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CONSOLIDATED ANNUAL REPORT

on

State and Territorial Public Health Laboratories

Fiscal Year 1980

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control

1600 Clifton Road, NE Atlanta, Georgia 30333

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on
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Public Health Laboratories
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September 1981

A Collaborative Compilation
by the
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
Laboratory Improvement Program Office
Atlanta, Georgia 30333
and the
Association of State and Territorial
Public Health Laboratory Directors

ASSOCIATION OF STATE AND TERRITORIAL
PUBLIC HEALTH LABORATORY DIRECTORS

1980 — 1981

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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.

Charles E. Sweet, Dr. P.H.
Chairman, CAR Committee



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INTRODUCTION

This, the seventeenth 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 Centers for Disease Control.

Fifty-three of the fifty-four member laboratories provided data for this edition. New York did not report to the CAR for fiscal year 1980. Therefore, national totals found in this edition represent only fifty-three 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 1980 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, premarital examination laws, facility planning, space utilization, and energy conservation.

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 1979 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 1-5 through 1-8 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.

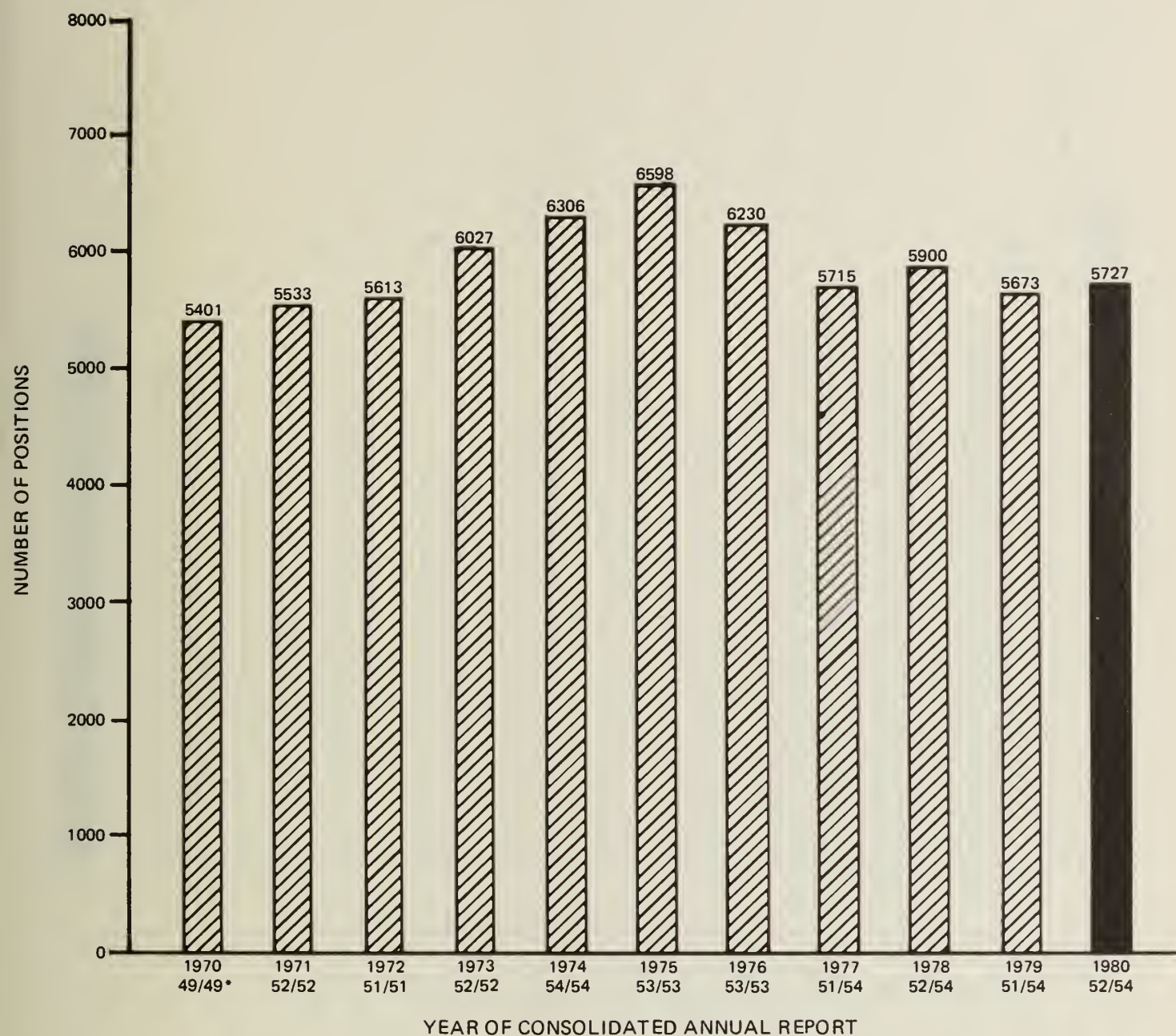
The Consolidated Annual Report is a joint activity of ASTPHLD and CDC, Laboratory Improvement Program Office. Because it is compiled by CDC personnel all comments, suggestions, and correspondence on its contents should be forwarded to:

Laboratory Management
Consultation Office, LIPO
Attn: CAR Editor
Bldg. 1, Rm. 1007
Centers for Disease Control
Atlanta, Georgia 30333

SECTION I

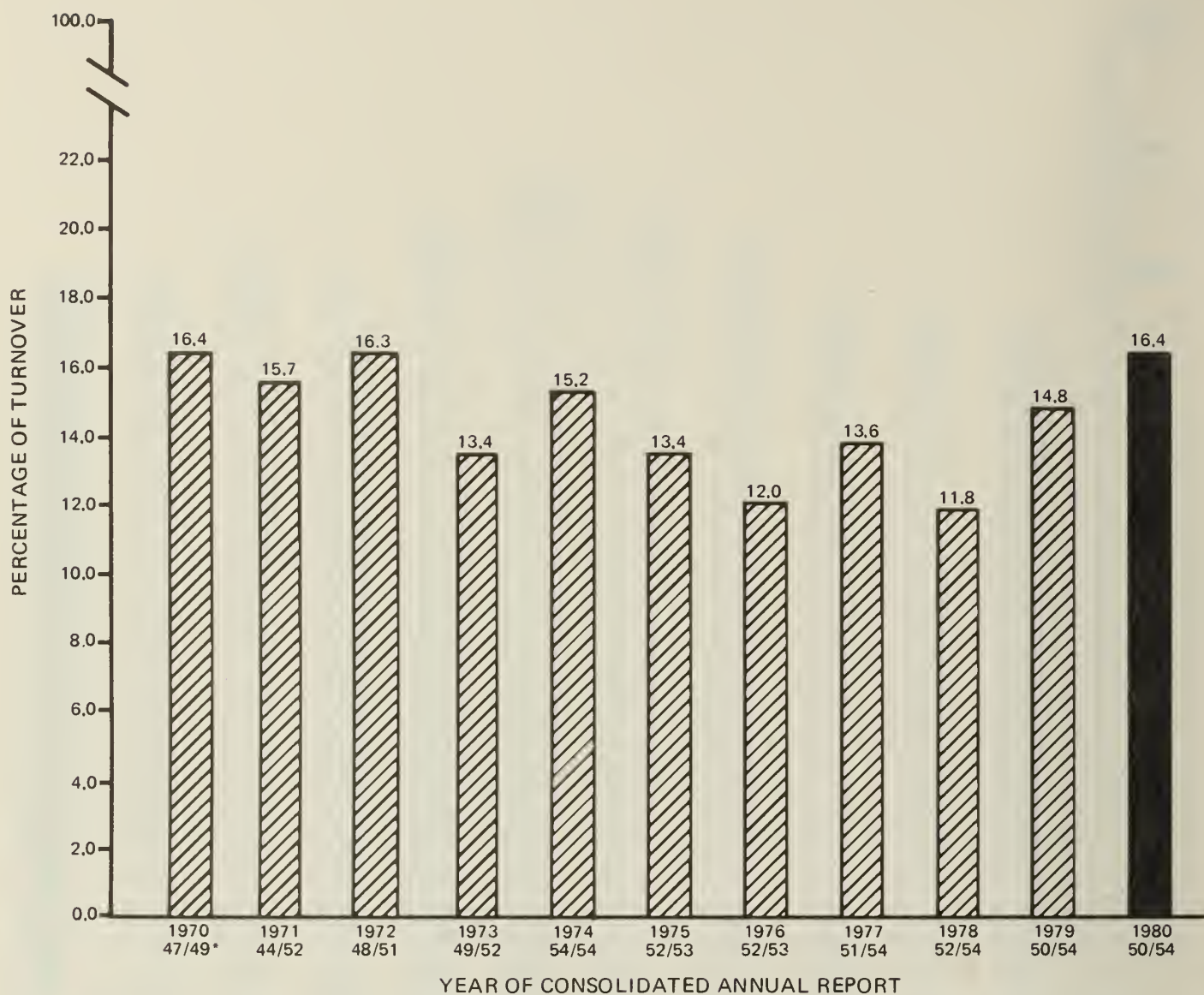
SUMMARY TABLES

TABLE 1-1. BUDGETED POSITIONS FOR STATE AND TERRITORIAL PUBLIC HEALTH LABORATORIES



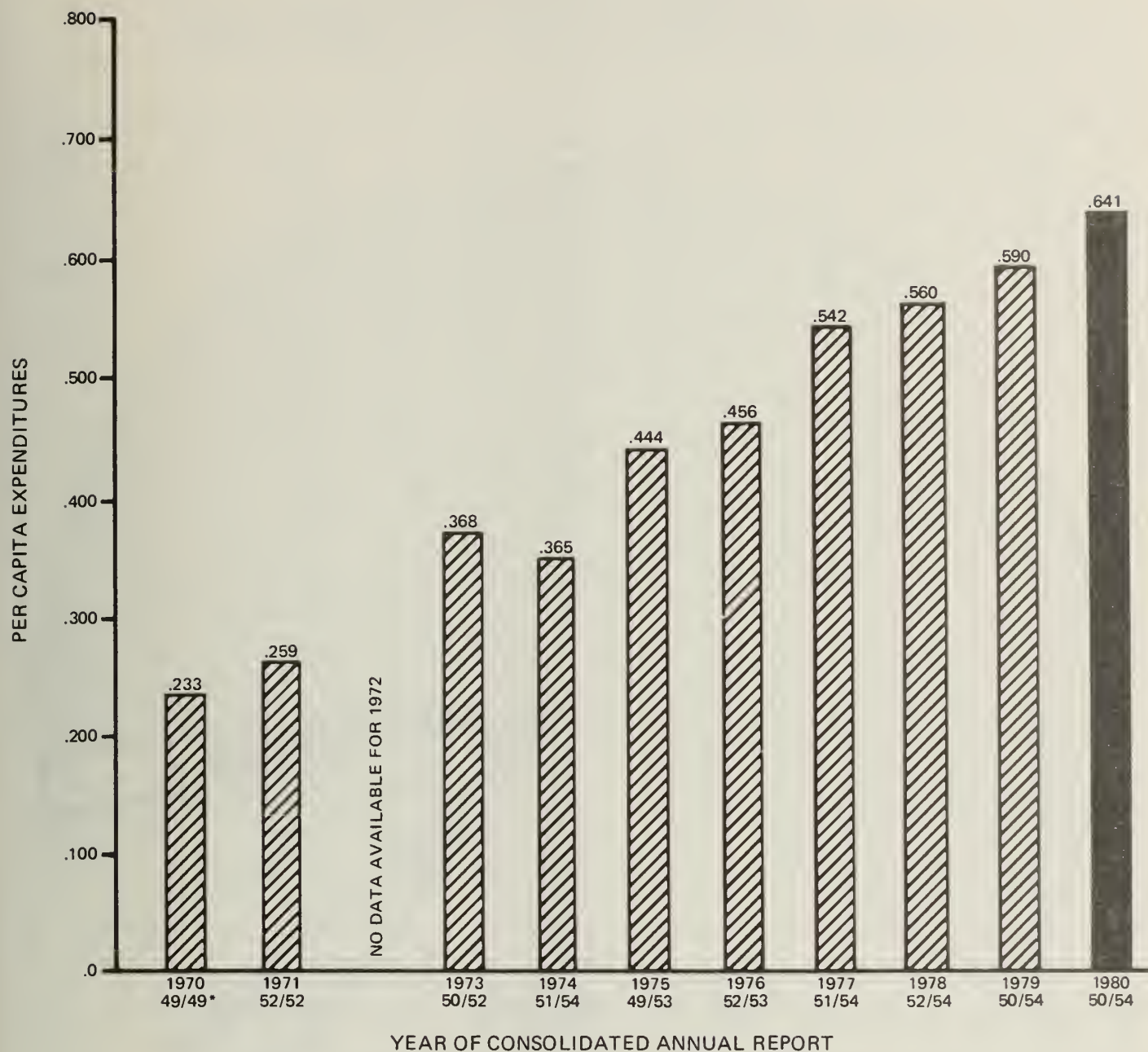
*49/49 = INDICATES 49 LABS REPORTED THIS TYPE DATA OUT OF A UNIVERSE OF 49 LABS.

TABLE 1-2. PERCENTAGE OF TURNOVER IN ALL POSITIONS



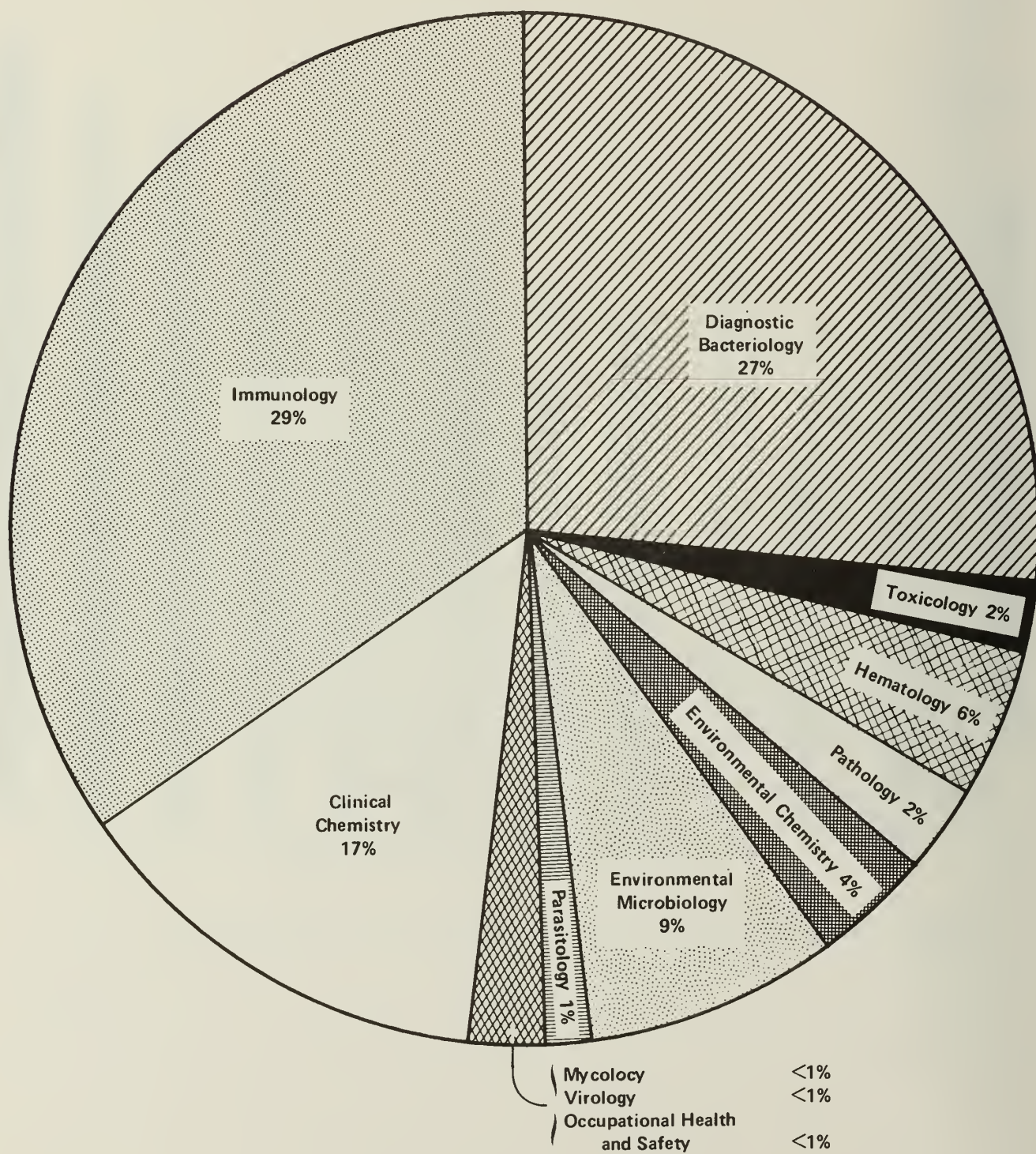
*47/49 = INDICATES 47 LABS REPORTED THIS TYPE DATA OUT OF A UNIVERSE OF 49 LABS.

TABLE 1-3. LABORATORY EXPENDITURES PER CAPITA



*49/49 = INDICATES 49 LABS REPORTED THIS TYPE OF DATA OUT OF A UNIVERSE OF 49 LABS.

Table 1-4
SPECIMENS/SAMPLES RECEIVED BY
THE STATE AND TERRITORIAL PUBLIC HEALTH LABORATORIES



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	191,341	122,599,250	0.641	5312.6	1:36,016	23,077	3337.4	1:57,332	36,735	27,063,169	0.141
Average	3,827	2,451,985	—	114.5	—	—	66.8	—	—	510,626	—
New England	12,290	13,228,699	1.076	657.0	1:18,706	20,135	413.0	1:29,758	32,031	2,017,605	0.164
Conn.	3,115	4,471,116	1.435	228.0	1:13,662	19,610	163.0	1:19,110	27,430	541,775	0.174
Mass.	5,769	4,459,749	0.773	216.0	1:26,708	20,647	106.0	1:54,425	42,073	656,742	0.114
Me.	1,097	985,758	0.899	50.0	1:21,940	19,715	34.0	1:32,265	28,993	109,761	0.100
N.H.	887	394,383	0.444	22.0	1:40,318	17,927	14.0	1:63,358	28,170	180,221	0.203
R.I.	929	2,416,499	2.601	111.0	1:8,369	21,770	75.0	1:12,887	32,220	398,679	0.429
Vt.	493	501,194	1.017	30.0	1:16,433	16,706	21.0	1:23,476	23,866	130,427	0.265
Middle Atlantic	19,063	8,669,508	0.455	313.0	1:60,904	27,698	189.0	1:100,862	45,870	711,163	0.037
N.J.	7,332	5,746,508	0.784	210.0	1:34,914	27,364	144.0	1:50,917	39,906	674,998	0.092
N.Y.	17,648	—	—	—	—	—	—	—	—	—	—
Pa.	11,731	2,923,000	0.249	103.0	1:113,893	28,379	45.0	1:260,689	64,955	36,165	0.003
East North Central	32,080	14,671,925	0.457	593.5	1:54,052	24,721	360.5	1:88,987	40,699	3,362,064	0.105
Ill.	11,229	3,162,758	0.282	157.0	1:71,522	20,145	90.0	1:124,767	35,142	561,506	0.050
Ind.	5,400	2,065,451	0.382	86.0	1:62,790	24,016	67.0	1:80,597	30,828	221,255	0.041
Mich.	9,207	—	—	—	—	—	—	—	—	995,515	0.108
Ohio	10,731	4,498,780	0.419	174.0	1:61,724	25,855	105.0	1:102,200	42,845	807,052	0.075
Wisc.	4,720	4,944,936	1.047	176.5	1:26,742	28,016	98.5	1:47,919	50,202	776,736	0.165
West North Central	17,118	10,374,130	0.606	457.1	1:37,449	22,696	282.0	1:60,702	36,788	2,206,070	0.129
Ia.	2,902	3,491,950	1.203	125.7	1:23,087	27,780	81.0	1:35,827	43,110	473,086	0.163
Kans.	2,369	1,504,672	0.635	83.0	1:28,542	18,129	52.0	1:45,558	28,936	317,099	0.134
Minn.	4,060	1,875,550	0.462	86.0	1:47,093	21,809	46.0	1:88,261	40,772	403,913	0.100
Mo.	4,867	1,687,018	0.347	80.0	1:60,837	21,088	50.0	1:97,340	33,740	567,808	0.117
Nebr.	1,574	561,425	0.357	22.0	1:71,545	25,519	14.0	1:112,429	40,102	140,583	0.281
N.D.	657	610,489	0.929	33.0	1:19,909	18,500	21.0	1:31,286	29,071	184,715	0.089
S.D.	689	643,026	0.933	27.4	1:25,146	23,468	18.0	1:38,278	35,724	118,866	0.173
South Atlantic	29,779	21,516,224	0.723	1096.0	1:27,171	19,631	711.5	1:41,854	30,241	7,576,165	0.254
Del.	582	650,486	1.118	35.0	1:16,629	18,585	24.0	1:24,250	27,104	147,934	0.254
D.C.	656	1,081,000	1.648	44.5	1:14,742	24,292	36.0	1:18,222	30,028	340,263	0.519
Fla.	8,860	5,443,468	0.614	278.0	1:31,871	19,581	178.0	1:49,775	30,581	2,098,260	0.237
Ga.	5,117	2,544,906	0.497	137.0	1:37,350	18,576	71.0	1:72,070	35,844	955,503	0.187
Md.	4,148	5,028,066	1.212	265.0	1:15,653	18,087	187.0	1:22,182	26,888	1,391,676	0.336
N.C.	5,606	3,207,636	0.572	162.0	1:34,605	19,800	105.0	1:53,390	30,548	787,785	0.141
S.C.	2,932	2,652,369	0.905	117.5	1:24,953	22,573	80.5	1:36,422	32,949	733,049	0.250
Va.	5,197	—	—	—	—	—	—	—	—	788,030	0.152
W.Va.	1,878	908,293	0.484	57.0	1:32,947	15,935	30.0	1:62,600	30,276	333,665	0.178
East South Central	14,105	9,420,847	0.668	443.8	1:31,782	21,228	276.3	1:51,050	34,096	3,143,587	0.223
Ala.	3,769	3,261,499	0.865	158.0	1:23,854	20,642	107.0	1:35,224	30,481	1,189,675	0.316
Ky.	3,527	2,568,241	0.728	88.8	1:39,718	28,921	58.3	1:60,497	44,052	299,573	0.085
Miss.	2,429	1,190,663	0.490	52.0	1:46,711	22,897	33.0	1:73,606	36,080	876,721	0.361
Tenn.	4,380	2,400,444	0.548	145.0	1:30,207	16,555	78.0	1:56,154	30,775	777,618	0.178
West South Central	22,470	11,304,595	0.503	510.0	1:44,059	22,166	330.5	1:67,988	34,205	4,605,213	0.205
Ark.	2,180	1,422,170	0.652	84.0	1:25,952	16,931	59.0	1:36,949	24,104	450,285	0.207
La.	4,018	3,117,213	0.776	163.0	1:24,650	19,124	89.5	1:44,894	34,829	728,604	0.181
Okla.	2,892	1,092,612	0.378	53.0	1:54,566	20,615	38.0	1:76,105	28,753	460,076	0.159
Tex.	13,380	5,672,600	0.424	210.0	1:63,714	27,012	144.0	1:92,917	39,393	2,966,248	0.222
Mountain	10,673	10,334,415	0.968	440.8	1:24,213	23,445	281.5	1:37,914	36,712	1,834,580	0.172
Ariz.	2,450	1,604,347	0.655	62.0	1:39,516	25,877	42.0	1:58,333	38,199	105,048	0.043
Colo.	2,772	1,640,806	0.592	75.0	1:36,960	21,877	52.0	1:53,308	31,554	538,749	0.194
Ida.	905	1,529,589	1.690	72.4	1:12,500	21,127	42.0	1:21,548	36,419	267,254	0.295
Mont.	786	630,407	0.802	31.5	1:24,952	20,013	20.0	1:39,300	31,520	92,110	0.117
Nev.	702	794,435	1.132	33.0	1:21,273	24,074	20.0	1:35,100	39,722	96,025	0.137
N.M.	1,241	2,025,436	1.632	84.0	1:14,774	24,112	51.0	1:24,333	39,714	286,842	0.231
Utah	1,367	1,752,577	1.282	68.5	1:19,956	25,585	44.5	1:30,719	39,384	234,843	0.172
Wyo.	450	356,818	0.793	14.4	1:31,250	24,779	10.0	1:45,000	35,682	213,709	0.475
Pacific	30,469	21,713,545	0.713	651.4	1:47,775	33,334	395.1	1:77,117	54,957	1,257,769	0.041
Alaska	406	1,588,483	3.912	40.0	1:10,150	39,712	20.0	1:20,300	79,424	180,073	0.444
Cal.	22,695	15,137,400	0.667	408.8	1:55,516	37,028	256.9	1:88,342	58,923	129,829	0.006
Hawaii	915	1,181,435	1.291	56.5	1:16,195	20,910	39.5	1:23,165	29,910	290,097	0.317
Ore.	2,527	1,646,137	0.651	66.1	1:38,230	24,903	42.7	1:59,180	38,551	464,938	0.184
Wash.	3,926	2,160,090	0.550	80.0	1:49,075	27,001	36.0	1:109,056	60,003	192,832	0.049
Territories	3,294	1,365,362	0.414	150.0	1:21,960	9,102	98.0	1:33,612	13,932	348,953	0.106
Guam	106	204,852	1.932	12.0	1:8,333	17,071	8.0	1:13,250	25,606	16,822	0.159
P.R.	3,188	1,160,510	0.364	138.0	1:23,101	8,409	90.0	1:35,422	12,895	270,463	0.085
U.S.	95	—	—	—	—	—	—	—	—	61,668	0.649

**Table 1-6
NATIONAL RANKING OF STATE & TERRITORIAL PUBLIC HEALTH LABORATORIES BY EXPENDITURES, POSITIONS, AND SPECIMENS***

Rank	Expenditures			Laboratory Personnel										Specimens			
	Total Laboratory X1000	Expenditure Per Capita	Ratio	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	#	Ratio (X1000)				
														State	#	Ratio (X1000)	State
Total	122,599		0.641	5,312.6	1:36		23,077		3,337.4	1:57		36,735		27,063		0.141	
Average	2,452	Alaska	—	114.5	—	Guam	—	39,712	Alaska	66.8	R.I.	—	79,424	Tex.	511	—	
1	15,137	Cal.	3,912	408.8	1:8	R.I.	1:8	37,028	Cal.	256.9	Guam	1:12	Pa.	2,966	V.I.	0.649	
2	5,747	Fla.	2,601	278.0	1:8	R.I.	1:8	37,028	Cal.	187.0	Guam	1:13	Pa.	2,098	D.C.	0.515	
3	5,673	N.J.	1,932	265.0	1:10	Alaska	1:10	28,921	Ky.	178.0	D.C.	1:18	Wash.	64,955	Fla.	0.475	
4	5,443	Md.	1,690	228.0	1:12	Ida.	1:12	28,379	Pa.	163.0	Conn.	1:19	Cal.	1,392	Wyo.	0.415	
5	5,028	Mass.	1,648	216.0	1:14	Conn.	1:14	28,016	Wisc.	144.0	Alaska	1:20	Wisc.	1,190	Alaska	0.444	
6	4,945	N.M.	1,632	210.0	1:15	D.C.	1:15	27,780	Ida.	144.0	Ida.	1:22	Ky.	996	R.I.	0.429	
7	4,499	Conn.	1,435	210.0	1:15	N.M.	1:15	27,364	Ida.	107.0	Ida.	1:22	Ky.	956	Miss.	0.361	
8	4,471	Hawaii	1,291	176.5	1:16	Md.	1:16	27,012	Tex.	106.0	Md.	1:22	Ida.	877	Md.	0.336	
9	4,460	Utah	1,282	174.0	1:16	Hawaii	1:16	27,001	Mass.	105.0	Hawaii	1:23	Ohio	807	Ohio	0.317	
10	3,492	Md.	1,212	163.0	1:16	Vt.	1:16	25,887	N.C.	105.0	Vt.	1:23	Mass.	788	Hawaii	0.316	
11	3,261	N.C.	1,203	162.0	1:17	Vt.	1:17	25,887	Ariz.	105.0	Del.	1:24	Minn.	788	Ala.	0.295	
12	3,208	Ala.	1,132	158.0	1:20	Del.	1:20	25,855	Ohio	98.5	N.M.	1:24	Nebr.	778	N.D.	0.281	
13	3,163	Nev.	1,118	157.0	1:20	N.D.	1:20	25,585	Utah	90.0	Utah	1:31	N.J.	777	Vt.	0.265	
14	3,117	Ill.	1,047	145.0	1:20	Nebr.	1:20	25,519	Nebr.	90.0	N.O.	1:31	N.J.	733	Del.	0.254	
15	2,923	Tenn.	1,017	138.0	1:21	Nev.	1:21	24,903	Ore.	89.5	Me.	1:32	N.M.	729	S.C.	0.250	
16	2,652	P.R.	0,933	137.0	1:22	Me.	1:22	24,779	Ida.	81.0	Nev.	1:35	Tex.	675	Fla.	0.237	
17	2,568	S.C.	0,929	137.0	1:23	Ida.	1:23	24,292	W.V.	80.5	Ala.	1:35	Utah	657	N.M.	0.231	
18	2,545	N.D.	0,929	125.7	1:23	P.R.	1:23	24,112	D.C.	78.0	P.R.	1:35	Ore.	568	Tex.	0.222	
19	2,416	Ala.	0,905	117.5	1:24	Ala.	1:24	24,074	N.M.	75.0	Ida.	1:36	Ore.	562	Ark.	0.207	
20	2,416	Me.	0,899	111.0	1:25	La.	1:25	24,016	Nev.	71.0	S.C.	1:36	Ida.	542	N.H.	0.203	
21	2,400	Ark.	0,865	103.0	1:25	Mont.	1:25	23,468	S.D.	67.0	Ark.	1:37	Miss.	539	Colo.	0.194	
22	2,160	Ky.	0,802	88.8	1:25	S.C.	1:25	22,897	Ark.	59.0	S.O.	1:38	Ga.	473	Ga.	0.187	
23	2,065	Ind.	0,793	86.0	1:25	S.D.	1:25	22,573	Miss.	58.3	Mont.	1:39	Dre.	465	Dre.	0.184	
24	2,025	N.J.	0,784	86.0	1:26	Ark.	1:26	21,877	Colo.	52.0	La.	1:45	Okla.	460	La.	0.181	
25	1,876	La.	0,776	84.0	1:27	Mass.	1:27	21,809	Wyo.	52.0	Wyo.	1:45	Ill.	450	W. Va.	0.178	
26	1,752	Mass.	0,773	84.0	1:27	N.M.	1:27	21,770	Kans.	51.0	Kans.	1:45	La.	404	Tenn.	0.178	
27	1,687	Ky.	0,728	83.0	1:29	Kans.	1:29	21,127	Ida.	50.0	Wisc.	1:48	Mo.	399	Conn.	0.174	
28	1,646	Mo.	0,667	80.0	1:30	Tenn.	1:30	21,088	Ida.	46.0	Fla.	1:50	D.C.	340	S.D.	0.173	
29	1,640	Ariz.	0,655	80.0	1:31	Wyo.	1:31	20,910	Mo.	45.0	Fla.	1:50	D.C.	334	Utah	0.172	
30	1,604	Colo.	0,652	75.0	1:32	Fla.	1:32	20,647	Hawaii	45.0	N.J.	1:51	W. Va.	334	Utah	0.172	
31	1,588	Ida.	0,651	72.4	1:33	W. Va.	1:33	20,642	Mass.	44.5	Colo.	1:53	Kans.	317	Wisc.	0.165	
32	1,530	Utah	0,635	68.5	1:35	Ala.	1:35	20,615	Ala.	42.7	N.C.	1:53	Mont.	300	Ida.	0.163	
33	1,505	Kans.	0,614	66.1	1:35	N.J.	1:35	20,145	Okla.	42.0	Mass.	1:54	Ind.	290	Ky.	0.159	
34	1,422	Fla.	0,592	62.0	1:37	N.C.	1:37	20,013	Ill.	42.0	Tenn.	1:56	Ind.	287	Dkla.	0.159	
35	1,191	N.C.	0,572	57.0	1:37	Colo.	1:37	20,013	Ida.	39.5	Ariz.	1:58	Fla.	270	Guam	0.152	
36	1,181	Wash.	0,550	56.5	1:38	Ga.	1:38	19,800	Mont.	38.0	Dre.	1:59	Ida.	267	Va.	0.152	
37	1,161	Hawaii	0,548	53.0	1:40	W. Va.	1:40	19,715	Me.	36.0	Ky.	1:60	N.C.	270	N.C.	0.141	
38	1,093	Okla.	0,497	52.0	1:40	Ore.	1:40	19,610	Conn.	36.0	W. Va.	1:63	Ala.	235	Nev.	0.137	
39	1,081	Miss.	0,490	50.0	1:40	Ariz.	1:40	19,581	Wash.	36.0	W. Va.	1:63	W. Va.	221	Kans.	0.134	
40	986	W. Va.	0,484	44.5	1:40	Ky.	1:40	19,124	Fla.	34.0	N.H.	1:63	O.C.	214	Mont.	0.117	
41	908	Alaska	0,462	40.0	1:47	Del.	1:47	18,585	La.	33.0	N.H.	1:63	Hawaii	193	Mo.	0.117	
42	794	Del.	0,444	35.0	1:49	Wash.	1:49	18,500	Del.	30.0	Miss.	1:74	N.D.	185	Mass.	0.114	
43	650	N.D.	0,424	33.0	1:55	Okla.	1:55	18,129	Ga.	24.0	Okla.	1:76	Me.	180	Mich.	0.108	
44	643	Nev.	0,419	33.0	1:56	Cal.	1:56	18,087	N.D.	21.0	Ind.	1:81	Kans.	180	Me.	0.100	
45	630	Mont.	0,382	31.5	1:61	Mo.	1:61	17,927	Kans.	21.0	Min.	1:88	Okla.	148	Del.	0.100	
46	610	N.D.	0,378	30.0	1:62	Ohio	1:62	17,071	Md.	20.0	Cal.	1:88	N.H.	141	N.J.	0.092	
47	561	P.R.	0,364	27.4	1:63	Ind.	1:63	16,931	Ark.	20.0	Tex.	1:93	Conn.	130	Nebr.	0.089	
48	501	Nebr.	0,357	22.0	1:64	Tex.	1:64	16,706	Vt.	18.0	Ohio	1:102	Md.	119	Ky.	0.085	
49	394	N.H.	0,347	22.0	1:72	N.H.	1:72	16,555	Ark.	14.0	Wash.	1:109	Guam	110	P.R.	0.085	
50	357	Nebr.	0,282	14.4	1:72	Ill.	1:72	15,935	Tenn.	14.0	Nebr.	1:109	Ohio	110	Me.	0.075	
51	357	Wyo.	0,282	14.4	1:72	Wyo.	1:72	15,935	Nebr.	10.0	Ill.	1:112	Ark.	105	Ill.	0.050	
52	205	Pa.	0,249	12.0	1:114	Pa.	1:114	8,409	W. Va.	8.0	Pa.	1:125	Vt.	96	Wash.	0.049	
53		Guam				Guam			P.R.			1:261	P.R.	92	Mont.	0.043	
														62	V.I.	0.041	
														36	Cal.	0.006	
														17	Guam	0.003	

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

Rank	Expenditures			Laboratory Personnel										Specimens			
	Total Laboratory X1000	Expenditure Per Capita		Budgeted Positions					Budgeted Prof. & Tech. Positions					Total Lab. Specimens X1000		Specimens Per Capita	
		\$	Ratio	Positions To Pop.		Expenditure Per Position	Positions To Pop.		Expenditure Per Position	Positions To Pop.		Expenditure Per Position	State	Ratio			
				State	#		State	Ratio (X1000)		State	#				State		Ratio (X1000)
Total	122,599		0.641														
Average	2,452		—														
New England	13,228		1.076														
1	4,471	Conn.	R.I.	Conn.	R.I.	20,135	Conn.	R.I.	Mass.	27,063	0.141						
2	4,460	Mass.	Conn.	Mass.	Conn.	20,135	Mass.	Conn.	Mass.	27,063	0.141						
3	2,416	R.I.	Vt.	Vt.	Vt.	20,135	Vt.	Vt.	R.I.	2,018	0.164						
4	986	Me.	Me.	Me.	Me.	20,135	Me.	Me.	Me.	20,135	0.164						
5	501	Mass.	Me.	Me.	Me.	20,135	Me.	Me.	N.H.	395	0.265						
6	394	N.H.	Me.	Me.	Me.	20,135	N.H.	Me.	N.H.	395	0.265						
Middle Atlantic	8,670		0.455														
1	5,747	N.J.	N.J.	N.J.	N.J.	27,698	N.J.	N.J.	Pa.	711	0.037						
2	2,923	Pa.	Pa.	Pa.	Pa.	27,698	Pa.	Pa.	N.J.	711	0.037						
3	—	N.Y.	N.Y.	N.Y.	N.Y.	27,698	N.Y.	N.Y.	N.Y.	36	0.092						
East North Central	14,672		0.457														
1	4,945	Wis.	Wis.	Wis.	Wis.	24,721	Wis.	Wis.	Wis.	3,362	0.105						
2	4,499	Ohio	Ohio	Ohio	Ohio	24,721	Ohio	Ohio	Ind.	807	0.165						
3	3,163	Ill.	Ill.	Ill.	Ill.	24,721	Ill.	Ill.	Ill.	777	0.108						
4	2,065	Ind.	Ind.	Ind.	Ind.	24,721	Ind.	Ind.	Ill.	562	0.075						
5	—	Mich.	Mich.	Mich.	Mich.	24,721	Mich.	Mich.	Mich.	221	0.282						
West North Central	10,374		0.606														
1	3,492	Ia.	Ia.	Ia.	Ia.	22,696	Ia.	Ia.	Ia.	2,206	0.041						
2	1,933	S.O.	S.O.	S.O.	S.O.	22,696	S.O.	S.O.	N.O.	568	0.129						
3	1,876	Min.	Min.	Min.	Min.	22,696	Min.	Min.	Min.	473	0.281						
4	1,687	N.D.	N.D.	N.D.	N.D.	22,696	N.D.	N.D.	S.D.	404	0.173						
5	1,505	Kans.	Kans.	Kans.	Kans.	22,696	Kans.	Kans.	Mo.	410	0.163						
6	643	S.D.	S.D.	S.D.	S.D.	22,696	S.D.	S.D.	Mo.	317	0.134						
7	610	N.D.	N.D.	N.D.	N.D.	22,696	N.D.	N.D.	Mo.	185	0.163						
8	561	Nebr.	Nebr.	Nebr.	Nebr.	22,696	Nebr.	Nebr.	Mo.	141	0.100						
South Atlantic	21,515		0.723														
1	5,443	Fla.	Fla.	Fla.	Fla.	19,631	Fla.	Fla.	D.C.	715	0.254						
2	3,028	Del.	Del.	Del.	Del.	19,631	Del.	Del.	D.C.	1,098	0.519						
3	2,659	S.C.	S.C.	S.C.	S.C.	19,631	S.C.	S.C.	Fla.	1,392	0.254						
4	2,545	Ga.	Ga.	Ga.	Ga.	19,631	Ga.	Ga.	Fla.	956	0.336						
5	2,545	Fla.	Fla.	Fla.	Fla.	19,631	Fla.	Fla.	Fla.	788	0.250						
6	1,081	N.C.	N.C.	N.C.	N.C.	19,631	N.C.	N.C.	Fla.	788	0.237						
7	958	W. Va.	W. Va.	W. Va.	W. Va.	19,631	W. Va.	W. Va.	D.C.	733	0.187						
8	600	Del.	Del.	Del.	Del.	19,631	Del.	Del.	W. Va.	340	0.178						
9	—	Va.	Va.	Va.	Va.	19,631	Va.	Va.	W. Va.	334	0.152						
East South Central	9,420		0.668														
1	3,261	Ala.	Ala.	Ala.	Ala.	21,228	Ala.	Ala.	Ala.	3,144	0.223						
2	2,568	Ky.	Ky.	Ky.	Ky.	21,228	Ky.	Ky.	Tenn.	1,190	0.361						
3	2,400	Tenn.	Tenn.	Tenn.	Tenn.	21,228	Tenn.	Tenn.	Ky.	776	0.178						
4	1,191	Miss.	Miss.	Miss.	Miss.	21,228	Miss.	Miss.	Ala.	300	0.085						
West South Central	11,305		0.503														
1	5,673	La.	La.	La.	La.	22,166	La.	La.	Ark.	4,605	0.205						
2	3,117	Ark.	Ark.	Ark.	Ark.	22,166	Ark.	Ark.	La.	2,966	0.222						
3	1,422	Tex.	Tex.	Tex.	Tex.	22,166	Tex.	Tex.	Okla.	460	0.207						
4	1,093	Okla.	Okla.	Okla.	Okla.	22,166	Okla.	Okla.	Tex.	450	0.181						
Mountain	10,334		0.968														
1	2,025	N.M.	N.M.	N.M.	N.M.	23,445	N.M.	N.M.	Ida.	1,835	0.172						
2	1,753	Utah	Utah	Utah	Utah	23,445	Utah	Utah	N.M.	539	0.295						
3	1,641	Ida.	Ida.	Ida.	Ida.	23,445	Ida.	Ida.	Utah	287	0.231						
4	1,132	Wyo.	Wyo.	Wyo.	Wyo.	23,445	Wyo.	Wyo.	Ida.	267	0.194						
5	1,530	Ariz.	Ariz.	Ariz.	Ariz.	23,445	Ariz.	Ariz.	Wyo.	235	0.194						
6	794	Wyo.	Wyo.	Wyo.	Wyo.	23,445	Wyo.	Wyo.	Ida.	214	0.172						
7	630	Ariz.	Ariz.	Ariz.	Ariz.	23,445	Ariz.	Ariz.	Wyo.	105	0.137						
8	357	Wyo.	Wyo.	Wyo.	Wyo.	23,445	Wyo.	Wyo.	Ariz.	96	0.117						
Pacific	21,712		0.713														
1	15,137	Cal.	Cal.	Cal.	Cal.	33,334	Cal.	Cal.	Alaska	465	0.041						
2	2,160	Wash.	Wash.	Wash.	Wash.	33,334	Wash.	Wash.	Alaska	290	0.317						
3	1,646	Ore.	Ore.	Ore.	Ore.	33,334	Ore.	Ore.	Wash.	193	0.184						
4	1,588	Alaska	Alaska	Alaska	Alaska	33,334	Alaska	Alaska	Ore.	180	0.049						
5	1,181	Hawaii	Hawaii	Hawaii	Hawaii	33,334	Hawaii	Hawaii	Cal.	130	0.006						
Territories	1,366		0.414														
1	1,161	P.R.	P.R.	P.R.	P.R.	9,102	P.R.	P.R.	Guam	349	0.106						
2	205	Guam	Guam	Guam	Guam	9,102	Guam	Guam	P.R.	270	0.669						
3	—	V.I.	V.I.	V.I.	V.I.	9,102	V.I.	V.I.	V.I.	17	0.165						

