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CONSOLIDATED ANNUAL REPORT
on
State and Territorial
Public Health Laboratories

Fiscal Year 1980

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

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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

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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

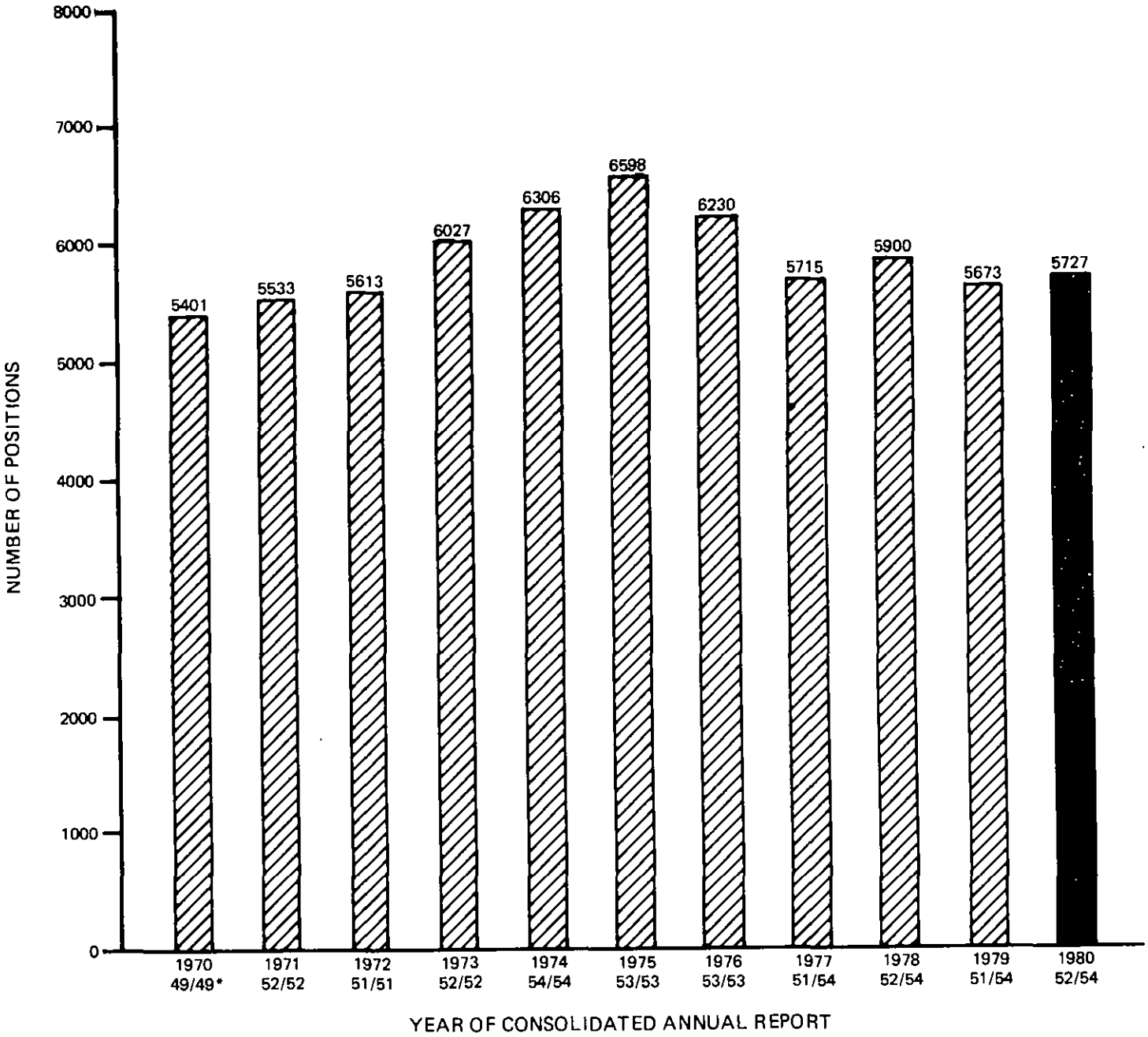
The CAR was initiated by ASTPHLD in 1963. The report is designed to provide comprehensive data concerning state and territorial laboratories to ASTPHLD.

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

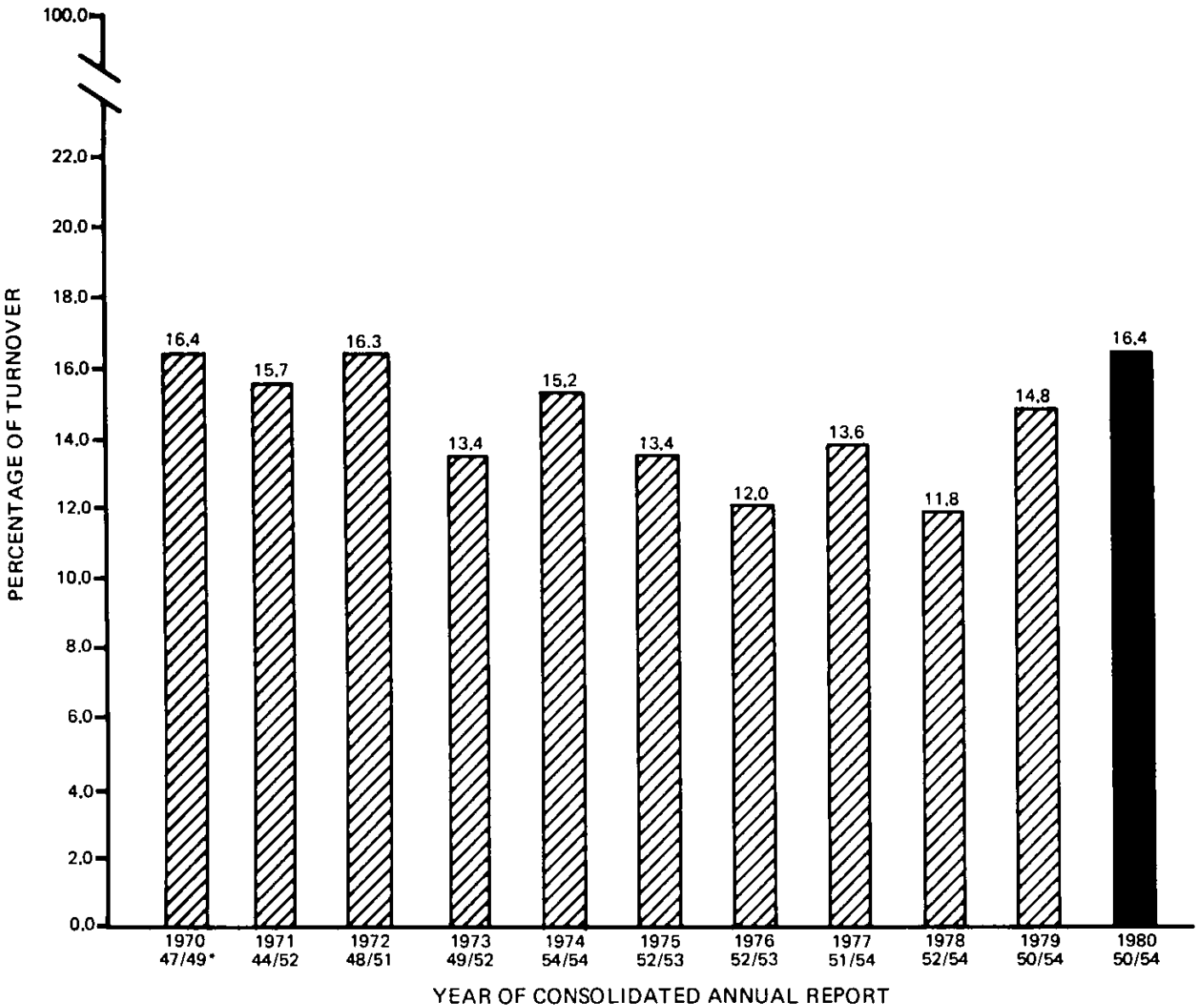
SECTION I
SUMMARY TABLES

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



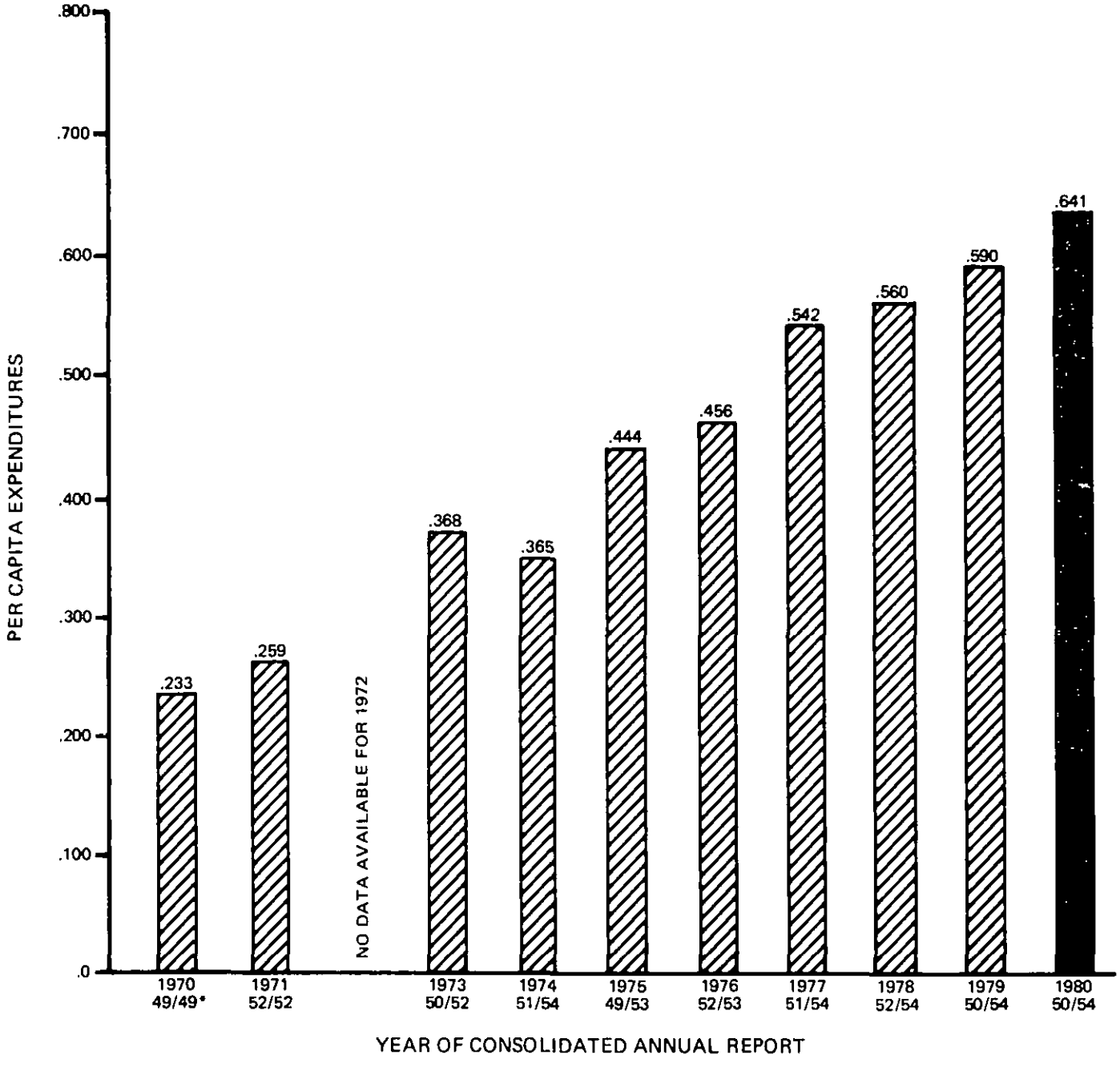
*49/49 = INDICATES 49 LABS REPORTED THIS TYPE DATA OUT OF A UNIVERSE OF 49 LABS.

