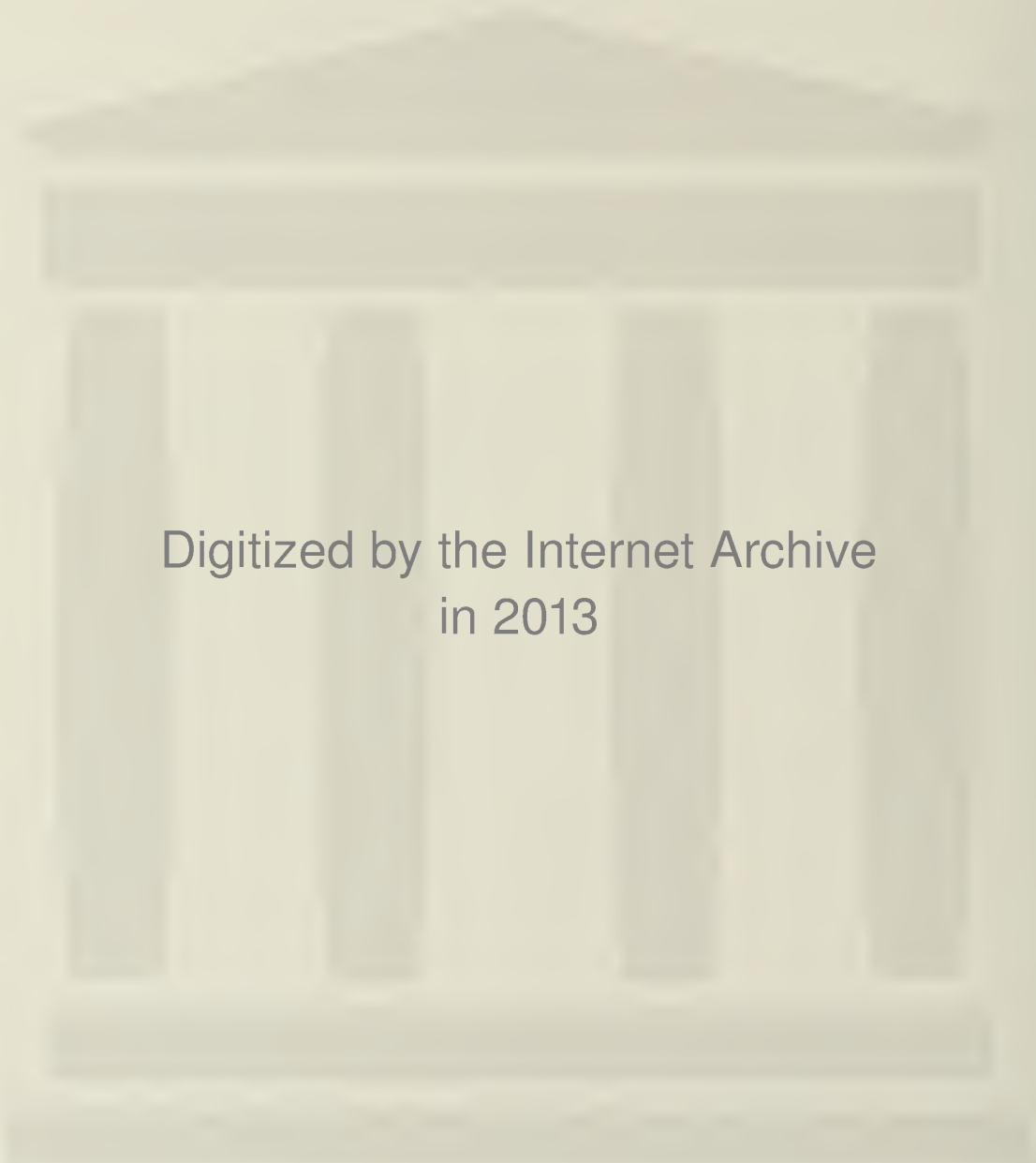
CONSOLIDATED ANNUAL REPORT on State and Territorial Public Health Laboratories

Fiscal Year 1981

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



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August 1982

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

1981 – 1982

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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

TABLE OF CONTENTS

SECTION V
SPECIAL QUESTIONS

INTRODUCTION

This, the eighteenth 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-two of the fifty-four member laboratories provided data for this edition. New York and New Hampshire did not report to the CAR for fiscal year 1981. Therefore, national totals found in this edition represent only fifty-two state and territorial public health laboratories.

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

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

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

To assure complete coverage of laboratory activities the questionnaire for the 1981 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 on a variety of topics of current interest, such as premarital examination laws, facilities, automatic data processing, and cutback management.

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 1980 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

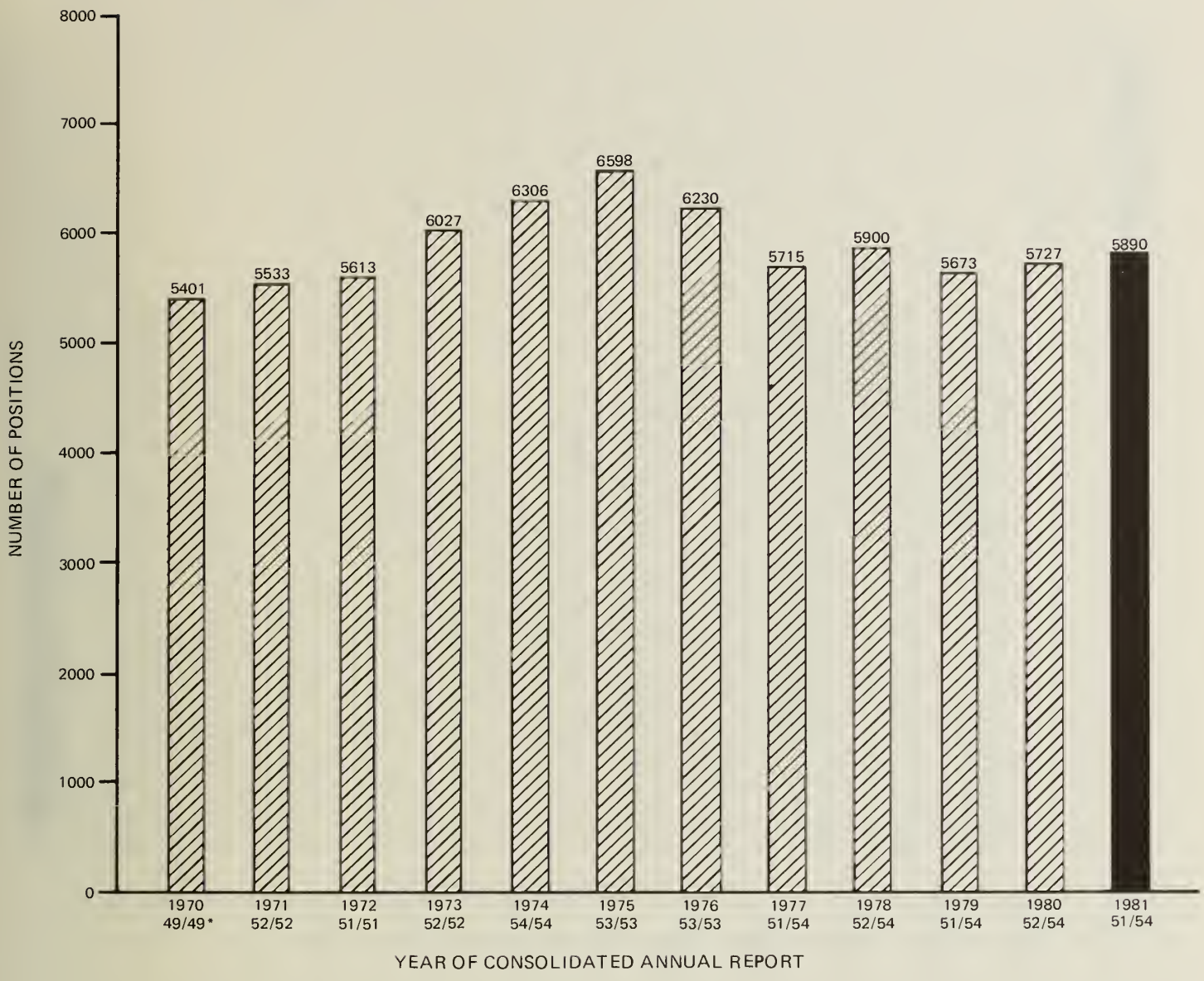
The CAR was initiated by ASTPHLD in 1963. The report is designed to provide comprehensive data concerning state and territorial laboratories to ASTPHLD.

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. 3, Rm. B-43
Centers for Disease Control
Atlanta, Georgia 30333

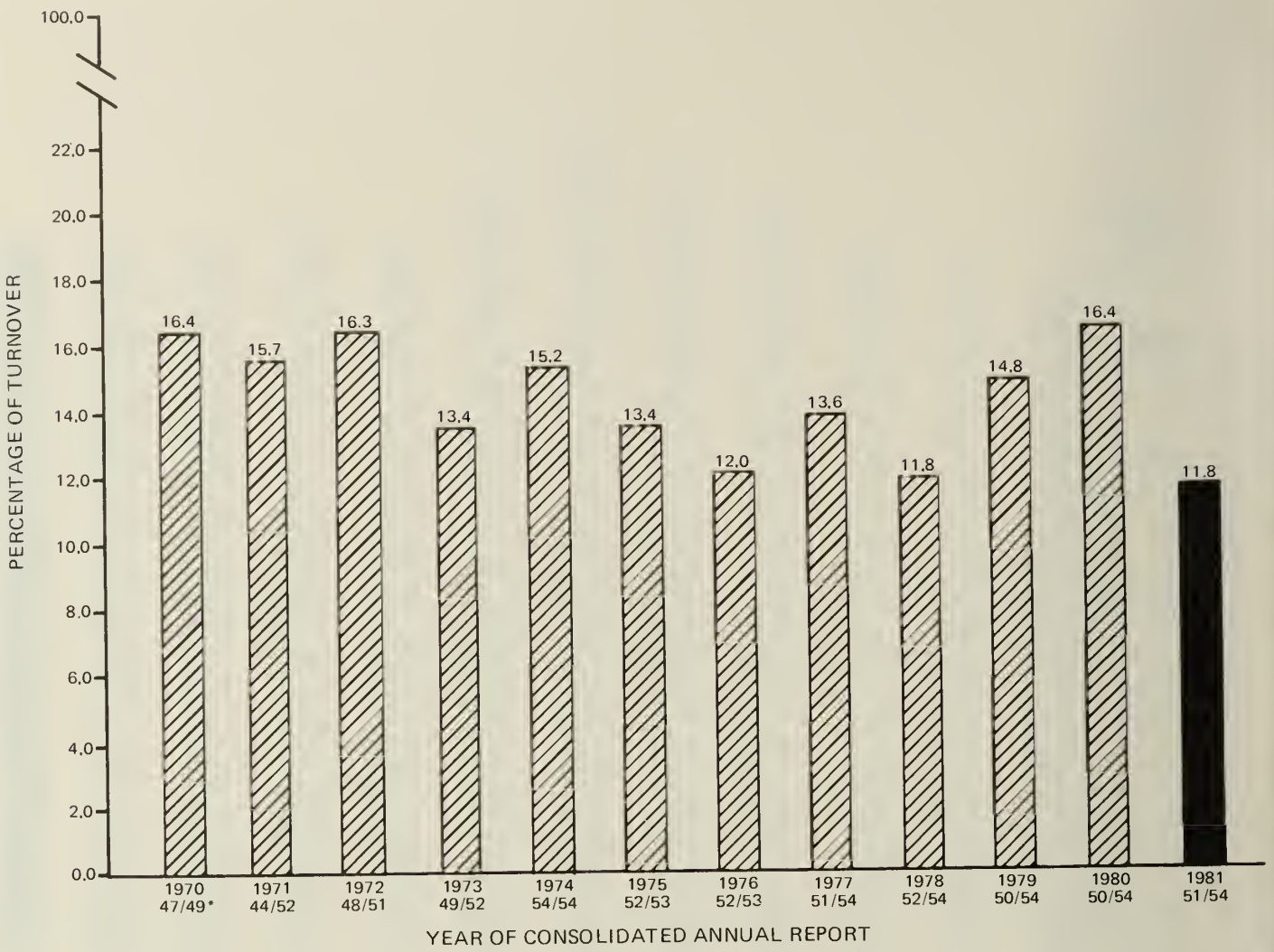
SECTION I
SUMMARY TABLES

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



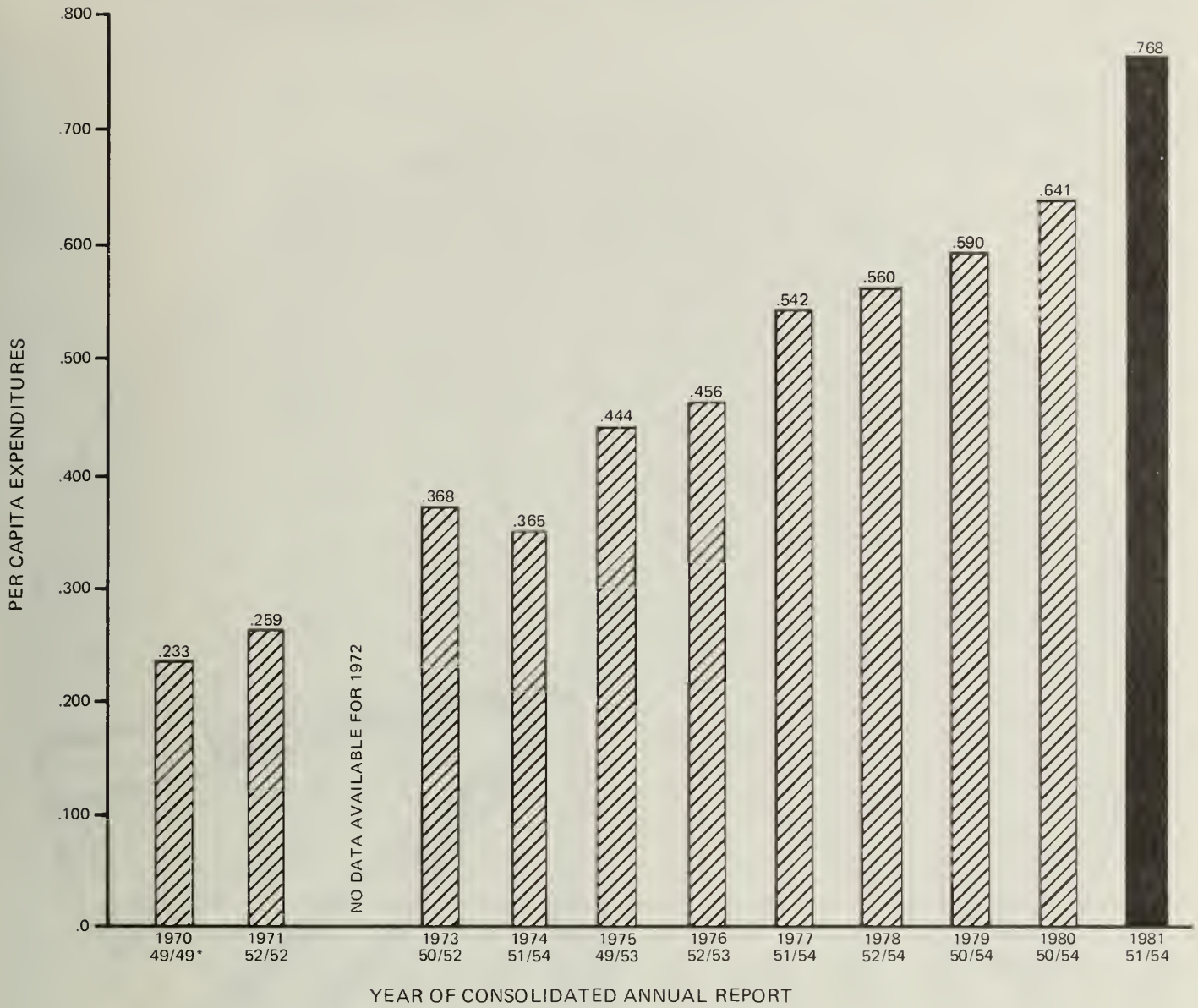
*49/49 = INDICATES 49 LABS REPORTED THIS TYPE DATA OUT OF A UNIVERSE OF 49 LABS.

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

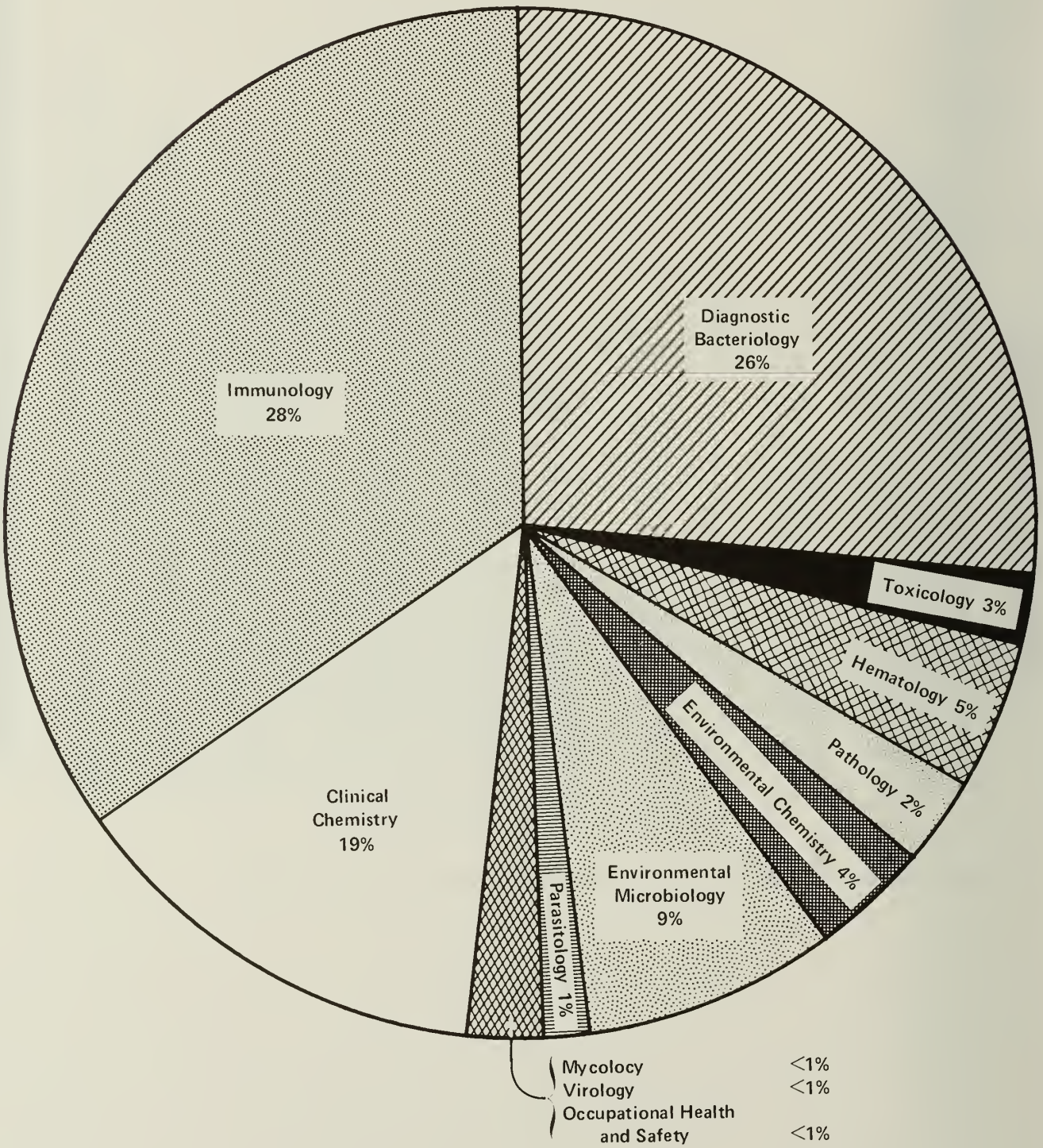


Table 1-5
SUMMARY OF LABORATORY EXPENDITURES, POSITIONS, AND SPECIMENS

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	**205,132***	**157,488,127**	**0.768**	**5890.35**	**1:34,825**	**26,737**	**3,675.0**	**1:55,818**	**42,854**	**25,990,816**	**0.127**
Average	3,945*	3,088,002	—	115.5	—	—	72.1	—	—	499,823	—
New England	**11,403***	**14,608,688**	**1.281**	**596.0**	**1:19,133**	**24,511**	**375.0**	**1:30,408**	**38,957**	**1,671,427**	**0.147**
Conn.	3,115	5,128,935	1.647	228.0	1:13,662	22,495	163.0	1:19,110	31,466	478,795	0.154
Mass	5,769	5,010,853	0.869	180.0	1:32,050	27,838	86.0	1:67,081	58,266	640,488	0.111
Me.	1,097	1,212,225	1.105	50.0	1:21,940	24,245	34.0	1:32,265	35,654	106,785	0.097
N.H.	—	—	—	—	—	—	—	—	—	—	—
R.I.	929	2,692,866	2.899	108.0	1:8,602	24,934	73.0	1:12,726	36,889	347,909	0.374
Vt.	493	563,809	1.144	30.0	1:16,433	18,794	19.0	1:25,947	29,674	97,450	0.198
Middle Atlantic	**19,063***	**8,367,902**	**0.439**	**299.0**	**1:63,756**	**27,986**	**179.0**	**1:106,497**	**46,748**	**1,012,966**	**0.053**
N.J.	7,332	5,466,902	0.746	207.0	1:35,420	26,410	142.0	1:51,634	38,499	978,745	0.133
N.Y.	—	—	—	—	—	—	—	—	—	—	—
Pa.	11,731	2,901,000	0.247	92.0	1:127,511	31,533	37.0	1:317,054	78,405	34,221	0.003
East North Central	**41,287**	**28,280,132**	**0.685**	**993.8**	**1:41,545**	**28,457**	**593.5**	**1:69,565**	**47,650**	**3,029,704**	**0.073**
Ill.	11,229	3,564,600	0.317	157.0	1:71,522	22,704	95.0	1:118,200	37,522	583,930	0.052
Ind.	5,400	2,055,932	0.381	86.0	1:62,791	23,906	67.0	1:80,597	30,686	163,175	0.030
Mich.	9,207	11,993,874	1.303	405.3	1:22,717	29,593	223.0	1:41,287	53,784	853,450	0.093
Ohio	10,731	4,931,460	0.460	169.0	1:63,493	29,180	110.0	1:97,555	44,831	797,287	0.074
Wisc.	4,720	5,734,266	1.215	176.5	1:26,742	32,489	98.5	1:47,919	58,216	631,862	0.134
West North Central	**17,118**	**11,008,780**	**0.643**	**432.15**	**1:39,611**	**25,474**	**262.5**	**1:65,211**	**41,938**	**2,080,299**	**0.122**
Ia.	2,902	3,495,524	1.205	125.25	1:23,170	27,908	78.0	1:37,205	44,814	436,132	0.150
Kans.	2,369	1,934,358	0.817	82.0	1:28,890	23,590	52.0	1:45,558	37,199	317,536	0.134
Minn.	4,060	1,779,249	0.438	68.0	1:59,706	26,165	37.0	1:109,730	48,088	361,115	0.089
Mo.	4,867	1,805,439	0.371	76.0	1:64,039	23,756	48.0	1:101,396	37,613	557,626	0.115
Nebr.	1,574	712,987	0.453	20.5	1:76,780	34,780	12.5	1:125,920	57,039	136,621	0.087
N.D.	657	668,105	1.017	33.0	1:19,909	20,246	19.0	1:34,579	35,163	186,071	0.283
S.D.	689	613,118	0.890	27.4	1:25,146	22,377	16.0	1:43,063	38,320	85,198	0.124
South Atlantic	**34,976**	**32,522,824**	**0.930**	**1,432.5**	**1:24,416**	**22,704**	**903.0**	**1:38,733**	**36,016**	**7,522,843**	**0.215**
Del.	582	686,446	1.179	36.0	1:16,167	19,068	26.0	1:22,385	26,402	166,755	0.287
D.C.	656	1,078,600	1.644	36.5	1:17,973	29,551	29.0	1:22,621	37,193	321,949	0.491
Fla.	8,860	6,045,641	0.682	275.0	1:32,218	21,984	179.0	1:49,497	33,775	2,122,160	0.024
Ga.	5,117	2,862,072	0.559	128.0	1:39,977	22,360	62.0	1:82,532	46,162	961,540	0.188
Md.	4,148	5,397,411	1.301	265.0	1:15,653	20,368	187.0	1:22,182	28,863	1,393,254	0.336
N.C.	5,606	3,772,973	0.673	162.0	1:34,605	23,290	105.0	1:53,390	35,933	800,783	0.143
S.C.	2,932	3,167,989	1.080	112.0	1:26,179	28,286	76.0	1:38,579	41,684	713,319	0.243
Va.	5,197	8,509,036	1.637	361.0	1:14,396	23,571	209.0	1:24,866	40,713	681,422	0.131
W.Va.	1,878	1,002,656	0.534	57.0	1:32,947	17,590	30.0	1:62,600	33,422	361,661	0.193
East South Central	**14,105**	**9,745,076**	**0.691**	**403.0**	**1:35,000**	**24,181**	**246.5**	**1:57,221**	**39,534**	**3,091,365**	**0.219**
Ala.	3,769	3,839,898	1.019	144.0	1:26,174	26,666	98.0	1:38,459	39,183	1,207,732	0.320
Ky.	3,527	2,224,850	0.631	79.0	1:44,646	28,163	51.5	1:68,485	43,201	349,124	0.099
Miss.	2,429	1,207,215	0.497	54.0	1:44,981	22,356	32.0	1:75,906	37,725	826,803	0.340
Tenn.	4,380	2,473,113	0.565	126.0	1:34,762	19,628	65.0	1:67,385	38,048	707,706	0.162
West South Central	**22,470**	**12,417,511**	**0.553**	**493.0**	**1:45,578**	**25,188**	**314.0**	**1:71,561**	**39,546**	**4,634,034**	**0.206**
Ark.	2,180	1,399,616	0.642	78.0	1:27,949	17,944	55.0	1:39,636	25,448	455,953	0.209
La.	4,018	3,690,102	0.918	170.0	1:23,635	21,706	96.0	1:41,854	38,439	819,565	0.204
Okla.	2,892	1,114,793	0.385	53.0	1:54,566	21,034	38.0	1:76,105	29,337	404,667	0.140
Tex.	13,380	6,213,000	0.464	192.0	1:69,688	32,359	125.0	1:107,040	49,704	2,953,849	0.221
Mountain	**10,673**	**11,724,800**	**1.099**	**433.8**	**1:24,604**	**27,028**	**284.7**	**1:37,489**	**41,183**	**1,669,001**	**0.156**
Ariz.	2,450	1,928,504	0.787	66.0	1;37,121	29,220	42.0	1:58,333	45,917	73,117	0.030
Colo.	2,772	1,729,174	0.624	66.0	1:42,000	26,200	49.0	1:56,571	35,289	585,753	0.211
Ida.	905	1,942,897	2.147	63.0	1:14,365	30,840	38.2	1:23,691	50,861	143,745	0.159
Mont.	786	619,068	0.788	29.5	1:26,644	20,985	19.0	1:41,368	32,583	99,856	0.127
Nev.	702	768,027	1.094	33.0	1:21,273	23,274	20.0	1:35,100	38,401	95,524	0.136
N.M.	1,241	2,309,898	1.861	88.5	1:14,023	26,101	55.5	1;22,360	41,620	262,530	0.212
Utah	1,367	1,970,035	1.441	73.0	1:18,726	26,987	51.0	1:26,804	38,628	217,223	0.159
Wyo.	450	457,197	1.016	14.8	1:30,405	30,892	10.0	1:45,000	45,720	191,253	0.425
Pacific	**30,469**	**27,584,278**	**0.905**	**671.1**	**1:45,402**	**41,103**	**416.8**	**1:73,102**	**66,181**	**1,140,929**	**0.037**
Alaska	406	1,597,810	3.935	41.0	1:9,902	38,971	24.0	1:16,917	66,575	148,140	0.365
Cal.	22,694	20,707,333	0.912	431.0	1:52,654	48,045	278.0	1:81,633	74,487	117,910	0.005
Hawaii	915	1,159,815	1.268	56.5	1:16,195	20,528	39.5	1:23,165	29,362	267,504	0.292
Ore.	2,527	1,449,211	0.573	63.6	1:39,733	22,786	40.3	1:62,705	35,961	403,845	0.160
Wash	3,926	2,670,109	0.680	79,0	1:49,696	33,799	35.0	1:112,171	76,289	203,530	0.052
Territories	**3,568**	**1,228,136**	**0.354#**	**136.0**	**1:25,529#**	**9.030**	**100.0**	**1:34,720#**	**12,281**	**138,248**	**0.039**
Guam	114	274,710	2.410	12.0	1:9,500	22,893	8.0	1:14,250	34,339	20,386	0.179
P.R.	3,358	953,426	0.284	124.0	1:27,081	7,689	92.0	1:36,500	10,363	71,295	0.021
V.I.	96	—	—	—	—	—	—	—	—	46,567	0.485

*N.H. and N.Y. not included in totals.
#V.I. population total not included in calculation.

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		**157,488**		**0.768**		**5890.4**		**1:35**		**26,737**		**3,675.0**		**1:56**		**42,854**		**25,991**		**0.127**
Average		3,088		—		115.5		—		—		72.1		—		—		500		—
1	Cal.	20,707	Alaska	3.935	Cal.	431.0	R.I.	1:9	Cal.	48,045	Cal.	278.0	R.I.	1:13	Pa.	78,405	Tex.	2,954	D.C.	0.491
2	Mich.	11,994	R.I.	2.899	Mich.	405.3	Guam	1:9	Alaska	38,971	Mich.	223.0	Guam	1:14	Wash.	76,289	Fla.	2,122	V.I.	0.485
3	Va.	8,509	Guam	2.410	Va.	361.0	Alaska	1:10	Nebr.	34,780	Va.	209.0	Alaska	1:17	Cal.	74,487	Md.	1,393	Wyo.	0.425
4	Tex.	6,213	Ida.	2.147	Fla.	275.0	Conn.	1:14	Wash.	33,799	Md.	187.0	Conn.	1:19	Alaska	66,575	Ala.	1,208	R.I.	0.374
5	Fla.	6,046	N.M.	1.861	Md.	265.0	N.M.	1:14	Wisc.	32,489	Fla.	179.0	Md.	1:22	Mass.	58,266	N.J.	979	Alaska	0.365
6	Wisc.	5,734	Conn.	1.647	Conn.	228.0	Ida.	1:14	Tex.	32,359	Conn.	163.0	N.M.	1:22	Wisc.	58,216	Ga.	962	Miss.	0.340
7	N.J.	5,467	D.C.	1.644	N.J.	207.0	Va.	1:14	Pa.	31,533	N.J.	142.0	Del.	1:22	Nebr.	57,039	Mich.	853	Md.	0.336
8	Md.	5,397	Va.	1.637	Tex.	192.0	Md.	1:16	Wyo.	30,892	Tex.	125.0	D.C.	1:23	Mich.	53,784	Miss.	827	Ala.	0.320
9	Conn.	5,129	Utah	1.441	Mass.	180.0	Del.	1:16	Ida.	30,840	Ohio	110.0	Hawaii	1:23	Ida.	50,861	La.	820	Hawaii	0.292
10	Mass.	5,011	Mich.	1.303	Wisc.	176.5	Hawaii	1:16	Mich.	29,593	N.C.	105.0	Ida.	1:24	Tex.	49,704	N.C.	801	Del.	0.287
11	Ohio	4,931	Md.	1.301	La.	170.0	Vt.	1:16	D.C.	29,551	Wisc.	98.5	Va.	1:25	Minn.	48,088	Ohio	797	N.D.	0.283
12	Ala.	3,840	Hawaii	1.268	Ohio	169.0	D.C.	1:18	Ariz.	29,220	Ala.	98.0	Vt.	1:26	Ga.	46,162	S.C.	713	S.C.	0.243
13	N.C.	3,773	Wisc.	1.215	N.C.	162.0	Utah	1:19	Ohio	29,180	La.	96.0	Utah	1:27	Ariz.	45,917	Tenn.	708	Fla.	0.240
14	La.	3,690	Ia.	1.205	Ill.	157.0	N.D.	1:20	S.C.	28,286	Ill.	95.0	Me.	1:32	Wyo.	45,720	Va.	681	Tex.	0.221
15	Ill.	3,565	Del.	1.179	Ala.	144.0	Nev.	1:21	Ky.	28,163	P.R.	92.0	N.D.	1:35	Ohio	44,831	Mass.	640	N.M.	0.212
16	Ia.	3,496	Vt.	1.144	Ga.	128.0	Me.	1:22	Ia.	27,908	Mass.	86.0	Nev.	1:35	Ia.	44,814	Wisc.	632	Colo.	0.211
17	S.C.	3,168	Me.	1.105	Tenn.	126.0	Mich.	1:23	Mass.	27,838	Ia.	78.0	P.R.	1:36	Ky.	43,202	Colo.	586	Ark.	0.209
18	Pa.	2,901	Nev.	1.094	Ia.	125.3	Ia.	1:23	Utah	26,987	S.C.	76.0	Ia.	1:37	S.C.	41,684	Ill.	584	La.	0.204
19	Ga.	2,862	S.C.	1.080	P.R.	124.0	La.	1:24	Ala.	26,666	R.I.	73.0	Ala.	1:38	N.M.	41,620	Mo.	558	Vt.	0.198
20	R.I.	2,693	Ala.	1.019	S.C.	112.0	S.D.	1:25	N.J.	26,410	Ind.	67.0	S.C.	1:39	Va.	40,713	Conn.	479	W.Va.	0.193
21	Wash.	2,670	N.D.	1.017	R.I.	108.0	Ala.	1:26	Colo.	26,200	Tenn.	65.0	Ark.	1:40	Ala.	39,183	Ark.	456	Ga.	0.188
22	Tenn.	2,473	Wyo.	1.016	Pa.	92.0	S.C.	1:26	Minn.	26,165	Ga.	62.0	Mich.	1:41	Utah	38,628	Ia.	436	Guam	0.179
23	N.M.	2,310	La.	0.918	N.M.	88.5	Wisc.	1:26	N.M.	26,101	N.M.	55.5	Mont.	1:41	N.J.	38,499	Okla.	405	Tenn.	0.162
24	Ky.	2,225	Cal.	0.912	Ind.	86.0	Mont.	1:27	R.I.	24,934	Ark.	55.0	La.	1:42	La.	38,439	Ore.	404	Ore.	0.160
25	Ind.	2,056	S.D.	0.890	Kans.	82.0	P.R.	1:27	Me.	24,245	Kans.	52.0	S.D.	1:43	Nev.	38,401	W.Va.	362	Ida.	0.159
26	Utah	1,970	Mass.	0.869	Ky.	79.0	Ark.	1:28	Ind.	23,906	Ky.	51.5	Wyo.	1:45	S.D.	38,320	Minn.	361	Utah	0.159
27	Ida.	1,943	Kans.	0.817	Wash.	79.0	Kans.	1:29	Mo.	23,756	Utah	51.0	Kans.	1:46	Tenn.	38,048	Ky.	349	Conn.	0.154
28	Kans.	1,934	Mont.	0.788	Ark.	78.0	Wyo.	1:30	Kans.	23,590	Colo.	49.0	Wisc.	1:48	Miss.	37,725	R.I.	348	Ia.	0.150
29	Ariz.	1,929	Ariz.	0.787	Mo.	76.0	Mass.	1:32	Va.	23,571	Mo.	48.0	Fla.	1:49	Mo.	37,613	D.C.	322	N.C.	0.143
30	Mo.	1,805	N.J.	0.746	Utah	73.0	Fla.	1:32	N.C.	23,290	Ariz.	42.0	N.J.	1:52	Ill.	37,522	Kans.	318	Okla.	0.140
31	Minn.	1,779	Fla.	0.682	Minn.	68.0	W.Va.	1:33	Nev.	23,274	Ore.	40.3	N.C.	1:53	Kans.	37,199	Hawaii	268	Nev.	0.136
32	Colo.	1,729	Wash.	0.680	Ariz.	66.0	N.C.	1:35	Guam	22,893	Hawaii	39.5	Colo.	1:57	D.C.	37,193	N.M.	263	Kans.	0.134
33	Alaska	1,598	N.C.	0.673	Colo.	66.0	Tenn.	1:35	Ore.	22,786	Ida.	38.2	Ariz.	1:58	R.I.	36,889	Utah	217	Wisc.	0.134
34	Ore.	1,449	Ark.	0.642	Ore.	63.6	N.J.	1:35	Ill.	22,704	Okla.	38.0	W.Va.	1:63	Ore.	35,961	Wash.	204	N.J.	0.133
35	Ark.	1,400	Ky.	0.631	Ida.	63.0	Ariz.	1:37	Conn.	22,495	Minn.	37.0	Ore.	1:63	N.C.	35,933	Wyo.	191	Va.	0.131
36	Me.	1,212	Colo.	0.624	W.Va.	57.0	Ore.	1:40	S.D.	22,377	Pa.	37.0	Mass.	1:67	Me.	35,654	N.D.	186	Mont.	0.127
37	Miss.	1,207	Ore.	0.573	Hawaii	56.5	Ga.	1:40	Ga.	22,360	Wash.	35.0	Tenn.	1:67	Colo.	35,289	Del.	167	S.D.	0.124
38	Hawaii	1,160	Tenn.	0.565	Miss.	54.0	Colo.	1:42	Miss.	22,356	Me.	34.0	Ky.	1:68	N.D.	35,163	Ind.	163	Mo.	0.115
39	Okla.	1,115	Ga.	0.559	Okla.	53.0	Ky.	1:45	Fla.	21,984	Miss.	32.0	Miss.	1:76	Guam	34,339	Alaska	148	Mass.	0.111
40	D.C.	1,079	W.Va.	0.534	Me.	50.0	Miss.	1:45	La.	21,706	W.Va.	30.0	Okla.	1:76	Fla.	33,775	Ida.	144	Ky.	0.099
41	W.Va.	1,003	Miss.	0.497	Alaska	41.0	Wash.	1:50	Okla.	21,034	D.C.	29.0	Ind.	1:81	W.Va.	33,422	Nebr.	137	Me.	0.097
42	P.R.	953	Tex.	0.464	D.C.	36.5	Cal.	1:53	Mont.	20,985	Del.	26.0	Cal.	1:82	Mont.	32,583	Cal.	118	Mich.	0.093
43	Nev.	768	Ohio	0.460	Del.	36.0	Okla.	1:55	Hawaii	20,528	Alaska	24.0	Ga.	1:83	Conn.	31,466	Me.	107	Minn.	0.089
44	Nebr.	713	Nebr.	0.453	N.D.	33.0	Minn.	1:60	Md.	20,368	Nev.	20.0	Ohio	1:98	Ind.	30,686	Mont.	100	Nebr.	0.087
45	Del.	686	Minn.	0.438	Nev.	33.0	Ind.	1:63	N.D.	20,246	Mont.	19.0	Mo.	1:101	Vt.	29,674	Vt.	97	Ohio	0.074
46	N.D.	668	Okla.	0.385	Vt.	30.0	Ohio	1:63	Tenn.	19,628	N.D.	19.0	Tex.	1:107	Hawaii	29,362	Nev.	96	Ill.	0.052
47	Mont.	619	Ind.	0.381	Mont.	29.5	Mo.	1:64	Del.	19,068	Vt.	19.0	Minn.	1:110	Okla.	29,337	S.D.	85	Wash.	0.052
48	S.D.	613	Mo.	0.371	S.D.	27.4	Tex.	1:70	Vt.	18,794	S.D.	16.0	Wash.	1:112	Md.	28,863	Ariz.	73	Ariz.	0.030
49	Vt.	564	Ill.	0.317	Nebr.	20.5	Ill.	1:72	Ark.	17,944	Nebr.	12.5	Ill.	1:118	Del.	26,402	P.R.	71	Ind.	0.030
50	Wyo.	457	P.R.	0.284	Wyo.	14.8	Nebr.	1:77	W. Va.	17,590	Wyo.	10.0	Nebr.	1:126	Ark.	25,448	V.I.	47	P.R.	0.021
51	Guam	275	Pa.	0.247	Guam	12.0	Pa.	1:128	P.R.	7,689	Guam	8.0	Pa.	1:317	P.R.	10,363	Pa.	34	Cal.	0.005
																	Guam	20	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		**157,488**		**0.768**		**5890.4**		**1:35**		**26,737**		**3,675.0**		**1:56**		**42,854**		**25,991**		**0.127**
Average		3,088		—		115.5		—		—		72.1		—		—		500		—
New England		**14,609**		**1.281**		**596.0**		**1:19**		**24,511**		**375.0**		**1:30**		**38,957**		**1,671**		**0.147**
1	Conn.	5,129	R.I.	2.899	Conn.	228.0	R.I.	1:9	Mass.	27,838	Conn.	163.0	R.I.	1:13	Mass.	58,266	Mass.	640	R.I.	0.374
2	Mass.	5,011	Conn.	1.647	Mass.	180.0	Conn.	1:14	R.I.	24,934	Mass.	86.0	Conn.	1:19	R.I.	36,889	Conn.	479	Vt.	0.198
3	R.I.	2,693	Vt.	1.144	R.I.	108.0	Vt	1:16	Me.	24,245	R.I.	73.0	Vt.	1:26	Me.	35,654	R.I.	348	Conn.	0.154
4	Me.	1,212	Me.	1.105	Me.	50.0	Me.	1:22	Conn.	22,495	Me.	34.0	Me.	1:32	Conn.	31,466	Me.	107	Mass.	0.111
5	Vt.	564	Mass.	0.869	Vt.	30.0	Mass.	1:32	Vt.	18,794	Vt.	19.0	Mass.	1:67	Vt.	29,674	Vt.	97	Me.	0.097
6	N.H.	—	N H.	—	N.H.	—	N H.	—	N H	—	N.H.	—	N.H.	—	N.H.	—	N.H.	—	N.H.	—
Middle Atlantic		**8,368**		**0.439**		**299.0**		**1:64**		**27,986**		**179.0**		**1:106**		**46,748**		**1,013**		**0.053**
1	N.J.	5,467	N.J	0.746	N.J.	207.0	N.J	1:35	Pa.	31,533	N.J.	142.0	N.J.	1:52	Pa.	78,405	N.J.	979	N.J.	0.133
2	Pa	2,901	Pa.	0.247	Pa	92.0	Pa.	1:128	N.J.	26,410	Pa.	37.0	Pa.	1:317	N.J.	38,499	Pa.	34	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		**28,280**		**0.685**		**993.8**		**1:42**		**28,457**		**593.5**		**1:70**		**47,650**		**3,030**		**0.073**
1	Mich.	11,994	Mich.	1.303	Mich.	405.3	Mich	1:23	Wisc.	32,489	Mich.	223.0	Mich.	1:41	Wisc.	58,216	Mich.	853	Wisc.	0.134
2	Wisc.	5,734	Wisc.	1.215	Wisc.	176.5	Wisc.	1:26	Mich.	29,593	Ohio	110.0	Wisc.	1:48	Mich.	53,784	Ohio	797	Mich.	0.093
3	Ohio	4,931	Ohio	0.460	Ohio	169.0	Ind	1:63	Ohio	29,180	Wisc.	98.5	Ind.	1:81	Ohio	44,831	Wisc.	632	Ohio	0.074
4	Ill.	3,565	Ind.	0.381	Ill.	157.0	Ohio	1:63	Ind.	23,906	Ill.	95.0	Ohio	1:98	Ill.	37,522	Ill.	584	Ill.	0.052
5	Ind.	2,056	Ill.	0.317	Ind.	86.0	Ill.	1:72	Ill.	22,704	Ind.	67.0	Ill.	1:118	Ind.	30,686	Ind.	163	Ind.	0.030
West North Central		**11,009**		**0.643**		**432.2**		**1:40**		**25,474**		**262.5**		**1:65**		**41,938**		**2,080**		**0.122**
1	Ia.	3,496	Ia.	1.205	Ia.	125.3	N D.	1:20	Nebr.	34,780	Ia.	78.0	N D.	1:35	Nebr.	57,039	Mo.	558	N.D.	0.283
2	Kans.	1,934	N D.	1.017	Kans.	82.0	Ia	1:23	Ia.	27,908	Kans	52.0	Ia.	1:37	Minn.	48,088	Ia.	436	Ia.	0.150
3	Mo.	1,805	S.D	0.890	Mo.	76.0	S.D	1:25	Minn.	26,165	Mo.	48.0	S.D.	1:43	Ia.	44,814	Minn.	361	Kans.	0.134
4	Minn.	1,779	Kans.	0.817	Minn.	68.0	Kans	1:29	Mo.	23,756	Minn.	37.0	Kans.	1:46	S.D.	38,320	Kans.	318	S.D.	0.124
5	Nebr.	713	Nebr.	0.453	N.D	33.0	Minn.	1:60	Kans	23,590	N.D.	19.0	Mo.	1:101	Mo.	37,613	N.D.	186	Mo.	0.115
6	N.D	668	Minn.	0.438	S.D	27.4	Mo	1:64	S.D.	22,377	S.D.	16.0	Minn.	1:110	Kans.	37,199	Nebr.	137	Minn.	0.089
7	S.D.	613	Mo.	0.371	Nebr.	20.5	Nebr	1:77	N D	20,246	Nebr	12.5	Nebr	1:126	N D.	35,163	S D	85	Nebr.	0.087
South Atlantic		**32,523**		**0.930**		**1,432.5**		**1:24**		**22,704**		**903.0**		**1:39**		**36,016**		**7,523**		**0.215**
1	Va	8,509	D.C.	1 644	Va	361.0	Va.	1:14	D.C.	29,551	Va.	209.0	Md.	1:22	Ga.	46,162	Fla	2,122	D.C.	0.491
2	Fla.	6,046	Va.	1 637	Fla.	275.0	Md.	1:16	S.C.	28,286	Md.	187.0	Del.	1:22	S.C.	41,684	Md	1,393	Md.	0.336
3	Md	5,397	Md	1 301	Md.	265.0	Del.	1:16	Va.	23,571	Fla.	179.0	D.C.	1:23	Va.	40,713	Ga.	962	Del.	0.287
4	N.C.	3,773	Del	1.179	N C.	162.0	D.C.	1:18	N C.	23,290	N C.	105.0	Va.	1:25	D.C.	37,193	N.C.	801	S.C.	0.243
5	S C.	3,168	S.C.	1 080	Ga.	128.0	S.C	1:26	Ga	22,360	S.C.	76.0	S.C.	1:39	N C.	35,933	S.C.	713	Fla.	0.240
6	Ga.	2,862	Fla	0.682	S C.	112.0	Fla	1:32	Fla	21,984	Ga.	62.0	Fla.	1:49	Fla.	33,775	Va	681	W. Va.	0.193
7	D.C	1,079	N.C.	0 673	W Va	57.0	W. Va	1:33	Md.	20,368	W. Va.	30.0	N.C.	1:53	W. Va.	33,422	W Va.	362	Ga.	0.188
8	W Va	1,003	Ga	0.559	D C.	36.5	N.C.	1:35	Del.	19,068	D.C.	29.0	W. Va.	1:63	Md.	28,863	D.C.	322	N C.	0.143
9	Del.	686	W Va.	0.534	Del.	36.0	Ga	1:40	W Va.	17,590	Del.	26.0	Ga.	1:83	Del.	26,402	Del.	167	Va.	0.131
East South Central		**9,745**		**0.691**		**403.0**		**1:35**		**24,181**		**246.5**		**1:57**		**39,534**		**3,091**		**0.219**
1	Ala	3,840	Ala.	1.019	Ala.	144 0	Ala	1:26	Ky	28,163	Ala.	98.0	Ala	1:38	Ky	43,202	Ala	1,208	Miss	0.340
2	Tenn.	2,473	Ky	0 631	Tenn.	126.0	Tenn.	1:35	Ala.	26,666	Tenn.	65.0	Tenn	1:67	Ala.	39,183	Miss.	827	Ala.	0.320
3	Ky	2,225	Tenn.	0.565	Ky.	79.0	Ky.	1:45	Miss.	22,356	Ky.	51.5	Ky.	1:68	Tenn.	38,048	Tenn.	708	Tenn.	0.162
4	Miss.	1,207	Miss.	0 497	Miss.	54.0	Miss.	1:45	Tenn.	19,628	Miss.	32.0	Miss.	1:76	Miss.	37,725	Ky.	349	Ky.	0.099
West South Central		**12,418**		**0.553**		**493 0**		**1:46**		**25,188**		**314.0**		**1:72**		**39,546**		**4,634**		**0.206**
1	Tex	6,213	La	0.918	Tex	192.0	La.	1:24	Tex.	32,359	Tex.	125.0	Ark.	1:40	Tex.	49,704	Tex.	2,954	Tex.	0.221
2	La	3,690	Ark	0.642	La.	170.0	Ark.	1:28	La	21,706	La.	96.0	La.	1:42	La.	38,439	La	820	Ark.	0.209
3	Ark	1,400	Tex	0 464	Ark	78.0	Okla.	1:55	Okla	21,034	Ark.	55.0	Okla.	1:76	Okla.	29,337	Ark	456	La.	0.204
4	Okla	1,115	Okla	0.385	Okla	53.0	Tex	1:70	Ark	17,944	Okla.	38.0	Tex	1:107	Ark.	25,448	Okla	405	Okla.	0.140
Mountain		**11,725**		**1.099**		**433.8**		**1:25**		**27,028**		**284.7**		**1:37**		**41,183**		**1,669**		**0.156**
1	N M	2,310	Ida	2.147	N M	88.5	N M	1:14	Wyo.	30,892	N.M.	55.5	N.M.	1:22	Ida	50,861	Colo	586	Wyo.	0.425
2	Utah	1,970	N M	1 861	Utah	73.0	Ida.	1:14	Ida	30,840	Utah	51.0	Ida	1:24	Ariz.	45,917	N.M.	263	N.M.	0.212
3	Ida.	1.943	Utah	1 441	Ariz.	66.0	Utah	1:19	Ariz.	29,220	Colo.	49.0	Utah	1:27	Wyo.	45,720	Utah	217	Colo.	0.211
4	Ariz	1,929	Nev	1.094	Colo.	66.0	Nev	1:21	Utah	26,987	Ariz	42.0	Nev.	1:35	N.M.	41,620	Wyo.	191	Ida.	0.159
5	Colo	1,729	Wyo.	1.016	Ida	63 0	Mont.	1:27	Colo	26,200	Ida.	38.2	Mont.	1:41	Utah	38,628	Ida.	144	Utah	0.159
6	Nev	768	Mont.	0.788	Nev	33.0	Wyo.	1:30	N M.	26,101	Nev.	20.0	Wyo.	1:45	Nev.	38,401	Mont.	100	Nev.	0.136
7	Mont	619	Ariz	0 787	Mont	29 5	Ariz	1:37	Nev.	23,274	Mont.	19.0	Colo.	1:57	Colo.	35,289	Nev	96	Mont.	0.127
8	Wyo	457	Colo	0 624	Wyo	14 8	Colo	1.42	Mont.	20,985	Wyo.	10.0	Ariz	1:58	Mont.	32,583	Ariz.	73	Ariz.	0.030
Pacific		**27,584**		**0.905**		**671.1**		**1:45**		**41,103**		**416.8**		**1:73**		**66,181**		**1,141**		**0.037**
1	Cal	20.707	Alaska	3.935	Cal.	431.0	Alaska	1.10	Cal.	48,045	Cal.	278.0	Alaska	1.17	Wash.	76,289	Ore.	404	Alaska	0.365
2	Wash	2.670	Hawaii	1 268	Wash	79.0	Hawaii	1 16	Alaska	38,971	Ore.	40.3	Hawaii	1:23	Cal.	74,487	Hawaii	268	Hawaii	0.292
3	Alaska	1.598	Cal	0 912	Ore	63.6	Ore	1.40	Wash.	33,799	Hawaii	39.5	Ore.	1:63	Alaska	66,575	Wash.	204	Ore.	0.160
4	Ore	1.449	Wash.	0 680	Hawaii	56 5	Wash	1:50	Ore.	22,786	Wash.	35 0	Cal.	1:82	Ore.	35,961	Alaska	148	Wash.	0.052
5	Hawaii	1.160	Ore	0 573	Alaska	41 0	Cal	1:53	Hawaii	20,528	Alaska	24 0	Wash.	1.112	Hawaii	29,362	Cal.	118	Cal.	0.005
Territories		**1,228**		**0.354**		**136.0**		**1:26**		**9,030**		**100.0**		**1:35**		**12,281**		**138**		**0.039**
1	P R	953	Guam	2 410	P R	124 0	Guam	1 9	Guam	22,893	P.R.	92.0	Guam	1:14	Guam	34,339	P.R.	71	V.I.	0.485
2	Guam	275	P R	0 284	Guam	12 0	P.R.	1.27	P R.	7,689	Guam	8 0	P R	1:36	P.R.	10,363	V.I.	47	Guam	0.179
3	V I	—	V.I	—	V I	—	V.I.	—	V.I.	—	V.I.	—	V.I	—	V.I.	—	Guam	20	P.R.	0.021

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		Hemetology		Clinicel Chemistry		Pathology		Environmental Microbiology		Environmental Chemistry		Occupational Safety/Health		Toxicology	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
No States Reporting	52	52		47		52		50		52		32		45		13		49		43		23		40	
Total	**25,990,816**	**6,794,816**	**26.1**	**56,622**	**0.2**	**332,318**	**1.3**	**232,217**	**0.9**	**7,188,598**	**27.7**	**1,392,622**	**5.3**	**5,079,634**	**19.5**	**469,751**	**1.8**	**2,380,200**	**9.2**	**1,087,417**	**4.2**	**72,511**	**0.3**	**904,110**	**3.5**
Average	499.823	130,670	–	1,205	–	6,391	–	4,644		138.242	–	43,519	–	112,881	–	36,135	–	48,576	–	25,289	–	3,153	–	22,603	–
New England	**1,671,427**	**482,165**	**29.0**	**3,569**	**0.2**	**20,295**	**1.2**	**9,881**	**0.6**	**398,304**	**23.8**	**16,705**	**1.0**	**424,621**	**25.4**	**735**	–	**79,178**	**4.7**	**108,473**	**6.5**	**4,927**	**0.3**	**122,574**	**7.3**
Conn	478.795	118,150	24 7	2,070	0 4	11.571	2 4	5,033	1 0	105,919	22 1	16,128	3 4	86.458	18 1	735	0 1	16.116	3 4	28,844	6 0	2,791	0 6	84,980	17 8
Mass	640, 488	175,217	27 4	523	0 1	186	–	3,718	0 6	169,123	26 4	–	–	291,721	45.5	–	–	–	–	–	–	–	–	–	–
Me	106,785	32,894	30.8	308	0 3	324	0 3	803	0.7	18,975	17 8	–	–	16,717	15 6	–	–	18.353	17 2	10,895	10.2	166	0 2	7,350	6.9
N H	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R I	347,909	131,667	37 8	476	0 1	5.609	1 6	205	0 1	73,634	21 2	577	0 2	29.725	8 5	–	–	21,631	6 2	56,558	16 3	830	0 2	26,997	7.8
Vt	97,450	24,237	24 9	192	0 2	2.605	2 7	122	0 1	30,653	31.5	–	–	–	–	–	–	23,078	23.7	12,176	12 5	1,140	1 1	3,247	3.3
Middle Atlantic	**1,012,966**	**254,331**	**25.1**	**1,702**	**0.2**	**2,741**	**0.3**	**16,841**	**1.7**	**244,239**	**24.1**	**328**	–	**101,255**	**10.0**	–	–	**11,235**	**1.1**	**12,697**	**1.2**	**1,279**	**0.1**	**366,318**	**36.2**
N J.	978,745	241,386	24 7	1,387	0 1	2,395	0 3	15,752	1 6	236,984	24 2	–	–	100,555	10.3	–	–	11,021	1 1	12,697	1 3	1,279	0 1	355,289	36.3
N Y	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa	34.221	12.945	37 8	315	0 9	346	1 0	1,089	3 2	7,255	21.2	328	1.0	700	2 1	–	–	214	0 6	–	–	–	–	11,029	32.2
East North Central	**3,029,704**	**686,192**	**22.7**	**7,247**	**0.2**	**20,828**	**0.7**	**39,682**	**1.3**	**721,554**	**23.8**	**56,448**	**1.9**	**761,397**	**25.1**	**86,927**	**2.9**	**352,903**	**11.6**	**214,762**	**7.1**	**26,182**	**0.9**	**55,582**	**1.8**
Ill	583.930	172,080	29 5	1,240	0 2	2,768	0 5	10,253	1 8	116,377	19.9	–	–	177.498	30 4	–	–	58,008	9 9	31,519	5 4	–	–	14,187	2 4
Ind.	163,175	12,149	7 4	527	0 3	2,777	1 7	2,973	1 8	55,324	33.9	–	–	–	–	–	–	64.103	39 3	25,207	15.5	–	–	115	0.1
Mich	853,450	173,349	20 3	1,387	0 2	5,493	0 6	5,266	0 6	260,102	30 5	12,118	1 4	257,120	30.1	–	–	103,889	12.2	34,726	4 1	–	–	–	–
Ohio	797,287	285,178	35.8	1,084	0 1	1,554	0 2	12,503	1 6	136,242	17 1	8,059	1 0	229,615	28 8	–	–	62,760	7 9	23,129	2 9	6,376	0 8	30,787	3 8
Wisc.	631,862	43.436	6 9	3,009	0.5	8,236	1 3	8,687	1 4	153,509	24 3	36,271	5 7	97,164	15 4	86.927	13 8	64.143	10.1	100,181	15 8	19,806	3 1	10,493	1.7
West North Central	**2,080,299**	**557,913**	**26.8**	**5,812**	**0.3**	**27,822**	**1.3**	**39,203**	**1.9**	**602,361**	**29.0**	**24,158**	**1.2**	**334,005**	**16.1**	**188**	–	**263,800**	**12.7**	**206,005**	**9.9**	**7,384**	**0.3**	**11,648**	**0.5**
Ia	436,132	113,165	25.9	244	0 1	3,461	0 8	3,431	0 8	102,164	23 4	–	–	29,444	6.7	–	–	41,347	9.5	134,297	30 8	6,394	1 5	2,185	0.5
Kans	317,536	68,809	21 7	1,016	0 3	8,777	2 8	783	0 2	99,208	31 2	–	–	64.976	20.5	–	–	48,189	15.2	20,683	6 5	980	0 3	4.115	1.3
Minn.	361,115	122,548	33.9	3,673	1 0	10,380	2 9	5,247	1 4	141,817	39 3	–	–	77.262	21 4	188	0 1	–	–	–	–	–	–	–	–
Mo	557,626	161.778	29 0	324	0 1	1,945	0 3	3,898	0 7	123,286	22.1	14.099	2.5	135,275	24.3	–	–	107,516	19 3	8,879	1 6	–	–	626	0.1
Mo	136.621	28,429	20 8	–	–	356	0 3	1,773	1 3	59,506	43 6	–	–	6,981	5 1	–	–	21,791	15 9	13,115	9 6	–	–	4.670	3 4
Nebr	186,071	42,316	22.7	424	0 2	2,026	1 1	23,449	12 6	62,112	33 4	10,059	5.4	20,067	10 8	–	–	18,566	10 0	6,990	3 8	10	–	52	–
N D.	85,198	20,868	24 5	131	0 1	877	1 0	622	0.7	14,268	16 8	–	–	–	–	–	–	26,391	31.0	22,041	25 9	–	–	–	–
S.D																									
South Atlantic	**7,522,843**	**1,997,089**	**26.5**	**10,122**	**0.1**	**129,512**	**1.7**	**34,711**	**0.5**	**2,256,534**	**30.0**	**568,897**	**7.6**	**1,307,607**	**17.4**	**347,659**	**4.6**	**511,385**	**6.8**	**143,981**	**1.9**	**14,551**	**0.2**	**200,795**	**2.7**
Del	166.755	42,586	25 5	–	–	505	0.3	1,152	0.7	44,751	26 8	3,913	2 4	2,790	1.7	43,898	26 3	14,316	8 6	6,156	3 7	–	–	6,688	4.0
D.C	321,949	88,574	27 5	–	–	505	0 2	48	–	96,296	29 9	54,779	17.0	35,760	11 1	13,767	4 3	1.041	0.3	374	0 1	–	–	30,805	9 6
Fla.	2,122.160	690,875	32 6	2,323	0 1	62,787	3 0	11.446	0 5	641,901	30 3	168,284	7.9	278.601	13 1	–	–	237,520	11 2	3.189	0 1	1,074	0 1	24.160	1 1
Ga	961,540	268,765	28.0	610	0 1	23,012	2 4	3,360	0 3	401,146	41 7	95,702	10 0	131,068	13 6	–	–	–	–	–	–	–	–	37,877	3.9
Md.	1,393,254	436,730	31.4	2.218	0 2	11,234	0 8	7,288	0 5	391,641	28 1	91,575	6.6	195,841	14 1	59,182	4 2	97,617	7.0	47,241	3 4	4.748	0 3	47,939	3 4
N C	800,783	23,285	2 9	1,250	0 2	5,978	0 8	3,913	0 5	232,583	29 0	65,896	8 2	187,503	23 4	178,156	22.3	61,883	7.7	23,345	2 9	4,766	0 6	12,225	1 5
S.C.	713,319	207,493	29 1	1,674	0 2	9,384	1 3	5,841	0 8	213,564	30.0	62,325	8.7	157,964	22 1	–	–	11,313	1 6	11,796	1 7	1,480	0 2	30,485	4 3
Va	681,422	123,951	18 2	1,632	0 2	13.423	2 0	814	0 1	159,691	23 4	25,136	3.7	242,659	35 6	–	–	50,812	7.5	51.880	7 6	2,483	0 4	8,941	1.3
W. Va.	361,661	114,830	31 8	415	0 1	2,684	0 7	849	0 2	74,961	20.7	1,287	0.4	75,421	20 8	52,656	14 6	36,883	10 2	–	–	–	–	1,675	0.5
East South Central	**3,091,365**	**959,913**	**31.1**	**10,262**	**0.3**	**34,787**	**1.1**	**8,427**	**0.3**	**941,189**	**30.5**	**246,712**	**8.0**	**487,024**	**15.7**	**19,951**	**0.6**	**273,965**	**8.9**	**101,303**	**3.3**	**3,488**	**0.1**	**4,344**	**0.1**
Ala.	1,207,732	384,263	31 8	4,765	0 4	14.343	1 2	2,502	0 2	304,672	25 2	72,989	6.0	203,094	16 8	18,845	1 6	114,354	9 5	87,905	7.3	–	–	–	–
Ky	349,124	21,927	6 3	1,347	0 4	4.415	1 3	2,235	0.6	146,897	42 1	19,970	5.7	116,540	33 4	1,106	0.3	16,642	4.8	10.213	2.9	3,488	1 0	4,344	1.2
Miss.	826,803	243.157	29 4	2,118	0 3	9,444	1 1	626	0 1	240,805	29 1	153,753	18 6	96,849	11 7	–	–	76,866	9 3	3.185	0 4	–	–	–	–
Tenn.	707,706	310,566	43 9	2,032	0 3	6,585	0 9	3,064	0.4	248,815	35.2	–	–	70,541	10 0	–	–	66,103	9 3	–	–	–	–	–	–
West South Central	**4,634,034**	**1,070,287**	**23.1**	**10,650**	**0.2**	**41,941**	**0.9**	**37,130**	**0.8**	**1,296,889**	**28.0**	**293,799**	**6.3**	**1,024,089**	**22.1**	–	–	**651,409**	**14.1**	**122,291**	**2.6**	**2,000**	**0.1**	**83,549**	**1.8**
Ark.	455,953	111,607	24.5	2,313	0 5	2,091	0 4	2,110	0.5	111,591	24 5	28,892	6.3	77,506	17 0	–	–	81,445	17 9	23,159	5.1	–	–	15,239	3.3
La	819,565	143,362	17 5	2,111	0 3	20 180	2.5	2,763	0.3	235,405	28 7	71,822	8 8	164,189	20 0	–	–	118,418	14 4	44,224	5 4	–	–	17,091	2.1
Okla.	404,667	123,955	30 6	719	0 2	5,781	1 4	4,803	1.2	127,505	31 5	6,738	1.7	58,051	14 3	–	–	73.141	18 1	3,974	1.0	–	–	–	–
Tex.	2,953,849	691,363	23.4	5,507	0 2	13,889	0.5	27,454	0.9	822,388	27 9	186,347	6.3	724,343	24 5	–	–	378,405	12.8	50,934	1 7	2,000	0 1	51.219	1 7
Mountain	**1,669,001**	**450,520**	**27.0**	**4,284**	**0.3**	**13,392**	**0.8**	**27,077**	**1.6**	**377,775**	**22.6**	**154,884**	**9.3**	**293,071**	**17.6**	**12,873**	**0.8**	**179,951**	**10.8**	**102,559**	**6.1**	**2,375**	**0.1**	**50,240**	**3.0**
Ariz.	73,117	6,964	9 5	1,467	2 0	433	0 6	3,366	4 6	41,066	56.2	–	–	–	–	–	–	13,742	18 8	5,562	7 6	517	0.7	–	–
Colo.	585,753	70,482	12.0	274	0 1	2,152	0.4	782	0.1	103,813	17.7	147,693	25.2	181,177	30.9	–	–	35,151	6.0	18,183	3 1	–	–	26,046	4 5
Ida.	143,745	36,999	25.7	1,334	0.9	1,487	1 3	203	0 1	9,149	6.4	3,538	2.5	4,584	3.2	403	0 3	36,005	25.1	40,302	28 0	–	–	9,741	6 8
Mont.	99,856	16,277	16.3	245	0 3	1,627	1.6	542	0.5	58,481	58.6	–	–	–	–	–	–	10,433	10.5	11,914	11.9	284	0.3	53	–
Nev.	95,524	41,720	43.7	96	0.1	352	0 4	–	–	21,146	22.2	1,175	1.2	503	0.5	–	–	22,950	24.0	7,550	7.9	28	–	4	–
N.M.	262,530	93,938	35.8	646	0 3	1,766	0.7	19,273	7.3	73,538	28.0	2,478	0.9	20,807	7.9	12,470	4 8	22,069	8.4	10,330	3.9	476	0.2	4,739	1.8
Utah	217,223	29,297	13.5	222	0.1	5,432	2.5	2,440	1.1	48,395	22.3	–	–	86,000	39.6	–	–	28,393	13.1	8,718	4.0	1,070	0.5	7,256	3.3
Wyo.	191,253	154,843	81.0	–	–	143	0.1	471	0.2	22,187	11.6	–	–	–	–	–	–	11,208	5.9	–	–	–	–	2,401	1.2
Pacific	**1,140,929**	**311,803**	**27.3**	**1,510**	**0.1**	**23,204**	**2.0**	**18,940**	**1.7**	**339,827**	**29.8**	**3,011**	**0.3**	**320,428**	**28.1**	–	–	**37,711**	**3.3**	**65,881**	**5.8**	**10,325**	**0.9**	**8,289**	**0.7**
Alaska	148,140	87,192	58.8	272	0.2	3,168	2.1	5,292	3.6	49,928	33.7	–	–	–	–	–	–	1,596	1.1	692	0.5	–	–	–	–
Cal.	117,910	24,810	21.0	102	0.1	976	0.8	6,929	5.9	38,320	32.5	–	–	2,158	1.8	–	–	5,927	5.0	21,096	17 9	10,325	8.8	7,267	6.2
Hawaii	267,504	151,762	56.7	728	0.3	8,270	3.1	2,501	0.9	48,310	18.1	–	–	6,238	2.3	–	–	11,053	4.1	38,404	14 4	–	–	238	0.1
Ore.	403,845	9,138	2.3	253	0.1	3,056	0.8	3,263	0.8	171,450	42.4	–	–	205,771	50.9	–	–	10,914	2.7	–	–	–	–	–	–
Wash.	203,530	38,901	19 1	155	0.1	7,734	3.8	955	0.5	31,819	15.6	3,011	1.5	106,261	52.2	–	–	8,221	4.0	5,689	2.8	–	–	784	0.4
Territories	**138,248**	**24,603**	**17.8**	**1,464**	**1.1**	**17,796**	**12.9**	**325**	**0.2**	**9,926**	**7.2**	**27,680**	**20.0**	**26,137**	**18.9**	**1,418**	**1.0**	**18,663**	**13.5**	**9,465**	**6.8**	–	–	**771**	**0.6**
Guam	20,386	5,476	26.9	114	0.5	1,433	7.0	9	–	1,979	9.7	4,805	23.6	4,916	24.1	1,418	7.0	236	1.2	–	–	–	–	–	–
P.R.	71,295	677	1.0	–	–	7,771	10.9	316	0.4	341	0.5	20,090	28.2	16,918	23.7	–	–	15,406	21.6	9,364	13.1	–	–	412	0.6
V.I.	46,567	18,450	39.6	1,350	2.9	8,592	18.5	–	–	7,606	16.3	2,785	6.0	4,303	9.2	–	–	3,021	6.5	101	0.2	–	–	359	0.8

