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Thus, production is rapidly resolving itself into a battle between ingenuity and growing shortages of materials.

War Progress Notes

WOODSWOMEN

IT WASN'T many months ago that women were taboo around logging camps and sawmills; they couldn't even get jobs as cooks. But forest labor has become so short that around 7,000 women--roughly 5% of total workers--are now employed in felling, tallying, tying, and stacking; running trucks and yard locomotives; operating power saws, trimming machines, and conveyor belts. Preferred are "husky" women weighing around 150 pounds.

SPLICING SEDANS

SOME 20,000 four-door sedans out of our 400,000 "frozen" passenger cars have been set aside for cutting up and splicing together into 15-passenger buses. They'll be used primarily to transport war workers to and from their jobs. The sedan bodies and chassis are cut in half, a six-foot center section--made largely of hardwood lumber and building board--is built in, and three additional three-passenger seats installed. Sidelight: These sedans are equipped with 6.00x16 tires, which are relatively scarce; in conversion, they're changed over to the larger--and more plentiful--7.00x16's.

MORE JOB SWAPPING

DURING JULY, 11 out of every 1,000 workers went from jobs in war plants to the armed forces, compared with 9 per 1,000 for all manufacturing--thus continuing the trend since Pearl Harbor. Since many war industries employ large numbers of draft-age males, military separations will probably continue to outstrip those in all manufacturing.

For all manufacturing, the July quit rate rose to 40 per 1,000 workers, from 38 in June. But largely because of a drop in shipbuilding quits (chart, page 20), 11 selected war industries showed their first decline since November, 1941--to 35 per 1,000, from 36 in June. Reflecting continued job opportunities in war plants, quit rates for all manufacturing increased 70% since the beginning of the year, versus 50% for the war industries.

FASHIONS FOR GUNS

THE WELL-DRESSED field artillery or antiaircraft gun is currently wearing tailored protective covers secured by jumbo slide fasteners. The new zipper has teeth eight times the weight of those used in heavy civilian garment zippers. Prior to the perfection of the jumbo zipper, there was no continuous closure rugged enough for satisfactory artillery use. The new zippered coverings are practically dustproof and may be removed much more quickly than the old-style covers made with snap fasteners, lacings, etc.

AXIS VACATIONS

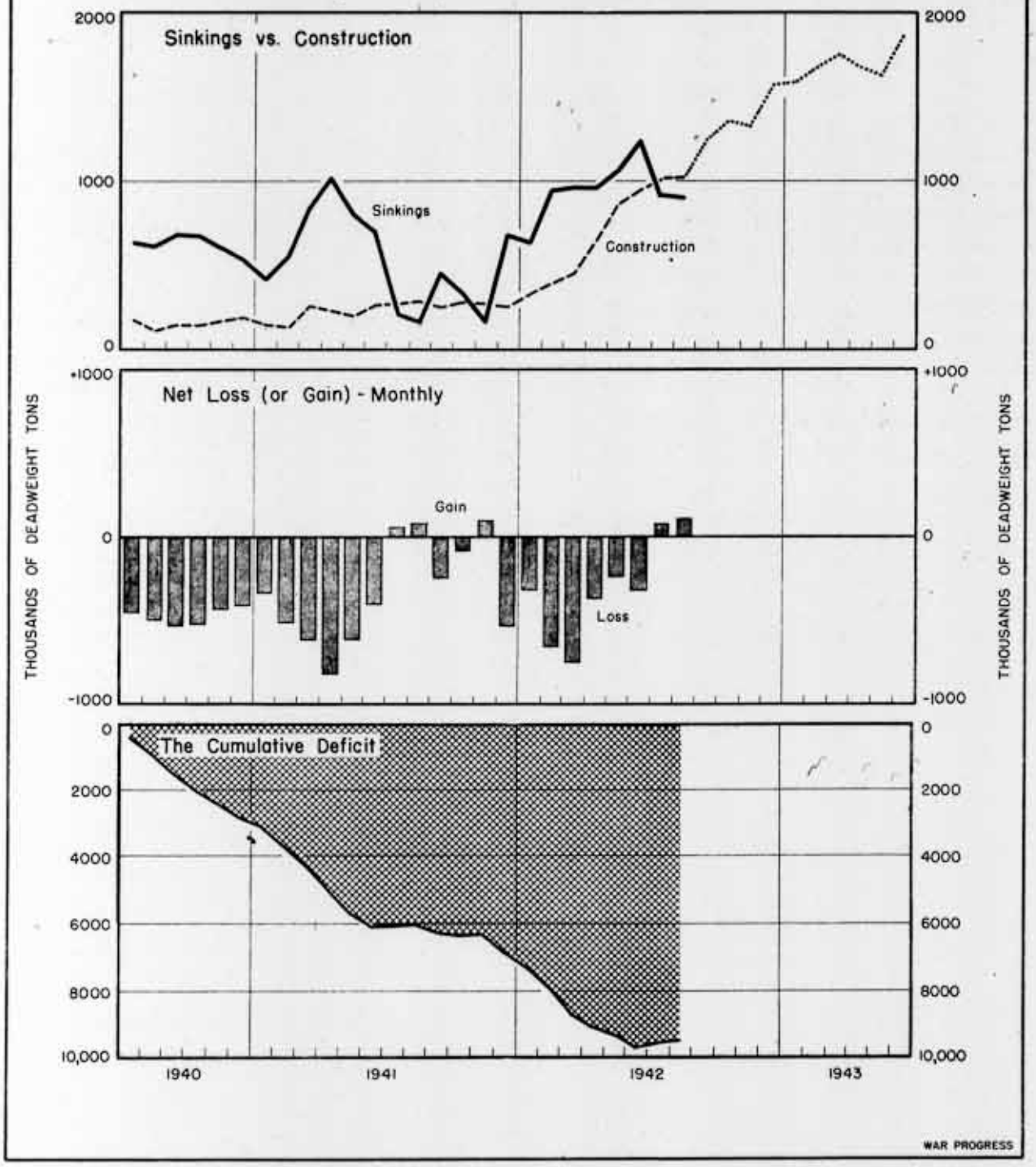
THE BERLIN RADIO bragged last week that German workers will get two weeks' vacation this year and that thousands of armament workers are now on vacation. The London radio amplified the boast, saying that workers in many German plants would get more than two weeks' vacation --until factories blasted by the R.A.F. are rebuilt.

FARM PRICES

FARMERS RECEIVED about 10% more for their products on August 15 than on March 15. Truck farmers were the largest beneficiaries--prices received by truck farmers rose 90%. Miscellaneous farm goods and chickens and eggs (partly be-

SCORECARD ON MERCHANT SHIPPING

United Nations' tonnage rose again last month, as sinkings dropped to the lowest level since January and construction continued to rise.



