TELEPHONES: 1922

CHAPTER I.—INTRODUCTION.

General description.—The census of telephones has been taken quinquennially since 1902, and statistics of telephones were compiled and published in connection with the decennial censuses of 1880 and 1890. This report presents the statistics for 1922, with comparative figures for earlier years. Preliminary summary statistics, subject to correction, were published in the form of a press announcement under date of December 26, 1923.

Each census has covered the public telephone systems or lines operated within the United States, exclusive of outlying possessions, during all or any part of the census year. Reports have not been required from certain private lines—for example, those used exclusively by railroads for dispatching and operating trains [1] and those connecting different branches or departments of manufacturing or mercantile establishments, hotels, mines, lumber camps, etc.; nor were telephone lines operated by the Federal, State, or municipal governments covered by the canvass for 1922.

Period covered.—The statistics for income, expenses, and traffic relate to calendar years or to the business years most nearly conforming thereto. The statistics in regard to equipment and the balance sheet relate to December 31 or the last day of the business year covered by the report of each company. The number of telephones was reported for both December 31, 1922, and December 31, 1921, by companies having incomes of $10,000 or more, so that an average for the year 1922 could be obtained for use in calculating "per telephone" figures for traffic, revenue, expenses, etc. The companies with incomes below $10,000, however, reported the number of telephones for December 31, 1922, only. The number of employees was reported for 1922 as of June 30; for 1917, as of September 29; for 1912, as of September 16; and for 1907 and 1902, as an average for the year.

Unit of enumeration ("system" or "line").—So far as practicable, a report was secured for each system or line operated under separate ownership. The terms "system" and "line" are sometimes used as synonymous, but in general the former is employed with reference to the aggregations of lines operated by the larger companies, whereas the latter is more commonly used to denote the small farmer or rural lines. A farmer or rural line may be merely an individual line connected with an exchange under different ownership, or may be a party line without an exchange or connected with an exchange owned jointly with other lines or under independent ownership. In the tables which present statistics for only those companies reporting annual incomes of $10,000 or more for 1922 or of $5,000 or more for earlier years, the term "system" is used; but where figures are given for both the large and the small companies, the operating units are referred to as "systems and lines."

Collection of the data.—In gathering the data for the telephone census two schedules have been employed, namely, a short form requiring only a brief report, used for the smaller systems and lines, and a longer form calling for more detailed information, used for the larger systems. From the short form the only substantially accurate information secured prior to 1917 was that in regard to mileage of wire and number of telephones in use. At the censuses for 1917

[1] Statistics in regard to train dispatching by telephone are given in the report on telegraphs.

and 1922, however, this form was lengthened so as to call for data on number of systems operating switchboards, number of calls originating with the system reporting, number of employees, salaries and wages, gross receipts, total assessments levied by mutual companies, and amount of investment. The longer form required, in addition to these items, detailed information in regard to equipment, traffic, and revenues and expenses, together with the balance sheet for the system as of December 31 or the end of its fiscal year.

The long-form schedules were compiled from the reports made to the Interstate Commerce Commission for practically all the telephone companies having incomes of $10,000 or more in 1922, except that the data in regard to employees and salaries and wages were obtained by correspondence, as those reported to the commission in respect to these items did not meet the census requirements.

The returns for the systems and lines for which reports on the short-form schedule were required, and for a very few of the systems for which the longer form was used, were obtained in part by correspondence and in part through a canvass by special agents of the Bureau of the Census.

Change in classification according to income.—At the census for 1922 the collection of detailed data on the long-form schedule was limited to those telephone systems having incomes of $10,000 or more, whereas at former censuses such data were obtained from all systems having incomes of $5,000 or more. This change was made in order to bring the census practice into conformity with that of the Interstate Commerce Commission, which, for 1922, required reports from only those telephone systems having annual incomes of $10,000 or more. The resultant effect on the comparability of the statistics for 1922 with those for earlier years is inconsiderable, since the equipment, traffic, number of employees, etc., of the companies with incomes between $5,000 and $10,000 constitute but small proportions of the corresponding totals for all systems having incomes of $5,000 or more. (See Table 4, p. 10.)

Geographic divisions and States (Tables 6, 7, 15–17, and 24–28).—Each system having an income of $10,000 or more in 1922 was requested to report separately the wire mileage, number of telephones, number of central offices, number of private-branch exchanges, and number of calls originating on its lines for each State in which it operated. In compiling the statistics for all companies for 1922 and for the Bell companies for preceding years, an exact presentation of these items by States has been made. For 1917 and earlier years, however, the statistics show, for the non-Bell companies with incomes of $5,000 or more, for each State, the total equipment and traffic reported by the companies operating wholly or mainly within the State. The differences between the actual equipment and traffic located or originating in a particular State and the equipment and traffic reported by the companies operating wholly or principally within that State were, however, very small, since the non-Bell companies did very little interstate business.

TABLE 1.—SUMMARY—ALL SYSTEMS AND LINES: 1922

	All systems and lines	Bell System	ALL OTHER SYSTEMS AND LINES	
			Reporting annual incomes of $10,000 or more	Reporting annual incomes of less than $10,000
Number of systems and lines	57,253	26	1,297	55,930
Miles of wire	[1] 37,205,958	[1] 30,613,687	4,889,296	1,762,975
Number of telephones	14,347,395	9,514,813	2,780,421	2,052,161
Number of central offices	19,260	5,796	4,870	[2] 8,594
Number of calls originating with systems reporting [3]	24,647,560,860	16,566,555,900	5,334,831,170	2,746,173,790
Number of employees	312,015	242,710	47,623	21,682
Male	104,433	81,942	15,142	7,349
Female	207,582	160,768	32,481	14,333
Salaries and wages	$352,925,570	$299,350,041	$42,187,781	$11,387,748
Revenue, operating and nonoperating [4]	$684,923,557	$565,069,625	$91,754,283	$28,099,649
Investment in plant and equipment	$2,205,183,150	$1,783,079,046	$346,694,714	$75,409,390
Per cent of total:				
Number of systems or lines	100.0	(5)	2.3	97.7
Miles of wire	100.0	82.1	13.1	4.7
Number of telephones	100.0	66.3	19.4	14.3
Number of central offices	100.0	30.1	25.3	44.6
Number of originating calls	100.0	67.2	21.6	11.1
Number of employees	100.0	77.8	15.3	6.9
Salaries and wages	100.0	84.8	12.0	3.2
Revenue, operating and nonoperating	100.0	82.5	13.4	4.1
Investment in plant and equipment	100.0	80.9	15.7	3.4

[1] Exclusive of 2,835 miles in Canada.
[2] Number of systems reporting central offices, actual number of central offices not reported.
[3] See "Number of 'originating calls,'" p. 22.
[4] Including assessments of mutual companies.
[5] Less than one-tenth of 1 per cent.

CHAPTER II.—DEVELOPMENT OF THE INDUSTRY

This chapter presents, for the United States as a whole and for geographic divisions and States, comparative statistics for 1922 and earlier census years.

Growth during twenty years (Table 2).—As already explained (see "Collection of the data," p. 5), the only substantially accurate information secured prior to 1917 for the small systems and lines—those with incomes of less than $5,000—was that in regard to mileage of wire and number of telephones in use. The following statement shows, for the several census years from 1902 to 1922, inclusive, the total wire mileage and the total number of telephones reported by all systems and lines, including those with incomes below $5,000:

CENSUS YEAR	Number of systems and lines	Miles of wire	NUMBER OF TELEPHONES	
			Total	Per 1,000 population
1922	57,253	37,265,958	14,347,395	130
1917	53,234	28,827,188	11,716,520	112
1912	32,233	20,248,326	8,729,592	92
1907	22,971	12,999,364	6,118,578	70
1902	9,136	4,900,451	2,371,044	30

More detailed statistics for all systems and lines, including those with incomes below $5,000, can be given, however, for the last two census years, as follows:

	1922	1917	Per cent of increase or decrease (—) 1917–1922
Number of systems and lines	57,253	53,234	7.5
Miles of wire	[1] 37,265,958	[1] 28,827,188	29.3
Number of telephones	14,347,395	11,716,520	22.5
Number of central offices	[2] 19,260	[2] 21,175	—9.0
Number of calls originating with systems reporting [3]	24,647,560,860	21,845,722,335	12.8
Number of employees	312,015	262,629	18.8
Male	104,433	91,510	14.1
Female	207,582	171,119	21.3
Salaries and wages	$352,925,570	$175,670,449	100.9
Revenue, operating and nonoperating [4]	$684,923,557	$389,499,631	75.8
Investment in plant and equipment	$2,205,183,150	$1,492,329,015	47.8

[1] Exclusive of 2,835 miles in Canada.
[2] Includes 8,594 central offices for systems and lines reporting incomes of less than $10,000 in 1922, and 8,881 for systems and lines reporting incomes of less than $5,000 in 1917. These figures represent the numbers of systems and lines reporting central offices. The actual numbers of central offices were probably slightly larger. (See "Equipment reported," p. 21.)
[3] See "'Number of 'originating calls,'" p. 22.
[4] Including assessments of mutual companies.

It will be seen from Table 2 and Table 19 (pp. 9 and 29) that during the 20-year period from 1902 to 1922 the number of "originating calls" reported by the larger systems—those with incomes of $5,000 or more in 1902 and those with incomes of $10,000 or more in 1922—increased from somewhat more than 5,000,000,000, or 64 per capita, in 1902 to nearly 22,000,000,000, or 200 per capita, in 1922.

Effect of change in classification according to income.—In order to bring out the effect of the change from $5,000 to $10,000 in the minimum income for companies from which detailed data were collected (see "Change in classification according to income," p. 6), Tables 3 and 4 have been prepared. As will be seen from a comparison of Tables 2 and 3, there are, with a few exceptions in the cases of comparatively unimportant items, no very great differences between the two sets of percentages covering the five-year period 1917–1922.

From Table 4 it appears that the systems with incomes from $5,000 to $10,000 contributed only small proportions of the total traffic, equipment, employees, revenues, expenses, etc., reported by all companies having incomes of $5,000 or more in 1917. For the group of non-Bell companies considered separately, the corresponding proportions were, of course, larger.

Comparability of statistics for 1880, 1890, and 1902 with those for later years (Tables 2 and 10).—The statistics for 1902 exclude data for the "farmer or rural" lines but include figures for all commercial or mutual systems which operated switchboards, regardless of the amounts of their annual income. In the original compilation of the statistics for 1907 the same practice was followed. At the census for 1912, however, detailed statistics were not secured from companies reporting incomes of less than $5,000; and, in order to secure exact comparability between the statistics for 1912 and those for 1907, the figures for 1907 were revised so as to exclude data for all systems reporting incomes of less than $5,000. It was impossible, however, to make a similar revision of the statistics for 1902, the original returns for that year having been destroyed. The returns, for 1890 and 1880 were incomplete. Thus the statistics for the years prior to 1907 are not strictly comparable with those for 1907 and subsequent years and accordingly percentages of increase have been calculated for the last three quinquennial periods only.

TABLE 2.—SUMMARY—SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1880–1917 [1]

[For total number of systems and lines, total wire mileage, and total number of telephones, 1902–1922, see Table 21, p. 31]

	1922	1917	1912	1907
Number of systems	1,323	2,200	1,916	1,636
Miles of wire	35,502,983	27,298,026	19,019,391	11,921,960
Number of telephones	12,295,234	9,953,710	7,326,748	4,906,693
Number of central offices	10,666	12,294	11,515	10,613
Number of calls originating with systems reporting [2]	21,901,387,070	19,809,061,085	13,735,658,245	10,400,433,958
Number of employees	290,333	244,490	183,361	131,670
Salaries and wages	$341,537,822	$169,655,066	$96,040,541	$65,009,349
Revenue, operating and nonoperating	656,823,908	372,501,800	[3] 253,893,969	[3] 175,750,446
Expenses, including taxes and fixed charges	560,159,965	313,103,060	[3] 202,567,644	[3] 134,525,215
Capitalization of incorporated companies [4]	1,738,326,105	1,169,073,870	970,690,992	739,876,688

	1902 [5]	1890 [6]	1880 [6]	PER CENT OF INCREASE OR DECREASE (−)		
				1917–1922	1912–1917	1907–1912
Number of systems	4,151	53	148	−39.9	14.8	17.1
Miles of wire	4,850,486	240,412	34,305	30.1	43.5	59.5
Number of telephones	2,315,297	233,678	54,319	23.5	35.6	49.3
Number of central offices	10,361	1,241	437	−13.2	6.8	8.5
Number of calls originating with systems reporting [2]	5,070,554,553	453,200,000	(7)	10.6	44.2	32.1
Number of employees	78,752	8,645	3,338	18.8	33.3	39.3
Salaries and wages	$36,255,621	(7)	(7)	101.3	76.6	40.7
Revenue, operating and nonoperating	86,825,536	$16,404,583	[8] $3,098,081	76.3	46.7	44.5
Expenses, including taxes and fixed charges	65,164,771	11,143,871	2,373,703	78.9	54.6	50.6
Capitalization of incorporated companies [4]	348,031,058	72,341,736	[9] 14,605,787	48.7	20.4	31.2

[1] See "Change in classification according to income," p. 6, and Tables 3 and 4.
[2] See "Number of 'originating calls,'" p. 22.
[3] Exclusive of "payments for telephone traffic made to other companies" to the amount of $1,187,265 in 1912 and $949,962 in 1907.
[4] Includes intercompany holdings except those within the Bell System. (See "Capitilization," p. 46.)
[5] Exclusive of "farmer or rural lines," but including some systems with incomes of less than $5,000.
[6] Partial enumeration only; figures not strictly comparable with those for later censuses.
[7] Not reported.
[8] For 132 systems; 16 systems did not report this item.
[9] For 72 systems; 76 systems did not report this item.

TABLE 3.—SUMMARY—SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE: 1922 AND 1917

	1922	1917 [1]	Per cent of increase
Number of systems	1,323	1,118	18.3
Miles of wire	35,502,983	26,878,320	32.1
Number of telephones	12,295,234	9,493,543	29.5
Number of central offices	10,666	10,606	0.6
Number of calls originating with systems reporting [2]	21,901,387,070	19,153,055,280	14.3
Number of employees	290,333	237,309	22.3
Salaries and wages	$341,537,822	$166,372,804	105.3
Revenue, operating and nonoperating	656,823,908	364,838,076	80.0
Expenses, including taxes and fixed charges	560,159,965	306,765,505	82.6
Capitalization of incorporated companies [3]	1,738,326,105	1,155,548,454	50.4

[1] The statistics as previously published for 1917 have been revised by deducting data for systems reporting incomes between $5,000 and $10,000.
[2] See "Number of 'originating calls,'" p. 22.
[3] Includes intercompany holdings except those within the Bell System. (See "Capitalization," p. 46.)

TABLE 4.—SUMMARY—ALL SYSTEMS REPORTING INCOMES OF $5,000 OR MORE ALL SUCH SYSTEMS EXCLUSIVE OF THE BELL SYSTEM, AND SYSTEMS REPORTING FROM $5,000 TO $10,000, WITH PERCENTAGES: 1917

	A All systems with incomes of $5,000 or more	B Non-Bell systems with incomes of $5,000 or more	C Systems with incomes from $5,000 to $10,000	Per cent C forms of A	Per cent C forms of B
Number of systems and lines	2,200	2,055	1,082	49.2	52.6
Miles of wire	27,298,026	4,164,308	419,706	1.5	10.1
Number of telephones	9,953,710	2,626,852	460,167	4.6	17.5
Number of central offices	12,294	6,006	1,688	13.7	28.1
Number of calls originating with systems reporting [1]	19,809,061,085	5,211,493,216	656,005,805	3.3	12.6
Number of employees	244,490	45,790	7,181	2.9	15.7
Salaries and wages	$169,655,066	$24,740,199	$3,282,262	1.9	13.2
Revenue, operating and nonoperating	372,501,800	60,583,540	7,663,724	2.1	12.6
Expenses, including taxes and fixed charges	313,103,060	52,319,772	6,337,555	2.0	12.1
Capital stock and funded debt [2]	1,169,073,870	249,307,536	13,525,416	1.2	5.4

[1] See "Number of 'originating calls,'" p. 22.
[2] Includes intercompany holdings, except those within the Bell System. (See "Capitalization," p. 46.)

TABLE 5.—NUMBER OF SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME,[1] BY GEOGRAPHIC DIVISIONS AND STATES: 1907–1922

DIVISION AND STATE	TOTAL				REPORTING ANNUAL INCOMES OF [1] —							
					$10,000 or more	$5,000 or more			Less than $10,000	Less than $5,000		
	1922	1917	1912	1907	1922	1917	1912	1907	1922	1917	1912	1907
UNITED STATES	57,253	53,234	32,233	22,971	1,323	2,200	1,916	1,636	55,930	51,034	30,317	21,335
GEOGRAPHIC DIVISIONS:												
New England	331	384	377	366	39	54	49	47	292	330	328	319
Middle Atlantic	2,652	2,809	2,319	1,572	144	233	201	172	2,508	2,576	2,118	1,400
East North Central	7,066	7,705	4,960	4,922	465	739	664	547	6,601	6,966	4,296	4,375
West North Central	17,110	17,483	10,679	9,641	339	656	551	465	16,771	16,827	10,128	9,176
South Atlantic	4,577	4,189	2,717	1,373	94	137	110	94	4,483	4,052	2,607	1,279
East South Central	6,816	4,900	3,006	1,211	48	72	78	73	6,768	4,828	2,928	1,138
West South Central	11,687	10,244	5,851	2,329	86	155	134	142	11,601	10,089	5,717	2,187
Mountain	2,176	1,560	972	471	29	50	35	46	2,147	1,510	937	425
Pacific	4,838	3,960	1,352	1,086	79	104	94	50	4,759	3,856	1,258	1,036
NEW ENGLAND:												
Maine	178	204	173	153	14	18	16	15	164	186	157	138
New Hampshire	50	60	70	58	5	9	8	4	45	51	62	54
Vermont	76	91	95	100	12	16	14	15	64	75	81	85
Massachusetts	18	19	30	38	4	6	5	8	14	13	25	30
Rhode Island	1	1	2	2	1	1	2	----	----	----	----	2
Connecticut	8	9	7	15	3	4	4	5	5	5	3	10
MIDDLE ATLANTIC:												
New York	984	1,091	879	942	69	111	101	111	915	980	778	831
New Jersey	90	104	104	33	8	13	14	13	82	91	90	20
Pennsylvania	1,578	1,614	1,336	597	67	109	86	48	1,511	1,505	1,250	549
EAST NORTH CENTRAL:												
Ohio	996	944	[illegible]	[illegible]	135	195	203	181	861	749	572	803
Indiana	1,452	1,675	1,098	[illegible]	102	163	151	129	1,350	1,512	947	754
Illinois	2,095	2,637	[illegible]	[illegible]	119	198	165	145	1,976	2,439	1,091	1,672
Michigan	1,387	1,358	[illegible]	[illegible]	32	60	53	36	1,355	1,298	975	498
Wisconsin	1,136	1,091	[illegible]	[illegible]	77	123	92	56	1,059	968	711	648
WEST NORTH CENTRAL:												
Minnesota	2,013	2,089	1,372	825	61	102	77	55	1,952	1,987	1,295	770
Iowa	4,897	5,223	3,444	3,445	94	152	146	129	4,803	5,071	3,298	3,316
Missouri	3,990	4,746	2,301	2,648	59	113	89	71	3,931	4,633	2,212	2,577
North Dakota	672	746	372	259	20	41	29	21	652	705	343	238
South Dakota	711	661	467	330	18	41	31	24	693	620	436	306
Nebraska	1,562	1,402	876	891	33	81	79	79	1,529	1,321	797	812
Kansas	3,265	2,616	1,847	1,243	54	126	100	86	3,211	2,490	1,747	1,157
SOUTH ATLANTIC:												
Delaware	42	48	51	1	1	1	1	----	41	47	50	1
Maryland	168	160	153	25	1	1	4	8	167	168	149	17
District of Columbia	1	(2)	(2)	(2)	1	(2)	(2)	(2)	----	----	----	----
Virginia	753	683	337	290	15	26	19	17	738	657	318	273
West Virginia	366	383	298	195	5	10	13	18	361	373	285	177
North Carolina	1,106	1,039	625	400	25	30	22	12	1,081	1,009	603	388
South Carolina	799	538	393	143	10	10	9	7	789	528	384	136
Georgia	1,216	1,207	776	224	21	38	25	24	1,195	1,169	751	200
Florida	126	122	84	95	15	21	17	8	111	101	67	87
EAST SOUTH CENTRAL:												
Kentucky	2,343	1,600	993	429	34	42	47	42	2,309	1,558	946	387
Tennessee	2,690	1,416	1,076	214	6	13	15	15	2,684	1,403	1,061	199
Alabama	881	945	484	297	6	12	8	8	875	933	476	289
Mississippi	902	939	453	271	2	5	8	8	900	934	445	263
WEST SOUTH CENTRAL:												
Arkansas	2,406	1,965	1,042	547	13	24	19	31	2,393	1,941	1,023	516
Louisiana	440	445	183	69	2	5	3	5	438	440	180	64
Oklahoma	3,036	2,617	1,363	715	20	38	27	22	3,016	2,579	1,336	693
Texas	5,805	5,217	3,263	998	51	88	85	84	5,754	5,129	3,178	914
MOUNTAIN:												
Montana	425	283	155	97	2	7	11	8	423	276	144	89
Idaho	346	337	202	82	4	7	5	3	342	330	197	79
Wyoming	251	172	125	64	----	3	----	----	251	169	125	64
Colorado	841	503	320	104	5	6	5	7	836	497	315	97
New Mexico	164	114	65	47	2	6	2	10	162	108	63	37
Arizona	59	49	35	37	4	5	2	6	55	44	33	31
Utah	65	62	45	19	5	7	3	6	60	55	42	13
Nevada	25	40	25	21	7	9	7	6	18	31	18	15
PACIFIC:												
Washington	1,084	1,094	363	480	23	26	29	13	1,061	1,068	334	467
Oregon	1,325	958	323	295	17	27	20	8	1,308	931	303	287
California	2,429	1,908	666	311	39	51	45	29	2,390	1,857	621	282

[1] See "Change in classification according to income" p. 6, and Table 4.
[2] System operating in District of Columbia treated as part of Maryland system.

TABLE 6.—MILES OF WIRE, FOR ALL SYSTEMS AND LINES, 1907–1922; AND

	DIVISION AND STATE	TOTAL			
		1922	1917	1912	1907
1	UNITED STATES	37,265,958	28,827,188	20,248,326	12,999,364
	GEOGRAPHIC DIVISIONS:				
2	New England	3,346,608	2,383,580	1,545,252	997,865
3	Middle Atlantic	10,818,580	7,338,055	5,035,019	3,056,193
4	East North Central	8,763,146	7,137,419	4,645,218	3,308,021
5	West North Central	4,487,007	3,934,372	2,932,578	2,043,383
6	South Atlantic	2,448,857	1,735,286	1,121,458	875,173
7	East South Central	1,248,559	1,107,025	977,694	714,871
8	West South Central	2,148,789	1,912,756	1,312,553	799,606
9	Mountain	927,662	725,512	558,450	364,605
10	Pacific	3,076,750	2,553,183	2,120,104	839,647
	NEW ENGLAND:				
11	Maine	210,707	176,983	141,687	94,073
12	New Hampshire	134,326	110,691	75,917	49,448
13	Vermont	78,991	67,355	54,756	36,419
14	Massachusetts	1,908,091	1,353,251	863,426	534,220
15	Rhode Island	213,713	161,075	102,906	71,346
16	Connecticut	800,780	514,225	306,560	212,359
	MIDDLE ATLANTIC:				
17	New York	6,121,696	4,154,657	2,790,060	1,630,076
18	New Jersey	1,523,354	1,002,075	644,984	338,608
19	Pennsylvania	3,173,530	2,181,323	1,599,975	1,087,509
	EAST NORTH CENTRAL:				
20	Ohio	2,415,187	1,906,635	1,161,032	986,053
21	Indiana	1,058,314	933,261	667,839	530,044
22	Illinois	3,060,595	2,564,910	1,689,074	986,949
23	Michigan	1,390,945	1,072,651	728,184	494,612
24	Wisconsin	838,105	659,962	399,089	310,363
	WEST NORTH CENTRAL:				
25	Minnesota	1,147,278	1,058,989	653,479	387,758
26	Iowa	757,600	650,513	504,101	360,884
27	Missouri	1,247,503	1,119,048	874,334	640,560
28	North Dakota	124,873	105,820	76,174	61,728
29	South Dakota	108,414	104,208	73,921	66,946
30	Nebraska	514,374	448,807	393,319	257,812
31	Kansas	586,965	446,987	357,250	267,695
	SOUTH ATLANTIC:				
32	Delaware	93,891	75,196	48,632	35,585
33	Maryland	540,089	354,588	228,744	187,135
34	District of Columbia	314,636	162,032	126,279	89,562
35	Virginia	379,093	271,549	161,136	108,588
36	West Virginia	226,739	179,387	112,954	99,844
37	North Carolina	199,594	148,348	109,110	83,251
38	South Carolina	126,284	97,916	73,712	50,226
39	Georgia	390,382	314,273	206,591	187,904
40	Florida	178,149	131,997	54,300	33,078
	EAST SOUTH CENTRAL:				
41	Kentucky	467,781	386,107	352,544	262,691
42	Tennessee	399,932	368,678	287,685	202,505
43	Alabama	229,934	206,585	152,849	134,337
44	Mississippi	150,912	145,655	184,616	115,338
	WEST SOUTH CENTRAL:				
45	Arkansas	219,398	170,105	141,014	98,932
46	Louisiana	256,372	196,917	138,905	101,325
47	Oklahoma	424,005	334,533	211,175	104,780
48	Texas	1,249,014	1,211,201	821,459	494,569
	MOUNTAIN:				
49	Montana	120,725	94,666	54,259	28,386
50	Idaho	105,027	81,745	58,205	37,364
51	Wyoming	50,223	30,435	20,368	11,743
52	Colorado	412,816	312,326	261,987	173,633
53	New Mexico	37,428	31,963	22,492	12,506
54	Arizona	55,518	39,455	18,621	10,277
55	Utah	129,193	120,938	112,726	80,653
56	Nevada	16,732	13,984	9,792	10,043
	PACIFIC:				
57	Washington	533,515	429,718	487,079	208,810
58	Oregon	368,342	275,191	272,481	87,723
59	California	2,174,893	1,848,274	1,360,544	543,114

[1] See "Change in classification according to income," p. 6, and Table 4.