Table 1-8
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	53	53		49		53		50		53		36		46		12		51		43		20		39		
Total	27,063,169	7,455,922	27.6	61,638	0.2	410,255	1.5	240,546	0.9	8,011,904	29.6	1,632,024	6.0	4,798,023	17.7	478,448	1.8	2,396,370	8.9	1,034,353	3.8	66,414	0.2	477,272	1.8	
Average	510,626	140,678		1,258		7,741		4,811		151,168		45,334		104,305		39,871		46,988		24,055		3,321		12,238		
New England	2,017,605	649,701	32.3	3,362	0.2	11,935	0.9	11,905	0.6	513,945	25.5	14,716	0.7	474,702	23.5	2,226	0.1	92,030	4.6	109,472	5.4	5,023	0.2	121,388	6.0	
Conn.	129,256	23,8		1,807	0.3	11,814	2.2	4,997	0.9	181,880	21.8	13,838	2.6	121,799	22.5	2,226	0.4	21,482	4.0	32,390	6.0	3,075	0.6	80,911	14.9	
Mass.	656,742	183,996	28.0	529	0.1	1,663	<0.1	5,595	0.9	185,196	28.2	13,838	2.6	281,239	42.8	2,226	0.4	21,482	4.0	32,390	6.0	3,075	0.6	80,911	14.9	
Me.	109,761	45,052	41.0	343	0.3	3,03	0.3	861	0.8	23,917	21.8	—	—	—	—	—	—	17,611	16.0	13,685	12.5	26	<0.1	7,963	7.3	
N.H.	180,221	105,509	58.5	110	0.1	1,401	0.8	202	0.1	39,279	21.8	—	—	—	—	—	—	27,928	7.0	52,273	13.1	96	<0.1	28,627	7.2	
R.I.	398,679	145,122	36.5	329	0.1	3,780	0.9	81	<0.1	101,579	25.5	878	0.2	37,986	9.5	—	—	24,985	19.2	11,124	8.5	1,826	1.4	3,845	2.9	
Vt.	130,427	40,766	31.3	244	0.2	1,674	1.3	169	0.1	45,794	35.1	—	—	—	—	—	—	19,676	2.8	11,835	1.7	313	<0.1	21,903	3.1	
Middle Atlantic	711,163	253,949	35.7	752	0.1	2,862	0.4	15,394	2.2	279,296	39.2	390	0.1	104,793	14.7	—	—	19,404	2.9	11,835	1.8	313	<0.1	14,975	2.2	
N.J.	674,998	238,373	35.3	507	0.1	2,498	0.4	13,706	2.0	272,260	40.3	—	—	101,127	15.0	—	—	19,404	2.9	11,835	1.8	313	<0.1	14,975	2.2	
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pa.	36,165	15,576	43.0	245	0.7	364	1.0	1,688	4.7	7,036	19.4	390	1.1	3,666	10.1	—	—	272	0.8	—	—	—	—	6,928	19.2	
East North Central	3,362,064	841,129	25.0	7,086	0.2	17,346	0.5	54,629	1.6	764,310	22.7	57,740	1.7	116,062	20.8	75,187	2.2	359,594	10.7	197,492	5.9	22,595	0.7	48,659	1.4	
Ill.	561,506	185,980	33.2	1,190	0.2	2,439	0.4	7,284	1.3	148,660	26.5	—	—	53,855	9.6	32,978	5.9	53,855	9.6	32,978	5.9	—	—	12,058	2.1	
Ind.	221,255	11,071	5.0	641	0.3	2,485	1.1	3,257	1.5	66,333	30.0	—	—	68,310	30.9	69,064	31.2	68,310	30.9	69,064	31.2	—	—	94	<0.1	
Mich.	995,515	280,626	28.1	1,676	0.2	4,910	0.5	4,463	0.4	287,354	28.9	14,279	1.4	261,613	26.3	—	—	107,958	10.8	32,636	3.3	—	—	—	—	
Ohio	807,052	323,093	40.1	1,054	0.1	1,268	0.2	31,925	4.0	115,398	14.3	6,474	0.8	201,076	24.9	—	—	66,581	8.2	24,280	3.0	7,523	0.9	28,380	3.5	
Wis.	776,736	40,359	5.2	2,525	0.3	6,244	0.8	7,700	1.0	146,365	18.9	36,987	4.8	336,546	43.3	75,187	9.7	62,890	8.1	38,534	5.0	15,072	1.9	8,127	1.0	
West North Central	2,206,070	628,441	28.5	6,463	0.3	26,105	1.2	40,626	1.8	734,765	33.3	18,189	0.8	276,935	12.6	191	<0.1	261,940	11.9	195,186	8.8	4,745	0.2	12,484	0.6	
Ia.	473,086	121,407	25.7	724	0.2	2,610	0.6	4,184	0.9	153,706	32.4	—	—	4,715	1.0	—	—	43,900	9.3	135,610	28.6	3,760	0.8	2,270	0.5	
Kans.	317,099	73,526	23.2	854	0.3	6,975	2.2	922	0.3	101,271	31.9	—	—	59,682	18.8	191	<0.1	47,227	14.9	122,169	7.0	985	0.3	3,468	1.1	
Minn.	403,913	125,926	31.2	3,740	0.9	11,564	2.9	5,491	1.4	182,864	45.2	13,970	2.5	115,583	20.4	—	—	22,595	16.1	10,952	3.8	—	—	1,285	0.2	
Mo.	567,808	172,753	30.4	4,35	0.1	2,100	0.4	4,751	0.8	138,212	24.3	—	—	74,239	18.4	—	—	18,348	9.9	7,106	3.8	—	—	5,429	3.9	
Neb.	140,563	23,443	20.9	435	0.3	0.1	303	0.2	874	0.6	67,501	48.0	4,219	2.3	3,454	2.5	—	—	22,595	16.1	10,952	3.8	—	—	12	<0.1
N.D.	184,715	59,523	32.3	471	0.3	1,817	1.0	23,665	12.8	50,292	27.2	—	—	19,262	10.4	—	—	20,474	17.2	9,826	8.3	—	—	—	—	
S.D.	118,866	45,965	38.7	207	0.2	736	0.6	739	0.6	40,919	34.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
South Atlantic	7,576,165	2,061,620	27.2	12,115	0.2	129,764	1.7	34,843	0.5	2,284,534	30.1	592,852	7.8	1,289,604	17.0	370,052	4.9	490,064	6.5	149,063	2.0	16,378	0.2	145,276	1.9	
Del.	147,934	33,597	22.7	—	—	—	—	1,138	0.8	42,149	28.5	592,852	7.8	1,289,604	17.0	370,052	4.9	490,064	6.5	149,063	2.0	16,378	0.2	145,276	1.9	
D.C.	340,263	95,738	28.1	—	—	902	0.3	1,138	0.8	42,149	28.5	592,852	7.8	1,289,604	17.0	370,052	4.9	490,064	6.5	149,063	2.0	16,378	0.2	145,276	1.9	
Fla.	2,098,260	681,976	32.5	2,315	0.1	62,171	3.0	9,189	0.4	636,073	30.3	54,324	16.0	41,381	12.2	16,128	4.7	234,953	11.2	9,042	0.3	1,393	0.1	15,548	4.6	
Ga.	955,503	276,985	29.0	1,536	0.2	22,782	2.4	3,918	0.4	429,240	44.9	58,174	6.1	129,308	13.5	—	—	75,519	5.4	47,981	3.4	8,661	0.6	37,042	2.7	
Ida.	1,391,676	434,940	31.2	2,850	0.2	10,270	0.7	5,436	0.4	399,080	28.7	101,827	7.3	193,988	13.9	74,082	5.3	65,283	8.3	21,950	2.7	4,697	0.6	37,042	2.7	
Me.	787,785	232,167	29.5	1,563	0.2	6,036	0.8	3,440	0.4	219,588	28.0	62,264	7.9	193,988	13.5	183,528	23.3	65,283	8.3	21,950	2.7	4,697	0.6	37,042	2.7	
N.C.	733,049	222,080	30.2	1,691	0.2	11,659	1.6	9,117	1.2	219,588	29.7	62,264	7.9	193,988	13.5	183,528	23.3	65,283	8.3	21,950	2.7	4,697	0.6	37,042	2.7	
N.M.	788,030	181,467	23.1	1,729	0.2	12,103	1.5	1,883	0.2	164,768	20.9	98,030	12.4	213,800	27.2	—	—	52,248	6.6	49,393	6.3	1,627	0.2	10,962	1.4	
N.V.	333,665	111,670	33.5	431	0.1	3,393	1.0	672	0.2	62,300	18.7	2,092	0.6	71,734	21											

SECTION II

PERSONNEL

Table 2-1
BUDGETED POSITIONS BY CATEGORIES AND POSITION VACANCIES

Lab & Region	Total Budgeted Positions		Management		Clinical		Prof. & Tech.		Support Ser.		Maintenance		Total Filled Positions	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total	5,726.8		394.0	7.3	13.0	736.6	12.8	3,565.4	62.3	160.9	895.4	15.6	53.1	94.8
Average	110.1	7.3	0.2	14.2	1.3	68.6	62.3	3.1	17.2	15.6	3.1	2.4	6.0	94.8
New England	657.0		41.0	6.2	2.0	90.0	13.7	413.0	62.9	10.0	77.0	11.7	16.0	93.1
Conn.	228.0	7.0	3.1	20.0	6.0	163.0	71.5	1.0	27.0	11.8	2.0	1.0	0.4	217.0
Mass.	216.0	11.6	—	—	—	33.0	15.3	7.0	19.0	8.8	10.0	15.3	1.0	193.0
N.H.	50.0	4.0	—	—	—	7.0	3.4	—	7.0	14.0	—	—	—	43.0
N.J.	122.0	5.0	—	—	—	12.0	5.8	—	12.0	15.0	—	—	—	100.0
N.Y.	139.0	4.5	—	—	—	75.0	62.5	3.0	17.0	13.3	—	—	—	122.0
Vt.	30.0	3.3	—	—	—	21.0	70.0	—	4.0	13.3	—	—	—	30.0
Middle Atlantic	313.0		28.0	8.9	1.0	43.0	13.7	189.0	60.4	5.0	49.0	15.6	3.0	299.0
N.J.	210.0	8.0	3.8	26.0	12.4	144.0	68.6	3.0	32.0	15.2	2.0	—	—	205.0
N.Y.	103.0	19.4	—	—	—	45.0	43.7	2.0	17.0	16.5	1.0	—	—	91.3
East North Central	1,005.8		77.5	7.7	4.0	100.0	9.9	586.5	58.3	21.5	177.8	17.6	9.0	960.3
Ill.	157.0	11.0	—	—	—	20.4	12.9	3.0	12.0	13.9	1.0	—	—	145.0
Ind.	142.0	6.0	—	—	—	17.0	12.0	4.0	9.0	6.3	6.0	—	—	136.0
Mich.	412.3	16.0	3.9	23.0	5.6	226.0	54.9	4.0	93.3	22.6	5.0	—	—	398.3
Ohio	174.0	7.0	4.0	23.0	13.2	12.0	60.3	5.0	30.0	17.2	—	—	—	166.0
Wisc.	176.5	36.5	20.7	22.0	12.5	98.5	55.8	5.5	19.5	11.0	2.0	—	—	166.0
West North Central	457.1		48.0	10.5	1.0	67.6	14.8	282.0	61.7	22.0	58.5	12.7	4.1	425.6
La.	125.7	13.0	—	—	—	16.2	12.9	81.0	64.4	5.0	15.5	12.3	3.1	117.6
Kans.	83.0	12.0	14.5	1.0	9.0	10.8	6.0	52.0	62.6	4.0	9.0	—	—	78.0
Minn.	66.0	6.0	7.0	18.0	20.9	1.0	46.0	53.5	—	—	—	—	—	94.0
Mo.	80.0	5.0	6.2	13.0	16.2	—	50.0	62.5	—	—	—	—	—	85.0
Nebr.	22.0	4.0	18.2	4.0	18.2	4.0	18.2	83.6	—	—	—	—	—	76.0
N.D.	14.0	1.0	14.0	1.0	14.0	1.0	14.0	100.0	—	—	—	—	—	14.0
S.D.	27.4	4.0	14.8	3.4	12.4	1.4	18.0	65.7	8.0	4.0	12.1	—	—	160.0
South Atlantic	1,096.0		48.0	4.4	1.0	156.5	14.3	711.6	54.9	39.0	166.0	15.1	4.0	1,036.5
Del.	35.0	1.0	2.9	4.5	1.1	36.0	89.9	—	2.0	4.5	—	—	—	34.0
D.C.	10.0	4.5	—	—	—	—	—	—	—	—	—	—	—	10.0
Fla.	278.0	13.0	4.7	45.0	16.2	12.0	178.0	64.0	20.0	41.0	14.7	1.0	—	245.0
Ga.	137.0	8.0	5.8	20.0	14.6	1.0	71.0	51.8	6.0	37.0	27.0	1.0	—	129.0
Ms.	265.0	4.0	1.5	—	—	27.0	10.2	187.0	70.6	3.0	33.0	12.4	1.0	260.0
N.C.	162.0	9.0	5.6	31.0	13.0	—	105.0	64.8	5.0	25.0	15.4	—	—	156.0
S.C.	117.5	7.7	1.0	14.0	11.9	—	80.5	68.5	4.0	12.0	10.2	—	—	113.5
Va.	57.0	3.5	—	—	—	11.0	19.3	30.0	52.6	1.0	10.0	17.5	—	55.0
West South Central	443.8		25.0	5.6	1.0	66.0	14.9	276.3	62.3	17.0	69.5	15.7	5.0	414.8
Ala.	158.0	6.0	3.8	10.0	17.1	27.0	107.0	67.7	5.0	16.0	10.1	—	—	152.0
Ky.	88.8	6.0	6.8	10.0	15.3	—	33.0	37.5	4.0	19.5	1.0	—	—	84.8
Okla.	145.0	11.0	7.6	21.0	14.5	—	70.0	53.8	8.0	31.0	21.4	—	—	127.0
West North Central	510.0		21.5	4.2	—	53.2	10.4	330.5	64.7	15.0	103.8	20.4	6.0	487.0
Ark.	3.0	3.6	—	—	—	11.0	3.1	18.5	31.0	6.0	31.0	19.0	1.0	95.0
Cal.	163.0	11.0	3.8	5.0	11.7	89.5	54.9	6.0	6.8	12.8	—	—	—	155.0
Okla.	15.0	3.8	—	—	—	6.2	11.7	34.0	71.7	—	—	—	—	100.0
Tenn.	210.0	5.0	2.4	—	—	2.4	14.0	68.6	8.0	55.0	26.2	5.0	—	197.0
Mountain	440.8		46.0	10.4	5.0	56.0	12.7	281.5	63.9	21.4	46.9	10.6	—	414.4
Ariz.	72.0	14.0	—	—	—	17.7	24.5	2.0	3.2	—	—	—	—	70.0
Calif.	14.0	18.7	—	—	—	7.0	9.3	52.0	69.3	4.0	2.0	2.7	—	68.0
Idaho	72.0	6.0	8.3	11.0	15.2	1.0	42.0	58.0	2.4	6.0	8.3	—	—	69.0
Mont.	31.5	3.0	9.5	—	—	20.0	63.5	1.0	3.5	11.1	—	—	—	30.5
Nev.	33.0	2.0	6.1	—	—	3.0	9.1	20.0	60.6	1.0	3.0	—	—	32.0
N.M.	84.0	7.0	8.3	—	—	7.0	21.2	17.0	20.2	1.0	—	—	—	97.0
Utah	68.5	1.0	10.2	—	—	44.5	65.0	9.0	16.0	20.2	—	—	—	86.9
Wyo.	14.4	1.0	6.9	—	—	2.0	13.9	10.0	69.4	—	1.4	9.7	—	14.4
Pacific	651.4		33.0	5.1	3.0	88.3	13.6	395.1	60.7	8.0	129.9	19.9	6.0	632.4
Alaska	4.0	2.5	—	—	—	9.0	22.5	—	62.8	4.0	—	—	—	3.0
Calif.	406.6	13.0	1.6	4.0	7.1	256.9	62.8	4.0	86.9	21.3	3.0	—	—	400.8
Hawaii	6.0	1.6	—	—	—	—	—	—	—	—	—	—	—	5.0
Idaho	66.1	6.0	9.1	—	—	42.7	64.7	—	12.0	21.2	—	—	—	92.9
Ort.	80.0	12.0	15.0	1.0	10.3	15.6	1.0	42.7	7.0	10.6	1.0	—	—	63.1
Wash.	66.1	6.0	12.0	15.0	1.0	13.0	15.6	45.0	18.0	22.5	1.0	1.2	—	79.0
Terminations	152.0		16.0	10.5	—	16.0	10.5	100.0	65.8	2.0	17.0	11.2	—	150.0
Grm.	12.0	3.0	25.0	—	—	8.0	66.7	1.0	—	—	—	—	—	11.0
P.R.	138.0	9.4	—	—	—	15.0	10.9	90.0	65.2	1.0	17.0	12.3	—	136.0
V.I.	2.0	—	—	—	—	—	—	2.0	100.0	—	—	—	—	1.0

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.
 - Clinical:** 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 others. Do not include those covered in supportive services categories.
- those laboratory existents and laboratory helpers who contribute directly to the performance of laboratory tests of 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, media, shipping containers, animal handling work, messengers, and supply and procurement personnel.
 - Maintenance:** Include those who install, repair, or perform preventive maintenance on equipment and maintenance of buildings including housekeeping.

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	5431.1	892.9	16.4	20.0	166.5	3564.8	428.4	12.0	150.0	29
Average	104.4	17.2	16.4	0.4	3.2	68.6	8.2	12.0	2.9	0.6
New England	612.0	60.0	9.8	3.0	16.0	413.0	20.0	4.8	15.0	6.0
Conn.	217.0	20.0	9.2	2.0	6.0	163.0	5.0	3.1	6.0	1.0
Mass.	193.0	17.0	8.8	1.0	6.0	106.0	3.0	2.8	3.0	4.0
Me.	43.0	4.0	9.3	—	1.0	34.0	—	—	3.0	—
N.H.	22.0	1.0	4.5	—	1.0	14.0	—	—	—	—
R.I.	107.0	15.0	14.0	—	1.0	75.0	11.0	14.7	2.0	1.0
Vt.	30.0	3.0	10.0	—	1.0	21.0	1.0	4.8	1.0	—
Middle Atlantic	299.0	37.0	12.4	1.0	9.0	189.0	18.0	9.5	8.0	1.0
N.J.	205.0	28.0	13.6	—	5.0	144.0	16.0	11.1	7.0	—
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	94.0	9.0	9.6	1.0	4.0	45.0	2.0	4.4	1.0	1.0
East North Central	960.3	171.5	17.9	4.0	16.5	586.5	93.0	15.9	40.0	18.0
Ill.	149.0	20.0	13.4	—	4.0	90.0	11.0	12.2	5.0	—
Ind.	81.0	7.0	8.6	—	—	67.0	5.0	7.5	2.0	—
Mich.	398.3	65.0	16.3	2.0	1.0	226.0	31.0	13.7	15.0	16.0
Ohio	166.0	57.0	34.3	1.0	6.0	105.0	34.0	32.4	14.0	2.0
Wisc.	166.0	22.5	13.6	1.0	5.5	98.5	12.0	12.2	4.0	—
West North Central	424.7	76.0	17.9	1.0	21.0	282.0	38.0	13.5	15.0	—
Ia.	117.7	24.0	20.4	—	6.0	81.0	10.0	12.3	7.0	—
Kans.	78.0	16.0	20.5	1.0	6.0	52.0	6.0	11.5	3.0	—
Minn.	85.0	18.0	21.2	—	7.0	46.0	9.0	19.6	2.0	—
Mo.	76.0	8.0	10.5	—	1.0	50.0	7.0	14.0	—	—
Nebr.	22.0	4.0	18.2	—	—	14.0	4.0	28.6	—	—
N.D.	22.0	—	—	—	—	21.0	—	—	—	—
S.D.	24.0	6.0	25.0	—	1.0	18.0	2.0	11.1	3.0	—
South Atlantic	1036.5	114.0	11.0	5.0	27.0	711.5	75.0	10.5	5.0	2.0
Del.	34.0	4.0	11.1	—	1.0	24.0	3.0	12.5	—	—
D.C.	44.0	12.0	27.3	1.0	2.0	36.0	9.0	25	—	—
Fla.	245.0	14.0	5.7	1.0	2.0	178.0	10.0	5.6	1.0	—
Ga.	129.0	17.0	13.2	1.0	6.0	71.0	9.0	12.7	1.0	—
Md.	260.0	19.0	7.3	1.0	6.0	187.0	10.0	5.3	1.0	1.0
N.C.	156.0	17.0	10.9	—	2.0	105.0	14.0	13.3	1.0	—
S.C.	113.5	27.0	23.0	1.0	6.0	80.5	19.0	23.6	1.0	—
Va.	—	—	—	—	—	—	—	—	—	—
W.Va.	55.0	4.0	7.3	—	2.0	30.0	1.0	3.3	—	1.0
East South Central	414.8	79.0	19.0	—	18.0	276.3	41.0	14.8	18.0	2.0
Ala.	152.0	25.0	16.4	—	3.0	107.0	18.0	16.8	4.0	—
Ky.	83.8	6.0	7.2	—	1.0	58.3	3.0	5.1	2.0	—
Miss.	52.0	7.0	13.5	—	3.0	33.0	2.0	6.1	2.0	—
Tenn.	127.0	41.0	32.3	—	11.0	78.0	18.0	23.1	10.0	2.0
West South Central	487.0	81.0	16.6	1.0	15.0	330.5	45.0	13.6	20.0	—
Ark.	82.0	19.0	23.2	—	6.0	59.0	11.0	18.6	2.0	—
La.	155.0	19.0	12.3	—	9.0	89.5	7.0	7.8	3.0	—
Okla.	53.0	4.0	7.5	1.0	—	38.0	—	—	3.0	—
Tex.	197.0	39.0	19.8	—	—	144.0	27.0	18.7	12.0	—
Mountain	414.4	85.4	20.5	2.0	13.0	281.0	55.4	19.6	9.0	—
Ariz.	62.0	6.0	9.7	—	3.0	42.0	2.0	4.8	1.0	—
Colo.	68.0	13.0	19.1	—	3.0	52.0	10.0	19.2	—	—
Ida.	69.0	14.4	20.9	—	3.0	42.0	5.4	12.9	—	—
Mont.	30.5	12.0	39.3	1.0	2.0	20.0	5.0	25.0	4.0	—
Nev.	32.0	1.0	3.1	—	—	20.0	1.0	5.0	—	—
N.M.	79.0	15.0	19.0	1.0	2.0	51.0	8.0	15.7	4.0	—
Utah	59.5	24.0	40.3	—	—	44.0	24.0	54.5	—	—
Wyo.	14.4	—	—	—	—	10.0	—	—	—	—
Pacific	632.4	178.0	28.1	3.0	23.0	395.0	34.0	8.6	18.0	—
Alaska	37.0	12.0	32.4	1.0	4.0	20.0	5.0	25.0	2.0	—
Cal.	400.8	49.0	12.0	—	15.0	256.8	21.0	8.2	13.0	—
Hawaii	52.5	7.0	13.3	—	1.0	39.5	5.0	12.7	1.0	—
Ore.	63.1	9.0	14.3	2.0	3.0	42.7	3.0	7.0	1.0	—
Wash.	79.0	1.0	1.3	—	—	36.0	—	—	1.0	—
Territories	150.0	11.0	7.3	—	—	100.0	9.0	9.0	2.0	—
Guam	11.0	1.0	9.1	—	—	8.0	1.0	12.5	—	—
P.R.	138.0	9.0	6.5	—	—	90.0	7.0	7.8	2.0	—
V.I.	1.0	1.0	100.0	—	—	2.0	1.0	50.0	—	—

STAFFING PATTERN (E LAST REPORTING

Lab & Region							Total Prof. and Tech. Pos. Reported in Workload Categories	Total Changes Reported
	I Diagnostic Bact.	II Mycology	V gic, ent, Prod.	XV Research and Develop.				
New England								
Conn.	18.0 -5.0	1.0 -	-	-	-	-	163.0	-
Mass.	21.0 -	1.0 -	-	-	1.0 -	-	106.0	-
Me.	7.0 -	I	-	-	1.0 +1.0	-	34.0	+1.0
N.H.	10.6 +1.0	.2 -	-	-	-	-	14.0	+1.0
R.I.	6.0 +1.0	.5 -	-	-	-	-	75.0	+1.0
Vt.	5.6 -.5	.3 -	-	-	-	-	21.0	+2.0
Middle Atlantic								
N.J.	25.0 -	2.0 -	-	-	-	-	144.0	-2.0
N.Y.	-	-	-	-	-	-	-	-
Pa.	11.0 -8.0	-	-	-	-	-	45.0	-13.0
East North Central								
Ill.	20.0 +2.0	1.0 -	+2	.8	+8	-	90.0	-12.0
Ind.	12.0 +2.0	2.0 +.5	-	-	-	-	67.0	+3.0
Mich.	41.5 -	1.0 -	+1.0	49.0	-3.0	-	226.0	+2.0
Ohio	42.0 -7.0	I	-	-	-	-	105.0	-12.0
Wisc.	15.5 -2.5	2.0 +1.0	+4.5	-	-5	-	98.5	+11.0
West North Central								
Ia.	9.0 -	1.5 -.5	-2.0	-	-	-	81.0	+7.0
Kans.	12.0 -	1.0 -	-	-	-	-	52.0	+2.0
Minn.	8.25 +.5	2.0 -	2	-	-	-	46.0	-1.0
Mo.	10.0 -1.0	.5 -	-	-	-	-	50.0	+2.0
Nebr.	2.3 -	I	-	-	-	-	14.0	-4.0
N.D.	II	9.53	-1.0	3.7	+2.7	-	33.0	-6
S.D.	2.0 -	.5 -	-	-	-	-	18.0	+3.0
South Atlantic								
Del.	4.9 +1.0	.05 -	-	-	-	-	24.0	+1.8
D.C.	-	9.0 -	-	-	-	-	36.0	-8.0
Fla.	-	-	-	-	-	-	-	-
Ga.	23.75 -1.75	1.5 -	3	-	-	-	71.0	-
Md.	40.0 -	1.0 -	-	-	-	-	187.0	-1.0
N.C.	9.0 -1.0	1.0 -	-	1.0	-	-	105.0	+8.0
S.C.	12.0 -6.1	3.0 -1.0	-2	-	-	-	80.5	-7.2
Va.	-	-	-	-	-	-	-	-
W.Va.	II	9.0 -1.0	-	-	-1.0	-	30.0	-2.0
East South Central								
Ala.	27.0 -23.0	2.0 -1.0	+10.0	1.0	+1.0	-	107.0	-14.0
Ky.	6.0 -	1.0 -	-	-	-	-	58.3	+3
Miss.	-	-	-	-	-	-	-	-
Tenn.	43.5 +7.5	1.5 +.5	-	-	-	-	78.0	+1.0
West South Central								
Ark.	12.0 -1.0	2.0 -	-	-	-	-	59.0	-1.0
La.	15.0 -	.5 -.5	-	-	-	-	89.5	+2.5
Okla.	9.8 +.4	1.0 +.5	-	.2	-1	-	38.0	+1.0
Tex.	24.0 -1.0	3.0 +2.0	-	-	-	-	144.0	+6.0
Mountain								
Ariz.	4.0 -	3.0 -	-	1.0	+1.0	-	42.0	-
Colo.	5.5 +.5	.5 -	+1.0	-	-	-	52.0	+2.0
Ida.	9.25 +.25	I	-	-	-	-	42.0	+1.0
Mont.	II	3.99 -.01	-1.0	-	-	-	20.0	-
Nev.	II	7.0 -	-	-	-	-	20.0	-1.0
N.M.	7.4 +.5	3.0 -	-	-	-	-	51.0	+7.5
Utah	4.0 -	1.0 -	-	-	-	-	44.5	-5
Wyo.	II	4.5 -	-	-	-	-	10.0	-
Pacific								
Alaska	18.0 -	I	-	-	-	-	20.0	-
Cal.	15.5 -	8.5 -	-	4.0	-	-	256.85	-2.5
Hawaii	14.5 +1.0	.5 -	-	-	-	-	39.5	+2.0
Ore.	8.75 +2.0	1.0 -	-	-	-	-	42.75	+2.0
Wash.	8.0 -	1.0 -	-	-	-	-	36.0	+1.0
Territories								
Guam	3.0 -1.0	-	-	-	-	-	8.0	-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	% of Total Exp.
Total	122,599,250	73,848,740	13,294,174	71.1	14,764,597	12.0	6,563,231	5.4	9,473,200	7.7	4,655,308	3.8
Average	2,451,985	1,476,974	265,873	—	295,291	—	131,264	—	189,464	—	93,106	—
New England	13,228,699	8,713,716	1,393,116	76.4	1,138,052	8.6	569,152	4.3	1,260,055	9.5	154,608	1.2
Conn.	4,471,116	3,077,146	772,670	86.1	338,748	7.6	219,819	4.9	45,077	1.0	17,656	0.4
Mass.	4,459,749	2,777,526	84,695	64.2	349,492	7.8	157,334	3.5	1,016,034	22.8	74,668	1.7
Me.	985,758	636,454	109,100	75.6	89,784	9.1	30,148	3.1	68,948	7.0	51,324	5.2
N.H.	394,383	246,687	39,154	72.5	62,799	17.1	2,625	0.7	42,172	10.7	946	0.2
R.I.	2,416,499	1,609,871	338,073	80.6	231,247	9.6	154,504	6.4	76,996	3.2	5,808	0.2
Vt.	501,194	366,032	49,424	82.9	65,982	13.2	4,722	0.9	10,828	2.2	4,206	0.8
Middle Atlantic	8,669,508	4,457,216	1,370,647	67.2	851,213	9.8	279,140	3.2	517,256	6.0	1,194,036	13.8
N.J.	5,746,508	3,042,216	574,647	62.9	672,213	11.7	236,140	4.1	56,256	1.0	1,165,036*	20.3
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	2,923,000	1,415,000	796,000	75.6	179,000	6.1	43,000	1.5	461,000	15.8	29,000	1.0
East North Central	14,671,925	8,819,273	1,711,866	71.7	1,889,591	12.9	937,623	6.4	1,091,666	7.4	221,906	1.5
Ill.	3,162,758	2,167,944	325,848	78.8	372,658	11.8	76,713	2.4	92,044	2.9	127,551	4.0
Ind.	2,065,451	1,410,382	253,868	80.6	—	—	—	—	395,050	19.1	6,151	0.3
Mich.	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	4,498,780	2,430,472	534,704	65.8	728,099	16.2	253,383	5.6	498,612	11.1	53,510	1.2
Wis.	4,944,936	2,810,475	597,446	68.9	788,834	15.9	607,527	12.3	105,960	2.1	34,694	0.7
West North Central	10,374,130	5,944,077	967,739	66.6	1,632,052	15.7	882,054	8.5	793,934	7.7	154,274	1.5
Ia.	3,491,950	1,808,246	311,423	60.7	468,296	13.4	536,812	15.4	311,863	8.9	55,310	1.6
Kans.	1,504,672	1,031,090	157,840	79.0	202,562	13.5	11,108	0.7	84,213	5.6	17,859	1.2
Minn.	1,875,550	1,219,473	231,072	77.3	281,696	15.0	35,186	1.9	92,875	5.0	15,248	0.8
Mo.	1,687,018	935,264	128,460	63.1	370,676	22.0	126,897	7.5	98,041	5.8	27,680	1.6
Nebr.	561,425	278,655	30,962	55.1	86,587	15.4	62,007	11.0	93,342	16.6	9,872	1.8
N.D.	611,489	352,510	62,181	67.8	127,415	20.9	48,973	8.0	4,635	0.8	14,775	2.4
S.D.	643,026	318,839	45,801	56.7	94,820	14.7	61,071	9.5	108,965	16.9	13,530	2.1
South Atlantic	21,516,224	13,835,401	1,703,340	72.2	3,257,260	15.1	892,487	4.1	1,529,320	7.1	298,416	1.4
Del.	650,486	426,244	98,036	80.6	73,306	11.3	38,604	5.9	11,971	1.9	2,325	0.4
D.C.	1,081,000	834,500	83,500	84.9	115,000	10.6	48,000	4.4	—	—	—	—
Fla.	5,443,468	3,262,838	518,912	69.5	712,912	13.1	349,593	6.4	449,933	8.3	149,280	2.7
Ga.	2,544,906	1,619,002	367,504	78.1	396,800	15.6	65,100	2.6	33,705	1.3	62,795	2.5
Md.	5,028,066	3,655,219	—	72.7	893,494	17.8	161,913	3.2	309,621	6.2	7,819	0.2
N.C.	3,207,636	2,002,192	346,433	73.2	548,512	17.1	153,541	4.8	132,373	4.1	24,585	0.8
S.C.	2,652,369	1,438,207	224,337	62.7	359,702	13.6	28,157	1.1	553,937	20.9	48,029	1.8
Va.	—	—	—	—	—	—	—	—	—	—	—	—
W.Va.	908,293	597,199	64,618	72.9	157,534	17.3	47,579	5.2	37,780	4.2	3,583	0.4
East South Central	9,420,847	5,937,123	749,559	71.0	1,211,388	12.8	149,218	1.6	855,408	9.1	518,151	5.5
Ala.	3,261,499	2,382,885	149,233	77.6	313,346	9.6	22,289	0.7	316,049	9.7	77,697	2.4
Ky.	2,568,241	1,230,901	193,348	55.5	461,535	18.0	71,246	2.8	224,605	8.7	386,606*	15.1
Miss.	1,190,663	695,164	139,748	70.1	211,781	17.8	24,272	2.0	115,711	9.7	3,987	0.3
Tenn.	2,400,444	1,628,173	267,230	79.0	224,726	9.4	31,411	1.3	199,043	8.3	49,861	2.1
West South Central	11,304,595	6,590,141	975,487	66.9	1,459,128	12.9	369,751	3.3	1,195,645	10.6	714,443	6.3
Ark.	1,422,170	1,093,111	—	76.9	258,577	18.2	70,482	5.0	—	—	—	—
La.	3,117,213	2,266,137	229,994	80.1	250,091	8.0	440	0.1	288,697	9.3	81,854	2.6
Okla.	1,092,612	734,293	171,493	82.9	130,260	11.9	12,829	1.2	28,448	2.6	15,289	1.4
Tex.	5,672,600	2,496,600	574,000	54.1	820,200	14.5	286,000	5.0	878,500	15.5	617,300	10.9
Mountain	10,334,415	6,534,025	985,119	72.8	1,154,558	11.2	616,368	6.0	830,952	8.0	213,393	2.1
Ariz.	1,604,347	947,854	186,157	70.7	225,858	14.1	76,302	4.8	131,308	8.2	36,868	2.2
Colo.	1,640,806	1,182,135	151,406	81.3	135,000	8.2	87,400	5.3	—	—	84,865	5.2
Ida.	1,529,589	1,161,783	—	76.0	330,518	21.6	37,288	2.4	—	—	—	—
Mont.	630,407	413,765	75,964	77.7	58,080	9.2	22,500	3.6	37,573	6.0	22,525	3.6
Nev.	794,435	482,196	91,847	83.8	42,483	5.3	126,027	15.9	45,400	5.7	6,482	0.8
N.M.	2,025,436	1,074,564	171,728	61.5	182,592	9.0	186,282	9.2	379,767	18.7	30,503	1.5
Utah	1,752,577	1,066,455	256,699	75.5	144,216	8.2	69,952	4.0	204,759	11.7	10,496	0.6
Wyo.	356,818	205,273	51,318	71.9	35,811	10.0	10,617	3.0	32,145	9.0	21,654	6.0
Pacific	21,713,545	11,851,717	3,418,995	70.3	2,042,668	9.4	1,846,742	8.5	1,394,969	6.4	1,158,454	5.3
Alaska	1,588,483	872,997	271,367	72.0	146,200	9.2	13,335	0.8	274,238	17.3	10,346	0.7
Cal.	15,137,400	7,956,846	2,495,753	69.0	1,336,228	8.9	1,600,846	10.6	656,601	4.3	1,091,126	7.2
Hawaii	1,181,435	753,921	133,272	75.1	112,346	9.5	161,436	13.7	15,780	1.3	4,680	0.4
Ore.	1,646,137	828,053	231,941	64.4	288,643	17.5	60,896	3.7	224,319	13.6	12,285	0.7
Wash.	2,160,090	1,439,900	286,662	79.9	159,251	7.4	10,229	0.5	224,031	10.4	40,017	1.8
Territories	1,365,362	1,166,051	18,306	86.7	128,687	9.4	20,696	1.5	3,995	0.3	27,627	2.0
Guam	204,852	160,320	18,306	87.2	10,213	5.0	2,999	1.5	—	—	13,014	6.3
P.R.	1,160,510	1,005,731	—	86.7	118,474	10.2	17,697	1.5	3,995	0.3	14,613	1.3
V.I.	—	—	—	—	—	—	—	—	—	—	—	—

*Includes Indirect Costs

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	122,599,250	88,121,086	71.9	24,605,864	20.1	7,343,557	6.0	2,528,743	2.0
Average	2,451,985	1,762,421	—	492,117	—	146,871	—	50,574	—
New England	13,228,699	11,223,155	84.8	1,431,379	10.8	553,165	4.2	21,000	0.2
Conn.	4,471,116	4,201,530	94.0	269,586	6.0	—	—	—	—
Mass.	4,459,749	4,022,273	90.2	437,476	9.8	—	—	—	—
Me.	985,758	267,442	27.1	144,151	14.6	553,165	56.1	21,000	2.1
N.H.	394,383	298,583	75.7	95,800	24.2	—	—	—	—
R.I.	2,416,499	2,133,332	88.3	283,167	11.7	—	—	—	—
Vt.	501,194	299,995	59.9	201,199	40.1	—	—	—	—
Middle Atlantic	8,669,508	7,006,953	80.8	1,014,343	11.7	586,212	6.8	62,000	0.7
N.J.	5,746,508	4,567,953	79.5	592,343	10.3	586,212	10.2	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	2,923,000	2,439,000	83.4	422,000	14.4	—	—	62,000	2.1
East North Central	14,671,925	6,890,538	47.0	5,496,700	37.5	1,415,004	9.6	869,684	5.9
Ill.	3,162,758	601,870	19.0	2,560,888	81.0	—	—	—	—
Ind.	2,065,451	1,757,878	85.1	307,574	14.9	—	—	—	—
Mich.	—	—	—	—	—	—	—	—	—
Ohio	4,498,780	1,553,861	34.5	2,075,235	46.1	—	—	869,684	19.3
Wisc.	4,944,936	2,976,929	60.2	553,003	11.2	1,415,004	28.6	—	—
West North Central	10,374,130	5,502,927	53.0	2,791,401	26.9	849,983	8.2	1,229,819	11.9
Ia.	3,491,950	1,705,863	48.9	—	—	608,808	17.4	1,177,279	33.7
Kans.	1,504,672	1,276,612	84.8	228,060	15.2	—	—	—	—
Minn.	1,875,550	1,345,355	71.7	530,195	28.3	—	—	—	—
Mo.	1,687,018	452,749	26.8	1,181,729	70.0	—	—	52,540	3.1
Nebr.	561,425	195,229	34.8	226,398	40.3	139,798	24.9	—	—
N.D.	610,489	245,275	40.2	365,214	59.8	—	—	—	—
S.D.	643,026	281,844	43.8	259,805	40.4	101,377	15.8	—	—
South Atlantic	21,516,224	16,149,521	75.1	3,905,032	18.1	1,282,720	6.0	178,951	0.8
Del.	650,486	426,471	65.6	224,015	34.4	—	—	—	—
D.C.	1,081,000	827,800	76.6	253,200	23.4	—	—	—	—
Fla.	5,443,468	3,596,616	66.1	1,392,262	25.6	275,639	5.1	178,951	3.3
Ga.	2,544,906	1,947,435	76.5	505,871	19.9	91,600	3.6	—	—
Md.	5,028,066	4,682,532	93.1	332,734	6.6	12,800	0.3	—	—
N.C.	3,207,636	2,240,070	69.8	214,178	6.7	753,388	23.5	—	—
S.C.	2,652,369	1,824,356	68.8	678,720	25.6	149,293	5.6	—	—
Va.	—	—	—	—	—	—	—	—	—
W.Va.	908,293	604,241	66.5	304,052	33.5	—	—	—	—
East South Central	9,420,847	7,032,428	74.6	1,825,974	19.4	562,446	6.0	—	—
Ala.	3,261,499	2,437,257	74.7	824,142	25.3	100	—	—	—
Ky.	2,568,241	2,038,215	79.4	405,720	15.8	124,306	4.8	—	—
Miss.	1,190,663	309,816	26.0	530,793	44.6	350,055	29.4	—	—
Tenn.	2,400,444	2,247,140	93.6	65,319	2.7	87,985	3.7	—	—
West South Central	11,304,595	9,176,957	81.2	1,960,349	17.3	—	—	167,289	1.5
Ark.	1,422,170	1,010,370	71.0	341,318	24.0	—	—	70,482	5.0
La.	3,117,213	2,570,091	82.4	450,315	14.4	—	—	96,807	3.1
Okla.	1,092,612	830,496	76.0	262,116	24.0	—	—	—	—
Tex.	5,672,600	4,766,000	84.0	906,600	16.0	—	—	—	—
Mountain	10,334,415	6,128,726	59.3	3,261,543	31.6	944,146	9.1	—	—
Ariz.	1,604,347	770,248	48.0	834,099	52.0	—	—	—	—
Colo.	1,640,806	530,936	32.4	928,578	56.6	181,292	11.0	—	—
Ida.	1,529,589	1,150,218	75.2	192,371	12.6	187,000	12.2	—	—
Mont.	630,407	175,586	27.9	371,439	58.9	83,382	13.2	—	—
Nev.	794,435	609,974	76.8	180,461	22.7	4,000	0.5	—	—
N.M.	2,025,436	1,658,796	81.9	82,440	4.1	284,200	14.0	—	—
Utah	1,752,577	1,009,369	57.6	538,936	30.7	204,272	11.7	—	—
Wyo.	356,818	223,599	62.7	133,219	37.3	—	—	—	—
Pacific	21,713,545	17,766,624	81.8	2,797,040	12.9	1,149,881	5.3	—	—
Alaska	1,588,483	1,489,083	93.7	73,000	4.6	26,400	1.7	—	—
Cal.	15,137,400	12,846,091	84.9	1,759,420	11.6	531,889	3.5	—	—
Hawaii	1,181,435	873,134	73.9	308,301	26.1	—	—	—	—
Ore.	1,646,137	974,549	59.2	348,492	21.2	323,096	19.6	—	—
Wash.	2,160,090	1,583,767	73.3	307,827	14.2	268,496	12.4	—	—
Territories	1,365,362	1,243,258	91.1	122,104	8.9	—	—	—	—
Guam	204,852	116,441	56.8	88,411	43.2	—	—	—	—
P.R.	1,160,510	1,126,817	97.1	33,693	2.9	—	—	—	—
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.	4,471,116	380,000	8.5	20,000	.4	81,000	1.8	81,000	1.8	310,000	6.9	55,000	1.2	310,000	6.9	19,000	.4	155,000	3.5	733,000	16.4	39,000	.9	568,000	12.7	262,000	5.9	102,000	2.3			1,356,116	30.3		
Mass.	4,459,749	1,667,606	37.4																													1,960,677	44.0		
Me.	985,758	207,534	21.1	3,531	.4	2,518	.3	24,695	2.6	35,079	3.6			71,460	7.2			53,268	5.4	136,976	13.9	237,645	24.1			76,219	1.7	755,247	16.9			113,814	11.5		
N.H.	394,383					218,592	55.4							17,785	4.5																	154,106	39.1		
R.I.	2,416,499	348,302	14.4							168,589	7.0			139,918	5.8			274,056	11.3	597,848	24.7	51,733	2.1	436,334	18.1	45,177	1.9					354,542	14.7		
Vt.	501,194	74,500	14.9	10,000	2.0	19,500	3.9	26,000	5.2	60,200	12.0							42,200	8.4	58,300	11.6	20,000	8.4	49,000	9.8	2,100	.4	38,100	7.6			100,400	20.0		
Middle Atlantic																																			
N.J.	5,746,508	223,701	3.9					483,791	8.4			323,181	5.6	1,759,217	30.6											518,922	8.7			23,556	4	2,414,160	40.6		
N.Y.	2,923,000	555,000	19.0					438,000	15.0			409,000	14.0											177,000	6.1	526,000	18.0					818,000	28.0		
East North Central																																			
Ill.	3,162,758	475,000	15.0	30,000	.9	32,000	1.0	270,000	8.5	200,000	6.3			307,000	9.7			255,000	8.1	275,000	8.7					410,000	13.0	385,000	12.2	212,758	6.7			311,000	9.8
Ind.	2,065,452	467,181	22.6					122,939	6.0	98,354	4.8							909,773	44.0							49,175	2.4	73,766	3.6			344,264	16.7		
Mich.	4,498,780	1,609,868	35.8											319,328	7.1			1,144,462	25.4							436,507	9.7	240,289	5.3	114,055	2.5			634,271	14.1
Wis.	4,944,936	369,938	7.5	68,850	1.4			521,887	10.6	503,346	10.2			564,498	11.4	470,236	9.5	137,906	2.8	616,013	12.5					375,041	7.6	114,564	2.3			1,079,805	21.8		
West North Central																																			
Ia.	3,491,950	200,913	5.7	37,586	1.1	13,772	.4	170,640	4.9	124,974	3.6			80,031	2.3			94,631	2.7	1,108,759	31.8	153,864	4.4	16,334	.5	269,592	7.7	93,107	2.7			1,127,737	32.3		
Kans.	1,504,672																																		
Minn.	1,875,550	313,633	16.7					293,393	15.6	316,758	16.9			188,597	10.0																	510,695	27.2		
Mo.	1,687,018																																		
Nebr.	561,425	62,356	11.1					25,045	4.5	100,187	17.8			58,238	10.4			117,349	20.9	96,151	17.1					102,099	18.2								
N.D.	610,489					158,117	25.9							51,890	8.5			45,176	7.4	178,305	29.2											139,762	22.9		
S.D.	643,026	143,907	22.4															194,230								114,916	17.9	189,973	29.5						
South Atlantic																																			
Del.	650,486	71,739	11.0	1,076	.2	5,976	.9	87,687	13.5	22,957	3.5	5,985	.9	11,910	1.8	110,702	17.0	41,751	6.4	77,686	11.9	1,438	.2	14,730	2.2	8,853	1.3					187,996	28.9		
D.C.	1,081,000			234,600	21.7					97,900	9.0	101,200	9.4	79,400	7.3	78,800	7.3	48,000	4.4	69,900	6.5					47,400	4.4	42,000	3.9			134,600	12.4		
Fla.	5,443,468																																		
Ga.	2,544,906	792,876	31.2	54,300	2.1	94,271	3.7	189,427	7.4	408,984	16.1	88,520	3.5	201,350	7.9							15,131	.6	184,624	7.3			147,398	5.8	8,550	.3	359,475	14.1		
Ms.	5,028,066	1,095,825	21.8	14,532	.3	33,876	.7	150,244	3.0	910,577	18.1	246,104	4.9	494,252	9.8	372,981	7.4	388,544	7.7	1,047,860	20.8	107,623	2.1	39,300	.8	126,348	2.5								
N.C.	3,207,636	514,809	16.0					570,331	17.8									X				X													
S.C.	2,652,369	519,227	19.6	132,446	5.0	102,953	3.9	619,582	23.4			296,019	11.2					725,253	27.3																
Tenn.	2,400,444	126,604	5.3	36,018	1.5			50,136	2.1	68,446	2.8			138,226	5.7	63,143	2.6	82,846	3.4																
Va.																																			
W.Va.	908,293																																		
East South Central																																			
Ala.	3,266,499																																		
Ky.	2,568,241	191,254	7.4	28,900	1.1	14,091	.5	77,014	3.0	461,040	18.0	133,165	5.2	472,443	18.4	324,274	12.6	181,230	7.1	72,826	2.8	205,198	8.0	181,387	7.1	147,433	5.7					77,986	3.0		
Miss.	1,190,665	359,898	30.2	11,169	.9	26,167	2.2	9,516	.8	179,678	15.1	154,930	13.0	103,578	8.7			263,219	22.1	76,286	6.4														
Tenn.	2,400,444	472,652	19.7	22,825	1.0	35,643	1.5	113,675	4.7	201,245	8.4	40,959	1.7					181,953	7.6													1,016,794	42.4		
West South Central																																			
Ark.	1,422,170	282,613	19.9	40,373	2.8	20,186	1.4	20,187	1.4	131,213	9.2	20,187	1.4	80,747	5.7			181,680	12.8	323,053	22.7			34,510	2.4	50,467	3.5					236,954	16.7		
La.	3,117,213	1,463,120	46.9																284,644	9.1	1,283,209	41.2							35,244	1.1			50,996	1.6	
Dkila.	1,092,612			243,873	22.3			66,535	7.9	192,737	17.6	7,866	.7	62,934	5.8			149,469	13.7							39,334	3.6			3,933	.4	305,931	28.0		
Tex.	5,672,600	646,200	11.4			221,000	3.9	445,700	7.																										