ADDITIONAL SHIP SINKINGS WHICH OCCURRED AS LONG AS A YEAR AND MORE AGO HAVE BEEN RECORDED WITHIN THE PAST FEW WEEKS, RAISING THE CUMULATIVE NET LOSS OF UNITED NATIONS SHIPS, SINCE MID-1940, TO ALMOST 9,500,000 DEADWEIGHT TONS. NEW CONSTRUCTION IS RISING AND FOR TWO MONTHS HAS EXCEEDED SINKINGS. EVEN SO, IF SINKINGS CONTINUE AT RECENT LEVELS AND CONSTRUCTION COMES UP TO SCHEDULE, IT WILL TAKE MORE THAN 16 MONTHS—INTO JANUARY, 1944—TO WIPE OUT THE CUMULATIVE TONNAGE DEFICIT.

cause of seasonal factors) showed the next highest increases. Fruits and meat animals had modest rises, while cotton made no gains and grain farmers actually received less in August than in March, as the following table shows:

	Aug.15	Mar.15	Change
Total prices....	107	97	+10%
Meat animals....	200	180	+11
Truck crops.....	256	136	+90
Miscellaneous...	173	132	+31
Chickens & eggs.	156	130	+20
Fruits.....	126	111	+14
Dairy products..	151	144	+ 6
Cotton.....	151	151	0
Grains.....	115	122	- 6

ARMY'S MAGIC CRYSTALS

ALL SOLDIERS in combat areas are now receiving a brand new item for their first-aid kits--5 grains of crystallized sulfanilamide. Purpose: On-the-spot self-medication by sprinkling on open wounds. The decision to provide individual packets of sulfanilamide in crystalline form--which will supplement the dozen "sulfa" tablets carried by every soldier in the field--is a direct result of Pearl Harbor experience.

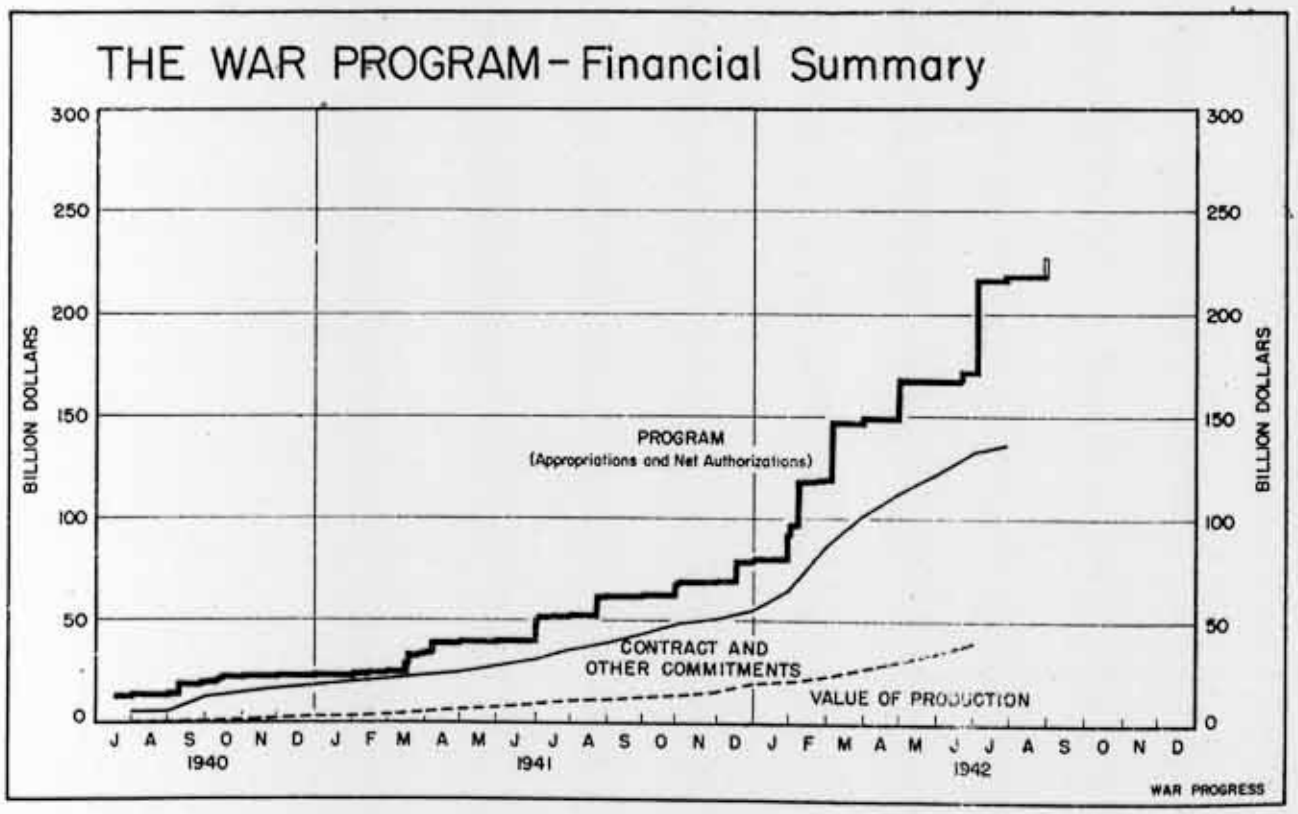
AUGUST MUNITIONS DATA

PRELIMINARY ESTIMATES of munitions delivered or in place in August indicate a 6% gain over July. Month-to-month comparisons by major categories follow:

	P August	July
	(millions of dollars)	
Airplanes, parts and accessories	$ 578	$ 549
Ordnance	954	904
Naval ships	517	451
Merchant ships	182	187
Other munitions and supplies	909	864
Total munitions	$3,140	$2,955

P Preliminary

Checks paid by the Treasury for war activity in August were $4,882,000,000, as compared with $4,494,000,000 in July.