FOR INCOME GROUPS,[1] 1912–1922, BY GEOGRAPHIC DIVISIONS AND STATES

REPORTING ANNUAL INCOMES OF [1]—						
$10,000 or more	$5,000 or more		Less than $10,000	Less than $5,000		
1922	1917	1912	1922	1917	1912	
35,502,983	27,298,026	19,019,391	1,762,975	1,529,162	1,228,935	1
3,323,627	2,365,292	1,523,273	22,981	18,288	21,979	2
10,707,160	7,246,573	4,949,078	111,420	91,482	85,941	3
8,354,549	6,801,515	4,353,416	408,597	335,904	291,802	4
3,931,043	3,450,826	2,530,833	555,964	483,546	401,745	5
2,308,856	1,608,351	1,016,144	140,001	126,935	105,314	6
1,120,373	982,613	896,912	128,186	124,412	80,782	7
1,911,177	1,686,562	1,152,823	237,612	226,194	159,730	8
869,089	683,950	525,976	58,573	41,562	32,474	9
2,977,109	2,472,344	2,070,936	99,641	80,839	49,168	10
199,732	168,633	132,127	10,975	8,350	9,560	11
130,597	107,588	72,350	3,729	3,103	3,567	12
72,205	61,510	48,387	6,786	5,845	6,369	13
1,907,195	1,352,395	861,107	896	856	2,319	14
213,713	161,075	102,906				15
800,185	514,091	306,396	595	134	164	16
6,083,246	4,118,929	2,758,352	38,450	35,728	31,708	17
1,520,457	999,262	642,190	2,897	2,813	2,794	18
3,103,457	2,128,382	1,548,536	70,073	52,941	51,439	19
2,344,614	1,849,165	1,109,216	70,573	57,470	51,816	20
977,123	857,579	602,740	81,191	75,682	65,090	21
2,959,690	2,478,371	1,608,428	100,905	86,539	80,646	22
1,332,920	1,025,710	689,671	58,025	46,941	38,513	23
740,202	590,690	343,361	97,903	69,272	55,728	24
1,053,015	985,128	597,883	94,263	73,861	55,596	25
657,735	550,957	419,672	99,865	99,556	84,429	26
1,132,061	1,005,139	779,712	115,442	113,909	94,622	27
93,344	76,865	58,512	31,029	28,955	17,662	28
75,675	78,184	51,164	32,739	26,024	22,757	29
444,908	398,685	349,646	69,466	50,122	43,673	30
473,805	355,868	274,244	113,160	91,119	83,006	31
93,441	74,483	48,037	450	713	595	32
536,204	352,077	225,476	3,885	2,511	3,268	33
314,636	162,032	126,279				34
351,119	248,422	142,023	27,974	23,127	19,113	35
201,894	155,685	94,397	24,845	23,702	18,557	36
165,878	115,622	82,537	33,716	32,726	26,573	37
110,910	85,952	62,781	15,374	11,964	10,931	38
363,066	288,273	185,737	27,316	26,000	20,854	39
171,708	125,805	48,877	6,441	6,192	5,423	40
425,675	348,946	324,212	42,106	37,161	28,332	41
347,926	320,598	256,959	52,006	48,080	30,726	42
213,901	185,089	140,123	16,033	21,496	12,726	43
132,871	127,980	175,618	18,041	17,675	8,998	44
186,329	142,508	119,765	33,069	27,597	21,249	45
248,749	189,708	135,248	7,623	7,209	3,657	46
368,834	281,753	170,055	55,171	52,780	41,120	47
1,107,265	1,072,593	727,755	141,749	138,608	93,704	48
107,339	85,745	47,172	13,386	8,921	7,087	49
96,522	74,011	52,394	8,505	7,734	5,811	50
42,956	24,938	15,634	7,267	5,497	4,734	51
395,173	301,756	254,588	17,643	10,570	7,399	52
31,808	27,874	20,418	5,620	4,089	2,074	53
53,152	38,299	17,193	2,366	1,156	1,428	54
126,127	118,288	109,678	3,066	2,650	3,048	55
16,012	13,039	8,899	720	945	893	56
505,005	403,414	470,350	28,510	26,304	16,729	57
341,554	251,523	257,718	26,788	23,668	14,763	58
2,130,550	1,817,407	1,342,868	44,343	30,867	17,676	59

TABLE 7.—NUMBER OF TELEPHONES, FOR ALL SYSTEMS AND LINES, 1907–1922;

	DIVISION AND STATE	TOTAL			
		1922	1917	1912	1907
1	UNITED STATES	14,347,395	11,716,520	8,729,592	6,118,578
	GEOGRAPHIC DIVISIONS:				
2	New England	1,223,497	878,354	625,488	410,269
3	Middle Atlantic	3,249,710	2,444,205	1,782,145	1,252,903
4	East North Central	3,693,101	3,158,989	2,378,257	1,712,390
5	West North Central	2,315,996	2,119,735	1,621,523	1,251,555
6	South Atlantic	937,324	739,631	531,402	365,764
7	East South Central	521,120	436,853	337,292	243,234
8	West South Central	872,157	740,004	543,102	342,255
9	Mountain	385,730	307,627	226,652	154,061
10	Pacific	1,148,760	891,122	683,731	386,147
	NEW ENGLAND:				
11	Maine	113,725	88,226	68,914	53,134
12	New Hampshire	68,874	52,534	40,017	28,920
13	Vermont	54,530	47,968	40,142	30,833
14	Massachusetts	687,700	475,231	329,992	209,383
15	Rhode Island	92,766	64,726	41,664	24,099
16	Connecticut	205,902	149,669	104,759	63,900
	MIDDLE ATLANTIC:				
17	New York	1,780,563	1,335,055	970,449	685,512
18	New Jersey	383,496	254,444	185,632	116,988
19	Pennsylvania	1,085,651	854,706	626,064	450,403
	EAST NORTH CENTRAL:				
20	Ohio	962,837	845,649	631,206	495,636
21	Indiana	508,726	458,992	354,550	289,452
22	Illinois	1,283,449	1,070,997	807,253	558,585
23	Michigan	508,140	434,128	335,074	209,842
24	Wisconsin	429,949	349,223	250,174	158,875
	WEST NORTH CENTRAL:				
25	Minnesota	424,777	408,222	272,359	171,479
26	Iowa	533,347	489,432	380,294	332,545
27	Missouri	550,980	511,246	404,150	312,527
28	North Dakota	77,586	75,349	51,241	34,087
29	South Dakota	101,555	88,946	65,858	48,405
30	Nebraska	273,500	248,267	201,689	152,279
31	Kansas	354,251	298,273	245,932	200,233
	SOUTH ATLANTIC:				
32	Delaware	23,534	22,222	15,842	12,627
33	Maryland	153,790	118,397	84,801	66,323
34	District of Columbia	102,231	70,751	46,603	31,332
35	Virginia	155,490	119,597	76,652	55,541
36	West Virginia	116,081	99,530	80,251	62,144
37	North Carolina	116,129	91,928	65,152	37,104
38	South Carolina	54,078	43,716	33,239	20,911
39	Georgia	136,334	124,479	96,436	62,260
40	Florida	79,657	49,011	32,426	17,522
	EAST SOUTH CENTRAL:				
41	Kentucky	201,545	162,843	130,751	93,996
42	Tennessee	171,413	140,669	104,353	71,130
43	Alabama	84,401	76,693	56,292	40,481
44	Mississippi	63,761	56,648	45,896	37,627
	WEST SOUTH CENTRAL:				
45	Arkansas	99,490	87,872	68,303	49,576
46	Louisiana	87,354	63,890	46,602	35,692
47	Oklahoma	222,889	176,835	116,217	68,125
48	Texas	462,424	411,407	311,980	188,862
	MOUNTAIN:				
49	Montana	55,115	51,409	35,537	17,168
50	Idaho	48,745	37,204	29,454	16,394
51	Wyoming	24,949	15,774	9,946	6,699
52	Colorado	150,652	114,364	90,397	65,908
53	New Mexico	18,342	15,314	10,346	6,653
54	Arizona	24,353	18,225	11,224	6,203
55	Utah	53,261	46,621	34,064	30,435
56	Nevada	10,313	8,716	5,684	4,601
	PACIFIC:				
57	Washington	238,275	188,407	150,016	98,846
58	Oregon	146,847	125,660	99,713	49,629
59	California	763,638	577,055	434,002	237,672

[1] See "Change in classification according to income," p. 6, and Table 4.

AND FOR INCOME GROUPS,[1] 1912–1922, BY GEOGRAPHIC DIVISIONS AND STATES

REPORTING ANNUAL INCOMES OF [1]—						
$10,000 or more	$5,000 or more		Less than $10,000	Less than $5,000		
1922	1917	1912	1922	1917	1912	
12,295,234	9,953,710	7,326,748	2,052,161	1,762,810	1,402,844	1
1,197,433	856,658	600,207	26,064	21,696	25,281	2
3,112,921	2,332,774	1,675,681	136,789	111,431	106,464	3
3,179,335	2,745,921	2,020,802	513,766	413,068	357,455	4
1,597,239	1,500,091	1,109,359	718,757	619,644	512,164	5
791,707	604,704	428,311	145,617	134,927	103,091	6
379,996	309,636	261,294	141,124	127,217	75,998	7
632,352	504,929	387,022	239,805	235,075	156,080	8
344,443	277,893	204,508	41,287	29,734	22,144	9
1,059,808	821,104	639,564	88,952	70,018	44,167	10
101,786	78,111	57,988	11,939	10,115	10,926	11
64,909	49,536	36,052	3,965	2,998	3,965	12
46,182	40,611	31,498	8,348	7,357	8,644	13
686,731	474,427	328,503	969	804	1,489	14
92,766	64,726	41,664				15
205,059	149,247	104,502	843	422	257	16
1,722,653	1,283,802	923,136	57,910	51,253	47,313	17
379,303	251,519	182,419	4,193	2,925	3,213	18
1,010,965	797,453	570,126	74,686	57,253	55,938	19
874,133	774,122	567,573	88,704	71,527	63,633	20
389,100	366,928	274,291	119,626	92,064	80,259	21
1,145,616	952,964	704,230	137,833	118,033	103,023	22
445,739	380,200	288,154	62,401	53,928	46,920	23
324,747	271,707	186,554	105,202	77,516	63,620	24
329,542	325,977	208,340	95,235	82,245	64,019	25
346,880	320,757	242,963	186,467	168,675	137,331	26
394,792	365,463	285,472	156,188	145,783	118,678	27
47,588	47,613	32,915	29,998	27,736	18,326	28
59,905	58,237	39,299	41,650	30,709	26,559	29
206,144	195,942	156,619	67,356	52,325	45,070	30
212,388	186,102	143,751	141,863	112,171	102,181	31
22,972	21,626	15,210	562	596	632	32
150,298	115,154	81,686	3,492	3,243	3,115	33
102,231	70,751	46,603				34
120,627	93,704	56,908	34,863	25,893	19,684	35
85,381	66,021	55,033	30,700	33,509	25,218	36
85,161	61,551	41,177	30,968	30,377	23,975	37
41,505	31,835	24,871	12,573	11,881	8,368	38
110,347	99,654	78,864	25,987	24,825	17,572	39
73,185	44,408	27,899	6,472	4,603	4,527	40
150,373	121,324	100,174	51,172	41,519	30,577	41
118,992	96,357	78,717	52,421	44,312	25,636	42
64,820	53,000	44,144	19,581	23,693	12,148	43
45,811	38,955	38,259	17,950	17,693	7,637	44
66,785	56,072	45,743	32,705	31,800	22,560	45
81,071	57,869	43,906	6,283	6,021	2,696	46
148,602	105,072	65,215	74,287	71,763	51,002	47
335,894	285,916	232,158	126,530	125,491	79,822	48
46,666	45,067	31,188	8,449	6,342	4,349	49
40,442	30,126	23,475	8,303	7,078	5,979	50
20,846	12,624	7,471	4,103	3,150	2,475	51
138,513	107,160	85,886	12,139	7,204	4,511	52
14,357	13,124	9,047	3,985	2,190	1,299	53
23,318	17,394	10,128	1,035	831	1,096	54
50,448	44,087	32,018	2,813	2,534	2,046	55
9,853	8,311	5,295	460	405	389	56
207,431	162,754	134,040	30,844	25,653	15,976	57
118,455	103,623	84,923	28,392	22,037	14,790	58
733,922	554,727	420,601	29,716	22,328	13,401	59

TABLE 8.—PER CENT OF INCREASE OR DECREASE, MILES OF WIRE AND NUMBER OF TELEPHONES, ALL SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME,[1] BY GEOGRAPHIC DIVISIONS AND STATES: 5-YEAR AND 10-YEAR PERIODS, 1912 TO 1922

DIVISION AND STATE	MILES OF WIRE FOR SYSTEMS AND LINES—								
	Total			Reporting annual incomes of $10,000 or more for 1922 and $5,000 or more for 1917 and 1912[1]			Reporting annual incomes of less than $10,000 for 1922 and less than $5,000 for 1917 and 1912[1]		
	1912–1922	1917–1922	1912–1917	1912–1922	1917–1922	1912–1917	1912–1922	1917–1922	1912–1917
UNITED STATES	84.0	29.3	42.4	86.7	30.1	43.5	43.5	15.3	24.4
GEOGRAPHIC DIVISIONS:									
New England	116.6	40.4	54.2	118.2	40.5	55.3	4.6	25.7	−16.8
Middle Atlantic	114.9	47.4	45.7	116.3	47.8	46.4	29.6	21.8	6.4
East North Central	88.6	22.8	53.6	91.9	22.8	56.2	40.0	21.6	15.1
West North Central	53.0	14.0	34.2	55.3	13.9	36.4	38.4	15.0	20.4
South Atlantic	118.4	41.1	54.7	127.2	43.6	58.3	32.9	10.3	20.5
East South Central	27.7	12.8	13.2	24.9	14.0	9.6	58.7	3.0	54.0
West South Central	63.7	12.3	45.7	65.8	13.3	46.3	48.8	5.0	41.6
Mountain	66.1	27.9	29.9	65.2	27.1	30.0	80.4	40.9	28.0
Pacific	45.1	20.5	20.4	43.8	20.4	19.4	102.7	23.3	64.4
NEW ENGLAND:									
Maine	48.7	19.1	24.9	51.2	18.4	27.6	14.8	31.4	−12.7
New Hampshire	76.9	21.4	45.8	80.5	21.4	48.7	4.5	20.2	−13.0
Vermont	44.3	17.3	23.0	49.2	17.4	27.1	6.5	16.1	−8.2
Massachusetts	121.0	41.0	56.7	121.5	41.0	57.0	−61.4	4.7	−61.3
Rhode Island	107.7	32.7	56.5	107.7	32.7	56.5	------	------	------
Connecticut	161.2	55.7	67.7	161.2	55.7	67.8	262.8	344.0	−18.3
MIDDLE ATLANTIC:									
New York	119.4	47.3	48.9	120.5	47.7	49.3	21.3	7.6	12.7
New Jersey	136.2	52.0	55.4	136.8	52.2	55.6	3.7	3.0	0.7
Pennsylvania	98.3	45.5	36.3	100.4	45.8	37.4	36.2	32.4	2.9
EAST NORTH CENTRAL:									
Ohio	108.0	26.7	64.2	111.4	26.8	66.7	36.2	22.8	10.9
Indiana	58.5	13.4	39.7	62.1	13.9	42.3	24.7	7.3	16.2
Illinois	81.2	19.3	51.8	84.0	19.4	54.1	25.1	16.6	7.3
Michigan	91.0	29.7	47.3	93.3	30.0	48.7	50.7	23.6	21.9
Wisconsin	110.0	27.0	65.4	115.6	25.3	72.0	75.7	41.3	24.3
WEST NORTH CENTRAL:									
Minnesota	75.6	8.3	62.0	76.1	6.9	64.8	69.5	27.6	32.8
Iowa	50.3	16.5	29.0	56.7	19.4	31.3	18.3	0.3	17.9
Missouri	42.7	11.5	28.0	45.2	12.6	28.9	22.0	1.3	20.4
North Dakota	63.9	18.0	38.9	60.4	22.1	31.4	75.7	7.2	63.9
South Dakota	46.7	4.0	41.0	47.9	−3.2	52.8	43.9	25.8	14.4
Nebraska	30.8	14.6	14.1	27.2	11.6	14.0	59.1	38.6	14.8
Kansas	64.3	31.3	25.1	72.8	33.1	29.8	36.3	24.2	9.8
SOUTH ATLANTIC:									
Delaware	93.1	24.9	54.6	94.5	25.5	55.0	−24.4	−36.9	19.8
Maryland	136.1	52.3	55.0	137.8	52.3	56.1	18.9	54.7	−23.2
District of Columbia	149.2	94.2	28.3	149.2	94.2	28.3	------	------	------
Virginia	135.3	39.6	68.5	147.2	41.3	74.9	46.4	21.0	21.0
West Virginia	100.7	26.4	58.8	113.9	29.7	64.9	33.9	4.8	27.7
North Carolina	82.9	34.5	36.0	101.0	43.5	40.1	26.9	3.0	23.2
South Carolina	71.3	29.0	32.8	76.7	29.0	36.9	40.6	28.5	9.4
Georgia	89.0	24.2	52.1	95.5	25.9	55.2	31.0	5.1	24.7
Florida	228.1	35.0	143.1	251.3	36.5	157.4	18.8	4.0	14.2
EAST SOUTH CENTRAL:									
Kentucky	32.7	21.2	9.5	31.3	22.0	7.6	48.6	13.3	31.2
Tennessee	39.0	8.5	28.2	35.4	8.5	24.8	69.3	8.2	56.5
Alabama	50.4	11.3	35.2	52.7	15.6	32.1	26.0	−25.4	68.9
Mississippi	−18.3	3.6	−21.1	−24.3	3.8	−27.1	100.5	2.1	96.4
WEST SOUTH CENTRAL:									
Arkansas	55.6	29.0	20.6	55.6	30.7	19.0	55.6	19.8	29.9
Louisiana	84.6	30.2	41.8	83.9	31.1	40.3	108.4	5.7	97.1
Oklahoma	100.8	26.7	58.4	116.9	30.9	65.7	34.2	4.5	28.4
Texas	52.0	3.1	47.4	52.1	3.2	47.4	51.3	2.3	47.9
MOUNTAIN:									
Montana	122.5	27.5	74.5	127.5	25.2	81.8	88.9	50.1	25.9
Idaho	80.4	28.5	40.4	84.2	30.4	41.2	46.4	10.0	33.1
Wyoming	146.6	65.0	49.4	174.8	72.3	59.5	53.5	32.2	16.1
Colorado	57.6	32.2	19.2	55.2	31.0	18.5	138.5	66.9	42.8
New Mexico	66.4	17.1	42.1	55.8	14.1	36.5	171.0	37.4	97.2
Arizona	198.1	40.7	111.9	209.1	38.8	122.8	65.7	104.7	−19.0
Utah	14.6	6.8	7.3	15.0	6.6	7.8	0.6	15.7	−13.1
Nevada	70.9	19.7	42.8	79.9	22.8	46.5	−19.4	−23.8	5.8
PACIFIC:									
Washington	9.5	24.2	−11.8	7.4	25.2	−14.2	70.4	8.4	57.2
Oregon	35.2	33.8	1.0	32.5	35.8	−2.4	81.5	13.2	60.3
California	59.9	17.7	35.8	58.7	17.2	35.3	150.9	43.7	74.6

[1] See "Change in classification according to income," p. 6, and Table 4.

TABLE 8.—PER CENT OF INCREASE OR DECREASE, MILES OF WIRE AND NUMBER OF TELEPHONES, ALL SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME,[1] BY GEOGRAPHIC DIVISIONS AND STATES: 5-YEAR AND 10-YEAR PERIODS, 1912 TO 1922—Continued

DIVISION AND STATE	NUMBER OF TELEPHONES FOR SYSTEMS AND LINES— Total			Reporting annual incomes of $10,000 or more for 1922 and $5,000 or more for 1917 and 1912 [1]			Reporting annual incomes of less than $10,000 for 1922 and less than $5,000 for 1917 and 1912 [1]		
	1912–1922	1917–1922	1912–1917	1912–1922	1917–1922	1912–1917	1912–1922	1917–1922	1912–1917
UNITED STATES	64.4	22.5	34.2	67.8	23.5	36.0	46.3	16.4	25.6
GEOGRAPHIC DIVISIONS:									
New England	95.6	39.3	40.4	99.5	39.8	42.7	3.1	20.1	−14.2
Middle Atlantic	82.3	33.0	37.1	85.8	33.4	39.2	28.5	22.8	4.7
East North Central	55.3	16.9	32.8	57.3	15.8	35.9	43.7	24.4	15.6
West North Central	42.8	9.3	30.7	44.0	6.5	35.2	40.3	16.0	21.0
South Atlantic	76.4	26.7	39.2	84.8	30.9	41.2	41.3	7.9	30.9
East South Central	54.5	19.3	29.5	45.4	22.7	18.5	85.7	10.9	67.4
West South Central	60.6	17.9	36.2	63.4	25.2	30.5	53.6	2.0	50.6
Mountain	70.2	25.4	35.7	68.4	23.9	35.9	86.4	38.9	34.3
Pacific	68.0	28.9	30.3	65.7	29.1	28.4	101.4	27.0	58.5
NEW ENGLAND:									
Maine	65.0	28.9	28.0	75.5	30.3	34.7	9.3	18.0	−7.4
New Hampshire	72.1	31.1	31.3	80.0	31.0	37.4	-------	32.3	−24.4
Vermont	35.8	13.7	19.5	46.6	13.7	28.9	−3.4	13.5	−14.9
Massachusetts	108.4	44.7	44.0	109.0	44.7	44.4	−34.9	20.5	−46.0
Rhode Island	122.7	43.3	55.4	122.7	43.3	55.4	-------	-------	-------
Connecticut	96.5	37.6	42.9	96.2	37.4	42.8	228.0	99.8	4.2
MIDDLE ATLANTIC:									
New York	83.5	33.4	37.6	86.6	34.2	39.1	22.4	13.0	8.3
New Jersey	106.6	50.7	37.1	107.9	50.8	37.9	30.5	43.4	−9.0
Pennsylvania	73.4	27.0	36.5	77.3	26.8	39.9	33.5	30.4	2.4
EAST NORTH CENTRAL:									
Ohio	52.5	13.9	34.0	54.0	12.9	36.4	39.4	24.0	12.4
Indiana	43.5	10.8	29.4	41.9	6.0	33.8	49.0	29.9	14.7
Illinois	59.0	19.8	32.7	62.7	20.2	35.3	33.8	16.8	14.6
Michigan	51.7	17.0	29.6	54.7	17.2	31.9	33.0	15.7	14.9
Wisconsin	71.9	23.1	39.6	74.1	19.5	45.6	65.4	35.7	21.8
WEST NORTH CENTRAL:									
Minnesota	56.0	4.1	49.9	58.2	1.1	56.5	48.8	15.8	28.5
Iowa	40.2	9.0	28.7	42.8	8.1	32.0	35.8	10.5	22.8
Missouri	36.3	7.8	26.5	38.3	8.0	28.0	31.6	7.1	22.8
North Dakota	51.4	3.0	47.0	44.6	−0.1	44.6	63.7	8.2	51.3
South Dakota	54.2	14.2	35.0	52.4	2.9	48.2	56.8	35.6	15.6
Nebraska	35.6	10.2	23.1	31.6	5.2	25.1	49.4	28.7	16.1
Kansas	44.0	18.8	21.3	47.7	14.1	29.5	38.8	26.5	9.8
SOUTH ATLANTIC:									
Delaware	48.6	5.9	40.3	51.0	6.2	42.2	−11.1	−5.7	−5.7
Maryland	81.4	29.9	39.6	84.0	30.5	41.0	12.1	7.7	4.1
District of Columbia	119.4	44.5	51.8	119.4	44.5	51.8	-------	-------	-------
Virginia	102.9	30.0	56.0	111.7	28.7	64.5	77.1	34.6	31.5
West Virginia	44.6	16.6	24.0	55.1	29.3	20.0	21.7	−8.4	32.9
North Carolina	78.2	26.3	41.1	106.8	38.4	49.5	29.2	1.9	26.7
South Carolina	62.7	23.7	31.5	66.9	30.4	28.0	50.3	5.8	42.0
Georgia	41.4	9.5	29.1	39.9	10.7	26.4	47.9	4.7	41.3
Florida	145.7	62.5	51.1	162.3	64.8	59.2	43.0	40.6	1.7
EAST SOUTH CENTRAL:									
Kentucky	54.1	23.8	24.5	50.1	23.9	21.1	67.4	23.2	35.8
Tennessee	64.3	21.9	34.8	51.2	23.5	22.4	104.5	18.3	72.8
Alabama	49.9	10.0	36.2	46.8	22.3	20.1	61.2	−17.4	95.0
Mississippi	38.9	12.6	23.4	19.7	17.6	1.8	135.0	1.5	131.7
WEST SOUTH CENTRAL:									
Arkansas	45.7	13.2	28.6	46.0	19.1	22.6	45.0	2.8	41.0
Louisiana	87.4	36.7	37.1	84.6	40.1	31.8	133.0	4.4	123.3
Oklahoma	91.8	26.0	52.2	127.9	41.4	61.1	45.7	3.5	40.7
Texas	48.2	12.4	31.9	44.7	17.5	23.2	58.5	0.8	57.2
MOUNTAIN:									
Montana	55.1	7.2	44.7	49.6	3.5	44.5	94.3	33.2	45.8
Idaho	65.5	31.0	26.3	72.3	34.2	28.3	38.9	17.3	18.4
Wyoming	150.8	58.2	58.6	179.0	65.1	69.0	65.8	30.3	27.3
Colorado	66.7	31.7	26.5	61.3	29.3	24.8	169.1	68.5	59.7
New Mexico	77.3	19.8	48.0	58.7	9.4	45.1	206.8	82.0	68.6
Arizona	117.0	33.6	62.4	130.2	34.1	71.7	−5.6	24.5	−24.2
Utah	56.4	14.2	36.9	57.6	14.4	37.7	37.5	11.0	23.8
Nevada	81.4	18.3	53.3	86.1	18.6	57.0	18.3	13.6	4.1
PACIFIC:									
Washington	58.8	26.5	25.6	54.8	27.5	21.4	93.1	20.2	60.6
Oregon	47.3	16.9	26.0	39.5	14.3	22.0	92.0	28.8	49.0
California	76.0	32.3	33.0	74.5	32.3	31.9	121.7	33.1	66.6

[1] See "Change in classification according to income," p. 6, and Table 4.