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

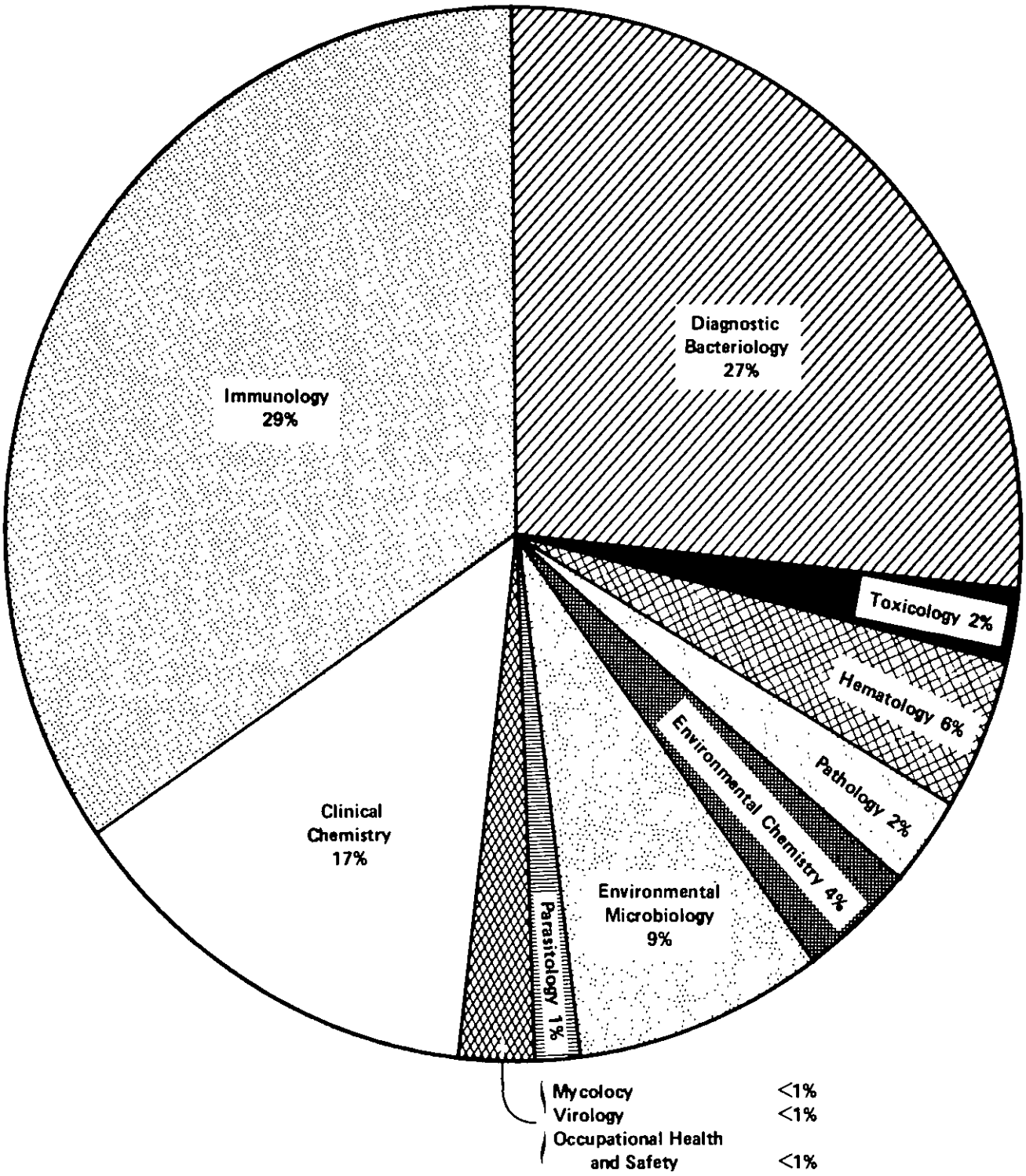


Table 1-5
SUMMARY OF LABORATORY EXPENDITURES, POSITIONS, AND SPECIMENS

Lab. & Region	Population X 1000	Expenditures		Laboratory Personnel						Specimens	
				Budgeted Positions			Budgeted Prof. & Tech. Positions				
		Total Laboratory	Expenditure Per Capita	Budgeted Positions	Positions To Population	Expenditure Per Position	Budgeted Positions	Positions To Population	Expenditure Per Position	Total Lab. Specimens	Specimens Per Capita
Total	**191,341**	**122,599,260**	**0.641**	**5312.6**	**1:36,018**	**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	**12,280**	**13,228,699**	**1.076**	**657.8**	**1:18,708**	**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	1:12,387	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**	**1:100,882**	**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**	**3,362,084**	**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	0.089
N.D.	657	610,489	0.929	33.0	1 19,909	18,500	21.0	1:31,286	29,071	184,715	0.281
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	**28,779**	**21,618,224**	**0.723**	**1898.0**	**1:27,171**	**19,631**	**711.6**	**1:41,854**	**30,241**	**7,576,185**	**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	30,583	2,098,260	0.237
Ga.	*5,117*	*2,544,906*	*0.497*	*137 0*	*1 37,350*	*18,578*	*71 0*	*1 72,070*	*35,844*	*955,503*	*0.187*
Md.	4,148	5,028,066	1.212	265.0	1 15,653	18,987	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**	**9,428,847**	**0.668**	**443.8**	**1:31,782**	**21,228**	**278.3**	**1:51,056**	**34,086**	**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**	**610.0**	**1:44,059**	**22,186**	**330.6**	**1:67,888**	**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	**18,673**	**10,334,415**	**0.868**	**440.8**	**1:24,213**	**23,446**	**281.5**	**1:37,914**	**36,712**	**1,834,588**	**0.172**
Ariz.	2,450	1,604,347	0.655	82 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**	**1,257,789**	**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**	**348,853**	**0.105**
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
V.I.	95	—	—	—	—	—	—	—	—	61,568	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		Budgeted Positions						Budgeted Prof. & Tech. Positions						Total Lab. Specimens X1000		Specimens Per Capita	
					Budgeted Positions		Positions To Pop.		Expenditure Per Position		Budgeted Positions		Positions To Pop.		Expenditure Per Position					
	State	$	State	Ratio	State	#	State	Ratio (X1000)	State	$	State	#	State	Ratio (X1000)	State	$	State	#	State	Ratio
Total		122,599		0.641		5,312.6		1:36		23,077		3,337.4		1:67		36,735		27,083		0.141
Average		2,452		—		114.5		—		—		66.8		—		—		511		—
1	Cal.	15,137	Alaska	3.912	Cal	408.8	Guam	1:8	Alaska	39,712	Cal.	256.9	R.I.	1:12	Alaska	79,424	Tex	2,966	V.I.	0.649
2	N.J.	5,747	R.I.	2 601	Fla.	278.0	R.I.	1.8	Cal.	37,028	Md.	187.0	Guam	1 13	Pa.	64,955	Fla.	2,098	D.C.	0 519
3	Tex.	5,673	Guam	1 932	Md.	265.0	Alaska	1:10	Ky.	28,921	Fla.	178.0	D.C.	1:18	Wash.	60,003	Md.	1,392	Wyo.	0.475
4	Fla.	5,443	Ida.	1.690	Conn.	228.0	Ida.	1:12	Pa.	28,379	Conn.	163.0	Conn.	1.19	Cal.	58,923	Ala.	1,190	Alaska	0.444
5	Md.	5,028	D.C.	1.648	Mass.	216 0	Conn.	1:14	Wisc.	28,016	N.J.	144.0	Alaska	1 20	Wisc.	50,202	Mich.	996	R.I.	0.429
6	Wisc.	4,945	N.M.	1.632	N.J.	210 0	D.C.	1:15	Ia	27,780	Tex.	144.0	Ida.	1.22	Ky.	44,052	Ga.	956	Miss.	0.361
7	Ohio	4,499	Conn.	1.435	Tex.	210.0	N.M.	1:15	N.J.	27,364	Ala.	107.0	Md.	1 22	Ia.	43,110	Miss.	877	Md.	0.336
8	Conn.	4,471	Hawaii	1.291	Wisc.	176.5	Md.	1:16	Tex.	27,012	Mass.	106.0	Hawaii	1:23	Ohio	42,845	Ohio	807	Hawaii	0.317
9	Mass	4,460	Utah	1 282	Ohio	174.0	Hawaii	1.16	Wash.	27,001	N.C.	105.0	Vt	1:23	Mass.	42,073	Va.	788	Ala	0.316
10	Ia.	3,492	Md.	1 212	La.	163.0	Vt.	1.16	Ariz.	25,887	Ohio	105.0	Del.	1:24	Minn.	40,772	N.C.	788	Ida.	0.295
11	Ala.	3,261	Ia.	1.203	N.C.	162.0	Del.	1:17	Ohio	25,855	Wisc.	98.5	N.M.	1:24	Nebr.	40,102	Tenn.	778	N.D.	0.281
12	N.C.	3,208	Nev.	1.132	Ala.	158.0	N.D.	1:20	Utah	25,585	Ill.	90.0	Utah	1:31	N.J.	39,906	Wisc.	777	Vt.	0.265
13	Ill.	3,163	Del.	1 118	Ill.	157.0	Utah	1 20	Nebr.	25,519	P R.	90 0	N D.	1:31	Nev.	39,722	S.C.	733	Del.	0.254
14	La.	3,117	Wisc.	1.047	Tenn.	145.0	Nev.	1:21	Ore.	24,903	La	89.5	Me.	1:32	N.M.	39,714	La.	729	S.C.	0.250
15	Pa.	2,923	Vt.	1.017	P.R.	138.0	Me.	1 22	Wy.	24,779	Ia.	81.0	Nev.	1:35	Tex.	39,393	N.J.	675	Fla.	0.237
16	S.C.	2,652	S.D.	0.933	Ga.	137.0	Ia.	1 23	D.C.	24,292	S.C.	80.5	Ala	1:35	Utah	39,384	Mass.	657	N.M.	0.231
17	Ky.	2,568	N.D.	0.929	Ia.	125.7	P.R.	1:23	N.M	24,112	Tenn.	78.0	P.R.	1:35	Ore.	38,551	Mo.	568	Tex.	0.222
18	Ga.	2,545	S.C.	0.905	S.C.	117.5	Ala.	1 24	Nev.	24,074	R.I.	75.0	Ia.	1:36	Ariz.	38,199	Ill.	562	Ark.	0.207
19	R.I	2,416	Me.	0.899	R.I.	111.0	La.	1:25	Ind	24,016	Ga.	71.0	S.C.	1:36	Ida.	36,419	Conn.	542	N.H.	0.203
20	Tenn.	2,400	Ala	0.865	Pa.	103 0	Mont.	1 25	S.D.	23,468	Ind	67.0	Ark.	1:37	Miss.	36,080	Colo.	539	Colo.	0.194
21	Wash.	2,160	Mont.	0.802	Ky.	88.8	S.C.	1.25	Miss.	22,897	Ark.	59.0	S.D.	1:38	Ga.	35,844	Ia.	473	Ga.	0.187
22	Ind.	2,065	Wyo.	0.793	Ind.	86.0	S.D.	1:25	S.C.	22,573	Ky.	58.3	Mont.	1 39	S.D.	35,724	Ore	465	Ore.	0.184
23	N.M.	2,025	N.J.	0 784	Minn	86.0	Ark.	1:26	Colo.	21,877	Colo.	52.0	La	1:45	Wyo.	35,682	Okla.	460	La.	0 181
24	Minn.	1,876	La.	0.776	Ark.	84.0	Mass.	1.27	Minn.	21,809	Kans.	52.0	Wyo.	1:45	Ill.	35,142	Ark	450	W. Va.	0.178
25	Utah	1,752	Mass.	0 773	N.M.	84.0	Wisc.	1:27	R.I.	21,770	N.M.	51.0	Kans.	1:45	La	34,829	Minn.	404	Tenn.	0.178
26	Mo	1,687	Ky.	0.728	Kans.	83.0	Kans	1:29	Ida.	21,127	Mo.	50.0	Wisc.	1:48	Mo.	33,740	R.I.	399	Conn	0.174
27	Ore.	1,646	Cal.	0.667	Mo.	80.0	Tenn.	1:30	Mo.	21,088	Minn	46.0	Fla.	1:50	S.C.	32,949	D.C.	340	S.D.	0.173
28	Colo.	1,640	Ariz.	0 655	Wash.	80.0	Wyo.	1:31	Hawaii	20,910	Pa.	45.0	N.J.	1:51	R.I.	32,220	W. Va.	334	Utah	0 172
29	Ariz	1,604	Ark.	0 652	Colo	75.0	Fla.	1:32	Mass.	20,647	Utah	44.5	Colo.	1 53	Colo.	31,554	Kans.	317	Wisc.	0.165
30	Alaska	1,588	Ore.	0 651	Ida.	72.4	W. Va.	1 33	Ala	20,642	Ore.	42.7	N.C.	1:53	Mont.	31,520	Ky.	300	Ia.	0.163
31	Ida	1,530	Kans	0.635	Utah	68.5	N.J.	1:35	Okla.	20,615	Ariz.	42.0	Mass.	1:54	Ind.	30,628	Hawaii	290	Okla.	0.159
32	Kans.	1,505	Fla.	0.614	Ore.	66 1	N.C.	1:35	Ill.	20,145	Ida.	42 0	Tenn.	1 56	Tenn.	30,775	N.M.	287	Guam	0.159
33	Ark	1,422	Colo.	0 592	Ariz	62.0	Colo.	1:37	Mont	20,013	Hawaii	39.5	Ariz	1:58	Fla	30,581	P.R.	270	Va.	0.152
34	Miss.	1,191	N.C.	0 572	W. Va.	57 0	Ga.	1:37	N.C.	19,800	Okla.	38.0	Ore.	1:59	N.C.	30,548	Ida.	267	N.C.	0.141
35	Hawaii	1,181	Wash.	0.550	Hawaii	56 5	Ore.	1 38	Me.	19,715	D.C.	36 0	Ky.	1:60	Ala.	30,481	Utah	235	Nev.	0.137
36	P.R.	1,161	Tenn.	0.548	Okla	53.0	Ariz.	1.40	Conn	19,610	Wash.	36 0	W. Va.	1:63	W. Va.	30,276	Ind.	221	Kans.	0.134
37	Okla.	1,093	Ga.	0.497	Miss.	52 0	Ky	1:40	Fla.	19,581	Me.	34.0	N.H.	1:63	D.C.	30,028	Wyo.	214	Mont.	0.117
38	D.C.	1,081	Miss.	0.490	Me.	50 0	N.H.	1:40	La.	19,124	Miss	33.0	Ga	1:72	Hawaii	29,910	Wash	193	Mo.	0.117
39	Me.	986	W. Va.	0.484	D.C	44,5	Miss.	1 47	Del.	18,585	W. Va.	30.0	Miss.	1 74	N.D	29,071	N.D	185	Mass.	0.114
40	W. Va.	908	Minn	0.462	Alaska	40 0	Minn	1:47	Ga.	18,576	Del.	24.0	Okla	1:76	Me.	28,993	N.H.	180	Mich.	0.108
41	Nev.	794	N.H.	0.444	Del.	35.0	Wash.	1:49	N.D.	18,500	N.D.	21.0	Ind.	1:81	Kans.	28,936	Alaska	180	Me.	0.100
42	Del.	650	Tex.	0.424	N.D	33 0	Okla.	1 55	Kans	18,129	Vt.	21.0	Minn.	1:88	Okla	28,753	Del	148	Minn.	0.100
43	S.D.	643	Ohio	0.419	Nev.	33.0	Cal	1.56	Md.	18,087	Alaska	20.0	Cal.	1 88	N.H.	28,170	Nebr	141	N.J.	0 092
44	Mont.	630	Ind.	0.382	Mont.	31.5	Mo.	1 61	N.H.	17,927	Mont.	20.0	Tex.	1 93	Conn.	27,430	Vt.	130	Nebr.	0.089
45	N.D.	610	Okla.	0.378	Vt.	30.0	Ohio	1 62	Guam	17,071	Nev.	20 0	Mo	1:97	Del.	27,105	Cal.	130	Ky.	0.085
46	Nebr	561	P.R.	0.364	S.D.	27.4	Ind.	1 63	Ark.	16,931	S.D.	18 0	Ohio	1 102	Md.	26,888	S.D.	119	P.R.	0.085
47	Vt.	501	Nebr.	0.357	N.H.	22.0	Tex.	1.64	Vt.	16,706	N.H.	14.0	Wash.	1:109	Guam	25,606	Me.	110	Ohio	0.075
48	N.H.	394	Mo.	0.347	Nebr.	22.0	Ill.	1 72	Tenn.	16,555	Nebr.	14.0	Nebr.	1:112	Ark.	24,104	Ariz.	105	Ill.	0.050
49	Wyo	357	Ill.	0.282	Wyo.	14 4	Nebr.	1 72	W. Va.	15,935	Wyo.	10.0	Ill.	1.125	Vt.	23,476	Nev	96	Wash.	0.049
50	Guam	205	Pa.	0.249	Guam	12.0	Pa.	1:114	P.R.	8,409	Guam	8.0	Pa.	1:261	P.R.	12,895	Mont.	92	Ariz.	0.043
51																	V.I.	62	Ind.	0.041
52																	Pa.	36	Cal.	0.006
53																	Guam	17	Pa.	0.003

Table 1-7

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	
					Budgeted Positions		Positions To Pop.		Expenditure Per Position		Budgeted Positions		Positions To Pop.		Expenditure Per Position					
	State	$	State	Ratio	State	#	State	Ratio (X1000)	State	$	State	#	State	Ratio (X1000)	State	$	State	#	State	Ratio
Total		**122,599**		**0.641**		**5312.6**		**1:36**		**23,077**		**3337.4**		**1:57**		**38,735**		**27,063**		**0.141**
Average		2,452		—		114.5		—		—		66.8		—		—		511		—
New England		**13,228**		**1,076**		**657.0**		**1:19**		**20,135**		**413.0**		**1 30**		**32,031**		**2,018**		**0.164**
1	Conn	4,471	R.I.	2 601	Conn	228 0	R I.	1:8	R.I	21,770	Conn	163.0	R.I	1 12	Mass.	42,073	Mass.	657	R.I	0 429
2	Mass	4,460	Conn.	1 435	Mass.	216.0	Conn	1 14	Mass	20,647	Mass	106.0	Conn	1.19	R I	32,220	Conn	542	Vt	0 265
3	R.I.	2,416	Vt.	1 017	R.I	111 0	Vt.	1:16	Me.	19,715	R I	75.0	Vt.	1:23	Me	28,993	R I	399	N H	0.203
4	Me.	986	Me.	0 899	Me	50 0	Me	1 22	Conn	19,610	Me	34 0	Me.	1:32	N.H.	28,170	N.H.	180	Conn	0 174
5	Vt	501	Mass.	0.773	Vt.	30.0	Mass	1 27	N H	17,927	Vt	21.0	Mass	1:54	Conn.	27,430	Vt	130	Mass	0.114
6	N.H	394	N H.	0 444	N H	22 0	N H.	1 40	Vt.	16,706	N H	14 0	N H.	1.63	Vt	23,866	Me.	110	Me	0.100
Middle Atlantic		**8,670**		**0.455**		**313.0**		**1:61**		**27,698**		**189.0**		**1:101**		**45,870**		**711**		**0.037**
1	N J	5,747	N.J	0.784	N.J.	210.0	N J.	1.35	Pa	28,379	N.J	144.0	N.J	1:51	Pa	64,955	N J.	675	N J.	0.092
2	Pa.	2,923	Pa	0.249	Pa	103 0	Pa	1 114	N.J.	27,364	Pa.	45.0	Pa	1.260	N.J.	39,906	Pa	36	Pa	0.003
3	N Y.	—	N.Y.	—	N.Y.	—	N.Y.	—	N Y.	—	N.Y.	—	N.Y.	—	N.Y.	—	N.Y.	—	N.Y.	—
East North Central		**14,872**		**0.457**		**593 5**		**1:64**		**24,721**		**360.5**		**1:89**		**40,699**		**3,362**		**0.105**
1	Wisc	4,945	Wisc.	1 047	Wisc	176.5	Wisc.	1 27	Wisc	28,016	Ohio	105.0	Wisc	1 48	Wisc	50,202	Mich	996	Wisc.	0.165
2	Ohio	4,499	Ohio	0 419	Ohio	174 0	Ohio	1:62	Ohio	25,855	Wisc	98.5	Ind	1:81	Ohio	42,845	Ohio	807	Mich	0.108
3	Ill	3,163	Ind	0 382	Ill	157.0	Ind	1:63	Ind.	24,016	Ill	90.0	Ohio	1 102	Ill.	35,142	Wisc.	777	Ohio	0.075
4	Ind	2,065	Ill.	0 282	Ind	86.0	Ill.	1:72	Ill	20,145	Ind	67 0	Ill	1 125	Ind	30,828	Ill.	562	Ill.	0.050
5	Mich	—	Mich.	—	Mich	—	Mich.	—	Mich	—	Mich	—	Mich	—	Mich	—	Ind	221	Ind.	0 041
West North Central		**10,374**		**0.606**		**457.1**		**1 37**		**22,696**		**282.0**		**1:81**		**36,788**		**2,206**		**0.129**
1	Ia.	3,492	Ia	1.203	Ia.	125.7	N.D	1 20	Ia	27,780	Ia.	81 0	N D.	1:31	Ia	43,110	Mo	568	N D.	0.281
2	Minn	1,876	S.D.	0.933	Minn	86.0	Ia.	1:23	Nebr.	25,519	Kans	52 0	Ia.	1:36	Minn	40,772	Ia	473	S D.	0.173
3	Mo.	1,687	N D	0.929	Kans.	83 0	S.D	1 25	S D.	23,468	Mo.	50.0	S.D.	1 38	Nebr.	40,102	Minn	404	Ia.	0.163
4	Kans	1,505	Kans.	0 635	Mo	80 0	Kans	1 29	Minn.	21,809	Minn	46 0	Kans.	1:46	S.D	35,724	Kans	317	Kans	0.134
5	S D	643	Minn	0 462	N D.	33.0	Minn.	1 47	Mo	21,088	N D	21 0	Minn	1 88	Mo.	33,740	N.D	185	Mo	0.117
6	N.D	610	Nebr.	0 357	S.D.	27 4	Mo.	1:61	N D.	18,500	S.D	18 0	Mo	1:97	N D	29,071	Nebr.	141	Minn.	0.100
7	Nebr	561	Mo	0 347	Nebr	22 0	Nebr.	1:72	Kans	18,129	Nebr	14 0	Nebr.	1:112	Kans.	28,936	S.D.	119	Nebr.	0.089
South Atlantic		**21,515**		**0.723**		**1086.0**		**1:27**		**19,831**		**711.5**		**1:42**		**30,241**		**7,578**		**0.254**
1	Fla	5,443	D C.	1.648	Fla.	278.0	D.C.	1 15	D.C.	24,292	Md	187.0	D C.	1:18	Ga	35,844	Fla	2,098	D C.	0.519
2	Md	5,028	Del	1.212	Md.	265.0	Md	1.16	S C.	22,573	Fla.	178.0	Md	1:22	S.C	32,949	Md.	1,392	Md.	0.336
3	N C.	3,208	Md	1.118	N.C	162.0	Del	1 17	N C	19,800	N C	105 0	Del	1:24	Fla.	30,581	Ga	956	Del	0 254
4	S.C.	2,652	S C	0.905	Ga	137 0	S C.	1.25	Fla.	19,581	S.C	80.5	S.C.	1.36	N.C	30,548	Va.	788	S C	0.250
5	Ga.	2,545	Fla.	0.614	S.C.	117.5	Fla	1 32	Del	18,585	Ga.	71 0	Fla.	1:50	W. Va	30,276	N.C	788	Fla.	0 237
6	D C	1,081	N.C	0 572	W. Va	57 0	W Va.	1 33	Ga	18,576	D.C	36 0	N C	1:53	D.C.	30 028	S.C.	733	Ga.	0 187
7	W. Va.	908	Ga	0 497	D C	44 5	N C	1:35	Md	18,087	W Va	30 0	W. Va	1 63	Del.	27,104	D.C.	340	W.Va.	0.178
8	Del.	650	W. Va	0 484	Del.	35.0	Ga.	1.37	W. Va	15,935	Del	24.0	Ga.	1:72	Md.	26,888	W. Va.	334	Va.	0.152
9	Va.	—	Va.	—	Va.	—	Va.	—	Va	—	Va.	—	Va.	—	Va	—	Del.	148	N.C	0.141
East South Central		**9,420**		**0.668**		**443.8**		**1:32**		**21,228**		**276.3**		**1:51**		**34,098**		**3,144**		**0.223**
1	Ala	3,261	Ala.	0 865	Ala	158.0	Ala	1 24	Ky.	28,921	Ala	107.0	Ala.	1.35	Ky.	44,052	Ala	1,190	Miss.	0.361
2	Ky	2,568	Ky	0 728	Tenn	145.0	Tenn.	1 30	Miss	22,897	Tenn.	78.0	Tenn.	1 56	Miss.	36,080	Miss	877	Ala.	0.316
3	Tenn	2,400	Tenn.	0.548	Ky.	88 8	Ky	1 40	Ala	20,642	Ky	58.3	Ky	1.60	Tenn	30,775	Tenn.	778	Tenn	0 178
4	Miss.	1,191	Miss.	0.490	Miss	52 0	Miss.	1 47	Tenn	16,555	Miss	33.0	Miss.	1:74	Ala.	30,461	Ky	300	Ky	0 085
West South Central		**11,305**		**0.503**		**510.0**		**1:44**		**22,168**		**330.5**		**1:68**		**34,205**		**4,605**		**0.205**
1	Tex.	5,673	La	0.776	Tex	210 0	La	1 25	Tex.	27,012	Tex	144 0	Ark	1 37	Tex	39,293	Tex	2,966	Tex.	0.222
2	La.	3,117	Ark	0 652	La.	163.0	Ark.	1 26	Okla	20,615	La	89 5	La	1:45	La.	34,829	La	729	Ark	0 207
3	Ark	1,422	Tex.	0 424	Ark.	84 0	Okla	1:55	La.	19,124	Ark	59 0	Okla.	1:76	Okla	28,753	Okla.	460	La	0.181
4	Okla.	1,093	Okla	0 378	Okla	53.0	Tex	1:64	Ark.	16,931	Okla	38 0	Tex	1:93	Ark	24,104	Ark	450	Okla	0 159
Mountain		**10,334**		**0.968**		**440.8**		**1:24**		**23,445**		**281.5**		**1:38**		**38,712**		**1,835**		**0.172**
1	N.M.	2,025	Ida	1.690	N.M.	84.0	Ida.	1.12	Ariz.	25,877	Colo	52 0	Ida.	1:22	Nev	39,722	Colo	539	Wyo	0.475
2	Utah	1,753	N.M.	1 632	Colo.	75.0	N.M	1 15	Utah	25,585	N.M.	51.0	N.M	1 24	N.M.	39,714	N M.	287	Ida	0.295
3	Colo	1,641	Utah	1.282	Ida.	72.4	Utah	1.20	Wyo	24,779	Utah	44 5	Utah	1.31	Utah	39,384	Ida.	267	N.M.	0.231
4	Ariz	1,604	Nev.	1.132	Utah	68 5	Nev	1:21	N.M.	24,112	Ariz.	42.0	Nev.	1.35	Ariz.	38,199	Utah	235	Colo.	0.194
5	Ida.	1,530	Mont	0.802	Ariz.	62.0	Mont	1.25	Nev	24,074	Ida	42.0	Mont.	1:39	Ida	36,419	Wyo	214	Utah	0.172
6	Nev	794	Wyo.	0.793	Nev	33.0	Wyo	1 31	Colo.	21,877	Mont	20.0	Wyo	1.45	Wyo	35,682	Ariz	105	Nev	0.137
7	Mont.	630	Ariz.	0.655	Mont	31.5	Colo.	1:37	Ida.	21,127	Nev.	20.0	Colo.	1.53	Colo	31,554	Nev	96	Mont.	0.117
8	Wyo.	357	Colo	0 592	Wyo.	14.4	Ariz.	1.40	Mont	20,013	Wyo.	10.0	Ariz.	1:58	Mont.	31,520	Mont.	92	Ariz.	0.043
Pacific		**21,712**		**0.713**		**851.4**		**1:48**		**33,334**		**385.1**		**1:77**		**54,857**		**1,258**		**0.041**
1	Cal.	15,137	Alaska	3 912	Cal.	408.8	Alaska	1 10	Alaska	39,712	Cal.	256 9	Alaska	1 20	Alaska	79,424	Ore	465	Alaska	0.444
2	Wash	2,160	Hawaii	1 291	Wash.	80 0	Hawaii	1:16	Cal.	37,028	Ore.	42.7	Hawaii	1.23	Wash.	60,003	Hawaii	290	Hawaii	0.317
3	Ore	1,646	Cal.	0 667	Ore.	66 1	Ore	1 38	Wash	27,001	Hawaii	39 5	Ore	1:59	Cal.	58,923	Wash.	193	Ore.	0.184
4	Alaska	1,588	Ore.	0 651	Hawaii	56.5	Wash.	1 49	Oregon	24,903	Wash	36.0	Cal.	1.88	Ore.	38,551	Alaska	180	Wash	0.049
5	Hawaii	1,181	Wash.	0.550	Alaska	40.0	Cal	1:56	Hawaii	27,001	Alaska	20.0	Wash.	1 109	Hawaii	29,910	Cal	130	Cal.	0.006
Territories		**1,358**		**0.414**				**1:22**		**8,102**		**98.0**		**1:34**		**13,932**		**349**		**0.106**
1	P.R.	1,161	Guam	1.932	P.R.	138.0	Guam	1:8	Guam	17,071	P.R	90 0	P.R.	1:35	Guam	25,606	P R.	270	V.I.	0.649
2	Guam	205	P.R.	0.364	Guam	12 0	P R.	1:23	P.R.	8,409	Guam	8.0	Guam	1:13	P.R.	12,895	V.I.	62	Guam	0.159
3	V.I.	—	V.I.	—	V I.	—	V.I.	—	V.I.	—	V.I.	—	V.I.	—	V I.	—	Guam	17	P.R.	0.085

