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CHAPTER VI

INCOME FROM WAGES AND SALARIES SUMMARIZED

Tables XI, XII, and XIII are summaries of the estimates of the total wages and salaries received by all employees in the Continental United States in 1919, 1920, and 1921. The scope of the material presented in these tables is so large that, with the limited amount of space here available, it would be hardly possible to select with appropriate discrimination the points that would be of greatest interest to the general reader. The presentation of these tables is made merely with the hope that they may prove of assistance in other investigations of a more particular character than the present study.

A limited analysis of the data pertaining to the total income from wages and salaries is found in Table XIV. 1919 is perhaps the most representative of the three years under observation (though not highly representative at that) and, hence, the analysis is made for that year, and is based on the figures shown in Table XI.

The first column of Table XIV shows the percentage of the national total of wages from all sources received by employees in each State. The concentration of population and industrial activity in the eastern part of the United States is here reflected with particular emphasis. The fourteen States comprising the New England, Middle Atlantic, and East North Central divisions account for over 62 per cent of the total payrolls of the country, 29 per cent going to employees in New York, New Jersey, and Pennsylvania alone. The South Atlantic division, with over 13 per cent of the total population, receives 8.7 per cent of the total payrolls, while the two South Central divisions, whose population makes up about 18 per cent of the total, receive only 9.5 per cent of the total wages and salaries disbursed in the Continental United States. What we might call a perfect balance between total wages and salaries and total population is found in the Mountain States. In 1919 the employees in these States received about 3.09 per cent

TABLE XI. — TOTAL SHARE OF EMPLOYEES IN THE INCOME DERIVED FROM ALL INDUSTRIES, 1919

DOLLARS (000's Omitted)

STATE AND GEOGRAPHIC DIVISION	All Industries	Agriculture	Mining	Manufacturing	Construction	Trade, Transportation, and Miscellaneous Industries
Continental United States...	34,769,362	1,490,711	1,415,903	13,624,401	1,349,580	16,888,767
New England.....	3,313,256	61,603	9,248	1,790,390	96,522	1,355,493
Maine.....	235,075	10,922	1,170	113,071	6,046	103,866
New Hampshire.....	164,273	5,341	922	93,493	3,549	60,968
Vermont.....	94,744	8,624	3,490	41,863	2,767	38,000
Massachusetts.....	1,002,544	19,250	2,393	961,310	49,988	869,603
Rhode Island.....	288,326	2,434	482	170,371	7,626	107,413
Connecticut.....	628,294	15,032	791	410,282	26,546	175,643
Middle Atlantic.....	10,154,284	141,163	456,343	4,530,766	339,379	4,686,633
New York.....	5,016,170	72,524	8,928	1,994,587	169,022	2,771,109
New Jersey.....	1,404,335	20,044	6,119	779,102	56,817	602,253
Pennsylvania.....	3,673,779	48,595	441,296	1,757,077	113,540	1,313,271
East North Central.....	8,281,806	264,733	265,588	3,911,684	372,875	3,466,926
Ohio.....	2,384,568	52,089	66,376	1,231,800	117,521	916,722
Indiana.....	899,235	36,777	34,271	407,264	35,521	385,400
Illinois.....	2,734,692	86,895	104,302	1,092,628	113,108	1,337,759
Michigan.....	1,507,358	36,113	55,107	797,884	74,267	543,987
Wisconsin.....	756,013	52,859	5,532	382,108	32,458	283,056
West North Central.....	3,236,437	368,336	94,932	765,346	126,753	1,881,070
Minnesota.....	661,740	53,689	32,925	176,906	27,005	371,215
Iowa.....	592,756	76,399	13,810	127,015	29,988	345,544
Missouri.....	968,579	44,250	18,641	282,918	35,548	587,222
North Dakota.....	111,709	39,515	1,188	7,277	2,254	61,475
South Dakota.....	122,948	33,968	2,819	10,509	3,199	72,453
Nebraska.....	311,792	48,110	193	63,771	13,266	186,452
Kansas.....	466,913	72,405	25,356	96,950	15,493	256,709
South Atlantic.....	3,026,348	116,683	168,252	962,922	135,889	1,642,602
Delaware.....	85,509	3,111	156	45,436	3,873	32,933
Maryland.....	542,310	18,872	6,941	192,376	19,110	305,011
District of Columbia.....	284,939	23	8	20,404	14,212	250,292
Virginia.....	503,820	23,315	17,929	148,483	27,828	286,265
West Virginia.....	397,203	7,150	134,564	121,050	14,360	120,079
North Carolina.....	350,504	13,413	1,688	152,528	14,494	168,381
South Carolina.....	212,037	16,518	820	74,009	9,393	111,297
Georgia.....	441,323	21,355	2,372	129,282	21,809	266,505
Florida.....	208,703	12,926	3,774	79,354	10,810	101,839
East South Central.....	1,331,490	49,275	111,745	377,884	46,102	746,484
Kentucky.....	430,620	19,836	56,955	88,957	9,852	255,020
Tennessee.....	374,494	12,470	14,626	109,361	17,976	220,061
Alabama.....	353,470	8,732	40,164	119,614	11,512	173,448
Mississippi.....	172,906	8,237	.....	59,952	6,762	97,955
West South Central.....	1,980,618	175,596	110,296	379,619	108,911	1,206,196
Arkansas.....	208,258	15,026	5,175	57,540	11,282	119,235
Louisiana.....	360,266	23,139	9,073	119,126	11,498	197,430
Oklahoma.....	425,838	43,401	59,452	49,238	24,131	249,616
Texas.....	985,256	93,030	36,596	153,715	62,000	639,915
Mountain.....	1,074,510	122,806	152,335	181,687	37,046	580,636
Montana.....	181,521	23,898	28,723	30,746	8,637	90,017
Idaho.....	107,087	19,939	5,985	21,950	5,938	63,875
Wyoming.....	77,380	10,153	16,171	13,322	1,930	35,804
Colorado.....	315,317	29,486	28,999	58,465	8,368	189,969
New Mexico.....	85,240	12,195	11,912	7,936	2,024	51,173
Arizona.....	137,491	12,189	31,452	15,795	4,251	73,804
Utah.....	127,564	9,185	19,758	28,389	5,210	65,022
Nevada.....	42,910	6,261	9,935	5,084	688	20,942
Pacific.....	2,371,613	191,516	47,164	724,103	86,103	1,322,727
Washington.....	573,761	37,061	8,330	230,771	19,272	278,327
Oregon.....	280,449	23,020	1,191	97,745	10,041	148,452
California.....	1,517,403	131,435	37,643	395,587	56,790	895,948