TABLE 9.—PER CENT DISTRIBUTION, MILES OF WIRE AND NUMBER OF TELEPHONES, ALL SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME,[1] BY GEOGRAPHIC DIVISIONS AND STATES: 1922, 1917, AND 1912

DIVISION AND STATE	MILES OF WIRE								
	Total			Systems and lines reporting incomes of [1]—					
				$10,000 or more	$5,000 or more		Less than $10,000	Less than $5,000	
	1922	1917	1912	1922	1917	1912	1922	1917	1912
UNITED STATES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
GEOGRAPHIC DIVISIONS:									
New England	9.0	8.3	7.6	9.4	8.7	8.0	1.3	1.2	1.8
Middle Atlantic	29.0	25.5	24.9	30.2	26.5	26.0	6.3	6.0	7.0
East North Central	23.5	24.8	22.9	23.5	24.9	22.9	23.2	22.0	23.7
West North Central	12.0	13.6	14.5	11.1	12.6	13.3	31.5	31.6	32.7
South Atlantic	6.6	6.0	5.5	6.5	5.9	5.3	7.9	8.3	8.6
East South Central	3.4	3.8	4.8	3.2	3.6	4.7	7.3	8.1	6.6
West South Central	5.8	6.6	6.5	5.4	6.2	6.1	13.5	14.8	13.0
Mountain	2.5	2.5	2.8	2.4	2.5	2.8	3.3	2.7	2.6
Pacific	8.3	8.9	10.5	8.4	9.1	10.9	5.7	5.3	4.0
NEW ENGLAND:									
Maine	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.5	0.8
New Hampshire	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.3
Vermont	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.5
Massachusetts	5.1	4.7	4.3	5.4	5.0	4.5	0.1	0.1	0.2
Rhode Island	0.6	0.6	0.5	0.6	0.6	0.5	----	----	----
Connecticut	2.1	1.8	1.5	2.2	1.9	1.6	(2)	(2)	(2)
MIDDLE ATLANTIC:									
New York	16.4	14.4	13.8	17.1	15.1	14.5	2.2	2.3	2.6
New Jersey	4.1	3.5	3.2	4.3	3.6	3.4	0.2	0.2	0.2
Pennsylvania	8.5	7.6	7.9	8.7	7.8	8.1	4.0	3.5	4.2
EAST NORTH CENTRAL:									
Ohio	6.5	6.6	5.7	6.6	6.8	5.8	4.0	3.8	4.2
Indiana	2.8	3.2	3.3	2.8	3.1	3.2	4.6	4.9	5.3
Illinois	8.2	8.9	8.3	8.3	9.1	8.5	5.7	5.7	6.6
Michigan	3.7	3.7	3.6	3.8	3.8	3.6	3.3	3.1	3.1
Wisconsin	2.3	2.3	2.0	2.1	2.2	1.8	5.6	4.5	4.5
WEST NORTH CENTRAL:									
Minnesota	3.1	3.7	3.2	3.0	3.6	3.1	5.3	4.8	4.5
Iowa	2.0	2.2	2.5	1.9	2.0	2.2	5.7	6.5	6.9
Missouri	3.3	3.9	4.3	3.2	3.7	4.1	6.5	7.4	7.7
North Dakota	0.3	0.4	0.4	0.3	0.3	0.3	1.8	1.9	1.4
South Dakota	0.3	0.4	0.4	0.2	0.3	0.3	1.9	1.7	1.8
Nebraska	1.4	1.5	1.9	1.2	1.5	1.8	3.9	3.3	3.6
Kansas	1.6	1.5	1.8	1.3	1.3	1.4	6.4	6.0	6.8
SOUTH ATLANTIC:									
Delaware	0.3	0.3	0.2	0.3	0.3	0.2	(2)	(2)	(2)
Maryland	1.5	1.2	1.1	1.5	1.3	1.2	0.2	0.2	0.3
District of Columbia	0.8	0.6	0.6	0.9	0.6	0.7	----	----	----
Virginia	1.0	0.9	0.8	1.0	0.9	0.7	1.6	1.5	1.6
West Virginia	0.6	0.6	0.6	0.6	0.6	0.5	1.4	1.5	1.5
North Carolina	0.5	0.5	0.5	0.5	0.4	0.4	1.9	2.1	2.2
South Carolina	0.3	0.3	0.4	0.3	0.3	0.3	0.9	0.8	0.9
Georgia	1.1	1.1	1.0	1.0	1.0	1.0	1.5	1.7	1.7
Florida	0.5	0.5	0.3	0.5	0.5	0.3	0.4	0.4	0.4
EAST SOUTH CENTRAL:									
Kentucky	1.3	1.3	1.7	1.2	1.3	1.7	2.4	2.4	2.3
Tennessee	1.1	1.3	1.4	1.0	1.2	1.4	3.0	3.1	2.5
Alabama	0.6	0.7	0.8	0.6	0.7	0.7	0.9	1.4	1.0
Mississippi	0.4	0.5	0.9	0.4	0.4	0.9	1.0	1.2	0.7
WEST SOUTH CENTRAL:									
Arkansas	0.6	0.6	0.7	0.5	0.5	0.6	1.9	1.8	1.7
Louisiana	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.5	0.3
Oklahoma	1.1	1.2	1.0	1.0	1.0	0.9	3.1	3.4	3.3
Texas	3.4	4.2	4.1	3.1	3.9	3.8	8.0	9.1	7.6
MOUNTAIN:									
Montana	0.3	0.3	0.3	0.3	0.3	0.2	0.8	0.6	0.6
Idaho	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5
Wyoming	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.4
Colorado	1.1	1.1	1.3	1.1	1.1	1.3	1.0	0.7	0.6
New Mexico	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2
Arizona	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Utah	0.3	0.4	0.6	0.4	0.4	0.6	0.2	0.2	0.2
Nevada	0.1	(2)	(2)	(2)	(2)	(2)	(2)	0.1	0.1
PACIFIC:									
Washington	1.4	1.5	2.4	1.4	1.5	2.5	1.6	1.7	1.4
Oregon	1.0	1.0	1.3	1.0	0.9	1.4	1.5	1.5	1.2
California	5.8	6.4	6.7	6.0	6.7	7.1	2.5	2.0	1.4

[1] See "Change in classification according to income," p. 6, and Table 4.
[2] Less than one-tenth of 1 per cent.

TABLE 9.—PER CENT DISTRIBUTION, MILES OF WIRE AND NUMBER OF TELEPHONES, ALL SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME,[1] BY GEOGRAPHIC DIVISIONS AND STATES: 1922, 1917, AND 1912—Continued

DIVISION AND STATE	NUMBER OF TELEPHONES								
	Total			Systems and lines reporting incomes of [1]—					
				$10,000 or more	$5,000 or more		Less than $10,000	Less than $5,000	
	1922	1917	1912	1922	1917	1912	1922	1917	1912
UNITED STATES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
GEOGRAPHIC DIVISIONS:									
New England	8.5	7.5	7.2	9.7	8.6	8.2	1.3	1.2	1.8
Middle Atlantic	22.7	20.9	20.4	25.3	23.4	22.9	6.7	6.3	7.6
East North Central	25.7	27.0	27.2	25.9	27.6	27.5	25.0	23.4	25.5
West North Central	16.1	18.1	18.6	13.0	15.1	15.1	35.0	35.2	36.5
South Atlantic	6.5	6.3	6.1	6.4	6.1	5.8	7.1	7.7	7.3
East South Central	3.6	3.7	3.9	3.1	3.1	3.6	6.9	7.2	5.4
West South Central	6.1	6.3	6.2	5.1	5.1	5.3	11.7	13.3	11.1
Mountain	2.7	2.6	2.6	2.8	2.8	2.8	2.0	1.7	1.6
Pacific	8.0	7.6	7.8	8.6	8.2	8.7	4.3	4.0	3.1
NEW ENGLAND:									
Maine	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.8
New Hampshire	0.5	0.4	0.4	0.5	0.5	0.5	0.2	0.2	0.3
Vermont	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.6
Massachusetts	4.8	4.0	3.8	5.6	4.8	4.5	(2)	(2)	0.1
Rhode Island	0.6	0.6	0.5	0.8	0.6	0.6	------	------	------
Connecticut	1.4	1.3	1.2	1.7	1.5	1.4	(2)	(2)	(2)
MIDDLE ATLANTIC:									
New York	12.4	11.4	11.1	14.0	12.9	12.6	2.8	2.9	3.4
New Jersey	2.7	2.2	2.1	3.1	2.5	2.5	0.2	0.2	0.2
Pennsylvania	7.6	7.3	7.2	8.2	8.0	7.8	3.6	3.2	4.0
EAST NORTH CENTRAL:									
Ohio	6.7	7.2	7.2	7.1	7.8	7.7	4.3	4.0	4.5
Indiana	3.5	3.9	4.1	3.2	3.7	3.7	5.8	5.2	5.7
Illinois	8.9	9.2	9.2	9.3	9.6	9.6	6.7	6.7	7.3
Michigan	3.5	3.7	3.8	3.6	3.8	3.9	3.0	3.1	3.3
Wisconsin	3.0	3.0	2.9	2.6	2.7	2.5	5.1	4.4	4.5
WEST NORTH CENTRAL:									
Minnesota	3.0	3.5	3.1	2.7	3.3	2.8	4.6	4.7	4.6
Iowa	3.7	4.2	4.4	2.8	3.2	3.3	9.1	9.6	9.8
Missouri	3.8	4.4	4.6	3.2	3.7	3.9	7.6	8.3	8.4
North Dakota	0.5	0.6	0.6	0.4	0.5	0.4	1.5	1.5	1.3
South Dakota	0.7	0.8	0.8	0.5	0.6	0.5	2.0	1.7	1.9
Nebraska	1.9	2.1	2.3	1.7	2.0	2.1	3.3	3.0	3.2
Kansas	2.5	2.5	2.8	1.7	1.9	2.0	6.9	6.4	7.3
SOUTH ATLANTIC:									
Delaware	0.2	0.2	0.2	0.2	0.2	0.2	(2)	(2)	(2)
Maryland	1.1	1.0	1.0	1.2	1.2	1.1	0.2	0.2	0.2
District of Columbia	0.7	0.6	0.5	0.8	0.7	0.6	------	------	------
Virginia	1.1	1.0	0.9	1.0	0.9	0.8	1.7	1.5	1.4
West Virginia	0.8	0.8	0.9	0.7	0.7	0.8	1.5	1.9	1.8
North Carolina	0.8	0.8	0.7	0.7	0.6	0.6	1.5	1.7	1.7
South Carolina	0.4	0.4	0.4	0.3	0.3	0.3	0.6	0.7	0.6
Georgia	0.9	1.1	1.1	0.9	1.0	1.1	1.3	1.4	1.3
Florida	0.6	0.4	0.4	0.6	0.4	0.4	0.3	0.3	0.3
EAST SOUTH CENTRAL:									
Kentucky	1.4	1.4	1.5	1.2	1.2	1.4	2.5	2.4	2.2
Tennessee	1.2	1.2	1.2	1.0	1.0	1.1	2.6	2.5	1.8
Alabama	0.6	0.6	0.6	0.5	0.5	0.6	1.0	1.3	0.9
Mississippi	0.4	0.5	0.5	0.4	0.4	0.5	0.9	1.0	0.5
WEST SOUTH CENTRAL:									
Arkansas	0.7	0.7	0.8	0.5	0.6	0.6	1.6	1.8	1.6
Louisiana	0.6	0.5	0.5	0.7	0.6	0.6	0.3	0.3	0.2
Oklahoma	1.6	1.5	1.3	1.2	1.0	0.9	3.6	4.1	3.6
Texas	3.2	3.5	3.6	2.7	2.9	3.2	6.2	7.1	5.7
MOUNTAIN:									
Montana	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3
Idaho	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
Wyoming	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2
Colorado	1.1	1.0	1.0	1.1	1.1	1.2	0.6	0.4	0.3
New Mexico	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Arizona	0.2	0.2	0.1	0.2	0.2	0.1	0.1	(1)	0.1
Utah	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.1
Nevada	0.1	0.1	0.1	0.1	0.1	0.1	(2)	(2)	(2)
PACIFIC:									
Washington	1.7	1.6	1.7	1.7	1.6	1.8	1.5	1.5	1.1
Oregon	1.0	1.1	1.1	1.0	1.0	1.2	1.4	1.2	1.0
California	5.3	4.9	5.0	6.0	5.6	5.7	1.4	1.3	1.0

[1] See "Change in classification according to income," p. 6, and Table 4.
[2] Less than one-tenth of 1 per cent.

TABLE 10.—SUMMARY—TELEPHONE AND TELEGRAPH SYSTEMS: 1902–1922

	Census year	Total	Telephones [1]	Telegraphs [2]	PER CENT OF TOTAL	
					Telephones	Telegraphs
Number of systems and lines.	1922	57,277	57,253	24	----------	----------
	1917	53,261	53,234	27	99.9	0.1
	1912	32,260	32,233	27	99.9	0.1
	1907	22,997	22,971	26	99.9	0.1
	1902	9,161	9,136	25	99.7	0.3
Miles of single wire	1922	39,119,208	37,265,958	[3] 1,853,250	95.3	4.7
	1917	30,717,433	28,827,188	[3] 1,890,245	93.8	6.2
	1912	22,062,522	20,248,326	[3] 1,814,196	91.8	8.2
	1907	14,577,325	12,999,364	1,577,961	89.2	10.8
	1902	6,218,801	4,900,451	1,318,350	78.8	21.2
Ocean cable, nautical miles	1922	76,711	----------	76,711	----------	100.0
	1917	71,251	----------	71,251	----------	100.0
	1912	67,676	----------	67,676	----------	100.0
	1907	46,301	----------	46,301	----------	100.0
	1902	16,677	----------	16,677	----------	100.0
Employees and salaries and wages:						
Number	1922	358,965	290,333	68,632	80.9	19.1
	1917	296,064	244,490	51,574	82.6	17.4
	1912	220,656	183,361	37,295	83.1	16.9
	1907	172,203	144,169	28,034	83.7	16.3
	1902	106,379	78,752	27,627	74.0	26.0
Salaries and wages	1922	$417,699,748	$341,537,822	$76,161,926	81.8	18.2
	1917	209,298,977	169,655,066	39,643,911	81.1	18.9
	1912	121,005,535	96,040,541	24,964,994	79.4	20.6
	1907	86,087,376	68,279,127	17,808,249	79.3	20.7
	1902	51,295,294	36,255,621	15,039,673	70.7	29.3
Capitalization of incorporated companies.[4]	1922	1,986,923,883	1,738,326,105	248,597,778	87.5	12.5
	1917	1,398,161,656	1,169,073,870	229,087,786	83.6	16.4
	1912	1,197,077,802	970,690,992	226,386,810	81.1	18.9
	1907	960,170,263	739,876,688	220,293,575	77.1	22.9
	1902	510,977,583	348,031,058	162,946,525	68.1	31.9
Revenue, operating and nonoperating.	1922	808,681,994	656,823,908	151,858,086	81.2	18.8
	1917	482,205,228	372,501,800	109,703,428	77.2	22.8
	1912	318,656,812	253,893,969	64,762,843	79.7	20.3
	1907	227,334,314	175,750,446	51,583,868	77.3	22.7
	1902	127,755,574	86,825,536	40,930,038	68.0	32.0
Expenses, including taxes and fixed charges.	1922	688,150,580	560,159,965	127,990,615	81.4	18.6
	1917	404,974,219	313,103,060	91,871,159	77.3	22.7
	1912	260,946,596	202,567,644	58,378,952	77.6	22.4
	1907	176,404,828	134,525,215	41,879,613	76.3	23.7
	1902	96,112,805	65,164,771	30,948,034	67.8	32.2

[1] For "Number of systems and lines" and "Miles of single wire," all systems and lines are included. For the other items, the following are excluded: For 1922, systems and lines reporting annual incomes of less than $10,000; for 1917, 1912, and 1907, those reporting annual incomes of less than $5,000; and for 1902, "farmer or rural lines." (See "Change in classification according to income," p. 6, and Table 4.)

[2] Not including wireless-telegraph systems.

[3] Exclusive of 285,002 miles of wire in 1922, 344,110 miles in 1917, and 314,329 miles in 1912 owned and operated by railway companies.

[4] Includes intercompany holdings of telephone companies except those within the Bell System. (See "Capitalization," p. 46.)

CHAPTER III.—EQUIPMENT AND TRAFFIC

Equipment reported.—At the censuses for 1922 and 1917 the larger companies were required to report mileage of wire, pole line, and phantom circuit [1] and numbers of central offices or public exchanges, private-branch exchanges, and telephone instruments. The same items were reported for 1912, with the exception of mileage of phantom circuit. As already explained (see "Collection of the data," p. 5), the smaller systems and lines—those having incomes of less than $10,000 in 1922 and those with incomes below $5,000 in prior census years—reported mileage of wire and number of telephones and indicated whether central offices were operated. No information was secured as to the number of central offices operated by each of these small companies; but, since in the great majority of cases each company operated only one central office, the number of companies reporting central offices has been assumed to represent substantially the number of central offices. It is probable, however, that in a few cases a small company had more than one central office, and to the extent to which this was true the number of central offices shown for such companies is less than the actual number.

Since the small systems and lines presumably had exceedingly few, if any, private-branch exchanges, the data obtained from the larger systems in regard to such exchanges represent practically the total number.

Wire mileage (Tables 11–13).—A large proportion of the mileage of telephone wire is carried in cables, and to a large extent these cables in cities are in underground conduits. In reporting mileage of wire in cables the length of each individual wire was included. The larger systems made a distribution of wire mileage according to whether used for exchange or toll circuits and whether overhead or underground. The smaller systems made no such distribution, but, although a small proportion of the wire operated by them was undoubtedly toll wire, the inclusion of the total reported by these small systems as overhead wire on exchange circuits has little effect on the accuracy of the statistics.

Telephones (Tables 11, 15, 16, and 18).—The term "telephone" as here used refers to the complete instrument or set, consisting of transmitter, receiver, and associated parts. The number of telephones is almost invariably a matter of record or can be readily ascertained. The figures for this item are therefore fairly accurate. The number reported represents telephones wired for general service on December 31 and therefore does not include those used exclusively within hotels and mercantile or other commercial or private buildings for connections with different rooms, departments, etc., and having no connection with outside exchanges, and also does not include telephones belonging to railway, police, and fire-alarm systems, etc.

"Central offices" and "private-branch exchanges" (Table 11).—For census purposes a "central office" or "public exchange" is defined as a place or office in which lines for the use of the general public are interconnected by means of a switchboard. As already explained, the numbers of central offices shown for the smaller systems are to a slight degree understated. (See tabular statement, p. 8, and "Equipment reported," on this page.) A "private-branch exchange" consists of a switchboard located within a factory, office building, hotel, apartment house, or other establishment and serving as a means of connection between departments, offices, or rooms of the building or establishment, as well as with the central office outside.

[1] "A phantom circuit is an extra circuit obtained without use of additional line wires by special interconnection of the 4 wires forming 2 existing physical circuits."

The numbers of central offices reported for 1922 and earlier census years are shown in Table 2. The number of private-branch exchanges increased from 28,276 in 1907 to 52,651 in 1912, 80,914 in 1917, and 102,622 in 1922.

Number of "originating calls" (Tables 14, 16, 17, 19, and 20).—Systems and lines having incomes of $10,000 or more in 1922 were requested to report the "estimated total number of telephone connections or calls, including both completed and uncompleted, during the year, *originating* from telephones owned and operated by the company reporting." Both the Bell System and the larger non-Bell systems ordinarily make actual counts of their calls at least as often as one day in each month, and their estimates, therefore, may be considered as fairly close approximations to accuracy. The smaller companies were also called upon for estimates, but their figures have a wider margin of probable error, since these companies do not, as a rule, make periodical counts of their calls. Nevertheless, inasmuch as the calls of the small companies, as estimated by them for 1922, constituted only about one-ninth of the total for all companies (see Table 1), it is not likely that the margin of error contained in that total, as given in Table 1 and in the tabular statement on page 8, is very greatly in excess of the margin of error in the total for the large companies alone.

Although the schedules called for information in regard to "originating calls" only, there is no doubt that a small number of calls over the lines of the smaller systems were also reported by the larger systems performing switchboard service for them. This results in some slight duplication in the total number of calls reported by all systems.

The estimates of originating calls made by both the large and the small companies were in many cases stated, not in the round numbers in which approximations are usually shown, but in exact-appearing figures, and therefore the totals obtained by the addition of the estimates made by the individual companies are also in exact-appearing figures. It should be borne in mind in making use of these figures that, despite their appearance of exactness, they probably do not correctly represent any number more nearly exact than round billions for the country as a whole, or round millions or tens or hundreds of millions for individual States.

Exchange and long-distance or toll calls (Tables 14 and 17).—Calls originating and terminating within central offices of a local area are counted as exchange calls, and those which involve any interchange of business between separate companies or between different localities, and which are therefore subject to toll charges, are counted as long-distance or toll calls. The distribution of originating calls as exchange or as long-distance or toll was reported for 1922 only by those companies having incomes of $10,000 or more and for 1917 and earlier years only by those companies with incomes of $5,000 or more. Although toll business was done by some of the smaller systems, the great majority of their calls were exchange messages. In classifying as exchange or as long-distance or toll (Table 28), all calls on systems and lines with incomes below $10,000 in 1922 and on those with incomes below $5,000 in 1917 and earlier years have been treated as exchange calls.

Number of originating calls per telephone per day (Table 16).—The numbers of originating calls per telephone per day, for 1922 and 1917, as shown in Table 16, are based upon the average numbers of telephones in use during the year and upon the assumption that a year's traffic is equivalent to 325 full days' traffic, due allowance being made for the decreased use of the telephone on Sundays and holidays. The average numbers of telephones in use during the year are simple averages of the numbers reported for December 31, 1921, and December 31, 1922 (see Table 15), and of those reported for December 31, 1916, and

December 31, 1917. For 1912, however, the number of telephones reported for December 31, 1912, was used as the basis.

Per capita figures (Tables 18, 19, and 20).—In calculating the numbers of telephones per 1,000 population and the numbers of originating calls per capita, estimates of population have been used. These estimates have been made on the assumption that the numerical increase (not the per cent of increase) between consecutive decennial censuses was constant from year to year, and that the annual numerical increase since 1920 has been the same as the average annual numerical increase between 1910 and 1920.

TABLE 11.—EQUIPMENT STATISTICS, ALL SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME: [1] 1907–1922

	1922	1917	1912	1907
All systems and lines:				
Miles of wire	37,265,958	28,827,188	20,248,326	12,999,364
Number of telephones	14,347,395	11,716,520	8,729,592	6,118,578
Systems reporting annual incomes of $10,000 or more, 1922, and those reporting $5,000 or more, 1917, 1912, and 1907:				
Miles of pole line	694,567	780,200	671,686	553,752
Miles of wire	35,502,983	27,298,026	19,019,391	11,921,960
Miles of phantom circuit	643,608	315,037	(2)	(2)
Number of central offices	10,666	12,294	11,515	10,613
Number of private-branch exchanges	102,622	80,914	52,651	28,276
Number of telephones	12,295,234	9,953,710	7,326,748	4,906,693
Systems and lines reporting annual incomes of less than $10,000, 1922, and those reporting less than $5,000, 1917, 1912, and 1907:				
Miles of wire	1,762,975	1,529,162	1,228,935	1,077,404
Number of telephones	2,052,161	1,762,810	1,402,844	1,211,885

[1] See "Change in classification according to income," p. 6, and Table 4.
[2] Not reported.

TABLE 12.—MILES OF WIRE, OVERHEAD AND UNDERGROUND, ON EXCHANGE AND TOLL CIRCUITS, ALL SYSTEMS AND LINES: 1922, 1917, AND 1912

	1922	1917	1912
Total	37,265,958	28,827,188	20,248,326
Overhead	15,825,487	13,978,008	11,083,338
Underground	21,440,471	14,849,180	9,164,988
On exchange circuits	32,669,630	25,252,276	17,565,110
Overhead	[1] 12,787,926	[1] 11,393,178	[1] 8,876,594
Underground	19,882,404	13,859,098	8,688,516
On toll circuits	4,596,328	3,574,912	2,683,216
Overhead	3,038,261	2,584,830	2,206,744
Underground	1,558,067	990,082	476,472

[1] Includes 1,762,975 miles of wire for 1922, operated by systems and lines reporting annual incomes of less than $10,000, and 1,529,162 miles for 1917 and 1,228,935 miles for 1912 operated by lines and systems reporting incomes of less than $5,000, not distributed as overhead or underground.

TABLE 13.—MILES OF WIRE, OVERHEAD AND UNDERGROUND, ALL SYSTEMS AND LINES: 1902–1922

CENSUS YEAR	Total	Overhead [1]	Underground	PER CENT OF TOTAL	
				Overhead	Underground
1922	37,265,958	15,825,487	21,440,471	42.5	57.5
1917	28,827,188	13,978,008	14,849,180	48.5	51.5
1912	20,248,326	11,083,338	9,164,988	54.7	45.3
1907	12,999,364	8,009,332	4,990,032	61.6	38.4
1902	4,900,451	3,200,409	1,700,042	65.3	34.7

[1] Includes for 1922 miles of wire operated by systems and lines reporting annual incomes of less than $10,000; for 1917 and 1912, total operated by systems and lines reporting incomes of less than $5,000 (see "Change in classification according to income," p. 6, and Table 4); and for 1907 and 1902, total operated by farmer or rural lines. Excludes 2,835 miles of wire in 1922 and 1917, 1,565 miles in 1912, and 5 miles in 1907, operated in Canada.

TABLE 14.—ORIGINATING CALLS,[1] CLASSIFIED AS EXCHANGE AND LONG-DISTANCE OR TOLL, FOR SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1902–1917 [2]

CENSUS YEAR	Total	Exchange	Long-distance or toll	PER CENT OF TOTAL	
				Exchange	Long-distance or toll
1922	21,901,387,070	21,235,459,861	665,927,209	97.0	3.0
1917	19,809,061,085	19,366,111,091	442,949,994	97.8	2.2
1912	13,735,658,245	13,394,885,442	340,772,803	97.5	2.5
1907	10,400,433,958	10,160,630,944	239,803,014	97.7	2.3
1902 [3]	5,070,554,553	4,949,849,709	120,704,844	97.6	2.4

[1] See "Number of 'originating calls'", p. 22.
[2] See "Change in classification according to income," p. 6, and Table 4.
[3] Number reported by all systems which had central offices or exchanges.