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 Clerk Typist III	.15 .25 .35 .25 .45 .40	Pers. Supp. Equip. Other	32,968 1,652 2,658 901
				TOTAL	38,179
	Medicaid — Intestinal Parasites (Microscopic examination of formalized specimens for the detection of helminths and protozoa.)	Micro. IV Micro. III Micro. II Lab. Tech. II Clerk Steno III Clerk Steno II	.05 .25 .20 .40 .15 .10	Pers. Supp. Equip. Other	19,396 903 1,312 484
				TOTAL	22,095
	Medicaid — Pinworm (Microscopic examination of taped slide preparation for the detection of pinworms)	Micro. IV Micro. III Lab. Tech. II Clerk Typist II Lab. Tech. I	.02 .10 .25 .10 .05	Pers. Supp. Equip. Other	7,897 410 583 439
				TOTAL	9,329
Alaska	Federal				
	VD Control (VD Laboratory Support)	Lab. Asst.	1.0	Pers. Supplies	15,000 4,000
				TOTAL	19,000
	Alaskan Native Health (TB Control) (Laboratory Support)	Micro. II	1.0	Pers. Supp.	20,000 3,000
				TOTAL	23,000
	314(d) Comprehensive Health Grant (Laboratory Support)	Micro. II	1.0	Pers.	31,000
Ariz.	Private Bartlett Memorial Hospital (Laboratory Space and Equipment)	—	—	Other	26,400
				TOTAL	26,400
	Federal				
Ariz.	HIB (Medicare) (Laboratory Certification)	Lab. Cert./ Consult. Typist II	1.0 1.0	Pers. Supp. Equip. Other	28,188 1,041 365 6,509
				TOTAL	36,103
	EPA (Safe Drinking Water) (Environmental laboratory certification and analysis of water samples for the Indian Health Service)	Lab. Cert./ Cons. Typist II	1.0 1.0	Pers. Supp. Other	24,603 3,644 1,363
				TOTAL	29,610

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	
Ariz. (Cont.)	EPA (Air Pollution) (Laboratory analysis of samples)	Chemist III	1.0	Pers.	25,897
				Supp.	3,145
				TOTAL	29,042
	EPA (Water Pollution) (Laboratory analysis of samples)	Chemist III	1.0	Pers.	24,860
				TOTAL	24,860
	FDA Grant (Laboratory analysis of food products)	—	—	Supp.	5,723
		—	—	TOTAL	5,723
	State				
	Arizona Dairy Commission (Laboratory analysis of dairy products)	Lab. Tech. II Chemist III Chemist II Lab. Tech. II	3.0 1.0 1.0 2.0	Pers. Supp. Equip. Other	115,751 40,169 25,508 2,206
				TOTAL	183,634
	Arizona Industrial Commission (Laboratory analysis of industrial hygiene samples)	Chemist III	1.0	Pers. Supp. Equip. Other	24,370 1,876 15,893 7,551
				TOTAL	49,690
Ark.	Federal				
	Development Grant (314d) (General Laboratory Services)	—	22.0	Pers. Equip.	219,786 31,390
				TOTAL	251,176
	Safe Drinking Water Act (Bacteriological analysis)	—	5.0	Pers. Equip.	65,541 16,692
				TOTAL	82,233
	Blood Lead	—	1.0	Pers. Equip.	1,904 5,240
				TOTAL	7,144
	Fluoride Grant	—	1.0	Pers. Equip.	9,941 5,766
				TOTAL	15,707
	State				
	UAMSC — Library and Pharmacy (Toxicology Service)	—	—	Other	48,648
				TOTAL	48,648
Cal.	Federal				
	Federal Environmental Protection Agency (Evaluate sampling and analytical problems in air pollution monitoring)	Res. Spec. III Chem. II Off. Asst. Stud. Asst.	.60 .55 .30 1.0	Pers. Supp. Equip. Other	60,693 9,067 790 23,891
				TOTAL	94,441

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.)	Federal Environmental Protection Agency (Validate samplers for inhaled particles)	Res. Spec. III Chem. II	.30 .20	Pers.	22,319
				Supp.	3,794
				Equip.	700
				Other	9,262
				TOTAL	36,075
	BMRSG (Identify carcinogens by cell transformation techniques)	Chem II.	1.0	Pers.	24,479
				Equip.	18,596
				TOTAL	43,075
	DHSS Extramural Programs, National Institute of Allergy and Infectious Diseases (NIAID) (Molecular and Immunologic Study of Cytomegalovirus)	Res. Spec. I P.H. Micro. I Gen. Lab. Supp.	1.0 1.0 1.2	Pers.	69,567
				Supp.	6,900
				Equip.	3,505
				Other	1,400
				TOTAL	81,372
	NIH, National Institutes of Neurological and Communicative Disorder and Stroke (NINCDS) (Study of Lymphocyte Antibody Traffic in the Central Nervous System)	P.H. Micro. II Gen. Lab. Support	1.8 1.2	Pers.	25,148
				Supp.	4,790
				Equip.	1,368
				Other	2,500
				TOTAL	33,806
	U.S. Army Medical Research and Development Command (Development of Psoralen Photoinactivated Alphavirus and Arnavirus Vaccines)	Res. Spec. III P.H. Micro. II Gen. Lab. Support	1.0 1.0 .50 1.0	Pers.	68,330
				Supp.	8,010
				Other	22,959
				TOTAL	99,299
	National Institute of Health Procurement Branch/National Cancer Institute (NCI) (NCI collaborative studies— cancer virus studies)	P.H. Micro. I Animal Tech. Gen. Lab. Supp.	1.6 2.15 2.1	Pers.	112,249
				Supp.	6,874
				Equip.	2,000
				Other	37,716
				TOTAL	158,839
	Health Effects Research Laboratory — EPA (Studies on viruses in water and reclaimed wastewater)	P.H. Micro. II P.H. Micro. I Gen. Lab. Supp.	1.0 .8 1.3	Pers.	66,250
				Supp.	3,654
				Other	22,260
				TOTAL	92,164
	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 wastewater treatment systems, and health significance of viruses in water environment.)	Res. Spec IV P.H. Micro. II	1.0 1.0	Per.	89,203
				Supp.	10,915
				Other	29,972
				TOTAL	130,090
	Federal	Chem. II	1.0	Pers.	17,250
	Food and Drug Administration (Food inspector analysis)			TOTAL	17,250
Col.	Maternal and Child Health Care (Newborn genetic screening)	Micro. IV Micro. III Micro. II Micro. I Lab. Tech. II Cler. Aid II	1.0 1.0 1.0 1.0 2.0 2.0	Pers.	118,850
				Supp.	85,000
				Equip.	21,000
				Other	1,000
				TOTAL	225,850

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	
Col. (Cont.)	State				
	State Department of Highways (Alcohol and Toxicology tests)	Micro. IV	2.0	Pers.	57,358
				Supp.	6,000
				Equip.	4,767
				Other	6,000
				TOTAL	74,125
	Local				
	Mesa County Health Department	Micro. IV	.5	Pers.	32,000
		Micro. II	.5	Supp.	8,000
		Lab. Asst.	1.0		
				TOTAL	40,000
Conn.	Federal				
	314d Block Grant (Genetic disease screening)	Med. Tech. I	1.0	Pers.	13,027
				TOTAL	13,027
	(Pesticides)	Chemist	1.0	Pers.	8,654
				TOTAL	8,654
	(Lead Screening)	Asst. Biochem. Chemist	1.0 1.0	Pers.	27,452
				TOTAL	27,452
	Maternal and Child Hygiene (Streptococcus cultures)	Lab. Helper	1.0	Pers.	8,263
				TOTAL	8,263
	(Genetic disease screening)	PHLA I Med. Tech. I	.4 1.0	Pers.	12,551
				TOTAL	12,551
	(VD Control)	Sr. Micro.	1.0	Pers.	16,067
				TOTAL	16,067
	Safe Drinking Water Act (Laboratory Standards)	Lab. Helper	1.0	Pers.	8,828
				TOTAL	8,828
D.C.	State				
	Department of Environmental Protection (PCB's)	Chemist	1.0	Pers.	13,777
				TOTAL	13,777
	Federal				
	Lead Poisoning Prevention (Chemistry assays on human specimens)	Chemist Technician	1.0 3.0	Pers.	44,236
				Supp.	10,000
				Equip.	7,500
				TOTAL	61,736
	MIC/C + Y (Various clinical tests on various specimens)	Chemist Technician	— —	Pers.	93,726
				TOTAL	93,726
	GC Testing Program (Microbiological testing of male/female specimens)	Technician Clerk	— —	Pers.	32,236
				Supplies	65,000
				TOTAL	97,236

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	
Fla.....	State				
	Department of Environmental Regulation, Safe Drinking Water (Water testing and certification)	Chem. III	.5	Pers.	52,125
		Micro. III	.5		
		Micro. I	1.5		
		Chem. II	1.5	TOTAL	52,125
		Chem. I	.5		
		Lab. Tech. I	.5		
		Sec. III	.5		
		Clerk Typist II	2.0		
	Local				
	City of St. Petersburg, Research Program (Research in wastewater treatment)	Micro. IV	1.0	Pers.	60,423
		Micro. II	1.0	Supp.	16,222
		Lab. Tech. II	1.0	Other	2,701
		Lab. Helper	1.0	TOTAL	79,346
Ga.....	Central Florida Research (Naegleria study in Florida lakes)	Biochemist II	1.0	Pers.	57,732
		Biochemist I	1.0	Supp.	14,318
		Micro. II	1.0	Equip.	1,907
		Lab. Tech.	1.0	Other	16,257
				TOTAL	116,471
	Federal				
	Sexually Transmitted Disease Unit (GC culture program)	Lab. Mgr.	1.0	Pers.	122,491
		Sr. Lab. Sci.	1.0	Supp.	82,321
		Sr. Lab. Tech.	3.0	Other	28,022
				TOTAL	232,834
	Division of Mental Health (Urine testing for abuse drugs)	Lab. Mgr.	1.0	Pers.	142,912
		Lab. Assoc.	1.0	Supp.	76,500
		Prin. Lab. Tech.	2.0	Other	30,500
		Sr. Lab. Tech.	2.0		
		Clerk	1.0	TOTAL	249,912
Ida.....	Adult Health Unit (Hypertension screening program)	Lab. Sci.	1.0	Pers.	14,925
				Supp.	8,200
				TOTAL	23,125
	Federal				
	Environmental Protection Agency (Establish and maintain certification program for water testing laboratories)	Microbiologist	.25	Pers.	15,685
		Chemist	.25	Supp.	3,515
		Secretary	.5		
				TOTAL	19,200
	Environmental Protection Agency (Studies of human effects due to pesticides and related products)	Coordinator	1.0	Pers.	186,544
		Chemist	5.0	Supp.	38,640
		Support	1.0	Equip.	24,652
		Secretary	1.0	Other	20,064
				TOTAL	269,900
	CDC — USPHS — Laboratory Improvement (2 grants) (To provide training, consultation, and proficiency testing to physician offices and other small laboratories)	Lab. Surveyor	2.0	Pers.	133,612
		Lab. Tech.	1.0	Supp.	84,589
		Sec. & Support	3.0	Other	7,388
				TOTAL	225,589

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.)	State				
	Traffic Safety Commission (Analysis of blood/breath for alcohol and drugs)	Criminalists	1.0	Pers.	54,681
		Secretaries	2.0	Supp.	8,086
				Equip.	7,000
				Other	3,404
				TOTAL	73,171
	Department of Law Enforcement (Analysis of blood/breath for alcohol and drugs)	Criminalists	1.5	TOTAL	36,000
III.....	Federal				
	Sexually Transmitted Diseases (Statewide monitoring of sexually transmitted diseases)	Micro. I	1.0	Pers.	14,300
				Supp.	6,900
				TOTAL	21,200
	Training Contract (CDC) (Laboratory training workshops)	Micro. III	1.2	Pers.	30,000
				Supp.	4,500
				Other	3,700
				TOTAL	38,200
Ia.....	Federal				
	Centers for Disease Control (Continuing education contract to provide education programs via mobile library and through loaner training packets throughout Iowa.)	—	1.8	Pers.	37,537
				Supp.	2,068
				Equip.	237
				Other	23,421
				TOTAL	63,263
	(Proficiency testing contract to expand existing proficiency testing programs)	—	2.2	Pers.	37,329
				Supp.	14,804
				Other	26,027
				TOTAL	78,160
	Medicare (Surveys of hospital laboratories to insure compliance with Medicare standards)	—	2.5	Pers.	54,825
				Supp.	631
				Equip.	3,588
				Other	16,696
				TOTAL	75,740
	NIOSH (Analytical services as part of a subcontract for a coal liquefaction study)	—	2.0	Pers.	30,057
				Supp.	29,719
				Equip.	44,612
				Other	16,956
				TOTAL	121,344
	FDA (Provide field testing of diagnostic x-ray system for standards compliance)	—	.2	Pers.	4,557
				Supp.	728
				Equip.	5,887
				Other	3,371
				TOTAL	14,543
	EPA (Water Quality/Bladder Cancer Study — Providing of field sampling of water supplies and related data.)	—	.4	Pers.	6,782
				Supp.	206
				Other	1,792
				TOTAL	8,780

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.)	State				
	DEQ (Providing laboratory services for water quality surveillance)	—	8.5	Pers.	175,181
				Supp.	20,296
				Equip.	95,469
				Other	54,877
				TOTAL	345,823
	DEQ (Providing laboratory services for air quality surveillance)	—	3.2	Pers.	69,657
				Supp.	18,937
				Equip.	131,938
				Other	27,774
				TOTAL	248,306
	Gonorrhea Culture Program (Providing culture services to physicians to detect asymptomatic patients)	—	1.0	Pers.	15,383
				Supp.	13,076
				Other	15,715
				TOTAL	44,174
	Industrial Hygiene (Providing laboratory services for Iowa Bureau of Labor)	—	3.5	Pers.	71,047
				Supp.	17,550
				Equip.	12,765
				Other	20,176
				TOTAL	121,538
	Genetic Screening (Serve as central state laboratory for screening of Neonatal Genetic Diseases)	—	.2	Pers.	2,833
				Supp.	3,256
				Equip.	48,792
				Other	727
				TOTAL	55,608
Kans.	Federal				
	Veneral Disease Control Project (Gonorrhea culture screening of OB/GYN patients in private and public clinics for gonorrhea detection and control)	—	—	Supp.	2,743
				TOTAL	2,743
	Water Pollution Control Project (EPA laboratory support for National Pollution Discharge Elimination System)	Chem. II	.5	Pers.	42,433
		Chem. I	1.0		
		Micro. I	1.0	TOTAL	42,433
		Lab. Tech. I	1.0		
	Water Supply Program (EPA laboratory support for safe drinking water act (PL 93-523) requirements in the form of an equipment grant from federal funds)	Chem. III	1.0	Pers.	69,347
		Chem. II	1.5		
		Rad. Chem.	1.0	TOTAL	69,347
		Micro. I	1.0		
		Lab. Tech. II	1.0		
	Air Quality Program — EPA laboratory (Support for sulphur dioxide and suspended particulate monitoring including suspended particulate analysis from 56 air monitoring in state and continuous monitoring calibrations support for 5 sites in Kansas)	Chem. II	1.0	Pers.	17,186
				TOTAL	17,186
	Occupational Health Consultation (Provide analytical support for onsite consultation services at employers worksite in accordance with the requirements of 29 CFR 1908)	Chem I	.35	Pers.	5,032
				TOTAL	5,032

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.)	314d Funds — Public Health (Laboratory support)	Chem. II	1.0	Pers.	74,711
		Chem. I	1.0		
		Micro. II	1.0		
		Micro. I	1.0		
		Lab. Tech. I	1.0		
				TOTAL	74,711
	Title 18 Medicare Funds (Survey hospital laboratories to insure compliance with Medicare standards)	Lab. Cert. Supv.	.50	Pers.	13,278
		Micro. II	.25	TOTAL	13,278
	Technical Consultation Contract (No. 200-79-0911) (On-site technical consultation in Microbiology)	Micro. II	1.0	Pers.	5,058
				Supp.	450
				Other	2,670
				TOTAL	8178
	Private Harvard Air/Lung Study (Laboratory analytical services related to ambient air monitoring)	—	—	Other	7,308
				TOTAL	7,308
Ky.	Federal Division of Maternal and Child Health (PKU, Galactosemia, Rh, and T4 testing)	Microbiologist	5.0	Pers.	107,410
		Lab. Aide	1.0	Supp.	53,156
		Clerical	1.0	Equip.	1,610
				Other	7,292
				TOTAL	169,468
	T & A Funds from Department of Labor (Analysis of occupational samples)	Chemist	2.5	Pers.	37,500
		Lab. Aide	1.0	Supp.	37,500
				TOTAL	75,000
	Proficiency Testing (Proficiency testing for approximately 215 clinical laboratories)	Lab. Dir.	0.5	Pers.	37,908
		Administ.	.30	Supp.	8,112
		Microbiologist	.90	Equip.	226
		Typist	.80	Other	6,803
				TOTAL	53,049
	Laboratory Training (Training workshops for several clinical laboratories throughout the state)	Lab. Dir.	0.5	Pers.	9,364
		Microbiologist	.30	Supp.	1,203
		Chem. Mgr.	.10	Equip.	1,113
				Other	6,623
				TOTAL	18,303
	Technical Consultation (Provided on-site consultation to private laboratories)	Administ.	.15	Pers.	4,649
		Typist	.10	Supp.	718
		Lab. Dir.	.05	Equip.	494
				Other	2,102
				TOTAL	7,963
La.	State IAT from state (Laboratory study and distribution of vibrios and related species, pathogenic and non-pathogenic in shellfish)	Lab. Tech.	30.0	Pers.	48,247
		Investigator	10.0		
		Associates	10.0		
				TOTAL	48,247
	Private IAT from LSU Medical School (Laboratory study and distribution of vibrios and related species, pathogenic and non-pathogenic, in shellfish)	—	—	Supp.	15,000
				Equip.	14,000
				Other	6,000
				TOTAL	35,000

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs	
Me.....	Federal				
	Medicare/Medicaid (Laboratory surveillance for hospital licensure and services)	—	2.5	Pers. 26,829 Other 2,074	
				TOTAL	28,903
	State				
	Racing Commission (Urine toxicology — harness racing)	—	1.5	Pers. 16,550	
				TOTAL	16,550
Md.....	Federal				
	Cervical Cancer Screening Program (Pap smear screening of women not eligible for other private health programs)	Physician	1.0	Pers. 6,574 Other 2,569	
				TOTAL	9,143
	Air Pollution Control Act/Quality Control Program (Constant monitoring of air throughout the state in search of pollutants.)	Lab. Sci. Lab. Asst.	1.0 1.0	Pers. 25,770 Supp. 8,285 Equip. 2,182 Other 6,650	
				TOTAL	42,887
	Occupational and Safety Health Act, Division of Labor and Industry (Laboratory testing of samples submitted by MOSHA Program)	Lab. Sci. Lab. Asst.	4.0 3.0	Pers. 78,605 Supp. 9,093 Equip. 1,716 Other 16,756	
				TOTAL	106,170
	Crippled Childrens Program (Testing for inborn errors of metabolism in newborns)	—	—	Supp. 80,000	
				TOTAL	80,000
	Venereal Disease Control (Testing for GC and syphilis)	—	—	Supp. 80,000	
				TOTAL	80,000
	Certification, Training, and Field Services (Licensure and inspection of state laboratories for Medicare requirements.)	Lab. Sci.	2	Pers. 41,222 Other 660	
				TOTAL	41,882
Mass.....	Federal				
	Centers for Disease Control (Laboratory Training Contract — MHRI #31660 — 9/22/78-6/5/80)	—	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 — 9/25/78-9/25/80)	—	4.0	Pers. 74,417 Supp. 1,500 Other 10,356	
				TOTAL	86,273

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	
Mass..... (Cont.)	(Proficiency Testing Contract — MHRI #31690 — 7/12/79-5/12/81)	—	3.0	Pers.	64,776
				Supp.	20,000
				Other	26,871
				TOTAL	111,647
Minn.	Federal				
	DHSS, Centers for Disease Control	Med. Techno.	1.0	Pers.	29,292
	(Continuing education for laboratory personnel)	Med. Techni.	1.0	Supp.	3,400
		Clk. Typist	1.0	Equip.	2,692
				Other	8,448
				TOTAL	43,832
	DHHS, Centers for Disease Control	Clk. Typist	1.0	Pers.	4,000
	(Proficiency testing for physicians' offices)			Supp.	7,212
				Equip.	17,000
				Other	900
				TOTAL	29,112
Mo.....	Federal				
	FDA	—	.3		—
	(Performance of laboratory tests on food samples)				
	State				
	State Milk Board	—	.5		—
	(Laboratory inspection and approval. Laboratory testing on milk.)				
	Department of Natural Resources	—	7.0		—
	(Public water supply testing — bacteriological and chemical. Laboratory inspection.)				
	Division of Highway Safety	—	4.0		—
	(Breath alcohol maintenance)				
Mont.	Federal				
	Centers for Disease Control	Med. Tech.	1.0	Pers.	29,392
	(Laboratory training — providing continuing education and training for Laboratory Technicians through use of traveling workshops)	Clerical	1.0	Supp.	2,021
				Other	21,252
				TOTAL	52,665
Nev.	Federal				
	EPA Safe Drinking Water	M.B	.4	Pers.	34,455
	(Chemical and bacteriological examinations of drinking water)	Chemist	1.5	Supp.	20,649
		Lab. Asst.	2.3	Equip.	16,659
		Clerical	.2	Other	2,579
		Admin.	.1		
		Stock Clk.	.2		
				TOTAL	74,342
	314d	(undesigned)	—	Other	34,198
	(Communicable disease service)				
				TOTAL	34,198

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	
Nev. (Cont.)	State Environmental Protection Agency (Chemical and bacteriological examinations of water and air)	Chem.	1.5	Pers.	52,229
		M.B.	.2	Supp.	11,926
		Lab. Asst.	1.0		
		Admin.	.1		
		Stock Clk.	.1		
		Clerical	.1		
				TOTAL	64,155
N.J.	Federal General Health	—	—	Pers.	499,077
				Supp.	2,305
				TOTAL	501,382
	Maternal and Child Health	—	—	Pers.	15,048
				TOTAL	15,048
	Sexually Transmitted Diseases	—	—	Pers.	74,431
				TOTAL	74,431
	Child Nutrition Program	—	—	Pers.	1,482
				TOTAL	1,482
	State Total State Appropriation	—	—	Pers.	2,758,250
				Supp.	587,062
				Equip.	150,221
				Other	1,072,420
				TOTAL	4,567,953
	Private and Local Earned Funds	—	—	Pers.	268,575
				Supp.	82,846
				Equip.	85,919
				Other	148,872
				TOTAL	586,212
N.M.	Federal Highway Traffic Safety (Perform analysis of breath and blood alcohol samples. Present testimony in courts in support of analysis. Train and certify law enforcement officers in use of breath alcohol equipment. Maintain quality control programs for the analysis of alcohol samples.)	Lab. Sci. II	2.25	Pers.	55,900
		Secy. I	1.0	Supp.	1,200
		Prin. Sci. I	.4	Equip.	1,000
		Lab. Bureau Chief	.15	Other	25,240
				TOTAL	83,340
N.C.	Federal Rocky Mountain Spotted Fever (Development of Serological Test for RMSF)	P.H. Micro. I	1.0	Pers.	10,092
				Supp.	1,000
				TOTAL	11,092
	CDC Fluoridation Project (Provide water analyses to school water fluoridation program in Dental Health Section)	Lab. Tech.	1.0	—	
	OSHA Program (Analytical laboratory support to field engineers investigating OSHA complaints)	Ana. Chem. I	1.0	Pers.	24,167
		Lab. Tech.	1.0	Equip.	15,148
				Other	454
				TOTAL	39,769

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..... (Cont.)	V.D. Control Project (Gonorrhea lab advisor provides training/PT to participating local health departments.)	Lab. Imp. Consult. Lab. Tech. II	.5 1.0	Pers.	32,254
				TOTAL	32,254
	CDC Technical Assistance Grant (Field training in microbiology provided to local hospital laboratories)	Lab. Imp. Consul. Clk. Typist III	1.0 1.0	Pers. Supp. Other	21,030 1,880 3,873
				TOTAL	26,783
	CDC Technical Consultation Grant (Provide field consultation visits, and develop procedures manual and telephone hotline to local health departments)	Lab. Imp. Consul.	.5	Supp. Other	1,206 2,930
				TOTAL	4,136
	Highway Safety Program (Prepare and distribute ethyl alcohol standard solution for breathalyzer calibration)	An. Chem. II An. Chem. I Chem. An. I Lab. Tech.	.05 .05 .05 .1	Supp.	5,378
				TOTAL	5,378
	Solid and Hazardous Waste Project (Chemical analyses of landfill drainage waters)	An. Chem. I	1.0	Pers.	19,605
				TOTAL	19,605
State	Hazardous Waste Project (Identification of toxic chemical wastes)	Chem. Anal. I	1.0	Pers. Equip.	6,932 20,165
				TOTAL	27,097
	Safe Drinking Water Act (Coliform, chemical and radiological analyses for public water systems. Certification of water laboratories)	Chem. An. II MLT. II MLT. I Clk. Typist IV Clk. Typist III Stk. Clk. I	2.0 1.0 1.0 1.0 1.0 1.0	Pers. Supp. Equip. Other	78,835 52,111 65,140 49,344
				TOTAL	245,430
	Hypothyroid Screening Project (Diagnosis of Neonatal Hypothyroidism)	Med. Lab. Tech. II Clk. Typist II	2.0 1.0	Pers. Supp. Equip. Other	26,550 70,144 19,600 1,000
				TOTAL	117,294
	Prenatal Care Project (Provide project patients with blood typing/grouping and antibody screening)	Med. Lab. Tech. II	1.0	Supp.	18,369
				TOTAL	18,369
	Sickle Cell Screening (Screening and diagnosis of hemoglobinopathies)	P.H. Micro. II P.H. Micro I Clk. Typist III	1.0 1.0 1.0	Pers. Equip.	46,925 6,487
				TOTAL	53,412

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.....	Federal & State				
	Ohio Environmental Protection Agency (Environmental Chemistry and Microbiology)	Chem. Sup. II Chem. Sup. I Chem. III Chem. II Chem. I Micro. Sup. II Micro. II Lab. Tech. Lab. Asst. Secret. I Typist II Clerk I	1.0 4.5 1.0 7.0 9.0 .8 .75 3.0 1.5 1.0 2.5 1.0	Pers. Supp. Equip. Other	679,025 120,223 16,827 16,890
				TOTAL	832,965
	Natural Resources Industrial Commission (Occupational Chemistry)	Chem. Sup. I Chem. I Typist II Lab. Asst.	.25 1.0 .25 .25	Pers. Supp. Equip. Other	21,775 1,039 839 4,137
				TOTAL	27,790
	Industrial Relations (Occupational Chemistry)	Chem. Sup. I Chem. II Typist II	.25 1.0 .25	Pers. Supp. Other	28,400 843 409
				TOTAL	29,652
Okla.....	Federal				
	Family Planning (Support Personnel)	—	2.0	Pers.	14,901
				TOTAL	14,901
	Venereal Disease (Professional Microbiologists)	—	3.0	Pers.	46,227
				TOTAL	46,227
Ore.....	Federal				
	Toxicology	—	1.0	Pers. Supp. Equip.	26,655 12,929 337
				TOTAL	39,921
	Administrative	—	5.5	Pers. Supp. Other	75,618 6,447 2,311
				TOTAL	84,376
	Laboratory Licensing	—	3.83	Pers. Supp. Other	32,621 1,651 2,183
				TOTAL	36,455
	Med. Micro.	—	5.0	Pers. Supp. Equip.	42,017 6,418 12,195
				TOTAL	60,630

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.)	Metabolic	—	1.0	Pers.	69,117
				Supp.	10,052
				TOTAL	79,169
	Syphilis Serology	—	2.0	Pers.	24,905
				Supp.	2,669
				Equip.	63
				TOTAL	27,637
	Water	—	1.0	Pers.	14,275
				Supp.	5,899
				Equip.	130
				TOTAL	20,304
	State Administrative	—	9.5	Pers.	208,764
				Supp.	99,108
				Equip.	116
				Other	3,141
				TOTAL	311,129
	Med. Micro.	—	6.75	Pers.	147,179
				Supp.	19,163
				Equip.	4,010
				TOTAL	170,352
	Metabolic	—	1.0	Pers.	14,625
				Supp.	31,123
				Equip.	1,824
				TOTAL	47,572
	Syphilis Serology	—	4.0	Pers.	44,743
				Supp.	3,666
				Equip.	1,563
				TOTAL	49,972
	Toxicology	—	4.0	Pers.	66,422
				Supp.	28,529
				Equip.	913
				TOTAL	95,864
	Virus	—	7.0	Pers.	88,671
				Supp.	53,771
				Equip.	4,688
				TOTAL	147,130
	Water	—	3.5	Pers.	113,906
				Supp.	43,779
				Equip.	2,177
				TOTAL	159,862
	Private Laboratory Licensing	—	1.5	Pers.	35,706
				Supp.	24,270
				Other	2,582
				TOTAL	62,558

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.)	Metabolic	—	7.0	Pers.	54,770
				Supp.	170,820
				Equip.	32,880
				Other	2,068
				TOTAL	260,538
R.I.	Federal				
	Environmental Protection Agency (Air pollution testing)	Chem. Aide	4.0 1.0	Pers.	120,000
				Supp.	25,000
				Equip.	45,000
				Other	15,000
				TOTAL	205,000
	Environmental Protection Agency (Water pollution testing)	—	—	TOTAL	20,901
	Environmental Protection Agency (Hazardous waste testing)	—	—	TOTAL	25,374
	Health and Human Services	Lab. Surv. Clerk	1.0 1.0	TOTAL	31,892
S.C.	Federal				
	(Environmental Protection Agency — Pesticides Contract) (Lab analysis of human, animal, and environmental samples for pesticides and herbicides. Provided under sub-contract with Medical University of S.C. which has a major contract with EPA to develop data on baseline levels for these toxic substances)	Chem. IV Chem. III Chem. I Clk. Typist Dir., Div. of Env. Hlth.	1.0 1.0 1.25 1.0 0.5	Pers.	71,915
				Other	7,553
				TOTAL	79,468
	U.S. Forestry Service — Forestry Contract (Laboratory analysis of pine tree samples and samples of surrounding environment for presence of pesticides carbofuran and its degrada- tion products.)	Chem. I	1.0	Pers.	14,270
				Supp.	8,158
				Equip.	22,465
				Other	88,249
				TOTAL	133,142
	Laboratory Improvement Contract (Target pos. selected through needs assessment. Development and presentation of workshops in three areas of microbiology—bacterio- logy, mycology, and parasitology. Evaluation of effectiveness of laboratory improvement program.)	Micro. IV.	1.0	Pers.	24,205
				Supp.	5,299
				Equip.	946
				Other	1,642
				TOTAL	32,092
S.D.	Federal				
	Centers for Disease Control (Training Contract)	—	—	Other	52,800
				TOTAL	52,800
	Centers for Disease Control (Consultation Contract)	Fac. Sp. II	1.5	Pers.	21,778
				Supp.	6,847
				Other	3,944
				TOTAL	32,569

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	
S.D.....	State Department of Water and Natural Resources (Environmental testing)	Chem. III	1.0	Pers.	42,056
		Chem. II	1.0	Supp.	5,362
		Chem. I	.4	Equip.	780
		Micro. II	.4	Other	2,184
		Lab. Tech.	.4		
				TOTAL	50,382
Tenn	Local Environmental Testing	—	—	Pers.	19,728
				Supp.	2,515
				Equip.	366
				Other	1,024
				TOTAL	23,633
Tex.....	State Department of Safety (Blood alcohol examinations)	—	—		
				TOTAL	153,679
	U.T. Memphis (Medical Ecology and Toxicology)	—	—		
				TOTAL	129,000
				TOTAL	104,000
Tex.....	Federal Safe Drinking Water Grant (Chemical and bacteriological analysis of drinking water)	Chemists	8.0	Pers.	274,000
		Microbiologists	1.0	Supp.	86,900
		Technicians	10.0	Equip.	102,800
		Clerical	2.0		
				TOTAL	463,700
	Cooperative Meat Inspection	Chemist	1.0	Pers.	28,000
		Support	1.0		
				TOTAL	28,000
	State Department of Water Resources	Microbiologists	1.0	Pers.	149,400
		Chemists	5.0		
		Technicians	4.0		
		Support	1.0		
				TOTAL	149,400
	EPSDT	Chemists	3.0	Pers.	179,400
		Med. Tech.	2.0	Supp.	27,000
		Technicians	5.0	Other	1,000
		Clerical	1.0		
		Support	1.0		
				TOTAL	207,400

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	
Utah.....	Federal				
	Technical Consultation II Contract (Serves laboratory improvement program — laboratory technical consultation)	—	—	Pers.	25,130
				Supp.	2,447
				Other	1,260
				TOTAL	28,837
	Laboratory Training Contract #2 (Serves laboratory improvement program — laboratory training)	—	—	Pers.	40,896
				Supp.	4,707
				Equip.	241
				Other	2,045
Vt.				TOTAL	47,889
	Federal				
	EPA — SWDA (Water testing)	—	1.0	Pers.	17,487
				TOTAL	17,487
	OSHA — 23 (q) (Occupational safety)	—	.8	Pers.	10,150
				TOTAL	10,150
	Venereal Disease (Gonorrhea testing)	—	1.0	Pers.	12,000
				TOTAL	12,000
Wisc.	Federal				
	Wisconsin State Survey (Sample analysis and proficiency testing)	Med. Tech. I	.5	Pers.	5,308
				TOTAL	5,308
	Operation of Cytogenetics Unit (Cytogenetic testing)	Cyto. Tech. II Lab. Tech. III	1.0 2.0	Pers.	46,548
				Supp.	19,420
				TOTAL	65,968
	Alpha-Fetoprotein Screen (Testing of maternal serum in mid-pregnancy)	Microbiologist II Lab. Tech.	1.0 2.0	Pers.	50,982
				Supp.	24,505
				TOTAL	75,487
	Erythrocyte — Protoporphyrin Proficiency Testing (Blood lead screen)	Chem. II Lab. Tech II	1.0 .5	Pers.	17,012
				Supp.	2,042
				Equip.	8,032
				TOTAL	27,086
	Proficiency Testing (Radio-immunoassay testing)	Med. Tech III Clerical	.5 .5	Pers.	9,099
				Supp.	20,923
				TOTAL	30,022
	Coastal Zone Management Project (Water-sample analysis)	Chem. I Chem. II	1.0 1.0	Pers.	44,446
				Supp.	2,125
				Equip.	33,449
				TOTAL	80,020

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.)	National Urban Run-off Project (Water sample analysis)	Chem. II Chem. I	1.0 2.0	Pers.	8,497
				Supp.	18,253
				Equip.	32,469
				TOTAL	59,219
	Non-point Source Monitoring of Lake Michigan (Water sample analysis)	—	—	Equip.	2,590
				TOTAL	2,590
	Safe Drinking water Act (Analysis of community water samples)	Chem. II	1.0	Pers.	1,651
				TOTAL	1,651
	Federal—State Solid Waste Leachate Study (Water sample testing)	Chem. I	1.0	Pers.	8,950
				TOTAL	8,950
	Mobile Home Formaldehyde Study (Air sample analysis for formaldehyde)	Chem. I	1.0	Pers.	12,456
				Supp.	2,632
				TOTAL	15,088
	Analysis of High Volume Filters (Analysis of air filter samples for SO ₂ , NO ₂)	Lab. Tech. II	1.0	Pers.	3,505
				TOTAL	3,505
	Highway Safety Program (Implementing controlled substance analysis)	Chem. II Chem. IV	1.0 1.0	Pers.	10,351
				Supp.	7,714
				Equip.	179,025
				TOTAL	197,090
	Federal Governors Office of Highway Safety (Alcohol analysis, training of law enforcement personnel, court testimony)	Chem. III Chem. II Sec.	.5 1.0 .5	Pers.	38,524
				Supp.	5,479
				Equip.	6,401
				Other	13,650
				TOTAL	64,054
	Medicare Survey (Lab surveys for Medicare compliance)	Med. Tech. III	.3	Pers.	10,258
				Other	1,318
				TOTAL	11,576

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 Rubella	1.25 3.58 2.75 4.00	Test Test Test Test	59,758	Recycled to support services provided.
Ariz.		—	—	34,000	State General Fund.
Ark.	Premarital Serology	1.00	Cert.	15,447	Pay off bonds on laboratory building.
Colo.	Drugs of Abuse Urine Screening Streptococcus Cultures	3.15 2.00 (pre) 2.50 (post)	Specimen Specimen	145,000	Appropriated to Division to operate the programs.
Conn.	Environmental Chemistry Strep. Mailers Strep Office Kits VDRL Antigen & Saline	1.81 1.00 .35 3.00	R.V. Mailer & Culture Kit Set	150,000	State General Fund.
Ga.	—	—	—	225,000	Deposited to State General Fund.
Ida.	Purity Tests Most Probable Number Tests Water Pollution Testing—BOD Water Pollution Testing—COD Water Pollution Testing—TOC Water Pollution Testing—Total Water Chemistry Tests (Includes alkalinity, ammonia, bi-carbonate alkalinity, calcium, carbonate alkalinity, chloride, dissolved oxygen, fluoride, hardness, hydrogen, sulfide, nitrate, odor, orthophosphate, settleable solids, silica, specific conductance, sulfate, suspended solids, total dissolved solids, total solids, turbidity, volatile suspended solids, volatile solids) Elemental analyses performed by atomic absorption spectrophotometry. Includes aluminum, barium, cadmium, chromium, copper, iron, lead, magnesium, manganese, molybdenum, nickel, potassium, silver, sodium, vanadium, zinc) PH Color Complete inorganic chemical testing for drinking water. (Includes arsenic, barium, cadmium, chromium, fluoride, lead, mercury, nitrate, selenium and silver) Individual tests for: Arsenic Boron Chlorophyll A Chlorophyll A, B, and Pheophytin Cyanide Formaldehyde Fluoride (Dist.) Kjeldahl Nitrogens Mercury Microscopy Oil and Grease	6.00-8.50 6.50-10.00 15.00 11.00 25.00 5.00 7.50 7.50 3.00 3.00 90.00 14.00 9.00 7.50 15.00 16.00 10.00 15.00 12.00 14.00 25.00 16.00	Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test Test	193,763	187,000 allocated to Bureau of Laboratories. 6,763 reverted back to State General Fund.

