TELEPHONES: 1932

CHAPTER I.—INTRODUCTION

General description.—The census of telephones has been taken quinquennially since 1902, but statistics of telephones were compiled and published in connection with the decennial censuses of 1880 and 1890. This report presents the statistics for 1932, with comparative figures for earlier years. Preliminary summary statistics, subject to correction, were published in the form of a press announcement under date of January 3, 1934.

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 and those connecting 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, 1927, or 1932. There have been included, however, for 1932, a number of small systems and lines which were built by townships and small municipalities as a means of fire protection, for which patrons pay a service charge. A number of Federal Forest Service lines in western States, similarly operated, are also included.

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 obtained prior to 1917 was that in regard to mileage of wire and number of telephones in use. At the censuses for 1917 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, male and female, salaries and wages, gross receipts, total assessments levied by mutual companies, and amount of investment. In addition, data on the number of central offices (switchboards) and the number of telephones located in homes (residence telephones) were called for at the 1932 and 1927 censuses. The longer form required, in addition to these items, detailed information in regard to equipment, traffic, and revenues.

Period covered.—Statistics for income and traffic relate to calendar years, or to the fiscal years of the companies; equipment items are of December 31, or the last day of the fiscal year. The number of employees is of June 30 for 1932, 1927 (except the Bell system), and 1922; September 29 for 1927; September 16 for 1912; but for 1907 and 1902 the average number for the year was used. The Bell system reported the average number for 1932 and 1927.

Terms used.—So far as practicable, a report was obtained for each system or line operated under separate ownership. The terms "system" and "line" are sometimes used synonymously, 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.

The companies of the Bell system, operating in every State, were assigned to the States in which their operating headquarters were located. Other systems operating in more than one State were, also, assigned in the same way.

TABLE 1.—SUMMARY—ALL SYSTEMS AND LINES, 1932

ITEM	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	44,828	25	893	43,910
Miles of wire	87,677,586	80,585,879	5,898,614	1,193,093
Central offices	19,228	6,778	5,946	6,504
Telephones, total	17,424,406	13,793,229	2,491,002	1,140,175
Residence	11,089,946	8,277,469	1,779,812	1,032,665
Business	6,334,460	5,515,760	711,190	107,510
Calls (originating with systems reporting)	30,048,165,513	25,061,085,648	4,039,372,665	947,707,200
Employees, total	334,085	281,350	39,413	13,322
Male	128,677	110,068	13,688	4,921
Female	205,408	171,282	25,725	8,401
Salaries and wages	$458,116,677	$414,341,515	$37,136,329	$6,638,833
Revenue (operating), total [1]	$1,061,530,140	$956,354,529	$90,037,830	$15,137,781
Exchange	$752,338,774	$670,736,747	$70,350,803	[2] $11,251,224
Toll	$281,047,593	$263,147,955	$17,899,638	----------
Taxes assignable to operations during 1932	$94,022,446	$86,621,779	$6,885,399	$515,268
Investment in plant and equipment, Dec. 31, 1932	$4,791,902,525	$4,269,268,095	$465,437,613	$57,196,817
Percent of total:				
Number of systems and lines	100.0	0.1	2.0	97.9
Miles of wire	100.0	91.9	6.7	1.4
Central offices	100.0	35.3	30.9	33.8
Telephones, total	100.0	79.2	14.3	6.5
Residence	100.0	74.7	16.0	9.3
Business	100.0	87.1	11.2	1.7
Calls (originating with systems reporting)	100.0	83.4	13.4	3.2
Employees, total	100.0	84.2	11.8	4.0
Male	100.0	85.6	10.6	3.8
Female	100.0	83.4	12.5	4.1
Salaries and wages	100.0	90.5	8.1	1.4
Revenue (operating), total	100.0	90.1	8.5	1.4
Exchange	100.0	89.1	9.4	1.5
Toll	100.0	93.6	6.4	----------
Taxes assignable to operations during 1932	100.0	92.2	7.3	0.5
Investment in plant and equipment, Dec. 31, 1932	100.0	89.1	9.7	1.2

[1] Includes $24,201,754 miscellaneous operating revenues, and $3,942,019, assessments by mutual companies.
[2] Distribution of operating revenue as between exchange and toll not called for on schedule used for this class of systems and lines; therefore, all revenue (except miscellaneous revenue) treated as exchange revenue.

TABLE 2.—NUMBER OF SYSTEMS AND LINES, WIRE MILEAGE, AND NUMBER OF CENTRAL OFFICES, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1932

DIVISION AND STATE	SYSTEMS AND LINES (NUMBER)				MILES OF WIRE				CENTRAL OFFICES (NUMBER)			
	Total	Bell system [1]	All other systems and lines [2]: Reporting annual incomes of $10,000 or more	All other systems and lines [2]: Reporting annual incomes of less than $10,000	Total	Bell system	All other systems and lines: Reporting annual incomes of $10,000 or more	All other systems and lines: Reporting annual incomes of less than $10,000	Total	Bell system	All other systems and lines: Reporting annual incomes of $10,000 or more	All other systems and lines: Reporting annual incomes of less than $10,000
UNITED STATES	44,828	25	893	43,910	87,677,586	80,585,879	5,898,614	1,193,093	19,228	6,778	5,946	6,504
GEOGRAPHIC DIVISIONS:												
New England	273	2	35	236	7,682,588	7,594,519	68,340	19,729	927	674	134	119
Middle Atlantic	1,777	5	136	1,636	27,399,025	26,252,280	1,083,815	62,930	2,067	1,163	563	341
East North Central	6,165	6	276	5,883	21,574,370	19,528,507	1,769,554	276,309	4,275	1,044	1,703	1,528
West North Central	14,357	2	218	14,137	7,641,354	5,744,319	1,481,912	415,123	4,508	753	1,709	2,046
South Atlantic	2,767	5	69	2,693	5,760,130	5,212,400	477,217	70,513	1,763	654	494	615
East South Central	4,310	------	20	4,290	2,587,978	2,341,544	172,643	73,791	1,325	540	196	589
West South Central	8,104	------	65	8,039	5,028,077	4,513,772	393,519	120,786	2,241	680	777	784
Mountain	2,202	2	20	2,180	1,640,855	1,538,464	43,710	58,681	835	513	90	232
Pacific	4,873	3	54	4,816	8,363,209	7,860,074	407,904	95,231	1,287	757	280	250
NEW ENGLAND:												
Maine	158	------	12	146	517,144	479,098	25,897	12,149	242	114	55	73
New Hampshire	42	------	4	38	288,990	283,796	2,672	2,522	132	105	9	18
Vermont	54	------	14	40	149,129	125,811	19,700	3,618	136	56	57	23
Massachusetts	13	1	1	11	4,099,247	4,094,636	3,264	1,347	290	280	6	4
Rhode Island	1	------	1	------	595,303	584,392	10,911	------	33	29	4	------
Connecticut	5	1	3	1	2,032,775	2,026,786	5,896	93	94	90	3	1
MIDDLE ATLANTIC:												
New York	590	2	68	520	15,385,557	14,817,266	546,816	21,475	961	610	207	144
New Jersey	26	1	5	20	4,382,769	4,354,099	26,382	2,288	214	187	22	5
Pennsylvania	1,161	2	63	1,096	7,630,699	7,080,915	510,617	39,167	892	366	334	192
EAST NORTH CENTRAL:												
Ohio	572	2	71	499	5,545,857	4,968,543	532,219	45,095	959	248	417	294
Indiana	1,082	1	64	1,017	2,223,608	1,694,850	482,476	46,282	801	106	335	360
Illinois	2,395	1	67	2,327	7,599,337	7,120,052	408,323	70,962	1,205	288	486	431
Michigan	1,302	1	15	1,286	4,263,778	4,062,517	158,335	42,926	640	289	168	183
Wisconsin	814	1	59	754	1,941,790	1,682,545	188,201	71,044	670	113	297	260

[1] The Bell system companies have been assigned to the States in which their operating headquarters are located. The Bell system, however, operates in every State.
[2] Systems operating in more than one State have been assigned to the State in which their operating headquarters are located.

TABLE 2.—NUMBER OF SYSTEMS AND LINES, WIRE MILEAGE, AND NUMBER OF CENTRAL OFFICES, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1932—Continued

DIVISION AND STATE	SYSTEMS AND LINES (NUMBER)				MILES OF WIRE				CENTRAL OFFICES (NUMBER)			
	Total	Bell system [1]	All other systems and lines [2]		Total	Bell system	All other systems and lines		Total	Bell system	All other systems and lines	
			Reporting annual incomes of $10,000 or more	Reporting annual incomes of less than $10,000			Reporting annual incomes of $10,000 or more	Reporting annual incomes of less than $10,000			Reporting annual incomes of $10,000 or more	Reporting annual incomes of less than $10,000
WEST NORTH CENTRAL:												
Minnesota	1,804	------	62	1,742	1,610,192	932,925	592,203	85,064	687	109	251	327
Iowa	3,429	------	52	3,377	1,310,798	1,067,019	160,070	83,709	971	169	292	510
Missouri	3,734	1	31	3,702	2,620,741	2,395,139	156,614	68,988	895	119	368	408
North Dakota	753	------	8	745	161,225	105,807	24,370	31,048	348	99	86	163
South Dakota	477	------	9	468	177,521	62,049	94,267	21,205	286	49	138	99
Nebraska	1,395	1	25	1,369	736,632	418,459	266,872	51,301	534	113	264	157
Kansas	2,765	------	31	2,734	1,024,245	762,921	187,516	73,808	787	95	310	382
SOUTH ATLANTIC:												
Delaware	27	------	------	27	210,300	209,956	------	344	23	23	------	------
Maryland	111	1	1	109	1,076,460	1,074,054	677	1,729	143	132	1	10
District of Columbia	1	1	------	------	675,044	675,044	------	------	14	14	------	------
Virginia	436	1	12	423	876,581	793,941	66,051	16,589	324	85	104	135
West Virginia	358	1	4	353	445,781	402,820	23,735	19,226	325	94	23	208
North Carolina	836	------	22	814	706,829	549,248	145,661	11,920	308	59	173	76
South Carolina	342	------	7	335	290,599	260,171	24,141	6,287	149	60	42	47
Georgia	605	1	14	590	772,176	733,111	28,065	11,000	318	126	72	120
Florida	51	------	9	42	706,360	514,055	188,887	3,418	159	61	79	19
EAST SOUTH CENTRAL:												
Kentucky	1,468	------	11	1,457	863,293	707,083	132,970	23,240	437	155	96	186
Tennessee	1,557	------	2	1,555	850,951	786,912	32,260	31,779	413	153	36	224
Alabama	606	------	6	600	580,087	561,587	6,955	11,545	254	87	33	134
Mississippi	679	------	1	678	293,647	285,962	458	7,227	221	145	31	45
WEST SOUTH CENTRAL:												
Arkansas	1,073	------	11	1,062	366,944	324,010	31,422	11,512	299	97	85	117
Louisiana	309	------	1	308	694,367	685,935	3,179	5,253	157	106	17	34
Oklahoma	2,224	------	11	2,213	1,173,051	1,094,817	43,931	34,303	570	160	158	252
Texas	4,498	------	42	4,456	2,793,715	2,409,010	314,987	69,718	1,215	317	517	381

Mountain:												
Montana	461	------	3	458	181,485	162,841	5,993	12,651	152	83	10	59
Idaho	360	------	3	357	134,096	105,575	21,078	7,443	126	64	31	31
Wyoming	354	------	1	353	85,233	73,522	1,488	10,223	79	41	6	32
Colorado	689	1	1	687	717,589	696,957	1,962	18,670	240	169	6	65
New Mexico	168	------	------	168	84,722	77,972	3,495	3,255	69	42	4	23
Arizona	54	------	3	51	158,261	153,227	1,915	3,119	50	34	10	6
Utah	64	------	3	61	231,113	227,357	1,773	1,983	80	56	12	12
Nevada	52	1	6	45	48,356	41,013	6,006	1,337	39	24	11	4
Pacific:												
Washington	1,064	1	16	1,047	1,029,949	931,220	71,062	27,667	305	120	91	94
Oregon	1,305	------	8	1,297	599,201	533,473	41,014	24,714	242	88	60	94
California	2,504	2	30	2,472	6,734,059	6,395,381	295,828	42,850	740	549	129	62

[1] The Bell sustem companies have been assigned to the States in which their operating headquarters are located. The Bell system, however, operates in every State.
[2] Systems operating in more than 1 State have been assigned to the State in which their operating headquarters are located.

TABLE 3.—NUMBER OF TELEPHONES, CLASSIFIED AS RESIDENCE AND BUSINESS, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1932

DIVISION AND STATE	Total	Residence	Business	BELL SYSTEM			ALL OTHER SYSTEMS AND LINES				
				Total	Residence	Business	Total	Reporting annual incomes of $10,000 or more		Reporting annual incomes of less than $10,000	
								Residence	Business	Residence	Business
UNITED STATES	17,424,406	11,089,946	6,334,460	13,793,229	8,277,469	5,515,760	3,631,177	1,779,812	711,190	1,032,665	107,510
GEOGRAPHIC DIVISIONS:											
New England	1,513,939	989,113	524,826	1,463,853	947,968	515,885	50,086	26,633	7,524	14,512	1,417
Middle Atlantic	4,613,733	2,648,320	1,965,413	4,154,624	2,349,545	1,805,079	459,109	246,718	153,956	52,057	6,378
East North Central	4,034,931	2,681,375	1,353,556	2,985,651	1,837,762	1,147,889	1,049,280	596,493	183,478	247,120	22,189
West North Central	2,260,985	1,670,546	590,439	1,126,764	733,342	393,422	1,134,221	519,663	158,986	417,541	38,031
South Atlantic	1,250,882	754,659	496,223	999,758	582,183	417,575	251,124	111,952	70,147	60,524	8,501
East South Central	547,440	363,241	184,199	413,325	254,994	158,331	134,115	43,385	18,748	64,862	7,120
West South Central	1,002,389	636,755	365,634	760,339	451,161	309,178	242,050	96,251	44,428	89,343	12,028
Mountain	446,492	274,911	171,581	393,178	234,587	158,591	53,314	14,644	7,816	25,680	5,174
Pacific	1,753,615	1,071,026	682,589	1,495,737	885,927	609,810	257,878	124,073	66,107	61,026	6,672
NEW ENGLAND:											
Maine	124,372	87,972	36,400	102,445	70,233	32,212	21,927	9,337	3,258	8,402	930
New Hampshire	79,506	57,174	22,332	74,190	52,334	21,856	5,316	2,168	288	2,672	188
Vermont	58,133	42,794	15,339	42,400	29,604	12,796	15,733	10,391	2,341	2,799	202
Massachusetts	832,740	530,168	302,572	830,319	528,226	302,093	2,421	1,411	382	531	97
Rhode Island	110,671	70,792	39,879	108,423	69,375	39,048	2,248	1,417	831	----------	----------
Connecticut	308,517	200,213	108,304	306,076	198,196	107,880	2,441	1,909	424	108	----------
MIDDLE ATLANTIC:											
New York	2,628,537	1,413,982	1,214,555	2,423,949	1,268,856	1,155,093	204,588	123,608	56,922	21,518	2,540
New Jersey	642,830	400,367	242,463	631,967	395,788	236,179	10,863	4,174	6,057	405	227
Pennsylvania	1,342,366	833,971	508,395	1,098,708	684,901	413,807	243,658	118,936	90,977	30,134	3,611
EAST NORTH CENTRAL:											
Ohio	978,394	659,841	318,553	709,144	444,617	264,527	269,250	177,378	50,260	37,846	3,766
Indiana	444,996	324,163	120,833	207,413	134,190	73,223	237,583	139,961	43,297	50,012	4,313
Illinois	1,507,222	962,896	544,326	1,218,588	728,196	490,392	288,634	153,755	47,897	80,945	6,037
Michigan	621,958	396,466	225,492	528,488	322,821	205,667	93,470	41,565	16,947	32,080	2,878
Wisconsin	482,361	338,009	144,352	322,018	207,938	114,080	160,343	83,834	25,077	46,237	5,195
WEST NORTH CENTRAL:											
Minnesota	443,682	323,495	120,187	190,397	124,844	65,553	253,285	128,937	47,865	69,714	6,769
Iowa	484,879	380,463	104,416	236,486	164,388	72,098	248,393	96,176	22,806	119,899	9,512
Missouri	592,153	408,152	184,001	399,696	245,130	154,566	192,457	84,597	23,039	78,425	6,396

North Dakota	69,241	48,948	20,293	32,028	19,087	12,941	37,213	9,786	5,022	20,075	2,330
South Dakota	88,798	67,930	20,868	22,506	14,607	7,899	66,292	36,190	11,378	17,133	1,591
Nebraska	247,551	184,404	63,147	100,021	65,521	34,500	147,530	79,428	24,757	39,455	3,890
Kansas	334,681	257,154	77,527	145,630	99,765	45,865	189,051	84,549	24,119	72,840	7,543
SOUTH ATLANTIC:											
Delaware	32,537	19,592	12,945	32,257	19,328	12,929	280			264	16
Maryland	212,014	130,876	81,138	209,818	128,831	80,987	2,196	428	58	1,617	93
District of Columbia	180,785	102,853	77,932	180,785	102,853	77,932					
Virginia	196,956	134,338	62,618	142,293	91,574	50,719	54,663	26,453	10,238	16,311	1,661
West Virginia	134,150	90,274	43,876	101,506	63,141	38,365	32,644	6,137	3,123	20,996	2,388
North Carolina	143,710	87,448	56,262	76,002	41,405	34,597	67,708	37,313	20,498	8,730	1,167
South Carolina	57,215	33,996	23,219	42,687	23,861	18,826	14,528	6,213	3,663	3,922	730
Georgia	151,264	88,859	62,405	129,970	73,627	56,343	21,294	7,394	4,281	7,838	1,781
Florida	142,251	66,423	75,828	84,440	37,563	46,877	57,811	28,014	28,286	846	665
EAST SOUTH CENTRAL:											
Kentucky	191,236	134,058	57,178	126,007	82,278	43,729	65,229	28,624	11,634	23,156	1,815
Tennessee	192,983	128,767	64,216	147,601	91,164	56,437	45,382	11,158	5,157	26,445	2,622
Alabama	100,813	61,459	39,354	83,636	48,110	35,526	17,177	3,083	1,697	10,266	2,131
Mississippi	62,408	38,957	23,451	56,081	33,442	22,639	6,327	520	260	4,995	552
WEST SOUTH CENTRAL:											
Arkansas	86,676	55,040	31,636	61,030	35,209	25,821	25,646	9,853	4,358	9,978	1,457
Louisiana	132,735	75,288	57,447	127,185	71,526	55,659	5,550	837	547	2,925	1,241
Oklahoma	241,453	160,061	81,392	180,999	110,375	70,624	60,454	16,719	7,198	32,967	3,570
Texas	541,525	346,366	195,159	391,125	234,051	157,074	150,400	68,842	32,325	43,473	5,760
MOUNTAIN:											
Montana	55,361	34,294	21,067	45,589	26,506	19,083	9,772	2,298	903	5,490	1,081
Idaho	49,201	32,104	17,097	34,266	21,190	13,076	14,935	6,060	3,524	4,854	497
Wyoming	28,346	17,705	10,641	23,430	13,896	9,534	4,916	576	385	3,233	722
Colorado	179,063	112,991	66,072	167,288	102,768	64,520	11,775	1,307	300	8,916	1,252
New Mexico	23,100	12,369	10,731	20,197	10,682	9,515	2,903	416	738	1,271	478
Arizona	36,064	18,407	17,657	34,136	17,608	16,528	1,928	440	456	359	673
Utah	60,082	37,802	22,280	57,618	35,730	21,888	2,464	782	216	1,290	176
Nevada	15,275	9,239	6,036	10,654	6,207	4,447	4,621	2,765	1,294	267	295
PACIFIC:											
Washington	276,530	175,657	100,873	214,917	127,807	87,110	61,613	28,235	11,080	19,615	2,683
Oregon	166,639	104,278	62,361	124,860	70,904	53,956	41,779	13,915	6,955	19,459	1,450
California	1,310,446	791,091	519,355	1,155,960	687,216	468,744	154,486	81,923	48,072	21,952	2,539

TABLE 4.—NUMBER OF ORIGINATING CALLS, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1932

DIVISION AND STATE	Total	Bell system	ALL OTHER SYSTEMS AND LINES		
			Total	Reporting annual incomes of $10,000 or more	Reporting annual incomes of less than $10,000
UNITED STATES	30, 048, 165, 513	25, 061, 085, 648	4, 987, 079, 865	4, 039, 372, 665	947, 707, 200
GEOGRAPHIC DIVISIONS:					
New England	2, 457, 887, 892	2, 402, 546, 640	55, 341, 252	44, 003, 972	11, 337, 280
Middle Atlantic	6, 904, 916, 913	6, 216, 041, 148	688, 875, 765	639, 080, 245	49, 795, 520
East North Central	6, 504, 458, 681	5, 028, 277, 647	1, 476, 181, 034	1, 250, 297, 194	225, 883, 840
West North Central	3, 960, 222, 910	2, 461, 854, 525	1, 498, 368, 385	1, 124, 318, 145	374, 050, 240
South Atlantic	2, 430, 221, 575	2, 014, 151, 639	416, 069, 936	361, 382, 256	54, 687, 680
East South Central	1, 400, 973, 420	1, 210, 030, 501	190, 942, 919	124, 400, 839	66, 542, 080
West South Central	2, 590, 970, 832	2, 234, 079, 184	356, 891, 648	272, 516. 288	84, 375, 360
Mountain	801, 480, 318	738, 498, 068	62, 982, 250	36, 385, 450	26, 596, 800
Pacific	2, 997, 032, 972	2, 755, 606, 296	241, 426, 676	186, 988, 276	54, 438, 400
NEW ENGLAND:					
Maine	204, 764, 810	177, 846, 556	26, 918, 254	20, 749, 614	6, 168, 640
New Hampshire	127, 466, 765	122, 971, 461	4, 495, 304	2, 137, 224	2. 358, 080
Vermont	85, 526, 948	70, 162, 797	15, 364, 151	13, 339, 831	2, 024, 320
Massachusetts	1, 368, 125, 162	1, 364, 681, 418	3, 443, 744	2, 721, 504	722, 240
Rhode Island	176, 379, 513	173, 539, 772	2, 839, 741	2, 839, 741	----------
Connecticut	495, 624, 694	493, 344, 636	2, 280, 058	2, 216, 058	64, 000
MIDDLE ATLANTIC:					
New York	3, 999, 817, 490	3, 709, 882, 176	289, 935, 314	270, 769, 234	19, 166, 080
New Jersey	837, 559, 708	827, 710, 992	9, 848, 716	9, 421, 196	427, 520
Pennsylvania	2, 067, 539, 715	1, 678, 447, 980	389, 091, 735	358, 889, 815	30, 201, 920
EAST NORTH CENTRAL:					
Ohio	1, 712. 063, 358	1, 300, 319, 655	411, 743, 703	373, 746, 263	37, 997, 440
Indiana	864, 419, 644	462, 154, 028	402, 265, 616	356, 412, 496	45, 853, 120
Illinois	2, 205, 562, 819	1, 813, 980, 052	391, 582, 767	320, 908, 207	70, 674, 560
Michigan	981, 890, 173	896, 018, 304	85, 871, 869	53, 958, 269	31, 913, 600
Wisconsin	740, 522, 687	555, 805, 608	184, 717, 079	145, 271, 959	39, 445, 120
WEST NORTH CENTRAL:					
Minnesota	849, 159, 092	431, 752, 151	417, 406, 941	361, 551, 901	55, 855, 040
Iowa	774, 632, 628	484. 710, 262	289, 922, 366	180, 382, 206	109, 540, 160
Missouri	1, 157, 269, 161	908, 074, 346	249. 194, 815	172, 923, 455	76, 271, 360
North Dakota	142, 904, 202	66, 948, 702	76, 015, 500	62, 813, 580	13, 201, 920
South Dakota	119, 103, 108	43, 735, 138	75, 367, 970	61, 930, 530	13, 437, 440
Nebraska	366, 857, 970	212, 925, 179	153, 932, 791	120, 748, 471	33, 184, 320
Kansas	550, 236, 749	313, 708, 747	236, 528, 002	163, 968, 002	72, 560, 000
SOUTH ATLANTIC:					
Delaware	57, 890, 700	57, 557, 580	333, 120	----------	333, 120
Maryland	317, 009, 272	315, 364, 632	1, 644, 640	457, 760	1, 186, 880
District of Columbia	235, 337, 052	235, 337, 052	----------	----------	----------
Virginia	420, 226, 598	336, 116, 256	84, 110, 342	70, 703, 302	13, 407, 040
West Virginia	242, 881, 687	209, 830, 764	33, 050, 923	18, 193, 643	14, 857, 280
North Carolina	320, 566, 415	195, 852, 820	124, 713, 595	115, 473, 275	9, 240, 320
South Carolina	147, 904, 838	121, 473, 795	26, 431, 043	21, 542, 083	4, 888, 960
Georgia	415, 354, 301	380. 750. 645	34, 603, 656	25, 300, 296	9, 303, 360
Florida	273, 050, 712	161, 868, 095	111, 182, 617	109, 711, 897	1, 470, 720
EAST SOUTH CENTRAL:					
Kentucky	406, 788, 776	310, 941, 374	95, 847, 402	75, 828, 522	20, 018, 880
Tennessee	538, 979, 647	472, 733, 342	66, 246, 305	35, 647, 585	30, 598, 720
Alabama	282, 431, 481	264, 526, 989	17, 904, 492	6, 554, 732	11, 349, 760
Mississippi	172, 773, 516	161, 828, 796	10, 944, 720	6, 370, 000	4, 574, 720
WEST SOUTH CENTRAL:					
Arkansas	192, 821, 190	161, 278, 914	31, 542, 276	22, 307, 716	9, 234, 560
Louisiana	392, 459, 934	386, 115, 897	6, 344, 037	2, 778, 597	3, 565, 440
Oklahoma	571, 130, 824	504, 018, 480	67, 112, 344	37, 375, 384	29, 736, 960
Texas	1, 434, 558, 884	1, 182, 665, 893	251, 892, 991	210, 054, 591	41, 838, 400
MOUNTAIN:					
Montana	96, 292, 820	84, 854, 188	11, 438, 632	6, 760, 872	4, 677, 760
Idaho	92, 546, 665	72, 668, 647	19, 878, 018	15, 270, 658	4, 607, 360
Wyoming	48, 733, 787	42, 707, 304	6, 026, 483	1, 593, 203	4, 433, 280
Colorado	300, 074, 028	290, 995, 643	9, 078, 385	1, 719, 665	7, 358, 720
New Mexico	42, 691, 021	38, 215, 724	4, 475, 297	2, 690, 337	1, 784, 960
Arizona	67, 942, 728	65, 648, 780	2, 293, 948	1, 401, 148	892, 800
Utah	129, 659, 038	126, 665, 718	2, 993, 320	1, 492, 200	1, 501, 120
Nevada	23, 540, 231	16, 742, 064	6, 798, 167	5, 457, 367	1, 340, 800
PACIFIC:					
Washington	559, 936, 113	476, 235, 984	83, 700, 129	65, 053, 729	18, 646, 400
Oregon	307, 514, 930	263, 844, 432	43, 670, 498	28, 000, 738	15, 669, 760
California	2, 129, 581, 929	2, 015, 525, 880	114, 056, 049	93, 933, 809	20, 122, 240