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**	**7,455,822**	**27.6**	**61,638**	**0.2**	**410,255**	**1.5**	**240,546**	**0.9**	**8,011,804**	**29.6**	**1,632,924**	**6.0**	**4,798,023**	**17.7**	**478,448**	**1.8**	**2,398,370**	**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**	**18,135**	**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.	541,775	129,256	23 8	1,807	0 3	11,814	2.2	4,997	0 9	118,180	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	163	<0.1	5,595	0.9	185,196	28.2	—	—	281,239	42.8	—	—	24	<0.1	—	—	—	—	—	—
Me.	109,761	45,052	41.0	343	0 3	303	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	—	—	33,678	18.7	—	—	—	—	—	—	—	—	42	<0 1
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	—	—	27,928	7 0	52,273	13.1	96	<0.1	28,627	7 2
Vt.	130,427	40,766	31.3	244	0 2	1,674	1.3	169	0.1	45,794	35.1	—	—	—	—	—	—	24,985	19.2	11,124	8 5	1,826	1 4	3,845	2.9
Middle Atlantic	**711,163**	**253,949**	**35.7**	**752**	**0.1**	**2,862**	**0.4**	**15,394**	**2.2**	**279,296**	**39.2**	**398**	**0.1**	**104,793**	**14.7**	—	—	**19,676**	**2.8**	**11,835**	**1.7**	**313**	**< 0.1**	**21,903**	**3.1**
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**	**17,348**	**0.5**	**54,629**	**1.6**	**764,310**	**22.7**	**57,740**	**1.7**	**916,297**	**27.4**	**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	—	—	117,062	20 8	—	—	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	—	—	94	<0 1
Mich.	995,515	280,626	28.2	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
Wisc	776,736	40,359	5.2	2,525	0.3	6,244	0 8	7,700	1.0	146,565	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**	**278,935**	**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	135,810	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	—	—	47,227	14.9	22,169	7 0	985	0 3	3,488	1 1
Minn	403,913	125,824	31.2	3,740	0 9	11,564	2.9	5,491	1.4	182,864	45.2	—	—	74,239	18.4	191	<0 1	—	—	—	—	—	—	—	—
Mo.	567,808	172,753	30 4	435	0 1	2,100	0.4	4,751	0.8	138,212	24.3	13,970	2.5	115,583	20.4	—	—	109,396	19.3	9,323	1.6	—	—	1,285	0 2
Nebr	140,583	29,443	20 9	32	<0 1	303	0.2	874	0.6	67,501	48.0	—	—	3,454	2.5	—	—	22,595	16.1	10,952	7 8	—	—	5,429	3.9
N.D.	184,715	59,523	32.3	471	0 3	1,817	1.0	23,665	12.8	50,292	27.2	4,219	2 3	19,262	10.4	—	—	18,348	9.9	7,106	3 8	—	—	12	<0 1
S.D.	118,866	45,965	38 7	207	0 2	736	0.6	739	0.6	40,919	34.4	—	—	—	—	—	—	20,474	17 2	9,826	8 3	—	—	—	—
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**	**1,288,604**	**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	—	—	428	0.3	1,138	0.8	42,149	28.5	2,527	1.7	369	0.2	46,957	31.7	13,276	9 0	4,833	3.3	—	—	2,660	1 8
D.C.	340,263	95,738	28 1	—	—	902	0.3	50	<0.1	113,641	33.3	54,324	16.0	41,381	12.2	16,128	4 7	857	0 3	1,694	0.5	—	—	15,548	4 6
Fla.	2,098,260	681,976	32 5	2,315	0 1	62,171	3.0	9,189	0 4	636,073	30.3	150,655	7.2	289,326	13.8	—	—	234,953	11.2	9,042	0.4	1,393	0 1	21,167	1.0
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	—	—	135	<0.1	—	—	—	—	33,425	3 5
Md.	1,391,676	434,940	31.4	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	75,519	5 4	47,981	3.4	8,661	0 6	37,042	2.7
N.C.	787,785	23,167	2.9	1,563	0.2	6,056	0.8	3,440	0.4	219,685	28.0	62,264	7.9	190,078	24.1	183,528	23 3	65,283	8 3	21,550	2 7	4,697	0 6	6,474	0.8
S.C.	733,049	222,080	30.2	1,691	0.2	11,659	1 6	9,117	1.2	217,598	29.7	62,959	8.6	159,620	21.8	—	—	15,777	2 2	14,570	2 0	—	—	17,978	2.5
Va.	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	10,982	1 4
W.Va	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(a)	21.5	49,357	14 8	32,016	9.6	—	—	—	—	(a)	—
East South Central	**3,143,587**	**1,017,483**	**32.3**	**9,634**	**0.3**	**43,274**	**1.4**	**9,062**	**0.3**	**1,011,028**	**32.2**	**253,969**	**8.1**	**414,860**	**13.2**	**18,891**	**0.6**	**280,899**	**8.9**	**77,306**	**2.5**	**2,638**	**0.1**	**4,543**	**0.1**
Ala	1,189,675	387,306	32.5	4,530	0 4	20,515	1.7	2,983	0.3	322,524	27.1	64,851	5.5	187,957	15.8	17,848	1.5	114,948	9.7	63,633	5.3	—	—	2,580	0 2
Ky.	299,573	28,800	9.6	863	0 3	4,268	1.4	2,369	0 8	145,188	48.5	23,885	8.0	60,278	20.1	1,043	0.3	17,951	6 0	10,327	3 4	2,638	0 9	1,963	0.7
Miss.	876,721	251,540	28.8	2,075	0.2	10,900	1.2	783	0.1	269,355	30.8	165,233	18.8	95,114	10 8	—	—	78,375	8 9	3,346	0.4	—	—	—	—
Tenn.	777,618	349,837	44 9	2,166	0.3	7,591	1 0	2,927	0.4	273,961	35.2	—	—	71,511	9 2	—	—	69,625	9 0	—	—	—	—	—	—
West South Central	**4,605,213**	**1,073,484**	**23.3**	**12,715**	**0.3**	**114,799**	**2.6**	**48,018**	**1.0**	**1,398,689**	**30.4**	**471,297**	**10.2**	**748,572**	**16.3**	—	—	**613,451**	**13.3**	**75,771**	**1.6**	—	—	**48,437**	**1.1**
Ark.	450,285	110,632	24.6	2,192	0.5	2,167	0.5	3,075	0.7	116,627	25.8	43,689	9.7	80,129	17.8	—	—	67,439	15 0	11,688	2 6	—	—	12,647	2 8
La.	728,604	137,358	18.9	3,135	0.4	21,511	3.0	3,150	0.4	233,996	32 0	71,632	9.8	107,685	14 8	—	—	116,967	16 1	33,170	4 6	—	—	—	—
Okla.	460,076	142,855	31.1	714	0.2	7,273	1 6	6,956	1.5	141,467	30.7	9,878	2.1	79,891	17 4	—	—	70,482	15.3	560	0 1	—	—	—	—
Tex.	2,966,248	682,639	23.0	6,674	0.2	83,848	2.3	34,837	1.2	906,579	30 6	346,098	11.7	480,867	16.2	—	—	358,563	12 1	30,353	1 0	—	—	35,790	1 2
Mountain	**1,834,580**	**529,414**	**28.9**	**5,787**	**0.3**	**16,667**	**0.9**	**9,288**	**0.5**	**470,324**	**25.6**	**139,852**	**7.6**	**219,442**	**12.0**	**11,901**	**0.6**	**212,363**	**11.6**	**145,683**	**7.9**	**4,376**	**0.2**	**69,193**	**3.8**
Ariz.	105,048	17,962	17.1	1,337	1.3	238	0.2	3,172	3.0	54,882	52 2	4,731	4.5	—	—	—	—	15,928	15.2	6,219	5 9	579	0 6	—	—
Colo	538,749	82,794	15.4	299	0.1	1,961	0 4	755	0.1	141,751	26.3	127,412	23.6	112,740	20.9	—	—	32,213	6.0	20,122	3 7	—	—	18,702	3 5
Ida.	267,254	61,814	23 1	2,841	1.1	4,556	1.7	1,035	0.4	20,689	7 7	3,587	1 3	6,695	2.5	313	0.1	53,274	19.9	79,038	29 7	—	—	33,412	12 5
Mont.	92,110	14,730	16.0	195	0.2	1,003	1.1	388	0.4	56,301	61.2	—	—	—	—	—	—	9,856	10.7	9,058	9 8	297	0.3	280	0.3
Nev.	96,025	39,632	41.3	79	0.1	301	0.3	—	—	21,432	22.3	1,585	1.7	1,085	1.1	—	—	23,158	24.1	8,753	9 1	—	—	—	—
N.M.	286,842	102,527	35 8	806	0.3	1,494	0 5	1,359	0.5	93,633	32.6	2,537	0 9	16,692	5.8	11,588	4.0	30,644	10 7	15,319	5 3	1,201	0.4	9,042	3.2
Utah	234,843	30,813	13 1	230	0.1	6,986	3 0	2,063	0.9	59,967	25.5	—	—	82,230	35.0	—	—	37,415	15.9	7,174	3 1	2,299	1 0	5,666	2.4
Wyo.	213,709	179,142	83.8	—	—	118	0.1	516	0.2	21,669	10 1	—	—	—	—	—	—	10,173	4 8	—	—	—	—	2,091	1.0
Pacific	**1,257,789**	**360,018**	**28.6**	**1,503**	**0.1**	**19,814**	**1.6**	**16,564**	**1.3**	**422,786**	**33.6**	**7,111**	**0.6**	**311,560**	**24.8**	—	—	**40,679**	**3.2**	**62,703**	**5.0**	**10,346**	**0.8**	**4,585**	**0.4**
Alaska	180,073	111,549	62.0	365	0.2	2,349	1.3	2,950	1 6	55,563	30.9	4,168	2 3	112	0.1	—	—	2,583	1.4	434	0.2	—	—	—	—
Cal.	129,829	23,240	17.9	59	<0.1	1,267	1.0	7,635	5.9	44,173	34.1	43	<0 1	510	0.4	—	—	12,121	9 3	27,269	21.0	10,321	7.9	3,191	2.5
Hawaii	290,097	179,413	61.9	663	0.2	7,310	2.5	1,884	0 6	52,593	18.1	92	<0.1	6,149	2.1	—	—	10,619	3 7	31,190	10.8	—	—	184	0 1
Ore.	464,938	10,210	2 2	255	0.1	2,895	0.6	2,926	0 6	232,627	50 1	—	—	205,173	44.1	—	—	10,852	2 3	—	—	—	—	—	—
Wash.	192,832	35,606	18.5	161	0.1	6,093	3.2	1,169	0 6	37,830	19.6	2,808	1.5	99,616	51.6	—	—	4,504	2.3	3,810	2.0	25	<0.1	1,210	0 6
Territories	**348,953**	**40,683**	**11.7**	**2,221**	**0.6**	**20,390**	**5.8**	**217**	**0.1**	**132,247**	**37.9**	**75,988**	**21.8**	**41,258**	**11.8**	—	—	**25,374**	**7.3**	**9,842**	**2.8**	—	—	**804**	**0.2**
Guam	16,822	4,189	24.9	75	0.4	1,223	7.3	—	—	1,710	10.2	5,189	30.9	4,280	25.4	—	—	156	0 9	—	—	—	—	—	—
P.R.	270,463	15,144	5.6	—	—	7,280	2.7	217	0.1	117,847	43.6	68,554	25.3	35,712	13.2	—	—	17,403	6 4	7,892	2.9	—	—	414	0.2
V.I.	61,668	21,350	34 5	2,146	3.5	11,896	19.3	—	—	12,690	20.6	2,165	3.5	1,266	2.1	—	—	7,815	12 7	1,950	3.2	—	—	390	0 6

SECTION II
PERSONNEL

Table 2-1
BUDGETED POSITIONS BY CATEGORIES AND POSITION VACANCIES

Lab & Region	Total Budgeted Positions	Management			Clerical			Prof. & Tech.			Support Ser.			Maintenance			Total Filled Positions	
		#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%	# Vac	#	%
Total	**5,729.9**	**396.8**	**7.3**	**13.8**	**736.6**	**12.8**	**66.9**	**3,665.4**	**62.3**	**100.9**	**896.4**	**15.6**	**53.1**	**138.0**	**2.4**	**6.8**	**5,431.0**	**94.8**
Average	110.1	7.4	7.3	0.2	14.2	12.8	1.3	68.6	62.3	3.1	17.2	15.6	1.0	2.7	2.4	0.1	104.4	94.8
New England	**657.8**	**41.0**	**6.2**	**2.8**	**80.8**	**13.7**	**14.0**	**413.0**	**62.8**	**10.8**	**77.0**	**11.7**	**16.8**	**35.8**	**5.5**	**1.8**	**612.0**	**93.1**
Conn.	228.0	7.0	3.1	2.0	30.0	13.2	6.0	163.0	71.5	1.0	27.0	11.8	2.0	1.0	0.4	—	217.0	95.2
Mass.	216.0	26.0	11.6	—	33.0	15.3	7.0	106.0	49.1	5.0	19.0	8.8	10.0	33.0	15.3	1.0	193.0	89.4
Me.	50.6	2.0	4.0	—	7.0	14.0	—	34.0	68.0	1.0	7.0	14.0	4.0	—	—	—	43.0	90.0
N.H.	22.0	1.0	4.5	—	4.0	18.2	—	14.0	63.6	—	3.0	13.6	—	—	—	—	22.0	100.0
R.I.	111.0	8.0	4.6	—	12.0	10.8	1.0	75.0	67.6	3.0	17.0	15.3	—	2.0	1.8	—	107.0	96.4
Vt.	30.0	1.0	3.3	—	4.0	13.3	—	21.0	70.0	—	4.0	13.3	—	—	—	—	30.0	100.0
Middle Atlantic	**313.8**	**28.0**	**8.9**	**1.8**	**43.8**	**13.7**	**4.0**	**199.8**	**63.4**	**5.8**	**48.8**	**15.6**	**2.0**	**4.0**	**1.3**	**1.8**	**298.8**	**95.5**
N.J.	210.0	8.0	3.8	—	26.0	12.4	—	144.0	68.6	3.0	32.0	15.2	2.0	—	—	—	208.0	97.6
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	103.0	20.0	19.4	1.0	17.0	16.5	4.0	48.0	43.7	2.8	17.0	16.5	1.0	4.0	3.9	1.0	94.0	91.3
East North Central	**1005.8**	**77.5**	**7.7**	**4.8**	**198.8**	**9.9**	**7.8**	**686.5**	**68.3**	**21.5**	**177.8**	**17.6**	**9.8**	**64.8**	**6.4**	**4.8**	**858.3**	**85.4**
Ill.	157.6	11.0	7.0	—	32.0	20.4	4.0	90.0	57.3	3.0	23.0	14.6	1.0	1.0	0.6	—	149.0	94.9
Ind.	84.0	7.0	8.1	—	—	—	—	67.0	77.9	4.0	12.0	13.9	1.0	—	—	—	81.0	94.2
Mich.	412.3	16.0	3.9	2.0	23.0	5.6	—	296.0	54.8	4.0	93.3	22.6	5.0	84.0	13.1	3.0	398.3	96.6
Ohio	174.0	7.0	4.0	—	23.0	13.2	2.0	108.0	60.3	8.0	30.0	17.2	—	9.0	5.2	1.0	166.0	95.4
Wisc.	176.8	36.5	20.7	2.0	22.0	12.5	1.0	98.5	55.8	5.5	19.5	11.0	2.0	—	—	—	166.0	94.0
West North Central	**457.1**	**48.0**	**10.5**	**1.0**	**67.8**	**14.8**	**11.4**	**282.0**	**61.7**	**22.8**	**58.5**	**12.7**	**4.1**	**1.0**	**0.2**	**—**	**424.5**	**92.8**
Ia.	125.7	13.0	10.3	—	18.2	32.9	—	81.0	64.4	5.0	15.5	12.3	3.1	—	—	—	117.6	93.6
Kans.	83.0	12.0	14.5	1.0	9.0	10.8	6.0	52.0	62.6	4.0	9.0	10.8	—	—	—	—	78.0	94.0
Minn.	86.0	6.0	7.0	—	18.0	20.9	1.0	44.0	53.5	—	16.0	18.6	—	—	—	—	85.0	98.8
Mo.	80.0	5.0	6.2	—	13.0	16.2	—	50.0	62.8	4.0	11.0	13.8	—	1.0	1.3	—	76.0	95.0
Nebr.	22.0	4.0	18.2	—	4.0	18.2	—	14.0	63.6	—	—	—	—	—	—	—	22.0	100.0
N.D.	33.8	4.0	12.1	—	4.0	12.1	3.0	21.0	63.6	8.0	4.0	12.1	—	—	—	—	22.0	66.7
S.D.	27.4	4.0	14.8	—	3.4	12.4	1.4	18.0	65.7	1.0	3.0	10.9	1.0	—	—	—	24.0	87.6
South Atlantic	**1086.0**	**48.8**	**4.4**	**1.8**	**156.5**	**14.3**	**15.5**	**711.5**	**64.9**	**39.8**	**166.0**	**15.1**	**4.8**	**14.0**	**1.3**	**—**	**1038.5**	**94.6**
Del.	35.0	1.0	2.9	—	4.0	11.1	—	24.0	68.6	—	6.0	17.1	1.0	—	—	—	34.0	97.1
D.C.	44.8	2.0	4.5	—	4.8	10.1	0.5	36.0	80.9	—	2.0	4.5	—	—	—	—	44.0	98.9
Fla.	278.0	13.0	4.7	—	48.0	16.2	12.0	178.0	64.0	20.0	41.0	14.7	1.0	1.0	0.3	—	245.0	88.1
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	1.0	0.7	—	129.0	94.2
Md.	268.0	4.0	1.5	—	37.0	14.0	1.0	187.0	70.6	3.0	33.0	12.4	1.0	4.0	1.5	—	260.0	98.1
N.C.	162.0	9.0	5.6	—	21.0	13.0	—	105.0	64.8	5.0	25.0	15.4	—	2.0	1.2	—	166.0	96.3
S.C.	117.5	9.0	7.7	1.0	14.0	11.9	—	80.5	68.5	4.0	12.0	10.2	—	2.0	1.7	—	113.5	96.6
Va.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
W.Va.	57.0	2.0	3.5	—	11.0	19.3	1.0	30.0	52.6	1.0	10.0	17.5	—	4.0	7.0	—	55.0	96.5
East South Central	**443.8**	**25.0**	**5.6**	**1.0**	**66.8**	**14.9**	**8.0**	**278.3**	**62.3**	**17.0**	**68.5**	**15.7**	**5.0**	**7.0**	**1.6**	**—**	**414.8**	**93.5**
Ala.	158.0	6.0	3.8	—	27.0	17.1	—	107.0	67.7	8.0	16.0	10.1	1.0	2.0	1.3	—	152.0	96.2
Ky.	88.8	6.0	6.8	—	10.0	11.3	1.0	58.3	65.7	4.0	13.5	15.2	—	1.0	1.1	—	83.8	94.4
Miss.	52.0	2.0	3.8	—	8.0	15.4	—	33.0	63.5	—	9.0	17.3	—	—	—	—	52.0	100.0
Tenn.	145.0	11.0	7.6	1.0	21.0	14.5	5.0	74.0	51.8	8.0	31.0	21.4	4.0	4.0	2.8	—	127.0	87.6
West South Central	**618.0**	**21.5**	**4.2**	**—**	**63.2**	**10.4**	**2.8**	**330.5**	**64.7**	**16.8**	**103.8**	**20.4**	**6.8**	**1.8**	**0.2**	**—**	**487.8**	**95.5**
Ark.	84.0	3.0	3.8	—	11.0	13.1	1.0	59.0	70.2	1.0	11.0	13.1	—	—	—	—	82.0	97.6
La.	163.8	11.5	7.1	—	31.0	19.0	1.0	88.5	54.9	6.0	31.0	19.0	1.0	—	—	—	155.0	95.1
Okla.	53.0	2.0	3.8	—	6.2	11.7	—	38.0	71.7	—	6.8	12.8	—	—	—	—	53.0	100.0
Tex.	210.0	5.0	2.4	—	5.0	2.4	—	144.0	68.6	8.0	55.0	26.2	5.0	1.0	0.5	—	197.0	93.8
Mountain	**448.8**	**48.8**	**10.4**	**—**	**56.0**	**12.7**	**5.8**	**281.5**	**63.9**	**21.4**	**48.8**	**10.6**	**—**	**7.0**	**1.8**	**—**	**414.4**	**94.1**
Ariz.	62.0	6.0	9.7	—	11.0	17.7	—	42.0	67.7	—	2.0	3.2	—	1.0	1.6	—	62.0	100.0
Colo.	75.0	14.0	18.7	—	7.0	9.3	3.0	52.0	69.3	4.0	2.0	2.7	—	—	—	—	68.0	90.7
Ida.	72.4	6.0	8.3	—	11.0	15.2	1.0	42.0	58.0	2.4	6.0	8.3	—	4.0	5.5	—	69.0	95.3
Mont.	31.5	3.0	9.5	—	5.0	15.9	—	20.0	63.5	1.0	3.5	11.1	—	—	—	—	30.5	96.8
Nev.	33.0	2.0	6.1	—	3.0	9.1	—	20.0	60.6	1.0	7.0	21.2	—	1.0	3.0	—	32.0	97.0
N.M.	84.0	7.0	8.3	—	8.0	9.5	1.0	51.0	60.7	4.0	17.0	20.2	—	1.0	1.2	—	79.0	94.0
Utah	68.5	7.0	10.2	—	9.0	13.1	—	44.5	65.0	9.0	8.0	11.7	—	—	—	—	59.5	86.9
Wyo.	14.4	1.0	6.9	—	2.0	13.9	—	10.0	69.4	—	1.4	9.7	—	—	—	—	14.4	100.0
Pacific	**651.4**	**33.0**	**5.1**	**3.8**	**88.3**	**13.6**	**2.8**	**385.1**	**60.7**	**8.0**	**129.8**	**19.9**	**8.0**	**1.0**	**0.2**	**—**	**632.4**	**97.1**
Alaska	40.0	1.0	2.5	2.0	9.0	22.5	—	20.0	50.0	—	6.0	15.0	1.0	—	—	—	37.0	92.5
Cal.	408.8	13.0	3.2	—	52.0	12.7	1.0	256.9	62.8	4.0	86.95	21.3	3.0	—	—	—	400.8	98.0
Hawaii	56.5	1.0	1.8	—	4.0	7.1	—	39.8	69.9	4.0	12.0	21.2	—	—	—	—	52.5	92.9
Ore.	66.1	6.0	9.1	1.0	10.3	15.6	1.0	42.7	64.7	—	7.0	10.6	1.0	—	—	—	63.1	95.5
Wash.	80.0	12.0	15.0	—	13.0	16.2	—	34.0	43.0	—	18.0	22.5	1.0	1.0	1.2	—	79.0	98.8
Territories	**152.8**	**18.8**	**18.5**	**—**	**18.8**	**18.5**	**—**	**108.8**	**65.8**	**2.8**	**17.8**	**11.2**	**—**	**3.8**	**2.0**	**—**	**150.8**	**98.7**
Guam	12.0	3.0	25.0	—	1.0	8.3	—	8.0	66.7	1.0	—	—	—	—	—	—	11.0	91.7
P.R.	138.0	13.0	9.4	—	16.0	10.9	—	90.0	65.2	—	17.0	12.3	—	3.0	—	—	138.0	100.0
V.I.	2.0	—	—	—	—	—	—	2.0	100.0	1.0	—	—	—	—	—	—	1.0	50.0

DEFINITIONS

1. **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.