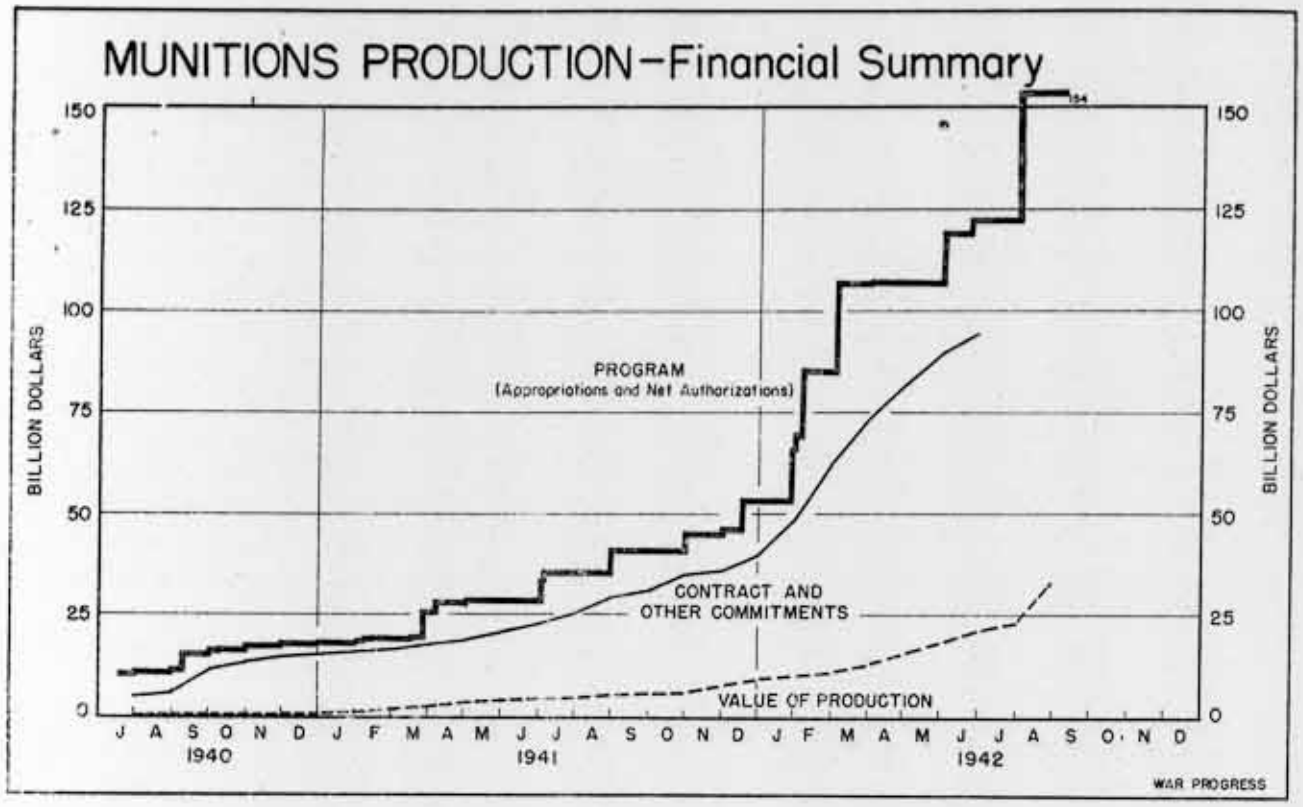


WAR PROGRESS SERIES
TOTAL WAR PROGRAM IN THE UNITED STATES

	Cumulative 6/11/40 to			Monthly		
	End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	May 1942	June 1942	July 1942 [h]
●TOTAL WAR PROGRAM IN THE U.S.[a]			(Million dollars)			
Program-Pending						p 9,525
Program-Enacted	40,861	80,604	p 174,384	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	31,587	56,625	p 134,094	p 9,731	p 12,098	n.a.
Value delivered and/or in place [b]	8,547	18,573	p 39,222	p 4,060	p 4,602	n.a.
Checks paid [c]	8,536	17,965	p 37,562	3,925	p 4,156	p 4,824
MUNITIONS PRODUCTION & WAR CONSTRUCTION, TOTAL						
Program	37,027	69,305	p 156,214	0	p 5,358	p 32,543
Uncommitted Balance	7,597	18,281	p 33,761	-	-	-
Contracts and other commitments	29,430	51,024	p 122,453	p 9,107	p 9,999	n.a.
Value delivered and/or in place [b]	6,795	14,750	p 32,184	p 3,465	p 3,882	n.a.
Value not delivered nor in place	22,635	36,274	p 90,269	-	-	-
PRODUCTION OF MUNITIONS						
Program	28,566	53,738	p 124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 2,955
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
WAR CONSTRUCTION						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value delivered and/or in place [b]	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a
Value not delivered nor in place	3,260	5,405	p 15,727	-	-	-
NON-MUNITIONS WAR ITEMS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Contracts and other commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued	1,752	3,823	p 7,038	p 595	p 720	n.a.

●Graph appears on opposite page.
Table continued on Page 11.

For footnotes see Page 22.

