was added to Community Health Services.
W. Va.	06/79	11/79	X	The Director, State Hygienic Laboratory now reports to the Director, Community Health Services instead of the State Director of Health.
Wisc.	07/01/79	07/01/79	X	The State Laboratory of Hygiene Board reorganized to show voting membership.
Wyo.	1970	1970	—	—

Table 5-2

PREMARITAL EXAMINATION LAWS

NOTE: Brief answers are given in the body of the chart. Longer explanations and exceptions or qualifications, while they exist, are given under indicated footnote headings.

STATES AND TERRITORIES	Effective Year of Law or Latest Revision	Minimum Age Legal	Minimum Age With Consent Required May Be Given	Certifi-cate Required From (b)	Valid Period in Days	Wait-ing Period Excep-tions (c)	Condi-tions of Waiver (d)	Physical Exam.-Required-Qualifica-tions (e)	Kind of Serology Required-Qualifica-tions (f)	Test for Other Disease (g)	Serology Accepted From Other Than State Approved Labs (h)	Provision for Free Test-Qualifica-tions (i)	Provision for Free Physical Exam	Premarital Forms of Other States Accepted-Qualifications (j)	Test Results Filed With State Health Department-Qualifica-tions (k)	STATES AND TERRITORIES		
Alabama	1975	21	18	17	14	(1)	30	None	(1-3)	Yes	(1)	(1,4)	(1-5)	Yes	Yes	(1)	Alabama	
Alaska	1953	18	18(1)	16	16	(1-3)	30	3 days	(2,5)	Yes	(1)	(4)	(1-4,5a)	Yes	No	Yes(1)	Yes	Alaska
Arizona	1972	18	18	18	16	(1-2)	30	None	(6)	Yes	(1)	No	(1-5)	No	No	Yes(1)	Yes	Arizona
Arkansas	1953	18	18	18	16	(1-3)	30	3 days	(1,3)	Yes	(1)	No	(1-5)	No	No	Yes	Yes	Arkansas
California	1973	18	18	(11)	(1-2)	30	None	(2,5)	Yes	(1)	No	(1-5a,8-10)	No	No	Yes	No	California	
Colorado	1979	18	18	16	16	(1)	No Limit	None	(2,6)	Yes(3)	(1,4-5)	(4,7)	(1-5)	Yes	No	Yes	No	Colorado
Connecticut	1980	18	18	16	16	(1-3,5)	35	4 Days	(6)	Yes(1-2)	(1)	(8)	(1,2a,3,4,5a)	Yes	No	Yes(1,3)	Yes(1)	Connecticut
Delaware	1947	18	18	18	16	(1-3)	30	1 day(2)	(2)	Yes	(1)	No	(1,3,6)	Yes	Yes	Yes(1)	Yes	Delaware
Distr. of Columbia	1966	21	18	18	16	(1-3,5)	30	5 days	(1-3,6)	Yes(1)	(1)	No	(1,2a,6,8)	Yes	Yes	Yes(1)	Yes(1)	Distr. of Columbia
Florida	1978	18	18	18	16	(1)	60	3 days	(1)	No	(1)	No	(1-5)	Yes	No	No	No	Florida
Georgia	1978	18	18	18	16	(1)	30	None(5)	(1)	No(2)	(1)	(9,10)	(1-5,13)	Yes	Yes	Yes(1)	No	Georgia
Guam	No Law	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Guam
Hawaii	1979	20	20	18	16	(1-3)	30	3 days	(2,6,10)	Yes	(1-2)	No	(1-4,5a)	No	No	Yes(1)	Yes	Hawaii
Idaho	1979	18	18	16	16	(1-3)	—	None(1)	(6)	Yes	None	(11)	(1-4)	Yes	No	Yes(2)	Idaho	
Illinois	1949	18	18(10)	16	16	(1)	15	3 days	(1,7-8)	Yes	(1)	No	(1,3,4,6,9-10,12)	No	No	No	Yes(1)	Illinois
Indiana	1976	18	18	17	17(3)	(4)	30	3 days	(1,6)	No	(2)	(12)	(1,3-4)	No	No	No	Yes	Indiana
Iowa	1975	18	18	16	16	(1-3)	20	(2,4)	(1-2,6)	No	(1)	No	(1,3,4)	Yes	No	Yes(1)	Yes(1)	Iowa