TABLE XII.—TOTAL SHARE OF EMPLOYEES IN THE INCOME DERIVED FROM ALL INDUSTRIES, 1920

DOLLARS (000's Omitted)

STATE AND GEOGRAPHIC DIVISION	All Industries	Agriculture	Mining	Manufacturing	Construction	Trade, Transportation and Miscellaneous Industries
Continental United States...	41,560,157	1,663,237	1,859,208	17,368,540	1,326,102	19,343,070
New England	4,134,927	71,350	11,078	2,360,741	111,684	1,580,074
Maine.....	285,639	12,482	1,399	144,899	6,790	120,069
New Hampshire.....	198,652	6,208	1,106	116,451	5,583	69,304
Vermont.....	111,621	9,573	4,180	52,039	2,997	42,832
Massachusetts.....	2,441,830	22,849	2,867	1,327,483	58,269	1,030,362
Rhode Island.....	345,666	2,683	576	213,562	7,267	121,578
Connecticut.....	751,519	17,555	950	506,307	30,778	195,929
Middle Atlantic	12,258,491	159,070	608,767	5,772,154	329,404	5,389,096
New York.....	6,124,529	86,361	10,098	2,617,918	178,427	3,231,125
New Jersey.....	1,715,302	23,737	7,330	951,229	57,102	675,904
Pennsylvania.....	4,418,660	48,972	590,739	2,203,007	93,875	1,482,067
East North Central	9,996,982	301,061	375,310	4,995,682	324,789	4,000,140
Ohio.....	2,799,140	58,544	102,414	1,508,160	102,189	1,027,833
Indiana.....	1,136,634	38,890	50,189	545,540	39,584	462,431
Illinois.....	3,340,511	97,211	149,608	1,444,292	86,423	1,052,977
Michigan.....	1,824,778	42,554	66,472	1,025,060	63,109	627,583
Wisconsin.....	895,919	63,862	6,627	472,630	33,484	319,316
West North Central	3,779,339	407,076	114,944	989,460	126,457	2,141,402
Minnesota.....	766,911	59,206	39,447	222,851	28,869	416,538
Iowa.....	699,652	86,351	18,345	164,766	28,445	401,745
Missouri.....	1,159,932	47,077	23,518	378,116	31,853	679,368
North Dakota.....	126,367	44,754	1,192	9,522	3,024	67,875
South Dakota.....	137,726	37,881	3,370	12,859	3,991	79,625
Nebraska.....	354,294	50,548	230	78,166	16,430	208,920
Kansas.....	534,457	81,259	28,842	123,180	13,845	287,331
South Atlantic	3,498,719	129,160	240,397	1,176,386	131,960	1,820,816
Delaware.....	89,210	3,523	184	48,992	2,520	33,991
Maryland.....	636,223	20,797	11,219	237,203	22,703	344,301
District of Columbia.....	317,415	25	11	27,255	9,269	280,855
Virginia.....	519,214	25,779	24,157	176,918	15,621	306,739
West Virginia.....	523,980	8,188	194,461	161,499	13,420	146,412
North Carolina.....	405,661	15,501	2,021	185,935	17,597	184,607
South Carolina.....	249,870	18,180	985	93,751	14,415	122,539
Georgia.....	496,240	23,440	2,839	154,382	24,745	290,834
Florida.....	230,906	13,727	4,520	90,451	11,670	110,538
East South Central	1,555,750	51,807	143,179	474,924	48,045	837,795
Kentucky.....	538,676	19,747	83,281	122,322	11,842	301,484
Tennessee.....	433,640	13,438	19,377	136,822	17,425	246,478
Alabama.....	396,810	9,897	40,521	147,739	11,869	186,784
Mississippi.....	186,724	8,725	.....	68,041	6,909	103,049
West South Central	2,292,405	192,583	131,893	484,294	105,001	1,378,634
Arkansas.....	229,018	17,738	6,604	63,766	13,831	127,079
Louisiana.....	434,694	27,956	10,871	152,181	17,333	226,353
Oklahoma.....	479,203	45,455	71,084	61,320	20,448	280,896
Texas.....	1,149,490	101,434	43,334	207,027	53,389	744,306
Mountain	1,248,172	140,620	178,535	231,451	39,690	657,876
Montana.....	199,642	24,321	34,382	37,022	6,180	97,637
Idaho.....	116,885	21,633	6,466	25,169	4,641	58,976
Wyoming.....	98,571	13,006	18,630	20,940	3,302	42,693
Colorado.....	374,985	35,062	33,235	75,325	12,585	218,778
New Mexico.....	97,995	14,196	13,126	10,272	2,492	57,909
Arizona.....	161,600	14,643	37,673	19,182	6,087	84,015
Utah.....	148,083	10,867	23,122	36,256	3,713	74,125
Nevada.....	50,511	6,892	11,901	7,285	690	23,743
Pacific	2,795,372	210,510	55,105	883,448	109,072	1,537,237
Washington.....	603,322	41,040	8,592	243,919	17,014	292,757
Oregon.....	308,761	23,251	1,418	111,657	10,635	161,800
California.....	1,883,289	146,219	45,095	527,872	81,423	1,082,680