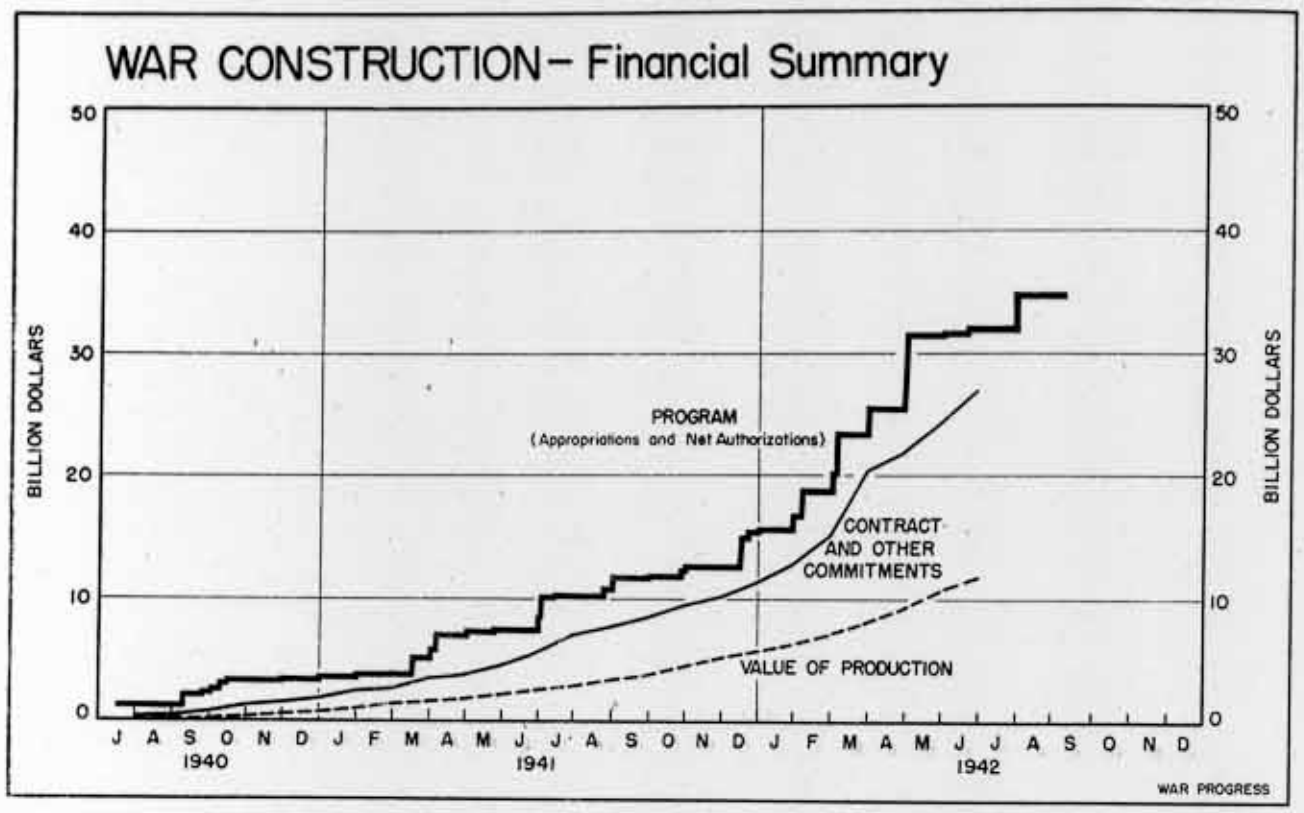

MUNITIONS PRODUCTION–Financial Summary
BILLION DOLLARS
150
125
100
75
50
25
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July[h] 1942
			(Million dollars)			
			BREAKDOWN OF MUNITIONS PRODUCTION			
● MUNITIONS PRODUCTION, TOTAL						
Program	28,566	53,738	p124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 2,955
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
AIRPLANES, PARTS & ACCESSORIES						
Program	8,582	15,072	p 37,586	0	p -215	p 9,737
Contracts and other commitments	7,381	13,298	p 33,945	p 2,409	p 2,838	n.a.
Value delivered	1,010	2,265	4,752	471	510	p 549
ORDNANCE						
Program	7,778	17,488	p 36,400	0	p 285	p 9,548
Contracts and other commitments	5,418	10,354	p 26,873	p 2,278	p 2,360	n.a.
Value delivered	700	1,685	4,998	696[g]	731	p 904
NAVAL SHIPS						
Program	6,796	9,605	p 18,460	0	p 2,922	p 0
Contracts and other commitments	6,442	7,930	p 12,276	275	p 276	n.a.
Value delivered and/or in place	810	1,665	3,383	399[g]	404	p 451
MERCHANT SHIPS						
Program	1,442	3,288	p 8,653	-25	p 1,054	p 0
Contracts and other commitments	1,484	2,381	p 6,880	p 607	p 618	n.a.
Value in place	240	510	1,188	131	176	187
OTHER MUNITIONS AND SUPPLIES						
Program	3,968	8,285	p 12,998	0	p 710	p 10,667
Contracts and other commitments	2,940	5,846	p 15,017	p 1,099	p 850	n.a.
Value delivered	1,530	2,815	6,128	551	817	p 864

● Graph appears on opposite page.
Table continued on Page 13.

For footnotes see Page 22.


WAR CONSTRUCTION– Financial Summary
BILLION DOLLARS
50
40
30
20
10
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	Monthly May 1942	June 1942	July [b] 1942
			(Million dollars)			
			BREAKDOWN OF WAR CONSTRUCTION			
●WAR CONSTRUCTION, TOTAL (LAND, BLDGS., EQUIP.)						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value in place	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a.
Value not in place [b]	3,260	5,405	p 15,727	-	-	-
INDUSTRIAL FACILITIES (LAND, BLDGS., EQUIP.)						
Program	5,120	8,112	p 17,610	25	p 707	p 172
Contracts and other commitments	2,865	6,318	p 16,697	p 1,047	p 1,592	n.a.
Value in place	960	2,800	p 5,990	p 629	p 615	n.a.
INDUSTRIAL FACILITIES, BUILDINGS ONLY						
Program	1,607	3,137	p 6,660	p 389	p 768	n.a.
Value in place	575	1,753	p 2,990	p 287	p 307	p 344
POSTS, DEPOTS, STATIONS						
Program	2,849	6,063	p 13,115	0	p -105	p 2,419
Contracts and other commitments	2,625	4,381	p 9,890	p 1,317	p 1,390	n.a.
Value in place	1,430	2,670	p 5,179	p 545	p 580	p 845
DEFENSE HOUSING						
Program	492	1,392	p 1,392	0	p 0	p 0
Contracts and other commitments	275	516	p 875	p 75	p 75	n.a.
Value in place	115	340	p 566	p 43	p 49	p 52
			BREAKDOWN OF NON-MUNITIONS			
NON-MUNITIONS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued by agencies [b]	1,752	3,823	p 7,038	p 595	p 720	n.a.
STOCKPILE						
Program	983	2,399	p 2,713	0	p 0	p 0
Commitments	470	1,050	p 1,140	p 30	p 0	n.a.
Checks issued by agencies	192	488	p 1,011	p 102	p 100	n.a.

●Graph appears on opposite page.
Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to: End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	Monthly: May 1942	June 1942	July 1942 [h]
			(Million dollars)			
			BREAKDOWN OF NON-MUNITIONS (Continued)			
AGRICULTURAL EXPORTS (LEND-LEASE)						
Program	625	1,522 p	2,138	0	0 p	0 p
Commitments	66	561 p	1,143 p	65	149 p	n.a.
Checks issued by agencies	1	211 p	629	87	90 p	n.a.
PAY, SUBSISTENCE & TRAVEL [f]						
Army Military						
Program	944	3,013 p	3,904	0	0 p	8,534 p
Commitments	934	2,030 p	3,849 p	281	285 p	n.a.
Checks issued	696	1,510 p	2,744 p	220	315 p	n.a.
Navy Military						
Program	378	963 p	2,478	0	232 p	0 p
Commitments	334	610 p	1,143 p	110	104 p	n.a.
Checks issued	388	642 p	1,042 p	70	98 p	n.a.
Civilian Payroll						
Program	32	247 p	299	0	46 p	542 p
Commitments	32	140 p	255 p	15	20 p	n.a.
Checks issued	356	682 p	1,115 p	79	80 p	n.a.
MISCELLANEOUS NON-MUNITIONS						
Program	872	3,155 p	6,638	0	-21 p	2,852 p
Commitments	321	1,210 p	4,111 p	123	1,541 p	n.a.
Checks issued by agencies	119	290 p	497 p	37	37 p	n.a.