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	**5,890.35**	**389.6**	**6.6**	**16.0**	**767.55**	**13.0**	**59.25**	**3,675.0**	**62.4**	**255.0**	**914.0**	**15.5**	**68.0**	**144.2**	**2.5**	**14.0**	**5,478.1**	**93.0**
Average	115.5	7.6	6.6	0.3	15.1	13.0	1.2	72.1	62.4	5.0	17.9	15.5	1.3	2.8	2.5	0.3	107.4	93.0
New England	**596.9**	**38.5**	**6.5**	–	**76.0**	**12.7**	**6.0**	**375.0**	**62.9**	**13.0**	**75.5**	**12.7**	**6.0**	**31.0**	**5.2**	–	**571.0**	**95.8**
Conn.	228.0	7.0	3.1	–	30.0	13.2	6.0	163.0	71.5	8.0	27.0	11.8	3.0	1.0	0.4	–	211.0	92.5
Mass.	180.0	21.5	11.9	–	24.0	13.3	–	86.0	47.8	–	20.5	11.4	–	28.0	15.6	–	180.0	100.0
Me.	50.0	2.0	4.0	–	7.0	14.0	–	34.0	68.0	–	7.0	14.0	3.0	–	–	–	47.0	94.0
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	108.0	5.0	4.6	–	10.0	9.3	–	73.0	67.6	5.0	18.0	16.7	–	2.0	1.8	–	103.0	95.4
Vt.	30.0	3.0	10.0	–	5.0	16.7	–	19.0	63.3	–	3.0	10.0	–	–	–	–	30.0	100.0
Middle Atlantic	**299.0**	**29.0**	**9.7**	**2.0**	**41.0**	**13.7**	**6.0**	**179.0**	**59.9**	**17.0**	**47.0**	**15.7**	**4.0**	**3.0**	**1.0**	**1.0**	**269.0**	**90.0**
N.J.	207.0	8.0	3.8	1.0	26.0	12.6	1.0	142.0	68.6	13.0	31.0	15.0	–	–	–	–	192.0	92.8
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	92.0	21.0	22.8	1.0	15.0	16.3	5.0	37.0	40.2	4.0	16.0	17.4	4.0	3.0	3.3	1.0	77.0	83.7
East North Central	**993.8**	**77.5**	**7.8**	**4.0**	**91.0**	**9.2**	**7.0**	**593.5**	**59.7**	**34.0**	**168.8**	**17.0**	**13.0**	**63.0**	**6.3**	**7.0**	**828.8**	**83.5**
Ill.	157.0	13.0	8.3	–	27.0	17.2	3.0	95.0	60.5	5.0	22.0	14.0	1.0	–	–	–	148.0	94.3
Ind.	86.0	7.0	8.1	–	–	–	–	67.0	77.9	3.0	12.0	14.0	2.0	–	–	–	81.0	94.2
Mich.	405.3	14.0	3.5	2.0	22.0	5.4	1.0	223.0	55.0	18.0	92.3	22.8	9.0	54.0	13.3	7.0	368.3	90.9
Ohio	169.0	7.0	4.2	–	20.0	11.8	2.0	110.0	65.1	6.0	23.0	13.6	–	9.0	5.3	–	161.0	95.3
Wisc.	176.5	36.5	20.7	2.0	22.0	12.5	1.0	98.5	55.8	2.0	19.5	11.0	1.0	–	–	–	170.5	96.6
West North Central	**432.15**	**47.5**	**11.0**	**7.0**	**60.25**	**13.9**	**5.75**	**262.5**	**60.7**	**18.0**	**59.9**	**13.9**	**3.0**	**2.0**	**0.5**	–	**398.4**	**92.2**
Ia.	125.25	13.0	10.4	1.0	16.25	12.9	1.75	78.0	62.3	10.0	18.0	14.4	1.0	–	–	–	111.5	89.0
Kans.	82.0	12.0	14.6	6.0	9.0	11.0	1.0	52.0	63.4	2.0	9.0	11.0	–	–	–	–	73.0	89.0
Minn.	68.0	7.0	10.3	–	13.0	19.1	–	37.0	54.4	–	11.0	16.2	–	–	–	–	68.0	100.0
Mo.	76.0	4.0	5.2	–	12.0	15.8	–	48.0	63.2	1.0	11.0	14.5	–	1.0	1.3	–	75.0	98.7
Nebr.	20.5	3.5	17.1	–	3.0	14.6	–	12.5	81.0	1.0	1.5	7.3	–	–	–	–	19.5	95.1
N.D.	33.0	4.0	12.1	–	5.0	15.2	2.0	19.0	57.6	2.0	4.0	12.1	1.0	1.0	3.0	–	28.0	84.9
S.D.	27.4	4.0	14.6	–	2.0	7.3	1.0	16.0	58.4	2.0	5.4	19.7	1.0	–	–	–	23.4	85.4
South Atlantic	**1,432.5**	**63.0**	**4.4**	**1.0**	**205.5**	**14.4**	**12.5**	**903.0**	**63.0**	**61.0**	**245.0**	**17.1**	**18.0**	**16.0**	**1.1**	**2.0**	**1,338.0**	**93.4**
Del.	36.0	1.0	2.8	–	4.0	11.1	–	26.0	72.2	2.0	5.0	13.9	1.0	–	–	–	33.0	91.7
D.C.	36.5	2.0	5.5	–	3.5	9.6	0.5	29.0	79.4	–	2.0	5.5	–	–	–	–	38.0	98.6
Fla.	275.0	13.0	4.7	1.0	45.0	16.4	2.0	179.0	65.1	15.0	37.0	13.4	3.0	1.0	0.4	–	254.0	92.4
Ga.	128.0	9.0	7.0	–	20.0	15.6	2.0	62.0	48.5	5.0	36.0	28.1	–	1.0	0.8	–	121.0	94.5
Md.	265.0	4.0	1.5	–	37.0	14.0	2.0	187.0	70.6	4.0	33.0	12.4	1.0	4.0	1.5	–	258.0	97.4
N.C.	162.0	9.0	5.6	–	22.0	13.6	1.0	105.0	64.8	3.0	24.0	14.8	2.0	2.0	1.2	1.0	155.0	95.7
S.C.	112.0	9.0	8.0	–	12.0	10.7	–	76.0	67.9	3.0	13.0	11.6	–	2.0	1.8	–	109.0	97.3
Va.	361.0	14.0	3.9	–	51.0	14.1	4.0	209.0	57.9	26.0	85.0	23.6	11.0	2.0	0.5	1.0	319.0	88.4
W. Va.	57.0	2.0	3.5	–	11.0	19.3	1.0	30.0	52.6	3.0	10.0	17.6	–	4.0	7.0	–	53.0	93.0
East South Central	**403.0**	**19.0**	**4.7**	**1.0**	**57.0**	**14.1**	**5.0**	**246.5**	**61.2**	**28.0**	**71.5**	**17.8**	**10.0**	**9.0**	**2.2**	–	**359.0**	**89.1**
Ala.	144.0	6.0	4.2	–	23.0	16.0	4.0	98.0	68.1	9.0	10.0	6.9	1.0	7.0	4.8	–	130.0	90.3
Ky.	79.0	6.0	7.6	–	8.0	10.1	–	51.5	65.2	–	12.5	15.8	–	1.0	1.3	–	79.0	100.0
Miss.	54.0	2.0	3.7	1.0	8.0	14.8	–	32.0	59.3	2.0	12.0	22.2	3.0	–	–	–	48.0	88.9
Tenn.	126.0	5.0	3.9	–	18.0	14.3	1.0	65.0	51.6	17.0	37.0	29.4	6.0	1.0	0.8	–	102.0	81.0
West South Central	**493.0**	**35.0**	**7.1**	–	**79.0**	**16.0**	**6.0**	**314.0**	**63.7**	**16.0**	**59.0**	**12.0**	**3.0**	**6.0**	**1.2**	**2.0**	**466.0**	**94.5**
Ark.	78.0	4.0	5.1	–	9.0	11.6	–	55.0	70.5	2.0	10.0	12.8	–	–	–	–	76.0	97.4
La.	170.0	14.0	8.2	–	33.0	19.4	2.0	96.0	56.5	7.0	22.0	13.0	1.0	5.0	2.9	2.0	158.0	92.9
Okla.	53.0	4.0	7.6	–	5.0	9.4	–	38.0	71.7	2.0	6.0	11.3	–	–	–	–	51.0	96.2
Tex.	192.0	13.0	6.8	–	32.0	16.7	4.0	125.0	65.1	5.0	21.0	10.9	2.0	1.0	0.5	–	181.0	94.3
Mountain	**433.8**	**37.1**	**8.6**	–	**52.5**	**12.1**	–	**284.7**	**65.6**	**13.0**	**51.3**	**11.8**	**3.0**	**8.2**	**1.9**	–	**417.8**	**96.3**
Ariz.	68.0	6.0	9.1	–	10.0	15.2	–	42.0	63.6	1.0	7.0	10.6	1.0	1.0	1.5	–	64.0	97.0
Colo.	88.0	3.0	4.6	–	6.0	9.1	–	49.0	74.2	–	8.0	12.1	–	–	–	–	66.0	100.0
Ida.	63.0	8.1	12.9	–	9.5	15.1	–	38.2	60.6	–	2.0	3.2	–	5.2	8.2	–	63.0	100.0
Mont.	29.5	3.0	10.2	–	4.0	13.6	–	19.0	64.4	4.0	3.5	11.8	–	–	–	–	25.5	86.4
Nev.	33.0	2.0	6.1	–	3.0	9.1	–	20.0	60.6	2.0	7.0	21.2	1.0	1.0	3.0	–	30.0	90.9
N.M.	88.5	7.0	7.9	–	9.0	10.2	–	55.5	62.7	4.0	16.0	18.1	1.0	1.0	1.1	–	83.5	94.4
Utah	73.0	7.0	9.6	–	9.0	12.3	–	51.0	69.9	2.0	6.0	8.2	–	–	–	–	71.0	97.3
Wyo.	14.8	1.0	6.7	–	2.0	13.5	–	10.0	67.6	–	1.8	12.2	–	–	–	–	14.8	100.0
Pacific	**671.1**	**37.0**	**5.5**	**1.0**	**90.3**	**13.5**	**6.0**	**416.8**	**62.1**	**23.0**	**126.0**	**18.8**	**4.0**	**1.0**	**0.1**	–	**637.1**	**94.9**
Alaska	41.0	5.0	12.2	–	8.0	19.5	2.0	24.0	58.5	2.0	4.0	9.8	–	–	–	–	37.0	90.2
Cal.	431.0	13.0	3.0	–	56.0	13.0	3.0	278.0	64.5	10.0	84.0	19.5	4.0	–	–	–	414.0	96.1
Hawaii	56.5	1.0	1.8	–	4.0	7.1	–	39.5	69.9	4.0	12.0	21.2	–	–	–	–	52.5	92.9
Ore.	63.6	6.0	9.4	1.0	9.3	14.6	1.0	40.3	63.4	6.0	8.0	12.6	–	–	–	–	55.6	87.4
Wash.	79.0	12.0	15.2	–	13.0	16.4	–	35.0	44 3	1.0	18.0	22.8	–	1.0	1.3	–	78.0	98.7
Territories	**136.0**	**6.0**	**4.4**	–	**15.0**	**11.0**	**5.0**	**100.0**	**73.5**	**32.0**	**10.0**	**7.4**	**4.0**	**5.0**	**3.7**	**2.0**	**93.0**	**68.4**
Guam	12.0	3.0	25.0	–	1.0	8.3	–	8.0	66.7	1.0	–	–	–	–	–	–	11.0	91.7
P.R.	124.0	3.0	2.4	–	14.0	11.3	5.0	92.0	74.2	31.0	10.0	8.1	4.0	5.0	4.0	2.0	82.0	66.1
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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 or 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.
5. **Maintenance:** Include those who install, repair, or perform preventive maintenance on equipment and maintenance of buildings including housekeeping.

Table 2-2
TURNOVER

Lab & Region	Total Filled Pos.	Total # Resig & Sep.	% Turnover Filled Pos.	Number of Resignations & Separations by Categories						
				Manage-ment	Clerical	Prof & Tech Positions			Supportive Services	Main-tenance
						# Pos.	Resig & Sep.	% Turn-over		
Total	**5,478.1**	**645.0**	**11.8**	**20.0**	**130.0**	**3,675.0**	**356.0**	**9.7**	**121.0**	**18.0**
Average	107.4	12.6	11.8	0.4	2.5	72.1	7.0	9.7	2.4	0.4
New England	**571.0**	**20.0**	**3.5**	**1.0**	**3.0**	**375.0**	**10.0**	**2.7**	**6.0**	–
Conn.	211.0	8.0	3.8	–	2.0	163.0	3.0	1.8	3.0	–
Mass.	180.0	–	–	–	–	86.0	–	–	–	–
Me.	47.0	1.0	2.1	–	–	34.0	–	–	1.0	–
N.H.	–	–	–	–	–	–	–	–	–	–
R.I.	103.0	10.0	9.7	1.0	–	73.0	7.0	9.6	2.0	–
Vt.	30.0	1.0	3.3	–	1.0	19.0	–	–	–	–
Middle Atlantic	**269.0**	**43.0**	**16.0**	**2.0**	**6.0**	**179.0**	**27.0**	**15.1**	**7.0**	**1.0**
N.J.	192.0	26.0	13.5	1.0	1.0	142.0	21.0	14.8	3.0	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	77.0	17.0	22.1	1.0	5.0	37.0	6.0	16.2	4.0	1.0
East North Central	**928.8**	**93.0**	**10.0**	**1.0**	**9.0**	**593.5**	**56.0**	**9.4**	**19.0**	**8.0**
Ill.	148.0	7.0	4.7	1.0	1.0	95.0	5.0	5.3	–	–
Ind.	81.0	8.0	9.9	–	–	67.0	6.0	9.0	2.0	–
Mich.	368.3	30.0	7.4	–	1.0	223.0	13.0	5.8	9.0	7.0
Ohio	161.0	32.0	19.9	–	4.0	110.0	21.0	19.1	6.0	1.0
Wisc.	170.5	16.0	9.4	–	3.0	98.5	11.0	11.2	2.0	–
West North Central	**398.4**	**53.0**	**13.3**	**7.0**	**13.0**	**262.5**	**25.0**	**9.5**	**8.0**	–
Ia.	111.5	1.0	0.9	1.0	–	78.0	–	–	–	–
Kans.	73.0	12.0	16.4	5.0	2.0	52.0	5.0	9.6	–	–
Minn.	68.0	18.0	26.5	–	5.0	37.0	8.0	21.6	5.0	–
Mo.	75.0	10.0	13.3	1.0	2.0	48.0	6.0	12.5	1.0	–
Nebr.	19.5	2.0	10.3	–	1.0	12.5	1.0	8.0	–	–
N.D.	28.0	5.0	17.9	–	2.0	19.0	2.0	10.5	1.0	–
S.D.	23.4	5.0	21.4	–	1.0	16.0	3.0	18.8	1.0	–
South Atlantic	**1,338.0**	**159.0**	**11.9**	**2.0**	**37.0**	**903.0**	**85.0**	**9.4**	**33.0**	**2.0**
Del.	33.0	5.0	15.2	–	1.0	26.0	4.0	15.4	–	–
D.C.	36.0	3.0	8.3	–	1.0	29.0	2.0	6.9	–	–
Fla.	254.0	43.0	16.9	1.0	14.0	179.0	21.0	11.3	7.0	–
Ga.	121.0	16.0	13.2	–	5.0	62.0	8.0	12.9	3.0	–
Md.	258.0	19.0	7.4	–	7.0	187.0	9.0	4.8	3.0	–
N.C.	155.0	15.0	9.7	1.0	1.0	105.0	9.0	8.6	3.0	1.0
S.C.	109.0	14.0	12.8	–	1.0	76.0	13.0	17.1	–	–
Va.	319.0	37.0	11.6	–	4.0	209.0	16.0	7.7	17.0	–
W.Va.	53.0	7.0	13.2	–	3.0	30.0	3.0	10.0	–	1.0
East South Central	**359.0**	**53.0**	**14.8**	**2.0**	**6.0**	**246.5**	**35.0**	**14.2**	**9.0**	**1.0**
Ala.	130.0	17.0	13.1	1.0	4.0	98.0	10.0	10.2	1.0	1.0
Ky.	79.0	9.0	11.4	–	1.0	51.5	7.0	13.6	1.0	–
Miss.	48.0	9.0	18.8	1.0	–	32.0	3.0	9.4	5.0	–
Tenn.	102.0	18.0	17.7	–	1.0	65.0	15.0	23.1	2.0	–
West South Central	**466.0**	**81.0**	**17.4**	**2.0**	**24.0**	**314.0**	**45.0**	**14.3**	**9.0**	**1.0**
Ark.	76.0	14.0	18.4	2.0	2.0	55.0	10.0	18.2	–	–
La.	158.0	12.0	7.6	–	3.0	96.0	5.0	5.2	3.0	1.0
Okla.	51.0	8.0	15.7	–	1.0	38.0	7.0	18.4	–	–
Tex.	181.0	47.0	26.0	–	18.0	125.0	23.0	18.4	6.0	–
Mountain	**417.8**	**77.5**	**18.6**	**1.0**	**15.5**	**284.7**	**38.0**	**13.4**	**18.0**	**5.0**
Ariz.	64.0	13.0	20.3	1.0	5.0	42.0	4.0	9.5	3.0	–
Colo.	66.0	9.0	13.6	–	1.0	49.0	6.0	12.2	2.0	–
Ida.	63.0	23.5	37.3	–	4.5	38.2	15.0	39.3	–	4.0
Mont.	25.5	12.0	47.1	–	2.0	19.0	6.0	31.6	4.0	–
Nev.	30.0	4.0	13.3	–	–	20.0	1.0	5.0	2.0	1.0
N.M.	83.5	16.0	19.2	–	3.0	55.5	6.0	10.8	7.0	–
Utah	71.0	–	–	–	–	51.0	–	–	–	–
Wyo.	14.8	–	–	–	–	10.0	–	–	–	–
Pacific	**637.1**	**65.5**	**10.3**	**2.0**	**16.5**	**416.8**	**35.0**	**8.4**	**12.0**	–
Alaska	37.0	9.0	24.3	–	4.0	24.0	3.0	12.5	2.0	–
Cal.	414.0	37.5	9.1	–	9.5	278.0	20.0	7.2	8.0	–
Hawaii	52.5	6.0	11.4	–	1.0	39.5	4.0	10.1	1.0	–
Ore.	55.6	12.0	21.6	2.0	2.0	40.3	7.0	17.4	1.0	–
Wash.	78.0	1.0	1.3	–	–	35.0	1.0	2.9	–	–
Territories	**93.0**	–	–	–	–	**100.0**	–	–	–	–
Guam	11.0	–	–	–	–	8.0	–	–	–	–
P.R.	82.0	–	–	–	–	92.0	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–

AD
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Lab & Region	I Diagnostic Bact.			XIV Biologic, Reagent, Media Prod.		XV Research and Develop.		Total Prof. and Tech. Pos. Reported in Workload Categories	Total Changes Reported
New England									
Conn.	18.0	–	1	8.0	–	–	–	163.0	–
Mass.	16.0	−5.0	1	35.0	−5.0	–	−1.0	86.0	−20.0
Me.	7.0	–		1.0	–	1.0	–	34.0	–
N.H.	–	–		–	–	–	–	–	–
R.I.	6.0	–	0	–	–	–	–	73.0	−2.0
Vt.	4.25	−1.35	0	1.0	–	–	–	19.0	−2.0
Middle Atlantic									
N.J.	21.0	−4.0	2	–	–	–		142.0	−7.0
N.Y.	–	–		–	–	–	–	–	–
Pa.	10.0	−1.0		–	–	–	–	37.0	−8.0
East North Central									
Ill.	21.0	+1.0	1	3.0	+1.0	–	–	95.0	+5.0
Ind.	12.0	–	2	3.0	–	–	–	67.0	–
Mich.	40.5	−1.0	1	61.0	−1.0	49.0	–	223.0	−3.0
Ohio	45.0	+3.0		1.0	–	–	–	110.0	+5.0
Wisc.	11.0	−0.5	2	4.5	–	–	–	98.5	–
West North Central									
Ia.	9.5	+0.5	1	3.0	–	–	–	78.0	−3.0
Kans.	11.0	−1.0	1	–	–	–	–	52.0	–
Minn.	8.25	–	1	3.0	–	–	–	37.0	−9.0
Mo.	8.0	−2.0	0	3.0	–	–	–	48.0	−2.0
Nebr.	2.0	−0.3		–	–	–	–	12.5	−1.5
N.D.	9.0	−0.53		1.3	–	3.7	–	33.0	–
S.D.	1.4	−0.6	0	0.5	−1.5	–	–	16.0	−2.0
South Atlantic									
Del.	4.0	−0.9	0.	–	–	–	–	22.1	−1.9
D.C.	7.5	−1.5		2.0	–	–	–	29.0	−7.0
Fla.	–	–		–	–	–	–	179.0	–
Ga.	23.25	−0.5	1	3.0	−1.0	–	–	62.0	−7.0
Md.	40.0	–	1	–	–	–	–	187.0	–
N.C.	8.25	−0.75	1	–	–	1.0	–	105.0	–
S.C.	15.0	+3.0	3	3.0	+3.0	–	–	76.0	−4.5
Va.	26.0	–		–	–	–	–	209.0	–
W.Va.	9.0	–		1.0	–	–	–	30.0	–
East South Central									
Ala.	24.0	−3.0	2	18.0	−3.0	1.0	–	98.0	−9.0
Ky.	4.0	−2.0	0	–	–	–	–	51.5	−6.8
Miss.	–	–		–	–	–	–	32.0	–
Tenn.	40.0	−3.5	1	1.0	–	–	–	65.0	−13.0
West South Central									
Ark.	10.0	−2.0	1	–	–	–	–	55.0	−4.0
La.	19.0	+4.0	1	1.0	−3.0	6.0	+6.0	96.0	+6.5
Okla.	9.8	–	1	1.2	–	–	–	38.0	–
Tex.	18.0	−6.0	2	11.0	+4.0	–	–	125.0	−19.0
Mountain									
Ariz.	5.0	+1.0	2	–	–	1.0	–	42.0	–
Colo.	6.0	+0.5		1.0	–	–	–	49.0	−3.0
Ida.	7.5	−1.0		–	–	–	–	38.2	−3.8
Mont.	3.98	−.01		–	–	–	–	19.0	−1.0
Nev.	7.0	–		1.5	–	–	–	20.0	–
N.M.	8.0	+0.6	3	–	–	–	–	55.5	+4.5
Utah	4.0	–	1	–	–	–	–	51.0	+6.5
Wyo.	4.5	–		–	–	–	–	10.0	–
Pacific									
Alaska	14.16	–	0.	–	–	–	–	24.0	+4.0
Cal.	15.5	–	8.	–	–	10.0	+6.0	278.0	+21.15
Hawaii	14.5	–	0.	–	–	–	–	39.5	–
Ore.	10.75	+2.0	1.	–	–	–	–	40.25	−2.5
Wash.	8.0	–	1.	–	–	–	–	35.0	−1.0
Territories									
Guam	3.0	–		–	–	–	–	8.0	–
P.R.	–	–		–	–	–	–	92.0	–
V.I.	–	–		–	–	–	–	–	–

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 Safety & Health	XII Toxicology	XIII Lab Improve Program	XIV Biologic, Reagent, Media Prod	XV Research and Oevelop.		
New England																	
Conn	18.0 –	1.0 –	4.0 –	4.0 –	16.0 –	3.0 –	17.0 –	1.0 –	8.0 –	41.0 –	2.0 –	27.0 –	13.0	8.0	–	163.0	
Mass	16.0 −5.0	1.0 –	2.0 –	10.0 −3.0	9.0 −2.0	–	10.0 4.0	– –	– –	– –	– –	– –	3.0 –	35.0 5.0	1.0	86.0	20.0
Me	7.0 –	I	I	4.0 –	IV	–	– –	– –	9.0 –	IX	10.0 –	XI	2.0	1.0 –	1.0 –	34.0	–
N H	– –	– –	– –	– –	– –	–	– –	– –	– –	– –	– –	– –	–	–	–	–	–
R I.	6.0 –	0 5 –	1.0 –	0.5 –	4.0 1.0	– –	4.0 −1.0	– –	8.0 –	31.0 –	1.0 –	15.0 –	2.0	–	–	73.0	−2.0
Vt.	4 25 1.35	0.5 +0.2	1.25 +0.25	0.5 –	4 4 0.1	– –	– —	– –	1.5 –	1.5 2.0	2.0 –	2.0 +1.0	0.1 –	1.0 –	– –	19.0	2.0
Middle Atlantic																	
N.J.	21.0 −4 0	2 0 –	1.0 –	21.0 2 0	9.0 –	– –	9.0 –	– –	7.0 −1.0	39.0 –	4.0 –	15.0 –	14.0	–	–	142.0	−7.0
N Y	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	–	–	–	–	–
Pa	10.0 1.0	–	–	7.0 3 0	–	6.0 1.0	–	–	– –	–	–	5.0 −2.0	9.0 1.0	–	–	37.0	8.0
East North Central																	
Ill.	21.0 +1 0	1.0 –	1.0 −1.0	6 0 −3.0	6.0 −2.0	–	12.0 +7.0	–	11.0 –	13.0 +2.0	– –	11.0 –	10.0	3.0 +1.0	–	95.0	+5.0
Ind	12.0	2.0	2.0	4 0	5 0 –	–	– –	–	11.0	26.0	–	– –	2.0	3 0	–	67.0	
Mich.	40.5 −1.0	1.0	1.0	18.0 +2 0	12.0 –	2.5 –	9.0 –	– –	5.5 –	13.5 +1.0	– –	–	10.0 4 0	61.0 −1.0	49 0	223 0	−3.0
Ohio	45.0 +3.0	I	I	I	I	I	11.0 –	– –	5.0 –	35.0 +2 0	X	5.0 –	8 0	1.0	–	110.0	+5 0
Wisc.	11 0 0.5	2.0 –	II	13 0 2 0	10.0	–	16.5 −0.5	14 5 +1.0	3.0	16.0 +1.5	–	4 0 +1.5	4 0 1.0	4 5 –	– –	98.5	–
West North Central																	
Ia.	9 5 +0.5	1.5 –	0.5 –	8.0 –	5.0 −1.0	–	4.5 +1.0	– –	4.0 −1.0	32.5 +0.5	5.5 –	0 5 –	3.5 3 0	3.0	–	78.0	−3.0
Kans.	11.0 −1.0	1.0 –	3.0 +1.0	4.0 –	3.0	– –	2.0 +1.0	– –	4.0	12.0	1.0 –	5.0 1.0	6.0 –	– –	– –	52.0	–
Minn	8.25 –	1 0 −1.0	1.75 −1.0	5.0 2.0	9.0 −1.0	– –	4.0 –	1.0 −2.0	– –	– –	– –	– –	4.0 2.0	3.0	– –	37.0	−9 0
Mo.	8 0 2.0	0.5 –	1.0 –	5.5 –	7.0 –	–	2.0 +1.0	– –	9.0	6.0 −1.0	–	–	6.0 –	3.0 –	– –	48.0	2.0
Nebr	2.0 −0 3	I	I	1.0	2.0 −0.2	– –	0.6 −0.4	–	2.0 −1.5	4 4 +1 4	–	0.5 0.5	–	–	–	12.5	−1.5
N D	9 0 −0.53	I	I	1.0 +0.3	5.0 −0.16	– –	1.0 −0.2	– –	4.0 +0.14	7.0 –	– –	– –	1.0 +0.45	1.3 –	3.7	33.0	–
S.D.	1 4 −0.6	0.1 −0 4	0.5 –	3 0 +1.0	1.0	–	–	–	3.0 –	5.0 –	–		1.5 −0.5	0.5 1.5		16.0	2.0
South Atlantic																	
Del.	4.0 −0 9	0.05 –	0.4 –	3 95	0.65 –	0.3 –	0.9 –	5.0 −0.99	2 45	2 84 −0.16	.01 –	1 15 +0.15	0.4 –	– –	– –	22.1	−1.9
D C	7.5 −1.5	I	I	I	5.5 +1 5	– −3.0	3.0	4.0 —	1.0 −1.0	1.0 −1.0	— –	4.0 2.0	1.0	2.0	– –	29.0	−7.0
Fla	– –	– –	– –	– –	– –	– –	–		–				–	–	–	179.0	–
Ga.	23.25 −0.5	1.5 –	4.25 +1.0	5 25 +1.0	12.25 −2.0	5.5 +1.0	7.0 −0.5	–	– –	– –	– –	−6.0	–	3.0 −1.0	– –	62.0	−7.0
Md.	40.0 –	1.0 –	1.0 –	5.0 –	28.0	8.0 –	19.0 –	14.0 –	21.0 –	40.0	7.0	1.0 –	2.0 –	–	– –	187.0	–
N C	8 25 −0.75	1.25 +0 25	2.0 +1.0	7.5 −0.5	11.5 +1.5	4.0 –	11.0 +1.0	21.0 –	7.5 −1.5	16 0 –	5.0	1.0	8.0 1 0	–	1.0	105.0	–
S C.	15.0 +3 0	3.0 –	1.0 −1.0	6.0 +2.5	14.0 −1 0	15.0 4 0	VI	– –	10.0 6.0	IX	2.0 +2 0	5.0 −1 0	2.0 2.0	3.0 +3.0	– –	76.0	−4 5
Va	26.0 –	I	I	22.0 –	IV	IV	6.0 –	– –	13.0 –	47.0 –	X	10.0 –	4 0 –	–	–	209.0	–
W Va	9 0 –	I	I	2.0 –	2.0 –	I	5.0 –	3.0 –	5.0	–			3.0	1.0		30.0	–
East South Central																	
Ala	24.0 3.0	2.0	2.0 −1.0	5.0 −1.0	15.0 –	3.0 –	7.0 –	2.0 −1.0	17.0 –	– –	– –	– –	2.0 –	18.0 −3.0	1.0 –	98.0	9.0
Ky	4.0 2 0	0.5 −0.5	0.5	1.5 0.8	8.5 −1.5	2.0 −1.0	13.0 +2.5	3.0 –	3.0 −1.0	1.0 –	6.5 +0.5	4 0 2.0	4.0 1.0		– –	51.5	−6.8
Miss.	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	–	– –	32.0	–
Tenn.	40.0 −3.5	1.0 −0.5	1.0 −0.5	4 0 −1.0	3.0 −3.0	– –	3.0	– –	6.0 −4.5	– –	– –		6.0 –	1 0 –	– –	65.0	−13.0
West South Central																	
Ark	10.0 −2.0	1.0 −1.0	1.0 –	1.0	5.0 −1.0	1.0 –	6.0 +2.0	– –	9.0 +1.0	19.0 –	– –	−2.0	2.0 1.0	–	–	55.0	−4.0
La	19 0 +4.0	1.0 +0.5	5.0 –	6.0 +1.0	14.0 −4.5	–	8.0 +3.5	– –	13.0 −3 0	21.0	– –	– –	2.0 +2 0	1.0 −3 0	6.0 +6.0	96.0	+6.5
Okla	9 8 –	1.0 –	1.0	4 0 –	9.5 –	0.5 –	2 9 –	– –	7.0 –	0.1	– –	– –	1.0	1.2 –	– –	38.0	–
Tex	18.0 −6.0	2.0 −1.0	7.0 –	10.0 −2.0	11.0 −2.0	3.0 +1.0	14.0 −4.0	– –	5.0 −3.0	29.0 −5.0	7.0 +6.0	2.0	6.0 7.0	11.0 +4.0	–	125.0	−19.0
Mountain																	
Ariz.	5.0 +1.0	2.0 1.0	3.0	1.0 −1.0	4.0	– –	– –	– –	5.0	15.0 –	1.0 –	– –	5.0 +1.0	– –	1.0 –	42.0	–
Colo.	6.0 +0.5	– −0.5	1.0	2.0 +1.0	2.0 −3 0	– –	8.0 –	– –	5.0 +1.0	19.0 –	– −1.0	5.0 –	– −1.0	1.0 –	– –	49.0	−3.0
Ida	7.5 −1.0	I	I	2.0 −1.0	1.0 +1.0	– –	– –	3.0 –	4.95 −2.05	8.75 −2 25	– –	7.5 −2.0	3.5 +3.5	– –	– –	38.2	−3.8
Mont	3.98 −01	I	I	3.0 +0.5	0.96	– –	– –	– –	2.4 −0.3	7.45 –	0.5 –	– –	0.71 −1.19	–	– –	19.0	−1.0
Nev	7.0	I	I	0.2 –	0.8	0.5 –	0.5 –	– –	1.5 –	7.0 –	– –	– –	1.0 –	1.5 –	– –	20.0	–
N M	8.0 +0.6	3.0 –	I	4 0	5.25 +0.25	V	4.0 +4 0	2.0 +1.0	5.25 −0.35	15 0 +2.0	X	8.0 −3.0	1.0	–	– –	55.5	+4.5
Utah	4 0 –	1.0 –	1.0 –	3.0 –	3.0	– –	4.0	– –	1.0 –	21.0 +4.5	1.0 –	6.0 –	6.0 +2.0	–	– –	51.0	+6.5
Wyo	4.5 –	– –	I	– –	1.0	– –	– –	– –	0.5 –	– –	–	3.0 –	1.0	– –	– –	10.0	–
Pacific																	
Alaska	14 16 –	0.12	1.8	4.36 –	1 6 –	– –	– –	– –	0.8 –	0.74 –	– –	– –	0.42		– –	24 0	+4.0
Cal	15.5 –	8.5 –	3.0 –	38.0 +4.0	18.0 –	– –	25.0 +5.0	– –	5.0 –	88.0 +19.55	36.0 −14 5	1.0 –	30.0 +1.1	– –	10.0 +6.0	278.0	+21.15
Hawaii	14 5 –	0.5 –	1 0	2.0 –	3.0 –	– –	0.5 –	– –	4.0 –	13.0 –	–	0.5 –	0.5 –	– –	– –	39.5	–
Ore.	10.75 +2.0	1.0 –	1.0	3.0 −2.0	10.0 −2.0	– –	7.0 –	– –	3.5 −0.5	– –	– –	– –	4.0	– –	– –	40.25	−2.5
Wash.	8.0 –	1.0 –	1.0 –	2.0 –	1.0 –	– –	3.0 –	– –	2.0 –	11.0 –	– –	– –	6.0 −1.0	– –	– –	35.0	−1.0
Territories																	
Guam	3 0 –	– –	1.0 –	– –	1.0 –	2.0 –	1.0 –	– –	– –	– –	– –	– –	– –	– –	– –	8.0	–
P R	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	– –	92.0	–
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	**157,488,127**	**92,274,600**	**18,780,187**	**70.5**	**18,591,493**	**11.8**	**7,115,798**	**4.5**	**13,824,582**	**8.8**	**6,901,467**	**4.4**
Average	3,088,002	1,809,306	368,239	–	364,539	–	139,525	–	271,070	–	135,323	–
New England	**14,608,688**	**9,063,612**	**2,117,021**	**76.5**	**1,172,855**	**8.0**	**539,280**	**3.7**	**1,357,817**	**9.3**	**358,103**	**2.5**
Conn.	5,128,935	3,469,294	990,771	87.0	401,607	7 8	207,780	4 0	44,012	0.9	15,471	0.3
Mass.	5,010,853	2,661,053	585,431	64.8	322,213	6.4	49,380	1.0	1,128,868	22.5	263,908	5.3
Me.	1,212,225	691,487	115,728	66.6	119,689	9.9	143,203	11.8	73,808	6.1	68,310	5.6
N.H.	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	2,692,866	1,822,868	382,802	81.9	256,583	9 5	132,563	5.0	92,050	3.4	6,000	0.2
Vt.	563,809	418,910	42,289	81.8	72,763	12.9	6,354	1.1	19,079	3.4	4,414	0.8
Middle Atlantic	**8,367,902**	**4,610,431**	**1,400,553**	**71.9**	**821,725**	**9.8**	**178,013**	**2.1**	**586,212**	**7.0**	**770,968**	**9.2**
N.J.	5,466,902	3,204,431	606,553	69.7	644,725	11.8	137,013	2.5	131,212	2.4	742,968*	13.6
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	2,901,000	1,406,000	794,000	75.8	177,000	6.1	41,000	1.4	455,000	15.7	28,000	1.0
East North Central	**28,280,132**	**17,107,428**	**3,751,509**	**73.8**	**2,960,569**	**10.5**	**1,006,134**	**3.5**	**3,183,932**	**11.3**	**270,560**	**0.9**
Ill.	3,564,600	2,443,000	312,900	77.3	495,400	13.9	36,000	1.0	216,593	6.1	60,707	1.7
Ind.	2,055,932	1,465,347	263,762	84 1	–	–	–	–	320,570	15.6	6,253	0.3
Mich.	11,993,874	7,442,244	1,924,442	78.1	837,129	7.0	260,923	2 2	1,468,197	12.2	60,939	0.5
Ohio	4,931,460	2,394,953	526,890	59.2	635,805	12.9	316,153	6.4	1,034,673	21.0	22,986	0.5
Wisc.	5,734,266	3,361,884	723,515	71.3	992,235	17.3	393,058	6.8	143,899	2.5	119,675	2.1
West North Central	**11,008,780**	**6,604,492**	**1,129,836**	**70.3**	**1,426,129**	**12.9**	**562,415**	**5.1**	**1,010,568**	**9.2**	**275,340**	**2.5**
Ia.	3,495,524	2,005,325	382,926	68.3	358,870	10.3	279,707	8.0	386,239	11.0	82,457	2.4
Kans.	1,934,358	1,216,690	183,478	72.4	164,645	8.5	123,785	6.4	113,107	5.8	132,653	6.9
Minn.	1,779,249	1,178,891	258,781	80.8	229,556	12.9	13,678	0.8	93,502	5.2	4,841	0.3
Mo.	1,805,439	1,103,317	125,128	68.1	397,820	22.0	56,139	3.1	101,102	5.6	21,933	1.2
Nebr.	712,987	330,811	40,520	52.1	109,431	15.4	40,155	5.6	183,836	25.8	8,234	1.1
N.D	668,105	435,765	89,253	78.6	80,209	12.0	34,048	5.1	17,970	2.7	10,860	1.6
S.D.	613,118	333,693	49,750	62.6	85,598	14.0	14,903	2.4	114,812	18.7	14,362	2.3
South Atlantic	**32,522,824**	**20,727,733**	**2,865,143**	**72.5**	**4,254,537**	**13.1**	**1,563,510**	**4.8**	**2,670,890**	**8.2**	**441,011**	**1.4**
Del.	686,446	453,171	114,376	82.7	82,828	12.1	10,900	1.6	21,103	3.0	4,068	0.6
D.C.	1,078,600	709,700	136,300	78.4	114,500	10.6	39,400	3.7	78,700	7.3	–	–
Fla.	6,045,641	3,633,325	637,800	70.7	766,717	12.7	321,029	5.3	485,146	8.0	201,624	3.3
Ga.	2,862,072	1,897,675	442,459	81.8	392,375	13.7	49,225	1.7	14,000	0.5	66,338	2.3
Md.	5,397,411	3,936,811	–	72.9	996,362	18.5	120,112	2.2	338,159	6.3	5,967	0.1
N.C.	3,772,973	2,326,759	427,400	73.0	468,771	12.4	307,066	8.1	202,568	5.4	40,409	1.1
S.C.	3,167,989	1,589,157	261,229	58.4	431,789	13.6	23,096	0.7	750,124	23.7	112,594	3.6
Va.	8,509,036	5,542,562	790,981	74.4	854,425	10.1	607,330	7.1	712,910	8.4	828	–
W.Va	1,002,656	638,573	54,598	69.1	146,770	14.7	85,352	8 5	68,180	6.8	9,183	0.9
East South Central	**9,745,076**	**5,953,495**	**1,078,546**	**72.2**	**1,389,660**	**14.3**	**292,079**	**3.0**	**734,667**	**7.5**	**296,629**	**3.0**
Ala.	3,839,898	2,465,514	480,775	76.7	463,748	12.1	41,954	1.1	374,420	9.8	13,487	0.3
Ky.	2,224,850	1,219,581	197,168	63.7	449,106	20.2	118,337	5.3	13,182	0.6	227,496*	10.2
Miss.	1,207,215	704,266	140,853	70.0	179,430	14.9	81,300	6.7	98,090	8.1	3,276	0.3
Tenn.	2,473,113	1,564,154	259,750	73.8	297,376	12.0	50,488	2.0	248,975	10.1	52,370	2.1
West South Central	**12,417,511**	**6,958,074**	**1,299,734**	**66.5**	**1,819,908**	**14.7**	**986,074**	**7.9**	**1,218,094**	**9.8**	**135,627**	**1.1**
Ark.	1,399,616	842,472	172,904	72.6	226,592	16.2	94,148	6.7	–	–	63,500	4.5
La.	3,690,102	2,510,513	283,421	75.7	352,036	9.5	207,311	5 6	312,494	8.5	24,327	0.7
Okla.	1,114,793	784,089	194,409	87.8	97,280	8.7	22,615	2.0	6,600	0.6	9,800	0.9
Tex.	6,213,000	2,821,000	649,000	55.8	1,144,000	18.4	662,000	10 7	899,000	14.5	38,000	0.6
Mountain	**11,724,800**	**7,165,857**	**1,348,007**	**72.6**	**1,380,894**	**11.8**	**736,866**	**6.3**	**992,760**	**8.5**	**100,416**	**0.8**
Ariz.	1,928,504	1,047,178	221,778	65.8	210,207	10.9	196,707	10 2	233,349	12.1	19,285	1.0
Colo.	1,729,174	1,176,195	175,176	78.2	355,698	20.6	10,289	0.6	4,191	0.2	7,625	0.4
Ida.	1,942,897	1,257,757	245,263	77.4	323,008	16.6	116,869	6.0	–	–	–	–
Mont.	619,068	406,752	78,641	78.4	49,942	8 1	16,037	2.6	55,409	8.9	12,287	2.0
Nev.	768,027	533,013	101,526	82.6	55,836	7.3	11,421	1.5	59,644	7.8	6,587	0.8
N.M.	2,309,898	1,247,417	184,707	62.0	227,413	9 9	314,608	13.6	310,458	13.4	25,295	1.1
Utah	1,970,035	1,238,427	294,879	77.8	107,967	5.5	35,161	1.8	281,325	14.3	12,276	0.6
Wyo.	457,197	259,118	46,037	66.8	50,823	11.1	35,774	7.8	48,384	10 6	17,061	3.7
Pacific	**27,584,278**	**13,222,217**	**3,735,740**	**61.5**	**3,153,515**	**11.4**	**1,201,119**	**4.4**	**2,050,688**	**7.4**	**4,220,999**	**15.3**
Alaska	1,597,810	763,191	313,474	67.4	120,119	7 5	96,000	6.0	287,220	18.0	17,806	1.1
Cal.	20,707,333	9,254,089	2,708,724	57.8	2,504,283	12 1	815,110	3.9	1,335,020	6.4	4,090,107	19 8
Hawaii	1,159,815	751,806	132,671	76.3	145,057	12.5	88,491	7.6	33,870	2 9	7,920	0.7
Ore.	1,449,211	862,160	258,489	77.3	88,064	6.1	11,691	0.8	185,811	12.8	42,996	3.0
Wash.	2,670,109	1,590,971	322,382	71.7	295,992	11.1	189,827	7.1	208,767	7.8	62,170	2.3
Territories	**1,228,136**	**861,261**	**54,098**	**74.5**	**211,701**	**17.3**	**50,308**	**4.1**	**18,954**	**1.5**	**31,814**	**2.6**
Guam	274,710	177,435	20,274	72.0	51,265	18.7	18,970	6.9	–	–	6,766	2.4
P.R.	953,426	683,826	33,824	75.3	160,436	16.8	31,338	3.3	18,954	2.0	25,048	2.6
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	**157,488,127**	**24,290,544**	**78.9**	**22,299,407**	**14.2**	**8,456,311**	**5.4**	**2,441,865**	**1.5**
Average	3,088,002	2,437,069	–	437,243	–	165,810	–	47,880	–
New England	**14,608,688**	**12,477,905**	**85.4**	**1,347,677**	**9.2**	**659,106**	**4.5**	**124,000**	**0.9**
Conn.	5,128,935	4,681,512	91.3	447,423	8.7	–	–	–	–
Mass.	5,010,853	4,672,202	93.2	338,651	6.8	–	–	–	–
Me.	1,212,225	330,753	27.3	98,366	8.1	659,106	54.4	124,000	10.2
N.H.	–	–	–	–	–	–	–	–	–
R.I.	2,692,866	2,455,208	91.2	237,658	8.8	–	–	–	–
Vt.	563,809	338,230	60.0	225,579	40.0	–	–	–	–
Middle Atlantic	**8,367,902**	**7,181,325**	**85.8**	**660,968**	**7.9**	**495,609**	**5.9**	**30,000**	**0.4**
N.J.	5,466,902	4,697,325	85.9	273,968	5.0	495,609	9.1	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	2,901,000	2,484,000	85.6	387,000	13.4	–	–	30,000	1.0
East North Central	**28,280,132**	**20,079,461**	**71.0**	**5,282,011**	**18.7**	**1,781,469**	**6.3**	**1,137,191**	**4.0**
Ill.	3,564,600	2,178,700	61.1	1,385,900	38.9	–	–	–	–
Ind.	2,055,932	1,747,065	85.0	308,867	15.0	–	–	–	–
Mich.	11,993,874	10,853,126	90.5	918,094	7.6	–	–	222,654	1.9
Ohio	4,931,460	1,948,862	39.5	2,065,350	41.9	2,711	0.1	914,537	18.5
Wisc.	5,734,266	3,351,708	58.5	603,800	10.5	1,778,758	31.0	–	–
West North Central	**11,008,780**	**6,699,247**	**60.9**	**3,264,267**	**29.6**	**977,572**	**8.9**	**67,694**	**0.6**
Ia.	3,495,524	1,894,583	54.2	860,066	24.6	740,875	21.2	–	–
Kans.	1,934,358	1,522,094	78.7	412,264	21.3	–	–	–	–
Minn.	1,779,249	1,376,164	77.4	403,085	22.6	–	–	–	–
Mo.	1,805,439	836,559	46.3	901,186	49.9	–	–	67,694	3.8
Nebr.	712,987	363,508	51.0	196,285	27.5	153,194	21.5	–	–
N.D.	668,105	389,728	58.3	278,377	41.7	–	–	–	–
S.D.	613,118	316,611	51.7	213,004	34.7	83,503	13.6	–	–
South Atlantic	**32,522,824**	**26,984,448**	**83.0**	**3,469,651**	**10.7**	**1,374,586**	**4.2**	**694,139**	**2.1**
Del.	686,446	285,746	41.6	400,700	58.4	–	–	–	–
D.C.	1,078,600	901,100	83.5	177,500	16.5	–	–	–	–
Fla.	6,045,641	4,450,637	73.6	1,226,687	20.3	224,447	3.7	143,870	2.4
Ga.	2,862,072	2,506,547	87.6	148,525	5.2	207,000	7.2	–	–
Md.	5,397,411	4,955,051	91.8	429,573	8.0	12,787	0.2	–	–
N.C.	3,772,973	2,555,850	67.7	697,737	18.5	519,386	13.8	–	–
S.C.	3,167,989	2,233,028	70.5	135,731	4.3	248,961	7.8	550,269	17.4
Va.	8,509,036	8,347,031	98.1	–	–	162,005	1.9	–	–
W.Va.	1,002,656	749,458	54.8	253,198	25.2	–	–	–	–
East South Central	**9,745,076**	**8,060,542**	**82.7**	**827,925**	**8.5**	**733,991**	**7.5**	**122,618**	**1.3**
Ala.	3,839,898	3,706,390	96.5	125,000	3.3	8,508	0.2	–	–
Ky.	2,224,850	1,877,512	84.4	271,012	12.2	76,326	3.4	–	–
Miss.	1,207,215	304,002	25.2	374,272	31.0	528,941	43.8	–	–
Tenn.	2,473,113	2,172,638	87.9	57,641	2.3	120,216	4.8	122,618	5.0
West South Central	**12,417,511**	**10,401,839**	**83.8**	**1,851,137**	**14.9**	**499**	–	**164,036**	**1.3**
Ark.	1,399,616	1,121,320	80.1	278,296	19.9	–	–	–	–
La.	3,690,102	2,911,286	78.9	614,281	16.7	499	–	164,036	4.4
Okla.	1,114,793	1,031,233	92.5	83,560	7.5	–	–	–	–
Tex.	6,213,000	5,338,000	85.9	875,000	14.1	–	–	–	–
Mountain	**11,724,800**	**7,872,888**	**67.1**	**2,733,462**	**23.3**	**1,051,893**	**9.0**	**66,557**	**0.6**
Ariz.	1,928,504	1,654,509	85.8	273,995	14.2	–	–	–	–
Colo.	1,729,174	646,228	37.4	940,236	54.4	142,710	8.2	–	–
Ida.	1,942,897	1,252,600	64.5	439,607	22.6	202,414	10.4	48,276	2.5
Mont.	619,068	264,973	42.8	273,727	44.2	80,368	13.0	–	–
Nev.	768,027	553,217	72.0	210,810	27.5	4,000	0.5	–	–
N.M.	2,309,898	1,913,448	82.8	85,800	3.7	310,650	13.5	–	–
Utah	1,970,035	1,287,627	65.4	370,657	18.8	311,751	15.8	–	–
Wyo.	457,197	300,286	65.7	138,630	30.3	–	–	18,281	4.0
Pacific	**27,584,278**	**23,417,897**	**84.9**	**2,749,165**	**10.0**	**1,381,586**	**5.0**	**35,630**	**0.1**
Alaska	1,597,810	1,537,197	96.2	24,983	1.6	–	–	35,630	2.2
Cal.	20,707,333	17,963,370	86.8	1,908,110	9.2	835,853	4.0	–	–
Hawaii	1,159,815	961,736	82.9	198,079	17.1	–	–	–	–
Ore.	1,449,211	1,064,128	73.4	109,257	7.5	275,826	19.1	–	–
Wash.	2,670,109	1,891,466	70.8	508,736	19.1	269,907	10.1	–	–
Territories	**1,228,136**	**1,114,992**	**90.8**	**113,144**	**9.2**	–	–	–	–
Guam	274,710	202,462	73.7	72,248	26.3	–	–	–	–
P.R.	953,426	912,530	95.7	40,896	4.3	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

DITURE

Lab & Region	Total Lab Expenditure	I Diagnostic Bacteriology		gy	XIII Lab Improvement Program		XIV Biol., Reagent Media Prod.		XV Research & Development		XVI Administrative Support & Other	
		$	%	%	$	%	$	%	$	%	$	%
New England												
Conn.	5,128,935	400,000	7.8	13.1	256,000	5.0	74,000	1.4	–	–	1,538,680	30.0
Mass.	5,010,853	341,649	6.8	–	28,470	0.6	683,298	13.6	28,470	0.6	2,932,492	58.5
Me.	1,212,225	120,056	9.9	XI	71,330	5.9	–	–	52,431	4.3	182,754	15.1
N.H.	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	2,692,866	283,305#	10.5	18.6	51,772	1.9	–	–	–	–	607,122	22.6
Vt.	563,809	84,000	14.9	7.8	2,300	0.4	23,500	4.2	–	–	116,009	20.6
Middle Atlantic												
N.J.	5,466,902	800,747	14.7	–	521,719	9.5	–	–	–	–	1,798,778	32.9
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	2,901,000	551,000#	19.0	6.0	522,000	18.0	–	–	–	–	812,000	28.0
East North Central												
Ill.	3,564,600	1,001,868#	28.1	10.5	381,725	10.7	119,000	3.3	–	–	290,783	8.2
Ind.	2,055,932	465,052#	22.6	–	48,931	2.4	73,397	3.6	–	–	342,724	16.7
Mich.	11,993,874	3,219,533#	26.9	–	361,604	3.0	2,912,893	24.3	1,514,434	12.6	3,985,410	33.2
Ohio	4,931,460	1,931,061#	39.2	13.5	252,027	5.1	99,377	2.0	–	–	608,783	12.3
Wisc.	5,734,266	456,427	8.0	6.1	192,058	3.3	151,295	2.6	100,516	1.7	968,303	16.9
West North Central												
Ia.	3,495,524	254,367	7.3	0.5	156,078	4.5	40,839	1.2	–	–	1,016,716	29.1
Kans.	1,934,358	875,920#	45.3	VII	152,976	7.9	–	–	–	–	263,756	13.6
Minn.	1,779,249	226,713	12.7	–	184,528	10.4	–	–	–	–	607,604	34.2
Mo.	1,805,439	–	–	–	–	–	–	–	–	–	–	–
Nebr.	712,987	110,231#	15.5	9.0	–	–	–	–	–	–	–	–
N.D.	668,105	173,733#	26.0	–	20,093	3.0	24,146	3.6	–	–	149,762	22.4
S.D.	613,118	141,812#	23.1	–	116,323	19.0	–	–	–	–	185,832	30.3
South Atlantic												
Del.	686,446	75,010	10.9	2.8	8,707	1.3	–	–	–	–	212,498	31.0
D.C.	1,078,600	229,100#	21.2	10.7	32,700	3.0	37,100	3.4	–	–	236,800	22.0
Fla.	6,045,641	–	–	–	–	–	–	–	–	–	–	–
Ga.	2,862,072	872,164	30.5	3.0	–	–	187,138	6.5	9,405	0.3	395,423	13.8
Md.	5,397,411	1,261,387	23.4	0.7	126,349	2.3	–	–	–	–	–	–
N.C.	3,772,973	569,134#	15.1	VII	186,632	5.0	–	–	IV		–	–
S.C.	3,167,989	393,215	12.4	3.6	95,057	3.0	56,164	1.8	–	–	1,366,692	43.1
Va.	8,509,036	–	–	–	–	–	–	–	–	–	–	–
W.Va.	1,002,656	102,675#	10.2	–	77,679	7.7	227,758	22.7	–	–	71,996	7.2
East South Central												
Ala.	3,839,898	656,304#	17.1	–	XVI		565,444	14.7	I		1,103,040	28.7
Ky.	2,224,850	189,031	8.5	8.1	121,573	5.4	–	–	–	–	71,048	3.2
Miss.	1,207,215	352,887	29.2	–	5,239	0.4	–	–	–	–	–	–
Tenn.	2,473,113	454,649	18.4	–	197,377	8.0	110,973	4.5	–	–	994,382	40.2
West South Central												
Ark.	1,399,616	279,923	20.0	6.3	–	–	–	–	–	–	201,168	14.4
La.	3,690,102	385,808	10.5	0.7	25,801	0.7	–	–	215,000	5.8	983,284	26.6
Okla.	1,114,793	195,731#	17.6	–	–	–	87,118	7.8	–	–	358,435	32.2
Tex.	6,213,000	565,000	9.1	1.6	193,000	3.1	279,000	4.5	–	–	1,676,000	27.0
Mountain												
Ariz.	1,928,504	224,957#	11.7	–	182,156	9.4	–	–	–	–	–	–
Colo.	1,729,174	160,900	9.3	8.7	–	–	44,300	2.6	–	–	130,074	7.5
Ida.	1,942,897	850,303#	43.8	19.3	196,923	10.1	–	–	158,513	8.2	I	
Mont.	619,068	77,476	12.5	XI	14,281	2.3	–	–	–	–	142,983	23.1
Nev.	768,027	92,163#	12.0	–	61,442	8.0	61,442	8.0	–	–	222,728	29.0
N.M.	2,309,898	305,814#	13.2	16.4	39,599	1.7	–	–	–	–	201,094	8.7
Utah	1,970,035	448,395#	22.8	11.7	214,721	10.9	–	–	–	–	348,139	17.7
Wyo.	457,197	154,972#	33.9	36.3	41,222	9.0	–	–	–	–	95,184	20.8
Pacific												
Alaska	1,597,810	883,396	55.3	–	26,206	1.6	–	–	–	–	100,527	6.3
Cal.	20,707,333	–	–	–	–	–	–	–	–	–	–	–
Hawaii	1,159,815	326,011	28.1	0.1	13,510	1.2	–	–	–	–	97,687	8.4
Ore.	1,449,211	234,215#	16.2	–	108,053	7.4	–	–	–	–	205,661	14.2
Wash.	2,670,109	–	–	–	–	–	–	–	–	–	–	–
Territories												
Guam	274,710	–	–	–	–	–	–	–	–	–	–	–
P.R.	953,426	–	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–	–	–