CHAPTER II.—DEVELOPMENT OF THE INDUSTRY

This chapter presents, for the United States as a whole and for divisions and States, comparative statistics for 1932 and earlier census years. The growth of the industry is readily seen from the accompanying tables. Apparently the high point was reached shortly after 1927, followed by a decline in 1932 reflecting the financial conditions. The net advance in 30 years, however, is most strikingly shown from the increase in telephones per capita, from 1 telephone to every 33 persons in 1902 to 1 telephone for approximately every 7 persons in 1932.

In making comparisons between census years, allowance should be made for the fact that the telephone business was increasing rapidly during 1927 but declining during 1932. This fact affects averages of operating revenue per telephone, and the average may be considerably different from computations based on the number of telephones at the end of these years.

TABLE A

CENSUS YEAR	Number of systems and lines	Miles of wire	NUMBER OF TELEPHONES	
			Total	Per 1,000 population
1932	44, 828	87, 677, 586	17, 424, 406	139
1927	60, 148	63, 836, 182	18, 522, 767	155
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 can be given, however, for the last 3 census years, as follows:

TABLE B

ITEM	1932	1927	1922	PERCENT INCREASE OR DECREASE (—)		
				1927–32	1922–27	1922–32
Number of systems and lines	44, 828	60, 148	57, 253	—25. 5	5. 1	—21. 7
Miles of wire	87, 677, 586	63, 836, 182	37, 265, 958	37. 3	71. 3	135. 3
Central offices	19, 228	20, 227	[1] 19, 260	—4. 9	5. 0	—. 2
Telephones, total	17, 424, 406	18, 522, 767	14, 347, 395	—5. 9	29. 1	21. 4
Residence	11, 089, 946	12, 128, 617	([2])	—8. 6	--------	--------
Business	6, 334, 460	6, 394, 150	([2])	—. 9	--------	--------
Calls (originating with systems reporting)	30, 048, 165, 513	31, 614, 172, 621	24, 647, 560, 860	—5. 0	28. 3	21. 9
Employees, total	334, 085	375, 272	312, 015	—11. 0	20. 3	7. 1
Male	128, 677	131, 802	104, 433	—2. 4	26. 2	23. 2
Female	205, 408	243, 470	207, 582	—15. 6	17. 3	—1. 0
Salaries and wages	$458, 116, 677	$486, 597, 070	$352, 925, 570	—5. 9	37. 9	29. 8
Revenue (operating)[3]	$1, 061, 530, 140	$1, 023, 573, 567	$665, 568, 279	3. 7	53. 8	59. 5
Exchange [4]	$752, 338, 774	$701, 381, 400	$467, 231, 512	7. 3	50. 1	61. 0
Toll	$281, 047, 593	$294, 625, 256	$180, 069, 891	—4. 6	63. 6	56. 1
Investment in plant and equipment	$4, 791, 902, 525	$3, 548, 874, 716	$2, 205, 183, 150	35. 0	60. 9	117. 3

[1] Includes 8,594 central offices of systems and lines reporting incomes of less than $10,000. These figures represent the number of systems and lines reporting central offices. The actual number of central offices was probably slightly larger. The 1932 and 1927 figures are the actual number of central offices operated.

[2] Not called for on schedule.

[3] The statistics include for 1932, $24,201,754 miscellaneous operating revenues and $3,942,019 assessments levied by mutual companies; for 1927, $20,937,754 miscellaneous revenues and $6,629,157 assessments levied by mutual companies; and for 1922, $10,331,731 miscellaneous revenues and $7,935,145 assessments by mutual companies.

[4] Separate data for exchange and for toll lines were not called for on the schedule used for systems and lines with incomes of less than $10,000, therefore, all revenues, except miscellaneous, are included in exchange.

TABLE 5.—SUMMARY—SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1932, 1927, AND 1922; AND THOSE REPORTING $5,000 OR MORE, 1902 TO 1917

[For total number of systems and lines, wire mileage, and number of telephones, see table 1, p. 2]

ITEM	1932	1927	1922	1917
Number of systems and lines	918	1,368	1,323	2,200
Miles of wire	86,484,493	62,277,246	35,502,983	27,298,026
Central offices	12,724	11,485	10,666	12,294
Telephones	16,284,231	16,712,495	12,295,234	9,953,710
Calls (originating with systems reporting)	29,100,458,313	29,196,387,446	21,901,387,070	19,809,061,085
Employees	320,763	356,739	290,333	244,490
Salaries and wages	$451,477,844	$475,840,320	$341,537,822	$169,655,066
Revenue (operating)[1]	$1,046,392,359	$996,911,752	$637,468,630	$363,831,921
Investment in plant and equipment	$4,734,705,708	$3,475,201,956	$2,129,773,760	$1,435,912,142

ITEM	1912	1907	1902 [2]	PERCENT INCREASE OR DECREASE (—)		
				1927–32	1922–27	1917–22
Number of systems and lines	1,916	1,636	4,151	−32.9	3.4	−39.9
Miles of wire	19,019,391	11,921,960	4,850,486	38.9	75.4	30.1
Central offices	11,515	10,613	10,361	10.8	7.7	−13.2
Telephones	7,326,748	4,906,693	2,315,297	−2.6	35.9	23.5
Calls (originating with systems reporting)	13,735,658,245	10,400,433,958	5,070,554,553	−.3	33.3	10.6
Employees	183,361	131,670	78,752	−10.1	22.9	18.8
Salaries and wages	$96,040,541	$65,009,349	$36,255,621	−5.1	39.3	101.3
Revenue (operating) [1]	$244,476,264	$176,104,302	$81,599,769	5.0	56.4	75.2
Investment in plant and equipment	$1,081,433,227	$794,096,971	$398,967,723	36.2	63.2	48.3

[1] Includes assessments of mutual companies and miscellaneous operating revenues.
[2] Figures do not include data for "Farmer or rural lines", but do include data for some systems with incomes of less than $5,000.

-NUMBER OF SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

ıting in more than 1 State have been assigned to the State in which their operating headquarters are located]

AND STATE	TOTAL			REPORTING ANNUAL INCOMES OF—					
				$10,000 or more			Less than $10,000		
	1932	1927	1922	1932	1927	1922	1932	1927	1922
STATES	44,828	60,148	57,253	918	1,368	1,323	43,910	58,780	55,930
VISIONS:									
nd	273	328	331	37	45	39	236	283	292
antic	1,777	2,485	2,652	141	164	144	1,636	2,321	2,508
Central	6,165	8,022	7,066	282	475	465	5,883	7,547	6,601
h Central	14,357	19,127	17,110	220	332	339	14,137	18,795	16,771
ntic	2,767	4,263	4,577	74	122	94	2,693	4,141	4,483
Central	4,310	6,487	6,816	20	36	48	4,290	6,451	6,768
ı Central	8,104	12,093	11,687	65	78	86	8,039	12,015	11,601
	2,202	2,268	2,176	22	29	29	2,180	2,239	2,147
	4,873	5,075	4,838	57	87	79	4,816	4,988	4,759
):									
	158	175	178	12	16	14	146	159	164
pshire	42	55	50	4	7	5	38	48	45
	54	78	76	14	14	12	40	64	64
etts	13	14	18	2	3	4	11	11	14
nd	1	1	1	1	1	1			
t	5	5	8	4	4	3	1	1	5
NTIC:									
	590	922	984	70	76	69	520	846	915
	26	74	90	6	13	8	20	61	82
nia	1,161	1,489	1,578	65	75	67	1,096	1,414	1,511
ENTRAL:									
	572	1,016	996	73	127	135	499	889	861
	1,082	1,431	1,452	65	103	102	1,017	1,328	1,350
	2,395	2,992	2,095	68	115	119	2,327	2,877	1,976
	1,302	1,510	1,387	16	34	32	1,286	1,476	1,355
	814	1,073	1,136	60	96	77	754	977	1,059
ENTRAL:									
	1,804	2,318	2,013	62	67	61	1,742	2,251	1,952
	3,429	4,809	4,897	52	85	94	3,377	4,724	4,803
	3,734	5,060	3,990	32	58	59	3,702	5,002	3,931
ota	753	946	672	8	15	20	745	931	652
ota	477	745	711	9	15	18	468	730	693
	1,395	1,778	1,562	26	39	33	1,369	1,739	1,529
	2,765	3,471	3,265	31	53	54	2,734	3,418	3,211
TIC:									
	27	44	42			1	27	44	41
	111	175	168	2	2	1	109	173	167
Columbia	1	1	1	1	1	1			
	436	695	753	13	26	15	423	669	738
nia	358	411	366	5	11	5	353	400	361
olina	836	1,128	1,106	22	33	25	814	1,095	1,081
olina	342	646	799	7	13	10	335	633	789
	605	1,089	1,216	15	24	21	590	1,065	1,195
	51	74	126	9	12	15	42	62	111
ENTRAL:									
	1,468	2,351	2,343	11	20	34	1,457	2,331	2,309
	1,557	2,251	2,690	2	5	6	1,555	2,246	2,684
	606	874	881	6	10	6	600	864	875
	679	1,011	902	1	1	2	678	1,010	900
ENTRAL:									
	1,073	2,210	2,406	11	14	13	1,062	2,196	2,393
	309	939	440	1	3	2	308	936	438
	2,224	3,115	3,036	11	15	20	2,213	3,100	3,016
	4,498	5,829	5,805	42	46	51	4,456	5,783	5,754
	461	430	425	3	3	2	458	427	423
	360	436	346	3	3	4	357	433	342
	354	321	251	1	1		353	320	251
	689	743	841	2	4	5	687	739	836
co	168	175	164			2	168	175	162
	54	51	59	3	4	4	51	47	55
	64	60	65	3	6	5	61	54	60
	52	52	25	7	8	7	45	44	18
n	1,064	1,194	1,084	17	25	23	1,047	1,169	1,061
	1,305	1,268	1,325	8	14	17	1,297	1,254	1,308
	2,504	2,613	2,429	32	48	39	2,472	2,565	2,390

TABLE 7.—MILES OF WIRE, ALL SYSTEMS AND LINES GROUPED ACCORDING TO ANNUAL INCOME, WITH PERCENT INCREASE OR DECREASE, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

DIVISION AND STATE	TOTAL					REPORTING ANNUAL INCOMES OF—									
						$10,000 or more					Less than $10,000				
	1932	1927	1922	Percent increase		1932	1927	1922	Percent increase		1932	1927	1922	Percent increase or decrease (—)	
				1927–32	1922–27				1927–32	1922–27				1927–32	1922–27
UNITED STATES	87,677,586	63,836,182	37,265,958	37.3	71.3	86,484,493	62,277,246	35,502,983	38.9	75.4	1,193,093	1,558,936	1,762,975	—23.5	—11.6
GEOGRAPHIC DIVISIONS:															
New England	7,682,588	5,586,569	3,346,608	37.5	66.9	7,662,859	5,566,475	3,323,627	37.7	67.5	19,729	20,094	22,981	—1.8	—12.6
Middle Atlantic	27,399,025	19,992,689	10,818,580	37.0	84.8	27,336,095	19,918,626	10,707,160	37.2	86.0	62,930	74,063	111,420	—15.0	—33.5
East North Central	21,574,370	15,223,410	8,763,146	41.7	73.7	21,298,061	14,872,380	8,354,549	43.2	78.0	276,309	351,030	408,597	—21.3	—14.1
West North Central	7,641,354	6,044,901	4,487,007	26.4	34.7	7,226,231	5,519,539	3,931,043	30.9	40.4	415,123	525,362	555,964	—21.0	—5.5
South Atlantic	5,760,130	4,244,852	2,448,857	35.7	73.3	5,689,617	4,137,014	2,308,856	37.5	79.2	70,513	107,838	140,001	—34.6	—23.0
East South Central	2,587,978	2,001,125	1,248,559	29.3	60.3	2,514,187	1,886,545	1,120,373	33.3	68.4	73,791	114,580	128,186	—35.6	—10.6
West South Central	5,028,077	3,619,976	2,148,789	38.9	68.5	4,907,291	3,409,117	1,911,177	43.9	78.4	120,786	210,859	237,612	—42.7	—11.3
Mountain	1,640,855	1,198,550	927,662	36.9	29.2	1,582,174	1,139,265	869,089	38.9	31.1	58,681	59,285	58,573	—1.0	1.2
Pacific	8,363,209	5,924,110	3,076,750	41.2	92.5	8,267,978	5,828,285	2,977,109	41.9	95.8	95,231	95,825	99,641	—0.6	—3.8
NEW ENGLAND:															
Maine	517,144	326,120	210,707	58.6	54.8	504,995	315,503	199,732	60.1	58.0	12,149	10,617	10,975	14.4	—3.3
New Hampshire	288,990	211,448	134,326	36.7	57.4	286,468	208,679	130,597	37.3	59.8	2,522	2,769	3,729	—8.9	—25.7
Vermont	149,129	105,645	78,991	41.2	33.7	145,511	99,881	72,205	45.7	38.3	3,618	5,764	6,786	—37.2	—15.1
Massachusetts	4,099,247	3,165,833	1,908,091	29.5	65.9	4,097,900	3,164,957	1,907,195	29.5	65.9	1,347	876	896	53.8	—2.2
Rhode Island	595,303	429,451	213,713	38.6	100.9	595,303	429,451	213,713	38.6	100.9					
Connecticut	2,032,775	1,348,072	800,780	50.8	68.3	2,032,682	1,348,004	800,185	50.8	68.5	93	68	595	36.8	—88.6
MIDDLE ATLANTIC:															
New York	15,385,557	11,592,418	6,121,696	32.7	89.4	15,364,082	11,564,627	6,083,246	32.9	90.1	21,475	27,791	38,450	—22.7	—27.7
New Jersey	4,382,769	3,012,459	1,523,354	45.5	97.8	4,380,481	3,010,591	1,520,457	45.5	98.0	2,288	1,868	2,897	22.5	—35.5
Pennsylvania	7,630,699	5,387,812	3,173,530	41.6	69.8	7,591,532	5,343,408	3,103,457	42.1	72.2	39,167	44,404	70,073	—11.8	—36.6
EAST NORTH CENTRAL:															
Ohio	5,545,857	3,658,505	2,415,187	51.6	51.5	5,500,762	3,595,160	2,344,614	53.0	53.3	45,095	63,345	70,573	—28.8	—10.2
Indiana	2,223,608	1,558,005	1,058,314	42.7	47.2	2,177,326	1,489,194	977,123	46.2	52.4	46,282	68,811	81,191	—32.7	—15.2
Illinois	7,599,337	5,688,146	3,060,595	33.6	85.9	7,528,375	5,596,426	2,959,690	34.5	89.1	70,962	91,720	100,905	—22.6	—9.1
Michigan	4,263,778	2,967,217	1,390,945	43.7	113.3	4,220,852	2,918,468	1,332,920	44.6	119.0	42,926	48,749	58,025	—11.9	—16.0
Wisconsin	1,941,790	1,351,537	838,105	43.7	61.3	1,870,746	1,273,132	740,202	46.9	72.0	71,044	78,405	97,903	—9.4	—19.9

Delaware	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Maryland	1,076,460	936,353	540,089	15.0	73.4	1,074,731	933,503	536,204	15.1	74.1	1,729	2,850	3,885	−39.3	−26.6
District of Columbia	675,044	540,152	314,636	25.0	71.7	675,044	540,152	314,636	25.0	71.7	----------	----------	----------	----------	----------
Virginia	876,581	615,286	379,093	42.5	62.3	859,992	591,769	351,119	45.3	68.5	16,589	23,517	27,974	−29.5	−15.9
West Virginia	445,781	349,899	226,739	27.4	54.3	426,555	329,401	201,894	29.5	63.2	19,226	20,498	24,845	−6.2	−17.5
North Carolina	706,829	392,455	199,594	80.1	96.6	694,909	369,763	165,878	87.9	122.9	11,920	22,692	33,716	−47.5	−32.7
South Carolina	290,599	171,678	126,284	69.3	35.9	284,312	158,673	110,910	79.2	43.1	6,287	13,005	15,374	−51.7	−15.4
Georgia	772,176	538,751	390,382	43.3	38.0	761,176	517,596	363,066	47.1	42.6	11,000	21,155	27,316	−48.0	−22.6
Florida	706,360	581,739	178,149	21.4	226.5	702,942	578,064	171,708	21.6	236.7	3,418	3,675	6,441	−7.0	−42.9
EAST SOUTH CENTRAL:															
Kentucky	863,293	722,120	467,781	19.5	54.4	840,053	681,738	425,675	23.2	60.2	23,240	40,382	42,106	−42.4	−4.2
Tennessee	850,951	642,096	399,932	32.5	60.6	819,172	597,626	347,926	37.1	71.8	31,779	44,470	52,006	−28.5	−14.5
Alabama	580,087	421,927	229,934	37.5	83.5	568,542	404,479	213,901	40.6	89.1	11,545	17,448	16,033	−33.8	8.8
Mississippi	293,647	214,982	150,912	36.6	42.5	286,420	202,702	132,871	41.3	52.6	7,227	12,280	18,041	−41.1	−31.9
WEST SOUTH CENTRAL:															
Arkansas	366,944	318,868	219,398	15.1	45.3	355,432	293,310	186,329	21.2	57.4	11,512	25,558	33,069	−55.0	−22.7
Louisiana	694,367	560,262	256,372	23.9	118.5	689,114	552,655	248,749	24.7	122.2	5,253	7,607	7,623	−30.9	−.2
Oklahoma	1,173,051	655,102	424,005	79.1	54.5	1,138,748	602,174	368,834	89.1	63.3	34,303	52,928	55,171	−35.2	−4.1
Texas	2,793,715	2,085,744	1,249,014	33.9	67.0	2,723,997	1,960,978	1,107,265	38.9	77.1	69,718	124,766	141,749	−44.1	−12.0
MOUNTAIN:															
Montana	181,485	135,536	120,725	33.9	12.3	168,834	123,600	107,339	36.6	15.1	12,651	11,936	13,386	6.0	−10.8
Idaho	134,096	111,940	105,027	19.8	6.6	126,653	103,190	96,522	22.7	6.9	7,443	8,750	8,505	−14.9	2.9
Wyoming	85,233	60,622	50,223	40.6	20.7	75,010	52,308	42,956	43.4	21.8	10,223	8,314	7,267	23.0	14.4
Colorado	717,589	559,873	412,816	28.2	35.6	698,919	541,413	395,173	29.1	37.0	18,670	18,460	17,643	1.1	4.6
New Mexico	84,722	48,765	37,428	73.7	30.3	81,467	43,812	31,808	85.9	37.7	3,255	4,953	5,620	−34.3	−11.9
Arizona	158,261	89,305	55,518	77.2	60.9	155,142	86,182	53,152	80.0	62.1	3,119	3,123	2,366	−.1	32.0
Utah	231,113	167,393	129,193	38.1	29.6	229,130	165,203	126,127	38.7	31.0	1,983	2,190	3,066	−9.5	−28.6
Nevada	48,356	25,116	16,732	92.5	50.1	47,019	23,557	16,012	99.6	47.1	1,337	1,559	720	−14.2	116.5
PACIFIC:															
Washington	1,029,949	739,138	533,515	39.3	38.5	1,002,282	710,709	505,005	41.0	40.7	27,667	28,429	28,510	−2.7	−.3
Oregon	599,201	490,820	368,342	22.1	33.3	574,487	466,569	341,554	23.1	36.6	24,714	24,251	26,788	1.9	−9.5
California	6,734,059	4,694,152	2,174,893	43.5	115.8	6,691,209	4,651,007	2,130,550	43.9	118.3	42,850	43,145	44,343	−.7	−2.7

TABLE 8.—NUMBER OF TELEPHONES, ALL SYSTEMS AND LINES GROUPED ACCORDING TO ANNUAL INCOME, WITH PERCENT INCREASE OR DECREASE, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