p Preliminary

Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942 [h]
			(Million dollars)			
	[d]		BREAKDOWN OF AGENCIES			
UNITED STATES FINANCED WAR PROGRAM						
Program	37,075	76,508	p 170,288	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	27,801	52,529	p 129,998	p 9,731	p 12,098	n.a.
Checks paid	6,431	15,251	p 34,510	3,880	p 4,123	p 4,794
U. S. ARMY						
Program	13,134	31,981	p 84,468	0	p 0	p 42,090
Contracts and other commitments	11,404	23,334	p 70,402	p 6,138	p 8,397	n.a.
Checks paid	3,636	7,889	15,649	1,497	1,662	n.a.
U. S. NAVY						
Program	12,308	20,024	p 47,990	0	p 4,355	p 0
Contracts and other commitments	11,182	16,327	p 32,325	p 1,971	p 2,361	n.a.
Checks paid	2,217	4,726	10,128	1,229	1,237	n.a.
LEND-LEASE						
Program	7,000	12,985	p 18,410	0	p 0	p 0
Allocations	5,177	11,345	14,085	508	-281	n.a.
Contracts and other commitments	2,458	6,282	10,665	305	484	n.a.
Checks paid	21	910	4,099	626	665	n.a.
U. S. MARITIME COMMISSION						
Program	784	2,734	p 7,654	0	p 1,070	p 0
Contracts and other commitments	886	1,724	p 6,333	608	p 631	n.a.
Checks paid (Net) [e]	44	156	642	93	114	n.a.
RFC AND SUBSIDIARIES						
Program	2,623	5,130	p 7,704	0	p 0	p 0
Contracts and other commitments	1,151	3,569	p 7,916	p 509	p 0	n.a.
Checks issued by RFC	350	956	p 2,510	327	p 300	p 300
OTHER U. S. AGENCIES						
Program	1,226	3,654	p 4,062	0	p 190	p 2,381
Contracts and other commitments	720	1,293	p 2,357	p 200	p 225	n.a.
Checks paid	163	614	1,482	108	145	n.a.
FOREIGN ORDERS						
Program (Orders)	3,786	4,096	p 4,096	0	p 0	p 0
Commitments	3,786	4,096	p 4,096	0	p 0	p 0
Checks issued by Purchasing Missions	2,105	2,714	p 3,052	45	p 33	p 30

For footnotes see Page 22.

War Progress Notes

WHO GETS THE INCOME?

AN INCREASING PROPORTION of national income is going into salaries and wages, which accounted for 68% of income payments in June, compared with 66% in June last year, and 64% two years ago.

The war's effect on the economy is clearly indicated by the statistics. The share of total wages and salaries in the distribution and service industries dropped from 40% in June, 1941, to 35% this year. But the proportion of wages and salaries going to miners, farmers, and construction and factory workers (as you'd expect, with increased factory and farm production) has risen—from 44% last June to 46% this June. Two years ago, the proportion was 38%.

Expansion in the federal government also is duly reflected in the figures. In June, 1941, government workers collected 14% of total wages and salaries; this June it was 18%.

PLANT UTILIZATION

SHIPYARDS made a big gain in spreading the work around the clock last month—and as a result, the index of plant utilization shot up five points to 82.0. Whereas total employment in yards embracing 50% of the industry rose 7%, the number of workers on the first shift increased only 3%--on second and third shifts the gain was 15%. More Saturday and Sunday work also contributed to the increase in plant utilization.

Pearl Harbor brought a sharp increase in plant utilization in private shipyards. But after reaching a peak at 73.0 in February the utilization curve leveled off. Since May it has been rising again.

In the machine tool industry, plant utilization has held steady for four months, the index hovering around 90. Utilization of machines has averaged 110. Shortages of materials, skilled labor, and equipment have been important factors retarding expansion in around-the-clock operations.

LABOR TURNOVER

THE NUMBER of industrial workers quitting their jobs has been rising steadily since last November and in June was at a new all-time high of 3.85 per hundred workers. Workers have left jobs primarily for higher wages or better working conditions, including better housing and transportation facilities.

Among war industries, the highest quit rates were reported for shipbuilding (5.71), firearms (4.29), and aluminum manufacture (3.88).

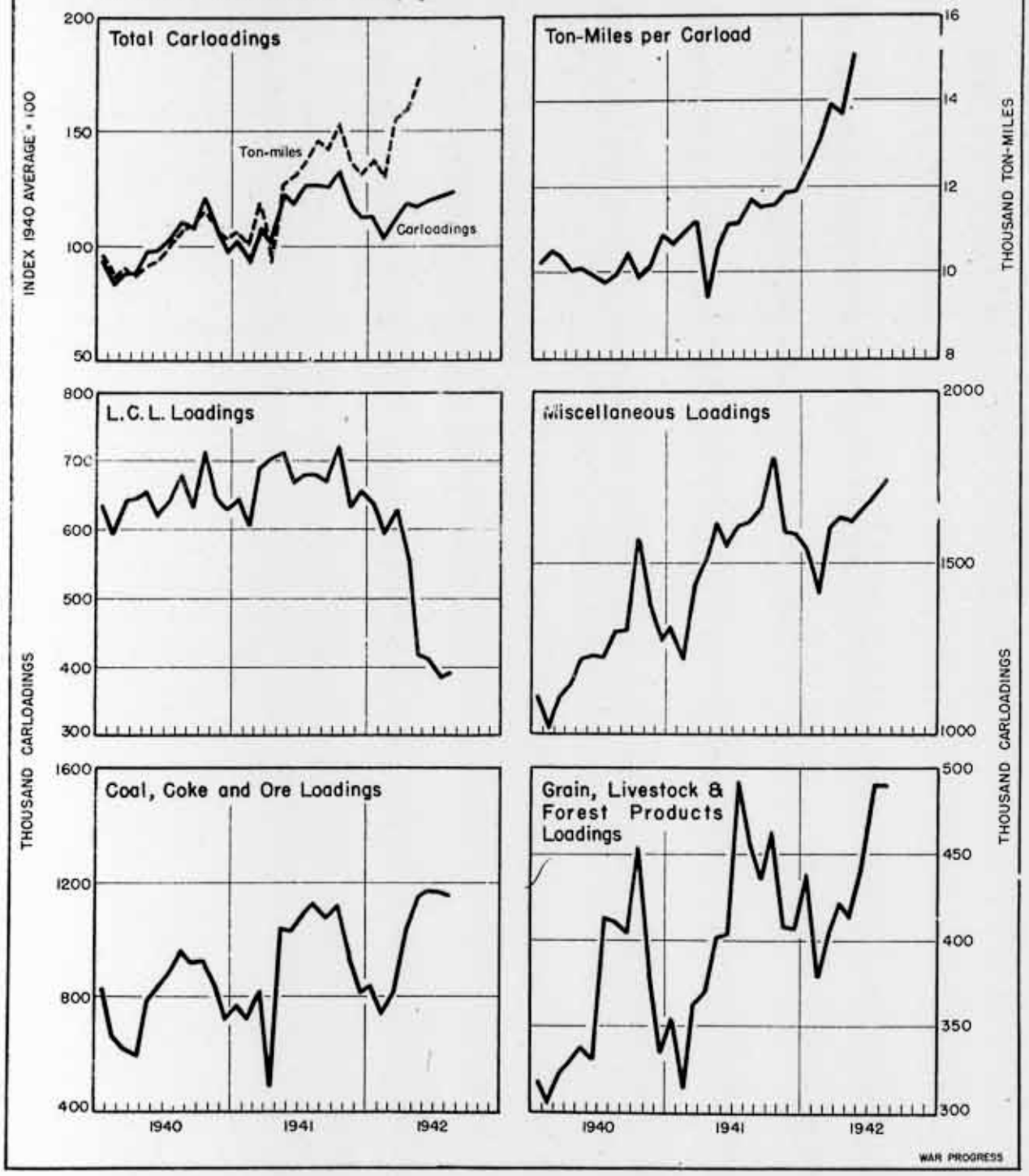
Separations to join the armed forces also rose, and total separations from manufacturing industries in June were 6.46 per hundred, up 75% from June, 1941. Because of a decline in layoffs, however, total June separations were slightly lower than the May figure. (Chart, page 20.)