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ida. (Cont.)	Pesticide Residue Analysis	75.00	Test		
	Phenols	17.50	Test		
	Rad. Health	10.00	Test		
	Selenium	14.00	Test		
	Surfactants	17.50	Test		
	Suspended Particulate	5.00	Test		
	Total or Inorganic Phosphorus	10.00	Test		
	Tannin and Lignin	15.00	Test		
	Trihalomethane	50.00	Test		
	Volatile Petroleum Products	22.50	Test		
	Mercury and other heavy metals (Includes tissue, urine, blood, foods, etc.)	20.00	Test		
	Lead—Tissue, urine, blood, foods	12.00	Test		
	Lead—Pottery	8.00	Test		
	Milk Tests				
	Standard plate count	5.00	Test		
	Inhibitory substances	6.00	Test		
	Added water	3.00	Test		
	Mastitis test	3.00	Test		
	Miscellaneous Tests				
	Throat culture	7.00	Test		
	Urine drug screen	20.00	Test		
	Syphilis serology	7.00	Test		
	Rubella serology	8.00	Test		
	Rabies	25.00	Test		
	Cytogenic analysis	125.00	Test		
	Analysis of food samples for salmonella	15.00	Test		
	Analysis of food samples for coliform	10.00	Test		
	Vaginal culture for candida	5.00	Test		
	Health Check Testing				
	Urine Screen	1.00	Test		
	Urine Culture	10.00	Test		
	Hematocrit	3.00	Test		
Ind.	Private Water Bact. (or chem.)	2.50	Test	47,750	State Treasury-general fund except for postage and handling fees. These fees remain in a State Board of Health revolving fund.
		+ postage			
	Public Water Bact.	10.00	Year		
	Premarital Syphilis Serology	2.50	Specimen		
la.	MPN Potable Water	3.00	Sample	530,492	Estimate of receipts is built into general operating budget.
	Membrane Filter Water	12.00	Sample		
	Nitrate	8.00	Sample		
	BOD Effluent	8.00	Sample		
	Trace Metals	10.00-14.00	Sample		
	Radiation	10.00-45.00	Sample		
	Pesticides	48.00-104.00	Sample		
	Urine Screen—Abused Drugs	7.50	Sample		
	Other Water Quality Parameters	4.00-48.00	Sample		
Kans.	Environmental Lab. Cert.			129,500	State General Fund
	Chemistry	20.00	Parameter		
	Microbiology	100.00	Laboratory		
	Environmental Microbiology Testing	3.00	Sample		
	Environmental Chemistry Testing				
	Partial Analysis	15.00	Sample		
	Complete Analysis	35.00	Sample		
	Complete chemical analysis consisting of: calcium, magnesium, sodium, potas- sium, total hardness, carbonate hard- ness, non-carbonate hardness, total alkalinity, bicarbonate alkalinity, car- bonate, bicarbonate chloride, sulfate, nitrate, fluoride, pH, turbidity, specific conductance, total dissolved solids, phosphate, silica, iron, manganese	35.00	Test		

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Kans. (Cont.)	Complete heavy metals consisting of: iron, manganese, arsenic, barium, cadmium, chromium, copper, lead, mer- cury, selenium, silver, zinc	25.00	Test		
	Partial chemical analysis consisting of: calcium, magnesium, sodium, total alkalinity, chloride, sulfate, nitrate, fluoride, iron, manganese	15.00	Test		
	Total hardness consisting of: calcium, magnesium, chloride, alkalinity	6.00	Test		
	Complete solids consisting of: total solids, total fixed solids, total vol- atile solids, total suspended solids, fixed suspended solids, volatile suspended solids, total dissolved solids, fixed dis- solved solids, volatile dissolved solids.	15.00	Test		
	Suspended solids (fixed and volatile)				
	Alkalinity	5.00	Test		
	Chloride	2.00	Test		
	Iron	2.00	Test		
	Manganese	3.00	Test		
	Sodium	2.00	Test		
	Sulfate	2.00	Test		
	Phosphate	3.00	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	7.50	Test		
	Selenium	7.50	Test		
	Other heavy metals	5.00	Test		
	Organic Chemistry (Screen or toxic levels of pesticides and herbicides)	160.00	Test		
	Coliform determination				
	Weekly coliform, pH and turbidity tests on swimming pool water:	3.00	Test		
	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			553,165	Support personnel, provide supplies and equipment not available from State and/or Federal funding.
	Throat	4.00	Sample		
	Enteric Pathogens	8.00	Sample		
	Mycology	10.00	Sample		
	Parasitology, Intestinal	8.00	Sample		
	Pertussis—FA	4.00	Sample		
	Newborn Metabolic Disease Screening	5.00	Sample		
	Blood Serology (Bact., Myco., Parasit., or Viral)	5.00	Sample		
	Torch	15.00	Sample		

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Me. (Cont.)	Water				
	Test for Safety	9.00	Test		
	New H ₂ O Supply	20.00	Test		
	Complete Testing	30.00	Test		
	Sewage	30.00	Test		
	Purveyors of H ₂ O	35.00	Test		
	Purveyors of H ₂ O/Coliform	40.00	Test		
	Dump Leachate	40.00	Test		
	Trihalomethanes	25.00	Test		
	Single Test — Turbidity	4.00	Test		
	Total Coliforms	5.00	Test		
	Fecal Coliforms	5.00	Test		
	Fecal Strep.	5.00	Test		
	Microscopic—Iron Bact.	4.00	Test		
	Drug ID—Toxicology	18.00	Hr.		
	Breath & Blood Alcohol	20.00	Specimen		
	Pesticides Screening (water)	75.00	Set of 6		
	Pesticide Unknown	18.00	Hr.		
	Racing Chemistry	8.30	Sample		
Md.	Testing for the following: PKU, MSUD, BCK, Methionine, Galactosemia, T ₄ , and TSH.	2.50	Specimen	13,000	60% to the Laboratories Administration Supply Fund. 40% reverted to the General Fund of the State of Maryland.
Mass.	Certificates of Approval Biological Products	5.00 10.00 & up	Cert. Kit	67,874	Reverts to State Treasury.
Minn.	Handling Fee	1.50	Specimen	361,700	General Fund.
Miss.	Medicare/Medicaid Patients	Medicaid Rate	Specimen	376,841	General Laboratory Budget.
	TB Cultures (Mental Hosp.)	3,600.00	Yr.		
	Parasites	3.00	Specimen		
	Sickle Cell	1.25	Specimen		
	Throat Culture for Group A Strep.	1.00	Specimen		
	Bact. Exam of Water Samples	2.25	Specimen		
	RPR	.48	Specimen		
	GC	.72	Specimen		
	Coulter	1.21	Specimen		
	Rubella	2.32	Specimen		
Mont.	Bacti. Test — Water	4.00	Sample	60,000	Revert into Laboratory Budget through earmarked revenue account or credit directly against laboratory expenses.
	Fecal Coliform	4.00	Sample		
	MPN Coliform	10.00	Sample		
	Nitrate Water	2.00	Sample		
	Chemical analysis of public water	45.00	Sample		
	Standard chemical analysis of private water	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		

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.)	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	71.50	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		
	Toxaphene	29.00	Test		
	Methoxychlor	29.00	Test		
	2, 4-D	47.00	Test		
	Silver	47.00	Test		
	All six organics	210.00	Test		
Nebr.	Specimen mailing containers	.50	Container	139,798	Deposited in the Laboratory cash fund, and used in laboratory budget.
	Forensic alcohol	8.00	Test		
	Water microbiology	4.00	Test		
	Water inorganics	5.00	Test		
	Water organics	10.00	Test		
Nev.	Licenses	10.00	each	9,000	Returned to State General Fund.
	Registrations	10.00	each		
	Certifications	10.00	each		
	Water bacteriology	5.00	each		
	Water chemistry	110.00	each		
N.J.	VDRL	3.00	Specimen	173,440	Divisional revolving fund.
	Rubella	4.00	Specimen		
	Potable Water/Bact.	9.00	Sample		
	FTA-ABS	3.00	Specimen		
	Toxoplasmosis	6.00	Specimen		

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
N.M.	Various types of analyses	3.35	RVU	284,200	Treated as budgeted revenues for the Scientific Laboratory Division.
N.C.	Coliform Test — Water	5.00	Test	753,388	State appropriation to laboratory is reduced by the amount of estimated receipts and, in effect, becomes part of the 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.
	Inorganic chemicals—Water	100.00	Sample		
	Organic chemicals—Water	120.00	Sample		
	Radiological—Water	50.00	Sample		
	Sale of specimen collection outfits and biological products	Varies			
Ore.	Metabolic Disorders	3.00	Specimen	177,000	Assists the program, but is not total support.
S.C.	Rh	5.00	Specimen	150,000	Returned to Bureau of Laboratories. Used for salaries and operating expenses.
	Rubella Serology	5.00	Specimen		
	STS (VDRL or RPR)	1.00	Specimen		
	FTA-ABS	8.00	Specimen		
	IFA-TOXO Plasmosis	14.00	Specimen		
	Blood Lead—Quantitative	7.00	Specimen		
	Blood Lead—Qualitative	3.00	Specimen		
	GC	2.00	Specimen		
	Drugs—Quantitative	10.00	Specimen		
	Drugs—Qualitative	3.00	Specimen		
S.D.	Environmental Testing	1.60	RV	102,192	74,015 returned to Revolving Fund. 28,177 returned to General Fund.
Utah	Newborn Screening	2.50	Kit	204,272	Used to offset the cost of the services.
	Water Testing—Chemical	5.00	MPN		
	Microbiological	100.00	Chemistry		
V.I.	Serology	3.00	—	—	Placed in revolving fund.
	Parasitology	5.00	—		
	Toxicology	10.00	—		
	FTA	8.00	—		
	PKU	3.00	—		
	Cultures	10.00	—		
	Thyroid Profile	8.00	—		
	Sickle Cell	5.00	—		
Wash.	Metabolical	4.50	Test	268,496	Support laboratory operation.
	Water Bacteriology	6.00	Test		
	Premarital	5.00	Test		
	Water Chemistry	2.00-85.00	Procedure		
Wisc.	Specimen Testing	3.00	Test	1,500,000	Used to offset costs of performing these tests.
	Paternity Testing	9.00	Test		
	Prenatal Screening	7.50	Test		
	Torch Panel	5.00	Test		
	Chlamydia	6.00	Test		
	Cytogenetics	70.00	Test		
	Neonatal Screening	6.00	Specimen		

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	Diagnostic Bacteriology Specimens	A	B	C	D	E	F
		Nasopharyngeal Specimens	Mycobacterial Specimens	Enteric Specimens	Gonococcus Specimens	Anaerobic Specimens	Other Bacteriology Specimens
Total	7,455,922	1,653,447	521,398	228,429	4,856,520	10,735	185,393
Average	140,678	31,197	10,862	4,393	91,632	244	4,030
New England	649,701	332,844	24,010	24,044	255,107	489	13,207
Conn.	129,256	71,010	6,190	8,082	35,798	179	7,997
Mass.	183,996	111,297	—	10,006	60,693	—	2,000
Me.	45,052	2,274	3,959	709	37,701	190	219
N.H.	105,509	47,238	10,559	1,501	43,741	—	2,470
R.I.	145,122	81,778	1,815	2,088	58,890	30	521
Vt.	40,766	19,247	1,487	1,658	18,284	90	—
Middle Atlantic	253,949	135	27,240	12,333	213,438	57	746
N.J.	238,373	78	17,694	7,177	213,414	1	9
N.Y.	—	—	—	—	—	—	—
Pa.	15,576	57	9,546	5,156	24	56	737
East North Central	841,129	382,349	37,054	33,187	371,882	1,271	15,386
Ill.	185,980	42,134	7,986	8,209	125,534	221	1,896
Ind.	11,071	106	3,402	2,258	4,739	138	428
Mich.	280,626	101,535	15,583	14,397	139,617	99	9,395
Ohio	323,093	228,245	5,465	3,412	84,403	485	1,083
Wisc.	40,359	10,329	4,618	4,911	17,589	328	2,584
West North Central	628,441	248,506	32,570	18,090	297,469	1,228	30,578
Ia	121,407	43,624	2,834	1,152	68,839	187	4,771
Kans.	73,526	22,358	5,926	4,221	37,711	378	2,932
Minn.	125,824	2,024	14,005	4,752	104,437	131	475
Mo.	172,753	116,441	—	3,998	51,044	82	1,188
Nebr.	29,443	4,707	870	560	23,306	—	—
N.D.	59,523	25,856	4,697	2,455	5,536	343	20,636
S.D.	45,965	33,496	4,238	952	6,596	107	576
South Atlantic	2,061,620	206,668	147,475	61,045	1,595,048	2,793	48,591
Del.	33,597	5,265	—	744	26,320	—	1,268
D.C.	95,738	16,313	1,423	2,365	75,637	—	—
Fla.	681,976	42,104	51,692	28,103	549,563	407	10,107
Ga.	276,985	14,852	26,485	7,816	222,832	535	4,465
Md.	434,940	34,385	16,579	9,277	352,458	425	21,816
N.C.	23,167	1,157	15,954	3,623	413	500	1,520
S.C.	222,080	3,454	10,895	1,023	200,723	484	5,501
Va.	181,467	43,021	16,890	7,318	110,263	418	3,557
W.Va.	111,670	46,117	7,557	776	56,839	24	357
East South Central	1,017,483	125,478	91,027	14,433	779,919	1,394	5,232
Ala.	387,306	10,826	32,212	3,328	338,962	195	1,783
Ky.	28,800	2,028	14,919	1,464	9,822	21	546
Miss.	251,540	39,663	23,127	5,838	180,009	—	2,903
Tenn.	349,837	72,961	20,769	3,803	251,126	1,178	—
West South Central	1,073,484	56,299	99,548	25,170	881,162	1,567	9,738
Ark.	110,632	14,905	19,655	1,921	73,714	180	257
La.	137,358	3,064	8,133	5,285	118,880	488	1,508
Okla.	142,855	27,537	11,389	1,986	100,495	114	1,334
Tex.	682,639	10,793	60,371	15,978	588,073	785	6,639
Mountain	529,414	226,377	26,994	25,092	233,187	953	16,811
Ariz.	17,962	307	4,956	2,060	9,867	272	500
Colo.	82,794	42,390	2,028	2,228	35,568	80	500
Ida.	61,814	2,616	7,490	8,533	33,124	374	9,677
Mont.	14,730	1,324	2,485	265	10,051	63	542
Nev.	39,632	314	2,141	288	36,048	—	841
N.M.	102,527	3,868	5,835	5,407	82,766	80	4,571
Utah	30,813	239	1,704	6,174	22,432	84	180
Wyo.	179,142	175,319	355	137	3,331	—	—
Pacific	360,018	60,200	33,443	14,584	210,041	766	40,984
Alaska	111,549	26,394	10,052	1,291	50,569	230	23,013
Cal.	23,240	50	897	540	13,486	104	8,163
Hawaii	179,413	28,517	11,769	8,229	121,711	309	8,878
Ore.	10,210	4,054	3,209	1,408	970	68	501
Wash.	35,606	1,185	7,516	3,116	23,305	55	429
Territories	40,683	14,591	2,037	451	19,267	217	4,120
Guam	4,189	11	2,037	109	2,031	1	—
P.R.	15,144	668	—	342	14,134	—	—
V.I.	21,350	13,912	—	—	3,102	216	4,120

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

Lab & Region	1. Streptococcus Beta Hemolytic, Group A						
	Number of Specimens	Procedures Used					
		Culture	FA	Sero- grouping	Sero- typing	Bacitracin Disc	Other
Total	1,566,588						
Average	30,717						
New England	331,720						
Conn.	70,706	X	X	X	—	X	—
Mass.	111,035	X	X	—	—	—	—
Me.	1,807	X	X	X	X	X	X
N.H.	47,238	X	X	—	—	—	—
R.I.	81,718	X	X	—	—	—	—
Vt.	19,216	X	X	X	—	—	—
Middle Atlantic	85						
N.J.	74	X	—	X	—	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	11	X	—	X	—	—	—
East North Central	375,383						
Ill.	40,826	X	—	—	—	—	—
Ind.	—	—	—	—	—	—	—
Mich.	100,959	X	—	X	—	X	—
Ohio	223,455	X	X	X	—	—	—
Wisc.	10,143	X	X	—	—	X	—
West North Central	234,907						
Ia.	43,618	X	X	—	—	—	—
Kans.	21,769	X	X	—	—	—	—
Minn.	33	X	—	X	—	—	—
Mo.	116,077	X	X	X	X	—	—
Nebr.	4,684	X	X	X	—	X	—
N.D.	25,844	—	X	—	—	—	—
S.D.	22,882	X	X	—	—	—	—
South Atlantic	161,892						
Del.	5,265	X	X	—	—	X	—
D.C.	7,548	X	—	X	—	X	—
Fla.	20,935	X	—	—	—	X	—
Ga.	13,438	X	X	X	X	—	—
Md.	33,041	X	—	X	—	X	—
N.C.	883	X	X	X	—	—	—
S.C.	3,379	—	—	—	—	—	—
Va.	31,475	—	—	—	—	—	—
W. Va.	45,928	—	X	—	—	—	—
East South Central	124,630						
Ala.	10,381	X	X	—	—	—	—
Ky.	1,952	X	X	X	—	—	—
Miss.	39,662	X	X	—	—	—	—
Tenn.	72,635	—	—	—	—	—	—
West South Central	51,907						
Ark.	14,901	X	X	—	—	—	—
La.	2,783	X	X	X	—	—	—
Okla.	26,854	X	X	—	—	—	—
Tex.	7,369	X	X	X	—	X	—
Mountain	226,004						
Ariz.	255	X	X	X	X	—	Biochemicals
Colo.	42,370	X	X	—	—	—	—
Ida.	2,538	X	X	—	—	X	—
Mont.	1,219	X	—	X	—	—	—
Nev.	314	X	—	—	—	X	—
N.M.	3,848	X	X	X	—	X	—
Utah	151	X	X	X	—	—	—
Wyo.	175,309	X	X	X	—	—	—
Pacific	58,469						
Alaska	25,738	X	X	—	—	—	—
Cal.	—	X	X	X	X	—	—
Hawaii	28,387	X	X	X	X	X	—
Ore.	3,768	X	X	—	—	—	—
Wash.	576	X	X	—	—	—	—
Territories	1,591						
Guam	11	X	—	—	—	X	—
P.R.	668	—	X	—	—	—	—
V. I.	912	X	X	X	X	X	—

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

Lab & Region	2. Diphtheria					
	Number of Specimens	Procedures Used				
		Direct Smear	Culture	Confirm. Sugars	Toxo- genecity	Other
Total	33,008					
Average	892					
New England	43					
Conn.	4	X	X	X	X	—
Mass.	24	X	X	X	X	FA
Me.	—	—	—	—	—	—
N.H.	—	—	—	—	—	—
R.I.	5	X	X	X	X	—
Vt.	10	X	X	X	X	—
Middle Atlantic	10					
N.J.	4	X	X	X	X	—
N.Y.	—	—	—	—	—	—
Pa.	6	X	X	X	X	—
East North Central	265					
Ill.	176	—	X	X	X	—
Ind.	—	—	—	—	—	—
Mich.	3	—	X	X	X	—
Ohio	80	—	X	X	—	—
Wisc.	6	X	X	X	X	—
West North Central	10,715					
Ia.	3	X	X	—	X	—
Kans.	81	X	X	X	X	—
Minn.	34	—	X	—	X	Smear of 18 hour culture
Mo.	—	—	—	—	—	—
Nebr.	17	X	X	X	X	—
N.D.	3	—	X	—	—	—
S.D.	10,577	X	X	X	—	—
South Atlantic	21,246					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	20,935	—	X	X	X	—
Ga.	—	—	—	—	—	—
Md.	1	X	X	X	X	—
N.C.	—	X	X	X	—	—
S.C.	2	—	—	—	—	—
Va.	308	—	—	—	—	—
W. Va.	—	—	—	—	—	—
East South Central	107					
Ala.	29	X	X	—	X	—
Ky.	2	X	X	X	X	—
Miss.	—	—	X	X	X	—
Tenn.	76	X	X	X	X	—
West South Central	37					
Ark.	4	X	X	X	—	—
La.	7	X	X	—	—	—
Okla.	—	—	—	—	—	—
Tex.	26	—	X	X	X	—
Mountain	166					
Ariz.	49	X	X	X	X	—
Colo.	14	X	X	X	X	—
Ida.	58	X	X	X	X	—
Mont.	1	—	X	X	—	—
Nev.	—	—	—	—	—	—
N.M.	20	X	X	X	X	—
Utah	24	X	X	X	X	—
Wyo.	—	—	—	—	—	—
Pacific	419					
Alaska	25	X	X	X	—	—
Cal.	1	X	X	X	X	—
Hawaii	18	X	X	X	X	—
Ore.	12	X	X	X	X	—
Wash.	363	X	X	X	X	—
Territories						
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	X	X	—	—	—

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

Lab & Region	3. Pertussis					
	Number of Specimens	Culture	FA	Serological	Biochemicals	Other
Total	20,643					
Average	480					
New England	374					
Conn.	96	X	X	—	X	—
Mass.	199	X	X	—	X	—
Me.	53	—	X	—	—	—
N.H.	—	—	—	—	—	—
R.I.	5	X	X	—	X	—
Vt.	21	X	X	—	—	—
Middle Atlantic	39					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	39	X	X	—	X	—
East North Central	2,222					
Ill.	1,132	X	X	—	X	—
Ind.	106	—	X	—	—	—
Mich.	519	X	X	—	X	—
Ohio	285	X	X	—	X	—
Wisc.	180	X	X	—	X	—
West North Central	617					
Ia.	3	X	X	—	—	—
Kans.	92	X	X	X	X	—
Minn.	106	X	X	X	X	—
Mo.	364	X	X	X	—	—
Nebr.	6	X	X	X	X	—
N.D.	9	—	X	—	—	—
S.D.	37	X	X	—	—	—
South Atlantic	2,315					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	234	—	X	—	—	—
Ga.	1,414	X	X	—	—	—
Md.	90	X	X	—	X	—
N.C.	274	X	X	—	X	—
S.C.	23	—	—	—	—	—
Va.	244	—	X	—	—	—
W. Va.	36	—	X	—	—	—
East South Central	439					
Ala.	114	X	X	—	—	—
Ky.	74	—	X	—	—	—
Miss.	1	—	X	—	—	—
Tenn.	250	X	X	X	X	—
West South Central	1,100					
Ark.	—	X	—	—	—	—
La.	151	X	X	—	—	—
Okla.	675	X	X	—	—	—
Tex.	274	—	—	—	—	—
Mountain	149					
Ariz.	3	X	—	—	—	—
Colo.	6	X	X	—	—	—
Ida.	20	X	X	—	X	—
Mont.	85	X	X	—	—	—
Nev.	—	—	—	—	—	—
N.M.	—	X	X	—	X	—
Utah	25	X	X	—	X	—
Wyo.	10	X	X	—	—	—
Pacific	388					
Alaska	102	—	X	—	—	—
Cal.	—	X	X	X	X	—
Hawaii	10	X	X	—	—	—
Ore.	78	X	X	—	—	—
Wash.	198	X	X	—	—	—
Territories	13,000					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	13,000	—	—	X	—	—

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

4. Other Nasopharyngeal Specimens		
Lab	Number of Specimens	Disease — Procedures Used
Total	33,208	
Average	1,328	
Ala.	302	Staphylococci — culture, coagulase
Alaska	529	Gonorrhea, meningitis — culture
Cal.	49	Infant botulism — culture, smears, animal inoculation
Conn.	204	Legionnaires' disease — direct FA, Vincent's infection — stain
D.C.	8,765	Urinary tract infection — culture (quantitation)
Hawaii	102	Meningococcus, staphylococcus, <i>H. influenzae</i> — culture ID
Kans.	416	Nasopharyngitis — smear, culture, biochemicals, serogrouping and serotyping
La.	123	Staphylococcus — coagulase
Me.	414	<i>H. influenzae</i> — typing + factors, <i>N. meningitidis</i> — culture + typing, Gram neg. non-fermenters — biochem. ID, miscellaneous strep. — culture + typing, staphylococci (coag.) — plasma (tube)
Md.	1,253	Bacteremia, bacterial: other — culture
Mass.	39	Meningitis — culture, biochemical, serogrouping; streptococcal infection — culture, FA, serogrouping
Mich.	54	<i>Vincent's angina</i>
Minn.	1,851	Referred cultures for identification — smear, biochemical, serological, animal pathology toxin
Mont.	19	<i>Staphylococcus aureus</i> , <i>Streptococcus pneumoniae</i> , <i>Hemophilus influenzae</i> , pneumonococcus — culture and biochemicals
Ohio	4,425	Staphylococcus — culture and phage typing, aerobic non-fermenters — culture, aerobic Gram positive bact. — culture
Okla.	8	<i>Vincent's angina</i> — Gram stain
Ore.	196	Misc. URI — isolation and/or culture identification
Pa.	1	<i>Yersinia pestis</i> (plague) — FA
R.I.	50	Meningococcus — culture, biochemicals, serogrouping; staphylococcus — culture, biochemicals; pneumococcus — culture, biochemicals; <i>H. influenzae</i> — culture, factors, typing
S.C.	50	Pharyngitis (other) — culture, biochemicals
Tex.	3,124	Staph. phage typing
Utah	39	Meningitis — culture typing of <i>H. influenzae</i> , meningitides
Va.	10,994	Meningitidis, pneumonococcus, <i>H. influenzae</i> , staph. (phage)
V.I.	—	<i>S. pneumoniae</i> — culture
Wash.	48	Streptococcus — typing and speciation, bacillus — speciation
W. Va.	153	Staphylococcus — culture isolation

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	521,398								
Average	10,862								
New England	24,010								
Conn.	6,190	—	X	X	—	8	17	X	—
Mass.	—	—	—	—	—	—	—	—	—
Me.	3,959	—	X	X	6	6	8	X	Atypicals and/or unclassified
N.H.	10,559	X	X	X	—	—	—	—	—
R.I.	1,815	—	X	X	—	7	12	X	—
Vt.	1,487	—	X	X	6	6	12	X	—
Middle Atlantic	27,240								
N.J.	17,694	—	X	X	8	8	11	X	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	9,546	X	X	X	5	5	12	X	Secondary drug studies
East North Central	37,054								
Ill.	7,986	X	X	X	—	5	9	X	—
Ind.	3,402	—	X	X	6	6	8	—	—
Mich.	15,583	—	X	X	—	9	11	X	—
Ohio	5,465	—	X	X	10	10	9	X	—
Wisc.	4,618	—	X	X	—	6	9	—	—
West North Central ...	32,570								
Ia.	2,834	X	X	X	8	8	14	X	—
Kans.	5,926	—	X	X	6	6	16	X	—
Minn.	14,005	—	X	X	3	—	15	X	Drug susceptibility
Mo.	—	—	—	—	—	—	—	—	—
Nebr.	870	X	X	X	5	5	11	—	—
N.D.	4,697	—	X	X	5	5	10	X	—
S.D.	4,238	X	X	X	3	3	5	X	—
South Atlantic	147,475								
Del.	—	—	—	—	—	—	—	—	—
D.C.	1,423	—	X	X	—	4	12	X	—
Fla.	51,692	—	X	X	—	7	12	X	—
Ga.	26,485	X	X	X	5	5	13	X	In case of resistant organisms 4 additional drugs are used.
Md.	16,579	X	X	X	4	9	3-12	X	—
N.C.	15,954	—	X	X	4	4	8	X	—
S.C.	10,895	X	X	X	7	7	10	X	—
Va.	16,890	—	—	—	—	—	—	—	—
W. Va.	7,557	—	X	X	5	5	7	X	—
East South Central	91,027								
Ala.	32,212	—	X	X	8	8	21	X	Serotype atypical
Ky.	14,919	—	X	X	9	9	9	X	Fluorochrome smear
Miss.	23,127	—	—	—	—	7	6	X	—
Tenn.	20,769	—	X	X	—	6	—	X	—
West South Central ...	99,548								
Ark.	19,655	—	X	—	3	6	7	X	INH kits
La.	8,133	X	X	X	—	5	12	X	—
Okla.	11,389	X	X	X	—	5	12	X	—
Tex.	60,371	—	X	X	7	7	10	X	—
Mountain	26,994								
Ariz.	4,956	X	X	X	7	7	10	X	—
Colo.	2,028	—	X	X	—	—	2	X	—
Ida.	7,490	X	X	X	6	6	11	X	—
Mont.	2,485	X	X	X	7	7	11	—	—
Nev.	2,141	—	X	X	—	11	5	X	—
N.M.	5,835	—	X	X	4	4	6	X	—
Utah	1,704	—	X	X	5	10	16	X	—
Wyo.	355	—	X	X	—	—	—	—	—
Pacific	33,443								
Alaska	10,052	X	X	X	—	3	4	X	—
Cal.	897	—	X	X	5	5-9	10	X	—
Hawaii	11,769	—	X	X	5	5	10	X	—
Ore.	3,209	—	X	X	—	—	13	X	—
Wash.	7,516	—	X	X	5	5	10	X	—
Territories	2,037								
Guam	2,037	—	X	X	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	X	X	X	—	—	—	—	—

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

Lab & Region	Number of Specimens	Procedures Used							
		Primary Plating	Enrich- ment Plating	Bio- chemicals	FA	Sero- grouping	Sero- typing	Phage Typing, <u>S. Typhi</u>	Other
Total	228,429								
Average	4,393								
New England	24,044								
Conn.	8,082	X	X	X	—	X	X	—	—
Mass.	10,006	X	X	X	—	X	X	—	—
Me.	709	X	X	X	—	X	X	—	—
N.H.	1,501	X	X	X	X	X	—	—	—
R.I.	2,088	X	X	X	—	X	X	—	—
Vt.	1,658	X	X	X	X	X	X	—	—
Middle Atlantic	12,333								
N.J.	7,177	X	X	X	—	X	X	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	5,156	X	X	X	—	X	X	X	—
East North Central	33,187								
Ill.	8,209	X	X	X	—	X	X	X	—
Ind.	2,258	X	X	X	—	X	X	—	—
Mich.	14,397	X	X	X	—	X	X	—	—
Ohio	3,412	X	X	X	—	X	X	—	—
Wisc.	4,911	X	X	X	—	—	X	—	—
West North Central ...	18,090								
Ia.	1,152	X	X	X	X	X	X	—	—
Kans.	4,221	X	X	X	X	X	X	—	—
Minn.	4,752	X	X	X	—	X	X	X	Microscopic
Mo.	3,998	X	X	X	X	X	X	—	—
Nebr.	560	X	X	X	—	X	—	—	—
N.D.	2,455	X	X	X	—	X	X	—	—
S.D.	952	X	X	X	—	X	X	—	—
South Atlantic	61,045								
Del.	744	X	X	X	—	X	X	—	—
D.C.	2,365	X	X	X	—	X	X	—	—
Fla.	28,103	X	X	X	—	X	X	—	—
Ga.	7,816	X	X	X	—	X	X	—	—
Md.	9,277	X	X	X	—	X	X	—	Sensitivities
N.C.	3,623	X	X	X	—	X	X	—	—
S.C.	1,023	X	X	X	—	X	X	—	—
Va.	7,318	—	—	—	—	—	—	—	—
W. Va.	776	X	X	X	—	X	X	—	—
East South Central	14,433								
Ala.	3,328	X	X	X	—	X	X	—	—
Ky.	1,464	X	X	—	X	X	X	X	—
Miss.	5,838	X	X	X	X	X	X	—	Subculture
Tenn.	3,803	X	X	X	—	X	X	—	—
West South Central ...	25,170								
Ark.	1,921	X	X	X	—	X	X	—	—
La.	5,285	X	X	X	—	X	X	X	—
Okla.	1,986	X	X	X	—	X	X	—	—
Tex.	15,978	X	X	X	—	X	X	X	—
Mountain	25,092								
Ariz.	2,060	X	X	X	X	X	X	—	—
Colo.	2,228	X	X	X	—	X	X	—	—
Ida.	8,533	X	X	X	—	X	X	—	—
Mont.	265	X	X	X	—	X	—	—	—
Nev.	288	X	X	X	—	X	—	—	—
N.M.	5,407	X	X	X	—	X	X	—	—
Utah	6,174	X	X	X	—	X	X	—	—
Wyo.	137	X	X	X	—	X	—	—	—
Pacific	14,584								
Alaska	1,291	X	X	X	X	X	X	—	—
Cal.	540	X	X	X	X	X	X	X	<u>S. typhi</u> bacteriophage typing, sensitivity tests, campylobacter
Hawaii	8,229	X	X	X	—	X	X	X	—
Ore.	1,408	X	X	X	—	X	X	—	—
Wash.	3,116	X	X	X	—	X	X	—	—
Territories	451								
Guam	109	X	X	X	—	X	X	—	—
P.R.	342	X	X	X	X	X	—	—	—
V.I.	—	X	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	4,856,520							
Average	91,632							
New England	255,107							
Conn.	35,798	X	X	X	X	X	X	—
Mass.	60,693	X	X	X	X	X	X	—
Me.	37,701	X	X	X	X	X	X	—
N.H.	43,741	X	X	X	X	X	X	—
R.I.	58,890	X	X	X	X	X	X	—
Vt.	18,284	X	X	X	X	X	X	—
Middle Atlantic	213,438							
N.J.	213,414	X	X	X	—	X	X	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	24	X	X	X	—	X	X	—
East North Central	371,882							
Ill.	125,534	X	X	X	—	X	X	—
Ind.	4,739	X	X	X	X	X	X	—
Mich.	139,617	X	X	X	—	X	X	—
Ohio	84,403	X	X	X	X	X	X	—
Wisc.	17,589	X	X	X	—	X	X	—
West North Central ...	297,469							
Ia.	68,839	X	X	X	X	X	—	Kirby—Bauer
Kans.	37,711	X	X	X	X	X	X	—
Minn.	104,437	X	X	X	X	X	X	—
Mo.	51,044	X	X	X	X	X	X	—
Nebr.	23,306	X	X	X	X	X	X	—
N.D.	5,536	X	X	X	—	X	X	—
S.D.	6,596	X	X	X	X	X	X	—
South Atlantic	1,595,048							
Del.	26,320	X	X	X	—	X	X	—
D.C.	75,637	X	X	X	—	X	X	—
Fla.	549,563	X	X	X	—	X	X	—
Ga.	222,832	X	X	X	X	X	X	—
Md.	352,458	X	X	X	X	X	X	—
N.C.	413	X	X	X	X	X	X	—
S.C.	200,723	X	X	X	X	X	X	—
Va.	110,263	—	—	—	—	—	—	—
W. Va.	56,839	X	X	X	X	X	X	—
East South Central	779,919							
Ala.	338,962	X	X	X	X	X	X	—
Ky.	9,822	X	X	X	X	X	X	—
Miss.	180,009	X	X	X	—	X	X	Gram stain and culture, drug susceptibility
Tenn.	251,126	—	X	X	X	—	X	—
West South Central	881,162							
Ark.	73,714	X	X	X	X	X	X	—
La.	118,880	X	X	X	—	X	X	—
Okla.	100,495	X	X	X	X	X	X	—
Tex.	588,073	X	X	X	X	X	X	—
Mountain	233,187							
Ariz.	9,867	X	X	X	X	X	—	—
Colo.	35,568	X	X	X	X	X	X	—
Ida.	33,124	X	X	X	X	X	X	—
Mont.	10,051	X	X	X	X	X	X	—
Nev.	36,048	X	X	X	—	X	X	—
N.M.	82,766	X	X	X	X	X	X	—
Utah	22,432	X	X	X	—	X	X	—
Wyo.	3,331	X	X	X	X	X	—	—
Pacific	210,041							
Alaska	50,569	X	X	X	X	X	X	—
Cal.	13,486	X	X	X	X	X	X	—
Hawaii	121,711	X	X	X	X	X	X	—
Ore.	970	X	X	X	X	X	X	—
Wash.	23,305	X	X	X	X	X	X	—
Territories	19,267							
Guam	2,031	X	X	X	—	X	X	—
P.R.	14,134	X	X	X	X	X	X	—
V.I.	3,102	X	X	X	—	X	—	—

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

Lab & Region	Number of Specimens	Techniques Used		Procedures Used						
		Prereduced Media	Gas Chroma- tography	Gram Stain	Plating	Subculture	Biochemical	FA	GLC	Other
Total	10,735									
Average	244									
New England	489									
Conn.	179	—	x	x	x	x	x	x	x	—
Mass.	—	—	—	—	—	—	—	—	—	—
Me.	190	x	x	x	x	x	x	—	x	—
N.H.	—	—	—	—	—	—	—	—	—	—
R.I.	30	x	—	x	x	x	x	—	—	—
Vt.	90	x	x	x	x	x	x	x	x	—
Middle Atlantic	57									
N.J.	1	—	—	x	x	x	x	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	56	—	x	x	x	x	x	—	x	—
East North Central	1,271									
Ill.	221	—	x	x	x	x	x	—	x	—
Ind.	138	—	x	x	x	x	x	—	x	—
Mich.	99	x	x	x	x	x	x	—	x	—
Ohio	485	x	x	x	x	x	x	—	x	Sensitivity testing, animal inoculation
Wisc.	328	x	x	x	x	x	x	—	x	—
West North Central ...	1,228									
Ia.	187	x	x	x	x	x	x	x	x	—
Kans.	378	x	x	x	x	x	x	—	x	—
Minn.	131	—	—	x	x	x	x	—	—	Animal toxogenicity, serology
Mo.	82	—	x	x	x	x	x	—	x	—
Nebr.	—	—	—	—	—	—	—	—	—	—
N.D.	343	x	—	x	x	x	x	—	—	—
S.D.	107	x	—	x	x	x	x	—	—	—
South Atlantic	2,793									
Del.	—	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—
Fla.	407	x	x	x	x	x	x	—	x	—
Ga.	535	x	x	x	x	x	x	—	x	—
Md.	425	x	x	x	x	x	x	—	x	—
N.C.	500	x	x	x	x	x	x	—	x	—
S.C.	484	x	x	x	x	x	x	x	x	—
Va.	418	—	—	—	—	—	—	—	—	—
W. Va.	24	x	—	x	x	x	x	—	—	—
East South Central	1,394									
Ala.	195	—	—	x	x	x	x	—	—	Animal inoculation
Ky.	21	—	x	x	x	x	x	—	x	—
Miss.	—	x	—	x	x	x	x	—	—	—
Tenn.	1,178	—	x	x	x	x	x	—	x	—
West South Central ...	1,567									
Ark.	180	x	x	x	x	x	x	—	x	—
La.	488	x	—	x	x	x	x	—	—	—
Okla.	114	x	x	x	x	x	x	—	x	—
Tex.	785	x	x	x	x	x	x	x	x	—
Mountain	953									
Ariz.	272	x	x	x	x	x	x	x	x	—
Colo.	80	x	—	—	—	—	—	—	—	—
Ida.	374	x	x	x	x	x	x	—	x	—
Mont.	63	x	—	x	x	x	x	—	—	—
Nev.	—	x	—	x	x	x	x	—	—	—
N.M.	80	x	x	x	x	x	—	—	x	—
Utah	84	x	—	x	x	x	x	—	—	Mouse inoculation, bat. toxin typing
Wyo.	—	—	—	—	—	—	—	—	—	—
Pacific	766									
Alaska	230	x	—	x	x	x	x	—	—	—
Cal.	104	x	x	x	x	x	x	x	x	—
Hawaii	309	—	—	x	x	x	x	—	x	—
Ore.	68	—	x	x	x	x	x	x	x	—
Wash.	55	x	x	x	x	x	x	—	x	Mouse toxicity testing, antibiograms, mouse neutralization
Territories	217									
Guam	1	x	—	x	x	x	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—	—
V.I.	216	—	—	—	—	—	—	—	—	—

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

Lab	Number Of Specimens	Disease — Procedures Used
Total	185,393	
Average	4,030	
Ala.	1,783	Reference bacteriology — culture, pathogenic <i>E. coli</i> — FA
Alaska	23,013	Urine — plate count and culture; ear, eye, wounds, body fluids, spinal fluid, skin, blood — culture.
Ariz.	500	Miscellaneous bacteria — culture, isolation, biopsy, I.D.
Ark.	257	Reference bacteriology — blood culture, spinal fluid, staphylococcus, miscellaneous
Cal.	8,163	Plaque — cultural, animal inoculation, bacteriophage, FA; Legionnaires' — cultural, animal inoculation; Relapsing Fever — stained smears, animal inoculation; miscellaneous specimens — smears, cultural, animal inoculation; reference cultures for identification.
Colo.	500	Reference specimens including pasteurella, brincells, anthrax, hemophilus, campylobacter, meningitis, etc — selective and enrichment plating, subculture, biochemical reactions, serogrouping and typing.
Conn.	7,997	Genital smears (not GC) — stain, nosocomial infections — phage typing.
Del.	1,268	Urine cultures, miscellaneous cultures, reference cultures
Fla.	10,107	Infections (eye, ear, kidney wound, lesions) — smear and culture, referred cultures for identification — culture and smear, sensitivity testing — antibiotic disc test, Rheumatic Fever prophylaxis — bacterial inhibition (penicillin sensitive spore), dental caries — lactobacillus count.
Ga.	4,465	Primarily aerobic cultures submitted for identification and/or serotyping by hospital and other laboratories
Hawaii	8,878	Staph. — phage typing, antibiotic sensitivity — Kirby-Bauer, non-human enteric — culture, I.D, leptospirosis — culture, I.D, reference — subculture, appropriate ID procedure.
Ida.	9,677	Legionnaires', miscellaneous (ear, wound, urine, etc.) — culture
Ill.	1,896	Miscellaneous infections — smear biochemicals, culture; staphylococcus infections — phage typing.
Ind.	428	Staphylococcal (nosocomial) — bacteriophage typing, aerobic bacterial infections — reference culture identification
Ia.	4,771	Miscellaneous wounds, infections, body fluids, urine, toxin studies, salmonella, Legionella — FA microscopy, serotyping, Flagellar stains, Kirby-Bauer.
Kans.	2,932	Vincent's — smear; staphylococcus — culture, coagulase, biochemicals, phage typing; miscellaneous infections and reference cultures — smear, culture, biochemical, serogrouping, serotyping and when requested antibiotic sensitivities; Legionnaires' disease — smear, culture and direct FA.
Ky.	546	Staph. bacteriophage — smear, coagulase, phage typing; miscellaneous cultures — smear, biochemicals, coagulase, serogrouping
La.	1,508	Cultures for identification — stain, culture, biochemicals; food outbreaks — stain, culture, biochemicals and coagulase; eye culture — stain, culture, biochemicals; clinical <i>Neisseria meningitidis</i> — same as G.C.; vaginal smears — stain.
Me.	219	Toy stuffing — total plate count, toy stuffing (coliforms) — membrane filter, food poisoning — standard procedures (salmonella, staph., clostridia other)
Md.	21,816	Referred cultures for ID, urine cultures.
Mass.	2,000	Miscellaneous infections including botulism and Legionnaires' disease, referred cultures for identification — microscopic, culture, biochemical, serological and animal inoculation
Mich.	9,395	Transudates/exudates, saliva—lactobacilli, urines, autoclave, miscellaneous — culture; staphylococcal — phage typing; aerobic referred cultures — identification.
Minn.	475	Leptospirosis, botulism, Vincent's angina, blood, CSF, tissues, food poisonings, Campylobacter sp., Legionnaires' bacterium — microscopic, culture, serology, animal pathology toxins
Miss.	2,903	Water for salmonella — primary plating, enrichment plating, biochemicals, serogrouping, serotyping, subculture; miscellaneous cultures — plating, selective subculture, biochemicals; blood cultures — culture, plating, biochemicals; urine cultures — plating, subculture, biochemicals, bacterial sensitivity testing; spinal fluid — plating, biochemicals, Gram stain, agglutination
Mo.	1,188	Legionnaires' — culture, smear, FA; leptospirosis — microscopic, culture; reference — culture, FA biochemical serology; anaerobes — culture, FA biochemical serology sensitivity, and microscopic

