

m Hitchcock

PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY
WASHINGTON 25, D. C.

Rec.

INFORMATIONAL MEMORANDUM NO. 56

DATE: FEBRUARY 1, 1944

SUBJECT: TRAFFIC VOLUME TRENDS

These informational memoranda showing traffic volume trends have been issued in their present condensed form for almost two years, and it is obvious that they fill a real need, since the demand for them has grown steadily. In view of the wide usage being made of the data, consideration has been given to possible improvements in the procedures and methods of presentation, and several changes are being made, beginning with this issue, which we believe will increase the accuracy and usefulness. In order to show the extent to which these changes might be expected to affect the continuity of the series, figures are presented herein on the old, as well as the new basis.

Since gasoline was first rationed in the East in May 1942, the boundaries of the OPA rationing areas have been changed and rather than continue to present data on the basis of an area which has lost its significance, it seems better to adhere to the boundaries of census regions. In the future, subtotals will be shown for the area comprising the three eastern regions, (which is nearly the same as the area rationed in May 1942), for the four central regions, and for the two western regions, but not for areas rationed in May 1942 and December 1942, respectively. This applies alike to the tabulations showing comparisons with the preceding year and to the curves showing comparisons with 1941.

With a view to simplifying computations so as to permit publication as quickly as possible after the data for a given month had been received, totals and subtotals have heretofore been unweighted; that is, the data from all stations within the area considered have been combined to form a single sample. Generally this procedure introduces no inaccuracies of importance, but sometimes unequal coverage in areas with materially different trends results in figures which are slightly biased. Beginning with this issue, in the revised summary, the three sectional totals and the United States total are computed by weighting the data for each region in accordance with the 1942 vehicle-miles of travel in the region. However, the data for each region are still combined to form a single sample and there is no weighting on a State basis, as the data from a single State are sometimes inadequate to constitute a representative sample. The regions used are the same as those of the United States Census, except that the South Atlantic region, in which there are divergent trends in the northern and southern portions, has been divided into two to increase the accuracy of the weighting.

Comparisons of totals and subtotals in the revised summary, on the old and new bases, are as follows:

	Percent change from Nov. 1942
South Atlantic Region, Undivided (Old basis)	- 3.9
South Atlantic Region, Divided (New basis)	- 2.7
Area rationed May 1942 (Old basis)	- 7.0
Three eastern regions (New basis)	- 9.5
Area rationed December 1942 (Old basis)	-22.7
Four central and two western regions (New basis)	-22.9
U. S. total (Old basis)	-18.4
U. S. total (New basis)	-18.7

The most interesting fact concerning the preliminary data for December 1943 from 541 automatic traffic recorders in 40 States (table 1) is that they show increases in traffic volume in 37 of these States. In Delaware, Vermont, and Virginia traffic volumes on rural highways still show declines from those of December 1942. The increase in traffic volume for all States is 15.3 percent; 15.4 percent on State highways; and 7.8 percent on local highways.

Gasoline rationing was instituted in the Midwest and West in December 1942, and the declines in traffic in that month were far more severe in these sections than in the East, which was first subjected to rationing in May 1942. On the other hand, the increase in the Midwest and West in December 1943, compared to December 1942, was considerably greater than in the East, the percentage increases being 20.2 percent and 10.7 percent, respectively, for the two areas.

Comparisons of city street traffic in December 1943, with that in December 1942, are as follows:

7 stations in Washington, D. C.	+ 9.7 percent
3 stations in Detroit, Michigan	+ 3.9 percent

Compared with 1941, however, Washington showed a 26.2 percent decline. These data will no longer be included in the toll bridge tabulation but will be given in the text, or if sufficient data can be obtained to justify, they will be shown in a separate tabulation.

H. S. FAIRBANK, DEPUTY COMMISSIONER,
PUBLIC ROADS ADMINISTRATION

Attachments.