Kansas	1947	18	18(4)	17	17(5)	(1-3,5)	30	(2,4)	None	Yes	(1)	(4)	(1-5)	Yes	Yes	Yes(1)	Yes	Kansas
Kentucky	1940	16	16	16	16	(2-4)	30	3 days	(1)	Yes	(1)	No	(1-5)	Yes	No	No	(1)	Kentucky
Louisiana	1975	18	18	17	16(6)	(4)	30	3 days	(6)	Yes	(3)	(4)	(7)	Yes	Yes	No	No	Louisiana
Maine	No Law	18	18	18	18	None	30	None	No	No	No	No	(1-4,6)	Yes	No	N/A	Maine	
Maryland	No Law	21	18	18	16	—	—	2 days	—	—	None	—	—	—	—	—	Maryland	
Massachusetts	1974	18	18	(11)	(1-3)	30	3 days	(1,3,8)	Yes	(1)	(7)	(1-4,6)	Yes	No	Yes(1)	No	Massachusetts	
Michigan	1978	18	18	18	16	(1-3,5)	30	3 days	(6)	Yes	(1)	(3)	(1,3,4,6,8-10)	Yes	No	No	No	Michigan
Minnesota	No Law	—	—	—	—	—	—	—	—	—	None	—	—	—	—	—	Minnesota	
Mississippi	1957	21	21	17	15	(1-4)	30	3 days	(2,6)	Yes(1)	(1)	No	(1-5)	Yes	Yes	Yes(1)	Yes	Mississippi
Missouri	1955	18	18	15	15	(4)	15	3 days(4)	(1,3,7)	Yes(1)	(1)	No	(1-5)	Yes	No	Yes	Yes	Missouri
Montana	1973*	18	16	18	16	(1-3)	20	None	None	Yes	(1)	No	(1-5)	Yes	Yes	Yes(1)	Yes	Montana
Nebraska	1978	19	19	17	17	(1)	30	2 days	(1,3,7)	Yes	(1)	(8)	(1,3,5)	Yes	No	Yes(1,3)	Yes	Nebraska
Nevada	No Law	18	18	16	16	—	—	—	—	—	—	—	—	—	—	—	Nevada	
New Hampshire	1979	18	18	14	13	(1)	30	5 days	(2)	Yes(1)	(1)	No	(1-4,5b,6,9-11)	Yes	No	Yes(1)	Yes	New Hampshire
New Jersey	1953	18	18	16	16(9)	(1-3,5)	30	3 days	(1,3)	No	(1)	No	(1-6)	Yes	No	Yes(4)	No	New Jersey
New Mexico	1979	21	18	18	16	(1-3,5)	30	None	(6)	Yes	(1)	(4)	(1-5)	Yes	No	Yes(1)	New Mexico	
New York	1938	21	18	16	14	(1-3)	30	3 days	(6)	Yes	(1)	No	(1-5)	No	No	Yes(1)	Yes	New York
North Carolina	1979	18	18	16	16(7)	(1)	30	None	(1,4)	Yes	(1)	(4-6)	(3-5)	Yes	Yes	Yes(6)	Yes(1)	North Carolina
North Dakota	1971	18	18	16	16	(1)	30	None	(6)	Yes	(1)	(4)	(1-4)	No	No	No	No	North Dakota
Ohio	1972	18	18	18	16	(1)	30	5 days	(1)	No	(1)	No	(1-5,8)	Yes(1)	No	Yes(1)	Yes(1)	Ohio
Oklahoma	No Law	—	—	—	—	(4)	—	None	(2)	No	(1)	No	(1,2b,3-4)	Yes	No	Yes	Oklahoma	
Oregon	1979	18	18	17	17	(1-3)	30	7 days	(7-8)	Yes	(3)	(4)	(1,2a,3-5)	Yes	Yes	Yes	Yes(1)	Oregon
Pennsylvania	1975	18	18	16	16	(1-3,5)	30	3 days(4)	(5)	Yes	(1)	No	(1-6)	Yes	No	Yes(1)	Yes(3)	Pennsylvania
Puerto Rico	21	21**	18	16	(1-3)	10	None	(3)	Yes	(3)	(4)	(7)	Yes	No	No	No	Puerto Rico	
Rhode Island	1975	18	18	18	16	(1-3,5)	40	None	None	Yes	(1)	(1,8)	(1,3,5)	Yes	Yes	Yes(6)	Yes	Rhode Island
South Carolina	No Law	—	—	—	—	—	—	1 day	—	—	None	—	—	—	—	—	South Carolina	
South Dakota	1977	18	18	16	16	(1-3)	20	None	(1,5)	Yes(1)	(1)	No	(1,2a,5)	Yes	No	Yes	No	South Dakota
Tennessee	1950	18	18	16	14	(1)	30	None(1)	(1)	Yes	(1)	(1)	(1,3-4)	Yes	Yes	Yes(1)	Yes	Tennessee
Texas	1949	18	18	14	14	(1)	21	None	(2)	Yes	(1)	No	(1-5)	Yes	No	Yes(5)	Yes	Texas
Utah	1951	18	18	14	14	(1-3,5)	30	None(2)	Yes	(1)	No	(17)	(1-2,4)	Yes	No	Yes(1)	Yes	Utah
Vermont	1951	21	18	18	16	(1-3,6)	30	5 days	(1,3)	No	(1)	No	(1-6)	Yes	No	Yes	Yes	Vermont
Virginia	1979	18	18	16	16	(1-3)	60	None	(9)	Yes(ii)	(1)	No	(1-					