2. **Clerical:** Include secretaries, typists, and clerks in the office of the director, office services staff, budget and fiscal clerks and others. Do not include those covered in supportive services categories.

3. **Professional and Technical:** Those primarily engaged in examining and testing specimens and samples, or in a laboratory improvement program; including bacteriologists, chemists, microbiologists, medical technicians and technologists, and those laboratory assistants and laboratory helpers who contribute directly to the performance of laboratory tests of work in laboratory improvement programs.

4. **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.

6. **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						
				Management	Clerical	Prof & Tech Positions			Supportive Services	Maintenance
						# Pos.	Resig & Sep.	% Turnover		
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	—	—

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

Lab & Region	WORKLOAD REPORTING CATEGORIES															Total Prof. and Tech. Pos. Reported in Workload Categories	Total Changes Reported
	I Diagnostic Bact.	II Mycology	III Parasitology	IV Virology	V Immunology	VI Hematology	VII Clinical Chemistry	VIII Pathology	IX Env. Micro.	X Env. Chem.	XI Occup. Health & Safety	XII Toxicology	XIII Lab Improve. Program	XIV Biologic, Reagent, Media Prod.	XV Research and Develop.		
New England																163.0	—
Conn.	18.0 −5.0	1.0 —	4.0 —	4.0 —	16.0 —	3.0 —	17.0 —	1.0 —	8.0 —	41.0 +5.0	2.0 —	27.0 —	13.0 —	8.0 —	— —	106.0	—
Mass.	21.0 —	1.0 —	2.0 —	13.0 —	11.0 —	— —	14.0 —	— —	— —	— —	— —	— —	3.0 —	40.0 —	1.0 —	34.0	+1.0
Me.	7.0 —	I	I	2.0 —	3.0 —	— —	.5 —	— —	8.0 —	IX	8.0 —	XI	2.5 —	2.0 —	1.0 +1.0	14.0	+1.0
N.H.	10.6 +1.0	.2 —	.5 —	.1 —	1.5 —	— —	.5 —	— —	— —	— —	— —	.1 —	— —	.5 —	— —	75.0	+1.0
R.I.	6.0 +1.0	.5 —	1.0 —	.5 —	5.0 −1.0	— —	5.0 −1.0	— —	8.0 −2.0	31.0 +7.0	1.0 −3.0	15.0 —	2.0 —	— —	— —	21.0	+2.0
Vt.	5.6 −.5	.3 —	1.0 —	.5 —	4.5 —	— —	— —	— —	1.5 —	3.5 +.5	2.0 2.0	1.0 —	.1 —	1.0 —	— —		
Middle Atlantic																144.0	−2.0
N.J.	25.0 —	2.0 —	1.0 —	23.0 −1.0	— —	— —	9.0 —	— —	8.0 —	43.0 —	2.0 —	17.0 —	14.0 −1.0	— —	— —	—	—
N.Y.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	45.0	−13.0
Pa.	11.0 −8.0	— —	— —	10.0 −1.0	— —	7.0 −4.0	— —	— —	— —	— —	— —	7.0 +1.0	10.0 −1.0	— —	— —		
East North Central																90.0	−12.0
Ill.	20.0 +2.0	1.0 —	1.0 —	9.0 −3.0	8.0 −1.0	— —	5.0 +5.0	— —	11.0 —	11.0 −2.0	— —	11.0 +1.0	10.0 −15.0	2.2 +.2	.8 +.8	67.0	+3.0
Ind.	12.0 +2.0	2.0 +.5	2.0 +.5	4.0 +1.0	5.0 −1.0	— —	— —	— —	11.0 —	26.0 —	— —	— —	2.0 —	3.0 —	— —	226.0	+2.0
Mich.	41.5 —	1.0 —	1.0 —	16.0 —	12.0 −2.0	2.5 —	9.0 +1.0	— —	12.5 +5.0	— —	— —	— —	14.0 —	62.0 +1.0	49.0 −3.0	105.0	−12.0
Ohio	42.0 −7.0	I	I	I	I	I	11.0 —	— —	5.0 −4.0	31.0 +1.0	X	5.0 —	8.0 −2.0	1.0 —	— —	98.5	+11.0
Wisc.	15.5 −2.5	2.0 +1.0	— −1.0	15.0 —	10.0 −1.0	— —	17.0 —	13.5 −.5	3.0 +1.0	14.5 +6.5	— −1.0	2.5 −.5	5.0 +5.0	4.5 +4.5	— −.5		
West North Central																81.0	+7.0
Ia.	9.0 —	1.5 −.5	.5 —	8.0 +1.0	6.0 —	— —	3.5 +3.0	— —	5.0 +1.0	32.0 +5.0	5.5 −.5	.5 —	6.5 —	3.0 −2.0	— —	52.0	+2.0
Kans.	12.0 —	1.0 —	2.0 —	4.0 −1.0	3.0 —	— —	1.0 —	— —	4.0 —	12.0 —	1.0 —	6.0 +1.0	6.0 +2.0	— —	— —	46.0	−1.0
Minn.	8.25 +.5	2.0 —	2.75 +.5	7.0 −2.0	10.0 −1.0	— —	4.0 —	3.0 —	— —	— —	— —	— —	6.0 +1.0	3.0 —	— —	50.0	+2.0
Mo.	10.0 −1.0	.5 —	1.0 —	5.5 —	7.0 —	— —	2.0 −2.0	— —	9.0 +2.0	6.0 +2.0	— —	— —	6.0 +1.0	3.0 —	— —	14.0	−4.0
Nebr.	2.3 —	I	I	1.0 —	2.2 —	— —	1.0 —	— —	3.5 −1.0	3.0 —	— —	1.0 −3.0	— —	— —	— —	33.0	−.6
N.D.	II	9.53 —	II	.7 —	5.16 —	— —	1.2 +.2	— —	3.86 +1.0	7.0 −2.0	— −1.0	— —	.55 −.5	1.3 −1.0	3.7 +2.7	18.0	+3.0
S.D.	2.0 —	.5 —	.5 —	2.0 —	1.0 —	— —	— —	— —	3.0 +1.0	5.0 +1.0	— —	— —	2.0 +1.0	2.0 —	— —		
South Atlantic																24.0	+1.8
Del.	4.9 +1.0	.05 —	.4 —	3.95 —	.65 —	.3 —	.90 —	5.99 —	2.45 —	3.0 +.8	.01 —	1.0 —	.4 —	— —	— —	36.0	−8.0
D.C.	— —	9.0 —	— —	— —	4.0 −2.0	3.0 −2.0	3.0 −1.0	4.0 −1.0	2.0 —	2.0 —	— —	6.0 −1.0	1.0 −1.0	2.0 —	— —	—	—
Fla.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —		
Ga.	23.75 −1.75	1.5 —	3.25 +1.0	6.25 +1.0	14.25 −1.0	4.5 +2.25	7.5 −.5	— —	— —	— −.5	— —	6.0 −.5	— —	4.0 —	— —	71.0	—
Md.	40.0 —	1.0 —	1.0 —	5.0 —	28.0 —	8.0 —	19.0 −1.0	14.0 —	21.0 —	40.0 —	7.0 —	1.0 —	2.0 —	— —	— —	187.0	−1.0
N.C.	9.0 −1.0	1.0 —	1.0 —	8.0 +3.0	10.0 −3.0	4.0 +1.5	10.0 −.5	21.0 —	9.0 +2.0	16.0 +3.5	5.0 +.5	1.0 —	9.0 +2.0	— —	1.0 —	105.0	+8.0
S.C.	12.0 −6.1	3.0 −1.0	2.0 —	18.5 −1.3	IV	19.0 −.5	VI	— —	16.0 —	IX	— —	6.0 −.1	4.0 +2.0	— −.2	— —	80.5	−7.2
Va.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	—	—
W.Va.	II	9.0 −1.0	II	2.0 —	2.0 —	II	5.0 —	3.0 −1.0	5.0 +2.0	— —	— —	— —	3.0 −1.0	1.0 —	— −1.0	30.0	−2.0
East South Central																107.0	−14.0
Ala.	27.0 −23.0	2.0 −1.0	3.0 −7.0	6.0 +3.0	15.0 +1.0	3.0 —	7.0 +2.0	3.0 —	17.0 +1.0	— —	— —	— −1.0	2.0 —	21.0 +10.0	1.0 +1.0	58.3	+.3
Ky.	6.0 —	1.0 —	.5 −.5	2.3 +.3	10.0 −2.0	3.0 —	10.5 +3.5	3.0 +2.0	4.0 −1.0	1.0 −7.0	6.0 +3.0	6.0 —	5.0 +2.0	— —	— —	—	—
Miss.	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —		
Tenn.	43.5 +7.5	1.5 +.5	1.5 −.5	5.0 −1.0	6.0 −6.0	— −2.0	3.0 +3.0	— —	10.5 +.5	— —	— —	— —	6.0 −1.0	1.0 —	— —	78.0	+1.0
West South Central																59.0	−1.0
Ark.	12.0 −1.0	2.0 —	1.0 —	1.0 —	6.0 —	1.0 −1.0	4.0 −1.0	— —	8.0 +2.0	19.0 —	— —	2.0 —	3.0 —	— —	— —	89.5	+2.5
La.	15.0 —	.5 −.5	5.0 —	18.5 +2.5	— —	— —	4.5 +1.5	— —	16.0 −2.0	21.0 +1.0	— —	— —	— —	4.0 —	— —	38.0	+1.0
Okla.	9.8 +.4	1.0 +.5	1.0 —	4.0 +1.0	9.5 +.3	.5 −.3	2.9 —	— —	7.0 +.5	.1 −.8	— —	— —	2.0 −.5	— —	.2 −.1	144.0	+6.0
Tex.	24.0 −1.0	3.0 +2.0	7.0 —	12.0 +3.0	13.0 —	2.0 —	18.0 −2.0	— —	8.0 +2.0	34.0 −3.0	1.0 −1.0	2.0 +2.0	12.0 +4.0	7.0 —	— —		
Mountain																42.0	—
Ariz.	4.0 —	3.0 —	3.0 —	2.0 —	4.0 —	— —	— —	— —	5.0 —	10.0 −1.0	1.0 —	— —	4.0 —	5.0 —	1.0 +1.0	52.0	+2.0
Colo.	5.5 +.5	.5 —	1.0 —	1.0 −.5	5.0 +1.0	8.0 +3.0	— —	— —	4.0 —	19.0 −4.0	1.0 —	5.0 +1.0	1.0 —	1.0 +1.0	— —	42.0	+1.0
Ida.	9.25 +.25	I	I	3.0 −.25	— —	— —	— —	— —	7.0 —	11.0 +1.0	— —	9.5 —	— —	— —	— —	20.0	—
Mont.	II	3.99 −.01	II	2.5 —	.96 −.04	— —	— —	— —	2.7 −.8	7.45 −.05	.5 —	— —	1.9 +1.9	— −1.0	— —	20.0	−1.0
Nev.	II	7.0 —	II	.2 —	.8 —	.5 —	.5 —	— —	1.5 —	7.0 −1.0	— —	— —	1.0 —	1.5 —	— —	51.0	+7.5
N.M.	7.4 +.5	3.0 —	I	4.0 +1.0	5.0 +.4	V	II	1.0 —	5.6 +.1	13.0 +1.5	X	11.0 +4.0	1.0 —	— —	— —	44.5	−.5
Utah	4.0 —	1.0 —	1.0 —	3.0 —	3.0 —	— —	4.0 +1.0	— —	1.0 −1.0	16.5 +1.5	1.0 —	6.0 —	4.0 −2.0	— —	— —	10.0	—
Wyo.	II	4.5 —	II	— —	1.0 —	— —	— —	— —	.5 —	— —	— —	3.0 —	1.0 —	— —	— —		
Pacific													I			20.0	—
Alaska	18.0 —	I	I	2.0 —	I	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	256.85	−2.5
Cal.	15.5 —	8.5 —	3.0 —	34.0 —	18.0 —	— —	20.0 —	— —	5.0 —	68.45 −1.0	50.5 −1.5	1.0 —	28.9 —	— —	4.0 —	39.5	+2.0
Hawaii	14.5 +1.0	.5 —	1.0 —	2.0 —	3.0 —	— —	.5 —	— —	4.0 —	13.0 +1.5	— —	.5 +.5	.5 −1.0	— —	— —	42.75	+2.0
Ore.	8.75 +2.0	1.0 —	1.0 —	5.0 +1.0	12.0 −2.0	— —	7.0 —	— —	4.0 +1.0	— —	— —	— —	4.0 —	— —	— —	36.0	+1.0
Wash.	8.0 —	1.0 —	1.0 —	2.0 —	1.0 —	— —	3.0 —	— —	2.0 —	11.0 +1.0	— —	— —	7.0 —	— —	— —		
Territories																8.0	−1.0
Guam	3.0 −1.0	— —	1.0 —	— —	1.0 —	2.0 —	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**	**568,152**	**4.3**	**1,260,055**	**9.5**	**164,608**	**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	536,454	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
Wisc.	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**	**6,599,141**	**875,487**	**68.9**	**1,459,128**	**12.9**	**369,751**	**3.3**	**1,195,845**	**10.6**	**714,443**	**6.3**
Ark.	1,422,170	1,093,111	—	76.9	256,577	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**	**6,534,026**	**985,119**	**72.8**	**1,154,558**	**11.2**	**616,366**	**6.0**	**830,852**	**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	**21,713,645**	**11,851,717**	**3,418,995**	**70.3**	**2,042,668**	**9.4**	**1,846,742**	**8.5**	**1,394,989**	**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**	**20,895**	**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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	76,219	1.7	755,247	16.9	—	—	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	—	—	51,000	5.2	—	—	48,238	4.9	113,814	11.5
N.H.	394,383	III		III		218,592#	55.4	III		III		—	—	17,785	4.5	—	—	—	—	—	—	—	—	3,900	1.0	—	—	—	—	—	—	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	—	—	323,161	5.6	1,759,217	30.6	—	—	—	—	VII		—	—	—	—	518,922	8.7	—	—	23,556	.4	2,414,160	40.6
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	2,923,000	555,000=	19.0					438,000#	15.0	IV		409,000#	14.0	VI										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	X		—	—	—	—	49,175	2.4	73,766	3.6	—	—	344,264	16.7
Mich.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	436,507	9.7	240,289	5.3	114,055	2.5	—	—	634,271	14.1
Ohio	4,498,780	1,609,866=	35.8	—	—	—	—	—	—	—	—	—	—	319,328	7.1	—	—	1,144,462	25.4	—	—	—	—	375,041	7.6	114,564	2.3	122,852	2.5	—	—	1,079,805	21.8
Wisc.	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	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	252,474	13.5	—	—	—	—	510,695	27.2
Minn.	1,875,550	313,633=	16.7					293,393	15.6	316,758	16.9	—	—	188,597#	10.0	VII		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	1,687,018	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	102,099	18.2	—	—	—	—	—	—	—	—
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	—	—	—	—	17,093	2.8	20,146	3.3	—	—	139,762	22.9
N.D.	610,489	III		III		158,117#	25.9	III		III		—	—	51,890	8.5	—	—	45,176	7.4	178,305	29.2	—	—	—	—	114,916	17.9	189,973=	29.5	XIV		XIV	
S.D.	643,026	143,907#	22.4									—	—	—	—	—	—	194,230#		IX		—	—	—	—								
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	—	—	147,100	13.6	47,400	4.4	42,000	3.9	—	—	134,600	12.4
Fla.	5,443,468	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15,131	.6	184,624	7.3	—	—	147,398	5.8	8,550	.3	359,475	14.1
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	—	—	388,544	7.7	1,047,860	20.8	107,623	2.1	39,300	.8	126,348	2.5	—	—	—	—	—	—
Md.	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	X		795,037#	24.8	X		VII		236,177	7.4	—	—	IV		—	—
N.C.	3,207,636	514,809=	16.0					570,331#	17.8	IV		VII		615,355#	19.2	475,927	14.8							122,851	4.6	134,018	5.1	—	—			—	—
S.C.	2,652,369	519,227	19.6	132,446	5.0	102,953	3.9	619,582#	23.4	IV		296,019#	11.2	VI		—	—	725,253#	27.3	IX		—	—	—	—	—	—	—	—	—	—	—	—
Va.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68,849	7.6	202,189	22.3	—	—	71,833	7.9
W.Va.	908,293	126,604	13.9	36,018	4.0			50,136	5.5	68,446	7.5			138,226	15.2	63,143	6.9	82,846	9.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
East South Central																																	
Ala.	3,266,499	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77,986	3.0
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	205,196	8.0	181,387	7.1	147,433	5.7	—	—	—	—	—	—
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	—	—	—	—	6,224	.5	—	—	—	—	—	—
Tenn.	2,400,444	472,652	19.7	22,825	1.0	35,843	1.5	113,675	4.7	201,245	8.4	40,959	1.7	—	—	—	—	181,953	7.6	—	—	—	—	—	—	188,693	7.9	125,805	5.2	—	—	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
Okla.	1,092,612	II		243,873#	22.3	II		86,535	7.9	192,737	17.6	7,866	.7	62,934	5.8	—	—	149,469#	13.7	IX		—	—	—	—	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	7.9	453,700	8.0	—	—	1,117,000	19.7	—	—	—	—	1,128,000	19.9					567,000	10.0	499,000	8.8	—	—	595,000	10.5
Mountain																																	
Ariz.	1,604,347	169,609	10.6	136,037	8.5			69,381	4.3	351,155	21.9	24,299	1.5	—	—	—	—	257,283	16.0	348,082	21.7	70,811	4.4	—	—	176,690	11.0	—	—	—	—	—	—
Colo.	1,640,800	152,650	9.3	6,000	.4	21,100	1.3	22,600	1.4	162,300	9.9	—	—	225,850	13.8	—	—	154,100	9.4	552,100	33.6	—	—	143,000	8.7	42,000	2.6	36,800	2.2	—	—	122,300	7.5
Ida.	1,529,589	706,535#	46.2																	396,054	25.9	—	—	427,000	28.0								
Mont.	630,407	II		82,378#	13.1	II		50,477	8.0	22,502	3.6	—	—	—	—	—	—	58,991	9.4	156,002	24.7	11,049#	1.8	VI		70,935	11.3	—	—	—	—	178,073	28.2
Nev.	794,435	II		95,332#	12.0	II		7,944	1.0	47,666	6.0	15,889	2.0	15,889	2.0	—	—	47,666	6.0	206,553	26.0	—	—	—	—	63,555	8.0	63,555	8.0	—	—	230,386	30.0
N.M.	2,025,436	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Utah	1,752,577	III		III		362,666#	20.7	III		III		III		159,432	9.1	—	—	X		458,402#	26.2	X		232,837	13.3	200,871	11.5	—	—	—	—	338,869	19.3
Wyo.	356,818	121,155	33.9	—	—			—	—			—	—	—	—	—	—			—	—	—	—	104,218	29.2	26,144	7.3	—	—	—	—	105,301	29.5
Pacific																																	
Alaska	1,588,483	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	15,137,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hawaii	1,181,435	509,711	43.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12,912	1.1	—	—	—	—	114,973	9.7
Ore.	1,646,137	230,982#	14.0					147,130	8.9	206,062	12.5	—	—	387,279	23.5	—	—	79,606	6.7	464,233	32.3	—	—	—	—	99,013	6.0	—	—	—	—	395,505	24.0
Wash.	2,160,090	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	180,166	10.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Territories																																	
Guam	204,852	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	1,160,510	121,573#	10.5	—	—	—	—	—	—	89,478	7.7	82,559	7.1	70,762	6.1	—	—	104,174	9.0	275,188	23.7	—	—	—	—	153,087	13.2	97,285	8.4	—	—	168,404	14.3
V.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	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 **TOTAL**	32,968 1,652 2,658 901 **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 **TOTAL**	19,396 903 1,312 484 **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 **TOTAL**	7,897 410 583 439 **9,329**
Alaska	**Federal**				
	VD Control (VD Laboratory Support)	Lab. Asst.	1.0	Pers. Supplies **TOTAL**	15,000 4,000 **19,000**
	Alaskan Native Health (TB Control) (Laboratory Support)	Micro. II	1.0	Pers. Supp. **TOTAL**	20,000 3,000 **23,000**
	314(d) Comprehensive Health Grant (Laboratory Support)	Micro. II	1.0	Pers. **TOTAL**	31,000 **31,000**
	Private Bartlett Memorial Hospital (Laboratory Space and Equipment)	—	—	Other **TOTAL**	26,400 **26,400**
Ariz.	**Federal**				
	HIB (Medicare) (Laboratory Certification)	Lab. Cert./ Consult. Typist II	1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	28,188 1,041 365 6,509 **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 **TOTAL**	24,603 3,644 1,363 **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. Supp.	25,897 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. Supp. Equip. Other	22,319 3,794 700 9,262
				TOTAL	**36,075**
	BMRSG (Identify carcinogens by cell transformation techniques)	Chem II.	1.0	Pers. Equip.	24,479 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. Supp. Equip. Other	69,567 6,900 3,505 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. Supp. Equip. Other	25,148 4,790 1,368 2,500
				TOTAL	**33,806**
	U.S. Army Medical Research and Development Command (Development of Psoralen Photoinactivated Alphavirus and Arenavirus Vaccines)	Res. Spec. III P.H. Micro. II Gen. Lab. Support	1.0 1.0 .50 1.0	Pers. Supp. Other	68,330 8,010 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. Supp. Equip. Other	112,249 6,874 2,000 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. Supp. Other	66,250 3,654 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. Supp. Other	89,203 10,915 29,972
				TOTAL	**130,090**
Col.	**Federal** **Food and Drug Administration** (Food inspector analysis)	Chem. II	1.0	Pers.	17,250
				TOTAL	**17,250**
	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. Supp. Equip. Other	118,850 85,000 21,000 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. Supp. Equip. Other	57,358 6,000 4,767 6,000
				TOTAL	**74,125**
	Local				
	Mesa County Health Department	Micro. IV Micro. II Lab. Asst.	.5 .5 1.0	Pers. Supp.	32,000 8,000
				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. **TOTAL**	8,654 **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. **TOTAL**	8,828 **8,828**
	State				
	Department of Environmental Protection (PCB's)	Chemist	1.0	Pers.	13,777
				TOTAL	**13,777**
D.C.	**Federal**				
	Lead Poisoning Prevention (Chemistry assays on human specimens)	Chemist Technician	1.0 3.0	Pers. Supp. Equip.	44,236 10,000 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. Supplies	32,236 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 Micro. III Micro. I Chem. II Chem. I Lab. Tech. I Sec. III Clerk Typist II	.5 .5 1.5 1.5 .5 .5 .5 2.0	Pers. **TOTAL**	52,125 **52,125**
	Local				
	City of St. Petersburg, Research Program (Research in wastewater treatment)	Micro. IV Micro. II Lab. Tech. II Lab. Helper	1.0 1.0 1.0 1.0	Pers. Supp. Other **TOTAL**	60,423 16,222 2,701 **79,346**
	Central Florida Research (Naegleria study in Florida lakes)	Biochemist II Biochemist I Micro. II Lab. Tech.	1.0 1.0 1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	57,732 14,318 1,907 16,257 **116,471**
Ga.....	Federal				
	Sexually Transmitted Disease Unit (GC culture program)	Lab. Mgr. Sr. Lab. Sci. Sr. Lab. Tech.	1.0 1.0 3.0	Pers. Supp. Other **TOTAL**	122,491 82,321 28,022 **232,834**
	Division of Mental Health (Urine testing for abuse drugs)	Lab. Mgr. Lab. Assoc. Prin. Lab. Tech. Sr. Lab. Tech. Clerk	1.0 1.0 2.0 2.0 1.0	Pers. Supp. Other **TOTAL**	142,912 76,500 30,500 **249,912**
	Adult Health Unit (Hypertension screening program)	Lab. Sci.	1.0	Pers. Supp. **TOTAL**	14,925 8,200 **23,125**
Ida.....	Federal				
	Environmental Protection Agency (Establish and maintain certification program for water testing laboratories)	Microbiologist Chemist Secretary	.25 .25 . 5	Pers. Supp. **TOTAL**	15,685 3,515 **19,200**
	Environmental Protection Agency (Studies of human effects due to pesticides and related products)	Coordinator Chemist Support Secretary	1.0 5.0 1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	186,544 38,640 24,652 20,064 **269,900**
	CDC — USPHS — Laboratory Improvement (2 grants) (To provide training, consultation, and proficiency testing to physician offices and other small laboratories)	Lab. Surveyor Lab. Tech. Sec. & Support	2.0 1.0 3.0	Pers. Supp. Other **TOTAL**	133,612 84,589 7,388 **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	
Ida..... (Cont.)	**State**				
	Traffic Safety Commission (Analysis of blood/breath for alcohol and drugs)	Criminalists Secretaries	1.0 2.0	Pers. Supp. Equip. *Other*	54,681 8,086 7,000 3,404
				TOTAL	**73,171**
	Department of Law Enforcement (Analysis of blood/breath for alcohol and drugs)	Criminalists	1.5	**TOTAL**	**36,000**
Ill.....	**Federal**				
	Sexually Transmitted Diseases (Statewide monitoring of sexually transmitted diseases)	Micro. I	1.0	Pers. Supp.	14,300 6,900
				TOTAL	**21,200**
	Training Contract (CDC) (Laboratory training workshops)	Micro. III	1.2	Pers. Supp. Other	30,000 4,500 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. Supp. Equip. *Other*	37,537 2,068 237 23,421
				TOTAL	**63,263**
	(Proficiency testing contract to expand existing proficiency testing programs)	—	2.2	Pers. Supp. Other	37,329 14,804 26,027
				TOTAL	**78,160**
	Medicare (Surveys of hospital laboratories to insure compliance with Medicare standards)	—	2.5	Pers. Supp. Equip. Other	54,825 631 3,588 16,696
				TOTAL	**75,740**
	NIOSH (Analytical services as part of a subcontract for a coal liquefacation study)	—	2.0	Pers. Supp. Equip. Other	30,057 29,719 44,612 16,956
				TOTAL	**121,344**
	FDA (Provide field testing of diagnostic x-ray system for standards compliance)	—	.2	Pers. Supp. Equip. Other	4,557 728 5,887 3,371
				TOTAL	**14,543**
	EPA (Water Quality/Bladder Cancer Study — Providing of field sampling of water supplies and related data.)	—	.4	Pers. Supp. Other	6,782 206 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 Chem. I Micro. I Lab. Tech. I	.5 1.0 1.0 1.0	Pers. 42,433 **TOTAL 42,433**
	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 Chem. II Rad. Chem. Micro. I Lab. Tech. II	1.0 1.5 1.0 1.0 1.0	Pers. 69,347 **TOTAL 69,347**
	Air Quality Program — EPA laboratory (Support for sulpher 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 Chem. I Micro. II Micro. I Lab. Tech. I	1.0 1.0 1.0 1.0 1.0	Pers.	74,711
				TOTAL	**74,711**
	Title 18 Medicare Funds (Survey hospital laboratories to insure compliance with Medicare standards)	Lab. Cert. Supv. Micro. II	.50 .25	Pers. **TOTAL**	13,278 **13,278**
	Technical Consultation Contract (No. 200-79-0911) (On-site technical consultation in Microbiology)	Micro. II	1.0	Pers. Supp. Other	5,058 450 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 Lab. Aide Clerical	5.0 1.0 1.0	Pers. Supp. Equip. Other	107,410 53,156 1,610 7,292
				TOTAL	**169,468**
	T & A Funds from Department of Labor (Analysis of occupational samples)	Chemist Lab. Aide	2.5 1.0	Pers. Supp.	37,500 37,500
				TOTAL	**75,000**
	Proficiency Testing (Proficiency testing for approximately 215 clinical laboratories)	Lab. Dir. Administ. Microbiologist Typist	0.5 .30 .90 .80	Pers. Supp. Equip. Other	37,908 8,112 226 6,803
				TOTAL	**53,049**
	Laboratory Training (Training workshops for several clinical laboratories throughout the state)	Lab. Dir. Microbiologist Chem. Mgr.	0.5 .30 .10	Pers. Supp. Equip Other	9,364 1,203 1,113 6,623
				TOTAL	**18,303**
	Technical Consultation (Provided on-site consultation to private laboratories)	Administ. Typist Lab. Dir.	.15 .10 .05	Pers. Supp. Equip. Other	4,649 718 494 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. Investigator Associates	30.0 10.0 10.0	Pers.	48,247
				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. Equip. Other	15,000 14,000 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. Other	26,829 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. Other	6,574 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. Supp. Equip. Other	25,770 8,285 2,182 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. Supp. Equip. Other	78,605 9,093 1,716 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 syphills)	—	—	Supp.	80,000
				TOTAL	**80,000**
	Certification, Training, and Field Services (Licensure and inspection of state laboratories for Medicare requirements.)	Lab. Sci.	2	Pers. Other	41,222 660
				TOTAL	**41,882**
Mass.	**Federal**				
	Centers for Disease Control (Laboratory Training Contract — MHRI #31660 — 9/22/78-6/5/80)	—	4.0	Pers. Supp. Other	72,700 6,800 15,845
				TOTAL	**95,345**
	(Laboratory Training Contract — MHRI #31740 — 9/26/79-3/26/81)	—	4.0	Pers. Supp. Other	65,520 7,470 28,494
				TOTAL	**101,484**
	(Technical Consultation Contract — MHRI #31670 — 9/25/78-9/25/80)	—	4.0	Pers. Supp. Other	74,417 1,500 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. Supp. Other **TOTAL**	64,776 20,000 26,871 **111,647**
Minn.	**Federal** **DHSS, Centers for Disease Control** (Continuing education for laboratory personnel)	Med. Techno. Med. Techni. Clk. Typist	1.0 1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	29,292 3,400 2,692 8,448 **43,832**
	DHHS, Centers for Disease Control (Proficiency testing for physicians' offices)	Clk. Typist	1.0	Pers. Supp. Equip. Other **TOTAL**	4,000 7,212 17,000 900 **29,112**
Mo.	**Federal** **FDA** (Performance of laboratory tests on food samples)	—	.3	—	
	State **State Milk Board** (Laboratory inspection and approval. Laboratory testing on milk.)	—	.5	—	
	Department of Natural Resources (Public water supply testing — bacteriological and chemical. Laboratory inspection.)	—	7.0	—	
	Division of Highway Safety (Breath alcohol maintenance)	—	4.0	—	
Mont.	**Federal** **Centers for Disease Control** (Laboratory training — providing continuing education and training for Laboratory Technicians through use of traveling workshops)	Med. Tech. Clerical	1.0 1.0	Pers. Supp. Other **TOTAL**	29,392 2,021 21,252 **52,665**
Nev.	**Federal** **EPA Safe Drinking Water** (Chemical and bacteriological examinations of drinking water)	M.B Chemist Lab. Asst. Clerical Admin. Stock Clk.	.4 1.5 2.3 .2 .1 .2	Pers. Supp. Equip. Other **TOTAL**	34,455 20,649 16,659 2,579 **74,342**
	314d (Communicable disease service) —	(undesignated)	—	Other **TOTAL**	34,198 **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. M.B. Lab. Asst. Admin. Stock Clk. Clerical	1.5 .2 1.0 .1 .1 .1	Pers. 52,229 Supp. 11,926 **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 Secy. I Prin. Sci. I Lab. Bureau Chief	2.25 1.0 .4 .15	Pers. 55,900 Supp. 1,200 Equip. 1,000 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 Lab. Tech.	1.0 1.0	Pers. 24,167 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 breath-alyzer 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**
	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**
	State				
	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 **TOTAL**	679,025 120,223 16,827 16,890 **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 **TOTAL**	21,775 1,039 839 4,137 **27,790**
	Industrial Relations (Occupational Chemistry)	Chem. Sup. I Chem. II Typist II	.25 1.0 .25	*Pers.* Supp. Other **TOTAL**	28,400 843 409 **29,652**
Okla.	**Federal**				
	Family Planning (Support Personnel)	—	2.0	Pers. **TOTAL**	14,901 **14,901**
	Venereal Disease (Professional Microbiologists)	—	3.0	Pers. **TOTAL**	46,227 **46,227**
Ore.	**Federal**				
	Toxicology	—	1.0	Pers. Supp. Equip. **TOTAL**	26,655 12,929 337 **39,921**
	Administrative	—	5.5	Pers. Supp. Other **TOTAL**	75,618 6,447 2,311 **84,376**
	Laboratory Licensing	—	3.83	Pers. Supp. Other **TOTAL**	32,621 1,651 2,183 **36,455**
	Med. Micro.	—	5.0	Pers. Supp. Equip. **TOTAL**	42,017 6,418 12,195 **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. Supp.	69,117 10,052
				TOTAL	**79,169**
	Syphilis Serology	—	2.0	Pers. Supp. Equip.	24,905 2,669 63
				TOTAL	**27,637**
	Water	—	1.0	Pers. Supp. Equip.	14,275 5,899 130
				TOTAL	**20,304**
	State				
	Administrative	—	9.5	Pers. Supp. Equip. Other	208,764 99,108 116 3,141
				TOTAL	**311,129**
	Med. Micro.	—	6.75	Pers. Supp. Equip.	147,179 19,163 4,010
				TOTAL	**170,352**
	Metabolic	—	1.0	Pers. Supp. Equip.	14,625 31,123 1,824
				TOTAL	**47,572**
	Syphilis Serology	—	4.0	Pers. Supp. Equip.	44,743 3,666 1,563
				TOTAL	**49,972**
	Toxicology	—	4.0	Pers. Supp. Equip.	66,422 28,529 913
				TOTAL	**95,864**
	Virus	—	7.0	Pers. Supp. Equip.	88,671 53,771 4,688
				TOTAL	**147,130**
	Water	—	3.5	Pers. Supp. Equip.	113,906 43,779 2,177
				TOTAL	**159,862**
	Private Laboratory Licensing	—	1.5	Pers. Supp. Other	35,706 24,270 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. Supp. Equip. Other	54,770 170,820 32,880 2,068
				TOTAL	**260,538**
R.I.	**Federal**				
	Environmental Protection Agency (Air pollution testing)	Chem. Aide	4.0 1.0	Pers. Supp. Equip. Other	120,000 25,000 45,000 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. Other	71,915 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 degradation products.)	Chem. I	1.0	Pers. Supp. Equip. Other	14,270 8,158 22,465 88,249
				TOTAL	**133,142**
	Laboratory Improvement Contract (Target pos. selected through needs assessment. Development and presentation of workshops in three areas of microbiology—bacteriology, mycology, and parasitology. Evaluation of effectiveness of laboratory improvement program.)	Micro. IV.	1.0	Pers. Supp. Equip. Other	24,205 5,299 946 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. Supp. Other	21,778 6,847 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 Chem. II Chem. I Micro. II Lab. Tech.	1.0 1.0 .4 .4 .4	Pers. Supp. Equip. Other	42,056 5,362 780 2,184
				TOTAL	**50,382**
	Local Environmental Testing	—	—	Pers. Supp. Equip. Other	19,728 2,515 366 1,024
				TOTAL	**23,633**
Tenn	**State**				
	Department of Safety (Blood alcohol examinations)	—	—		
				TOTAL	**153,679**
	U.T. Memphis (Medical Ecology and Toxicology)	—	—		
				TOTAL	**129,000**
	State Autopsy Fee Schedule (Autopsy reimbursement to pathologists)	—	—		
				TOTAL	**104,000**
Tex.	**Federal**				
	Safe Drinking Water Grant (Chemical and bacteriological analysis of drinking water)	Chemists Microbiologists Technicians Clerical	8.0 1.0 10.0 2.0	Pers. Supp. Equip.	274,000 86,900 102,800
				TOTAL	**463,700**
	Cooperative Meat Inspection	Chemist Support	1.0 1.0	Pers.	28,000
				TOTAL	**28,000**
	State **Department of Water Resources**	Microbiologists Chemists Technicians Support	1.0 5.0 4.0 1.0	Pers.	149,400
				TOTAL	**149,400**
	EPSDT	Chemists Med. Tech. Technicians Clerical Support	3.0 2.0 5.0 1.0 1.0	Pers. Supp. Other	179,400 27,000 1,000
				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. Supp. Other	25,130 2,447 1,260
				TOTAL	**28,837**
	Laboratory Training Contract #2 (Serves laboratory improvement program — laboratory training)	—	—	Pers. Supp. Equip. Other	40,896 4,707 241 2,045
				TOTAL	**47,889**
	Laboratory Training Contract #1 (Serves laboratory improvement program — laboratory training)	—	—	Pers. Supp.	648 377
				TOTAL	**1,025**
Vt.	**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. Supp.	46,548 19,420
				TOTAL	**65,968**
	Alpha-Fetoprotein Screen (Testing of maternal serum in mid-pregnancy)	Microbiologist II Lab. Tech.	1.0 2.0	Pers. Supp.	50,982 24,505
				TOTAL	**75,487**
	Erthrocyte — Protoporphrin Proficiency Testing (Blood lead screen)	Chem. II Lab. Tech II	1.0 .5	Pers. Supp. Equip.	17,012 2,042 8,032
				TOTAL	**27,086**
	Proficiency Testing (Radio-immunoassay testing)	Med. Tech III Clerical	.5 .5	Pers. Supp.	9,099 20,923
				TOTAL	**30,022**
	Coastal Zone Management Project (Water-sample analysis)	Chem. I Chem. II	1.0 1.0	Pers. Supp. Equip.	44,446 2,125 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. Supp. Equip.	8,497 18,253 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. Supp.	12,456 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. Supp. Equip.	10,351 7,714 179,025
				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. Supp. Equip. Other	38,524 5,479 6,401 13,650
				TOTAL	**64,054**
	Medicare Survey (Lab surveys for Medicare compliance)	Med. Tech. III	.3	Pers. Other	10,258 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	1.25	Test	59,758	Recycled to support services provided.
	Intestinal Parasites	3.58	Test		
	Sickle Cell	2.75	Test		
	Rubella	4.00	Test		
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	3.15	Specimen	145,000	Appropriated to Division to operate the programs.
	Streptococcus Cultures	2.00 (pre) 2.50 (post)	Specimen		
Conn.	Environmental Chemistry	1.81	R.V.	150,000	State General Fund.
	Strep. Mailers	1.00	Mailer & Culture		
	Strep Office Kits	.35	Kit		
	VDRL Antigen & Saline	3.00	Set		
Ga.	—	—	—	225,000	Deposited to State General Fund.
Ida.	Purity Tests	6.00-8.50	Test	193,763	187,000 allocated to Bureau of Laboratories. 6,763 reverted back to State General Fund.
	Most Probable Number Tests	6.50-10.00	Test		
	Water Pollution Testing—BOD	15.00	Test		
	Water Pollution Testing—COD	11.00	Test		
	Water Pollution Testing—TOC	25.00	Test		
	Water Pollution Testing—Total	5.00	Test		
	Water Chemistry Tests (Includes alkalinity, ammonia, bicarbonate 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)	7.50	Test		
	Elemental analyses performed by atomic absorption spectrophotometry. Includes aluminum, barium, cadmium, chromium, copper, iron, lead, magnesium, manganese, molybdenum, nickel, potassium, silver, sodium, vanadium, zinc)	7.50	Test		
	PH	3.00	Test		
	Color	3.00	Test		
	Complete inorganic chemical testing for drinking water. (Includes arsenic, barium, cadmium, chromium, fluoride, lead, mercury, nitrate, selenium and silver)	90.00	Test		
	Individual tests for:				
	Arsenic	14.00	Test		
	Boron	9.00	Test		
	Chlorophyll A	7.50	Test		
	Chlorophyll A, B, and Pheophytin	15.00	Test		
	Cyanide	16.00	Test		
	Formaldehyde	10.00	Test		
	Fluoride (Dist.)	15.00	Test		
	Kjeldahl Nitrogens	12.00	Test		
	Mercury	14.00	Test		
	Microscopy	25.00	Test		
	Oil and Grease	16.00	Test		