TABLE XIII.—TOTAL SHARE OF EMPLOYEES IN THE INCOME DERIVED FROM ALL INDUSTRIES, 1921

DOLLARS (000's Omitted)

STATE AND GEOGRAPHIC DIVISION	All Industries	Agriculture	Mining	Manufacturing	Construction	Trade, Transportation and Miscellaneous Industries
Continental United States.	34,700,877	1,407,576	1,290,124	11,050,617	1,054,848	19,897,712
New England.	3,231,649	69,780	4,722	1,492,652	69,820	1,594,675
Maine.....	238,993	11,612	597	99,914	4,188	122,682
New Hampshire.....	160,705	5,888	471	80,355	2,785	71,206
Vermont.....	92,361	9,071	1,782	35,177	2,046	44,285
Massachusetts.....	1,927,457	22,544	1,222	828,597	39,293	1,035,801
Rhode Island.....	285,126	2,796	246	149,960	5,622	126,502
Connecticut.....	527,007	17,869	404	298,649	15,886	194,199
Middle Atlantic.	10,252,722	158,980	528,025	3,731,066	290,231	5,544,420
New York.....	5,387,336	83,457	4,559	1,777,062	162,921	3,359,337
New Jersey.....	1,383,625	22,123	3,124	620,190	48,734	689,454
Pennsylvania.....	3,481,761	53,400	520,342	1,333,814	78,576	1,495,629
East North Central.	7,840,634	264,363	253,199	3,043,721	241,306	4,038,045
Ohio.....	2,066,060	50,777	59,743	866,033	78,755	1,010,752
Indiana.....	888,349	35,338	34,606	337,717	28,164	452,524
Illinois.....	2,910,080	88,345	126,103	985,524	67,668	1,642,440
Michigan.....	1,268,181	36,265	29,922	551,862	44,683	605,449
Wisconsin.....	707,964	53,638	2,825	302,585	22,036	326,880
West North Central.	3,380,261	320,923	62,536	678,211	92,964	2,225,627
Minnesota.....	671,477	45,418	16,813	150,630	23,734	434,882
Iowa.....	619,691	68,570	12,585	111,208	17,447	409,881
Missouri.....	1,054,598	43,597	14,430	263,150	21,318	712,103
North Dakota.....	114,188	34,168	1,323	6,504	1,044	71,149
South Dakota.....	120,953	26,132	1,440	8,693	3,376	81,312
Nebraska.....	317,910	36,848	99	53,949	11,551	215,463
Kansas.....	481,444	66,190	15,846	84,077	14,494	300,837
South Atlantic.	2,959,841	106,066	148,701	734,850	102,584	1,867,640
Delaware.....	67,656	3,275	80	26,446	2,996	34,859
Maryland.....	546,246	19,478	4,947	153,764	15,601	352,456
District of Columbia.....	310,442	26	4	20,706	10,844	278,862
Virginia.....	481,798	22,886	14,554	109,117	15,327	319,914
West Virginia.....	384,574	7,353	124,697	96,491	11,224	144,809
North Carolina.....	335,674	11,704	862	119,284	11,392	192,432
South Carolina.....	208,984	13,011	419	62,189	8,470	124,895
Georgia.....	428,338	16,027	1,211	93,347	16,234	301,519
Florida.....	196,129	12,306	1,927	53,506	10,496	117,894
East South Central.	1,354,599	43,435	99,794	300,144	43,597	867,629
Kentucky.....	481,103	17,003	58,653	84,096	9,399	311,952
Tennessee.....	387,480	11,875	12,040	90,652	15,865	257,048
Alabama.....	329,630	7,505	29,101	87,742	12,036	193,246
Mississippi.....	156,386	7,052	.....	37,654	6,297	105,333
West South Central.	2,076,081	154,369	62,703	325,218	85,856	1,447,935
Arkansas.....	201,081	13,425	4,270	36,975	11,825	134,586
Louisiana.....	369,453	20,392	4,633	101,880	9,821	232,727
Oklahoma.....	419,220	34,510	35,004	43,982	16,783	288,941
Texas.....	1,086,327	86,042	18,796	142,381	47,427	791,681
Mountain.	1,075,875	110,012	104,026	155,614	25,991	680,232
Montana.....	157,548	16,228	17,362	22,459	3,070	98,429
Idaho.....	105,571	17,419	2,750	18,669	3,555	63,178
Wyoming.....	89,911	10,596	15,538	16,117	1,698	45,062
Colorado.....	345,045	28,479	24,762	53,017	7,753	231,034
New Mexico.....	88,869	11,548	8,427	6,084	2,679	60,131
Arizona.....	120,835	10,185	16,000	9,584	3,523	81,483
Utah.....	127,803	9,337	14,054	24,744	3,186	76,482
Nevada.....	40,293	6,220	5,073	4,940	527	23,533
Pacific.	2,529,215	179,648	26,418	589,141	102,499	1,631,509
Washington.....	476,978	34,139	6,550	127,680	13,122	295,478
Oregon.....	268,073	20,753	647	64,707	11,023	170,853
California.....	1,784,164	124,756	19,221	396,655	78,354	1,165,178

of the total payrolls of the country, a percentage very similar to that representing the total population in this division, which on January 1, 1920, was about 3.16 per cent of the total of the Continental United States.