DIVISION AND STATE	TOTAL					REPORTING ANNUAL INCOMES OF—									
						$10,000 or more					Less than $10,000				
	1932	1927	1922	Percent increase or decrease (−)		1932	1927	1922	Percent increase or decrease (−)		1932	1927	1922	Percent increase or decrease (−)	
				1927-32	1922-27				1927-32	1922-27				1927-32	1922-27
UNITED STATES	17,424,406	18,522,767	14,347,395	−5.9	29.1	16,284,231	16,712,495	12,295,234	−2.6	35.9	1,140,175	1,810,272	2,052,161	−37.0	−11.8
GEOGRAPHIC DIVISIONS:															
New England	1,513,939	1,548,931	1,223,497	−2.3	26.6	1,498,010	1,527,779	1,197,433	−1.9	27.6	15,929	21,152	26,064	−24.7	−18.8
Middle Atlantic	4,613,733	4,588,211	3,249,710	0.6	41.2	4,555,298	4,488,761	3,112,921	1.5	44.2	58,435	99,450	136,789	−41.2	−27.3
East North Central	4,034,931	4,589,751	3,693,101	−12.1	24.3	3,765,622	4,161,039	3,179,335	−9.5	30.9	269,309	428,712	513,766	−37.2	−16.6
West North Central	2,260,985	2,594,081	2,315,996	−12.8	12.0	1,805,413	1,908,505	1,597,239	−5.4	19.5	455,572	685,576	718,757	−33.5	−4.6
South Atlantic	1,250,882	1,262,222	937,324	−0.9	34.7	1,181,857	1,144,802	791,707	3.2	44.6	69,025	117,420	145,617	−41.2	−19.4
East South Central	547,440	644,270	521,120	−15.0	23.6	475,458	515,850	379,966	−7.8	35.8	71,982	128,420	141,124	−43.9	−9.0
West South Central	1,002,389	1,149,357	872,157	−12.8	31.8	901,018	939,254	632,352	−4.1	48.5	101,371	210,103	239,805	−51.8	−12.4
Mountain	446,492	456,198	385,730	−2.1	18.3	415,638	417,504	344,443	−0.4	21.2	30,854	38,694	41,287	−20.3	−6.3
Pacific	1,753,615	1,689,746	1,148,760	3.8	47.1	1,685,917	1,609,001	1,059,808	4.8	51.8	67,698	80,745	88,952	−16.2	−9.2
NEW ENGLAND:															
Maine	124,372	131,367	113,725	−5.3	15.5	115,040	120,565	101,786	−4.6	18.4	9,332	10,802	11,939	−13.6	−9.5
New Hampshire	79,506	83,066	68,874	−4.3	20.6	76,646	79,466	64,909	−3.5	22.4	2,860	3,600	3,965	−20.6	−9.2
Vermont	58,133	60,793	54,530	−4.4	11.5	55,132	55,066	46,182	0.1	19.2	3,001	5,727	8,348	−47.6	−31.4
Massachusetts	832,740	867,888	687,700	−4.0	26.2	832,112	866,955	686,731	−4.0	26.2	628	933	969	−32.7	−3.7
Rhode Island	110,671	114,944	92,766	−3.7	23.9	110,671	114,944	92,766	−3.7	23.9					
Connecticut	308,517	290,873	205,902	6.1	41.3	308,409	290,783	205,059	6.1	41.8	108	90	843	20.0	−89.3
MIDDLE ATLANTIC:															
New York	2,628,537	2,595,537	1,780,563	1.3	45.8	2,604,479	2,552,546	1,722,653	2.0	48.2	24,058	42,991	57,910	−44.0	−25.8
New Jersey	642,830	599,336	383,496	7.3	56.3	642,198	597,304	379,303	7.5	57.5	632	2,032	4,193	−68.9	−51.5
Pennsylvania	1,342,366	1,393,338	1,085,651	−3.7	28.3	1,308,621	1,338,911	1,010,965	−2.3	32.4	33,745	54,427	74,686	−38.0	−27.1
EAST NORTH CENTRAL:															
Ohio	978,394	1,122,036	962,837	−12.8	16.5	936,782	1,048,890	874,133	−10.7	20.0	41,612	73,146	88,704	−43.1	−17.5
Indiana	444,996	552,249	508,726	−19.4	8.6	390,671	457,240	389,100	−14.6	17.5	54,325	95,009	119,626	−42.8	−20.6
Illinois	1,507,222	1,685,690	1,283,449	−10.6	31.3	1,420,240	1,560,845	1,145,616	−9.0	36.2	86,982	124,845	137,833	−30.3	−9.4
Michigan	621,958	711,315	508,140	−12.6	40.0	587,000	654,887	445,739	−10.4	46.9	34,958	56,428	62,401	−38.0	−9.6
Wisconsin	482,361	518,461	429,949	−7.0	20.6	430,929	439,177	324,747	−1.9	35.2	51,432	79,284	105,202	−35.1	−24.6

West North Central:															
Minnesota	443,682	487,611	424,777	−9.0	14.8	367,199	382,815	329,542	−4.1	16.2	76,483	104,796	95,235	−27.0	10.0
Iowa	484,879	565,533	533,347	−14.3	6.0	355,468	392,127	346,880	−9.3	13.0	129,411	173,406	186,467	−25.4	−7.0
Missouri	592,153	657,946	550,980	−10.0	19.4	507,332	503,660	394,792	0.7	27.6	84,821	154,286	156,188	−45.0	−1.2
North Dakota	69,241	86,198	77,586	−19.7	11.1	46,836	51,114	47,588	−8.4	7.4	22,405	35,084	29,998	−36.1	17.0
South Dakota	88,798	107,641	101,555	−17.5	6.0	70,074	74,723	69,905	−6.2	24.7	18,724	32,918	41,650	−43.1	−21.0
Nebraska	247,551	295,274	273,500	−16.2	8.0	204,206	230,049	206,144	−11.2	11.6	43,345	65,225	67,356	−33.5	−3.2
Kansas	334,681	393,878	354,251	−15.0	11.2	254,298	274,017	212,388	−7.2	29.0	80,383	119,861	141,863	−32.9	−15.5
South Atlantic:															
Delaware	32,537	28,901	23,534	12.6	22.8	32,257	28,396	22,972	13.6	23.6	280	505	562	−44.6	−10.1
Maryland	212,014	197,135	153,790	7.5	28.2	210,304	194,070	150,298	8.4	29.1	1,710	3,065	3,492	−44.2	−12.2
District of Columbia	180,785	144,985	102,231	24.7	41.8	180,785	144,985	102,231	24.7	41.8	------	------	------	------	------
Virginia	196,956	183,698	155,490	7.2	18.1	178,984	155,453	120,627	15.1	28.9	17,972	28,245	34,863	−36.4	−19.0
West Virginia	134,150	146,677	116,081	−8.5	26.4	110,766	117,199	85,381	−5.5	37.3	23,384	29,478	30,700	−20.7	−4.0
North Carolina	143,710	160,507	116,129	−10.5	38.2	133,813	138,889	85,161	−3.7	63.1	9,897	21,618	30,968	−54.2	−30.2
South Carolina	57,215	64,616	54,078	−11.5	19.5	52,563	54,198	41,505	−3.0	30.6	4,652	10,418	12,573	−55.3	−17.1
Georgia	151,264	173,410	136,334	−12.8	27.2	141,645	152,029	110,347	−6.8	37.8	9,619	21,381	25,987	−55.0	−17.7
Florida	142,251	162,293	79,657	−12.3	103.7	140,740	159,583	73,185	−11.8	118.1	1,511	2,710	6,472	−44.2	−58.1
East South Central:															
Kentucky	191,236	222,735	201,545	−14.1	10.5	166,265	175,573	150,373	−5.3	16.8	24,971	47,162	51,172	−47.1	−7.8
Tennessee	192,983	220,559	171,413	−12.5	28.7	163,916	174,540	118,992	−6.1	46.7	29,067	46,019	52,421	−36.8	−12.2
Alabama	100,813	121,115	84,401	−16.8	43.5	88,416	99,240	64,820	−10.9	53.1	12,397	21,875	19,581	−43.3	11.7
Mississippi	62,408	79,861	63,761	−21.9	25.3	56,861	66,497	45,811	−14.5	45.2	5,547	13,364	17,950	−58.5	−25.5
West South Central:															
Arkansas	86,676	118,178	99,490	−26.7	18.8	75,241	89,556	66,785	−16.0	34.1	11,435	28,622	32,705	−60.0	−12.5
Louisiana	132,735	137,610	87,354	−3.5	57.5	128,569	130,851	81,071	−1.7	61.4	4,166	6,759	6,283	−38.4	7.6
Oklahoma	241,453	278,912	222,889	−13.4	25.1	204,916	210,822	148,602	−2.8	41.9	36,537	68,090	74,287	−46.3	−8.3
Texas	541,525	614,657	462,424	−11.9	32.9	492,292	508,025	335,894	−3.1	51.2	49,233	106,632	126,530	−53.8	−15.7
Mountain:															
Montana	55,361	59,238	55,115	−6.5	7.5	48,790	51,396	46,666	−5.1	10.1	6,571	7,842	8,449	−16.2	−7.2
Idaho	49,201	54,822	48,745	−10.3	12.5	43,850	46,823	40,442	−6.3	15.8	5,351	7,999	8,303	−33.1	−3.7
Wyoming	28,346	28,049	24,949	1.1	12.4	24,391	23,777	20,846	2.6	14.1	3,955	4,272	4,103	−7.4	4.1
Colorado	179,063	183,250	150,652	−2.3	21.6	168,895	171,354	138,513	−1.4	23.7	10,168	11,896	12,139	−14.5	−2.0
New Mexico	23,100	21,580	18,342	7.0	17.7	21,351	18,613	14,357	14.7	29.6	1,749	2,967	3,985	−41.1	−25.5
Arizona	36,064	33,194	24,353	8.6	36.3	35,032	32,140	23,318	9.0	37.8	1,032	1,054	1,035	−2.1	1.8
Utah	60,082	63,106	53,261	−4.8	18.5	58,616	61,111	50,448	−4.1	21.1	1,466	1,995	2,813	−26.5	−29.1
Nevada	15,275	12,959	10,313	17.9	25.7	14,713	12,290	9,853	19.7	24.7	562	669	460	−16.0	45.4
Pacific:															
Washington	276,530	299,109	238,275	−7.5	25.5	254,232	271,786	207,431	−6.5	31.0	22,298	27,323	30,844	−18.4	−11.4
Oregon	166,639	185,171	146,847	−10.0	26.1	145,730	160,497	118,455	−9.2	35.5	20,909	24,674	28,392	−15.3	−13.1
California	1,310,446	1,205,466	763,638	8.7	57.9	1,285,955	1,176,718	733,922	9.3	60.3	24,491	28,748	29,716	−14.8	−3.3

TABLE 9.—PERCENT DISTRIBUTION, MILES OF WIRE AND NUMBER OF TELEPHONES, ALL SYSTEMS AND LINES GROUPED ACCORDING TO ANNUAL INCOME, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

DIVISION AND STATE	MILES OF WIRE									TELEPHONES (NUMBER)								
	Total			Reported by systems and lines with annual income of—						Total			Reported by systems and lines with annual income of—					
				$10,000 or more			Less than $10,000						$10,000 or more			Less than $10,000		
	1932	1927	1922	1932	1927	1922	1932	1927	1922	1932	1927	1922	1932	1927	1922	1932	1927	1922
UNITED STATES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
GEOGRAPHIC DIVISIONS:																		
New England	8.8	8.8	9.0	8.9	8.9	9.4	1.6	1.3	1.3	8.7	8.3	8.5	9.2	9.1	9.8	1.4	1.2	1.3
Middle Atlantic	31.2	31.3	29.0	31.6	32.0	30.1	5.3	4.8	6.3	26.5	24.8	22.7	27.9	26.9	25.3	5.1	5.5	6.7
East North Central	24.6	23.8	23.5	24.6	23.9	23.5	23.2	22.5	23.2	23.2	24.8	25.7	23.1	24.9	25.9	23.6	23.7	25.0
West North Central	8.7	9.5	12.0	8.4	8.9	11.1	34.8	33.7	31.5	13.0	14.0	16.1	11.1	11.4	13.0	40.0	37.9	35.0
South Atlantic	6.6	6.6	6.6	6.6	6.6	6.5	5.8	6.9	7.9	7.1	6.8	6.6	7.3	6.9	6.4	6.1	6.5	7.1
East South Central	3.0	3.1	3.4	2.9	3.0	3.2	6.2	7.3	7.3	3.1	3.5	3.6	2.9	3.1	3.1	6.3	7.1	6.9
West South Central	5.7	5.7	5.8	5.7	5.5	5.4	10.1	13.5	13.5	5.8	6.2	6.1	5.5	5.6	5.1	8.9	11.6	11.7
Mountain	1.9	1.9	2.5	1.8	1.8	2.4	5.0	3.8	3.3	2.6	2.5	2.7	2.6	2.5	2.8	2.7	2.1	2.0
Pacific	9.5	9.3	8.2	9.5	9.4	8.4	8.0	6.2	5.7	10.1	9.1	8.0	10.4	9.6	8.6	5.9	4.4	4.3
NEW ENGLAND:																		
Maine	.6	.5	.6	.6	.5	.6	1.0	.7	.6	.7	.7	.8	.7	.7	.8	.8	.6	.6
New Hampshire	.3	.3	.4	.3	.3	.4	.2	.2	.2	.5	.4	.5	.5	.5	.5	.3	.2	.2
Vermont	.2	.2	.2	.2	.2	.2	.3	.4	.4	.3	.3	.4	.3	.3	.4	.3	.3	.4
Massachusetts	4.7	5.0	5.1	4.7	5.1	5.4	.1	.1	.1	4.8	4.7	4.8	5.1	5.2	5.6	.1	.1	(1)
Rhode Island	.7	.7	.6	.7	.7	.6				.6	.6	.6	.7	.7	.8			
Connecticut	2.3	2.1	2.1	2.4	2.2	2.3	(1)	(1)	(1)	1.8	1.6	1.4	1.9	1.7	1.7	(1)	(1)	(1)
MIDDLE ATLANTIC:																		
New York	17.5	18.2	16.4	17.8	18.6	17.1	1.8	1.8	2.2	15.1	14.0	12.4	16.0	15.3	14.0	2.1	2.4	2.8
New Jersey	5.0	4.7	4.1	5.1	4.8	4.3	.2	.1	.2	3.7	3.2	2.7	3.9	3.6	3.1	.1	.1	.2
Pennsylvania	8.7	8.4	8.5	8.8	8.6	8.7	3.3	2.8	4.0	7.7	7.5	7.6	8.0	8.0	8.2	3.0	3.0	3.6
EAST NORTH CENTRAL:																		
Ohio	6.3	5.7	6.5	6.4	5.8	6.6	3.8	4.1	4.0	5.6	6.1	6.7	5.8	6.3	7.1	3.6	4.0	4.3
Indiana	2.5	2.4	2.8	2.5	2.4	2.8	3.9	4.4	4.6	2.6	3.0	3.5	2.4	2.7	3.2	4.8	5.2	5.8
Illinois	8.7	8.9	8.2	8.7	9.0	8.3	5.9	5.9	5.7	8.7	9.1	8.9	8.7	9.3	9.3	7.6	6.9	6.7
Michigan	4.9	4.6	3.7	4.9	4.7	3.8	3.6	3.1	3.3	3.6	3.8	3.5	3.6	3.9	3.6	3.1	3.1	3.0
Wisconsin	2.2	2.1	2.2	2.2	2.0	2.1	6.0	5.0	5.6	2.8	2.8	3.0	2.6	2.6	2.6	4.5	4.4	5.1

West North Central:																		
Minnesota	1.8	2.2	3.1	1.8	2.1	3.0	7.1	6.5	5.3	2.5	2.6	3.0	2.3	2.3	2.7	6.7	5.8	4.6
Iowa	1.5	1.5	2.0	1.4	1.4	1.9	7.0	5.9	5.7	2.8	3.1	3.7	2.3	2.4	2.8	11.4	9.6	9.1
Missouri	3.0	3.1	3.3	3.0	3.0	3.2	5.8	6.6	6.5	3.4	3.6	3.8	3.1	3.0	3.2	7.4	8.5	7.6
North Dakota	.2	.2	.3	.2	.2	.3	2.6	2.4	1.8	.4	.5	.5	.3	.3	.4	2.0	1.9	1.5
South Dakota	.2	.2	.3	.2	.2	.2	1.8	1.9	1.9	.5	.6	.7	.4	.4	.5	1.6	1.8	2.0
Nebraska	.8	1.0	1.4	.8	.9	1.3	4.3	4.0	3.9	1.4	1.6	1.9	1.3	1.4	1.7	3.8	3.6	3.3
Kansas	1.2	1.2	1.6	1.1	1.1	1.3	6.2	6.3	6.4	1.9	2.1	2.5	1.6	1.6	1.7	7.1	6.6	6.9
South Atlantic:																		
Delaware	.2	.2	.3	.2	.2	.3	(1)	(1)	(1)	.2	.2	.2	.2	.2	.2	(1)	(1)	(1)
Maryland	1.2	1.5	1.5	1.2	1.5	1.5	.1	.2	.2	1.2	1.1	1.1	1.3	1.2	1.2	.1	.2	.2
District of Columbia	.8	.8	.8	.8	.9	.9				1.0	.8	.7	1.1	.9	.8			
Virginia	1.0	1.0	1.0	1.0	1.0	1.0	1.4	1.5	1.6	1.1	1.0	1.1	1.1	.9	1.0	1.6	1.6	1.7
West Virginia	.5	.5	.6	.5	.5	.6	1.6	1.3	1.4	.8	.8	.8	.7	.7	.7	2.1	1.6	1.5
North Carolina	.8	.6	.5	.8	.6	.5	1.0	1.5	1.9	.8	.9	.8	.8	.8	.7	.9	1.2	1.5
South Carolina	.3	.3	.3	.3	.3	.3	.5	.8	.9	.3	.3	.4	.3	.3	.3	.4	.6	.6
Georgia	.9	.8	1.1	.9	.8	1.0	.9	1.4	1.5	.9	.9	.9	.9	.9	.9	.8	1.2	1.3
Florida	.8	.9	.5	.8	.9	.5	.3	.2	.4	.8	.9	.6	.9	1.0	.6	.1	.1	.3
East South Central:																		
Kentucky	1.0	1.1	1.3	1.0	1.1	1.2	1.9	2.6	2.4	1.1	1.2	1.4	1.0	1.1	1.2	2.2	2.6	2.5
Tennessee	1.0	1.0	1.1	.9	1.0	1.0	2.7	2.9	2.9	1.1	1.2	1.2	1.0	1.0	1.0	2.5	2.5	2.6
Alabama	.7	.7	.6	.7	.6	.6	1.0	1.1	.9	.6	.7	.6	.5	.6	.5	1.1	1.2	1.0
Mississippi	.3	.3	.4	.3	.3	.4	.6	.8	1.0	.4	.4	.4	.3	.4	.4	.5	.7	.9
West South Central:																		
Arkansas	.4	.5	.6	.4	.5	.5	1.0	1.6	1.9	.5	.6	.7	.5	.5	.5	1.0	1.6	1.6
Louisiana	.8	.9	.7	.8	.9	.7	.4	.5	.4	.8	.7	.6	.8	.8	.7	.4	.4	.3
Oklahoma	1.3	1.0	1.1	1.3	1.0	1.0	2.9	3.4	3.1	1.4	1.5	1.6	1.3	1.3	1.2	3.2	3.8	3.6
Texas	3.2	3.3	3.4	3.1	3.1	3.1	5.8	8.0	8.0	3.1	3.3	3.2	3.0	3.0	2.7	4.3	5.9	6.2
Mountain:																		
Montana	.2	.2	.3	.2	.2	.3	1.1	.8	.8	.3	.3	.4	.3	.3	.4	.6	.4	.4
Idaho	.2	.2	.3	.1	.2	.3	.6	.6	.5	.3	.3	.3	.3	.3	.3	.5	.4	.4
Wyoming	.1	.1	.1	.1	.1	.1	.9	.5	.4	.2	.2	.2	.1	.1	.2	.3	.2	.2
Colorado	.8	.9	1.1	.8	.9	1.1	1.6	1.2	1.0	1.0	1.0	1.1	1.0	1.0	1.1	.9	.7	.6
New Mexico	.1	.1	.1	.1	.1	.1	.3	.3	.3	.1	.1	.1	.1	.1	.1	.2	.2	.2
Arizona	.2	.1	.1	.2	.1	.1	.3	.2	.1	.2	.2	.2	.2	.2	.2	.1	.1	.1
Utah	.3	.3	.3	.3	.3	.4	.2	.1	.2	.3	.3	.4	.4	.4	.4	.1	.1	.1
Nevada	.1	(1)	(1)	.1	(1)	(1)	.1	.1	(1)	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)
Pacific:																		
Washington	1.2	1.2	1.4	1.2	1.1	1.4	2.3	1.8	1.6	1.6	1.6	1.7	1.6	1.6	1.7	2.0	1.5	1.5
Oregon	.7	.8	1.0	.7	.7	1.0	2.1	1.6	1.5	1.0	1.0	1.0	.9	1.0	1.0	1.8	1.4	1.4
California	7.7	7.4	5.8	7.7	7.5	6.0	3.6	2.8	2.5	7.5	6.5	5.3	7.9	7.0	6.0	2.1	1.6	1.4

[1] Less than 1/10 of 1 percent.

TABLE 10.—SUMMARY—TELEPHONE AND TELEGRAPH SYSTEMS: 1902–1932

ITEM		Total	Telephones [1]	Telegraphs [2]	PERCENT OF TOTAL	
					Telephones	Telegraphs
Number of systems and lines	1932	44,851	44,828	23	--------	--------
	1927	60,173	60,148	25	--------	--------
	1922	57,278	57,253	25	--------	--------
	1917	53,262	53,234	28	--------	--------
	1912	32,261	32,233	28	--------	--------
	1907	22,998	22,971	27	--------	--------
	1902	9,161	9,136	25	--------	--------
Miles of single wire	1932	89,943,640	87,677,586	[3] 2,266,054	97.5	2.5
	1927	65,982,079	63,836,182	[3] 2,145,897	96.7	3.3
	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	1932	96,468	--------	96,468	--------	100.0
	1927	99,074	--------	99,074	--------	100.0
	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
Number of employees	1932	400,808	334,085	66,723	83.4	16.6
	1927	456,770	375,272	81,498	82.2	17.8
	1922	380,647	312,015	68,632	82.0	18.0
	1917	327,352	262,629	64,723	80.2	19.8
	1912	228,172	183,361	[4] 44,811	80.4	19.6
	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	1932	$532,065,600	$458,116,677	$73,948,923	86.1	13.9
	1927	586,117,427	486,597,070	99,520,357	83.0	17.0
	1922	429,087,496	352,925,570	76,161,926	82.3	17.7
	1917	219,434,650	175,670,449	43,764,201	80.1	19.9
	1912	121,005,535	96,040,541	[4] 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
Revenue (operating)	1932	$1,176,185,836	[5] $1,061,530,140	$114,655,696	90.3	9.7
	1927	1,201,162,663	1,023,573,567	177,589,096	85.2	14.8
	1922	812,373,494	665,568,279	146,805,215	81.9	18.1
	1917	489,819,495	382,829,752	106,989,743	78.2	21.8
	1912	304,879,273	244,476,264	60,403,009	80.2	19.8
	1907	223,142,947	177,887,760	45,255,187	79.7	20.3
	1902	117,951,738	82,651,169	35,300,569	70.1	29.9
Investment in plant and equipment	1932	$5,298,347,951	$4,791,902,525	$506,445,426	90.4	9.6
	1927	3,975,573,458	3,548,874,716	426,698,742	89.3	10.7
	1922	2,531,845,010	2,205,183,150	326,661,860	87.1	12.9
	1917	1,735,687,447	1,492,329,015	243,358,432	86.0	14.0
	1912	1,303,479,973	1,081,433,227	222,046,746	83.0	17.0
	1907	1,030,462,967	820,417,008	210,045,959	79.6	20.4
	1902	550,957,811	389,278,232	161,679,579	70.7	29.3

[1] For the items "Number of systems and lines" and "Miles of single wire", the statistics comprise data for all systems and lines. For the other items the exclusions are as follows: The figures for 1912 and 1907 exclude data for systems and lines reporting annual incomes of less than $5,000, and those for 1902 exclude data for "Farmer and rural lines."