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

Lab	Number Of Specimens	Disease — Procedures Used
Mont.	542	Reference specimens
Nev.	841	Abscess — plate, subculture, urinary tract — colony count, ID
N.H.	2,470	Miscellaneous — variable.
N.J.	9	<u>Legionella pneumophila</u> — primary isolation
N.M.	4,571	Pertussis, plaque — direct FA; staphylococcus infections — cultures with phage typing if indicated; nosocomial infections — sterility spore test
N.C.	1,520	Reference specimens (all types), clinical specimens (all types other than fecal and throat) — smear, culture, biochemicals, serotyping; swabs for streptococcus
N.D.	20,636	Blood — culture, Gram stain; urine — culture, biochemicals; fungus — culture, smears, biochemicals; spinal fluid — India ink stain, wet mount, culture; miscellaneous — culture, biochemicals; antibiotic sensitivity — Kirby-Bauer; referred specimens — Barry overlay modification; Legionnaires' disease — IFA, DFA
Ohio	1,083	Mycoplasma, urea plasma, leptospirosis — culture; Legionnaires' — culture and FA; <u>Treponema pallidum</u> — FA
Okla.	1,334	Legionella — FA, miscellaneous referred cultures — biochemical, serotyping
Ore.	501	Miscellaneous specimens and cultures for identification
Pa.	737	Other bacterial infections — standard bacteriological techniques, food poisoning — bacterial analytical manual (BAM), botulism — mouse neutralization
R.I.	521	Miscellaneous reference cultures.
S.C.	5,501	Septicemia/bacteremia, pneumonia, meningitis, urinary tract infections — aerobic culture, biochemicals
S.D.	576	—
Tex.	6,639	Reference cultures aerobic, urine cultures
Utah	180	Plague — biochemical, tularemia — agglutination, brucella — agglutination and biochemical, cultures for identification
Va.	3,557	Dental, wounds, sputum, urine, spinal fluid, animal inoculation, <u>H. ducreyi</u> , blood culture, environmental, food
V.I.	4,120	Wound fluid exudates; urine — primary plates, biochemicals; sensitivity — aerobic and anaerobic
Wash.	429	Legionnaires' disease — stains, plating, embryonated eggs, guinea pigs; <u>M. meningitis</u> — Gram stain, plating, serogrouping, subculture; reference cultures — all bacterial; wounds, bites, draining infections — sensitivity as necessary
W.Va.	357	Urine, Legionnaires', leptospirosis, blood/spinal fluid — culture.
Wisc.	2,584	Legionnaires' — IFA, DFA, culture; food poisoning — culture, toxin testing; miscellaneous

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	61,638							
Average	1,258							
New England	3,362							
Conn.	1,807	X	X	X	—	X	X	Differentiation media
Mass.	529	X	X	X	—	X	—	—
Me.	343	X	X	X	—	X	—	—
N.H.	110	X	X	X	—	X	—	—
R.I.	329	X	X	X	—	X	—	—
Vt.	244	X	X	X	—	X	—	Slide culture
Middle Atlantic	752							
N.J.	507	X	X	X	—	X	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	245	X	X	X	—	X	—	Slide culture, morphology agar
East North Central	7,086							
Ill.	1,190	X	X	X	—	X	X	—
Ind.	641	X	X	X	—	X	—	—
Mich.	1,676	X	X	X	—	X	X	—
Ohio	1,054	X	X	X	—	X	X	—
Wisc.	2,525	X	X	X	—	X	X	Susceptibility testing, drug bioassays
West North Central	6,463							
Ia.	724	X	X	X	X	X	X	—
Kans.	854	X	X	X	—	X	—	—
Minn.	3,740	X	X	X	—	X	X	Assimilation tests
Mo.	435	X	X	X	X	X	X	—
Nebr.	32	X	X	X	—	X	—	—
N.D.	471	X	X	X	—	X	—	—
S.D.	207	X	X	X	—	—	—	—
South Atlantic	12,115							
Del.	—	X	X	X	—	X	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	2,315	X	X	X	—	X	—	—
Ga.	1,536	X	X	X	—	X	X	Hair penetration, nutritional studies
Md.	2,850	X	X	X	—	X	—	—
N.C.	1,563	X	X	X	—	X	—	—
S.C.	1,691	X	X	X	—	X	X	Sensitivities (MIC), exoantigen (extract prep.), lysozyme test
Va.	1,729	—	—	—	—	—	—	—
W. Va.	431	X	X	X	—	X	X	—
East South Central	9,634							
Ala.	4,530	X	X	X	—	X	X	—
Ky.	863	X	X	X	—	X	X	—
Miss.	2,075	X	X	X	—	X	—	Hair culture
Tenn.	2,166	—	X	X	—	X	—	—
West South Central	12,715							
Ark.	2,192	X	X	X	—	X	—	—
La.	3,135	X	X	X	—	X	—	—
Okla.	714	X	X	X	—	X	—	—
Tex.	6,674	X	X	X	X	X	—	—
Mountain	5,787							
Ariz.	1,337	X	X	X	—	X	X	In-vitro conversion
Colo.	299	X	X	X	—	—	—	—
Ida.	2,841	X	X	X	—	X	—	—
Mont.	195	X	X	X	—	X	—	—
Nev.	79	X	—	X	—	—	—	—
N.M.	806	X	X	X	—	X	X	—
Utah	230	X	X	X	—	X	X	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	1,503							
Alaska	365	X	X	X	—	X	—	—
Cal.	59	X	X	X	X	X	X	—
Hawaii	663	X	X	X	—	X	—	—
Ore.	255	X	X	X	—	X	X	—
Wash.	161	—	X	X	—	X	X	Tease mounts
Territories	2,221							
Guam	75	—	—	X	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	2,146	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	410,255	328,125	82,130
Average	7,741	6,191	2,106
New England	19,135	18,675	460
Conn.	11,814	11,480	334
Mass.	163	51	112
Me.	303	303	—
N.H.	1,401	1,393	8
R.I.	3,780	3,780	—
Vt.	1,674	1,668	6
Middle Atlantic	2,862	2,777	85
N.J.	2,498	2,452	46
N.Y.	—	—	—
Pa.	364	325	39
East North Central	17,346	17,147	199
Ill.	2,439	2,405	34
Ind.	2,485	2,448	37
Mich.	4,910	4,833	77
Ohio	1,268	1,258	10
Wisc.	6,244	6,203	41
West North Central	26,105	25,846	259
Ia.	2,610	2,591	19
Kans.	6,975	6,944	31
Minn.	11,564	11,359	205
Mo.	2,100	2,100	—
Nebr.	303	301	2
N.D.	1,817	1,815	2
S.D.	736	736	—
South Atlantic	129,764	127,880	1,884
Del.	428	428	—
D.C.	902	899	3
Fla.	62,171	61,694	477
Ga.	22,782	22,730	52
Md.	10,270	10,246	24
N.C.	6,056	6,020	36
S.C.	11,659	10,386	1,273
Va.	12,103	12,103	—
W. Va.	3,393	3,374	19
East South Central	43,274	43,095	179
Ala.	20,515	20,352	163
Ky.	4,268	4,268	—
Miss.	10,900	10,893	7
Tenn.	7,591	7,582	9
West South Central	114,799	37,482	77,317
Ark.	2,167	2,142	25
La.	21,511	20,789	722
Okla.	7,273	3,339	3,934
Tex.	83,848	11,212	72,636
Mountain	16,657	15,490	1,167
Ariz.	238	230	8
Colo.	1,961	1,953	8
Ida.	4,556	3,418	1,138
Mont.	1,003	1,003	—
Nev.	301	301	—
N.M.	1,494	1,494	—
Utah	6,986	6,973	13
Wyo.	118	118	—
Pacific	19,914	19,334	580
Alaska	2,349	2,332	17
Cal.	1,267	878	389
Hawaii	7,310	7,291	19
Ore.	2,895	2,829	66
Wash.	6,093	6,004	89
Territories	20,399	20,399	—
Guam	1,223	1,223	—
P.R.	7,280	7,280	—
V.I.	11,896	11,896	—

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	328,125					
Average	6,191					
New England	18,675					
Conn.	11,480	X	X	X	X	—
Mass.	51	X	X	X	X	—
Me.	303	X	X	X	X	—
N.H.	1,393	X	X	X	—	—
R.I.	3,780	X	X	X	—	—
Vt.	1,668	X	X	X	X	—
Middle Atlantic	2,777					
N.J.	2,452	X	X	X	X	—
N.Y.	—	—	—	—	—	—
Pa.	325	X	X	X	X	Clearing adult helminths (tapeworms)
East North Central	17,147					
Ill.	2,405	X	X	X	X	—
Ind.	2,448	X	X	X	X	—
Mich.	4,833	X	X	X	X	—
Ohio	1,258	X	X	X	—	Worm for ID
Wisc.	6,203	—	X	X	X	—
West North Central	25,846					
Ia.	2,591	X	X	X	X	—
Kans.	6,944	X	X	X	X	—
Minn.	11,359	X	X	X	—	—
Mo.	2,100	X	X	X	X	—
Nebr.	301	X	X	X	X	—
N.D.	1,815	X	X	X	X	—
S.D.	736	X	X	X	X	—
South Atlantic	127,880					
Del.	428	X	X	X	X	—
D.C.	899	X	X	X	—	—
Fla.	61,694	X	X	X	X	—
Ga.	22,730	X	X	X	X	—
Md.	10,246	X	X	X	X	—
N.C.	6,020	X	X	X	X	—
S.C.	10,386	X	X	X	X	Trichrome stain
Va.	12,103	—	X	—	—	—
W. Va.	3,374	X	X	X	X	—
East South Central	43,095					
Ala.	20,352	X	X	X	X	—
Ky.	4,268	X	X	X	X	—
Miss.	10,893	—	X	X	X	—
Tenn.	7,582	—	X	X	—	—
West South Central	37,482					
Ark.	2,142	X	X	X	X	—
La.	20,789	X	X	X	—	—
Okla.	3,339	X	X	X	X	—
Tex.	11,212	X	X	X	X	—
Mountain	15,490					
Ariz.	230	—	X	X	X	—
Colo.	1,953	—	X	X	X	X
Ida.	3,418	X	X	X	X	—
Mont.	1,003	X	X	X	X	—
Nev.	301	X	X	X	—	—
N.M.	1,494	X	X	X	X	—
Utah	6,973	X	X	X	X	—
Wyo.	118	—	X	X	—	—
Pacific	19,334					
Alaska	2,332	X	X	X	X	—
Cal.	878	X	X	X	X	—
Hawaii	7,291	X	X	X	X	—
Ore.	2,829	X	X	X	X	—
Wash.	6,004	X	X	X	X	—
Territories	20,399					
Guam	1,223	—	X	X	—	—
P.R.	7,280	X	X	X	X	—
V.I.	11,896	—	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	82,130				
Average	2,106				
New England	460				
Conn.	334	X	X	—	Material for identification, water survey for giardia, animal stools for giardia.
Mass.	112	X	X	—	Insects, ticks, worms, bronchial washings, tissue biopsies, fecal smears
Me.	—	—	—	—	—
N.H.	8	X	X	—	—
R.I.	—	X	X	—	—
Vt.	6	X	X	—	—
Middle Atlantic	85				
N.J.	46	X	X	—	Worm identification
N.Y.	—	—	—	—	—
Pa.	39	X	X	X	Arthropod identification, urine for ova and parasites, water for protozoa
East North Central	199				
Ill.	34	X	X	—	Worms — gross exam.
Ind.	37	X	X	—	Urine for schistosomes, arthropods, miscellaneous (food and environmental)
Mich.	77	X	—	—	—
Ohio	10	X	X	—	—
Wisc.	41	X	—	—	—
West North Central	259				
Ia.	19	X	—	—	—
Kans.	31	X	—	—	Arthropods
Minn.	205	X	—	—	Pinworm slide tape, worm and insect identification
Mo.	—	—	—	—	—
Nebr.	2	X	—	—	—
N.D.	2	X	—	—	—
S.D.	—	—	—	—	—
South Atlantic	1,884				
Del.	—	—	—	—	—
D.C.	3	X	—	—	—
Fla.	477	X	—	—	—
Ga.	52	X	—	—	—
Md.	24	X	—	—	—
N.C.	36	X	—	—	Water mites, hairworms, ectoparasites (head louse)
S.C.	1,273	X	—	—	Vaginal wet mounts
Va.	—	—	—	—	—
W. Va.	19	—	—	—	Insect identification
East South Central	179				
Ala.	163	X	—	—	Specimen for identification, ticks, spiders, larvae
Ky.	—	—	—	—	—
Miss.	7	X	—	—	—
Tenn.	9	X	—	—	—
West South Central	77,317				
Ark.	25	X	—	—	—
La.	722	X	X	—	—
Okla.	3,934	X	—	—	Trichomonas
Tex.	72,636	—	—	—	Mosquito identification, tick identification, Trichomonas exam.
Mountain	1,167				
Ariz.	8	X	—	—	—
Colo.	8	X	—	—	—
Ida.	1,138	—	—	X	—
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	—	—	—	—	—
Utah	13	X	—	—	—
Wyo.	—	—	—	—	—
Pacific	580				
Alaska	17	X	—	—	—
Cal.	389	X	X	X	Tissue parasites
Hawaii	19	X	—	X	Insect ID
Ore.	66	X	X	—	—
Wash.	89	X	—	—	Microfilariae, arthropods
Territories	—				
Guam	—	—	—	—	—
P.R.	—	—	—	—	—
V.I.	—	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	240,546	78,709	96,611	8,737	56,489
Average	4,811	1,640	2,356	582	4,707
New England	11,905	1,681	9,655	—	569
Conn.	4,997	519	4,478	—	—
Mass.	5,595	574	4,452	—	569
Me.	861	195	666	—	—
N.H.	202	202	—	—	—
R.I.	81	81	—	—	—
Vt.	169	110	59	—	—
Middle Atlantic	15,394	2,249	8,722	20	4,403
N.J.	13,706	1,967	7,326	10	4,403
N.Y.	—	—	—	—	—
Pa.	1,688	282	1,396	10	—
East North Central	54,629	11,818	16,746	1,495	24,570
Ill.	7,284	3,245	4,039	—	—
Ind.	3,257	2,540	717	—	—
Mich.	4,463	1,180	3,283	—	—
Ohio	31,925	2,848	3,012	1,495	24,570
Wisc.	7,700	2,005	5,695	—	—
West North Central	40,626	7,569	9,955	218	22,884
Ia.	4,184	785	3,187	212	—
Kans.	922	—	922	—	—
Minn.	5,491	1,195	4,296	—	—
Mo.	4,751	4,019	732	—	—
Nebr.	874	874	—	—	—
N.D.	23,665	588	187	6	22,884
S.D.	739	108	631	—	—
South Atlantic	34,843	13,340	14,021	6,949	533
Del.	1,138	184	954	—	—
D.C.	50	50	—	—	—
Fla.	9,189	3,865	5,324	—	—
Ga.	3,918	2,201	1,436	35	246
Md.	5,436	2,265	3,093	5	73
N.C.	3,440	1,779	1,661	—	—
S.C.	9,117	1,893	1,024	5,986	214
Va.	1,883	513	447	923	—
W. Va.	672	590	82	—	—
East South Central	9,062	7,781	1,279	2	—
Ala.	2,983	2,671	310	2	—
Ky.	2,369	2,020	349	—	—
Miss.	783	783	—	—	—
Tenn.	2,927	2,307	620	—	—
West South Central	48,018	27,741	17,241	34	3,002
Ark.	3,075	3,071	—	4	—
La.	3,150	2,935	8	—	207
Okla.	6,956	4,388	2,035	—	533
Tex.	34,837	17,347	15,198	30	2,262
Mountain	9,288	4,645	4,628	15	—
Ariz.	3,172	1,761	1,411	—	—
Colo.	755	755	—	—	—
Ida.	1,035	495	540	—	—
Mont.	388	—	378	10	—
Nev.	—	—	—	—	—
N.M.	1,359	898	461	—	—
Utah	2,063	220	1,838	5	—
Wyo.	516	516	—	—	—
Pacific	16,364	1,668	14,364	4	528
Alaska	2,950	233	2,387	—	330
Cal.	7,635	703	6,730	4	198
Hawaii	1,884	10	1,874	—	—
Ore.	2,926	262	2,664	—	—
Wash.	1,169	460	709	—	—
Territories	217	217	—	—	—
Guam	—	—	—	—	—
P.R.	217	217	—	—	—
V.I.	—	—	—	—	—

Table 4-16
IV. VIROLOGY
A. Rabies Specimens

Lab & Region	Number of Specimens	Procedures Used			
		Stained Smear	FRA	Animal Inoculation	Other
Total	78,709				
Average	1,640				
New England	1,681				
Conn.	519	—	X	X	—
Mass.	574	—	X	X	—
Me.	195	—	X	—	—
N.H.	202	—	X	X	—
R.I.	81	—	X	X	—
Vt.	110	—	X	X	—
Middle Atlantic	2,249				
N.J.	1,967	—	X	X	—
N.Y.	—	—	—	—	—
Pa.	282	—	X	X	—
East North Central	11,818				
Ill.	3,245	—	—	—	—
Ind.	2,540	X	X	X	—
Mich.	1,180	—	X	X	—
Ohio	2,848	X	X	X	—
Wisc.	2,005	—	X	X	—
West North Central	7,569				
Ia.	785	—	X	X	—
Kans.	—	—	—	—	—
Minn.	1,195	—	X	X	—
Mo.	4,019	X	X	X	—
Nebr.	874	—	X	—	—
N.D.	588	—	X	—	—
S.D.	108	—	X	X	—
South Atlantic	13,340				
Del.	184	X	X	—	—
D.C.	50	—	X	—	—
Fla.	3,865	X	X	—	—
Ga.	2,201	—	X	X	—
Md.	2,265	X	X	X	—
N.C.	1,779	X	X	—	—
S.C.	1,893	—	X	X	—
Va.	513	—	—	—	—
W. Va.	590	—	X	X	—
East South Central	7,781				
Ala.	2,671	—	X	X	—
Ky.	2,020	X	X	X	—
Miss.	783	X	X	—	—
Tenn.	2,307	X	X	X	—
West South Central	27,741				
Ark.	3,071	X	X	—	—
La.	2,935	—	X	X	—
Okla.	4,388	—	X	X	—
Tex.	17,347	—	X	X	—
Mountain	4,645				
Ariz.	1,761	—	X	—	—
Colo.	755	X	X	X	—
Ida.	495	—	X	—	—
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	898	—	X	—	—
Utah	220	X	X	X	—
Wyo.	516	—	X	—	—
Pacific	1,668				
Alaska	233	—	X	X	—
Cal.	703	—	X	X	—
Hawaii	10	X	X	—	—
Ore.	262	X	X	X	—
Wash.	460	—	X	X	—
Territories	217				
Guam	—	—	—	—	—
P.R.	217	—	X	—	—
V.I.	—	—	—	—	—

Mouse neutralization test
for antibody

Lab	Number of Specimens	Types of Specimens						Procedures Used										
		Enteric	Arbovirus	Arbovirus	Non-Human Orig.	Respiratory	Exanthem	Other	Tissue Culture	Eggs	Animal Hosts	HI/HA	CF	Neutralization Tests	FA—Orig. Spec.	FA—Other	HAdI/HAd	Other
Total	96,611																	
Average	2,356																	
Ala.	310	X	—	—	—	X	X	—	X	X	X	X	—	X	—	—	X	—
Alaska	2,387	X	—	—	—	X	X	—	X	X	—	—	—	X	—	—	X	—
Ariz.	1,411	X	X	—	—	X	X	—	X	X	—	—	—	X	—	—	—	—
Cal.	6,730	X	—	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Electron microscopy
Conn.	4,478	X	—	—	—	X	X	—	X	—	—	X	X	X	—	X	X	—
Del.	954	X	X	—	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Fla.	5,324	X	X	X	X	X	X	—	X	X	X	X	X	X	X	X	X	—
Ga.	1,436	X	X	X	X	X	X	—	X	X	X	X	X	X	X	X	X	EM VTEM, gimenex hair, iodine
Hawaii	1,874	X	—	—	—	X	X	—	X	—	—	X	X	X	—	—	X	—
Ida.	540	—	—	—	—	X	X	—	X	X	—	X	X	—	X	X	X	—
Ill.	4,039	X	X	X	X	X	X	—	X	X	X	X	X	X	X	X	X	—
Ind.	717	X	—	—	—	X	X	—	X	—	—	X	X	X	—	—	—	—
Ia.	3,187	X	X	X	X	X	—	Blood, SF, tissue	X	X	X	X	—	X	—	—	—	—
Kans.	922	X	X	X	X	X	X	Cytomegalovirus	X	X	X	X	X	X	—	—	X	—
Ky.	349	X	X	—	—	X	X	Autopsy material	X	X	—	X	X	—	—	—	X	—
La.	8	—	X	X	—	X	—	—	—	X	X	X	X	—	—	X	X	—
Me.	666	X	—	—	—	X	X	Vesicles	X	X	—	—	—	—	X	—	—	—
Md.	3,093	X	X	X	X	X	X	Veneral (genital), ocular, urinary tract	X	X	X	X	X	X	X	X	X	ELISA, electron microscopy
Mass.	4,452	X	X	X	X	X	X	CNS, autopsy, biopsy	X	—	—	X	X	X	—	—	X	Interference, plaque formation
Mich.	3,283	X	—	—	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Minn.	4,296	X	—	—	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Mo.	732	X	X	X	X	—	—	—	X	X	X	X	X	X	—	X	X	—
Mont.	378	X	X	—	X	X	X	Lesion specimens	X	—	—	X	X	X	—	—	X	—
N.J.	7,326	X	X	X	X	X	X	CNS specimens (non-arbovirus), mosquito pools	X	X	X	X	X	X	X	X	X	Interference/Interference inhibition
N.M.	461	X	—	—	—	X	X	—	X	X	X	X	X	X	—	X	—	—
N.C.	1,661	X	X	X	X	X	X	—	X	X	X	X	X	X	—	X	X	—
N.D.	187	X	—	—	—	X	—	—	—	—	X	X	—	X	X	—	—	—
Ohio	3,012	X	X	—	—	X	X	Tissues	X	X	X	X	—	X	—	X	X	—
Okla.	2,035	X	—	—	—	X	X	CSF, urine, tissue	X	X	X	X	X	X	—	—	X	—
Ore.	2,664	X	—	—	—	X	X	Autopsy/biopsy tissues	X	X	—	X	X	—	—	X	X	—
Pa.	1,396	X	X	X	—	X	X	—	X	X	X	X	X	X	X	—	X	—
S.C.	1,024	X	—	—	—	X	X	CSF, urines, tissue, vaginal and urethral swabs, body fluids, eye swabs	X	X	X	X	X	X	X	X	X	Mycoplasma (bi-phasic media), Chlamydia (iodine stain of tissue culture)
S.D.	631	X	X	X	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Tenn.	620	X	—	—	—	X	X	—	X	X	—	—	—	X	—	X	—	—
Tex.	15,198	X	X	X	X	—	—	—	X	X	X	X	X	X	X	X	—	—
Utah	1,838	X	X	—	—	X	X	—	X	X	X	X	X	X	—	—	X	—
Vt.	59	—	—	—	—	X	—	—	—	X	X	—	—	—	—	—	—	—
Va.	447	X	—	—	—	X	X	Autopsy, biopsy, tissue, CSF	X	X	X	X	—	X	—	—	—	—
Wash.	709	X	—	X	X	X	X	Chlamydia — psittacosis in birds	X	X	X	X	X	X	—	—	X	Macchiavello's stain
W. Va.	82	X	—	—	—	X	X	CNS (other than arbovirus)	X	X	X	X	—	X	—	X	—	—
Wisc.	5,695	X	X	X	X	X	X	Autopsy, biopsy	X	X	X	X	X	X	X	X	X	ELISA

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

Lab & Region	Number of Specimens	Type of Specimens		Procedures Used		
		Tick	Other	Hemolymph	FA	Other
Total	8,737					
Average	582					
New England						
Conn.	—	—	—	—	—	—
Mass.	—	—	—	—	—	—
Me.	—	—	—	—	—	—
N.H.	—	—	—	—	—	—
R.I.	—	—	—	—	—	—
Vt.	—	—	—	—	—	—
Middle Atlantic						
N.J.	10	X	X	X	X	Gimenez stain, egg inoculation, Guinea pig inoculation
N.Y.	—	—	—	—	—	—
Pa.	10	X	—	X	—	—
East North Central						
Ill.	—	—	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	—	—	—	—	—	—
Ohio	1,495	X	—	X	X	—
Wisc.	—	—	—	—	—	—
West North Central						
Ia.	212	X	—	X	X	—
Kans.	—	—	—	—	—	—
Minn.	—	—	—	—	—	—
Mo.	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—
N.D.	6	X	—	—	X	—
S.D.	—	—	—	—	—	—
South Atlantic						
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	—	—	—	—	—	—
Ga.	35	X	—	—	—	Species identification of tick
Md.	5	X	X	X	X	ELISA
N.C.	—	—	—	—	—	—
S.C.	5,986	X	—	X	X	—
Va.	923	—	X	—	—	—
W. Va.	—	—	—	—	—	—
East South Central						
Ala.	2	X	—	—	—	—
Ky.	—	—	—	—	—	—
Miss.	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—
West South Central						
Ark.	4	X	—	X	—	—
La.	—	—	—	—	—	—
Okla.	—	—	—	—	—	—
Tex.	30	X	—	X	X	—
Mountain						
Ariz.	—	—	—	—	—	—
Colo.	—	—	—	—	—	—
Ida.	—	—	—	—	—	—
Mont.	10	X	—	X	—	—
Nev.	—	—	—	—	—	—
N.M.	—	—	—	—	—	—
Utah	5	—	X	—	—	—
Wyo.	—	—	—	—	—	—
Pacific						
Alaska	—	—	—	—	—	—
Cal.	4	X	X	—	X	—
Hawaii	—	—	—	—	—	—
Ore.	—	X	—	—	—	—
Wash.	—	—	—	—	—	—
Territories						
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

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

Lab	Number of Specimens	Disease Entity — Procedures Used
Total	56,489	
Average	4,707	
Alaska	330	Contracts — tissue culture, micro titer assays
Cal.	198	Viral gastroenteritis — electron microscopy; sewage effluents/treated waters — virus concentration, recovery and identification
Ga.	246	Herpes — direct FA
La.	207	Plague — animal inoculation
Md.	73	Environmental samples — tissue culture
Mass.	569	Chlamydial isolation — McCoy cells
N.J.	4,403	Legionnaires' disease — FA, psittacosis — gimenez, hepatitis — ELISA, EB virus — slide/FA
N.D.	22,884	Rubella — Hemagglutination inhibition, passive agglutination
Ohio	24,570	Arbovirus — mosquito pools — cell culture, mouse inoculation
Okal.	533	Rubella, arbovirus, influenza — HAI
S.C.	214	Herpes (direct smear) — FA
Tex.	2,262	—

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	8,011,904	6,309,894	59,359	92,989	189,733	1,269,769	90,160
Average	151,168	119,055	1,290	2,818	5,929	25,395	6,935
New England	513,945	385,387	17,592	2,107	8,649	99,783	427
Conn.	118,180	81,489	2,414	1,341	3,893	29,043	—
Mass.	185,196	172,490	257	321	2,371	9,757	—
Me.	23,917	4,393	1,280	363	2,325	15,556	—
N.H.	39,279	39,279	—	—	—	—	—
R.I.	101,579	56,620	13,527	—	54	31,378	—
Vt.	45,794	31,116	114	82	6	14,049	427
Middle Atlantic	279,296	205,781	536	—	1,920	68,863	2,196
N.J.	272,260	204,695	536	—	1,920	64,056	1,053
N.Y.	—	—	—	—	—	—	—
Pa.	7,036	1,086	—	—	—	4,807	1,143
East North Central	764,310	540,640	6,675	26,636	26,017	158,238	6,104
Ill.	148,660	123,100	136	12,978	1,607	10,839	—
Ind.	66,333	51,660	802	3,618	1,155	9,098	—
Mich.	287,354	207,490	2,734	4,831	3,860	68,439	—
Ohio	115,398	77,821	377	2,662	4,829	28,221	1,488
Wisc.	146,565	80,569	2,626	2,547	14,566	41,641	4,616
West North Central	734,765	520,579	10,685	11,095	8,009	183,625	772
Ia.	153,706	121,019	5,957	1,862	4,650	19,497	721
Kans.	101,271	72,358	174	1,215	—	27,524	—
Minn.	182,864	116,017	1,425	3,823	2,023	59,576	—
Mo.	138,212	97,649	278	4,075	1,036	35,174	—
Nebr.	67,501	50,799	1,362	—	—	15,289	51
N.D.	50,292	41,758	300	—	300	7,934	—
S.D.	40,919	20,979	1,189	120	—	18,631	—
South Atlantic	2,284,534	1,908,384	12,297	10,156	19,936	330,855	2,906
Del.	42,149	34,879	—	—	—	7,270	—
D.C.	113,641	113,629	—	—	10	2	—
Fla.	636,073	563,121	1,501	—	1,593	69,858	—
Ga.	429,240	417,283	767	1,990	2,394	6,806	—
Md.	399,080	247,653	4,180	3,318	11,068	130,163	2,698
N.C.	219,685	168,721	990	2,019	2,837	45,118	—
S.C.	217,598	176,079	845	1,404	576	38,486	208
Va.	164,768	135,333	3,999	1,222	1,034	23,180	—
W.Va.	62,300	51,686	15	203	424	9,972	—
East South Central	1,011,028	868,229	1,762	10,029	3,373	53,227	74,408
Ala.	322,524	296,061	115	2,383	1,777	22,188	—
Ky.	145,188	115,988	440	2,888	1,596	24,276	—
Miss.	269,355	262,665	846	2,471	—	3,373	—
Tenn.	273,961	193,515	361	2,287	—	3,390	74,408
West South Central	1,398,669	1,206,047	3,911	11,624	8,193	168,416	478
Ark.	116,627	103,023	680	3,233	521	9,170	—
La.	233,996	142,728	642	2,127	2,958	85,541	—
Okla.	141,467	130,704	818	1,600	—	7,867	478
Tex.	906,579	829,592	1,771	4,664	4,714	65,838	—
Mountain	470,324	350,425	910	9,812	1,037	108,009	131
Ariz.	54,882	35,216	56	9,482	596	9,532	—
Colo.	141,751	108,936	200	—	—	32,615	—
Ida.	20,689	14,758	100	234	—	5,466	131
Mont.	56,301	28,571	226	96	—	27,408	—
Nev.	21,432	21,239	40	—	—	153	—
N.M.	93,633	75,992	—	—	—	17,641	—
Utah	59,967	54,401	241	—	441	4,884	—
Wyo.	21,669	11,312	47	—	—	10,310	—
Pacific	422,786	194,120	4,511	11,530	112,599	97,288	2,738
Alaska	55,563	43,989	35	—	—	11,539	—
Cal.	44,173	15,493	3,206	11,072	2,026	9,638	2,738
Hawaii	52,593	32,643	429	—	—	19,521	—
Ore.	232,627	66,079	638	458	110,573	54,879	—
Wash.	37,830	35,916	203	—	—	1,711	—
Territories	132,247	130,302	480	—	—	1,465	—
Guam	1,710	1,710	—	—	—	—	—
P.R.	117,847	115,902	480	—	—	1,465	—
V.I.	12,690	12,690	—	—	—	—	—

Lab & Region	Number of Specimens	Procedures Used											
		VDRL	RPR	ART	USR	RST	FTA- ABS	AFTA- ABS	FTA-ABS (IgM)	DFATP	MHA-TP	Dark- field	Other
Total	6,309,894												
Average	119,055												
New England	385,387												
Conn.	81,489	X	X	X	—	—	X	—	—	—	—	X	—
Mass.	172,490	X	X	—	—	—	—	X	—	—	—	—	—
Me.	4,393	X	X	—	—	—	X	—	—	—	X	—	—
N.H.	39,279	X	X	—	—	—	X	—	—	—	—	—	—
R.I.	56,620	X	X	—	—	—	X	—	—	—	—	—	—
Vt.	31,116	—	—	X	—	—	X	—	—	—	—	X	FA darkfield
Middle Atlantic	205,781												
N.J.	204,695	X	X	—	—	—	X	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	1,086	X	X	—	—	—	X	—	—	—	—	—	—
East North Central	540,640												
Ill.	123,100	X	X	—	—	—	X	—	—	—	X	X	—
Ind.	51,660	X	X	X	—	—	X	—	—	—	—	—	—
Mich.	207,490	X	—	—	—	—	X	—	—	—	X	X	—
Ohio	77,821	X	—	—	—	—	X	—	—	—	—	—	—
Wisc.	80,569	X	—	—	—	—	X	—	X	—	X	X	—
West North Central	520,579												
Ia.	121,019	X	—	—	—	—	X	X	X	—	—	X	Spinal fluid, Kirby-Bauer
Kans.	72,358	X	X	—	—	—	X	—	—	—	—	—	—
Minn.	116,017	X	—	—	—	—	X	—	—	—	—	X	FADF
Mo.	97,649	X	X	—	—	—	X	—	—	—	—	X	—
Nebr.	50,799	—	X	—	—	—	X	—	—	—	—	X	—
N.D.	41,758	—	X	—	—	—	X	—	—	—	—	—	—
S.D.	20,979	X	X	—	—	—	X	—	—	—	—	—	—
South Atlantic	1,908,384												
Del.	34,879	—	X	—	—	—	X	—	—	—	—	X	—
D.C.	113,629	X	—	—	X	—	X	—	—	—	X	—	—
Fla.	563,121	X	X	—	—	—	X	—	X	—	—	—	—
Ga.	417,283	X	X	—	—	—	X	—	—	—	—	—	—
Md.	247,653	X	X	—	—	—	X	—	X	—	—	X	—
N.C.	168,721	X	—	—	—	—	X	—	—	X	—	—	—
S.C.	176,079	X	X	—	—	—	X	—	—	—	—	X	—
Va.	135,333	—	—	—	—	—	—	—	—	—	—	—	—
W.Va.	51,686	X	X	—	—	—	X	—	—	—	—	—	—
East South Central	868,229												
Ala.	296,061	X	—	—	—	—	X	—	—	—	—	—	—
Ky.	115,988	X	X	—	—	—	X	—	—	—	—	X	—
Miss.	262,665	X	X	—	—	—	X	—	—	—	—	—	—
Tenn.	193,515	—	X	—	—	—	X	—	—	—	X	—	Total protein
West South Central	1,206,047												
Ark.	103,023	X	—	—	—	—	X	—	—	X	X	—	VDRL quantitative
La.	142,728	X	—	—	—	—	X	—	—	—	—	—	—
Okla.	130,704	X	X	—	—	—	X	—	—	—	—	—	—
Tex.	829,592	X	X	—	—	—	X	—	—	—	X	X	—
Mountain	350,425												
Ariz.	35,216	X	—	—	—	—	X	—	—	—	—	—	—
Colo.	108,936	X	X	—	—	—	X	—	—	—	—	—	—
Ida.	14,758	—	X	—	—	—	X	—	—	—	—	X	—
Mont.	28,571	X	—	—	—	—	X	—	—	—	—	—	Direct FA
Nev.	21,239	X	X	—	—	—	X	—	—	—	—	X	—
N.M.	75,992	X	X	—	—	—	X	—	—	—	—	—	—
Utah	54,401	X	X	—	—	—	X	—	—	—	—	—	—
Wyo.	11,312	X	—	—	—	—	X	—	—	—	—	—	—
Pacific	194,120												
Alaska	43,989	X	X	—	—	—	X	—	—	—	X	X	—
Cal.	15,493	X	—	—	—	—	X	—	—	—	X	X	—
Hawaii	32,643	X	X	—	—	—	X	—	—	—	—	X	—
Ore.	66,079	X	—	X	—	—	X	—	X	—	—	X	—
Wash.	35,916	X	X	—	—	—	X	—	—	—	—	X	—
Territories	130,302												
Guam	1,710	X	X	—	—	—	X	—	—	—	—	X	—
P.R.	115,902	X	—	—	—	—	X	—	—	—	—	—	—
V.I.	12,690	—	—	—	—	—	—	—	—	—	—	—	—

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	59,359						
Average	1,290						
New England	17,592						
Conn.	2,414	X	X	X	—	X	<u>Legionella pneumophila</u> , <u>Bordetella pertussis</u>
Mass.	257	X	X	—	—	X	—
Me.	1,280	—	—	X	—	X	<u>Shigella, L. pneumophila</u>
N.H.	—	—	—	—	—	—	—
R.I.	13,527	X	X	—	—	—	Febriles, Legionnaires' disease
Vt.	114	X	X	—	—	—	—
Middle Atlantic	536						
N.J.	536	X	X	—	X	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	6,675						
Ill.	136	X	X	—	—	X	—
Ind.	802	X	X	—	X	X	—
Mich.	2,734	X	X	—	X	—	Legionellosis, pertussis
Ohio	377	X	X	—	X	—	—
Wisc.	2,626	X	X	X	—	X	—
West North Central	10,685						
Ia.	5,957	X	X	X	X	—	—
Kans.	174	X	X	—	X	—	—
Minn.	1,425	X	X	X	—	X	—
Mo.	278	X	X	—	—	—	—
Nebr.	1,362	X	X	—	X	—	—
N.D.	300	X	X	X	—	X	—
S.D.	1,189	X	X	X	—	X	RMSF
South Atlantic	12,297						
Del.	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—
Fla.	1,501	X	—	—	X	—	Typhoid
Ga.	767	X	X	—	—	X	Proteus OX-19
Md.	4,180	X	X	X	X	X	<u>Pasteurella multocida</u> , tetanus antitoxin, diphtheria antitoxin, pertussis
N.C.	990	X	X	X	—	—	Legionellosis
S.C.	845	X	X	X	—	—	Legionnaires' disease - FA-IFA, Well-Felix
Va.	3,999	—	—	—	—	—	—
W.Va.	15	—	—	X	—	—	—
East South Central	1,762						
Ala.	115	X	X	—	—	—	—
Ky.	440	X	X	—	—	X	Typhoid O, H, Vi, Legionnaires'
Miss.	846	X	X	X	—	—	—
Tenn.	361	X	X	—	—	—	—
West South Central	3,911						
Ark.	680	X	X	—	X	X	Legionella
La.	642	X	X	X	X	—	Legionnaires'
Okla.	818	X	X	—	X	—	—
Tex.	1,771	X	X	—	X	X	Legionnaire IFA
Mountain	910						
Ariz.	56	X	X	—	—	—	—
Colo.	200	X	X	—	—	—	—
Ida.	100	X	X	—	—	—	—
Mont.	226	X	X	—	X	—	—
Nev.	40	X	X	—	—	X	—
N.M.	—	—	—	—	—	—	—
Utah	241	X	X	—	—	—	Legionella
Wyo.	47	X	X	—	—	—	—
Pacific	4,511						
Alaska	35	X	X	—	—	—	—
Cal.	3,206	X	X	—	X	X	<u>Yersinia enterocolitica</u> , <u>Yersinia</u> <u>pseudotuberculosis</u> , Legionnaires' disease
Hawaii	429	X	X	X	X	X	—
Ore.	638	X	X	—	X	—	—
Wash.	203	X	X	—	X	—	Proteus OX-2, OX-19, OX-K
Territories	480						
Guam	—	—	—	—	—	—	—
P.R.	480	X	—	X	—	—	—
V.I.	—	—	—	—	—	—	—

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

Lab & Region	Number of Specimens	Types of Specimens						Other
		Blastomycosis	Coccidioido- mycosis	Histoplasmosis	Cryptococcus	Aspergillus	Candidiasis	
Total	92,989							
Average	2,818							
New England	2,107							
Conn.	1,341	X	X	X	X	X	X	(Referred to CDC)
Mass.	321	—	—	—	X	X	—	—
Me.	363	X	X	X	—	X	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	—	—	—	—	—	—	—	—
Vt.	82	X	X	X	—	—	—	—
Middle Atlantic	—							
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central	26,636							
Ill.	12,978	X	X	X	—	—	—	—
Ind.	3,618	X	X	X	X	X	X	—
Mich.	4,831	X	X	X	—	—	—	—
Ohio	2,662	X	X	X	X	X	—	—
Wisc.	2,547	X	X	X	X	—	—	—
West North Central	11,095							
Ia.	1,862	X	X	X	X	—	—	—
Kans.	1,215	X	X	X	—	—	—	—
Minn.	3,823	X	X	X	X	X	—	—
Mo.	4,075	X	X	X	X	—	—	—
Nebr.	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	—	—	—	—
S.D.	120	X	X	X	X	—	—	—
South Atlantic	10,156							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—
Ga.	1,990	X	X	X	—	—	—	—
Md.	3,318	X	X	X	X	X	X	—
N.C.	2,019	X	X	X	—	—	—	—
S.C.	1,404	X	X	X	X	X	X	Sporotrichosis
Va.	1,222	—	—	—	—	—	—	—
W.Va.	203	X	X	X	—	—	—	—
East South Central	10,029							
Ala.	2,383	X	X	X	—	X	—	—
Ky.	2,888	X	X	X	—	—	—	—
Miss.	2,471	X	X	X	—	—	—	—
Tenn.	2,287	X	—	X	—	—	—	—
West South Central	11,624							
Ark.	3,233	X	X	X	X	X	—	—
La.	2,127	X	X	X	X	—	—	—
Okla.	1,600	X	X	X	—	X	—	—
Tex.	4,664	X	X	X	X	—	—	—
Mountain	9,812							
Ariz.	9,482	X	X	X	—	—	—	—
Colo.	—	—	—	—	—	—	—	—
Ida.	234	X	X	X	—	—	—	—
Mont.	96	X	X	X	X	X	X	—
Nev.	—	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	11,530							
Alaska	—	—	—	—	—	—	—	—
Cal.	11,072	X	X	X	X	—	—	—
Hawaii	—	—	—	—	—	—	—	—
Ore.	458	X	X	X	—	—	—	—
Wash.	—	—	—	—	—	—	—	—
Territories	—							
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—

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

Lab & Region	Number of Specimens	Types of Specimens					
		Trichinosis	Toxoplas- mosis	Amebi- asis	Echino- coccosis	Trypano- somiiasis	Other
Total	189,733						
Average	5,929						
New Englad	8,649						
Conn.	3,893	X	X	—	—	—	(Referred to CDC) Babesiosis
Mass.	2,371	X	X	X	X	—	
Me.	2,325	—	X	—	—	—	
N.H.	—	—	—	—	—	—	
R.I.	54	—	X	—	—	—	
Vt.	6	X	—	—	—	—	
Middle Atlantic	1,920						
N.J.	1,920	X	X	—	—	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	26,017						
Ill.	1,607	—	X	—	—	—	—
Ind.	1,155	X	X	—	—	—	—
Mich.	3,860	—	X	—	—	—	—
Ohio	4,829	—	X	X	—	—	—
Wisc.	14,566	—	X	—	—	—	—
West North Central	8,009						
Ia.	4,650	X	X	—	—	—	—
Kans.	—	—	—	—	—	—	—
Minn.	2,023	—	X	—	—	—	—
Mo.	1,036	—	X	—	—	—	—
Nebr.	—	—	—	—	—	—	—
N.D.	300	—	X	—	—	—	—
S.D.	—	—	—	—	—	—	—
South Atlantic	19,936						
Del.	—	—	—	—	—	—	—
D.C.	10	—	X	—	—	—	—
Fla.	1,593	—	X	—	—	—	—
Ga.	2,394	—	X	—	—	—	—
Md.	11,068	X	X	X	X	—	—
N.C.	2,837	—	X	—	—	—	—
S.C.	576	—	X	X	—	—	—
Va.	1,034	X	—	—	—	—	—
W.Va.	424	—	X	—	—	—	—
East South Central	3,373						
Ala.	1,777	—	X	X	—	—	—
Ky.	1,596	—	X	—	—	—	—
Miss.	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—
West South Central	8,193						
Ark.	521	—	X	—	—	—	—
La.	2,958	—	X	—	—	—	—
Okla.	—	—	—	—	—	—	—
Tex.	4,714	—	X	X	—	—	—
Mountain	1,037						
Ariz.	596	—	X	—	—	—	—
Colo.	—	—	—	—	—	—	—
Ida.	—	—	—	—	—	—	—
Mont.	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—
Utah	441	—	X	—	—	—	—
Wyo.	—	—	—	—	—	—	—
Pacific	112,599						
Alaska	—	—	—	—	—	—	—
Cal.	2,026	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—
Ore.	110,573	—	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													
		CF	HI	HAdI	Immunodiffusion (Agar Gel)	Neut. (Tissue Cul.)	Neut. Rabies	FA	Radioimmunoassay	Passive Hemagglutination	Reverse Passive Hemagglutination	OX-Cell Hemolysis	Slide Agglutination	Heterophile Tests	Other
Total	1,269,769														
Average	25,395														
New England	99,783														
Conn.	29,043	X	X	—	—	—	—	—	X	—	X	—	—	—	—
Mass.	9,757	X	X	—	—	X	—	—	X	—	—	X	—	—	Hemolysis in gel (SRH), plaque reduction (neutralization)
Me.	15,556	X	X	X	—	—	—	—	—	X	X	X	—	—	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	31,378	—	X	X	—	—	—	—	—	—	—	—	X	X	—
Vt.	14,049	X	X	—	—	—	—	—	—	—	—	X	—	—	—
Middle Atlantic	68,863														
N.J.	64,056	X	X	—	—	X	—	X	—	X	—	—	X	X	ELISA, Weil Felix, agar gel immunodiffusion
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	4,807	X	X	—	—	X	—	X	—	—	—	—	—	X	—
East North Central	158,238														
Ill.	10,839	X	X	X	—	X	—	X	—	X	X	—	—	X	—
Ind.	9,098	X	X	—	—	—	—	—	—	—	—	X	—	X	—
Mich.	68,439	X	X	—	—	X	—	—	X	—	—	X	—	X	Immune adherence
Ohio	28,221	X	X	X	X	—	—	—	—	X	—	X	X	X	—
Wisc.	41,641	X	X	X	—	X	X	X	X	X	—	X	—	—	Neutralization (mice - cox. A), cold agglutinins
West North Central	183,625														
Ia.	19,497	X	X	—	—	X	—	—	X	—	—	—	—	X	—
Kans.	27,524	X	X	—	—	—	—	—	X	X	—	—	—	—	—
Minn.	59,576	X	X	X	—	X	—	X	X	X	—	X	—	—	—
Mo.	35,174	X	X	X	—	X	—	—	X	X	—	X	X	X	—
Nebr.	15,289	—	—	—	—	—	—	—	—	X	—	—	X	X	—
N.D.	7,934	X	X	—	—	—	—	X	—	—	—	—	—	—	—
S.D.	18,631	X	X	—	—	—	—	—	—	X	—	—	—	X	—
South Atlantic	330,855														
Del.	7,270	X	X	—	—	—	—	—	—	—	—	—	—	—	—
D.C.	2	—	—	—	—	—	—	—	—	—	—	—	—	X	—
Fla.	69,858	X	X	X	—	X	—	X	X	X	—	—	X	X	—
Ga.	6,806	X	X	—	—	X	—	X	—	—	—	—	—	—	—
Md.	130,163	X	X	X	X	X	X	X	X	X	—	X	X	X	<u>Legionella pneumophila</u>
N.C.	45,118	X	X	—	—	X	—	—	X	—	—	X	—	X	—
S.C.	38,486	X	X	X	—	X	—	—	—	X	X	X	X	X	ELISA
Va.	23,180	X	X	—	—	—	—	—	—	X	—	X	—	X	—
W.Va.	9,972	X	—	—	—	—	—	—	—	—	—	—	—	—	ELISA - rubella, charcoal agglutination — mono
East South Central	53,227														
Ala.	22,188	X	X	—	—	X	—	—	—	—	—	—	—	—	—
Ky.	24,276	X	X	—	—	—	—	—	—	—	—	—	—	X	—
Miss.	3,373	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Tenn.	3,390	X	X	—	—	—	—	—	—	—	—	—	—	—	—
West South Central	168,416														
Ark.	9,170	X	X	—	X	—	—	—	X	X	—	—	X	X	—
La.	85,541	X	X	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	7,867	X	X	—	—	—	—	—	—	X	—	—	X	X	—
Tex.	65,838	X	X	—	—	X	—	—	—	—	—	—	—	—	FIAX
Mountain	108,009														
Ariz.	9,532	X	X	—	—	—	—	—	—	—	—	—	—	—	—
Colo.	32,615	X	X	—	—	—	—	—	—	—	—	—	—	—	—
Ida.	5,466	X	X	—	—	—	—	X	—	—	—	X	—	X	—
Mont.	27,408	X	X	X	—	X	—	X	—	—	—	—	—	—	—
Nev.	153	—	X	—	—	—	—	—	—	—	—	—	—	—	—
N.M.	17,641	X	X	—	—	X	—	X	—	X	—	—	X	—	—
Utah	4,884	X	X	—	—	X	—	X	—	—	—	—	X	X	Cold agglutinins
Wyo.	10,310	—	—	—	—	—	—	—	—	X	—	—	X	—	—
Pacific	97,288														
Alaska	11,539	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	9,638	X	X	X	X	X	X	X	X	X	—	—	—	—	Anticomplement FA
Hawaii	19,521	X	X	X	—	X	—	X	—	X	X	—	X	X	—
Ore.	54,879	X	X	X	—	X	X	X	—	—	—	—	X	X	—
Wash.	1,711	X	X	—	—	—	—	—	—	—	—	—	—	—	—
Territories	1,465														
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	1,465	—	X	—	—	—	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	X	X	—	—	—	—

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

Lab	Number Of Specimens	Disease Entity — Procedures Used
Total	90,160	
Average	6,935	
Cal.	2,738	WEE — IFA, St. Louis — IFA
Ida.	131	Hepatitis — ELISA
Ia.	721	RA — latex agglutination, nonspecific — CKP
Md.	2,698	Gammopathies, complement, autoimmune disease (ANA — DNA antibodies, rheumatoid factor, antimitochondrial antibodies, antismooth muscle antibody)
Nebr.	51	Legionnaires' — IFA
N.J.	1,053	Legionnaires' disease — IFA
Ohio	1,488	Legionnaires' — IFA
Okla.	478	RMSF — latex agglutination
Pa.	1,143	Legionnaires' disease — IFA
S.C.	208	RA, fungal exoantigen — immunodiffusion
Tenn.	74,408	Rubella — HI
Vt.	427	Legionnaires' — IFA
Wisc.	4,616	Autoimmune — latex agglutination — RA, indirect immunofluorescence — ANA, passive hemagglutination — Thyroid abs.