TABLE 15.—NUMBER OF TELEPHONES DECEMBER 31, 1922, AND DECEMBER 31, 1921, AND AVERAGE NUMBER FOR 1922, FOR THE BELL SYSTEM AND FOR OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, BY GEOGRAPHIC DIVISIONS AND STATES

DIVISION AND STATE	TOTAL			BELL TELEPHONE SYSTEM			OTHER SYSTEMS		
	Average number for 1922	On Dec. 31, 1922	On Dec. 31, 1921	Average number for 1922	On Dec. 31, 1922	On Dec. 31, 1921	Average number for 1922	On Dec. 31, 1922	On Dec. 31, 1921
UNITED STATES	11,948,164	12,295,234	11,601,093	9,214,484	9,514,813	8,914,155	2,733,680	2,780,421	2,686,938
GEOGRAPHIC DIVS.:									
New England	1,156,673	1,197,433	1,115,912	1,095,115	1,135,359	1,054,871	61,558	62,074	61,041
Middle Atlantic	2,994,602	3,112,921	2,876,283	2,594,417	2,703,858	2,484,976	400,185	409,063	391,307
E. N. Central	3,113,653	3,179,335	3,047,970	2,202,172	2,255,352	2,148,993	911,480	923,983	898,977
W. N. Central	1,574,860	1,597,239	1,552,481	755,471	771,453	739,489	819,389	825,786	812,992
South Atlantic	768,580	791,707	745,454	632,876	651,271	614,481	135,704	140,436	130,973
E. S. Central	366,804	379,996	353,612	271,840	279,804	263,877	94,964	100,192	89,735
W. S. Central	613,342	632,352	594,332	466,194	481,904	450,485	147,148	150,448	143,847
Mountain	339,625	344,443	334,807	316,162	320,661	311,664	23,462	23,782	23,143
Pacific	1,020,025	1,059,808	980,242	880,235	915,151	845,319	139,790	144,657	134,923
NEW ENGLAND:									
Maine	100,778	101,786	99,770	74,014	74,891	73,138	26,764	26,895	26,632
New Hampshire	63,544	64,909	62,178	49,896	50,932	48,859	13,648	13,977	13,319
Vermont	45,660	46,182	45,139	30,868	31,162	30,573	14,793	15,020	14,566
Massachusetts	659,611	686,731	632,491	656,172	683,386	628,959	3,438	3,345	3,532
Rhode Island	88,606	92,766	84,446	87,023	91,271	82,775	1,583	1,495	1,671
Connecticut	198,474	205,059	191,888	197,142	203,717	190,567	1,332	1,342	1,321
MIDDLE ATLANTIC:									
New York	1,655,719	1,722,653	1,588,785	1,498,534	1,561,017	1,436,052	157,184	161,636	152,733
New Jersey	361,521	379,303	343,740	350,650	368,439	332,861	10,872	10,864	10,879
Pennsylvania	977,362	1,010,965	943,758	745,232	774,402	716,063	232,129	236,563	227,695
E. N. CENTRAL:									
Ohio	860,818	874,133	847,502	590,308	600,173	580,442	270,510	273,960	267,060
Indiana	384,886	389,100	380,672	191,712	193,114	190,311	193,174	195,986	190,361
Illinois	1,119,499	1,145,616	1,093,382	875,826	898,235	853,418	243,672	247,381	239,964
Michigan	429,955	445,739	414,171	324,885	338,718	311,052	105,070	107,021	103,119
Wisconsin	318,495	324,747	312,243	219,441	225,112	213,770	99,054	99,635	98,473
W. N. CENTRAL:									
Minnesota	323,358	329,542	317,173	166,817	170,576	163,057	156,541	158,966	154,116
Iowa	342,885	346,880	338,890	174,764	177,151	172,377	168,121	169,729	166,513
Missouri	389,134	394,792	383,476	173,628	179,664	167,593	215,506	215,128	215,883
North Dakota	47,737	47,588	47,886	22,810	22,637	22,984	24,926	24,951	24,902
South Dakota	59,448	59,905	58,992	20,386	20,706	20,066	39,062	39,199	38,926
Nebraska	204,095	206,144	202,046	101,282	102,527	100,036	102,814	103,617	102,010
Kansas	208,203	212,388	204,018	95,784	98,192	93,376	112,419	114,196	110,642
S. ATLANTIC:									
Delaware	22,680	22,972	22,389	22,680	22,972	22,389	-------	-------	-------
Maryland	146,128	150,298	141,958	146,098	150,268	141,928	30	30	30
Dist. Columbia	98,486	102,231	94,742	98,486	102,231	94,742	-------	-------	-------
Virginia	118,026	120,627	115,425	95,781	97,991	93,571	22,245	22,636	21,854
West Virginia	82,056	85,381	78,732	74,050	77,147	70,952	8,007	8,234	7,780
North Carolina	82,102	85,161	79,042	34,362	35,874	32,850	47,740	49,287	46,192
South Carolina	40,829	41,505	40,153	32,179	32,726	31,632	8,650	8,779	8,521
Georgia	108,257	110,347	106,167	95,432	97,512	93,353	12,824	12,835	12,814
Florida	70,016	73,185	66,846	33,807	34,550	33,064	36,208	38,635	33,782
E. S. CENTRAL:									
Kentucky	145,971	150,373	141,569	74,086	76,490	71,683	71,884	73,883	69,886
Tennessee	113,534	118,992	108,075	98,378	100,823	95,933	15,156	18,169	12,142
Alabama	62,961	64,820	61,102	57,694	59,410	55,979	5,267	5,410	5,123
Mississippi	44,338	45,811	42,866	41,682	43,081	40,282	2,657	2,730	2,584
W. S. CENTRAL:									
Arkansas	65,358	66,785	63,932	54,558	55,843	53,274	10,800	10,942	10,658
Louisiana	78,018	81,071	74,966	75,912	78,788	73,037	2,106	2,283	1,929
Oklahoma	143,948	148,602	139,293	129,531	134,161	124,901	14,416	14,441	14,392
Texas	326,018	335,894	316,141	206,192	213,112	199,273	119,825	122,782	116,868
MOUNTAIN:									
Montana	46,306	46,666	45,945	43,632	43,992	43,273	2,673	2,674	2,672
Idaho	40,559	40,442	40,676	32,000	31,863	32,138	8,558	8,579	8,538
Wyoming	20,230	20,846	19,613	18,966	19,583	18,350	1,263	1,263	1,263
Colorado	135,120	138,513	131,728	132,348	135,635	129,061	2,772	2,878	2,667
New Mexico	14,178	14,357	13,999	13,293	13,441	13,145	885	916	854
Arizona	22,869	23,318	22,420	21,469	21,877	21,061	1,400	1,441	1,359
Utah	50,757	50,448	51,066	48,140	47,831	48,449	2,617	2,617	2,617
Nevada	9,606	9,853	9,360	6,313	6,439	6,187	3,294	3,414	3,173
PACIFIC:									
Washington	203,234	207,431	199,038	170,412	174,007	166,816	32,823	33,424	32,222
Oregon	116,958	118,455	115,460	96,825	98,148	95,503	20,132	20,307	19,957
California	699,833	733,922	665,744	612,998	642,996	583,000	86,835	90,926	82,744

TABLE 16.—TELEPHONES, ORIGINATING CALLS,[1] AND CALLS PER TELEPHONE PER DAY, BY GEOGRAPHIC DIVISIONS AND STATES, FOR SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1917 AND 1912 [2]

DIVISION AND STATE	NUMBER OF TELEPHONES [3]			NUMBER OF ORIGINATING CALLS [1]			Per telephone per day [4]		
	1922	1917	1912	1922	1917	1912	1922	1917	1912
U. S.	11,948,164	9,697,110	7,326,748	21,901,387,070	19,809,061,085	13,735,658,245	5.6	6.3	5.8
GEOG. DIVS.:									
New England	1,156,673	834,412	600,207	1,871,150,190	1,491,798,705	810,524,037	5.0	5.5	4.2
Mid. Atlantic	2,994,602	2,272,496	1,675,681	4,659,783,310	3,759,253,241	2,422,868,241	4.8	5.1	4.4
E. N. Central	3,113,653	2,674,315	2,020,802	5,360,088,497	5,459,843,329	4,025,906,387	5.3	6.3	6.1
W. N. Central	1,574,860	1,461,808	1,109,359	3,167,016,446	3,080,583,974	2,238,770,606	6.2	6.5	6.2
South Atlantic	768,580	579,448	428,311	1,603,096,379	1,409,721,700	869,439,943	6.4	7.5	6.2
E. S. Central	366,804	304,770	261,294	1,078,012,779	962,576,140	662,046,512	9.0	9.7	7.8
W. S. Central	613,342	492,420	387,022	1,666,025,307	1,515,971,215	1,079,517,948	8.4	9.5	8.6
Mountain	339,625	268,493	204,508	572,907,641	500,269,587	435,366,129	5.2	5.7	6.6
Pacific	1,020,025	808,948	639,564	1,923,306,521	1,629,043,194	1,191,218,442	5.8	6.2	5.7
NEW ENGLAND:									
Maine	100,778	76,657	57,988	170,660,169	144,507,158	84,033,152	5.2	5.8	4.5
N. Hampshire	63,544	48,581	36,052	98,099,726	87,351,473	49,984,600	4.8	5.5	4.3
Vermont	45,660	39,847	31,498	67,447,558	98,614,464	48,306,101	4.5	7.6	4.7
Massachusetts	659,611	462,326	328,503	1,097,990,574	800,057,085	401,817,540	5.1	5.3	3.8
Rhode Island	88,606	62,287	41,664	125,331,921	105,594,600	48,211,556	4.4	5.2	3.6
Connecticut	198,474	144,714	104,502	311,620,242	255,673,925	178,171,088	4.8	5.4	5.2
MID. ATLANTIC:									
New York	1,655,719	1,250,751	923,136	2,652,808,461	2,101,225,651	1,297,849,047	4.9	5.2	4.3
New Jersey	361,521	245,296	182,419	467,618,686	335,130,108	192,311,511	4.0	4.2	3.2
Pennsylvania	977,362	776,449	570,126	1,539,356,163	1,322,897,482	932,707,683	4.8	5.2	5.0
E. N. CENTRAL:									
Ohio	860,818	749,607	567,573	1,433,328,989	1,662,588,046	1,301,503,565	5.1	6.8	7.1
Indiana	384,886	356,970	244,291	790,838,385	784,487,523	583,621,519	6.3	6.7	6.5
Illinois	1,119,499	929,308	704,230	1,827,326,484	1,682,589,280	1,105,751,431	5.0	5.6	4.8
Michigan	429,955	372,650	288,154	771,152,117	841,989,847	694,363,258	5.5	7.0	7.4
Wisconsin	318,495	265,780	186,554	537,442,522	488,188,633	340,666,614	5.2	5.6	5.6
W. N. CENTRAL:									
Minnesota	323,358	317,770	208,340	678,216,101	630,210,504	418,720,464	6.5	6.1	6.2
Iowa	342,885	309,105	242,963	582,345,568	634,311,700	471,126,059	5.2	6.3	6.0
Missouri	389,134	356,048	285,472	848,767,544	842,595,853	655,616,330	6.7	7.3	7.1
North Dakota	47,737	46,578	32,915	75,696,870	81,705,350	49,861,643	4.9	5.4	4.7
South Dakota	59,448	56,692	39,299	108,275,315	92,113,268	47,881,574	5.6	5.0	3.7
Nebraska	204,095	190,978	156,619	437,458,080	425,428,689	291,615,175	6.6	6.8	5.7
Kansas	208,203	184,637	143,751	436,256,968	374,218,610	303,949,361	6.4	6.2	6.5
S. ATLANTIC:									
Delaware	22,680	21,040	15,210	40,201,236	36,604,568	26,810,915	5.5	5.4	5.4
Maryland	146,128	112,133	81,686	234,499,460	182,654,086	104,008,361	4.9	5.0	3.9
Dist. of Col.	98,486	65,050	46,603	120,858,120	111,132,636	46,936,446	3.8	5.2	3.1
Virginia	118,026	91,163	56,968	214,681,864	219,957,057	164,421,931	5.6	7.4	8.9
West Virginia	82,056	57,264	55,033	161,015,227	126,701,314	103,255,136	6.0	6.8	5.8
N. Carolina	82,102	60,084	41,177	232,996,454	173,012,977	90,831,013	8.7	8.9	6.8
S. Carolina	40,829	31,201	24,871	106,965,936	94,142,343	68,170,380	8.1	9.3	8.4
Georgia	108,257	98,218	78,864	326,523,807	324,047,185	206,631,042	9.3	10.2	8.1
Florida	70,016	43,295	27,809	165,354,275	141,469,534	58,374,719	7.3	10.0	6.4
E. S. CENTRAL:									
Kentucky	145,971	118,432	100,174	367,902,969	339,414,688	287,807,892	7.8	8.8	8.8
Tennessee	113,534	95,147	78,717	387,958,215	321,450,567	188,865,474	10.5	10.4	7.4
Alabama	62,961	52,314	44,144	198,428,871	175,658,670	100,983,408	9.7	10.3	7.0
Mississippi	44,338	38,877	38,259	123,722,724	126,052,215	84,389,738	8.6	10.0	6.8
W. S. CENTRAL:									
Arkansas	65,358	54,380	45,743	179,778,512	167,274,716	124,445,991	8.5	9.5	8.4
Louisiana	78,018	52,122	43,906	251,351,610	192,731,445	101,597,617	9.9	11.4	7.1
Oklahoma	143,948	101,088	65,215	366,874,478	306,691,645	163,999,696	7.8	9.3	7.7
Texas	326,018	284,830	232,158	868,020,707	849,273,409	689,474,644	8.2	9.2	9.1
MOUNTAIN:									
Montana	46,306	42,682	31,188	64,080,206	78,355,645	74,199,460	4.3	5.6	7.3
Idaho	40,559	28,883	23,475	72,809,399	52,878,610	45,634,703	5.5	5.6	6.0
Wyoming	20,230	11,791	7,471	35,394,898	28,912,599	17,121,932	5.4	7.5	7.1
Colorado	135,120	104,964	85,886	229,101,860	182,030,107	165,041,709	5.2	5.3	5.9
New Mexico	14,178	12,656	9,047	26,203,759	25,462,623	20,174,437	5.7	6.2	7.9
Arizona	22,869	16,510	10,128	28,815,177	21,031,654	11,573,427	3.9	3.9	3.5
Utah	50,757	43,019	32,018	100,866,042	99,014,412	93,122,868	6.1	7.1	8.9
Nevada	9,606	7,988	5,295	15,636,300	12,583,937	8,497,593	5.0	4.8	4.9
PACIFIC:									
Washington	203,234	159,481	134,040	400,069,975	328,583,795	295,273,362	6.1	6.3	6.8
Oregon	116,958	101,751	84,923	233,813,936	202,998,735	170,065,267	6.2	6.1	6.2
California	699,833	547,716	420,601	1,289,422,610	1,097,460,664	725,879,813	5.7	6.2	5.3

[1] See "Number of 'originating calls,' " p. 22.
[2] See "Change in classification according to income," p. 6, and Table 4.
[3] For 1922 and 1917, average number; for 1912, number on Dec. 31.
[4] Computed on the basis of 325 days to the year. (See note 1; see also "Number of originating calls per telephone per day," p. 22.)

TABLE 17.—ORIGINATING CALLS[1], CLASSIFIED AS EXCHANGE AND LONG-DISTANCE OR TOLL, FOR SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, BY GEOGRAPHIC DIVISIONS AND STATES: 1922

DIVISION AND STATE	Total	Exchange	Long-distance or toll	PER CENT OF TOTAL	
				Exchange	Long-distance or toll
UNITED STATES	21,901,387,070	21,235,459,861	665,927,209	97.0	3.0
GEOGRAPHIC DIVISIONS:					
New England	1,871,150,190	1,795,834,897	75,315,293	96.0	4.0
Middle Atlantic	4,659,783,310	4,382,229,193	277,554,117	94.0	6.0
East North Central	5,360,088,497	5,245,016,372	115,072,125	97.9	2.1
West North Central	3,167,016,446	3,116,697,383	50,319,063	98.4	1.6
South Atlantic	1,603,096,379	1,564,045,887	39,050,492	97.6	2.4
East South Central	1,078,012,779	1,064,288,742	13,724,037	98.7	1.3
West South Central	1,666,026,307	1,640,237,044	25,788,263	98.5	1.5
Mountain	572,907,641	559,788,483	13,119,158	97.7	2.3
Pacific	1,923,306,521	1,867,321,860	55,984,661	97.1	2.9
NEW ENGLAND:					
Maine	170,660,169	164,658,576	6,001,593	96.5	3.5
New Hampshire	98,099,726	94,114,844	3,984,882	95.9	4.1
Vermont	67,447,558	64,577,074	2,870,484	95.7	4.3
Massachusetts	1,097,990,574	1,057,822,162	40,168,412	96.3	3.7
Rhode Island	125,331,921	118,051,814	7,280,107	94.2	5.8
Connecticut	311,620,242	296,610,427	15,009,815	95.2	4.8
MIDDLE ATLANTIC:					
New York	2,652,808,461	2,520,582,558	132,225,903	95.0	5.0
New Jersey	467,618,686	386,729,088	[2] 80,889,598	82.7	17.3
Pennsylvania	1,539,356,163	1,474,917,547	64,438,616	95.8	4.2
EAST NORTH CENTRAL:					
Ohio	1,433,328,989	1,411,292,207	22,036,782	98.5	1.5
Indiana	790,838,385	771,984,367	18,854,018	97.6	2.4
Illinois	1,827,326,484	1,778,471,172	48,855,312	97.3	2.7
Michigan	771,152,117	754,745,019	16,407,098	97.9	2.1
Wisconsin	537,442,522	528,523,607	8,918,915	98.3	1.7
WEST NORTH CENTRAL:					
Minnesota	678,216,101	666,687,306	11,528,795	98.3	1.7
Iowa	582,345,568	571,417,728	10,927,840	98.1	1.9
Missouri	848,767,544	837,370,390	11,397,154	98.7	1.3
North Dakota	75,696,870	74,094,978	1,601,892	97.9	2.1
South Dakota	108,275,315	105,713,466	2,561,849	97.6	2.4
Nebraska	437,458,080	431,771,450	5,686,630	98.7	1.3
Kansas	436,256,968	429,642,065	6,614,903	98.5	1.5
SOUTH ATLANTIC:					
Delaware	40,201,236	38,837,628	1,363,608	96.6	3.4
Maryland	234,499,460	224,612,004	9,887,456	95.8	4.2
District of Columbia	120,858,120	118,216,620	2,641,500	97.8	2.2
Virginia	214,681,864	209,745,734	4,936,130	97.7	2.3
West Virginia	161,015,227	153,639,870	7,375,357	95.4	4.6
North Carolina	232,996,454	229,139,058	3,857,396	98.3	1.7
South Carolina	106,965,936	104,890,799	2,075,137	98.1	1.9
Georgia	326,523,807	322,253,533	4,270,274	98.7	1.3
Florida	165,354,275	162,710,641	2,643,634	98.4	1.6
EAST SOUTH CENTRAL:					
Kentucky	367,902,969	363,821,339	4,081,630	98.9	1.1
Tennessee	387,958,215	384,589,399	3,368,816	99.1	0.9
Alabama	198,428,871	195,152,044	3,276,827	98.3	1.7
Mississippi	123,722,724	120,725,960	2,996,764	97.6	2.4
WEST SOUTH CENTRAL:					
Arkansas	179,778,512	176,880,951	2,897,561	98.4	1.6
Louisiana	251,351,610	248,055,660	3,295,950	98.7	1.3
Oklahoma	366,874,478	359,085,646	7,788,832	97.9	2.1
Texas	868,020,707	856,214,787	11,805,920	98.6	1.4
MOUNTAIN:					
Montana	64,080,206	62,567,126	1,513,080	97.6	2.4
Idaho	72,809,399	71,049,230	1,760,169	97.6	2.4
Wyoming	35,394,898	34,664,174	730,724	97.9	2.1
Colorado	229,101,860	223,802,749	5,299,111	97.7	2.3
New Mexico	26,203,759	25,794,196	409,563	98.4	1.6
Arizona	28,815,177	27,970,732	844,445	97.1	2.9
Utah	100,866,042	98,608,616	2,257,426	97.8	2.2
Nevada	15,636,300	15,331,660	304,640	98.1	1.9
PACIFIC:					
Washington	400,069,975	394,437,956	5,632,019	98.6	1.4
Oregon	233,813,936	230,029,019	3,784,917	98.4	1.6
California	1,289,422,610	1,242,854,885	46,567,725	96.4	3.6

[1] See "Number of 'originating calls,'" p. 22.
[2] Includes all calls across the Hudson River to New York and across the Delaware River to Philadephia.

TABLE 18.—NUMBER OF TELEPHONES PER 1,000 POPULATION,[1] ALL SYSTEMS AND LINES, BY GEOGRAPHIC DIVISIONS AND STATES: 1902 TO 1922

[The figures in this table are based on the numbers of telephones reported as of Dec. 31 for the specified years, and on population estimated as follows: For the years 1922 and 1917, estimated as of Jan. 1, 1923, and Jan. 1, 1918, respectively; for the years 1912, 1907, and 1902, estimated as of July 1.]

DIVISION AND STATE	1922	1917	1912	1907	1902
UNITED STATES	130	112	92	70	30
GEOG. DIVS.:					
New England	160	120	93	65	29
Middle Atlantic	140	109	89	69	30
E. N. Central	164	158	125	97	45
W. N. Central	181	168	137	111	38
South Atlantic	64	55	42	31	14
E. S. Central	58	48	40	30	15
W. S. Central	82	70	60	42	16
Mountain	109	91	81	65	26
Pacific	192	160	152	105	57
NEW ENGLAND:					
Maine	147	113	92	73	20
New Hampshire	154	118	92	68	24
Vermont	155	131	113	87	35
Massachusetts	172	125	95	65	33
Rhode Island	149	102	75	47	24
Connecticut	141	117	89	60	
MIDDLE ATLANTIC:					
New York	165	126	103	80	32
New Jersey	115	83	69	50	24
Pennsylvania	120	98	79	62	28
E. N. CENTRAL:					
Ohio	159	161	126	108	52
Indiana	170	161	129	109	53
Illinois	190	171	138	103	44
Michigan	129	139	111	78	38
Wisconsin	158	137	104	70	30
W. N. CENTRAL:					
Minnesota	171	175	127	86	35
Iowa	217	221	168	149	62
Missouri	160	149	122	96	33
North Dakota	116	97	86	68	18
South Dakota	156	122	111	91	24
Nebraska	206	192	166	132	34
Kansas	198	160	144	123	27
SOUTH ATLANTIC:					
Delaware	103	103	77	64	22
Maryland	103	86	64	52	
Dist. of Columbia	217	190	131	99	
Virginia	65	54	36	28	14
West Virginia	75	70	63	54	22
North Carolina	44	38	28	18	9
South Carolina	31	26	21	14	8
Georgia	46	43	36	25	11
Florida	77	53	40	25	14
E. S. CENTRAL:					
Kentucky	82	68	56	42	22
Tennessee	72	61	47	33	18
Alabama	35	32	26	20	7
Mississippi	36	28	26	22	10
W. S. CENTRAL:					
Arkansas	55	49	42	33	12
Louisiana	47	34	28	23	12
Oklahoma	104	76	67	48	16
Texas	94	90	77	52	20
MOUNTAIN:					
Montana	91	107	86	51	20
Idaho	105	82	84	59	20
Colorado	153	114	109	91	41
New Mexico	49	36	31	23	11
Arizona	65	68	48	34	23
Utah	113	104	87	88	18
Wyoming	119	84	63	51	
Nevada	136	77	70	65	23
PACIFIC:					
Washington	167	116	126	102	48
Oregon	180	144	143	83	45
California	204	188	166	112	64

[1] Based on Table 7. Population estimated by arithmetical method, it being assumed that the numerical increases and decreases between 1900 and 1910 and those between 1910 and 1920 were uniform from year to year; that the annual numerical increase since 1920 was equal to the average annual numerical increase between 1910 and 1920 except in the case of the District of Columbia; and that for the States of Vermont, Mississippi, and Nevada, which decreased between 1910 and 1920, and for the District of Columbia, which increased with abnormal rapidity, the population in 1922 was the same as in 1920. The ratios of telephones to 1,000 population as given in Table 13 of the report for 1917 and in the corresponding table of the report for 1912 were computed from estimates of population based on the increases between 1900 and 1910; and those published in the reports for 1907 and 1902 were computed from estimates based on the increases between 1890 and 1900. Those ratios, therefore, differ somewhat from the ratios for 1917 and earlier years as they appear in the above table.

TABLE 19.—NUMBER OF ORIGINATING CALLS PER CAPITA, BY GEOGRAPHIC DIVISIONS, FOR SYSTEMS AND LINES REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1902–1917 [1]

[The figures in this table are based on the population estimated as of July 1 of each year]

	1922	1917	1912	1907	1902
UNITED STATES	200	194	144	119	64
New England	246	208	120	91	51
Middle Atlantic	202	175	121	107	56
East North Central	240	264	212	174	105
West North Central	248	250	189	148	67
South Atlantic	111	104	69	64	33
East South Central	120	110	78	90	49
West South Central	157	154	118	79	43
Mountain	163	159	156	127	55
Pacific	325	312	264	196	100

[1] See "Change in classification according to income," p. 6, and Table 4. For explanation of method of estimating population, and of difference between per capita figures for 1917 and earlier years as given in this report and in preceding reports, see footnote 1, Table 18.

TABLE 20.—NUMBER OF ORIGINATING CALLS PER CAPITA, BY STATES, FOR SYSTEMS AND LINES REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1902–1917 [1]

[The figures in this table are based on the population estimated as of July 1 of each year. The States are listed according to number of calls per capita in 1922.]

STATE	1922	1917	1912	1907	1902	STATE	1922	1917	1912	1907	1902
California	349	348	277	206	107	Delaware	176	168	130	-----	-----
Nebraska	331	335	240	213	67	Oklahoma	173	159	94	77	33
Oregon	288	269	244	140	76	Pennsylvania	171	157	118	106	75
Washington	283	252	248	207	99	Wyoming	171	159	109	-----	-----
District of Columbia	276	271	132	-----	-----	South Dakota	167	148	80	114	41
Massachusetts	276	215	116	93	63	Tennessee	163	140	85	108	62
Minnesota	275	273	195	138	62	Florida	161	155	73	58	33
Illinois	273	268	190	154	108	Idaho	159	131	130	89	33
Indiana	265	273	212	188	115	Maryland	157	130	78	-----	-----
New York	248	209	138	120	47	Kentucky	150	142	124	123	66
Missouri	247	250	198	144	77	New Jersey	141	112	72	59	28
Kansas	244	214	178	147	39	Louisiana	137	109	60	76	47
Iowa	238	269	208	164	87	North Dakota	114	130	84	79	38
Ohio	238	302	261	227	130	Georgia	110	115	77	75	42
Colorado	235	201	199	190	101	Montana	108	155	179	56	42
Maine	220	190	112	100	31	West Virginia	106	90	81	95	41
New Hampshire	220	199	115	86	41	Arkansas	100	98	77	48	27
Connecticut	215	195	152	-----	-----	Virginia	90	98	78	58	35
Utah	215	230	238	-----	-----	North Carolina	88	70	40	38	19
Nevada	202	160	105	96	28	Alabama	83	77	46	50	24
Rhode Island	202	179	87	-----	-----	Arizona	78	70	49	57	36
Michigan	198	244	231	153	95	New Mexico	71	72	60	43	19
Wisconsin	198	191	142	136	48	Mississippi	69	70	47	70	38
Vermont	191	279	136	101	55	South Carolina	62	57	44	35	17
Texas	179	190	169	94	52						

[1] See "Change in classification according to income," p. 6, and Table 4. For explanation of method of estimating population, and of difference between per capita figures for 1917 and earlier years as given in this report and in preceding reports, see footnote 1, Table 18.

CHAPTER IV.—COMPARISON OF BELL AND OTHER SYSTEMS; STATISTICS FOR SMALL SYSTEMS AND LINES

A very large proportion of the telephone business of the United States is conducted by a single organization, the American Telephone & Telegraph Co., and its associated companies, commonly known as the Bell System. This system made one consolidated report for its constituent companies, but supplied separate data for its equipment and traffic in each State. (See Tables 24–28.)

Wire mileage and number of telephones are the only items for which satisfactory comparisons between the Bell and all other systems and lines (including those with incomes below $5,000) can be made for years prior to 1917, except that the number of central offices, not including farmer or rural lines, can be shown for 1907 (Table 26).

The growth of the Bell System and of all other systems during the past 20 years is shown by Table 21. During the 20-year period from 1902 to 1922 the number of telephones reported by the Bell System increased by more than 600 per cent, while the corresponding increase for all other telephone systems was less than 400 per cent. The proportion which the number of telephones reported by the Bell System formed of the total decreased from 55.6 per cent in 1902 to 51.2 in 1907, but thereafter increased to 58.3 per cent in 1912, 62.5 in 1917, and 66.3 in 1922. In addition to the 9,514,813 telephones operated directly by the Bell System in 1922, there were, according to the annual report of the American Telephone & Telegraph Co., 4,535,752 telephones of other systems and lines which were connected with and received service over the Bell lines. This makes a total of 14,050,565 interconnected telephones in the United States. Because of the incompleteness of the data obtained from the smaller systems and lines (see "Statistics for small systems and lines," p. 31), the apparent proportion which this total forms of the total number of telephones in the United States is somewhat larger than the true proportion.