[2] Not including wireless-telegraph systems. The Western Union Telegraph Co., which operated both land and ocean-cable systems, is counted as 2 companies.

[3] Exclusive of data for wire owned and operated wholly by railway companies, as follows: For 1932, 337,059 miles; for 1927, 333,898 miles; for 1922, 285,002 miles; for 1917, 344,110 miles; and for 1912, 314,329 miles.

[4] Includes 7,516 messengers, whose wages were not reported and are not, therefore, included in the figure for salaries and wages.

[5] The figures for telephone companies include data for miscellaneous operating revenues and assessments by mutual companies.

CHAPTER III.—EQUIPMENT AND TRAFFIC

Wire mileage.—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 mileage according to overhead (in cable and not in cable) and underground. The smaller systems made no such distribution.

Telephones.—The number of telephones, usually, is a matter of record and therefore fairly accurate. The number reported represents telephones wired for general service on December 31, 1932, and does not include those used exclusively within hotels, mercantile or other commercial, or private buildings for connection with different rooms, and having no connection with outside exchanges. Nor does it include telephones belonging to railway, police, and fire-alarm systems.

Number of "originating calls."—Systems and lines having incomes of $10,000 or more in 1932, 1927, and 1922 were requested to report the "Estimated total number of telephone connections or calls, both completed and uncompleted, *originating* during the year 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 1 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. Inasmuch as the calls of the small companies, as reported for 1932, constituted only 3.2 percent of the total for all companies, it is not likely that the margin of error contained in that total, is very greatly in excess of the margin of error in the total for the large companies alone. The number of originating calls was reported in many cases in apparently exact figures and not in round numbers in which approximations are usually shown. It should, therefore, be borne in mind that despite their exact appearance they probably do not correctly represent any number more nearly exact than round billions or tens or hundreds of millions for individual States.

TABLE 11.—MILES OF WIRE OVERHEAD AND UNDERGROUND, ALL SYSTEMS AND LINES, 1902–32; AND OVERHEAD MILEAGE IN CABLE AND NOT IN CABLE THE BELL SYSTEM AND OTHER SYSTEMS AND LINES: 1932 AND 1927

CENSUS YEAR	Total	OVERHEAD			Underground	PERCENT OF TOTAL	
		Total	In cable [1]	Not in cable [1]		Overhead	Underground
1932, total	87,677,586	32,441,507	24,557,730	7,883,777	55,236,079	37.0	63.0
Bell system	80,585,879	27,604,035	22,742,159	4,861,876	52,981,844	34.3	65.7
Other systems and lines	7,091,707	4,837,472	1,815,571	3,021,901	2,254,235	68.2	31.8
1927, total	63,836,182	23,943,170	16,104,272	7,838,898	39,893,012	37.5	62.5
Bell system	56,819,036	18,932,035	14,443,441	4,488,594	37,887,001	33.3	66.7
Other systems and lines	7,017,146	5,011,135	1,660,831	3,350,304	2,006,011	71.4	28.6
1922, total	37,265,958	15,825,487			21,440,471	42.5	57.5
1917, total	28,827,188	13,978,008			14,849,180	48.5	51.5
1912, total	20,248,326	11,083,338			9,164,988	54.7	45.3
1907, total	12,999,364	8,009,332			4,990,032	61.6	38.4
1902, total	4,900,451	3,200,409			1,700,042	65.3	34.7

[1] Not called for prior to 1927 census.

TABLE 12.—TELEPHONES—NUMBER, THE BELL SYSTEM AND OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

DIVISION AND STATE	TOTAL			BELL SYSTEM			OTHER SYSTEMS		
	1932	1927	1922	1932	1927	1922	1932	1927	1922
UNITED STATES	16,284,231	16,712,495	12,295,234	13,793,229	13,726,056	9,514,813	2,491,002	2,986,439	2,780,421
GEOG. DIVS.:									
New England	1,498,010	1,527,779	1,197,433	1,463,853	1,453,469	1,135,359	34,157	74,310	62,074
Mid. Atlantic	4,555,298	4,488,761	3,112,921	4,154,624	3,980,241	2,703,858	400,674	508,520	409,063
E. N. Central	3,765,622	4,161,039	3,179,335	2,985,651	3,177,753	2,255,352	779,971	983,286	923,983
W. N. Central	1,805,413	1,908,505	1,597,239	1,126,764	1,158,441	771,453	678,649	750,064	825,786
South Atlantic	1,181,857	1,144,802	791,707	999,758	951,422	651,271	182,099	193,380	140,436
E. S. Central	475,458	515,850	379,996	413,325	443,609	279,804	62,133	72,241	100,192
W. S. Central	901,018	939,254	632,352	760,339	787,547	481,904	140,679	151,707	150,448
Mountain	415,638	417,504	344,443	393,178	391,510	320,661	22,460	25,994	23,782
Pacific	1,685,917	1,609,001	1,059,808	1,495,737	1,382,064	915,151	190,180	226,937	144,657
NEW ENGLAND:									
Maine	115,040	120,565	101,786	102,445	88,437	74,891	12,595	32,128	26,895
N. Hampshire	76,646	79,466	64,909	74,190	61,430	56,932	2,456	18,036	13,977
Vermont	55,132	55,066	46,182	42,400	37,168	31,162	12,732	17,898	15,020
Massachusetts	832,112	866,955	686,731	830,319	864,951	683,386	1,793	2,004	3,345
Rhode Island	110,671	114,944	92,766	108,423	112,868	91,271	2,248	2,076	1,495
Connecticut	308,409	290,783	205,059	306,076	288,615	203,717	2,333	2,168	1,342
MID. ATLANTIC:									
New York	2,604,479	2,552,546	1,722,653	2,423,949	2,329,131	1,561,017	180,530	223,415	161,636
New Jersey	642,198	597,304	379,303	631,967	582,710	368,439	10,231	14,594	10,864
Pennsylvania	1,308,621	1,338,911	1,010,965	1,098,708	1,068,400	774,402	209,913	270,511	236,583
E. N. CENTRAL:									
Ohio	936,782	1,048,890	874,133	709,144	748,874	600,173	227,638	300,016	273,960
Indiana	390,671	457,240	389,100	207,413	227,218	193,114	183,258	230,022	195,986
Illinois	1,420,240	1,560,845	1,145,616	1,218,588	1,293,340	898,235	201,652	267,505	247,381
Michigan	587,000	654,887	445,739	528,488	587,228	338,718	58,512	67,659	107,021
Wisconsin	430,929	439,177	324,747	322,018	321,093	225,112	108,911	118,084	99,635
W. N. CENTRAL:									
Minnesota	367,199	382,815	329,542	190,397	195,402	170,576	176,802	187,413	158,966
Iowa	355,468	392,127	346,880	236,486	227,555	177,151	118,982	164,572	169,729
Missouri	507,332	503,660	394,792	399,696	414,683	179,664	107,636	88,977	215,128
North Dakota	46,836	51,114	47,588	32,938	34,820	22,637	14,808	16,294	24,951
South Dakota	70,074	74,723	59,905	22,506	21,865	20,706	47,568	52,858	39,199
Nebraska	204,206	230,049	206,144	100,021	107,028	102,527	104,185	123,021	103,617
Kansas	254,298	274,017	212,388	145,630	157,088	98,192	108,668	116,929	114,196
S. ATLANTIC:									
Delaware	32,257	28,396	22,972	32,257	28,396	22,972	----	----	----
Maryland	210,304	194,070	150,298	209,818	193,520	150,268	486	550	30
D. of Columbia	180,785	144,985	102,231	180,785	144,985	102,231	----	----	----
Virginia	178,984	155,453	120,627	142,293	122,912	97,991	36,691	32,541	22,636
West Virginia	110,766	117,199	85,381	101,506	103,885	77,147	9,260	13,314	8,234
North Carolina	133,813	138,889	85,161	76,002	81,208	35,874	57,811	57,681	49,287
South Carolina	52,563	54,198	41,505	42,687	44,922	32,726	9,876	9,276	8,779
Georgia	141,645	152,029	110,347	129,970	136,723	97,512	11,675	15,306	12,835
Florida	140,740	159,583	73,185	84,440	94,871	34,550	56,300	64,712	38,635
E. S. CENTRAL:									
Kentucky	166,265	175,573	150,373	126,007	139,653	76,490	40,258	35,920	73,883
Tennessee	163,916	174,540	118,992	147,601	148,413	100,823	16,315	26,127	18,169
Alabama	88,416	99,240	64,820	83,636	92,094	59,410	4,780	7,146	5,410
Mississippi	56,861	66,497	45,811	56,081	63,449	43,081	780	3,048	2,730
W. S. CENTRAL:									
Arkansas	75,241	89,556	66,785	61,030	73,535	55,843	14,211	16,021	10,942
Louisiana	128,569	130,851	81,071	127,185	128,995	78,788	1,384	1,856	2,283
Oklahoma	204,916	210,822	148,602	180,999	184,698	134,161	23,917	26,124	14,441
Texas	492,292	508,025	335,894	391,125	400,319	213,112	101,167	107,706	122,782
MOUNTAIN:									
Montana	48,790	51,396	46,666	45,589	48,057	43,992	3,201	3,339	2,674
Idaho	43,850	46,823	40,442	34,266	36,476	31,863	9,584	10,347	8,579
Wyoming	24,391	23,777	20,846	23,430	22,902	19,583	961	875	1,263
Colorado	168,895	171,354	138,513	167,288	168,442	135,635	1,607	2,912	2,878
New Mexico	21,351	18,613	14,357	20,197	17,835	13,441	1,154	778	916
Arizona	35,032	32,140	23,318	34,136	30,638	21,877	896	1,502	1,441
Utah	58,616	61,111	50,448	57,618	58,824	47,831	998	2,287	2,617
Nevada	14,713	12,290	9,853	10,654	8,336	6,439	4,059	3,954	3,414
PACIFIC:									
Washington	254,232	271,786	207,431	214,917	227,756	174,007	39,315	44,030	33,424
Oregon	145,730	160,497	118,455	124,860	135,085	98,148	20,870	25,412	20,307
California	1,285,955	1,176,718	733,922	1,155,960	1,019,223	642,996	129,995	157,495	90,926

TABLE 13.—TELEPHONES, ORIGINATING CALLS, AND AVERAGE CALLS PER TELEPHONE PER DAY, FOR SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

DIVISION AND STATE	TELEPHONES (NUMBER) [1]			ORIGINATING CALLS (NUMBER)			Average per telephone per day [2]		
	1932	1927	1922	1932	1927	1922	1932	1927	1922
UNITED STATES	16,284,231	16,712,495	12,295,234	29,100,458,313	29,196,387,446	21,901,387,070	5.5	5.4	5.5
GEOGRAPHIC DIVS.:									
New England	1,498,010	1,527,779	1,197,433	2,446,550,612	2,301,676,289	1,871,150,190	5.0	4.6	4.8
Middle Atlantic	4,555,298	4,488,761	3,112,921	6,855,121,393	6,772,613,874	4,659,783,310	4.6	4.6	4.6
E. N. Central	3,765,622	4,161,039	3,179,335	6,278,574,841	6,981,577,447	5,360,088,497	5.1	5.2	5.2
W. N. Central	1,805,413	1,908,505	1,597,239	3,586,172,670	3,696,289,582	3,167,016,446	6.1	6.0	6.1
South Atlantic	1,181,857	1,144,802	791,707	2,375,533,895	2,243,313,956	1,603,096,379	6.2	6.0	6.2
E. S. Central	475,458	515,850	379,996	1,334,431,340	1,375,680,620	1,078,012,779	8.6	8.2	8.7
W. S. Central	901,018	939,254	632,352	2,506,595,472	2,384,074,349	1,666,025,307	8.6	7.8	8.1
Mountain	415,638	417,504	344,443	774,883,518	667,489,457	572,907,641	5.7	4.9	5.1
Pacific	1,685,917	1,609,001	1,059,808	2,942,594,572	2,773,671,872	1,923,306,521	5.4	5.3	5.6
NEW ENGLAND:									
Maine	115,040	120,565	101,786	198,596,170	200,983,841	170,660,169	5.3	5.1	5.2
New Hampshire	76,646	79,466	64,909	125,108,685	112,022,352	98,099,726	5.0	4.3	4.6
Vermont	55,132	55,066	46,182	83,502,628	77,433,892	67,447,558	4.7	4.3	4.5
Massachusetts	832,112	866,955	686,731	1,367,402,922	1,332,616,591	1,097,990,574	5.1	4.7	4.9
Rhode Island	110,671	114,944	92,766	176,379,513	116,850,532	125,331,921	4.9	3.1	4.2
Connecticut	308,409	290,783	205,059	495,560,694	461,769,081	311,620,242	4.9	4.9	4.7
MID. ATLANTIC:									
New York	2,604,479	2,552,546	1,722,653	3,980,651,410	3,873,439,628	2,652,808,461	4.7	4.7	4.7
New Jersey	642,198	597,304	379,303	837,132,188	771,553,790	467,618,686	4.0	4.0	3.8
Pennsylvania	1,308,621	1,338,911	1,010,965	2,037,337,795	2,127,620,456	1,539,356,163	4.8	4.9	4.7
E. N. CENTRAL:									
Ohio	936,782	1,048,890	874,133	1,674,065,918	1,855,333,078	1,433,328,989	5.5	5.4	5.0
Indiana	390,871	457,240	389,100	818,566,524	925,289,509	790,838,385	6.4	6.2	6.3
Illinois	1,420,240	1,560,845	1,145,616	2,134,888,259	2,417,762,286	1,827,326,484	4.6	4.8	4.9
Michigan	587,000	654,887	445,739	949,976,573	1,058,875,335	771,152,117	5.0	5.0	5.3
Wisconsin	430,929	439,177	324,747	701,077,567	724,317,239	537,442,522	5.0	5.1	5.1
W. N. CENTRAL:									
Minnesota	367,199	382,815	329,542	793,304,052	795,292,000	678,216,101	6.6	6.4	6.3
Iowa	355,468	392,127	346,880	665,092,468	700,488,603	582,345,568	5.8	5.5	5.2
Missouri	507,332	503,660	394,792	1,080,997,801	1,052,378,034	848,767,544	6.6	6.4	6.6
North Dakota	46,836	51,114	47,588	129,762,282	91,328,625	75,696,870	8.5	5.5	4.9
South Dakota	70,074	74,723	59,905	105,665,668	137,645,338	108,275,315	4.6	5.7	5.6
Nebraska	204,206	230,049	206,144	333,673,650	443,746,312	437,458,080	5.0	5.9	6.5
Kansas	254,298	274,017	212,388	477,676,749	475,410,670	436,256,968	5.8	5.3	6.3
SOUTH ATLANTIC:									
Delaware	32,257	28,396	22,972	57,557,580	52,437,096	40,201,236	5.5	5.7	5.4
Maryland	210,304	194,070	150,298	315,822,392	290,556,762	234,499,460	4.6	4.6	4.8
Dist. of Col	180,785	144,985	102,231	235,337,052	186,008,388	120,858,120	4.0	3.9	3.6
Virginia	178,984	155,453	120,627	406,819,558	343,212,210	214,681,864	7.0	6.8	5.5
West Virginia	110,766	117,199	85,381	228,024,407	225,440,467	161,015,227	6.3	5.9	5.8
North Carolina	133,813	138,889	85,161	311,326,095	343,653,164	232,996,454	7.2	7.6	8.4
South Carolina	52,563	54,198	41,505	143,015,878	129,769,858	100,965,936	8.4	7.4	7.9
Georgia	141,645	152,029	110,347	406,050,941	407,189,901	326,523,807	8.8	8.2	9.1
Florida	140,740	159,583	73,185	271,579,992	265,046,110	165,354,275	5.9	5.1	7.0
E. S. CENTRAL:									
Kentucky	166,265	175,573	150,373	386,769,896	422,841,800	367,902,969	7.2	7.4	7.5
Tennessee	163,916	174,540	118,992	508,380,927	498,752,558	387,958,215	9.5	8.8	10.0
Alabama	88,416	99,240	64,820	271,081,721	291,463,330	198,428,871	9.4	9.0	9.4
Mississippi	56,861	66,497	45,811	168,198,796	162,622,932	123,722,724	9.1	7.5	8.3
W. S. CENTRAL:									
Arkansas	75,241	89,556	66,785	183,586,630	205,679,645	179,778,512	7.5	7.1	8.3
Louisiana	128,569	130,851	81,071	388,894,494	376,690,142	251,351,610	9.3	8.9	9.5
Oklahoma	204,916	210,822	148,602	541,393,864	505,339,497	366,874,478	8.1	7.4	7.6
Texas	492,292	508,025	335,894	1,392,720,484	1,296,365,065	868,020,707	8.7	7.9	8.0
MOUNTAIN:									
Montana	48,790	51,396	46,666	91,615,060	71,588,487	64,080,206	5.8	4.3	4.2
Idaho	43,850	46,823	40,442	87,939,305	81,714,186	72,809,399	6.2	5.4	5.5
Wyoming	24,391	23,777	20,846	44,300,507	32,922,085	35,394,898	5.6	4.3	5.2
Colorado	168,895	171,354	138,513	292,715,308	277,517,984	229,101,860	5.3	5.0	5.1
New Mexico	21,351	18,613	14,357	40,906,061	32,076,269	26,203,759	5.9	5.3	5.6
Arizona	35,032	32,140	23,318	67,049,928	35,966,009	28,815,177	5.9	3.4	3.8
Utah	58,616	61,111	50,448	128,157,918	117,482,184	100,866,042	6.7	5.9	6.2
Nevada	14,713	12,290	9,853	22,199,431	18,222,253	15,636,300	4.6	4.6	4.9
PACIFIC.									
Washington	254,232	271,786	207,431	541,289,713	517,563,582	400,069,975	6.6	5.9	5.9
Oregon	145,730	160,497	118,455	291,845,170	303,540,278	233,813,936	6.2	5.8	6.1
California	1,285,955	1,176,718	733,922	2,109,459,689	1,952,568,012	1,289,422,610	5.0	5.1	5.4

[1] Number on Dec. 31 of each year.

[2] Computed on the basis of 325 days to the year.

TABLE 14.—TELEPHONES—NUMBER PER 1,000 POPULATION, FOR ALL SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1912–32

[The figures in this table are based on the number of telephones reported as of Dec. 31; and on population estimated as follows: For the year 1912, as of July 1; for the years 1932, 1927, 1922, and 1917, as of Jan. 1, 1933, 1928, 1923, and 1918, respectively]

DIVISION AND STATE	1932	1927	1922	1917	1912
UNITED STATES	139	155	130	112	92
GEOGRAPHIC DIVISIONS:					
New England	183	188	160	120	93
Middle Atlantic	172	183	140	109	89
East North Central	156	185	164	158	125
West North Central	169	196	181	168	137
South Atlantic	78	79	64	55	42
East South Central	55	69	58	48	40
West South Central	81	98	82	70	60
Mountain	119	117	109	91	81
Pacific	205	242	192	160	152
NEW ENGLAND:					
Maine	155	165	147	113	92
New Hampshire	170	183	154	118	92
Vermont	161	172	155	131	113
Massachusetts	193	203	172	125	95
Rhode Island	158	162	149	102	75
Connecticut	188	176	141	117	89
MIDDLE ATLANTIC:					
New York	204	226	165	126	103
New Jersey	154	158	115	83	69
Pennsylvania	138	142	120	98	79
EAST NORTH CENTRAL:					
Ohio	144	166	159	161	126
Indiana	136	175	170	161	129
Illinois	193	229	190	171	138
Michigan	124	156	129	139	111
Wisconsin	162	177	158	137	104
WEST NORTH CENTRAL:					
Minnesota	171	180	171	175	127
Iowa	196	233	217	221	168
Missouri	162	187	160	149	122
North Dakota	101	134	116	97	86
South Dakota	127	154	156	122	111
Nebraska	178	210	206	192	166
Kansas	176	215	198	160	144
SOUTH ATLANTIC:					
Delaware	135	119	103	103	77
Maryland	128	123	103	86	64
District of Columbia	366	266	217	190	131
Virginia	81	72	65	54	36
West Virginia	76	86	75	70	63
North Carolina	44	55	44	38	28
South Carolina	33	35	31	26	21
Georgia	52	54	46	43	36
Florida	92	117	77	53	40
EAST SOUTH CENTRAL:					
Kentucky	72	87	82	68	56
Tennessee	73	88	72	61	47
Alabama	37	47	35	32	26
Mississippi	31	45	36	28	26
WEST SOUTH CENTRAL:					
Arkansas	46	61	55	49	42
Louisiana	62	71	47	34	28
Oklahoma	99	116	104	76	67
Texas	90	113	94	90	77
MOUNTAIN:					
Montana	103	108	91	107	86
Idaho	110	101	105	82	84
Wyoming	123	114	119	84	63
Colorado	171	169	153	114	109
New Mexico	53	55	49	36	31
Arizona	80	71	65	68	48
Utah	116	120	113	104	87
Nevada	164	168	136	77	70
PACIFIC:					
Washington	174	190	167	116	126
Oregon	170	207	180	144	143
California	219	268	204	188	166

TABLE 15.—ORIGINATING CALLS—NUMBER PER CAPITA, FOR SYSTEMS AND LINES REPORTING ANNUAL INCOMES OF $10,000 OR MORE, 1932, 1927, AND 1922; AND FOR THOSE REPORTING $5,000 OR MORE, 1917 AND 1912; BY DIVISIONS AND STATES

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

DIVISION AND STATE	ORIGINATING CALLS (NUMBER)					RANK BASED ON AVERAGE NUMBER OF CALLS	
	1932	1927	1922	1917	1912	1932	1927
UNITED STATES	233	246	200	194	144		
GEOGRAPHIC DIVISIONS:							
New England	296	281	246	208	120	2	3
Middle Atlantic	256	272	202	175	121	4	5
East North Central	244	284	240	264	212	5	2
West North Central	268	280	248	250	189	3	4
South Atlantic	148	141	111	104	69	8	9
East South Central	133	147	120	110	78	9	8
West South Central	202	205	157	154	118	7	6
Mountain	207	166	163	159	156	6	7
Pacific	346	403	325	312	264	1	1
NEW ENGLAND:							
Maine	248	253	220	190	112	19	17
New Hampshire	267	246	220	199	115	13	19
Vermont	232	220	191	279	136	25	24
Massachusetts	318	314	276	215	116	4	8
Rhode Island	253	166	202	179	87	14	35
Connecticut	303	282	215	195	152	7	13
MIDDLE ATLANTIC:							
New York	310	339	248	209	138	5	4
New Jersey	202	206	141	112	72	28	28
Pennsylvania	209	219	171	157	118	27	25
EAST NORTH CENTRAL:							
Ohio	248	276	238	302	261	18	14
Indiana	250	294	265	273	212	16	11
Illinois	275	331	273	268	190	11	6
Michigan	191	236	198	244	231	32	21
Wisconsin	236	248	198	191	142	23	18
WEST NORTH CENTRAL:							
Minnesota	307	296	275	273	195	6	10
Iowa	268	289	238	269	208	12	12
Missouri	296	300	247	250	198	9	9
North Dakota	189	142	114	130	84	34	37
South Dakota	151	198	167	148	80	39	30
Nebraska	240	318	331	335	240	20	7
Kansas	252	260	244	214	178	15	15
SOUTH ATLANTIC:							
Delaware	240	216	176	168	130	21	26
Maryland	191	182	157	130	78	33	33
District of Columbia	477	344	276	271	132	1	2
Virginia	167	135	90	98	78	38	39
West Virginia	129	133	106	90	81	40	40
North Carolina	96	119	88	70	40	46	42
South Carolina	82	70	62	57	44	49	49
Georgia	140	128	110	115	77	42	41
Florida	178	194	161	155	73	36	32
EAST SOUTH CENTRAL:							
Kentucky	147	167	150	142	124	41	34
Tennessee	192	201	163	140	85	31	29
Alabama	101	114	83	77	46	44	43
Mississippi	83	91	69	70	47	48	46
WEST SOUTH CENTRAL:							
Arkansas	98	107	100	98	77	45	44
Louisiana	182	195	137	109	60	35	31
Oklahoma	222	212	173	159	94	26	27
Texas	234	240	179	190	169	24	20
MOUNTAIN:							
Montana	170	100	108	155	179	37	45
Idaho	197	153	159	131	130	29	36
Wyoming	193	137	171	159	109	30	38
Colorado	280	258	235	201	199	10	16
New Mexico	95	82	71	72	60	47	47
Arizona	150	78	78	70	49	40	48
Utah	249	225	215	230	238	17	23
Nevada	239	235	202	160	105	22	22
PACIFIC:							
Washington	341	331	283	252	248	3	5
Oregon	300	341	288	269	244	8	3
California	355	440	349	348	277	2	1

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 18 to 21.)