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	1,632,024	738,610	216,151	677,263
Average	45,334	36,931	8,314	24,188
New England	14,716	7,106	31	7,579
Conn.	13,838	6,882	31	6,925
Mass.	—	—	—	—
Me.	—	—	—	—
N.H.	—	—	—	—
R.I.	878	224	—	654
Vt.	—	—	—	—
Middle Atlantic	390	325	24	41
N.J.	—	—	—	—
N.Y.	—	—	—	—
Pa.	390	325	24	41
East North Central	57,740	14,279	36,987	6,474
Ill.	—	—	—	—
Ind.	—	—	—	—
Mich.	14,279	14,279	—	—
Ohio	6,474	—	—	6,474
Wisc.	36,987	—	36,987	—
West North Central	18,189	—	10,141	8,048
Ia.	—	—	—	—
Kans.	—	—	—	—
Minn.	—	—	—	—
Mo.	13,970	—	5,922	8,048
Nebr.	—	—	—	—
N.D.	4,219	—	4,219	—
S.D.	—	—	—	—
South Atlantic	592,852	269,849	88,779	234,224
Del.	2,527	—	—	2,527
D.C.	54,324	38,993	4,376	10,955
Fla.	150,655	72,231	19,900	58,524
Ga.	58,174	—	13,842	44,332
Md.	101,827	60,897	17,815	23,115
N.C.	62,264	3,314	6,470	52,480
S.C.	62,959	44,031	5,837	13,091
Va.	98,030	49,015	20,539	28,476
W.Va.	2,092	1,368	—	724
East South Central	253,969	115,185	33,280	105,504
Ala.	64,851	—	11,765	53,086
Ky.	23,885	4,570	6,785	12,530
Miss.	165,233	110,615	14,730	39,888
Tenn.	—	—	—	—
West South Central	471,297	259,862	20,062	191,373
Ark.	43,689	22,823	5,822	15,044
La.	71,632	—	72	71,560
Okla.	9,878	—	5,775	4,103
Tex.	346,098	237,039	8,393	100,666
Mountain	139,852	4,578	16,535	118,739
Ariz.	4,731	—	—	4,731
Colo.	127,412	—	14,672	112,740
Ida.	3,587	3,587	—	—
Mont.	—	—	—	—
Nev.	1,585	991	170	424
N.M.	2,537	—	1,693	844
Utah	—	—	—	—
Wyo.	—	—	—	—
Pacific	7,111	43	4,260	2,808
Alaska	4,168	—	4,168	—
Cal.	43	43	—	—
Hawaii	92	—	92	—
Ore.	—	—	—	—
Wash.	2,808	—	—	2,808
Territories	75,908	67,383	6,052	2,473
Guam	5,189	4,740	449	—
P.R.	68,554	62,643	5,603	308
V.I.	2,165	—	—	2,165

[illegible]

Table 4-29
VI. HEMATOLOGY
B. Immunohematology Specimens

Lab & Region	Number of Specimens	Blood Grouping	Blood Typing	Other Test
Total	216,151			
Average	8,314			
New England	31			
Conn.	31	X	X	—
Mass.	—	—	—	—
Me.	—	—	—	—
N.H.	—	—	—	—
R.I.	—	—	—	—
Vt.	—	—	—	—
Middle Atlantic	24			
N.J.	—	—	—	—
N.Y.	—	—	—	—
Pa.	24	X	X	Coombs
East North Central	36,987			
Ill.	—	—	—	—
Ind.	—	—	—	—
Mich.	—	—	—	—
Ohio	—	—	—	—
Wisc.	36,987	X	X	Atypical blood factor antibodies
West North Central	10,141			
Ia.	—	—	—	—
Kans.	—	—	—	—
Minn.	—	—	—	—
Mo.	5,922	X	X	ASO
Nebr.	—	—	—	—
N.D.	4,219	X	—	Rh antibody
S.D.	—	—	—	—
South Atlantic	88,779			
Del.	—	—	—	—
D.C.	4,376	X	X	Rh antibody
Fla.	19,900	—	X	—
Ga.	13,842	—	—	Rh type and antibody detection
Md.	17,815	X	X	—
N.C.	6,470	X	X	Rh antibody
S.C.	5,837	X	X	Cross-match
Va.	20,539	X	X	Atypical antibody screen, Du variant
W.Va.	—	—	—	—
East South Central	33,280			
Ala.	11,765	—	—	Rh antibody
Ky.	6,785	X	X	Antibody identification
Miss.	14,730	X	X	Indirect coombs (identification and titration)
Tenn.	—	—	—	—
West South Central	20,062			
Ark.	5,822	X	X	Coombs test, titer
La.	72	X	X	Coombs
Okla.	5,775	X	X	Rh antibody
Tex.	8,393	X	X	Rh antibody
Mountain	16,535			
Ariz.	—	—	—	—
Colo.	14,672	—	—	Rh antibody
Ida.	—	—	—	—
Mont.	—	—	—	—
Nev.	170	X	X	—
N.M.	1,693	X	X	Rh antibody
Utah	—	—	—	—
Wyo.	—	—	—	—
Pacific	4,260			
Alaska	4,168	X	X	Rh antibody
Cal.	—	—	—	—
Hawaii	92	X	—	—
Ore.	—	—	—	—
Wash.	—	—	—	—
Territories ..	6,052			
Guam	449	X	X	—
P.R.	5,603	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	677,263							
Average	24,188							
New England	7,579							
Conn.	6,925	X	X	X	X	X	X	Thalassemia screening
Mass.	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	654	X	—	X	X	—	—	—
Vt.	—	—	—	—	—	—	—	—
Middle Atlantic	41							
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	41	X	X	X	—	—	X	—
East North Central	6,474							
Ill.	—	—	—	—	—	—	—	—
Ind.	—	—	—	—	—	—	—	—
Mich.	—	—	—	—	—	—	—	—
Ohio	6,474	X	X	X	—	—	—	—
Wisc.	—	—	—	—	—	—	—	—
West North Central	8,048							
Ia.	—	—	—	—	—	—	—	—
Kans.	—	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—	—
Mo.	8,048	X	—	X	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	—	—	—	—
S.D.	—	—	—	—	—	—	—	—
South Atlantic	234,224							
Del.	2,527	X	—	—	—	—	X	—
D.C.	10,955	X	—	X	—	—	—	—
Fla.	58,524	X	X	X	X	X	—	Alkaline globin chain
Ga.	44,332	X	X	X	—	—	—	—
Md.	23,115	X	X	X	X	X	X	—
N.C.	52,480	X	X	X	X	X	X	—
S.C.	13,091	X	X	X	—	—	—	—
Va.	28,476	X	X	—	—	—	—	—
W.Va.	724	X	X	X	—	—	—	—
East South Central	105,504							
Ala.	53,086	X	X	—	—	X	—	—
Ky.	12,530	X	X	X	X	X	X	—
Miss.	39,888	X	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—
West South Central	191,373							
Ark.	15,044	X	—	X	—	—	—	—
La.	71,560	X	X	—	—	—	—	—
Okla.	4,103	X	X	X	—	—	—	—
Tex.	100,666	X	X	X	X	—	X	—
Mountain	118,739							
Ariz.	4,731	X	X	—	—	—	X	—
Colo.	112,740	X	X	—	—	—	—	—
Ida.	—	—	—	—	—	—	—	—
Mont.	—	—	—	—	—	—	—	—
Nev.	424	—	—	X	—	—	—	—
N.M.	844	X	—	X	—	—	—	—
Utah	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	2,808							
Alaska	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—
Ore.	—	—	—	—	—	—	—	—
Wash.	2,808	X	X	X	—	—	—	—
Territories	2,473							
Guam	—	—	—	—	—	—	—	—
P.R.	308	X	—	X	—	—	—	—
V.I.	2,165	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	4,798,023	475,540	184,186	3,963,575	152,824	21,898
Average	104,305	17,613	8,008	101,630	15,282	3,650
New England	474,702	16,216	3,172	450,109	5,073	132
Conn.	121,799	3,767	3,164	109,663	5,073	132
Mass.	281,239	—	—	281,239	—	—
Me.	—	—	—	—	—	—
N.H.	33,678	—	—	33,678	—	—
R.I.	37,986	12,449	8	25,529	—	—
Vt.	—	—	—	—	—	—
Middle Atlantic	104,793	1,388	12	103,393	—	—
N.J.	101,127	—	—	101,127	—	—
N.Y.	—	—	—	—	—	—
Pa.	3,666	1,388	12	2,266	—	—
East North Central	916,297	57,371	9,434	841,549	7,943	—
Ill.	117,062	—	—	117,062	—	—
Ind.	—	—	—	—	—	—
Mich.	261,613	19,437	8,070	234,106	—	—
Ohio	201,076	3,695	—	190,352	7,029	—
Wisc.	336,546	34,239	1,364	300,029	914	—
West North Central	276,935	444	—	276,491	—	—
Ia.	4,715	—	—	4,715	—	—
Kans.	59,682	—	—	59,682	—	—
Minn.	74,239	—	—	74,239	—	—
Mo.	115,583	404	—	115,179	—	—
Nebr.	3,454	—	—	3,454	—	—
N.D.	19,262	40	—	19,222	—	—
S.D.	—	—	—	—	—	—
South Atlantic	1,289,604	173,533	100,795	876,175	128,216	10,885
Del.	369	—	369	—	—	—
D.C.	41,381	—	30,529	—	—	10,852
Fla.	289,326	81,349	636	132,903	74,423	15
Ga.	129,308	7,776	589	120,943	—	—
Md.	193,988	40,447	27,997	125,544	—	—
N.C.	190,078	14,218	26	135,661	40,173	—
S.C.	159,620	3,751	40,508	107,073	8,270	18
Va.	213,800	16,836	—	196,964	—	—
W.Va.	71,734	9,156	141	57,087	5,350	—
East South Central	414,860	89,320	1,982	305,324	9,117	9,117
Ala.	187,957	3,063	—	184,894	—	—
Ky.	60,278	9,377	1,982	48,919	—	—
Miss.	95,114	76,880	—	—	9,117	9,117
Tenn.	71,511	—	—	71,511	—	—
West South Central	748,572	102,461	48,030	593,842	2,475	1,764
Ark.	80,129	4,242	218	75,669	—	—
La.	107,685	—	3,156	102,765	—	1,764
Okla.	79,891	2,950	—	76,691	250	—
Tex.	480,867	95,269	44,656	338,717	2,225	—
Mountain	219,442	460	7,481	211,501	—	—
Ariz.	—	—	—	—	—	—
Colo.	112,740	—	—	112,740	—	—
Ida.	6,695	—	6,587	108	—	—
Mont.	—	—	—	—	—	—
Nev.	1,085	—	894	191	—	—
N.M.	16,692	460	—	16,232	—	—
Utah	82,230	—	—	82,230	—	—
Wyo.	—	—	—	—	—	—
Pacific	311,560	578	6,161	304,821	—	—
Alaska	112	112	—	—	—	—
Cal.	510	466	12	32	—	—
Hawaii	6,149	—	6,149	—	—	—
Ore.	205,173	—	—	205,173	—	—
Wash.	99,616	—	—	99,616	—	—
Territories	41,258	33,769	7,119	370	—	—
Guam	4,280	749	3,531	—	—	—
P.R.	35,712	32,124	3,588	—	—	—
V.I.	1,266	896	—	370	—	—

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

Lab	Number of Specimens	Types of Tests																							
		Glucose	Cholesterol	BUN	Uric Acid	Transaminases	Alkaline Phos.	Total Proteins	Serum Iron	Iron Binding Capacity	Triglycerides	Lactic Acid	Bilirubin	T ₄ , T ₃ , T ₃ Uptake	Sodium	Potassium	Phosphorous	Calcium	Creatinine	Acid Phosphatase	Albumin	Chloride	LDH	Other	
Total	475,540																								
Average	17,613	X					X																		ETOH, drug screening, PSP
Ala.	3,063																								
Alaska	112																								
Ark.	4,242	X	X	X	X	X	X			X		X													
Cal.	466	X		X	X	X	X					X													Amylase, HDL, SGT, GGT, GT
Conn.	3,767	X	X	X	X	X	X			X		X													Cholinesterase, lead (EP)
Fla.	81,349	X	X	X	X		X			X		X		X	X	X	X	X	X						
Ga.	7,776	X	X	X	X					X		X		X	X	X	X	X	X						
Guam	749	X	X	X	X		X					X		X	X	X	X	X	X						SGOT and SGPT
Ky.	9,377	X	X	X	X		X					X		X	X	X	X	X	X						SGOT, HBDH, lithium, SGPT, GGTP, amyl, CPK, cholinesterase
Md.	40,447	X	X	X	X		X			X		X			X	X	X	X	X						A/G ratio
Mich.	19,437	X	X	X	X							X													
Miss.	76,880	X	X		X																				
Mo.	404	X																							
N.M.	460																								
N.C.	14,218	X								X				X											Cholinesterase, lithium in blood
N.D.	40																								
Ohio	3,695	X																							Blood lead, serum magnesium
Okla.	2,950	X																							
Pa.	1,388	X	X	X	X	X	X			X		X		X	X	X	X	X	X						Magnesium, glycosylated hemo- globins, high density lipoprotein- cholesterol
P.R.	32,124	X	X	X	X	X	X			X		X		X	X	X	X	X	X						Cholinesterase, amylase, hanger, thymol, 17-ketosteroids, lithium, anticonvulsives (levels), fibrinogen
R.I.	12,449	X	X	X	X	X	X					X		X	X	X	X	X	X						Magnesium
S.C.	3,751	X	X	X	X	X	X					X		X	X	X	X	X	X						CO ₂
Tex.	95,269	X																							
Va.	16,836	X																							Erythrocyte porphoporphyrin (lead screening); therapeutic drug monitoring: phenytoin, phenobar- bital; CSF protein
V.I.	896													X											
W. Va.	9,156	X													X										
Wisc.	34,239	X	X	X	X	X	X			X		X		X	X	X	X	X	X						Amylase, GGT, HDL cholesterol, lithium, magnesium, digoxin, TSH

ETOH, drug screening, PSP
Amylase, HDL, SGT, GGT, GT
Cholinesterase, lead (EP)
SGOT and SGPT
SGOT, HBDH, lithium, SGPT, GGTP, amyl, CPK, cholinesterase
A/G ratio
Cholinesterase, lithium in blood
Blood lead, serum magnesium
Magnesium, glycosylated hemo-
globin's, high density lipoprotein-
cholesterol
Cholinesterase, amylase, hanger,
thymol, 17-ketosteroids, lithium,
anticonvulsives (levels), fibrinogen
Magnesium
CO₂
Erythrocyte protoporphyrin (lead
screening); therapeutic drug
monitoring: phenytoin, phenobar-
bitol; CSF protein
Amylase, GGT, HDL cholesterol,
lithium, magnesium, digoxin, TSH

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

Lab & Region	Number of Specimens	Procedures Used			
		Routine	Microscopic	Pregnancy Test	Other
Total	184,186				
Average	8,008				
New England	3,172				
Conn.	3,164	X	X	—	—
Mass.	—	—	—	—	—
Me.	—	—	—	—	—
N.H.	—	—	—	—	—
R.I.	8	X	X	—	—
Vt.	—	—	—	—	—
Middle Atlantic	12				
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	12	X	X	X	—
East North Central	9,434				
Ill.	—	—	—	—	—
Ind.	—	—	—	—	—
Mich.	8,070	X	X	—	—
Ohio	—	—	—	—	—
Wisc.	1,364	—	—	—	17—OH steroids, 17-Keto steroids, 17—Ketogenic, VMA, creatinine, protein
West North Central	—				
Ia.	—	—	—	—	—
Kans.	—	—	—	—	—
Minn.	—	—	—	—	—
Mo.	—	—	—	—	—
Nebr.	—	—	—	—	—
N.D.	—	—	—	—	—
S.D.	—	—	—	—	—
South Atlantic	100,795				
Del.	369	X	X	—	—
D.C.	30,529	X	X	X	—
Fla.	636	X	—	X	—
Ga.	589	X	X	—	—
Md.	27,997	X	X	X	—
N.C.	26	X	X	—	—
S.C.	40,508	X	X	X	—
Va.	—	—	—	—	—
W. Va.	141	—	—	—	urine creatinine
East South Central	1,982				
Ala.	—	—	—	—	—
Ky.	1,982	X	X	X	—
Miss.	—	—	—	—	—
Tenn.	—	—	—	—	—
West South Central	48,030				
Ark.	218	X	—	—	—
La.	3,156	X	X	—	—
Okla.	—	—	—	—	—
Tex.	44,656	X	X	X	—
Mountain	7,481				
Ariz.	—	—	—	—	—
Colo.	—	—	—	—	—
Ida.	6,587	X	X	X	Dipstix
Mont.	—	—	—	—	—
Nev.	894	X	X	—	—
N.M.	—	—	—	—	—
Utah	—	—	—	—	—
Wyo.	—	—	—	—	—
Pacific	6,161				
Alaska	—	—	—	—	—
Cal.	12	X	—	X	—
Hawaii	6,149	—	—	—	INH
Ore.	—	—	—	—	—
Wash.	—	—	—	—	—
Territories	7,119				
Guam	3,531	X	X	X	—
P.R.	3,588	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	Hyperthyroidism	Amino Acid Chromatography	Hemocystinuria	Maternal PKU	
Total	3,963,575									
Average	101,630									
New England	450,109									
Conn.	109,663	X	—	X	—	X	X	—	—	Tay Sachs (serum & leukocyte)
Mass.	—	X	—	X	X	X	—	X	—	Amino and organic acid disorders
Me.	—	—	—	—	—	—	—	—	—	—
N.H.	33,678	X	—	—	—	X	—	—	—	—
R.I.	25,529	X	X	—	—	—	X	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	103,393									
N.J.	101,127	X	—	—	—	X	—	—	—	Hepatitis
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	2,266	X	X	—	—	X	—	—	X	—
East North Central	841,549									
Ill.	117,062	X	—	—	—	X	—	—	—	—
Ind.	—	—	—	—	—	—	—	—	—	—
Mich.	234,106	X	—	—	—	X	—	—	—	—
Ohio	190,352	X	—	X	—	X	—	X	X	—
Wisc.	300,029	X	—	X	X	X	—	—	—	TSH
West North Central	276,491									
Ia.	4,715	X	—	—	—	—	—	—	—	—
Kans.	59,682	X	—	—	—	X	—	—	—	—
Minn.	74,239	X	—	X	—	X	—	—	—	—
Mo.	115,179	X	—	—	—	X	—	—	—	—
Nebr.	3,454	X	—	—	—	X	—	—	—	—
N.D.	19,222	X	—	—	—	X	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—	—
South Atlantic	876,175									
Del.	—	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—
Fla.	132,903	X	—	—	—	X	—	—	—	—
Ga.	120,943	X	X	X	X	X	—	X	X	—
Md.	125,544	X	X	X	X	X	—	X	X	Fluoremetric assays
N.C.	135,661	X	X	—	—	X	—	—	—	—
S.C.	107,073	X	—	—	—	X	—	—	—	—
Va.	196,964	X	X	—	—	—	—	—	X	—
W. Va.	57,087	X	—	—	—	X	X	—	—	—
East South Central	305,324									
Ala.	184,894	X	—	—	—	X	X	—	X	—
Ky.	48,919	X	—	X	—	—	—	—	—	T ₄
Miss.	—	—	—	—	—	—	—	—	—	—
Tenn.	71,511	X	—	—	—	—	—	—	—	—
West South Central	593,842									
Ark.	75,669	X	—	—	—	X	—	—	—	—
La.	102,765	X	—	—	—	X	—	—	—	—
Okla.	76,691	X	—	—	—	X	—	—	—	TSH
Tex.	338,717	X	X	X	—	X	—	X	—	—
Mountain	211,501									
Ariz.	—	—	—	—	—	—	—	—	—	—
Colo.	112,740	—	—	—	—	—	—	—	—	—
Ida.	108*	X	—	—	—	—	—	—	—	—
Mont.	—*	—	—	—	—	—	—	—	—	—
Nev.	191	X	—	—	—	—	—	—	—	—
N.M.	16,232	X	—	—	—	—	—	—	—	—
Utah	82,230	X	—	X	—	X	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—	—	—
Pacific	304,821									
Alaska	—*	—	—	—	—	—	—	—	—	—
Cal.	32	X	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	—	—
Ore.	205,173*	X	X	X	X	X	X	X	X	—
Wash.	99,616	X	—	—	—	X	—	—	—	—
Territories	370									
Guam	—	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—	—
V.I.	370	X	—	—	—	—	—	—	—	—

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

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

Lab & Region	Number of Specimens	Procedures Used				
		Single or Discrete Analyzer	2 Channel Anal.	3-6 Channel Anal.	7-12 Channel Anal.	Other Multichannel Analyzers
Total	152,824					
Average	15,282					
New England	5,073					
Conn.	5,073	—	—	X	X	—
Mass.	—	—	—	—	—	—
Me.	—	—	—	—	—	—
N.H.	—	—	—	—	—	—
R.I.	—	—	—	—	—	—
Vt.	—	—	—	—	—	—
Middle Atlantic	—					
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	7,943					
Ill.	—	—	—	—	—	—
Ind.	—	—	—	—	—	—
Mich.	—	—	—	—	—	—
Ohio	7,029	—	—	—	X	—
Wisc.	914	X	—	—	—	—
West North Central	—					
Ia.	—	—	—	—	—	—
Kans.	—	—	—	—	—	—
Minn.	—	—	—	—	—	—
Mo.	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—
N.D.	—	—	—	—	—	—
S.D.	—	—	—	—	—	—
South Atlantic	128,216					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	74,423	—	X	—	—	—
Ga.	—	—	—	—	—	—
Md.	—	—	—	—	—	—
N.C.	40,173	—	—	X	X	—
S.C.	8,270	X	—	—	—	—
Va.	—	—	—	—	—	—
W. Va.	5,350	—	—	—	X	—
East South Central	9,117					
Ala.	—	—	—	—	—	—
Ky.	—	—	—	—	—	—
Miss.	9,117	—	—	X	—	—
Tenn.	—	—	—	—	—	—
West South Central	2,475					
Ark.	—	—	—	—	—	—
La.	—	—	—	—	—	—
Okla.	250	—	—	—	X	—
Tex.	2,225	—	—	—	—	Hycl Super—17
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	21,898	
Average	3,650	
Conn.	132	IgA, IgG, IgM, alpha 1 antitrypsin — RID
D.C.	10,852	Hemoglobinopathies — electrophoresis
Fla.	15	Drug level: cycloserine, sulfa
La.	1,764	Blood — zinc protoporphyrin
Miss.	9,117	Electrolytes — flame photometer and chloride meter
S.C.	18	Semen — microscopic count

Table 4-37
VIII. PATHOLOGY

Lab & Region	Total Pathology Specimens	Exfoliative Cytology Specimens	Cytogenetic Specimens	Other Pathology Specimens	
				Number of Specimens	Types
Total	478,448	472,632	2,341	3,475	—
Average	39,871	47,263	780	1,158	—
New England	2,226	2,226	—	—	—
Conn.	2,226	2,226	—	—	—
Mass.	—	—	—	—	—
Me.	—	—	—	—	—
N.H.	—	—	—	—	—
R.I.	—	—	—	—	—
Vt.	—	—	—	—	—
Middle Atlantic	—	—	—	—	—
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	—	—	—	—	—
East North Central	75,187	73,341	1,846	—	—
Ill.	—	—	—	—	—
Ind.	—	—	—	—	—
Mich.	—	—	—	—	—
Ohio	—	—	—	—	—
Wisc.	75,187	73,341	1,846	—	—
West North Central	191	—	191	—	—
Ia.	—	—	—	—	—
Kans.	—	—	—	—	—
Minn.	191	—	191	—	—
Mo.	—	—	—	—	—
Nebr.	—	—	—	—	—
N.D.	—	—	—	—	—
S.D.	—	—	—	—	—
South Atlantic	370,052	367,626	—	2,426	—
Del.	46,957	44,531	—	2,426	Occult blood (hemocult)
D.C.	16,128	16,128	—	—	—
Fla.	—	—	—	—	—
Ga.	—	—	—	—	—
Md.	74,082	74,082	—	—	—
N.C.	183,528	183,528	—	—	—
S.C.	—	—	—	—	—
Va.	—	—	—	—	—
W. Va.	49,357	49,357	—	—	—
East South Central	18,891	17,848	—	1,043	—
Ala.	17,848	17,848	—	—	—
Ky.	1,043	—	—	1,043	Investigations of Coroner's cases for cause of death
Miss.	—	—	—	—	—
Tenn.	—	—	—	—	—
West South Central	—	—	—	—	—
Ark.	—	—	—	—	—
La.	—	—	—	—	—
Okla.	—	—	—	—	—
Tex.	—	—	—	—	—
Mountain	11,901	11,591	304	6	—
Ariz.	—	—	—	—	—
Colo.	—	—	—	—	—
Ida.	313	3	304	6	—
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	11,588	11,588	—	—	—
Utah	—	—	—	—	—
Wyo.	—	—	—	—	—
Pacific	—	—	—	—	—
Alaska	—	—	—	—	—
Cal.	—	—	—	—	—
Hawaii	—	—	—	—	—
Ore.	—	—	—	—	—
Wash.	—	—	—	—	—
Territories	—	—	—	—	—
Guam	—	—	—	—	—
P.R.	—	—	—	—	—
V.I.	—	—	—	—	—

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

Lab & & Region	Total Environmental Microbiology	A	B	C	D
		Water Samples	Dairy Product Samples	Food and Beverage Samples	Other Micro. Samples
Total	2,396,370	1,975,341	354,029	55,199	11,801
Average	46,988	43,896	9,568	1,200	694
New England	92,030	68,880	16,609	6,362	179
Conn.	21,482	11,824	8,989	629	40
Mass.	24	—	—	24	—
Me.	17,611	17,611	—	—	—
N.H.	—	—	—	—	—
R.I.	27,928	14,481	7,620	5,688	139
Vt.	24,985	24,964	—	21	—
Middle Atlantic	19,676	10,743	2,401	605	5,927
N.J.	19,404	10,743	2,401	486	5,774
N.Y.	—	—	—	—	—
Pa.	272	—	—	119	153
East North Central	359,594	328,893	26,029	4,672	—
Ill.	53,855	36,957	15,706	1,192	—
Ind.	68,310	60,885	5,350	2,075	—
Mich.	107,958	101,942	4,903	1,113	—
Ohio	66,581	66,219	70	292	—
Wisc.	62,890	62,890	—	—	—
West North Central	261,940	249,232	7,224	3,957	1,527
Ia.	43,900	43,114	673	31	82
Kansas.	47,227	46,974	—	253	—
Minn.	—	—	—	—	—
Mo.	109,396	103,528	2,312	3,556	—
Nebr.	22,595	22,595	—	—	—
N.D.	18,348	12,620	4,239	44	1,445
S.D.	20,474	20,401	—	73	—
South Atlantic	490,064	433,916	44,875	9,948	1,325
Del.	13,276	11,531	1,403	342	—
D.C.	857	102	293	462	—
Fla.	234,953	226,398	6,114	2,172	269
Ga.	135	—	—	135	—
Md.	75,519	58,545	13,899	2,811	264
N.C.	65,283	64,941	—	342	—
S.C.	15,777	—	13,309	2,468	—
Va.	52,248	44,891	5,406	1,159	792
W. Va.	32,016	27,508	4,451	57	—
East South Central	280,899	192,514	84,911	3,474	—
Ala.	114,948	81,223	33,347	378	—
Ky.	17,951	10,536	7,272	143	—
Miss.	78,375	58,847	19,129	399	—
Tenn.	69,625	41,908	25,163	2,554	—
West South Central	613,451	489,848	112,404	10,426	773
Ark.	67,439	53,376	13,565	496	2
La.	116,967	75,173	39,481	1,542	771
Okla.	70,482	59,634	10,507	341	—
Tex.	358,563	301,665	48,851	8,047	—
Mountain	212,663	156,848	47,093	8,438	284
Ariz.	15,928	9,688	5,894	346	—
Colo.	32,213	—	27,636	4,428	149
Ida.	53,274	44,828	6,738	1,573	135
Mont.	9,858	9,596	—	262	—
Nev.	23,158	19,947	2,945	266	—
N.M.	30,644	26,116	3,520	1,008	—
Utah	37,415	36,500	360	555	—
Wyo.	10,173	10,173	—	—	—
Pacific	40,679	34,629	3,080	1,208	1,762
Alaska	2,583	2,293	12	278	—
Cal.	12,121	10,796	291	366	668
Hawaii	10,619	6,354	2,777	470	1,018
Ore.	10,852	10,682	—	94	76
Wash.	4,504	4,504	—	—	—
Territories	25,374	9,838	9,403	6,109	24
Guam	156	—	107	49	—
P.R.	17,403	5,517	6,100	5,762	24
V.I.	7,815	4,321	3,196	298	—

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

Lab & Region	Number of Samples	Type & Procedure											
		Potable			Non-Potable			Swimming Pools			Sewage & Waste		
		Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other	Membrane Filter	Multiple Tube	Other
Total	1,975,341												
Average	43,896												
New England	68,880												
Conn.	11,824	X	X	X	X	X	X	X	—	X	X	X	—
Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—
Me.	17,611	X	—	—	X	X	—	X	—	—	X	X	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	14,481	X	—	—	—	X	—	—	X	—	—	X	—
Vt.	24,964	X	—	—	—	—	—	X	—	—	—	—	—
Middle Atlantic	10,743												
N.J.	10,743	X	—	—	—	X	—	X	—	—	—	X	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—	—	—	—	—
East North Central	328,893												
Ill.	36,957	X	X	—	X	X	—	X	X	—	—	X	—
Ind.	60,885	X	X	X	X	—	—	—	X	X	X	—	—
Mich.	101,942	X	—	—	X	—	—	X	—	—	X	—	—
Ohio	66,219	X	X	—	X	X	X	X	X	—	X	X	—
Wisc.	62,890	X	X	—	X	X	—	X	X	—	X	X	—
West North Central ...	249,232												
Ia.	43,114	—	X	—	X	—	—	—	X	—	—	—	—
Kans.	46,974	X	—	—	X	—	—	X	—	—	X	—	—
Minn.	—	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	103,528	X	—	—	X	—	X	X	—	—	—	—	—
Nebr.	22,595	X	X	—	—	—	—	—	—	—	—	—	—
N.D.	12,620	X	X	—	X	X	—	X	—	X	X	X	—
S.D.	20,401	X	X	—	X	X	—	X	X	—	X	X	—
South Atlantic	433,916												
Del.	11,531	X	X	—	—	X	—	X	—	—	—	—	—
D.C.	102	—	—	—	—	—	—	—	—	—	—	—	—
Fla.	226,398	X	X	—	—	X	—	X	—	—	—	X	—
Ga.	—	—	—	—	—	—	—	—	—	—	—	—	—
Md.	58,545	X	X	—	—	X	—	—	X	—	—	X	—
N.C.	64,941	X	X	—	X	X	—	X	X	—	—	X	—
S.C.	—	—	—	—	—	—	—	—	—	—	—	—	—
Va.	44,891	—	—	—	—	—	—	—	—	—	—	—	—
W. Va.	27,508	X	X	—	X	X	—	—	X	—	X	X	—
East South Central	192,514												
Ala.	81,223	X	X	—	X	X	—	—	—	—	—	—	—
Ky.	10,536	X	X	X	—	X	X	—	X	—	—	—	—
Miss.	58,847	X	X	—	—	X	—	—	—	—	—	—	—
Tenn.	41,908	X	—	—	—	—	—	X	—	—	—	—	—
West South Central ...	489,848												
Ark.	53,376	X	—	—	X	X	—	X	—	—	X	—	—
La.	75,173	X	X	—	—	X	—	—	—	—	—	X	—
Okla.	59,634	X	X	—	X	—	—	X	—	—	X	—	—
Tex.	301,665	X	X	—	—	X	—	—	—	—	—	—	—
Mountain	156,848												
Ariz.	9,688	X	X	X	X	X	X	—	X	X	X	X	X
Colo.	—	X	—	—	X	X	—	—	X	—	—	X	—
Ida.	44,828	X	X	X	X	X	—	X	—	X	—	—	—
Mont.	9,596	X	X	—	X	X	—	X	X	—	X	X	—
Nev.	19,947	X	X	—	X	X	—	X	X	—	X	X	—
N.M.	26,116	X	—	—	X	X	—	X	X	—	—	X	—
Utah	36,500	—	—	—	—	—	—	—	—	—	—	—	—
Wyo.	10,173	—	X	—	—	—	—	—	X	—	—	—	—
Pacific	34,629												
Alaska	2,293	X	X	—	X	X	—	X	X	—	X	X	—
Cal.	10,796	X	X	X	—	X	X	—	X	X	—	X	X
Hawaii	6,354	X	X	X	X	X	X	—	—	—	X	X	X
Ore.	10,682	—	X	—	—	X	—	—	X	—	—	X	—
Wash.	4,504	—	X	—	—	X	—	—	X	—	—	X	—
Territories	9,838												
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	5,517	X	X	X	—	X	—	—	X	—	—	—	—
V.I.	4,321	X	—	—	X	—	—	X	—	—	X	—	—

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

Lab & Region	Number of Samples	Types of Samples					Other
		Milk & Cream	Ice Cream	Cheese	Other Dairy Products	Frozen Deserts	
Total	354,029						
Average	9,568						
New England	16,609						
Conn.	8,989	X	X	X	X	X	Plant equipment, yogurt, empty containers
Mass.	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—
R.I.	7,620	X	X	X	X	X	—
Vt.	—	—	—	—	—	—	—
Middle Atlantic	2,401						
N.J.	2,401	X	X	X	X	X	Growth inhibitors, milk containers, somatic cell counts
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	26,029						
Ill.	15,706	X	X	X	X	X	—
Ind.	5,350	X	X	X	X	X	—
Mich.	4,903	X	X	X	X	—	—
Ohio	70	X	X	X	X	—	—
Wisc.	—	—	—	—	—	—	—
West North Central ...	7,224						
Ia.	673	X	—	—	X	X	—
Kans.	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	2,312	X	—	—	—	X	—
Nebr.	—	—	—	—	—	—	—
N.D.	4,239	X	X	—	—	X	—
S.D.	—	—	—	—	—	—	—
South Atlantic	44,875						
Del.	1,403	X	X	X	X	—	—
D.C.	293	X	X	—	—	X	—
Fla.	6,114	X	X	X	X	X	—
Ga.	—	—	—	—	—	—	—
Md.	13,899	X	X	X	X	X	—
N.C.	—	—	—	—	—	—	—
S.C.	13,309	X	X	—	X	—	—
Va.	5,406	X	—	—	X	—	Culture products (yogurt, cottage cheese, etc.), milk shake, ice cream, counter freeze, milk cartons
W. Va.	4,451	X	—	—	X	—	—
East South Central	84,911						
Ala.	33,347	X	X	—	X	X	Empty cartons, non-dairy imitation products
Ky.	7,272	X	X	X	X	X	—
Miss.	19,129	X	—	—	X	—	—
Tenn.	25,163	X	X	—	X	X	—
West South Central ...	112,404						
Ark.	13,565	X	X	X	X	X	Goat milk, containers, line sampling
La.	39,481	X	X	X	X	X	Raw
Okla.	10,507	X	—	—	X	—	—
Tex.	48,851	X	X	—	—	X	—
Mountain	47,093						
Ariz.	5,894	X	X	—	X	X	—
Colo.	27,636	X	X	X	X	X	—
Ida.	6,738	X	—	—	—	—	—
Mont.	—	—	—	—	—	—	—
Nev.	2,945	X	X	X	X	X	Yogurt, buttermilk, novelty frozen food
N.M.	3,520	X	X	X	X	X	—
Utah	360	X	X	—	—	X	—
Wyo.	—	—	—	—	—	—	—
Pacific	3,080						
Alaska	12	X	X	—	X	X	—
Cal.	291	X	—	—	—	—	—
Hawaii	2,777	X	X	—	X	X	—
Ore.	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—
Territories	9,403						
Guam	107	X	—	—	—	—	—
P.R.	6,100	X	X	—	X	X	—
V.I.	3,196	—	—	—	—	—	—