#This amount includes one or more other categories which are

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 Safety Health		XII Toxicology		XIII Lab Improvement Program		XIV Biol. Reagent Media Prod		XV Research & Development		XVI Administrative Support & Other	
		$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%
New England																																	
Conn.	5,128,935	400,000	7.8	46,000	0.9	111,780	2.2	87,560	1.7	377,580	7.4	47,000	0.9	500,000	9.7	10,000	0.2	121,000	2.4	842,000	16.4	45,000	0.9	672,335	13.1	256,000	5.0	74,000	1.4			1,538,680	30.0
Mass	5,010,853	341,649	6.8	28,470	0.6	28,470	0.6	313,178	6.2	227,766	4.5	–	–	370,120	7.4	–	–	–	–	–	–	28,470	0.6			28,470	0.6	683,298	13.6	28,470	0.6	2,932,492	58.5
Me	1,212,225	120,056	9.9	3,582	0.3	3,042	0.3	30,667	2.5	93,527	7.7	–	–	75,561	6.2			78,491	6.5	253,896	20.9	246,888#	20.4		XI	71,330	5.9			52,431	4.3	182,754	15.1
N.H	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			–	–	–	–	–	–			–	–					–	–
R.I	2,892,866	283,305#	10.5		I		I			180,678	6.7	–	–	153,910	5.7	–	–	268,543	10.0	613,771	22.8	32,953	1.2	500,812	18.6	51,772	1.9					607,122	22.8
Vt	583,809	84,000	14.9	11,700	2.0	29,400	5.2	14,100	2.5	89,000	15.8					–	–	45,100	8.0	58,600	10.4	46,000	8.2	44,100	7.8	2,300	0.4	23,500	4.2			116,009	20.6
Middle Atlantic																																	
N.J.	5,466,902	800,747	14.7	–	–	–	–	501,073	9.2	–	–	234,983	4.3	1,609,602#	29.4	–	–				VII					521,719	9.5					1,798,778	32.9
N.Y	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	2,901,000	551,000#	19.0		I		I	435,000#	15.0		IV	406,000#	14.0		VI	–	–	–	–	–	–	–	–	175,000	6.0	522,000	18.0					812,000	28.0
East North Central																																	
Ill.	3,564,600	1,001,868#	28.1		I		I	296,407	8.3		I	–	–	306,896	8.6	–	–	794,175#	22.3		IX			373,746	10.5	381,725	10.7	119,000	3.3			290,783	8.2
Ind	2,055,932	465,052#	22.6		I		I	122,328	6.0	97,862	4.7	–	–	–	–	–	–	905,638#	44.0		IX					48,931	2.4	73,397	3.6			342,724	16.7
Mich.	11,993,874	3,219,533#	26.9						I		I		I		I		I									361,804	3.0	2,912,893	24.3	1,514,434	12.8	3,985,410	33.2
Ohio	4,931,460	1,931,061#	39.2		I		I		I		I	–	–	123,417	2.5	–	–	1,252,201#	25.4		IX		IX	664,594	13.5	252,027	5.1	99,377	2.0			608,783	12.3
Wisc.	5,734,266	456,427	8.0	79,796	1.4	–	–	605,378	10.6	617,161	10.8	–	–	632,585	11.0	537,929	9.4	961,636#	16.8		IX	80,500	1.4	350,682	6.1	192,058	3.3	151,295	2.6	100,516	1.7	908,303	16.9
West North Central																																	
Ia	3,495,524	254,367	7.3	41,164	1.2	17,433	0.5	185,049	5.3	110,398	3.2	–	–	146,601	4.2	–		130,299	3.7	1,182,514	33.8	195,908	5.6	18,158	0.5	156,078	4.5	40,839	1.2			1,016,716	29.1
Kans.	1,934,358	875,920#	45.3		I		I		I		I	–	–	641,706#	33.2				I		VII		VII		VII	152,976	7.9					263,756	13.6
Minn	1,779,249	226,713	12.7	27,481	1.5	48,091	2.7	154,768	8.7	321,428	18.1	–	–	208,636#	11.7		VII									184,528	10.4					807,604	34.2
Mo.	1,805,439	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nabr.	712,987	110,231#	15.5		I		I	42,736	6.0	132,428	18.6	–	–	35,482	5.0	–	–	129,886	18.2	197,860	27.7			64,364	9.0								
N.D.	668,105	173,733#	26.0		I		I		I		I	–	–	53,890	8.1	–	–	48,176	7.2	198,305	29.7					20,093	3.0	24,146	3.6			149,762	22.4
S.D	613,118	141,812#	23.1		I		I		I		I	–	–	–	–	–	–	169,151#	27.6		IX					116,323	19.0					185,832	30.3
South Atlantic																																	
Del.	686,446	75,010	10.9	1,274	0.2	5,815	0.8	81,021	11.8	22,802	3.3	7,490	1.1	14,789	2.2	120,528	17.6	48,073	7.0	68,744	10.0	213	–	19,482	2.8	8,707	1.3					212,498	31.0
D.C.	1,078,600	229,100#	21.2		I		I		I	189,100	17.5	–	–	85,000	7.9	83,700	7.8	30,300	2.8	39,700	3.7			115,100	10.7	32,700	3.0	37,100	3.4			236,800	22.0
Fla	6,045,641	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ga	2,862,072	872,164	30.5	79,730	2.8	153,698	5.4	233,370	8.2	449,882	15.7	97,372	3.4	281,246	9.8	–	–	–	–	–	–	16,644	0.6	86,000	3.0			187,138	8.5	9,405	0.3	395,423	13.8
Md.	5,397,411	1,261,387	23.4	16,732	0.3	35,296	0.7	175,002	3.2	1,338,967	24.8	263,985	4.9	444,059	8.2	375,098	7.0	290,448	5.4	911,912	16.9	118,176	2.2	40,000	0.7	126,349	2.3						
N.C.	3,772,973	569,134#	15.1		I		I	661,487#	17.5			VII		620,131#	16.4	513,251	13.6		X	1,222,338#	32.4		X		VII	186,632	5.0				IV		
S.C.	3,167,989	393,215	12.4	59,823	1.9	33,328	1.0	449,924#	14.2		IV	256,950#	8.1		VI	–	–	293,749#	9.3		IX	49,544	1.6	113,543	3.6	95,057	3.0	58,184	1.8			1,366,692	43.1
Va.	8,509,036	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
W.Va.	1,002,656	102,675#	10.2	57,464	5.7		I	57,718	5.8	88,118	8.8		I	147,344	14.7	71,962	7.2	99,942	10.0							77,679	7.7	227,758	22.7			71,996	7.2
East South Central																																	
Ala.	3,839,898	656,304#	17.1	64,816	1.7	67,109	1.7	128,023	3.3	463,914	12.1	247,638#	6.5		VI	60,789	1.6	482,821	12.6				XVI				XVI	565,444	14.7		I	1,103,040	28.7
Ky.	2,224,850	189,031	8.5	17,804	0.8	16,869	0.8	59,949	2.7	413,545	18.6	96,014	4.3	413,637	18.6	332,853	15.0	109,808	4.9	53,336	2.4	148,286	6.7	181,157	8.1	121,573	5.4					71,048	3.2
Miss.	1,207,215	352,887	29.2	14,463	1.2	21,397	1.8	9,427	0.8	178,151	14.8	157,149	13.0	113,856	9.4	–	–	280,350	23.2	74,296	6.2					5,239	0.4						
Tenn.	2,473,113	454,649	18.4	22,727	0.9	42,206	1.7	118,889	4.8	217,647	8.8	–	–	136,847	5.5	–	–	177,416	7.2							197,377	8.0	110,973	4.5			994,382	40.2
West South Central																																	
Ark.	1,399,616	279,923	20.0	39,988	2.9	18,992	1.3	18,991	1.3	129,213	9.2	18,000	1.3	79,676	5.7	–	–	180,530	12.9	345,125	24.7	–	–	88,010	8.3	–	–	–	–			201,168	14.4
La.	3,690,102	385,808	10.5	24,933	0.7	100,002	2.7	65,685	1.8	442,912	12.0	115,284	3.1	169,708	4.6	–	–	668,914	18.1	468,374	12.7			24,397	0.7	25,801	0.7			215,000	5.8	983,284	26.6
Okla	1,114,793	195,731#	17.6		I		I	111,730	10.0	102,882	9.2	77,486	6.9	108,175	9.7	–	–	73,236#	6.6		IX							87,118	7.8			358,435	32.2
Tex	6,213,000	565,000	9.1	63,000	1.0	209,000	3.4	342,000	5.5	412,000	6.6	146,000	2.3	680,000	10.9	–	–	157,000	2.5	1,130,000	18.2	264,000	4.3	97,000	1.6	193,000	3.1	279,000	4.5			1,876,000	27.0
Mountain																																	
Ariz.	1,928,504	224,957#	11.7	152,864	7.9		I	228,538	11.9	418,700	21.7	–	–	–	–	–	–	290,357	15.1	381,804	19.8	49,128	2.5			182,156	9.4						
Colo.	1,729,174	160,900	9.3	6,100	0.3	22,300	1.3	23,800	1.4	171,000	9.9	–	–	275,900	16.0			162,400	9.4	581,700	33.6	–	–	150,700	8.7			44,300	2.6			130,074	7.5
Ida.	1,942,897	850,303#	43.8		I		I		I		I		I		I		I		I	361,808	18.6	–	–	375,350	19.3	196,923	10.1			158,513	8.2		I
Mont.	619,068	77,476	12.5	29,293#	4.7		II	112,934#	18.2		IV	–	–	–	–	–	–	61,156	10.0	161,732	26.1	19,213#	3.1		XI	14,281	2.3					142,983	23.1
Nev.	768,027	92,163#	12.0		I		I	7,681	1.0	46,082	6.0	15,360	2.0	15,360	2.0	–	–	46,082	8.0	199,687	26.0					81,442	8.0	81,442	8.0			222,728	29.0
N.M	2,309,898	305,814#	13.2	107,608	4.7		I	207,887	9.0	176,984#	7.7		V	4,606	0.2	75,890	3.3	228,825	9.9	581,848#	25.2		X	379,743	16.4	39,599	1.7					201,094	8.7
Utah	1,970,035	448,395#	22.8		I		I		I		I	–	–	174,004	8.8	–	–		I	554,173#	28.1		X	230,603	11.7	214,721	10.9					348,139	17.7
Wyo.	457,197	154,972#	33.9	–	–		I		I	–	–	–	–	–	–	–	–		I					165,819	36.3	41,222	9.0					95,184	20.8
Pacific																																	
Alaska	1,597,810	883,396	55.3	7,486	0.5	112,296	7.0	272,006	17.0	99,818	6.3	–	–	–	–	–	–	49,909	3.1	46,166	2.9	–	–	–	–	26,206	1.6					100,527	6.3
Cal.	20,707,333	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hawaii	1,159,815	326,011	28.1	7,752	0.7	15,738	1.4	43,911	3.8	69,014	5.9	–	–	–	–	–	–	86,209	7.4	498,783	43.0			1,200	0.1	13,510	1.2					97,687	8.4
Ore.	1,449,211	234,215#	16.2		I		I	211,054	14.5	260,501	18.0	–	–	312,550	21.6	–	–	117,177	8.1	–	–	–	–	–	–	108,053	7.4					205,661	14.2
Wash.	2,670,109	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Territories																																	
Guam	274,710	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	953,426	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

#This amount includes one or more other catagories which are indicated by the Roman numeral heading this column.

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 — Pinworms (Microscopic examination of tape slide preparation for the detection of pinworms)	Micro. III Lab. Tech. II Clerk Typist II	.05 .05 .05	Pers. Supp.	2,252 365
				TOTAL	**2,617**
	Medicaid — Intestinal Parasites (Microscopic examination of formalized specimens for the detection of helminths and protozoa)	Micro. III Micro. II Lab. Tech. II Clerk Typist II	.10 .10 .15 .10	Pers. Supp.	6,982 364
				TOTAL	**7,346**
	Medicaid — Sickle cell (Electrophoretic separation of filter paper blood specimen for the detection of abnormal hemoglobin)	Micro. III Micro. II Micro. I Clerk Typist II	.30 .40 .40 .20	Pers. Supp.	21,683 5,007
				TOTAL	**26,690**
	Medicaid — VDRL (Nontreponemal blood test for screening of syphilis)	Micro. II Clerk Typist II	.05 .10	Pers. Supp.	1,973 173
				TOTAL	**2,146**
	Medicaid — GC (Statewide screening program for the detection of gonorrhea by cultural methods)	Micro. III Micro. II Clerk Typist II	— — —	Supp.	169
				TOTAL	**169**
Alaska	**Federal**				
	742 — V.D. Control (VD laboratory support)	Lab. Asst.	—	**TOTAL**	**1,983**
	750-ANHS-TB Control (Laboratory support)	Micro. II	—	**TOTAL**	**23,000**
	Local (Laboratory support)	Lab. Aid	—	**TOTAL**	**35,630**
Ariz.	**Federal**				
	EPA — Safe Drinking Water (Administer a voluntary certification program for environmental laboratories engaged in water analysis. Analyze bacterial water samples for the Indian Health Service.)	Lab. Cert. Consult. Chemist III	1.0 0.5	Pers. Supp. Other	38,297 2,083 651
				TOTAL	**41,031**
	EPA — Air Pollution Grant (Analyze air pollution samples for State Air Pollution Control Program)	Chemist III	1.0	Pers. Supp. Equip.	28,734 2,030 1,175
				TOTAL	**31,939**
	EPA — Water Pollution Grant (Chemical analysis of water samples for State Bureau of Water Quality)	Chemist III	0.5	Pers.	15,033
				TOTAL	**15,033**
	HIB — Medicare (Certify laboratories)	Lab. Cert. Consult. Typist II	1.0 0.5	Pers. Supp. Other	37,379 67 3,960
				TOTAL	**41,406**

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.)	**FDA — Food Inspection Grant** (Analysis of food samples)	—	—	Supp. **TOTAL**	4,545 **4,545**
	Arizona Dairy Commissioner (Analysis of dairy products submitted by the Dairy Commissioner for bacterial quality and chemically for pesticides and aflatoxin)	Lab. Tech. II Chemist III Chemist II	5.0 1.0 1.0	Pers. Supp. Equip. **TOTAL**	122,410 56,999 16,953 **196,362**
	Arizona Industrial Commission (Analysis of a variety of samples submitted to assist State's OSHA Program)	Chemist III	1.0	Pers. Supp. Equip. Other **TOTAL**	27,794 7,761 9,285 1,450 **46,290**
Ark.	Federal **Fluoride Grant**	—	1.0	Pers. **TOTAL**	6,295 **6,295**
	Anti-Recession Funds	—	—	Pers. **TOTAL**	172,451 **172,451**
	Blood Lead	—	1.0	Pers. Supp. **TOTAL**	3,929 8,107 **12,036**
	EPSDT	—	1.0	Pers. **TOTAL**	5,860 **5,860**
	Safe Drinking Water Act (Drinking Water Chem. Analysis)	—	—	Pers. Supp. **TOTAL**	44,931 16,085 **61,016**
	State **UAMSC — Library and Pharmacy** (Toxicology Service)	—	—	Other **TOTAL**	63,500 **63,500**
Cal.	Federal **Environmental Protection Agency** (Evaluate sampling and analytical problems in air pollution monitoring)	Res. Spec. III Air Poll. Res. Spec. Off. Asst. II Stud. Asst.	0.5 0.5 0.5 0.5	Pers. Supp. Equip. Other **TOTAL**	62,557 6,726 3,846 26,871 **100,000**
	(Validate samplers for inhaled particles)	Res. Spec. III Air. Poll. Res. Spec. Off. Asst. II Stud. Asst.	0.5 0.3 0.5 0.3	Pers. Supp. Equip. Other **TOTAL**	53,875 6,981 4,842 24,083 **89,781**
	(Water Virology Laboratory Unit. Develop and evaluate procedures for virus concentration and removal from water. Develop laboratory technics 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 Gen. Lab. Supp.	0.8 2.0 0.5	Pers. Supp. Other **TOTAL**	116,727 5,480 39,556 **161,763**

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.)	**National Institute of Health (NIAID)** (Molecular and Immunologic Study of Cytomegalovirus)	Res. Spec. II P.H. Micro. II Gen. Lab. Supp.	1.0 1.0 1.2	Pers. Supp. Other	75,596 4,700 1,812
				TOTAL	**82,108**
	(Characterization and Detection of Viruses and Antibodies)	Res. Spec. II P.H. Micro I Gen. Lab. Supp.	1.0 1.0 1.0	Pers. Supp. Equip. Other	79,091 7,141 1,000 1,900
				TOTAL	**89,132**
	NIH, National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) (Study of Lymphocyte Antibody Traffic in the Central Nervous System)	P.H. Micro II Gen. Lab. Supp.	1.8 1.2	Pers. Supp. Other	75,623 3,158 1,200
				TOTAL	**79,981**
	Health Effects Research Laboratory — EPA (Studies on viruses in water and reclaimed wastewater)	P.H. Micro. II Gen. Lab. Supp.	1.8 1.3	Pers. Supp. Other	72,358 6,000 17,698
				TOTAL	**96,056**
	NIH, 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**
	U.S. Army Medical Research and Development Command (Development of Psoralen Photoinactivated Alphavirus and Arenavirus Vaccines)	Res. Spec. III Gen. Lab. Supp.	1.0 1.0	Pers. Supp. Other	49,906 4,500 18,459
				TOTAL	**72,865**
	State **California Air Resources Board** (Determine acidity in ambient air)	Res. Spec. III Air Poll. Res. Spec. Stud. Asst.	0.2 0.3 0.5	Pers. Supp. Other	24,950 3,935 10,427
				TOTAL	**39,312**
	(Characterize organic particulate matter)	Res. Spec. III Air Poll. Res. Spec. P.H. Chem. II Stud. Asst.	0.3 0.2 1.5 0.3	Pers. Supp. Equip. Other	72,769 6,350 666 31,094
				TOTAL	**110,879**
	(Validate size selective samplers for use in California)	Res. Spec. III Air Poll. Res. Spec. Stud. Asst.	0.5 0.7 0.5	Pers. Supp. Equip. Other	40,089 5,019 21,326 15,964
				TOTAL	**82,398**

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	
Colo.	**Federal**				
	MCI & CC-B (Newborn Screening)	Micro. IV Micro. III Lab. Tech. Lab. Asst. Cler. Asst.	1.0 2.0 5.0 5.0 2.0	—	
	FDA (Food Analysis)	Chem. II	1.0	Pers. Supp. **TOTAL**	19,000 500 **19,500**
	State				
	State Division of Highway Safety (Alcohol and Toxicology Lab.)	Micro. IV	1.0	Pers. Supp. Equip. Other **TOTAL**	36,000 5,500 8,000 5,000 **54,500**
	Local				
	Mesa County Health Department (Local health department laboratory services)	Micro. IV Micro. II	1.0 0.5	Pers. Supp. **TOTAL**	34,000 6,000 **40,000**
Conn.	**Federal**				
	Medicare (Laboratory Improvement)	Sup. Med. Examiner Med. Examiner	0.6 2.2	Pers. **TOTAL**	61,675 **61,675**
	314d Block Grant (Toxicology Reports)	Clerk-Typist	0.5	Pers. **TOTAL**	5,000 **5,000**
	(Parasitology)	Sr. Micro.	0.5	Pers. **TOTAL**	10,353 **10,353**
	(Public Health Microbiology)	Micro.	0.5	Pers. **TOTAL**	5,500 **5,500**
	(Radiological Monitoring)	Sr. Env. Chemist	0.5	Pers. **TOTAL**	10,352 **10,352**
	(Potable Water)	Chemist	0.5	Pers. **TOTAL**	7,400 **7,400**
	(Sanitary Chemistry)	Sr. Chem.	0.5	Pers. **TOTAL**	8,557 **8,557**
	(Biochemistry)	Lab. Asst.	0.5	Pers. **TOTAL**	5,423 **5,423**
	(Genetic Disease Screening)	Med. Tech. I	0.5	Pers. **TOTAL**	7,435 **7,435**
	(Pesticides)	Chemist	0.5	Pers. **TOTAL**	7,404 **7,404**

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	
Conn. (Cont.)	(Lead Screening)	Asst. Biochem. Chemist	0.5 0.5	Pers.	17,096
				TOTAL	**17,096**
	(Streptococcus cultures)	Lab. Helper	0.5	Pers.	5,583
				TOTAL	**5,583**
	Maternal and Child Health (Genetic Disease Screening)	PHLA I Med. Tech. I	0.4 1.0	Pers.	17,501
				TOTAL	**17,501**
	Preventable Diseases (V.D. Control)	Prin. Micro.	1.0	Pers.	21,448
				TOTAL	**21,448**
	Safe Drinking Water Act (Laboratory Standards)	Lab. Helper Chemist	1.0 1.0	Pers.	24,254
				TOTAL	**24,254**
	State **Dept. of Environmental Protection** (PCB's)	Chemist	1.0	Pers.	13,777
				TOTAL	**13,777**
D.C.	**Federal**				
	Lead Poisoning Prevention (Chemistry assay on human specimens)	Chemist Technician	0.8 2.0	Pers. Supp.	43,781 11,000
				TOTAL	**54,781**
	MIC/C & Y (Various clinical tests on human specimens)	Chemist Technologist Technician	1.0 2.0 2.0	Pers. **TOTAL**	98,721 **98,721**
	GC Testing Program (Bacteriological testing on male/female specimens)	Technician Clerk	1.0 0.5	Pers. Supp.	18,392 48,000
				TOTAL	**66,392**
Fla.	**Local**				
	City of St. Petersburg. Fla. Research Project (Research in wastewater treatment)	Micro. IV Lab. Tech. II Lab. Helper Micro. II	1.0 1.0 1.0 1.0	Pers. Supp. Other	52,297 13,700 15,292
				TOTAL	**81,289**
	Central Florida Research (Naegleria study in Central Florida lakes)	Bio. Sup. I Biologist Lab. Tech. Micro. II	1.0 1.0 1.0 1.0	Pers. Supp. Equip. Other	65,420 7,830 500 3,641
				TOTAL	**77,391**
Ga.	**Federal**				
	Sexually Transmitted Disease Unit (Gonorrhea culture)	Lab. Sci. Sr. Lab. Tech. Sr. Clerical	1.0 3.0 2.0	Pers. Supp. Other	104,911 19,500 2,589
				TOTAL	**127,000**
	Adult Health Unit (Hypertension Screening)	Lab. Sci.	1.0	Pers. Supp.	15,025 6,500
				TOTAL	**21,525**

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.	Federal **Environmental Protection Agency** (Establish and maintain certification program for water testing lab.)	Microbiologist Chemist Secretary	0.25 0.3 0.15	Pers. 16,000 Supp. 4,520 **TOTAL 20,520**
	CDC-HHS, Laboratory Improvement (To provide training and consultation to small laboratories)	Lab. Surveyor Support	1.0 0.5	Pers. 41,329 Supp. 17,519 **TOTAL 58,848**
	State **Traffic Safety Commission** (Analysis of breath alcohol for alcohol and drugs)	Criminalist Secretary	1.0 1.0	Pers. 24,384 Supp. 4,643 **TOTAL 29,027**
	Traffic Safety Commission (Implement direct field instrument — alcohol testing program)	Criminalist Secretary	2.0 0.5	Pers. 41,550 Supp. 8,773 Equip. 111,780 **TOTAL 162,103**
	Other State Departments (Transportation, Parks & Recreation, Water Resources, Fish & Game, Agriculture, Probation & Parole, Law Enforcement) (Provide laboratory service — to consolidate laboratory services and to avoid each agency setting up laboratories.)	—	—	Cost per test basis. (Funds are not budgeted but are reimbursements to operating cost)
III.	Federal **Sexually Transmitted Diseases** (Statewide monitoring of sexually transmitted diseases)	Lab. Tech. I Clerk Typist II Micro I	1.0 1.0 1.0	Pers. 49,900 Supp. 18,600 **TOTAL 68,500**
	Safe Drinking Water (Non-community water supply analysis for chemical/microbiological contamination)	Lab. Sc. C. Tr. Chem. II Lab. Tech. I	1.0 1.0 1.0	Pers. 50,800 **TOTAL 50,800**
	Pesticides (Use residues for pesticide analyses under FIFRA)	Lab. Tech. I Chem. I	1.0 1.0	Pers. 39,400 **TOTAL 39,400**
	Pediatric Lead (Lab. services for support of blood lead program)	Lab. Sc. C. Tr.	1.0	Pers. 16,200 **TOTAL 16,200**
	Influenza (Statewide surveillance of influenza)	Micro. I	1.0	Pers. 16,000 **TOTAL 16,000**
Ia.	Federal **Water Quality** (Provision of laboratory service for water quality surveillance to IDEQ)	—	7.0	Pers. 151,419 Supp. 16,938 Equip. 21,112 Other 61,996 **TOTAL 251,465**

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.)	**Air Quality** (Provision of laboratory services for air quality surveillance to IDEQ)	—	4.5	Pers. Supp. Equip. Other **TOTAL**	91,917 48,264 138,950 65,215 **344,346**
	Centers for Disease Control (Proficiency testing contract to continue and expand existing proficiency testing programs)	—	1.2	Pers. Supp. Other **TOTAL**	18,355 1,859 12,784 **32,998**
	Medicare (Surveys of hospital laboratories to insure compliance with Medicare standards)	—	2.5	Pers. Supp. Equip. Other **TOTAL**	60,871 278 504 20,600 **82,253**
	Genetic Screening (Serve as central state laboratory for the screening of neonatal genetic diseases)	—	3.0	Pers. Supp. Equip. Other **TOTAL**	47,896 41,831 14,905 19,160 **123,792**
	Environmental Chemistry (Analytical services as part of study to ascertain degree of absorption/ desorption of heavy metals to sample container for EPA)	—	0.3	Pers. Supp. Equip. Other **TOTAL**	9,677 3,265 1,319 125 **14,386**
	State **Gonorrhea Culture Program** (Provision of culture services to physicians to detect asymptomatic patients)	—	1.0	Pers. Supp. Equip. Other **TOTAL**	17,754 3,972 152 14,396 **36,274**
	Industrial Hygiene (Provision of laboratory services for Iowa Bureau of Labor)	—	4.5	Pers. Supp. Equip. Other **TOTAL**	93,463 16,687 12,047 27,625 **149,822**
	Water Pollution Study (Analysis of water for potential contaminants for ICC)	—	0.1	Pers. Other **TOTAL**	651 344 **995**
	Influenza Surveillance (Expand influenza surveillance program for ISDH)	—	—	Supp. **TOTAL**	3,000 **3,000**
	Private **Coal Liquefaction Study** (Analytical services as part of coal liquefaction study)	—	3.0	Pers. Supp. Equip. Other **TOTAL**	58,077 13,920 8,774 33,586 **114,357**
	Hazardous Waste (Analysis of effluent water for potential contamination)	—	0.5	Pers. Supp. Equip. Other **TOTAL**	10,493 8,058 5,010 13,161 **36,722**

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs	
Kans.	Federal				
	Occupational Health Consultation (Provide analytical support for on-site consultation services at employer's worksite in accordance with the requirements of 29 CFR 1908)	Chem. I	0.35	Supp. **TOTAL**	34,700 **34,700**
	314d Health Incentive Grant (Public health laboratory support)	Micro. I Micro. II Chem. I Chem. II Lab. Tech. I	0.25 1.0 1.0 0.5 1.0	Pers. **TOTAL**	63,450 **63,450**
	Public Health Fund	Chem. II Micro. I	0.5 0.75	Pers. Supp. **TOTAL**	25,621 970 **26,591**
	Air Quality Fund (EPA Laboratory support for sulfur dioxide and suspended particulate monitoring including suspended particulate analysis from 56 air monitoring sites in State and continuous monitoring calibrations support for 5 sites in Kansas).	Chem. II	1.0	Pers. Supp. **TOTAL**	23,695 34,008 **57,703**
	Water Supply Fund (EPA laboratory support for Safe Drinking Water Act-PL93-523 requirements in form of equipment grant from federal funds)	Chem. II Chem. III Micro. I Lab. Tech. II	1.5 2.0 1.0 1.0	Pers. Supp. **TOTAL**	46,168 64,947 **111,115**
	EPA Water Pollution Fund (EPA laboratory support for National Pollution Discharge Elimination System-PL92-500)	Chem. I Chem. II Micro. I Lab. Tech. I	1.0 0.5 1.0 1.0	Pers. **TOTAL**	72,076 **72,076**
	Title 18 Medicare Funds (Surveys of hospital laboratories to insure compliance with Medicare standards)	Lab. Cert. Supp. Micro. II	0.5 0.25	Pers. **TOTAL**	13,373 **13,373**
	Laboratory Technical Consultation Contract (On-site technical consultation in microbiology)	Micro. II	1.0	Pers. Supp. **TOTAL**	27,057 6,199 **33,256**
Ky.	Federal				
	Division for Maternal and Child Health (PKU, Galactosemia, Rh, and T_4 Screening)	Microbiologists Clinical Lab. Aide	5.0 1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	116,328 64,457 311 12,689 **193,785**
	T & A funds from Dept. of Labor (Analysis of occupational health samples)	Chemists Lab. Aide	4.0 1.0	Pers. Supp. Other **TOTAL**	50,250 12,750 12,000 **75,000**

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	
Ky. . . . . (Cont.)	**Proficiency Testing** (Proficiency testing for approximately 215 clinical laboratories)	Microbiologist	0.9	Pers. Supp. Equip. Other **TOTAL**	39,916 6,100 2,000 7,523 **55,539**
	Technical Consultation (Provided on-site consultation to private laboratories)	Lab. Dir. Adm.	.05 .10	Pers. Supp. Equip. Other **TOTAL**	14,420 538 60 4,182 **19,200**
La.	**State** **I.A.T. from State** (Laboratory study and distribution of vibrios and related species, pathogenic and non-pathogenic, in shellfish)	Prin. Invest. Assoc. Invest. P.H. Lab. Tech.	1.0 1.0 3.0	Pers. **TOTAL**	53,765 **53,765**
	Private **I.A.T. from L.S.U. Sea Grant College** (Laboratory study and distribution of vibrios and related species, pathogenic and non-pathogenic, in shellfish)	—	—	Supp. Equip. Other **TOTAL**	13,300 14,700 7,000 **35,000**
Me.	**Federal** **Medicare/Medicaid** (Laboratory surveillance for hospital lab. licensure and services)	—	2.0	Pers. Other **TOTAL**	26,207 1,680 **27,887**
	State **Racing Commission** (Racing Toxicology)	—	0.5	Pers. Other **TOTAL**	10,489 13,116 **23,605**
Md.	**Federal** **Crippled Children's Program-Title V** (Testing for inborn errors of metabolism in newborns)	—	—	Supp. **TOTAL**	85,422 **85,422**
	Venereal Disease Control (Screening program for gonorrhea and syphilis)	—	—	Supp. **TOTAL**	88,556 **88,556**
	Lead Paint (X-Ray detection of lead through layers of paint)	—	—	Supp. **TOTAL**	16,840 **16,840**
	Air Pollution Control Act (Monitoring of air quality laboratory throughout State of Maryland, in search of pollutants)	Lab. Scientist Lab. Assistant	1.0 1.0	Pers. Supp. Other **TOTAL**	27,575 9,000 9,671 **46,246**
	Certification, Training and Field Services SSA-Title XVIII (Licensure and inspection of clinical laboratories in Maryland for State and Medicare requirements)	Physician Lab. Scientist	0.5 0.5	Pers. Other **TOTAL**	37,000 992 **37,992**

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs	
Md. . . . . (Cont.)	**Sickle Cell Screening Program** (Laboratory testing of specimens for hereditary disorders)	Lab. Assistant Typist Clerk	1.0 1.0	Pers. Other	19,000 375
				TOTAL	**19,375**
	Pregnancy Testing (Drawing of blood and analyzing specimens for positive pregnancy tests in Cheverly Branch Laboratory)	Lab. Assistant	1.0	Pers. Other	8,529 1,535
				TOTAL	**10,064**
	Gonorrhea Testing (Testing of specimens for gonorrhea in Cheverly Branch Laboratory	Lab. Scientist	1.0	Pers. Other	11,667 2,300
				TOTAL	**13,967**
	Immunization Program (Screening specimens for rubella and rubeola)	—	—	Equip.	19,000
				TOTAL	**19,000**
	Safe Drinking Water Program (Testing of public drinking water for contaminants)	—	—	Equip.	200,000
				TOTAL	**200,000**
	Federal/State **Occupational Safety and Health Act/Division of Labor and Industry – (50% Federal/50% State)** (Laboratory listing of samples submitted by MO SHA Program)	Lab. Scientist Lab. Assistant	4.0 3.0	Pers. Supp. Other	85,139 7,905 25,132
				TOTAL	**118,176**
	Federal (through City of Baltimore) **Blood Lab Screening Program** (Laboratory testing of blood samples for traces of lead)	Chemist Lab. Asst.	1.0 1.0	Pers. Supp.	25,000 7,500
				TOTAL	**32,500**
	Gonorrhea Screening and Reporting Program (Laboratory testing of specimens and supplying of necessary data for epidemiological follow-up)	Microbiologist Lab. Assistant Typist Clerk	3.0 1.0 2.0	Pers.	77,000
				TOTAL	**77,000**
	State **State of Delaware Neonatal Screening Contract** (Inborn errors of metabolism testing for Maryland residents who live in Delaware)	—	—	Supp.	12,787
				TOTAL	**12,787**
	County **Montgomery County Public Health** (Testing of specimens and handling of paper work in Rockville Branch Laboratory)	Lab. Scientist Lab. Assistant Secretary	2.0 1.0 1.0	Pers.	70,000
				TOTAL	**70,000**

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	
Mass.	Federal				
	Centers for Disease Control (Laboratory Training Contract - MHRI #31740 - 9/26/79 - 3/26/81)	—	4.0	Pers. Supp. Other **TOTAL**	65,520 7,470 28,494 **101,484**
	(Technical Consultation Contract - MHRI #31670 - 9/25/78 - 9/25/80)	—	4.0	Pers. Supp. Other **TOTAL**	74,417 1,500 10,356 **86,273**
	(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**
Mich.	Federal				
	Laboratory Training Contract (Development administration, and evaluation of the effectiveness of a lab training program for clinical and public health laboratories)	Lab. Eval. Spec. VI Lab. Eval. Spec. IV Typist Clerk II	1.0 0.6 0.6	Pers. Supp. Other **TOTAL**	50,602 4,956 2,715 **58,273**
	PBB Contract (Long term health study of persons exposed to PBB)	Secy VI P.H. Field Rep. II Dept. Adm. XI Env. San. IX Lab. Tech. III Stat. V Stat. VI Stat. Tech. 07 P.H. Lab. Sci. 15 Phys. III Clin. Hlth. Sci. X Syst. Anal. VI	0.9 1.8 0.3 0.1 0.3 0.6 0.6 0.6 0.2 0.2 0.3 0.3	Pers. Supp. Equip. Other **TOTAL**	164,534 27,217 5,517 9,114 **206,382**
	Title XVII - Medicare (Provide inspection and recommendation for certification of Medicare laboratories)	Typist Clerk III Lab. Imp. Spec. VII	1.0 2.7	Pers. Supp. Equip. Other **TOTAL**	100,604 448 555 5,740 **107,347**
	PCB Contract (Evaluation of humans exposed to water borne chemicals in the Great Lakes)	Typist Clerk II P.H. Field Rep. II Lab. Asst. III Cal. Clerk IV Lab. Sci. V Stat. VI Lab. Tech. IV Lab. Tech. III Steno. Clerk 05	1.0 2.0 2.0 1.0 1.0 1.0 1.0 1.0 0.3	Pers. Supp. Equip. Other **TOTAL**	245,235 21,277 14,563 9,637 **290,712**
	Chemical Risk (Develop a formal risk assessment process to be utilized in decision-making on acceptable release and exposure levels for chemicals in the environment and/or work place)	Lab. Sci. VIII	0.1	Pers. **TOTAL**	3,969 **3,969**
	Brucellosis Contract (Development of effective brucellosis vaccine)	Clin. Hlth. Sci. VIII Lab. Tech. IV B Lab. Asst. III B	1.0 1.0 1.5	Pers. Supp. Equip. Other **TOTAL**	81,462 9,692 420 2,102 **93,675**

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs	
Mich. . . . . (Cont.)	**314d Funds** (General support for provision of vaccines and public health laboratory services)	Various levels and classes	1.7	Pers. **TOTAL**	53,304 **53,304**
	Venereal Disease Contract (Enhanced case-finding, education, and treatment of V.D.)	Lab. Tech. IV B Micro VI	1.0 2.0	Pers. **TOTAL**	85,859 **85,859**
	Federal and Other **Anthrax Vaccine Contracts** (To provide anthrax vaccine to textile companies and the Federal government to immunize people against the disease)	Lab. Sci. VIII	0.2	Pers. Supp. Equip. **TOTAL**	10,561 5,281 2,731 **18,573**
	State **Mental Health Hepatitis Agreement** (Provide Hepatitis B antigen and Hepatitis B antibody screening for clients of State Dept. of Mental Health)	Lab. Tech. V	0.8	Pers. Supp. Equip. **TOTAL**	23,065 28,065 2,176 **53,306**
	Local **KENT County Agreement** (Provide certain local laboratory services for county)	Micro. VII Micro. VI B Lab. Tech. III	1.0 0.9 1.0	Pers. Supp. **TOTAL**	89,349 1,189 **90,538**
	Other **Red Cross Agreement** (Research to develop or improve blood fractions)	Lab. Sci. VII Lab. Tech. IV B	1.7 1.0	Pers. Supp. Other **TOTAL**	79,516 29,735 746 **109,997**
Minn.	**Federal** **DHHS, Centers for Disease Control** (Proficiency testing for physicians offices)	Clerk-Typist	1.0	Pers. Supp. Other **TOTAL**	3,193 5,523 213 **8,929**
Mo.	**Federal** **FDA (no funds)** (Performance of laboratory tests on food samples)	—	0.3		—
	State **State Milk Board (no funds)** (Laboratory testing on milk; laboratory inspections and approval)	Micro. IV Micro. III Micro. II	0.5 (Tot.)		—
	Department of Natural Resources (Bacteriological and chemical testing of public water supply. Laboratory inspection.)	Micro. IV Micro III Micro. II Med. Lab. Tech. Chem. IV Chem. III Chem. II Typist	8.0 (Tot.)		—
	Division of Highway Safety (Breath alcohol maintenance)	Chem. IV Chem. III Chem. II Clerk Typist	4.0 (Tot.)		—

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.	**Federal**				
	EPA - Safe Drinking Water (Chemical and bacteriological examinations of drinking water)	Microbiologist Chemist Lab. Asst. Clerical Admin. Stock Clerk	0.4 1.5 2.3 0.2 0.1 0.2	Pers. Supp. Other **TOTAL**	85,641 47,695 1,550 **134,886**
	V.D. Control (Testing of cultures for GC, including production of plates)	Microbiologist Lab. Asst.	0.25 1.0	Pers. Supp. Equi. **TOTAL**	20,599 10,800 2,000 **33,399**
	314d (Communicable disease service)	(undesignated)	—	Other **TOTAL**	39,198 **39,198**
	State				
	Division of Environmental Protection (Chemical and bacteriological tests of water and air)	Chemist Microbiologist Lab. Asst. Admin. Stock Clerk Clerical	1.5 0.2 1.0 0.1 0.1 0.1	Pers. Supp. **TOTAL**	59,050 25,000 **84,050**
N.J.	**Federal**				
	Health Incentive	—	—	Pers. Equip. **TOTAL**	126,327 35,000 **161,327**
	Maternal and Child Health	—	—	Pers. **TOTAL**	15,239 **15,239**
	VD Casefinding	—	—	Pers. **TOTAL**	91,560 **91,560**
	Immunization Profit	—	—	Pers. **TOTAL**	5,842 **5,842**
	State				
	Dept. of Environmental Protection	—	—	Pers. Supp. **TOTAL**	733,190 20,341 **753,531**
N.M.	**Federal**				
	National Highway Traffic Safety Administration through State Traffic Safety Bureau (Testimony in courts in support of alcohol analyses and theory of operation, etc., of direct breath testing instruments. Training and certification of law enforcement officers in the use of breath alcohol equipment and direct breath testing instrument. Presentation to public groups in support of the Implied Consent Law. Maintaining a quality control program for the analysis of alcohol samples, and a program to monitor the operation and calibration accuracy of the direct breath testing instruments in use throughout the State.)	Lab. Scientist 2 Sec'y 3 Clerk 4 Sect. Supv. Bureau Chief	3.7 0.8 0.5 0.4 0.15	 **TOTAL**	 **85,800**

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs	
N.C.	**Federal** **OSHA Program** (Analytical laboratory support to field engineers investigating OSHA complaints)	An. Chem. I Lab. Tech.	1.0 1.0	Pers. Supp. Equip. **TOTAL**	33,175 4,004 3,827 **41,006**
	CDC Technical Consultation Grant (Provide field consultation visits; development of procedures manual; telephone Hot-Line for local health departments)	Lab. Impr. Cons.	0.5	Supp. Other **TOTAL**	377 4,617 **4,994**
	Highway Safety Program (Support the preparation and distribution of ethyl alcohol standard solution for Breathalizer calibration)	An. Chem. II An. Chem. I Chem. An. I Lab. Tech. Lab. Tech.	0.05 0.05 0.05 0.05 0.05	Supp. Other **TOTAL**	3,354 500 **3,854**
	Rocky Mountain Spotted Fever Project (Development of serological tests for RMSF)	P.H. Micro. I	1.0	Pers. Supp. Other **TOTAL**	18,512 991 19,503 **39,006**
	Hazardous Waste Project (Identification of toxic chemical wastes)	Chem. An. I	1.0	Pers. Supp. Equip. Other **TOTAL**	15,794 3,376 201,205 50,129 **270,504**
	CDC Fluoridation Project (Provide water analyses for fluoride concentration to school water fluoridation program in Dental Health Section)	Lab. Tech.	1.0	Pers. **TOTAL**	12,449 **12,449**
	Solid and Hazardous Waste Project (Provide chemical analyses of landfill drainage waters)	An. Chem. I	1.0	Pers. **TOTAL**	23,318 **23,318**
	Safe Drinking Water Act (Provide coliform, chemical, and radiological analyses for public water systems; certification of water laboratories)	Stck. Clerk I Lab. Cert. Eval. Med. Lab. Tech. II Med. Lab. Tech. I Clerk Typist III	1.0 2.0 1.0 1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	94,589 14 65,445 13,920 **173,968**
	Federal and State **V.D. Control Project** (Gonorrhea Lab Advisor; provides training/PT to participating local health departments)	Lab. Impr. Cons. Med. Lab. Tech. II	0.5 1.0	Pers. **TOTAL**	34,914 **34,914**
	State **Sickle Cell Screening** (Provide screening and diagnosis of hemoglobinopathies)	P.H. Micro. II P.H. Micro. I Clerk Typist III	1.0 1.0 1.0	Pers. Equip. **TOTAL**	45,827 5,457 **51,284**
	Hypothyroid Screening Project (Diagnosis of neonatal hypothyroidism)	Med. Lab. Tech. II Clerk Typist II	2.0 1.0	Pers. Supp. Other **TOTAL**	39,373 54,664 1,115 **95,152**
	Perinatal Care Projects (Provide project patients blood typing/grouping and antibody screening)	Med. Lab. Tech. II	1.0	Supp. Other **TOTAL**	13,930 4,950 **18,880**

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.D.	Federal				
	Aberdeen Area Indian Health Service	Technician	2.0	Pers.	2,000
	(Examination of milk and water samples from Indian reservation)			Supp.	500
				TOTAL	**2,500**
	State				
	State Dairy Department	Micro. I	1.0	Pers.	5,000
	(Perform all milk examinations dealing with Grade A Pasteurized milk ordinance)	Technician	3.0	Supp.	2,500
				TOTAL	**7,500**
Ohio	State				
	Ohio Environmental Protection Agency	Chem. Lab. Sup. 2	1.0	Pers.	723,365
	(Environmental Chemistry and Microbiology)	Chem. Lab. Sup. 1	2.5	Supp.	133,013
		Chem. 3	3.0	Equip.	18,443
		Chem. 2	8.0	Other	34,200
		Chem. 1	15.0		
		Micro. Sup. 2	1.0	**TOTAL**	**909,021**
		Micro. 3	1.0		
		Micro. 2	1.0		
		Micro. 1	2.0		
		Lab. Tech.	1.4		
		Lab. Tech. I	2.6		
		Lab. Asst.	.75		
		Secy. I	1.0		
		Typist 2	2.1		
	Natural Resources Industrial Commission	Chem. 2	.25	Pers.	4,193
	(Stream analyses)			Supp.	6,124
				Other	3,417
				TOTAL	**13,734**
	(Occupational chemistry)	Chem. Lab. Sup. 1	.25	Pers.	22,994
		Chem. I	.75	Supp.	5,621
		Lab. Asst.	.25	Other	7,202
				TOTAL	**35,817**
	Reclamation Industrial Relations	Chem. I	1.0	Pers.	15,865
	(Mine waste analyses)			**TOTAL**	**15,865**
	(Occupational chemistry)	Chem. Lab. Sup. 2	.25	Pers.	10,750
		Chem. I	.25		
		Lab. Asst.	.25	**TOTAL**	**10,750**
Oreg.	Federal				
	Administrative	—	4.0	Pers.	14,879
				TOTAL	**14,879**
	Laboratory Licensing	—	3.83	Pers.	42,923
				Supp.	944
				Equip.	94
				Other	7,082
				TOTAL	**51,043**
	Miscellaneous	—	0.7	Pers.	8,792
				TOTAL	**8,792**
	Metabolic	—	1.0	Pers.	25,187
				Other	32
				TOTAL	**25,219**

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	
Oreg. . . . . (Cont.)	Syphilis Serology	—	2.0	Pers.	4,872
				TOTAL	**4,872**
	Water	—	1.0	Pers.	4,138
				TOTAL	**4,138**
	State Administrative	—	10.0	Pers. Supp. Equip. Other	195,284 2,902 197 22,982
				TOTAL	**221,365**
	Miscellaneous	—	6.75	Pers. Supp. Other	161,932 15,000 48,491
				TOTAL	**225,423**
	Metabolic	—	1.0	Pers. Supp. Equip. Other	41,473 16,399 145 20,000
				TOTAL	**78,017**
	Syphilis Serology	—	3.0	Pers. Supp. Other	78,925 10,776 3,000
				TOTAL	**92,701**
	Toxoplasmosis	—	4.0	Pers. Supp. Other	59,990 6,272 2,000
				TOTAL	**68,262**
	Virus	—	7.0	Pers. Supp. Other	169,722 12,683 5,000
				TOTAL	**187,405**
	Water	—	3.5	Pers. Supp. Other	75,998 8,543 19,509
				TOTAL	**104,050**
	Private Laboratory Licensing — Fees	—	1.5	Pers. Supp. Other	60,384 545 13,077
				TOTAL	**74,006**
	Metabolic — Fees	—	7.0	Pers. Supp. Equip. Other	176,150 14,000 11,255 87,634
				TOTAL	**289,039**

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

Lab	Source of Funds Programs Served & Services Provided	Staff Utilized	FTE	Costs	
Pa.	**Federal**				
	Traffic Safety Blood Alcohol Program	Chemist	1.5	Supp.	20,000
	(Examination of blood specimens for alcohol content)	Clerk Typist	0.33	**TOTAL**	**20,000**
R.I.	**Federal**				
	Centers for Disease Control	—	0.4	**TOTAL**	**24,595**
	(Training contract — chemistry)				
	(Consultation clinical lab. procedures)	—	0.4	**TOTAL**	**32,791**
	Environmental Protection Agency	Chemist	6.0	Pers.	147,321
	(Air Pollution)	Lab. Aide	1.0	Supp.	7,122
				Equip.	14,000
				TOTAL	**168,443**
	(Water Pollution Testing)	Clerical	1.0	Pers.	10,511
				Supp.	1,318
				TOTAL	**11,829**
S.C.	**Federal**				
	U.S. Forestry Service	Chemist	1.0	Pers.	15,376
	(Testing pesticide residue)			Supp.	17,762
				Equip.	456
				Other	45,055
				TOTAL	**78,649**
	U.S. Dept. of Labor	Chemist	3.0	Pers.	17,080
	(Testing occupational health-related hazards)			Supp.	8,041
				Equip.	445
				Other	5,016
				TOTAL	**30,582**
	Dept. of Health and Human Services — CDC	Sub-contract	—	Supp.	6,427
	(Laboratory training)			Other	20,072
				TOTAL	**26,499**
S.D.	**Federal**				
	314d Block Grant	Micro. II	0.9	Pers.	54,034
	(General laboratory expenses)	Lab. Tech. II	0.5		
		Med. Sup.	0.2	**TOTAL**	**54,034**
		Env. Sup.	0.1		
		Lab. Dir.	0.3		
		Lab. Tech. II	0.5		
		Lab. Helper II	0.5		
		Clerical	0.6		
	EPA — Solid Waste	Chemist II	0.7	Pers.	12,236
	(Water Chemistry)			**TOTAL**	**12,236**
	EPA — Hazardous Waste	Chemist II	1.2	Pers.	18,932
	(Water Chemistry)			**TOTAL**	**18,932**
	EPA — Air Quality	Chemist	0.2	Pers.	3,177
	(Air Chemistry)			**TOTAL**	**3,177**

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. . . . . (Cont.)	**Medicare** (Lab surveys)	Hlth. Fac. Spec. III	0.7	Pers. Supp. Other	16,709 814 7,362
				TOTAL	**24,885**
	Centers for Disease Control (Laboratory Training)	—	—	Other	80,089
				TOTAL	**80,089**
	Centers for Disease Control (On-site consultation)	Hlth. Fac. Spec III	0.6	Pers. Supp. Other	8,684 3,188 4,804
				TOTAL	**16,676**
	State and Local (Fee Recovery) (Environmental chemistry and microbiology)	Chemist I Micro. I Lab. Tech. II Lab. Dir.	1.0 1.0 0.2 0.2	Pers. Supp. Equip. Other	63,167 16,388 371 2,811
				TOTAL	**82,737**
Tex.	**Federal** **Safe Drinking Water Grant** (Chemical and bacteriological analysis of drinking water)	Chemists Microbiologists Technician Clerical	8.0 1.0 11.0 2.0	Pers. Supp. Equip. Other	323,200 77,000 70,700 82,800
				TOTAL	**553,700**
	Cooperative Meat Inspection	Chemist Support	1.0 1.0	Pers. Supp. Other	20,300 17,200 5,200
				TOTAL	**42,700**
	State **Texas Department of Water Resources**	Microbiologists Chemists Technicians Support Clerical	1.0 5.0 2.0 3.0 1.0	Pers. Supp. Equip. Other	306,800 96,400 5,500 78,600
				TOTAL	**487,300**
	EPSDT	Chemists Med. Techs. Technician Clerical Support	3.0 2.0 4.0 2.0 1.0	Pers. Supp. Equip. Other	203,500 125,000 8,000 52,200
				TOTAL	**388,700**
Utah	**Federal** **CDC Laboratory Training Contract #2** (Serves Laboratory Improvement Program — laboratory training)	—	—	Pers. Supp. Equip. Other	64,078 4,648 4,364 2,463
				TOTAL	**75,553**
	314d (To support public health programs)	—	—	Pers. Supp. Equip. Other	193,767 87,249 12,491 1,623
				TOTAL	**295,130**

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 . . . . . (Cont.)	**State**				
	Division of Environmental Health (Hazardous Waste)	—	—	Pers. Equip.	15,387 2,362
				TOTAL	**17,749**
	(Public Water Supervision)	—	—	Pers.	10,345
				TOTAL	**10,345**
	(Public Water Radiation)	—	—	Pers. Supp. Equip.	15,639 2,771 709
				TOTAL	**19,119**
	(208 Sevier)	—	—	Pers.	5,793
				TOTAL	**5,793**
	(Clean Lakes — Panguitch and Scofield)	—	—	Pers.	10,481
				TOTAL	**10,481**
	(208 Uintah)	—	—	Pers.	4,278
				TOTAL	**4,278**
	Division of Community Health Services (Screening of IndoChina Refugees for ova and parasites)	—	—	Pers. Supp.	6,632 1,763
				TOTAL	**8,395**
Vt.	**Federal**				
	EPA — SWDA (Water testing)	—	—	Pers. Supp.	89,170 30,830
				TOTAL	**120,000**
	Venereal Disease (Gonorrhea testing)	—	—	Pers.	12,000
				TOTAL	**12,000**
	OSHA-23(q) (Occupational safety)	—	—	Pers.	12,000
				TOTAL	**12,000**
Wisc.	**Federal**				
	Alpha-Fetoprotein Screen (Testing for elevated levels of AFP in mid-pregnancy)	Micro. II Typist Data Entry	1.0 1.0 0.5	Pers. Supp. Other	45,273 12,434 897
				TOTAL	**58,604**
	Operation of a Cytogenetics Unit (Attempting to identify faulty chromosomes in humans)	Cytotech 2 Lab. Tech. 3	1.0 2.0	Pers. Supp. Other	59,981 21,468 1,567
				TOTAL	**83,016**
	Nationwide Erythrocyte Protoporphyrin Proficiency Testing Program (Laboratory proficiency screening for E-P testing)	Chem. II Lab. Tech. 2	1.0 0.5	Pers. Supp. Other	28,606 2,994 4,919
				TOTAL	**36,519**

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.)	**Health Effects Study of Wisconsin Dairy Farmers — Analysis of Well Water Samples** (Hard/Soft Water Effects Study)	Chem. II Chem. I Lab. Tech. 2 Admin. Asst. 3 Pgm. Asst. 2	1.0 1.0 1.0 1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	73,336 5,277 11,283 10,620 **100,516**
	Proficiency Testing Program (Develop and evaluate the effectiveness of a proficiency testing program for laboratories)	Med. Tech. Mgt. Info. Spec.	1.0 0.5	Pers. Supp. Other **TOTAL**	13,965 5,296 1,470 **20,731**
	Federal-State **Federal EPA and Wisconsin DNR** (Environmental analyses)	Various	9.5	Pers. Supp. Equip. Other **TOTAL**	168,311 44,747 51,905 3,882 **268,845**
	State **Department of Natural Resources** (Environmental analyses)	Various	0.5	Pers. Supp. **TOTAL**	3,462 6,114 **9,576**
	Mobile Home Formaldehyde and Health Study (Testing for formaldehyde levels in mobile homes)	Chem. I	1.0	Pers. Supp. Other **TOTAL**	18,642 643 72 **19,357**
	Implied Consent Program (Development of procedures and methods to identify controlled substances in blood/urine of drivers)	Chem. IV Chem. II	1.0 1.0	Pers. Supp. Equip. Other **TOTAL**	30,408 14,979 10,077 48,500 **103,964**
	Vaccine Preventable Disease Surveillance (Serologic and virus isolation testing for immunization program)	Micro. III	1.0	Pers. Supp. **TOTAL**	15,097 4,903 **20,000**
Wyo.	**Federal** **Department of Transportation — Highway Safety** (Blood alcohol analyses, training and certification of law enforcement personnel, provision of breath testing equipment to law enforcement agencies)	—	2.5	Pers. Supp. Equip. Other **TOTAL**	34,236 6,442 19,273 25,668 **85,619**
	Medicare (Survey laboratories for compilance with Medicare standards)	—	0.3	Pers. Other **TOTAL**	8,760 1,551 **10,311**

Table 3-5
STATES REPORTING CHARGES FOR LABORATORY SERVICES

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ala.	Pinworms	4.20	Test	47,477	Recycled to support services provided.
	Intestinal Parasites	8.75	Test		
	Sickle Cell	1.45	Test		
	Rubella	4.00	Test		
	VDRL	1.65	Test		
	GC	1.40	Test		
Ark.	Premarital Serology	1.00	Certificate	14,899	To pay building bonds.
Colo.	Strep Throat Cultures	2.00	Specimen	180,000	Part of laboratory budget.
	Private Drinking Water Bacteria	5.00	Specimen		
	Urine-Drugs of Abuse	4.25-8.00	Specimen		
Conn.	Environmental Chemistry	2.14	R.V.	200,950	State General Fund.
	Strep. Mailers	1.00	Mailer & Culture		
	Strep. Office Kits	.35	Kit		
	VDRL Antigen & Saline	5.00	Set		
Fla.	Safe Drinking Water Analysis	184.00	32 Parameters	18,400	Returned to Lab Budget.
Ga.	Syphilis Serology (Reagin) RPR—except premarital	1.00	Specimen	210,000	Deposited to State General Funds.
	Syphilis Serology (FTA-ABS)	4.00	Specimen		
	Throat Specimen for Streptococcus (FA)	4.00	Specimen		
	Specimens or cultures for the identification of the following types of agents: Bacterial: Enteric culture, aerobic or anaerobic miscellaneous culture. Mycobacterial smear or culture, Mycological culture. Viral Isolation/Identification	8.00	Specimen		
	Direct Immunofluorescence procedures for identification: Herpes Simplex, Pertussis	8.00	Specimen		
	Blood or Serum Specimens for Serologic Tests:				
	Bacterial-Febrile Agglutinations: Brucella, OX_{19}, Tularemia				
	Mycological: Histoplasmosis, Blastomycosis, and Coccidiodomycosis CF Battery				
	Parasitological: Toxoplasmosis IFA				
	Viral: CF/HI for Respiratory, Neurotropic, Exanthematous, and other agents (1-4 antigens per $8.00)	8.00	Patient		
	TORCH	8.00	Patient		
	Neurotropic Battery	16.00	Patient		
	Arbovirus Battery	10.00	Patient		
	Cytomegalovirus and Herpes Simplex	8.00	Patient		
Ida.	Bacteriological Water Quality Tests (Total coliform, fecal coliform, fecal strep) 1-10 tests per month	8.50	Each	202,414	Allocated to Bureau of Laboratories.
	More than 10 tests per month	7.50	Each		
	Most probable number tests 1-10 tests per month	10.00	Each		
	More than 10 tests per month	9.00	Each		
	Water Pollution Testing				
	BOD	15.00	Each		
	COD	13.00	Each		
	TOC	25.00	Each		
	Total Aerobic Plate Count	6.00	Each		

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

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ida. . . . . (Cont.)	Individual water chemistry tests (alkalinity, ammonia, bicarbonate alkalinity, calcium, carbonate alkalinity, chloride, dissolved oxygen, fluoride-specific ion, hardness, hydrogen sulfide, nitrate, odor, orthophosphate, settleable solids, silica, specific conductance, sulfate, suspended solids, total dissolved solids, turbidity, volatile suspended solids, volatile solids)	8.00	Test		
	Elemental analyses performed by atomic absorption spectrophotometry (aluminum, barium, cadmium, chromium, copper, iron, lead, magnesium, manganese, molybdenum, nickel, potassium, silver, sodium, vanadium, zinc, others on request)	7.50	Test		
	Ph, Color	3.00	Each		
	Complete inorganic chemical testing for drinking water (includes arsenic, barium, cadmium, chromium, fluoride, lead, mercury, nitrate, selenium, and silver)	90.00	Sample		
	Individual Chemical Tests:				
	Arsenic	14.00	Test		
	Boron	9.00	Test		
	Chlorophyll A	7.50	Test		
	Chlorophyll A, B, & 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		
	Oil and Grease	16.00	Test		
	Phenols	20.00	Test		
	Rad. Health (gross alpha beta)	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	50.00	Test		
	Mercury and other heavy metals (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		
	Wisconsin mastitis test	3.00	Test		
	DMSCC	6.00	Test		
	Miscellaneous Tests				
	Throat Culture (Strep)	7.00	Specimen		
	Syphilis Serology	7.00	Specimen		
	Rubella Serology	9.00	Specimen		
	Urine Drug Screen	25.00	Specimen		
	Rabies	25.00	Specimen		
	Cytogenetic analysis	125.00	Specimen		
	Salmonella in food	15.00	Test		
	Coliform in food	10.00	Test		
	Vaginal Culture for Candida	5.00	Specimen		
	Solid dose drug	20.00	Test		
	Leaf Material (Marijuana)	10.00	Test		
	Quantitation	10.00	Test		

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

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Ind.	Private Water Bact./Chem.	5.00 + Postage	Test	34,783	State Treasury General Fund—except for postage and handling fees (up to $4.00) for sending out private water bact. sample bottles. These fees remain in a State Board of Health revolving fund.
	Public Water Bact.	25.00	Year		
	Premarital Syphilis Serology	2.50	Specimen		
Ia.	MPN Potable Water	4.00	Sample	456,800	Estimate of receipts is built into general operating budget.
	Nitrate	8.00	Sample		
	BOD Effluent	14.00	Sample		
	Trace Metals	10.00-18.00	Sample		
	Radiation	20.00-90.00	Sample		
	Pesticides	48.00-104.00	Sample		
	Urine Screen—Abused Drug	7.50	Sample		
	Other Water Quality Parameter	4.00-48.00	Sample		
	RCRA Parameter	290.00	Sample		
Kans. . . .	Environmental Laboratory Certification			260,000	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 mineral analysis	35.00	Group		
	Complete heavy metals (12 constituents)	25.00	Group		
	Partial mineral analysis (10 constituents)	15.00	Group		
	Total hardness, calcium, magnesium, chloride and alkalinity	6.00	Group		
	Complete solids (9 tests)	15.00	Group		
	Suspended solids (fixed and volatile)	5.00	Test		
	Alkalinity	2.00	Test		
	Chloride	2.00	Test		
	Iron	3.00	Test		
	Manganese	2.00	Test		
	Sodium	2.00	Test		
	Sulfate	3.00	Test		
	Phosphate	2.00	Test		
	Nitrate	2.00	Test		
	Fluoride	2.00	Test		
	Detergents	7.50	Test		
	5 day BOD (waste water)	15.00	Test		
	COD	7.50	Test		
	Dissolved Oxygen	2.00	Test		
	Phenol	15.00	Test		
	Volatile Acids	15.00	Test		
	pH	2.00	Test		
	Total organic nitrogen	7.50	Test		
	Ammonia nitrogen	5.00	Test		
	Mercury	10.00	Test		
	Arsenic and Selenium	7.50	Test		
	Other heavy metals	5.00	Each		
	Organic chemistry (screen for toxic levels of pesticides and herbicides)	160.00	Group		
	Coliform determination	3.00	Test		
	Radiation chemistry (screen for gross alpha and gross beta activity)	28.00	Group		
	Weekly coliform, pH and turbidity tests on swimming pool water:				
	Outdoor pools—per season (sampling every week)	50.00	Sample		
	Indoor pools—per season (sampling every 2 weeks)	100.00	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.	Microbiology			659,106	To support personnel, provide supplies and equipment not available from State and Federal funds.
	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		
	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	Hour		
	Breath & Blood Alcohol	20.00	Sample		
	Pesticides (EPA Screen)	144.00	Set of 6		
	Pesticide—Unknown	18.00	Hour		
	Racing Chemistry	9.00	Sample		
Md.	Testing for the following: PKU, MSUD, BCK, Methionine, Galactosemia, T_4, and TSH.	3.00	Specimen	25,000	60% to Laboratories Administration, 40% to General Funds of State of Maryland.
Mass. . . .	Sale of Biologic Products	10.00 + up	Kits, Vials	65,869	Reverts to State Treasury.
	Rental of Laboratory Space	27,500	Space		
Minn.	Handling Fee	3.00	Specimen	393,230	General Fund.
Miss.	Medicare/Medicaid Patients	Medicare rate	Specimen	516,186	Re-budgeted in Laboratory.
	Group A Strep Supplies	1.00	Kit		
	Sickle Cell Tests	1.50	Specimen		
	"Prepaid" RPR Slips	1.00	Data Slip		
	TB Culture (St. Mental Hosp.)	3,600.00	Year		
	Bact. Exam. of Water Samples	2.50	Sample		
	Inorganic Analyses of Water Samples	200.00	Set		
	For Family Planning Patients only:				
	Rubella	3.72	Specimen		
	RPR	0.59	Specimen		
	GC	0.81	Specimen		
	Coulter	1.03	Specimen		