As might be expected, New York leads all the other States in the amount of total payrolls. In 1919 the employees residing in New York received over 14.4 per cent of the total wages and salaries disbursed in the country. This percentage is particularly striking when we consider that New York had only about 9.8 per cent of the total population.

In 1919 about 39 per cent of the total wages and salaries in the Continental United States was derived from manufactures. Agriculture, which is probably the most important basic industry of the country, furnished only a little over 4 per cent of the total, surpassing the mining and construction industries by only a very small amount.

Was the distribution of the total payrolls in the different States somewhat the same as for the entire country? Let us again refer to Table XIV. Glancing down the third column from the right, we find that for geographic divisions, the range in the percentages of the total payrolls received by employees in manufacturing is between about 17 per cent in the Mountain States and 54 per cent in New England. For individual States the range is between 6.5 per cent and 65.3 per cent.

From the standpoint of the relative importance of manufacturing, Connecticut seems to be the leading State. The next highest State in this respect is Rhode Island, which is followed by another New England State, — New Hampshire. Probably the most striking fact brought out by Table XIV is the insignificant rôle played by farm wages in the total payrolls of the country. Even in the most highly agricultural States, such as the Dakotas, farm wages constitute only about one-third of the total amount received by all employees in these States.

The relative position of mining, from the standpoint of total payrolls, seems to be most important in West Virginia, where this industry contributes about 34 per cent of the total wages and salaries in the State. This, of course, does not mean that the total payroll in mining is greater in West Virginia than in any other

TABLE XIV.—PERCENTAGE DISTRIBUTION OF TOTAL INCOME FROM WAGES AND SALARIES, 1919

PER CENT OF U. S. TOTAL IN STATE (WAGES AND SALARIES FROM ALL SOURCES)	STATE AND GEOGRAPHIC DIVISION	PER CENT OF TOTAL WAGES AND SALARIES IN STATE DUE TO					Trade, Trans- portation, and Miscellaneous Industries
		All Industries	Agriculture	Mining	Manufacturing	Construction	
100.000	Continental United States.....	100.000	4.287	4.072	39.185	3.882	48.574
9.529	New England.....	100.000	1.859	.279	54.037	2.913	40.912
.676	Maine.....	100.000	4.646	.498	48.100	2.572	44.184
.473	New Hampshire.....	100.000	3.251	.561	56.913	2.161	37.114
.272	Vermont.....	100.000	9.102	3.684	44.185	2.920	40.109
5.472	Massachusetts.....	100.000	1.012	.126	50.528	2.627	45.707
.829	Rhode Island.....	100.000	.844	.167	59.090	2.645	37.254
1.807	Connecticut.....	100.000	2.393	.126	65.301	4.225	27.955
29.205	Middle Atlantic.....	100.000	1.390	4.494	44.619	3.343	46.154
14.427	New York.....	100.000	1.446	.178	39.763	3.370	55.243
4.212	New Jersey.....	100.000	1.369	.418	53.205	3.880	41.128
10.566	Pennsylvania.....	100.000	1.323	12.012	47.827	3.091	35.747
23.818	East North Central.....	100.000	3.197	3.207	47.232	4.502	41.862
6.858	Ohio.....	100.000	2.184	2.784	51.658	4.929	38.445
2.586	Indiana.....	100.000	4.090	3.811	45.290	3.950	42.859
7.865	Illinois.....	100.000	3.178	3.814	39.954	4.136	48.918
4.335	Michigan.....	100.000	2.395	3.656	52.933	4.927	36.089
2.174	Wisconsin.....	100.000	6.992	.732	50.542	4.293	37.441
9.309	West North Central.....	100.000	11.381	2.933	23.648	3.916	58.122
1.903	Minnesota.....	100.000	8.113	4.975	26.734	4.081	56.097
1.705	Iowa.....	100.000	12.889	2.330	21.428	5.059	58.294
2.786	Missouri.....	100.000	4.569	1.924	29.210	3.670	60.627
.321	North Dakota.....	100.000	35.373	1.064	6.514	2.018	55.031
.354	South Dakota.....	100.000	27.628	2.293	8.547	2.602	58.980
.897	Nebraska.....	100.000	15.430	.062	20.453	4.255	59.800
1.343	Kansas.....	100.000	15.507	5.431	20.764	3.318	54.980