New employment jumped sharply, and net accessions rose to 1.79 per hundred in June, from 0.75 in May. In 11 selected war industries, the net accession rate in June was 4.17 per hundred. Shipbuilding (7.97) and aircraft (6.77) continued to show the greatest gains.

The smallest expansion in recent months has been in brass, bronze, and copper products, and in blast furnaces, steel works, and rolling mills; in fact, gains in some months have been partly offset by declines in others. In the brass, bronze, and copper industries, conversion to war production has forced layoffs; in steel, present plants have been operating close to capacity and increases in employment must come largely in new plants.

MORE TON-MILES IN A CARLOAD

As a result of heavier loading and longer hauls, railroad freight car utilization has risen sharply



ECONOMIC ACTIVITY RELATED TO THE WAR

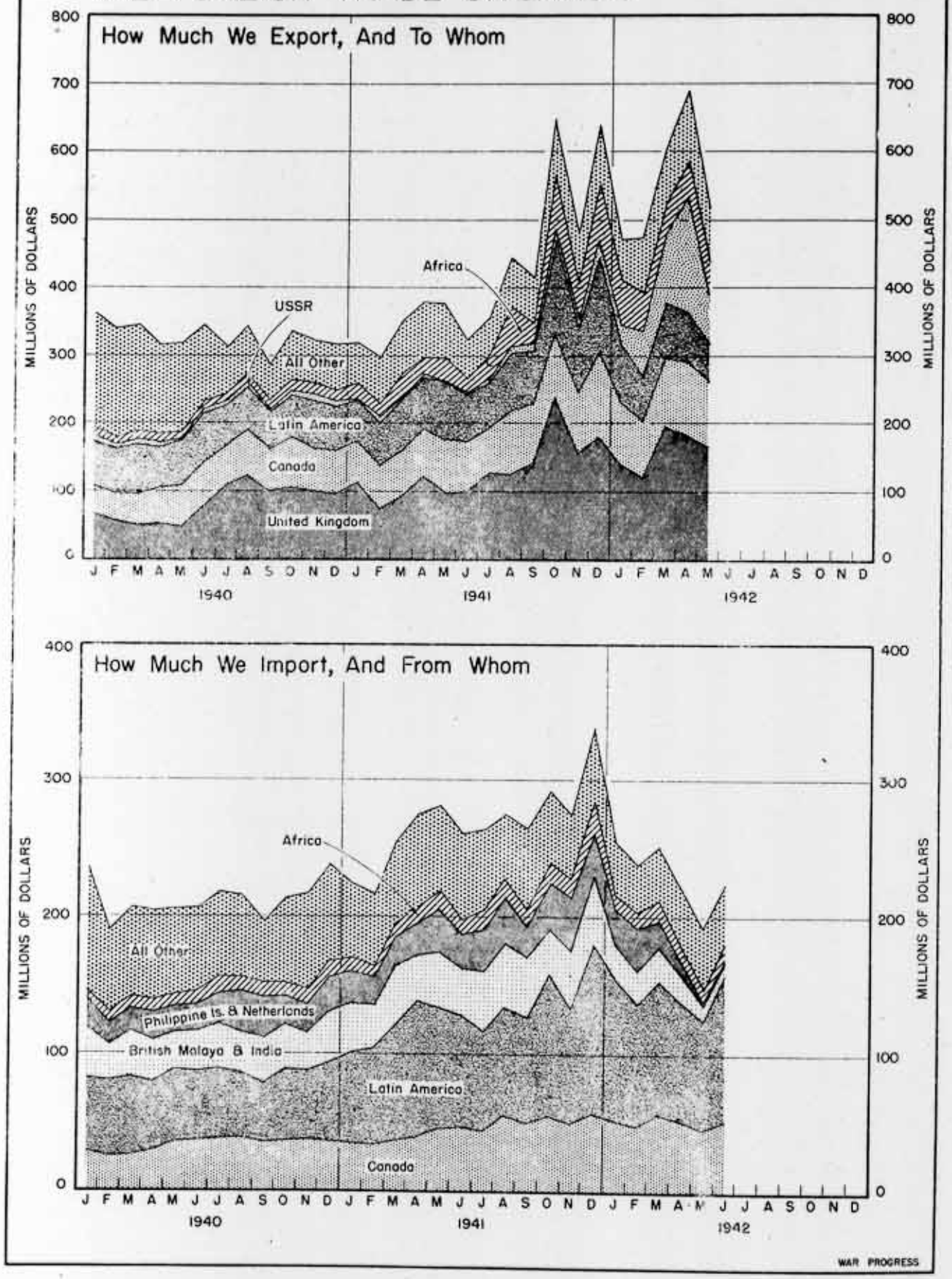
Note: Certain statistical series included in these tables are nonconfidential and are published in such public documents as the Federal Reserve Bulletin, Survey of Current Business, etc. Obviously inclusion here should not be construed as a limitation on their use.