Table 4-41
IX. ENVIRONMENTAL MICROBIOLOGY

Lab & Region	C. Food and Beverage Samples Types					D. Other Samples	
	Number of Samples	Food Quality	Food- Associated Disease Outbreaks	Seafood	Environmental	Number of Samples	Other
Total	55,199					11,801	
Average	1,200					694	
New England	6,362					179	
Conn.	629	X	X	X	X	40	Shellfish
Mass.	24	—	X	—	—	—	—
Me.	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—
R.I.	5,688	X	X	X	X	139	P.S.P. (red tide toxin assay)
Vt.	21	—	X	—	—	—	—
Middle Atlantic	605					5,927	
N.J.	486	X	X	—	—	5,774	Plate counts — waters, samples — additional tests (i.e. <i>E. coli</i> , <i>f. strep.</i>), proficiency tests for lab certification
N.Y.	—	—	—	—	—	—	—
Pa.	119	—	X	—	—	153	Breast milk for botulinum toxin; infant formula for botulinum toxin; stools for staphylococci, perfringens; nasal swabs for staphylococci; botulism toxin assay; air duct and surface samples for airborne allergy investigation
East North Central	4,672					—	
Ill.	1,192	X	X	X	X	—	—
Ind.	2,075	X	X	—	—	—	—
Mich.	1,113	—	X	—	X	—	—
Ohio	292	X	X	X	X	—	—
Wisc.	—	—	—	—	—	—	—
West North Central	3,957					1,527	
Ia.	31	—	X	—	—	82	Water, soil, oil, miscellaneous
Kans.	253	X	X	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	3,556	X	X	—	X	—	—
Nebr.	—	—	—	—	—	—	—
N.D.	44	—	X	—	X	1,445	Sterility tests (autoclave test strip)
S.D.	73	—	X	—	—	—	—
South Atlantic	9,948					1,325	
Del.	342	X	X	X	X	—	—
D.C.	462	X	X	X	—	—	—
Fla.	2,172	X	X	X	X	269	Dental caries
Ga.	135	—	X	—	—	—	—
Md.	2,811	X	X	X	X	264	Environmental samples
N.C.	342	—	X	X	—	—	—
S.C.	2,468	X	X	X	X	—	—
Va.	1,159	X	X	—	—	792	—
W. Va.	57	—	X	—	X	—	—
East South Central	3,474					—	
Ala.	378	—	X	X	—	—	—
Ky.	143	X	X	—	X	—	—
Miss.	399	—	X	X	X	—	—
Tenn.	2,554	—	X	—	X	—	—
West South Central	10,426					773	
Ark.	496	X	X	—	—	2	Antibiotics in meat
La.	1,542	—	X	X	X	771	Cholera, oysters, crabs, water, mud
Okla.	341	X	X	—	X	—	—
Tex.	8,047	—	—	—	—	—	—
Mountain	8,438					284	
Ariz.	346	X	X	—	—	—	—
Colo.	4,428	—	X	—	X	149	—
Ida.	1,573	X	X	—	X	135	Miscellaneous sanitation
Mont.	262	X	X	—	X	—	—
Nev.	266	—	X	—	—	—	—
N.M.	1,008	X	X	—	X	—	—
Utah	555	X	X	—	X	—	—
Wyo.	—	—	—	—	—	—	—
Pacific	1,208					1,762	
Alaska	278	X	X	X	X	—	—
Cal.	366	X	X	X	X	668	Drug quality, HACCP project, shell- fish (for PSP)
Hawaii	470	X	X	X	X	1,018	Hog viscera salmonella survey
Ore.	94	—	X	X	—	76	Paralytic shellfish poisoning
Wash.	—	—	—	—	—	—	—
Territories	6,109					24	
Guam	49	X	X	X	X	—	—
P.R.	5,762	X	X	X	X	24	Vomits, containers
V.I.	298	—	—	—	—	—	—

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	1,034,353	607,131	130,419	29,455	217,707	40,800	8,841
Average	24,055	15,178	4,830	950	9,466	1,700	553
New England	109,472	47,886	7,189	2,124	46,193	4,547	1,533
Conn.	32,390	18,239	4,314	175	6,217	2,550	895
Mass.	—	—	—	—	—	—	—
Me.	13,685	10,336	—	1,182	—	1,529	638
N.H.	—	—	—	—	—	—	—
R.I.	52,273	8,196	2,875	758	39,976	468	—
Vt.	11,124	11,115	—	9	—	—	—
Middle Atlantic	11,835	8,010	2,184	1,326	—	—	315
N.J.	11,835	8,010	2,184	1,326	—	—	315
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	197,492	152,991	11,797	4,070	20,350	6,922	1,362
Ill.	32,978	24,849	5,151	650	—	2,328	—
Ind.	69,064	60,247	6,646	2,171	—	—	—
Mich.	32,636	32,636	—	—	—	—	—
Ohio	24,280	9,188	—	704	10,856	2,170	1,362
Wisc.	38,534	26,071	—	545	9,494	2,424	—
West North Central	195,186	119,731	4,246	3,832	59,308	7,368	701
Ia.	135,810	76,001	613	483	53,985	4,034	694
Kans.	22,169	16,313	—	681	2,385	2,790	—
Minn.	—	—	—	—	—	—	—
Mo.	9,323	5,093	3,633	117	—	480	—
Nebr.	10,952	8,473	—	2,472	—	—	7
N.D.	7,106	5,945	—	79	1,018	64	—
S.D.	9,826	7,906	—	—	1,920	—	—
South Atlantic	149,063	83,377	31,657	11,423	12,083	9,707	816
Del.	4,833	4,511	—	—	—	322	—
D.C.	1,694	—	1,694	—	—	—	—
Fla.	9,042	7,932	66	763	273	—	8
Ga.	—	—	—	—	—	—	—
Md.	47,981	24,637	11,866	1,517	6,675	2,478	808
N.C.	21,550	18,759	—	489	—	2,302	—
S.C.	14,570	—	13,309	1,261	—	—	—
Va.	49,393	27,538	4,722	7,393	5,135	4,605	—
W. Va.	—	—	—	—	—	—	—
East South Central	77,306	67,683	9,623	—	—	—	—
Ala.	63,633	54,903	8,730	—	—	—	—
Ky.	10,327	9,434	893	—	—	—	—
Miss.	3,346	3,346	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—
West South Central	75,771	21,100	35,563	1,490	11,477	5,444	697
Ark.	11,688	1,876	8,733	343	3	725	8
La.	33,170	5,634	24,143	467	10	2,802	114
Okla.	560	—	148	—	—	412	—
Tex.	30,353	13,590	2,539	680	11,464	1,505	575
Mountain	145,683	85,817	15,404	3,054	36,654	2,987	1,767
Ariz.	6,219	999	2,060	1,095	2,065	—	—
Colo.	20,122	3,150	1,415	730	12,529	1,436	862
Ida.	79,038	61,705	9,944	1,001	6,388	—	—
Mont.	9,058	2,959	213	37	5,836	13	—
Nev.	8,753	4,005	1,772	60	2,694	—	222
N.M.	15,319	6,350	—	96	6,970	1,220	683
Utah	7,174	6,649	—	35	172	318	—
Wyo.	—	—	—	—	—	—	—
Pacific	62,703	16,007	7,443	2,136	31,642	3,825	1,650
Alaska	434	397	—	—	—	—	37
Cal.	27,269	10,385	4,005	1,691	6,353	3,222	1,613
Hawaii	31,190	2,024	3,432	445	25,289	—	—
Ore.	—	—	—	—	—	—	—
Wash.	3,810	3,201	6	—	—	603	—
Territories	9,842	4,529	5,313	—	—	—	—
Guam	—	—	—	—	—	—	—
P.R.	7,892	2,579	5,313	—	—	—	—
V.I.	1,950	1,950	—	—	—	—	—

Table 4-43
X. ENVIRONMENTAL CHEMISTRY

Lab & Region	A. Water Samples					B. Dairy Products and Food Samples		
	Number of Samples	Types				Number of Samples	Types	
		Potable	Non-Potable	Swimming Pools	Sewage & Waste		Milk & Cream	Foods
Total	607,131					130,419		
Average	15,178					4,830		
New England	47,886					7,189		
Conn.	18,239	X	X	X	X	4,314	X	X
Mass.	—	—	—	—	—	—	—	—
Me.	10,336	X	X	X	X	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	8,196	X	X	X	X	2,875	X	X
Vt.	11,115	X	—	—	—	—	—	—
Middle Atlantic	8,010					2,184		
N.J.	8,010	X	X	—	X	2,184	X	X
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central	152,991					11,797		
Ill.	24,849	X	X	X	X	5,151	X	X
Ind.	60,247	X	X	—	X	6,646	—	—
Mich.	32,636	X	X	—	X	—	—	—
Ohio	9,188	X	X	—	X	—	—	—
Wisc.	26,071	X	X	—	X	—	—	—
West North Central ...	119,731					4,246		
Ia.	76,001	X	X	X	X	613	X	X
Kans.	16,313	X	X	X	X	—	—	—
Minn.	—	—	—	—	—	—	—	—
Mo.	5,093	X	X	X	—	3,633	X	X
Nebr.	8,473	X	—	—	—	—	—	—
N.D.	5,945	X	X	—	X	—	—	—
S.D.	7,906	X	X	X	X	—	—	—
South Atlantic	83,377					31,657		
Del.	4,511	X	—	—	—	—	—	—
D.C.	—	—	—	—	—	1,694	—	X
Fla.	7,932	X	X	—	—	66	—	X
Ga.	—	—	—	—	—	—	—	—
Md.	24,637	X	X	X	X	11,866	X	X
N.C.	18,759	X	X	X	X	—	—	—
S.C.	—	—	—	—	—	13,309	X	—
Va.	27,538	X	—	—	—	4,722	X	—
W. Va.	—	—	—	—	—	—	—	—
East South Central	67,683					9,623		
Ala.	54,903	X	X	—	—	8,730	X	—
Ky.	9,434	X	X	X	—	893	X	X
Miss.	3,346	X	X	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—
West South Central ...	21,100					35,563		
Ark.	1,876	X	X	—	—	8,733	X	X
La.	5,634	X	X	—	X	24,143	X	X
Okla.	—	—	—	—	—	148	—	X
Tex.	13,590	X	X	—	X	2,539	X	X
Mountain	85,817					15,404		
Ariz.	999	X	X	X	X	2,060	X	X
Colo.	3,150	X	X	—	X	1,415	X	X
Ida.	61,705	X	X	—	X	9,944	—	—
Mont.	2,959	X	X	—	X	213	—	X
Nev.	4,005	—	—	—	—	1,772	—	—
N.M.	6,350	X	X	X	X	—	—	—
Utah	6,649	X	X	X	X	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	16,007					7,443		
Alaska	397	—	—	—	—	—	—	—
Cal.	10,385	X	X	X	X	4,005	—	X
Hawaii	2,024	X	X	—	X	3,432	X	X
Ore.	—	—	—	—	—	—	—	—
Wash.	3,201	X	—	—	—	6	—	X
Territories	4,529					5,313		
Guam	—	—	—	—	—	—	—	—
P.R.	2,579	X	—	—	—	5,313	X	X
V.I.	1,950	—	—	—	—	—	—	—

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

Lab & Region	Number of Samples	Types				Other
		Human Source	Water	Milk	Foods	
Total	29,455					
Average	950					
New England	2,124					
Conn.	175	—	X	X	X	—
Mass.	—	—	—	—	—	—
Me.	1,182	—	X	—	X	—
N.H.	—	—	—	—	—	—
R.I.	758	X	X	X	X	—
Vt.	9	—	X	—	—	—
Middle Atlantic	1,326					
N.J.	1,326	X	X	X	X	Chemical wastes
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	4,070					
Ill.	650	—	X	X	X	Soil, vegetation, fish
Ind.	2,171	—	X	—	—	—
Mich.	—	—	—	—	—	—
Ohio	704	—	X	X	X	—
Wisc.	545	—	X	—	—	Fish, sediments
West North Central	3,832					
Ia.	483	X	X	—	X	Air, silt
Kans.	681	—	X	—	X	Fish, air, soils, sediment
Minn.	—	—	—	—	—	—
Mo.	117	—	X	X	—	—
Nebr.	2,472	—	X	—	—	—
N.D.	79	—	X	—	—	—
S.D.	—	—	—	—	—	—
South Atlantic	11,423					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	763	—	X	—	X	—
Ga.	—	—	—	—	—	—
Md.	1,517	—	X	X	X	Seafood
N.C.	489	—	X	—	—	—
S.C.	1,261	X	X	X	X	Vegetation, pharmaceuticals, cigars
Va.	7,393	—	X	—	X	Sediments, shellfish
W. Va.	—	—	—	—	—	—
East South Central	—					
Ala.	—	—	—	—	—	—
Ky.	—	—	—	—	—	—
Miss.	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—
West South Central	1,490					
Ark.	343	X	X	X	X	Air samples, soil, non-food vegetation
La.	467	—	X	X	X	Leaves, soil
Okla.	—	—	—	—	—	—
Tex.	680	—	X	—	—	Sediment, soil
Mountain	3,054					
Ariz.	1,095	—	X	X	X	Fish
Colo.	730	—	X	X	X	—
Ida.	1,001	X	X	X	X	Fish tissue, soil
Mont.	37	—	X	—	X	—
Nev.	60	—	—	—	—	—
N.M.	96	—	X	X	—	Soils
Utah	35	—	X	—	—	Tissue
Wyo.	—	—	—	—	—	—
Pacific	2,136					
Alaska	—	—	—	—	—	—
Cal.	1,691	X	X	—	X	Soil, sediment, wastes, air
Hawaii	445	—	X	X	X	Sediment
Ore.	—	—	—	—	—	—
Wash.	—	—	—	—	—	—
Territories	—					
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

Lab & Region	Number of Samples	Types of Activity						
		Discrete Sampling Stations						Number of Continuous Samp. Stations
		Number of Stations	Particulate				Gaseous	Other
			Solids	Metals	Organics	Other		
Total	217,707							
Average	9,466							
New England	46,193							
Conn.	6,217	59	X	X	X	X	X	27
Mass.	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	39,976	14	X	X	—	—	—	5
Vt.	—	—	—	—	—	—	—	—
Middle Atlantic	—							
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central	20,350							
Ill.	—	—	—	—	—	—	—	—
Ind.	—	—	—	—	—	—	—	—
Mich.	—	—	—	—	—	—	—	—
Ohio	10,856	>80	X	X	—	X	X	—
Wisc.	9,494	83	X	X	—	—	X	—
West North Central	59,308							
Ia.	53,985	44	X	X	—	—	X	6
Kans.	2,385	39	X	X	—	X	X	—
Minn.	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—
N.D.	1,018	23	X	X	—	X	—	4
S.D.	1,920	160	X	—	—	—	X	—
South Atlantic	12,083							
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	273	1	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—
Md.	6,675	137	X	X	X	X	X	16
N.C.	—	—	—	—	—	—	—	—
S.C.	—	—	—	—	—	—	—	—
Va.	5,135	80	X	—	—	—	—	X
W. Va.	—	—	—	—	—	—	—	—
East South Central	—							
Ala.	—	—	—	—	—	—	—	—
Ky.	—	—	—	—	—	—	—	—
Miss.	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—
West South Central	11,477							
Ark.	3	2	—	—	—	—	—	X
La.	10	—	—	—	—	—	X	—
Okla.	—	—	—	—	—	—	—	—
Tex.	11,464	—	X	X	—	—	—	—
Mountain	36,654							
Ariz.	2,065	40	X	X	X	X	X	X
Colo.	12,529	74	X	X	X	—	X	—
Ida.	6,388	30	—	X	—	—	X	—
Mont.	5,836	50	X	X	—	X	X	X
Nev.	2,694	16	—	—	—	—	—	—
N.M.	6,970	66	X	X	—	X	X	—
Utah	172	3	—	X	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific	31,642							
Alaska	—	—	—	—	—	—	—	—
Cal.	6,353	35	X	X	X	—	X	X
Hawaii	25,289	12	X	—	—	—	X	X

Lab & Region	Number of Samples	Types							
		Air	Water	Milk	Food	Silt	Soil	Wipes	Other
Total	40,800								
Average	1,700								
New England	4,547								
Conn.	2,550	X	X	X	X	—	X	X	Fish, shellfish, sediment, sewage, charcoal filters
Mass.	—	—	—	—	—	—	—	—	—
Me.	1,529	X	X	X	X	—	—	X	—
N.H.	—	—	—	—	—	—	—	—	—
R.I.	468	X	X	—	—	—	—	X	—
Vt.	—	—	—	—	—	—	—	—	—
Middle Atlantic	—								
N.J.	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—
East North Central	6,922								
Ill.	2,328	X	X	X	X	—	—	X	—
Ind.	—	—	—	—	—	—	—	—	—
Mich.	—	—	—	—	—	—	—	—	—
Ohio	2,170	—	X	X	—	X	—	X	—
Wisc.	2,424	X	X	X	X	X	X	—	Resin (DHSS), rock, bone
West North Central	7,368								
Ia.	4,034	X	X	X	—	—	—	X	—
Kans.	2,790	X	X	X	X	X	X	X	—
Minn.	—	—	—	—	—	—	—	—	—
Mo.	480	X	X	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—	—
N.D.	64	—	X	—	—	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—
South Atlantic	9,707								
Del.	322	—	X	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—
Md.	2,478	X	X	X	X	X	X	X	—
N.C.	2,302	X	X	X	X	X	X	X	Animal tissue
S.C.	—	—	—	—	—	—	—	—	—
Va.	4,605	X	X	X	X	X	X	X	Shellfish
W. Va.	—	—	—	—	—	—	—	—	—
East South Central	—								
Ala.	—	—	—	—	—	—	—	—	—
Ky.	—	—	—	—	—	—	—	—	—
Miss.	—	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—
West South Central	5,444								
Ark.	725	X	X	X	—	X	X	X	—
La.	2,802	—	X	—	—	—	—	—	—
Okla.	412	—	—	—	—	—	—	X	Thyroid counts, urine counts
Tex.	1,505	X	X	X	X	X	X	X	—
Mountain	2,987								
Ariz.	—	—	—	—	—	—	—	—	—
Colo.	1,436	X	X	X	X	X	X	—	—
Ida.	—	—	—	—	—	—	—	—	—
Mont.	13	—	X	—	—	—	—	—	Slag from smelters
Nev.	—	—	—	—	—	—	—	—	—
N.M.	1,220	—	X	—	—	—	—	—	—
Utah	318	X	X	X	—	—	X	X	Luminescent dials
Wyo.	—	—	—	—	—	—	—	—	—
Pacific	3,825								
Alaska	—	—	—	—	—	—	—	—	—
Cal.	3,222	X	X	X	X	X	X	X	Vegetation, algae, waste
Hawaii	—	—	—	—	—	—	—	—	—
Ore.	—	—	—	—	—	—	—	—	—
Wash.	603	X	X	X	X	X	X	X	Thermoluminescence dosimeters
Territories	—								
Guam	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—

Table 4-47
ENVIRONMENTAL CHEMISTRY
F. Other Samples

Lab	Number of Samples	Types
Total	8,841	
Average	553	
Alaska	37	PSP
Ark.	8	Dioxin in fish, oil in water, formaldehyde in water.
Cal.	1,613	Drug samples, air monitoring instrument calibration, hazardous materials and wastes.
Colo.	862	Hazardous waste and materials
Conn.	895	Insulation, commercial products, landfill, toxic waste, solid waste, chemicals, impingers, charcoal tubes
Fla.	8	Bedding
Ia.	694	Trihalomethanes, other
La.	114	Drug samples (aspirin), sand, water (trihaldemethanes), pipe scale, caustic solution, container capacity, cardboard box containers, sediment, pipe sediment, ice cubes
Me.	638	Seaweed, TLD's
Md.	808	Bedding and upholstery, mass spectroscopy
Nebr.	7	Housing samples for formaldehyde vapors
Nev.	222	—
N.J.	315	Fish, soils
N.M.	683	Heavy metals in/on media other than water (soils, muds)
Ohio	1,362	Organics, inorganics
Tex.	575	Asbestos

Table 4-48
XI. OCCUPATIONAL HEALTH AND SAFETY

Lab & Region	Total Occup. Health & Safety Samples	Number of Environmental Samples	Number of Biological Samples
Total	66,414	60,413	4,608
Average	3,321	3,180	576
New England	5,023	985	4,038
Conn.	3,075	447	2,628
Mass.	—	—	—
Me.	26	26	—
N.H.	—	—	—
R.I.	96	96	—
Vt.	1,826	416	1,410
Middle Atlantic	313	313	—
N.J.	313	313	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central	22,595	22,560	35
Ill.	—	—	—
Ind.	—	—	—
Mich.	—	—	—
Ohio	7,523	7,523	—
Wisc.	15,072	15,037	35
West North Central	4,745	4,732	13
Ia.	3,760	3,747	13
Kans.	985	985	—
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	—	—	—
South Atlantic	16,378	14,985	—
Del.	—	—	—
D.C.	—	—	—
Fla.	1,393	—	—
Ga.	—	—	—
Md.	8,661	8,661	—
N.C.	4,697	4,697	—
S.C.	—	—	—
Va.	1,627	1,627	—
W.Va.	—	—	—
East South Central	2,638	2,638	—
Ala.	—	—	—
Ky.	2,638	2,638	—
Miss.	—	—	—
Tenn.	—	—	—
West South Central	—	—	—
Ark.	—	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	—	—	—
Mountain	4,367	3,903	473
Ariz.	579	579	—
Colo.	—	—	—
Ida.	—	—	—
Mont.	297	129	168
Nev.	—	—	—
N.M.	1,201	1,201	—
Utah	2,299	1,994	305
Wyo.	—	—	—
Pacific	10,346	10,297	49
Alaska	—	—	—
Cal.	10,321	10,287	34
Hawaii	—	—	—
Ore.	—	—	—
Wash.	25	10	15
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	477,272	72,993	402,994
Average	12,238	2,703	11,514
New England	121,388	50,326	71,062
Conn.	80,911	46,112	34,799
Mass.	—	—	—
Me.	7,963	796	7,167
N.H.	42	—	42
R.I.	28,627	3,054	25,573
Vt.	3,845	364	3,481
Middle Atlantic	21,903	609	21,294
N.J.	14,975	607	14,368
N.Y.	—	—	—
Pa.	6,928	2	6,926
East North Central	48,659	559	48,100
Ill.	12,058	291	11,767
Ind.	94	94	—
Mich.	—	—	—
Ohio	28,380	78	28,302
Wisc.	8,127	96	8,031
West North Central	12,484	3,687	7,512
Ia.	2,270	81	2,189
Kans.	3,488	90	3,398
Minn.	—	—	—
Mo.	1,285	—	—
Nebr.	5,429	3,516	1,913
N.D.	12	—	12
S.D.	—	—	—
South Atlantic	145,276	2,264	143,012
Del.	2,660	—	2,660
D.C.	15,548	—	15,548
Fla.	21,167	78	21,089
Ga.	33,425	—	33,425
Md.	37,042	573	36,469
N.C.	6,474	—	6,474
S.C.	17,978	726	17,252
Va.	10,982	887	10,095
W. Va.	(a)	—	(a)
East South Central	4,543	491	4,052
Ala.	2,580	—	2,580
Ky.	1,963	491	1,472
Miss.	—	—	—
Tenn.	—	—	—
West South Central	48,437	52	48,385
Ark.	12,647	52	12,595
La.	—	—	—
Okla.	—	—	—
Tex.	35,790	—	35,790
Mountain	69,193	14,020	55,173
Ariz.	—	—	—
Colo.	18,702	—	18,702
Ida.	33,412	12,618	20,794
Mont.	280	227	53
Nev.	—	—	—
N.M.	9,042	96	8,946
Utah	5,666	1,079	4,587
Wyo.	2,091	—	2,091
Pacific	4,585	595	3,990
Alaska	—	—	—
Cal.	3,191	396	2,795
Hawaii	184	184	—
Ore.	—	—	—
Wash.	1,210	15	1,195
Territories	804	390	414
Guam	—	—	—
P.R.	414	—	414
V.I.	390	390	—

(a) Included under VII. Clinical Chemistry.

TABLE 4-50
XII. TOXICOLOGY
A. PHYSICAL SAMPLES (F- Forensic, O- Other)

Lab	Number of Samples	Types										Other
		Liquids for Alcohol	Pesticides	PCB's	Plant and Material	Drugs and Narcotics	Articles for Blood Stains	Paint-Comparison	Paint-Lead	Fibers and Hairs	Gunpowder Residues	
Total	72,993											
Average	2,703											
Ark.	52	—	O	O	—	O	—	—	—	—	—	O — soil for lead, soil for heavy metals, moonshine for leads, water for heavy metals.
Cal.	396	F	O	O	—	O	—	—	O	—	—	O — Mutagenic screening (Ames bioassay)
Conn.	46,112	F	—	—	F	F	F	F	—	F	F	F — Clay, sand, concrete, fire accelerants, clothing for seminal stains, other volatiles
Fla.	78	O	O	—	—	O	—	—	O	—	—	— Drugs and cosmetics
Hawaii	184	—	—	—	O	O	—	—	—	—	—	O — Food
Ida.	12,618	F	—	—	F	F	F	F	—	F	F	—
Ill.	291	F/O	—	—	F/O	F/O	—	—	—	—	—	F/O — Foodstuffs
Ind.	94	—	—	—	—	O	—	—	O	—	—	—
Ia.	81	—	O	O	—	—	—	—	O	—	—	—
Kans.	90	F	—	—	—	O	—	—	O	—	—	O — Tobacco for arsenic
Ky.	491	F/O	F/O	F/O	F	F	—	—	O	—	—	—
Me.	796	F	O	O	F	F	—	—	O	—	—	F — hydrocarbon (arison), O — asbestos
Md.	573	O	—	—	F	F/O	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	O	—	—	—
Mont.	227	—	—	O	—	—	—	—	O	—	—	O — Strychnine
Nebr.	3,516	—	—	—	F	F	—	—	—	—	—	—
N.J.	607	—	—	—	—	—	—	—	O	—	—	—
N.M.	96	—	O	—	—	—	—	—	—	—	—	—
Ohio.	78	F/O	O	O	F/O	F/O	—	—	O	—	—	F/O — Beverages, pills, capsules
Pa.	2	O	—	—	—	O	—	—	—	—	—	—
R.I.	3,054	F/O	—	—	F	F/O	F	—	—	—	—	F/O — tear gas, liquids and materials containing dangerous substances, poisons, strept. drug diluents.
S.C.	726	O	—	—	—	O	—	O	O	O	—	Dustwipes, soli, Cola, H ₂ O
Utah	1,079	F	—	—	F	F	—	—	—	—	—	—
Vt.	364	—	—	—	—	F	F	—	O	—	—	O — pottery
Va.	887	—	—	—	—	—	—	O	—	—	—	—
V.I.	390	—	—	—	—	X	—	—	—	—	—	—
Wash.	15	—	—	—	—	—	—	—	O	—	—	O — Lead content in ceramics
Wisc.	96	—	—	—	O	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	402,952								
Average	11,852								
New England	71,020								
Conn.	34,799	X	X	X	—	X	—	—	F—Carboxyhemoglobin, halides, typing
Mass.	—	—	—	—	—	—	—	—	—
Me.	7,167	F	F	F	O	F	F	O	—
N.H.	—	—	—	—	—	—	—	—	—
R.I.	25,573	F/O	F	F/O	F	F/O	F/O	—	—
Vt.	3,481	F	—	—	—	—	—	—	—
Middle Atlantic	21,294								
N.J.	14,368	—	—	—	O	—	—	O	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	6,926	F	O	O	O	O	—	—	—
East North Central	48,100								
Ill.	11,767	F/O	F/O	F/O	F/O	F/O	F/O	F/O	F/O—Erythrocyte proto- porphyrin.
Ind.	—	—	—	—	—	—	—	—	—
Mich.	—	—	—	—	—	—	—	—	—
Ohio	28,302	F/O	F/O	F/O	O	O	—	O	O—Paraquat
Wisc.	8,031	F/O	F/O	F/O	O	O	—	—	Anti-epileptic drugs, erythrocyte protoporphyrin, carbon monoxide
West North Central ...	7,512								
Ia.	2,189	—	—	—	O	—	—	O	O—Pesticides
Kans.	3,398	F	O	—	O	O	F	—	—
Minn.	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	O	—	—	—	—
Nebr.	1,913	F	—	O	O	—	—	—	—
N.D.	12	—	—	—	O	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—
South Atlantic	143,012								
Del.	2,660	—	—	—	X	—	—	—	—
D.C.	15,548	O	—	O	O	—	—	—	—
Fla.	21,089	F	O	O	O	O	O	O	—
Ga.	33,425	—	—	—	O	—	—	—	—
Md.	36,469	—	—	O	O	—	—	—	—
N.C.	6,474	—	—	—	O	—	—	—	—
S.C.	17,252	O	O	O	O	O	—	—	—
Va.	10,095	—	—	—	O	—	—	—	O—FEP
W. Va.	—	—	—	—	—	—	—	—	—
East South Central	4,052								
Ala.	2,580	—	—	—	O	—	—	—	—
Ky.	1,472	F	F	F	F	F	F	—	—
Miss.	—	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—
West South Central ...	48,385								
Ark.	12,595	O	O	O	O	O	—	—	O—Cholinesterase
La.	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	—
Tex.	35,790	—	—	O	O	—	—	—	—
Mountain	55,173								
Ariz.	—	—	—	—	—	—	—	—	—
Colo.	18,702	F	—	F	—	—	—	—	—
Ida.	20,794	F	O	F	—	F	—	—	—
Mont.	53	—	—	—	O	—	—	—	—
Nev.	—	—	—	—	—	—	—	—	—
N.M.	8,946	F	O	O	O	O	—	—	—
Utah	4,587	F	F	F	—	—	—	—	—
Wyo.	2,091	F/O	O	—	O	O	—	—	—
Pacific	3,990								
Alaska	—	—	—	—	—	—	—	—	—
Cal.	2,795	F	—	—	O	—	—	O	O—Erythrocyte protoporphyrin
Hawaii	—	—	—	—	—	—	—	—	—
Ore.	—	—	—	—	—	—	—	—	—
Wash.	1,195	—	—	—	O	—	—	O	O—Herbicides, other pesticides
Territories	414								
Guam	—	—	—	—	—	—	—	—	—
P.R.	414	X	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—

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

Table 4-53
XII. TOXICOLOGY

[illegible]

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	296.7	16,843	399	325	1,998	
Average	7.1	421	9	16	64	
New England	23.5	785	114	27	126	
Conn.	13.0	175	111	25	78	X
Mass.	5.0	500	—	—	—	—
Me.	3.0	58	2	—	35	X
N.H.	—	—	—	—	—	—
R.I.	2.5	52	—	2	13	—
Vt.	—	—	1	—	—	—
Middle Atlantic	19.0	2,472	1	—	—	
N.J.	—	472	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	19.0	2,000	1	—	—	X
East North Central	46.3	2,202	60	112	175	
Ill.	12.5	1,800	25	—	—	—
Ind.	2.1	—	6	—	56	X
Mich.	12.0	—	—	—	—	—
Ohio	8.0	402	10	—	—	x
Wisc.	11.7	—	19	112	119	—
West North Central	34.2	1,579	28	49	191	
Ia.	6.5	350	—	31	31	—
Kans.	6.0	225	3	11	90	X
Minn.	11.5	695	5	—	—	—
Mo.	6.0	—	8	—	40	—
Nebr.	1.2	137	3	—	15	—
N.D.	1.0	63	6	7	15	—
S.D.	2.0	109	3	—	—	—
South Atlantic	74.4	1,633	51	73	319	
Del.	0.4	26	1	1	8	—
D.C.	1.0	—	2	—	—	—
Fla.	34.0	772	13	—	>183	X
Ga.	18.0	339	7	22	—	—
Md.	4.5	173	10	15	60	—
N.C.	8.0	—	—	—	—	X
S.C.	—	100	7	17	—	—
Va.	3.5	—	10	18	68	—
W. Va.	5.0	223	1	—	—	—
East South Central	12.0	1,567	17	39	249	
Ala.	2.0	—	—	—	—	—
Ky.	3.0	1,117	8	—	27	—
Miss.	—	200	4	4	12	—
Tenn.	7.0	250	5	35	210	—
West South Central	4.5	484	15	—	16	
Ark.	2.5	160	1	—	16	—
La.	—	—	7	—	—	—
Okla.	2.0	324	7	—	—	—
Tex.	—	—	—	—	—	—
Mountain	29.3	1,213	38	15	190	
Ariz.	8.0	100	9	—	39	—
Colo.	3.0	185	10	7	32	—
Ida.	8.0	211	6	—	—	X
Mont.	2.9	250	2	4	17	X
Nev.	1.0	>188	3	—	19	—
N.M.	2.4	>95	1	4	54	X
Utah	4.0	132	6	—	24	X
Wyo.	—	52	1	—	5	—
Pacific	45.5	4,473	68	5	721	
Alaska	1.0	70	3	1	8	—
Cal.	40.0	4,131	39	—	667	—
Hawaii	0.5	72	4	4	9	—
Ore.	4.0	200	3	—	37	—
Wash.	—	—	19	—	—	—
Territories	8.0	435	7	5	11	
Guam	—	6	2	2	3	—
P.R.	8.0	428	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./Permit/App.	Reg.	Cert.	
Total	16,843	10,230	9,820	887	2,766	
Average	421	238	258	127	132	
New England	785	576	557	32	117	
Conn.	175	209	209	—	85	—
Mass.	500	281	281	—	—	The regulatory activity is in process of transfer to Division of Health Facility Regulation, Mass. Department of Public Health.
Me.	58	2	2	—	2	Surveillance of hospital laboratories by P.H.L. for Licensing and Certification Division who approve same for Medicare-Medicaid reimbursement, and State licensure of hospital.
N.H.	—	—	—	—	—	Independent laboratories licensed under Maine Medical Laboratory Act.
R.I.	52	52	52	—	30	Bureau Health Facilities Administration, Division of Public Health Services
Vt.	—	32	13	32	—	—
Middle Atlantic	2,472	999	527	—	—	
N.J.	472	472	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	2,000	527	527	—	—	—
East North Central	2,202	1,339	2,131	25	467	
Ill.	1,800	290	808	—	200	—
Ind.	—	156	154	—	2	Division of Medical Care Administration certifies Medicare/Medicaid laboratories.
Mich.	—	478	453	25	144	—
Ohio	402	—	301	—	121	—
Wisc.	—	415	415	—	—	Proficiency testing is the responsibility of the state lab. On-site inspections and actual approval are the responsibility of Section of Laboratory Certification, Bureau of Prevention, Wisconsin Division of Health.
West North Central ...	1,579	749	770	—	312	
Ia.	350	89	89	—	—	—
Kans.	225	225	322	—	117	—
Minn.	695	—	—	—	—	Division of Health Systems, Department of Health (Medicare and CLIA—1967 only)
Mo.	—	276	214	—	195	—
Nebr.	137	62	62	—	—	Major responsibility is with the Division of Hospitals and Standards within the Department of Health
N.D.	63	14	—	—	—	Division of Health Facilities, N.D. State Department of Health — approval for labs participating in Medicare; N.D. has no laws or regulations pertaining to clinical lab except for syphilis serology.
S.D.	109	83	83	—	—	—
South Atlantic	1,633	1,591	1,479	40	441	
Del.	26	17	17	—	—	—
D.C.	—	75	35	40	—	—

Table 4-55
XIII. LABORATORY IMPROVEMENT PROGRAM
A. CLINICAL LABORATORIES — Continued

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./Permit/App.	Reg.	Cert.	
Fla.	772	772	772	—	141	Beginning July 1, 1979, responsibility shifted to the Office of Licensure and Certi- fication, Department of Health and Rehabilitative Service.
Ga.	339	339	339	—	120	Laboratory Licensure and Development Section, Office of Regulatory Services, Department of Human Resources
Md.	173	196	186	—	92	—
N.C.	—	—	—	—	—	Medicare/Medicaid and syphilis serology — Division of Facility Services, Department of Human Resources
S.C.	100	16	—	—	—	Bureau of Health Licensing and Certification
Va.	—	—	—	—	—	Department of Health for all areas except: water, milk, commercial blood banks, and syphilis serology.
W.Va.	223	176	130	—	88	—
East South Central ...	1,567	630	630	—	39	—
Ala.	—	93	93	—	—	Bureau of Licensure and Certi- fication in the Health Department is responsible for activities other than the premarital pro- gram and milk and water certifi- cation.
Ky.	1,117	179	179	—	—	The Division for Licensure and Regulations is responsible for certifying laboratories in accordance with the Ky. Medical Laboratory Act. Laboratory Services approves laboratories for the performance of pre- marital tests for syphilis.
Miss.	200	126	126	—	—	—
Tenn.	250	232	232	—	39	—
West South Central ...	484	188	307	—	—	—
Ark.	160	—	119	—	—	Division of Licensure and Regulation. Office of Licensure and Certification is responsible for certification of clinical laboratories.
La.	—	—	—	—	—	—
Okla.	324	188	188	—	—	—
Tex.	—	—	—	—	—	—
Mountain ...	1,213	976	581	437	337	—
Ariz.	100	50	100	—	50	—
Colo.	185	135	65	—	—	—
Ida.	211	211	211	138	211	—
Mont.	250	169	—	169	—	—
Nev.	>188	188	58	130	—	—
N.M.	>95	>95	>95	—	—	CLIA and medicare labs are inspected by our laboratory under an agreement with Health Services Division (a collateral element of Health and Environment Depart- ment)
Utah	132	76	—	—	76	—
Wyo.	52	52	52	—	—	—
Pacific ...	4,473	2,754	2,410	353	1,053	—
Alaska	70	20	—	—	20	—
Cal.	4,131	2,131	2,098	—	842	—
Hawaii	72	50	—	—	53	—
Ore.	200	200	200	—	—	—
Wash.	—	353	112	353	138	—
Territories ...	435	428	428	—	—	—
Guam	6	—	—	—	—	—
P.R.	428	428	428	—	—	—
V.I.	1	—	—	—	—	—

Lab & Region	Activity of Laboratory Improvement Program Staff																				
	5. Proficiency Testing												6. Field Visits						7. Trng	8. Consult	
	Diag. Bact.	Mycology	Parasitology	Virology	Immunology		Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dair/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	x	x	x	x	-	-	-	Blood banks, blood collection facilities, Q.C., research, teaching, dog laboratories	x	x	x	x	x	-	x	x
Mass.	x	-	-	-	x	x	x	x	-	-	-	-	-	x	-	-	-	-	-	x	x
Me.	x	-	-	-	x	x	-	x	-	x	x	-	Blood alcohol, drug IO	x	-	-	-	-	-	x	x
N.H.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.I.	x	-	x	-	x	x	x	x	-	x	-	-	-	x	-	-	x	-	-	x	x
Vt.	-	-	-	-	x	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	x
Middle Atlantic																					
N.J.	x	x	x	-	x	x	x	x	-	-	-	-	Cytology, blood gas	x	x	-	x	x	-	x	x
N.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pa.	x	x	x	x	x	x	x	x	-	-	-	-	-	x	-	-	x	x	-	x	x
East North Central																					
Ill.	-	-	-	-	x	-	-	-	-	x	x	x	Blood lead, PKU-Guthrie, Thyroxine (T ₄), Thyrotropin (TSH), quantitative phenylalanine	x	x	-	x	x	-	x	x
Ind.	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	x
Mich.	x	x	x	-	x	-	x	x	-	-	-	-	PKU	x	x	-	x	x	-	x	x
Ohio	x	x	x	-	x	x	x	x	-	-	-	-	Alcohol tests	x	-	-	x	x	-	x	x
Wisc.	x	x	x	x	x	-	x	x	-	-	-	x	-	x	-	-	x	-	-	x	x
West North Central																					
Ia.	x	x	x	-	x	x	x	x	-	x	-	-	PKU	x	-	-	-	x	-	x	x
Kans.	-	-	-	-	x	-	-	-	-	-	x	-	-	x	-	-	-	x	-	-	x
Minn.	x	x	x	-	x	x	x	x	-	-	-	-	Blood banking, urinalysis	-	-	-	-	-	-	-	x
Mo.	-	-	-	-	x	-	-	-	-	-	-	x	PKU	x	-	-	-	x	-	x	x
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
N.D.	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	x	x	x	-	x	x
S.D.	-	-	-	-	-	-	-	-	-	-	-	-	On-site part of inspection including chem., hem., ABO and Rh, urinalysis	-	-	-	x	x	-	x	x
South Atlantic																					
Del.	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	x	x	-	x	x
O.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	x	-	x	x
Fla.	-	-	-	x	x	-	-	-	-	-	x	-	Syphilis serology, rubella, blood alcohol	x	x	-	x	x	-	x	x
Ga.	x	x	x	x	x	x	x	x	-	-	-	-	-	x	x	-	-	x	-	x	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
S.C.	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
Va.	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
W.Va.	x	-	x	-	x	-	x	x	-	x	-	x	-	-	x	-	-	-	-	-	x
East South Central																					
Ala.	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	x	-	-	x	x
Ky.	x	-	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	x
Miss.	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tenn.	x	x	x	-	x	x	x	x	-	-	-	-	-	x	-	-	x	x	-	-	-
West South Central																					
Ark.	x	x	x	-	x	x	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	-	-	-	x	x
Tex.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mountain																					
Ariz.	-	-	-	x	-	x	-	-	-	-	x	-	-	x	-	-	-	x	-	x	x
Colo.	-	x	x	-	x	x	x	x	-	-	-	x	Blood alcohol labs	-	-	-	-	-	-	x	x
Ida.	x	-	x	x	x	x	x	x	-	-	-	x	-	-	x	-	x	x	-	x	x
Mont.	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
Nev.	x	x	x	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	x
N.M.	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	x	x	-	x	x
Utah	x	x	x	-	-	x	-	x	x	x	x	-	-	-	x	x	-	-	-	-	x
Wyo.	x	-	x	-	x	-	x	x	-	-	-	-	-	x	-	-	x	x	-	x	x
Pacific																					
Alaska	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	x	-	-	x	x
Cal.	x	-	x	x	x	x	x	x	-	-	-	-	-	x	-	-	-	x	x	-	x
Hawaii	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x
Ore.	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-	x	-	x	-
Wash.	-	-	-	-	x	-	-	-	-	-	x	-	-	x	x	-	-	-	-	x	-
Territories																					
Guam	-	-	-	-	-	-	-	-	-	-	-	-	Blood bank	-	-	-	-	-	-	-	-
P.R.	x	x	-	-	x	x	x	x	x	-	-	-	-	x	-	-	x	-	-	x	-
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	x	-	-

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./Permit/App.	Reg.	Cert.	
Total	462	402	279	69	225	
Average	11	13	11	14	19	
New England	114	113	66	47	1	
Conn.	111	111	65	46	—	—
Mass.	—	—	—	—	—	—
Me.	2	1	—	—	1	Surveillance of hospital laboratories by P.H.L. for Licensing and Certification Division who approve same for Medicare—Medicaid reimbursement and State licensure of hospital. Independent laboratories licensed under Maine Medical Laboratory Act.
N.H.	—	—	—	—	—	Bureau Health Facilities Administration, Division of Public Health Services
R.I.	—	—	—	—	—	—
Vt.	1	1	1	1	—	—
Middle Atlantic	1	—	—	—	—	—
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	1	—	—	—	—	—
East North Central	123	115	71	—	73	
Ill.	25	10	17	—	4	—
Ind.	69	69	—	—	69	Division of Medical Care Administration certifies Medicare/Medicaid laboratories
Mich.	—	17	25	—	—	—
Ohio	10	—	10	—	—	—
Wisc.	19	19	19	—	—	Proficiency testing is the responsibility of the State lab. On-site inspections and actual approval are the responsibility of Section of Laboratory Certification, Bureau of Prevention, Wisconsin Division of Health.
West North Central ...	28	15	7	—	—	
Ia.	—	—	—	—	—	—
Kans.	3	2	2	—	—	—
Minn.	5	—	—	—	—	Division of Health Systems, Department of Health (Medicare and CLIA-1967 only)
Mo.	8	5	—	—	—	—
Nebr.	3	3	3	—	—	Major responsibility is with the Division of Hospitals and Standards within the Department of Health
N.D.	6	5	—	—	—	Division of Health Facilities, N.D. State Department of Health—approval for labs participating in Medicare.
S.D.	3	—	2	—	—	—
South Atlantic	51	23	30	1	66	
Del.	1	—	—	—	—	—
D.C.	2	2	—	1	—	—
Fla.	13	13	13	—	—	Beginning July 1, 1979, responsibility shifted to the Office of Licensure and Certification, Department of Health and Rehabilitative Services. Laboratory Licensure and Development Section, Office of Regulatory Services, Department of Human Resources
Ga.	7	7	7	—	—	—
Md.	10	—	10	—	—	—
N.C.	—	—	—	—	66	Medicare/Medicaid and syphilis serology — Division of Facility Services, Department of Human Resources
S.C.	7	1	—	—	—	Bureau of Health Licensing and Certification
Va.	10	—	—	—	—	Department of Health for all areas except: water, milk, commercial blood banks, and syphilis serology
W. Va.	1	—	—	—	—	—