8.704	South Atlantic	100.000	3.856	5.560	31.818	4.490	54.276
.246	Delaware	100.000	3.638	.183	53.136	4.529	38.514
1.560	Maryland	100.000	3.480	1.280	35.473	3.524	56.243
.820	District of Columbia	100.000	.008	.003	7.161	4.988	87.840
1.449	Virginia	100.000	4.628	3.559	29.471	5.523	56.819
1.142	West Virginia	100.000	1.800	33.878	30.476	3.615	30.231
1.008	North Carolina	100.000	3.827	.482	43.517	4.135	48.039
.610	South Carolina	100.000	7.790	.387	34.904	4.430	52.489
1.269	Georgia	100.000	4.839	.537	29.294	4.942	60.388
.600	Florida	100.000	6.193	1.808	38.023	5.180	48.796
3.830	East South Central	100.000	3.701	8.392	28.381	3.462	56.064
1.239	Kentucky	100.000	4.606	13.226	20.658	2.288	59.222
1.077	Tennessee	100.000	3.330	3.906	29.202	4.800	58.762
1.017	Alabama	100.000	2.470	11.363	33.840	3.257	49.070
.497	Mississippi	100.000	4.764	.....	34.673	3.911	56.652
5.694	West South Central	100.000	8.866	5.569	19.167	5.498	60.900
.599	Arkansas	100.000	7.215	2.485	27.629	5.417	57.254
1.036	Louisiana	100.000	6.423	2.518	33.066	3.192	54.801
1.225	Oklahoma	100.000	10.192	13.961	11.563	5.667	58.617
2.834	Texas	100.000	9.442	3.714	15.602	6.293	64.949
3.090	Mountain	100.000	11.429	14.177	16.909	3.448	54.037
.522	Montana	100.000	12.890	15.824	16.938	4.758	49.590
.308	Idaho	100.000	18.620	5.029	20.497	5.545	50.309
.223	Wyoming	100.000	13.121	20.898	17.217	2.494	46.270
.907	Colorado	100.000	9.351	9.197	18.542	2.654	60.256
.245	New Mexico	100.000	14.307	13.975	9.310	2.374	60.034
.395	Arizona	100.000	8.865	22.876	11.488	3.092	53.679
.367	Utah	100.000	7.200	15.489	22.255	4.084	50.972
.123	Nevada	100.000	14.591	23.153	11.848	1.604	48.804
6.821	Pacific	100.000	8.075	1.989	30.532	3.631	55.773
1.650	Washington	100.000	6.459	1.452	40.221	3.359	48.509
.807	Oregon	100.000	8.208	.425	34.853	3.580	52.934
4.364	California	100.000	8.662	2.481	26.070	3.743	59.044

State. A glance at Table XI will show that Pennsylvania mining payrolls are over three times as great as those of West Virginia. However, in an intra-State comparison of the several industrial groups, we find that in Pennsylvania the wages and salaries derived from mining constitute only 12 per cent of the total payrolls of the State. We see, then, that, as in the case of agriculture, wages and salaries in mining play only a secondary part even in the leading mining States.

It may be suggested at this point that a study of the relative composition of the total payrolls may prove very useful in analyzing the economic stability of a given section of the country. Even from the limited classification of wages and salaries given in Table XIV, one can readily understand why the income of some sections of the country is likely to be subject to greater cyclical fluctuations than that of others. For example, the strong position of New York in this respect is clearly revealed when we consider the apparent diversity of its industrial activities. Unlike some of the other highly industrialized States, the sources of the income of its inhabitants, and particularly of those dependent upon wages or salaries, are greatly varied in character. In New Jersey, over 53 per cent of the total payrolls comes from manufacturing. Approximately the same condition is found to exist in Ohio and Massachusetts, while in Connecticut, as we have already observed, manufacturing industries contribute over 65 per cent of the total wages and salaries disbursed. The situation in New York, however, is entirely different. In spite of the fact that the manufacturing payrolls in that State are the highest in the country, they represent less than 40 per cent of the total wages and salaries in the State, the bulk of the payroll being due to miscellaneous industries, of which commerce and the allied activities form a very important part. It can readily be conceived that the community or State not leaning too heavily on one type of industry can weather depressions in the most satisfactory manner.

In this connection, the State of Michigan furnishes a good example of excessive concentration along specialized lines. In 1919 about 53 per cent of the total payrolls in that State came from manufacturing industries. Of these manufacturing payrolls, about 43 per cent was received by employees in the automobile indus-

tries; in other words, the automobile industries in the State of Michigan contributed roughly 23 per cent of the total wages and salaries disbursed in the State. What are the results of such concentration in times of depression? Putting the total payrolls in Michigan for the three years under observation on a percentage basis, with 1919 as 100, we have the following relative numbers:

1919.....	100
1920.....	121
1921.....	84

This gives us a spread of thirty-seven in the total annual earnings of employees between 1920 and 1921. The corresponding figures for New York, however, were:

1919.....	100
1920.....	122
1921.....	107

or a difference between 1920 and 1921 of only fifteen. While in Michigan the total amount of the payrolls in all industries for 1921 was 16 per cent below 1919, in New York it amounted to 7 per cent above the 1919 mark.

The same principle seems to have worked in most of the other States. Ohio, for instance, with nearly 52 per cent of its payrolls coming from manufacturing, which is heavily weighted with the metal industries, suffered heavy losses in its 1921 payrolls, these aggregating only 87 per cent of the 1919 total. In Iowa, on the other hand, the 1921 payrolls were 4 per cent higher than those of 1919.

Average Earnings of Employees.

Thus far, we have discussed the distribution of wages and salaries by States from a rather general standpoint. Our comparisons were made between States as units, and only in an indirect manner did we touch the individuals residing therein. The study of geographic units from the standpoint of the total amount of income received in each is undoubtedly interesting and quite useful, but, after all, we are chiefly interested in the more intimate social units,—the individual or the family. To say that the wage earners in a certain State received 10 per cent of the total amount disbursed in the entire country does not tell us anything about the individual

income of the wage earners. The State with the greatest share of the country's income may well be the poorest from the standpoint of the population residing therein, if there are too many to share in that income. To judge the comparative economic position of individuals in the different States, we must have averages rather than totals.