TABLE 1.--*1* PRELIMINARY SUMMARY OF AUTOMATIC TRAFFIC RECORDER DATA
FOR DECEMBER 1943 INCLUDING STATIONS IN STATES

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Type of highway and State	Number of stations	Total daily traffic	Percent change from Dec. 1942	Type of highway and State	Number of stations	Total daily traffic	Percent change from Dec. 1942
STATE HIGHWAYS							
Arizona	4	10,974	+16.0	Washington	8	12,459	+15.6
Arkansas	21	13,045	+11.5	West Virginia	11	13,487	+31.5
California	9	18,150	+30.8	Wisconsin	9	14,362	+24.7
Colorado	5	4,562	+14.4	Wyoming	1	212	+27.7
Connecticut	18	45,097	+ 4.5				
Delaware	4	8,890	- 1.5	TOTAL --	505	701,349	+15.4
Georgia	3	6,443	+16.2	40 STATES			
Idaho	7	8,503	+34.5	LOCAL HIGHWAYS			
Illinois	5	5,231	+33.5	Connecticut	3	1,212	- 9.7
Iowa	26	21,481	+19.6	Georgia	4	881	+ 5.5
Kansas ¹	9	7,228	+21.4	Iowa	10	1,080	+ 7.5
Kentucky	8	7,303	+19.6	Maryland	1	295	+19.9
Louisiana ¹	6	12,235	+17.8	Massachusetts	1	131	-43.5
Maine	11	9,202	+ 4.7	Michigan	2	398	+12.7
Maryland	15	33,633	+ 8.8	Missouri	2	762	+28.7
Massachusetts	8	20,227	+ 8.6	Montana	2	327	+19.8
Michigan	26	54,203	+17.6	Nebraska	1	130	+ 8.3
Mississippi	10	12,632	+25.4	North Dakota	2	283	+21.5
Missouri	24	32,986	+20.2	Ohio	3	1,099	+13.1
Montana	12	5,781	+21.7	Rhode Island	1	302	+ 2.7
Nebraska	11	8,903	+19.3	Tennessee	2	843	+ 7.8
New Mexico	13	14,963	+12.1	Wisconsin	2	322	+21.0
New York	12	22,199	+ 8.3				
North Carolina	19	26,001	+18.4	TOTAL --	36	8,065	+ 6.9
North Dakota	11	3,586	+40.3	14 STATES			
Ohio	24	37,242	+15.0	ALL HIGHWAYS			
Oklahoma	20	27,995	+15.8	40 STATES²			
Pennsylvania	30	40,698	+10.5	3 EASTERN REGIONS			
Rhode Island	3	4,296	+ 3.8	160			
South Carolina	6	7,211	+27.5	312			
South Dakota	9	5,669	+21.8	69			
Tennessee	2	4,965	+41.9	252,110			
Texas	67	100,657	+18.6	374,641			
Utah	8	6,732	+21.3	82,663			
Vermont	5	2,063	-16.2				
Virginia	5	9,843	-10.3				

¹One station in Kansas and 2 in Louisiana excluded because of abnormal war activity.

²Includes all States except the following: Alabama, Florida, Indiana, Minnesota, Nevada, New Hampshire, New Jersey, and Oregon.