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.

The growth of the Bell system and of all other systems during the past 30 years is shown by table 16. During the 30-year period from 1902 to 1932 the number of telephones reported by the Bell system increased more than 900 percent, while the corresponding increase for all other telephone systems was less than 250 percent.

TABLE 16.—SYSTEMS AND LINES, MILES OF WIRE, AND TELEPHONES, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES: 1902–32

ITEM		Systems and lines (number)	Miles of wire	Telephones (number)
All systems and lines	1932	44,828	87,677,586	17,424,406
	1927	60,148	63,836,182	18,522,767
	1922	57,253	37,265,958	14,347,395
	1917	53,234	28,827,188	11,716,520
	1912	32,233	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	1932	[1] 25	80,585,879	13,793,229
	1927	[1] 25	56,819,036	13,726,056
	1922	[1] 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	1932	44,803	7,091,707	3,631,177
	1927	60,123	7,017,146	4,796,711
	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] Not including Bell-controlled companies; previous to 1922 these were included with the Bell system, but for 1932, 1927, and 1922 they are classified under "All other systems and lines."

	1932	1927	1922	1932	1927	1922	1932	1927	1922
Number of systems	918	1,368	1,323	25	25	26	893	1,343	1,297
Miles of wire	86,484,493	62,277,246	35,502,983	80,585,879	56,819,036	30,613,687	5,898,614	5,458,210	4,889,296
Central offices	12,724	11,485	10,666	6,778	6,115	5,796	5,946	5,370	4,870
Telephones, total	16,284,231	16,712,495	12,295,234	13,793,229	13,726,056	9,514,813	2,491,002	2,986,439	2,780,421
Residence	10,057,281	10,498,801	(1)	8,277,469	8,332,814	(1)	1,779,812	2,165,987	(1)
Business	6,226,950	6,213,694	(1)	5,515,760	5,393,242	(1)	711,190	820,452	(1)
Calls (originating with systems reporting)	29,100,458,313	29,196,387,446	21,901,387,070	25,061,085,648	23,693,017,950	16,566,555,900	4,039,372,665	5,503,369,496	5,334,831,170
Employees, total	320,763	356,739	290,333	281,350	308,865	242,710	39,413	47,874	47,623
Male	123,756	124,963	97,084	110,068	107,710	81,942	13,688	17,253	15,142
Female	197,007	231,776	193,249	171,282	201,155	160,768	25,725	30,621	32,481
Salaries and wages	$451,477,844	$475,840,320	$341,537,822	$414,341,515	$429,876,779	$299,350,041	$37,136,329	$45,963,541	$42,187,781
Revenue (operating), total [2]	$1,046,392,359	$996,911,752	$637,468,630	$956,354,529	$894,699,173	$546,820,113	$90,037,830	$102,212,579	$90,648,517
Exchange	$741,087,550	$681,221,511	$447,067,008	$670,736,747	$604,266,112	$374,718,580	$70,350,803	$76,955,399	$72,348,428
Toll	$281,047,593	$294,625,256	$180,069,891	$263,147,955	$271,174,270	$163,097,837	$17,899,638	$23,450,986	$16,972,054
Investment in plant and equipment	$4,734,705,708	$3,475,201,956	$2,129,773,760	$4,269,268,095	$3,085,612,970	$1,783,079,046	$465,437,613	$389,588,986	$346,694,714

[1] Not called for on schedule prior to 1927.
[2] Includes miscellaneous operating revenues, as follows: 1932, $24,201,754; 1927, $20,937,754; 1922, $10,318,302. Also includes assessments levied by mutual companies, as follows: 1932, $55,462; 1927, $127,231; 1922, $13,429.

TABLE 18.—MILES OF WIRE, THE BELL SYSTEM AND ALL OTHER

	DIVISION AND STATE	TOTAL			BELL SYSTEM		
		1932	1927	1922	1932	1927	1922
1	UNITED STATES	87,677,586	63,836,182	37,265,958	80,585,879	56,819,036	30,613,687
	GEOGRAPHIC DIVISIONS:						
2	New England	7,682,588	5,586,569	3,346,608	7,594,519	5,458,003	3,239,272
3	Middle Atlantic	27,399,025	19,992,689	10,818,580	26,252,280	18,778,094	9,909,083
4	East North Central	21,574,370	15,223,410	8,763,146	19,528,507	13,317,189	7,032,060
5	West North Central	7,641,354	6,044,901	4,487,007	5,744,319	4,248,731	2,315,378
6	South Atlantic	5,760,130	4,244,852	2,448,857	5,212,400	3,747,502	2,078,787
7	East South Central	2,587,978	2,001,125	1,248,559	2,341,544	1,728,389	913,666
8	West South Central	5,028,077	3,619,976	2,148,789	4,513,772	3,145,614	1,563,389
9	Mountain	1,640,855	1,198,550	927,662	1,538,464	1,098,661	837,094
10	Pacific	8,363,209	5,924,110	3,076,750	7,860,074	5,296,853	2,724,958
	NEW ENGLAND:						
11	Maine	517,144	326,120	210,707	479,098	269,148	163,679
12	New Hampshire	288,990	211,448	134,326	283,796	182,481	110,948
13	Vermont	149,129	105,645	78,991	125,811	79,116	58,286
14	Massachusetts	4,099,247	3,165,833	1,908,091	4,094,636	3,161,787	1,900,403
15	Rhode Island	595,303	429,451	213,713	584,392	421,470	208,509
16	Connecticut	2,032,775	1,348,072	800,780	2,026,786	1,344,001	797,447
	MIDDLE ATLANTIC:						
17	New York	15,385,557	11,592,418	6,121,696	14,817,266	11,035,512	5,755,722
18	New Jersey	4,382,769	3,012,459	1,523,354	4,354,099	2,984,332	1,496,010
19	Pennsylvania	7,630,699	5,387,812	3,173,530	7,080,915	4,758,250	2,657,351
	EAST NORTH CENTRAL:						
20	Ohio	5,545,857	3,658,505	2,415,187	4,968,543	3,113,873	1,995,257
21	Indiana	2,223,608	1,558,005	1,058,314	1,694,850	1,072,281	683,227
22	Illinois	7,599,337	5,688,146	3,060,595	7,120,052	5,213,718	2,625,311
23	Michigan	4,263,778	2,967,217	1,390,945	4,062,517	2,790,346	1,113,446
24	Wisconsin	1,941,790	1,351,537	838,105	1,682,545	1,126,971	614,819
	WEST NORTH CENTRAL:						
25	Minnesota	1,610,192	1,422,716	1,147,278	932,925	792,880	634,227
26	Iowa	1,310,798	960,226	757,600	1,067,019	661,904	453,018
27	Missouri	2,620,741	1,988,764	1,247,503	2,395,139	1,800,538	572,269
28	North Dakota	161,225	140,923	124,873	105,807	85,565	59,544
29	South Dakota	177,521	154,601	108,414	62,049	48,681	34,014
30	Nebraska	736,632	606,425	514,374	418,459	336,138	269,451
31	Kansas	1,024,245	771,246	586,965	762,921	523,025	292,855
	SOUTH ATLANTIC:						
32	Delaware	210,300	118,539	93,891	209,956	118,093	93,441
33	Maryland	1,076,460	936,353	540,089	1,074,054	932,836	536,187
34	District of Columbia	675,044	540,152	314,636	675,044	540,152	314,636
35	Virginia	876,581	615,286	379,093	793,941	551,234	323,808
36	West Virginia	445,781	349,899	226,739	402,820	305,138	190,439
37	North Carolina	706,829	392,455	199,594	549,248	269,256	89,268
38	South Carolina	290,599	171,678	126,284	260,171	142,882	98,870
39	Georgia	772,176	538,751	390,382	733,111	489,378	333,239
40	Florida	706,360	581,739	178,149	514,055	398,533	98,899
	EAST SOUTH CENTRAL:						
41	Kentucky	863,293	722,120	467,781	707,083	579,224	261,889
42	Tennessee	850,951	642,096	399,932	786,912	561,741	319,465
43	Alabama	580,087	421,927	229,934	561,587	388,831	202,314
44	Mississippi	293,647	214,982	150,912	285,962	198,593	129,998
	WEST SOUTH CENTRAL:						
45	Arkansas	366,944	318,868	219,398	324,010	273,513	174,214
46	Louisiana	694,367	560,262	256,372	685,935	551,477	246,430
47	Oklahoma	1,173,051	655,102	424,005	1,094,817	581,582	359,255
48	Texas	2,793,715	2,085,744	1,249,014	2,409,010	1,739,042	783,490
	MOUNTAIN:						
49	Montana	181,485	135,536	120,725	162,841	117,658	105,087
50	Idaho	134,096	111,940	105,027	105,575	87,070	82,998
51	Wyoming	85,233	60,622	50,223	73,522	51,252	40,803
52	Colorado	717,589	559,873	412,816	696,957	537,864	392,470
53	New Mexico	84,722	48,765	37,428	77,972	43,153	30,859
54	Arizona	158,261	89,305	55,518	153,227	83,672	50,773
55	Utah	231,113	167,393	129,193	227,357	159,109	122,251
56	Nevada	48,356	25,116	16,732	41,013	18,883	11,853
	PACIFIC:						
57	Washington	1,029,949	739,138	533,515	931,220	649,334	455,722
58	Oregon	599,201	490,820	368,342	533,473	436,654	322,528
59	California	6,734,059	4,694,152	2,174,893	6,395,381	4,210,865	1,946,708

SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

ALL OTHER SYSTEMS AND LINES			PERCENT OF TOTAL						PERCENT INCREASE OR DECREASE (—)				
			Bell System			All other systems and lines			Bell System		All other systems and lines		
1932	1927	1922	1932	1927	1922	1932	1927	1922	1927–32	1922–27	1927–32	1922–27	
7,091,707	7,017,146	6,652,271	91.9	89.0	82.1	8.1	11.0	17.9	41.8	85.6	1.1	5.5	1
88,069	128,566	107,336	98.9	97.7	96.8	1.1	2.3	3.2	39.1	68.5	—31.5	19.8	2
1,146,745	1,214,595	909,497	95.8	93.9	91.6	4.2	6.1	8.4	39.8	89.5	—5.6	33.5	3
2,045,863	1,906,221	1,731,086	90.5	87.5	80.2	9.5	12.5	19.8	46.6	89.4	7.3	10.1	4
1,897,035	1,796,170	2,171,629	75.2	70.3	51.6	24.8	29.7	48.4	35.2	83.5	5.6	—17.3	5
547,730	497,350	370,070	90.5	88.3	84.9	9.5	11.7	15.1	39.1	80.3	10.1	34.4	6
246,434	272,736	334,893	90.5	86.4	73.2	9.5	13.6	26.8	35.5	89.2	—9.6	—18.6	7
514,305	474,362	585,400	89.8	86.9	72.8	10.2	13.1	27.2	43.5	101.2	8.4	—19.0	8
102,391	99,889	90,568	93.8	91.7	90.2	6.2	8.3	9.8	40.0	31.2	2.5	10.3	9
503,135	627,257	351,792	94.0	89.4	88.6	6.0	10.6	11.4	48.4	94.4	—19.8	78.3	10
38,046	56,972	47,028	92.6	82.5	77.7	7.4	17.5	22.3	78.0	64.4	—33.2	21.1	11
5,194	28,967	23,378	98.2	86.3	82.6	1.8	13.7	17.4	55.5	64.5	—82.1	23.9	12
23,318	26,529	20,705	84.4	74.9	73.8	15.6	25.1	26.2	59.0	35.7	—12.1	28.1	13
4,611	4,046	7,688	99.9	99.9	99.6	.1	.1	.4	29.5	66.4	14.0	—47.4	14
10,911	7,981	5,204	98.2	98.1	97.6	1.8	1.9	2.4	38.7	102.1	36.7	53.4	15
5,989	4,071	3,333	99.7	99.7	99.6	.3	.3	.4	50.8	68.5	47.1	22.1	16
568,291	556,906	365,974	96.3	95.2	94.0	3.7	4.8	6.0	34.3	91.7	2.0	52.2	17
28,670	28,127	27,344	99.3	99.1	98.2	.7	.9	1.8	45.9	99.5	1.9	2.9	18
549,784	629,562	516,179	92.8	88.3	83.7	7.2	11.7	16.3	48.8	79.1	—12.7	22.0	19
577,314	544,632	419,930	89.6	85.1	82.6	10.4	14.9	17.4	59.6	56.1	6.0	29.7	20
528,758	485,724	375,087	76.2	68.8	64.6	23.8	31.2	35.4	58.1	56.9	8.9	29.5	21
479,285	474,428	435,284	93.7	91.7	85.8	6.3	8.3	14.2	36.6	98.6	1.0	9.0	22
201,261	176,871	277,499	95.3	94.0	80.0	4.7	6.0	20.0	45.6	150.6	13.8	—36.3	23
259,245	224,566	223,286	86.6	83.4	73.4	13.4	16.6	26.6	49.3	83.3	15.4	.6	24
677,267	629,836	513,051	57.9	55.7	55.3	42.1	44.3	44.7	17.7	25.0	7.5	22.8	25
243,779	298,322	304,582	81.4	68.9	59.8	18.6	31.1	40.2	61.2	46.1	—18.3	—2.1	26
225,602	188,226	675,234	91.4	90.5	45.9	8.6	9.5	54.1	33.0	214.6	19.9	—72.1	27
55,418	55,358	65,329	65.6	60.7	47.7	34.4	39.3	52.3	23.7	43.7	.1	—15.3	28
115,472	105,920	74,400	35.0	31.5	31.4	65.0	68.5	68.6	27.5	43.1	9.0	42.4	29
318,173	270,287	244,923	56.8	55.4	52.4	43.2	44.6	47.6	24.5	24.7	17.7	10.4	30
261,324	248,221	294,110	74.5	67.8	49.9	25.5	32.2	50.1	45.9	78.6	5.3	—15.6	31
344	446	450	99.8	99.6	99.5	.2	.4	.5	77.8	26.4	—22.9	—.9	32
2,406	3,517	3,902	99.8	99.6	99.3	.2	.4	.7	15.1	74.0	—31.6	—9.9	33
			100.0	100.0	100.0				25.0	71.7			34
82,640	64,052	55,285	90.6	89.6	85.4	9.4	10.4	14.6	44.0	70.2	29.0	15.9	35
42,961	44,761	36,300	90.4	87.2	84.0	9.6	12.8	16.0	32.0	60.2	—4.0	23.3	36
157,581	123,199	110,326	77.7	68.6	44.7	22.3	31.4	55.3	104.0	201.6	27.9	11.7	37
30,428	28,796	27,414	89.5	83.2	78.3	10.5	16.8	21.7	82.1	44.5	5.7	5.0	38
39,065	49,373	57,143	94.9	90.8	85.4	5.1	9.2	14.6	49.8	46.9	—20.9	—13.6	39
192,305	183,206	79,250	72.8	68.5	55.5	27.2	31.5	44.5	29.0	303.0	5.0	131.2	40
156,210	142,896	205,892	81.9	80.2	56.0	18.1	19.8	44.0	22.1	121.2	9.3	—30.6	41
64,039	80,355	80,467	92.5	87.5	79.9	7.5	12.5	20.1	40.1	75.8	—20.3	—.1	42
18,500	33,096	27,620	96.8	92.2	88.0	3.2	7.8	12.0	44.4	92.2	—44.1	19.8	43
7,685	16,389	20,914	97.4	92.4	86.1	2.6	7.6	13.9	44.0	52.8	—53.1	—21.6	44
42,934	45,355	45,184	88.3	85.8	79.4	11.7	14.2	20.6	18.5	57.0	—5.3	.4	45
8,432	8,785	9,942	98.8	98.4	96.1	1.2	1.6	3.9	24.4	123.8	—4.0	—11.6	46
78,234	73,520	64,750	93.3	88.8	84.7	6.7	11.2	15.3	88.2	61.9	6.4	13.5	47
384,705	346,702	465,524	86.2	83.4	62.7	13.8	16.6	37.3	38.5	122.0	11.0	—25.5	48
18,644	17,878	15,638	89.7	86.8	87.0	10.3	13.2	13.0	38.4	12.0	4.3	14.3	49
28,521	24,870	22,029	78.7	77.8	79.0	21.3	22.2	21.0	21.3	4.9	14.7	12.9	50
11,711	9,370	9,420	86.3	84.5	81.2	13.7	15.5	18.8	43.5	25.6	25.0	—.5	51
20,632	22,009	20,346	97.1	96.1	95.1	2.9	3.9	4.9	29.6	37.0	—6.3	8.2	52
6,750	5,612	6,569	92.0	88.5	82.4	8.0	11.5	17.6	80.7	39.8	20.3	—14.6	53
5,034	5,633	4,745	96.8	93.7	91.5	3.2	6.3	8.5	83.1	64.8	—10.6	18.7	54
3,756	8,284	6,942	98.4	95.1	94.6	1.6	4.9	5.4	42.9	30.1	—54.7	19.3	55
7,343	6,233	4,879	84.8	75.2	70.8	15.2	24.8	29.2	117.2	59.3	17.8	27.8	56
98,729	89,804	77,793	90.4	87.9	85.4	9.6	12.1	14.6	43.4	42.5	9.9	15.4	57
65,728	54,166	45,814	89.0	89.0	87.6	10.9	11.0	12.4	22.2	35.4	21.3	18.2	58
338,678	483,287	228,185	95.0	89.7	89.5	5.0	10.3	10.5	51.9	116.3	—29.9	111.8	59

TABLE 19.—NUMBER OF TELEPHONES, THE BELL SYSTEM AND ALL OTHER

	DIVISION AND STATE	TOTAL			BELL SYSTEM		
		1932	1927	1922	1932	1927	1922
1	UNITED STATES	17,424,406	18,522,767	14,347,395	13,793,229	13,726,056	9,514,813
	GEOGRAPHIC DIVISIONS:						
2	New England	1,513,939	1,548,931	1,223,497	1,463,853	1,453,469	1,135,359
3	Middle Atlantic	4,613,733	4,588,211	3,249,710	4,154,624	3,980,241	2,703,858
4	East North Central	4,034,931	4,589,751	3,693,101	2,985,651	3,177,753	2,255,352
5	West North Central	2,260,985	2,594,081	2,315,996	1,126,764	1,158,441	771,453
6	South Atlantic	1,250,882	1,262,222	937,324	999,758	951,422	651,271
7	East South Central	547,440	644,270	521,120	413,325	443,609	279,804
8	West South Central	1,002,389	1,149,357	872,157	760,339	787,547	481,904
9	Mountain	446,492	456,198	385,730	393,178	391,510	320,661
10	Pacific	1,753,615	1,689,746	1,148,760	1,495,737	1,382,064	915,151
	NEW ENGLAND:						
11	Maine	124,372	131,367	113,725	102,445	88,437	74,891
12	New Hampshire	79,506	83,066	68,874	74,190	61,430	50,932
13	Vermont	58,133	60,793	54,530	42,400	37,168	31,162
14	Massachusetts	832,740	867,888	687,700	830,319	864,951	683,386
15	Rhode Island	110,671	114,944	92,766	108,423	112,868	91,271
16	Connecticut	308,517	290,873	205,902	306,076	288,615	203,717
	MIDDLE ATLANTIC:						
17	New York	2,628,537	2,595,537	1,780,563	2,423,949	2,329,131	1,561,017
18	New Jersey	642,830	599,336	383,496	631,967	582,710	368,439
19	Pennsylvania	1,342,366	1,393,338	1,085,651	1,098,708	1,068,400	774,402
	EAST NORTH CENTRAL:						
20	Ohio	978,394	1,122,036	962,837	709,144	748,874	600,173
21	Indiana	444,996	552,249	508,726	207,413	227,218	193,114
22	Illinois	1,507,222	1,685,690	1,283,449	1,218,588	1,293,340	898,235
23	Michigan	621,958	711,315	508,140	528,488	587,228	338,718
24	Wisconsin	482,361	518,461	429,949	322,018	321,093	225,112
	WEST NORTH CENTRAL:						
25	Minnesota	443,682	487,611	424,777	190,397	195,402	170,576
26	Iowa	484,879	565,533	533,347	236,486	227,555	177,151
27	Missouri	592,153	657,946	550,980	399,696	414,683	179,664
28	North Dakota	69,241	86,198	77,586	32,028	34,820	22,637
29	South Dakota	88,798	107,641	101,555	22,506	21,865	20,706
30	Nebraska	247,551	295,274	273,500	100,021	107,028	102,527
31	Kansas	334,681	393,878	354,251	145,630	157,088	98,192
	SOUTH ATLANTIC:						
32	Delaware	32,537	28,901	23,534	32,257	28,396	22,972
33	Maryland	212,014	197,135	153,790	209,818	193,520	150,268
34	District of Columbia	180,785	144,985	102,231	180,785	144,985	102,231
35	Virginia	196,956	183,698	155,490	142,293	122,912	97,991
36	West Virginia	134,150	146,677	116,081	101,506	103,885	77,147
37	North Carolina	143,710	160,507	116,129	76,002	81,208	35,874
38	South Carolina	57,215	64,616	54,078	42,687	44,922	32,726
39	Georgia	151,264	173,410	136,334	129,970	136,723	97,512
40	Florida	142,251	162,293	79,657	84,440	94,871	34,550
	EAST SOUTH CENTRAL:						
41	Kentucky	191,236	222,735	201,545	126,007	139,653	76,490
42	Tennessee	192,983	220,559	171,413	147,601	148,413	100,823
43	Alabama	100,813	121,115	84,401	83,636	92,094	59,410
44	Mississippi	62,408	79,861	63,761	56,081	63,449	43,081
	WEST SOUTH CENTRAL:						
45	Arkansas	86,676	118,178	99,490	61,030	73,535	55,843
46	Louisiana	132,735	137,610	87,354	127,185	128,995	78,788
47	Oklahoma	241,453	278,912	222,889	180,999	184,698	134,161
48	Texas	541,525	614,657	462,424	391,125	400,319	213,112
	MOUNTAIN:						
49	Montana	55,361	59,238	55,115	45,589	48,057	43,992
50	Idaho	49,201	54,822	48,745	34,266	36,476	31,863
51	Wyoming	28,346	28,049	24,949	23,430	22,902	19,583
52	Colorado	179,063	183,250	150,652	167,288	168,442	135,635
53	New Mexico	23,100	21,580	18,342	20,197	17,835	13,441
54	Arizona	36,064	33,194	24,353	34,136	30,638	21,877
55	Utah	60,082	63,106	53,261	57,618	58,824	47,831
56	Nevada	15,275	12,959	10,313	10,654	8,336	6,439
	PACIFIC:						
57	Washington	276,530	299,109	238,275	214,917	227,756	174,007
58	Oregon	166,639	185,171	146,847	124,860	135,085	98,148
59	California	1,310,446	1,205,466	763,638	1,155,960	1,019,223	642,996

[1] Less than 1/10 of 1 percent decrease.