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

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Mont. . . .	Bacteriological water analysis	6.00	Sample	60,000	Funds from the analysis of water supplies are returned to the laboratory budget through an earmarked revenue account.
	Fecal coliform	10.00	Sample		
	MPN coliform	10.00	Sample		
	Nitrate—water	2.00	Sample		
	Full chemical analysis of public water	45.00	Sample		
	Standard chemical analysis of private water	15.00	Sample		
	Individual Constituents:				
	Acidity	22.50	Test		
	Alkalinity + pH	13.00	Test		
	Aluminum	10.00	Test		
	Ammonia	8.25	Test		
	Antimony	4.60	Test		
	Arsenic	19.00	Test		
	Barium	4.60	Test		
	Beryllium	8.00	Test		
	BOD	100.00	Test		
	Boron	16.00	Test		
	Cadmium	4.85	Test		
	Calcium	5.25	Test		
	Chloride	4.00	Test		
	Chromium	4.00	Test		
	Chromium Hex	75.00	Test		
	Cobalt	4.65	Test		
	COD	45.00	Test		
	Color (2 tests—pH adjusted)	26.00	Test		
	Copper	4.25	Test		
	Cyanide	150.00	Test		
	Fluoride	6.00	Test		
	Hardness	6.50	Test		
	Iron	5.50	Test		
	Lead	4.00	Test		
	Lithium	6.50	Test		
	Magnesium	5.25	Test		
	Manganese	4.25	Test		
	Mercury	11.00	Test		
	Metals Digestion	17.00	Test		
	Metals Extraction	23.75	Test		
	Molybdenum	7.80	Test		
	Nickel	4.40	Test		
	Nitrate	5.40	Test		
	Nitrogen Kjeldahl	13.50	Test		
	Oil and Grease	57.00	Test		
	TOC	70.00	Test		
	Ortho—P	3.25	Test		
	pH	7.50	Test		
	Phenols	96.00	Test		
	Total—P	8.75	Test		
	Potassium	5.25	Test		
	Selenium	18.25	Test		
	Silica	45.00	Test		
	Silver	5.25	Test		
	Sodium	5.00	Test		
	Specific conductance	3.80	Test		
	Strontium	6.00	Test		
	Sulfate	7.80	Test		
	Sulfide	90.00	Test		
	Tin	5.50	Test		
	TSS	15.50	Test		
	Turbidity	4.75	Test		
	Vanadium	11.25	Test		
	Zinc	3.75	Test		
	Lindane	75.00	Test		
	Endrin	75.00	Test		
	Toxaphene	75.00	Test		
	Methoxychlor	75.00	Test		
	2, 4-D	85.00	Test		
	Silver	85.00	Test		
	All six organics	300.00	Test		
	Trihalomethanes	40.00	Test		

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

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Nebr.	Specimen mailing kits	0.50	Specimen	153,194	Deposited into 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	20,000	Returned to State General Fund. Can be used for laboratory operating costs if regular appropriation is not adequate.
	Registrations	10.00	Each		
	Certifications	10.00	Each		
	Water Bacteriology	5.25	Sample		
	Water Chemistry	111.00	Sample		
N.J.	RPR	3.00	Specimen	269,246	Divisional Revolving Fund.
	Rubella	4.00	Specimen		
	Potable Water/Bact.	9.00	Sample		
	MHA—TP	3.00	Specimen		
	Toxoplasmosis	6.00	Specimen		
	Blood Lead	6.00	Sample		
N.M.	Various types of analyses	3.35	RVU	310,650	Treated as budget revenues.
N.C.	Coliform Test—Water	5.00	Test	519,386	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 are used to fund positions and purchase supplies, postage, equipment, etc., necessary to perform analytical services.
	Inorganic Chemicals—Water	100.00	Sample (13 parameters)		
	Organic chemicals — Water	120.00	Sample (6 parameters)		
	Radiological analyses—Water	50.00	Sample		
	(above are required by N.C. Drinking Water Act)				
	Sale of specimen collection outfits and biological products	Varies	—		
N.D.	Clinical microbiology:			150,000	State General Fund.
	Blood, enteric spinal fluid, urine and miscellaneous culture	7.00	Specimen		
	Culture and susceptibility test	9.00	Specimen		
	Anaerobic test	9.00	Specimen		
	Parasite examination	7.00	Specimen		
	Lancefield Streptococcus Grouping	5.00	Specimen		
	Legionnaires Disease	15.00	Specimen		
	Throat culture	3.00	Specimen		
	Serology:				
	Bacterial agglutination	3.00	Specimen		
	Tularemia	3.00	Specimen		
	Ox-cell hemolysin	6.00	Specimen		
	Antistreptolysin (ASO)	4.00	Specimen		
	Blood Grouping	2.00	Specimen		
	Syphilis Serology	3.00	Specimen		
	Rubella screen	2.00	Specimen		
	Viral Tests:				
	Simple—one test	7.00	Paired Sera		
	Complex—2 or more	14.00	Paired Sera		
	Rabies—out-of-state	20.00	Specimen		
	Rickettsial Tests:				
	Proteus, OXK, OX_2 and OX_{19} (Agglutination)	4.00	Specimen		
	Rocky Mountain Spotted Fever, complement fixation test	7.00	Specimen		
	Water Bacteriology:				
	Private supply	4.00	Sample		
	Public—contract optional, reduced fee depending on number of samples	4.00	Sample		
	Dairy Products (by contract)				

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

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
N.D. . . . . (Cont.)	Standard plate count	1.50	Sample		
	Coliform count	1.00	Sample		
	Phosphatase test	2.00	Sample		
	Abnormal milk test (WMT)	1.00	Sample		
	Inhibitory substance (penicillin, etc.)	2.00	Sample		
	Raw milk, grade A, standard test	4.50	Sample		
	Pasteurized milk sample, grade A	6.50	Sample		
	Manufacturing grade milk	3.50	Sample		
	Handling fee for sending specimens to other laboratories	2.00	Specimen		
Ohio	Microbiological Testing of Private Water	8.00	Sample	35,000	Purchase of supplies and materials used in the testing of these samples.
Ore.	(Charges began October 1,1981)				
	Metabolic Disease Test	3.25	Specimen	301,100	Entered in laboratory fee account.
	Congenital Toxoplasmosis	0.80	Specimen		
	Mycology culture	15.00	Specimen		
	Mycology—Virus Serology	15.00	Specimen		
	Virus Isolation	25.00	Specimen		
	Reference Culture	20.00	Specimen		
S.C.	GC Culture	2.00	Culture	250,000	6%—Agency Administration; 94%—Bureau Operation.
	Rh Typing	5.00	Specimen		
	Rubella	5.00	Specimen		
	STS	1.00	Specimen		
	Infectious Mononucleosis	8.00	Specimen		
	FTA-ABS	8.00	Specimen		
	Toxoplasmosis IFA	14.00	Specimen		
	Blood Lead—Qualitative	3.00	Specimen		
	Blood Lead—Quantitative	7.00	Specimen		
	Drugs—Qualitative	3.00	Specimen		
	Drugs—Quantitative	7.00	Specimen		
S.D.	Environmental Microbiology	1.84	R.V.	131,910	$29,326—returned to General Fund 104,584—available for laboratory expenditure through a revolving fund.
	Environmental Chemistry	1.84	R.V.		
Utah	Parasites	12.00	Specimen	257,573	Used to offset the cost of services provided.
	TORCH	36.00	Specimen		
	Toxoplasma antibody	15.00	Specimen		
	Syphilis Serology (RPR)	3.00	Specimen		
	Heterophile	6.00	Specimen		
	Enteric pathogens	6.00	Specimen		
	Water bacteriology	5.00	Specimen		
	Swimming pools (MF plus SPC)	9.00	Specimen		
	Newborn metabolic screening (PKU, galactosemia, T_4, TSH)	6.00	Specimen		
	Urine Drug Screen	9.00	Specimen		
	Urine alcohol	1.00	Specimen		
	Solid substance identification	25.00	Specimen		
	Blood alcohol	15.00	Specimen		
	Total water chemistry	100.00	Specimen		
	Nitrates plus sulfates	10.00	Specimen		
	Chlorinated hydrocarbons screen:				
	Water or blood	35.00	Specimen		
	Soil or tissue	45.00	Specimen		
	Organophosphates screen:				
	Water or blood	35.00	Specimen		
	Soil or tissue	45.00	Specimen		
	Both of the above screens:				
	Water or blood	45.00	Specimen		
	Soil or tissue	55.00	Specimen		
	Chlorophenoxy herbicides				
	Water or blood	45.00	Specimen		
	Soil or tissue	55.00	Specimen		

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

Lab.	Services Performed	Charge Per Unit	Unit	Estimated Annual Receipts	Disposition of Funds
Utah . . . . (Cont)	PCB's				
	Water, blood, oil	45.00	Specimen		
	Soil or tissue	55.00	Specimen		
	Combinations of chlorinated hydrocarbons, organophosphates, chlorophenoxy herbicides, or PCB's	55.00-75.00	Specimen		
	Analysis for a single pesticide:				
	Water or blood	35.00	Specimen		
	Soil or tissue	45.00	Specimen		
	Triazine herbicides				
	Water or blood	45.00	Specimen		
	Soil or tissue	55.00	Specimen		
	Carbamates				
	Water or blood	45.00	Specimen		
	Soil or tissue	55.00	Specimen		
	Trihalomethanes—Water	25.00	Specimen		
	Cholinesterase	18.00	Specimen		
Wash. . . .	Metabolics	4.50	Test	400,000	Supports laboratory operations.
	Water Bacteriology	6.00	Test		
	Radiation Drinking Water	50.00	Test		
	Premarital	5.00	Test		
	Water chemistries	5.00-150.00	Test(s)		
Wisc.	General Specimen Testing	3.00	Test	1,500,000	Used to offset costs of performing these tests.
	Cytogenetics	70.00	Test		
	Neonatal Screening	6.00	Specimen		

SECTION IV
WORKLOAD REPORTING CATEGORIES

DIAGNOSTIC WORKLOAD SECTION

THE FOLLOWING DEFINITIONS APPLY TO CATEGORIES I THROUGH XII:

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

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

Specimen/Sample

Any material received in the lab for testing in a workload category or sub-category or a material which is divided into aliquots for testing in multiple categories or sub-categories is counted as *one specimen for each category or sub-category*. Specimens collected from the same site on the same patient (or same environmental source) at the same time, are to be counted as *one specimen* in each category or sub-category in which it is tested.

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

Lab & Region	Total Diagnostic Bacteriology Specimens	A Nasopharyngeal Specimens	B Mycobacterial Specimens	C Enteric Specimens	D Gonococcus Specimens	E Anaerobic Specimens	F Other Bacteriology Specimens
Total	**6,794,816**	**1,155,077**	**470,324**	**195,694**	**4,801,721**	**9,862**	**162,138**
Average	130,670	23,102	9,798	3,837	96,034	241	3,450
New England	**482,165**	**229,868**	**13,528**	**20,771**	**206,311**	**416**	**11,271**
Conn.	118,150	51,803	6,864	7,505	44,885	140	6,953
Mass.	175,217	100,714	–	8,904	63,216	–	2,383
Me.	32,894	1,183	3,549	1,189	26,156	139	678
N.H.	–	–	–	–	–	–	–
R.I.	131,667	71,262	1,732	2,318	55,942	30	383
Vt.	24,237	4,906	1,383	855	16,112	107	874
Middle Atlantic	**254,331**	**90**	**23,717**	**13,117**	**215,551**	**156**	**1,700**
N.J.	241,386	–	16,158	8,822	215,494	86	826
N.Y.	–	–	–	–	–	–	–
Pa.	12,945	90	7,559	4,295	57	70	874
East North Central	**686,192**	**253,459**	**33,288**	**30,908**	**350,375**	**1,199**	**16,963**
Ill.	172,080	39,860	7,507	9,022	112,552	193	2,946
Ind.	12,149	858	3,011	2,450	4,821	45	964
Mich.	173,349	3,226	13,794	10,741	137,720	218	7,650
Ohio	285,178	200,658	3,961	2,492	76,807	388	872
Wisc.	43,436	8,857	5,015	6,203	18,475	355	4,531
West North Central	**557,913**	**197,262**	**32,801**	**17,135**	**295,884**	**1,089**	**13,742**
Ia.	113,165	39,405	2,725	1,354	68,368	174	1,139
Kans.	68,809	18,651	6,816	4,025	37,553	400	1,364
Minn.	122,548	2,053	13,980	4,728	101,425	147	215
Mo.	161,778	103,942	–	3,087	53,514	129	1,106
Nebr.	28,429	4,499	904	331	22,695	–	–
N.D.	42,316	18,975	4,497	2,515	6,172	239	9,918
S.D.	20,868	9,737	3,879	1,095	6,157	–	–
South Atlantic	**1,997,089**	**135,217**	**132,157**	**57,176**	**1,617,661**	**2,529**	**52,349**
Del.	42,586	6,610	–	732	33,941	–	1,303
D.C.	88,574	5,943	1,284	1,557	79,226	–	564
Fla.	690,875	27,726	45,676	27,325	580,365	477	9,306
Ga.	268,765	8,325	21,089	3,928	231,782	301	3,340
Md.	436,730	27,752	14,826	8,664	359,371	397	25,720
N.C.	23,285	779	16,155	3,783	471	527	1,570
S.C.	207,493	3,141	10,434	1,031	185,763	509	6,615
Va.	123,951	13,252	15,843	9,108	82,479	286	2,983
W.Va.	114,830	41,689	6,850	1,048	64,263	32	948
East South Central	**959,913**	**66,845**	**84,031**	**10,635**	**790,170**	**1,496**	**6,736**
Ala.	384,263	73	31,744	2,417	348,965	171	893
Ky.	21,927	2,428	13,936	1,467	3,502	10	584
Miss.	243,157	30,796	19,074	4,424	186,122	–	2,741
Tenn.	310,566	33,548	19,277	2,327	251,581	1,315	2,518
West South Central	**1,070,287**	**43,918**	**95,308**	**20,021**	**894,354**	**1,694**	**14,992**
Ark.	111,607	15,135	21,922	1,305	72,900	96	249
La.	143,362	3,875	8,701	4,997	123,405	735	1,649
Okla.	123,955	17,122	10,652	1,986	93,492	76	627
Tex.	691,363	7,786	54,033	11,733	604,557	787	12,467
Mountain	**450,520**	**192,171**	**21,010**	**12,396**	**217,340**	**445**	**7,158**
Ariz.	6,964	139	3,157	2,499	171	265	733
Colo.	70,482	36,130	1,982	1,575	30,311	20	464
Ida.	36,999	1,881	3,005	1,359	30,754	–	–
Mont.	16,277	950	2,744	557	11,478	–	548
Nev.	41,720	568	2,013	509	37,787	–	843
N.M.	93,938	2,531	5,606	2,708	78,504	126	4,463
Utah	29,297	118	2,062	3,037	23,939	34	107
Wyo.	154,843	149,854	441	152	4,396	–	–
Pacific	**311,803**	**35,952**	**31,848**	**12,868**	**211,432**	**810**	**18,893**
Alaska	87,192	19,412	10,896	1,204	53,180	92	2,408
Cal.	24,810	552	1,022	282	13,402	92	9,460
Hawaii	151,762	11,650	8,246	7,142	119,007	508	5,209
Ore.	9,138	2,573	3,236	1,391	682	44	1,212
Wash.	38,901	1,765	8,448	2,849	25,161	74	604
Territories	**24,603**	**295**	**2,636**	**667**	**2,643**	**28**	**18,334**
Guam	5,476	40	2,356	272	2,643	1	164
P.R.	677	255	–	395	–	27	–
V.I.	18,450	–	280	–	–	–	18,170

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

Lab. & Region	1. Streptococcus Beta Hemolytic, Group A							
	Number of Specimens	Procedures Used						
		Culture	FA	Sero-grouping	Sero-typing	Bacitracin Disc	Other	
Total	**1,117,627**							
Average	24,296							
New England	**229,036**							
Conn.	51,349	X	X	X	–	X	–	
Mass.	100,495	X	X	–	–	–	–	
Me.	1,110	–	X	X	X	X	–	
N.H.	–	–	–	–	–	–	–	
R.I.	71,202	X	X	–	–	–	–	
Vt.	4,880	X	X	X	–	–	–	
Middle Atlantic	**13**							
N.J.	–	X	–	X	–	X	–	
N.Y.	–	–	–	–	–	–	–	
Pa.	13	X	–	X	X	–	–	
East North Central	**244,877**							
Ill.	39,443	X	–	–	–	–	–	
Ind.	–	–	–	–	–	–	–	
Mich.	2,556	X	–	–	–	X	–	
Ohio	194,512	X	X	X	–	–	–	
Wisc.	8,366	X	X	X	–	X	–	
West North Central	**192,082**							
Ia.	39,388	X	X	–	–	–	–	
Kans.	18,600	X	X	–	–	X	–	
Minn.	6	X	–	X	–	–	–	
Mo.	103,417	X	X	X	X	–	–	
Nebr.	4,090	X	X	X	–	X	–	
N.D.	18,927	–	X	X	–	–	–	
S.D.	7,654	–	X	–	–	–	–	
South Atlantic	**117,485**							
Del.	6,610	X	X	–	–	–	–	
D.C.	5,924	X	–	–	–	X	–	
Fla.	13,671	X	–	–	–	X	–	
Ga.	6,813	X	X	–	X	–	–	
Md.	26,058	X	–	X	–	X	–	
N.C.	583	X	X	X	–	–	–	
S.C.	3,102	X	X	X	–	X	–	
Va.	13,098	X	X	X	–	X	–	
W.Va.	41,626	X	X	–	–	–	–	
East South Central	**66,377**							
Ala.	–	–	–	–	–	–	–	
Ky.	2,331	X	X	X	–	–	–	
Miss.	30,796	X	X	–	–	–	–	
Tenn.	33,250	–	X	–	–	–	–	
West South Central	**42,366**							
Ark.	15,122	X	X	X	X	X	–	
La.	3,497	X	X	X	–	–	–	
Okla.	16,900	X	X	–	–	–	–	
Tex.	6,847	X	X	X	X	–	–	
Mountain	**191,715**							
Ariz.	115	X	X	X	X	–	Biochemicals	
Colo.	36,115	X	X	–	–	–	–	
Ida.	1,752	X	X	X	–	X	–	
Mont.	793	X	–	X	–	–	–	
Nev.	568	X	–	–	–	X	–	
N.M.	2,518	X	X	X	–	X	–	
Utah	–	–	–	–	–	–	–	
Wyo.	149,854	X	X	X	–	–	–	
Pacific	**33,418**							
Alaska	18,892	X	X	X	X	X	–	
Cal.	–	X	X	X	X	–	–	
Hawaii	11,486	X	X	X	X	X	–	
Ore.	2,253	X	X	–	–	–	–	
Wash.	787	X	X	–	–	–	–	
Territories	**258**							
Guam	3	X	–	–	–	X	–	
P.R.	255	–	X	–	–	–	–	
V.I.	–	–	–	–	–	–	–	

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	**16,785**					
Average	480					
New England	**21**					
Conn.	4	X	X	X	X	–
Mass.	11	X	X	X	X	FA
Me.	–	–	–	–	–	–
N.H.	–	–	–	–	–	–
R.I.	5	X	X	X	X	–
Vt.	1	X	X	X	X	–
Middle Atlantic	**2**					
N.J.	–	X	X	–	X	–
N.Y.	–	–	–	–	–	–
Pa.	2	X	X	X	–	–
East North Central	**338**					
Ill.	329	–	X	X	X	–
Ind.	1	X	X	X	X	–
Mich.	1	–	X	X	X	–
Ohio	7	–	X	X	X	–
Wisc.	–	–	–	–	–	–
West North Central	**2,084**					
Ia.	1	X	X	–	X	–
Kans.	–	–	X	X	–	–
Minn.	19	–	X	–	X	–
Mo.	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–
N.D.	6	–	X	–	X	–
S.D.	2,058	X	X	X	X	–
South Atlantic	**13,691**					
Del.	–	–	–	–	–	–
D.C.	6	–	X	–	–	–
Fla.	13,671	–	X	X	X	–
Ga.	5	X	X	X	–	–
Md.	–	–	–	–	–	–
N.C.	–	X	X	–	X	–
S.C.	2	X	X	–	X	–
Va.	7	X	X	X	X	–
W. Va.	–	–	–	–	–	–
East South Central	**23**					
Ala.	10	X	X	–	X	–
Ky.	3	X	X	X	X	–
Miss.	–	–	X	–	X	–
Tenn.	10	–	X	–	X	–
West South Central	**72**					
Ark.	3	X	X	X	–	–
La.	9	X	X	–	–	–
Okla.	6	X	X	X	X	–
Tex.	54	X	X	X	X	–
Mountain	**89**					
Ariz.	22	X	X	X	X	–
Colo.	8	X	X	X	–	–
Ida.	9	X	X	X	X	–
Mont.	22	X	X	X	X	–
Nev.	–	–	–	–	–	–
N.M.	13	X	X	X	X	–
Utah	15	X	X	X	X	–
Wyo.	–	–	–	–	–	–
Pacific	**465**					
Alaska	20	X	X	X	–	–
Cal.	–	X	X	X	X	–
Hawaii	12	X	X	X	X	–
Ore.	7	X	X	X	X	–
Wash.	426	X	X	X	X	–
Territories	–					
Guam	–	–	–	–	–	–
P.R.	–	–	–	–	–	–
V.I.	–	–	–	–	–	–

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

Lab & Region	3. Pertussis				
	Number of Specimens	Culture	FA	Serological	Biochemicals
Total	**7,654**				
Average	187				
New England	**366**				
Conn.	75	X	X	–	X
Mass.	188	X	X	–	X
Me.	73	–	X	–	–
N.H.	–	–	–	–	–
R.I.	5	X	X	–	X
Vt.	25	X	X	–	–
Middle Atlantic	**60**				
N.J.	–	–	–	–	–
N.Y.	–	–	–	–	–
Pa.	60	X	X	–	X
East North Central	**2,054**				
Ill.	88	X	X	–	X
Ind.	857	–	X	–	–
Mich.	645	X	X	–	X
Ohio	199	X	X	–	X
Wisc.	265	X	X	–	X
West North Central	**651**				
Ia.	16	X	X	–	–
Kans.	14	X	X	–	–
Minn.	114	X	X	X	X
Mo.	440	X	X	X	–
Nebr.	–	–	–	–	–
N.D.	42	–	X	–	–
S.D.	25	X	X	–	–
South Atlantic	**2,469**				
Del.	–	–	–	–	–
D.C.	–	–	–	–	–
Fla.	384	–	X	–	–
Ga.	1,507	X	X	X	–
Md.	135	X	–	–	–
N.C.	196	X	X	–	X
S.C.	37	X	X	–	X
Va.	147	–	X	–	–
W.Va.	63	–	X	–	–
East South Central	**409**				
Ala.	27	X	X	X	X
Ky.	94	–	X	–	–
Miss.	–	–	X	–	–
Tenn.	288	X	X	–	–
West South Central	**616**				
Ark.	10	X	X	X	X
La.	292	X	X	–	–
Okla.	216	X	X	–	–
Tex.	98	X	X	–	X
Mountain	**235**				
Ariz.	2	X	–	–	–
Colo.	3	X	X	–	X
Ida.	120	X	X	–	X
Mont.	94	X	X	–	–
Nev.	–	–	–	–	–
N.M.	–	X	X	–	X
Utah	16	X	X	–	X
Wyo.	–	–	–	–	–
Pacific	**757**				
Alaska	76	X	X	–	X
Cal.	–	X	X	X	X
Hawaii	20	X	X	–	–
Ore.	109	X	X	–	–
Wash.	552	X	X	–	–
Territories	**37**				
Guam	37	X	–	–	–
P.R.	–	–	–	–	–
V.I.	–	–	–	–	–

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

		4. Other Nasopharyngeal Specimens
Lab	Number of Specimens	Disease — Procedures Used
Total	13,011	
Average	566	
Ala.	36	Staphylococcus — culture, coagulase
Alaska	424	*N. meningitidis, H. influenzae, S. pneumoniae*, staphylococcus — micro (culture, biochemicals)
Cal.	552	Infant botulism — culture, smear, animal inoculation
Colo.	4	*N. meningitidis* — Cuhune, sugars
Conn.	375	Legionnaires' disease — direct FA; Vincent's infection
D.C.	13	Meningococcal carrier state — Thayer-Martin culture; *H. influenzae* — chocolate agar culture
Hawaii	132	Meningococcus, staphylococcus, *H. influenzae* — culture identification
Kans.	37	Legionella — direct FA and culture; Leptospira — culture and darkfield
La.	77	Clinical streptococcus — Culpak
Md.	1,559	Bacteremia, other bacterial — culture
Mass.	20	Meningitis — culture, biochemical, serogrouping
Mich.	24	Vincent's angina — stained smear
Minn.	1,914	Referred cultures for identification from a variety of human sources — smear, biochemical, serological, animal pathology, toxin
Mo.	85	Referred streptococcus
Mont.	41	*Staphylococcus aureus, Hemophilus influenzae, Neisseria meningitidis*, streptococcus group C — culture and biochemicals
Nebr.	409	Reference culture slants
Ohio	5,940	Staphylococcus — culture and phage typing; aerobic non-fermenters, aerobic gram-positive bacteria — culture and identification
Okla.	–	Streptococcus (not group A) — biochemicals, Lancefield; Haemophilus — biochemicals
Ore.	204	Miscellaneous URI — isolation and/or culture identification
Pa.	15	Streptococcus, Beta hemolytic, not group A
R.I.	50	Meningococcus — culture, biochemicals, serogrouping; staphylococcus — culture, biochemicals; pneumococcus — culture, biochemicals; *H. influenzae* — culture, factors, typing
Tex.	787	–
Utah	87	Tularemia — culture, FA, agglutination; brucella — culture, biochemicals, agglutination; meningitis (all types) — smear, culture, typing; toxic shock syndrome — culture, coagulase; miscellaneous blood and throat cultures — culture
Wisc.	226	Urinary tract infection — urine culture; septicemia — blood culture

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	**470,324**								
Average	9,798								
New England	**13,528**								
Conn.	6,864	–	X	X	–	9	19	X	–
Mass.	–	–	–	–	–	–	–	–	–
Me.	3,549	–	X	X	6	6	8	X	Atypicals, unclassified
N.H.	–	–	–	–	–	–	–	–	–
R.I.	1,732	–	X	X	–	7	12	X	–
Vt.	1,383	–	X	X	6	6	12	X	–
Middle Atlantic	**23,717**								
N.J.	16,158	–	X	X	4	8	12	X	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	7,559	X	X	X	5	5	3-12	X	Indirect susceptibility to secondary drugs
East North Central	**33,288**								
Ill.	7,507	–	X	X	–	5	9	X	–
Ind.	3,011	–	X	X	6	6	8	X	–
Mich.	13,794	–	X	X	–	9	11	X	–
Ohio	3,961	–	X	X	10	10	10	X	–
Wisc.	5,015	–	X	X	–	8	10	X	–
West North Central	**32,801**								
Ia.	2,725	X	X	X	8	8	14	X	–
Kans.	6,816	–	X	X	6	6	16	X	–
Minn.	13,980	–	X	X	3	–	15	X	–
Mo.	–	–	–	–	–	–	–	–	–
Nebr.	904	X	X	X	5	5	11	–	–
N.D.	4,497	–	X	X	5	5	9	–	–
S.D.	3,879	X	X	X	3	3	5	X	–
South Atlantic	**132,157**								
Del.	–	–	–	–	–	–	–	–	–
D.C.	1,284	–	X	X	4	4	8	X	–
Fla.	45,676	–	X	X	–	7	12	X	–
Ga.	21,089	X	X	X	5	9	12	X	–
Md.	14,826	X	X	X	4	9	3-12	X	–
N.C.	16,155	–	X	X	4	4	10	X	–
S.C.	10,434	X	X	X	7	7	10	X	–
Va.	15,843	–	X	X	4	4	12	X	–
W.Va.	6,850	X	X	X	9	9	7	X	–
East South Central	**84,031**								
Ala.	31,744	–	X	X	8	8	21	X	Serotype atypical mycobacteria
Ky.	13,936	–	X	X	9	9	9	X	Fluorochrome smear
Miss.	19,074	–	–	–	–	7	6	X	–
Tenn.	19,277	–	X	X	–	6	–	X	–
West South Central	**95,308**								
Ark.	21,922	X	X	X	6	6	7	X	–
La.	8,701	X	X	X	–	5	12	X	–
Okla.	10,652	–	X	X	5	5	8	X	–
Tex.	54,033	X	X	X	6	6	14	X	–
Mountain	**21,010**								
Ariz.	3,157	X	X	X	8	8	12	X	–
Colo.	1,982	X	–	X	–	–	–	X	–
Ida.	3,005	X	X	X	6	6	11	X	–
Mont.	2,744	X	X	X	7	7	11	X	–
Nev.	2,013	–	X	X	–	–	5	X	–
N.M.	5,606	–	X	X	5	5	–	X	–
Utah	2,062	X	X	X	4	7	15	X	–
Wyo.	441	X	X	X	–	–	–	–	–
Pacific	**31,848**								
Alaska	10,896	X	X	X	–	4-6	5-8	X	–
Cal.	1,022	–	X	X	5	5-9	10	X	–
Hawaii	8,246	–	X	X	5	5	10	X	–
Ore.	3,236	–	X	X	–	–	13	X	–
Wash.	8,448	–	X	X	5	5	10	X	–
Territories	**2,636**								
Guam	2,356	–	X	X	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–
V.I.	280	–	–	–	–	–	–	–	–

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

Lab & Region	Number of Specimens	Procedures Used							
		Primary Plating	Enrich-ment Plating	Bio-chemicals	FA	Sero-grouping	Sero-typing	Phage Typing S. typhi	Other
Total	**195,694**								
Average	3,837								
New England	**20,771**								
Conn.	7,505	X	X	X	–	X	X	–	–
Mass.	8,904	X	X	X	–	X	X	–	–
Me.	1,189	X	X	X	–	X	X	–	–
N.H.	–	–	–	–	–	–	–	–	–
R.I.	2,318	X	X	X	–	X	X	–	–
Vt.	855	X	X	X	–	X	X	–	–
Middle Atlantic	**13,117**								
N.J.	8,822	X	X	X	–	X	X	–	Kirby-Bauer (Susceptibility)
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	4,295	X	X	X	–	X	X	X	Food-borne outbreak specimens
East North Central	**30,908**								
Ill.	9,022	X	X	X	–	X	X	X	–
Ind.	2,450	X	X	X	–	X	X	–	–
Mich.	10,741	X	X	X	–	X	X	–	–
Ohio	2,492	X	X	X	–	X	X	–	–
Wisc.	6,203	X	X	X	–	X	X	–	–
West North Central	**17,135**								
Ia.	1,354	X	X	X	X	X	X	–	–
Kans.	4,025	X	X	X	X	X	X	–	–
Minn.	4,728	X	X	X	–	X	X	X	–
Mo.	3,087	X	X	X	X	X	X	–	–
Nebr.	331	X	X	X	–	X	–	–	–
N.D.	2,515	X	X	X	–	X	X	–	–
S.D.	1,095	X	X	X	–	X	–	–	–
South Atlantic	**57,176**								
Del.	732	X	X	X	–	X	X	–	–
D.C.	1,557	X	X	X	–	X	X	–	–
Fla.	27,325	X	X	X	–	X	X	–	–
Ga.	3,928	X	X	X	–	X	X	–	–
Md.	8,664	X	X	X	–	X	X	–	Sensitivity
N.C.	3,783	X	X	X	–	X	X	–	Campylobacter ID
S.C.	1,031	X	X	X	–	X	X	–	–
Va.	9,108	X	X	X	–	X	X	–	–
W.Va.	1,048	X	X	X	–	X	X	–	–
East South Central	**10,635**								
Ala.	2,417	X	X	X	–	X	X	–	–
Ky.	1,467	X	X	X	X	X	X	X	–
Miss.	4,424	X	X	X	X	X	X	–	Subculture
Tenn.	2,327	X	X	X	–	X	X	–	–
West South Central	**20,021**								
Ark.	1,305	X	X	X	–	X	X	–	–
La.	4,997	X	X	X	–	X	X	X	–
Okla.	1,986	X	X	X	–	X	X	–	–
Tex.	11,733	X	X	X	–	–	X	X	–
Mountain	**12,396**								
Ariz.	2,499	X	X	X	X	X	X	–	–
Colo.	1,575	X	X	X	–	X	X	–	–
Ida.	1,359	X	X	X	–	X	X	–	–
Mont.	557	X	X	X	–	X	–	–	–
Nev.	509	X	X	X	–	X	–	–	–
N.M.	2,708	X	X	X	–	X	X	–	–
Utah	3,037	X	X	X	–	X	X	–	–
Wyo.	152	X	X	X	–	X	–	–	–
Pacific	**12,868**								
Alaska	1,204	X	X	X	X	X	X	–	–
Cal.	282	X	X	X	X	X	X	X	Sensitivity tests, Campylobacter
Hawaii	7,142	X	X	X	X	X	X	X	–
Ore.	1,391	X	X	X	–	X	X	–	–
Wash.	2,849	X	X	X	–	X	X	–	–
Territories	**667**								
Guam	272	X	X	X	–	X	–	–	–
P.R.	395	X	X	X	–	X	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

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	**4,801,721**							
Average	96,034							
New England	206,311							
Conn.	44,885	X	X	X	X	X	X	–
Mass.	63,216	X	X	X	X	X	X	–
Me.	26,156	X	X	X	X	X	X	–
N.H.	–	–	–	–	–	–	–	–
R.I.	55,942	X	X	X	X	X	X	–
Vt.	16,112	X	X	X	X	X	X	–
Middle Atlantic	**215,551**							
N.J.	215,494	X	X	X	–	X	X	Coagglutination
N.Y.	–	–	–	–	–	–	–	–
Pa.	57	X	X	X	–	X	X	–
East North Central	**350,375**							
Ill.	112,552	X	X	X	–	X	X	–
Ind.	4,821	X	X	X	X	X	X	–
Mich.	137,720	X	X	X	–	X	X	–
Ohio	76,807	X	X	X	X	X	X	–
Wisc.	18,475	X	X	X	–	X	X	Coagglutination
West North Central	**295,884**							
Ia.	68,368	X	X	X	X	X	–	Kirby-Bauer
Kans.	37,553	X	X	X	X	X	X	–
Minn.	101,425	X	X	X	X	X	X	–
Mo.	53,514	X	X	X	X	X	X	–
Nebr.	22,695	X	X	X	X	X	X	Phadebact
N.D.	6,172	X	X	X	X	X	X	–
S.D.	6,157	X	X	X	X	X	X	–
South Atlantic	**1,617,661**							
Del.	33,941	X	X	X	–	X	X	–
D.C.	79,226	X	X	X	–	X	X	–
Fla.	580,365	X	X	X	–	X	X	–
Ga.	231,782	X	X	X	–	X	X	Coagglutination
Md.	359,371	X	X	X	X	X	X	–
N.C.	471	X	X	X	–	X	X	–
S.C.	185,763	X	X	X	X	X	X	–
Va.	82,479	X	X	X	X	X	X	–
W. Va.	64,263	X	X	X	X	X	X	–
East South Central	**790,170**							
Ala.	348,965	–	X	X	X	X	X	–
Ky.	3,502	X	X	X	X	X	X	–
Miss.	186,122	X	X	X	–	X	X	Gram stain and culture, drug susceptibility
Tenn.	251,581	X	X	X	X	X	X	–
West South Central	**894,354**							
Ark.	72,900	X	X	X	X	X	X	–
La.	123,405	X	X	X	–	X	X	–
Okla.	93,492	X	X	X	–	X	X	–
Tex.	604,557	X	X	X	X	X	X	–
Mountain	**217,340**							
Ariz.	171	X	X	X	X	X	–	–
Colo.	30,311	X	X	X	–	X	X	–
Ida.	30,754	X	X	X	X	X	X	–
Mont.	11,478	X	X	X	X	X	X	–
Nev.	37,787	X	X	X	X	X	X	–
N.M.	78,504	X	X	X	X	X	X	–
Utah	23,939	X	X	X	X	X	X	–
Wyo.	4,396	X	X	X	X	X	X	–
Pacific	**211,432**							
Alaska	53,180	X	X	X	X	X	X	–
Cal.	13,402	X	X	X	X	X	X	–
Hawaii	119,007	X	X	X	X	X	X	–
Ore.	682	X	X	X	X	X	X	–
Wash.	25,161	X	X	X	X	X	X	Phadebact
Territories	**2,643**							
Guam	2,643	X	X	X	–	X	X	–
P.R.	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–

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	**9,862**									
Average	241									
New England	**416**									
Conn.	140	–	X	X	X	X	X	X	X	–
Mass.	–	–	–	–	–	–	–	–	–	–
Me.	139	X	X	X	X	X	X	–	X	–
N.H.	–	–	–	–	–	–	–	–	–	–
R.I.	30	X	–	X	X	X	X	–	–	–
Vt.	107	X	X	X	X	X	X	X	X	–
Middle Atlantic	**156**									
N.J.	86	–	X	X	–	X	X	–	X	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	70	–	X	X	X	X	X	–	X	–
East North Central	**1,199**									
Ill.	193	–	X	X	X	X	X	–	X	–
Ind.	45	–	X	X	X	X	X	–	X	–
Mich.	218	X	X	X	X	X	X	–	X	–
Ohio	388	X	X	X	X	X	X	–	X	–
Wisc.	355	X	X	X	X	X	X	–	X	Antibiotic susceptibility testing
West North Central	**1,089**									
Ia.	174	X	X	X	X	X	X	X	X	–
Kans.	400	X	X	X	X	X	X	–	X	–
Minn.	147	–	X	X	X	X	X	–	X	Animal toxogenicity, serology
Mo.	129	–	X	X	X	X	X	X	X	–
Nebr.	–	–	–	–	–	–	–	–	–	–
N.D.	239	X	–	X	X	X	X	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–
South Atlantic	**2,529**									
Del.	–	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–	–
Fla.	477	X	X	X	X	X	X	X	X	–
Ga.	301	X	X	X	X	X	X	–	X	–
Md.	397	X	X	X	X	X	X	–	X	–
N.C.	527	X	X	X	X	X	X	X	X	–
S.C.	509	X	X	–	X	X	X	X	X	–
Va.	286	–	–	X	X	X	X	–	–	–
W.Va.	32	X	–	X	X	X	X	–	–	–
East South Central	**1,496**									
Ala.	171	–	–	X	X	X	X	–	–	Animal inoculation for toxin production
Ky.	10	–	X	X	X	X	X	–	X	–
Miss.	–	X	–	X	X	X	X	–	–	–
Tenn.	1,315	–	X	X	X	X	X	–	X	–
West South Central	**1,694**									
Ark.	96	X	X	X	X	X	X	X	X	–
La.	735	X	X	X	X	X	X	–	X	–
Okla.	76	–	X	X	X	X	X	–	X	–
Tex.	787	X	X	X	X	X	X	X	X	–
Mountain	**445**									
Ariz.	265	X	X	X	X	X	X	X	X	–
Colo.	20	X	–	X	X	X	X	–	–	–
Ida.	–	–	–	–	–	–	–	–	–	–
Mont.	–	X	–	X	X	X	X	–	–	–
Nev.	–	–	–	–	–	–	–	–	–	–
N.M.	126	X	X	X	X	X	–	–	X	–
Utah	34	X	–	X	X	X	X	–	–	Toxin typing of *C. botulinum* in mice from infant stool spec.
Wyo.	–	–	–	–	–	–	–	–	–	–
Pacific	**810**									
Alaska	92	X	–	X	X	X	X	–	–	–
Cal.	92	X	X	X	X	X	X	X	X	–
Hawaii	508	–	–	X	X	X	X	–	X	–
Ore.	44	–	X	X	X	X	X	X	X	–
Wash.	74	X	X	X	X	X	X	–	X	Mouse toxicity testing, antibiograms, mouse neutralization
Territories	**28**									
Guam	1	X	–	X	X	X	–	–	–	–
P.R.	27	X	X	X	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–

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

Lab	Number Of Specimens	Disease — Procedures Used
Total	**162,138**	
Average	3,450	
Ala.	893	Reference bacteriology — culture, biochemical, serotyping, Gram stain
Alaska	2,408	Reference microbiology — culture; susceptibility — Kirby-Bauer; primary cultures — culture
Ariz.	733	Blood, miscellaneous — culture, isolation, biopsy, identification, biochemical
Ark.	249	Staphylococcus culture, miscellaneous — spinal fluid, blood culture, lesions
Cal.	9,460	Plague, Legionnaires', relapsing fever, miscellaneous, reference cultures for identification
Colo.	464	–
Conn.	6,953	Genital smears (not GC) — stain; nosocomial infections — phage typing; clinical cultures; referred cultures
Del.	1,303	Urine cultures, miscellaneous cultures, reference cultures
D.C.	564	Miscellaneous (eye, ear, skin, etc.) — culture
Fla.	9,306	Primary or reference culture (eye, ear, kidney, etc.) — smear and culture; sensitivity testing — disc test; rheumatic fever prophylaxis — bacterial inhibition/penicillin sensitivity; dental caries — lactobacillus count
Ga.	3,340	Meningitis, pneumonia, bacteremia, osteomyelitis, wounds, abscesses, conjunctivitis, etc. — usual and standard procedures as indicated
Guam	164	–
Hawaii	5,209	Staphylococcus phage typing; antibiotic sensitivity — Kirby-Bauer; non-human enteric, leptospirosis, campylobacter — culture identification; reference — subculture, appropriate identification
Ill.	2,946	Syphilis — darkfield, Fontana smear; Vincent's angina — microscopic smear; staphylococcus infections — bacteriophage typing; miscellaneous infections — culture, biochemicals
Ind.	964	Staphylococcal (nosocomial) — bacteriophage typing, aerobic bacterial infections — culture identification
Iowa	1,139	Legionella, urine — culturing; toxin studies, salmonella — DFA, IFA; miscellaneous, wounds, infections, body fluids — flagellar stains, Kirby-Bauer
Kans.	1,364	Wounds, urinary, and other body specimens — culture, staining, biochemicals, serology, and other procedures
Ky.	584	Staphylococcus bacteriophage — smear, coagulase, phage typing; miscellaneous cultures — smear, biochemicals, coagulase, serogrouping
La.	1,649	Culture for identification, salmonella food outbreak and water, eye culture — stain, culture, biochemical; clinical Neisseria meningitidis — same as GC; vaginal smears — stain; typhoid — M.F. and enteric bacteriology procedures; N. meningitidis — cultures, typing
Me.	678	Toy stuffing — plate count plus membrane filter (coliforms); food poisoning, referred cultures — standard procedures
Md.	25,720	–
Mass.	2,383	Miscellaneous infections, including botulism, Legionnaires' disease, N. meningitidis and referred cultures for identification — microscopic, culture, biochemical, biotyping, serological, animal inoculation
Mich.	7,650	Transudates/exudates, saliva (lactobacilli), urines, mycoplasma — culture; staphylococcal — phage typing; aerobic referred cultures — identification
Minn.	215	Leptospirosis, botulism, blood, CSF, tissues, food poisonings, campylobacter sp., Legionnaires' bacterium — microscopic, culture, serology, FA, animal pathogenicity, and toxins

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

Lab	Number Of Specimens	Disease — Procedures Used
Miss.	2,741	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, biochemical, Gram stain, agglutination
Mo.	1,106	Legionnaires' — culture, smear, FA; leptospirosis — microscopic, culture; aerobes — culture, FA, biochemical, serology, sensitivity, and microscopic; miscellaneous — culture, serologic FA, biochemical
Mont.	548	Includes anaerobic specimens and all bacterial serologies
Nev.	843	Abscess, urinary, cervical for B-streptococcus only — smears, cultures, biochemicals
N.J.	826	Legionella pneumophila — culture, FA; referred cultures
N.M.	4,463	Plague — direct FA, phage, culture, animal inoculation, if necessary; staphylococcus infections — phage typing, if requested by epidemiologist; nosocomial infections — sterility spore test; others — direct FA, cultures
N.C.	1,570	Reference specimens, clinical specimens — smear, culture, biochemicals, serologic typing; food (outbreak) and related environmental and human specimens — BAM techniques and standard techniques
N.D.	9,918	Bacteremia — blood culture, Gram, biochemical; UTI — urine culture, Gram, biochemical; spinal fluid — stain, culture, typing; wound — appropriate; miscellaneous — appropriate; Legionnaires' — culture, FA, IFA; referred specimens — appropriate; antibiotic sensitivity — Kirby-Bauer (Barry overlay)
Ohio	872	Mycoplasma, ureaplasma, leptospirosis — culture; Legionnaires' — culture and FA
Okla.	627	Urine, sputums, wounds, miscellaneous — plating, biochemical, serology
Ore.	1,212	Miscellaneous specimens and cultures for identification
Pa.	874	Legionnaires' disease — DFA and culture; other bacterial infections — standard techniques
R.I.	383	Miscellaneous reference cultures — biochemicals
S.C.	6,615	Septicemia, pneumonia, meningitis — culture; urinary tract infection — quantitative count, biochemicals; drug sensitivity — Kirby-Bauer
Tenn.	2,518	–
Tex.	12,467	–
Utah	107	Legionnaires' disease — culture, FA, pigment, biochemicals, direct FA; identification of reference cultures, primarily unusual gram-negative rods, listeria, etc. — biochemicals, Gram stain
Vt.	874	Legionnaires' disease — isolation, FA grouping; miscellaneous — isolation
Va.	2,983	Miscellaneous body fluids, dental caries, lactobacillis count, autopsy specimens, reference cultures
V.I.	18,170	This figure includes all diagnostic bacteriology specimens, except mycobacteria
Wash.	604	Legionella — stains, plating, embryonated eggs, 6 pigs; N. meningitidis — Gram stain, plating, serogrouping subculture; reference cultures from wounds, bites, draining infections — all bacterial procedures to isolate, identify, and determine sensitivity, as necessary
W.Va.	948	Miscellaneous — culture, biochemical, and serotyping
Wisc.	4,531	Ureaplasma, Mycoplasma pneumoniae — cultures

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	**56,622**							
Average	1,205							
New England	**3,569**							
Conn.	2,070	X	X	X	–	X	X	Differentiation media
Mass.	523	X	X	X	–	X	–	–
Me.	308	X	X	X	–	X	X	–
N.H.	–	–	–	–	–	–	–	–
R.I.	476	X	X	X	–	X	–	–
Vt.	192	X	X	X	–	X	–	Hair culture, amino acid requirement
Middle Atlantic	**1,702**							
N.J.	1,387	X	–	X	–	X	–	–
N.Y.	–	–	–	–	–	–	–	–
Pa.	315	X	X	X	–	X	–	Slide culture, nutritional tests, morphology agar
East North Central	**7,247**							
Ill.	1,240	X	X	X	–	X	X	–
Ind.	527	X	X	X	–	X	X	–
Mich.	1,387	X	X	X	–	X	X	–
Ohio	1,084	X	X	X	–	X	X	–
Wisc.	3,009	X	X	X	–	X	X	–
West North Central	**5,812**							
Ia.	244	X	X	X	X	X	X	–
Kans.	1,016	X	X	X	–	X	–	Immunoassay
Minn.	3,673	X	X	X	–	X	X	Assimilation tests
Mo.	324	X	X	X	X	X	X	–
Nebr.	–	–	–	–	–	–	–	–
N.D.	424	X	X	X	–	X	–	–
S.D.	131	X	X	X	–	X	–	–
South Atlantic	**10,122**							
Del.	–	X	X	X	–	X	–	–
D.C.	–	–	–	–	–	–	–	–
Fla.	2,323	X	X	X	–	X	–	–
Ga.	610	X	X	X	–	X	–	–
Md.	2,218	X	X	X	–	X	–	–
N.C.	1,250	X	X	X	–	X	–	–
S.C.	1,674	X	X	X	–	X	X	Sensitivities (MIC), exoantigen extract prep., lysozyme tests
Va.	1,632	X	X	X	–	X	X	–
W.Va.	415	X	X	X	X	X	–	–
East South Central	**10,262**							
Ala.	4,765	X	X	X	–	X	X	–
Ky.	1,347	X	X	X	–	X	X	–
Miss.	2,118	X	X	X	–	X	–	Hair culture
Tenn.	2,032	X	–	X	–	X	–	–
West South Central	**10,650**							
Ark.	2,313	X	X	X	–	X	–	–
La.	2,111	X	X	X	–	X	–	–
Okla.	719	X	X	X	–	X	–	Exoantigens, systemics
Tex.	5,507	X	X	X	–	X	X	Serologic
Mountain	**4,284**							
Ariz.	1,467	X	X	X	–	X	X	In-vitro conversion
Colo.	274	X	X	X	–	X	–	–
Ida.	1,334	X	X	X	–	X	–	–
Mont.	245	X	X	X	–	X	–	–
Nev.	96	X	–	X	–	–	–	–
N.M.	646	X	X	X	–	X	X	–
Utah	222	X	X	X	–	X	X	–
Wyo.	–	–	–	–	–	–	–	–
Pacific	**1,510**							
Alaska	272	X	X	X	–	X	–	–
Cal.	102	X	X	X	X	X	X	–
Hawaii	728	X	X	X	–	X	–	–
Ore.	253	X	X	X	–	X	X	–
Wash.	155	–	X	X	–	X	X	Tease mounts
Territories	**1,464**							
Guam	114	–	X	X	–	–	–	–
P.R.	–	–	–	–	–	–	–	–
V.I.	1,350	–	–	–	–	–	–	–

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	**332,318**	**323,595**	**8,723**
Average	6,391	6,223	242
New England	**20,295**	**19,716**	**579**
Conn.	11,571	11,158	413
Mass.	186	22	164
Me.	324	324	–
N.H.	–	–	–
R.I.	5,609	5,609	–
Vt.	2,605	2,603	2
Middle Atlantic	**2,741**	**2,576**	**165**
N.J.	2,395	2,344	51
N.Y.	–	–	–
Pa.	346	232	114
East North Central	**20,828**	**20,722**	**106**
Ill.	2,768	2,734	34
Ind.	2,777	2,763	14
Mich.	5,493	5,488	5
Ohio	1,554	1,543	11
Wisc.	8,236	8,194	42
West North Central	**27,822**	**27,565**	**257**
Ia.	3,461	3,417	44
Kans.	8,777	8,673	104
Minn.	10,380	10,277	103
Mo.	1,945	1,945	–
Nebr.	356	356	–
N.D.	2,026	2,020	6
S.D.	877	877	–
South Atlantic	**129,512**	**127,518**	**1,994**
Del.	505	505	–
D.C.	505	505	–
Fla.	62,787	62,133	654
Ga.	23,012	22,931	81
Md.	11,234	11,105	129
N.C.	5,978	5,912	66
S.C.	9,384	8,355	1,029
Va.	13,423	13,423	–
W.Va.	2,684	2,649	35
East South Central	**34,787**	**34,629**	**158**
Ala.	14,343	14,201	142
Ky.	4,415	4,415	–
Miss.	9,444	9,435	9
Tenn.	6,585	6,578	7
West South Central	**41,941**	**37,408**	**4,533**
Ark.	2,091	2,090	1
La.	20,180	19,191	989
Okla.	5,781	3,166	2,615
Tex.	13,889	12,961	928
Mountain	**13,392**	**12,933**	**459**
Ariz.	433	429	4
Colo.	2,152	2,152	–
Ida.	1,487	1,291	196
Mont.	1,627	1,390	237
Nev.	352	352	–
N.M.	1,766	1,756	10
Utah	5,432	5,420	12
Wyo.	143	143	–
Pacific	**23,204**	**22,732**	**472**
Alaska	3,168	3,168	–
Cal.	976	716	260
Hawaii	8,270	8,218	52
Ore.	3,056	3,030	26
Wash.	7,734	7,600	134
Territories	**17,796**	**17,796**	–
Guam	1,433	1,433	–
P.R.	7,771	7,771	–
V.I.	8,592	8,592	–

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	**323,595**					
Average	6,223					
New England	**19,716**					
Conn.	11,158	X	X	X	X	–
Mass.	22	X	X	X	X	–
Me.	324	X	X	X	X	–
N.H.	–	–	–	–	–	–
R.I.	5,609	X	X	X	–	–
Vt.	2,603	X	X	X	X	–
Middle Atlantic	**2,576**					
N.J.	2,344	X	X	X	X	Worm identification
N.Y.	–	–	–	–	–	–
Pa.	232	X	X	X	X	Clearing adult helminths (tapeworms)
East North Central	**20,722**					
Ill.	2,734	X	X	X	X	–
Ind.	2,763	X	X	X	X	–
Mich.	5,488	X	X	X	X	–
Ohio	1,543	X	X	X	–	–
Wisc.	8,194	X	X	X	X	–
West North Central	**27,565**					
Ia.	3,417	X	X	X	X	–
Kans.	8,673	–	X	X	X	–
Minn.	10,277	X	X	X	X	–
Mo.	1,945	X	X	X	X	–
Nebr.	356	X	X	X	X	–
N.D.	2,020	X	X	X	X	–
S.D.	877	X	X	X	X	–
South Atlantic	**127,518**					
Del.	505	X	X	X	X	–
D.C.	505	X	X	X	X	–
Fla.	62,133	X	X	X	X	–
Ga.	22,931	–	X	X	X	Worm identification
Md.	11,105	X	X	X	X	–
N.C.	5,912	X	X	X	X	Mounted, stained worm segments
S.C.	8,355	X	X	X	X	–
Va.	13,423	–	X	X	X	–
W.Va.	2,649	X	X	X	X	–
East South Central	**34,629**					
Ala.	14,201	–	X	X	–	–
Ky.	4,415	X	X	X	X	–
Miss.	9,435	–	X	X	X	–
Tenn.	6,578	–	X	X	–	–
West South Central	**37,408**					
Ark.	2,090	X	X	X	X	–
La.	19,191	X	X	X	X	–
Okla.	3,166	–	X	X	X	–
Tex.	12,961	X	X	X	X	–
Mountain	**12,933**					
Ariz.	429	–	X	X	X	–
Colo.	2,152	–	–	X	X	–
Ida.	1,291	X	X	X	X	–
Mont.	1,390	X	X	X	X	–
Nev.	352	X	X	X	X	–
N.M.	1,756	X	X	X	X	–
Utah	5,420	X	X	X	X	–
Wyo.	143	X	X	X	–	–
Pacific	**22,732**					
Alaska	3,168	X	X	X	X	–
Cal.	716	X	X	X	X	–
Hawaii	8,218	X	X	X	X	–
Ore.	3,030	X	X	X	X	–
Wash.	7,600	X	X	X	X	–
Territories	**17,796**					
Guam	1,433	–	X	X	–	–
P.R.	7,771	–	X	X	–	–
V.I.	8,592	–	–	–	–	–

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	**8,723**				
Average	242				
New England	**579**				
Conn.	413	X	X	–	Material for identification, water survey for Giardia, animal stools for Giardia.
Mass.	164	–	–	–	Cyst and fluid, tissues, insect slides, blood, urine, tracheal aspirates, skin scrapings.
Me.	–	–	–	–	–
N.H.	–	–	–	–	–
R.I.	–	X	–	–	–
Vt.	2	X	X	–	–
Middle Atlantic	**165**				
N.J.	51	X	X	–	Water samples for Giardia.
N.Y.	–	–	–	–	–
Pa.	114	X	X	X	Arthropod ID, sputum and tissue for parasites, water for protozoa.
East North Central	**106**				
Ill.	34	X	–	–	Worms — gross exam.
Ind.	14	X	–	–	Urine for schistosomes, arthropods, miscellaneous.
Mich.	5	X	–	–	–
Ohio	11	X	X	–	–
Wisc.	42	X	–	X	–
West North Central	**257**				
Ia.	44	X	–	X	–
Kans.	104	X	–	–	Arthropods
Minn.	103	X	X	–	–
Mo.	–	–	–	–	–
Nebr.	–	–	–	–	–
N.D.	6	X	–	–	–
S.D.	–	–	–	–	–
South Atlantic	**1,994**				
Del.	–	–	–	–	–
D.C.	–	–	–	–	–
Fla.	654	X	–	–	–
Ga.	81	X	–	X	Blood smears for microfilariae, water samples for Giardia.
Md.	129	X	–	–	Pediculosis
N.C.	66	X	–	–	Anthropod ID, non-pathogenic (human) helminth ID, water—Giardia.
S.C.	1,029	X	–	–	Vaginal wet mounts
Va.	–	–	–	–	–
W. Va.	35	–	–	–	Insect ID
East South Central	**158**				
Ala.	142	X	–	–	Specimen for identification (tick, spider, etc.), dirt for toxocara
Ky.	–	–	–	–	–
Miss.	9	X	–	–	–
Tenn.	7	X	–	–	–
West South Central	**4,533**				
Ark.	1	X	–	–	–
La.	989	X	X	–	Pinworms, *P. humanus* (lice), water—Giardia and free-living nematodes, nit identification, food—insects.
Okla.	2,615	X	–	–	–
Tex.	928	X	X	X	–
Mountain	**459**				
Ariz.	4	X	–	–	–
Colo.	–	–	–	–	–
Ida.	196	X	–	–	External
Mont.	237	–	–	X	–
Nev.	–	X	–	–	–
N.M.	10	X	X	–	–
Utah	12	X	–	–	–
Wyo.	–	–	–	–	–
Pacific	**472**				
Alaska	–	–	–	–	–
Cal.	260	X	X	X	Tissue parasites
Hawaii	52	X	–	X	Insect ID
Ore.	26	X	–	–	–
Wash.	134	X	–	–	Microfilariae, arthropods
Territories	–				
Guam	–	–	–	–	–
P.R.	–	–	–	–	–
V.I.	–	–	–	–	–

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

Lab & Region	Total Virology Specimens	A	B	C	D
		Rabies Specimens	Viral Isolations	Rickettsial Ident. Isolations	Other
Total	**232,217**	**70,087**	**101,407**	**5,755**	**54,968**
Average	4,644	1,460	2,358	639	6,108
New England	**9,881**	**744**	**9,137**	–	–
Conn.	5,033	395	4,638	–	–
Mass.	3,718	–	3,718	–	–
Me.	803	185	618	–	–
N.H.	–	–	–	–	–
R.I.	205	66	139	–	–
Vt.	122	98	24	–	–
Middle Atlantic	**16,841**	**2,054**	**9,075**	**3**	**5,709**
N.J.	15,752	1,805	8,235	3	5,709
N.Y.	–	–	–	–	–
Pa.	1,089	249	840	–	–
East North Central	**39,682**	**12,155**	**21,191**	**1,924**	**4,412**
Ill.	10,253	3,273	2,568	–	4,412
Ind.	2,973	2,417	556	–	–
Mich.	5,266	1,215	4,051	–	–
Ohio	12,503	2,816	7,763	1,924	–
Wisc.	8,687	2,434	6,253	–	–
West North Central	**39,203**	**8,232**	**8,622**	**16**	**22,333**
Ia.	3,431	1,104	2,327	–	–
Kans.	783	–	783	–	–
Minn.	5,247	1,439	3,808	–	–
Mo.	3,898	3,065	833	–	–
Nebr.	1,773	1,773	–	–	–
N.D.	23,449	722	394	–	22,333
S.D.	622	129	477	16	–
South Atlantic	**34,711**	**13,006**	**19,727**	**1,260**	**718**
Del.	1,152	132	1,020	–	–
D.C.	48	48	–	–	–
Fla.	11,446	4,734	6,712	–	–
Ga.	3,360	2,032	1,286	–	42
Md.	7,288	1,919	5,360	9	–
N.C.	3,913	1,499	2,414	–	–
S.C.	5,841	1,531	2,383	1,251	676
Va.	814	589	225	–	–
W.Va.	849	522	327	–	–
East South Central	**8,427**	**7,405**	**1,022**	–	–
Ala.	2,502	2,469	33	–	–
Ky.	2,235	1,873	362	–	–
Miss.	626	626	–	–	–
Tenn.	3,064	2,437	627	–	–
West South Central	**37,130**	**20,710**	**10,062**	**2,539**	**3,819**
Ark.	2,110	2,063	45	2	–
La.	2,763	2,494	42	–	227
Okla.	4,803	3,362	1,441	–	–
Tex.	27,454	12,791	8,534	2,537	3,592
Mountain	**27,077**	**4,161**	**5,031**	**13**	**17,872**
Ariz.	3,366	1,618	1,748	–	–
Colo.	782	782	–	–	–
Ida.	203	159	44	–	–
Mont.	542	67	463	12	–
Nev.	–	–	–	–	–
N.M.	19,273	874	527	–	17,872
Utah	2,440	190	2,249	1	–
Wyo.	471	471	–	–	–
Pacific	**18,940**	**1,295**	**17,540**	–	**105**
Alaska	5,292	124	5,168	–	–
Cal.	6,929	653	6,171	–	105
Hawaii	2,501	6	2,495	–	–
Ore.	3,263	177	3,086	–	–
Wash.	955	335	620	–	–
Territories	**325**	**325**	–	–	–
Guam	9	9	–	–	–
P.R.	316	316	–	–	–
V.I.	–	–	–	–	–