Bell-controlled companies.—Prior to 1922 the statistics for the Bell System as compiled for census purposes included data for a number of relatively small systems and lines controlled by the constituent Bell companies. The data for these small systems and lines were not, however, included with those for the Bell System as published in the annual reports of the American Telephone & Telegraph Co. and reprinted in other publications. The resultant difference between the census statistics and other published figures relating to the Bell System has given rise to some confusion in the minds of persons making use of these statistics. In the present report, therefore, the Bell-controlled companies have not been treated as a part of the Bell System. The 145 Bell companies shown in the tables for 1917 comprised 37 constituent and 108 controlled companies. As the result of reorganization and changes in ownership the number of constituent companies had been reduced to 26 in 1922, while the number of controlled companies had been reduced to 88. Although these controlled companies far outnumber the constituent companies, they are nevertheless relatively unimportant, and therefore their inclusion with one group or the other has no very great effect on the comparability of the group totals as between one census year and another. In fact, the investment in plant and equipment reported by the controlled companies for 1922 was equal to only 2.8 per cent of the investment reported by the Bell System; and the corresponding percentages for number of telephones and total revenues were only 3.6 and 2.4, respectively.

Effect of change in classification according to income.—The change from $5,000 to $10,000 in the minimum income limit for companies from which detailed data were collected (see "Change in classification according to income," p. 6) did not, of course, have any effect on the statistics for the Bell System; but it did materially impair the comparability of the non-Bell statistics for 1922 with those for earlier years. As will be seen from Table 4, 28.1 per cent of the number of central offices, 17.5 per cent of the number of telephones, 12.6 per cent of the number of originating calls, and 10.1 per cent of the wire mileage for all non-Bell companies having incomes of $5,000 or over in 1917 were reported by companies with incomes from $5,000 to $10,000.

Statistics for small systems and lines.—A distinctive feature of the telephone business is the large number of farmer or rural lines. Although practically always connected with exchanges, these lines are, in many cases, owned jointly by the individuals who have telephones connected with them and not by the companies owning the exchanges. Lack of a central ownership, and sometimes even of a definite name, makes it difficult to secure information in regard to lines of this character. Moreover, it is impossible in some cases, without undue expenditure of time and money, to obtain reliable data, or even to secure any data whatever, regarding some of the small telephone exchanges. For these reasons, the statistics for the small systems and lines are incomplete. It is believed, however, that the degree of incompleteness is not sufficient to impair greatly the value of the statistics given in preceding chapters for the telephone business as a whole.

Table 29 presents, by geographic divisions and States, the principal statistics for systems and lines reporting annual incomes of less than $10,000. These small systems and lines comprise not only the farmer and rural lines but also the systems operating in many small towns and villages.

TABLE 21.—SYSTEMS AND LINES, MILES OF WIRE, AND TELEPHONES, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES: 1902–1922

	Census year	Number of systems and lines	Miles of wire [1]	Number of telephones
All systems and lines	1922	57,253	37,265,958	14,347,395
	1917	53,234	28,827,188	11,716,520
	1912	32,283	20,248,326	8,729,592
	1907	22,971	12,999,364	6,118,578
	1902	9,136	4,900,451	2,371,044
Bell System	1922	[2] 26	30,613,687	9,514,813
	1917	145	23,133,718	7,326,858
	1912	176	15,133,186	5,087,027
	1907	175	8,947,266	3,132,063
	1902	44	3,387,924	1,317,178
All other systems and lines	1922	57,227	6,652,271	4,832,582
	1917	53,089	5,693,470	4,389,662
	1912	32,057	5,115,140	3,642,565
	1907	22,796	4,052,098	2,986,515
	1902	9,092	1,512,527	1,053,866

[1] Exclusive of 2,835 miles in Canada in 1922 and 1917, 1,565 miles in 1912, and 5 miles in 1907.
[2] Does not include Bell-controlled companies; previously these were included with the Bell System, but for 1922 are classified under "All other systems and lines." (See "Bell-controlled companies," p. 30.)

TABLE 22.—DETAILED STATISTICS, THE BELL SYSTEM AND OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1917 AND 1912 [1]

	TOTAL			BELL SYSTEM [2]			OTHER SYSTEMS [2] REPORTING ANNUAL INCOMES OF [1]—		
							$10,000 or more:	$5,000 or more	
	1922	1917	1912	1922	1917	1912	1922	1917	1912
Number of systems	1,323	2,200	1,916	26	145	176	1,297	2,055	1,740
Number of central offices	10,666	12,294	11,515	5,796	6,288	5,853	4,870	6,006	5,662
Number of private-branch exchanges	102,622	80,914	52,651	95,160	72,253	45,387	7,462	8,661	7,264
Miles of pole line	694,567	780,200	671,686	362,886	400,895	353,422	331,681	379,305	318,264
Miles of wire	35,502,983	27,298,026	19,019,391	30,613,687	23,133,718	15,133,186	4,889,296	4,164,308	3,886,205
Miles of phantom circuit [3]	643,608	315,037	----------	598,091	287,049	----------	45,517	27,988	----------
Number of telephones	12,295,234	9,953,710	7,326,748	9,514,813	7,326,858	5,087,027	2,780,421	2,626,852	2,239,721
Number of calls originating with systems reporting [4]	21,901,387,070	19,809,061,085	13,735,658,245	16,566,555,900	14,597,567,869	9,133,226,836	5,334,831,170	5,211,493,216	4,602,431,409
Local exchange	21,235,459,861	19,366,111,091	13,394,885,442	16,022,216,844	14,236,304,195	8,886,838,093	5,213,243,017	5,129,806,896	4,508,047,349
Long-distance or toll	665,927,209	442,949,994	340,772,803	544,339,056	361,263,674	246,388,743	121,588,153	81,686,320	94,384,060
Average originating calls per telephone	1,781	1,990	1,875	1,741	1,992	1,795	1,919	1,983	2,055
Local exchange	1,727	1,946	1,828	1,684	1,943	1,747	1,875	1,952	2,013
Long-distance or toll	54	44	47	57	49	48	44	31	42
Revenue, operating and nonoperating	$656,823,908	$372,501,800	$253,893,969	$565,069,625	$311,918,260	$206,095,172	$91,754,283	$60,583,540	$47,798,797
Expenses, including taxes and fixed charges, total	$560,159,965	$313,103,060	$202,567,644	$478,446,873	$260,783,288	$162,988,447	$81,713,092	$52,319,772	$39,579,197
Net income	$96,663,943	$59,398,740	$51,326,325	$86,622,752	$51,134,972	$43,106,725	$10,041,191	$8,263,768	$8,219,600
Dividends	$66,035,251	$42,266,589	$34,120,809	$60,305,204	$37,020,809	$29,709,841	$5,730,047	$5,245,780	$4,410,968
Assets, total	$2,595,396,033	$1,665,120,922	$1,295,670,101	$2,203,464,448	$1,331,599,048	$934,805,563	$391,931,585	$333,521,874	$360,864,538
Investment in plant and equipment	$2,129,773,760	$1,435,912,142	$1,081,433,227	$1,783,079,046	$1,140,639,666	$780,017,745	$346,694,714	$295,272,476	$301,415,482
Stocks and bonds and other permanent investments	$248,625,115	[5] $99,484,744	$104,554,667	$236,652,893	$87,997,104	$72,629,170	$11,972,222	[5] $11,487,640	$31,925,497
Cash and current assets	$156,485,584	$82,026,232	$96,618,255	$136,289,818	$67,358,132	$82,158,648	$20,195,766	$14,668,100	$14,459,607
Sundries, including materials and supplies, stock and bond discount, and sinking and other special funds	$60,511,574	[5] $47,697,804	$13,063,952	$47,442,691	$35,604,146	----------	$13,068,883	[5] $12,093,658	$13,063,952
Liabilities, total	$2,595,396,033	$1,665,120,922	$1,295,670,101	$2,203,464,448	$1,331,599,048	$934,805,563	$391,931,585	$333,521,874	$360,864,538
Capital stock	$1,001,428,084	$665,944,471	$586,763,879	$837,007,344	$509,409,055	$397,885,433	$164,420,740	$156,535,416	$188,878,446
Funded debt	$736,898,021	$503,129,399	$405,662,528	$646,033,165	$410,357,279	$295,972,603	$90,864,856	$92,772,120	$109,689,925
Floating debt and accounts payable, etc	$75,888,699	[6] $46,388,424	$70,610,342	$34,456,432	$21,803,277	$49,718,370	$41,432,267	[6] $24,585,147	$20,891,972

Cash investments	$3,697,295	$4,946,599	$3,287,138				$3,697,295	$4,946,599	$3,287,138
Sundries	$551,178,212	[6] $295,751,881	$168,574,593	$477,657,594	$261,958,540	$152,807,096	$73,520,618	[6] $33,793,341	$15,767,497
Net surplus	$226,305,722	$148,960,148	$60,771,621	$208,309,913	$128,070,897	$38,422,061	$17,995,809	$20,889,251	$22,349,560
Salaried employees:									
Number	57,764	44,705	38,753	49,017	37,299	31,435	8,947	7,406	7,318
Salaries	$94,006,233	$46,566,869	$32,681,482	$82,565,072	$39,940,809	$27,0[illegible]4,837	$11,441,161	$6,626,060	$5,676,645
Wage earners:									
Number [7]	232,569	199,785	144,608	193,693	161,401	110,468	38,876	38,384	34,140
Wages	$247,531,589	$123,088,197	$63,359,059	$216,784,969	$104,974,058	$49,896,524	$30,746,620	$18,114,139	$13,462,535

[1] See "Change in classification according to income," p. 6, and Table 4.
[2] Bell-controlled companies included with the Bell System for 1917 and 1912, but with "Other systems" for 1922. (See "Bell-controlled companies," p. 30.)
[3] See "Equipment reported," p. 21.
[4] See "Number of 'originating calls,'" p. 22.
[5] In order to make the data for 1917 comparable with those for 1922, the amount reported as "Advances to system corporations" by the "Other systems" has been deducted from the "Sundries" item as previously published for 1917 and included with "Stocks and bonds and other permanent investments."
[6] In order to make the data for 1917 comparable with those for 1922, the amount reported as "Mortgages of unincorporated companies" by the "Other systems" has been deducted from "Floating debt and accounts payable, etc.," and included with "Sundries."
[7] For 1922, number employed on June 30; for 1917, Sept. 29; for 1912, Sept. 16.

Table 23.—Miles of Wire, Overhead and Underground, on Exchange and Toll Circuits, the Bell System and All Other Systems and Lines: 1922 and 1917

	Total		Overhead		Underground		Per cent of total				Per cent of increase or decrease (—)		
							Overhead		Underground				
	1922	1917	1922	1917	1922	1917	1922	1917	1922	1917	Total	Overhead	Underground
All circuits	37,265,958	28,827,188	15,825,487	13,978,008	21,440,471	14,849,180	42.5	48.5	57.5	51.5	29.3	13.2	44.4
Bell System	30,613,687	23,133,718	10,834,605	9,503,860	19,779,082	13,629,858	35.4	41.1	64.6	58.9	32.3	14.0	45.1
All other systems	6,652,271	5,693,470	4,990,882	4,474,148	1,661,389	1,219,322	75.0	78.6	25.0	21.4	16.8	11.5	36.3
Exchange circuits	32,669,630	25,252,276	12,787,226	11,393,178	19,882,404	13,859,098	39.1	45.1	60.9	54.9	29.4	12.2	43.5
Bell System	26,407,285	19,962,997	8,184,372	7,321,319	18,222,913	12,641,678	31.0	36.7	69.0	63.3	32.3	11.8	44.1
All other systems	6,262,345	5,289,279	[1] 4,602,854	[1] 4,071,859	1,659,491	1,217,420	73.5	77.0	26.5	23.0	18.4	13.0	36.3
Toll circuits	4,596,328	3,574,912	3,038,261	2,584,830	1,558,067	990,082	66.1	72.3	33.9	27.7	28.6	17.5	57.4
Bell System	4,206,402	3,170,721	2,650,233	2,182,541	1,556,169	988,180	63.0	68.8	37.0	31.2	32.7	21.4	57.5
All other systems	389,926	404,191	388,028	402,289	1,898	1,902	99.5	99.5	0.5	0.5	—3.5	—3.5	—0.2

[1] Includes 1,762,975 miles of wire for 1922 and 1,529,162 miles for 1917, operated by systems reporting annual incomes of less than $10,000 for 1922 and those reporting less than $5,000, for 1917, respectively, for which no distribution as to overhead and underground was made.

TABLE 24.—MILES OF WIRE, THE BELL SYSTEM AND ALL OTHER SYSTEMS

	DIVISION AND STATE	TOTAL			BELL SYSTEM [1]		
		1922	1917	1912	1922	1917	1912
1	UNITED STATES	37,265,958	28,827,188	20,248,326	30,613,687	23,133,718	15,133,186
	GEOGRAPHIC DIVISIONS:						
2	New England	3,346,608	2,383,580	1,545,252	3,239,272	2,333,679	1,498,417
3	Middle Atlantic	10,818,580	7,338,055	5,035,019	9,909,083	6,588,839	4,227,908
4	East North Central	8,763,146	7,137,419	4,645,218	7,032,060	5,317,369	3,006,320
5	West North Central	4,487,007	3,934,372	2,932,578	2,315,378	2,291,458	1,636,056
6	South Atlantic	2,448,857	1,735,286	1,121,458	2,078,787	1,438,272	886,897
7	East South Central	1,248,559	1,107,025	977,694	913,666	808,030	662,218
8	West South Central	2,148,789	1,912,756	1,312,553	1,563,389	1,471,474	971,439
9	Mountain	927,662	725,512	558,450	837,094	660,211	498,564
10	Pacific	3,076,750	2,553,183	2,120,104	2,724,958	2,224,386	1,745,367
	NEW ENGLAND:						
11	Maine	210,707	176,983	141,687	163,679	159,658	124,749
12	New Hampshire	134,326	110,691	75,917	110,948	102,702	69,686
13	Vermont	78,991	67,355	54,756	58,286	52,078	41,503
14	Massachusetts	1,908,091	1,353,251	863,426	1,900,403	1,346,082	854,894
15	Rhode Island	213,713	161,075	102,906	208,509	161,075	102,906
16	Connecticut	800,780	514,225	306,560	797,447	512,084	304,679
	MIDDLE ATLANTIC:						
17	New York	6,121,696	4,154,657	2,790,060	5,755,722	3,893,741	2,565,015
18	New Jersey	1,523,354	1,002,075	644,984	1,496,010	974,525	579,281
19	Pennsylvania	3,173,530	2,181,323	1,599,975	2,657,351	1,720,573	1,083,612
	EAST NORTH CENTRAL:						
20	Ohio	2,415,187	1,906,635	1,161,032	1,995,257	1,200,538	623,307
21	Indiana	1,058,314	933,261	667,839	683,227	608,998	378,492
22	Illinois	3,060,595	2,564,910	1,689,074	2,625,311	2,205,636	1,204,666
23	Michigan	1,390,945	1,072,651	728,184	1,113,446	810,646	524,172
24	Wisconsin	838,105	659,962	399,089	614,819	491,551	275,683
	WEST NORTH CENTRAL:						
25	Minnesota	1,147,278	1,058,989	653,479	634,227	634,589	373,733
26	Iowa	757,600	650,513	504,101	453,018	455,309	296,784
27	Missouri	1,247,503	1,119,048	874,334	572,269	597,286	492,739
28	North Dakota	124,873	105,820	76,174	59,544	59,499	48,180
29	South Dakota	108,414	104,208	73,921	34,014	26,097	17,177
30	Nebraska	514,374	448,807	393,319	269,451	229,041	195,615
31	Kansas	586,965	446,987	357,250	292,855	289,637	216,828
	SOUTH ATLANTIC:						
32	Delaware	93,891	75,196	48,632	93,441	67,615	40,838
33	Maryland	540,089	354,588	228,744	536,187	351,682	223,170
34	District of Columbia	314,636	162,032	126,279	314,636	162,032	126,279
35	Virginia	379,093	271,549	161,136	323,808	226,602	132,827
36	West Virginia	226,739	179,387	112,954	190,439	142,580	64,255
37	North Carolina	199,594	148,348	109,110	89,268	90,150	65,356
38	South Carolina	126,284	97,916	73,712	98,870	81,718	58,848
39	Georgia	390,382	314,273	206,591	333,239	249,850	149,889
40	Florida	178,149	131,997	54,300	98,899	66,043	25,435
	EAST SOUTH CENTRAL:						
41	Kentucky	467,781	386,107	352,544	261,889	211,603	199,151
42	Tennessee	399,932	368,678	287,685	319,465	299,697	232,979
43	Alabama	229,934	206,585	152,849	202,314	175,096	130,168
44	Mississippi	150,912	145,655	184,616	129,998	121,634	99,920
	WEST SOUTH CENTRAL:						
45	Arkansas	219,398	170,105	141,014	174,214	132,498	111,623
46	Louisiana	256,372	196,917	138,905	246,430	184,637	133,434
47	Oklahoma	424,005	334,533	211,175	359,255	269,750	160,576
48	Texas	1,249,014	1,211,201	821,459	783,490	884,589	565,896
	MOUNTAIN:						
49	Montana	120,725	94,666	54,259	105,087	82,218	30,652
50	Idaho	105,027	81,745	58,205	82,998	70,037	50,191
51	Wyoming	50,223	30,435	20,368	40,803	24,320	15,634
52	Colorado	412,816	312,326	261,987	392,470	299,655	253,518
53	New Mexico	37,428	31,963	22,492	30,859	25,762	19,648
54	Arizona	55,518	39,455	18,621	50,773	36,388	16,669
55	Utah	129,193	120,938	112,726	122,251	115,555	108,316
56	Nevada	16,732	13,984	9,792	11,853	6,276	3,936
	PACIFIC:						
57	Washington	533,515	429,718	487,079	455,722	358,883	429,025
58	Oregon	368,342	275,191	272,481	322,528	189,083	186,103
59	California	2,174,893	1,848,274	1,360,544	1,946,708	1,676,420	1,130,239

[1] See "Bell-controlled companies," p. 30.

AND LINES, BY GEOGRAPHIC DIVISIONS AND STATES: 1922, 1917, AND 1912

ALL OTHER SYSTEMS AND LINES			PER CENT OF TOTAL						PER CENT OF INCREASE OR DECREASE (—)				
			Bell System [1]			All other systems			1917–1922		1912–1917		
1922	1917	1912	1922	1917	1912	1922	1917	1912	Bell	All other	Bell	All other	
6,652,271	5,693,470	5,115,140	82.1	80.2	74.7	17.9	19.8	25.3	32.3	16.8	52.9	11.3	1
107,336	49,901	46,835	96.8	97.9	97.0	3.2	2.1	3.0	38.8	115.1	55.7	6.5	2
909,497	749,216	807,111	91.6	89.8	84.0	8.4	10.2	16.0	50.4	21.4	55.8	—7.2	3
1,731,086	1,820,050	1,638,898	80.2	74.5	64.7	19.8	25.5	35.3	32.2	—4.9	76.9	11.0	4
2,171,629	1,642,914	1,296,522	51.6	58.2	55.8	48.4	41.8	44.2	1.0	32.2	40.0	26.7	5
370,070	297,014	234,561	84.9	82.9	79.1	15.1	17.1	20.9	44.5	24.6	62.2	26.6	6
334,893	298,995	315,476	73.2	73.0	67.7	26.8	27.0	32.3	13.1	12.0	22.0	—5.2	7
585,400	441,282	341,114	72.8	76.9	74.0	27.2	23.1	26.0	6.2	32.7	51.5	29.4	8
90,568	65,301	59,886	90.2	91.0	89.3	9.8	9.0	10.7	26.8	38.7	32.4	9.0	9
351,792	328,797	374,737	88.6	87.1	82.3	11.4	12.9	17.7	22.5	7.0	27.4	—12.3	10
47,028	17,325	16,938	77.7	90.2	88.0	22.3	9.8	12.0	2.5	171.4	28.0	2.3	11
23,378	7,989	6,231	82.6	92.8	91.8	17.4	7.2	8.2	8.0	192.6	47.4	28.2	12
20,705	15,277	13,253	73.8	77.3	75.8	26.2	22.7	24.2	11.9	35.5	25.5	15.3	13
7,688	7,169	8,532	99.6	99.5	99.0	0.4	0.5	0.0	41.2	7.2	57.4	—16.0	14
5,204	------	------	97.6	100.0	100.0	2.4	------	------	29.4	------	56.5	------	15
3,333	2,141	1,881	99.6	99.6	99.4	0.4	0.4	0.6	55.7	55.7	68.1	13.8	16
365,974	260,916	225,045	94.0	93.7	91.9	6.0	6.3	8.1	47.8	40.3	51.8	15.9	17
27,344	27,550	65,703	98.2	97.2	89.8	1.8	2.7	10.2	53.5	—0.7	68.2	—58.1	18
516,179	460,750	516,363	83.7	78.9	67.7	16.3	21.1	32.3	54.4	12.0	58.8	—10.8	19
419,930	706,097	537,725	82.6	63.0	53.7	17.4	37.0	46.3	66.2	—40.5	92.6	31.3	20
375,087	324,263	289,347	64.6	65.3	56.7	35.4	34.7	43.3	12.2	15.7	60.9	12.1	21
435,284	359,274	484,408	85.8	86.0	71.3	14.2	14.0	28.7	19.0	21.2	83.1	—25.8	22
277,499	262,005	204,012	80.0	75.6	72.0	20.0	24.4	28.0	37.4	5.9	54.6	28.4	23
223,286	168,411	123,406	73.4	74.5	69.1	26.6	25.5	30.9	25.1	32.6	78.3	36.5	24
513,051	424,400	279,746	55.3	59.9	57.2	44.7	40.1	42.8	—0.1	20.9	69.8	51.7	25
304,582	195,204	207,317	59.8	70.0	58.9	40.2	30.0	41.1	—0.5	56.0	53.4	—5.8	26
675,234	521,762	381,595	45.9	53.4	56.4	54.1	46.6	43.6	—4.2	29.4	21.2	36.7	27
65,329	46,321	32,994	47.7	56.2	56.7	52.3	43.8	43.3	0.1	41.0	37.8	40.4	28
74,400	78,111	56,744	31.4	25.0	23.2	68.6	75.0	76.8	30.3	—4.8	51.9	37.6	29
244,923	219,766	197,704	52.4	51.0	49.7	47.6	49.0	50.3	17.6	11.4	17.1	11.2	30
294,110	157,350	140,422	49.9	64.8	60.7	50.1	35.2	39.3	1.1	86.9	33.6	12.0	31
450	7,581	7,794	99.5	89.9	84.0	0.5	10.1	16.0	38.2	—94.1	65.6	—2.7	32
3,902	2,906	5,574	99.3	99.2	97.6	0.7	0.8	2.4	52.5	34.3	57.6	—47.9	33
------	------	------	100.0	100.0	100.0	------	------	------	94.2	------	28.3	------	34
55,285	44,947	28,309	85.4	83.4	82.4	14.6	16.6	17.6	42.9	23.0	70.6	58.8	35
36,300	36,807	48,699	84.0	79.5	56.9	16.0	20.5	48.1	33.6	—1.4	121.9	—24.4	36
110,326	58,198	43,754	44.7	60.8	59.9	55.3	39.2	40.1	—1.0	89.6	37.9	33.0	37
27,414	16,198	14,864	78.3	83.4	79.8	21.7	16.5	20.2	21.0	69.2	38.9	9.0	38
57,143	64,423	56,702	85.4	79.5	72.6	14.6	20.5	27.4	33.4	—11.3	66.7	13.6	39
79,250	65,954	28,865	55.5	50.0	46.8	44.5	50.0	53.2	49.7	20.2	159.6	128.5	40
205,892	174,504	153,393	56.0	54.8	56.5	44.0	45.2	43.5	23.8	18.0	6.2	13.8	41
80,467	68,981	54,706	79.9	81.3	81.0	20.1	18.7	19.0	6.6	16.7	28.6	26.1	42
27,620	31,489	22,681	88.0	84.8	85.2	12.0	15.2	14.8	15.5	—12.3	34.5	38.8	43
20,914	24,021	84,696	86.1	83.5	54.1	13.9	16.5	45.9	6.9	—12.9	21.7	—71.6	44
45,184	37,607	29,391	79.4	77.9	79.2	20.6	22.1	20.8	31.5	20.1	18.7	28.0	45
9,942	12,280	5,471	96.1	93.8	96.1	3.9	6.2	3.9	33.5	—19.0	38.4	124.4	46
64,750	64,783	50,599	84.7	80.6	76.0	15.3	19.4	24.0	33.2	—0.1	68.0	28.0	47
465,524	326,612	255,653	62.7	73.0	68.9	37.3	27.0	31.1	—11.4	42.5	56.3	27.8	48
15,638	12,448	23,607	87.0	86.9	56.5	13.0	13.1	43.5	27.8	25.6	168.2	—47.3	49
22,029	11,708	8,014	79.0	85.7	86.2	21.0	14.3	13.8	18.5	88.2	39.5	46.1	50
9,420	6,115	4,734	81.2	79.9	76.8	18.8	20.1	23.2	67.8	54.0	55.6	29.2	51
20,346	12,671	8,469	95.1	95.9	96.8	4.9	4.1	3.2	31.0	60.6	18.2	49.6	52
6,569	6,201	2,844	82.4	80.6	87.4	17.6	19.4	12.6	19.8	5.9	31.1	118.0	53
4,745	3,067	1,952	91.5	92.2	89.5	8.5	7.8	10.5	39.5	54.7	118.3	57.1	54
6,942	5,383	4,410	94.6	95.5	96.1	5.4	4.5	3.9	5.8	29.0	6.7	22.1	55
4,879	7,708	5,856	70.8	44.9	40.2	29.2	55.1	59.8	88.9	—36.7	59.4	31.6	56
77,793	70,835	58,054	85.4	83.5	88.1	14.6	16.5	11.9	27.0	9.8	—16.4	22.0	57
45,814	86,108	86,378	87.6	68.7	68.3	12.4	31.3	31.7	70.6	—46.8	1.6	—0.3	58
228,185	171,854	230,805	89.5	90.7	83.1	10.5	9.3	16.9	16.1	32.8	48.3	—25.4	59

TABLE 25.—NUMBER OF TELEPHONES, THE BELL SYSTEM AND ALL OTHER
1922, 1917,

[For numbers of telephones Dec. 31, 1922 and 1921, and average for 1922, Bell System