SYSTEMS AND LINES, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

ALL OTHER SYSTEMS AND LINES			PERCENT OF TOTAL						PERCENT INCREASE OR DECREASE (—)				
			Bell system			All other systems and lines			Bell system		All other systems and lines		
1932	1927	1922	1932	1927	1922	1932	1927	1922	1927–32	1922–27	1927–32	1922–27	
3,631,177	4,796,711	4,832,582	79.2	74.1	66.3	20.8	25.9	33.7	0.5	44.3	—24.3	—0.7	1
50,086	95,462	88,138	96.7	93.8	92.8	3.3	6.2	7.2	0.7	28.0	—47.5	8.3	2
459,109	607,970	545,852	90.0	86.7	83.2	10.0	13.3	16.8	4.4	47.2	—24.5	11.4	3
1,049,280	1,411,998	1,437,749	74.0	69.2	61.1	26.0	30.8	38.9	—6.0	40.9	—25.7	—1.8	4
1,134,221	1,435,640	1,544,543	49.8	44.7	33.3	50.2	55.3	66.7	—2.7	50.2	—21.0	—7.1	5
251,124	310,800	286,053	79.9	75.4	69.5	20.1	24.6	30.5	5.1	46.1	—19.2	8.7	6
134,115	200,661	241,316	75.5	68.9	53.7	24.5	31.1	46.3	—6.8	58.5	—33.2	—16.8	7
242,050	361,810	390,253	75.9	68.5	55.3	24.1	31.5	44.7	—3.5	63.4	—33.1	—7.3	8
53,314	64,688	65,069	88.1	85.8	83.1	11.9	14.2	16.9	.4	22.1	—17.6	—.6	9
257,878	307,682	233,609	85.3	81.8	79.7	14.7	18.2	20.3	8.2	51.0	—16.2	31.7	10
21,927	42,930	38,834	82.4	67.3	65.9	17.6	32.7	34.1	15.8	18.1	—48.9	10.5	11
5,316	21,636	17,942	93.3	74.0	73.9	6.7	26.0	26.1	20.8	20.6	—75.4	20.6	12
15,733	23,625	23,368	72.9	61.1	57.1	27.1	38.9	42.9	14.1	19.3	—33.4	1.1	13
2,421	2,937	4,314	99.7	99.7	99.4	.3	.3	.6	—4.0	26.6	—17.6	—31.9	14
2,248	2,076	1,495	98.0	98.2	98.4	2.0	1.8	1.6	—3.9	23.7	8.3	38.9	15
2,441	2,258	2,185	99.2	99.2	98.9	.8	.8	1.1	6.0	41.7	8.1	3.3	16
204,588	266,406	219,546	92.2	89.7	87.7	7.8	10.3	12.3	4.1	49.2	—23.2	21.3	17
10,863	16,626	15,057	98.3	97.2	96.1	1.7	2.8	3.9	8.5	58.2	—34.7	10.4	18
243,658	324,938	311,249	81.8	76.7	71.3	18.2	23.3	28.7	2.8	38.0	—25.0	4.4	19
269,250	373,162	362,664	72.5	66.7	62.3	27.5	33.3	37.7	—5.3	24.8	—27.8	2.9	20
237,583	325,031	315,612	46.6	41.1	38.0	53.4	58.9	62.0	—8.7	17.7	—26.9	3.0	21
288,634	392,350	385,214	80.8	76.7	70.0	19.2	23.3	30.0	—5.8	44.0	—26.4	1.9	22
93,470	124,087	169,422	85.0	82.6	66.7	15.0	17.4	33.3	—10.0	73.4	—24.7	—26.8	23
160,343	197,368	204,837	66.8	61.9	52.4	33.2	38.1	47.6	.3	42.6	—18.8	—3.6	24
253,285	292,209	254,201	42.9	40.1	40.2	57.1	59.9	59.8	—2.6	14.6	—13.3	15.0	25
248,393	337,978	356,196	48.8	40.2	33.2	51.2	59.8	66.8	3.9	28.5	—26.5	—5.1	26
192,457	243,263	371,316	67.5	63.0	32.6	32.5	37.0	67.4	—3.6	130.8	—20.9	—34.5	27
37,213	51,378	54,949	46.3	40.4	29.2	53.7	59.6	70.8	—8.0	53.8	—27.6	—6.5	28
66,292	85,776	80,849	25.3	20.3	20.4	74.7	79.7	79.6	2.9	5.6	—22.7	6.1	29
147,530	188,246	170,973	40.4	36.2	37.5	59.6	63.8	62.5	—6.5	4.4	—21.6	10.1	30
189,051	236,790	256,059	43.5	39.9	27.7	56.5	60.1	72.3	—7.3	60.0	—20.2	—7.5	31
280	505	562	99.1	98.3	97.6	0.9	1.7	2.4	13.6	23.8	—44.6	—10.1	32
2,196	3,615	3,522	99.0	98.2	97.7	1.0	1.8	2.3	8.4	28.8	—39.3	2.6	33
			100.0	100.0	100.0				24.7	41.8			34
54,663	60,786	57,499	72.2	66.9	63.0	27.8	33.1	37.0	15.8	25.4	—10.1	5.7	35
32,644	42,792	38,934	75.7	70.8	66.5	24.3	29.2	33.5	—2.3	34.7	—23.7	9.9	36
67,708	79,299	80,255	52.9	50.6	30.9	47.1	49.4	69.1	—6.4	126.4	—14.6	—1.2	37
14,528	19,694	21,352	74.6	69.5	60.5	25.4	30.5	39.5	—5.0	37.3	—26.2	—7.8	38
21,294	36,687	38,822	85.9	78.8	71.5	14.1	21.2	28.5	—4.9	40.2	—42.0	—5.5	39
57,811	67,422	45,107	59.4	58.5	43.4	40.6	41.5	56.6	—11.0	174.6	—14.3	49.5	40
65,229	83,082	125,055	65.9	62.7	38.0	34.1	37.3	62.0	—9.8	82.6	—21.5	—33.6	41
45,382	72,146	70,590	76.5	67.3	58.8	23.5	32.7	41.2	—.5	47.2	—37.1	2.2	42
17,177	29,021	24,991	83.0	76.0	70.4	17.0	24.0	29.6	—9.2	55.0	—40.8	16.1	43
6,327	16,412	20,680	89.9	79.4	67.6	10.1	20.6	32.4	—11.6	47.3	—61.4	—20.6	44
25,646	44,643	43,647	70.4	62.2	56.1	29.6	37.8	43.9	—17.0	31.7	—42.6	2.3	45
5,550	8,615	8,566	95.8	93.7	90.2	4.2	6.3	9.8	—1.4	63.7	—35.6	.6	46
60,454	94,214	88,728	75.0	66.2	60.2	25.0	33.8	39.8	—2.0	37.7	—35.8	6.2	47
150,400	214,338	249,312	72.2	65.1	46.1	27.8	34.9	53.9	—2.3	87.8	—29.8	—14.0	48
9,772	11,181	11,123	82.3	81.1	79.8	17.7	18.9	20.2	—5.1	9.2	—12.6	.5	49
14,935	18,346	16,882	69.6	66.5	65.4	30.4	33.5	34.6	—6.1	14.5	—18.6	8.7	50
4,916	5,147	5,366	82.7	81.6	78.5	17.3	18.4	21.5	2.3	16.9	—4.5	—4.1	51
11,775	14,808	15,017	93.4	91.9	90.0	6.6	8.1	10.0	—.7	24.2	—20.5	—1.4	52
2,903	3,745	4,901	87.4	82.6	73.3	12.6	17.4	26.7	13.2	32.7	—22.5	—23.6	53
1,928	2,556	2,476	94.7	92.3	89.8	5.3	7.7	10.2	11.4	40.0	—24.6	3.2	54
2,464	4,282	5,430	95.9	93.2	89.8	4.1	6.8	10.2	—2.1	23.0	—42.5	—21.1	55
4,621	4,623	3,874	69.7	64.3	62.4	30.3	35.7	37.6	27.8	29.5	(1)	19.3	56
61,613	71,353	64,268	77.7	76.1	73.0	22.3	23.9	27.0	—5.6	30.9	—13.7	11.0	57
41,779	50,086	48,699	74.9	73.0	66.8	25.1	27.0	33.2	—7.6	37.6	—16.6	2.8	58
154,486	186,243	120,642	88.2	84.6	84.2	11.8	15.4	15.8	13.4	58.5	—17.1	54.4	59

TABLE 20.—NUMBER OF CENTRAL OFFICES, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, GROUPED ACCORDING TO ANNUAL INCOME, BY DIVISIONS AND STATES: 1932, 1927, AND 1922

DIVISION AND STATE	TOTAL			BELL SYSTEM			ALL OTHER SYSTEMS AND LINES								
							Total			Reporting annual incomes of—					
										$10,000 or more			Less than $10,000		
	1932	1927	1922	1932	1927	1922	1932	1927	1922	1932	1927	1922	1932	1927	1922 [1]
UNITED STATES	19,228	20,227	19,260	6,778	6,115	5,796	12,450	14,112	13,464	5,946	5,370	4,870	6,504	8,742	8,594
GEOGRAPHIC DIVISIONS:															
New England	927	921	895	674	566	551	253	355	344	134	211	201	119	144	143
Middle Atlantic	2,067	2,144	2,205	1,163	959	920	904	1,185	1,285	563	686	721	341	499	564
East North Central	4,275	4,447	4,461	1,044	948	910	3,231	3,499	3,551	1,703	1,565	1,504	1,528	1,934	2,047
West North Central	4,508	4,806	4,422	753	718	653	3,755	4,088	3,769	1,709	1,441	1,331	2,046	2,647	2,438
South Atlantic	1,763	1,868	1,669	654	589	508	1,109	1,279	1,161	494	426	316	615	853	845
East South Central	1,325	1,502	1,468	540	520	511	785	982	957	196	160	182	589	822	775
West South Central	2,241	2,409	2,146	680	640	614	1,561	1,769	1,532	777	511	305	784	1,258	1,227
Mountain	835	877	800	513	474	463	322	403	337	90	93	90	232	310	247
Pacific	1,287	1,253	1,194	757	701	666	530	552	528	280	277	220	250	275	308
NEW ENGLAND:															
Maine	242	247	241	114	81	80	128	166	161	55	93	90	73	73	71
New Hampshire	132	133	124	105	61	61	27	72	63	9	46	42	18	26	21
Vermont	136	142	138	56	42	44	80	100	94	57	62	55	23	38	39
Massachusetts	290	281	276	280	270	259	10	11	17	6	5	9	4	6	8
Rhode Island	33	29	28	29	27	26	4	2	2	4	2	2	----	----	----
Connecticut	94	89	88	90	85	81	4	4	7	3	3	3	1	1	4
MIDDLE ATLANTIC:															
New York	961	932	882	610	434	373	351	498	509	207	298	260	144	200	249
New Jersey	214	211	188	187	163	148	27	48	40	22	35	28	5	13	12
Pennsylvania	892	1,001	1,135	366	362	399	526	639	736	334	353	433	192	286	303
EAST NORTH CENTRAL:															
Ohio	959	1,024	1,070	248	223	269	711	801	801	417	428	425	294	373	376
Indiana	801	863	892	106	90	108	695	773	784	335	298	261	360	475	523
Illinois	1,205	1,265	1,182	288	266	225	917	999	957	486	457	431	431	542	526
Michigan	640	638	645	289	257	213	351	381	432	168	145	199	183	236	233
Wisconsin	670	657	672	113	112	95	557	545	577	297	237	188	260	308	389

West North Central:															
Minnesota	687	738	636	109	106	117	578	632	519	251	229	202	327	403	317
Iowa	971	996	961	169	136	137	802	860	824	292	301	249	510	559	575
Missouri	895	997	884	119	134	88	776	863	796	368	205	222	408	658	574
North Dakota	348	380	342	99	96	67	249	284	275	86	66	121	163	218	154
South Dakota	286	316	286	49	44	49	237	272	237	138	149	112	99	123	125
Nebraska	534	555	537	113	110	116	421	445	421	264	235	221	157	210	200
Kansas	787	824	776	95	92	79	692	732	697	310	256	204	332	476	493
South Atlantic:															
Delaware	23	25	22	23	23	22		2						2	
Maryland	143	141	131	132	128	123	11	13	8	1	1		10	12	8
District of Columbia	14	12	9	14	12	9									
Virginia	324	336	304	85	66	68	239	270	236	104	85	45	135	185	191
West Virginia	325	339	258	94	81	70	231	258	188	23	44	28	208	214	160
North Carolina	308	331	317	59	57	28	249	274	289	173	127	105	76	147	184
South Carolina	149	156	153	60	59	53	89	97	100	42	17	13	47	80	87
Georgia	318	359	334	126	108	108	192	251	226	72	71	63	120	180	163
Florida	159	169	141	61	55	27	98	114	114	79	81	62	19	33	52
East South Central:															
Kentucky	437	520	524	155	161	158	282	359	366	96	74	105	186	285	261
Tennessee	413	487	491	153	146	139	260	341	352	36	58	57	224	283	295
Alabama	254	263	219	87	79	82	167	184	137	33	17	10	134	167	127
Mississippi	221	232	234	145	134	132	76	98	102	31	11	10	45	87	92
West South Central:															
Arkansas	299	337	312	97	98	100	202	239	212	85	54	35	117	185	177
Louisiana	157	166	145	106	101	101	51	65	44	17	14	2	34	51	42
Oklahoma	570	593	537	160	154	154	410	439	383	158	88	52	252	351	331
Texas	1,215	1,313	1,152	317	287	259	898	1,026	893	517	355	216	381	671	677
Mountain:															
Montana	152	163	152	83	75	78	69	88	74	10	13	7	59	75	67
Idaho	126	130	130	64	64	66	62	66	64	31	27	30	31	39	34
Wyoming	79	82	67	41	39	37	38	43	30	6	5	4	32	38	26
Colorado	240	250	214	169	163	156	71	87	58	6	9	9	65	78	49
New Mexico	69	76	74	42	37	34	27	39	40	4	2	3	23	37	37
Arizona	50	52	53	34	32	32	16	20	21	10	11	13	6	9	8
Utah	80	87	75	56	45	39	24	42	36	12	15	15	12	27	21
Nevada	39	37	35	24	19	21	15	18	14	11	11	9	4	7	5
Pacific:															
Washington	305	304	292	120	118	115	185	186	177	91	82	62	94	104	115
Oregon	242	240	257	88	83	85	154	157	172	60	60	53	94	97	119
California	740	709	645	549	500	466	191	209	179	129	135	105	62	74	74

[1] Number of systems and lines reporting central offices; the actual number of central offices for the smaller systems was not obtained prior to 1927.

TABLE 21.—NUMBER OF ORIGINATING CALLS AND AVERAGE NUMBER OF CALLS PER TELEPHONE PER DAY, THE BELL SYSTEM AND ALL OTHER SYSTEMS AND LINES, BY DIVISIONS AND STATES, 1932

DIVISION AND STATE	Total	Bell system	All other systems and lines	PERCENT OF TOTAL		CALLS PER TELEPHONE PER DAY [1]	
				Bell	All other	Bell	All other
UNITED STATES	30,048,165,513	25,061,085,648	4,987,079,865	83.4	16.6	5.6	4.2
GEOGRAPHIC DIVISIONS:							
New England	2,457,887,892	2,402,546,640	55,341,252	97.7	2.3	5.0	3.4
Middle Atlantic	6,904,916,913	6,216,041,148	688,875,765	90.0	10.0	4.6	4.6
East North Central	6,504,458,681	5,028,277,647	1,476,181,034	77.3	22.7	5.2	4.3
West North Central	3,960,222,910	2,461,854,525	1,498,368,385	62.2	37.8	6.7	4.1
South Atlantic	2,430,221,575	2,014,151,639	416,069,936	82.9	17.1	6.2	5.1
East South Central	1,400,973,420	1,210,030,501	190,942,919	86.4	13.6	9.0	4.4
West South Central	2,590,970,832	2,234,079,184	356,891,648	86.2	13.8	9.0	4.5
Mountain	801,480,318	738,498,068	62,982,250	92.1	7.9	5.8	3.6
Pacific	2,997,032,972	2,755,606,296	241,426,676	91.9	8.1	5.7	2.9
NEW ENGLAND:							
Maine	204,764,810	177,846,556	26,918,254	86.9	13.1	5.3	3.8
New Hampshire	127,466,765	122,971,461	4,495,304	96.5	3.5	5.1	2.6
Vermont	85,526,948	70,162,797	15,364,151	82.0	18.0	5.1	3.0
Massachusetts	1,368,125,162	1,364,681,418	3,443,744	99.7	.3	5.1	4.4
Rhode Island	176,379,513	173,539,772	2,839,741	98.4	1.6	4.9	3.9
Connecticut	495,624,694	493,344,636	2,280,058	99.5	.5	5.0	2.9
MIDDLE ATLANTIC:							
New York	3,999,817,490	3,709,882,176	289,935,314	92.8	7.2	4.7	4.4
New Jersey	837,559,708	827,710,992	9,848,716	98.8	1.2	4.0	2.8
Pennsylvania	2,067,539,715	1,678,447,980	389,091,735	81.2	18.8	4.7	4.9
EAST NORTH CENTRAL:							
Ohio	1,712,063,358	1,300,319,655	411,743,703	76.0	24.0	5.6	4.7
Indiana	864,419,644	462,154,028	402,265,616	53.5	46.5	6.9	5.2
Illinois	2,205,562,819	1,813,980,052	391,582,767	82.2	17.8	4.6	4.2
Michigan	981,890,173	896,018,304	85,871,869	91.3	8.7	5.2	2.8
Wisconsin	740,522,687	555,805,608	184,717,079	75.1	24.9	5.3	3.5
WEST NORTH CENTRAL:							
Minnesota	849,159,092	431,752,151	417,406,941	50.8	49.2	7.0	5.1
Iowa	774,632,628	484,710,262	289,922,366	62.6	37.4	6.3	3.6
Missouri	1,157,269,161	908,074,346	249,194,815	78.5	21.5	7.0	4.0
North Dakota	142,964,202	66,948,702	76,015,500	46.8	53.2	6.4	6.3
South Dakota	119,103,108	43,735,138	75,367,970	36.7	63.3	6.0	3.5
Nebraska	366,857,970	212,925,179	153,932,791	58.0	42.0	6.6	3.2
Kansas	550,236,749	313,708,747	236,528,002	57.0	43.0	6.6	3.8
SOUTH ATLANTIC:							
Delaware	57,890,700	57,557,580	333,120	99.4	.6	5.5	3.7
Maryland	317,009,272	315,364,632	1,644,640	99.5	.5	4.6	2.3
District of Columbia	235,337,052	235,337,052	----------	100.0	----------	4.0	------
Virginia	420,226,598	336,116,256	84,110,342	80.0	20.0	7.3	4.7
West Virginia	242,881,687	209,830,764	33,050,923	86.4	13.6	6.4	3.1
North Carolina	320,566,415	195,852,820	124,713,595	61.1	38.9	7.9	5.7
South Carolina	147,904,838	121,473,795	26,431,043	82.1	17.9	8.8	5.6
Georgia	415,354,301	380,750,645	34,603,656	91.7	8.3	9.0	5.0
Florida	273,050,712	161,868,095	111,182,617	59.3	40.7	5.9	5.9
EAST SOUTH CENTRAL:							
Kentucky	406,788,776	310,941,374	95,847,402	76.4	23.6	7.6	4.5
Tennessee	538,979,647	472,733,342	66,246,305	87.7	12.3	9.9	4.5
Alabama	282,431,481	264,526,989	17,904,492	93.7	6.3	9.7	3.2
Mississippi	172,773,516	161,828,796	10,944,720	93.7	6.3	8.9	5.3
WEST SOUTH CENTRAL:							
Arkansas	192,821,190	161,278,914	31,542,276	83.6	16.4	8.1	3.8
Louisiana	392,459,934	386,115,897	6,344,037	98.4	1.6	9.3	3.5
Oklahoma	571,130,824	504,018,480	67,112,344	88.2	11.8	8.6	3.4
Texas	1,434,558,884	1,182,665,893	251,892,991	82.4	17.6	9.3	5.2
MOUNTAIN:							
Montana	96,292,820	84,854,188	11,438,632	88.1	11.9	5.7	3.6
Idaho	92,546,665	72,668,647	19,878,018	78.5	21.5	6.5	4.1
Wyoming	48,733,787	42,707,304	6,026,483	87.6	12.4	5.6	3.8
Colorado	300,074,028	290,995,643	9,078,385	97.0	3.0	5.4	2.4
New Mexico	42,691,021	38,215,724	4,475,297	89.5	10.5	5.8	4.7
Arizona	67,942,728	65,648,780	2,293,948	96.6	3.4	5.9	3.7
Utah	129,659,038	126,665,718	2,993,320	97.7	2.3	6.8	3.7
Nevada	23,540,231	16,742,064	6,798,167	71.1	28.9	4.8	4.5
PACIFIC:							
Washington	559,936,113	476,235,984	83,700,129	85.1	14.9	6.8	4.2
Oregon	307,514,930	263,844,432	43,670,498	85.8	14.2	6.5	3.2
California	2,129,581,929	2,015,525,880	114,056,049	94.6	5.4	5.4	2.3

[1] Computed on the basis of 325 days to the year.

TABLE 22.—PRINCIPAL STATISTICS, SYSTEMS AND LINES REPORTING ANNUAL INCOMES OF LESS THAN $10,000, BY DIVISIONS AND STATES, 1932

DIVISION AND STATE	Systems and lines (number)	Miles of wire	Central offices (number)	TELEPHONES		Calls originating with systems reporting	Total gross receipts exclusive of assessments of mutual companies	Assessments of mutual companies	EMPLOYEES			Salaries and wages	Investment in plant and equipment
				Total	Residence				Total	Male	Female		
UNITED STATES	43,910	1,193,093	6,504	1,140,175	1,032,665	947,707,200	$11,251,224	$3,886,557	13,322	4,921	8,401	$6,638,833	$57,196,817
GEOGRAPHIC DIVISIONS:													
New England	236	19,729	119	15,929	14,512	11,337,280	300,734	20,164	337	141	196	153,614	1,177,839
Middle Atlantic	1,636	62,930	341	58,435	52,057	49,795,520	949,202	215,022	894	323	571	492,602	4,127,673
East North Central	5,883	276,309	1,528	269,309	247,120	225,883,840	2,850,996	813,832	3,706	1,441	2,265	1,847,219	13,824,040
West North Central	14,137	415,123	2,046	455,572	417,541	374,050,240	3,912,033	1,516,170	4,679	1,761	2,918	2,433,160	19,466,053
South Atlantic	2,693	70,513	615	69,025	60,524	54,687,680	678,077	239,704	973	334	639	414,021	3,093,069
East South Central	4,290	73,791	589	71,982	64,862	66,542,080	547,923	270,582	815	296	519	322,041	2,664,903
West South Central	8,039	120,786	784	101,371	89,343	84,375,360	934,341	395,359	1,019	317	702	439,964	4,656,887
Mountain	2,180	58,681	232	30,854	25,680	26,596,800	404,227	114,115	379	120	259	206,163	3,298,079
Pacific	4,816	95,231	250	67,698	61,026	54,438,400	673,691	301,609	520	188	332	330,049	4,888,274
NEW ENGLAND:													
Maine	146	12,149	73	9,332	8,402	6,168,640	167,533	17,559	211	97	114	94,129	734,423
New Hampshire	38	2,522	18	2,860	2,672	2,358,080	53,790	1,169	47	15	32	24,534	127,958
Vermont	40	3,618	23	3,001	2,799	2,024,320	53,042	1,432	58	22	36	22,483	206,670
Massachusetts[1]	12	1,440	5	736	639	786,240	26,369	4	21	7	14	12,468	108,788
Rhode Island													
Connecticut[1]													
MIDDLE ATLANTIC:													
New York	520	21,475	144	24,058	21,518	19,166,080	448,733	55,132	393	151	242	254,381	1,470,829
New Jersey	20	2,288	5	632	405	427,520	15,899	1,348	15	3	12	6,172	265,726
Pennsylvania	1,096	39,167	192	33,745	30,134	30,201,920	484,570	158,542	486	169	317	232,049	2,391,118
EAST NORTH CENTRAL:													
Ohio	499	45,095	294	41,612	37,846	37,997,440	565,128	84,184	700	237	463	370,021	3,299,582
Indiana	1,017	46,282	360	54,325	50,012	45,853,120	583,824	118,077	842	332	510	379,599	2,225,637
Illinois	2,327	70,962	431	86,982	80,945	70,674,560	586,162	331,165	1,029	385	644	457,227	3,307,394
Michigan	1,286	42,926	183	34,958	32,080	31,913,600	345,105	138,703	431	203	228	203,745	1,463,098
Wisconsin	754	71,044	260	51,432	46,237	39,445,120	770,777	141,703	704	284	420	436,627	3,528,329
WEST NORTH CENTRAL:													
Minnesota	1,742	85,064	327	76,483	69,714	55,855,040	822,787	188,616	765	283	482	425,205	4,498,465
Iowa	3,377	83,709	510	129,411	119,899	109,540,160	921,140	525,452	1,241	474	767	654,479	3,966,579
Missouri	3,702	68,988	408	84,821	78,425	76,271,360	435,789	287,725	850	316	534	341,761	2,592,427
North Dakota	745	31,048	163	22,405	20,075	13,201,920	260,474	63,312	263	103	160	155,073	1,743,306
South Dakota	468	21,205	99	18,724	17,133	13,437,440	239,299	27,002	195	82	113	113,622	998,480
Nebraska	1,369	51,301	157	43,345	39,455	33,184,320	470,310	125,662	437	177	260	232,287	2,563,975
Kansas	2,734	73,808	382	80,383	72,840	72,560,000	762,234	298,401	928	326	602	510,733	3,102,821

[1] System operating in Connecticut treated as part of Massachusetts systems.