Table 4-16
IV. VIROLOGY
A. Rabies Specimens

Lab & Region	Number of Specimens	Procedures Used			
		Stained Smear	FRA	Animal Inoculation	Other
Total	**70,087**				
Average	1,460				
New England	**744**				
Conn.	395	–	X	X	–
Mass.	–	–	–	–	–
Me.	185	–	X	–	–
N.H.	–	–	–	–	–
R.I.	66	–	X	X	–
Vt.	98	–	X	X	–
Middle Atlantic	**2,054**				
N.J.	1,805	–	X	X	–
N.Y.	–	–	–	–	–
Pa.	249	–	X	X	–
East North Central	**12,155**				
Ill.	3,273	–	X	–	–
Ind.	2,417	X	X	X	–
Mich.	1,215	–	X	X	–
Ohio	2,816	X	X	X	–
Wisc.	2,434	–	X	X	–
West North Central	**8,232**				
Ia.	1,104	–	X	X	–
Kans.	–	–	–	–	–
Minn.	1,439	–	X	X	–
Mo.	3,065	X	X	X	–
Nebr.	1,773	–	X	–	–
N.D.	722	–	X	–	–
S.D.	129	–	X	X	–
South Atlantic	**13,006**				
Del.	132	X	X	–	–
D.C.	48	–	X	–	–
Fla.	4,734	X	X	–	–
Ga.	2,032	–	X	–	–
Md.	1,919	X	X	X	Mouse neutralization test for antibody
N.C.	1,499	–	X	X	–
S.C.	1,531	–	X	X	–
Va.	589	X	X	X	–
W.Va.	522	–	X	X	–
East South Central	**7,405**				
Ala.	2,469	–	X	X	–
Ky.	1,873	X	X	X	–
Miss.	626	X	X	–	–
Tenn.	2,437	X	X	X	–
West South Central	**20,710**				
Ark.	2,063	X	X	–	–
La.	2,494	–	X	X	–
Okla.	3,362	–	X	X	–
Tex.	12,791	X	X	X	–
Mountain	**4,161**				
Ariz.	1,618	–	X	X	–
Colo.	782	–	X	X	–
Ida.	159	–	X	–	–
Mont.	67	–	–	–	(Referred to CDC)
Nev.	–	–	–	–	–
N.M.	874	–	X	X	–
Utah	190	X	X	X	–
Wyo.	471	–	X	–	–
Pacific	**1,295**				
Alaska	124	X	X	X	–
Cal.	653	–	X	X	–
Hawaii	6	X	X	–	–
Ore.	177	X	X	X	–
Wash.	335	–	X	X	–
Territories	**325**				
Guam	9	–	–	–	–
P.R.	316	–	X	–	–
V.I.	–	–	–	–	–

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

Lab	Number of Specimens	Types of Specimens						Procedures Used									
		Enteric	Arbovirus Human Origin	Arbovirus Non-Human Orig.	Respiratory	Exanthem	Other	Tissue Culture Hosts	Eggs	Animal Hosts	HI/HA	CF	Neutralization Tests	FA—Orig. Spec.	FA—Other	HAdI/HAd	Other
Total	101,407																
Average	2,358																
Ala	33	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
Alaska	5,168	X	X	—	X	X	—	X	X	X	X	X	X	X	—	X	—
Ariz	1,748	X	X	—	X	X	Miscellaneous. i e central nervous system	X	X	—	—	—	X	—	—	—	—
Ark.	45	X	X	X	X	X	—	—	—	—	—	—	—	—	—	—	(Referred to CDC)
Cal	6,171	X	X	X	X	X	Skin lesions. urine, pleural fluid, autopsy tissues. virus isolates for identification, birds, mosquitoes, animal tissues (other than rabies specimens)	X	X	X	X	X	X	X	X	X	Electron microscopy. RIA. enzyme assay
Conn	4,638	X	—	—	X	X	—	X	—	—	X	X	X	—	X	X	—
Del	1,020	X	X	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Fla	6,712	X	X	X	X	X	—	X	X	X	X	X	X	X	X	X	—
Ga	1,286	X	—	—	X	X	—	X	X	—	X	—	—	X	X	—	Direct electron microscopy. immunoelectron microscopy
Hawaii	2,495	X	—	—	X	X	—	X	X	—	X	X	X	X	—	X	—
Ida	44	—	—	—	X	X	Vaginal herpes	X	X	—	X	X	—	X	—	—	—
Ill	2,568	X	—	X	X	X	Central nervous system	X	X	—	X	X	X	X	—	X	—
Ind	556	X	—	—	X	X	—	X	—	—	X	X	X	—	—	—	—
Iowa	2,327	X	X	X	X	—	Blood, spinal fluid. tissue	X	X	X	X	—	X	—	—	—	—
Kans	783	X	—	—	X	X	—	X	X	X	X	X	X	—	—	—	—
Ky	362	X	X	—	X	X	Autopsy material	X	—	—	X	X	X	—	—	—	—
La	42	—	X	—	X	—	—	—	X	X	X	X	—	—	—	X	—
Me	618	X	—	—	X	X	—	X	X	—	—	—	—	—	X	—	—
Md	5,360	X	X	X	X	X	Venereal-genital, ocular. urinary tract	X	X	X	X	X	X	X	X	X	ELISA
Mass	3,718	X	X	X	X	X	CNS. autopsy. biopsy	X	X	—	X	X	X	—	—	X	Interference, plaque formation — plaque reduction
Mich	4,051	X	—	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Minn.	3,808	X	—	—	X	X	Autopsy biopsy, urine	X	—	—	X	—	X	—	—	—	—
Mo	833	X	X	X	X	X	—	X	X	X	X	X	X	X	X	X	—
Mont.	463	X	X	—	X	X	Lesion, tissue, urine, saliva, eye swab	X	X	—	X	X	X	—	X	—	—
N J	8,235	X	X	X	X	X	CNS specimens (non arbovirus)	X	X	X	X	X	X	X	X	X	Interference Interference inhibition
N M.	527	X	—	—	X	X	Autopsy, biopsy	X	—	X	X	X	X	X	X	X	—
N C.	2,414	X	X	X	X	X	Congenital, central nervous system	X	X	X	X	X	X	X	X	X	—
N D	394	X	—	—	X	—	—	—	—	—	X	X	—	X	X	—	—
Ohio	7,763	X	X	X	X	X	—	X	X	X	X	X	X	X	X	X	—
Okla	1,441	X	—	—	X	X	Spinal fluid. urine, autopsy, eye	X	X	X	X	—	X	—	—	X	—
Ore.	3,086	X	—	—	X	X	Tissue, body fluid, exudates, biopsy, and autopsy	X	X	X	X	X	X	—	—	X	—
Pa.	840	X	X	X	X	X	CSF, tissue, urine	X	X	X	X	—	X	X	—	X	—
R.I.	139	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
S C.	2,383	—	—	—	—	—	CSF, urine, vaginal and urethral swabs, body fluids	X	X	X	X	X	X	X	X	X	Mycoplasma (bi-phasic media), chlamydia (iodine stain of tissue culture)
S D.	477	X	—	—	X	X	—	X	X	X	X	X	X	X	X	X	—
Tenn.	627	X	—	—	X	X	—	X	X	X	X	—	X	—	—	X	—
Tex.	8,534	X	X	X	X	X	—	X	X	X	X	—	X	X	X	X	—
Utah	2,249	X	X	X	X	X	Psittacosis, Herpes simplex, CMV	X	X	X	X	X	X	X	X	X	—
Vt.	24	—	—	—	X	—	—	—	X	—	X	—	—	—	—	—	—
Va	225	X	X	—	X	X	—	X	X	X	—	—	X	X	X	X	—
Wash.	620	X	—	X	X	X	Chlamydia — psittacosis in birds	X	X	X	X	—	X	—	X	X	Machiavello's stain
W Va	327	X	—	—	X	X	—	X	X	X	X	—	X	X	X	X	—

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

Lab & Region	Number of Specimens	Type of Specimens		Procedures Used		
		Tick	Other	Hemolymph	FA	Other
Total	**5,755**					
Average	639					
New England	–					
Conn.	–	–	–	–	–	–
Mass.	–	–	–	–	–	–
Me.	–	–	–	–	–	–
N.H.	–	–	–	–	–	–
R.I.	–	–	–	–	–	–
Vt.	–	–	–	–	–	–
Mid Atlantic	**3**					
N.J.	3	X	X	X	X	Egg inoculation, Guinea pig inoculation, Gimenez stain
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	–
East North Central	**1,924**					
Ill.	–	–	–	–	–	–
Ind.	–	–	–	–	–	–
Mich.	–	–	–	–	–	–
Ohio	1,924	X	–	X	X	–
Wisc.	–	–	–	–	–	–
West North Central	**16**					
Ia.	–	–	–	–	–	–
Kans.	–	–	–	–	–	–
Minn.	–	–	–	–	–	–
Mo.	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–
N.D.	–	–	–	–	–	–
S.D.	16	X	–	–	–	–
South Atlantic	**1,260**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	–	–	–	–	–	–
Ga.	–	–	–	–	–	–
Md.	9	X	X	X	X	ELISA
N.C.	–	–	–	–	–	–
S.C.	1,251	X	–	X	X	–
Va.	–	–	–	–	–	–
W.Va.	–	–	–	–	–	–
East South Central	–					
Ala.	–	–	–	–	–	–
Ky.	–	–	–	–	–	–
Miss.	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–
West South Central	**2,539**					
Ark.	2	X	–	X	–	–
La.	–	–	–	–	–	–
Okla.	–	–	–	–	–	–
Tex.	2,537	X	–	X	X	–
Mountain	**13**					
Ariz.	–	–	–	–	–	–
Colo.	–	–	–	–	–	–
Ida.	–	–	–	–	–	–
Mont.	12	X	–	X	X	–
Nev.	–	–	–	–	–	–
N.M.	–	–	–	–	–	–
Utah	1	–	X	–	X	–
Wyo.	–	–	–	–	–	–
Pacific	–					
Alaska	–	–	–	–	–	–
Cal.	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–
Ore.	–	–	–	–	–	–
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	**54,968**	
Average	6,108	
Cal.	105	Viral gastroenteritis — electron microscopy; sewage effluents/treated waters — virus concentration, recovery and identification
Ga.	42	Chlamydia — cell culture
Ill.	4,412	Arbovirus: mosquito pool isolation, nesting bird isolation — T.C., overlay
La.	227	Plague — animal inoculation
N.J.	5,709	Hepatitis — ELISA/RIA; E.B. virus — FA; rotavirus — RIA
N.M.	17,872	Rubella — CF, PHA, HI
N.D.	22,333	Rubella — HAI and Passive HAI-IFA; influenzae A & B, encephalitis — IFA-HAI; rubeola — CF, IFA; CMV, Epstein-Barr, Herpes I & II, V-Z — IFA; LCM, LGV and psittacosis, parainfluenzae 1, 2, & 3, respiratory syncytial, adenovirus — CF
S.C.	676	Herpes (direct smear) — FA
Tex.	3,592	–

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 Parasitic Serology	E Viral and Rickettsial Serology	F Other
Total	**7,188,598**	**5,492,138**	**63,635**	**90,858**	**181,883**	**1,338,805**	**21,279**
Average	138,242	109,843	1,383	2,753	5,512	26,776	1,637
New England	**398,304**	**307,741**	**18,446**	**1,961**	**9,200**	**60,232**	**724**
Conn.	105,919	71,535	2,698	1,229	4,198	26,259	–
Mass.	169,123	158,406	203	384	2,385	7,745	–
Me.	18,975	2,247	136	278	2,371	13,943	–
N.H.	–	–	–	–	–	–	–
R.I.	73,634	57,831	15,299	–	20	484	–
Vt.	30,653	17,722	110	70	226	11,801	724
Middle Atlantic	**244,239**	**182,402**	**717**	**307**	**1,958**	**56,908**	**1,947**
N.J.	236,984	180,915	515	–	1,630	53,924	–
N.Y.	–	–	–	–	–	–	–
Pa.	7,255	1,487	202	307	328	2,984	1,947
East North Central	**721,554**	**459,081**	**6,729**	**15,179**	**26,631**	**203,625**	**10,309**
Ill.	116,377	97,733	99	5,052	1,863	7,195	4,435
Ind.	55,324	43,321	768	2,546	832	7,857	–
Mich.	260,102	174,658	2,966	3,284	4,443	74,751	–
Ohio	136,242	70,386	282	2,140	4,303	57,744	1,387
Wisc.	153,509	72,983	2,614	2,157	15,190	56,078	4,487
West North Central	**602,361**	**389,451**	**7,069**	**12,688**	**8,224**	**184,059**	**870**
Ia.	102,164	67,160	4,223	1,735	4,586	23,872	588
Kans.	99,208	66,499	146	1,156	–	31,125	282
Minn.	141,817	93,831	1,354	6,328	1,973	38,331	–
Mo.	123,286	78,861	251	3,469	1,465	39,240	–
Nebr.	59,506	43,976	640	–	–	14,890	–
N.D.	62,112	39,124	455	–	200	22,333	–
S.D.	14,268	–	–	–	–	14,268	–
South Atlantic	**2,256,534**	**1,777,975**	**14,672**	**10,643**	**27,198**	**423,819**	**2,227**
Del.	44,751	34,548	–	–	–	10,203	–
D.C.	96,296	96,248	–	–	–	48	–
Fla.	641,901	550,975	6,431	–	1,616	82,879	–
Ga.	401,146	351,456	606	1,610	1,756	45,718	–
Md.	391,641	218,167	3,817	3,890	19,195	144,345	2,227
N.C.	232,583	173,099	1,042	2,289	2,679	53,474	–
S.C.	213,564	168,622	601	1,488	750	42,103	–
Va.	159,691	130,491	2,153	1,197	843	25,007	–
W.Va.	74,961	54,369	22	169	359	20,042	–
East South Central	**941,189**	**800,418**	**1,263**	**14,421**	**3,409**	**120,809**	**869**
Ala.	304,672	274,052	144	6,992	1,513	21,971	–
Ky.	146,897	113,329	389	3,627	1,896	27,656	–
Miss.	240,805	233,205	728	2,074	–	4,798	–
Tenn.	248,815	179,832	2	1,728	–	66,384	869
West South Central	**1,296,889**	**1,088,295**	**4,700**	**18,795**	**11,205**	**172,663**	**1,231**
Ark.	111,591	98,406	617	2,543	327	9,698	–
La.	235,405	139,181	791	2,085	3,389	89,959	–
Okla.	127,505	104,685	743	502	–	21,575	–
Tex.	822,388	746,023	2,549	13,665	7,489	51,431	1,231
Mountain	**377,775**	**303,119**	**860**	**7,553**	**951**	**65,219**	**73**
Ariz.	41,066	31,806	58	7,182	568	1,452	–
Colo.	103,813	89,493	98	–	–	14,222	–
Ida.	9,149	6,747	160	85	–	2,157	–
Mont.	58,481	27,437	184	286	115	30,459	–
Nev.	21,146	21,111	–	–	–	35	–
N.M.	73,538	71,185	120	–	–	2,233	–
Utah	48,395	44,296	222	–	268	3,536	73
Wyo.	22,187	11,044	18	–	–	11,125	–
Pacific	**339,827**	**174,071**	**8,996**	**9,311**	**93,107**	**51,313**	**3,029**
Alaska	49,928	40,600	152	–	–	9,176	–
Cal.	38,320	15,462	3,318	8,760	1,710	6,332	2,738
Hawaii	48,310	29,518	4,626	–	–	14,166	–
Ore.	171,450	58,654	799	551	91,397	20,049	–
Wash.	31,819	29,837	101	–	–	1,590	291
Territories	**9,926**	**9,585**	**183**	–	–	**158**	–
Guam	1,979	1,979	–	–	–	–	–
P.R.	341	–	183	–	–	158	–
V.I.	7,606	7,606	–	–	–	–	–

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

Lab & Region	Number of Specimens	Procedures Used									
		VDRL	RPR	ART	FTA-ABS	AFTA-ABS	FTA-ABS (IgM)	DFATP	MHA-TP	Dark-field	Other
Total	**5,492,138**										
Average	109,843										
New England	**307,741**										
Conn.	71,535	X	X	X	X	–	–	X	–	X	–
Mass.	158,406	X	X	–	–	X	–	–	–	–	–
Me.	2,247	X	X	–	X	–	–	–	X	–	–
N.H.	–	–	–	–	–	–	–	–	–	–	–
R.I.	57,831	X	X	–	X	–	–	–	–	–	–
Vt.	17,722	X	X	X	X	–	–	X	–	X	–
Middle Atlantic	**182,402**										
N.J.	180,915	X	X	–	X	–	–	–	X	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–	–
Pa.	1,487	X	X	–	X	–	–	–	–	–	–
East North Central	**459,081**										
Ill.	97,733	X	X	–	X	–	–	–	X	–	–
Ind.	43,321	X	X	X	X	–	–	–	X	–	–
Mich.	174,658	X	–	–	X	–	–	–	–	X	HATTS
Ohio	70,386	X	–	–	X	–	–	–	X	–	–
Wisc.	72,983	X	–	–	X	–	X	–	X	X	–
West North Central	**389,451**										
Ia.	67,160	X	–	–	X	X	X	–	–	X	Spinal fluid, Kirby-Bauer
Kans.	66,499	X	–	–	X	–	–	–	–	–	–
Minn.	93,831	X	–	–	X	–	–	–	–	–	FADF
Mo.	78,861	X	X	–	X	–	–	–	–	X	–
Nebr.	43,976	–	X	–	X	–	–	–	–	X	–
N.D.	39,124	–	X	–	X	–	–	–	–	X	–
S.D.	–	X	X	–	X	–	–	–	X	–	–
South Atlantic	**1,777,975**										
Del.	34,548	–	X	–	X	–	–	–	–	X	–
D.C.	96,248	X	–	–	X	–	–	–	X	–	USR
Fla.	550,975	X	X	–	X	–	X	–	–	–	–
Ga.	351,456	X	X	–	X	–	–	–	–	–	–
Md.	218,167	X	X	–	X	–	X	–	–	X	–
N.C.	173,099	X	–	–	X	–	–	X	–	–	–
S.C.	168,622	X	X	–	X	–	–	–	–	X	–
Va.	130,491	X	X	–	X	–	–	–	X	–	–
W.Va.	54,369	X	X	–	X	–	–	–	–	–	–
East South Central	**800,418**										
Ala.	274,052	X	–	–	X	–	–	–	–	–	–
Ky.	113,329	X	X	–	X	–	–	–	–	–	–
Miss.	233,205	X	X	–	X	–	–	–	–	–	–
Tenn.	179,832	–	X	–	X	–	–	–	X	–	Total protein
West South Central	**1,088,295**										
Ark.	98,406	X	–	–	X	–	–	X	X	–	–
La.	139,181	X	–	–	X	–	–	–	–	–	–
Okla.	104,685	X	X	–	X	X	–	–	–	–	–
Tex.	746,023	X	X	–	X	–	–	–	X	X	–
Mountain	**303,119**										
Ariz.	31,806	X	–	–	X	–	–	–	–	–	–
Colo.	89,493	X	–	–	X	–	–	–	–	–	–
Ida.	6,747	–	X	–	X	–	–	–	–	X	–
Mont.	27,437	X	–	–	X	–	–	–	–	–	Direct FA
Nev.	21,111	X	–	–	X	–	–	–	–	–	–
N.M.	71,185	X	X	–	X	–	–	–	–	–	–
Utah	44,296	X	X	–	X	–	–	–	–	–	–
Wyo.	11,044	X	–	–	X	–	–	–	–	–	–
Pacific	**174,071**										
Alaska	40,600	X	X	–	X	–	–	–	X	X	–
Cal.	15,462	X	X	–	X	–	–	–	X	X	–
Hawaii	29,518	X	X	–	X	–	–	–	–	X	–
Ore.	58,654	X	–	X	X	–	X	–	–	X	–
Wash.	29,837	X	X	–	X	–	–	–	–	X	–
Territories	**9,585**										
Guam	1,979	X	–	–	X	–	–	–	–	X	–
P.R.	–	–	–	–	–	–	–	–	–	–	–
V.I.	7,606	–	–	–	–	–	–	–	–	–	–

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

Lab & Region	Number of Specimens	Types of Specimens					
		Brucellosis	Tularemia	Strept. Antibodies	Leptospirosis	Salmonellosis	Other
Total	**63,635**						
Average	1,383						
New England	**18,446**						
Conn.	2,698	X	X	X	X	X	*Legionella pneumophila, Bordetella pertussis*
Mass.	203	X	X	–	–	–	–
Me.	136	–	–	–	–	–	Legionella
N.H.	–	–	–	–	–	–	–
R.I.	15,299	X	–	–	–	X	Febriles, Legionnaires' disease
Vt.	110	X	X	–	–	X	–
Middle Atlantic	**717**						
N.J.	515	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	202	–	–	–	–	–	(Referred to CDC)
East North Central	**6,729**						
Ill.	99	X	X	–	–	X	–
Ind.	768	X	X	–	X	–	–
Mich.	2,966	X	X	–	X	–	Legionella, pertussis
Ohio	282	X	X	–	X	–	–
Wisc.	2,614	X	X	X	X	X	–
West North Central	**7,069**						
Ia.	4,223	X	X	X	X	–	–
Kans.	146	X	X	–	X	–	–
Minn.	1,354	X	–	–	–	–	Weil-Felix
Mo.	251	X	X	–	X	–	–
Nebr.	640	X	X	–	X	–	–
N.D.	455	X	X	X	–	X	–
S.D.	–	X	X	X	–	–	–
South Atlantic	**14,672**						
Del.	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–
Fla.	6,431	X	–	–	X	–	Typhoid
Ga.	606	X	X	–	–	–	OX-19
Md.	3,817	X	X	X	X	X	*Pasteurella multocida*, pertussis, tetanus antitoxin, diphtheria antitoxin
N.C.	1,042	X	X	X	–	–	–
S.C.	601	X	X	X	–	–	Legionnaires'
Va.	2,153	X	X	X	X	–	–
W. Va.	22	–	–	X	–	–	–
East South Central	**1,263**						
Ala.	144	X	X	–	–	–	Legionnaires'
Ky.	389	X	X	–	–	X	Typhoid O, H, Vi; Legionnaires'
Miss.	728	X	X	X	–	–	–
Tenn.	2	X	X	–	–	–	–
West South Central	**4,700**						
Ark.	617	X	X	–	X	X	Legionella
La.	791	X	X	–	X	–	Legionnaires'
Okla.	743	X	X	–	X	–	–
Tex.	2,549	X	X	X	X	–	–
Mountain	**860**						
Ariz.	58	X	X	–	–	–	–
Colo.	98	X	X	–	–	–	–
Ida.	160	X	–	–	X	–	–
Mont.	184	X	X	–	X	–	–
Nev.	–	–	–	–	–	–	–
N.M.	120	X	X	–	X	–	Plague-PHA; Legionella-IFA
Utah	222	X	X	–	–	–	–
Wyo.	18	X	X	–	–	–	–
Pacific	**8,996**						
Alaska	152	X	X	X	–	–	–
Cal.	3,318	X	X	–	X	X	*Yersinia enterocolitica, Yersinia pseudotuberculosis*, Legionnaires'
Hawaii	4,626	X	X	X	X	X	–
Ore.	799	X	X	–	X	–	(Legionnaires' and other bacterial serology sent to CDC)
Wash.	101	X	X	–	X	–	Proteus OX-2, OX-19, OX-K
Territories	**183**						
Guam	–	–	–	–	–	–	–
P.R.	183	X	–	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	Cryptococcosis	Aspergillosis	Candidiasis	Other
Total	**90,858**							
Average	2,753							
New England	**1,961**							
Conn.	1,229	X	X	X	X	X	X	–
Mass.	384	–	–	–	X	X	–	–
Me.	278	X	X	X	X	X	–	–
N.H.	–	–	–	–	–	–	–	–
R.I.	–	–	–	–	–	–	–	–
Vt.	70	X	X	X	–	–	–	–
Middle Atlantic	**307**							
N.J.	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–
Pa.	307	–	–	–	–	–	–	(Referred to CDC)
East North Central	**15,179**							
Ill.	5,052	X	X	X	–	–	–	–
Ind.	2,546	X	X	X	X	X	X	–
Mich.	3,284	X	X	X	–	–	–	–
Ohio	2,140	X	X	X	X	X	–	–
Wisc.	2,157	X	X	X	X	–	–	Immunodiffusion
West North Central	**12,688**							
Ia.	1,735	X	X	X	X	–	–	–
Kans.	1,156	X	X	X	–	–	–	–
Minn.	6,328	X	X	X	X	X	X	–
Mo.	3,469	X	X	X	X	–	–	–
Nebr.	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–
South Atlantic	**10,643**							
Del.	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–
Ga.	1,610	X	X	X	–	–	–	–
Md.	3,890	X	X	X	–	–	–	–
N.C.	2,289	X	X	X	X	–	–	–
S.C.	1,488	X	X	X	X	X	X	Sporotrichosis
Va.	1,197	X	X	X	X	–	–	–
W. Va.	169	X	X	X	–	–	–	–
East South Central	**14,421**							
Ala.	6,992	X	X	X	–	X	–	–
Ky.	3,627	X	X	X	–	–	–	–
Miss.	2,074	X	X	X	–	–	–	–
Tenn.	1,728	X	–	X	–	–	–	–
West South Central	**18,795**							
Ark.	2,543	X	X	X	X	X	–	–
La.	2,085	X	X	X	X	–	–	–
Okla.	502	X	X	X	–	X	–	–
Tex.	13,665	X	X	X	X	X	X	–
Mountain	**7,553**							
Ariz.	7,182	X	X	X	–	–	–	–
Colo.	–	–	–	–	–	–	–	–
Ida.	85	X	X	X	–	–	–	–
Mont.	286	X	X	X	X	X	X	–
Nev.	–	–	–	–	–	–	–	–
N.M.	–	X	X	X	X	X	X	–
Utah	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–
Pacific	**9,311**							
Alaska	–	–	–	–	–	–	–	–
Cal.	8,760	X	X	X	X	–	–	–
Hawaii	–	–	–	–	–	–	–	–
Ore.	551	X	X	X	–	–	–	(All others sent to CDC)
Wash.	–	–	–	–	–	–	–	–
Territories	–							
Guam	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–

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

Lab & Region	Number of Specimens	Types of Specimens					
		Trichinosis	Toxoplasmosis	Amebiasis	Echinococcosis	Trypanosomiasis	Other
Total	**181,883**						
Average	5,512						
New England	**9,200**						
Conn.	4,198	X	X	–	–	–	(Referred to CDC)
Mass.	2,385	X	X	X	–	–	Babesiosis
Me.	2,371	–	X	–	–	–	–
N.H.	–	–	–	–	–	–	–
R.I.	20	–	X	–	–	–	–
Vt.	226	X	X	–	–	–	–
Middle Atlantic	**1,958**						
N.J.	1,630	X	X	–	–	–	–
N.Y.	–	–	–	–	–	–	–
Pa.	328	–	X	–	–	–	(All others referred to CDC)
East North Central	**26,631**						
Ill.	1,863	–	X	–	–	–	–
Ind.	832	X	X	–	–	–	–
Mich.	4,443	–	X	–	–	–	–
Ohio	4,303	–	X	X	–	–	–
Wisc.	15,190	–	X	–	–	–	–
West North Central	**8,224**						
Ia.	4,586	X	X	–	–	–	–
Kans.	–	–	–	–	–	–	–
Minn.	1,973	–	X	–	–	–	–
Mo.	1,465	–	X	–	–	–	–
Nebr.	–	–	–	–	–	–	–
N.D.	200	–	X	–	–	–	–
S.D.	–	–	–	–	–	–	–
South Atlantic	**27,198**						
Del.	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–
Fla.	1,616	–	X	–	–	–	–
Ga.	1,756	–	X	–	–	–	–
Md.	19,195	X	X	X	X	–	–
N.C.	2,679	–	X	X	–	–	–
S.C.	750	–	X	X	–	–	–
Va.	843	X	X	–	–	–	–
W.Va.	359	–	X	–	–	–	–
East South Central	**3,409**						
Ala.	1,513	–	X	X	–	–	–
Ky.	1,896	–	X	–	–	–	–
Miss.	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–
West South Central	**11,205**						
Ark.	327	X	X	X	–	–	–
La.	3,389	–	X	–	–	–	–
Okla.	–	–	–	–	–	–	–
Tex.	7,489	X	X	X	–	–	–
Mountain	**951**						
Ariz.	568	–	X	–	–	–	–
Colo.	–	–	–	–	–	–	–
Ida.	–	–	–	–	–	–	–
Mont.	115	X	X	X	X	–	(Referred to CDC)
Nev.	–	–	–	–	–	–	–
N.M.	–	–	X	X	–	–	–
Utah	268	–	X	–	–	–	–
Wyo.	–	–	–	–	–	–	–
Pacific	**93,107**						
Alaska	–	–	–	–	–	–	–
Cal.	1,710	X	X	–	–	–	–
Hawaii	–	–	–	–	–	–	–
Ore.	91,397	–	X	–	–	–	(Others referred to CDC)
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	HAdl	Immunodiffusion (Agar Gel)	Neut. (Tissue Cul.)	Neut. Rabies	FA	Radioimmunoassay	Passive Hemagglutination	Reverse Passive Hemagglutination	OX-Cell Hemolysin	Slide Agglutination	Heterophile Tests	Other
Total	**1,338,805**														
Average	26,776														
New England	**60,232**														
Conn.	26,259	X	X	–	–	–	–	X	X	X	–	X	–	–	–
Mass.	7,745	X	X	X	–	X	–	X	X	X	–	X	–	–	Immune adherence (IAHA), hemolysis in gel (SRH), rheumatoid factor (RF), microlatex agglutination, plaque reduction neutralization (PRN)
Me.	13,943	X	X	X	–	–	–	X	–	–	X	X	–	–	–
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	484	–	X	X	–	–	–	–	–	–	–	–	X	X	ELISA
Vt.	11,801	X	X	–	–	–	–	–	–	–	–	X	X	–	–
Middle Atlantic	**56,908**														
N.J.	53,924	X	X	–	X	X	–	X	X	X	–	–	X	X	ELISA
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	2,984	X	X	–	–	–	–	X	–	–	–	–	–	–	–
East North Central	**203,625**														
Ill.	7,195	X	X	X	–	X	–	X	–	–	–	–	–	X	–
Ind.	7,857	X	X	–	–	X	–	–	–	X	–	X	–	X	–
Mich.	74,751	X	X	–	–	X	–	–	X	–	–	X	–	–	Immune adherence
Ohio	57,744	X	X	X	X	–	–	–	–	X	–	X	X	X	–
Wisc.	56,078	X	X	X	–	X	X	X	X	X	–	X	–	–	ELISA
West North Central	**184,059**														
Ia.	23,872	X	X	–	–	X	–	–	X	–	–	–	–	X	–
Kans.	31,125	X	–	–	–	X	–	–	X	X	–	–	–	–	–
Minn.	38,331	X	X	–	–	X	–	–	–	–	–	X	–	–	Rubella
Mo.	39,240	X	X	X	–	X	–	–	X	X	–	X	X	X	–
Nebr.	14,890	–	–	–	–	–	–	–	–	–	X	–	X	–	–
N.D.	22,333	X	X	–	–	–	–	X	–	X	–	X	X	X	IFA
S.D.	14,268	X	X	X	X	–	–	X	–	X	–	–	X	X	–
South Atlantic	**423,819**														
Del.	10,203	X	X	–	–	–	–	–	–	–	–	–	–	–	–
D.C.	48	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Fla.	82,879	X	X	X	–	X	–	X	X	X	–	–	X	X	–
Ga.	45,718	X	X	–	–	–	–	X	X	–	–	–	–	–	–
Md.	144,345	X	X	X	X	X	X	X	X	X	–	X	X	X	–
N.C.	53,474	X	X	X	X	X	–	X	–	X	–	X	–	–	–
S.C.	42,103	X	X	X	X	–	–	–	–	–	X	X	X	X	–
Va.	25,007	X	X	X	–	X	–	X	–	X	–	X	X	X	–
W.Va.	20,042	X	–	–	–	–	–	–	–	–	–	–	X	–	ELISA
East South Central	**120,809**														
Ala.	21,971	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Ky.	27,656	X	X	–	–	–	–	–	–	–	–	–	X	X	–
Miss.	4,798	–	X	–	–	–	–	–	–	–	–	–	–	–	–
Tenn.	66,384	X	X	–	–	–	–	–	–	–	–	–	–	–	–
West South Central	**172,663**														
Ark.	9,698	X	–	–	–	–	–	–	X	X	–	X	X	X	–
La.	89,959	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	21,575	X	X	–	–	–	–	–	–	X	–	–	–	X	–
Tex.	51,431	X	X	X	X	X	X	–	X	X	X	–	–	–	–
Mountain	**65,219**														
Ariz.	1,452	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Colo.	14,222	X	X	–	–	–	–	–	–	–	–	X	–	X	–
Ida.	2,157	X	X	–	–	–	–	X	–	–	–	–	–	–	ELISA — Hepatitis
Mont.	30,459	X	X	X	–	X	–	X	–	–	–	–	–	–	–
Nev.	35	–	X	–	–	–	–	–	–	–	–	–	–	–	–
N.M.	2,233	X	X	X	X	X	–	X	–	X	X	–	X	–	–
Utah	3,536	X	X	–	–	X	–	–	–	–	–	–	–	X	Cold agglutination
Wyo.	11,125	–	–	–	–	–	–	–	–	X	–	–	X	–	–
Pacific	**51,313**														
Alaska	9,176	–	–	–	–	–	–	–	–	–	–	X	X	–	Rubacell
Cal.	6,332	X	X	–	X	X	X	X	X	X	–	–	–	–	EIA-rubella, ACIF-varicella, IEM-Norwalk—like
Hawaii	14,166	X	X	X	–	X	–	X	–	X	X	–	–	X	–
Ore.	20,049	X	X	X	–	X	–	–	–	–	–	–	–	X	(Rabies immune status and misc. sera to CDC)
Wash.	1,590	X	X	–	–	–	–	–	–	–	–	–	–	–	–
Territories	**158**														
Guam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	158	–	–	–	–	–	–	–	–	–	–	–	–	X	–
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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

Lab	Number of Specimens	Disease Entity — Procedures Used
Total	**21,279**	
Average	1,637	
Cal.	2,738	WEE-IFA, St. Louis — IFA
Ill.	4,435	Arbovirus — avian serology — HI
Ia.	588	Arthritis — CRP, RA
Kans.	282	Legionnellosis — IFA
Md.	2,227	Gammopathies, complement, autoimmune diseases
N.M.	–	*Chlamydia trachomatis* — culture; ureaplasma — culture
Ohio	1,387	Legionnaires' — IFA
Pa.	1,947	Legionnaires' disease — IFA; other referred to CDC
Tenn.	869	Legionnaires' — IFA
Tex.	1,231	–
Utah	73	Legionnaires' disease — IFA
Vt.	724	Legionnaires' disease — IFA
Wash.	291	Legionella — FA
Wisc.	4,487	Autoimmune: RA — latex agglutination; ANA — fluorescent antibody; thyroid — passive hemagglutination

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	**1,392,622**	**494,751**	**223,176**	**674,695**
Average	43,519	24,738	9,703	24,989
New England	**16,705**	**11,127**	**28**	**5,550**
Conn.	16,128	11,119	28	4,981
Mass.	–	–	–	–
Me.	–	–	–	–
N.H.	–	–	–	–
R.I.	577	8	–	569
Vt.	–	–	–	–
Middle Atlantic	**328**	**150**	**48**	**130**
N.J.	–	–	–	–
N.Y.	–	–	–	–
Pa.	328	150	48	130
East North Central	**56,448**	**12,118**	**36,271**	**8,059**
Ill.	–	–	–	–
Ind.	–	–	–	–
Mich.	12,118	12,118	–	–
Ohio	8,059	–	–	8,059
Wisc.	36,271	–	36,271	–
West North Central	**24,158**	–	**15,329**	**8,829**
Ia.	–	–	–	–
Kans.	–	–	–	–
Minn.	–	–	–	–
Mo.	14,099	–	5,270	8,829
Nebr.	–	–	–	–
N.D.	10,059	–	10,059	–
S.D.	–	–	–	–
South Atlantic	**568,897**	**224,914**	**88,526**	**255,457**
Del.	3,913	30	–	3,883
D.C.	54,779	41,862	4,866	8,051
Fla.	168,284	84,537	22,008	61,739
Ga.	95,702	1,184	14,309	80,209
Md.	91,575	50,789	17,488	23,298
N.C.	65,896	2,014	8,667	55,215
S.C.	62,325	44,168	5,750	12,407
Va.	25,136	–	15,438	9,698
W.Va.	1,287	330	–	957
East South Central	**246,712**	**102,666**	**33,881**	**110,165**
Ala.	72,989	–	13,011	59,978
Ky.	19,970	–	7,036	12,934
Miss.	153,753	102,666	13,834	37,253
Tenn.	–	–	–	–
West South Central	**293,799**	**120,715**	**28,737**	**144,347**
Ark.	28,892	11,396	5,132	12,364
La.	71,822	–	1,673	70,149
Okla.	6,738	135	2,903	3,700
Tex.	186,347	109,184	19,029	58,134
Mountain	**154,884**	**4,411**	**14,511**	**135,962**
Ariz.	–	–	–	–
Colo.	147,693	–	12,873	134,820
Ida.	3,538	3,538	–	–
Mont.	–	–	–	–
Nev.	1,175	873	–	302
N.M.	2,478	–	1,638	840
Utah	–	–	–	–
Wyo.	–	–	–	–
Pacific	**3,011**	–	–	**3,011**
Alaska	–	–	–	–
Cal.	–	–	–	–
Hawaii	–	–	–	–
Ore.	–	–	–	–
Wash.	3,011	–	–	3,011
Territories	**27,680**	**18,650**	**5,845**	**3,185**
Guam	4,805	4,710	95	–
P.R.	20,090	13,940	5,750	400
V.I.	2,785	–	–	2,785

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	**494,751**									
Average	24,738									
New England	**11,127**									
Conn.	11,119	–	–	X	X	X	X	X	X	–
Mass.	–	–	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–	–
R.I.	8	X	–	X	–	–	X	–	–	–
Vt.	–	–	–	–	–	–	–	–	–	–
Middle Atlantic	**150**									
N.J.	–	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	150	X	X	X	–	–	X	X	–	–
East North Central	**12,118**									
Ill.	–	–	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–	–
Mich.	12,118	X	X	X	X	X	X	X	X	–
Ohio	–	–	–	–	–	–	–	–	–	–
Wisc.	–	–	–	–	–	–	–	–	–	–
West North Central	**–**									
Ia.	–	–	–	–	–	–	–	–	–	–
Kans.	–	–	–	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–
South Atlantic	**224,914**									
Del.	30	X	X	X	–	–	X	–	–	–
D.C.	41,862	X	X	X	X	X	X	–	X	–
Fla.	84,537	X	X	–	–	–	–	–	–	–
Ga.	1,184	–	–	X	–	–	–	–	–	–
Md.	50,789	X	X	X	X	X	X	X	X	Indices, L-E preparation
N.C.	2,014	X	X	X	–	–	X	–	–	–
S.C.	44,168	X	X	X	X	X	X	X	X	–
Va.	–	–	–	–	–	–	–	–	–	–
W.Va.	330	X	X	X	X	–	–	–	–	–
East South Central	**102,666**									
Ala.	–	–	–	–	–	–	–	–	–	–
Ky.	–	–	–	–	–	–	–	–	–	–
Miss.	102,666	X	X	X	–	–	–	–	–	MCV, MCH, MCHC
Tenn.	–	–	–	–	–	–	–	–	–	–
West South Central	**120,715**									
Ark.	11,396	X	X	X	–	–	X	–	–	–
La.	–	–	–	–	–	–	–	–	–	–
Okla.	135	–	–	X	–	–	–	–	–	–
Tex.	109,184	X	X	X	X	X	X	–	X	–
Mountain	**4,411**									
Ariz.	–	–	–	–	–	–	–	–	–	–
Colo.	–	–	–	–	–	–	–	–	–	–
Ida.	3,538	X	–	–	–	–	–	–	–	Clinitest
Mont.	–	–	–	–	–	–	–	–	–	–
Nev.	873	X	X	X	X	–	X	–	–	–
N.M.	–	–	–	–	–	–	–	–	–	–
Utah	–	–	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–
Pacific	**–**									
Alaska	–	–	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–	–	–	–
Territories	**18,650**									
Guam	4,710	X	X	X	X	X	X	X	X	–
P.R.	13,940	X	X	X	X	X	X	X	X	L-E preparation, ANA
V.I.	–	–	–	–	–	–	–	–	–	–

Table 4-29
VI. HEMATOLOGY
B. Immunohematology Specimens

Lab & Region	Number of Specimens	Blood Grouping	Blood Typing	Other Test
Total	**223,176**			
Average	9,703			
New England	**28**			
Conn.	28	X	X	–
Mass.	–	–	–	–
Me.	–	–	–	–
N.H.	–	–	–	–
R.I.	–	–	–	–
Vt.	–	–	–	–
Middle Atlantic	**48**			
N.J.	–	–	–	–
N.Y.	–	–	–	–
Pa.	48	X	X	Rh antibody
East North Central	**36,271**			
Ill.	–	–	–	–
Ind.	–	–	–	–
Mich.	–	–	–	–
Ohio	–	–	–	–
Wisc.	36,271	X	X	Rh antibody
West North Central	**15,329**			
Ia.	–	–	–	–
Kans.	–	–	–	–
Minn.	–	–	–	–
Mo.	5,270	X	X	ASO
Nebr.	–	–	–	–
N.D.	10,059	X	X	–
S.D.	–	–	–	–
South Atlantic	**88,526**			
Del.	–	–	–	–
D.C.	4,866	–	–	–
Fla.	22,008	X	–	–
Ga.	14,309	–	X	Rh antibody
Md.	17,488	X	X	Rh antibody
N.C.	8,667	X	X	Rh antibody
S.C.	5,750	X	X	Rh antibody
Va.	15,438	X	X	Atypical antibody screen
W.Va.	–	–	–	–
East South Central	**33,881**			
Ala.	13,011	–	X	Rh antibody
Ky.	7,036	–	X	Antibody identification
Miss.	13,834	X	X	Indirect Coombs (I.D. and titration)
Tenn.	–	–	–	–
West South Central	**28,737**			
Ark.	5,132	X	X	Rh antibody
La.	1,673	X	X	Coombs
Okla.	2,903	X	X	Rh antibody
Tex.	19,029	X	X	Rh antibody
Mountain	**14,511**			
Ariz.	–	–	–	–
Colo.	12,873	–	X	–
Ida.	–	–	–	–
Mont.	–	–	–	–
Nev.	–	–	–	–
N.M.	1,638	X	X	–
Utah	–	–	–	–
Wyo.	–	–	–	–
Pacific	–			
Alaska	–	–	–	–
Cal.	–	–	–	–
Hawaii	–	–	–	–
Ore.	–	–	–	–
Wash.	–	–	–	–
Territories	**5,845**			
Guam	95	X	X	–
P.R.	5,750	X	X	D^u determination, indirect 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	**674,695**							
Average	24,989							
New England	**5,550**							
Conn.	4,981	X	X	X	X	X	–	–
Mass.	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–
R.I.	569	X	–	X	–	X	–	–
Vt.	–	–	–	–	–	–	–	–
Middle Atlantic	**130**							
N.J.	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–
Pa.	130	X	X	X	X	–	X	–
East North Central	**8,059**							
Ill.	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–
Ohio	8,059	X	X	X	–	–	–	–
Wisc.	–	–	–	–	–	–	–	–
West North Central	**8,829**							
Ia.	–	–	–	–	–	–	–	–
Kans.	–	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–
Mo.	8,829	X	–	X	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–
South Atlantic	**255,457**							
Del.	3,883	X	–	X	–	–	X	–
D.C.	8,051	–	–	–	–	–	–	–
Fla.	61,739	X	X	X	X	X	–	Globin chain electrophoresis
Ga.	80,209	X	X	X	–	–	–	–
Md.	23,298	X	X	X	X	X	X	–
N.C.	55,215	X	X	X	X	X	X	–
S.C.	12,407	X	X	X	–	–	–	–
Va.	9,698	X	X	–	–	–	–	–
W. Va.	957	X	X	X	–	–	–	–
East South Central	**110,165**							
Ala.	59,978	X	X	–	X	X	–	Globin chain electrophoresis
Ky.	12,934	X	X	X	X	X	X	–
Miss.	37,253	X	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–
West South Central	**144,347**							
Ark.	12,364	X	–	X	–	–	–	–
La.	70,149	X	X	X	–	–	X	–
Okla.	3,700	X	X	X	–	–	–	–
Tex.	58,134	X	X	X	X	X	X	–
Mountain	**135,962**							
Ariz.	–	–	–	–	–	–	–	–
Colo.	134,820	X	X	–	–	–	–	–
Ida.	–	–	–	–	–	–	–	–
Mont.	–	–	–	–	–	–	–	–
Nev.	302	–	–	X	–	–	–	–
N.M.	840	X	X	X	–	–	X	–
Utah	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–
Pacific	**3,011**							
Alaska	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–
Wash.	3,011	X	X	X	–	–	–	–
Territories	**3,185**							
Guam	–	–	–	–	–	–	–	–
P.R.	400	X	–	X	–	–	–	Sickle cell
V.I.	2,785	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	**5,079,634**	**409,354**	**152,332**	**4,382,477**	**109,480**	**25,991**
Average	112,881	14,620	8,017	115,328	10,948	3,713
New England	**424,621**	**13,135**	**1,650**	**406,497**	**3,339**	–
Conn.	86,458	7,206	1,650	74,263	3,339	–
Mass.	291,721	–	–	291,721	–	–
Me.	16,717	–	–	16,717	–	–
N.H.	–	–	–	–	–	–
R.I.	29,725	5,929	–	23,796	–	–
Vt.	–	–	–	–	–	–
Middle Atlantic	**101,255**	**670**	**30**	**100,555**	–	–
N.J.	100,555	–	–	100,555	–	–
N.Y.	–	–	–	–	–	–
Pa.	700	670	30	–	–	–
East North Central	**761,397**	**56,143**	**7,468**	**691,152**	**6,616**	**18**
Ill.	177,498	–	–	177,498	–	–
Ind.	–	–	–	–	–	–
Mich.	257,120	16,697	7,468	232,955	–	–
Ohio	229,615	18,541	–	204,458	6,616	–
Wisc.	97,164	20,905	–	76,241	–	18
West North Central	**334,005**	**2,188**	–	**331,817**	–	–
Ia.	29,444	–	–	29,444	–	–
Kans.	64,976	–	–	64,976	–	–
Minn.	77,262	–	–	77,262	–	–
Mo.	135,275	2,170	–	133,105	–	–
Nebr.	6,981	–	–	6,981	–	–
N.D.	20,067	18	–	20,049	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**1,307,607**	**142,464**	**87,041**	**986,013**	**83,636**	**8,453**
Del.	2,790	–	326	–	–	2,464
D.C.	35,760	–	27,783	7,977	–	–
Fla.	278,601	51,766	–	191,913	34,922	–
Ga.	131,068	9,790	748	119,974	–	556
Md.	195,841	36,463	28,779	130,599	–	–
N.C.	187,503	13,551	27	137,632	36,293	–
S.C.	157,964	3,350	28,990	111,607	8,584	5,433
Va.	242,659	17,553	–	225,106	–	–
W.Va.	75,421	9,991	388	61,205	3,837	–
East South Central	**487,024**	**92,226**	–	**375,032**	**9,883**	**9,883**
Ala.	203,094	1,820	–	201,274	–	–
Ky.	116,540	13,323	–	103,217	–	–
Miss.	96,849	77,083	–	–	9,883	9,883
Tenn.	70,541	–	–	70,541	–	–
West South Central	**1,024,089**	**82,503**	**38,194**	**889,749**	**6,006**	**7,637**
Ark.	77,506	3,768	54	73,684	–	–
La.	164,189	388	3,105	156,799	3,862	35
Okla.	58,051	3,500	1,801	52,000	750	–
Tex.	724,343	74,847	33,234	607,266	1,394	7,602
Mountain	**293,071**	**1,145**	**4,122**	**287,804**	–	–
Ariz.	–	–	–	–	–	–
Colo.	181,177	–	–	181,177	–	–
Ida.	4,584	800	3,643	141	–	–
Mont.	–	–	–	–	–	–
Nev.	503	–	479	24	–	–
N.M.	20,807	345	–	20,462	–	–
Utah	86,000	–	–	86,000	–	–
Wyo.	–	–	–	–	–	–
Pacific	**320,428**	**332**	**6,238**	**313,858**	–	–
Alaska	–	–	–	–	–	–
Cal.	2,158	332	–	1,826	–	–
Hawaii	6,238	–	6,238	–	–	–
Ore.	205,771	–	–	205,771	–	–
Wash.	106,261	–	–	106,261	–	–
Territories	**26,137**	**18,548**	**7,589**	–	–	–
Guam	4,916	1,076	3,840	–	–	–
P.R.	16,918	13,169	3,749	–	–	–
V.I.	4,303	4,303	–	–	–	–

Table 4-32

VII. CLINICAL CHEMISTRY

A. Clinical Chemistry Specimens

Lab	Number of Specimens	Types of Tests																						Other
		Glucose	Cholesterol	BUN	Uric Acid	Transaminases	Alkaline Phos.	Total 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	
Total	**409,354**																							
Average	14,620																							
Ala.	1,820	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ark.	3,768	X	X	X	X	X	X	X	–	–	X	–	X	–	X	X	–	X	X	X	X	X	X	–
Cal.	332	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Conn.	7,206	X	X	X	X	X	X	X	X	X	X	–	X	–	X	X	X	X	X	–	X	X	X	HDL amylase, IgA, IgM, IgG, and antitrypsin, XGT
Fla.	51,766	X	X	X	X	X	X	X	–	–	X	–	X	–	X	X	–	–	X	–	X	–	–	–
Ga.	9,790	X	X	–	X	–	X	–	–	–	–	–	X	–	X	X	–	–	X	–	–	–	–	SGOT, SGPT
Guam	1,076	X	X	X	X	–	–	X	–	–	–	–	X	–	X	X	–	X	X	–	X	–	–	SGOT, SGPT
Ida.	800	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Microstix or Labstix
Ky.	13,323	X	X	X	X	–	X	X	–	–	X	–	X	–	X	X	X	X	X	X	X	X	X	SGOT, SGPT, HBDH, lithium, GGTP, Amyl, CPK, cholinesterase
La.	388	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	36,463	X	X	X	X	X	X	X	X	X	X	–	X	–	X	X	X	X	X	–	X	X	X	A/G ratio
Mich.	16,697	X	X	X	X	X	–	X	–	–	–	–	X	–	X	X	–	–	X	–	–	X	–	–
Miss.	77,083	X	X	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	2,170	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.M.	345	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	Cholinesterase, lithium in blood
N.C.	13,551	–	–	–	–	–	–	–	X	X	X	–	–	X	–	–	–	–	–	–	–	–	–	–
N.D.	18	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	Magnesium
Ohio	18,541	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	3,500	X	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	670	X	X	X	X	X	X	X	X	X	X	–	X	–	X	X	X	X	X	–	X	X	X	GGT, glycosylated hemoglobins, HDL cholesterol
P.R.	13,169	X	X	X	X	X	X	X	–	–	X	–	X	X	X	X	X	X	X	X	X	X	X	Lithium
R.I.	5,929	X	X	X	–	X	–	–	–	–	X	X	X	–	X	X	–	–	X	–	–	X	–	Magnesium
S.C.	3,350	X	X	X	X	X	X	X	–	–	–	–	X	–	X	X	X	X	X	–	X	X	–	CO_2
Tex.	74,847	X	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–
Va.	17,553	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	4,303	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
W.Va.	9,991	X	X	X	X	–	–	X	–	–	–	–	–	–	X	X	–	–	X	–	–	–	–	–
Wisc.	20,905	X	X	X	X	X	X	X	X	X	X	–	X	X	X	X	X	X	X	–	X	X	X	Amylase, HDL cholesterol, Gamma GT, Lithium, 17-ketosteroids, 17-hydroxy-steroids, ketogenic steroids, VMA, 5-HIAA, Vitamin B-12, folate.

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

Lab & Region	Number of Specimens	Procedures Used			
		Routine	Microscopic	Pregnancy Test	Other
Total	**152,332**				
Average	8,017				
New England	**1,650**				
Conn.	1,650	X	X	–	–
Mass.	–	–	–	–	–
Me.	–	–	–	–	–
N.H.	–	–	–	–	–
R.I.	–	–	–	–	–
Vt.	–	–	–	–	–
Middle Atlantic	**30**				
N.J.	–	–	–	–	–
N.Y.	–	–	–	–	–
Pa.	30	X	X	–	–
East North Central	**7,468**				
Ill.	–	–	–	–	–
Ind.	–	–	–	–	–
Mich.	7,468	X	X	–	–
Ohio	–	–	–	–	–
Wisc.	–	–	–	–	–
West North Central	–				
Ia.	–	–	–	–	–
Kans.	–	–	–	–	–
Minn.	–	–	–	–	–
Mo.	–	–	–	–	–
Nebr.	–	–	–	–	–
N.D.	–	–	–	–	–
S.D.	–	–	–	–	–
South Atlantic	**87,041**				
Del.	326	X	X	–	–
D.C.	27,783	X	X	X	–
Fla.	–	–	–	–	–
Ga.	748	X	X	–	–
Md.	28,779	X	X	X	–
N.C.	27	X	X	–	–
S.C.	28 990	X	X	X	–
Va.	–	–	–	–	–
W.Va.	388	X	X	–	–
East South Central	–				
Ala.	–	–	–	–	–
Ky.	–	–	–	–	–
Miss.	–	–	–	–	–
Tenn.	–	–	–	–	–
West South Central	**38,194**				
Ark.	54	X	X	–	–
La.	3,105	X	X	–	–
Okla.	1,801	X	X	X	Microstix
Tex.	33,234	X	X	–	–
Mountain	**4,122**				
Ariz.	–	–	–	–	–
Colo.	–	–	–	–	–
Ida.	3,643	X	X	X	–
Mont.	–	–	–	–	–
Nev.	479	X	X	–	–
N.M.	–	–	–	–	–
Utah	–	–	–	–	–
Wyo.	–	–	–	–	–
Pacific	**6,238**				
Alaska	–	–	–	–	–
Cal.	–	–	–	–	–
Hawaii	6,238	–	–	–	INH
Ore.	–	–	–	–	–
Wash.	–	–	–	–	–
Territories	**7,589**				
Guam	3,840	X	X	X	–
P.R.	3,749	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	Hypothyroidism	Amino Acid Chromatography	Hemocystinuria	Maternal PKU	Other
Total	**4,382,477**									
Average	115,328									
New England	**406,497**									
Conn.	74,263	X	X	X	X	X	X	–	–	Tay-Sachs
Mass.	291,721	X	–	X	X	X	–	X	–	Amino acid and organic acid disorders
Me.	16,717	X	X	X	X	X	–	X	X	–
N.H.	–	–	–	–	–	–	–	–	–	–
R.I.	23,796	X	X	–	–	–	X	–	–	–
Vt.	–	–	–	–	–	–	–	–	–	–
Middle Atlantic	**100,555**									
N.J.	100,555	X	–	–	–	X	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–	–
East North Central	**691,152**									
Ill.	177,498	X	–	–	–	X	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–	–
Mich.	232,955	X	–	–	–	X	–	–	–	–
Ohio	204,458	X	–	X	–	X	–	X	X	–
Wisc.	76,241	X	–	X	X	X	–	–	–	–
West North Central	**331,817**									
Ia.	29,444	X	–	X	X	X	–	–	–	–
Kans.	64,976	X	–	–	–	X	–	–	–	–
Minn.	77,262	X	–	X	–	X	–	–	–	–
Mo.	133,105	X	–	–	–	X	–	–	–	–
Nebr.	6,981	X	–	–	–	X	–	–	–	–
N.D.	20,049	X	–	–	–	X	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–
South Atlantic	**986,013**									
Del.	–	–	–	–	–	–	–	–	–	–
D.C.	7,977	–	–	–	–	–	–	–	–	Hemoglobinopathies
Fla.	191,913	X	–	X	X	X	–	–	–	–
Ga.	119,974	X	X	X	X	X	–	X	–	–
Md.	130,599	X	X	X	X	X	–	X	–	Fluorometric assays
N.C.	137,632	X	X	–	–	X	–	–	–	–
S.C.	111,607	X	–	–	–	X	–	–	–	–
Va.	225,106	X	X	–	–	X	–	–	–	–
W.Va.	61,205	X	–	–	–	X	X	–	–	–
East South Central	**375,032**									
Ala.	201,274	X	–	–	–	X	X	–	X	Amino acid disorders
Ky.	103,217	X	–	X	–	X	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–	–
Tenn.	70,541	X	–	–	–	X	–	–	–	–
West South Central	**889,749**									
Ark.	73,684	X	–	–	–	X	–	–	–	–
La.	156,799	X	–	–	–	X	–	–	–	–
Okla.	52,000	X	–	–	–	X	–	–	–	–
Tex.	607,266	X	X	X	–	X	–	X	X	–
Mountain	**287,804**									
Ariz.	–	–	–	–	–	–	–	–	–	–
Colo.	181,177	X	–	X	X	X	–	X	–	–
Ida.	141	X	–	–	–	–	–	–	–	–
Mont.	–	–	–	–	–	–	–	–	–	–
Nev.	24	X	–	–	–	–	–	–	–	–
N.M.	20,462	X	–	–	–	–	–	–	–	–
Utah	86,000	X	–	X	–	X	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–
Pacific	**313,858**									
Alaska	–	–	–	–	–	–	–	–	–	–
Cal.	1,826	X	–	X	–	X	–	–	X	–
Hawaii	–	–	–	–	–	–	–	–	–	–
Ore.	205,771	X	X	X	X	X	X	X	X	–
Wash.	106,261	X	–	–	–	X	–	–	–	–
Territories	–									
Guam	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–

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	**109,480**					
Average	10,948					
New England	**3,339**					
Conn.	3,339	–	–	X	X	–
Mass.	–	–	–	–	–	–
Me.	–	–	–	–	–	–
N.H.	–	–	–	–	–	–
R.I.	–	–	–	–	–	–
Vt.	–	–	–	–	–	–
Middle Atlantic	–					
N.J.	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	–
East North Central	**6,616**					
Ill.	–	–	–	–	–	–
Ind.	–	–	–	–	–	–
Mich.	–	–	–	–	–	–
Ohio	6,616	–	–	–	X	–
Wisc.	–	–	–	–	–	–
West North Central	–					
Ia.	–	–	–	–	–	–
Kans.	–	–	–	–	–	–
Minn.	–	–	–	–	–	–
Mo.	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–
N.D.	–	–	–	–	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**83,636**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	34,922	–	X	–	–	–
Ga.	–	–	–	–	–	–
Md.	–	–	–	–	–	–
N.C.	36,293	–	–	X	X	–
S.C.	6,584	X	–	–	–	–
Va.	–	–	–	–	–	–
W.Va.	3,837	–	–	–	X	–
East South Central	**9,883**					
Ala.	–	–	–	–	–	–
Ky.	–	–	–	–	–	–
Miss.	9,883	–	–	X	–	–
Tenn.	–	–	–	–	–	–
West South Central	**6,006**					
Ark.	–	–	–	–	–	–
La.	3,862	X	–	–	–	–
Okla.	750	–	–	–	–	SMAC-24
Tex.	1,394	–	–	–	–	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	**25,991**	
Average	3,713	
Del.	2,464	Stool — Hemoccult
Ga.	556	Blood lead — Delves cup AAS
La.	35	Blood — RIA (Hepatitis)
Miss.	9,883	Electrolytes — flame photometer and chloride meter
S.C.	5,433	Stool — occult blood; semen — sperm counts
Tex.	7,602	–
Wisc.	18	Renal calculi

Table 4-37
VIII. PATHOLOGY

Lab & Region	Total Pathology Specimens	Exfoliative Cytology Specimens	Cytogenetic Specimens	Other Pathology Specimens	
				Number of Specimens	Types
Total	**469,751**	**287,403**	**180,876**	**1,472**	
Average	36,135	31,934	45,219	368	
New England	**735**	**735**	–	–	
Conn.	735	735	–	–	–
Mass.	–	–	–	–	–
Me.	–	–	–	–	–
N.H.	–	–	–	–	–
R.I.	–	–	–	–	–
Vt.	–	–	–	–	–
Middle Atlantic	–	–	–	–	
N.J.	–	–	–	–	–
N.Y.	–	–	–	–	–
Pa.	–	–	–	–	–
East North Central	**86,927**	**84,670**	**2,143**	**114**	
Ill.	–	–	–	–	–
Ind.	–	–	–	–	–
Mich.	–	–	–	–	–
Ohio	–	–	–	–	–
Wisc.	86,927	84,670	2,143	114	Buccal smears
West North Central	**188**	–	**188**	–	
Ia.	–	–	–	–	–
Kans.	–	–	–	–	–
Minn.	188	–	188	–	–
Mo.	–	–	–	–	–
Nebr.	–	–	–	–	–
N.D.	–	–	–	–	–
S.D.	–	–	–	–	–
South Atlantic	**347,659**	**169,265**	**178,156**	**238**	
Del.	43,898	43,898	–	–	–
D.C.	13,767	13,767	–	–	–
Fla.	–	–	–	–	–
Ga.	–	–	–	–	–
Md.	59,182	59,182	–	–	–
N.C.	178,156	–	178,156	–	–
S.C.	–	–	–	–	–
Va.	–	–	–	–	–
W.Va.	52,656	52,418	–	238	Oral and breast
East South Central	**19,951**	**18,845**	–	**1,106**	
Ala.	18,845	18,845	–	–	–
Ky.	1,106	–	–	1,106	Investigations of Coroner's cases for cause of death.
Miss.	–	–	–	–	–
Tenn.	–	–	–	–	–
West South Central	–	–	–	–	
Ark.	–	–	–	–	–
La.	–	–	–	–	–
Okla.	–	–	–	–	–
Tex.	–	–	–	–	–
Mountain	**12,873**	**12,470**	**389**	**14**	
Ariz.	–	–	–	–	–
Colo.	–	–	–	–	–
Ida.	403	–	389	14	Buccal smears
Mont.	–	–	–	–	–
Nev.	–	–	–	–	–
N.M.	12,470	12,470	–	–	–
Utah	–	–	–	–	–
Wyo.	–	–	–	–	–
Pacific	–	–	–	–	
Alaska	–	–	–	–	–
Cal.	–	–	–	–	–
Hawaii	–	–	–	–	–
Ore.	–	–	–	–	–
Wash.	–	–	–	–	–
Territories	**1,418**	**1,418**	–	–	
Guam	1,418	1,418	–	–	–
P.R.	–	–	–	–	–
V.I.	–	–	–	–	–