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

Lab	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
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 + postage	Test	47,750	State Treasury-general fund except for postage and handling fees. These fees remain in a State Board of Health revolving fund.
	Public Water Bact.	10.00	Year		
	Premarital Syphilis Serology	2.50	Specimen		
Ia.	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, potassium, total hardness, carbonate hardness, non-carbonate hardness, total alkalinity, bicarbonate alkalinity, carbonate, bicarbonate chloride, sulfate, nitrate, fluoride, pH, turbidity, specific conductance, total dissolved solids, phosphate, silica, iron, manganese	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, mercury, 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 volatile solids, total suspended solids, fixed suspended solids, volatile suspended solids, total dissolved solids, fixed dissolved 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_2O Supply	20.00	Test		
	Complete Testing	30.00	Test		
	Sewage	30.00	Test		
	Purveyors of H_2O	35.00	Test		
	Purveyors of H_2O/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	5.00	Cert.	67,874	Reverts to State Treasury.
	Biological Products	10.00 & up	Kit		
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		
	Cytogentics	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 Nasopharyngeal Specimens	B Mycobacterial Specimens	C Enteric Specimens	D Gonococcus Specimens	E Anaerobic Specimens	F 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	**648,701**	**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**	**126,478**	**91,027**	**14,433**	**779,919**	**1,394**	**6,232**
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	Number of Specimens	1. Streptococcus Beta Hemolytic, Group A					
		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, *H. influenzae* — culture ID
Kans.	416	Nasopharyngitis — smear, culture, biochemicals, serogrouping and serotyping
La.	123	Staphylococcus — coagulase
Me.	414	*H. influenzae* — typing + factors, *N. meningiditis* — 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	*Vincent's angina*
Minn.	1,851	Referred cultures for identification — smear, biochemical, serological, animal pathology toxin
Mont.	19	*Staphylococcus aureus, Streptococcus pneumoniae, Hemophilus influenzae,* pneumonococcus — culture and biochemicals
Ohio	4,425	Staphylococcus — culture and phage typing, aerobic non-fermenters — culture, aerobic Gram positive bact. — culture
Okla.	8	*Vincent's angina* — Gram stain
Ore.	196	Misc. URI — isolation and/or culture identification
Pa.	1	*Yersinia pestis* (plague) — FA
R.I.	50	Meningococcus — culture, biochemicals, serogrouping; staphylococcus — culture, biochemicals; pneumococcus — culture, biochemicals; *H. influenzae* — culture, factors, typing
S.C.	50	Pharyngitis (other) — culture, biochemicals
Tex.	3,124	Staph. phage typing
Utah	39	Meningitis — culture typing of *H. influenzae*, meningitides
Va.	10,994	Meningitidis, pneumonococcus, *H. influenzae*, staph. (phage)
V.I.	—	*S. pneumoniae* — 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	Concentrate Smear	Culture	Direct Suscept. # of Drugs	Indirect Suscept. # of Drugs	# of Biochemicals	Species Ident.	Other
Total	**521,398**								
Average	10,862								
New England	**24,010**								
Conn.	6,190	—	×	×	—	8	17	×	—
Mass.	—	—	—	—	—	—	—	—	—
Me.	3,959	—	×	×	6	6	8	×	Atypicals and/or unclassified
N.H.	10,559	×	×	×	—	—	—	—	—
R.I.	1,815	—	×	×	—	7	12	×	—
Vt.	1,487	—	×	×	6	6	12	×	—
Middle Atlantic	**27,240**								
N.J.	17,694	—	×	×	8	8	11	×	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	9,546	×	×	×	5	5	12	×	Secondary drug studies
East North Central	**37,054**								
Ill.	7,986	×	×	×	—	5	9	×	—
Ind.	3,402	—	×	×	6	6	8	—	—
Mich.	15,583	—	×	×	—	9	11	×	—
Ohio	5,465	—	×	×	10	10	9	×	—
Wisc.	4,618	—	×	×	—	6	9	—	—
West North Central	**32,570**								
Ia.	2,834	×	×	×	8	8	14	×	—
Kans.	5,926	—	×	×	6	6	16	×	—
Minn.	14,005	—	×	×	3	—	15	×	Drug susceptibility
Mo.	—	—	—	—	—	—	—	—	—
Nebr.	870	×	×	×	5	5	11	—	—
N.D.	4,697	—	×	×	5	5	10	×	—
S.D.	4,238	×	×	×	3	3	5	×	—
South Atlantic	**147,475**								
Del.	—	—	—	—	—	—	—	—	—
D.C.	1,423	—	×	×	—	4	12	×	—
Fla.	51,692	—	×	×	—	7	12	×	—
Ga.	26,485	×	×	×	5	5	13	×	In case of resistant organisms 4 additional drugs are used.
Md.	16,579	×	×	×	4	9	3-12	×	—
N.C.	15,954	—	×	×	4	4	8	×	—
S.C.	10,895	×	×	×	7	7	10	×	—
Va.	16,890	—	—	—	—	—	—	—	—
W. Va.	7,557	—	×	×	5	5	7	×	—
East South Central	**91,027**								
Ala.	32,212	—	×	×	8	8	21	×	Serotype atypical
Ky.	14,919	—	×	×	9	9	9	×	Fluorochrome smear
Miss.	23,127	—	—	—	—	7	6	×	—
Tenn.	20,769	—	×	×	—	6	—	×	—
West South Central	**99,548**								
Ark.	19,655	—	×	—	3	6	7	×	INH kits
La.	8,133	×	×	×	—	5	12	×	—
Okla.	11,389	×	×	×	—	5	12	×	—
Tex.	60,371	—	×	×	7	7	10	×	—
Mountain	**26,994**								
Ariz.	4,956	×	×	×	7	7	10	×	—
Colo.	2,028	—	×	×	—	—	2	×	—
Ida.	7,490	×	×	×	6	6	11	×	—
Mont.	2,485	×	×	×	7	7	11	—	—
Nev.	2,141	—	×	×	—	11	5	×	—
N.M.	5,835	—	×	×	4	4	6	×	—
Utah	1,704	—	×	×	5	10	16	×	—
Wyo.	355	—	×	×	—	—	—	—	—
Pacific	**33,443**								
Alaska	10,052	×	×	×	—	3	4	×	—
Cal.	897	—	×	×	5	5-9	10	×	—
Hawaii	11,769	—	×	×	5	5	10	×	—
Ore.	3,209	—	×	×	—	—	13	×	—
Wash.	7,516	—	×	×	5	5	10	×	—
Territories	**2,037**								
Guam	2,037	—	×	×	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	×	×	×	—	—	—	—	—