	1940	1941	1942			
	July	July	June	July	August	Wk. ending Sept. 5
BLS PRICE INDEXES						
Strategic materials }	123.6	140.3	147.6	147.7	p 147.8	147.8
Critical materials } 8/39	107.5	115.2	123.2	123.9	p 124.0	124.0
Basic commodities } =100	108.5	148.7	166.4	167.2	166.9	167.3
Machine tools }	108.7	117.6	118.0	118.0	-	-
All commodities (1926=100)	77.7	88.8	98.6 p	98.7 p	99.0 p	99.1 p
ELEC. POWER PROD. (mil. kwh.)	12,094	r 14,323	15,182	16,004	p 16,415	
WAR BOND SALES (mil. dollars)	-	342	634	901	697	167
●TRANSPORTATION						
Freight carloadings (thous. per wk.)						
Total	706	853	846	830	870	
Coal, coke, and ore	198	236	269	255	267	
All other	508	617	577	575	603	
Miscellaneous	273	356	382	379	400	
Less than carload lots	142	151	94	86	90	
Grain and livestock	61	67	50	59	59	
Forest products	32	43	51	51	54	
Freight carloadings as percent of capacity[a]						
Total	80.0	91.6	85.9	83.7	87.5	
Coal, coke, and ore	80.5	90.0	97.3	91.7	95.4	
All other	77.6	90.2	79.4	78.6	82.5	
Unloads for export (no. per mo.)						
Total	49,781	54,982	73,188	72,102	80,412	
Atlantic coast ports	32,598	37,842	44,170	39,566	36,566	
Gulf coast ports	13,724	12,207	14,317	13,702	11,579	
Pacific coast ports	3,459	4,933	14,701	18,834	22,267	
Freight equipment (1st of mo. thous.)						
Total cars	1,645	1,661	1,731	1,736	1,737	
Owned	1,492	1,576	1,668	1,679	1,682	
Serviceable	1,365	1,496	1,588	1,597	1,615	
Active						
Coal, coke, and ore cars						
Owned	785	797	820	824	825	
Serviceable	701	749	790	796	799	
Active	655	722	781	782	793	
All other cars						
Owned	860	864	911	912	912	
Serviceable	791	827	878	883	883	
Active	710	774	807	815	822	

●Graph appears on opposite page. r Revised p Preliminary

[a] Peak capacity represents full utilization of all serviceable cars at the highest utilization rate since the beginning of the defense program. See issue #100, page 22.

THE FOREIGN TRADE SITUATION



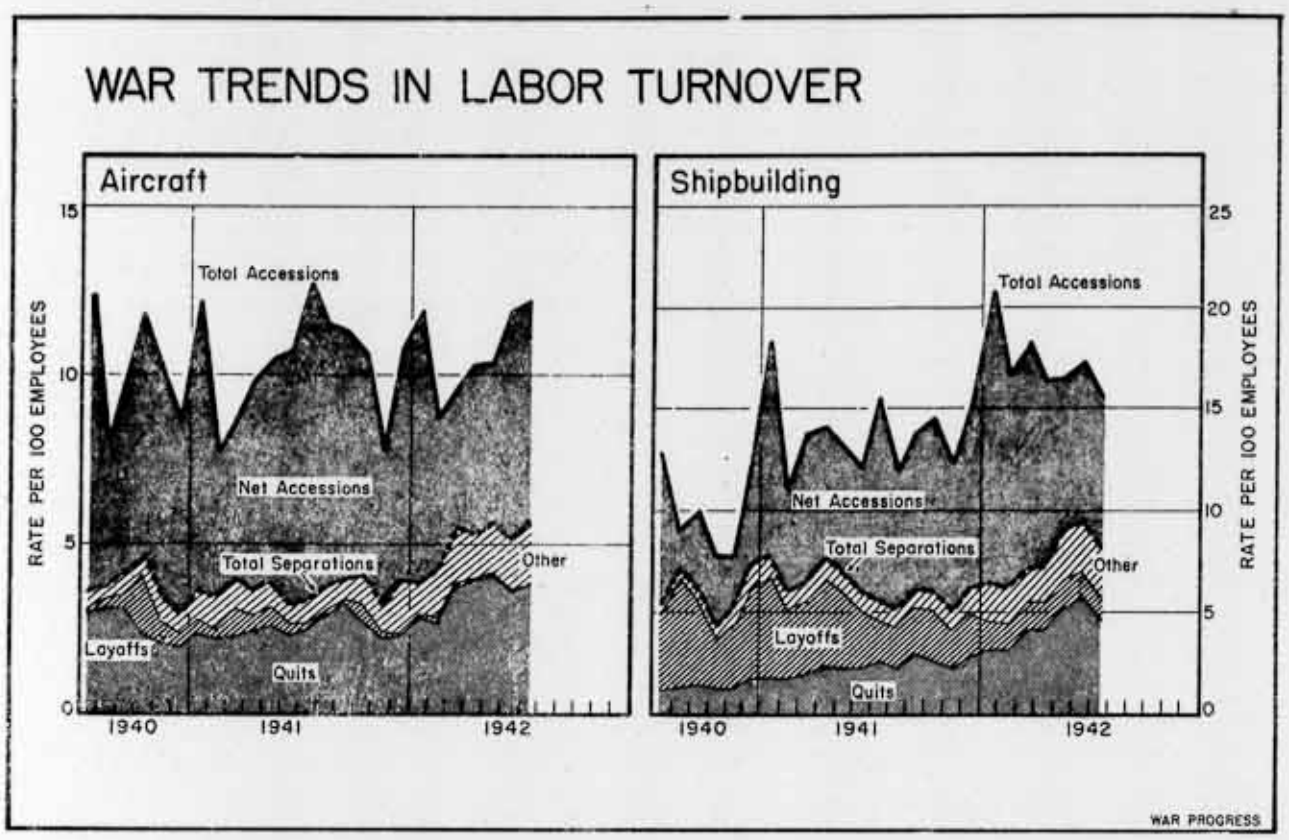
ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	March	April	May	June
● UNITED STATES FOREIGN TRADE						
Domestic exports(mil.dollars)	312	355	603	688	519	
By economic classes						
Crude materials	32	30	24	36		
Crude foodstuffs	8	7	5	6		
Mfd. foodstuffs & bev.	13	38	65	97		
Semimanufactures	75	54	75	90		
Finished manufactures	184	226	434	459		
By countries						
Canada	60	65	101	108	94	
Latin America	58	66	79	75	57	
United Kingdom	109	129	196	183	167	
U.S.S.R.	5	3	101	169	73	
Portugal and Spain	4	2	1	1	a	
India and dependencies	7	5	28	32	25	
British Malaya	2	2	a	a	0	
China	7	4	10	13	5	
Philippine Islands	7	8	0	0	0	
Netherlands Indies	4	7	1	a	a	
Japan	15	5	0	0	0	
Oceania and Australia	8	8	28	31	30	
Africa	12	39	46	53	47	
All other	14	12	12	23	21	
Imports for consumption(mil. dol.)	218	264	252	223 p	192 p	223
By economic classes						
Crude materials	85	119	95	76		
Crude foodstuffs	25	23	36	35		
Mfd. foodstuffs & bev.	23	24	25	25		
Semimanufactures	45	62	58	51		
Finished manufactures	40	36	38	36		
By countries						
Canada	37	44	58	52 p	46 p	51
Latin America	52	72	96	87 p	78 p	106
United Kingdom	16	10	11	10 p	7 p	10
U.S.S.R.	1	3	1	a p	1 p	3
Portugal and Spain	2	3	1	2 p	2 p	2
India and dependencies	10	11	14	13 p	9 p	10
British Malaya	23	32	11	7 p	2 p	1
China	9	9	3	4 p	4	a
Philippine Islands	8	8	1	1 p	1	a
Netherlands Indies	14	23	18	9 p	2 p	1
Japan	13	9	a	a	a	a
Oceania and Australia	2	11	13	14 p	20 p	16
Africa	14	13	15	11 p	11 p	12
All other	17	16	10	13 p	9 p	11
WATER BORNE FOREIGN COMMERCE[b]						
Exports (thous. long tons)	4,834	4,983	3,163	5,021 p	5,405 p	5,821
Foreign countries	4,533	4,614	2,853	4,760 p	5,030 p	5,525
Noncontiguous territories	301	369	310	261 p	375 p	296
Imports (thous. long tons)	3,531	4,339	2,533	2,639 p	2,245 p	2,273
Foreign countries	3,323	4,097	2,386	2,493 p	2,085 p	2,169
Noncontiguous territories	208	242	147	146 p	160 p	104