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

Lab & Region	Total Environmental Microbiology	A Water Samples	B Dairy Product Samples	C Food and Beverage Samples	D Other Micro. Samples
Total	**2,380,200**	**1,987,452**	**333,808**	**41,145**	**17,795**
Average	48,576	42,286	9,537	957	847
New England	**79,178**	**63,739**	**7,493**	**7,197**	**749**
Conn.	16,116	10,374	5,086	656	–
Mass.	–	–	–	–	–
Me.	18,353	18,216	–	–	137
N.H.	–	–	–	–	–
R.I.	21,631	12,260	2,407	6,541	423
Vt.	23,078	22,889	–	–	189
Middle Atlantic	**11,235**	**4,388**	**2,666**	**515**	**3,666**
N.J.	11,021	4,361	2,666	365	3,629
N.Y.	–	–	–	–	–
Pa.	214	27	–	150	37
East North Central	**352,903**	**320,408**	**26,677**	**5,171**	**647**
Ill.	58,008	40,884	15,423	1,054	647
Ind.	64,103	57,022	5,908	1,173	–
Mich.	103,889	96,184	5,112	2,593	–
Ohio	62,760	62,244	234	282	–
Wisc.	64,143	64,074	–	69	–
West North Central	**263,800**	**250,353**	**9,808**	**1,946**	**1,693**
Ia.	41,347	40,127	1,153	37	30
Kans.	48,189	48,189	–	–	–
Minn.	–	–	–	–	–
Mo.	107,516	101,373	5,251	892	–
Nebr.	21,791	21,791	–	–	–
N.D.	18,566	12,545	3,404	954	1,663
S.D.	26,391	26,328	–	63	–
South Atlantic	**511,385**	**460,004**	**42,550**	**6,903**	**1,928**
Del.	14,316	12,782	1,305	229	–
D.C.	1,041	176	325	540	–
Fla.	237,520	229,860	5,725	1,925	10
Ga.	–	–	–	–	–
Md.	97,617	81,141	13,065	2,053	1,358
N.C.	61,883	61,644	–	239	–
S.C.	11,313	–	10,348	965	–
Va.	50,812	44,120	5,230	902	560
W.Va.	36,883	30,281	6,552	50	–
East South Central	**273,965**	**192,330**	**80,516**	**1,119**	–
Ala.	114,354	80,992	32,983	379	–
Ky.	16,642	7,172	9,364	106	–
Miss.	76,866	60,195	16,324	347	–
Tenn.	66,103	43,971	21,845	287	–
West South Central	**651,409**	**521,217**	**124,174**	**5,760**	**258**
Ark.	81,445	58,764	22,310	371	–
La.	118,418	77,504	39,656	1,000	258
Okla.	73,141	61,692	11,104	345	–
Tex.	378,405	323,257	51,104	4,044	–
Mountain	**179,951**	**143,817**	**31,798**	**3,689**	**647**
Ariz.	13,742	6,640	6,635	467	–
Colo.	35,151	26,853	8,159	139	–
Ida.	36,005	23,614	10,409	1,475	507
Mont.	10,433	10,298	–	135	–
Nev.	22,950	19,959	2,844	147	–
N.M.	22,069	17,357	3,751	961	–
Utah	28,393	27,888	–	365	140
Wyo.	11,208	11,208	–	–	–
Pacific	**37,711**	**29,920**	**2,710**	**2,013**	**3,068**
Alaska	1,596	1,532	–	64	–
Cal.	5,927	5,030	318	308	271
Hawaii	11,053	6,342	2,392	1,103	1,216
Ore.	10,914	10,758	–	88	68
Wash.	8,221	6,258	–	450	1,513
Territories	**18,663**	**1,276**	**5,416**	**6,832**	**5,139**
Guam	236	1	102	62	71
P.R.	15,406	–	3,588	6,770	5,048
V.I.	3,021	1,275	1,726	–	20

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	**1,987,452**												
Average	42,286												
New England	**63,739**												
Conn.	10,374	X	X	–	X	X	–	X	–	X	–	X	–
Mass.	–	–	–	–	–	–	–	–	–	–	–	–	–
Me.	18,216	X	X	X	X	X	X	X	X	X	X	X	X
N.H.	–	–	–	–	–	–	–	–	–	–	–	–	–
R.I.	12,260	X	–	–	–	X	–	–	X	–	–	X	–
Vt.	22,889	X	–	–	–	–	–	X	–	–	–	–	–
Middle Atlantic	**4,388**												
N.J.	4,361	X	–	–	–	X	–	X	–	–	–	X	–
N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–
Pa.	27	X	–	–	–	–	–	–	–	–	–	–	–
East North Central	**320,408**												
Ill.	40,884	X	X	–	X	X	–	X	X	–	–	X	–
Ind.	57,022	X	X	X	X	–	–	–	X	X	X	–	–
Mich.	96,184	X	–	–	X	–	–	X	–	–	X	–	–
Ohio	62,244	X	X	–	X	X	–	–	–	–	X	–	–
Wisc.	64,074	X	X	–	X	X	–	–	X	–	X	–	–
West North Central	**250,353**												
Ia.	40,127	–	X	–	X	–	–	–	X	–	–	–	–
Kans.	48,189	X	–	–	X	–	–	X	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	101,373	X	–	–	X	–	X	X	–	–	–	–	–
Nebr.	21,791	X	X	–	–	–	–	–	–	–	–	–	–
N.D.	12,545	X	X	–	X	X	–	X	X	X	X	X	X
S.D.	26,328	X	X	–	X	X	–	X	X	–	X	X	–
South Atlantic	**460,004**												
Del.	12,782	X	X	–	–	X	–	X	X	–	–	–	–
D.C.	176	X	–	–	–	X	–	X	–	–	–	–	–
Fla.	229,860	X	X	–	–	X	–	X	–	–	–	X	–
Ga.	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	81,141	X	X	–	–	X	–	–	X	–	–	X	–
N.C.	61,644	X	X	X	X	X	X	X	X	–	–	X	–
S.C.	–	–	–	–	–	–	–	–	–	–	–	–	–
Va.	44,120	X	X	–	X	X	–	–	–	–	X	X	–
W.Va.	30,281	X	X	–	X	X	–	–	X	–	X	X	–
East South Central	**192,330**												
Ala.	80,992	X	X	–	X	X	–	X	–	–	–	–	–
Ky.	7,172	X	X	X	–	–	–	–	–	–	–	–	–
Miss.	60,195	X	X	–	–	X	–	–	–	–	–	–	–
Tenn.	43,971	X	–	–	–	–	–	X	–	–	–	–	–
West South Central	**521,217**												
Ark.	58,764	X	–	–	X	X	–	X	–	–	X	X	–
La.	77,504	X	X	–	–	X	–	–	–	–	–	X	–
Okla.	61,692	X	–	–	X	–	–	–	–	–	X	–	–
Tex.	323,257	X	X	–	–	X	–	–	–	–	–	X	–
Mountain	**143,817**												
Ariz.	6,640	X	X	X	X	X	X	X	X	X	X	X	X
Colo.	26,853	X	X	–	X	X	–	X	X	–	–	X	–
Ida.	23,614	X	X	X	X	X	–	X	–	–	–	–	–
Mont.	10,298	X	X	–	X	X	–	X	X	–	X	X	–
Nev.	19,959	X	X	–	X	X	–	X	X	–	X	X	–
N.M.	17,357	X	X	X	X	X	X	X	X	–	X	X	–
Utah	27,888	X	X	–	–	X	X	X	–	X	–	X	X
Wyo.	11,208	–	X	–	–	X	–	–	X	–	–	–	–
Pacific	**29,920**												
Alaska	1,532	–	X	–	–	X	–	–	–	–	–	X	–
Cal.	5,030	X	X	X	–	X	X	X	X	X	–	X	X
Hawaii	6,342	X	X	–	X	X	–	–	–	–	–	X	–
Ore.	10,758	–	X	–	–	X	–	–	X	–	–	X	–
Wash.	6,258	–	X	–	–	X	–	–	X	X	–	X	–
Territories	**1,276**												
Guam	1	–	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–	–	–	–
V.I.	1,275	–	–	–	–	–	–	–	–	–	–	–	–

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

Lab & Region	Number of Samples	Types of Samples					
		Milk & Cream	Ice Cream	Cheese	Other Dairy Products	Frozen Desserts	Other
Total	**333,808**						
Average	9,537						
New England	**7,493**						
Conn.	5,086	X	X	X	X	X	Plant equipment
Mass.	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–
R.I.	2,407	X	X	X	X	X	–
Vt.	–	–	–	–	–	–	–
Middle Atlantic	**2,666**						
N.J.	2,666	X	X	X	X	X	DMSCC inhibitors
N.Y.	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–
East North Central	**26,677**						
Ill.	15,423	X	X	X	X	X	–
Ind.	5,908	X	X	X	X	X	Infant formula, caustic wash solutions
Mich.	5,112	X	X	X	X	–	–
Ohio	234	X	X	–	X	X	–
Wisc.	–	–	–	–	–	–	–
West North Central	**9,808**						
Ia.	1,153	X	–	–	X	X	–
Kans.	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–
Mo.	5,251	X	X	X	X	–	–
Nebr.	–	–	–	–	–	–	–
N.D.	3,404	X	X	–	X	X	–
S.D.	–	–	–	–	–	–	–
South Atlantic	**42,550**						
Del.	1,305	X	X	X	X	–	–
D.C.	325	X	X	X	X	X	–
Fla.	5,725	X	X	X	X	X	–
Ga.	–	–	–	–	–	–	–
Md.	13,065	X	X	X	X	X	–
N.C.	–	–	–	–	–	–	–
S.C.	10,348	X	X	–	X	X	–
Va.	5,230	X	X	–	X	X	–
W.Va.	6,552	X	–	–	X	–	–
East South Central	**80,516**						
Ala.	32,983	X	X	–	X	X	Cartons and non-dairy imitation products
Ky.	9,364	X	X	X	X	X	–
Miss.	16,324	X	–	–	X	–	–
Tenn.	21,845	X	X	X	X	X	–
West South Central	**124,174**						
Ark.	22,310	X	X	X	X	X	–
La.	39,656	X	X	X	X	X	–
Okla.	11,104	X	–	–	–	–	–
Tex.	51,104	X	X	–	X	X	–
Mountain	**31,798**						
Ariz.	6,635	X	X	–	X	X	–
Colo.	8,159	X	X	X	X	–	–
Ida.	10,409	X	–	–	–	–	–
Mont.	–	–	–	–	–	–	–
Nev.	2,844	X	X	X	X	X	–
N.M.	3,751	X	X	X	X	X	Milk product containers
Utah	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–
Pacific	**2,710**						
Alaska	–	–	–	–	–	–	–
Cal.	318	X	–	–	–	–	–
Hawaii	2,392	X	X	X	–	X	–
Ore.	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	–
Territories	**5,416**						
Guam	102	X	–	–	–	–	–
P.R.	3,588	X	X	–	X	X	Containers
V.I.	1,726	X	X	X	X	X	–

Table 4-41
IX. ENVIRONMENTAL MICROBIOLOGY

Lab & Region	C. Food and Beverage Samples					D. Other Samples	
	Types of Samples						
	Number of Samples	Food Quality	Food-Associated Disease Outbreaks	Seafood	Environmental	Number of Samples	Types
Total	**41,145**					**17,795**	
Average	957					847	
New England	**7,197**					**749**	
Conn.	656	X	X	X	X	–	–
Mass.	–	–	–	–	–	–	–
Me.	–	–	–	–	–	137	Microscopic (physical)
N.H.	–	–	–	–	–	–	–
R.I.	6,541	X	X	X	X	423	P.S.P. (Red tide toxin assay)
Vt.	–	–	X	–	X	189	Water from cooling towers associated with Legionellosis
Middle Atlantic	**515**					**3,666**	
N.J.	365	X	X	X	X	3,629	Plate counts (water), additional tests (i.e. *E. coli*, fecal strep.)
N.Y.	–	–	–	–	–	–	–
Pa.	150	–	X	–	X	37	Botulism toxic detection—mouse neutralization
East North Central	**5,171**					**647**	
Ill.	1,054	X	X	X	X	647	Environmental hazards investigations, miscellaneous
Ind.	1,173	X	X	–	–	–	–
Mich.	2,593	–	X	–	X	–	–
Ohio	282	–	X	–	X	–	–
Wisc.	69	–	X	–	–	–	–
West North Central	**1,946**					**1,693**	
Ia.	37	–	X	–	–	30	Water, soil, oil
Kans.	–	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–
Mo.	892	X	X	–	X	–	–
Nebr.	–	–	–	–	–	–	–
N.D.	954	–	X	–	X	1,663	Sterility tests; autoclave test strips
S.D.	63	–	X	–	X	–	–
South Atlantic	**6,903**					**1,928**	
Del.	229	X	X	X	X	–	–
D.C.	540	X	X	X	X	–	–
Fla.	1,925	X	X	X	X	10	Dental caries
Ga.	–	–	–	–	–	–	–
Md.	2,053	X	X	X	X	1,358	Environmental samples, I.D. of meat samples
N.C.	239	–	X	X	–	–	–
S.C.	965	X	X	–	X	–	–
Va.	902	X	X	–	–	560	Antibiotic bioassay—medicated feed/animal drugs
W.Va.	50	–	X	–	–	–	–
East South Central	**1,119**					–	
Ala.	379	–	X	X	–	–	–
Ky.	106	X	X	–	X	–	–
Miss.	347	–	X	X	X	–	Filth samples
Tenn.	287	–	X	–	X	–	–
West South Central	**5,760**					**258**	
Ark.	371	X	X	X	–	–	–
La.	1,000	–	X	X	X	258	Cholera: oysters, crabs, water, sediment, sewer swabs, plankton, crawfish cow manure, clinical.
Okla.	345	X	X	–	X	–	–
Tex.	4,044	–	X	X	X	–	–

Table 4-41
IX. ENVIRONMENTAL MICROBIOLOGY — Continued

Lab & Region	C. Food and Beverage Samples					D. Other Samples	
	Types of Samples						
	Number of Samples	Food Quality	Food-Associated Disease Outbreaks	Seafood	Environmental	Number of Samples	Types
Mountain	**3,689**					**647**	
Ariz.	467	X	X	–	–	–	–
Colo.	139	–	X	X	–	–	–
Ida.	1,475	X	X	–	X	507	Miscellaneous sanitation
Mont.	135	X	X	–	–	–	–
Nev.	147	X	X	–	–	–	–
N.M.	961	X	–	–	X	–	Species identification of meat proteins, animal feed samples, muds, soils, plant samples, infant botulism samples (serum, feces), environmental samples (food, dust, soil, water)
Utah	365	–	X	–	–	140	Water from kidney dialysis machines
Wyo.	–	–	–	–	–	–	–
Pacific	**2,013**					**3,068**	
Alaska	64	X	X	X	X	–	–
Cal.	308	X	X	X	X	271	Drug quality
Hawaii	1,103	X	X	X	X	1,216	Hog viscera salmonella survey
Ore.	88	–	X	X	–	68	Paralytic shellfish poisoning
Wash.	450	–	X	X	X	1,513	Shellfish for paralytic shellfish poison
Territories	**6,832**					**5,139**	
Guam	62	X	X	–	X	71	Animal samples
P.R.	6,770	X	X	–	X	5,048	Containers, vomits
V.I.	–	–	–	–	–	20	Utensils

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

Lab & Region	Total Environmental Chemistry Samples	A Water Samples	B Dairy Product and Food Samples	C Pesticide Samples	D Air Pollution Samples	E Radiological Samples	F Other Samples
Total	**1,087,417**	**640,003**	**142,103**	**29,846**	**228,066**	**36,440**	**10,959**
Average	25,289	16,842	5,263	904	12,003	1,584	731
New England	**108,473**	**44,953**	**7,298**	**1,467**	**49,531**	**3,835**	**1,389**
Conn.	28,844	16,018	3,717	164	6,168	1,388	1,389
Mass.	–	–	–	–	–	–	–
Me.	10,895	8,560	–	456	–	1,879	–
N.H.	–	–	–	–	–	–	–
R.I.	56,558	8,535	3,581	511	43,363	568	–
Vt.	12,176	11,840	–	336	–	–	–
Middle Atlantic	**12,697**	**8,490**	**2,206**	**1,596**	–	–	**405**
N.J.	12,697	8,490	2,206	1,596	–	–	405
N.Y.	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–
East North Central	**214,762**	**174,441**	**9,923**	**4,383**	**18,917**	**5,231**	**1,867**
Ill.	31,519	25,450	1,831	1,121	–	2,370	747
Ind.	25,207	15,606	8,092	1,509	–	–	–
Mich.	34,726	34,726	–	–	–	–	–
Ohio	23,129	9,271	–	886	10,850	1,002	1,120
Wisc.	100,181	89,388	–	867	8,067	1,859	–
West North Central	**206,005**	**128,710**	**4,071**	**1,124**	**63,311**	**7,090**	**1,699**
Ia.	134,297	72,492	733	383	54,079	5,110	1,500
Kans.	20,683	11,471	6	399	7,508	1,100	199
Minn.	–	–	–	–	–	–	–
Mo.	8,879	5,067	3,332	–	–	480	–
Nebr.	13,115	12,729	–	262	124	–	–
N.D.	6,990	5,150	–	80	1,600	160	–
S.D.	22,041	21,801	–	–	–	240	–
South Atlantic	**143,981**	**85,079**	**27,851**	**9,118**	**9,948**	**10,097**	**1,888**
Del.	6,156	5,942	–	–	–	214	–
D.C.	374	–	374	–	–	–	–
Fla.	3,189	3,053	112	18	–	–	6
Ga.	–	–	–	–	–	–	–
Md.	47,241	24,727	11,934	1,281	5,235	2,182	1,882
N.C.	23,345	21,144	–	249	–	1,952	–
S.C.	11,796	–	10,348	1,448	–	–	–
Va.	51,880	30,213	5,083	6,122	4,713	5,749	–
W.Va.	–	–	–	–	–	–	–
East South Central	**101,303**	**90,142**	**11,076**	**85**	–	–	–
Ala.	87,905	77,528	10,377	–	–	–	–
Ky.	10,213	9,429	699	85	–	–	–
Miss.	3,185	3,185	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–
West South Central	**122,291**	**35,026**	**60,814**	**5,843**	**15,294**	**3,126**	**2,188**
Ark.	23,159	–	22,581	–	–	578	–
La.	44,224	7,319	34,459	869	–	648	929
Okla.	3,974	–	–	3,974	–	–	–
Tex.	50,934	27,707	3,774	1,000	15,294	1,900	1,259
Mountain	**102,559**	**57,267**	**5,470**	**3,744**	**33,144**	**2,351**	**583**
Ariz.	5,562	879	1,833	1,088	1,762	–	–
Colo.	18,183	2,660	1,707	631	11,954	1,231	–
Ida.	40,302	36,391	–	997	2,770	–	144
Mont.	11,914	2,805	153	113	8,843	–	–
Nev.	7,550	3,089	1,741	50	2,663	–	7
N.M.	10,330	4,166	–	33	5,152	547	432
Utah	8,718	7,277	36	832	–	573	–
Wyo.	–	–	–	–	–	–	–
Pacific	**65,881**	**13,195**	**6,665**	**2,450**	**37,921**	**4,710**	**940**
Alaska	692	–	264	–	–	–	428
Cal.	21,096	7,550	3,663	1,553	5,042	2,776	512
Hawaii	38,404	2,576	2,738	211	32,879	–	–
Ore.	–	–	–	–	–	–	–
Wash.	5,689	3,069	–	686	–	1,934	–
Territories	**9,465**	**2,700**	**6,729**	**36**	–	–	–
Guam	–	–	–	–	–	–	–
P.R.	9,364	2,599	6,729	36	–	–	–
V.I.	101	101	–	–	–	–	–

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	**640,003**					**142,103**		
Average	16,842					5,263		
New England	**44,953**					**7,298**		
Conn.	16,018	X	X	X	X	3,717	X	X
Mass.	–	–	–	–	–	–	–	–
Me.	8,560	X	X	X	X	–	–	–
N.H.	–	–	–	–	–	–	–	–
R.I.	8,535	X	X	X	X	3,581	X	X
Vt.	11,840	X	–	–	–	–	–	–
Middle Atlantic	**8,490**					**2,206**		
N.J.	8,490	X	X	–	X	2,206	X	X
N.Y.	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–
East North Central	**174,441**					**9,923**		
Ill.	25,450	X	X	X	X	1,831	X	X
Ind.	15,606	X	X	–	X	8,092	–	–
Mich.	34,726	X	X	–	X	–	–	–
Ohio	9,271	X	X	–	X	–	–	–
Wisc.	89,388	X	X	X	X	–	–	–
West North Central	**128,710**					**4,071**		
Ia.	72,492	X	X	X	X	733	–	X
Kans.	11,471	X	X	X	X	6	–	X
Minn.	–	–	–	–	–	–	–	–
Mo.	5,067	X	X	X	X	3,332	X	X
Nebr.	12,729	X	–	–	–	–	–	–
N.D.	5,150	X	X	–	X	–	–	–
S.D.	21,801	X	X	X	X	–	–	–
South Atlantic	**85,079**					**27,851**		
Del.	5,942	X	–	–	–	–	–	–
D.C.	–	–	–	–	–	374	–	–
Fla.	3,053	X	X	–	–	112	–	X
Ga.	–	–	–	–	–	–	–	–
Md.	24,727	X	X	X	X	11,934	X	X
N.C.	21,144	X	X	X	X	–	–	–
S.C.	–	–	–	–	–	10,348	X	–
Va.	30,213	X	X	–	–	5,083	X	–
W.Va.	–	–	–	–	–	–	–	–
East South Central	**90,142**					**11,076**		
Ala.	77,528	X	–	–	–	10,377	X	–
Ky.	9,429	X	X	–	–	699	X	X
Miss.	3,185	X	X	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–
West South Central	**35,026**					**60,814**		
Ark.	–	–	–	–	–	22,581	X	X
La.	7,319	X	X	–	X	34,459	X	X
Okla.	–	–	–	–	–	–	X	–
Tex.	27,707	X	X	–	X	3,774	X	X
Mountain	**57,267**					**5,470**		
Ariz.	879	X	X	X	X	1,833	X	X
Colo.	2,660	X	X	X	X	1,707	X	X
Ida.	36,391	X	X	–	X	–	–	–
Mont.	2,805	X	X	–	X	153	–	X
Nev.	3,089	X	X	X	X	1,741	X	X
N.M.	4,166	X	X	X	X	–	–	–
Utah	7,277	X	X	X	X	36	X	X
Wyo.	–	–	–	–	–	–	–	–
Pacific	**13,195**					**6,665**		
Alaska	–	–	–	–	–	264	–	X
Cal.	7,550	X	X	X	X	3,663	–	X
Hawaii	2,576	X	X	–	X	2,738	X	X
Ore.	–	–	–	–	–	–	–	–
Wash.	3,069	X	X	–	–	–	–	–
Territories	**2,700**					**6,729**		
Guam	–	–	–	–	–	–	–	–
P.R.	2,599	X	–	–	–	6,729	X	X
V.I.	101	–	–	–	–	–	–	–

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

Lab & Region	Number of Samples	Types				Other
		Human Source	Water	Milk	Foods	
Total	**29,846**					
Average	904					
New England	**1,467**					
Conn.	164	–	X	X	X	–
Mass.	–	–	–	–	–	–
Me.	456	X	X	–	X	Foliage forest floor
N.H.	–	–	–	–	–	–
R.I.	511	–	X	X	X	–
Vt.	336	–	X	–	–	–
Middle Atlantic	**1,596**					
N.J.	1,596	X	X	X	X	Soils, air, swabs, formulations, seafood
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	–
East North Central	**4,383**					
Ill.	1,121	–	X	X	X	Soil, vegetation
Ind.	1,509	–	X	–	–	–
Mich.	–	–	–	–	–	–
Ohio	886	–	X	X	X	–
Wisc.	867	–	X	–	–	Waste water, river soil, vegetation, landfills, industrial outfalls
West North Central	**1,124**					
Ia.	383	X	X	–	X	Air, silt
Kans.	399	–	X	–	X	Soil, sediment, air, vegetative matter
Minn.	–	–	–	–	–	–
Mo.	–	–	–	–	–	–
Nebr.	262	–	X	–	–	–
N.D.	80	X	X	–	–	–
S.D.	–	–	–	–	–	–
South Atlantic	**9,118**					
Del.	–	–	–	–	–	–
D.C.	–	–	–	–	–	–
Fla.	18	X	X	–	X	–
Ga.	–	–	–	–	–	–
Md.	1,281	–	X	X	X	Seafood
N.C.	249	–	X	–	–	–
S.C.	1,448	X	X	X	X	Vegetation, pharmaceuticals, miscellaneous consumer products (cigars, candy)
Va.	6,122	–	X	X	X	Shellfish soil, vegetables, animal tissue
W.Va.	–	–	–	–	–	–
East South Central	**85**					
Ala.	–	–	–	–	–	–
Ky.	85	–	X	–	X	–
Miss.	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–
West South Central	**5,843**					
Ark.	–	–	–	–	–	–
La.	869	X	X	X	X	Leaves, soil
Okla.	3,974	–	–	–	–	–
Tex.	1,000	X	X	X	X	–
Mountain	**3,744**					
Ariz.	1,088	–	X	X	X	Fish
Colo.	631	–	X	X	X	–
Ida.	997	X	X	X	X	Fish (tissue), soil, air, formulations and oil
Mont.	113	–	X	–	X	–
Nev.	50	–	X	X	–	–
N.M.	33	–	X	X	–	Soils
Utah	832	X	X	X	X	Sludge, oil, soil, tissue
Wyo.	–	–	–	–	–	–
Pacific	**2,450**					
Alaska	–	–	–	–	–	–
Cal.	1,553	X	X	X	X	Sediments, air, bulk
Hawaii	211	–	X	X	X	–
Ore.	–	–	–	–	–	–
Wash.	686	X	X	X	X	Soils, vegetation
Territories	**36**					
Guam	–	–	–	–	–	–
P.R.	36	–	X	–	–	–
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 Sampling Stations
		Number of Stations	Particulate				Gaseous	Other	
			Solids	Metals	Organics	Other			
Total	**228,066**								
Average	12,003								
New England	**49,531**								
Conn.	6,168	60	X	X	X	X	X	X	72
Mass.	–	–	–	–	–	–	–	–	–
Me.	–	–	–	–	–	–	–	–	–
N.H.	–	–	–	–	–	–	–	–	–
R.I.	43,363	13	X	X	–	–	X	–	5
Vt.	–	–	–	–	–	–	–	–	–
Middle Atlantic	–								
N.J.	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–
East North Central	**18,917**								
Ill.	–	–	–	–	–	–	–	–	–
Ind.	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–
Ohio	10,850	80	X	X	–	X	X	–	–
Wisc.	8,067	92	X	X	–	X	X	X	8
West North Central	**63,311**								
Ia.	54,079	44	X	X	–	–	X	–	6
Kans.	7,508	36	X	X	–	X	–	–	–
Minn.	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–
Nebr.	124	–	–	–	–	–	X	–	–
N.D.	1,600	21	X	X	–	X	–	–	5
S.D.	–	–	–	–	–	–	–	–	–
South Atlantic	**9,948**								
Del.	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–	–
Ga.	–	–	–	–	–	–	–	–	–
Md.	5,235	86	X	X	X	X	X	X	25
N.C.	–	–	–	–	–	–	–	–	–
S.C.	–	–	–	–	–	–	–	–	–
Va.	4,713	80	–	–	–	–	–	X	–
W.Va.	–	–	–	–	–	–	–	–	–
East South Central	–								
Ala.	–	–	–	–	–	–	–	–	–
Ky.	–	–	–	–	–	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–
West South Central	**15,294**								
Ark.	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–
Tex.	15,294	–	X	X	–	–	–	–	–
Mountain	**33,144**								
Ariz.	1,762	–	X	X	X	X	X	X	–
Colo.	11,954	74	X	X	X	–	X	–	4
Ida.	2,770	30	–	X	–	–	X	–	6
Mont.	8,843	50	X	X	–	X	X	X	–
Nev.	2,663	16	X	X	–	–	–	–	3
N.M.	5,152	66	X	X	–	X	X	–	–
Utah	–	–	–	–	–	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–
Pacific	**37,921**								
Alaska	–	–	–	–	–	–	–	–	–
Cal.	5,042	50	X	X	X	X	X	X	15
Hawaii	32,879	16	X	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 from Instruments	Other
Total	**36,440**								
Average	1,584								
New England	**3,835**								
Conn.	1,388	X	X	X	X	X	X	X	Fish, shellfish, sediment, sewage, charcoal filters.
Mass.	–	–	–	–	–	–	–	–	–
Me.	1,879	X	X	X	X	–	–	X	Seaweed, TCD's
N.H	–	–	–	–	–	–	–	–	–
R.I.	568	X	X	–	–	–	–	X	–
Vt.	–	–	–	–	–	–	–	–	–
Middle Atlantic	–								
N.J.	–	–	–	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	–	–	–	–	–	–	–	–	–
East North Central	**5,231**								
Ill.	2,370	X	X	X	X	–	X	X	–
Ind.	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–
Ohio	1,002	–	X	X	–	X	–	X	–
Wisc.	1,859	X	X	X	X	X	X	–	–
West North Central	**7,090**								
Ia	5,110	X	X	X	–	–	–	X	–
Kans.	1,100	X	X	X	–	–	–	X	Wipes from storage area
Minn.	–	–	–	–	–	–	–	–	–
Mo.	480	X	X	–	–	–	–	–	–
Nebr.	–	–	–	–	–	–	–	–	–
N.D.	160	–	X	–	–	–	–	X	–
S.D.	240	–	X	–	–	–	–	–	–
South Atlantic	**10,097**								
Del.	214	–	X	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–	–
Ga.	–	–	–	–	–	–	–	–	–
Md.	2,182	X	X	X	X	X	X	X	–
N.C.	1,952	X	X	X	X	X	X	X	Animal tissue
S.C.	–	–	–	–	–	–	–	–	–
Va.	5,749	X	X	X	X	X	X	X	Shellfish
W.Va.	–	–	–	–	–	–	–	–	–
East South Central	–								
Ala.	–	–	–	–	–	–	–	–	–
Ky.	–	–	–	–	–	–	–	–	–
Miss.	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–
West South Central	**3,126**								
Ark	578	X	X	X	–	–	X	X	Vegetation
La.	648	–	X	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–
Tex.	1,900	X	X	X	X	X	X	X	–
Mountain	**2,351**								
Ariz.	–	–	–	–	–	–	–	–	–
Colo.	1,231	X	X	X	X	X	X	–	–
Ida.	–	–	X	–	–	–	–	–	–
Mont	–	–	–	–	–	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–
N.M.	547	–	X	–	–	–	–	–	–
Utah	573	X	X	–	–	–	X	X	–
Wyo.	–	–	–	–	–	–	–	–	–
Pacific	**4,710**								
Alaska	–	–	–	–	–	–	–	–	–
Cal.	2,776	X	X	X	X	X	X	X	–
Hawaii	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–
Wash.	1,934	X	X	X	X	X	X	X	Shellfish, thermoluminescent dosimeters
Territories	–								
Guam	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

Table 4-47
X. ENVIRONMENTAL CHEMISTRY
F. Other Samples

Lab	Number of Samples	Types
Total	**10,959**	
Average	731	
Alaska	428	PSP
Cal.	512	Drugs, air monitoring instrument calibration
Conn.	1,389	Insulation, commercial products, toxic waste, landfill, chemicals, impingers, charcoal tubes
Fla.	6	Bedding
Ida.	144	Environmental samples for formaldehyde, soil for cyanide, heavy metals in paint and soil, lead in paint, blood mercury (human sources)
Ill.	747	Lead poisoning source elimination, miscellaneous
Iowa	1,500	Hazardous waste, priority pollutants, oil, trihalomethanes
Kans.	199	Coal, solvents, PCBs — oil, soil, water, air, vegetation/food
La.	929	Drug samples, sand, water (trihaldemethanes), drug samples (aspirin), caustic, paint chips, sediments, plastic-ware, cake decorations, barge discharge, mud, blood
Md.	1,882	Bedding and upholstery, mass spectroscopy
Nev.	7	–
N.J.	405	Fish, soils, sediment
N.M.	432	Heavy metals in/on media other than water, e.g. soils, muds
Ohio	1,120	Organics, asbestos, inorganics, metals
Tex.	1,259	–

Table 4-48
XI. OCCUPATIONAL SAFETY AND HEALTH

Lab & Region	Total Occup. Safety and Health Samples	Number of Environmental Samples	Number of Biological Samples
Total	**72,511**	**67,416**	**3,615**
Average	3,153	3,210	402
New England	**4,927**	**2,577**	**2,350**
Conn.	2,791	441	2,350
Mass.	–	–	–
Me.	166	166	–
N.H.	–	–	–
R.I.	830	830	–
Vt.	1,140	1,140	–
Middle Atlantic	**1,279**	**1,279**	–
N.J.	1,279	1,279	–
N.Y.	–	–	–
Pa.	–	–	–
East North Central	**26,182**	**25,982**	**200**
Ill.	–	–	–
Ind.	–	–	–
Mich.	–	–	–
Ohio	6,376	6,376	–
Wisc.	19,806	19,606	200
West North Central	**7,384**	**7,382**	**2**
Ia.	6,394	6,394	–
Kans.	980	980	–
Minn.	–	–	–
Mo.	–	–	–
Nebr.	–	–	–
N.D.	10	8	2
S.D.	–	–	–
South Atlantic	**14,551**	**12,495**	**576**
Del.	–	–	–
D.C.	–	–	–
Fla.	1,074	498	576
Ga.	–	–	–
Md.	4,748	4,748	–
N.C.	4,766	4,766	–
S.C.	1,480	–	–
Va.	2,483	2,483	–
W.Va.	–	–	–
East South Central	**3,488**	**3,488**	–
Ala.	–	–	–
Ky.	3,488	3,488	–
Miss.	–	–	–
Tenn.	–	–	–
West South Central	**2,000**	**1,995**	**5**
Ark.	–	–	–
La.	–	–	–
Okla.	–	–	–
Tex.	2,000	1,995	5
Mountain	**2,375**	**2,136**	**239**
Ariz.	517	517	–
Colo.	–	–	–
Ida.	–	–	–
Mont.	284	146	138
Nev.	28	–	28
N.M.	476	476	–
Utah	1,070	997	73
Wyo.	–	–	–
Pacific	**10,325**	**10,082**	**243**
Alaska	–	–	–
Cal.	10,325	10,082	243
Hawaii	–	–	–
Ore.	–	–	–
Wash.	–	–	–
Territories	–	–	–
Guam	–	–	–
P.R.	–	–	–
V.I.	–	–	–

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

Lab & Region	Total Toxicology Samples	A	B
		Physical Samples	Biological Samples
Total	**904,110**	**99,166**	**804,318**
Average	22,603	3,420	22,981
New England	**122,574**	**57,060**	**65,514**
Conn.	84,980	52,266	32,714
Mass.	–	–	–
Me.	7,350	851	6,499
N.H.	–	–	–
R.I.	26,997	3,844	23,153
Vt.	3,247	99	3,148
Middle Atlantic	**366,318**	**519**	**365,799**
N.J.	355,289	519	354,770
N.Y.	–	–	–
Pa.	11,029	–	11,029
East North Central	**55,582**	**743**	**54,839**
Ill.	14,187	293	13,894
Ind.	115	115	–
Mich.	–	–	–
Ohio	30,787	268	30,519
Wisc.	10,493	67	10,426
West North Central	**11,648**	**3,783**	**7,239**
Ia.	2,185	44	2,141
Kans.	4,115	221	3,894
Minn.	–	–	–
Mo.	626	–	–
Nebr.	4,670	3,506	1,164
N.D.	52	12	40
S.D.	–	–	–
South Atlantic	**200,795**	**3,137**	**197,658**
Del.	6,688	–	6,688
D.C.	30,805	374	30,431
Fla.	24,160	134	24,026
Ga.	37,877	–	37,877
Md.	47,939	610	47,329
N.C.	12,225	–	12,225
S.C.	30,485	655	29,830
Va.	8,941	1,364	7,577
W.Va.	1,675	–	1,675
East South Central	**4,344**	**949**	**3,395**
Ala.	–	–	–
Ky.	4,344	949	3,395
Miss.	–	–	–
Tenn.	–	–	–
West South Central	**83,549**	**20,949**	**62,600**
Ark.	15,239	35	15,204
La.	17,091	–	17,091
Okla.	–	–	–
Tex.	51,219	20,914	30,305
Mountain	**50,240**	**7,217**	**43,023**
Ariz.	–	–	–
Colo.	26,046	–	26,046
Ida.	9,741	4,319	5,422
Mont.	53	20	33
Nev.	4	4	–
N.M.	4,739	–	4,739
Utah	7,256	2,874	4,382
Wyo.	2,401	–	2,401
Pacific	**8,289**	**4,450**	**3,839**
Alaska	–	–	–
Cal.	7,267	3,865	3,402
Hawaii	238	238	–
Ore.	–	–	–
Wash.	784	347	437
Territories	**771**	**359**	**412**
Guam	–	–	–
P.R.	412	–	412
V.I.	359	359	–

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	99,166											
Average	3,420											
Ark	35	—	—	—	—	—	—	—	—	—	—	O — Tablets, capsules for drugs, soil for PCP (Pentachlorophenol), water for PCP, arsenic, chromium
Cal	3,865	O	O	O	—	—	—	—	O	—	—	O — Heavy metals, solvents, mutagenic screening, phenols
Conn	52,266	F	—	—	F	F	F	F	—	F	F	F — Clay, sand, concrete, fire accelerants, clothing for seminal stains, other volatiles
D.C.	374	—	—	—	—	—	—	—	O	—	—	—
Fla.	134	—	O	O	—	O	—	—	O	—	—	—
Hawaii	238	—	O	O	O	O	—	—	—	—	—	—
Ida.	4,319	F	O	O	F	F	F	F	F	F	F	F — Arson, glass
Ill.	293	F/O	F/O	F/O	F/O	F/O	—	—	—	—	—	F/O — Foodstuff
Ind.	115	—	—	—	—	O	—	—	O	—	—	—
Iowa	44	—	O	O	—	—	—	—	O	—	—	—
Kans.	221	F	—	—	—	O	—	—	O	—	—	—
Ky.	949	F/O	F/O	F/O	F	F	—	—	O	—	—	—
Me.	851	F	O	O	F	F	—	—	O	—	—	F — Hydrocarbons (arson), O — Asbestos
Md.	610	O	—	—	F	F/O	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	O	—	—	—
Mont.	20	—	—	O	—	—	—	—	O	—	—	Lead in pottery
Nebr.	3,506	—	—	—	F	F	—	—	—	—	—	—
Nev.	4	—	—	—	—	—	—	—	O	—	—	—
N.J.	519	—	—	—	—	—	—	—	O	—	—	—
N.M.	—	—	O	—	—	—	—	—	—	—	—	—
N.D.	12	—	O	O	—	—	—	—	O	—	—	—
Ohio	268	F/O	—	—	F	F/O	—	—	—	—	—	—
R.I.	3,844	F/O	—	—	F	F/O	F	—	—	—	—	Teargas, liquids and materials containing dangerous substances, poisons, street drugs
S.C.	655	O	—	—	O	O	—	—	O	O	—	—
Tex.	20,914	—	—	—	—	F	—	—	—	—	—	—
Utah	2,874	F	—	—	F	F	—	—	—	—	—	—
Vt.	99	—	—	—	—	F	F	—	O	—	—	O — Pottery
Va.	1,364	—	—	—	—	—	—	O	—	—	—	O — Soil lead
Wash.	347	—	O	O	O	—	—	—	O	—	—	O — Ceramics for lead
Wisc.	67	—	—	—	O	F/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	**804,318**								
Average	22,981								
New England	**65,514**								
Conn.	32,714	F	F	F	–	F	–	–	F—Carboxyhemoglobin, halides, typing
Mass.	–	–	–	–	–	–	–	–	–
Me.	6,499	F	F	F	O	F	F	O	–
N.H.	–	–	–	–	–	–	–	–	–
R.I.	23,153	F/O	F	F/O	F	F/O	F/O	–	–
Vt.	3,148	F	–	–	–		–	–	–
Middle Atlantic	**365,799**								
N.J.	354,770	–	–	–	O	–	–	O	Cholinesterase
N.Y.	–	–	–	–	–	–	–	–	–
Pa.	11,029	F	O	O	O	–	–	–	–
East North Central	**54,839**								
Ill.	13,894	F/O	F/O	F/O	F/O	F/O	F/O	F/O	F/O—Erythrocyte protoporphyrin
Ind.	–	–	–	–	–	–	–	–	–
Mich.	–	–	–	–	–	–	–	–	–
Ohio	30,519	F/O	F/O	F/O	O	–	–	–	–
Wisc.	10,426	F/O	O	F/O	O	O	O		–
West North Central	**7,239**								
Ia.	2,141	–	–	–	O	–	–	O	–
Kans.	3,894	F	O	–	O	O	F	–	–
Minn.	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	O	–	–	–	–
Nebr.	1,164	F	–	–	–	–	–	–	–
N.D.	40	–	–	–	O	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–
South Atlantic	**197,658**								
Del.	6,688	–	–	–	O	–	–	–	O—Erythrocyte protoporphyrin
D.C.	30,431	O	–	–	O	–	–	–	O—Erythrocyte protoporphyrin
Fla.	24,026	O	O	O	O	O	O	O	–
Ga.	37,877	–	–	–	O	–	–	–	–
Md.	47,329	–	–	O	O	–	–	–	–
N.C.	12,225	–	–	–	O	–	–	–	–
S.C.	29,830	O	O	O	O	O	–	–	–
Va.	7,577	–	–	–	O	–	–	–	–
W.Va.	1,675	–	–	O	–	–	–	–	O—Erythrocyte protoporphyrin
East South Central	**3,395**								
Ala.	–	–	–	–	–	–	–	–	–
Ky.	3,395	F	F	F	F	F	–	–	–
Miss.	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–
West South Central	**62,600**								
Ark.	15,204	O	–	O	O	O	–	–	–
La.	17,091	–	–	–	O	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–
Tex.	30,305	F	–	F	O	–	–	–	–
Mountain	**43,023**								
Ariz.	–	–	–	–	–	–	–	–	–
Colo.	26,046	F	–	F	–	–	–	–	–
Ida.	5,422	F	F	F	–	–	–	–	F—Serology
Mont.	33	–	–	–	O	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–
N.M.	4,739	F	O	O	O	O	–	–	–
Utah	4,382	F	F	F	–	–	–	–	–
Wyo.	2,401	F/O	F/O	–	O	O	–	–	–
Pacific	**3,839**								
Alaska	–	–	–	–	–	–	–	–	–
Cal.	3,402	O	–	–	O	–	–	–	O—Erythrocyte protoporphyrin, paralytic shellfish poison, pesticide, PCB's
Hawaii	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–
Wash.	437	–	–	–	O	–	–	O	–
Territories	**412**								
Guam	–	–	–	–	–	–	–	–	–
P.R.	412	O	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–

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

Lab & Region	2. Urine								3. Body Tissues							
	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other	Ethyl Alcohol	Other Volatiles	Drugs and Narcotics	Lead	Other Metallic Poisons	Other Poisons	Insecticides	Other
New England																
Conn.	F	F	F	–	F	–	–	–	F	F	F	–	F	–	–	–
Mass.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Me.	F	F	F	O	F	F	O	Urines (harness racing)	F	F	F	O	F	F	O	–
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	–	–	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	–	–	–	–	F/O	F/O	F/O	–	–	–	–	–
Wisc.	F/O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	–
West North Central																
Ia.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kans.	F/O	–	F/O	F/O	F/O	–	–	–	–	–	F/O	O	O	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nebr.	F	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
N.D.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Atlantic																
Del.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
D.C.	O	–	O	O	–	–	–	–	–	–	–	–	–	–	–	–
Fla.	–	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
Ga.	–	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
Md.	–	–	–	–	–	–	–	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	–	–
Miss.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
West South Central																
Ark.	O	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tex.	F	–	F	–	–	–	–	–	–	–	–	–	–	–	–	–
Mountain																
Ariz.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Colo.	F	–	F	–	–	–	–	–	–	–	–	–	–	–	–	–
Ida.	–	F	–	–	F	F	F	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	O	–	–	–	–	–	–	–	O	O — Weed killers
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	–	–	–	F	–	O—Childhood lead poisoning
Mass.	–	–	–	–	–	–	–	–	–	–	–
Me.	F	F	F	O	F	F	O	–	F	–	–
N.H.	–	–	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–
Wisc.	O	O	O	–	O	O	–	–	–	–	–
West North Central											
Ia.	–	–	–	–	–	–	–	–	–	–	–
Kans.	F/O	–	F/O	–	O	–	–	–	–	–	–
Minn.	–	–	–	–	–	–	–	–	–	–	–
Mo.	–	–	–	–	–	O	–	–	–	–	–
Nebr.	O	–	–	–	–	–	–	–	–	F—Ethyl alcohol	–
N.D.	–	–	–	–	–	–	–	–	–	–	–
S.D.	–	–	–	–	–	–	–	–	–	–	–
South Atlantic											
Del.	–	–	–	–	–	–	–	–	–	–	–
D.C.	–	–	–	–	–	–	–	–	–	–	–
Fla.	–	–	–	–	–	–	–	–	–	–	–
Ga.	–	–	–	–	–	–	–	–	–	–	–
Md.	–	–	–	–	–	–	–	–	–	–	–
N.C.	–	–	–	–	–	–	–	–	–	–	–
S.C.	O	O	O	–	–	O	–	–	–	–	–
Va.	–	–	–	–	–	–	–	–	–	–	–
W.Va.	–	–	–	–	–	–	–	–	–	–	–
East South Central											
Ala.	–	–	–	–	–	–	–	–	–	–	–
Ky.	F	F	F	F	F	F	F	–	–	–	
Miss.	–	–	–	–	–	–	–	–	–	–	–
Tenn.	–	–	–	–	–	–	–	–	–	–	–
West South Central											
Ark.	–	–	O	–	–	–	–	–	–	–	–
La.	–	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–	–	–
Tex.	–	–	–	–	–	–	–	–	–	–	–
Mountain											
Ariz.	–	–	–	–	–	–	–	–	–	–	–
Colo.	–	–	–	–	–	–	–	–	–	–	–
Ida.	–	–	–	–	–	–	–	Saliva, seminal stains	–	–	–
Mont.	–	–	–	–	–	–	–	–	–	–	–
Nev.	–	–	–	–	–	–	–	–	–	–	–
N.M.	F	F	F	F	F	–	–	Cyanide, strychnine	–	F—Ethyl alcohol	–
Utah	–	–	F	–	–	–	–	–	–	–	–
Wyo.	F/O	F/O	F/O	O	O	–	–	–	F	–	–
Pacific											
Alaska	–	–	–	–	–	–	–	–	–	–	–
Cal.	–	–	–	–	–	–	–	–	–	–	–
Hawaii	–	–	–	–	–	–	–	–	–	–	–
Ore.	–	–	–	–	–	–	–	–	–	–	–
Wash.	–	–	–	–	–	–	O	–	–	–	–
Territories											
Guam	–	–	–	–	–	–	–	–	–	–	–
P.R.	–	–	–	–	–	–	–	–	–	–	–
V.I.	–	–	–	–	–	–	–	–	–	–	–

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

Lab & Region	Number of Professional/ Technical and Non-Technical Positions in LIP	A	B	C	D	E
		Clinical	Public Health	Dairy and Food	Water	Other
Total	**250.6**	**15,977**	**449**	**346**	**1,901**	
Average	5.7	420	11	14	59	
New England	**23.0**	**285**	**113**	**25**	**224**	
Conn.	13.0	175	111	23	72	X
Mass.	5.0	–	–	–	106	X
Me.	2.5	54	1	–	27	–
N.H.	–	–	–	–	–	–
R.I.	2.5	56	–	2	13	–
Vt.	–	–	1	–	6	–
Middle Atlantic	**38.0**	**2,497**	**3**	**–**	**–**	
N.J.	20.0	497	–	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	18.0	2,000	3	–	–	X
East North Central	**37.0**	**2,639**	**58**	**112**	**58**	
Ill.	13.0	1,800	13	–	–	–
Ind.	2.5	–	6	–	58	X
Mich.	10.0	406	12	–	–	–
Ohio	1.5	–	12	–	–	X
Wisc.	10.0	433	15	112	–	–
West North Central	**19.2**	**1,762**	**28**	**38**	**62**	
Ia.	3.5	350	–	31	31	–
Kans.	1.5	–	1	–	–	X
Minn.	7.3	695	5	–	–	–
Mo.	4.5	450	10	–	–	X
Nebr.	1.2	137	3	–	15	–
N.D.	1.0	63	6	7	16	–
S.D.	0.2	67	3	–	–	–
South Atlantic	**42.4**	**575**	**21**	**56**	**304**	
Del.	0.4	26	1	1	8	–
D.C.	1.0	50	2	1	1	–
Fla.	10.0	–	–	–	180	X
Ga.	–	–	–	–	–	–
Md.	4.5	175	10	21	49	X
N.C.	8.0	–	–	–	–	X
S.C.	4.0	106	7	15	–	X
Va.	5.5	–	–	18	66	–
W.Va.	9.0	218	1	–	–	–
East South Central	**13.5**	**1,753**	**40**	**75**	**265**	
Ala.	2.5	186	25	5	17	X
Ky.	4.0	1,117	8	31	25	–
Miss.	–	200	4	4	13	–
Tenn.	7.0	250	3	35	210	–
West South Central	**4.3**	**160**	**16**	**8**	**31**	
Ark.	1.5	160	2	3	16	–
La.	1.8	–	7	–	–	X
Okla.	1.0	–	7	5	15	–
Tex.	–	–	–	–	–	–
Mountain	**25.0**	**1,440**	**37**	**20**	**193**	
Ariz.	8.0	105	12	–	40	–
Colo.	–	106	6	5	33	–
Ida.	5.5	372	6	–	–	X
Mont.	0.7	250	2	4	16	X
Nev.	1.3	227	3	3	23	–
N.M.	2.5	101	3	4	54	–
Utah	6.0	228	5	4	27	–
Wyo.	1.0	51	–	–	–	–
Pacific	**48.2**	**4,281**	**73**	**10**	**753**	
Alaska	0.4	50	3	2	30	–
Cal.	34.0	3,958	44	–	676	–
Hawaii	0.5	70	4	4	8	–
Ore.	4.0	203	2	4	39	X
Wash.	9.3	–	20	–	–	–
Territories	**–**	**585**	**60**	**2**	**11**	
Guam	–	7	1	2	3	–
P.R.	–	578	59	–	8	–
V.I.	–	–	–	–	–	–

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	**15,977**	**9,567**	**7,560**	**811**	**2,465**	
Average	420	228	229	162	137	
New England	**285**	**516**	**490**	**32**	**34**	
Conn.	175	209	209	–	–	–
Mass.	–	210	210	–	–	LIP approves laboratories to perform premarital and prenatal serologies. All licensing and certification activities are handled by the Division of Health Care Quality.
Me.	54	9	2	–	2	Seven hospital and 2 independent clinical labs are surveyed by LIP, but actual licensing/ certification of the hospital labs is granted indirectly through the State Bureau of Medical Services.
N.H.	–	–	–	–	–	–
R.I.	56	56	56	–	32	–
Vt.	–	32	13	32	–	–
Middle Atlantic	**2,497**	**1,029**	**1,029**	–	**157**	
N.J.	497	497	497	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	2,000	532	532	–	157	–
East North Central	**2,639**	**1,643**	**1,603**	**37**	**453**	
Ill.	1,800	285	575	–	–	–
Ind.	–	152	152	–	2	Div. of Medical Care Administration certifies Medicare/Medicaid laboratories.
Mich.	406	468	443	37	146	–
Ohio	–	305	–	–	305	–
Wisc.	433	433	433	–	–	–
West North Central	**1,762**	**700**	**438**	–	**262**	
Ia.	350	89	89	–	–	–
Kans.	–	200	82	–	97	–
Minn.	695	–	–	–	–	Division of Health Systems, Minn. Dept. of Health (Medicare and CLIA-1967 only).
Mo.	450	335	205	–	165	–
Nebr.	137	62	62	–	–	Major responsibility is with the Division of Hospitals and Standards in the Dept. of Health.
N.D.	63	14	–	–	–	Division of Health Facilities, N.D. State Dept. of Health, regulates labs participating in Medicare. PHL regulates labs participating in Syphilis Serology for premarital.
S.D.	67	–	–	–	–	Activity has been moved to Div. of Public Health.
South Atlantic	**575**	**556**	**558**	–	**220**	
Del.	26	14	14	–	–	–
D.C.	50	50	50	–	30	Office of Licensing and Inspection responsible for CLIA and Medicare. Bureau of Laboratories responsible for D.C. Communicable Disease Act.
Fla.	–	–	–	–	–	Office of Licensure and Certification, Dept. of Health and Rehabilitative Services.
Ga.	–	–	–	–	–	–
Md.	175	196	196	–	92	–
N.C.	–	–	–	–	–	Medicare/Medicaid and syphilis serology — Div. of Facility Services, Dept. of Human Resources.
S.C.	106	106	–	–	–	Bureau of Licensing and Certification, DHEC.
Va.	–	–	158	–	–	Dept. of Health for all areas except: water, milk, commercial blood banks, and syphilis serology
W. Va.	218	190	140	–	98	Certification is for Title XIX Medicaid and syphilis serology only. Title XVIII Medicare is administered by Health Facilities Evaluation Program of the W. Va. Dept. of Health.

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.	
East South Central	**1,753**	**657**	**417**	–	–	
Ala.	186	95	95	–	–	Bureau of Licensure and Certification in the Health Dept. is responsible for activities other than the premarital program and milk and water certification.
Ky.	1,117	186	186	–	–	The Div. for Licensure and Regulation is responsible for certifying laboratories in accordance with the Ky. Medical Laboratory Act. Laboratory Services approves laboratories for the performance of premarital and prenatal tests for syphilis.
Miss.	200	136	136	–	–	–
Tenn.	250	240	–	–	–	–
West South Central	**160**	**318**	**198**	–	**120**	
Ark.	160	120	–	–	120	–
La.	–	–	–	–	–	Office of Licensure and Certification is responsible for certification of clinical laboratories.
Okla.	–	198	198	–	–	–
Tex.	–	–	–	–	–	Bureau of Licensing and Certification, Texas Dept. of Health.
Mountain	**1,440**	**978**	**554**	**393**	**78**	
Ariz.	105	105	68	–	–	–
Colo.	106	52	52	–	–	–
Ida.	372	228	228	228	61	–
Mont.	250	160	–	–	–	This activity is now the responsibility of the Hospital and Medical Facilities Division of the Health Dept.
Nev.	227	227	62	165	–	–
N.M.	101	101	101	–	–	–
Utah	228	62	–	–	–	Medicare Region VIII issues certificates to Medicare laboratories and licenses interstate laboratories based on public health laboratory's recommendation.
Wyo.	51	43	43	–	17	–
Pacific	**4,281**	**2,592**	**2,273**	**349**	**1,141**	
Alaska	50	30	–	–	10	CAP/Health Facilities, Department of Health and Social Services.
Cal.	3,958	1,960	1,960	–	950	–
Hawaii	70	50	–	–	50	–
Oregon	203	203	203	–	–	–
Wash.	–	349	110	349	131	–
Territories	**585**	**578**	–	–	–	
Guam	7	–	–	–	–	–
P.R.	578	578	–	–	–	Puerto Rico Health Department.
V.I.	–	–	–	–	–	–

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				
	Diag. Bact.	Mycology	Parasitology	Virology	Syphilis Serology	Non-Syphilis Serology	Hematology	Clin. Chemistry	Pathology	Env. Microbiology	Env. Chemistry	Dairy/Food	Other	Lic./Permit/ App.	Cert.	Other	Lic./Permit/ App.	Cert.	Other	Trng	Consult
ew England																					
onn.	X	X	X	X	X	X	X	X	—	—	—	—	—	X	X	—	X	X	—	X	X
ass.	X	—	—	—	—	X	X	X	—	—	—	—	—	X	—	—	—	—	—	X	X
e.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X	X	—	X	X
.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.I.	X	—	X	—	X	X	X	X	—	X	—	X	—	X	X	—	X	X	—	X	X
t.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
iddle Atlantic																					
.J.	X	X	X	—	X	X	X	X	—	—	—	—	—	X	—	—	X	X	—	X	X
.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
a.	X	X	X	X	X	X	X	X	—	—	—	—	Toxicology: blood alcohol, drugs of abuse, lead, EP; cardiovascular, anticonvulsant, and miscellaneous drugs	X	—	—	X	X	—	X	X
ast North Central																					
.	—	—	—	—	X	—	—	—	—	—	—	—	Blood alcohol, blood lead, quantitative phenylalanine	X	—	—	X	X	—	X	X
d.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	—	—	—	X	X
ich.	X	X	X	—	X	—	X	X	—	—	—	—	PKU	X	—	—	—	X	—	—	—
hio	X	X	X	—	X	X	X	X	—	—	—	X	—	—	X	—	—	—	—	X	X
/isc.	X	X	X	X	X	X	X	X	—	—	—	X	—	X	—	—	X	—	—	X	X
est North Central																					
.	X	X	X	—	X	X	X	X	—	X	X	—	PKU	X	—	—	—	X	—	X	X
ans.	X	X	X	—	X	X	X	X	—	—	—	—	—	X	—	—	X	X	—	X	X
inn.	X	X	X	—	X	X	X	X	—	—	—	—	Urinalysis, blood banking	—	—	—	—	—	—	X	X
o.	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	X	X	—	X	X
ebr.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.D.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
D.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
uth Atlantic																					
el.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	X	X	—	X	X
.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X	X	—	X	X
a.	—	—	—	X	X	—	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—
a.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
d.	X	X	X	X	X	X	X	X	X	X	X	X	—	X	X	X	X	X	X	X	X
.C.	X	X	X	—	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	X	X
C.	X	X	X	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
a.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	—	—	—	X	X
.Va.	X	—	X	—	X	—	X	X	—	—	—	—	—	—	X	—	—	—	—	X	X
st South Central																					
a.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	X	—	—	X	X
/.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
iss.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
enn.	X	X	—	—	X	X	X	X	—	—	—	—	—	X	—	—	—	X	X	—	—
est South Central																					
k.	X	X	X	—	X	—	—	—	—	—	—	—	—	—	X	—	—	—	—	X	X
.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
kla.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	—	—	—	X	X
ex.	X	X	X	—	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	X	X
ountain																					
iz.	X	X	X	X	X	X	—	—	—	X	X	—	—	X	—	—	—	X	—	X	X
olo.	—	—	—	—	—	—	—	—	—	—	—	—	Blood alcohol labs	—	—	—	—	—	—	—	—
a.	X	—	—	—	X	—	X	—	—	X	X	X	—	X	X	—	X	X	—	X	X
ont.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
ev.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	X	X	—	X	X
M.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	X	—	X	X	—	X	X
ah	X	X	X	—	X	X	X	X	X	—	—	—	Blood alcohol	X	X	X	X	X	—	X	X
yo.	X	—	X	—	X	—	X	X	—	—	—	—	—	X	X	—	—	X	—	X	X
cific																					
aska	X	X	X	X	X	X	—	—	—	X	X	X	—	—	X	—	X	—	—	X	X
il.	X	X	X	X	X	X	X	X	X	—	—	—	Blood banks	X	X	—	X	X	X	X	X
waii	—	—	—	—	X	X	—	—	—	—	—	—	—	—	X	—	—	X	—	X	X
e.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	—	X	—	X	X
ash.	—	—	—	—	X	—	—	—	—	—	X	—	—	—	X	—	—	X	—	X	—
rritories																					
uam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.	X	X	X	—	X	X	X	X	—	—	—	—	Blood bank	—	—	—	—	—	—	X	X
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	**449**	**383**	**204**	**69**	**95**	
Average	11	12	9	17	10	
New England	**113**	**113**	**66**	**47**	**1**	
Conn.	111	111	65	46	—	—
Mass.	—	—	—	—	—	—
Me.	1	1	—	—	1	—
N.H.	—	—	—	—	—	—
R.I.	—	—	—	—	—	—
Vt.	1	1	1	1	—	—
Middle Atlantic	**3**	**2**	**2**	**—**	**1**	
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	3	2	2	—	1	—
East North Central	**58**	**46**	**9**	**—**	**16**	
Ill.	13	9	8	—	—	—
Ind.	6	1	1	—	6	Div. of Medical Care Administration certifies Medicare/Medicaid laboratories.
Mich.	12	11	—	—	—	—
Ohio	12	10	—	—	10	—
Wisc.	15	15	—	—	—	—
West North Central	**28**	**13**	**8**	**—**	**—**	
Ia.	—	—	—	—	—	—
Kans.	1	1	—	—	—	—
Minn.	5	—	—	—	—	Div. of Health Systems, Minn. Dept. of Health (Medicare and CLIA — 1967 only).
Mo.	10	4	5	—	—	—
Nebr.	3	3	3	—	—	Major responsibility is with the Div. of Hospitals and Standards in the Dept. of Health.
N.D.	6	5	—	—	—	Div. of Health Facilities, State Dept. of Health, regulates laboratories participating in Medicare. PHL regulates labs participating in syphilis serology for premarital.
S.D.	3	—	—	—	—	Activity has been moved to Division of Public Health.
South Atlantic	**21**	**3**	**21**	**—**	**—**	
Del.	1	—	—	—	—	—
D.C.	2	2	1	—	—	Office of Licensing and Inspection responsible for CLIA and Medicare. Bureau of Laboratories responsible for D.C. Communicable Disease Act.
Fla.	—	—	—	—	—	Office of Licensure and Certification, Dept. of Health and Rehabilitative Services.
Ga.	—	—	—	—	—	—
Md.	10	—	10	—	—	—
N.C.	—	—	—	—	—	Medicare/Medicaid and syphilis serology-Div. of Facility Services, Dept. of Human Resources.
S.C.	7	1	—	—	—	Bureau of Licensing and Certification, DHEC.
Va.	—	—	10	—	—	Dept. of Health for all areas except: water, milk, commercial blood banks, and syphilis serology.
W Va.	1	—	—	—	—	—
East South Central	**40**	**34**	**9**	**—**	**22**	
Ala	25	25	3	—	22	Bureau of Licensure and Certification in the Health Dept. is responsible for activities other than the premarital program and milk and water certification.
Ky	8	3	3	—	—	The Div. of Licensure and Regulation is responsible for certifying laboratories in accordance with the Ky. Medical Laboratory Act. Laboratory Services approves laboratories for the performance of premarital and prenatal tests for syphilis.
Miss	4	3	3	—	—	—
Tenn.	3	3	—	—	—	—