How do average earnings of employees compare in the different parts of the country? Are the States with the highest absolute payrolls also those where individual earnings are highest? Table XV and Chart 6 are intended to throw light upon this subject. The averages presented in this table and chart are based on estimates of total wages and salaries disbursed in all industries in each State during 1919, 1920, and 1921, and estimates of the total number of employees attached to all industries in each State at the middle of each year. It therefore follows that the figures shown are not hypothetical full-time earnings, but, presumably, are the averages of the amounts actually received by all employees, irrespective of the length of time employed in each year. The figures appearing in Chart 6 are the same as those shown in the last three columns of Table XV, only instead of the geographic arrangement, they follow an array according to the 1919 averages. 1919 is again chosen as the representative of the three years studied.

It is interesting to note that the list is headed by three Western States, and that all the States included in the Mountain and Pacific divisions, with the exception of New Mexico, fall in the first half of the array. It is also interesting and quite characteristic that the Southern States are practically all included in the lowest quarter, with Mississippi bringing up the rear. The industrial States are all to be found in the upper part of the array, while the agricultural States of the Middle West occupy the center.

A very interesting condition is disclosed by a study of the outline made by the ends of the solid black bars in Chart 6. It will be seen that the gradation in average annual earnings is quite regular until we reach within two or three States of the lower quartile.¹ At this point, we see a sharp change in the angle of the outline. This fact is also shown when we study the range of the average earnings of employees in the different States as represented

¹ The quartile is the item marking the first fourth or the third fourth of the array.

CHART 6

AVERAGE EARNINGS PER EMPLOYEE IN EACH STATE
1919-1920-1921

STATES ARRAYED ACCORDING TO AVERAGE EARNINGS IN 1919

Rank of State 1919	Average Earnings per Employee (Dollars)			State	Average Earnings per Employee-1919 and 1921		
	1919	1920	1921		\$500	\$1,000	\$1,500
1	1,363	1,496	1,120	Montana	██████████		
2	1,344	1,647	1,313	Nevada	██████████		
3	1,325	1,699	1,479	Wyoming	██████████		
4	1,305	1,595	1,061	Michigan	██████████		
5	1,290	1,609	1,380	New York	██████████		
6	1,286	1,529	1,095	Ohio	██████████		
7	1,272	1,479	1,044	Arizona	██████████		
8	1,261	1,572	1,341	Illinois	██████████		
9	1,258	1,499	1,525	Dist. of Columbia	██████████		
10	1,256	1,490	1,156	New Jersey	██████████		
11	1,239	1,532	1,383	California	██████████		
12	1,236	1,323	1,013	Washington	██████████		
13	1,234	1,517	1,162	Pennsylvania	██████████		
14	1,192	1,402	1,246	Kansas	██████████		
15	1,192	1,561	1,203	Massachusetts	██████████		
16	1,192	1,443	977	Connecticut	██████████		
17	1,187	1,433	1,284	Colorado	██████████		
18	1,185	1,397	1,165	Utah	██████████		
19	1,157	1,236	920	Delaware	██████████		
20	1,156	1,295	1,095	Oregon	██████████		
21	1,135	1,246	1,079	Idaho	██████████		
22	1,126	1,378	1,116	Rhode Island	██████████		
23	1,121	1,310	1,153	Nebraska	██████████		
24	1,118	1,292	1,138	North Dakota	██████████		
25	1,109	1,271	1,096	South Dakota	██████████		
26	1,105	1,262	1,068	Oklahoma	██████████		
27	1,104	1,477	1,041	West Virginia	██████████		
28	1,101	1,423	1,095	Indiana	██████████		
29	1,085	1,311	1,140	Iowa	██████████		
30	1,071	1,264	1,080	Minnesota	██████████		
31	1,071	1,281	999	Wisconsin	██████████		
32	1,069	1,284	1,077	Maryland	██████████		
33	1,053	1,296	1,167	Missouri	██████████		
34	1,031	1,213	1,077	New Mexico	██████████		
35	1,012	1,257	1,006	New Hampshire	██████████		
36	979	1,224	1,015	Maine	██████████		
37	978	1,160	1,064	Texas	██████████		
38	951	1,157	953	Vermont	██████████		
39	900	1,157	1,017	Kentucky	██████████		
40	890	991	891	Virginia	██████████		
41	829	987	867	Tennessee	██████████		
42	796	916	748	Alabama	██████████		
43	793	891	767	Arkansas	██████████		
44	782	968	808	Louisiana	██████████		
45	757	894	721	North Carolina	██████████		
46	743	852	721	Georgia	██████████		
47	736	807	672	Florida	██████████		
48	676	813	667	South Carolina	██████████		
49	660	737	613	Mississippi	██████████		