TABLE 22.—PRINCIPAL STATISTICS, SYSTEMS AND LINES REPORTING ANNUAL INCOMES OF LESS THAN $10,000, BY DIVISIONS AND STATES, 1932—Continued

DIVISION AND STATE	Systems and lines (number)	Miles of wire	Central offices (number)	TELEPHONES		Calls originating with systems reporting	Total gross receipts exclusive of assessments of mutual companies	Assessments of mutual companies	EMPLOYEES			Salaries and wages	Investment in plant and equipment
				Total	Residence				Total	Male	Female		
SOUTH ATLANTIC:													
Delaware	27	344		280	264	333,120	$1,266	$4,561					$18,292
Maryland	109	1,729	10	1,710	1,617	1,186,880	10,767	12,223	13	7	6	$4,441	76,593
District of Columbia													
Virginia	423	16,589	135	17,972	16,311	13,407,040	111,885	65,753	212	78	134	84,147	641,054
West Virginia	353	19,226	208	23,384	20,996	14,857,280	155,793	50,019	307	89	218	109,353	747,592
North Carolina	814	11,920	76	9,897	8,730	9,240,320	97,114	50,373	111	41	70	56,361	537,821
South Carolina	335	6,287	47	4,652	3,922	4,888,960	67,488	18,954	87	33	54	38,690	319,992
Georgia	590	11,000	120	9,619	7,838	9,303,360	181,877	36,588	192	65	127	85,678	514,242
Florida	42	3,418	19	1,511	846	1,470,720	51,887	1,233	51	21	30	35,351	237,483
EAST SOUTH CENTRAL:													
Kentucky	1,457	23,240	186	24,971	23,156	20,018,880	122,070	94,769	246	86	160	74,560	638,306
Tennessee	1,555	31,779	224	29,067	26,445	30,598,720	190,067	116,960	331	130	201	124,079	1,222,115
Alabama	600	11,545	134	12,397	10,266	11,349,760	194,437	30,567	199	70	129	109,869	608,717
Mississippi	678	7,227	45	5,547	4,995	4,574,720	41,349	28,286	39	10	29	13,533	195,765
WEST SOUTH CENTRAL:													
Arkansas	1,062	11,512	117	11,435	9,978	9,234,560	125,717	43,316	140	42	98	60,308	431,556
Louisiana	308	5,253	34	4,166	2,925	3,565,440	94,105	11,681	83	30	53	37,249	264,651
Oklahoma	2,213	34,303	252	36,537	32,967	29,736,960	313,326	128,220	373	119	254	171,511	1,417,662
Texas	4,456	69,718	381	49,233	43,473	41,838,400	401,193	212,142	423	126	297	170,896	2,543,018
MOUNTAIN:													
Montana	458	12,651	59	6,571	5,490	4,677,760	97,345	23,274	98	32	66	47,442	827,000
Idaho	357	7,443	31	5,351	4,854	4,607,360	55,155	31,921	56	19	37	29,740	424,418
Wyoming	353	10,223	32	3,955	3,233	4,433,280	59,095	12,464	40	7	33	21,334	572,585
Colorado	687	18,670	65	10,168	8,916	7,358,720	100,725	39,642	100	33	67	49,466	823,895
New Mexico	168	3,255	23	1,749	1,271	1,784,960	36,183	3,356	28	5	23	17,722	181,740
Arizona	51	3,119	6	1,032	359	892,800	20,651	1,114	18	8	10	17,022	251,617
Utah	61	1,983	12	1,466	1,290	1,501,120	25,995	1,228	32	14	18	17,491	128,196
Nevada	45	1,337	4	562	267	1,340,800	9,078	1,116	7	2	5	5,946	88,628
PACIFIC:													
Washington	1,047	27,667	94	22,298	19,615	18,646,400	303,958	73,154	223	79	144	150,411	1,637,168
Oregon	1,297	24,714	94	20,909	19,459	15,669,760	154,340	85,171	159	53	106	87,780	918,918
California	2,472	42,850	62	24,491	21,952	20,122,240	215,393	143,284	138	56	82	91,858	2,332,188

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 prior census 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 on those used by the Interstate Commerce Commission in its annual collection of telephone data. For the 1932 and 1927 censuses, however, the schedules were simplified. The short-form schedule called for the total gross receipts from the operation of the system or line, and both the long-form and short-form schedules called for the total amout of assessments levied by the mutual companies for the operation and maintenance of the system or line, the total amount of salaries and wages paid during the year, and the investment in plant and equipment.

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.

TABLE 23.—OPERATING REVENUE PER TELEPHONE AND PER ORIGINATING CALL, SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE: 1912–32

ITEM	1932	1927	1922	1917 [1]	1912 [1]
Average number of originating calls per telephone per year	1,787	1,747	1,781	1,990	1,875
Average yearly operating revenue:					
Per telephone [2]	$64.26	$59.65	$51.85	$36.55	$33.37
Per originating call ... cents	3.596	3.415	2.911	1.837	1.780
Average exchange and toll revenue:					
Per telephone [2]	$62.77	$58.39	$51.01	$36.16	$33.23
Per originating call ... cents	3.512	3.342	2.864	1.817	1.772
Average miscellaneuos operating revenue:					
Per telephone [2]	$1.49	$1.26	$0.84	$0.39	$0.14
Per originating call ... cents	0.083	0.072	0.047	0.020	0.008

[1] Annual income of $5,000 or more.
[2] Based on actual number of telephones reported as in use on Dec. 31 of each census year.

TABLE 24.—EMPLOYEES AND SALARIES AND WAGES, ALL SYSTEMS AND LINES: 1932, 1927, AND 1922

ITEM	1932	1927	1922	PERCENT INCREASE OR DECREASE (—)		
				1927–32	1922–27	1922–32
Employees, total [1]	334,085	375,272	312,015	—11.0	20.3	7.1
Male	128,677	131,802	104,433	—2.4	26.2	23.2
Female	205,408	243,470	207,582	—15.6	17.3	—1.0
Salaries and wages	$458,116,677	$486,597,070	$352,925,570	—5.9	37.9	29.8

[1] The number employed June 30 for 1932 and 1927, except for the Bell system, which reported the average number of employees during the year.

TABLE 25.—OPERATING REVENUE, THE BELL SYSTEM AND OTHER SYSTEMS REPORTING ANNUAL INCOMES OF $10,000 OR MORE: 1932, 1927, AND 1922

SYSTEM AND CENSUS YEAR	TOTAL		EXCHANGE		
	Amount	Percent distribution	Amount	Percent of total	Percent distribution
Total 1932	$1,046,392,359	100.0	$741,087,550	70.8	100.0
1927	996,911,752	100.0	681,221,511	68.3	100.0
1922	637,468,630	100.0	447,067,008	70.1	100.0
Bell system 1932	956,354,529	91.4	670,736,747	70.1	90.5
1927	894,699,173	89.7	604,266,112	67.5	88.7
1922	546,820,113	85.8	374,718,580	68.5	83.8
Other systems 1932	90,037,830	8.6	70,350,803	78.1	9.5
1927	102,212,579	10.3	76,955,399	75.3	11.3
1922	90,648,517	14.2	72,348,428	79.8	16.2

SYSTEM AND CENSUS YEAR	TOLL			MISCELLANEOUS		
	Amount	Percent of total	Percent distribution	Amount	Percent of total	Percent distribution
Total 1932	$281,047,593	26.9	100.0	[1] $24,257,216	2.3	100.0
1927	294,625,256	29.6	100.0	[1] 21,064,985	2.1	100.0
1922	180,069,891	28.3	100.0	10,331,731	1.6	100.0
Bell system 1932	263,147,955	27.5	93.6	22,469,827	2.3	92.6
1927	271,174,270	30.4	92.0	19,258,791	2.1	91.4
1922	163,097,837	29.9	90.6	9,003,696	1.6	87.1
Other systems 1932	17,899,638	19.9	6.4	[2] 1,787,389	2.0	7.4
1927	23,450,986	22.9	8.0	[2] 1,806,194	1.8	8.6
1922	16,972,054	18.7	9.4	[2] 1,328,035	1.5	12.9

[1] Not called for separately on the schedules for 1932 and 1927; figures arrived at by deduction.
[2] Includes assessments levied by mutual companies.

In studying the tables it is important to note that since the number of telephones at the end of 1932 was probably lower than the average for that year and that the number at the end of 1927 was probably higher than the average for that year, any derived statistics would be apportionately too high or too low on that account. For that reason the percentage increases or decreases should be used with extreme care.

Another point of difficulty occurs in the interpretation of the figures of salaries and wages. It should be borne in mind that construction work associated with the expansion of the telephone plant is performed by employees of the telephone companies with the result that the number of reported telephone employees reflects the relative volume of construction work in progress on the date of the census. Thus, the decline in the number of employees reported in 1932 as compared with 1927 may be explained by the relatively small volume of construction work required in 1932.

TELEGRAPHS: 1932

INTRODUCTION

General description.—The census of land telegraphs and ocean-cable systems has been taken quinquennially since 1902. The only census statistics for the telegraph industry for years prior to 1902 are those compiled and published at the decennial censuses of 1850 and 1880, which related to land systems only.

All the commercial systems in the United States are owned and operated by incorporated companies. The land commercial systems covered by this rport are those operated in the United States exclusive of outlying possessions, and the commercial cable systems are those operated by companies incorporated in the United States. No statistics are given for press-association or newspaper traffic over private or leased wires.

The figures for railway telegraphs as given in tables B, 5, and 6, relate solely to class I railroads (those having annual operating revenues of $1,000,000 or more). No data as to railway telegraphs are included in any of the other tables.

Statistics are given in table 9 for the land and cable systems operated by the Government in outlying possessions, since these systems transacted commercial as well as Government business. No data have been compiled for the operations of Government wireless stations in the United States, as these stations handle little or no commercial business.

Period covered.—The statistics relate to the calendar year 1932, except that the figures for Alaska, given in table 9, refer to the fiscal year ended June 30, and that the number of employees was reported by most companies as of June 30.

Financial statistics.—An important consideration, so far as the telegraph and cable business is concerned, is the increase of the salary and wage scale up to 1927 and the decrease from 1927 to 1932. The total salaries and wages paid by the telegraph and cable systems increased 74 percent between 1917 and 1922 and 30.7 percent between 1922 and 1927 and decreased 25.7 percent between 1927 and 1932, whereas, the corresponding rates of increase in number of employees were only 6 percent and 18.7 percent, respectively, and the decrease was 18.1 percent.

TABLE 1.—SUMMARY—LAND AND OCEAN-CABLE TELEGRAPH SYSTEMS: 1912–32

[The Western Union Telegraph Company which operates both land and ocean-cable systems, is counted as 2 companies. Percent is not shown when base is less than 100]

ITEM	1932	1927	1922	1917	1912
Number of companies or systems	23	25	25	28	28
Miles of pole line [1]	256,661	256,809	252,991	241,128	247,528
Miles of single wire owned and leased [2]	2,266,054	2,145,897	1,853,250	1,890,245	1,814,196
Nautical miles of ocean cable	96,468	99,074	76,711	71,251	67,676
Telegraph offices or stations	26,034	27,666	27,354	28,940	30,864
Messages sent	158,377,660	229,582,433	191,121,333	158,176,456	109,377,698
Employees	66,723	81,498	68,632	64,723	[3] 44,811
Salaries and wages	$73,948,923	$99,520,357	$76,161,926	$43,764,201	[3] $24,964,994
Revenue (operating)	$114,655,696	$177,589,096	$146,805,215	$106,989,743	$60,403,009
From telegraph	$97,729,160	$159,682.419	$128,630,859	$91,312,567	$52,337,211
From cable	$16,926,536	$17,906,677	$18,174,356	$15,677,176	$8,065,798
Taxes assignable to operations during the year	$4,426,998	$7,064,545	$6,893,994	$5,397,351	$1,186,788
Investment in plant and equipment	$506,445,426	$426,698,742	$326,661,860	$243,358,432	$222,046,746

ITEM	PERCENT INCREASE OR DECREASE (—)				
	1927–32	1922–27	1917–22	1912–17	1922–32
Miles of pole line [1]	—0.1	1.5	4.9	—2.6	1.5
Miles of single wire owned and leased [2]	5.6	15.8	—2.0	4.2	22.3
Nautical miles of ocean cable	—2.6	29.2	7.7	5.3	25.8
Telegraph offices or stations	—5.9	1.1	—5.5	—6.2	—4.8
Messages sent	—31.0	20.1	20.8	44.6	—17.1
Employees	—18.1	18.7	6.0	44.4	—2.8
Salaries and wages	—25.7	30.7	74.0	75.3	—2.9
Revenue (operating)	—35.4	21.0	37.2	77.1	—21.9
From telegraph	—38.8	24.1	40.9	74.5	—24.0
From cable	—5.5	—1.5	15.9	94.4	—6.9
Taxes assignable to operations during the year	—37.3	2.5	27.7	354.8	—35.8
Investment in plant and equipment	18.7	30.6	34.2	9.6	55.0

[1] Exclusive of pole line owned and operated wholly by railway companies, but including, for 1932, 446 miles; for 1927, 2,089 miles; and for 1917, 116 miles, of pole line owned by ocean-cable systems.

[2] Exclusive of wire owned and operated wholly by railway companies, as follows: For 1932, 337,059 miles; for 1927, 333,898 miles; for 1922, 285,002 miles; and for 1917, 344,110 miles, as reported by railway companies having annual operating revenues of $1,000,000 or more; for 1912, 314,329 miles, as reported by all railway companies.

[3] Includes 7,516 messengers whose wages are not included in the figure for salaries and wages.

COMPARISON OF COMMERCIAL LAND AND OCEAN-CABLE TELEGRAPH SYSTEMS

This section presents summary statistics for commercial land and ocean-cable telegraph systems, and more detailed statistics for the two classes of systems separately, for 1932 only.

The statistics for equipment, number of employees, and salaries and wages are given separately for land and ocean-cable companies in tables 2 and 3.

Growth between 1912 and 1932.—The growth of the land-telegraph and ocean-cable business during the 20-year period covered by table 1 is illustrated by the following percentages of increase:

Value of plant and equipment	128	Number of employees	49
Number of messages	45	Operating revenue	90

TABLE 2.—EQUIPMENT AND TRAFFIC—LAND AND OCEAN-CABLE TELEGRAPH SYSTEMS, 1932

[The Western Union Telegraph Co., which operates both land and ocean-cable systems is counted as 2 companies]

ITEM	Total	Land	Ocean
Number of companies or systems	23	17	6
Miles of pole line, total	256,661	256,215	446
Owned, total	187,979	187,533	446
On reporting company's right of way	338	338	----------
On highway	24,739	24,733	6
On railway right of way	162,902	162,462	440
Leased, total	68,682	68,682	----------
On lessor's right of way	----------	----------	----------
On highway	2,548	2,548	----------
On railway right of way	66,134	66,134	----------
Miles of single wire, total	2,266,054	2,259,827	6,227
Overhead, total	1,956,003	1,952,432	3,571
Owned, total	1,714,275	1,712,926	1,349
On reporting company's right of way	5,154	5,154	----------
On highway	329,397	329,370	27
On railway right of way	1,379,724	1,378,402	1,322
Leased, total	241,728	239,506	2,222
On lessor's right of way	----------	----------	----------
On highway	8,829	6,607	2,222
On railway right of way	232,899	232,899	----------
Underground	303,912	301,560	2,352
Submarine	6,139	5,835	340
Nautical miles of ocean cable	96,468	----------	96,468
Telegraph offices or stations, total	26,047	25,901	146
Operated solely by the reporting company, exclusive of railway offices	6,458	6,317	141
Operated with other telegraph and cable companies	17	12	5
Operated with telephone companies	741	741	----------
Railway offices, total	18,831	18,831	----------
Operated solely by telegraph companies	15	15	----------
Operated jointly by telegraph and railway companies	18,816	18,816	----------
Messages sent, total	158,377,660	147,941,047	10,436,613
Government	3,654,572	3,583,031	71,541
Full commercial rate	146,162,330	135,797,258	10,365,072
Contract and free	8,560,758	8,560,758	----------

TABLE 3.—EMPLOYEES, SALARIES AND WAGES—LAND AND OCEAN-CABLE TELEGRAPH SYSTEMS, 1932

ITEM	Total	Land	Ocean
Employees, total [1]	66,723	60,933	5,790
Salaried employees	25,279	23,361	1,918
Wage earners, total	41,444	37,572	3,872
Operators, total	18,005	16,511	1,494
Male	7,461	6,017	1,444
Female	10,544	10,494	50
All other wage earners	23,439	21,061	2,378
Salaries and wages paid to all employees during 1932	$73,948,923	$66,987,669	$6,961,254

[1] Including part-time and temporary employees, as of June 30, 1932.

COMMERCIAL AND RAILWAY LAND TELEGRAPH SYSTEMS

Line and wire mileage.—The following statement shows the line and wire mileage for land-telegraph companies as reported for 1852 and 1880 (in connection with the decennial censuses of 1850 and 1880, respectively) and for each of the quinquennial census years.

Table A

CENSUS YEAR	Miles of pole line	Miles of single wire	CENSUS YEAR	Miles of pole line	Miles of single wire
1932	256, 215	2, 259, 827	1907	239, 646	1, 577, 961
1927	254, 720	2, 138, 259	1902	237, 990	1, 307, 046
1922	252, 991	1, 845, 237	1880	110, 727	291, 213
1917	241, 012	1, 888, 793	1852	16, 735	23, 281
1912	247, 528	1, 814, 196			

Business, number of offices, and wire mileage.—The amount of business done, measured either by messages sent or by revenue from telegraph traffic shows a considerable decrease for the period 1927–32. The reduction in the number of railway telegraph offices operated for commercial business was very marked during the 10-year period 1922–32, which probably accounts for the decrease in the total number of telegraph offices during the same period. The wire mileage shows an increase for the 5-year period 1927–32 over that of former years, although not as great as shown during the 5-year period 1922–27. The overhead mileage increased from 1,936,611 in 1927 to 1,952,432 in 1932, and the underground increased from 197,058 to 301,560 miles for the same period. (See table 2 for 1932 figures.)

Railway and commercial telegraph lines on railway right way.—The track mileage shown in table 6 covers the trackage of all class I railroads, including 11 which reported no telegraph lines along their right way. The reports show a decrease amounting to 23,876 miles, or 10.1 percent, in total pole-line mileage in 1932 as compared with 1927. The wire mileage increased 8,660, or less than 1 percent.

Telephone wire on railway right way.—The railroads could not in all cases supply complete data regarding mileage of commercial wire along their lines. Some of the telegraph pole line reported by the class I railroads carried telephone wire also, and 27,758 miles of additional pole line designated as "telephone" doubtless carried part of the telegraph wire. The total telephone wire mileage on the right way of class I railroads was reported as 806,086. Of this amount, the railroads owned 637,678 miles outright and 2,122 miles jointly with telephone and other nonrailway companies, the remaining 166,286 miles being owned by telephone and other nonrailway companies. The mileage of telephone wire operated either solely by the railroads or jointly by the railroads and other companies amounted to 684,332, or 84.9 percent of the total wire mileage.

TABLE 4.—SUMMARY—LAND TELEGRAPH SYSTEMS: 1932, 1927, AND 1922

[Percent not shown when base is less than 100]

ITEM	1932	1927	1922	PERCENT INCREASE OR DECREASE (—)		
				1927–32	1922–27	1922–32
Number of companies or systems	17	18	19			
Miles of pole line [1]	256, 215	254, 720	252, 991	0. 6	0. 7	1. 3
Miles of single wire owned and leased [2]	2, 259, 827	2, 138, 259	1, 845, 237	5. 6	15. 9	22. 5
Telegraph offices or stations	25, 901	27, 530	27, 214	—5. 9	1. 2	—4. 8
Messages sent	147, 941, 039	215, 595, 494	181, 518, 774	—31. 4	18. 8	—18. 5
Employees	60, 933	74, 903	62, 299	—18. 7	20. 2	—2. 2
Salaries and wages	$66, 987, 669	$89, 983, 975	$68, 736, 763	—25. 6	30. 9	—2. 5
Revenue (operating)	$97, 729, 160	$159, 682, 419	$128, 630, 859	—38. 8	24. 1	—24. 0
Taxes assignable to operations during the year	$4, 033, 821	$6, 181, 805	$5, 572, 704	—34. 7	10. 9	—27. 6
Investment in plant and equipment	$415, 694, 458	$338, 143, 146	$254, 029, 933	22. 9	33. 1	63. 6

[1] Exclusive of pole line owned and operated wholly by class I railroads and of pole line owned by ocean-cable systems reporting separately, amounting to 446 miles in 1932 and 2,089 miles in 1927.

[2] Exclusive of wire owned and operated wholly by class I railroads amounting to 337,059 miles in 1932; 333,898 miles in 1927; and 285,002 miles in 1922; and of land wire owned by cable companies reporting separately amounting to 5,923 miles in 1932; 7,211 miles in 1927; and 8,013 miles in 1922.

Train dispatchers and railroad telegraph operators.—The census inquiry did not call for data regarding railroad operators or their wages; but the following statement relating to train dispatchers and telegraph operators employed by class I railroads has been prepared from reports of the Interstate Commerce Commission. The methods of classifying these employees have been such that it is impossible to show separately the exact number of telegraph operators.

Table B ITEM	NUMBER			WAGES		
	1932	1927	1922	1932	1927	1922
Total	46, 283	58, 734	64, 794	$81, 539, 614	$120, 439, 308	$118, 282, 579
Chief train dispatchers	3, 852	5, 292	5, 392	11, 591, 135	17, 287, 787	16, 362, 694
Chief telegraphers and telephoners or wire chiefs	804	833	805	1, 817, 830	2, 110, 099	1, 883, 138
Telegraphers, telephoners, and towermen	16, 960	20, 275	26, 552	28, 327, 647	44, 403, 953	45, 794, 569
Clerk-telegraphers and clerk-telephoners	8, 365	13, 531	12, 613	13, 886, 160	23, 632, 549	21, 191, 866
Station-agent telegraphers and telephoners	16, 302	18, 803	19, 432	25, 916, 842	33, 004, 920	33, 050, 312

Train dispatching by telegraph and by telephone, class I railroads.—There was a considerable increase between 1927 and 1932 in the use of the telephone with a corresponding decrease in the use of the telegraph for train dispatching. The proportion of the total mileage dispatched by telephone only, increased from 57.4 percent in 1927 to 61.2 percent in 1932.