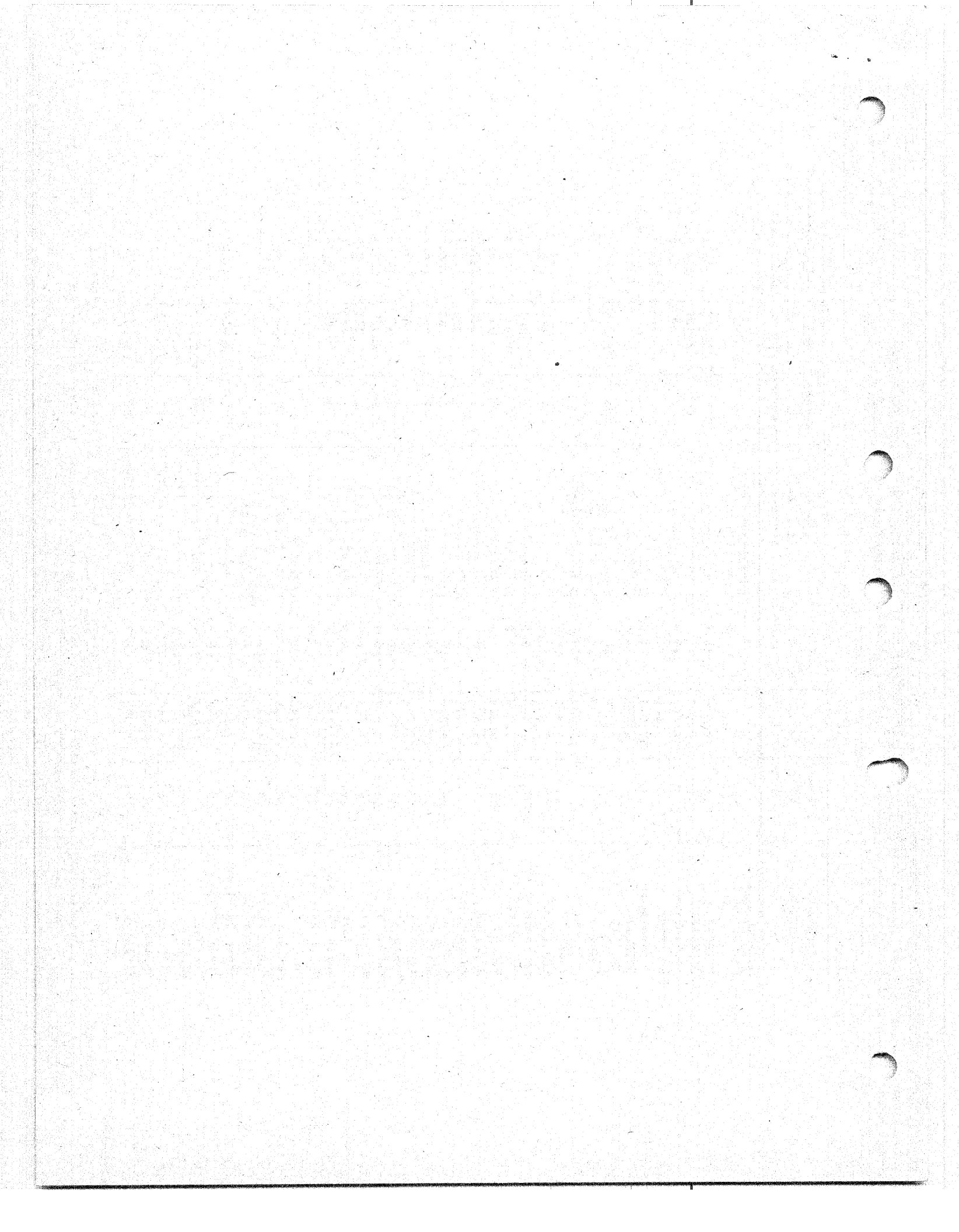


TABLE 2.--REVISED SUMMARY OF AUTOMATIC TRAFFIC RECORDER DATA
FOR NOVEMBER 1943 INCLUDING 624 STATIONS AND 46 STATES

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Region and State	Number of stations	Percent change from Nov. 1942	Region and State	Number of stations	Percent change from Nov. 1942
<i>NEW ENGLAND</i>			<i>EAST SOUTH CENTRAL</i>		
Connecticut	21	-11.6	Alabama	9	-17.0
Maine	11	- 5.2	Kentucky	12	-22.7
Massachusetts	9	- 6.7	Mississippi	9	-12.3
New Hampshire	14	- 9.6	Tennessee	2	-14.3
Rhode Island	4	- 8.3	Subtotal	32	-17.3
Vermont	6	-17.8	<i>WEST SOUTH CENTRAL</i>		
Subtotal	65	- 9.8	Arkansas	22	-25.4
<i>MIDDLE ATLANTIC</i>			Louisiana ¹	6	-18.2
New York	12	-10.9	Oklahoma	20	-25.0
Pennsylvania	30	-19.2	Texas	64	-18.9
Subtotal	42	-16.2	Subtotal	112	-20.7
<i>SOUTH ATLANTIC</i>			<i>MOUNTAIN</i>		
Delaware	3	-15.5	Arizona	5	-23.8
Maryland	17	- 3.7	Colorado	5	-29.9
Virginia	3	-25.6	Idaho	7	-10.2
West Virginia	11	-16.1	Montana	14	-12.7
Subtotal north portion	34	-10.8	Nevada	13	-40.9
Florida	19	+ 8.4	New Mexico	13	-15.9
Georgia	7	+ 5.7	Utah	8	-17.4
North Carolina	19	+ 0.6	Wyoming	2	0.0
South Carolina	6	+ 4.7	Subtotal	67	-22.1
Subtotal south portion	51	+ 4.2	<i>PACIFIC</i>		
Subtotal region	85	- 2.7	California	10	-20.8
<i>EAST NORTH CENTRAL</i>			Oregon	3	-25.7
Illinois	3	-24.4	Washington	9	-22.3
Indiana	23	-22.1	Subtotal	22	-21.9
Michigan	28	-26.7	<i>TOTAL 46 STATES²</i>		
Ohio	30	-24.4	624 -18.7		
Wisconsin	11	-24.2	<i>STATE HIGHWAYS</i>		
Subtotal	95	-24.8	585 -18.8		
<i>WEST NORTH CENTRAL</i>			<i>LOCAL HIGHWAYS</i>		
Iowa	35	-28.1	39 -16.3		
Kansas ¹	9	-26.6	<i>3 EASTERN REGIONS</i>		
Missouri	27	-25.5	192 - 9.5		
Nebraska	12	-31.3	<i>4 CENTRAL REGIONS</i>		
North Dakota	12	-18.0	343 -23.2		
South Dakota	9	-19.2	<i>2 WESTERN REGIONS</i>		
Subtotal	104	-26.2	89 -22.0		