██████████ 1919
 ▨▨▨▨▨▨ 1921

TABLE XV. — TOTAL WAGES AND SALARIES AND AVERAGE

1919—1920—1921

STATE AND GEOGRAPHIC DIVISION	ESTIMATED TOTAL WAGES AND SALARIES Dollars (000's Omitted)		
	1919	1920	1921
Continental United States.....	34,769,362	41,560,157	34,700,877
New England.....	3,313,256	4,134,927	3,231,649
Maine.....	235,075	285,639	238,993
New Hampshire.....	164,273	198,652	160,705
Vermont.....	94,744	111,621	92,361
Massachusetts.....	1,902,544	2,441,830	1,927,457
Rhode Island.....	288,326	345,666	285,126
Connecticut.....	628,294	751,519	527,007
Middle Atlantic.....	10,154,284	12,258,491	10,252,722
New York.....	5,016,170	6,124,529	5,387,336
New Jersey.....	1,464,335	1,715,302	1,383,625
Pennsylvania.....	3,673,779	4,418,660	3,481,761
East North Central.....	8,281,806	9,996,982	7,840,634
Ohio.....	2,384,508	2,799,140	2,066,060
Indiana.....	899,235	1,136,634	888,349
Illinois.....	2,734,692	3,340,511	2,910,080
Michigan.....	1,507,358	1,824,778	1,268,181
Wisconsin.....	756,013	895,919	707,964
West North Central.....	3,236,437	3,779,339	3,380,261
Minnesota.....	661,740	766,911	671,477
Iowa.....	592,756	699,652	619,691
Missouri.....	968,579	1,159,932	1,054,598
North Dakota.....	111,709	126,367	114,188
South Dakota.....	122,948	137,726	120,953
Nebraska.....	311,792	354,294	317,910
Kansas.....	466,913	534,457	481,444
South Atlantic.....	3,026,348	3,498,719	2,959,841
Delaware.....	85,509	89,210	67,656
Maryland.....	542,310	636,223	546,246
District of Columbia.....	284,939	317,415	310,442
Virginia.....	503,820	549,214	481,798
West Virginia.....	397,203	523,980	384,574
North Carolina.....	350,504	405,661	335,674
South Carolina.....	212,037	249,870	208,984
Georgia.....	441,323	496,240	428,338
Florida.....	208,703	230,906	196,129

EARNINGS PER EMPLOYEE IN ALL INDUSTRIES IN EACH STATE

1919—1920—1921

ESTIMATED TOTAL NUMBER OF EMPLOYEES ATTACHED TO INDUSTRY ^a			AVERAGE EARNINGS PER EMPLOYEE		
1919	1920	1921	1919	1920	1921
30,530,000	29,959,268	30,744,000	1,139	1,387	1,129
2,880,944	2,823,794	2,888,908	1,150	1,464	1,119
240,191	233,342	235,359	979	1,224	1,015
162,263	157,997	159,790	1,012	1,257	1,006
99,630	96,484	96,900	951	1,157	953
1,595,759	1,564,357	1,601,931	1,192	1,561	1,203
256,004	250,831	255,584	1,126	1,378	1,116
527,097	520,783	539,344	1,192	1,443	977
8,030,471	7,870,311	8,097,197	1,264	1,557	1,266
3,888,112	3,805,755	3,904,203	1,290	1,609	1,380
1,165,814	1,151,145	1,196,417	1,256	1,490	1,156
2,976,545	2,913,411	2,996,577	1,234	1,517	1,162
6,700,328	6,589,855	6,771,980	1,236	1,517	1,158
1,854,140	1,830,453	1,886,696	1,286	1,529	1,095
816,483	798,708	811,028	1,101	1,423	1,095
2,168,331	2,125,300	2,170,455	1,261	1,572	1,341
1,155,478	1,143,838	1,195,411	1,305	1,595	1,061
705,896	691,556	708,390	1,071	1,281	999
2,964,144	2,892,964	2,941,535	1,092	1,306	1,149
617,530	606,702	621,855	1,071	1,264	1,080
546,217	533,865	543,368	1,085	1,311	1,140
919,835	894,700	903,602	1,053	1,296	1,167
99,942	97,779	100,322	1,118	1,292	1,138
110,897	108,354	110,384	1,109	1,271	1,096
278,018	270,355	275,709	1,121	1,310	1,153
391,705	381,209	386,295	1,192	1,402	1,246
3,387,784	3,317,595	3,384,179	893	1,054	875
73,897	72,186	73,556	1,157	1,236	920
507,460	495,352	507,144	1,069	1,284	1,077
226,548	211,672	203,562	1,258	1,499	1,525
565,854	554,113	566,009	890	991	851
359,666	354,675	369,289	1,104	1,477	1,041
463,018	453,987	465,888	757	894	721
313,674	307,203	313,141	676	813	667
594,275	582,343	593,680	743	852	721
283,392	286,064	291,910	736	807	672

TABLE XV. — TOTAL WAGES AND SALARIES AND AVERAGE EARNINGS
1919—1920—1921.

STATE AND GEOGRAPHIC DIVISION	ESTIMATED TOTAL WAGES AND SALARIES Dollars (000's Omitted)		
	1919	1920	1921
East South Central.....	1,331,490	1,555,750	1,354,599
Kentucky.....	430,620	538,676	481,103
Tennessee.....	374,494	433,540	387,480
Alabama.....	353,470	396,810	329,630
Mississippi.....	172,906	186,724	156,386
West South Central.....	1,979,618	2,292,405	2,076,081
Arkansas.....	208,258	229,018	201,081
Louisiana.....	360,266	434,694	369,453
Oklahoma.....	425,838	479,203	419,220
Texas.....	985,256	1,149,490	1,086,327
Mountain.....	1,074,510	1,248,172	1,075,875
Montana.....	181,521	199,542	157,548
Idaho.....	107,087	116,885	105,571
Wyoming.....	77,380	98,571	89,911
Colorado.....	315,317	374,985	345,045
New Mexico.....	85,240	97,995	88,869
Arizona.....	137,491	161,600	120,835
Utah.....	127,564	148,083	127,803
Nevada.....	42,910	50,511	40,293
Pacific.....	2,371,613	2,795,372	2,529,215
Washington.....	573,761	603,322	476,978
Oregon.....	280,449	308,761	268,073
California.....	1,517,403	1,883,289	1,784,164