	DIVISION AND STATE	TOTAL			BELL SYSTEM [1]		
		1922	1917	1912	1922	1917	1912
1	UNITED STATES	14,347,395	11,716,520	8,729,592	9,514,813	7,326,858	5,087,027
	GEOGRAPHIC DIVISIONS:						
2	New England	1,223,497	878,354	625,488	1,135,359	827,407	580,097
3	Middle Atlantic	3,249,710	2,444,205	1,782,145	2,703,858	1,952,601	1,355,352
4	East North Central	3,693,101	3,158,989	2,378,257	2,255,352	1,714,650	1,159,303
5	West North Central	2,315,996	2,119,735	1,621,523	771,453	781,254	519,069
6	South Atlantic	937,324	739,631	531,402	651,271	500,697	340,227
7	East South Central	521,120	436,853	337,292	279,804	222,109	184,355
8	West South Central	872,157	740,004	543,102	481,904	376,900	283,681
9	Mountain	385,730	307,627	226,652	320,661	257,653	177,617
10	Pacific	1,148,760	891,122	683,731	915,151	693,587	487,326
	NEW ENGLAND:						
11	Maine	113,725	88,226	68,914	74,891	69,471	52,564
12	New Hampshire	68,874	52,534	40,017	50,932	45,913	33,387
13	Vermont	54,530	47,968	40,142	31,162	29,105	23,818
14	Massachusetts	687,700	475,231	329,992	683,386	470,174	325,186
15	Rhode Island	92,766	64,726	41,664	91,271	64,726	41,664
16	Connecticut	205,902	149,669	104,759	203,717	148,018	103,478
	MIDDLE ATLANTIC:						
17	New York	1,780,563	1,335,055	970,449	1,561,017	1,159,659	809,635
18	New Jersey	383,496	254,444	185,632	368,439	238,172	161,037
19	Pennsylvania	1,085,651	854,706	626,064	774,402	554,770	384,680
	EAST NORTH CENTRAL:						
20	Ohio	962,837	845,649	631,206	600,173	381,677	251,116
21	Indiana	508,726	458,992	354,550	193,114	176,769	117,897
22	Illinois	1,283,449	1,070,997	807,253	898,235	725,767	473,799
23	Michigan	508,140	434,128	335,074	338,718	260,711	193,599
24	Wisconsin	429,949	349,223	250,174	225,112	169,726	122,892
	WEST NORTH CENTRAL:						
25	Minnesota	424,777	408,222	272,359	170,576	173,696	99,093
26	Iowa	533,347	489,432	380,294	177,151	195,295	116,813
27	Missouri	550,980	511,246	404,150	179,664	176,124	140,239
28	North Dakota	77,586	75,349	51,241	22,637	28,647	17,328
29	South Dakota	101,555	88,946	65,858	20,706	13,059	7,836
30	Nebraska	273,500	248,267	201,689	102,527	83,992	62,246
31	Kansas	354,251	298,273	245,932	98,192	110,441	75,514
	SOUTH ATLANTIC:						
32	Delaware	23,534	22,222	15,842	22,972	19,231	12,648
33	Maryland	153,790	118,397	34,801	150,268	114,769	79,410
34	District of Columbia	102,231	70,751	46,603	102,231	70,751	46,603
35	Virginia	155,490	119,597	76,652	97,991	74,845	47,497
36	West Virginia	116,081	99,530	80,251	77,147	53,631	27,593
37	North Carolina	116,129	91,928	65,152	35,874	40,374	27,951
38	South Carolina	54,078	43,716	33,239	32,726	27,126	20,926
39	Georgia	136,334	124,479	96,436	97,512	79,016	64,052
40	Florida	79,657	49,011	32,426	34,550	20,954	13,547
	EAST SOUTH CENTRAL:						
41	Kentucky	201,545	162,843	130,751	76,490	61,551	51,185
42	Tennessee	171,413	140,669	104,353	100,823	77,984	62,194
43	Alabama	84,401	76,693	56,292	59,410	47,440	39,233
44	Mississippi	63,761	56,648	45,896	43,081	35,134	31,743
	WEST SOUTH CENTRAL:						
45	Arkansas	99,490	87,872	68,303	55,843	41,986	37,658
46	Louisiana	87,354	63,890	46,602	78,788	54,014	41,803
47	Oklahoma	222,889	176,835	116,217	134,161	89,047	55,339
48	Texas	462,424	411,407	311,980	213,112	191,853	148,881
	MOUNTAIN:						
49	Montana	55,115	51,409	35,537	43,992	41,117	16,180
50	Idaho	48,745	37,204	29,454	31,863	26,455	17,560
51	Wyoming	24,949	15,774	9,946	19,583	11,879	7,471
52	Colorado	150,652	114,364	90,397	135,635	105,539	84,626
53	New Mexico	18,342	15,314	10,346	13,441	11,310	8,482
54	Arizona	24,353	18,225	11,224	21,877	15,825	9,802
55	Utah	53,261	46,621	34,064	47,831	41,814	30,971
56	Nevada	10,313	8,716	5,684	6,439	3,714	2,525
	PACIFIC:						
57	Washington	238,275	188,407	150,016	174,007	130,235	106,151
58	Oregon	146,847	125,660	99,713	98,148	75,631	58,030
59	California	763,638	577,055	434,002	642,996	487,721	323,145

[1] See "Bell-controlled companies," p. 30.

SYSTEMS AND LINES, BY GEOGRAPHIC DIVISIONS AND STATES: DECEMBER 31, AND 1912

and other systems reporting annual incomes of $10,000 or more, see Table 15, p. 25]

ALL OTHER SYSTEMS AND LINES			PER CENT OF TOTAL						
			Bell System[1]			All other systems			
1922	1917	1912	1922	1917	1912	1922	1917	1912	
4, 832, 582	4, 389, 662	3, 642, 565	66. 3	62. 5	58. 3	33. 7	37. 5	41. 7	1
88, 138	50, 947	45, 391	92. 8	94. 2	92. 7	7. 2	5. 8	7. 3	2
545, 852	491, 604	426, 793	83. 2	79. 9	76. 1	16. 8	20. 1	23. 9	3
1, 437, 749	1, 444, 339	1, 218, 954	61. 1	54. 3	48. 7	38. 9	45. 7	51. 3	4
1, 544, 543	1, 338, 481	1, 102, 454	33. 3	36. 9	32. 0	66. 7	63. 1	68. 0	5
286, 053	238, 934	191, 175	69. 5	67. 7	64. 0	30. 5	32. 3	36. 0	6
241, 316	214, 744	152, 937	53. 7	50. 8	54. 7	46. 3	49. 2	45. 3	7
390, 253	363, 104	259, 421	55. 3	50. 9	52. 2	44. 7	49. 1	47. 8	8
65, 069	49, 974	49, 035	83. 1	83. 8	78. 4	16. 9	16. 2	21. 6	9
233, 609	197, 535	196, 405	79. 7	77. 8	71. 3	20. 3	22. 2	28. 7	10
38, 834	18, 755	16, 350	65. 9	78. 7	76. 3	34. 1	21. 3	23. 7	11
17, 942	6, 621	6, 630	73. 9	87. 4	83. 4	26. 1	12. 6	16. 6	12
23, 368	18, 863	16, 324	57. 1	60. 7	59. 3	42. 9	39. 3	40. 7	13
4, 314	5, 057	4, 806	99. 4	98. 9	98. 5	0. 6	1. 1	1. 5	14
1, 495	----------	----------	98. 4	100. 0	100. 0	1. 6	----------	----------	15
2, 185	1, 651	1, 281	98. 9	98. 9	98. 8	1. 1	1. 1	1. 2	16
219, 546	175, 396	160, 814	87. 7	86. 9	83. 4	12. 3	13. 1	16. 6	17
15, 057	16, 272	24, 595	96. 1	93. 6	86. 8	3. 9	6. 4	13. 2	18
311, 249	299, 936	241, 384	71. 3	64. 9	61. 4	28. 7	35. 1	38. 6	19
362, 664	463, 972	380, 090	62. 3	45. 1	39. 8	37. 7	54. 9	60. 2	20
315, 612	282, 223	236, 653	38. 0	38. 5	33. 3	62. 0	61. 5	66. 7	21
385, 214	345, 230	333, 454	70. 0	67. 8	58. 7	30. 0	32. 2	41. 3	22
169, 422	173, 417	141, 475	66. 7	60. 1	57. 8	33. 3	39. 9	42. 2	23
204, 837	179, 497	127, 282	52. 4	48. 6	49. 1	47. 6	51. 4	50. 9	24
254, 201	234, 526	173, 266	40. 2	42. 5	36. 4	59. 8	57. 5	63. 6	25
356, 196	294, 137	263, 481	33. 2	39. 9	30. 7	66. 8	60. 1	69. 3	26
371, 316	335, 122	263, 911	32. 6	34. 4	34. 7	67. 4	65. 6	65. 3	27
54, 949	46, 702	33, 913	29. 2	38. 0	33. 8	70. 8	62. 0	66. 2	28
80, 849	75, 887	58, 022	20. 4	14. 7	11. 9	79. 6	85. 3	88. 1	29
170, 973	164, 275	139, 443	37. 5	33. 8	30. 9	62. 5	66. 2	69. 1	30
256, 059	187, 832	170, 418	27. 7	37. 0	30. 7	72. 3	63. 0	69. 3	31
562	2, 991	3, 194	97. 6	86. 5	79. 8	2. 4	13. 5	20. 2	32
3, 522	3, 628	5, 391	97. 7	96. 9	93. 6	2. 3	3. 1	6. 4	33
----------	----------	----------	100. 0	100. 0	100. 0	----------	----------	----------	34
57, 499	44, 752	29, 155	63. 0	62. 6	62. 3	37. 0	37. 4	37. 7	35
38, 934	45, 899	52, 658	66. 5	53. 9	34. 4	33. 5	46. 1	65. 6	36
80, 255	51, 554	37, 201	30. 9	43. 9	42. 9	69. 1	56. 1	57. 1	37
21, 352	16, 590	12, 313	60. 5	62. 1	63. 0	39. 5	37. 9	37. 0	38
38, 822	45, 463	32, 384	71. 5	63. 5	66. 4	28. 5	36. 5	33. 6	39
45, 107	28, 057	18, 879	43. 4	42. 8	41. 8	56. 6	57. 2	58. 2	40
125, 055	101, 292	79, 566	38. 0	37. 8	39. 1	62. 0	62. 2	60. 9	41
70, 590	62, 685	42, 159	58. 8	55. 4	59. 6	41. 2	44. 6	40. 4	42
24, 991	29, 253	17, 059	70. 4	61. 9	69. 7	29. 6	38. 1	30. 3	43
20, 680	21, 514	14, 153	67. 6	62. 0	69. 2	32. 4	38. 0	30. 8	44
43, 647	45, 886	30, 645	56. 1	47. 8	55. 1	43. 9	52. 2	44. 9	45
8, 566	9, 876	4, 799	90. 2	84. 5	89. 7	9. 8	15. 5	10. 3	46
88, 728	87, 788	60, 878	60. 2	50. 4	47. 6	39. 8	49. 6	52. 4	47
249, 312	219, 554	163, 099	46. 1	46. 6	47. 7	53. 9	53. 4	52. 3	48
11, 123	10, 292	19, 357	79. 8	80. 0	45. 5	20. 2	20. 0	54. 5	49
16, 882	10, 749	11, 894	65. 4	71. 1	59. 6	34. 6	28. 9	40. 4	50
5, 366	3, 895	2, 475	78. 5	75. 3	75. 1	21. 5	24. 7	24. 9	51
15, 017	8, 825	5, 771	90. 0	92. 3	93. 6	10. 0	7. 7	6. 4	52
4, 901	4, 004	1, 864	73. 3	73. 9	82. 0	26. 7	26. 1	18. 0	53
2, 476	2, 400	1, 422	89. 8	86. 8	82. 0	10. 2	13. 2	18. 0	54
5, 430	4, 807	3, 093	89. 8	89. 7	90. 9	10. 2	10. 3	9. 1	55
3, 874	5, 002	3, 159	62. 4	42. 6	44. 4	37. 6	57. 4	55. 6	56
64, 268	58, 172	43, 865	73. 0	69. 1	70. 8	27. 0	30. 9	29. 2	57
48, 699	50, 029	41, 683	66. 8	60. 2	58. 2	33. 2	39. 8	41. 8	58
120, 642	89, 334	110, 857	84. 2	84. 5	74. 5	15. 8	15. 5	25. 5	59

TABLE 26.—NUMBER OF CENTRAL OFFICES, FOR THE BELL SYSTEM AND FOR GEOGRAPHIC DIVISIONS

	DIVISION AND STATE	TOTAL				BELL SYSTEM [1]			
		1922	1917	1912 [3]	1907	1922	1917	1912	1907
1	UNITED STATES	19,260	21,175	11,515	15,527	5,796	6,288	5,853	5,418
	GEOGRAPHIC DIVISIONS:								
2	New England	895	910	731	912	551	633	625	643
3	Middle Atlantic	2,205	2,410	1,862	2,137	920	1,011	1,001	938
4	East North Central	4,461	4,846	2,858	4,014	910	942	967	971
5	West North Central	4,422	5,007	2,209	3,408	653	838	640	460
6	South Atlantic	1,669	1,886	783	1,241	508	586	464	406
7	East South Central	1,468	1,673	746	915	511	569	553	509
8	West South Central	2,146	2,425	948	1,389	614	619	600	409
9	Mountain	800	772	504	513	463	428	397	318
10	Pacific	1,194	1,246	874	998	666	662	606	764
	NEW ENGLAND:								
11	Maine	241	244	167	243	80	128	126	158
12	New Hampshire	124	133	98	139	61	94	87	101
13	Vermont	138	147	107	167	44	49	61	53
14	Massachusetts	276	275	257	274	259	257	253	250
15	Rhode Island	28	28	29	25	26	28	29	25
16	Connecticut	88	83	73	64	81	77	69	56
	MIDDLE ATLANTIC:								
17	New York	882	970	705	896	373	459	476	414
18	New Jersey	188	193	186	222	148	144	137	144
19	Pennsylvania	1,135	1,247	971	1,019	399	408	388	380
	EAST NORTH CENTRAL:								
20	Ohio	1,070	1,173	802	1,039	269	220	234	259
21	Indiana	892	958	484	796	108	144	160	163
22	Illinois	1,182	1,362	772	1,137	225	268	237	242
23	Michigan	645	710	501	604	213	209	232	217
24	Wisconsin	672	643	299	438	95	101	104	90
	WEST NORTH CENTRAL:								
25	Minnesota	636	729	363	453	117	123	112	91
26	Iowa	961	1,129	442	751	137	214	128	73
27	Missouri	884	1,015	379	650	88	113	119	91
28	North Dakota	342	385	171	212	67	110	59	22
29	South Dakota	286	339	186	255	49	41	29	10
30	Nebraska	537	561	363	507	116	104	97	98
31	Kansas	776	849	305	580	79	133	96	75
	SOUTH ATLANTIC:								
32	Delaware	22	23	19	18	22	22	18	18
33	Maryland	131	134	109	154	123	122	88	98
34	District of Columbia	9	7	7	6	9	7	7	6
35	Virginia	304	337	108	209	68	76	54	43
36	West Virginia	258	314	139	284	70	81	55	48
37	North Carolina	317	345	115	198	28	71	65	50
38	South Carolina	153	175	65	107	53	58	52	54
39	Georgia	334	421	169	198	108	125	115	81
40	Florida	141	130	52	67	27	24	10	8
	EAST SOUTH CENTRAL:								
41	Kentucky	524	572	278	342	158	181	175	166
42	Tennessee	491	508	221	261	139	167	163	144
43	Alabama	219	283	91	135	82	86	81	83
44	Mississippi	234	310	156	177	132	135	134	116
	WEST SOUTH CENTRAL:								
45	Arkansas	312	368	138	241	100	99	100	42
46	Louisiana	145	170	113	105	101	104	106	63
47	Oklahoma	537	594	175	294	154	149	115	111
48	Texas	1,152	1,293	522	749	259	267	279	193
	MOUNTAIN:								
49	Montana	152	132	92	54	78	77	47	32
50	Idaho	130	139	84	100	66	64	68	51
51	Wyoming	67	61	25	50	37	24	25	19
52	Utah	75	75	49	46	39	38	40	46
53	Colorado	214	208	164	158	156	158	158	130
54	New Mexico	74	65	31	41	34	28	27	15
55	Arizona	53	55	32	38	32	32	27	14
56	Nevada	35	37	27	26	21	7	5	11
	PACIFIC:								
57	Washington	292	308	211	247	115	112	119	173
58	Oregon	257	269	122	206	85	89	77	155
59	California	645	669	541	545	466	461	410	436

[1] See "Bell-controlled companies," p. 30.
[2] See "Change in classification according to income," p. 6, and Table 4.
[3] Not reported for systems and lines having incomes of less than $5,000.

ALL OTHER SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME,[1] BY AND STATES: 1907–1922

ALL OTHER SYSTEMS AND LINES											
Total				Reporting annual incomes of[2]—							
				$10,000 or more	$5,000 or more			Less than $10,000	Less than $5,000		
1922	1917	1912[3]	1907	1922	1917	1912	1907	1922[4]	1917[4]	1907[5]	
13,464	14,887	5,662	10,109	4,870	6,006	5,662	5,195	8,594	8,881	4,914	1
344	277	106	269	201	137	106	89	143	140	180	2
1,285	1,399	861	1,199	721	886	861	749	564	513	450	3
3,551	3,904	1,891	3,043	1,504	1,996	1,891	1,744	2,047	1,908	1,299	4
3,769	4,169	1,569	2,948	1,331	1,611	1,569	1,461	2,438	2,558	1,487	5
1,161	1,300	319	835	316	349	319	293	845	951	542	6
957	1,104	193	406	182	199	193	193	775	905	213	7
1,532	1,806	348	980	305	423	348	407	1,227	1,383	573	8
337	344	107	195	90	134	107	117	247	210	78	9
528	584	268	234	220	271	268	142	308	313	92	10
161	116	41	85	90	47	41	34	71	69	51	11
63	39	11	38	42	17	11	5	21	22	33	12
94	98	46	114	55	61	46	38	39	37	76	13
17	18	4	24	9	9	4	9	8	9	15	14
2	----	----	----	2	----	----	----	----	----	----	15
7	6	4	8	3	3	4	3	4	3	5	16
509	511	229	482	260	262	229	271	249	249	211	17
40	49	49	78	28	39	49	51	12	10	27	18
736	839	583	639	433	585	583	427	303	254	212	19
801	953	568	780	425	597	568	546	376	356	234	20
784	814	324	633	261	332	324	300	523	482	333	21
957	1,094	535	895	431	528	535	511	526	566	384	22
432	501	269	387	199	285	269	255	233	216	132	23
577	542	195	348	188	254	195	132	389	288	216	24
519	606	251	362	202	285	251	185	317	321	177	25
824	915	314	678	249	261	314	367	575	654	311	26
796	902	260	559	222	277	260	222	574	625	337	27
275	275	112	190	121	116	112	91	154	159	99	28
237	298	157	245	112	172	157	157	125	126	88	29
421	457	266	409	221	272	266	256	200	185	153	30
697	716	209	505	204	228	209	183	493	488	322	31
----	1	1		----	1	1	1	----	----		32
8	12	21	56	----	2	21	34	8	10	21	33
----	----	----		----	----	----	----	----	----		34
236	261	54	166	45	68	54	34	191	193	132	35
188	233	84	236	28	47	84	123	160	186	113	36
289	274	50	148	105	70	50	20	184	204	128	37
100	117	13	53	13	13	13	12	87	104	41	38
226	296	54	117	63	94	54	48	163	202	69	39
114	106	42	59	62	54	42	21	52	52	38	40
366	391	103	176	105	115	103	89	261	276	87	41
352	341	58	117	57	48	58	64	295	293	53	42
137	197	10	52	10	21	10	19	127	176	33	43
102	175	22	61	10	15	22	21	92	160	40	44
212	269	38	199	35	51	38	87	177	218	112	45
44	66	7	42	2	19	7	22	42	47	20	46
383	445	60	183	52	77	60	46	331	368	137	47
893	1,026	243	556	216	276	243	252	677	750	304	48
74	55	45	22	7	13	45	13	67	42	9	49
64	75	16	49	30	34	16	38	34	41	11	50
30	37	----	31	4	7	----	----	26	30	16	51
36	37	9		15	20	9	15	21	17		52
58	50	6	28	9	8	6	14	49	42	14	53
40	37	4	26	3	12	4	11	37	25	15	54
21	23	5	24	13	15	5	14	8	8	10	55
14	30	22	15	9	25	22	12	5	5	3	56
177	196	92	74	62	78	92	50	115	118	24	57
172	180	45	51	53	60	45	20	119	120	31	58
179	208	131	109	105	133	131	72	74	75	37	59

[4] Number of systems and lines reporting central offices; actual number of central offices not reported.
[5] Exclusive of the data for farmer or rural lines.

TABLE 27.—NUMBER OF PRIVATE-BRANCH EXCHANGES, FOR THE BELL SYSTEM THE BELL SYSTEM AND OTHER SYSTEMS REPORTING $5,000 OR

	DIVISION AND STATE	TOTAL				BELL SYSTEM [1]		
		1922	1917	1912	1907	1922	1917	1912
1	UNITED STATES	102,622	80,914	52,651	28,276	95,160	72,253	45,387
	GEOGRAPHIC DIVISIONS:							
2	New England	8,715	6,887	4,855	2,361	8,649	6,880	4,824
3	Middle Atlantic	48,983	39,325	26,301	15,215	46,606	35,383	22,966
4	East North Central	20,046	14,847	8,014	4,108	18,960	13,157	6,560
5	West North Central	7,591	7,290	4,532	2,245	4,714	5,153	3,190
6	South Atlantic	4,756	3,395	2,073	1,129	4,592	3,331	1,997
7	East South Central	1,019	926	633	537	790	495	393
8	West South Central	2,054	1,341	776	316	1,708	1,208	721
9	Mountain	1,576	1,276	862	341	1,572	1,267	832
10	Pacific	7,882	5,627	4,605	2,024	7,569	5,379	3,904
	NEW ENGLAND:							
11	Maine	320	277	199	67	298	275	171
12	New Hampshire	198	123	65	19	158	123	65
13	Vermont	84	75	49	22	81	70	47
14	Massachusetts	5,760	4,714	3,451	1,793	5,760	4,714	3,450
15	Rhode Island	693	587	338	153	692	587	338
16	Connecticut	1,660	1,111	753	307	1,660	1,111	753
	MIDDLE ATLANTIC:							
17	New York	35,806	28,868	19,311	11,193	35,215	26,847	17,152
18	New Jersey	3,966	2,823	1,906	610	3,902	2,755	1,834
19	Pennsylvania	9,211	7,634	5,084	3,412	7,489	5,781	3,980
	EAST NORTH CENTRAL:							
20	Ohio	5,459	3,894	2,099	1,338	5,125	2,968	1,445
21	Indiana	1,335	1,070	536	277	1,106	781	307
22	Illinois	8,844	6,531	4,008	1,753	8,645	6,381	3,580
23	Michigan	2,629	2,062	1,009	517	2,399	1,842	899
24	Wisconsin	1,779	1,290	362	223	1,685	1,185	329
	WEST NORTH CENTRAL:							
25	Minnesota	1,700	1,934	1,133	853	1,110	1,446	531
26	Iowa	1,191	928	613	151	914	904	550
27	Missouri	3,129	3,472	2,012	943	1,458	1,993	1,435
28	North Dakota	152	109	57	30	113	108	55
29	South Dakota	96	70	20	1	73	68	20
30	Nebraska	710	601	437	183	570	466	351
31	Kansas	613	176	260	84	476	168	248
	SOUTH ATLANTIC:							
32	Delaware	227	203	82	66	227	203	82
33	Maryland	1,599	1,270	783	433	1,599	1,270	783
34	District of Columbia	1,262	1,011	710	368	1,262	1,011	710
35	Virginia	*424*	*229*	*118*	*74*	*401*	*221*	*117*
36	West Virginia	424	205	109	63	415	195	62
37	North Carolina	170	90	37	17	124	80	34
38	South Carolina	62	46	14	15	61	46	13
39	Georgia	410	275	188	74	403	263	167
40	Florida	178	66	32	19	100	42	29
	EAST SOUTH CENTRAL:							
41	Kentucky	403	577	357	329	243	173	136
42	Tennessee	378	218	164	154	311	191	153
43	Alabama	184	110	87	46	182	110	81
44	Mississippi	54	21	25	8	54	21	23
	WEST SOUTH CENTRAL:							
45	Arkansas	163	108	60	12	158	104	60
46	Louisiana	361	225	141	124	361	224	139
47	Oklahoma	456	267	140	57	456	267	139
48	Texas	1,074	741	435	123	733	613	383
	MOUNTAIN:							
49	Montana	188	170	66	26	186	167	41
50	Idaho	114	92	43	16	113	92	39
51	Wyoming	88	35	10	6	88	35	10
52	Colorado	722	563	508	180	722	563	508
53	New Mexico	42	29	18	4	42	28	18
54	Arizona	86	79	13	7	85	78	13
55	Utah	311	287	191	96	311	287	191
56	Nevada	25	21	13	6	25	17	12
	PACIFIC:							
57	Washington	1,289	1,116	1,063	634	1,241	1,090	1,029
58	Oregon	593	637	605	153	577	534	509
59	California	6,000	3,874	2,937	1,237	5,751	3,755	2,366

[1] See "Bell-controlled companies," p. 30.
[2] See "Change in classification according to income," p. 6, and Table 4.

AND OTHER SYSTEMS REPORTING INCOMES OF $10,000 OR MORE, 1922, AND FOR MORE, 1917 AND 1912,[1] BY GEOGRAPHIC DIVISIONS AND STATES

OTHER SYSTEMS REPORTING ANNUAL INCOMES OF[2]—			PER CENT OF INCREASE OR DECREASE (—)[3]							
$10,000 or more	$5,000 or more		Total			Bell System[2]		Other systems		
1922	1917	1912	1917–1922	1912–1917	1907–1912	1917–1922	1912–1917	1917–1922	1912–1917	
7,462	8,661	7,264	26.8	53.7	86.2	31.7	59.2	—13.8	19.2	1
66	7	31	26.5	41.8	105.6	25.7	42.6			2
2,377	3,942	3,335	24.6	49.5	72.9	31.7	54.1	—39.7	18.2	3
1,086	1,690	1,454	35.0	85.3	95.1	44.1	100.6	—35.7	16.2	4
2,877	2,137	1,342	4.1	60.8	101.9	—8.5	61.5	34.6	59.2	
164	64	76	40.1	63.8	83.6	37.9	66.8			6
229	431	240	10.0	46.3	17.9	59.6	26.0	—46.9	79.6	7
346	133	55	53.2	72.8	145.6	41.4	67.5	160.2		8
4	9	30	23.5	48.0	152.8	24.1	52.3			9
313	248	701	40.1	22.2	127.5	40.7	37.8	26.2	—64.6	10
22	2	28	15.5	39.2		8.4	60.8			11
40			61.0			28.5				12
3	5	2								13
		1	22.2	36.6	92.5	22.2	36.6			14
1			18.1	73.7	120.9	17.9	73.7			15
			49.4	47.5	145.3	49.4	47.5			16
591	2,021	2,159	24.0	49.5	72.5	31.2	56.5	—70.8	—6.4	17
64	68	72	40.5	48.1	212.4	41.6	50.2			18
1,722	1,853	1,104	20.7	50.2	49.0	29.5	45.3	—7.1	67.8	19
334	926	654	40.2	85.5	56.9	72.7	105.4	—63.9	41.6	20
229	289	229	24.8	99.6	93.5	41.6	154.4	—20.8	26.2	21
199	150	428	35.4	62.9	128.6	35.5	78.2	32.7	—65.0	22
230	220	110	27.5	104.4	95.2	30.2	104.9	4.5	100.0	23
94	105	33	37.9	256.4	62.3	42.2	260.2	—10.5		24
590	488	602	—12.1	70.7	32.8	—23.2	172.3	20.9	—18.9	25
277	24	63	28.3	51.4	306.0	1.1	64.4			26
1,671	1,479	577	—9.9	72.6	113.4	—26.8	38.9	13.0	156.3	27
39	1	2	39.4			4.6				28
23	2									29
140	135	86	18.1	37.5	138.8	22.3	32.8	3.7		30
137	8	2	248.3	—32.3		183.3	—32.3			31
			11.8			11.8				32
			25.9	62.2	80.8	25.9	62.2			33
			24.8	42.4	92.9	24.8	42.4			34
23	8	1	85.2	94.1		81.4	88.9			35
9	10	47	106.8	88.1		112.8				36
46	10	3								37
1		1								38
7	12	21	49.1	46.3		53.2	57.5			39
78	24	3								40
160	401	221	—30.2	61.6	8.5	40.5	27.2	—60.1	82.8	41
67	27	11	73.4	32.9	6.5	62.8	24.8			42
2		6	67.3			65.5				43
		2								44
5	4		50.9			51.9				45
	1	2	60.4	59.6	13.7	61.2	61.2			46
		1	70.8	90.7		70.8	92.1			47
341	128	52	44.9	70.3	253.6	19.6	60.1	166.4		48
2	3	25	10.6			11.4				49
1		4								50
										51
			28.2	10.8	182.2	28.2	10.8			52
	1									53
1	1									54
			8.4	50.3		8.4	50.3			55
	4	1								56
48	26	34	15.5	5.0	67.7	13.9	5.9			57
16	103	96	—6.9	5.3	295.4	8.1	4.9	—84.5		58
249	119	571	54.9	31.9	137.4	53.2	58.7	109.2	—79.2	59

[3] Percentages are omitted where base is less than 100.