¹One station in Kansas and 2 in Louisiana excluded because of abnormal war activity.

²Includes all States except Minnesota and New Jersey.

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																								
Population	150,000,000	155,000,000	160,000,000	165,000,000	170,000,000	175,000,000	180,000,000	185,000,000	190,000,000	195,000,000	200,000,000	205,000,000	210,000,000	215,000,000	220,000,000	225,000,000	230,000,000	235,000,000	240,000,000	245,000,000	250,000,000	255,000,000	260,000,000	265,000,000	270,000,000	275,000,000	280,000,000	285,000,000	290,000,000	295,000,000	300,000,000	305,000,000	310,000,000	315,000,000	320,000,000	325,000,000	330,000,000	335,000,000	340,000,000	345,000,000	350,000,000	355,000,000	360,000,000	365,000,000	370,000,000	375,000,000	380,000,000	385,000,000	390,000,000	395,000,000	400,000,000	405,000,000	410,000,000	415,000,000	420,000,000	425,000,000	430,000,000	435,000,000	440,000,000	445,000,000	450,000,000	455,000,000	460,000,000	465,000,000	470,000,000	475,000,000	480,000,000	485,000,000	490,000,000	495,000,000	500,000,000	505,000,000	510,000,000	515,000,000	520,000,000	525,000,000	530,000,000	535,000,000	540,000,000	545,000,000	550,000,000	555,000,000	560,000,000	565,000,000	570,000,000	575,000,000	580,000,000	585,000,000	590,000,000	595,000,000	600,000,000	605,000,000	610,000,000	615,000,000	620,000,000	625,000,000	630,000,000	635,000,000	640,000,000	645,000,000	650,000,000	655,000,000	660,000,000	665,000,000	670,000,000	675,000,000	680,000,000	685,000,000	690,000,000	695,000,000	700,000,000	705,000,000	710,000,000	715,000,000	720,000,000	725,000,000	730,000,000	735,000,000	740,000,000	745,000,000	750,000,000	755,000,000	760,000,000	765,000,000	770,000,000	775,000,000	780,000,000	785,000,000	790,000,000	795,000,000	800,000,000	805,000,000	810,000,000	815,000,000	820,000,000	825,000,000	830,000,000	835,000,000	840,000,000	845,000,000	850,000,000	855,000,000	860,000,000	865,000,000	870,000,000	875,000,000	880,000,000	885,000,000	890,000,000	895,000,000	900,000,000	905,000,000	910,000,000	915,000,000	920,000,000	925,000,000	930,000,000	935,000,000	940,000,000	945,000,000	950,000,000	955,000,000	960,000,000	965,000,000	970,000,000	975,000,000	980,000,000	985,000,000	990,000,000	995,000,000	1,000,000,000																				