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

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./Permit/App.	Reg.	Cert.	
East South Central	17	28	11	—	22	Bureau of Licensure and Certification in the Health Department is responsible for activities other than the premarital program and milk and water certification.
Ala.	—	22	4	—	22	
Ky.	8	3	3	—	—	
Miss.	4	3	4	—	—	
Tenn.	5	—	—	—	—	
West South Central . . .	15	13	8	—	6	Division of Licensure and Regulation
Ark.	1	—	1	—	—	
La.	7	6	—	—	6	
Okla.	7	7	7	—	—	
Tex.	—	—	—	—	—	
Mountain	38	26	31	2	17	CLIA and medicare labs are inspected by our laboratory under an agree- ment with Health Services Division (a collateral element of Health and Environment Department)
Ariz.	9	—	9	—	—	
Colo.	10	10	10	—	10	
Ida.	6	6	6	—	6	
Mont.	2	2	—	2	—	
Nev.	3	3	3	—	—	
N.M.	1	*3	3	—	—	
Utah	6	1	—	—	1	
Wyo.	1	1	—	—	—	
Pacific	68	65	51	19	40	
Alaska	3	—	—	—	—	
Cal.	39	39	39	—	17	
Hawaii	4	4	—	—	4	
Ore.	3	3	3	—	—	
Wash.	19	19	9	19	19	
Territories	7	4	4	—	—	
Guam	2	—	—	—	—	
P.R.	4	4	4	—	—	
V.I.	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		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	x		x	x			Toxicology	x							x
Mass.																					x
Me.	x			x				x		x											
N.H.																					
R.I.																					
Vt.																					
Middle Atlantic																					
N.J.																					
N.Y.																					
Pa.	x	x	x	x	x	x	x							x			x			x	
East North Central																					
Ill.					x					x	x	x	Thyroxin (T4), Thyrotropin (TSH)	x	x					x	x
Ind.		x	x		x		x	x			x		PKU	x	x					x	x
Mich.	x	x	x		x		x	x					Alcohol tests	x						x	x
Dhlo	x	x	x	x	x		x	x				x		x			x			x	x
Wisc.																					
West North Central																					
Ia.																					
Kans.					x																
Minn.	x	x	x			x	x												x	x	
Mo.					x							x	PKU	x					x	x	
Nebr.																	x				
N.D.					x					x	x	x			x					x	x
S.D.																					
South Atlantic																					
Del.																					
D.C.																					
Fla.			x		x						x		Syphilis serology, blood alcohol	x	x			x		x	
Ga.	x	x	x	x	x		x	x						x						x	x
Md.	x	x	x	x	x		x	x	x	x	x	x		x	x	x				x	x
N.C.																					
S.C.																					
Va.					x							x								x	x
W.Va.																				x	
East South Central																					
Ala.	x			x	x		x	x		x		x		x	x					x	x
Ky.																					
Miss.																					
Tenn.										x											
West South Central																					
Ark.												x									
La.												x			x						
Okla.					x							x			x					x	x
Tex.																					
Mountain																					
Ariz.		x		x							x			x						x	x
Colo.	x	x	x		x		x	x			x				x					x	x
Ida.	x	x	x	x	x			x			x									x	x
Mont.					x																
Nev.	x	x	x					x				x								x	
N.M.					x												x				
Utah															x					x	
Wyo.																					
Pacific																					
Alaska					x														x		x
Cal.	x		x	x	x	x	x	x						x					x	x	x
Hawaii					x	x											x			x	x
Dre.														x							
Wash.					x					x				x	x		x			x	x
Territories																					
Guam																					
P.R.	x	x	x		x	x	x	x	x												
V.I.	x				x	x		x		x	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./Permit/App.	Reg.	Cert.	
Total	325	475	211	—	253	
Average	16	16	23	—	12	
New England	27	70	70	—	2	
Conn.	25	25	25	—	—	—
Mass.	—	43	43	—	—	Division of Food and Drugs, Mass. Department of Public Health They inspect and make recommenda- tions to Laboratory Improvement Program for approval.
Me.	—	—	—	—	—	Department of Agriculture
N.H.	—	—	—	—	—	—
R.I.	2	2	2	—	2	—
Vt.	—	—	—	—	—	—
Middle Atlantic	—	14	—	—	14	
N.J.	—	14	—	—	14	—
N.Y.	—	—	—	—	—	—
Pa.	—	—	—	—	—	—
East North Central	112	183	112	—	71	
Ill.	—	35	—	—	35	—
Ind.	—	15	—	—	15	—
Mich.	—	—	—	—	—	Michigan Dept. of Agriculture
Ohio	—	21	—	—	21	—
Wisc.	112	112	112	—	—	—
West North Central ...	49	61	11	—	30	
Ia.	31	31	—	—	—	Iowa Department of Agriculture
Kans.	11	11	11	—	11	—
Minn.	—	—	—	—	—	—
Mo.	—	14	—	—	14	—
Nebr.	—	—	—	—	—	—
N.D.	7	5	—	—	5	—
S.D.	—	—	—	—	—	—
South Atlantic	73	51	—	—	74	
Del.	1	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	—	—	—	—	—	Florida Dept. of Agriculture (for dairy laboratories)
Ga.	22	4	—	—	4	Georgia Dept. of Agriculture
Md.	15	15	—	—	15	—
N.C.	—	—	—	—	23	—
S.C.	17	9	—	—	9	—
Va.	18	16	—	—	16	—
W.Va.	—	7	—	—	7	—
East South Central	39	64	4	—	45	
Ala.	—	5	—	—	5	—
Ky.	—	30	—	—	30	—
Miss.	4	4	4	—	—	—
Tenn.	35	25	—	—	10	Joint responsibility of Departments of Agriculture and Public Health
West South Central ...	—	8	1	—	7	
Ark.	—	1	1	—	1	—
La.	—	7	—	—	6	—
Okla.	—	—	—	—	—	—
Tex.	—	—	—	—	—	—
Mountain	15	21	13	—	8	
Ariz.	—	—	—	—	—	—
Colo.	7	7	—	—	7	—
Ida.	—	11	11	—	—	—
Mont.	4	—	—	—	—	Department of Livestock has only dairy testing lab in the State. Labs in Health and Agriculture test food.
Nev.	—	2	2	—	—	—
N.M.	4	1	—	—	1	3 public health laboratories are certified by FDA
Utah	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—
Pacific	5	1	—	—	—	
Alaska	1	1	—	—	—	Department of Environmental Conservation.
Cal.	—	—	—	—	—	—
Hawaii	4	—	—	—	—	—
Ore.	—	—	—	—	—	Department of Agriculture
Wash.	—	—	—	—	—	Department of Agriculture
Territories	5	2	—	—	2	
Guam	2	—	—	—	—	—
P.R.	3	2	—	—	2	—
V.I.	—	—	—	—	—	—

Lab & Region	Activity of Laboratory Improvement Staff								
	5. Proficiency Testing	6. Field Visits						7. Training	8. Consult.
		LIP Program			Other Program				
		Lic./Permit/App.	Cert.	Other	Lic./Permit/App.	Cert.	Other		
New England									
Conn.	X	X	—	—	—	—	—	X	X
Mass.	—	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—	—
R.I.	X	X	X	—	—	—	—	X	X
Vt.	—	—	—	—	—	—	—	—	—
Middle Atlantic									
N.J.	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—
East North Central									
Ill.	X	—	X	—	—	—	—	X	X
Ind.	X	—	—	—	—	—	—	X	X
Mich.	—	—	—	—	—	—	—	—	—
Ohio	X	—	X	—	—	X	—	—	—
Wisc.	X	X	—	—	—	—	—	X	X
West North Central									
Ia.	—	—	—	—	—	—	—	—	—
Kans.	X	X	—	—	—	X	—	—	X
Minn.	—	—	—	—	—	—	—	—	—
Mo.	X	—	X	—	—	X	—	X	X
Nebr.	—	—	—	—	—	—	—	—	—
N.D.	—	—	X	—	—	—	—	X	—
S.D.	—	—	—	—	—	—	—	—	—
South Atlantic									
Del.	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—	—
Ga.	X	—	X	X	—	—	—	X	X
Md.	X	—	X	—	—	—	X	X	X
N.C.	X	—	X	—	—	—	—	X	X
S.C.	X	—	X	—	—	—	—	X	X
Va.	X	—	X	—	—	—	—	—	X
W. Va.	X	—	X	—	—	—	—	X	X
East South Central									
Ala.	X	—	X	—	—	—	—	X	X
Ky.	X	—	X	—	—	—	—	X	X
Miss.	X	X	—	—	—	—	—	—	—
Tenn.	X	—	X	—	—	X	—	X	X
West South Central									
Ark.	X	—	X	—	—	—	—	—	—
La.	X	—	X	—	—	—	—	X	X
Okla.	—	—	—	—	—	—	—	—	—
Tex.	—	—	—	—	—	—	—	—	—
Mountain									
Ariz.	—	—	—	—	—	—	—	—	—
Colo.	X	—	X	—	—	—	—	X	X
Ida.	X	X	—	—	—	—	—	X	X
Mont.	—	—	—	—	—	—	—	—	—
Nev.	X	X	X	—	X	X	—	X	—
N.M.	X	—	X	—	—	X	—	X	X
Utah	—	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—	—
Pacific									
Alaska	—	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	X	X
Ore.	—	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	—
Territories									
Guam	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	X	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/Permit/App.	Reg.	Cert.	
Total	1,998	1,321	—	1,323	
Average	64	73	—	51	
New England	126	112	—	99	
Conn.	78	78	—	78	—
Mass.	—	—	—	—	Department of Environmental and Quality Engineering
Me.	35	21	—	21	—
N.H.	—	—	—	—	—
R.I.	13	13	—	—	—
Vt.	—	—	—	—	—
Middle Atlantic	—	—	—	—	
N.J.	—	—	—	—	DEP Water Resources
N.Y.	—	—	—	—	—
Pa.	—	—	—	—	Department of Environmental Resources
East North Central	175	119	—	555	
Ill.	—	—	—	73	—
Ind.	56	—	—	56	—
Mich.	—	—	—	—	Division of Water Supply, Bureau of Environmental & Occupational Health, Michigan Dept. of Public Health
Ohio	—	—	—	426	Certificates of approval are granted by the Ohio Environmental Protection Agency. ODH conducts surveys and recommends to OEPA.
Wisc.	119	119	—	—	—
West North Central	191	121	—	65	
Ia.	31	31	—	—	—
Kans.	90	90	—	—	—
Minn.	—	—	—	—	—
Mo.	40	—	—	40	—
Nebr.	15	—	—	15	—
N.D.	15	—	—	10	—
S.D.	—	—	—	—	Federal - Denver EPA office
South Atlantic	319	25	—	325	
Del.	8	7	—	—	—
D.C.	—	—	—	—	—
Fla.	>183	—	—	183	—
Ga.	—	—	—	—	—
Md.	60	—	—	23	—
N.C.	—	—	—	43	—
S.C.	—	—	—	—	Bureau of Analytical and Biological Services, DHEC
Va.	68	—	—	68	—
W.Va.	—	18	—	8	—
East South Central	249	152	—	78	
Ala.	—	—	—	17	—
Ky.	27	—	—	—	Department for Natural Resources and Environmental Protection
Miss.	12	12	—	—	—
Tenn.	210	140	—	61	Microbiology - Division of Laboratory Services; Chemistry - Division of Water Quality
West South Central	16	—	—	24	
Ark.	16	—	—	3	—
La.	—	—	—	13	—
Okla.	—	—	—	8	—
Tex.	—	—	—	—	—
Mountain	190	72	—	141	
Ariz.	39	5	—	34	—
Colo.	32	—	—	32	—
Ida.	—	—	—	25	—
Mont.	17	—	—	17	—
Nev.	19	8	—	11	—
N.M.	54	54	—	—	—
Utah	24	—	—	22	—
Wyo.	5	5	—	—	—
Pacific	721	720	—	35	
Alaska	8	8	—	—	—
Cal.	667	667	—	—	—
Hawaii	9	8	—	—	—
Ore.	37	37	—	—	—
Wash.	—	—	—	35	Non-potable water is the responsibility of the Department of Ecology
Territories	11	—	—	1	
Guam	3	—	—	—	Guam Environmental Protection Agency, 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/Granted Permits/Approved				Registered				Certified			
	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total	Microbiology	Chemistry	Microbiology & Chemistry	Total
Total	336	525	452	1,313	22	6	4	32	718	371	223	1,312
Average	22	75	41	77	22	6	4	32	31	27	16	55
New England	29	15	68	112	—	—	—	—	21	15	63	99
Conn.	8	15	55	78	—	—	—	—	8	15	55	78
Mass.	—	—	—	—	—	—	—	—	—	—	—	—
Me.	11	—	10	21	—	—	—	—	13	—	8	21
N.H.	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	10	—	3	13	—	—	—	—	—	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	—	—	—	—	—	—	—	—	—	—	—	—
N.J.	—	—	—	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—	—	—	—
East North Central	119	—	—	119	—	—	—	—	305	289	—	594
Ill.	—	—	—	—	—	—	—	—	73	—	—	73
Ind.	—	—	—	—	—	—	—	—	56	—	—	56
Mich.	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	—	—	—	—	—	—	—	—	176	289	—	465
Wisc.	119	—	—	119	—	—	—	—	—	—	—	—
West North Central	20	82	19	121	—	—	—	—	53	7	8	68
Ia.	19	1	11	31	—	—	—	—	—	—	—	—
Kans.	1	81	8	90	—	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	40	—	—	40
Nebr.	—	—	—	—	—	—	—	—	3	4	8	15
N.D.	—	—	—	—	—	—	—	—	10	3	—	13
S.D.	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic	19	1	5	25	—	—	—	—	221	8	93	322
Del.	1	1	5	7	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—	97	5	78	180
Ga.	—	—	—	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	—	—	—	—	20	1	2	23
N.C.	—	—	—	—	—	—	—	—	43	—	—	43
S.C.	—	—	—	—	—	—	—	—	—	—	—	—
Va.	—	—	—	—	—	—	—	—	53	2	13	68
W.Va.	18	—	—	18	—	—	—	—	8	—	—	8
East South Central	11	140	1	152	—	—	—	—	33	19	4	56
Ala.	—	—	—	—	—	—	—	—	17	—	—	17
Ky.	—	—	—	—	—	—	—	—	—	—	—	—
Miss.	11	—	1	12	—	—	—	—	—	—	—	—
Tenn.	—	140	—	140	—	—	—	—	16	19	4	39
West South Central	—	—	—	—	—	—	—	—	11	—	—	11
Ark.	—	—	—	—	—	—	—	—	3	—	—	3
La.	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	8	—	—	8
Tex.	—	—	—	—	—	—	—	—	—	—	—	—
Mountain	47	2	23	72	22	6	4	32	47	25	47	119
Ariz.	2	2	1	5	—	—	—	—	21	12	11	44
Colo.	—	—	—	—	22	6	4	32	—	—	—	—
Ida.	—	—	—	—	—	—	—	—	14	4	7	25
Mont.	—	—	—	—	—	—	—	—	8	4	5	17
Nev.	—	—	8	8	—	—	—	—	—	—	11	11
N.M.	40	—	14	54	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—	4	5	13	22
Wyo.	5	—	—	5	—	—	—	—	—	—	—	—
Pacific	91	285	336	712	—	—	—	—	27	8	8	43
Alaska	8	—	—	8	—	—	—	—	—	—	—	—
Cal.	46	285	336	667	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	5	1	2	8
Ore.	37	—	—	37	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	22	7	6	35
Territories	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	—	—	—

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

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

Lab	Program Activity
Alaska	Certification of chemistry laboratory for analysis of breathalyzer ampoules utilized in breath alcohol testing.
Conn.	Recombinant DNA registration and inspection; physicians office proficiency testing; air laboratories; prepare and administer examinations to approve laboratory directors for dairy, food and water HPDES approval, inspection and proficiency testing.
Fla.	Implied consent — permits issued to 3,866 alcohol breath test (law enforcement) technicians, 84 to breath testing instructors and 69 to chemists for blood alcohol analyses. Field staff made 1,512 site visits to certify 762 breath testing machines and 340 law enforcement agencies and schools; workshops, seminars, etc. — TB Level I, Darkfield, Syphilis Serology, SLE Surveillance (specimen collection).
Ida.	Rubella proficiency testing, forensic alcohol testing.
Ind.	All laboratories in the Bureau participate in Proficiency Testing programs sponsored by various Federal agencies and professional organizations: (a) Dairy and Food Microbiology, (b) Food Chemistry, (c) Meat Chemistry, (d) Clinical Microbiology, (e) Virology, (f) Serology, (g) Blood Lead.
Kans.	Breath alcohol program: (1) approval of inst. and operators, (2) field surveys, (3) proficiency samples (4) 38 agencies in program, (5) 400 operators in program.
Me.	Implied consent — breath/blood alcohol testing — certification of chemists (4), laboratories (4) and phlebotomists (> 100)
Mont.	Laboratory training program for labs. Technicians took workshops that provided training and continuing education for clinical lab personnel around the State. Three city-county air quality labs were inspected and evaluated as requested by E.P.A.
N.M.	Internal analytical quality control program activities: (1) monitor precision and accuracy of analytical methods, (2) monitor performance in "check testing" and "proficiency testing" programs.
N.C.	Quarterly newsletter; quality control on media — gonorrhea control program — VD Branch; stock bacterial cultures — collection, maintenance and distribution; audio-visual training materials for loan.
Ohio	State operated proficiency testing program: Mycology, Hemoglobin, Clinical Chemistry, Urinalysis, General Bacteriology, Blood Group and Type, Differential Slide, Enteric Bacteriology, Parasitology, Non-Syphilis Serology, Syphilis Serology.
Pa.	Development, modification, and/or comparison of methodologies useful to the clinical laboratory; selective evaluation of new systems, kits, or modified technologies.
Utah	Training contract from CDC includes workshops presented at different sites in the state; blood alcohol permits — Issue permits which allow individuals to withdraw blood at the request of a peace officer for a blood alcohol or drug determination.

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	1800 Rodac plates = 150 plates — month
Ariz.	5.0	—	—	—	X	McConkeys agar, thiobroth, TSB broth, Hanks solution, charcoal agar slants
Cal.	3.5	—	X	X	—	Febrile, bacterial, antigens: <u>Brucella abortus</u> , <u>Salmonella paratyphi A</u> , <u>Salmonella paratyphi B</u> , <u>Salmonella typhi</u> "H", <u>Salmonella typhi</u> "O", <u>Franciscella tularensis</u> ; immune sera, rabbit: <u>Brucella abortus</u> , <u>Salmonella paratyphi A</u> , <u>Salmonella paratyphi B</u> , <u>Salmonella typhi</u> "H", <u>Salmonella typhi</u> "O", <u>Franciscella tularensis</u> ; febrile antigen produced: <u>Salmonella paratyphi B</u> ; immune sera produced: <u>Brucella abortus</u> . Additional materials are: (a) biologics — rabies infected mouse brain for FRA quality control, positive control sera for various viral CF tests; (b) reagents — fluorescein — conjugated antibody preparations for rabies, Varicella—zoster, <u>Chlamydia trachomatis</u> (L-2)
Colo.	1.0	—	—	X	—	Jem-bec plates (Martin—Lester) for gonorrhea
Conn.	2.5	—	—	X	X	VDRL antigen and VDRL buffered saline, serum controls for syphilis serology, group A streptococcus FA conjugate, group A streptococcus office culture kits
D.C.	2.0	—	—	—	X	—
Ga.	4.0	—	—	—	X	Improved Thayer-Martin
Ill.	2.2	—	—	X	X	Reagents — alcohol calibration standards distributed for breath testing equipment
Ia.	3.0	—	—	X	X	The Media Production Unit serves the various diagnostic and environmental microbiology units of the University Hygienic Laboratory. In addition media is provided at cost to laboratories in the University Hospitals and to various research laboratories in the College of Medicine. A wide array of items is produced ranging from primary plating and enrichment media to specific media for biochemical identification of almost anything that can be cultured.
La.	1.0	—	—	—	X	L—J media (TB), modified Thayer-Martin
Mass.	51.0	X	—	X	—	Albumin (normal), immune globulin, tetanus immune globulin, Rh immune globulin, DTP, diphtheria and tetanus toxoids (adult), Td (adult), tetanus toxoid (adult), typhoid vaccine, Schick test outfits, concentrated diphtheria toxoid, concentrated tetanus toxoid, pertussis vaccine, horse serum (normal), horse blood (defib.)
Mich.	—	X	—	—	—	Human blood derivatives: antihemophilic factor (factor VIII), immune serum globulin, normal serum albumin; bacterial vaccines: anthrax vaccine, diphtheria antitoxin, diphtheria toxoid adsorbed, diphtheria & tetanus toxoids adsorbed, diphtheria & tetanus toxoids & pertussis vaccine adsorbed, tetanus toxoid adsorbed, tetanus & diphtheria toxoids adsorbed (adult), typhoid vaccine, pertussis vaccine adsorbed.
Minn.	1.0	—	—	—	X	Modified Thayer-Martin plates for GC screening program
Mo.	3.0	—	—	—	X	Total media required in the V.D. project in Missouri statewide culture screening program
Nev.	2.0	—	—	X	X	Thayer-Martin medium for GC control program. Other media and reagents for in-house only.
N.H.	0.5	—	—	X	X	—
N.D.	0.5	—	—	X	X	Modified Thayer-Martin, JEMBEC plates, Amies transport media, nitrate spot testing reagents and standards

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			
Ohio	6.5	—	—	X	X	Thayer-Martin plates, primarily.
S.C.	—	—	—	X	X	342 liters media (47 types), 384 liters reagents (20 stains and solutions pro- duced for Environmental Quality Control Labs
S.D.	1.0	—	—	—	X	Martin-Lewis medium
Tenn.	6.0	X	X	X	X	Isovitalex, VCN, physiological saline, gonopak media, Jones—Kendrick medium, OADC, trypticase soy agar, Thayer—Martin medium
Wash.	1.0	—	—	—	X	Tabco ₂ (GC) plates, Thayer-Martin culture plates
W.Va.	4.0	—	—	X	X	Typhoid preservative (buffered glycerol — NaCl), gastric lavage (disodium phosphate solution), parasite preservative (10% formalin), parasite preservative (polyvinyl alcohol fixative), viral throat washing (tryptose phosphate broth with 0.5% gelatin), blood vials (serology), sample bottles for bacteriological examination of water, transgrow, tuberculosis bottles (Na ₂ CO ₃ buffered), parasite bottles (no preservative)
Wisc.	5.5	—	—	—	X	— (Not produced for outside distribution)

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
Ala.	IWGNT Open—Ended Study on Slowly Growing Mycobacteria CDC — Primary Drug Resistant Study	—	—	X	—	—
Cal.	Sampling and Analyt. Prob. in Air Poll. Validation of Samplers for Particles Env. Carcinogens by Cell Transform.	2.5 0.5 1.0	X X X	— — —	— — —	— — —
Fla.	Naegleria Activity in Central Fla. Lakes	4.0	—	X	X	X
Ga.	A New Medium for Bacillus Spores "Normal" Titers to Viruses — Georgia	— —	— —	— —	X X	— —
Ill.	Culex Ovitrap Development	0.3	—	—	X	—
Ia.	Developing Methods for Separation Identification and Quantification of Complex Hydrocarbons Found in Cool Liquefaction and Gasification Plants and Petroleum Refineries.	1.5	—	X	—	—
La.	Distribution of Vibrios and Related Specimens Pathogenic and Non-pathogenic in Shellfish	3.0	X	—	X	—
Mass.	Rapid Diagnosis of Respiratory Viruses (in collaboration with Harvard School of Public Health)	0.2	—	X	—	—
Pa.	CAT Test for Legionellosis Prevalence of L.D. Rapid Detection of Viral Ag. by FA Development of Glycohemoglobin Control Material	0.1 0.2 0.3 1.0	— — — —	— — — —	X X X 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
Alaska	IHNV — Research Project	—	—	—	X	—
Conn.	Identification of L.D. Antigen in Serum	—	—	—	X	—
	Forensic Electrophoretic Serotyping	—	—	—	X	—
	Immunological Detection of Mucoprotein	—	—	—	X	—
	Pyrolysis Products of Bldg. Materials	—	—	—	X	—
	Microscopic Differentiation of Stereoisomers	—	—	—	X	—
Ga.	Storage of Fungus Stocks	—	—	—	X	—
	Simple Maintenance of Bacteria	—	—	—	X	—
	Freeze-preparation of Bacteria	—	—	—	X	—
Ida.	Human Monitoring	2.0	—	X	—	—
	Method Development	2.0	—	X	—	—
	Health Effect	1.0	—	X	—	—
	Incident Investigations	1.0	—	X	—	—
Ill.	Viruses in Potable Water	0.3	—	—	X	—
	Aedes — LaCrosse Virus Study	0.2	—	—	X	—
Ia.	Legionnaires'	0.5	—	—	—	X
	Arbovirus	0.25	—	—	X	—
	Insulation Formaldehyde Emission	0.25	—	—	—	X
Kans.	Significance of Age and Weight on T ₄ Results	—	—	—	X	—
La.	Automated Torch Screening for Newborns in the State of Louisiana	3.0	—	—	X	—
Mass.	Laboratory Training Program	4.0	—	X	—	—
	Technical Consultation Program	4.0	—	X	—	—
	Laboratory Training Program	5.0	—	X	—	—
	Proficiency Testing Program	3.0	—	X	—	—
Okla.	RMSF Latex Agglutination	0.1	—	—	—	—
Pa.	Evaluation of Rubella Reagents	0.1	—	—	X	—
	Development of a TOM P.T. System	1.0	—	—	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
Conn.	High Pressure Liquid Chromatography of Drugs of Abuse	—	—	—	X	—
	Radioimmunoassay of Drugs of Abuse	—	—	—	X	—
Ga.	Modified Phadebact Gonococcus Test	—	—	—	X	—
Kans.	Application of Ames Test to NPDES	—	—	—	X	—
N.C.	Development of Serological Tests for Rocky Mountain Spotted Fever	1.0	—	X	—	—
Ohio	Reye Syndrome Virus Studies	3 p.t.	—	—	X	—
	Virocult Transport Media Eval.	3 p.t.	—	—	X	—
Okla.	AFB Sensitivity	0.1	—	—	—	—
Pa.	IFA for RMSF	0.2	—	—	X	—
	Virus-specific Immunoglobulin Detect.	0.3	—	—	X	—
	Serum Treatment for Arbovirus HI	0.1	—	—	X	—
	Modification of Hemoglobin F Procedure	0.5	—	—	X	—
	Staphylococcal Enterotoxins	0.1	—	—	X	—
	Carbo. Base for Gram Neg. Fermentors	0.3	—	—	X	—
	CLC Ident. — Gram Neg. Fermentors	0.2	—	—	X	—

SECTION V
SPECIAL QUESTIONS

Table 5-1
I. LABORATORY ORGANIZATIONAL STRUCTURE

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1980	Description of Organizational Change
	State Health Department	State Laboratory		
Ala.	12/01/79	11/01/79	X	Branch labs in Anniston, Selma, Huntsville and Tuscaloosa were closed.
Alaska	08/01/78	08/01/78	X	Virus and Microbiology Units have been consolidated.
Ariz.	10/78	07/31/80	X	Epidemiology section consolidated with Bureau of Chronic Diseases.
Ark.	—	—	—	—
Cal.	—	—	—	—
Colo.	1977	1977	—	—
Conn.	06/01/79	06/30/80	X	Asst. Dir, Clinical Chemistry changed to Chief of Lab. Standards. Chiefs of Hematology, Clinical Chemistry, and Laboratory Standards all report to Director.
Del.	—	—	—	—
D.C.	02/21/80	05/01/80	X	All health service except Envir. now under Commissioner of Public Health
Fla.	—	—	X	Lab. cert. and reg. removed from State Public Health Lab.
Ga.	09/14/77	07/01/78	—	—
Guam	05/23/80	11/02/79	X	Laboratory now divided into two sections with a Medical Technologist supervisor supervising each section.
Hawaii	07/01/80	07/01/80	—	—
Ida.	07/01/79	07/01/78	—	—
Ill.	09/15/80	11/03/80	—	—
Ind.	01/79	01/79	—	—
Ia.	—	—	—	—
Kans.	10/30/80	06/30/80	—	—
Ky.	06/01/80	10/01/80	X	Paducah Branch Laboratory closed on June 20, 1980.
La.	09/80	03/79	X	—
Me.	07/01/79	12/31/79	—	—
Md.	07/14/80	01/12/79	X	Change occurred in Virology Division
Mass.	1979	07/80	X	Newborn screening has become a separate division.
Mich.	10/01/78	10/01/78	—	—
Minn.	07/80	11/79	—	—
Miss.	—	10/23/78	—	—
Mo.	02/01/80	01/01/80	—	—
Mont.	07/01/79	07/01/79	X	Admin. Asst. added to laboratory division. A Trace Organics/Pesticide section added to Chemistry Laboratory Bureau.
Nebr.	09/01/76	01/01/80	X	Lab operating without Asst. Dir. Three section chiefs fulfill asst. dirs. responsibilities.
Nev.	07/01/79	10/01/78	—	—
N.H.	06/13/73	06/13/73	—	—
N.J.	—	—	—	—
N.M.	11/01/80	06/19/80	X	Supply section transferred from Program Support Bureau to Fiscal Office.
N.Y.	—	—	—	—
N.C.	11/01/80	11/01/80	X	Combined Syphilis Serology and Virology Branches.
N.D.	01/77	01/79	—	—
Ohio	—	10/10/80	—	—
Okla.	03/80	09/78	X	Asst. Chief, Laboratory Services' position abolished.
Ore.	11/01/80	11/28/80	X	Central Processing Section has been created.

Table 5-1
I. LABORATORY ORGANIZATIONAL STRUCTURE – Continued

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1980	Description of Organizational Change
	State Health Department	State Laboratory		
Pa.	08/80	Chngs. Pndg.	X	Bureau of Lab. now reports to Deputy Secretary for Planning and Quality Assurance.
P.R.	—	—	—	—
R.I.	06/01/80	06/01/80	X	Associate Director of Health is under the Director of Health.
S.C.	10/21/80	06/30/80	X	Agency restructured during FY 1980. Deputy Chief and an Assistant Chief were deleted. Two asst. chiefs with different lines of authority were added.
S.D.	—	—	—	—
Tenn.	02/01/79	10/20/78	—	—
Tex.	—	09/01/80	X	There are now three divisions; Microbiology, Chemistry, and Support Services.
Utah	05/17/80	05/01/80	—	—
Vt.	—	07/01/80	—	—
Va.	—	—	—	—
V.I.	—	—	—	—
Wash.	11/79	11/78	—	—
W.Va.	06/80	01/80	—	—
Wisc.	07/01/79	07/01/79	—	—
Wyo.	1969	1971	—	—

Table 5-2
PREMARITAL EXAMINATION LAWS
DATA CONTAINED IN THIS SECTION PERTAINS ONLY TO THOSE STATES WHERE A CHANGE IN THE LAW GOVERNING PREMARITAL EXAMINATIONS HAS OCCURRED.

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 Latest Revision	Minimum Age Legal	Minimum Age With Consent	Minimum Age F (a)	Minimum Age M F (a)	Certificate Required May Be From (b)	Valid Period in Days	Waiting Period Exceptions (c)	Conditions of Waiver (d)	Physical Exam. Required—Qualifications (e)	Kind of Serology Required—Qualifications (f)	Test for Other Disease (g)	Serology Accepted From Other Than State Approved Labs (h)	Provision for Free Test—Qualifications (i)	Provision for Free Physical Exam	Premarital Forms of Other States Accepted—Qualifications (j)	Test Results Filed With State Health Department—Qualifications (k)	STATES AND TERRITORIES
Colorado	1979	18	18	16	16	(1-3,5)	None	None	None	No	None	8	(1-5,8-11)	Yes	No	Yes	No	Colorado
Connecticut	1980	18	18	16	16	(1-3,5)	35	4 days	(6)	Yes (1)	1	8	(1-5,8,10)	No	No	Yes (8)	Yes (1)	Connecticut
Indiana	1980	18	18	17	17 (3)	(1-3,5)	30	3 days	(6)	Yes	2	12	(1-5,8)	No	No	No	No	Indiana
Massachusetts	1974	18	18	(11)	(11)	(1-3,5,6)	30	3 days	(1,3,8)	Yes	1	None	(1-6,9,10)	Yes	No	Yes (1)	No	Massachusetts
Missouri	No Law	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Missouri
New Mexico	1979	21	18	18	16	(1-3,5)	30	None	None	Yes	1	None	(1-5,8-11)	Yes	No	Yes	Yes (1)	New Mexico
Ohio	1972	18	18	18	16	(1-3,5)	30	5 days	6	No	1	None	(1-5,8,9,11)	Yes (1)	No	Yes	Yes (1)	Ohio

This chart has been checked for accuracy to August 1979. It will be revised as often as necessary to keep it up to date. Persons noting errors or suggesting revisions are urged to write (citing references) to: Director, Venereal Disease Control Division, Centers for Disease Control, Atlanta, Georgia 30333.

Table 5.2
PREMARITAL EXAMINATION LAWS

DATA CONTAINED IN THIS SECTION PERTAINS ONLY TO THOSE STATES WHERE A CHANGE IN THE LAW GOVERNING PREMARITAL EXAMINATIONS HAS OCCURRED

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

STATES AND TERRITORIES	Effective Year of Latest Revision	Minimum Age Legal		Minimum Age With Consent		Certification Required May Be From (b)	Valid Period in Days	Waiting Period Except Trans (e)	Condoms of Waiver (d)	Physical Exam Required - Qualifications (e)	Kind of Serology Required - Qualifications (f)	Test for Other Diseases (g)	Serology Accepted From Other Than State Approved Labs (h)	Provision for Free Test - Qualifications (i)	Provision for Free Physical Exam	Premarital Form of Other States Accepted - Qualifications (j)	Test Results Filed With State Health Department - Qualifications (k)	STATES AND TERRITORIES
		M	F (a)	M	F (a)													
Colorado	1979	18	18	16	16	(1,3,5)	30	None	None	No	None	8	(1,5,8,11)	Yes	No	Yes	No	Colorado
Connecticut	1980	18	18	16	16	(1,3,5)	35	4 days	16	Yes (1)	1	8	(1,5,8,10)	No	No	Yes (8)	Yes (1)	Connecticut
Indiana	1980	18	18	17	17 (3)	(1,3,5)	30	3 days	16	Yes	2	12	(1,5,8)	No	No	No	No	Indiana
Massachusetts	1974	18	18	(11)	(11)	(1,3,5,6)	30	3 days	(1,3,8)	Yes	1	None	(1,6,9,10)	Yes	No	Yes (1)	No	Massachusetts
Missouri	No Law	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Missouri
New Mexico	1979	21	18	18	16	(1,3,5)	30	None	None	Yes	1	None	(1,5,8,11)	Yes	No	-	Yes (1)	New Mexico
Ohio	1972	18	18	18	16	(1,3,5)	30	5 days	6	No	1	None	(1,5,8,9,11)	Yes (1)	No	Yes	Yes (1)	Ohio
Oregon	1979	18	18	17	17	(1,3,5)	30	3 days	6	Yes	3	None	7	Yes	No	Yes	No	Oregon
Utah	1981	18	18	14	14	(1,3,5)	30	None	2	Yes	1	4	(1,5)	Yes	No	Yes (1)	Yes	Utah

(a) MINIMUM AGE

- (1) Legal Hearing before Judge, M (14,16) F (14,16)
- (2) With Consent - Under 16 with court order
- (3) With Consent - 15 for pregnant female or mother with court order
- (4) Legal - Under 17 requires consent of both parents, six hours counseling, consent of probate judge
- (5) With Consent - (Consent of 3 parents)
- (6) With Consent - (Consent of parents & district court judge)
- (7) With Consent - (Female more than 12 years of age who is pregnant or has given birth)
- (8) With Consent - (Must be waived by judge if girl is pregnant)
- (9) With Consent - Under 18 parental consent - Under 18 parental consent and judicial approval of that consent
- (10) In Cook County
- (11) With Consent - Subject to judicial review if under 18

(b) CERTIFICATES REQUIRED FROM

- (1) Any licensed physician
- (2) Medical officers of the Armed Forces
- (3) Medical officers of the Public Health Service
- (4) State licensed physician only
- (5) Any licensed osteopath
- (6) State licensed osteopath
- (7) Males, no certificate required - females over age 45, no certificate required, and females under age 45, no certificate required if incapable of bearing children because of previous surgery or other physical conditions, but must have signed statement from physician stating the condition

(c) EXCEPTIONS

- (1) If not of age 3 days
- (2) Non residents - 4 days
- (3) If under 21, 3 days
- (4) Unusual condition as to make marriage advisable
- (5) None, if both are 18 or over, 3 days if female 16 or 17

(d) CONDITIONS OF WAIVER

- (1) Pregnancy or to legitimize a child
- (2) Emergency defined by State Board of Health or a judge
- (3) Impending death
- (4) License issued despite communicability with signed agreement to take or continue treatment
- (5) Religious objections
- (6) Good cause as defined by a judge
- (7) No danger to public health
- (8) Infected applicants must take treatment
- (9) Only in pregnancy of minor
- (10) Rubella section - If physician documents the criteria for the waiver

(e) QUALIFICATIONS

- (1) If serology is positive or doubtful
- (2) Physician must sign statement that he has counseled female regarding her immunity against Rubella
- (3) Males - No physical examination required - females over age 45, no physical examination required and no physical examination required for females under age 45 if incapable of bearing children because of prior surgery or other physical conditions, but must have a signed statement by physician stating the condition

(f) KIND OF SEROLOGY REQUIRED

- (1) Serological test for syphilis listed in PHS Publication #679 (1959) or later revision may be used
- (2) Serological test for syphilis listed in PHS Publication #611 (1959) or later revision may be used, also test for immunity against rubella.
- (3) Physician must certify applicant free of VD
- (4) Males: No blood test required, females over age 45, no blood test required and females under age 45 and incapable of bearing children because of prior surgery or other physical condition, no blood test required, but must have signed statement from physician stating the condition
- (5) Under age 45, capable of child bearing. A physician licensed to practice medicine shall obtain blood samples from the female applicant and cause serological tests to be made for rubella, immunity and Rh type by serological methods specified by the Department of Health, and he shall provide her with his certificate stating that such tests have been made and informed her of the results of such tests and their medical significance

(g) TESTS FOR OTHER DISEASE

- (1) Physical inspection for gonorrhea
- (2) Microscopic test for gonorrhea
- (3) Must be certified free from gonorrhea and chancroid also
- (4) Must be certified free from all venereal diseases
- (5) Tuberculin test
- (6) Mental competence
- (7) Rubella titer and blood group on females under 55
- (8) Tests for Rubella on females under age 50 and capable of bearing children
- (9) Sickie cell test must be offered and counseling provided to all applicants
- (10) Rubella test on all females capable of pregnancy
- (11) Rubella test for female applicants
- (12) VDRL, RPR, or ART, sickie cell test if physician deems it necessary

(h) SEROLOGY ACCEPTED FROM OTHER THAN STATE APPROVED LABORATORIES

- (1) Department of Health Laboratories of other States
- (2) Branch laboratories of other State Health Departments
 - a. If State has comparable premarital blood test law
 - b. Only of Kansas, Missouri, Arkansas, Texas
- (3) Laboratories of the Armed Forces
- (4) Public Health Service Laboratories
- (5) Laboratories approved by other State Health Departments
 - a. If State has comparable premarital blood test law
 - b. Provided respective State Department of Health, or Bureau of Laboratories (Division) certifies that such laboratory is currently on their official approved list
- (6) New York City and District of Columbia
- (7) Serology is not State required
- (8) District of Columbia
- (9) Laboratories of U.S. Territorial Health Departments
- (10) Laboratories of Official Provincial Health Departments of Canada
- (11) Laboratories of U.S. Veterans Administration Medical Center
- (12) Baltimore, Maryland Health Department
- (13) Provided documentation furnished that sickie cell test and rubella test requirements met

(i) QUALIFICATIONS

- (1) Yes, for Armed Forces, indigent, temporary non-residents only

(j) QUALIFICATIONS

- (1) If other State has comparable premarital law
- (2) If wording is exactly as Wisconsin certificate
- (3) Premarital reports of other states will be accepted only if the other state has a comparable premarital law on test for rubella
- (4) If laboratory is State approved and if form is signed by physician and applicant
- (5) If serology was performed at State approved laboratory
- (6) If form is from other State laboratories or other State approved laboratories (not physician laboratories form)

(k) QUALIFICATIONS

- (1) If positive
- (2) If laboratory is not operated by State Board of Health
- (3) If positive test performed by State laboratory
- (4) If positive must have State Board of Health dispensation

REVISION

This chart has been checked for accuracy to August 1979. It will be revised as often as necessary to keep it up to date. Persons noting errors or suggesting revisions are urged to write (including references) to: Director, Venereal Disease Control Division, Centers for Disease Control, Atlanta, Georgia 30333

Table 5-4
LABORATORY FACILITY PLANNING AND ENERGY CONSERVATION

Lab & Region	Year Laboratory Completed	New Laboratory Facility Planning										Energy Conservation Program					
		Planning in Progress	Planning Anticipated	Funds Provided For Planning	Funds Provided For Const.	Date Construction To Begin	Cost of Construction	Architect Selected	Estimated Gross Square Feet	Estimated Net Space	Lab to Be Sep. Bldg.	Lab to Replace Present Lab.	Bldg. To Be An Addition	Alterations To Be Made	Energy Conser. Program Formed	Energy Conser. Practices Implemented	Energy Conser. Committee Established
New England	Conn.	X	X	—	X	1981	8,200,000	X	45,000	32,000	—	—	X	—	X	X	X
	Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Me.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
	N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
	R.I.	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Vt.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	N.J.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—
	N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—
	Pa.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
East North Central	Ill.	X	—	X	—	1983	10,500,000	—	39,000	23,470	X	—	—	—	—	—	—
	Ind.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Mich.	X	X	X	—	Unknown	2,000,000	X	16,600	10,400	X	X	X	—	X	—	—
	Ohio	—	—	—	—	1984/5	5,325,000	—	43,000	24,000	—	X	—	—	X	—	—
	Wis.	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West North Central	Ia.	—	X	—	—	—	4,600,000	—	26,500	18,600	—	—	X	—	X	X	X
	Kans.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Minn.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Mo.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Nebr.	X	X	X	—	1980	67,000	X	2,800	2,000	—	X	X	—	—	—	—
	N.D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	S.D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic	Del.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	D.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Fla.	X	X	—	—	1981-2	3,680,000	—	20,000	—	—	—	X	—	X	X	X
	Ga.	—	X	—	—	1982	819,000	—	—	12,578	—	X	—	—	—	—	—
East South Central	Md.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	N.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	S.C.	—	X	X	—	Unknown	—	X	133,425	—	—	X	X	X	—	X	X
	Va.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	W.Va.	—	X	—	—	—	2,500,000	—	2,500	2,000	X	—	—	—	—	—	—
	Ala.	X	X	—	—	1981-2	100,000	—	3,100	2,900	X	—	—	—	X	—	—
	Ky.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—
West South Central	Miss.	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—	—
	Tenn.	X	X	—	—	1983	8,000,000	—	—	114,000	—	—	—	—	—	—	—
	Ark.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	La.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mountain	Ola.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tex.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ariz.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Colo.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ida.	X	—	—	X	In Progress	1,710,000	—	—	—	—	X	X	X	X	X	—
	Mont.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific	Nev.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	N.M.	—	X	—	—	1983	750,000	—	5,750	5,000	—	X	—	X	X	X	—
	N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Utah	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Wyo.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Territories	Alaska	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Cal.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ore.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Wash.	X	—	X	—	1983	8,500,000	—	73,000	49,000	X	—	—	X	X	X	X
Territories	Guam	X	X	—	—	1981	—	X	—	—	X	—	—	X	—	—	—
	P.R.	—	—	—	—	1981	—	—	—	—	—	—	—	—	—	—	—
	V.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