TABLE 28.—ORIGINATING CALLS[1], LOCAL EXCHANGE AND LONG-DISTANCE OR TOLL, AND NUMBER OF CALLS PER TELEPHONE PER DAY, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, BY GEOGRAPHIC DIVISIONS AND STATES: 1922

DIVISION AND STATE	BELL SYSTEM					ALL OTHER SYSTEMS AND LINES					TOTAL CALLS PER TELEPHONE PER DAY	
	Total	Local exchange	Long-distance or toll	Per cent of total		Total	Local exchange[2]	Long-distance or toll	Per cent of total		Bell	All other
				Local	Long-distance				Local	Long-distance		
UNITED STATES	16,566,555,900	16,022,216,844	544,339,056	96.7	3.3	8,081,004,960	7,959,416,807	121,588,153	98.5	1.5	5.4	5.1
GEOGRAPHIC DIVISIONS:												
New England	1,784,793,576	1,712,908,344	71,885,232	96.0	4.0	123,859,339	120,429,278	3,430,061	97.2	2.8	4.8	4.3
Middle Atlantic	3,975,433,032	3,714,661,728	260,771,304	93.4	6.6	850,274,428	833,491,615	16,782,813	98.0	2.0	4.5	4.8
East North Central	3,652,633,486	3,581,338,004	71,295,482	98.0	2.0	2,424,541,836	2,380,765,193	43,776,643	98.2	1.8	5.0	5.2
West North Central	1,564,387,614	1,538,397,635	25,989,979	98.3	1.7	2,518,375,782	2,494,046,698	24,329,084	99.0	1.0	6.2	5.0
South Atlantic	1,275,675,648	1,245,198,158	30,477,490	97.6	2.4	541,930,556	533,357,554	8,573,002	98.4	1.6	6.0	5.8
East South Central	798,482,609	787,165,759	11,316,850	98.6	1.4	475,741,120	473,333,933	2,407,187	99.5	0.5	8.8	6.1
West South Central	1,302,867,075	1,282,368,512	20,498,563	98.4	1.6	660,095,382	654,805,682	5,289,700	99.2	0.8	8.3	5.2
Mountain	537,651,972	525,601,296	12,050,676	97.8	2.2	98,650,734	97,582,252	1,068,482	98.9	1.1	5.2	4.7
Pacific	1,674,630,888	1,634,577,408	40,053,480	97.6	2.4	387,535,783	371,604,602	15,931,181	95.9	4.1	5.6	5.1
NEW ENGLAND:												
Maine	132,612,663	128,040,315	4,572,348	96.6	3.4	50,856,081	49,426,836	1,429,245	97.2	2.8	5.4	4.0
New Hampshire	75,742,500	72,796,807	2,945,693	96.1	3.9	28,367,126	27,327,937	1,039,189	96.3	3.7	4.6	4.9
Vermont	50,948,807	48,728,823	2,219,984	95.6	4.4	31,688,601	31,038,101	650,500	97.9	2.1	5.0	4.2
Massachusetts	1,093,050,434	1,052,979,081	40,071,353	96.3	3.7	6,960,340	6,863,281	97,059	98.6	1.4	4.9	5.0
Rhode Island	122,898,152	115,711,502	7,186,650	94.2	5.8	2,433,769	2,340,312	93,457	96.2	3.8	4.1	5.0
Connecticut	309,541,020	294,651,816	14,889,204	95.2	4.8	3,553,422	3,432,811	120,611	96.6	3.4	4.7	5.0
MIDDLE ATLANTIC:												
New York	2,384,971,236	2,259,889,284	125,081,952	94.8	5.2	342,593,450	335,449,499	7,143,951	97.9	2.1	4.7	4.8
New Jersey	457,942,944	377,878,536	80,064,408	82.5	17.5	14,963,167	14,137,977	825,190	94.5	5.5	3.8	3.1
Pennsylvania	1,132,518,852	1,076,893,908	55,624,944	95.1	4.9	492,717,811	483,904,139	8,813,672	98.2	1.8	4.5	4.9
EAST NORTH CENTRAL:												
Ohio	916,824,793	904,209,803	12,614,990	98.6	1.4	638,171,196	628,749,404	9,421,792	98.5	1.5	4.7	5.4
Indiana	420,702,816	414,007,260	6,695,556	98.4	1.6	538,559,019	526,400,557	12,158,462	97.7	2.3	6.7	5.2
Illinois	1,383,148,610	1,347,083,269	36,065,341	97.4	2.6	634,859,599	622,069,628	12,789,971	98.0	2.0	4.7	5.1
Michigan	541,759,351	531,421,271	10,338,080	98.1	1.9	314,302,916	308,233,898	6,069,018	98.1	1.9	4.9	5.7
Wisconsin	390,197,916	384,616,401	5,581,515	98.6	1.4	298,649,106	295,311,706	3,337,400	98.9	1.1	5.3	4.5

WEST NORTH CENTRAL:												
Minnesota	377,042,624	370,850,504	6,192,120	98.4	1.6	426,567,352	421,230,677	5,336,675	98.7	1.3	6.8	5.2
Iowa	331,413,200	325,682,000	5,731,200	98.3	1.7	476,762,968	471,566,328	5,196,640	98.9	1.1	5.8	4.1
Missouri	370,350,580	364,022,892	6,327,688	98.3	1.7	675,897,264	670,827,798	5,069,466	99.2	0.8	6.3	5.6
North Dakota	38,207,000	37,415,000	792,000	97.9	2.1	71,660,370	70,850,478	809,892	98.9	1.1	5.2	4.0
South Dakota	40,093,700	39,159,000	934,700	97.7	2.3	119,082,640	117,455,491	1,627,149	98.6	1.4	6.0	4.5
Nebraska	198,933,400	196,185,000	2,748,400	98.6	1.4	320,594,655	317,656,425	2,938,230	99.1	0.9	6.0	5.8
Kansas	208,347,110	205,083,239	3,263,871	98.4	1.6	427,810,533	424,459,501	3,351,032	99.2	0.8	6.5	5.1
SOUTH ATLANTIC:												
Delaware	40,201,236	38,837,628	1,363,608	96.6	3.4	916,500	916,500	----------	100.0	------	5.4	5.0
Maryland	234,497,796	224,611,140	9,886,656	95.8	4.2	2,952,739	2,951,939	800	100.0	(3)	4.8	2.6
District of Columbia	120,858,120	118,216,620	2,641,500	97.8	2.2	----------	----------	----------	------	------	3.6	------
Virginia	172,632,924	168,696,660	3,936,264	97.7	2.3	93,991,415	92,991,549	999,866	98.9	1.1	5.4	5.0
West Virginia	144,989,100	140,453,136	4,535,964	96.9	3.1	57,574,127	54,734,734	2,839,393	95.1	4.9	5.8	4.5
North Carolina	96,952,296	95,141,880	1,810,416	98.1	1.9	177,247,008	175,200,028	2,046,980	98.8	1.2	8.3	6.8
South Carolina	89,477,917	87,744,198	1,733,719	98.1	1.9	35,774,794	35,433,376	341,418	99.0	1.0	8.4	5.2
Georgia	299,358,278	295,861,873	3,496,405	98.8	1.2	72,586,879	71,813,010	773,869	98.9	1.1	9.4	5.8
Florida	76,707,981	75,635,023	1,072,958	98.6	1.4	100,887,094	99,316,418	1,570,676	98.4	1.6	6.8	6.9
EAST SOUTH CENTRAL:												
Kentucky	157,815,667	155,355,612	2,460,055	98.4	1.6	271,637,427	270,015,852	1,621,575	99.4	0.6	6.3	6.7
Tennessee	333,161,097	330,327,373	2,833,724	99.1	0.9	145,969,043	145,433,951	535,092	99.6	0.4	10.2	6.4
Alabama	190,182,252	187,105,594	3,076,658	98.4	1.6	28,817,169	28,617,000	200,169	99.3	0.7	9.8	3.5
Mississippi	117,323,593	114,377,180	2,946,413	97.5	2.5	29,317,481	29,267,130	50,351	99.8	0.2	8.4	4.4
WEST SOUTH CENTRAL:												
Arkansas	159,535,558	157,144,638	2,390,920	98.5	1.5	56,534,079	56,027,438	506,641	99.1	0.9	8.8	4.0
Louisiana	246,810,090	243,543,976	3,266,114	98.7	1.3	13,008,745	12,978,909	29,836	99.8	0.2	9.6	4.7
Oklahoma	347,409,914	340,381,992	7,027,922	98.0	2.0	114,132,839	113,371,929	760,910	99.3	0.7	8.0	4.0
Texas	549,111,513	541,297,906	7,813,607	98.6	1.4	476,419,719	472,427,406	3,992,313	99.2	0.8	7.9	5.9
MOUNTAIN:												
Montana	59,456,224	58,022,568	1,433,656	97.6	2.4	15,471,182	15,391,758	79,424	99.5	0.5	4.2	4.3
Idaho	60,668,741	59,299,356	1,369,385	97.7	2.3	27,726,398	27,335,614	390,784	98.6	1.4	5.9	5.1
Wyoming	33,068,636	32,397,408	671,228	98.0	2.0	8,896,012	8,836,516	59,496	99.3	0.7	5.2	5.1
Colorado	225,363,661	220,109,400	5,254,261	97.7	2.3	21,152,999	21,108,149	44,850	99.8	0.2	5.1	4.3
New Mexico	25,101,339	24,696,576	404,763	98.4	1.6	7,446,420	7,441,620	4,800	99.9	0.1	5.7	4.7
Arizona	26,264,274	25,569,432	694,842	97.4	2.6	5,088,178	4,938,575	149,603	97.1	2.9	3.7	6.3
Utah	97,118,217	95,072,616	2,045,601	97.9	2.1	7,228,960	7,017,075	211,825	97.1	2.9	6.2	4.1
Nevada	10,610,880	10,433,940	176,940	98.3	1.7	5,640,645	5,512,945	127,700	97.7	2.3	5.1	4.5
PACIFIC:												
Washington	333,342,096	329,229,420	4,112,676	98.8	1.2	115,118,104	113,598,761	1,519,343	98.7	1.3	5.9	5.5
Oregon	203,275,032	200,769,396	2,505,636	98.8	1.2	74,095,404	72,816,123	1,279,281	98.3	1.7	6.4	4.7
California	1,138,013,760	1,104,578,592	33,435,168	97.1	2.9	198,322,275	185,189,718	13,132,557	93.4	6.6	5.4	5.1

[1] See "Number of 'originating calls,'" p. 22.
[2] Includes all calls reported by systems and lines with annual incomes of less than $10,000, no distribution as "local exchange" or "long-distance or toll" calls having been made by these lines.
[3] Less than one-tenth of 1 per cent.

TABLE 29.—PRINCIPAL STATISTICS, SYSTEMS AND LINES REPORTING ANNUAL

	DIVISION AND STATE	Number of systems or lines	Miles of single wire	Number of systems reporting switchboards	Number of telephones
1	UNITED STATES	55, 930	1, 762, 975	8, 594	2, 052, 161
	GEOGRAPHIC DIVISIONS:				
2	New England	292	22, 981	143	26, 064
3	Middle Atlantic	2, 508	111, 420	564	136, 789
4	East North Central	6, 601	408, 597	2, 047	513, 766
5	West North Central	16, 771	555, 964	2, 438	718, 757
6	South Atlantic	4, 483	140, 001	845	145, 617
7	East South Central	6, 768	128, 186	775	141, 124
8	West South Central	11, 601	237, 612	1, 227	239, 805
9	Mountain	2, 147	58, 573	247	41, 287
10	Pacific	4, 759	99, 641	308	88, 952
	NEW ENGLAND:				
11	Maine	164	10, 975	71	11, 939
12	New Hampshire	45	3, 729	21	3, 965
13	Vermont	64	6, 786	39	8, 348
14	Massachusetts	14	896	8	969
15	Rhode Island				
16	Connecticut	5	595	4	843
	MIDDLE ATLANTIC:				
17	New York	915	38, 450	249	57, 910
18	New Jersey	82	2, 897	12	4, 193
19	Pennsylvania	1, 511	70, 073	303	74, 686
	EAST NORTH CENTRAL:				
20	Ohio	861	70, 573	376	88, 704
21	Indiana	1, 350	81, 191	523	119, 626
22	Illinois	1, 976	100, 905	526	137, 833
23	Michigan	1, 355	58, 025	233	62, 401
24	Wisconsin	1, 059	97, 903	389	105, 202
	WEST NORTH CENTRAL:				
25	Minnesota	1, 952	94, 263	317	95, 235
26	Iowa	4, 803	99, 865	575	186, 467
27	Missouri	3, 931	115, 442	574	156, 188
28	North Dakota	652	31, 029	154	29, 998
29	South Dakota	693	32, 739	125	41, 650
30	Nebraska	1, 529	69, 466	200	67, 356
31	Kansas	3, 211	113, 160	493	141, 863
	SOUTH ATLANTIC:				
32	Delaware	41	450		562
33	Maryland	167	3, 885	8	3, 492
34	District of Columbia				
35	Virginia	738	27, 974	191	34, 863
36	West Virginia	361	24, 845	160	30, 700
37	North Carolina	1, 081	33, 716	184	30, 968
38	South Carolina	789	15, 374	87	12, 573
39	Georgia	1, 195	27, 316	163	25, 987
40	Florida	111	6, 441	52	6, 472
	EAST SOUTH CENTRAL:				
41	Kentucky	2, 309	42, 106	261	51, 172
42	Tennessee	2, 684	52, 006	295	52, 421
43	Alabama	875	16, 033	127	19, 581
44	Mississippi	900	18, 041	92	17, 950
	WEST SOUTH CENTRAL:				
45	Arkansas	2, 393	33, 069	177	32, 705
46	Louisiana	438	7, 623	42	6, 283
47	Oklahoma	3, 016	55, 171	331	74, 287
48	Texas	5, 754	141, 749	677	126, 530
	MOUNTAIN:				
49	Montana	423	13, 386	67	8, 449
50	Idaho	342	8, 505	34	8, 303
51	Wyoming	251	7, 267	26	4, 103
52	Colorado	836	17, 643	49	12, 139
53	New Mexico	162	5, 620	37	3, 985
54	Arizona	55	2, 366	8	1, 035
55	Utah	60	3, 066	21	2, 813
56	Nevada	18	720	5	460
	PACIFIC:				
57	Washington	1, 061	28, 510	115	30, 844
58	Oregon	1, 308	26, 788	119	28, 392
59	California	2, 390	44, 343	74	29, 716

Incomes of Less Than $10,000, by Geographic Divisions and States: 1922

Number of calls originating with system reporting	Gross receipts exclusive of assessments of mutual companies	Assessments of mutual companies	Employees		Salaries and wages paid	Total investment Dec. 31, 1922	
			Male	Female			
2,746,173,790	$20,164,504	$7,935,145	7,349	14,333	$11,387,748	$75,409,390	1
37,502,725	415,751	41,090	139	242	195,305	944,963	2
165,924,150	1,594,683	620,276	632	1,182	838,850	6,318,746	3
717,086,825	5,515,672	1,505,906	1,955	3,956	3,086,409	17,631,420	4
915,746,950	6,001,361	3,185,913	2,291	4,418	3,860,663	25,121,606	5
214,509,825	1,924,585	442,177	732	1,251	927,942	5,711,936	6
196,210,950	921,278	553,013	534	1,005	622,072	3,769,927	7
296,937,150	2,466,424	876,825	676	1,470	1,126,021	8,194,802	8
63,395,065	544,599	209,892	160	337	293,869	2,925,838	9
138,860,150	780,151	500,053	230	472	436,617	4,790,152	10
12,808,575	189,919	19,427	59	114	84,638	458,115	11
6,009,900	81,609	1,437	28	41	35,351	152,011	12
15,189,850	104,054	18,528	34	62	52,855	235,180	13
2,020,200	19,621	1,680	10	16	10,824	30,595	14
							15
1,474,200	20,548	18	8	9	11,637	69,062	16
74,756,225	819,277	126,094	290	468	381,331	2,015,190	17
5,287,425	65,210	16,928	33	33	36,447	271,752	18
85,880,500	710,196	477,254	309	681	421,072	4,031,804	19
121,667,000	940,895	228,332	361	794	583,018	2,896,032	20
168,423,450	1,336,087	238,991	435	981	685,907	3,943,380	21
190,681,725	1,225,402	461,016	523	1,011	767,053	4,142,971	22
84,910,150	571,905	303,684	252	408	349,264	1,836,079	23
151,404,500	1,441,383	273,883	384	762	701,167	4,812,958	24
125,393,875	1,007,624	410,896	317	595	538,748	4,823,700	25
225,830,600	1,067,752	1,036,659	439	990	879,484	5,103,819	26
197,480,300	1,083,549	500,481	460	1,069	725,458	4,196,398	27
34,170,500	410,394	115,313	164	223	212,421	1,976,649	28
50,901,025	504,129	151,516	162	200	238,392	1,616,857	29
82,069,975	686,723	272,423	244	369	366,952	3,087,122	30
199,900,675	1,241,190	698,625	505	972	899,208	4,317,061	31
916,500	3,337	4,026				26,437	32
2,951,075	29,228	19,523	12	16	12,295	173,533	33
							34
51,942,475	314,636	141,276	154	302	191,859	1,135,476	35
41,548,000	329,823	89,520	136	249	138,725	764,138	36
41,202,850	419,387	62,263	129	253	195,328	1,403,262	37
18,286,775	184,980	43,825	66	106	96,573	773,953	38
45,421,350	475,069	74,329	170	238	204,048	936,456	39
12,240,800	168,125	7,415	65	87	89,114	498,681	40
61,550,125	256,463	195,583	166	377	194,517	1,233,479	41
91,171,925	297,715	246,252	218	380	238,721	1,415,555	42
20,570,550	234,482	54,270	89	150	120,072	654,658	43
22,918,350	132,618	56,908	61	98	68,762	466,235	44
36,291,125	283,300	111,549	110	214	139,260	823,649	45
8,467,225	88,315	23,284	26	51	45,977	235,847	46
94,668,275	707,613	314,532	207	419	364,322	2,599,614	47
157,510,525	1,387,196	427,460	333	786	576,462	4,535,692	48
10,847,200	124,233	49,872	28	68	63,764	792,036	49
15,585,740	105,367	31,142	31	64	58,652	444,253	50
6,569,750	42,039	31,764	19	31	20,366	287,239	51
17,414,800	88,726	77,149	25	61	47,481	649,239	52
6,344,000	87,542	9,991	25	49	43,456	301,055	53
2,537,275	17,177	1,990	4	11	18,013	164,653	54
3,481,075	63,880	7,784	24	46	33,981	223,191	55
615,225	15,635	200	4	7	8,156	64,172	56
48,390,225	353,573	130,459	95	200	180,516	1,241,170	57
43,556,500	144,752	206,552	58	157	119,431	1,112,915	58
46,913,425	281,826	163,042	77	115	136,670	2,436,067	59

CHAPTER V.—FINANCIAL STATISTICS

Character of the statistics.—Detailed financial data for 1922 were collected only from telephone systems with incomes of $10,000 or more, and for 1917 and prior years only from those systems having incomes of $5,000 or more. The data supplied by these systems comprised detailed income statements showing revenue and expenditures for the year, balance sheets showing financial condition at the end of the year, and the amounts of salaries and wages paid the several classes of employees. The schedules for 1922 and 1917 were modeled upon those used by the Interstate Commerce Commission in its annual collection of telephone data.

The financial statistics for the larger systems are presented only for the United States as a whole. Since not only the Bell System but many of the others operate in more than one State, it is impracticable to apportion the various financial items among the States.

Effect of change in monetary values.—In making use of the financial statistics consideration must be given to the change in the purchasing power of the monetary unit between 1912 and 1917 and between 1917 and 1922. According to the wholesale price index compiled by the Bureau of Labor Statistics, Department of Labor, the weighted average price of all commodities was 77 per cent higher in 1917 than in 1913 (the base year), 49 per cent higher in 1922 than in 1913, and 16 per cent lower in 1922 than in 1917. (The indices for retail food prices and general cost of living show considerably different movements.)

A still more important consideration, so far as the telephone business is concerned, is the increase in salary and wage scales, for the reason that salaries and wages constitute a large proportion of the total expenses. The total salaries and wages paid by the larger telephone systems increased by 76.6 per cent between 1912 and 1917 and 101.3 per cent between 1917 and 1922, whereas the corresponding rates of increase in number of employees were only 33.3 per cent and 18.8 per cent, respectively. (See Table 36.)

Capitalization.—The total capitalization of incorporated companies, as shown in Table 30, includes all intercompany holdings, whereas the corresponding items as they appear in Tables 2, 3, and 10 are exclusive of intercompany holdings within the Bell System. (See footnote 5, Table 30.) These intercompany holdings are eliminated by the Bell System in making its consolidated report, but are included in the totals in Table 30 for the sake of consistency, since the intercompany holdings of non-Bell systems and the stocks and bonds of non-Bell companies held by the Bell System enter into these totals.

Since the intercompany holdings shown in Table 30 for the Bell System include its holdings in the securities of non-Bell companies (see footnote 5), and since all intercompany holdings have been deducted from the total capitalization in order to obtain the net capitalization, the latter item, considered as representing securities held by individuals or by banks or other establishments outside the telephone industry, is correct only for the total for all companies, being somewhat understated for the Bell System and somewhat overstated for the non-Bell systems. That is to say, the actual amount of Bell securities held by individuals, banks, etc., in 1922 was $1,483,040,509, or $137,576,974 (the amount of the non-Bell securities held by Bell companies) more than the net capitalization shown for the Bell System in Table 30; while the actual amount of non-Bell securities (including cash investment and real-estate mortgages of unincorporated com-

panies) in the hands of owners other than telephone companies was $117,134,078, or $137,576,974 less than the net capitalization shown for the non-Bell systems.

In addition to their telephone securities, some of the companies reported holdings of stocks and bonds of concerns other than telephone companies, and various other investments of a permanent nature outside the telephone industry. The amount of such investments must be deducted from the "Net capitalization" as shown in Table 30 in order to obtain the net capitalization actually chargeable to the telephone industry ("Net capitalization invested in telephone industry of the United States").

Dividend and interest rates.—At this census no attempt has been made to calculate dividend and interest rates, for the reason that the relationship between dividends and interest paid *during* the year and the amounts of stock and funded and floating debt *at the end* of the year may yield wholly fictitious percentages which would not express the true dividend and interest rates. This condition results from the issuance of new stock and the retirement of old stock during the year, and from similar changes in funded and floating indebtedness. Because of these changes, which were proportionally greater during 1922 than during preceding census years, the total amounts of dividends and interest paid during the year included considerable sums paid on stocks and bonds not outstanding at the end of the year, and, on the other hand, did not include a full year's dividends and interest on some of the stock and bonds outstanding at the end of the year.

Duplication in income and expenses (Tables 31 and 32).—In the report made by the Bell System all intercompany duplications of receipts and expenditures were eliminated. The reports of the non-Bell companies, however, include small amounts of interest and dividends received by certain companies from other companies. These amounts, therefore, appear as income in "Nonoperating income" and "Gross income," and as expenses in "Deductions from gross income" and "Disposition of net income."

Income and expenses per telephone and per call (Table 33).—In making use of the figures in Table 33, some allowance must be made for differences in the methods of charging for telephone service and for the fact that a considerable proportion of the smaller companies, especially among those reporting for 1917 and 1912 (when the minimum income limit was $5,000) had very imperfect systems of accounting, as a result of which the data reported by them were inaccurate. Since the averages per telephone and per originating call for 1917 and 1912 are necessarily based on totals which include these inaccurate data, the revenues and expenses per unit for those years should be accepted as approximations only rather than as exact figures. These approximations, however, reflect in a fairly trustworthy manner the general relationship of income and expenses to number of telephones and amount of traffic and show the trend of this relationship from census to census.

Balance sheet (Tables 34 and 35).—The balance sheets shown include some duplication in assets and liabilities resulting from the inclusion of intercompany holdings ("Stocks of telephone companies" and "Funded debt of telephone companies").

Employees, salaries, and wages (Table 36).—Detailed data for employees, salaries, and wages were collected by correspondence from the telephone companies having incomes of $10,000 or more. The companies with incomes below $10,000 reported only the total number of employees, classified as male and female, and the total amount of salaries and wages. (See Table 29.)