GDP	1,000,000,000,000	1,100,000,000,000	1,200,000,000,000	1,300,000,000,000	1,400,000,000,000	1,500,000,000,000	1,600,000,000,000	1,700,000,000,000	1,800,000,000,000	1,900,000,000,000	2,000,000,000,000	2,100,000,000,000	2,200,000,000,000	2,300,000,000,000	2,400,000,000,000	2,500,000,000,000	2,600,000,000,000	2,700,000,000,000	2,800,000,000,000	2,900,000,000,000	3,000,000,000,000	3,100,000,000,000	3,200,000,000,000	3,300,000,000,000	3,400,000,000,000	3,500,000,000,000	3,600,000,000,000	3,700,000,000,000	3,800,000,000,000	3,900,000,000,000	4,000,000,000,000	4,100,000,000,000	4,200,000,000,000	4,300,000,000,000	4,400,000,000,000	4,500,000,000,000	4,600,000,000,000	4,700,000,000,000	4,800,000,000,000	4,900,000,000,000	5,000,000,000,000	5,100,000,000,000	5,200,000,000,000	5,300,000,000,000	5,400,000,000,000	5,500,000,000,000	5,600,000,000,000	5,700,000,000,000	5,800,000,000,000	5,900,000,000,000	6,000,000,000,000	6,100,000,000,000	6,200,000,000,000	6,300,000,000,000	6,400,000,000,000	6,500,000,000,000	6,600,000,000,000	6,700,000,000,000	6,800,000,000,000	6,900,000,000,000	7,000,000,000,000	7,100,000,000,000	7,200,000,000,000	7,300,000,000,000	7,400,000,000,000	7,500,000,000,000	7,600,000,000,000	7,700,000,000,000	7,800,000,000,000	7,900,000,000,000	8,000,000,000,000	8,100,000,000,000	8,200,000,000,000	8,300,000,000,000	8,400,000,000,000	8,500,000,000,000	8,600,000,000,000	8,700,000,000,000	8,800,000,000,000	8,900,000,000,000	9,000,000,000,000	9,100,000,000,000	9,200,000,000,000	9,300,000,000,000	9,400,000,000,000	9,500,000,000,000	9,600,000,000,000	9,700,000,000,000	9,800,000,000,000	9,900,000,000,000	10,000,000,000,000																																																																																																				
Unemployment	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%	9.0%	9.5%	10.0%	10.5%	11.0%	11.5%	12.0%	12.5%	13.0%	13.5%	14.0%	14.5%	15.0%	15.5%	16.0%	16.5%	17.0%	17.5%	18.0%	18.5%	19.0%	19.5%	20.0%	20.5%	21.0%	21.5%	22.0%	22.5%	23.0%	23.5%	24.0%	24.5%	25.0%	25.5%	26.0%	26.5%	27.0%	27.5%	28.0%	28.5%	29.0%	29.5%	30.0%	30.5%	31.0%	31.5%	32.0%	32.5%	33.0%	33.5%	34.0%	34.5%	35.0%	35.5%	36.0%	36.5%	37.0%	37.5%	38.0%	38.5%	39.0%	39.5%	40.0%	40.5%	41.0%	41.5%	42.0%	42.5%	43.0%	43.5%	44.0%	44.5%	45.0%	45.5%	46.0%	46.5%	47.0%	47.5%	48.0%	48.5%	49.0%	49.5%	50.0%	50.5%	51.0%	51.5%	52.0%	52.5%	53.0%	53.5%	54.0%	54.5%	55.0%	55.5%	56.0%	56.5%	57.0%	57.5%	58.0%	58.5%	59.0%	59.5%	60.0%	60.5%	61.0%	61.5%	62.0%	62.5%	63.0%	63.5%	64.0%	64.5%	65.0%	65.5%	66.0%	66.5%	67.0%	67.5%	68.0%	68.5%	69.0%	69.5%	70.0%	70.5%	71.0%	71.5%	72.0%	72.5%	73.0%	73.5%	74.0%	74.5%	75.0%	75.5%	76.0%	76.5%	77.0%	77.5%	78.0%	78.5%	79.0%	79.5%	80.0%	80.5%	81.0%	81.5%	82.0%	82.5%	83.0%	83.5%	84.0%	84.5%	85.0%	85.5%	86.0%	86.5%	87.0%	87.5%	88.0%	88.5%	89.0%	89.5%	90.0%	90.5%	91.0%	91.5%	92.0%	92.5%	93.0%	93.5%	94.0%	94.5%	95.0%	95.5%	96.0%	96.5%	97.0%	97.5%	98.0%	98.5%	99.0%	99.5%	100.0%

THESE ARE ALL THE DATA AVAILABLE TO ME AT THE PRESENT TIME

END

REPORT ON THE PROGRESS OF THE WORK DURING THE YEAR 1954