PER EMPLOYEE IN ALL INDUSTRIES IN EACH STATE — *Continued*

1919—1920—1921

ESTIMATED TOTAL NUMBER OF EMPLOYEES ATTACHED TO INDUSTRY ^a			AVERAGE EARNINGS PER EMPLOYEE		
1919	1920	1921	1919	1920	1921
1,636,480	1,591,753	1,615,415	814	977	839
478,521	465,780	472,932	900	1,157	1,017
451,649	439,407	446,770	829	987	867
444,415	433,102	440,732	796	916	748
261,895	253,464	254,981	660	737	613
2,116,447	2,076,731	2,132,422	935	1,104	974
262,515	257,169	261,823	793	891	767
460,951	449,217	456,832	782	968	808
385,297	379,858	392,432	1,105	1,262	1,068
1,007,684	990,487	1,021,335	978	1,160	1,064
881,955	873,064	906,732	1,218	1,430	1,187
133,220	133,393	140,672	1,363	1,496	1,120
94,309	93,803	97,857	1,135	1,246	1,079
58,394	58,000	60,777	1,325	1,699	1,479
265,615	261,106	268,766	1,187	1,433	1,284
82,682	80,799	82,512	1,031	1,213	1,077
108,106	109,266	115,778	1,272	1,479	1,044
107,693	106,024	109,680	1,185	1,379	1,165
31,936	30,673	30,690	1,344	1,647	1,313
1,931,447	1,923,201	2,005,632	1,228	1,453	1,261
464,052	456,003	470,919	1,236	1,323	1,013
242,671	238,338	244,716	1,156	1,295	1,095
1,224,724	1,228,860	1,289,997	1,239	1,532	1,383

^a The estimates of the total number of employees attached to industry in each state are based on the Census of Manufactures, 1919, Census of Mines and Quarries, 1919, and the Occupation Statistics of the 1920 Census of Population. Changes from year to year are based on the estimated trend of population in each state as revealed by increase in population between 1910 and 1920. The preliminary estimates by states have been adjusted to correspond with the Total Number of Employees in the Continental United States as estimated by W. I. King.

by the values at specified intervals of the array. The following readings are expressed as relatives with respect to the highest average earnings recorded:

Highest (Montana).....	100
Upper Quartile (Washington or Pennsylvania).....	90
Median ¹ (South Dakota).....	81
Lower Quartile (Maine or Texas).....	72
Lowest (Mississippi).....	48

We see that the decrease in average earnings as we go down is quite gradual in the first three quarters of the array, the change being about 9 to 11 units (or percentages of the highest) to a quarter. However, in the last quarter of the array, we find a change of 24; in other words, the greatest change in range takes place in the lowest 25 per cent of all the States.

How have average earnings changed in the three years? On account of lack of space, it has not been possible to include 1920 in our graphic presentation. A comparison between 1920 and the other two years can, however, conveniently be made directly from the figures presented in Chart 6, or those shown in Table XV. The bar diagram compares average earnings in 1919 and 1921. The most important point that strikes us about this diagram is the fact that not in all States have average earnings been lower in 1921 than in 1919. The depression of 1921 seems to have missed a number of States — at least in so far as wages and salaries are concerned — so much so that in such States the average earnings were actually higher in 1921 than in 1919.

The most striking increase in average earnings is shown in the case of the District of Columbia, where Government employment is the dominant influence. The reduction of personnel in Government departments since the War apparently affected the lower positions more than the higher ones. In addition to this explanation, the increase in average earnings of employees may also be explained by the fact that actual increases in the rates of pay have been made in Government departments in 1920 and 1921. Government institutions are, as a rule, very slow to respond to changes in conditions. In 1919, and particularly in 1920, on account of the high cost of living and the high business and industrial activities of the country, there was a great agitation for higher salaries for

¹ The middle item of the array.

Government employees. The claims were deemed just, and steps were taken to relieve the situation. However, it appears that Government inertia has introduced a lag between the application of the pressure, or the cause, and the final relief. We therefore observe the characteristic situation that in the wake of general reductions in average earnings of employees in non-governmental fields, the earnings of Government employees actually increased.

The District of Columbia was not alone in showing an increase in average earnings of employees in 1921 in comparison with 1919. Nineteen States, including New York and California, showed the same condition. In addition, there were a number of States where the difference between 1919 and 1921 was so slight that we might properly make the statement that less than 50 per cent of the States showed any appreciable decrease in average earnings in 1921 when compared with 1919.

We have seen from Chart 6 that there is a marked tendency for States within the same geographic region to line themselves up close to each other with respect to average earnings per employee. This geographic tendency in the variation in the size of average earnings of employees is shown in a more graphic, though a more general way, in Chart 7. In this chart is shown an outline map of the United States shaded in accordance with the size of average earnings per employee in 1920, classified into six groups. The shading of the different States on the map has been carried out in a gradation from white to black, black representing the lowest average earnings. A glance at the map shows distinctly the areas of high and low earnings. Thus, we see the lightest shadings or highest earnings in the eastern part of the United States, extending from Illinois east through Massachusetts. The light shades also extend from Kansas west to the Pacific. The Northern States from Wisconsin to the Pacific are, with the exception of Montana and Wyoming, a shade darker than the East and Southwest. True to form, the darkest shades, designating lowest average earnings, persist in the South.

The figures on which Chart 7 is based are for 1920, which, in some respects, was not a "normal" year. However, the shadings on the map, which represent rather broad classes, are, in a general way, undoubtedly representative of the other two years as well.

CHART 7

AVERAGE EARNINGS PER EMPLOYEE IN EACH STATE

1920