The use of "Printing telegraphs" by the railroads increased between 1927 and 1932, with 12 railroads having adopted it within the 5-year period, making a total of 31 which were using this system in 1932. These 31 railroads reported 490 circuits, comprising 51,659 miles of wire, in operation with printing telegraph instruments.

TABLE 5.—TRAIN DISPATCHING BY TELEGRAPH AND TELEPHONE, FOR CLASS I RAILROADS: [1] 1932, 1927, AND 1922

METHOD	NUMBER OF SYSTEMS OR LINES REPORTING			MILES OF ROAD DISPATCHED		
	1932	1927	1922	1932	1927	1922
Total	157	165	166	228, 267	228, 896	222, 664
Telegraph	[2] 112	[2] 114	132	83, 200	93, 842	114, 216
Telephone	[3] 120	[3] 119	111	139, 712	131, 301	103, 835
Joint telegraph and telephone	[4] 14	[4] 9	26	5, 355	3, 753	4, 613

[1] Railroads having annual operating incomes of $1,000,000 or more.

[2] Telegraph only over entire line, 29 in 1932 and 38 in 1927; telegraph only over part of line and telephone only over remainder, 75 in 1932 and 74 in 1927; telegraph and telephone jointly or interchangeably over part of line and telegraph over all or part of remainder, 8 in 1932 and 2 in 1927.

[3] Telephone only over entire line, 38 in 1932 and 44 in 1927; telephone only over part of line and telegraph only over remainder, 75 in 1932 and 74 in 1927; telegraph and telephone jointly or interchangeably over part of line and telephone only over all or part of remainder, 7 in 1932 and 1 in 1927.

[4] Telegraph and telephone jointly or interchangeably over entire line, 5 in 1932 and 3 in 1927; telegraph and telephone jointly or interchangeably over part of line and either telegraph only or telephone only over remainder, or telegraph only and telephone only over separate parts of remainder, 9 in 1932 and 6 in 1927.

TABLE 6.—RAILWAY AND COMMERCIAL TELEGRAPH LINE AND WIRE ON RIGHT OF WAY OF CLASS I RAILROADS,[1] 1932

ITEM	NUMBER
Systems or lines reporting	157
Miles of single track	241, 424
Miles of pole line owned, total	212, 310
By railway companies	58, 659
Jointly by railway and telegraph companies	28, 345
By telegraph and other nonrailway companies	125, 306
Miles of pole line operated, total	212, 310
By railway companies	91, 887
Jointly by railway and telegraph companies	46, 208
By telegraph and other nonrailway companies	74, 215
Miles of single wire owned, total	1, 577, 328
By railway companies	358, 503
Jointly by railway and telegraph companies	15, 626
By telegraph and other nonrailway companies	1, 203, 199
Miles of single wire operated, total	1, 577, 328
By railway companies	503, 380
Jointly by railway and telegraph companies	78, 730
By telegraph and other nonrailway companies	995, 218
Miles of single wire owned wholly and operated wholly by railway companies	337, 059

[1] Railroads having annual operating incomes of $1,000,000 or more.

TABLE 7.—COMMERCIAL TELEGRAPH LINE AND WIRE ON RAILWAY RIGHT OF WAY, BY COMPANIES, 1932

[The statistics in this table relate to line and wire mileage along rights of way of railroads of all classes]

COMPANY	MILES OF POLE LINES			MILES OF WIRE		
	Total	Owned	Leased or controlled	Total	Owned	Leased or controlled
Total	228, 837	162, 940	65, 897	1, 611, 355	1, 378, 456	232, 899
Western Union	213, 330	152, 382	60, 948	1, 511, 281	1, 301, 749	209, 532
Postal Telegraph Cable	10, 290	8, 159	2, 131	75, 557	66, 834	8, 723
Continental	2, 793	----------	2, 793	14, 410	----------	14, 410
Philadelphia, Reading & Pottsville	924	924	----------	4, 720	4, 720	----------
Other telegraph companies	1, 500	1, 475	25	5, 387	5, 153	234

COMMERCIAL CABLE SYSTEMS

The statistics presented under this head relate only to commercial cable companies incorporated in the United States.

TABLE 8.—SUMMARY—OCEAN-CABLE TELEGRAPH SYSTEMS: 1932, 1927, AND 1922

[Percent not shown when base is less than 100]

ITEM	1932	1927	1922	PERCENT INCREASE OR DECREASE (—)		
				1927-32	1922-27	1922-32
Number of companies or systems	6	7	6	----------	----------	----------
Nautical miles of ocean cable [1]	96, 468	99, 074	76, 711	—2. 6	29. 2	25. 8
Cable offices	146	136	140	7. 4	—2. 9	4. 3
Messages sent	10, 436, 613	13, 986, 939	9, 602, 559	—25. 4	45. 7	8. 7
Employees	5, 790	6, 595	6, 333	—12. 2	4. 1	—8. 6
Salaries and wages	$6, 961, 254	$9, 536, 382	$7, 425, 163	—27. 0	28. 4	—6. 2
Revenue (operating)	$16, 926, 536	$17, 906, 677	$18, 174, 356	—5. 5	—1. 5	—6. 9
Taxes assignable to operations during the year	$393, 177	$882, 740	$1, 321, 290	—55. 5	—33. 2	—70. 2
Investment in plant and equipment	$90, 750, 968	$88, 555, 596	$72, 631, 927	2. 5	21. 9	24. 9

[1] In addition, the cable companies reported 5,923 miles of single wire on land and underground for 1932; 7,638 miles of such wire for 1927; and 8,013 miles for 1922. (Miles of pole line owned by ocean-cable systems, 1932, 446 and 1927, 2,089.)

GOVERNMENT TELEGRAPH AND CABLE LINES

This section presents statistics for those Government telegraph and cable lines which, although used mainly in connection with the transaction of Government business, also transmit commercial messages. All such lines, except those operated by the Coast Guard, are located in or connect with the outlying possessions of the United States. With these Government lines the effort generally has been, with reference to commercial traffic, to provide a public service rather than to make the lines a source of revenue.

Coast Guard—Report of Chief of Coast Guard, 1931–32.—The Coast Guard owns and operates a coastal communication system of approximately 1,447 miles of pole line, 2,534 miles of open wire aerial circuit, 35 miles of aerial and underground cables, and 573 miles of submarine cable, all divided into 188 separate and distinct telephone and telegraph lines. The stations operated by the Weather Bureau in 1927 were transferred to the Coast Guard prior to 1932.

Outlying possessions.—In table 9 are given statistics for the Government telegraph and cable lines located in or connecting with Alaska, the Panama Canal Zone, the Philippine Islands, and Puerto Rico, these being the only Government lines which reported commercial business in 1932. Some of the employees reported were engaged in nontelegraphic work during part of their time, and, except in the case of the Philippine lines, the segregation of that portion of their compensation chargeable to the telegraph and cable work was necessarily estimated by the officials who made the reports.

Alaska.—The Washington-Alaska Military Cable and Telegraph System, operated by the Signal Corps of the Army, connects Seattle, Wash., with the most important points in Alaska. It connects with the Government railroad and other railroads in the territory and also with commercial telephone lines in Alaska, all of which handle telegrams. The service has been extended greatly through the connection of the system with the Naval Radio Communication Service. The annual report of the Governor of Alaska (1931) states: "For many years communication with Seattle has been by cable and a few years ago a new cable was laid. The progress that has been made in the development of radio communications justifies the replacement of the cable by modern radio stations and in all probability the cable will be abandoned in the near future. The network of radio communications reaches all of the important communities in Alaska."

Panama Canal Zone.—The Panama Canal Zone telegraph system is operated by the Panama Railroad Co., which is owned by the United States Government. A complete telephone system covers the Canal Zone and the cities of Panama and Colon. Radio stations handling commercial business are located at each end of the canal. Messages may be sent through Panama Railroad stations.

Philippine Islands.—The report of the Governor General of the Philippine Islands for 1931 shows that there were 511 telegraph and radio offices, 78 of which were radio. The length of telegraph wire was 8,600 miles on a pole line of approximately 5,400 miles. There were 36 single wire submarine cables and two 4-wire cables with a total length of 644 miles.

Data for the Bureau of Posts of the Philippine Islands are shown in table 9.

Puerto Rico.—The Government owns and operates both telegraph and telephone lines in Puerto Rico. Radio service has been added and extended through privately owned as well as Government-owned stations doing commercial business.

TABLE 9.—GOVERNMENT TELEGRAPH AND CABLE SYSTEMS—OUTLYING POSSESSIONS: 1932, 1927, and 1922

ITEM	ALASKA			PANAMA CANAL ZONE		
	1932 [1]	1927 [1]	1922 [1]	1932	1927	1922
Miles of pole line		12	470			
Miles of single wire		[2] 12	840	470	470	212
Miles of submarine cable	[3] 2,100	2,529	2,669			
Employees	[4] 229	[5] 228	[6] 307	15	15	15
Salaries and wages	$209,083	$308,460	$432,200	[7] $1,500	[7] $1,500	[7] $1,500
Revenue from commercial business	$516,242	$446,276	$176,226	$1,998	$4,058	$4,121
Messages, total	[8] 366,800	[9] 275,473	[9] 211,337	12,232	33,150	33,132
Government	167,082	59,483	73,793			
Commercial	198,696	215,990	137,544	1,282	33,150	33,132
Contract or free	1,022			10,950		

ITEM	PHILIPPINE ISLANDS			PUERTO RICO		
	1932	1927	1922	1932 [1]	1927	1922
Miles of pole line	5,328	4,793	5,227	225	266	195
Miles of single wire	9,038	8,992	6,434	1,857	2,430	911
Miles of submarine cable	434	696	850			
Employees				308	265	212
Salaries and wages	$454,440	$421,181	$428,659	$175,503	$161,968	$102,446
Revenue from commercial business	$511,949	$686,563	$610,653	$143,639	$134,720	$82,180
Messages, total	[10] 952,754	[10] 1,372,873	[10] 1,210,099	357,880	406,129	292,871
Government	29,870	86	113,563	35,246	5,421	21,451
Commercial	819,928	1,372,787	1,096,536	322,634	400,708	271,420
Contract or free	102,956					

[1] Fiscal year ended June 30.
[2] Owned by U.S. Signal Corps.
[3] Operated only in emergencies.
[4] Includes 187 enlisted men, U.S. Army.
[5] Includes 169 enlisted men, U.S. Army.
[6] Includes 206 enlisted men, U.S. Army.
[7] Not including data for salaries and wages paid for telegraphic services relating directly to railroad transportation.
[8] Wireless messages only. No telegraph or cable messages transmitted during the year 1932.
[9] For 1927, land messages, 19,272; ocean-cable, 227,528; wireless, 28,673; for 1922, land messages, 35,157; ocean-cable, 156,607; wireless, 19,573.
[10] Includes for 1932, 12,030 radio messages; 936,386 land messages; 4,338 cable messages; for 1927, 2,928 radio messages; 1,363,261 land messages; 6,689 cable messages; and for 1922, 719 radio messages; land and ocean cable messages not reported separately.

APPENDIX

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Schedule used in collecting data for telephone systems having annual operating revenues of $10,000 or more in 1932	46
Schedule used in collecting data for telephones, small lines and systems, 1932	48
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Confidential Government Report—Return Promptly

Form 2921A

File No. .....

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON

CENSUS OF TELEPHONES, 1932

(Required by Act of Congress)

This schedule is to be used only by companies or systems having annual operating revenues of $10,000 or more

NAME OF COMPANY OR SYSTEM .....

STATE ..... CITY ..... COUNTY .....

ADDRESS OF GENERAL OFFICE: Street and number ..... City or town .....
County ..... State .....

AUTHORIZATION

An act of Congress approved June 7, 1906, authorizes the Director of the Census to collect and publish, at five-year intervals, statistics relating to electrical industries. An act approved March 3, 1919, directs that it shall be the duty of every owner, official, agent, person in charge, or assistant to the person in charge of any company or establishment covered by the Census inquiry, to furnish the information called for by any schedule prepared under the authority of any Census law.

The statistics should relate to the calendar year ending December 31, 1932.

The information given in your reports will be held in strict confidence.

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

Only 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 report is complete and correct to the best of my knowledge and belief, and that it covers the period from ....., 193 to ....., 193

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

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

.....
(Signature of special agent or other Government officer securing report)

[Each question should be answered. If not applicable, write "None"]

1. 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.)

.....

2. MILES OF WIRE DEC. 31, 1932.—(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. The proportion of respondent's (reporting company's) jointly-owned wire should be included in company owned or operated.)

MILES OF SINGLE WIRE	GRAND TOTAL	OVERHEAD			UNDERGROUND
		Total	In cable	Not in cable	
Company owned, or operated					
Owned by "Service lines" (For definition see Inquiry 16)					
TOTAL MILES OF WIRE					

3. Number of central offices, December 31, 1932 .....

	COMPANY OWNED, INCLUDING PRIVATE LINE	OWNED BY "SERVICE LINES"	TOTAL
4. Total number of telephones, December 31, 1932 ..... (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 or operated 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, except "Service lines.")			

	COMPANY OWNED, INCLUDING PRIVATE LINE	OWNED BY "SERVICE LINES"	TOTAL
5. Approximate number of these telephones located in homes (residence telephones)			

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

7. Total telephone operating revenues, excluding nonoperating revenues, during 1932 ..... $.....
(Report total exchange revenues, toll revenues, and miscellaneous operating revenues as shown by Account 500 of Uniform System of Accounts for Telephone Companies, prescribed by the Interstate Commerce Commission.)

8. Total exchange revenues during 1932 ..... $.....
(I. C. C. Accounts 500–506, Classes A and B; Account 500, Class C.)

9. Total toll revenues during 1932 ..... $.....
(I. C. C. Accounts 510–516, Classes A and B; Account 510 Class C.)

10. Total amount of assessments levied by mutual companies for operation and maintenance of company during 1932 (do not include in 7, 8, nor 9) ..... $.....

11. Total taxes assignable to operations during 1932. Give total amount of *all* direct taxes, but exclude emergency taxes on telephone messages imposed by Federal Revenue Act of 1932. $.....
(I. C. C. Account 305, Classes A and B; Account 350, Class C.)

12. Number of employees, including salaried officers, and including part-time and temporary employees, as of June 30, 1932, or last weekly pay roll for the month. If data are not available for that day or month, give data as of nearest representative normal day, and state day and month here .....

Male employees ..... Female employees ..... Total .....

13. Total salaries and wages paid to all employees during 1932 ..... $.....

	BY COMPANY	BY "SERVICE LINES"	TOTAL
14. Investment in plant and equipment, December 31, 1932 ..... (I. C. C. Accounts 100, 101, and 104, Classes A and B; Account 100, Class C.)	$.....	$.....	$.....

[Each question should be answered. *If not applicable, write "None"*]

15. Companies operating in more than one State should report data on wire, central offices, telephones, and calls by States in the table below. (*If exact figures are not available, carefully prepared estimates should be supplied and marked "E."*)

State	Total miles of single wire	Number of central offices	Number of telephones			Total number of originating calls during year
			Total	Residence	Business	

16. How many "Service lines" are covered by data included in this report? .... (How many lines?)

(The term "Service lines" means lines *not owned* by the company, line, or system making this report (independently owned lines), but *directly connected* with its switchboard, or switchboards, for switching service.)

Give names of "Service lines" connecting with your switchboard, or switchboards, data for which *are* included in this report. (Give name and address of secretary, or other person, who is in charge of each line.) *Use a separate sheet if necessary.*

Name or designated number of line	Name of secretary, or other person, in charge of each line	Post-office address of person in charge of each line

[Each question should be answered. *If not applicable, write "None"*]

17. Give names of "Service lines" connecting with your switchboard, or switchboards, data for which *are not* included in this report. Give names of *lines in your vicinity* which do not connect with any switchboard. (Give name and address of secretary, or other person, who can give the information for each line.) Use a separate sheet, if necessary.

Name or designated number of line	Name of secretary, or other person, in charge of each line	Post-office address of person in charge of each line

Remarks: ....

Confidential Government Report—Return Promptly File No. .....

Form 2022A

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON

The law makes it obligatory upon every telephone company, line, or system to furnish census data.

CENSUS OF TELEPHONES, 1932

SMALL LINES AND SYSTEMS

(THOSE WHOSE INCOME WAS LESS THAN $10,000 IN 1932)

(Required by act of Congress)

In compliance with an act of Congress approved June 7, 1906, a census of telephones is taken every fifth year. The Bureau of the Census is now taking the census for 1932. Please answer the following questions and return this report at once in the inclosed envelope, which requires no postage.

The information given in your report will be held in strict confidence.

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

Only sworn employees of the Bureau of the Census will be permitted to examine the individual reports.

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 ..... County .....

3. Character of organization (state whether individual, firm or partnership, incorporated company, mutual company, or cooperative association) .....

4. Does your company, line, or system operate a switchboard? (Answer Yes or No) .....

	Company owned	Owned by "Service lines"[1]	Total
5. Number of miles of single wire in your entire line or system, December 31, 1932			
6. Number of telephones on your entire line or system December 31, 1932			
7. Approximate number of these telephones located in homes (residence telephones)			

[1] For definition see Inquiry 17.

8. Estimated total number of originating calls per day on your entire line or system .....

9. Number of central offices (switchboards) operated by your company, line, or system ..... (If answer to 4 is "No"—write "None")

10. Total gross receipts from the operation of your entire line or system during 1932 (do not include assessments levied by mutual companies—report them under Inquiry 11) ..... $

11. Mutual companies—report the total amount of assessments levied during 1932 for operation and maintenance of your entire line or system ..... $

12. Total taxes paid or payable during 1932 (excluding emergency tax on telephone messages imposed by the Federal Revenue Act of 1932) ..... $

13. Number of regular employees (including salaried officers) in 1932:

Male employees ..... Female employees ..... Total .....

14. Total amount expended for salaries and wages during 1932 ..... $

	By company[1]	By "Service lines"[1, 2]	Total
15. Total investments in lines or systems to December 31, 1932	$	$	$

[1] 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. [2] For definition see Inquiry 17.

16. If your line or system does not operate a switchboard (see Inquiry 4), does your line or system connect directly with any central office or switchboard for service? (Answer Yes or No) ..... *If "Yes,"* what company, line, or system owns it and where is it located? .....

17. How many "Service lines" are covered by data included in this report? ..... (How many lines)

Give names of "Service lines" *connecting* with your switchboard, or switchboards, data for which *are included* in this report. (Give name and address of Secretary, or other person, in charge of each line.) Use a separate sheet if necessary.

(The term "Service line" means lines *not owned* by the company, line, or system making this report (independently owned lines) but directly connected with its switchboard, or switchboards, for switching service.)

Name or designated number of line	Name of secretary, or other person, in charge of each line	Post office address of person in charge of each line

18. Give names of "Service lines" *connecting* with your switchboard, or switchboards, but *not covered* by data included in this report. Give name of lines in your vicinity which do not connect with *any* switchboard. (Give name and address of Secretary, or other person, who can give the information for each line.) Use a separate sheet if necessary.

Name or designated number of line	Name of secretary, or other person, in charge of each line	Post office address of person in charge of each line

CERTIFICATE

THIS IS TO CERTIFY that the information contained in this report is complete and correct to the best of my knowledge and belief, and it covers the period from ....., 193 , to ....., 193

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

(Signature of special agent or other Government officer securing report)

(Address of person furnishing the information)

Confidential Government Report—Return Promptly

Form 2031 A

File No.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON

CENSUS OF TELEGRAPHS, 1932

(Required by Act of Congress)

All commercial telegraph systems (land, ocean cable, and wireless) must be reported on this schedule

In compliance with an act of Congress approved June 7, 1906, a census of telegraphs is taken every fifth year. The Bureau of the Census is now taking the census for 1932. Please answer the following questions and return this report at once in the inclosed envelope, which requires no postage.

The information given in your report will be held in strict confidence.

No publication will be made disclosing the names or operations of individual companies.

Only sworn employees of the Bureau of the Census will be permitted to examine the individual reports.

W. M. STEUART,
Director of the Census.

NAME OF COMPANY OR SYSTEM.....

ADDRESS OF GENERAL OFFICE { Street and number..... / City or town..... State.....

1. CHARACTER OF OWNERSHIP.—(State the form of ownership as it existed on the last day of the year covered by the report, whether individual, firm or partnership, incorporated company, or other form).....

2. NATURE OF BUSINESS: Land telegraph ..... (Yes or No) Ocean telegraph ..... (Yes or No)
Railway telegraph ..... (Yes or No) Wireless telegraph ..... (Yes or No) Telephone business ..... (Yes or No)

3. If a consolidated company, give names and addresses of constituent companies acquired since 1927 and covered by this report:.....

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

5. MILES OF SINGLE WIRE DECEMBER 31, 1932.—(The answers to this inquiry should show the total number of miles of pole line and wire in operation or ready for operation. If actual length is not known, give careful estimate. If several wires are carried on one line of poles or in one conduit or cable, count length of each wire separately.)

	Miles of pole line	Miles of single wire
Aggregate		
Aerial, total		
Owned:		
On reporting company's right of way		
On highway		
On railway right of way		
Leased or controlled:		
On lessor's right of way		
On highway		
On railway right of way		
Underground	x x x x x x x x x x	
Submarine	x x x x x x x x x x	

(OVER)

[Each question should be answered. If not applicable, write "None"]

6. Nautical miles of ocean cable.....

7. NUMBER OF MAIN AND BRANCH OFFICES OR STATIONS, DECEMBER 31, 1932.

Operated solely by reporting company	
Operated with other telegraph and cable companies	
Operated with telephone companies	
Operated jointly by reporting and railway companies	
Total number of telegraph offices	
Railway offices operated solely by reporting company	
Tower stations for wireless	

8. ESTIMATED NUMBER OF MESSAGES SENT DURING 1932.—Do not include service messages.

Messages	Land telegraph	Submarine cable	Wireless
Government			
Commercial rate (other than Government)			
Total revenue messages			
Contract or free			

FINANCIAL STATISTICS

9. Telegraph and cable operating revenues during 1932 (I. C. C. Account 300)	$.....
10. Revenues from transmission—telegraph or wireless, during 1932 (I. C. C. Accounts 500–507)	$.....
11. Revenues from transmission—cable, during 1932 (I. C. C. Accounts 510–513)	$.....
12. Taxes assignable to operations during the year 1932 (I. C. C. Account 305) (Do not include emergency tax on telegraph messages imposed by Federal Revenue Act for 1932)	$.....
13. Investment in plant and equipment, December 31, 1932 (I. C. C. Accounts 100–102)	$.....

EMPLOYEES, SALARIES, AND WAGES

	Number
14. Number of employees, including salaried officers, and including part-time and temporary employees, as of June 30, 1932, or last weekly pay roll for that month. If data are not available for that day or month, give data as of nearest representative normal day, and state day and month here.....	
Salaried employees (salaried officers of corporation, superintendents, managers, clerks, stenographers, etc.)	
Operators: Male ..... Female ..... Total	
All other employees (do not include those engaged exclusively on additions or extensions)	
15. Total salaries and wages paid to all employees during 1932	$.....

CERTIFICATE

THIS IS TO CERTIFY that the information contained in this report is complete and correct to the best of my knowledge and belief, and that it covers the period from ....., 193 to ....., 193

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

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

.....
(Signature of special agent or other Government officer securing report)

o 4 Government Printing Office, 1932 8—27778