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

Lab & Region	Number of Specimens	Procedures Used							
		Primary Plating	Enrichment Plating	Biochemicals	FA	Serogrouping	Serotyping	Phage Typing, S. Typhi	Other
Total	**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	S. typhi 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	×	×	×	×	×	×	—
Mass.	60,693	×	×	×	×	×	×	—
Me.	37,701	×	×	×	×	×	×	—
N.H.	43,741	×	×	×	×	×	×	—
R.I.	58,890	×	×	×	×	×	×	—
Vt.	18,284	×	×	×	×	×	×	—
Middle Atlantic	**213,438**							
N.J.	213,414	×	×	×	—	×	×	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	24	×	×	×	—	×	×	—
East North Central	**371,882**							
Ill.	125,534	×	×	×	—	×	×	—
Ind.	4,739	×	×	×	×	×	×	—
Mich.	139,617	×	×	×	—	×	×	—
Ohio	84,403	×	×	×	×	×	×	—
Wisc.	17,589	×	×	×	—	×	×	—
West North Central	**297,469**							
Ia.	68,839	×	×	×	×	×	—	Kirby—Bauer
Kans.	37,711	×	×	×	×	×	×	—
Minn.	104,437	×	×	×	×	×	×	—
Mo.	51,044	×	×	×	×	×	×	—
Nebr.	23,306	×	×	×	×	×	×	—
N.D.	5,536	×	×	×	—	×	×	—
S.D.	6,596	×	×	×	×	×	×	—
South Atlantic	**1,595,048**							
Del.	26,320	×	×	×	—	×	×	—
D.C.	75,637	×	×	×	—	×	×	—
Fla.	549,563	×	×	×	—	×	×	—
Ga.	222,832	×	×	×	×	×	×	—
Md.	352,458	×	×	×	×	×	×	—
N.C.	413	×	×	×	×	×	×	—
S.C.	200,723	×	×	×	×	×	×	—
Va.	110,263	—	—	—	—	—	—	—
W. Va.	56,839	×	×	×	×	×	×	—
East South Central	**779,919**							
Ala.	338,962	×	×	×	×	×	×	—
Ky.	9,822	×	×	×	×	×	×	—
Miss.	180,009	×	×	×	—	×	×	Gram stain and culture, drug susceptibility
Tenn.	251,126	—	×	×	×	—	×	—
West South Central	**881,162**							
Ark.	73,714	×	×	×	×	×	×	—
La.	118,880	×	×	×	—	×	×	—
Okla.	100,495	×	×	×	×	×	×	—
Tex.	588,073	×	×	×	×	×	×	—
Mountain	**233,187**							
Ariz.	9,867	×	×	×	×	×	—	—
Colo.	35,568	×	×	×	×	×	×	—
Ida.	33,124	×	×	×	×	×	×	—
Mont.	10,051	×	×	×	×	×	×	—
Nev.	36,048	×	×	×	—	×	×	—
N.M.	82,766	×	×	×	×	×	×	—
Utah	22,432	×	×	×	—	×	×	—
Wyo.	3,331	×	×	×	×	×	—	—
Pacific	**210,041**							
Alaska	50,569	×	×	×	×	×	×	—
Cal.	13,486	×	×	×	×	×	×	—
Hawaii	121,711	×	×	×	×	×	×	—
Ore.	970	×	×	×	×	×	×	—
Wash.	23,305	×	×	×	×	×	×	—
Territories	**19,267**							
Guam	2,031	×	×	×	—	×	×	—
P.R.	14,134	×	×	×	×	×	×	—
V.I.	3,102	×	×	×	—	×	—	—

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

Lab & Region	Number of Specimens	Techniques Used		Procedures Used						
		Prereduced Media	Gas Chromatography	Gram Stain	Plating	Subculture	Biochemical	FA	GLC	Other
Total	**10,735**									
Average	244									
New England	**489**									
Conn.	179	—	×	×	×	×	×	×	×	—
Mass.	—	—	—	—	—	—	—	—	—	—
Me.	190	×	×	×	×	×	×	—	×	—
N.H.	—	—	—	—	—	—	—	—	—	—
R.I.	30	×	—	×	×	×	×	—	—	—
Vt.	90	×	×	×	×	×	×	×	×	—
Middle Atlantic	**57**									
N.J.	1	—	—	×	×	×	×	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	56	—	×	×	×	×	×	—	×	—
East North Central	**1,271**									
Ill.	221	—	×	×	×	×	×	—	×	—
Ind.	138	—	×	×	×	×	×	—	×	—
Mich.	99	×	×	×	×	×	×	—	×	—
Ohio	485	×	×	×	×	×	×	—	×	Sensitivity testing, animal inoculation
Wisc.	328	×	×	×	×	×	×	—	×	—
West North Central	**1,228**									
Ia.	187	×	×	×	×	×	×	×	×	—
Kans.	378	×	×	×	×	×	×	—	×	—
Minn.	131	—	—	×	×	×	×	—	—	Animal toxogenicity, serology
Mo.	82	—	×	×	×	×	×	—	×	—
Nebr.	—	—	—	—	—	—	—	—	—	—
N.D.	343	×	—	×	×	×	×	—	—	—
S.D.	107	×	—	×	×	×	×	—	—	—
South Atlantic	**2,793**									
Del.	—	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—
Fla.	407	×	×	×	×	×	×	—	×	—
Ga.	535	×	×	×	×	×	×	—	×	—
Md.	425	×	×	×	×	×	×	—	×	—
N.C.	500	×	×	×	×	×	×	—	×	—
S.C.	484	×	×	×	×	×	×	×	×	—
Va.	418	—	—	—	—	—	—	—	—	—
W. Va.	24	×	—	×	×	×	×	—	—	—
East South Central	**1,394**									
Ala.	195	—	—	×	×	×	×	—	—	Animal inoculation
Ky.	21	—	×	×	×	×	×	—	×	—
Miss.	—	×	—	×	×	×	×	—	—	—
Tenn.	1,178	—	×	×	×	×	×	—	×	—
West South Central	**1,567**									
Ark.	180	×	×	×	×	×	×	—	×	—
La.	488	×	—	×	×	×	×	—	—	—
Okla.	114	×	×	×	×	×	×	—	×	—
Tex.	785	×	×	×	×	×	×	×	×	—
Mountain	**953**									
Ariz.	272	×	×	×	×	×	×	×	×	—
Colo.	80	×	—	—	—	—	—	—	—	—
Ida.	374	×	×	×	×	×	×	—	×	—
Mont.	63	×	—	×	×	×	×	—	—	—
Nev.	—	×	—	×	×	×	×	—	—	—
N.M.	80	×	×	×	×	×	—	—	×	—
Utah	84	×	—	×	×	×	×	—	—	Mouse inoculation, bat. toxin typing
Wyo.	—	—	—	—	—	—	—	—	—	—
Pacific	**766**									
Alaska	230	×	—	×	×	×	×	—	—	—
Cal.	104	×	×	×	×	×	×	×	×	—
Hawaii	309	—	—	×	×	×	×	—	×	—
Ore.	68	—	×	×	×	×	×	×	×	—
Wash.	55	×	×	×	×	×	×	—	×	Mouse toxicity testing, antibiograms, mouse neutralization
Territories	**217**									
Guam	1	×	—	×	×	×	—	—	—	—
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 E. coli — 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, eto — 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, ID, leptospirosis — culture, ID, 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 Neisseria meningitidis — 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	Legionella pneumophila — 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; Treponema pallidum — 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, H. ducreyi, 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; M. meningitis — 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	—	—	Trichomones
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	—	×	×	—
Mass.	574	—	×	×	—
Me.	195	—	×	—	—
N.H.	202	—	×	×	—
R.I.	81	—	×	×	—
Vt.	110	—	×	×	—
Middle Atlantic	**2,249**				
N.J.	1,967	—	×	×	—
N.Y.	—	—	—	—	—
Pa.	282	—	×	×	—
East North Central	**11,818**				
Ill.	3,245	—	—	—	—
Ind.	2,540	×	×	×	—
Mich.	1,180	—	×	×	—
Ohio	2,848	×	×	×	—
Wisc.	2,005	—	×	×	—
West North Central	**7,569**				
Ia.	785	—	×	×	—
Kans.	—	—	—	—	—
Minn.	1,195	—	×	×	—
Mo.	4,019	×	×	×	—
Nebr.	874	—	×	—	—
N.D.	588	—	×	—	—
S.D.	108	—	×	×	—
South Atlantic	**13,340**				
Del.	184	×	×	—	—
D.C.	50	—	×	—	—
Fla.	3,865	×	×	—	—
Ga.	2,201	—	×	×	—
Md.	2,265	×	×	×	Mouse neutralization test for antibody
N.C.	1,779	×	×	—	—
S.C.	1,893	—	×	×	—
Va.	513	—	—	—	—
W. Va.	590	—	×	×	—
East South Central	**7,781**				
Ala.	2,671	—	×	×	—
Ky.	2,020	×	×	×	—
Miss.	783	×	×	—	—
Tenn.	2,307	×	×	×	—
West South Central	**27,741**				
Ark.	3,071	×	×	—	—
La.	2,935	—	×	×	—
Okla.	4,388	—	×	×	—
Tex.	17,347	—	×	×	—
Mountain	**4,645**				
Ariz.	1,761	—	×	—	—
Colo.	755	×	×	×	—
Ida.	495	—	×	—	—
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	898	—	×	—	—
Utah	220	×	×	×	—
Wyo.	516	—	×	—	—
Pacific	**1,668**				
Alaska	233	—	×	×	—
Cal.	703	—	×	×	—
Hawaii	10	×	×	—	—
Ore.	262	×	×	×	—
Wash.	460	—	×	×	—
Territories	**217**				
Guam	—	—	—	—	—
P.R.	217	—	×	—	—
V.I.	—	—	—	—	—

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

Lab	Number of Specimens	Types of Specimens						Procedures Used									
		Enteric	Arbovirus Human Origin	Arbovirus Non-Human Orig.	Respiratory	Exanthem	Other	Tissue Culture Hosts	Eggs	Animal Hosts	HI/HA	CF	Neutralization Tests	FA–Orig. Spec.	FA–Other	HAdI/HAd	Other
Total	98,611																
Average	2,356																
Ala.	310	×	–	–	×	×	–	×	×	×	×	–	×	–	–	×	–
Alaska	2,387	×	–	–	×	×	CNS	×	×	–	–	–	×	×	–	×	–
Ariz.	1,411	×	×	–	×	×	Misc; i.e. Central Nervous System	×	×	–	–	–	×	–	–	–	–
Cal.	6,730	×	–	×	×	×	Skin lesions, urine, pleural fluid, autopsy tissues, virus isolates for ID, birds, mosquitoes, animal tissues (other than rabies specimens)	×	×	×	×	×	×	×	×	×	Electron microscopy
Conn.	4,478	×	–	–	×	×	Spinal fluid, urine, autopsy	×	–	–	×	×	×	–	×	×	–
Del.	954	×	×	–	×	×	–	×	×	×	×	×	×	×	×	×	–
Fla.	5,324	×	×	×	×	×	–	×	×	×	×	×	×	×	×	×	–
Ga.	1,436	×	×	×	×	×	–	×	×	×	×	×	×	×	×	×	EM VIEM, gimenez hair, iodine
Hawaii	1,874	×	–	–	×	×	–	×	×	–	×	×	×	×	–	×	–
Ida.	540	–	–	–	×	×	–	×	×	–	×	×	–	×	×	×	–
Ill.	4,039	×	×	×	×	×	–	×	×	×	×	×	×	×	×	×	–
Ind.	717	×	–	–	×	×	–	×	–	–	×	×	×	–	–	–	–
Ia.	3,187	×	×	×	×	–	Blood, SF, tissue	×	×	×	×	–	×	–	–	–	–
Kans.	922	×	×	×	×	×	Cytomegalovirus	×	×	×	×	×	×	–	–	×	–
Ky.	349	×	×	–	×	×	Autopsy material	×	×	–	×	×	×	–	–	×	–
La.	8	–	×	–	×	–	–	–	×	×	×	×	–	–	–	×	–
Me.	666	×	–	–	×	×	Vesicles	×	×	–	–	–	–	–	×	–	–
Md.	3,093	×	×	×	×	×	Venereal (genital), ocular, urinary tract	×	×	×	×	×	×	×	×	×	ELISA, electron microscopy
Mass.	4,452	×	×	×	×	×	CNS, autopsy, biopsy	×	×	–	×	×	×	–	–	×	Interference, plaque formation
Mich.	3,283	×	–	–	×	×	–	×	×	×	×	×	×	×	×	×	–
Minn.	4,296	×	–	–	×	×	–	×	×	×	×	×	×	×	×	×	–
Mo.	732	×	×	×	×	×	–	×	×	×	×	×	×	–	×	×	–
Mont.	378	×	×	–	×	×	Lesion specimens	×	–	–	×	×	×	–	–	×	–
N.J.	7,326	×	×	×	×	×	CNS specimens (non-arbovirus), mosquito pools	×	×	×	×	×	×	×	×	×	Interference/Interference Inhibition
N.M.	461	×	–	–	×	×	–	×	×	×	×	×	×	–	×	–	–
N.C.	1,661	×	×	×	×	×	–	×	×	×	×	×	×	–	×	×	–
N.D.	187	×	–	–	×	–	–	–	–	–	×	×	–	×	×	–	–
Ohio	3,012	×	×	–	×	×	Tissues	×	×	×	×	×	×	×	×	×	–
Okla.	2,035	×	–	–	×	×	CSF, urine, tissue	×	×	×	×	–	×	–	–	×	–
Ore.	2,664	×	–	–	×	×	Autopsy/biopsy tissues	×	×	–	×	×	×	–	–	×	–
Pa.	1,396	×	×	–	×	×	–	×	×	×	×	×	×	×	–	×	–
S.C.	1,024	×	–	–	×	×	CSF, urines, tissue, vaginal and urethral swabs, body fluids, eye swabs	×	×	×	×	×	×	×	×	×	Mycoplasma (bi-phasic media), Chlamydia (iodine stain of tissue culture)
S.D.	631	×	×	–	×	×	–	×	×	×	×	×	×	×	×	×	–
Tenn.	620	×	–	–	×	×	–	×	×	×	–	–	×	–	–	×	–
Tex.	15,198	×	×	×	×	–	–	×	×	×	×	×	×	–	×	–	–
Utah	1,838	×	×	–	×	×	–	×	×	×	×	×	×	–	–	×	–
Vt.	59	–	–	–	×	–	–	–	×	–	×	–	–	–	–	–	–
Va.	447	×	–	–	×	×	Autopsy, biopsy, tissue, CSF	×	×	×	×	–	×	–	–	–	–
Wash.	709	×	–	×	×	×	Chlamydia — psittacosis in birds	×	×	×	×	–	×	–	–	×	Macchiavello's stain
W. Va.	82	×	–	–	×	×	CNS (other than arbovirus)	×	×	×	×	–	×	–	–	×	–
Wisc.	5,695	×	×	–	×	×	Autopsy, biopsy	×	×	×	×	×	×	×	×	×	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 Syphilis Serology	B Bacterial Serology	C Fungal Serology	D Parasitological Serology	E Viral and Rickettsial Serology	F 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	—	—	—	—	—

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

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	Legionella pneumophila, Bordetella pertussis
Mass.	257	X	X	—	—	X	—
Me.	1,280	—	—	X	—	X	Shigella, L. pneumophila
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	**6,875**						
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	Pasteurella multocida, tetanus antitoxin, diphtheria antitoxin, pertussis
N.C.	990	X	X	X	—	—	Legionellosis
S.C.	845	X	X	X	—	—	Legionnaires' disease - FA-IFA, Weil-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	Yersinia enterocolitica, Yersinia pseudotuberculosis, 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						
		Blastomycosis	Coccidioido-mycosis	Histoplasmosis	Cryptococcus	Aspergillus	Candidiasis	Other
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	Toxoplasmosis	Amebiasis	Echinococcosis	Trypanosomiasis	Other
Total	**189,733**						
Average	5,929						
New Englad	**8,649**						
Conn.	3,893	×	×	—	—	—	(Referred to CDC)
Mass.	2,371	×	×	×	×	—	Babesiosis
Me.	2,325	—	×	—	—	—	—
N.H.	—	—	—	—	—	—	—
R.I.	54	—	×	—	—	—	—
Vt.	6	×	—	—	—	—	—
Middle Atlantic	**1,920**						
N.J.	1,920	×	×	—	—	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—
East North Central	**26,017**						
Ill.	1,607	—	×	—	—	—	—
Ind.	1,155	×	×	—	—	—	—
Mich.	3,860	—	×	—	—	—	—
Ohio	4,829	—	×	×	—	—	—
Wisc.	14,566	—	×	—	—	—	—
West North Central	**8,009**						
Ia.	4,650	×	×	—	—	—	—
Kans.	—	—	—	—	—	—	—
Minn.	2,023	—	×	—	—	—	—
Mo.	1,036	—	×	—	—	—	—
Nebr.	—	—	—	—	—	—	—
N.D.	300	—	×	—	—	—	—
S.D.	—	—	—	—	—	—	—
South Atlantic	**19,936**						
Del.	—	—	—	—	—	—	—
D.C.	10	—	×	—	—	—	—
Fla.	1,593	—	×	—	—	—	—
Ga.	2,394	—	×	—	—	—	—
Md.	11,068	×	×	×	×	—	—
N.C.	2,837	—	×	—	—	—	—
S.C.	576	—	×	×	—	—	—
Va.	1,034	×	—	—	—	—	—
W.Va.	424	—	×	—	—	—	—
East South Central	**3,373**						
Ala.	1,777	—	×	×	—	—	—
Ky.	1,596	—	×	—	—	—	—
Miss.	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—
West South Central	**8,193**						
Ark.	521	—	×	—	—	—	—
La.	2,958	—	×	—	—	—	—
Okla.	—	—	—	—	—	—	—
Tex.	4,714	—	×	×	—	—	—
Mountain	**1,037**						
Ariz.	596	—	×	—	—	—	—
Colo.	—	—	—	—	—	—	—
Ida.	—	—	—	—	—	—	—
Mont.	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—
Utah	441	—	×	—	—	—	—
Wyo.	—	—	—	—	—	—	—
Pacific	**112,599**						
Alaska	—	—	—	—	—	—	—
Cal.	2,026	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—
Ore.	110,573	—	×	—	—	—	—
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 Hemolysin	Slide Agglutination	Heterophile Tests	Other
Total	**1,269,769**														
Average	25,395														
New England	**99,783**														
Conn.	29,043	X	X	—	—	—	—	—	X	—	X	X	—	—	—
Mass.	9,757	X	X	—	—	X	—	X	X	—	—	X	—	—	Hemolysis in gel (SRH), plaque reduction (neutralization)
Me.	15,556	X	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	—	—	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	Legionella pneumophila
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	—	—	—	—	—	—	—	—	X	—	X	—
Ida.	5,466	X	X	—	—	—	—	X	—	—	—	—	—	—	—
Mont.	27,408	X	X	X	—	X	—	X	—	—	—	—	—	—	—
Nev.	153	—	X	—	—	—	—	—	—	—	—	—	—	—	—
N.M.	17,641	X	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	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