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.	
West South Central	**16**	**14**	**7**	**—**	**7**	
Ark.	2	—	—	—	—	—
La.	7	7	—	—	7	—
Okla.	7	7	7	—	—	—
Tex.	—	—	—	—	—	Bureau of Licensing and Certification, Texas Dept. of Health.
Mountain	**37**	**33**	**30**	**6**	**5**	
Ariz.	12	12	12	—	—	—
Colo.	6	6	6	—	—	—
Ida.	6	6	6	6	5	—
Mont.	2	1	—	—	—	This activity is now the responsibility of the Hospital and Medical Facilities Div. of the Health Dept.
Nev.	3	3	3	—	—	—
N.M.	3	—	3	—	—	—
Utah	5	5	—	—	—	Medicare Region VIII issues certificates to Medicare laboratories and licenses interstate laboratories based on public health laboratory's recommendations.
Wyo.	—	—	—	—	—	—
Pacific	**73**	**66**	**52**	**16**	**43**	
Alaska	3	—	—	—	—	—
Cal.	44	44	44	—	19	—
Hawaii	4	4	—	—	4	—
Ore.	2	2	2	—	—	—
Wash.	20	16	6	16	20	—
Territories	**60**	**59**	**—**	**—**	**—**	
Guam	1	—	—	—	—	—
P.R.	59	59	—	—	—	Puerto Rico Health Department.
V.I.	—	—	—	—	—	—

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./Permit/ App.	Cert.	Other	Lic./Permit/ App.	Cert.	Trng	Consult
New England																				
Conn.	X	X	X	X	X	X	X	X	—	X	X	X	—	X	—	—	—	—	X	X
Mass.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
Me.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	X	—	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vt.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic																				
N.J.	X	X	X	—	X	X	X	X	—	—	—	—	—	X	—	—	X	X	X	X
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	X	X	X	X	X	X	X	X	—	—	—	—	Toxicology	X	—	—	—	X	X	X
East North Central																				
Ill.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
Ind.	—	—	—	—	X	—	—	—	—	—	—	X	—	—	X	—	—	—	X	X
Mich.	X	X	X	—	X	—	X	X	—	—	—	—	PKU	—	—	—	—	—	—	—
Ohio	X	X	X	—	X	X	X	X	—	—	—	X	—	—	X	—	—	—	X	X
Wisc.	X	X	X	—	X	X	—	—	—	—	—	X	—	X	—	—	X	—	X	X
West North Central																				
Ia.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kans.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—
Minn.	X	X	X	—	X	X	X	X	—	—	—	—	—	—	—	—	—	—	X	X
Mo.	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	X	X	X	X
Nebr.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	X	—	—	—	—	X	X	—	—	—	—	—	—	—	X	X
S.D.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic																				
Del.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
D.C.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—	—
Fla.	—	—	—	X	X	—	—	—	—	—	X	—	—	—	—	—	—	—	X	—
Ga.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.C.	X	X	X	—	X	—	—	—	—	—	—	X	—	—	—	—	—	—	X	X
S.C.	X	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
Ve.	—	—	—	—	X	—	—	—	—	—	—	X	—	X	—	—	—	—	X	X
W.Va.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
East South Central																				
Ala.	X	—	—	X	X	—	—	—	—	X	—	X	—	X	X	—	—	—	X	X
Ky.	X	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—	—	—	X	X
Miss.	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—	—
West South Central																				
Ark.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Le.	—	—	—	—	—	—	X	—	—	X	—	X	—	—	—	—	—	—	X	X
Okla.	—	—	—	—	X	—	—	—	—	—	—	X	—	X	—	—	—	—	X	X
Tex.	X	X	X	—	X	—	—	—	—	—	—	X	—	X	—	—	—	—	X	X
Mountain																				
Ariz.	X	X	X	X	X	X	—	—	—	—	X	—	—	X	—	—	—	—	X	X
Colo.	—	—	—	—	—	—	—	—	—	—	—	X	Blood alcohol	X	—	X	—	—	X	X
Ide.	X	—	—	—	X	—	X	—	—	X	X	X	—	X	X	—	X	X	X	X
Mont.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X
Nev.	—	—	—	—	X	—	—	—	—	—	—	X	—	X	—	—	—	—	X	X
N.M.	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uteh	—	—	—	—	—	—	—	—	—	X	X	—	Blood alcohol	—	—	—	—	X	X	X
Wyo.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific																				
Aleska	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cel.	X	X	X	X	X	X	X	X	—	—	—	—	—	X	X	—	X	X	X	X
Hewaii	—	—	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	X	X
Ore.	—	—	—	—	X	—	—	—	—	—	—	—	—	X	—	—	—	—	X	X
Wesh.	—	—	—	—	X	—	—	—	—	—	X	—	—	—	X	—	—	X	X	X
Territories																				
Guem	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	X	X	X	—	X	X	X	X	—	—	—	—	Blood bank	—	—	—	—	—	X	X
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	**346**	**449**	**182**	**3**	**245**	
Average	14	17	30	3	12	
New England	**25**	**66**	**66**	–	**43**	
Conn.	23	23	23	–	–	–
Mass.	–	41	41	–	41	–
Me.	–	–	–	–	–	Maine Dept. of Agriculture
N.H.	–	–	–	–	–	–
R.I.	2	2	2	–	2	–
Vt.	–	–	–	–	–	–
Middle Atlantic	–	–	–	–	–	
N.J.	–	–	–	–	–	–
N.Y.	–	–	–	–	–	–
Pa.	–	–	–	–	–	Pa. Dept. of Agriculture
East North Central	**112**	**182**	**112**	–	**70**	
Ill.	–	33	–	–	33	–
Ind.	–	17	–	–	17	–
Mich.	–	–	–	–	–	Michigan Dept. of Agriculture
Ohio	–	20	–	–	20	–
Wisc.	112	112	112	–	–	–
West North Central	**38**	**47**	–	–	**16**	
Ia.	31	31	–	–	–	Iowa Dept. of Agriculture
Kans.	–	–	–	–	–	Kansas Dept. of Agriculture
Minn.	–	–	–	–	–	–
Mo.	–	11	–	–	11	–
Nebr.	–	–	–	–	–	–
N.D.	7	5	–	–	5	–
S.D.	–	–	–	–	–	State chemist
South Atlantic	**56**	**47**	–	–	**53**	
Del.	1	–	–	–	–	–
D.C.	1	–	–	–	–	–
Fla.	–	–	–	–	–	Florida Dept. of Agriculture
Ga.	–	–	–	–	–	–
Md.	21	14	–	–	14	–
N.C.	–	–	–	–	8	–
S.C.	15	10	–	–	10	–
Va.	18	18	–	–	16	Program in cooperation with Dept. of Agriculture and Consumer Services.
W.Va.	–	5	–	–	5	–
East South Central	**75**	**58**	–	–	**33**	
Ala.	5	5	–	–	3	–
Ky.	31	23	–	–	23	–
Miss.	4	4	–	–	–	–
Tenn.	35	26	–	–	7	Joint responsibility of Departments of Agriculture and Public Health.
West South Central	**8**	**26**	–	–	**10**	
Ark.	3	–	–	–	–	–
La.	–	6	–	–	6	–
Okla.	5	4	–	–	4	–
Tex.	–	16	–	–	–	–
Mountain	**20**	**21**	**2**	–	**18**	
Ariz.	–	–	–	–	–	Arizona Dairy Commission Office
Colo.	5	5	–	–	5	–
Ida.	–	10	–	–	10	–
Mont.	4	–	–	–	–	State Department of Livestock has only dairy testing laboratory in the State. Labs in Health and Agriculture Departments test food.
Nev.	3	2	2	–	–	–
N.M.	4	4	–	–	3	The Scientific Laboratory Division main lab. is surveyed by FDA.
Utah	4	–	–	–	–	Department of Agriculture
Wyo.	–	–	–	–	–	–
Pacific	**10**	–	–	–	–	
Alaska	2	–	–	–	–	FDA
Cal.	–	–	–	–	–	–
Hawaii	4	–	–	–	–	–
Ore.	4	–	–	–	–	–
Wash.	–	–	–	–	–	Department of Agriculture
Territories	**2**	**2**	**2**	**3**	**2**	
Guam	2	–	–	–	–	–
P.R.	–	2	2	3	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.		
New England								
Conn.	X	X	—	—	—	—	X	X
Mass.	X	X	X	X	—	—	—	—
Me.	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	X	X	X	—	—	—	X	X
Vt.	—	—	—	—	—	—	—	—
Middle Atlantic								
N.J.	X	X	X	—	—	—	X	X
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central								
Ill.	X	—	X	—	—	—	X	X
Ind.	X	—	X	—	—	—	X	X
Mich.	—	—	—	—	—	—	—	—
Ohio	X	—	X	—	—	—	X	X
Wisc.	X	X	—	—	—	—	X	X
West North Central								
Ia.	—	—	—	—	—	—	—	—
Kans.	—	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—	—
Mo.	X	—	X	—	—	—	X	X
Nebr.	—	—	—	—	—	—	—	—
N.D.	—	—	X	—	—	—	X	—
S.D.	—	—	—	—	—	—	—	—
South Atlantic								
Del.	—	—	—	—	—	—	—	—
D.C.	—	X	—	—	X	—	—	—
Fla.	—	—	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—
Md.	X	—	X	—	—	X	X	X
N.C.	X	—	X	—	—	—	X	X
S.C.	X	—	X	—	—	—	X	X
Va.	X	—	X	—	—	—	—	—
W.Va	X	—	X	—	—	—	X	X
East South Central								
Ala.	X	—	X	—	—	—	X	X
Ky.	X	—	X	—	—	—	X	X
Miss.	X	X	—	—	—	—	—	—
Tenn.	X	—	X	—	—	X	X	X
West South Central								
Ark.	—	—	—	—	—	—	—	—
La.	X	—	X	—	—	—	X	X
Okla.	X	—	X	—	—	—	X	X
Tex.	—	X	—	—	—	—	X	X
Mountain								
Ariz.	—	—	—	—	—	—	—	—
Colo.	X	—	X	—	—	—	—	—
Ida.	X	—	X	—	—	—	X	X
Mont.	—	—	—	—	—	—	—	—
Nev.	X	X	X	—	X	X	X	X
N.M.	X	X	—	—	—	—	X	X
Utah	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific								
Alaska	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—
Ore.	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—
Territories								
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	X	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—

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

Lab & Region	1. No. Labs in State	2. No. Water Labs in State			3. Other Agency or Department Responsible for Licensing, Registering, Approving, Certifying Laboratories
		Lic./Permit/App.	Reg.	Cert.	
Total	**1,901**	**1,257**	**80**	**1,399**	
Average	59	74	20	56	
New England	**224**	**111**	**6**	**205**	
Conn.	72	72	—	72	—
Mass.	106	—	—	106	Mass. Dept. of Environment and Quality Engineering Evaluation conducted for Div. of Health Engineering
Me.	27	25	—	26	
N.H.	—	—	—	—	—
R.I.	13	13	—	—	—
Vt.	6	1	6	1	—
Middle Atlantic	**—**	**—**	**—**	**—**	
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	—	—	—	—	Dept. of Environmental Resources
East North Central	**58**	**—**	**—**	**489**	
Ill.	—	—	—	71	—
Ind.	58	—	—	58	—
Mich.	—	—	—	—	Division of Water Supply, Bureau of Environmental and Occupational Health, M.D.P.H.
Ohio	—	—	—	360	—
Wisc.	—	—	—	—	—
West North Central	**62**	**31**	**—**	**180**	
Ia.	31	31	—	—	—
Kans.	—	—	—	122	—
Minn.	—	—	—	—	—
Mo.	—	—	—	33	—
Nebr.	15	—	—	15	—
N.D.	16	—	—	10	—
S.D.	—	—	—	—	Federal — Denver Regional Office EPA
South Atlantic	**304**	**71**	**—**	**224**	
Del.	8	5	—	—	—
D.C.	1	—	—	—	—
Fla.	180	—	—	180	—
Ga.	—	—	—	—	—
Md.	49	—	—	23	—
N.C.	—	—	—	—	—
S.C.	—	—	—	—	Bureau of Field and Analytical Service, DHEC.
Va.	66	66	—	—	—
W.Va.	—	—	—	21	—
East South Central	**265**	**154**	**—**	**86**	
Ala.	17	—	—	17	—
Ky.	25	—	—	—	Dept. for Natural Resources and Environmental Protection
Miss.	13	13	—	—	—
Tenn.	210	141	—	69	—
West South Central	**31**	**61**	**—**	**31**	
Ark.	16	—	—	4	—
La.	—	—	—	13	—
Okla.	15	—	—	14	—
Tex.	—	61	—	—	—
Mountain	**193**	**68**	**23**	**141**	
Ariz.	40	—	—	40	—
Colo.	33	—	—	33	—
Ida.	—	—	—	23	—
Mont.	16	14	—	—	—
Nev.	23	—	23	18	—
N.M.	54	54	—	—	—
Utah	27	—	—	27	—
Wyo.	—	—	—	—	—
Pacific	**753**	**753**	**43**	**43**	
Alaska	30	30	—	—	—
Cal.	676	676	—	—	—
Hawaii	8	8	—	—	—
Ore.	39	39	—	—	—
Wash.	—	—	43	43	—
Territories	**11**	**8**	**8**	**—**	
Guam	3	—	—	—	Guam Environmental Protection Agency, Public Utility Agency of Guam Laboratory.
P.R.	8	8	8	—	—
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	**274**	**318**	**444**	**1,036**	—	**1**	**4**	**5**	**826**	**394**	**288**	**1,508**
Average	23	53	49	80	—	1	4	5	31	22	17	54
New England	**33**	**10**	**67**	**110**	—	—	—	—	**87**	**20**	**97**	**204**
Conn.	9	9	54	72	—	—	—	—	9	9	54	72
Mass.	—	—	—	—	—	—	—	—	64	10	32	106
Me.	14	1	10	25	—	—	—	—	14	1	11	26
N.H.	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	10	–	3	13	—	—	—	—	—	—	—	—
Vt.	—	—	—	—	—	—	—	—	—	—	—	—
Middle Atlantic	—	—	—	—	—	—	—	—	—	—	—	—
N.J.	—	—	—	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—	—	—	—	—
East North Central	—	—	—	—	—	—	—	—	**289**	**200**	—	**489**
Ill.	—	—	—	—	—	—	—	—	71	—	—	71
Ind.	—	—	—	—	—	—	—	—	58	—	—	58
Mich.	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	—	—	—	—	—	—	—	—	160	200	—	360
Wisc.	—	—	—	—	—	—	—	—	—	—	—	—
West North Central	**19**	**2**	**10**	**31**	—	—	—	—	**47**	**113**	**23**	**183**
Ia.	19	2	10	31	—	—	—	—	—	—	—	—
Kans.	—	—	—	—	—	—	—	—	4	106	12	122
Minn.	—	—	—	—	—	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	—	—	30	—	3	33
Nebr.	—	—	—	—	—	—	—	—	3	4	8	15
N.D.	—	—	—	—	—	—	—	—	10	3	—	13
S.D.	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic	**4**	—	**1**	**5**	—	—	—	—	**256**	**10**	**94**	**360**
Del.	4	—	1	5	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—	97	5	75	177
Ga.	—	—	—	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	—	—	—	—	22	1	—	23
N.C.	—	—	—	—	—	—	—	—	65	2	6	73
S.C.	—	—	—	—	—	—	—	—	—	—	—	—
Va.	—	—	—	—	—	—	—	—	51	2	13	66
W.Va.	—	—	—	—	—	—	—	—	21	—	—	21
East South Central	**12**	**25**	**1**	**38**	—	—	—	—	**26**	**11**	**4**	**41**
Ala.	—	—	—	—	—	—	—	—	10	—	—	10
Ky.	—	—	—	—	—	—	—	—	—	—	—	—
Miss.	12	—	1	13	—	—	—	—	—	—	—	—
Tenn.	—	25	—	25	—	—	—	—	16	11	4	31
West South Central	**61**	—	—	**61**	—	—	—	—	**31**	—	—	**31**
Ark.	—	—	—	—	—	—	—	—	4	—	—	4
La.	—	—	—	—	—	—	—	—	13	—	—	13
Okla.	—	—	—	—	—	—	—	—	14	—	—	14
Tex.	61	—	—	61	—	—	—	—	—	—	—	—
Mountain	**39**	**8**	**21**	**68**	—	**1**	**4**	**5**	**55**	**25**	**61**	**141**
Ariz.	—	—	—	—	—	—	—	—	20	4	16	40
Colo.	—	—	—	—	—	—	—	—	17	10	6	33
Ida.	—	—	—	—	—	—	—	—	13	4	6	23
Mont.	3	8	3	14	—	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	1	4	5	—	—	18	18
N.M.	36	—	18	54	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—	5	7	15	27
Wyo.	—	—	—	—	—	—	—	—	—	—	—	—
Pacific	**98**	**273**	**344**	**715**	—	—	—	—	**27**	**15**	**9**	**51**
Alaska	—	—	—	—	—	—	—	—	—	—	—	—
Cal.	59	273	344	676	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	5	1	2	8
Ore.	39	—	—	39	—	—	—	—	—	—	—	—
Wash.	—	—	—	—	—	—	—	—	22	14	7	43
Territories	**8**	—	—	**8**	—	—	—	—	**8**	—	—	**8**
Guam	—	—	—	—	—	—	—	—	—	—	—	—
P.R.	8	—	—	8	—	—	—	—	8	—	—	8
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.	Lic./Permit/ App.	Cert.		
New England								
Conn.	X	X	X	—	—	—	X	X
Mass.	—	—	—	—	—	—	—	—
Me.	—	X	X	X	—	—	X	X
N.H.	—	—	—	—	—	—	—	—
R.I.	—	—	X	—	—	—	X	X
Vt.	—	—	—	—	—	—	X	X
Middle Atlantic								
N.J.	—	—	—	X	—	—	X	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	—	—	—	—	—	—	—
East North Central								
Ill.	—	—	—	X	—	—	X	X
Ind.	—	—	—	X	—	—	—	X
Mich.	—	—	—	—	—	—	—	—
Ohio	—	X	—	X	—	—	X	X
Wisc.	—	—	—	—	—	—	X	X
West North Central								
Ia.	X	—	X	—	—	—	X	X
Kans.	—	X	—	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	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
West South Central								
Ark.	—	—	—	X	—	—	—	X
La.	X	—	—	X	—	—	X	X
Okla.	—	—	—	X	—	—	X	X
Tex.	—	—	X	—	—	—	X	X
Mountain								
Ariz.	X	X	X	X	—	—	X	X
Colo.	—	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
Wyo.	—	—	—	—	—	—	—	—
Pacific								
Alaska	X	—	—	—	X	—	X	X
Cal.	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	—	—	X	X
V.I.	—	—	—	—	—	—	—	—

Table 4-59
XIII. LABORATORY IMPROVEMENT PROGRAM
E. Other Laboratory Programs

Lab	Program Activity
Ala.	Safety — program was initiated to protect the employees of the laboratory. Preventive maintenance — program designed to prolong the life of the equipment currently in use by scheduled preventive maintenance and to provide for shorter and less frequent downtimes. Quality control — program was initiated to ensure the highest quality of products for the laboratory system. Training programs are provided for the laboratory's personnel as well as for other laboratory personnel in the state.
Conn.	Recombinant DNA registration and inspections; prepare and administer examinations to approve laboratory directors for dairy, food, and water; NPDES approval, inspection, and proficiency testing; air laboratories; field visits to blood banks, blood collection facilities, dog laboratories, Q.C. research and teaching laboratories.
Fla.	Implied consent — permits issued to 3,676 alcohol breath test (law enforcement) technicians; 2,114 to breath testing instructors and 79 to chemists for blood alcohol analyzers. Field staff made 1,447 site visits to certify 819 breath testing machines. Licensed were 16,581 laboratory personnel in four levels: Director, Supervisor, Technologist, and Technician. Eight hours training totalling 252 workshops was given to the 3,676 law-enforcement technicians. Other workshops and seminars were given in Infant Screening, VD, Anaerobic Bacteria, Quality Assurance in Clinical Chemistry, Lab. Diagnosis of Malaria, and SLE Surveillance.
Ida.	Bureau of Laboratories also has program for quality control of procedures performed by district health department personnel in satellite clinics. Quality control material, proficiency testing, field visitation, training, and consultation are provided. State law requires a proficiency testing program for laboratories performing blood alcohol procedures. During FY 1980, 4 public health laboratories and 3 other laboratories approved. During FY 1981, a program was implemented to allow for direct field alcohol instrument testing. This program will eventually reduce laboratory testing to an absolute minimum. Bureau of Laboratories is responsible for: training of law enforcement personnel in use of these field instruments, standardization and calibration of instrument, and providing proficiency testing materials.
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.	Water Laboratories: development and modification of the program to meet State and Federal requirements as they change; administration of EPA Laboratory performance monitoring programs in Kansas. Breath alcohol: certification of breath alcohol operators.
La.	Hematology (hemoglobin, hematocrit) — proficiency testing for all parish health units. This involves also troubleshooting for proficiency program, checking equipment, training, and consultation for approximately 100 units.
Md.	Assist governmental and private laboratories in the microbiological testing of shellfish, crabmeat, and other types of foods.
Mass.	Publish "Lab news" — newspaper of State Laboratory Institute.
Mo.	CDC-Technical consultation contract — provide technical consultation to 20 laboratories not required by state or federal law to meet quality control guidelines.
Mont.	Microbiology Laboratory registers clinical laboratory personnel in the State.
N.C.	Quarterly newsletter. Quality control for culture media — Gonorrhea control program — V.D. Branch. Stock bacterial cultures — maintenance and distribution. Audio-visual training materials for loan.
Ore.	Blood alcohol programs (approximately 50 individuals are certified to perform tests in Oregon).
Pa.	Development, modification, and/or comparison of methodologies useful to the clinical laboratory. Selective evaluation of new systems, kits, or modified technologies.
S.C.	Provide training in public health area for students in schools of medical technology, MLT programs, and MT programs.
Tenn.	Microbiology bench training in Nashville Reference and Branch Laboratories. Consultations on new and enlarged facilities. Chemist's visits for hands-on training in methodology and instrumentation. Written critiques on performance evaluation samples administered by EPA twice yearly for chemical laboratories.

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	1,850 Rodac plates, modified Thayer-Martin plates for GC screening, buffered glycerol, l0% formalin, sample bottles for bacteriological examination of water, TB bottles.
Ariz.	5.0	—	—	—	X	McConkeys agar, thiobroth, TSB broth, Hanks solution, charcoal agar slants.
Cal.	3.5	—	X	X	—	Febrile antigens: *Salmonella paratyphi* A and B, *Salmonella typhi* "H" and "O", *Brucella abortus*, *Francisella tularensis*. Immune sera: *Salmonella paratyphi* A and B, *Salmonella typhi* "H" and "O", *Brucella abortus*, *Francisella tularensis*. Biologics: rabies infected mouse brain for IF quality control, positive control sera for various viral CF tests. Reagents: fluorescein - conjugated antibody preparations for rabies, Varicella-Zoster, and *Chlamydia trachomatis* (L-1).
Colo.	2.0	—	—	—	X	JEMBEC plates for GC.
Conn.	2.5	—	—	X	X	VDRL antigen and buffered saline, serum controls, group A streptococcal conjugate, group A streptococcus office culture kits.
D.C.	2.0	X	X	—	—	—
Ga.	4.0	—	—	X	X	Improved Thayer-Martin media.
Ill.	3.0	—	—	X	X	Reagents — alcohol calibration standards distributed statewide 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 and provides media 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	Modified Thayer-Martin.
Mass.	23.0	X	—	X	—	Albumin (normal), immune globulin, tetanus immune globulin, Rh immune globulin, DTP, diphtheria and tetanus toxoids adsorbed, Td (adult), tetanus toxoid adsorbed, typhoid vaccine, Schick test outfits, diphtheria toxoid concentrated, tetanus toxoid concentrated, pertussis vaccine.
Mich.	89.0	X	—	—	—	Human blood derivatives: antihemophilic factor (factor VIII), immune serum globulin, normal serum albumin. Bacterial vaccines: anthrax vaccine, diphtheria antitoxin, diphtheria toxoid adsorbed, diphtheria and tetanus toxoids adsorbed, diphtheria and tetanus toxoids and pertussis vaccine adsorbed, pertussis vaccine adsorbed, tetanus toxoid adsorbed, tetanus and diphtheria toxoids adsorbed (adult), typhoid vaccine.
Minn.	0.5	—	—	—	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.	0.7	—	—	X	X	MTM plates, Gram stains, buffered saline, transport media.
N.D.	0.5	—	—	X	X	Modified Thayer-Martin, JEMBEC plates, Amies transport media, nitrate spot testing reagents and standards.
Ohio	4.0	—	—	—	X	Primarily Martin-Lewis plates for distribution to local public health clinics.
Pa.	0.5	—	—	—	X	Parasitology kits (formalin and PVA); throat washing kits (TPB with 0.5% gelatin; stool kits (buffered glycerol); stool kits for virology (antibotics).
S.C.	4.0	—	—	X	X	8.928 liters of media and reagents produced — 50 different formulas media, 20 different stains and reagents.
S.D.	0.1	—	—	—	X	JEMBEC plates.
Tenn.	6.0	—	—	X	X	—
Wash.	1.0	—	—	—	X	$Tabco_2$ (GC transport plates), Thayer-Martin culture plates.
W. Va.	4.0	—	—	X	X	Typhoid preservative (buffered glycerol-NaCl), gastric lavage (disodium phosphate solution), parasite preservative (10% formalin), parasite preservative (polyvinyl alcohol fixative), viral throat washing (tryptose phosphate broth with 0.5% gelatin), blood vials (serology), sample bottles for bacteriological examination of water, Transgrow, tuberculosis bottles ($Na_2 CO_3$ buffered), parasite bottles (no preservatives).
Wyo.	0.8	—	—	—	X	Blood agar plates.

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.	IWGMT — Open-ended Study of Slowly Growing Mycobacteria.	—	—	—	—	—
	CDC Primary Drug Resistance Study	—	—	1,200	—	—
Cal.	Sampling and Analytical Problems in Air Pollution	2.0	100,000	—	—	—
	Validation of Samplers for Particles	1.6	89,781	—	—	—
	Determination of Acidity in Ambient Air	1.0	—	—	39,312	—
	Characterization of Organic Particulates	2.3	—	—	110,879	—
	Size Selective Samplers	1.5	—	—	82,398	—
	Study of Cytomegalovirus	3.2	82,108	—	—	—
	Lymphocyte Antibody Traffic in CNS	3.0	79,981	—	—	—
	Inactivation of Viruses for Vaccines	2.0	—	72,865	—	—
	Cancer Virus Studies	5.85	158,839	—	—	—
Fla.	Naegleria Activity in Central Florida Lakes	4.0	—	X	12,268	77,391
	S.W. Wastewater Treatment Plant Project	4.0	—	X	44,914	81,289
Ia.	Developing Methods for Separation, Identification, and Quantification of Complex Hydrocarbons Found in Coal Liquefaction and Gasification Plants and Petroleum Refiners.	0.25	—	X	—	—
La.	Distribution of Vibrios and Related Species, Pathogenic and Non-pathogenic, in Shellfish	3.0	35,000	—	48,247	—
Mass.	Seroreactivity of Patients with *Legionella pneumophila* Infections	0.2	—	—	2,000	—
	CDC Laboratory Training Program	5.0	—	X	—	—
	CDC Proficiency Testing Program	3.0	—	X	—	—

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

Lab	Titles of Research Projects	Funding Support				
		Number of Positions	Federal Grant	Contract	State Funds	Other Funds
Cal.	Viruses in Water and Reclaimed Wastewater	3.1	96,056	—	—	—
Ga.	Acid-fast Microscopy on Polycarbonate Membrane Filter	—	—	—	X	X
	Sputum Sediments — Comparative Study Using CPC as Compared to NALC/NaOH as a Sputum Digestant-Decontaminant	—	—	—	X	X
	A Simple Inexpensive and Rapid Way to Produce *B. subtilis* Spores for the Guthrie Bioassay	—	—	—	X	—
	Identification of Unusual Aerobic and Fermentative Gram Negative Pathogenic Bacteria	—	—	—	X	X
Ida.	EPA Human Effects Program (Pesticides, etc.) Covering Human Monitoring, Methods Development, Health Effects, and Incident Investigation. (Program was completely phased out on May 1, 1981).	6.0	—	141,600	—	—
Ia.	Legionella Identification	0.25	—	—	—	X
	Arbovirus	0.25	—	—	X	—
	Insulation Formaldehyde Emission	0.1	—	—	—	X
La.	Automated TORCH Screening for Newborns in Louisiana	3.0	—	—	126,625	—
Mass.	Laboratory Diagnosis of Rubella by SRH	0.2	—	—	2,000	—
	Assessment of Rubella Immunity by Latex Agglutination	—	—	15,000	—	—
Mich.	Brucellosis Contract	3.5	—	93,675	—	—
	PBB Contract	6.2	—	206,382	—	—
	Red Cross Agreement	2.7	—	—	—	109,997
	Lab Training Contract	2.2	—	58,273	—	—
	PCB Contract	10.3	290,712	—	—	—
	Chemical Risk	0.1	3,969	—	—	—
Pa.	Evaluation of Commercial Kits	1.0	—	—	X	—

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

Lab	Titles of Research Projects	Funding Support				
		Number of Positions	Federal Grant	Contract	State Funds	Other Funds
Ariz.	Priority Pollutants on the GC Mass Spec.	1.0	—	—	X	—
Cal.	Water Virology Laboratory	3.3	162,763	—	—	—
	Detection of Viruses and Antibodies	3.0	89,132	—	—	—
Conn.	Catalase Color Detection Test to Separate *N. gonorrhoeae* from *N. meningitidis*	(100 hrs.)	—	—	X	—
	Degradation of Casein, Tyrosine, Hypoxanthine and Tween 80 in the Identification of Non Fermentative Gram Negative Bacilli — An Ongoing Study	(150 hrs.)	—	—	X	—
	Identification of L.D. Antigen in Serum	(50 hrs.)	—	—	X	—
Ga.	A Modified Procedure for the Phadebact Gonococcus Test	—	—	—	X	—
	Fungus Stock Culture Study for Long Term Storage	—	—	—	X	—
	Simplified Freeze-Preservation of Bacteria	—	—	—	X	—
Mass.	Varicella Immunity by IAHA and IFA	0.2	—	—	2,000	—
	Measles Immunity by IAHA	0.2	—	—	2,000	—
	Herpes Antibody by IAHA and IHA	0.2	—	—	2,000	—
	CMV Antibody by IAHA and IHA	0.2	—	—	2,000	—
N.C.	Development of serological test for Rocky Mountain Spotted Fever — contract with Duke University Medical Center — NIH grant.	1.0	X	19,503	—	—
Pa.	Virus-specific Immunoglobulin Detection	0.3	—	—	X	—
	Arbovirus Surveillance	1.0	—	—	X	—
	Cholesterol Transferability Study	0.5	—	—	X	—
	Glycosylated Hemoglobins Study	0.5	—	—	X	—
Tex.	Drugs for GC Transport Media; LJ Media Supplement	2.0	—	—	X	—

SECTION V
SPECIAL QUESTIONS

Table 5-1
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.	10/01/81	11/01/79	—	—
Alaska	08/01/78	06/30/81	X	Northern Regional Laboratory units merged administratively into one unit.
Ariz.	10/26/81	12/01/81	X	Microbiologist reassigned from virology unit to work out of Bureau office as Quality Assurance Coordinator.
Ark.	12/01/79	11/19/79	—	—
Cal.	—	—	—	—
Colo.	1977	1977	—	—
Conn.	06/01/79	06/30/80	—	—
Del.	—	—	—	—
D.C.	02/21/80	05/01/80	—	—
Fla.	—	09/19/81	—	—
Ga.	07/01/79	09/01/81	X	Minor reorganization of the Laboratory Section. Also, Toxicology Laboratory transferred to Mental Health Division during FY 1981.
Guam	05/23/80	11/02/79	—	—
Hawaii	07/01/81	07/01/81	—	—
Ida.	05/01/81	07/01/81	—	—
Ill.	09/15/80	11/03/80	X	Creation of new section (Scientific Services). Creation of two Acting Assistant Division Chiefs.
Ind.	01/01/79	01/01/79	—	—
Iowa	—	—	X	The Iowa University Hygienic Laboratory is organized into two major bureaus, Disease Control and Environmental Quality and Control, and two support divisions, Laboratory Extension and Administrative Service.
Kans.	08/01/80	11/20/80	—	—
Ky.	04/01/81	09/01/81	—	—
La.	12/04/81	03/01/79	—	—
Me.	07/01/80	07/01/80	—	—
Md.	07/14/80	01/12/79	—	—
Mass.	1979	07/01/80	—	—
Mich.	1979	10/01/78	—	—
Minn.	01/01/82	01/01/82	X	Genetic Metabolic Diseases Section and Virus & Rickettsia Section combined for Hereditary, Metabolic and Viral Diseases Section. New Section of Special Lab. Studies. New Data and Specimen Handling Section.
Miss.	1981	09/09/81	X	Changes in State Board of Health, not in Laboratory. The Board of Health discontinued some Bureaus and included them as Divisions under 4 main Bureaus, with a number of changes in delegation of program responsibility.
Mo.	12/01/81	10/01/81	—	—
Mont.	06/30/81	06/30/81	—	—
Nebr.	09/01/76	01/01/80	—	—
Nev.	07/01/81	07/01/81	X	The laboratory is no longer a Bureau and has been placed under the Bureau of Health Facilities. The position of Lab Director has been removed and the Director of Health Facilities is now director of the lab.
N.H.	—	—	—	—
N.J.	03/19/79	09/02/81	—	—
N.M.	06/01/81	01/01/82	X	Metabolic Screening Section added within Biological Sciences Bureau to carry out multiphasic neonatal screening formerly performed by Colorado Rocky Mountain States.
N.Y.	—	—	—	—
N.C.	11/01/81	07/01/81	—	—
N.D.	04/01/81	04/01/81	X	The laboratory has been designated as a Section in the Health Department with 3 divisions: Microbiology and Immunology; Chemistry; and Development, Training, and Consultation.
Ohio	08/01/80	05/07/81	X	Minor changes only in positions added or deleted; overall structure remains same.

Table 5-1
LABORATORY ORGANIZATIONAL STRUCTURE — Continued

Lab	Date of Current Organizational Chart		Did Organizational Structure Change During FY 1981	Description of Organizational Change
	State Health Department	State Laboratory		
Okla.	05/01/81	07/01/81	X	—
Ore.	03/15/81	03/01/81	—	—
Pa.	07/01/81	07/01/81	—	—
P.R.	—	—	—	—
R.I.	06/01/80	06/01/80	—	—
S.C.	08/28/81	07/30/81	X	State Assistant Deputy Commissioner added; however Laboratory remained directly under the Deputy Commissioner as before.
S.D.	10/01/81	10/01/81	X	The Laboratory has moved to a program in the Secretariate. The State Chemist was moved from the Bureau of Administration to the State Health Laboratory. Licensure and certification activities were moved to the new Division of Public Health.
Tenn.	09/01/81	07/01/81	X	Environmental laboratories consolidated with the microbiological laboratories.
Tex.	09/01/81	09/01/81	—	—
Utah	07/16/81	01/23/82	X	Water microbiology was incorporated into the Microbiology Section, Pathogenic Microbiology Unit. Only the Laboratory Technician 16 was moved. The Microbiologist 21 was moved to the Laboratory Improvement Certification Unit and the Laboratory Technician 14 was moved into the Water Chemistry Unit.
Vt.	01/01/81	04/01/81	—	—
Va.	1981	01/28/82	—	—
V.I.	—	—	—	—
Wash.	10/01/81	07/01/81	—	—
W.Va.	01/01/81	01/01/81	X	West Virginia has a new Director of Health; Branch Laboratory (Bardane District) located at Kearneysville, has been staffed to perform bacteriological examinations of drinking water.
Wisc.	08/01/81	08/01/81	X	Effective July 1, 1981, the OSHA program was transferred from the Division of Health, Dept. of Health and Social Services. Effective July 1, 1980, the Radiation Protection section was transferred from the same department.
Wyo.	1969	1969	—	—

Table 5-2
PREMARITAL EXAMINATION LAWS

NOTE: Brief answers are given in the body of the chart. Longer explanations and exceptions or qualifications 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)
Alabama	1975	21	18	17	14	(1)	30	None	(1-3)	Yes	(1)	(1,4)	(1-5)	Yes	Yes	Yes	(1)
Alaska	1953	18	18(1)	16	16	(1-3)	30	3 days	(2,5)	Yes	(1)	(4)	(1-4,5a)	Yes	No	Yes(1)	Yes
Arizona	1972	18	18	18	16	(1-2)	30	None	(6)	Yes	(1)	No	(1-5)	No	No	Yes(1)	Yes
Arkansas	1953	—	—	—	—	(1,2,5,6)	30	—	—	Yes	(4)	(2)	(1-3,5,8,9)	No	No	Yes(2)	Yes
California	1973	18	18	(11)		(2,4,6)	30	None	—	Yes(3)	(4)	(7)	(1,2a,3,5a,8)	No	No	Yes	No
Colorado	1979	18	18	16	16	(1-3,5)	None	None	None	No	None	8	(1-5,8-11)	Yes	No	Yes	No
Connecticut	1980	18	18	16	16	(1-3,5)	35	4 days	(6)	Yes(1)	(1)	(8)	(1-5,8,10)	No	No	Yes(3)	Yes(1)
Delaware	1947	18	18	18	16	(1-3)	30	1 day(2)	(2)	Yes	(1)	No	(1,3,6)	Yes	Yes	Yes(1)	Yes
Dist. of Columbia	1966	21	18	18	16	(1-3,5)	5	None	—	No	(1)	No	(1-5,8-11)	Yes	No	Yes	No
Florida	1978	18	18	18	16	(1)	60	3 days	(1)	No	(1)	No	(1-5)	Yes	No	No	No
Georgia	1978	18	18	16	16	(1)	30	None(4)	(1)	No(2)	(1)	(9,10)	(1-5,13)	Yes	Yes	Yes(1)	No
Guam	No Law	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hawaii	1979	20	20	18	16	(1-3)	30	3 days	(2,6,10)	Yes	(1,2)	No	(1-4,5a)	No	No	Yes(1)	Yes
Idaho	1979	18	18	16	16	(1-3,5)	—	None(1)	(4)	No	None	(7)	(1-5,8-11)	No	No	Yes	Yes
Illinois	1949	18	18(10)	16	16	(1)	15	3 days	(1,7-8)	Yes	(1)	No	(1,3,4,6,9-10,12	No	No	No	Yes(1)
Indiana	1981	18	18	17	17(3)	(1-3,5)	30	3 days	(6)	Yes	(4)	(8)	(1-5,8-9)	No	No	No	No
Iowa	1975	18	18	16	16	(1-6)	20	3 days	(4)	No	(1)	No	(1,3,4,8,9)	No	No	Yes(1)	No
Kansas	1981	18	18	17	17(5)	None	No Limit	—	—	No	None	No	(7)	—	—	—	—
Kentucky	1940	16	16	16	16	(2-4)	30	3 days	(1)	Yes	(1)	No	(1-5)	Yes	No	No	(1)
Louisiana	1975	18	18	18	16(6)	(2,4)	30	3 days	(6)	Yes	(3)	(4)	(7)	Yes	Yes	No	No
Maine	No Law	18	18	18	18	None	30	None	None	No	None	No	(1-4,6)	Yes	No	No	N A
Maryland	No Law	21	18	18	16	—	—	2 days	—	—	None	—	—	—	—	—	—
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
Michigan	1978	18	18	18	16	(1-3,5)	30	3 days	(6)	Yes	(1)	(3)	(1,3-4,6,8-10)	Yes	No	No	No
Minnesota	No Law	—	—	—	—	—	—	—	—	—	None	—	—	—	—	—	—
Mississippi	1957	21	21	17	15	(1-4)	30	3 days	(2,6)	Yes(1)	(1)	No	(1-5)	Yes	Yes	Yes(1)	Yes
Missouri	1980	—	—	—	—	None	—	—	—	—	None	—	(7)	—	—	—	—
Montana	1981	18	18	16	16(4)	(1-3,5)	20	None	—	No	(4)	(7)	(1-5,8-11)	Yes	—	Yes(1)	No
Nebraska	1978	19	19	17	17	(1)	30	2 days	(1,3,7)	Yes	(1)	(8)	(1,3-5)	Yes	No	Yes(1,3)	Yes
Nevada	No Law	18	18	16	16	—	—	—	—	—	—	—	—	—	—	—	—
New Hampshire	1979	18	18	14	13	(1)	30	5 days	(2)	Yes(1)	(1)	No	(1-4,5b,6,9-11)	Yes	No	Yes(1)	Yes
New Jersey	1953	18	18	16	16(9)	(1-3)	30	—	—	No	(4)	No	(1,3,4,5)	No	No	Yes(4)	No
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 York	1938	21	18	16	14	(1-3)	30	3 days	(6)	Yes	(1)	No	(1-5)	No	No	Yes(1)	Yes
North Carolina	1981	18	18	16	16(7)	(1-3)	30	None	—	Yes	(3)	(4-6)	(7)	—	Yes	Yes(5)	Yes
North Dakota	1971	18	18	16	16	(1-3)	30	None	—	No	(4)	(7)	(1-5,8)	Yes	No	Yes	No
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)
Oklahoma	1975	18	18	16	16(2)	(4,8,7)	30	None(1)	—	No	(1,4)	—	(1-5,8,9,11)	Yes	No	No	No
Oregon	1981	18	18	17	17	None	—	—	—	—	None	—	(7)	Yes(2)	—	—	—
Pennsylvania	1975	18	18	16	16	(1-3,5)	30	3 days(3)	(5)	Yes	(1)	No	(1-6)	Yes	No	Yes(1)	Yes(2)
Puerto Rico	—	21	21	18	18	(4)	10	None	—	Yes	(3)	No	(7)	No	No	No	No
Rhode Island	1975	18	18	18	16	(1-3,5)	40	None	None	Yes	(1)	(1,8)	(1,3,5)	Yes	Yes	Yes(6)	Yes
South Carolina	No Law	—	—	—	—	—	—	1 day	—	—	None	—	—	—	—	—	—
South Dakota	1977	18	18	16	16	(1)	20	None	—	No	(4)	No	(1,2,5a)	Yes	No	Yes	No
Tennessee	1950	18	18	16	14	(1)	30	None(1)	(1)	Yes	(1)	(1)	(1,3-4)	Yes	Yes	Yes(1)	Yes
Texas	1977	18	18	14	14	(1)	21	None	—	Yes	(4)	(4)	(1,5)	Yes	No	No	Yes(1)
Utah	1980	—	—	—	—	None	—	—	—	—	None	—	(7)	—	—	—	—
Vermont	1951	21	18	18	16	(1-3,6)	30	5 days	(1,3)	No	(1)	No	(1-6)	Yes	No	Yes	Yes
Virginia	1979	18	18	16	16	(1-3)	60	None	(9)	Yes(1)	(1)	No	(1-5)	No	No	No	Yes
Virgin Islands	No Law	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Washington	No Law	—	—	—	—	—	—	—	—	—	None	—	—	—	—	—	—
West Virginia	1952	18	18	18	18(8)	(4)	30	3 days	4	Yes	(4)	No	(1-4,8,9)	Yes	No	No	No
Wisconsin	1981	18	18	16	16	None	20	5 days	—	No	None	No	(7)	—	—	—	—
Wyoming	1941	19	19	16	16	(1-3)	30	None	(1,3)	Yes	(1)	(3)	(1-5)	Yes	No	No	Yes

FOOTNOTES — TABLE 5-2

(a) MINIMUM AGE:
(1) Legal-Hearing before Judge, M (14-16), F (14-16).
(2) Requirements may be varied by order of the Judge of the County Court
(3) With Consent—(15 for pregnant female or mother with court order).
(4) Judicial approval required if either party aged 16 or 17. The court must require both to take marriage counseling of at least 2 sessions 10 days apart with a designated counselor.
(5) With Consent—(Consent of 1 parent)
(6) With Consent—(Permission of parents & Juvenile Court).
(7) With Consent—(Female more than 12 years of age who is pregnant or has given birth).
(8) With Consent—(May be waived by judge if girl is pregnant).
(9) Under age 16—Judicial consent must be approved by judge of Superior Court.
(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) State licensed chiropracter

(c) EXCEPTIONS:
(1) If not of age, 3 days
(2) Non-residents—4 days
(3) Unusual condition as to make marriage advisable
(4) None, if both are 18 or over, 3 days if either is 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) Judge may waive in case of emergency or extraordinary circumstances
(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) Physician must determine that patient is free of infectious syphilis

(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) Any test approved by State Board of Health or State Department of Health.

(g) TESTS FOR OTHER DISEASE:
(1) Physical inspection for gonorrhea
(2) Must be free from communicable disease in an infectious form
(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 test for female applicants (N D —Not mandated by law).
(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

(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
(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
(2) Will test if submitted for out-of-state marriage requirements

(j) QUALIFICATONS:
(1) If other State has comparable premarital law
(2) At discretion of county clerks if form similar to Arkansas form
(3) Premarital forms 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 accompanied by qualifying statement as regards note G, 4-5
(6) If form is from other State laboratories or other State approved laboratories (not physician laboratories form).

(k) QUALIFICATIONS:
(1) If positive.
(2) If positive test performed by State laboratory

REVISION
This chart has been checked for accuracy to July 1982. 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 Space				Laboratory Support Services 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)
New England								
Conn.	49,537	—	34,676	—	18,791	—	13,154	—
Mass.	133,460	—	—	—	95,872	—	—	—
Me.	—	—	8,999	—	—	—	12,827	—
N.H.	—	—	—	—	—	—	—	—
R.I.	—	—	18,040	—	—	—	3,138	—
Vt.	5,150	—	4,950	—	1,450	—	1,250	—
Middle Atlantic								
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	16,100	—	15,500	—	13,500	—	10,500	—
East North Central								
Ill.	18,000	13,331	15,700	8,571	16,862	4,866	14,126	3,204
Ind.	18,048	—	15,824	—	4,736	—	4,480	—
Mich.	—	—	39,167	—	—	—	25,405	—
Ohio	—	—	18,472	6,477	—	—	11,191	2,187
Wisc.	33,332	5,554	25,422	4,549	20,293	2,089	14,130	1,696
West North Central								
Ia.	23,780	5,941	14,268	4,159	7,667	795	10,600	557
Kans.	16,220	—	12,150	—	4,400	—	3,100	—
Minn.	21,889	—	9,565	—	8,683	—	5,816	—
Mo.	18,482	—	12,935	—	18,684	—	15,812	—
Nebr.	9,501	—	4,717	521	1,176	—	811	104
N.D.	3,851	—	3,406	2,000	1,358	—	1,208	952
S.D.	5,600	—	3,400	—	4,000	—	2,400	—
South Atlantic								
Del.	9,628	—	4,777	—	3,209	—	1,640	—
D.C.	—	—	12,000	—	—	—	1,500	—
Fla.	—	—	12,374	30,182	—	—	10,855	23,355
Ga.	—	—	15,273	6,408	—	—	3,136	4,059
Md.	78,200	—	59,165	—	8,518	—	6,668	—
N.C.	29,000	400	17,725	400	20,000	9,800	10,991	7,400
S.C.	59,059	—	32,600	—	22,204	—	12,300	—
Va.	—	—	—	—	—	—	—	—
W.Va.	7,506	—	7,458	—	3,535	—	2,843	—
East South Central								
Ala.	13,909	13,711	9,170	11,484	21,760	6,186	14,346	5,085
Ky.	—	—	14,263	—	—	—	5,163	—
Miss.	—	—	—	—	—	—	—	—
Tenn.	8,740	—	6,740	8,206	9,101	—	7,069	4,923
West South Central								
Ark.	—	—	24,400	—	—	—	8,687	—
La.	25,000	16,300	24,500	13,600	4,300	10,500	4,000	8,600
Okla.	8,882	—	—	—	6,800	—	—	—
Tex.	—	—	27,402	—	—	—	12,838	—
Mountain								
Ariz.	—	—	11,652	1,740	—	—	6,827	870
Colo.	—	—	—	—	—	—	—	—
Ida.	—	5,054	12,592	3,724	—	—	5,944	768
Mont.	7,737	—	6,027	—	6,557	—	4,436	—
Nev.	3,924	926	3,824	906	5,343	648	5,243	640
N.M.	—	—	18,825	4,435	—	—	10,615	120
Utah	26,441	—	13,580	—	7,607	—	3,932	—
Wyo.	—	—	—	—	—	—	—	—
Pacific								
Alaska	—	7,741	—	7,134	—	6,014	—	5,549
Cal.	—	—	—	—	—	—	—	—
Hawaii	11,580	5,650	10,300	5,000	2,800	400	2,200	400
Ore.	10,460	—	8,263	—	11,048	—	7,456	—
Wash.	—	—	9,387	2,290	—	—	5,486	1,063
Territories								
Guam	3,424	264	3,154	264	975	35	975	35
P.R.	—	—	20,968	—	—	—	5,449	—
V.I.	—	—	—	—	—	—	—	—

Table 5-3
UTILIZATION OF PRESENT FACILITIES — Continued

Lab & Region	Administrative and Clerical Space				Total Space Available			
	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.	8,269	—	5,788	—	76,597	—	53,618	—
Mass	22,668	—	—	—	252,000	—	—	—
Me.	—	—	1,655	—	—	—	23,481	—
N.H.	—	—	—	—	—	—	—	—
R.I.	—	—	3,441	—	45,000	—	24,619	—
Vt.	1,200	—	1,200	—	7,800	—	7,400	—
Middle Atlantic								
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	7,900	—	5,800	—	37,500	—	31,800	—
East North Central								
Ill.	9,000	2,672	7,798	2,093	43,862	20,869	37,624	13,814
Ind.	2,088	—	2,088	—	24,872	—	22,392	—
Mich.	—	—	7,494	—	109,540	—	72,066	—
Ohio	—	—	7,321	1,097	80,898	12,986	36,984	9,761
Wisc.	12,709	3,837	8,592	2,892	66,334	11,480	48,144	9,137
West North Central								
Ia.	9,650	3,176	5,790	2,660	51,097	9,912	30,658	7,376
Kans.	4,050	—	3,100	—	24,670	—	18,350	—
Minn.	3,209	—	2,688	—	33,781	—	18,069	—
Mo.	7,426	—	6,626	—	44,592	9,980	35,373	8,900
Nebr.	1,594	—	1,099	191	12,271	—	6,627	816
N.D.	1,292	—	1,000	—	6,501	—	5,614	2,952
S.D.	1,000	—	600	—	10,600	—	6,400	—
South Atlantic								
Del.	2,445	—	1,278	—	15,282	—	7,695	—
D.C.	—	—	1,500	—	—	—	15,000	—
Fla.	—	—	5,061	7,590	46,712	78,804	28,290	61,127
Ga.	—	—	4,909	963	—	—	23,318	11,430
Md.	16,872	—	9,100	—	103,590	—	74,932	—
N.C.	10,064	—	5,525	—	59,064	10,200	34,241	7,800
S.C.	9,737	—	5,400	—	91,000	—	50,300	—
Va.	—	—	—	—	—	—	—	—
W.Va.	10,807	—	4,745	—	21,848	700	15,046	650
East South Central								
Ala.	5,691	3,519	3,752	3,028	41,360	23,416	27,268	19,597
Ky.	—	—	3,266	—	—	—	22,692	—
Miss.	—	—	—	—	19,060	—	11,356	—
Tenn.	4,297	—	4,297	3,283	22,138	—	18,106	16,412
West South Central								
Ark.	—	—	2,124	—	—	—	35,211	—
La.	3,600	5,600	3,200	4,450	32,900	32,400	31,700	26,650
Okla.	1,016	—	—	—	16,698	—	—	—
Tex.	—	—	6,389	—	65,066	—	46,629	—
Mountain								
Ariz.	—	—	5,527	490	—	—	24,006	3,100
Colo.	—	—	—	—	—	—	—	—
Ida.	—	—	6,870	562	40,613	5,054	25,406	5,054
Mont.	1,947	—	1,405	—	16,241	—	11,868	—
Nev.	955	252	906	244	10,222	1,826	9,973	1,790
N.M.	—	—	7,805	200	48,000	—	37,245	4,755
Utah	2,174	—	1,117	—	36,222	—	18,629	—
Wyo.	—	—	—	—	—	—	—	—
Pacific								
Alaska	441	3,437	400	3,171	441	17,192	400	15,854
Cal	—	—	—	—	—	—	—	—
Hawaii	1,500	200	1,000	200	15,880	6,250	13,500	5,600
Ore.	5,540	—	3,610	—	27,048	—	19,329	—
Wash	—	—	5,537	1,547	—	—	20,410	4,900
Territories								
Guam	320	—	320	—	4,719	299	4,449	299
P.R.	—	—	—	—	—	—	26,417	—
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	X	Begun 3/81	8,200,000	X	45,000	32,000	—	—	X	—	X	X	X
Mass.	1973	X	—	X	X	Fy 83	5,000,000	X	55,000	—	X	—	—	X	X	X	X
Me.	1969	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.I.	1978	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Vt.	1953	—	X	X	—	—	—	—	—	10,000	—	X	—	—	—	—	—
Middle Atlantic																	
N.J.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
N.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pa.	1976	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
East North Central																	
Ill.	—	X	X	X	—	Fy 83	10,250,000	X	60,000	45,000	X	X	—	—	X	—	—
Ind.	1949	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mich.	1920's	X	X	X	—	—	>2,000,000	X	16,600	10,400	—	X	X	X	X	X	X
Ohio	1971	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Wisc.	1952	—	X	—	—	Fy 86	6,000,000	—	43,000	24,000	X	—	X	—	X	X	X
West North Central																	
Ia.	—	—	X	—	—	Unknown	4,600,000	—	26,500	18,600	—	—	X	—	X	X	X
Kans.	1974	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	X
Minn.	1969	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—
Mo.	1978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nebr.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X
N.D.	1968	X	X	—	—	—	—	—	—	—	X	X	—	—	—	X	—
S.D.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Atlantic																	
Del.	1960	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
D.C.	1942	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Fla.	1966	X	X	X	—	Fy 82-83	3,680,000	—	20,000	—	X	—	X	X	X	X	—
Ga.	1959	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Md.	1974	X	X	X	X	Fy 82	1,500,000	X	14,500	12,578	—	—	X	—	X	—	X
N.C.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S.C	1979	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Va.	1970	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
W.Va	1954	—	X	—	—	—	2,500,000	—	2,500	2,000	X	—	X	—	—	X	—
East South Central																	
Ala.	1979	X	X	—	—	Fy 82	200,000	—	3,600	3,300	X	X	X	—	X	X	—
Ky.	1960	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Miss.	1958	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Tenn.	1952	X	—	X	X	Fy 82-83	8,500,000	X	140,000	85,000	X	X	—	—	—	—	—
West South Central																	
Ark.	1980	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
La.	1957	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okla.	1973	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Tex.	1958	X	—	—	—	Fy 83	1,500,000	—	4,800	3,500	X	—	X	—	—	X	—
Mountain																	
Ariz.	1976	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Colo.	1975	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ida.	1981	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Mont.	1955	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nev.	1977	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
N.M.	1976	—	X	—	—	Fy 83-84	—	—	—	2,000	—	—	X	—	X	X	—
Utah	1975	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Wyo.	1974	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific																	
Alaska	1970	X	X	—	—	Fy 85	10,000,000	—	20,000	13,000	X	X	—	—	—	—	—
Cal.	1955	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—
Hawaii	1959	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Ore.	1978	—	—	—	—	—	—	—	—	—	—	—	—	—	X	X	X
Wash.	1939	X	—	X	—	Fy 83	>8,900,000	X	60,000	36,260	X	X	—	—	X	X	X
Territories																	
Guam	1973	X	X	—	—	Fy 82	3,500,000	X	27,600	—	—	—	X	—	—	—	—
P.R.	1959	X	X	—	—	Fy 82	—	—	—	—	X	X	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
A. Areas in which Laboratory Receives or Has ADP Capabilities

Lab & Region	1. Diagnostic Reporting								
	Diagnostic Bacteriology	Parasitology	Clinical Chemistry	Environmental Microbiology	Environmental Chemistry	Laboratory Improvement Program	Clinical Chemistry Calculations	Control of Instruments	Other
New England									
Conn.	—	—	—	—	—	X	—	—	GC/MS & some GC's have ADP capabilities
Mass.	—	—	—	—	—	X	—	—	Biologics/reagents/media production and distribution
Me.	—	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—	—
R.I.	—	—	X	—	X	—	X	X	Serology
Vt.	—	—	—	—	—	—	—	—	—
Middle Atlantic									
N.J.	—	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—	—
Pa.	X	X	—	—	—	X	—	—	—
East North Central									
Ill.	X	X	X	X	X	X	—	—	Metabolic disease screening
Ind.	—	—	—	—	X	X	—	X	Gas chromatography — Automatic injection, reduction of data from Technicon AutoAnalyzers, GC/MS data acquisition and reduction, meat analysis computation and reporting
Mich.	—	—	—	—	—	—	—	—	—
Ohio	—	—	—	—	—	—	X	—	—
Wisc.	—	—	X	—	—	—	X	X	—
West North Central									
Ia.	—	—	—	X	X	—	X	X	—
Kans.	—	—	—	X	X	X	—	—	—
Minn.	—	—	—	—	—	X	—	—	—
Mo.	—	—	—	—	—	—	—	—	—
Nebr.	—	—	—	—	—	—	—	—	—
N.D.	—	—	—	—	X	—	—	X	—
S.D.	—	—	—	—	—	—	—	—	—
South Atlantic									
Del.	—	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—	—
Fla.	—	—	X	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—	—
Md.	—	—	—	—	X	—	—	—	Hereditary disorders
N.C.	—	—	—	X	X	—	X	X	—
S.C.	X	X	X	X	X	X	X	—	Biologics/reagents/media production and distribution
Va.	—	—	—	—	—	—	—	—	—
W.Va.	—	—	X	—	—	—	X	—	—
East South Central									
Ala.	—	—	—	—	—	—	X	—	—
Ky.	—	—	X	—	—	—	X	—	GC/MS/computer for toxicology
Miss.	—	—	X	—	—	—	X	—	—
Tenn.	—	—	—	—	—	X	—	—	—
West South Central									
Ark.	—	—	—	—	—	—	—	X	—
La.	—	—	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—	—	—
Tex.	—	—	—	—	X	—	X	X	Mass spec., chromatographs, radiation equipment, AutoAnalyzer
Mountain									
Ariz.	—	—	—	—	—	—	—	—	—
Colo.	—	—	—	—	—	—	—	—	Newborn genetic screening
Ida.	—	—	—	—	—	—	—	—	—
Mont.	—	—	—	—	X	—	—	X	—
Nev.	—	—	—	—	X	—	—	—	—
N.M.	—	—	—	—	—	—	—	X	Cytopathology data entry, storage, retrieval
Utah	—	—	X	—	X	—	X	—	Forensic chemistry, pesticides, organic chemistry, radiochemistry
Wyo.	—	—	—	—	—	—	—	—	—
Pacific									
Alaska	—	—	—	—	—	—	—	—	—
Cal.	X	X	X	—	—	X	—	X	—
Hawaii	—	—	—	—	—	—	—	—	—
Ore.	X	X	X	X	—	X	X	X	—
Wash.	X	X	—	X	X	X	—	—	—
Territories									
Guam	—	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
A. Areas in which Laboratory Receives or Has ADP Capabilities — Continued

Lab & Region	2. Laboratory Administration and Management						
	Workload Statistics	Management Information	Purchasing	Personnel Records	Supply Inventory	Billing for Tests (Fees)	Other
New England							
Conn.	—	—	—	—	—	—	—
Mass.	—	—	X	—	—	—	—
Me.	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—
R.I.	—	X	—	X	X	—	Lab. expenditures
Vt.	—	—	—	—	—	—	—
Middle Atlantic							
N.J.	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—
Pa.	—	X	X	—	X	—	—
East North Central							
Ill.	—	X	—	X	—	—	Fiscal reports
Ind.	—	—	—	—	—	—	Tracking of certain types of samples in Food Laboratory
Mich.	—	—	—	—	—	—	—
Ohio	—	—	—	—	—	—	—
Wisc.	X	X	X	X	X	X	—
West North Central							
Ia.	X	X	—	—	—	X	—
Kans.	—	—	—	—	—	—	—
Minn.	—	—	—	—	—	—	—
Mo.	—	—	—	—	—	—	Metabolic disease screening
Nebr.	—	—	—	—	—	—	—
N.D.	X	—	—	—	—	X	—
S.D.	—	—	—	X	—	—	—
South Atlantic							
Del.	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—
Ga.	—	—	X	X	—	—	Expenditures, fee for service receipts
Md.	—	—	X	X	—	—	—
N.C.	—	X	—	X	—	X	Budget tracking
S.C.	—	X	—	X	—	X	—
Va.	—	—	—	—	—	—	—
W.Va.	—	—	X	X	—	—	—
East South Central							
Ala.	—	—	X	X	—	—	Salary
Ky.	—	—	—	—	—	—	—
Miss.	—	X	X	X	—	—	—
Tenn.	—	—	—	X	—	—	—
West South Central							
Ark.	—	—	—	—	X	—	Accounting/financial management information
La.	—	—	—	—	—	—	—
Okla.	—	—	—	—	—	—	—
Tex.	—	X	—	—	X	—	—
Mountain							
Ariz.	X	—	—	—	X	X	—
Colo.	—	X	—	—	—	—	—
Ida.	—	—	—	—	—	—	—
Mont.	—	X	—	—	—	X	—
Nev.	—	—	—	—	—	—	—
N.M.	X	—	—	—	X	—	—
Utah	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—
Pacific							
Alaska	X	X	—	X	—	—	—
Cal.	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—
Ore.	X	X	X	X	X	X	Training
Wash.	X	—	—	—	—	X	Equipment maintenance scheduling, time reporting
Territories							
Guam	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
B. ADP Services Provided by State — Continued

Lab & Region	ADP Services Received From State Central Data Processing (CDP) Center	Expenditures For Governmental Provided CDP Services	Description of Services Received
New England			
Conn.	—	—	—
Mass.	X	—	—
Me.	—	—	—
N.H.	—	—	—
R.I.	—	—	—
Vt.	—	—	—
Middle Atlantic			
N.J.	—	—	—
N.Y.	—	—	—
Pa.	X	20,000	Fiscal management reports, personnel costs and time reports
East North Central			
Ill.	X	30,000	—
Ind.	—	—	—
Mich.	—	—	—
Ohio	—	—	—
Wisc.	X	18,700	Data analysis and report generation using own programs. Buy batch computing services from State CDP ($700). Receive general batch and timesharing computing service from state university computing center ($18,000).
West North Central			
Ia.	—	—	—
Kans.	X	4,306	Budget information, some data reduction and report preparation
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	X	—	Fiscal
South Atlantic			
Del.	—	—	—
D.C.	—	—	—
Fla.	X	—	Clinical laboratory licensure of personnel
Ga.	X	—	—
Md.	X	—	Personnel and expenditure reports
N.C.	X	47,014	—
S.C.	X	90,000	—
Va.	—	—	—
W.Va.	X	—	Computer printouts of appropriations and expenditures, salaries, fringe benefits, etc.
East South Central			
Ala.	X	1,000	—
Ky.	—	—	—
Miss.	X	—	—
Tenn.	X	—	—
West South Central			
Ark.	—	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	X	—	—
Mountain			
Ariz.	X	—	—
Colo.	X	—	—
Ida.	—	—	—
Mont.	X	125	—
Nev.	—	—	—
N.M.	X	—	Financial data (revenues and expenditures), central payroll
Utah	X	—	Personnel payroll, purchasing, budgeting
Wyo.	—	—	—
Pacific			
Alaska	X	5,000	—
Cal.	X	—	—
Hawaii	—	—	—
Ore.	X	—	—
Wash.	—	—	—
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
C. ADP Services Received from Private Vendors — Continued