TABLE 30.—ANALYSIS OF CAPITALIZATION, FOR THE BELL SYSTEM AND FOR OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1917, 1912, AND 1907 [1]

	Census year	Total	Bell System	Other systems
Capitalization of incorporated companies	1922	$2,544,772,047	$2,289,486,451	$255,285,596
	1917	1,785,337,790	1,536,030,254	249,307,536
	1912	1,451,438,242	1,174,605,286	276,832,956
	1907	[2] 998,066,677	750,181,335	[2] 247,885,342
Cash investment and real-estate mortgages of unincorporated companies.	1922	[3] 3,997,801	----------	[3] 3,997,801
	1917	[3] 5,376,171	----------	[3] 5,376,171
	1912	[3] 3,413,493	----------	[3] 3,413,493
	1907	[4] 2,583,833	----------	[4] 2,583,833
Total	1922	2,548,769,848	2,289,486,451	259,283,397
	1917	1,790,713,961	1,536,030,254	254,683,707
	1912	1,454,851,735	1,174,605,286	280,246,449
	1907	1,000,650,510	750,181,335	250,469,175
Intercompany holdings	1922	948,595,261	[5] 944,022,916	4,572,345
	1917	639,673,186	[5] 633,670,438	6,002,748
	1912	501,476,067	[5] 492,181,436	9,294,631
	1907	274,231,121	[5] 258,189,989	16,041,132
Net capitalization	1922	1,600,174,587	1,345,463,535	254,711,052
	1917	1,151,040,775	902,359,816	248,680,959
	1912	953,375,668	682,423,850	270,951,818
	1907	726,419,389	491,991,346	234,428,043
Investments outside telephone industry of United States.	1922	83,732,073	78,830,406	4,901,667
	1917	73,878,464	70,590,587	3,287,877
	1912	62,090,435	61,194,984	895,451
	1907	25,255,951	25,090,795	165,156
Net capitalization invested in telephone industry of United States.	1922	1,516,442,514	1,266,633,129	249,809,385
	1917	1,077,162,311	831,769,229	245,393,082
	1912	891,285,233	621,228,866	270,056,367
	1907	701,163,438	466,900,551	234,262,887

[1] See "Change in classification according to income," p. 6, and Table 4.

[2] Includes real-estate mortgages of unincorporated companies, not tabulated separately but probably not exceeding $100,000.

[3] Includes real-estate mortgages as follows: For 1922, $300,506; for 1917, $429,572; for 1912, $126,355.

[4] Not including real-estate mortgages. See note 2.

[5] Comprises intercompany holdings within the Bell System and stocks and bonds of other telephone systems as follows: For 1922—intercompany holdings, Bell, $806,445,942; stocks and bonds of other systems, $137,576,974. For 1917—intercompany holdings, Bell, $616,263,920; stocks and bonds of other systems, $17,406,518. For 1912—intercompany holdings, Bell, $480,747,250; stocks and bonds of other systems, $11,434,186. For 1907—intercompany holdings, Bell, $258,189,989, stocks and bonds of other systems, none.

TABLE 31.—INCOME STATEMENT, BELL SYSTEM AND OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE: 1922

ACCOUNT	Total	Bell System [1]	Other systems
1.—OPERATING INCOME			
Telephone operating revenue	$637,468,630	$546,820,113	$90,648,517
Telephone operating expense	455,154,197	388,342,205	66,811,992
Net telephone operating revenue	182,314,433	158,477,908	23,836,525
Net revenue from other operations	5,267	[2] 733	6,000
Total net operating revenues	182,319,700	158,477,175	23,842,525
Uncollectible operating revenues	3,601,492	3,081,821	519,671
Taxes	46,798,880	41,215,441	5,583,439
Deductions from net operating revenues	50,400,372	44,297,262	6,103,110
Operating income	131,919,328	114,179,913	17,739,415
2.—NONOPERATING INCOME			
Rent revenues	1,516,100	1,363,024	153,076
Dividends from telephone company stocks	1,290,342	1,186,890	103,452
Dividends from other stocks	4,569,868	4,567,450	2,418
Interest from obligations of telephone companies	2,633,660	2,365,666	267,994
Interest from other sources	8,814,126	8,481,543	332,583
Miscellaneous nonoperating revenues	525,915	285,672	240,243
Total nonoperating revenues	19,350,011	18,250,245	1,099,766
Nonoperating expenses	1,162,746	1,040,934	121,811
Nonoperating income	18,187,266	17,209,311	977,955
GROSS INCOME	150,106,594	131,389,224	18,717,370
3.—DEDUCTIONS FROM GROSS INCOME			
Interest on funded debt	[3] 40,477,583	35,674,829	[2] 4,862,754
Other interest	2,819,724	1,115,646	1,704,078
Rent deductions	7,524,499	5,953,557	1,570,942
Miscellaneous income deductions	2,620,845	2,022,440	598,405
Total deductions from gross income	53,442,651	44,766,472	8,676,179
NET INCOME	96,663,943	86,622,752	10,041,191
4.—DISPOSITION OF NET INCOME			
Dividends:			
On common stock	62,340,368	57,427,487	4,912,881
On preferred stock	3,694,883	2,877,717	817,166
Other appropriations of net income	7,831,189	7,640,818	190,371
Total appropriations of net income	73,866,440	67,946,022	5,920,418
Balance carried to surplus	22,797,503	18,676,730	4,120,773

[1] Excludes intercompany duplications within the Bell System.
[2] Deficit.
[3] Includes interest on debenture stock.

TABLE 32.—OPERATING REVENUES AND EXPENSES, THE BELL SYSTEM AND OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1917 [1]

ACCOUNT	TOTAL		BELL SYSTEM [2]		OTHER SYSTEMS	
	1922	1917	1922	1917	1922	1917
Operating revenues	$637,468,630	$363,831,921	$546,820,113	$303,863,847	$90,648,517	$59,968,074
Exchange	447,067,008	262,698,775	374,718,580	214,119,479	72,348,428	48,579,296
Toll	180,069,891	97,250,496	163,097,837	86,814,336	16,972,054	10,436,160
Miscellaneous	10,331,731	3,882,650	9,003,696	2,930,032	[3] 1,328,035	[4] 952,618
Operating expenses	455,154,197	253,429,704	388,342,205	211,074,788	66,811,992	42,354,916
Repairs and other maintenance	95,764,829	54,746,253	79,817,856	42,789,342	15,946,973	11,956,911
Traffic	175,143,119	82,201,988	152,948,539	70,056,681	22,194,580	12,145,307
Depreciation of plant and equipment	93,970,731	63,312,657	80,081,280	54,669,816	13,889,451	8,642,841
General and miscellaneous	90,275,518	53,168,806	75,494,530	43,558,949	14,780,988	9,609,857
	PER CENT DISTRIBUTION					
Operating revenues	100.0	100.0	100.0	100.0	100.0	100.0
Exchange	70.1	72.2	68.5	70.5	79.8	81.0
Toll	28.2	26.7	29.8	28.6	18.7	17.4
Miscellaneous	1.6	1.1	1.6	1.0	1.5	1.6
Operating expenses	100.0	100.0	100.0	100.0	100.0	100.0
Repairs and other maintenance	21.0	21.6	20.6	20.3	23.9	28.2
Traffic	38.5	32.4	39.4	33.2	33.2	28.7
Depreciation of plant and equipment	20.6	25.0	20.6	25.9	20.8	20.4
General and miscellaneous	19.8	21.0	19.4	20.6	22.1	22.7

[1] See "Change in classification according to income," p. 6, and Table 4.
[2] Excludes intercompany duplications within the Bell System.
[3] Includes a small amount reported as assessments by a mutual company.
[4] Includes $201,304 reported as assessments by mutual companies.

TABLE 33.—REVENUE AND EXPENSES PER TELEPHONE AND PER ORIGINATING CALL, SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND THOSE REPORTING $5,000 OR MORE, 1907–1922 [1]

	1922	1917	1912	1907
Average number of originating calls per telephone [2] per year	1,833	2,043	1,875	2,190
Average total revenue:				
Per telephone [2]	$54.97	$38.41	$34.82	$36.01
Per originating call (cents)	2.999	1.881	1.857	1.699
Average revenue from telephone operations—				
Per telephone [2]	$53.35	$37.52	$33.25	$34.07
Per originating call (cents)	2.911	1.837	1.773	1.607
Average revenue from other sources—				
Per telephone [2]	$1.62	$0.89	$1.57	$1.95
Per originating call (cents)	0.088	0.044	0.084	0.092
Average operating expenses:				
Per telephone [2]	$38.09	$26.14	$23.36	$23.10
Per originating call (cents)	2.078	1.279	1.246	1.090
Average deductions from income (taxes, rent, fixed charges, etc.):				
Per telephone [2]	$8.79	$6.06	$4.45	$4.51
Per originating call (cents)	0.479	0.296	0.237	0.213
Average net income:				
Per telephone [2]	$8.09	$6.13	$7.01	$8.40
Per originating call (cents)	0.441	0.299	0.374	0.396
Average appropriations from net income:				
Per telephone [2]	$6.18	$4.67	$4.66	$4.78
Per originating call (cents)	0.337	0.228	0.249	0.225
Average balance carried to surplus:				
Per telephone [2]	$1.91	$1.46	$2.35	$3.62
Per originating call (cents)	0.104	0.072	0.125	0.171

[1] See "Change in classification according to income," p. 6, and Table 4.
[2] Based on average numbers of telephones for 1922 and 1917 (see Table 16) and on numbers reported for Dec. 31, 1912 and 1907.

TABLE 34.—BALANCE SHEET, THE BELL SYSTEM AND OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE: DECEMBER 31, 1922

ACCOUNT	Total	Bell System	Other systems
Total assets or liabilities	[1] $2,595,396,033	[2] $2,203,464,448	[1] $391,931,585
ASSETS			
Plant and equipment	2,129,773,760	1,783,079,046	346,694,714
Other property (nontelephone)	4,771,577	3,871,965	899,612
Stocks of telephone companies	114,443,341	110,574,968	3,868,373
Funded debt of telephone companies	27,705,978	27,002,006	703,972
Miscellaneous stocks	3,240,838	2,464,347	776,491
Miscellaneous funded debt	972,050	830,227	141,823
Advances to system corporations	22,743,723	20,245,513	2,498,210
Marketable securities	74,747,608	71,663,867	3,083,741
Bills receivable	17,390,109	14,487,765	2,902,344
Accounts receivable	53,404,315	44,512,009	8,892,306
Cash and deposits	85,691,160	77,290,044	8,401,116
Materials and supplies	28,443,120	21,510,153	6,932,967
Sinking and other special funds	2,718,508	1,399,403	1,319,105
Sundries	29,349,946	24,533,135	4,816,811
LIABILITIES			
Common stock	905,126,122	776,619,597	128,506,525
Preferred stock	[3] 96,301,962	60,387,747	[3] 35,914,215
Cash investment (of unincorporated systems)	3,697,295	----------	3,697,295
Funded debt (including real-estate mortgages)	737,198,527	646,033,165	91,165,362
Advances from system corporations	11,962,825	----------	11,962,825
Bills payable	18,096,031	426,164	17,669,867
Accounts payable	45,829,843	34,030,268	11,799,575
Reserves for depreciation	459,599,751	395,297,455	64,302,296
Other reserves	21,281,031	19,571,404	1,709,627
Sundries	69,996,924	62,788,735	7,208,189
Surplus	226,305,722	208,309,913	17,995,809

[1] Exclusive of deficit to the amount of $9,080,937 reported by companies having a deficit.
[2] Excludes intercompany duplications within the Bell System.
[3] Includes $12,924 debenture stock.

TABLE 35.—BALANCE SHEET, INCORPORATED AND UNINCORPORATED NON-BELL SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE: DECEMBER 31, 1922

ACCOUNT	Total	Incorporated	Unincorporated
Total assets or liabilities	[1] $391,931,585	[1] $386,306,478	[1] $5,625,107
ASSETS			
Plant and equipment	346,694,714	341,648,678	5,046,036
Other property (nontelephone)	899,612	866,274	33,338
Stocks of telephone companies	3,868,373	3,868,373	----------
Funded debt of telephone companies	703,972	703,972	----------
Miscellaneous stocks	776,491	767,040	9,451
Miscellaneous funded debt	141,823	141,823	----------
Advances to system corporations	2,498,210	2,498,210	----------
Marketable securities	3,083,741	3,058,643	25,098
Bills receivable	2,902,344	2,835,910	66,434
Accounts receivable	8,892,306	8,692,264	200,042
Cash and deposits	8,401,116	8,274,928	126,188
Materials and supplies	6,932,967	6,850,693	82,274
Sinking and other special funds	1,319,105	1,299,030	20,075
Sundries	4,816,811	4,800,640	16,171
LIABILITIES			
Common stock	128,506,525	128,506,525	----------
Preferred stock	[2] 35,914,215	35,914,215	----------
Cash investment (of unincorporated lines)	3,697,295	----------	3,697,295
Funded debt (including real-estate mortgages)	91,165,362	90,864,856	300,506
Advances from system corporations	11,962,825	11,962,825	----------
Bills payable	17,669,867	17,421,699	248,168
Accounts payable	11,799,575	11,688,467	111,108
Reserves for depreciation	64,302,296	63,538,489	763,807
Other reserves	1,709,627	1,690,985	18,642
Sundries	7,208,189	7,167,237	40,952
Surplus	17,995,809	17,551,180	444,629

[1] Exclusive of deficit to the amount of $9,080,937 reported by companies having a deficit; of this amount, $9,043,359 was reported by incorporated systems and $37,578 by unincorporated systems.
[2] Includes $12,924 debenture stock.

TABLE 36.—EMPLOYEES, SALARIES, AND WAGES, SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1922, AND SYSTEMS REPORTING ANNUAL INCOMES OF $5,000 OR MORE, 1917 AND 1912 [1]

	1922	1917	1912	PER CENT OF INCREASE OR DECREASE (—)	
				1917–1922	1912–1917
Employees, total: [2]					
Number	290,333	244,490	183,361	18.8	33.3
Salaries and wages	$341,537,822	$169,655,066	$96,040,541	101.3	76.6
Salaried employees:					
Number	57,764	44,705	38,753	29.2	15.4
Salaries	$94,006,233	$46,566,869	$32,681,482	101.9	42.5
Salaried officers—					
Number	5,010	4,118	1,753	21.7	134.9
Salaries	$16,493,105	$9,213,516	$3,086,242	79.0	198.5
Superintendents and managers—					
Number	5,216	6,406	5,673	—18.6	12.9
Salaries	$9,738,211	$7,355,268	$7,391,975	32.4	—0.5
Clerks, stenographers, and other salaried employees—					
Number	47,538	34,181	31,327	39.1	9.1
Salaries	$67,774,917	$29,998,085	$22,203,265	125.9	35.1
Wage earners:					
Number	232,569	199,785	144,608	16.4	38.2
Wages	$247,531,589	$123,088,197	$63,359,059	101.1	94.3
Operators—					
Number	159,558	138,971	96,332	14.8	44.3
Male	932	1,679	1,972	—44.5	—14.9
Female	158,626	137,292	94,360	15.5	45.5
Wages	$138,897,342	$66,137,070	$32,474,093	110.0	103.7
All other wage earners—					
Number	73,011	60,814	48,276	20.1	26.0
Wages	$108,634,247	$56,951,127	$30,884,966	90.7	84.4

[1] See "Change in classification according to income," p. 6, and Table 4.

[2] In addition, systems having incomes of less than $10,000 in 1922 reported 21,682 employees and paid $11,337,748 in salaries and wages, and systems having incomes of less than $5,000, in 1917 reported 18,139 employees and paid $6,015,333 in salaries and wages. (No corresponding data for 1912.) The number of employees shown for 1922 refers to June 30; for 1917, to Sept. 29; and for 1912, to Sept. 16.

APPENDIX

Page
Schedule used in securing data for telephone systems having incomes of $10,000 or more in 1922 54
Schedule used in securing data for telephone systems having incomes of less than $10,000 in 1922 56

Form 603

File No.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON

CENSUS OF TELEPHONES, 1922

All commercial and mutual, or rural or cooperative telephone systems, and long-distance and toll lines having an annual income of $10,000 and over, must be reported on this schedule. All other telephone lines and systems having an annual income of less than $10,000 must be reported on schedule Form 603a.

NAME OF COMPANY OR SYSTEM .....

.....

STATE ..... CITY .....

ADDRESS OF GENERAL OFFICE: Street and number .....

City or town ..... State .....

AUTHORIZATION.

The act of Congress approved June 7, 1906, authorizes the Director of the Census to collect every fifth year statistics relating to the electric industries, including telephones. The act approved July 2, 1909, directs that it shall be the duty of every owner, president, treasurer, secretary, director, or other officer or agent of any establishment or company covered by the census inquiry, to furnish the information indicated by the schedules that have been prepared in conformity with these requirements.

The statistics should relate to the calendar year ending December 31, 1922.

The information given in your reports will be held absolutely confidential.

No publication will be made disclosing the name or operations of individual lines or systems.

No one other than sworn employees of the Bureau of the Census will be permitted to examine the individual reports.

W. M. STEUART,
Director of the Census.

CERTIFICATE.

THIS IS TO CERTIFY that the information contained in this schedule is complete and correct to the best of my knowledge and belief, and that it covers the period from ....., 192

to ....., 192

.....
(Signature and official designation of the person furnishing the information.)

.....
(Address of person furnishing the information.)

.....
(Signature of Special Agent.)

[8—5172. VV2-913] 11—6093

2

Each question should be answered; if not applicable, use word "None."

1. Does company do telegraph business? (Answer Yes or No) .....

2. Character of organization. (State the form of organization as it existed on the last day of the year covered by the report, whether individual, firm or partnership, mutual company, cooperative association, incorporated company, or other form; if mutual or cooperative and also incorporated, give both.)

3. If a consolidated company, give names and location of constituent companies included in this report .....

4. If a subsidiary or leased company, give name and address of operating company or lessee .....

5. Give names and addresses of farmer or rural lines connected with but not owned by the company reporting. (Give only the lines for which statistics are not included in this report.)

6. Miles of wire. (The answers to this inquiry should show the total number of miles of single wire in operation, or ready for operation. If several wires are on one line of poles or in one conduit or cable, count length of each wire separately.)

	NUMBER OF MILES OF SINGLE WIRE.		
	Total.	Overhead.	Underground.
Wire on exchange circuits			
Wire on toll circuits			
TOTAL MILES OF WIRE			

If company operates wires in more than one state, give names of states and *total* miles of single wire in each state .....

7. Miles of "Phantom Circuits" .....

8. Number of miles of pole line operated (including that used jointly with other companies) .....

9. Number of central offices and private branch exchanges. (For census purposes a "Public central office" is a place where wires are interconnected by means of a switchboard for the use of the public generally; a "Private branch exchange" is a switchboard within a business building, apartment house, hotel, etc., establishing interior communication, also outside communication by a trunk line to the public central office. The number of these private branch exchanges and their stations should be reported by the exchange company through which they operate.)

Central offices (by states) .....

Private branch exchanges (by states) .....

	NUMBER.	
	Dec. 31, 1922.	Dec. 31, 1921.
10. Total number of telephones of all kinds in use or wired for use (By one telephone is meant the set of two instruments—transmitter and receiver. Include all telephones—those of regular exchange subscribers; those on private branch exchanges; those in local pay and outlying toll stations and farmer, rural, or party lines owned by the company; and those used by the company for communication between its different departments. *Do not* include telephones on wire of other companies or lines.)		
If company operates telephones in more than one state, give names of states and total number of stations or telephones in each state:		

11. Estimated total number of telephone connections or calls, including both completed and uncompleted, during the year *originating* from telephones owned and operated by the company reporting (do not include interior private branch calls).

	TOTAL NUMBER.	NUMBER FOR EACH STATE.		
		Name of state.	Name of state.	Name of state.
Exchange connections or calls				
Long-distance and toll connections or calls				
TOTAL NUMBER OF CONNECTIONS OR CALLS				

11—6093

Each question should be answered; if not applicable, use word "None."

FINANCIAL STATISTICS.

12. Income, operating revenue, and expense accounts.

Marginal numbers on schedules are those of the primary accounts prescribed by the Interstate Commerce Commission as fully defined in I. C. C. manual "Uniform System of Accounts for Telephone Companies," in accordance with which, pursuant to law, the accounts of all companies having annual revenue exceeding $10,000 are now conducted.

Companies are requested to report amounts carried to respective accounts pursuant to I. C. C. manual of instructions, subject only to such minor amendments for Census purposes as are here indicated.

NOTE.—Arithmetical deductions or summaries below indicated for items which have no I. C. C. number, the company may fill in or leave to the Bureau, at option.

12a. Income Statement.

I. C. C. Class A-B.	Numbers Class C.	Items.	Amount applicable to year ending Dec. 31, 1922.
		I.—Operating Income.	
300	300	Telephone operating revenue	$
301	330	Telephone operating expenses	
		Net telephone operating revenue	
[1] 302 / 303	[1] 310 / 340	Net revenue from other operations	
		TOTAL NET OPERATING REVENUE	
304	(2)	Uncollectible operating revenue	
305	350	Taxes:	
		a—Taxes assignable to operations	
		b—Income and excess profits taxes	
		Deductions from net operating revenue	
		OPERATING INCOME	
		II.—Nonoperating Income.	
310-11		Rent revenues	
312	320	Dividends from: a. Telephone company stocks; b. Other stocks	
313		Interest from obligations of: a. Telephone companies; b. Other sources	
314-16		Miscellaneous nonoperating revenues	
		TOTAL NONOPERATING REVENUE	

I. C. C. Class A-B.	Numbers Class C.	Items.	Amount applicable to year ending Dec. 31, 1922.
320-23	(3)	*II.—Nonoperating Income—Cont'd.* Miscellaneous nonoperating expenses	$
		Nonoperating income	
		GROSS INCOME	
		III.—Deductions from Gross Income.	
335	350	Interest on funded debt (including debenture dividends)	
336		Other interest	
330-4	370	Rent deductions	
337-41		Miscellaneous income deductions	
		Total deductions from gross income	
		NET INCOME (deficit in red)	
		IV.—Disposition of Net Income.	
351	380	Dividends: On common stock, $	
		On preferred stock	
350 / 352-3	(4)	Other appropriations of net income	
		Total appropriations of net income	
		Balance carried to Surplus: Cr., $	
		Dr.	

[1] Deduct expenses from revenues and report net revenue.
[2] "Class C" companies report "uncollectible" under Account 370, as miscellaneous deduction from gross income.
[3] Not applicable to "Class C" companies.
[4] Report here appropriations for construction, equipment, and betterments, for sinking and other reserve funds, and miscellaneous income investments.

12b. Operating Revenues.

I. C. C. Class A-B.	Numbers Class C.	Items.	Amount applicable to year ending Dec. 31, 1922.
500-6	500	Exchange revenues	$
510-18	510	Toll revenues	
520-5	520	Miscellaneous revenues	
....	....	Assessments (for mutual companies only)	
526	530	Licensee revenues, Cr. $	
527	540	Licensee revenues, Dr.	
		TOTAL OPERATING REVENUES	

12c. Operating Expenses.

I. C. C. Class A-B.	Numbers Class C.	Items.	Amount applicable to year ending Dec. 31, 1922.
601-7 / 610-11	600-610 / 630-640	Repairs and other maintenance	$
621-33	650-660	Traffic expenses	
608-9	630	Depreciation of plant and equipment	
646-76	670, 680	Commercial, general and miscellaneous	
		TOTAL OPERATING EXPENSES	

Each question should be answered; if not applicable, use word "None."

FINANCIAL STATISTICS—Continued.

13. Balance sheet.

I. C. C. Class A-B.	Numbers Class C.	ASSETS.	Balance at close of year Dec. 31, 1922.
102 / 104, 104	100	Plant and equipment	$
111	105	Other property (not telephone)	
106	110	Stocks of system corporations	
107		Funded debt of system corporations	
108		Miscellaneous stocks	
109		Miscellaneous funded debt	
110		Advances to system corporations	
116		Marketable securities	
117	120	Bills receivable	
113, 120 / 115-21	125, 130	Accounts receivable	
112-14	115	Cash and deposits	
122	135	Materials and supplies	
125-7	140	Sinking and other special funds	
124, 128-36	145, 150	Sundries (specify principal items)	
137	195	Profit and loss (deficit)	
		TOTAL	

I. C. C. Class A-B.	Numbers Class C.	LIABILITIES.	Balance at close of year Dec. 31, 1922.
158-9	160	Capital Stock: Common	$
		Preferred	
		Debenture	
		Cash investment (unincorporated times)	
152-4	165	Funded debt (including real estate mortgages)	
155		Advances from system corporations	
156-7	170	Bills payable	
158-63	175	Accounts payable	
163-3	185	Reserves for depreciation	
169-70	180	Other reserves	
166-8	190	Sundries (specify principal items)	
171-4	195	Profit and loss (surplus)	
		TOTAL	

14. Employees, salaries, and wages.

Salaries and wages reported here should be the total amount paid during the year, and should of course be included with "Operating expenses."

Account for all regular officers and employees, except those engaged exclusively on additions or extensions. Many of the persons enumerated were employed only a portion of their time in telephone service, give only the wages paid in connection with the telephone service.

General superintendents or other heads of departments, if considered as salaried officers of corporations, may be reported as such.

Overseers and foremen performing work similar to men over whom they have charge must be included with wage-earners. Those whose duties are wholly supervisory should be reported as salaried employees.

If possible, give number employed on *June 30, 1922, or last weekly pay roll for the month.* If data are not available for that day or month, give data or nearest representative normal day, and state day or month here.....

	Number June 30, 1922. Male.	Number June 30, 1922. Female.	Salaries and wages for year.
SALARIED EMPLOYEES:			
Salaried officers of corporation			$
Superintendents and managers			
Clerks, stenographers, and other salaried employees			
TOTAL			
WAGE EARNERS:			
Operators			
All other employees (do not include employees engaged exclusively on additions or extensions)			
TOTAL			

REMARKS.....

Form 603a

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

File No.

CENSUS OF TELEPHONES, 1922

SMALL LINES AND SYSTEMS

(THOSE WHOSE INCOME WAS LESS THAN $10,000 IN 1922)

DEAR SIR:

In compliance with the act of Congress approved June 7, 1905, a census of telephones is taken every fifth year. The Bureau of the Census is now taking the census of 1922. Please answer the following questions and return this report at once in the inclosed envelope, which requires no postage.

The information given in your reports will be held absolutely confidential.

No publication will be made disclosing the name or operations of individual lines or systems.

No one other than sworn employees of the Bureau of the Census will be permitted to examine the individual reports.

A separate report is desired for each separately owned line or system.

W. M. Steuart
Director of the Census.

1. Name of company, line, or system _____
2. Post-office address of business office: State _____ City or town _____
3. Character of organization (whether individual, firm or partnership, incorporated company, mutual company, or cooperative association) _____
4. Number of lines in operation December 31, 1922, included in this report _____
5. Number of miles of single wire in your entire line or system December 31, 1922 _____
6. Do you operate a central or switchboard of your own? (Yes or no) _____ If not, does your line or system connect directly with any other central or switchboard? (Yes or no) _____ If "yes," who owns it and where is it located? _____
7. Number of telephones on your line or system December 31, 1922 _____
8. Estimated number of outgoing calls per telephone per day _____
9. Total gross receipts (not including assessments of mutual companies) from operation of line or system during 1922 _____ $_____
10. Total amount of assessments levied by mutual companies for operation and maintenance of line or system during 1922 _____ $_____
11. Number of regular employees in 1922 (do not include those engaged exclusively on additions or extensions):
    Males _____ Females _____ Total amount expended for their salaries and wages, $_____
12. Total investments in lines or systems to December 31, 1922, $_____
    (The total should represent the cost of all poles, wire, telephones, switchboards, etc. If poles, etc., were contributed or set up by individual subscribers, include an estimate of the value of such material and labor.)
13. Is the line a part of another company or system? _____ If so, give the name and address of such company or system _____
14. Names and addresses of farmer or rural lines or systems in your vicinity not included in this report (use back of schedule if necessary) _____

_____
(Signature and official title of person furnishing the information.)

_____
(Address of person furnishing the information.)

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