Table 4-28
VI. HEMATOLOGY
A. Hematology Specimens

Lab & Region	Number of Specimens	Hematocrit	Hemoglobin	Cell Count	Sed. Rate	Reticulocyte Count	Differential	Prothrombin Time	Platelet Count	Other
Total	**738,610**									
Average	36,931									
New England	**7,106**									
Conn.	6,882	X	X	X	X	X	X	X	X	Coulter CBC (7 parameter)
Mass.	—	—	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—	—	—
R.I.	224	X	X	X	—	X	X	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	**325**									
N.J.	—	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—
Pa.	325	X	X	X	—	—	X	X	—	—
East North Central	**14,279**									
Ill.	—	—	—	—	—	—	—	—	—	—
Ind.	—	—	—	—	—	—	—	—	—	—
Mich.	14,279	X	X	X	X	X	X	X	X	—
Ohio	—	—	—	—	—	—	—	—	—	—
Wisc.	—	—	—	—	—	—	—	—	—	—
West North Central	—									
Ia.	—	—	—	—	—	—	—	—	—	—
Kans.	—	—	—	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	—	—	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—	—
South Atlantic	**268,849**									
Del.	—	—	—	—	—	—	—	—	—	—
D.C.	38,993	X	X	X	X	X	X	—	X	—
Fla.	72,231	X	X	—	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—	—
Md.	60,897	X	X	X	X	X	X	X	X	L.E. preparation, Bence-Jones protein, spinal fluid, leukocytes
N.C.	3,314	X	X	X	—	—	X	—	—	—
S.C.	44,031	X	X	X	X	X	X	X	X	Bleeding time
Va.	49,015	—	—	—	—	—	—	—	—	—
W.Va.	1,368	X	X	X	—	—	X	—	—	—
East South Central	**115,185**									
Ala.	—	—	—	—	—	—	—	—	—	—
Ky.	4,570	X	X	X	—	—	X	—	—	—
Miss.	110,615	X	X	X	—	—	—	—	—	MCV, MCH, MCHC
Tenn.	—	—	—	—	—	—	—	—	—	—
West South Central	**259,862**									
Ark.	22,823	X	X	X	—	—	X	—	—	—
La.	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	—	—
Tex.	237,039	X	X	—	—	—	—	—	—	—
Mountain	**4,578**									
Ariz.	—	—	—	—	—	—	—	—	—	—
Colo.	—	—	—	—	—	—	—	—	—	—
Ida.	3,587	—	—	—	—	—	—	—	—	—
Mont.	—	—	—	—	—	—	—	—	—	—
Nev.	991	X	X	X	X	—	X	—	—	—
N.M.	—	—	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—	—	—
Pacific	**43**									
Alaska	—	—	—	—	—	—	—	—	—	—
Cal.	43	X	X	X	—	—	X	—	—	—
Hawaii	—	—	—	—	—	—	—	—	—	—
Ore.	—	—	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	—	—
Territories	**67,383**									
Guam	4,740	X	X	X	X	X	X	—	X	—
P.R.	62,643	X	X	X	X	X	X	X	X	—
V.I.	—	—	—	—	—	—	—	—	—	—

Table 4-29
VI. HEMATOLOGY
B. Immunohematology Specimens

Lab & Region	Number of Specimens	Blood Grouping	Blood Typing	Other Test
Total	**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						
		Hemoglobin Cellulose Acetate Electro.	Citrate Agar Electrophoresis	Solubility Testing	Fetal Hemoglobin Assay	Hemoglobin A_2 Quantitation	Densitometry	Other
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	—	—	X	—
D.C.	10,955	X	—	X	—	—	—	—
Fla.	58,524	X	X	X	X	X	—	—
Ga.	44,332	X	X	X	—	—	—	Alkaline globin chain
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																							
Ala.	3,063	×	—	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alaska	112	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ETOH, drug screening, PSP
Ark.	4,242	×	×	×	×	×	×	×	—	—	×	—	×	—	×	×	—	×	×	—	—	×	—	—
Cal.	466	×	—	—	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Conn.	3,767	×	×	×	×	×	×	×	×	×	×	—	×	—	×	×	×	×	×	—	×	×	×	Amylase, HDL, SGT, GGT, GT
Fla.	81,349	×	×	×	×	×	×	×	—	—	×	—	×	—	—	—	—	—	×	—	×	—	—	Cholinesterase, lead (EP)
Ga.	7,776	×	×	—	×	—	—	—	—	—	×	—	—	×	×	×	—	—	×	—	—	—	—	—
Guam	749	×	×	×	×	—	—	×	—	—	—	—	×	—	×	×	—	×	×	—	×	—	—	SGOT and SGPT
Ky.	9,377	×	×	×	×	×	×	×	—	—	×	—	×	×	×	×	×	×	×	—	×	—	×	SGOT, HBDH, lithium, SGPT, GGTP, amyl, CPK, cholinesterase
Md.	40,447	×	×	×	×	×	×	×	×	×	×	—	×	—	×	×	×	×	×	—	×	×	×	A/G ratio
Mich.	19,437	×	×	×	×	×	—	×	—	—	—	—	×	—	×	×	—	—	×	—	—	×	—	—
Miss.	76,880	×	×	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	404	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.M.	460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	—	—	—	Cholinesterase, lithium in blood
N.C.	14,218	×	—	—	—	—	—	—	×	×	×	—	—	×	—	—	—	—	—	—	—	—	—	—
N.D.	40	—	—	—	—	—	—	—	—	—	—	—	—	—	×	—	—	×	—	—	—	—	—	Blood lead, serum magnesium
Ohio	3,695	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	2,950	×	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	1,388	×	×	×	×	×	×	×	—	—	×	—	×	—	×	×	×	×	×	—	×	×	×	Magnesium, glycosylated hemoglobins, high density lipoprotein-cholesterol
P.R.	32,124	×	×	×	×	×	×	×	—	—	×	—	×	×	×	×	×	×	×	×	×	×	×	Cholinesterase, amylase, hanger, thymol, 17-ketosteroids, lithium, anticonvulsives (levels), fibrinogen
R.I.	12,449	×	×	×	—	×	—	—	—	—	×	×	×	—	×	×	—	—	×	—	—	×	—	Magnesium
S.C.	3,751	×	×	×	×	×	×	×	—	—	—	—	×	—	×	×	×	×	×	—	×	×	—	CO_2
Tex.	95,269	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Va.	16,836	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V.I.	896	—	—	—	—	—	—	—	—	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—
W. Va.	9,156	×	—	—	—	—	—	—	—	—	×	—	—	—	×	×	—	—	×	—	—	—	—	Erythrocyte profoporphyrin (lead screening); therapeutic drug monitoring: phenytoin, phenobarbitol; CSF protein
Wisc.	34,239	×	×	×	×	×	×	×	×	×	×	—	×	×	×	×	×	×	×	—	×	×	×	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								
		PKU	Tyrosinemia	Galactosemia	MSUD	Hyperthyroidism	Amino Acid Chromatography	Homocystinuria	Maternal PKU	Other
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	Fluorometric 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	—	—	×	×	—
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	—	—	—	×	—
Wisc.	914	×	—	—	—	—
West North Central	—					
Ia.	—	—	—	—	—	—
Kans.	—	—	—	—	—	—
Minn.	—	—	—	—	—	—
Mo.	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—
N.D.	—	—	—	—	—	—
S.D.	—	—	—	—	—	—
South Atlantic	**128,216**					
Del.	—	—	—	—	—	—
D.C.	—	—	—	—	—	—
Fla.	74,423	—	×	—	—	—
Ga.	—	—	—	—	—	—
Md.	—	—	—	—	—	—
N.C.	40,173	—	—	×	×	—
S.C.	8,270	×	—	—	—	—
Va.	—	—	—	—	—	—
W. Va.	5,350	—	—	—	×	—
East South Central	**9,117**					
Ala.	—	—	—	—	—	—
Ky.	—	—	—	—	—	—
Miss.	9,117	—	—	×	—	—
Tenn.	—	—	—	—	—	—
West South Central	**2,475**					
Ark.	—	—	—	—	—	—
La.	—	—	—	—	—	—
Okla.	250	—	—	—	×	—
Tex.	2,225	—	—	—	—	Hycel 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 protophorphyrin
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 (hemoccult)
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	×	×	×	×	×	×	×	—	×	×	×	—
Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—
Me.	17,611	×	—	—	×	×	—	×	—	—	×	×	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	14,481	×	—	—	—	×	—	—	×	—	—	×	—
Vt.	24,964	×	—	—	—	—	—	×	—	—	—	—	—
Middle Atlantic	**10,743**												
N.J.	10,743	×	—	—	—	×	—	×	—	—	—	×	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—	—	—	—	—
East North Central	**328,893**												
Ill.	36,957	×	×	—	×	×	—	×	×	—	—	×	—
Ind.	60,885	×	×	×	×	—	—	—	×	×	×	—	—
Mich.	101,942	×	—	—	×	—	—	×	—	—	×	—	—
Ohio	66,219	×	×	—	×	×	×	×	×	—	×	×	—
Wisc.	62,890	×	×	—	×	×	—	×	×	—	×	×	—
West North Central	**249,232**												
Ia.	43,114	—	×	—	×	—	—	—	×	—	—	—	—
Kans.	46,974	×	—	—	×	—	—	×	—	—	×	—	—
Minn.	—	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	103,528	×	—	—	×	—	×	×	—	—	—	—	—
Nebr.	22,595	×	×	—	—	—	—	—	—	—	—	—	—
N.D.	12,620	×	×	—	×	×	—	×	—	×	×	×	—
S.D.	20,401	×	×	—	×	×	—	×	×	—	×	×	—
South Atlantic	**433,916**												
Del.	11,531	×	×	—	—	×	—	×	—	—	—	—	—
D.C.	[4] 102	—	—	—	—	—	—	—	—	—	—	—	—
Fla.	226,398	×	×	—	—	×	—	×	—	—	—	×	—
Ga.	—	—	—	—	—	—	—	—	—	—	—	—	—
Md.	58,545	×	×	—	—	×	—	—	×	—	—	×	—
N.C.	64,941	×	×	—	×	×	—	×	×	—	—	×	—
S.C.	—	—	—	—	—	—	—	—	—	—	—	—	—
Va.	44,891	—	—	—	—	—	—	—	—	—	—	—	—
W. Va.	27,508	×	×	—	×	×	—	—	×	—	×	×	—
East South Central	**192,514**												
Ala.	81,223	×	×	—	×	×	—	—	—	—	—	—	—
Ky.	10,536	×	×	×	—	×	×	—	×	—	—	—	—
Miss.	58,847	×	×	—	—	×	—	—	—	—	—	—	—
Tenn.	41,908	×	—	—	—	—	—	×	—	—	—	—	—
West South Central	**489,848**												
Ark.	53,376	×	—	—	×	×	—	×	—	—	×	—	—
La.	75,173	×	×	—	—	×	—	—	—	—	—	×	—
Okla.	59,634	×	×	—	×	—	—	×	—	—	×	—	—
Tex.	301,665	×	×	—	—	×	—	—	—	—	—	—	—
Mountain	**156,848**												
Ariz.	9,688	×	×	×	×	×	×	—	×	×	×	×	×
Colo.	—	×	—	—	×	×	—	—	×	—	—	×	—
Ida.	44,828	×	×	×	×	×	—	×	—	×	—	—	—
Mont.	9,596	×	×	—	×	×	—	×	×	—	×	×	—
Nev.	19,947	×	×	—	×	×	—	×	×	—	×	×	—
N.M.	26,116	×	—	—	×	×	—	×	×	—	—	×	—
Utah	36,500	—	—	—	—	—	—	—	—	—	—	—	—
Wyo.	10,173	—	×	—	—	—	—	—	×	—	—	—	—
Pacific	**34,629**												
Alaska	2,293	×	×	—	×	×	—	×	×	—	×	×	—
Cal.	10,796	×	×	×	—	×	×	—	×	×	—	×	×
Hawaii	6,354	×	×	×	×	×	×	—	—	—	×	×	×
Ore.	10,682	—	×	—	—	×	—	—	×	—	—	×	—
Wash.	4,504	—	×	—	—	×	—	—	×	—	—	×	—
Territories	**9,838**												
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	5,517	×	×	×	—	×	—	—	×	—	—	—	—
V.I.	4,321	×	—	—	×	—	—	×	—	—	×	—	—

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. E. coli, f. strep.), proficiency tests for lab certification
N.Y.	—	—	—	—	—	—	—
Pa.	119	—	X	—	—	153	Breast milk for botulinum toxin; infant formula for botulinum toxin; stools for staphylocci, perfringens; nasal swabs for staphylocci; 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	Cholerain, 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, shellfish (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 Water Samples	B Dairy Prod. and Food Samples	C Pesticide Samples	D Air Pollution Samples	E Radiological Samples	F 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[1]	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.	—	—	—	—	—	—

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

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	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	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	—	4
Ida.	6,388	30	—	X	—	—	X	—	6
Mont.	5,836	50	X	X	—	X	X	X	—
Nev.	2,694	16	—	—	—	—	—	—	3
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	15
Hawaii	25,289	12	X	—	—	—	X	X	8
Ore.	—	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	—
Territories	—								
Guam	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—

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

Lab & Region	Number of Samples	Types							
		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 dosemeters
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 (solis, 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										
		Liquids for Alcohol	Pesticides	PCB's	Plant and Plant Material	Drugs and Narcotics	Articles for Blood Stains	Paint—Comparison	Paint—Lead	Fibers and Hairs	Gunpowder Residues	Other
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 (arson), 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, soil, Cola, H_2O
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	—	—	—

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 protoporphyrin.
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.	—	—	—	—	—	—	—	—	—

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

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

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

Lab & Region	4. Body Fluids								5. Breath		6. Other
	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other	Volatiles	Other	
New England											
Conn.	F	F	F	—	—	—	—	—	F	—	O—Childhood lead poisoning
Mass.	—	—	—	—	—	—	—	—	—	—	—
Me.	F	F	F	F	F	F	—	—	F	—	—
N.H.	—	—	—	—	—	—	—	—	—	—	O—Red tide
R.I.	F/O	F/O	F/O	—	F/O	F/O	—	—	—	—	F—Vaginal swabs and smears
Vt.	—	—	—	—	—	—	—	—	—	F—Ethyl alcohol	—
Middle Atlantic											
N.J.	—	—	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—	—	—
East North Central											
Ill.	F	F	F	—	F	F	F	—	—	—	—
Ind.	—	—	—	—	—	—	—	—	—	—	—
Mich.	—	—	—	—	—	—	—	—	—	—	—
Ohio	F/O	F/O	F/O	—	—	—	—	F/O	F/O	—	—
Wisc.	O	—	F/O	—	—	—	—	—	—	—	—
West North Central											
Ia.	—	—	—	—	—	—	—	—	—	—	—
Kans.	F/O	—	F/O	—	O	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	O	—	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—	F	—	—
N.D.	—	—	—	—	—	—	—	—	—	—	—
S.D.	—	—	—	—	—	—	—	—	—	—	—
South Atlantic											
Del.	—	—	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—	—
Fla.	O	O	O	O	O	O	O	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	—	—	—	—	—	—	—
N.C.	—	—	—	—	—	—	—	—	—	—	—
S.C.	O	O	O	—	—	O	—	—	—	—	—
Va.	—	—	—	—	—	—	—	—	—	—	—
W. Va.	—	—	—	—	—	—	—	—	—	—	—
East South Central											
Ala.	—	—	—	—	—	—	—	—	—	—	—
Ky.	F	F	F	F	F	F	—	—	—	—	—
Miss.	—	—	—	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—	—	—
West South Central											
Ark.	—	—	O	—	O	—	—	—	—	—	—
La.	—	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	—	—	—
Tex.	—	—	—	—	—	—	—	—	—	—	—
Mountain											
Ariz.	—	—	—	—	—	—	—	—	—	—	—
Colo.	—	—	—	—	—	—	—	—	—	—	—
Ida.	—	—	F/O	—	—	—	—	—	X	—	—
Mont.	—	—	—	—	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—	—	—	F—Ethyl alcohol	—
Utah	—	—	F	—	—	—	—	—	—	—	—
Wyo.	F	F	F	—	—	—	—	—	F	—	—
Pacific											
Alaska	—	—	—	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—	X	—	—
Hawaii	—	—	—	—	—	—	—	—	—	—	—
Ore.	—	—	—	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	O	O	—	—	O—Water, vegetation, soil, air
Territories											
Guam	—	—	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	—	—

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

Lab & Region	Number of Professional & Technical Positions In LIP	A	B	C	D	E
		Clinical	Public Health	Dairy & Food	Water	Other
Total	**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	×
Mass.	5.0	500	—	—	—	—
Me.	3.0	58	2	—	35	×
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	—	—	×
East North Central	**46.3**	**2,202**	**60**	**112**	**175**	
Ill.	12.5	1,800	25	—	—	—
Ind.	2.1	—	6	—	56	×
Mich.	12.0	—	—	—	—	—
Ohio	8.0	402	10	—	—	×
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	×
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	×
Ga.	18.0	339	7	22		—
Md.	4.5	173	10	15	60	—
N.C.	8.0	—	—	—	—	×
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	—	—	×
Mont.	2.9	250	2	4	17	×
Nev.	1.0	>188	3	—	19	—
N.M.	2.4	>95	1	4	54	×
Utah	4.0	132	6	—	24	×
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. Independent laboratories licensed under Maine Medical Laboratory Act.
N.H.	—	—	—	—	—	Bureau Health Facilities Administration, Division of Public Health Services
R.I.	52	52	52	—	30	—
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 Certification, 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 Certification in the Health Department is responsible for activities other than the premarital program and milk and water certification.
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 premarital 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.
La.	—	—	—	—	—	Office of Licensure and Certification is responsible for certification of clinical laboratories.
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 Department)
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	—	—	—	—	—

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

Lab & Region	Activity of Laboratory Improvement Program Staff																				
	5. Proficiency Testing													6. Field Visits						7.	8.
					Immunology									LIP Programs			Other Programs			Trng	Consult
	Diag. Bact.	Mycology	Parasitology	Virology	Syphilis Serology	Non-Syphilis Serology	Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dair/Food	Other	Lic./App.	Cert.	Other	Lic./App.	Cert.	Other		
New England																					
Conn.	×	×	×	×	×	×	×	×	×	—	—	—	Blood banks, blood collection facilities, Q.C., research, teaching, dog laboratories	×	×	×	×	×	—	×	×
Mass.	×	—	—	—	×	×	×	×	—	—	—	—	—	×	—	—	—	—	—	×	×
Me.	×	—	—	—	×	×	—	×	—	×	×	—	Blood alcohol, drug ID	×	×	—	—	×	—	×	×
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	×	—	×	—	×	×	×	×	—	×	—	×	—	×	×	—	×	×	—	×	×
Vt.	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Middle Atlantic																					
N.J.	×	×	×	—	×	×	×	×	—	—	—	—	Cytology, blood gas	×	×	—	×	×	—	×	×
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	×	×	×	×	×	×	×	×	—	—	—	—	—	×	—	—	×	×	—	×	×
East North Central																					
Ill.	—	—	—	—	×	—	—	—	—	×	×	×	Blood lead, PKU-Guthrie, Thyroxine (T_4), Thyrotropin (TSH), quantitative phenylalanine	×	×	—	×	×	—	×	×
Ind.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	—	—	—	×	×
Mich.	×	×	×	—	×	—	×	×	—	—	—	—	PKU	×	×	—	×	×	—	—	×
Ohio	×	×	×	—	×	×	×	×	—	—	—	—	Alcohol tests	×	—	—	×	×	—	×	×
Wisc.	×	×	×	×	×	×	×	×	—	—	—	×	—	×	—	—	×	—	—	×	×
West North Central																					
Ia.	×	×	×	—	×	×	×	×	—	×	—	—	PKU	×	—	—	—	×	—	×	×
Kans.	—	—	—	—	×	—	—	×	—	—	×	—	—	×	—	—	—	×	—	—	×
Minn.	×	×	×	—	×	×	×	×	—	—	—	—	Blood banking, urinalysis	—	—	—	—	—	—	×	×
Mo.	—	—	—	—	×	—	—	—	—	—	—	×	PKU	×	—	—	—	×	—	×	×
Nebr.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	×	—	—	—	×	×
S.D.	—	—	—	—	×	—	—	—	—	—	—	—	On-site part of inspection including chem., hem., ABO and Rh, urinalysis	—	—	—	×	×	—	×	×
South Atlantic																					
Del.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	×	×	—	×	×
D.C.	—	—	—	×	—	—	—	—	—	—	—	—	—	×	×	—	×	×	—	×	×
Fla.	—	—	—	—	×	—	—	—	—	—	×	—	Syphilis serology, rubella, blood alcohol	×	×	—	—	×	—	×	×
Ga.	×	×	×	×	×	×	×	×	—	—	—	—	—	×	×	—	—	×	—	×	×
Md.	×	×	×	×	×	×	×	×	×	×	×	—	—	×	×	×	×	×	—	×	×
N.C.	×	×	×	×	×	—	—	—	—	—	—	×	—	—	—	—	—	—	—	×	×
S.C.	×	×	×	×	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Va.	—	—	—	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
W.Va.	×	—	×	—	×	—	×	×	—	×	—	×	—	—	×	—	—	—	—	×	×
East South Central																					
Ala.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	×	—	—	×	×
Ky.	×	—	—	—	×	—	×	×	—	—	—	—	—	—	—	—	—	—	—	×	×
Miss.	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tenn.	×	×	×	—	×	×	×	×	—	—	—	—	—	×	—	—	—	×	×	—	—
West South Central																					
Ark.	×	×	×	—	×	×	—	—	—	—	—	—	—	×	—	—	—	—	—	—	—
La.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	—	—	—	×	×
Tex.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mountain																					
Ariz.	—	—	—	×	—	×	—	—	—	—	×	—	—	×	—	—	—	×	—	×	×
Colo.	×	×	×	—	×	×	×	×	—	—	—	×	Blood alcohol labs	—	—	—	—	—	—	×	×
Ida.	×	—	×	×	×	×	×	×	—	—	×	×	—	—	×	—	×	×	—	×	×
Mont.	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Nev.	×	×	×	—	×	—	—	×	—	—	—	—	—	×	—	—	—	×	—	×	×
N.M.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	×	—	—	×	×
Utah	×	×	×	—	×	×	×	×	×	×	×	—	—	×	×	×	×	×	—	×	×
Wyo.	×	—	×	—	×	—	×	×	—	—	—	—	—	×	—	—	—	×	—	×	×
Pacific																					
Alaska	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	×	—	—	×	×
Cal.	×	—	×	×	×	×	×	×	—	—	—	—	—	×	×	—	—	×	×	×	×
Hawaii	—	—	—	—	×	×	—	—	—	—	—	—	—	—	—	—	—	×	—	×	×
Ore.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	×	—	—	×	—	×	×
Wash.	—	—	—	—	×	—	—	—	—	—	×	—	—	×	×	—	—	×	—	×	—
Territories																					
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	×	×	—	—	×	×	×	×	—	—	—	—	Blood bank	×	—	×	—	—	—	×	×
V.I.	—	—	—	—	—	—	×	×	×	—	—	—	—	×	—	—	×	—	×	—	—