Lab & Region	ADP Services Received From Private Vendors	Expenditures For Private Vendor ADP Services	Description of Services Received
New England			
Conn.	—	—	—
Mass.	X	—	—
Me.	X	—	CAP proficiency testing data
N.H.	—	—	—
R.I.	—	—	—
Vt.	—	—	—
Middle Atlantic			
N.J.	—	—	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central			
Ill.	X	18,000	Lease of computer and hardware for data reduction. Generate exception reports to delineate unsatisfactory test results.
Ind.	X	—	Time-sharing computer service, mass spectrophotometer library search
Mich.	—	—	—
Ohio	—	—	—
Wisc.	—	—	—
West North Central			
Ia.	X	1,000/mo.	Batch processing, tape and disk storage, hard copy printout
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 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
D. Dedicated ADP Services — Continued

Lab & Region	Lab Has Dedicated ADP Services	Type of Hardware (Central Processing Unit)			
		Name of Unit	Mainframe	Minicomputer	Microcomputer
New England					
Conn.	—	—	—	—	—
Mass.	—	—	—	—	—
Me.	—	—	—	—	—
N.H.	—	—	—	—	—
R.I.	X	H. P. 21 MX	—	X	—
Vt.	—	—	—	—	—
Middle Atlantic					
N.J.	—	—	—	—	—
N.Y.	—	—	—	—	—
Pa.	X	IBM 370	X	—	—
East North Central					
Ill.	X	Hewlett Packard	—	—	—
Ind.	X	Hewlett Packard 3353 data system	—	—	X
Mich.	—	—	—	—	—
Ohio	X	Interdata 732; TI 990/10; HP 3354 (2); HP MX (2); PE 10(2); PE PEPII (2); HP 9815 (5)	X	X	X
Wisc.	X	PDP-11/60	—	X	—
West North Central					
Ia.	X	Datapoint 1500	—	X	—
Kans.	X	PDP-11	—	—	X
Minn.	—	—	—	—	—
Mo.	X	Texas Instruments	—	X	—
Nebr.	—	—	—	—	—
N.D.	X	S-100, Bus-8085/8088 CPU 7 units	—	X	—
S.D.	—	—	—	—	—
South Atlantic					
Del.	—	—	—	—	—
D.C.	—	—	—	—	—
Fla.	—	—	—	—	—
Ga.	—	—	—	—	—
Md.	X	HP 9835 A Desk Top Computer	—	—	X
N.C.	—	—	—	—	—
S.C.	—	—	—	—	—
Va.	—	—	—	—	—
W.Va.	—	—	—	—	—
East South Central					
Ala.	—	—	—	—	—
Ky.	X	Wang Minicomputer 2200	—	X	—
Miss.	—	—	—	—	—
Tenn.	—	—	—	—	—
West South Central					
Ark.	X	PDP 11/04 (DEC), EG&G Ortec EEDSII, Finnigan 6110 Data System LSI, Spectra Physics 4100	—	X	—
La.	X	North Star-Horizon	—	—	X
Okla.	—	—	—	—	—
Tex.	—	Hewlett Packard North Star, Apple	X	X	X
Mountain					
Ariz.	—	—	—	—	—
Colo.	X	Wang	—	X	—
Ida.	—	—	—	—	—
Mont.	—	—	—	—	—
Nev.	—	—	—	—	—
N.M.	—	—	—	—	—
Utah	X	—	—	—	—
Wyo.	—	—	—	—	—
Pacific					
Alaska	—	—	—	—	—
Cal.	X	Prime 550	—	—	—
Hawaii	—	—	—	—	—
Ore.	X	Sperry Univac System 80, Ohio Scientific and Wang System 3	—	X	X
Wash.	X	Prime 350	—	X	—
Territories					
Guam	—	—	—	—	—
P.R.	—	—	—	—	—
V.I.	—	—	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
D. Dedicated ADP Services — Continued

Lab & Region	Core Size	Storage Medium			Primary Operating Language			
		Tape	Disk	Mass Storage	COBOL	FORTRAN	BASIC	Other
New England								
Conn.	—	—	—	—	—	—	—	—
Mass.	—	—	—	—	—	—	—	—
Me.	—	—	—	—	—	—	—	—
N.H.	—	—	—	—	—	—	—	—
R.I.	32,000	X	X	X	—	—	X	—
Vt.	—	—	—	—	—	—	—	—
Middle Atlantic								
N.J.	—	—	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—	—	—
Pa.	2,000,000	X	X	—	X	—	X	Statistical Packages, SAS, SPSS
East North Central								
Ill.	64,000	X	X	—	—	—	X	—
Ind.	64,000	X	—	—	—	—	—	Natural
Mich.	—	—	—	—	—	—	—	—
Ohio	main: 280,000 micro: 164,000	—	X	—	—	X	X	HPLB
Wisc.	248,000	X	X	—	—	—	—	C — the standard programming language of the unit's operating system
West North Central								
Ia.	32,000	—	X	—	—	—	—	Database
Kans.	—	—	X	—	—	X	—	—
Minn.	—	—	—	—	—	—	—	—
Mo.	—	—	X	—	X	X	—	—
Nebr.	—	—	—	—	—	—	—	—
N.D.	64,000	—	X	—	—	—	—	PL/1 (CP/M) (MP/M)
S.D.	—	—	—	—	—	—	—	—
South Atlantic								
Del.	—	—	—	—	—	—	—	—
D.C.	—	—	—	—	—	—	—	—
Fla.	—	—	—	—	—	—	—	—
Ga.	—	—	—	—	—	—	—	—
Md.	64,000	X	X	—	—	—	X	—
N.C.	—	—	—	—	—	—	—	—
S.C.	—	—	—	—	—	—	—	—
Va.	—	—	—	—	—	—	—	—
W.Va.	—	—	—	—	—	—	—	—
East South Central								
Ala.	—	—	—	—	—	—	—	—
Ky.	16,000	—	X	—	—	—	X	—
Miss.	—	—	—	—	—	—	—	—
Tenn.	—	—	—	—	—	—	—	—
West South Central								
Ark.	32,000, 16,000 (2), 8,000	—	X	—	—	—	X	ORACL, Class (Canberra Lab Automation Software System)
La.	64,000	—	X	—	—	—	—	CPM
Okla.	—	—	—	—	—	—	—	—
Tex.	512,000	X	X	—	—	X	X	—
Mountain								
Ariz.	—	—	—	—	—	—	—	—
Colo.	100,000	—	X	—	—	—	X	—
Ida.	—	—	—	—	—	—	—	—
Mont.	—	—	—	—	—	—	—	—
Nev.	—	—	—	—	—	—	—	—
N.M.	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—
Wyo.	—	—	—	—	—	—	—	—
Pacific								
Alaska	—	—	—	—	—	—	—	—
Cal.	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—
Ore.	512,000	X	X	—	X	X	X	—
Wash.	512,000	—	X	X	—	X	—	—
Territories								
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
D. Dedicated ADP Services — Continued

Lab & Region	No. of Peripherals Supported By CPU	No. of Lab Personnel Required To Support Dedicated System	Lab Instrumentation Supported by CPU System
New England			
Conn.	—	—	—
Mass.	—	—	—
Me.	—	—	—
N.H.	—	—	—
R.I.	13	0.5	Gas chromatographs, HPLC, atomic absorption, auto samplers
Vt.	—	—	—
Middle Atlantic			
N.J.	—	—	—
N.Y.	—	—	—
Pa.	4	3.0	—
East North Central			
Ill.	4	1.5	Tracor 1285 gamma counter
Ind.	3	1.0	Two Technicon AutoAnalyzers, HP 1084 HPLC, Varian gas chromatographs
Mich.	—	—	—
Ohio	38	5.0	PE F40; PE F42; HP 5880A; PE CC (3); PE 3920; KA 150; PM AutoAnalyzer; GC/MS (2); three GC in Environmental Lab.
Wisc.	22	1.0	—
West North Central			
Ia.	1	2.5	—
Kans.	—	—	Two Perkin Elmer 5000 atomic absorption spectrophotometers, nuclear Data 6600 gamma spectrometer, Varian gas chromatographs, Finnigan 4000 GC/MS
Minn.	—	—	—
Mo.	4	3.0	-
Nebr.	—	—	—
N.D.	8	0.25	Atomic absorption (PE 5000), AutoAnalyzer (Technician — 3 Channels), gamma spectroscopy (RIA counter)
S.D.	—	—	—
South Atlantic			
Del.	—	—	—
D.C.	—	—	—
Fla.	—	—	—
Ga	—	—	—
Md.	1	1.0	Two LKB Rackgamma gamma counters
N.C.	—	—	—
S.C.	—	—	—
Va.	—	—	—
W.Va.	—	—	—
East South Central			
Ala.	—	—	—
Ky.	3	2.0	Abbott ABA 100 Clinical Chemistry analyzer
Miss.	—	—	—
Tenn.	—	—	—
West South Central			
Ark.	4	—	Gas chromatographs, mass spectrometer, Canberra gamma spectrometer, Tube Excited Fluorescence Analyzer III
La.	4	1.0	Gamma counter, CRT, DP 5000
Okla.	—	—	—
Tex.	14	1.0	Gas chromatographs
Mountain			
Ariz.	—	—	—
Colo.	—	—	—
Ida.	—	—	—
Mont.	—	—	—
Nev	—	—	—
N.M.	—	—	—
Utah	—	—	—
Wyo.	—	—	—
Pacific			
Alaska	—	—	—
Cal.	—	—	—
Hawaii	—	—	—
Ore.	21	4.0	Micromedic gamma counter, Gifford EIA 50
Wash.	14	4.5	Micromedic AGC 200-4 and Abbott Autologic (gamma counters in Genetic Lab)
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
E. Future Plans — Continued

Lab & Region	Anticipate Upgrading Present System	Description of Plans	Areas in Which LMCO Might Provide Assistance in Planning, Development or Upgrading of Computer Capabilities
New England			
Conn.	—	$250,000 requested in budget for ADP system for FY 1982-83.	Compatible software for workload reporting and payroll.
Mass.	X	ADP for diagnostic reporting, fee for service, and laboratory administration.	Planning for diagnostic reporting.
Me.	X	—	—
N.H.	—	—	—
R.I.	X	Increase capacity of present computer or purchase additional dedicated minicomputers.	Specimen tracking, lab reports, data storage.
Vt.	—	—	—
Middle Atlantic			
N.J.	—	—	—
N.Y.	—	—	—
Pa.	X	Add additional terminals and one additional printer.	Need a review of system as developed to date with recommendations on ways to improve.
East North Central			
Ill.	—	—	—
Ind.	X	Acquire multi-user system for lab use, with 50-200 MB hard disk storage and tape archiving, of data.	—
Mich.	—	—	—
Ohio	X	Auto microfiche, auto reports, auto calibrate, auto std/controls.	Shared system concepts; shared programs.
Wisc.	X	More terminals, a third multiplexor to add 16 lines, another disk to add 135 megabytes. In 2-4 years, replace CPU with a D.E.C. VAX.	—
West North Central			
Ia.	X	Acquisition of HP system to replace Datapoint applications.	—
Kans.	X	More local microcomputers.	Software for central records and reports, computer applications, decisions on centralized versus distributed approach.
Minn.	—	—	—
Mo.	—	—	Workload statistics, supply inventory, reporting of tests.
Nebr.	X	5 terminals and 2 printers with the state's mainframe in the Central Data Processing Dept.	Diagnostic bacteriology, parasitology, clinical chemistry, environmental microbiology and chemistry, workload statistics, supply inventories, management information, and billing for laboratory tests.
N.D.	X	Add specific ion meter and another atomic absorption instrument to on-line service. Add microbiology data to data base.	Polishing of data base for microbiology implementation of electronic mail between CDC and PHL. Implementation of electronic mail between PHL and private laboratories for report writing and queries.
S.D.	—	—	—
South Atlantic			
Del.	—	—	—
D.C.	—	—	—
Fla.	—	—	—
Ga.	X	Planning to initiate ADP for newborn screening program as soon as possible.	Continue the development and implementation of the ADP model for public health laboratories. Continue to provide consultation.
Md.	X	TRS-80 microcomputer — individual units to be placed in each Division of Lab. Later, these units will be tied together to a main computer. TRS-80 will then serve as terminal for Divisions.	Provide consultation as to system best suited to each Division's operation for input-output requirements.
N.C.	X	Wang VS-100 minicomputer with 512 K core; 32K cache memory and 150 M disk storage; tape drive; terminals have been purchased to be installed as independent unit dedicated to Laboratory use.	Systems study — forms development.
S.C.	—	—	—
Va.	—	—	—
W.Va.	—	—	—
East South Central			
Ala.	X	CDP — Mohawk 2140 for workload statistics, management information, purchasing, personnel records, and supply inventory. Upgrade RIA data reduction capabilities with other microcomputers.	Assist in preparing workload reporting software.
Ky.	X	Considering updating CPU to 32,000.	Development of software.
Miss.	—	—	—
Tenn.	X	Computerize the reporting of results, inventory control, and preventive maintenance records in the new facility.	Recommendations on the hard and software to be used in the system.

Table 5-5
LABORATORY AUTOMATIC DATA PROCESSING (ADP)
E. Future Plans — Continued

Lab & Region	Anticipate Upgrading Present System	Description of Plans	Areas in Which LMCO Might Provide Assistance in Planning, Development or Upgrading of Computer Capabilities
West South Central			
Ark.	—	—	Manipulating laboratory report data for program and laboratory use.
La.	X	Incomplete at this time.	—
Okla.	—	—	—
Tex.	X	Expansion of supporting service from equipment to external data management for reporting and filing.	Software.
Mountain			
Ariz.	—	—	—
Colo.	—	—	—
Ida.	—	—	—
Mont.	—	—	—
Nev.	—	—	—
N.M.	X	Financial management — daily transaction posting.	Provide cross-fertilization on experience, progress, problems with computerized specimen accession and results reporting.
Utah	X	Would like to purchase a system to handle management needs in the areas of work reporting, fees for service, budget development, etc.	Management applications (workload monitoring, billing, fees for services, budget development, etc.), and calculations and data reductions in inorganic chemistry.
Wyo.	—	—	—
Pacific			
Alaska	X	Records management system for reporting results and data retrieval.	Need software development assistance.
Cal.	—	—	—
Hawaii	—	—	—
Ore.	—	—	Provide package which emulates King Chart, et. al., aids to microorganisms identification.
Wash.	X	Short term plans include automation of specimen records, management and reporting in the Genetics Lab, automated aid for records management in Epidemiology Section.	—
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-6
FLEXITOUR (FLEXIBLE WORK SCHEDULES)

Lab & Region	Lab Has Flexitour For All Employees	Types of Flexitour Schedules Available
New England		
Conn.	—	—
Mass.	X	—
Me.	—	—
N.H.	—	—
R.I.	X	Open 7:00 a.m.—6:00 p.m. Core time 9:00—11:30 and 1:30—3:00, rest flexible time. Employee must work 7 hrs. per day and take at least ½ hr. for lunch. Daily sign-in/sign-out sheets used.
Vt.	X	7:00 a.m.—5:30 p.m. Core hours 9:00—11:00 and 1:30—3:30, rest flexible time. 8 hr. day must be worked. Minimum of 45 minutes for lunch.
Middle Atlantic		
N.J.	—	—
N.Y.	—	—
Pa.	X	Either 7:30—4:00 or 8:00—4:30.
East North Central		
Ill.	X	Irregular start-stop time for convenience of employees. Agency also offers 4-day week schedule to all employees.
Ind.	—	On a selective basis only.
Mich.	—	—
Ohio	—	—
Wisc.	—	—
West North Central		
Ia.	X	Core hours 8:30—4:30 M-F; all laboratories/offices must be covered 8:00—5:00.
Kans.	X	Start — 7:00—8:30 a.m. Lunch — 30 minutes to 2 hours. 8 hours work required each day.
Minn.	X	With supervisor's approval, employees may work any 8-hour period between 7:00 a.m. and 6:00 p.m. (most have chosen to work either 7:00—3:30 or 8:00—4:30.)
Mo.	—	—
Nebr.	X	A core time of 9:00 a.m. to 4:00 p.m. is required. A flex-time schedule is chosen by each employee as a regular schedule until a change requested.
N.D.	—	Lab. allowed to extend analytical workday on some instruments to 10+ hours. Can stagger-start some staff to allow increased access to bottle-neck operations, such as computer terminals.
S.D.	—	—
South Atlantic		
Del.	—	—
D.C.	X	Varies according to each division's needs at the time.
Fla.	X	Employee can select 6:00—9:00 a.m. and 4:00—6:00 in p.m.
Ga.	X	8 hours, 5 days per week can be scheduled between 6:00 a.m. and 6:00 p.m. Some labs are scheduled to work a 4-day, 10-hour work week.
Md.	—	—
N.C.	X	Begin between 7:30 and 9:00 a.m. ending 9 hours later, pending approval of Lab Director. No one permitted to work in absence of supervisor.
S.C.	X	Flex hours 7:30 a.m.—6:00 p.m. Core hours during which sections must be covered are 8:30 a.m. and 5:00 p.m.
Va.	—	—
W.Va.	—	Flexible working hours in some areas.
East South Central		
Ala.	—	—
Ky.	X	Four different work schedules: 7:00—3:30; 7:30—4:00; 8:00—4:30; and 8:30—5:00.
Miss.	—	—
Tenn.	X	Core hours 9:00—3:30. Choice of 7:00—3:30; 7:30—4:00; 8:00—4:30; 8:30—5:00; 9:00—5:30.

Table 5-6
FLEXITOUR (FLEXIBLE WORK SCHEDULES)— Continued

Lab & Region	Lab Has Flexitour For All Employees	Types of Flexitour Schedules Available
West South Central		
Ark.	—	—
La.	—	—
Okla.	—	—
Tex.	X	±30 minutes 8:00—5:00. Office covered 8:00—5:00.
Mountain		
Ariz.	—	—
Colo.	X	Choice of 30 or 60 min. lunch. Hours may begin at 7:30, 8:00, or 8:30, and end after 8 hours (plus lunch period).
Ida.	X	Lab open 7:30—5:30. Staff choose from: 7:30—4:00 (½ hr. lunch); 8:00—4:30 (½ hr. lunch); 8:30—5:30 or 8:00—5:00 (with 1 hr. lunch).
Mont.	X	Minimal flexibility is available in terms of working 8 hours between 7:30 and 5:00, with ½ to 1 hour for lunch.
Nev.	X	Flexible schedule for lunch hour only, so that employee's work is not interrupted by a fixed lunch hour.
N.M.	—	—
Utah	X	Core hours are 9:00 to 4:00; the other 2 hours of the work day may be worked prior to or after the core hours.
Wyo.	—	—
Pacific		
Alaska	—	—
Cal.	—	—
Hawaii	X	8 hour day, plus 45 minute lunch period. Employee can select schedule between 7:15 a.m. and 5:00 p.m. Core time 9:00—3:15 with flexible lunch period.
Ore.	X	Mon.—Fri., Tues.—Sat., Sun.—Thurs. 8-hour shifts begin 6:30 a.m.—3:00 p.m. through 8:00—5:00 for support and technical. Two clerical 10:00 a.m.—7:00 p.m. One Data Processing 1:00—10:00 p.m. Occasional 12:00 p.m.—12:00 noon; custodial 3:30—12:00 midnight.
Wash.	—	Most employees work either 7:30—4:30 or 8:00—5:00. Approximately 25% have individualized schedules. Microbiologists are considered professionals and classified as "exempt" positions by Dept. of Personnel.
Territories		
Guam	—	—
P.R.	—	—
V.I.	—	—

Table 5-7
CHANGES IN LABORATORY TESTING REQUIREMENTS DUE TO AMENDMENTS TO HEALTH LAWS OR REGULATIONS

Lab & Region	Lab Has Had Changes in Testing Requirements Due To Amendments	Programs or Activities Have Changed	Explanation of Changes
New England			
Conn.	—	—	—
Mass.	—	—	—
Me.	X	—	—
N.H.	—	—	—
R.I.	—	—	—
Vt.	—	—	—
Middle Atlantic			
N.J.	X	—	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central			
Ill.	—	—	—
Ind.	—	—	—
Mich.	—	—	—
Ohio	X	X	—
Wisc.	X	X	Wasserman and other premarital no longer required; loss of approximately 10,000 syphilis serology specimens anticipated.
West North Central			
Ia.	—	—	—
Kans.	—	—	—
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	—	—	—
South Atlantic			
Del.	—	—	—
D.C.	—	—	—
Fla.	—	—	—
Ga.	—	—	—
Md.	X	X	Certification of all water testing laboratories. Hazardous Waste and Water Program transferred from Department of Natural Resources. Transfer of Milk Program from Department of Agriculture. Requirement for all medical and paramedical personnel to demonstrate immunity to rubella if they have contact with patients of child-bearing age.
N.C.	X	X	Law requiring premarital syphilis testing was repealed and will result in reduction of specimens submitted for syphilis serology.
S.C.	—	—	—
Va.	—	—	—
W.Va.	—	—	—

Table 5-7
CHANGES IN LABORATORY TESTING REQUIREMENTS DUE TO AMENDMENTS TO HEALTH LAWS OR REGULATIONS — Continued

Lab & Region	Lab Has Had Changes in Testing Requirements Due To Amendments	Programs or Activities Have Changed	Explanation of Changes
East South Central			
Ala.	—	—	—
Ky.	—	—	—
Miss.	—	—	—
Tenn.	—	—	—
West South Central			
Ark.	—	—	—
La.	X	—	—
Okla.	—	—	—
Tex.	—	—	—
Mountain			
Ariz.	—	—	—
Colo.	—	—	—
Ida.	X	X	The 1981 Legislature abolished the State Air Pollution Program. This eliminated all laboratory testing and associated program of monitoring calibration of field test equipment.
Mont.	—	—	—
Nev.	—	—	—
N.M.	X	X	An addition to Sec. 24-1-6 NM SA 1978 requires Health and Environment Dept. to adopt tests for the detection of PKU and other congenital diseases in newborn infants.
Utah	X	X	Elimination of the premarital requirements for syphilis has caused a reduction in volume of RPR examinations and an increase in FTA workload.
Wyo.	—	—	—
Pacific			
Alaska	—	—	—
Cal.	—	—	—
Hawaii	—	—	—
Ore.	X	X	Rubella serology reduced to diagnostic only. Toxoplasmosis serology reduced to newborn bloodspots and diagnostic. Syphilis serology — premarital requirement abolished; RPR test procedure approved for future. Fee for services — specimen receiving, billing, data processing, testing workload.
Wash.	—	—	—
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-8
PRIVATE ENVIRONMENTAL TESTING LABORATORIES

Lab & Region	Private Environmental Testing Labs Exist in State	No. of Such Labs in State	State Licenses, Registers, Approves or Certifies Private Environmental Testing Laboratories			
			Licenses	Registers	Approves	Certifies
New England						
Conn.	X	42	—	—	X	—
Mass.	X	40	—	—	X	—
Me.	X	26	—	—	X	X
N.H.	—	—	—	—	—	—
R.I.	X	10	—	—	—	—
Vt.	X	6	—	—	—	X
Middle Atlantic						
N.J.	—	—	—	—	—	—
N.Y.	—	—	—	—	—	—
Pa.	X	—	—	—	—	—
East North Central						
Ill.	X	104	—	—	—	X
Ind.	X	—	—	—	—	—
Mich.	—	—	—	—	—	—
Ohio	X	—	—	—	—	—
Wisc.	X	25+	—	—	—	—
West North Central						
Ia.	—	—	—	—	—	—
Kans.	X	—	—	—	—	X
Minn.	—	—	—	—	—	—
Mo.	X	—	—	—	—	—
Nebr.	X	5	—	—	—	X
N.D.	X	9	—	—	—	X
S.D.	X	2	—	—	—	—
South Atlantic						
Del.	X	8	—	—	—	X
D.C.	—	—	—	—	—	—
Fla.	X	62	—	—	—	X
Ga.	X	—	—	—	—	X
Md.	X	30	—	—	—	X
N.C.	X	—	—	—	—	X
S.C.	—	—	—	—	—	—
Va.	X	13	—	—	—	X
W.Va.	X	6	—	—	—	X
East South Central						
Ala.	X	20	—	—	—	X
Ky.	X	25	—	—	—	X
Miss.	X	8	—	—	—	X
Tenn.	X	15	—	—	—	X
West South Central						
Ark.	X	—	—	—	—	—
La.	X	—	—	—	—	—
Okla.	—	—	—	—	—	—
Tex.	X	—	—	—	—	—
Mountain						
Ariz.	X	55	—	—	—	X
Colo.	X	12	—	—	—	—
Ida.	X	—	—	—	—	X
Mont.	X	—	X	—	—	—
Nev.	X	3	—	—	—	X
N.M.	X	54	—	—	—	X
Utah	X	9	—	—	—	X
Wyo.	X	—	—	—	—	—
Pacific						
Alaska	X	30	X	—	—	—
Cal.	X	—	—	—	—	—
Hawaii	X	5	—	—	X	—
Ore.	X	—	—	—	—	—
Wash.	X	—	—	—	—	X
Territories						
Guam	X	1	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

Table 5-9
CUTBACK MANAGEMENT

Lab & Region	Amount Spent On Maintenance Activities In FY 1981	Preventive Maintenance Performed In Lab.	Some Lab Equipment/ Instrumentation Leased From Private Contractor(s)	Amount Expended For Equipment Leasing In FY 1981	Some Equipment/ Instrumentation Surplused In FY 1981	No. Of Promotions Processed In FY 1981
New England						
Conn.	—	X	—	—	—	10
Mass.	180,000	X	X	—	X	12
Me.	—	X	—	—	X	—
N.H.	—	—	—	—	—	—
R.I.	57,635	X	X	64,124	X	4
Vt.	—	X	—	—	—	1
Middle Atlantic						
N.J.	18,570	X	—	—	X	15
N.Y.	—	—	—	—	—	—
Pa.	12,000	X	—	12,000	—	4
East North Central						
Ill.	7,000	X	X	21,000	X	26
Ind.	28,896	X	—	—	X	4
Mich.	328,180	X	X	51,977	—	40
Ohio	156,826	X	X	54,223	—	25
Wisc.	125,000	X	X	40,000	—	15
West North Central						
Ia.	60,171	X	X	32,689	—	3
Kans.	23,682	X	—	—	—	1
Minn.	9,324	X	—	—	—	10
Mo.	—	X	—	—	X	3
Nebr.	20,918	X	—	—	—	—
N.D.	7,107	X	—	—	X	—
S.D.	—	X	—	—	X	—
South Atlantic						
Del.	—	—	—	—	—	1
D.C.	—	X	X	38,000	X	—
Fla.	125,175	X	—	—	X	—
Ga.	31,500	X	—	—	X	11
Md.	66,045	X	—	—	—	26
N.C.	20,000	X	—	—	X	8
S.C.	40,057	X	—	—	—	19
Va.	—	—	—	—	—	—
W.Va.	9,127	X	X	21,150	X	2
East South Central						
Ala.	20,200	X	—	—	X	4
Ky.	44,262	X	—	—	X	3
Miss.	35,300	X	X	46,000	—	5
Tenn.	29,702	X	—	—	X	13
West South Central						
Ark.	18,000	X	—	—	—	1
La.	44,033	X	—	6,624	X	10
Okla.	—	X	—	—	X	—
Tex.	15,000	X	—	90	—	39
Mountain						
Ariz.	33,660	X	—	—	—	5
Colo.	10,700	X	X	21,000	—	6
Ida.	35,000	X	—	—	X	2
Mont.	8,423	X	—	—	X	3
Nev.	8,000	X	—	—	—	1
N.M.	55,279	X	—	—	X	13
Utah	—	X	—	—	X	5
Wyo.	2,738	X	—	—	—	—
Pacific						
Alaska	5,000	X	X	15,000	X	2
Cal.	—	X	—	—	—	—
Hawaii	26,798	X	—	—	X	6
Ore.	35,353	X	—	—	X	—
Wash.	12,000	X	—	—	—	2
Territories						
Guam	745	X	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

Table 5-9
CUTBACK MANAGEMENT — Continued

Lab & Region	No. Of Performance Awards Issued In FY 1981	No. Of Grievances Filed In FY 1981	Cost Of Living Raise Given In FY 1981	Amount Of Cost Of Living Increase	No. Over-Time Hours Worked During FY 1981	Amount Spent On Training For Employees In FY 1981	Amount Spent On Training In FY 1980	Percent Of Training Administered In-House
New England								
Conn.	—	50	X	7.0%	—	—	—	—
Mass.	2	3	—	—	2,000	3,000	—	20%
Me.	—	—	—	—	<50	<1,000	<4,000	<20%
N.H.	—	—	—	—	—	—	—	—
R.I.	—	5	X	5.5%	516	—	—	90%
Vt.	1	—	X	9.0%	—	2,365	1,800	25%
Middle Atlantic								
N.J.	1	4	X	6.5%	4,897	—	15,153	85%
N.Y.	—	—	—	—	—	—	—	—
Pa.	—	1	X	5.0%	1,116	—	50,000	85%
East North Central								
Ill.	—	1	X	8.0%	2,300	4,000	9,000	90%
Ind.	—	1	X	2.0%	600	—	—	—
Mich.	—	9	X	7.0%	3,132	6,009	1,992	—
Ohio	—	—	—	—	881	848	1,020	95%
Wisc.	4	—	X	7.0%	—	2,000	—	50%
West North Central								
Ia.	—	—	—	—	2,000	—	—	—
Kans.	10	3	X	5.0%	—	1,257	3,733	—
Minn.	11	2	X	$0.31/hr. 7/1/80, $0.28/hr. 12/30/80	272	5,980	7,250	50%
Mo.	—	—	—	—	—	—	—	100%
Nebr.	—	—	X	10.55%	1,247	4,117	4,936	—
N.D.	—	—	X	6.5%-7/80, 10.0%-1/81	—	1,200	1,200	—
S.D.	—	1	X	5.0%	—	3,000	4,000	5%
South Atlantic								
Del.	—	—	X	3.0%	81	1,258	548	25%
D.C.	—	—	X	5.0%	32	—	—	—
Fla.	—	—	X	6.7%	—	—	—	—
Ga.	2	5	X	8.0%	—	4,500	1,800	75%
Md.	—	5	X	5.0%	200	375	332	40%
N.C.	—	—	X	10.0%	4,697	7,150	2,269	>10%
S.C.	—	1	X	7.7%	—	—	—	—
Va.	—	—	—	—	—	—	—	—
W.Va.	1	—	X	7.0%	—	2,800	>2,189	10%
East South Central								
Ala.	—	—	X	7.5%	—	3,295	2,948	47%
Ky.	12	—	X	10.0%	809	411	3,531	—
Miss.	—	—	X	7.0%	—	2,000	2,000	75%
Tenn.	4	—	—	—	—	44,675	41,135	50%
West South Central								
Ark.	—	—	X	5.5%	—	6,500	5,000	—
La.	—	—	X	8.0%	1,505	7,566	3,418	42%
Okla.	2	—	X	10.0%	—	5,000	5,000	90%
Tex.	—	2	X	5.2%-9/1/80 5.1%-2/1/80($50 min)	—	8,000	5,000	—
Mountain								
Ariz.	9	—	X	8.0%	—	—	—	—
Colo.	—	—	X	10.0%	—	1,200	1,600	60%
Ida.	5	2	—	—	—	—	—	—
Mont.	—	1	X	5.1%	945	920	564	2%
Nev.	—	1	X	8.0% + $100/mo.	189	3,000	3,000	25%
N.M.	4	1	X	7%-earning >15,000 10%-earning <15,000	—	—	—	—
Utah	—	—	X	11.0%	343	1,864	788	—
Wyo.	—	—	X	9.0%	—	—	—	—
Pacific								
Alaska	—	—	X	7.0%	46	10,000	15,000	100%
Cal.	—	—	X	6.0%	—	—	—	—
Hawaii	1	3	X	10.0%	600	3,878	3,380	10%
Ore.	3-5	—	X	Three 2%	300	—	—	—
Wash.	—	1	—	—	208	—	1,800	100%
Territories								
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—

Table 5-9
CUTBACK MANAGEMENT - Continued

Lab & Region	Amount Spent On Meeting Travel In FY 1981	Amount Spent On Meeting Travel In FY 1980	Some Programs or Services Terminated or Curtailed In FY 1981	Services Terminated or Curtailed in FY 1981
New England				
Conn.	—	—	X	Proficiency testing for clinical laboratories was terminated.
Mass.	2,000	2,000	X	Satellite labs in central and western Mass. for streptococcal throat culture.
Me.	<1,000	<4,000	X	Proficiency testing, routine blood testing for syphilis.
N.H.	—	—	—	—
R.I.	1,273	3,274	X	Lab. support for the Medical Examiner and Dept. of Environmental Management.
Vt.	635	620	X	Strep. screening.
Middle Atlantic				
N.J.	1,200	1,000	—	—
N.Y.	—	—	—	—
Pa.	6,000	6,000	X	Proficiency testing.
East North Central				
Ill.	3,300	9,000	—	—
Ind.	3,048	4,486	—	—
Mich.	60,939	69,442	X	Nose and throat testing, reference service for anaerobic bacteriology. testing of GC smears
Ohio	3,837	2,517	—	—
Wisc.	5,000	—	—	—
West North Central				
Ia.	12,000	—	X	Free premarital VDRL testing.
Kans.	1,177	1,570	—	—
Minn.	1,927	2,550	X	Routine parasite exams, syphilis screening tests, routine enteric bacteriology, and rubella screening tests were curtailed.
Mo.	—	—	—	—
Nebr.	4,117	4,936	—	—
N.D.	1,000	1,000	—	—
S.D.	500	1,500	X	Training consultation (CDC funded).
South Atlantic				
Del.	993	1,369	—	—
D.C.	—	—	—	—
Fla.	—	—	—	—
Ga.	3,000	650	—	—
Md.	125	105	—	—
N.C.	3,000	3,000	—	—
S.C.	15,264	—	—	—
Va.	—	—	—	—
W.Va.	3,500	2,748	X	Proficiency testing.
East South Central				
Ala.	462	976	—	—
Ky.	271	342	X	Technical consultation and proficiency testing services were discontinued to independent laboratories due to federal funds not being made available.
Miss.	1,500	1,500	—	—
Tenn.	—	—	X	Training was curtailed.
West South Central				
Ark.	2,000	1,000	X	Cut analysis in Organic Pesticide Lab. back to SDWA analysis of public water supplies. Analysis under Meat Inspection Program terminated.
La.	10,302	3,626	—	—
Okla.	5,000	—	—	—
Tex.	11,000	7,000	X	Proficiency testing.
Mountain				
Ariz.	—	—	—	—
Colo.	1,000	1,200	X	Proficiency testing, some workshop training.
Ida.	8,000	8,000	X	Routine bacteriological monitoring of swimming pools. Testing for toxoplasmosis. Discontinuance of quarterly publication of laboratory newsletter (Idaho Incubator). Anaerobic bacteriological reference culture. Bacteriological analysis of clinical specimens, such as eye and ear cultures, vaginal culture for monilia, etc. submitted by private physicians. Charges implemented which are comparable to those of hospital laboratories, so physician has option of using state or private laboratory. Amino acid screening tests on blood and urine samples for detection of genetic defects. Continuing education and training program administered by Laboratory Improvement Section.
Mont.	3,900	2,350	X	Routine testing of food samples for microbiological contamination was eliminated.
Nev.	400	400	—	—

Table 5-9
CUTBACK MANAGEMENT - Continued

Lab & Region	Amount Spent On Meeting Travel In FY 1981	Amount Spent On Meeting Travel In FY 1980	Some Programs or Services Terminated or Curtailed In FY 1981	Services Terminated or Curtailed in FY 1981
N.M.	6,763	6,763	—	—
Utah	2,684	2,470	—	—
Wyo.	479	479	—	—
Pacific				
Alaska	3,000	1,000	—	—
Cal.	—	—	—	—
Hawaii	3,878	3,380	X	Training other laboratory personnel; proficiency testing-syphilis.
Ore.	—	—	X	Prenatal rubella testing, prenatal syphilis testing.
Wash.	—	200	X	Training.
Territories				
Guam	—	—	—	—
P.R.	—	—	—	—
V.I.	—	—	—	—

Table 5-9
CUTBACK MANAGEMENT — Continued

Lab & Region	Some Services/ Programs Picked Up By Someone Else	Lab. Facilities Closed In FY 1981	Facilities Closed in FY 1981
New England			
Conn.	X (Labs required to participate in approved programs such as CAP, AABB)	—	—
Mass.	X	X	Satellite labs in central and western Mass. for streptococcal throat cultures.
Me.	X	—	—
N.H.	—	—	—
R.I.	—	—	—
Vt.	X (Physicians offices, hospitals)	—	—
Middle Atlantic			
N.J.	—	—	—
N.Y.	—	—	—
Pa.	X	—	—
East North Central			
Ill.	—	—	—
Ind.	—	—	—
Mich.	X (Private labs)	—	—
Ohio	—	—	—
Wisc.	—	—	—
West North Central			
Ia.	X (Private labs)	—	—
Kans.	—	—	—
Minn.	X	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	X	Branch lab at Grand Forks, N.D. closed 6/30/81.
S.D.	—	—	—
South Atlantic			
Del.	—	—	—
D.C.	—	—	—
Fla.	—	—	—
Ga.	—	—	—
Md.	—	—	—
N.C.	—	—	—
S.C.	—	—	—
Va.	—	—	—
W.Va.	—	—	—
East South Central			
Ala.	—	—	—
Ky.	—	—	—
Miss.	—	—	—
Tenn.	X	X	Memphis Branch Lab.-consolidated in different facility with Memphis-Shelby County H.D. Lab; Chattanooga Branch Lab.-closed completely and services transferred to Knoxville and Nashville Labs; Johnson City Branch Lab.-phased down to smaller operation and new facility with 1400 sq. ft. of laboratory space.
West South Central			
Ark.	X (Meat Inspection program picked up)	—	—
La.	—	—	—
Okla.	—	—	—
Tex.	X (Commercial)	—	—
Mountain			
Ariz.	—	—	—
Colo.	—	—	—
Ida.	X (Partially)	X	Twin Falls Branch lab.
Mont.	—	—	—
Nev.	—	—	—
N.M.	—	—	—
Utah	—	—	—
Wyo.	—	—	—
Pacific			
Alaska	—	—	—
Cal.	—	—	—
Hawaii	X	—	—
Ore.	X (Partially by private labs.)	—	—
Wash.	—	—	—
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-9
CUTBACK MANAGEMENT — Continued

Lab & Region	Volunteers Utilized By Lab.	Capacity in Which Volunteers Utilized	Fee-For-Service System Implemented In FY 1981
New England			
Conn.	X	(Student interns at undergraduate level)	—
Mass.	—	—	—
Me.	—	—	—
N.H.	—	—	—
R.I.	X	Assist personnel in performing routine analyses.	—
Vt.	X	Non-hazardous areas such as container preparation, as helper.	—
Middle Atlantic			
N.J.	—	H.S. or college interns often work in labs on gratis basis for training purposes as lab technicians/trainees.	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central			
Ill.	—	—	—
Ind.	—	—	—
Mich.	—	(CETA employees serve as storekeepers, glassware washers, lab assistants)	—
Ohio	—	—	X
Wisc.	—	—	—
West North Central			
Ia.	—	—	—
Kans.	—	—	—
Minn.	—	—	—
Mo.	—	—	—
Nebr.	—	—	—
N.D.	—	—	—
S.D.	—	—	—
South Atlantic			
Del.	—	—	—
D.C.	—	—	—
Fla.	—	—	X
Ga.	—	—	X
Md.	X	Clerical and routine-type duties	—
N.C.	—	—	—
S.C.	—	—	—
Va.	—	—	—
W.Va.	—	—	—
East South Central			
Ala.	—	—	—
Ky.	—	—	—
Miss.	—	—	—
Tenn.	—	—	—
West South Central			
Ark.	—	—	—
La.	X	Custodial worker	—
Okla.	—	—	—
Tex.	—	—	—
Mountain			
Ariz.	—	—	—
Colo.	X	Clerical (1)	—
Ida.	—	—	—
Mont.	—	—	—
Nev.	—	—	—
N.M.	—	—	—
Utah	—	—	X
Wyo.	—	—	—
Pacific			
Alaska	—	—	—
Cal.	—	—	—
Hawaii	X	Bench level	—
Ore.	—	—	X
Wash.	—	—	—
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-10
STATUS OF TESTING FOR IDENTIFICATION OF CHLAMYDIAL INFECTIONS

Lab & Region	No. Of Specimens Cultured In FY 1981	No. Of Specimens With Positive Results	Specimens Recommended By Lab For Chlamydia Testing
New England			
Conn.	—	—	Urethral, cervical, eye-swab; respiratory tract - swab, aspirate, biopsy.
Mass.	1,709	161	Conjunctiva, nasopharynx, lung biopsy, epididymal aspirate, urethral, cervical, tubal.
Me.	—	—	—
N.H.	—	—	—
R.I.	—	—	—
Vt.	—	—	Isolations not done - serological services available.
Middle Atlantic			
N.J.	—	—	—
N.Y.	—	—	—
Pa.	—	—	—
East North Central			
Ill.	—	—	Paired serum specimens.
Ind.	—	—	Paired (acute and convalescent) sera.
Mich.	228	14	Urethral specimens from NGU patients in selected clinics, all specimens from suspect cases of infant pneumonia, paired sera from suspect psittacosis cases, respiratory and urethral specimens from research studies.
Ohio	50	2	Male - Urethra: endourethral swab. Epididymis: aspirate. Female - Cervix: endocervical swab. Urethra: swab. Fallopian tubes; lumen swab or biopsy tissue.
Wisc.	1,690	123	Females-cervical or endocervical specimens. Males-urethral swabs.
West North Central			
Ia.	30	1	Urethral and cervical swabs, conjunctival swabs, throat washings, autopsy material.
Kans.	—	—	—
Minn.	—	—	—
Mo.	—	1	Acute and convalescent sera - do complement fixation only.
Nebr.	—	—	—
N.D.	—	—	Acute and convalescent sera.
S.D.	—	—	—
South Atlantic			
Del.	114	5	NGU: male - urethral swab; female - urethral swab and endocervical swab. PID: endocervical swab. LGV: urethral swab and aspirate from fluctuant lymph node or biopsy tissue from lymph node. Inclusion conjunctivitis: conjunctival swab - not exudate from eye. Pneumonia of the newborn (PNB): nasopharyngeal swab.
D.C.	—	—	—
Fla.	—	—	—
Ga.	42	2	Eye swabs, urethral swabs, cervical swabs, respiratory, tissues.
Md.	1,835	376	From VD clinic patients, respiratory disease in infants, OB-GYN patients with cervicitis/salpingitis, conjunctivitis.
N.C.	253	27	Urethral, cervical, eye, nasopharyngeal.
S.C.	1,663	195	Genital, eye, respiratory.
Va.	—	—	Isolations not done - only do serology for psittacosis/LGV.
W.Va.	—	1	Sputum, pleural fluid, conjunctival scrapings and swabs, lymph nodes, nasopharyngeal. (Sent to CDC).
East South Central			
Ala.	—	15	CF for LGV - single serum. CF for psittacosis - acute and convalescent phase sera. No isolations performed.
Ky.	—	—	Acute and convalescent sera for complement fixation. No isolation done.
Miss.	—	—	—
Tenn.	85	17	Urethral specimens from males with nongonococcal urethritis.
West South Central			
Ark.	—	—	Acute and convalescent sera.
La.	—	—	Paired sera.
Okla.	—	—	—
Tex.	221	12	Urethral/cervical.

Table 5-10
STATUS OF TESTING FOR IDENTIFICATION OF CHLAMYDIAL INFECTIONS — Continued

Lab & Region	No. Of Specimens Cultured In FY 1981	No. Of Specimens With Positive Results	Specimens Recommended By Lab For Chlamydia Testing
Mountain			
Ariz.	—	—	—
Colo.	—	—	—
Ida.	—	—	Paired sera for CF.
Mont.	—	—	—
Nev.	—	—	—
N.M.	72	13	Eye swabs, urethral swabs, cervical swabs'.
Utah	—	—	—
Wyo.	—	—	—
Pacific			
Alaska	—	—	—
Cal.	7	—	Eye swab, genital swabs, infant pneumonia, rectal swabs, vaginal swab, lung aspirate.
Hawaii	120	3	Swab, scrapings, and tissue.
Ore.	—	—	Urethral - Calgiswabs. Cervix, rectum, conjunctival - cotton-tipped, plastic shaft swabs. Sputum, peritoneal fluid, lymph node aspirate — cotton-tipped, plastic shaft swabs.
Wash.	—	—	—
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-10
STATUS OF TESTING FOR IDENTIFICATION OF CHLAMYDIAL INFECTIONS — Continued

Lab & Region	Procedures Recommended By Lab For Transporting Specimens For Chlamydia Isolation			
	Special Transport Medium	Frozen During Shipment	Refrigerated During Shipment	Mailed Without Refrigeration
New England				
Conn.	0.2 m sucrose in 0.02 m phosphate buffer	—	X	—
Mass.	Phosphate-glutamate-0.2 m sucrose, pH = 7.0	X-if previously frozen	X-if previously refrigerated	—
Me.	—	—	—	—
N.H.	—	—	—	—
R.I.	—	—	—	—
Vt.	—	—	—	—
Middle Atlantic				
N.J.	—	—	—	—
N.Y.	—	—	—	—
Pa.	—	—	—	—
East North Central				
Ill.	—	—	—	—
Ind.	—	—	—	—
Mich.	2 sucrose phosphate (SP)	—	X- if possible	X
Ohio	2 SP	X- longer than 24 hours	X- hand carried, within 24 hrs.	—
Wisc.	.2 m SP	—	X	—
West North Central				
Ia.	2 SP	X	—	—
Kans.	—	—	—	—
Minn.	—	—	—	—
Mo.	—	—	—	—
Nebr.	—	—	—	—
N.D.	—	—	—	—
S.D.	—	—	—	—
South Atlantic				
Del.	Lebowitz - L15	—	X	—
D.C.	—	—	—	—
Fla.	—	—	—	—
Ga.	Tryptose phosphate broth with 0.5% gelatin	—	—	—
Md.	2 SP broth	X - longer than 24 hours	X - same day	—
N.C.	2 SP (sucrose monobasic and dibasic sodium phosphate)	—	X	—
S.C.	2 SP	—	X	—
Va.	—	—	—	—
W.Va.	Trypticase soy broth	X	—	—
East South Central				
Ala.	—	X (to CDC)	—	—
Ky.	—	—	—	—
Miss.	—	—	—	—
Tenn.	2 SP with fetal calf serum	—	X	—
West South Central				
Ark.	—	—	—	—
La.	—	—	—	—
Okla.	—	—	—	—
Tex.	2 SP	X	—	—

Table 5-10
STATUS OF TESTING FOR IDENTIFICATION OF CHLAMYDIAL INFECTIONS — Continued

Lab & Region	Procedures Recommended By Lab For Transporting Specimens For Chlamydia Isolation			
	Special Transport Medium	Frozen During Shipment	Refrigerated During Shipment	Mailed Without Refrigeration
Mountain				
Ariz.	—	—	—	—
Colo.	—	—	—	—
Ida.	—	—	—	—
Mont.	—	—	—	—
Nev.	—	—	—	—
N.M.	2 SP (with additives)	X-longer than 24 hours	—	—
Utah	—	—	—	—
Wyo.	—	—	—	—
Pacific				
Alaska	—	—	—	—
Cal.	Eagles in Earles, 10% FBS	X-longer than 24 hours	X-less than 24 hours	—
Hawaii	199 with 5% fetal Calf serum and streptomycin	X	X	—
Ore.	"Chlamydia transport medium"	X	—	—
Wash.	—	—	—	—
Territories				
Guam	—	—	—	—
P.R.	—	—	—	—
V.I.	—	—	—	—

Table 5-11
STATUS OF CAMPYLOBACTER JEJUNI ISOLATION FROM FECES

Lab & Region	No. Of Fecal Specimens Cultured For C.jejuni In FY 1981	No. Of Specimens With Positive Results	Percentage of Fecal Specimens Positive For Campylobacter Versus Percentage Positive For Salmonella And Shigella		All Fecal Specimens Cultured For C.jejuni	If All Not Cultured, Criteria For Selecting Fecal Specimens For Testing For C.jejuni
			% Campylobacter	% Salmonella/ Shigella		
New England						
Conn.	514	51	9.9	5.9	—	Only specimens submitted in the investigation of outbreaks or by prior arrangement.
Mass.	498	209	42.0	36.6	—	Only fresh (4-6 hours) specimens or those submitted in Cary-Blair are examined. Laboratory's outfit contains two transport media; one, Cary-Blair (0.16% agar), the other, buffered glycerol saline.
Me.	23	6	0.06	30.0	—	Clinical fundings; negatives for Salmonella, Shigella, Staphylococcus, & Yersinia.
N.H.	—	—	—	—	—	—
R.I.	55	3	1.0	9.0	—	Only diarrhetic specimens or on special request.
Vt.	49	1	2.0	89.0	—	On request
Middle Atlantic						
N.J.	25	—	—	—	—	Outbreaks
N.Y.	—	—	—	—	—	—
Pa.	—	30	—	—	—	Reference isolates; outbreaks where epidemiologic data suggest *C. jejuni*.
East North Central						
Ill.	143	17	11.9	10.1	X	—
Ind.	4	2	—	—	—	Procedures recently implemented. Available by special arrangement or for investigative purposes.
Mich.	4,980	26	0.52	15.3	X	—
Ohio	88	3	3.4	16.2	X	—
Wisc.	2,938	181	6.2	15.4	X	—
West North Central						
Ia.	90	11	1.2	8.6	X	—
Kans.	42	5	0.12	22.16	—	Upon request
Minn.	593	59	10.0	7.3	—	Request from doctor. Bloody stool.
Mo.	20	16	—	—	—	Request - only perform on reference basis.
Nebr.	—	—	—	—	—	—
N.D.	700	7	1.0	7.7	—	Done on any stool from patient 5 or younger when submitted in Amies Transport. Special request on older patients or identification of isolate.
S.D.	60	1	1.2	1.0	—	On request.
South Atlantic						
Del.	—	—	—	9.0	—	—
D.C.	15	3	20.0	18.0	—	Physicians request.
Fla.	31	11	35.0	10.0	—	Physicians request.
Ga.	19	2	10.0	9.0	—	By request only. Specimen must be fresh, kept on ice after collection, or submitted in Cary-Blair transport medium, preferably also kept on ice.
Md.	200	7	3.5	10.2	—	On physician/epidemiologist request.
N.C.	125	42	37.0	40.0	—	Requested by submitter. Blood in stool and/or frankly diarrheal.
S.C.	10	39	0.0	13.0	—	Those submitted in proper transport medium.
Va.	181	10	5.52	10.93	—	By request from physician or hospital, especially when outbreak suspected.
W.Va.	—	—	—	14.0	—	Requests from senders.
East South Central						
Ala.	—	—	—	—	—	No primary culture - only pure cultures for identification are accepted.
Ky.	—	—	—	22.0	—	—
Miss.	—	—	—	—	—	—
Tenn.	—	—	—	—	—	No primary culture - isolates referred for identification and/or confirmation.

Table 5-11
STATUS OF CAMPYLOBACTER JEJUNI ISOLATION FROM FECES — Continued

Lab & Region	No. Of Fecal Specimens Cultured For C.jejuni In FY 1981	No. Of Specimens With Positive Results	Percentage of Fecal Specimens Positive For Campylobacter Versus Percentage Positive For Salmonella And Shigella		All Fecal Specimens Cultured For C.jejuni	If All Not Cultured, Criteria For Selecting Fecal Specimens For Testing For C.jejuni
			% Campylobacter	% Salmonella/ Shigella		
West South Central						
Ark.	—	—	—	—	—	—
La.	—	—	—	—	—	—
Okla.	24	10	1.0	5.0	—	By request only.
Tex.	—	—	—	—	—	Specific request.
Mountain						
Ariz.	383	72	18.8	3.0	—	By specific request for confirmation or if source is totally unknown.
Colo.	103	13	12.0	55.0	—	Seasonal selection, except on request of Epidemiology section.
Ida.	55	8	14.5	9.4	—	Specimens from outbreaks, or upon request.
Mont.	100	20	50.0	50.0	—	Clinical signs or on request.
Nev.	254	4	1.5	1.0	X	—
N.M.	1,329	35	2.6	5.0	X	—
Utah	12	2	17.0	11.0	X	—
Wyo.	—	—	—	—	—	—
Pacific						
Alaska	64	20	30.0	3.0	X	Upon request of physician.
Cal.	237	17	7.2	7.0	X	—
Hawaii	341	63	18.5	6.2	—	Gram stain reveals significant leucocytosis with small amount gram negative rods. Also, phage-contrast microscopy.
Ore.	476	129	27.1	15.7	—	Epidemiological and clinical history suggestive of *C. jejuni*.
Wash.	250	12	5.0	11.6	—	On request only.
Territories						
Guam	—	—	—	—	—	—
P.R.	—	—	—	—	—	—
V.I.	—	—	—	—	—	—

Table 5-11
STATUS OF *CAMPYLOBACTER JEJUNI* ISOLATION FROM FECES — Continued

Lab & Region	Campy-Thio Enrichment Routinely Used	No. And Type Of Primary Plating Media Used	Procedure Used To Achieve Desired Oxygen Concentration
New England			
Conn.	—	1 - Blaser's modification of Campy plates	BBL Campy Paks or Gas Paks without catalyst
Mass.	X	1- Campy blood agar plate (BAP), oxoid BA2 with Blaser supplement	Partial evacuation of a gas - evacuation jar to − 8 ——> 10 lbs. followed by replacement with mixture of 10% CO_2/90% N_2.
Me.	—	3 - Campy blood agar, 5% sheep blood agar, chocolate agar	CO_2 gas packs
N.H.	—	—	—
R.I.	—	2- Campy media plates, (Scott Labs)	BBL Campy Paks
Vt.	—	1 - Skirrow's	BBL Campy Paks
Middle Atlantic			
N.J.	—	Campy blood agar	Campy Gas Paks
N.Y.	—	—	—
Pa.	—	1- BAP with Vancomycin, polymyxin B, trimethoprim, and horse blood	Campy-Pak II or Oxoid Gas Generating, kit for campylobacter.
East North Central			
Ill.	X	2- Campylobacter BAP	GasPak envelope without catalyst in anaerobe jar or candle jar
Ind.	X	1- Brucella agar + 6% sheep blood + 5 antibiotics; 1- same except 3 antibiotics.	Polyethylene bag inflated with gas mixture of 5% 0_2, 10% CO_2, 85% N_2; gas expelled once; reinflated with same mixture, rubber band closure.
Mich.	X	1- Campy BAP, 1- Campy-thio broth	Anaerobic gas mixture 80 N, 10 H_2, 10 CO_2 in heavy propylene bag.
Ohio	—	Campy BAP	2/3 evacuation and replacement with 90 N_2, 10 CO_2 gas mixture.
Wisc.	—	1 Skirrow's agar plate	Evacuation-replacement jar
West North Central			
Ia.	—	Campylobacter agar - Brucella agar base, sodium metabisulfite, sodium pyruvate, $FeSO_4 \cdot 7H_2O$, distilled water, sheep blood, antibiotic mixture (vancomycin, trimethoprim, polymyxin B, cephalothin)	90% N_2, 10% CO_2, in anaerobic jars.
Kans.	—	Brucella blood agar with TVP	Anaerobic jar without catalyst and evacuate twice - replace with N-CO_2 - hydrogen and incubate at 42°C.
Minn.	—	Skirrow's agar	Anaerobic jar with BBL Campy Pak.
Mo.	—	Campy-plates for raw specimens. Anaerobe blood plates for reference	Anaerobic jar without catalyst
Nebr.	—	—	—
N.D.	X	VPT blood agar base	Anaerobic jar (catalyst removed)
S.D.	—	2 plates - Skirrow's agar	1 to CO_2 jar, 1 Campy Pak
South Atlantic			
Del.	—	—	—
D.C.	—	Campy-Pak	—
Fla.	—	Remel Campy-BAP, Blaser, Skirrow	BBL Campy Paks; oxide Campy Pak
Ga.	X	2 plates of Campy Bac medium	Anaerobe jar without catalyst in top, evacuated and gased one time using 80% N, 10% CO_2, and 10% H.
Md.	—	Skirrow's medium	CO_2 Gas-Pak
N.C.	X	2- Anaerobic BAP and Butzler's modification	Campy Pak
S.C.	X	Campy plates at 35° and 42°C	Sealed bag with *E.coli* culture
Va.	—	One BBL Campy-BAP plate	BBL Campy Pak
W.Va.	X	2- Campy-BAP and MacConkey	Campy Gas Pak
East South Central			
Ala.	—	Campy-BAP	BBL Campy Pak II in anaerobe jar with catalyst removed
Ky.	—	—	—
Miss.	—	—	—
Tenn.	—	—	—
West South Central			
Ark.	—	—	—
La.	—	—	—
Okla.	—	Campy blood plates, Butzler's plates, blood agar plates	Disposable gas paks in jar without catalyst
Tex.	—	(3) SBAA, BAP, Cozymase	Special O_2: CO_2:N_2 (5%, 10%, 85%)

Table 5-11
STATUS OF *CAMPYLOBACTER JEJUNI* ISOLATION FROM FECES — Continued

Lab & Region	Campy-Thio Enrichment Routinely Used	No. And Type Of Primary Plating Media Used	Procedure Used To Achieve Desired Oxygen Concentration
Mountain			
Ariz.	—	Campy-BAP	BBL Campy Pak II
Colo.	—	—	Candle jar
Ida.	—	Campy blood agar	BBL Campy Pak
Mont.	—	Skirrow campylobacter supplement	Gas replacement
Nev.	—	Campy agar	BBL Campy Pak
N.M.	—	Skirrow's medium	Evacuation of gas to 23 inches mercury; refill with anaerobic gas mixture.
Utah	—	Campylobacter agar - 2 plates	BBL micraerophyllic bag
Wyo.	—	—	—
Pacific			
Alaska	—	Campy blood agar	GasPak
Cal.	—	One Mueller - Hinton agar base with 7% lysed horse blood, 10 mg/liter vancomycin, 5000 IU/liter polymyxin B and 5 ms/liter trimethoprim.	Evacuating anaerobe jar twice to 15 inches mercury and replacing with 10% CO_2, 10% H_2, and 80% N_2
Hawaii	X	Campy - BAP	EMB, MacConkey, XLD.
Ore.	—	Campylobacter media to Brucella broth base for biochemicals	2X evacuation of Brewer jar - fill with 10% CO_2, 90% N_2
Wash.	—	1 - Skirrow's medium	Anaerobe jar evacuated twice, to 15 inches mercury
Territories			
Guam	—	—	—
P.R.	—	—	—
V.I.	—	—	—

Table 5-11
STATUS OF CAMPYLOBACTER JEJUNI ISOLATION FROM FECES — Continued

Lab & Region	Other Specimens From Which *C.JEJUNI* Isolated With Number And Percent Of Isolates
New England	
Conn.	Pure culture isolates submitted for confirmation.
Mass.	Blood (subculture)-1; Uterine (subculture) -1
Me.	—
N.H.	—
R.I.	—
Vt.	—
Middle Atlantic	
N.J.	—
N.Y.	—
Pa.	—
East North Central	
Ill.	—
Ind.	—
Mich.	—
Ohio	Referral or confirmation work.
Wisc.	—
West North Central	
Ia.	—
Kans.	—
Minn.	—
Mo.	—
Nebr.	—
N.D.	—
S.D.	—
South Atlantic	
Del.	—
D.C.	—
Fla.	—
Ga.	—
Md.	Referred cultures (16, all positive)
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.	Fresh (non-frozen) chicken parts - 10 isolates (20%). Est. No./gram ranged from 100 to 8500.
Hawaii	—
Ore.	—
Wash.	Reference cultures (6.6%)
Territories	
Guam	—
P.R.	—
V.I.	—

Table 5-12
EQUIPMENT REPLACEMENT

Lab & Region	Lab Has Legal Authority To Establish Fund For Equipment Replacement	Fund Can Be Carried Over From Year to Year	Value (Initial Cost) Of All Lab Equipment
New England			
Conn.	—	—	1,712,746
Mass.	—	—	—
Me.	X	X	>500,000
N.H.	—	—	—
R.I.	—	—	1,700,000
Vt.	—	—	—
Middle Atlantic			
N.J.	—	—	2,000,000
N.Y.	—	—	—
Pa.	—	—	4,500,000
East North Central			
Ill.	—	—	1,329,768
Ind.	—	—	—
Mich.	—	—	2,946,984
Ohio	—	—	—
Wisc.	X	X	2,569,662
West North Central			
Ia.	X	—	2,440,559
Kans.	—	—	1,000,000
Minn.	—	—	500,000
Mo.	—	—	2,500,000
Nebr.	—	—	—
N.D.	—	—	>750,000
S.D.	X	X	287,976
South Atlantic			
Del.	—	—	200,000
D.C.	—	—	800,000
Fla.	—	—	>1,000,000
Ga.	—	—	1,110,385
Md.	—	—	2,226,191
N.C.	—	—	1,000,000
S.C.	—	—	1,968,502
Va.	—	—	4,800,000
W.Va.	X	—	350,000
East South Central			
Ala.	—	—	1,187,878
Ky.	—	—	728,832
Miss.	X	X	89,903
Tenn.	—	—	700,000
West South Central			
Ark.	—	—	1,215,797
La.	—	—	1,297,100
Okla.	—	—	—
Tex.	—	—	2,200,000
Mountain			
Ariz.	—	—	—
Colo.	—	—	4,000,000
Ida.	—	—	1,250,000
Mont.	—	—	362,000
Nev.	—	—	480,000
N.M.	—	—	1,000,000
Utah	—	—	—
Wyo.	—	—	—
Pacific			
Alaska	—	—	750,000
Cal.	—	—	—
Hawaii	—	—	2,700,000
Ore.	—	—	325,579
Wash.	—	—	300,000
Territories			
Guam	—	—	134,995
P.R.	—	—	—
V.I.	—	—	—

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