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.
Ga.	7	7	7	—	—	Laboratory Licensure and Development Section, Office of Regulatory Services, Department of Human Resources
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**	
Ala.	—	22	4	—	22	Bureau of Licensure and Certification in the Health Department is responsible for activities other than the premarital program and milk and water certification.
Ky.	8	3	3	—	—	—
Miss.	4	3	4	—	—	—
Tenn.	5	—	—	—	—	—
West South Central	**15**	**13**	**8**	**—**	**6**	
Ark.	1	—	1	—	—	Division of Licensure and Regulation
La.	7	6	—	—	6	—
Okla.	7	7	7	—	—	—
Tex.	—	—	—	—	—	—
Mountain	**38**	**26**	**31**	**2**	**17**	
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	—	—	CLIA and medicare labs are inspected by our laboratory under an agreement with Health Services Division (a collateral element of Health and Environment Department)
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																						
	5. Proficiency Testing													6. Field Visits						7.	8.
					Immunology									LIP Programs			Other Programs				
	Diag. Bact.	Mycology	Parasitology	Virology	Syphilis Serology	Non-Syphilis Serology	Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dairy/Food	Other	Lic./App.	Cert.	Other	Lic./App.	Cert.	Other	Trng	Consult
New England																					
Conn.	×	×	×	—	×	×	×	×	—	×	×	—	—	×	—	—	—	—	—	×	×
Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Me.	×	—	—	×	—	—	—	×	—	×	×	—	Toxicology	—	—	—	—	—	—	×	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic																					
N.J.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	×	×	×	×	×	×	×	×	—	—	—	—	—	×	—	—	—	×	—	×	×
East North Central																					
Ill.	—	—	—	—	×	—	—	—	—	×	×	×	Thyroxin (T4), Thyrotropin (TSH)	×	×	—	—	—	—	×	×
Ind.	—	—	—	—	—	—	—	—	—	—	—	×	—	—	×	—	—	—	—	×	×
Mich.	×	×	×	—	×	—	×	×	—	—	—	—	PKU	×	×	—	×	—	—	—	×
Ohio	×	×	×	—	×	—	×	×	—	—	—	—	Alcohol tests	×	—	—	—	—	—	×	×
Wisc.	×	×	×	×	×	×	×	×	—	—	—	×	—	×	—	—	×	—	—	×	×
West North Central																					
Ia.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kans.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	—	—	—	—	×
Minn.	×	×	×	—	×	×	×	×	—	—	—	—	—	—	—	—	—	—	—	×	×
Mo.	—	—	—	—	×	—	—	—	—	—	—	×	PKU	×	—	—	—	×	—	×	×
Nebr.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	×	—	—	—	—	×	×	×	—	—	×	—	—	—	—	×	×
S.D.	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
South Atlantic																					
Del.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
D.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	—	—	×	—	—	—
Fla.	—	—	—	×	×	—	—	—	—	—	×	—	Syphilis serology, blood alcohol	×	×	—	—	—	—	×	×
Ga.	×	×	×	×	×	×	×	×	—	—	—	—	—	×	—	—	—	—	—	×	×
Md.	×	×	×	×	×	×	×	×	×	×	×	×	—	×	×	×	×	—	—	×	×
N.C.	×	×	×	—	×	—	—	—	—	—	—	×	—	—	×	—	—	—	—	×	×
S.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Va.	—	—	—	—	×	—	—	—	—	—	—	×	—	—	—	—	—	—	—	×	×
W.Va.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
East South Central																					
Ala.	×	—	—	×	×	—	—	—	—	×	—	×	—	×	×	—	—	—	—	×	×
Ky.	×	—	—	—	×	—	×	×	—	—	—	—	—	—	—	—	—	—	—	×	×
Miss.	—	—	—	—	—	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West South Central																					
Ark.	—	—	—	—	—	—	—	—	—	—	—	×	—	—	—	—	—	—	—	—	—
La.	—	—	—	—	—	—	—	—	—	×	—	×	—	—	×	—	—	—	—	×	×
Okla.	—	—	—	—	×	—	—	—	—	—	—	×	—	×	×	—	—	—	—	×	×
Tex.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mountain																					
Ariz.	—	—	—	×	—	×	—	—	—	—	×	—	—	×	—	—	—	—	—	×	×
Colo.	×	×	×	—	×	×	—	—	—	×	×	×	—	—	×	—	—	—	—	×	×
Ida.	×	×	×	×	×	×	×	×	—	×	×	×	—	—	×	—	×	×	—	×	×
Mont.	—	—	—	—	×	—	—	—	—	—	—	×	—	—	—	—	—	—	—	—	—
Nev.	×	×	×	—	×	—	—	×	—	—	—	×	—	×	—	—	×	×	—	×	×
N.M.	—	—	—	—	×	—	—	—	—	—	—	×	—	—	—	—	—	—	—	×	×
Utah	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	—	—	—	—	×	×
Wyo.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific																					
Alaska	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Cal.	×	—	×	×	×	×	×	×	—	—	—	—	—	×	—	—	—	×	—	×	×
Hawaii	—	—	—	—	×	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×	×
Ore.	—	—	—	—	×	—	—	—	—	—	—	—	—	×	—	—	—	—	—	×	×
Wash.	—	—	—	—	×	—	—	—	—	—	×	—	—	×	×	—	—	×	—	×	×
Territories																					
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	×	×	—	—	×	×	×	×	—	—	—	—	—	—	—	—	—	—	—	—	—
V.I.	×	×	×	—	×	×	—	—	×	—	×	×	—	×	—	—	×	×	×	—	—

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 recommendations 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.	—	—	—	—	—	—

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

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.	×	×	–	–	–	–	–	×	×
Mass.	–	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–
R.I.	×	×	×	–	–	–	–	×	×
Vt.	–	–	–	–	–	–	–	–	–
Middle Atlantic									
N.J.	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–
East North Central									
Ill.	×	–	×	–	–	–	–	×	×
Ind.	×	–	–	–	–	–	–	×	×
Mich.	–	–	–	–	–	–	–	–	–
Ohio	×	–	×	–	–	×	–	–	–
Wisc.	×	×	–	–	–	–	–	×	×
West North Central									
Ia.	–	–	–	–	–	–	–	–	–
Kans.	×	×	–	–	–	×	–	–	×
Minn.	–	–	–	–	–	–	–	–	–
Mo.	×	–	×	–	–	×	–	×	×
Nebr.	–	–	–	–	–	–	–	–	–
N.D.	–	–	×	–	–	–	–	×	–
S.D.	–	–	–	–	–	–	–	–	–
South Atlantic									
Del.	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–	–
Ga.	×	–	×	×	–	–	–	×	×
Md.	×	–	×	–	–	–	×	×	×
N.C.	×	–	×	–	–	–	–	×	×
S.C.	×	–	×	–	–	–	–	×	×
Va.	×	–	×	–	–	–	–	–	×
W. Va.	×	–	×	–	–	–	–	×	×
East South Central									
Ala.	×	–	×	–	–	–	–	×	×
Ky.	×	–	×	–	–	–	–	×	×
Miss.	×	×	–	–	–	–	–	–	–
Tenn.	×	–	×	–	–	×	–	×	×
West South Central									
Ark.	×	–	×	–	–	–	–	–	–
La.	×	–	×	–	–	–	–	×	×
Okla.	–	–	–	–	–	–	–	–	–
Tex.	–	–	–	–	–	–	–	–	–
Mountain									
Ariz.	–	–	–	–	–	–	–	–	–
Colo.	×	–	×	–	–	–	–	×	×
Ida.	×	×	–	–	–	–	–	×	×
Mont.	–	–	–	–	–	–	–	–	–
Nev.	×	×	×	–	×	×	–	×	–
N.M.	×	–	×	–	–	×	–	×	×
Utah	–	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–
Pacific									
Alaska	–	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	×	×
Ore.	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–	–	–
Territories									
Guam	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	×	×
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.	–	–	–	–	–	–	–	–	–	–	–	–

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

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: Brucella abortus, Salmonella paratyphi A, Salmonella paratyphi B, Salmonella typhi "H", Salmonella typhi "O", Franciscella tularensis; immune sera, rabbit: Brucella abortus, Salmonella paratyphi A, Salmonella paratyphi B, Salmonella typhi "H", Salmonella typhi "O", Franciscella tularensis; febrile antigen produced: Salmonella paratyphi B; immune sera produced: Brucella abortus. 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, Chlamydia trachomatis (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 produced 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$_1$ (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_2CO_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	—	—	X	—	—
	CDC — Primary Drug Resistant Study					
Cal.	Sampling and Analyt. Prob. in Air Poll.	2.5	X	—	—	—
	Validation of Samplers for Particles	0.5	X	—	—	—
	Env. Carcinogens by Cell Transform.	1.0	X	—	—	—
Fla.	Naegleria Activity in Central Fla. Lakes	4.0	—	X	X	X
Ga.	A New Medium for Bacillus Spores	—	—	—	X	—
	"Normal" Titers to Viruses — Georgia	—	—	—	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	0.1	—	—	X	—
	Prevalence of L.D.	0.2	—	—	X	—
	Rapid Detection of Viral Ag. by FA	0.3	—	—	X	—
	Development of Glycohemoglobin Control Material	1.0	—	—	X	—

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

Lab	Titles of Research Projects	Funding Support				
		Number of Positions	Federal Grant	Contract	State Funds	Other Funds
Alaska	IHNV — Research Project	—	—	—	×	—
Conn.	Identification of L.D. Antigen in Serum	—	—	—	×	—
	Forensic Electrophoretic Serotyping	—	—	—	×	—
	Immunological Detection of *Mucoprotein*	—	—	—	×	—
	Pyrolysis Products of Bldg. Materials	—	—	—	×	—
	Microscopic Differentiation of Sterioisomers	—	—	—	×	—
Ga.	Storage of Fungus Stocks	—	—	—	×	—
	Simple Maintenance of Bacteria	—	—	—	×	—
	Freeze-preparation of Bacteria	—	—	—	×	—
Ida.	Human Monitoring	2.0	—	×	—	—
	Method Development	2.0	—	×	—	—
	Health Effect	1.0	—	×	—	—
	Incident Investigations	1.0	—	×	—	—
Ill.	*Viruses in Potable Water*	0.3	—	—	×	—
	Aedes — LaCrosse Virus Study	0.2	—	—	×	—
Ia.	Legionnaires'	0.5	—	—	—	×
	Arbovirus	0.25	—	—	×	—
	Insulation Formaldehyde Emission	0.25	—	—	—	×
Kans.	Significance of Age and Weight on T_4 Results	—	—	—	×	—
La.	Automated Torch Screening for Newborns in the State of Louisiana	3.0	—	—	×	—
Mass.	Laboratory Training Program	4.0	—	×	—	—
	Technical Consultation Program	4.0	—	×	—	—
	Laboratory Training Program	5.0	—	×	—	—
	Proficiency Testing Program	3.0	—	×	—	—
Okla.	RMSF Latex Agglutination	0.1	—	—	—	—
Pa.	Evaluation of Rubella Reagents	0.1	—	—	×	—
	Development of a TOM P.T. System	1.0	—	—	×	—

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 occured 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 Law or Latest Revision	Minimum Age Legal M	Minimum Age Legal F (a)	Minimum Age With Consent M	Minimum Age With Consent 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)		(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
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 1 parent).
(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 16 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 either party.
(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 counselled 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 #411 (1969) or later revision may be used.
(2) Serological test for syphilis listed in PHS Publication #411 (1969) 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) Tuberculosis.
(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) Sickle 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; sickle 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 sickle cell test and rubella test requirements met.

(i) QUALIFICATIONS:

(1) Yes, for Armed Forces, indigents, 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 (citing references) to: Director, Venereal Disease Control Division, Centers for Disease Control, Atlanta, Georgia 30333.

Table 5-3
UTILIZATION OF PRESENT FACILITIES

Lab & Region	Professional and Technical Staff				Laboratory Support Services Space				Administrative and Clerical Space			
	Gross Sq. Feet Central Lab.	Gross Sq. Feet Branch Lab (if applicable)	Net Sq. Feet Central Lab.	Net Sq. Feet Branch Lab. (if applicable)	Gross Sq. Feet Central Lab.	Gross Sq. Feet Branch Lab. (if applicable)	Net Sq. Feet Central Lab.	Net Sq. Feet Branch Lab. (if applicable)	Gross Sq. Feet Central Lab.	Gross Sq. Feet Branch Lab. (if applicable)	Net Sq. Feet Central Lab.	Net Sq. Feet Branch Lab. (if applicable)
New England												
Conn.	49,537	—	34,676	—	18,791	—	13,154	—	8,269	—	5,788	—
Mass.	133,460	—	—	—	95,872	—	—	—	22,668	—	—	—
Me.	—	—	9,243	—	—	—	8,480	—	—	—	1,704	—
N.H.	—	—	6,451	—	—	—	5,862	—	—	—	2,060	—
R.I.	—	—	18,040	—	—	—	3,138	—	—	—	3,441	—
Vt.	5,150	—	4,950	—	1,450	—	1,250	—	1,200	—	1,200	—
Middle Atlantic												
N.J.	—	—	—	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	16,100	—	15,500	—	13,500	—	10,500	—	7,900	—	5,800	—
East North Central												
Ill.	17,111	13,331	14,992	8,571	16,862	4,866	14,126	3,207	8,403	2,672	7,329	2,093
Ind.	18,048	—	15,824	—	4,736	—	4,480	—	2,088	—	2,088	—
Mich.	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	—	—	18,472	6,477	—	—	11,191	2,187	—	—	7,321	1,097
Wisc.	33,332	0	25,422	0	20,293	81	14,130	52	12,709	1,409	8,592	901
West North Central												
Ia.	23,780	5,941	14,268	4,159	17,667	795	10,600	557	9,650	3,176	5,790	2,660
Kans.	—	—	12,600	—	—	—	2,625	—	—	—	3,592	—
Minn.	21,889	—	9,565	—	8,683	—	5,816	—	3,209	—	2,688	—
Mo.	18,482	9,980	12,935	8,900	18,684	—	15,812	—	7,426	—	6,626	—
Nebr.	5,208	—	3,167	360	4,128	—	2,047	100	1,106	—	842	140
N.D.	3,851	—	3,406	—	1,358	—	1,208	—	1,292	—	1,000	—
S.D.	9,400	—	—	—	4,700	—	—	—	1,900	—	—	—
South Atlantic												
Del.	9,628	—	4,977	—	3,209	—	1,640	—	2,445	—	1,278	—
D.C.	—	—	12,000	—	—	—	1,500	—	—	—	1,500	—
Fla.	46,712	78,804	12,374	30,182	—	—	10,855	23,355	—	—	5,061	7,590
Ga.	—	—	15,273	6,408	—	—	3,136	4,059	—	—	4,909	963
Md.	78,200	—	59,165	—	8,518	—	6,667	—	16,872	—	9,100	—
N.C.	29,000	400	17,725	400	20,000	9,800	10,991	7,400	10,064	—	5,525	—
S.C.	30,394	—	16,800	—	22,204	—	12,300	—	9,737	—	5,400	—
Va.	—	—	—	—	—	—	—	—	—	—	—	—
W.Va.	7,506	700	7,457	650	3,535	—	2,843	—	10,806	—	4,745	—
East South Central												
Ala.	13,909	13,711	9,170	11,484	21,760	6,186	14,346	5,085	5,691	3,519	3,752	3,028
Ky.	—	—	14,263	—	—	—	5,163	—	—	—	3,244	—
Miss.	—	—	—	—	—	—	—	—	—	—	—	—
Tenn.	8,740	—	6,740	16,840	9,101	—	7,069	10,380	4,297	—	4,297	2,800
West South Central												
Ark.	—	—	24,400	—	—	—	8,687	—	—	—	2,124	—
La.	25,000	16,300	24,500	13,600	4,300	10,500	4,000	8,600	3,600	5,600	3,200	4,450
Okla.	14,909	1,420	11,200	1,310	7,643	470	6,800	410	1,474	310	1,474	310
Tex.	—	—	—	—	—	—	—	—	—	—	—	—
Mountain												
Ariz.	—	—	11,652	1,740	—	—	6,827	870	—	—	5,527	490
Colo.	—	—	—	—	—	—	—	—	—	—	—	—
Ida.	9,850	6,054	8,560	4,474	3,800	—	3,800	920	4,958	—	2,345	662
Mont.	7,732	—	6,027	—	6,557	—	4,436	—	1,947	—	1,405	—
Nev.	3,924	926	3,824	906	5,343	648	5,243	640	955	252	906	244
N.M.	—	—	16,630	2,050	—	—	10,615	2,050	—	—	10,000	600
Utah	26,444	—	13,580	—	7,607	—	3,932	—	2,174	—	1,117	—
Wyo.	—	—	—	—	—	—	—	—	—	—	—	—
Pacific												
Alaska	—	7,732	—	7,134	—	7,014	—	5,549	441	3,437	400	3,171
Cal.	—	—	—	—	—	—	—	—	—	—	—	—
Hawaii	11,580	5,650	10,300	5,000	2,800	400	2,200	400	1,500	200	1,000	200
Ore.	10,460	—	8,263	—	11,048	—	7,456	—	5,540	—	3,610	—
Wash.	—	—	10,890	2,290	—	—	3,777	1,063	—	—	5,282	1,547
Territories												
Guam	3,424	264	3,154	264	975	35	975	35	320	0	320	0
P.R.	—	—	20,968	—	5,449	—	5,449	—	—	—	2,957	—
V.I.	—	—	—	—	—	—	—	—	—	—	—	—

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.	1967	X	X	—	X	1981	8,200,000	X	45,000	32,000	—	—	X	—	X	X	X
Mass.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Me.	1969	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.H.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
R.I.	1978	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Vt.	1953	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic																	
N.J.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	1976	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
East North Central																	
Ill.	—	X	—	X	—	1983	10,500,000	—	39,000	23,470	X	X	—	—	—	—	—
Ind.	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mich.	1920's	X	X	X	—	Unknown	2,000,000	X	16,600	10,400	—	X	X	X	X	X	X
Ohio	1971	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisc.	1952	—	X	—	—	1984/5	5,325,000	—	43,000	24,000	X	—	X	—	X	X	X
West North Central																	
Ia.	—	—	X	—	—	—	4,600,000	—	26,500	18,600	—	—	X	—	X	X	X
Kans.	1974	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Minn.	1969	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—
Mo.	1978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nebr.	1973	X	X	X	X	1980	67,000	X	2,800	2,000	—	—	X	X	—	—	X
N.D.	1968	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—
S.D.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—
South Atlantic																	
Del.	1960	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
D.C.	1942	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Fla.	1954	X	X	—	—	1981-2	3,680,000	—	20,000	—	X	—	—	X	X	X	—
Ga.	1959	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Md.	1974	X	X	X	—	1982	819,000	—	—	12,578	—	—	X	—	—	—	X
N.C.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S.C.	1979	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Va.	1970	—	X	X	—	Unknown	—	X	133,425	—	—	—	X	X	X	X	—
W.Va.	1954	—	X	—	—	—	2,500,000	—	2,500	2,000	X	—	X	—	—	X	—
East South Central																	
Ala.	1979	X	X	—	—	1981-2	100,000	—	3,100	2,900	X	X	—	—	X	X	—
Ky.	1960	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Miss.	1958	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Tenn.	1952	X	X	—	—	1983	8,000,000	—	—	114,000	X	X	—	—	—	—	—
West South Central																	
Ark.	1980	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
La.	1957	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tex.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mountain																	
Ariz.	1976	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Colo.	1960	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Ida.	1965	X	—	—	X	In Progress	1,710,000	—	—	—	—	—	X	X	X	X	—
Mont.	1955	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nev.	1977	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
N.M.	1976	—	X	—	—	1983	750,000	—	5,750	5,000	—	—	X	—	X	X	—
Utah	1975	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Wyo.	1974	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific																	
Alaska	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hawaii	1959	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ore.	1978	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Wash.	1939	X	—	X	—	1983	8,500,000	—	73,000	49,000	X	X	—	—	X	X	X
Territories																	
Guam	1973	X	X	X	—	1981	—	X	—	—	X	—	X	—	X	X	X
P.R.	—	—	X	—	—	1981	—	—	—	—	X	X	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—