● Graph appears on opposite page. p Preliminary

a Less than $500,000.

b July, 1940 and July, 1941 figures are the monthly averages for the years 1940 and 1941. Data do not include cargoes destined for use by the U.S. Army or Navy.



ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	May	June	July	August
EMPLOYMENT (Thousand workers)						
Total civil nonagricultural	36,800	40,200	41,400	41,800	42,300	42,800
Selected industries						
Locomotives	6	13	20	20	21	
Railroad cars	32	56	62	62	57	
Chem. fire extinguishers	1	3	5	6	6	
UNEMPLOYMENT						
Number of unemployed(thous.)	9,300	5,700	2,600	2,800	2,800	2,200

	Cumulative 6/11/40 through			Monthly		
	1941	1942		1942		
	June	June	July	May	June	July
VALUE OF FACIL. ON APPLIC. FOR CERT. OF NECESSITY			(Million dollars)			
Total approved	1,030	3,441	3,603	170	296	162
Private funds	829	2,996	3,101	164	258	105
Public funds	201	445	502	6	38	57
Pending	387	554	n.a.	-	-	-

ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	April	May	June	July
● LABOR TURNOVER						
ALL MANUFACTURING		(Rate per 100 employees)				
Total accessions	4.77	6.00	7.12	7.29	8.25	8.29
Total separations	3.35	4.24	6.12	6.54	6.46	6.75
Quits	0.85	2.25	3.59	3.7[illegible]	3.85	4.03
Layoffs	2.25	1.40	1.31	1.43	1.21	1.06
Discharges	0.14	0.29	0.35	0.38	0.38	0.43
Military separations	n.a.	0.19	0.68	0.68	0.78	0.93
11 MAJOR WAR INDUSTRIES[a]						
Total accessions	5.09	7.11	8.86	8.92	10.09	9.71
Total separations	1.85	3.09	5.32	5.93	5.92	5.96
Quits	0.84	1.90	3.22	3.51	3.61	3.50
Layoffs	0.73	0.52	0.68	0.77	0.64	0.53
Discharges	0.15	0.34	0.43	0.47	0.48	0.49
Military separations	n.a.	0.17	0.83	0.82	0.93	1.13
AIRCRAFT						
Total accessions	12.40	12.68	10.31	10.38	11.91	12.21
Total separations	3.57	3.36	5.29	5.67	5.14	5.77
Quits	2.96	2.48	3.79	4.06	3.60	3.76
Layoffs	0.15	0.19	0.14	0.07	0.05	0.03
EXPLOSIVES						
Total accessions	4.30	5.95	3.85	4.66	4.83	5.12
Total separations	1.32	2.16	3.50	3.17	4.05	3.95
Quits	0.73	0.95	1.92	1.93	2.43	2.25
Layoffs	0.40	0.35	0.26	0.11	0.02	-
FIREARMS						
Total accessions	n.a.	12.50	8.88	10.81	6.38	5.95
Total separations	n.a.	3.28	4.75	6.13	6.10	5.58
Quits	n.a.	2.70	3.88	4.85	4.29	3.65
Layoffs	n.a.	0.28	0.04	0.10	0.46	0.62
SHIPBUILDING						
Total accessions	13.00	15.53	16.44	16.56	17.38	15.70
Total separations	5.40	5.63	7.25	9.22	9.41	8.36
Quits	1.14	2.65	4.29	5.20	5.71	4.67
Layoffs	3.71	2.05	1.29	1.43	1.37	1.22
MACHINE TOOLS						
Total accessions	3.05	5.17	7.48	7.05	7.69	6.53
Total separations	2.09	2.79	4.84	4.56	4.35	4.73
Quits	1.28	2.02	3.50	3.17	2.86	3.02
Layoffs	0.21	0.12	0.07	0.12	0.09	0.10

● Graph appears on opposite page. n.a. Not available

a Includes aircraft; explosives; firearms; shipbuilding; machine tools; brass, bronze, and copper products; engines and turbines; electrical machinery; blast furnaces, steel works, and rolling mills; aluminum; and foundries and machine shops. Data for July, 1940 are for seven industries excluding engines and turbines, aluminum, explosives, and firearms.

FOOTNOTES

WAR PROGRESS SERIES

n.a. Not available
r Revised.
P Preliminary

a Total war program includes all funds and authorizations made available for war purposes by the United States Government plus foreign orders placed in this country since November 1939. The major portion of the existing program has been approved since June 11, 1940, but some authorizations (particularly portions of the naval expansion program, the merchant shipbuilding program, and the stockpile program) were made available even earlier. All funds are shown during the fiscal year in which they are available for obligation.

b Value delivered and/or in place includes (1) value delivered and/or in place for ships and value of production for other munitions, (2) value in place for war construction, and (3) checks issued by finance officers for non-munitions items.

c Checks paid include (1) all checks paid out of the Treasury General Fund; (2) checks issued by the Reconstruction Finance Corporation and subsidiary Government corporations;(3) checks issued by foreign purchasing commissions.

d United States financed program includes the war activities of all United States Government agencies (including Lend-Lease) plus the war activities of government owned corporations, but does not include foreign orders.

e Report on checks paid by the Treasury for the account of the Maritime Commission makes allowance for receipts credited to the Construction Loan Fund.

f Program and obligations for pay for civilians and for the Navy include only that specifically mentioned in appropriation bills, while the cash disbursement figures include, in addition, executive war pay which cannot be separately distinguished in the appropriation bills.

g Ordnance and naval ships figures revised back to January 1942. In comparing these with prior figures, ordnance and naval ships should be combined.

h For data now available for August see War Progress Notes on Page 8.

WAR PROGRESS

Confidential
(British Secret)

Russia Now Biggest "Lend-Leaser"
Checking Up on Workers' Morale
British Plant Concentration

Number 105 September 18, 1942

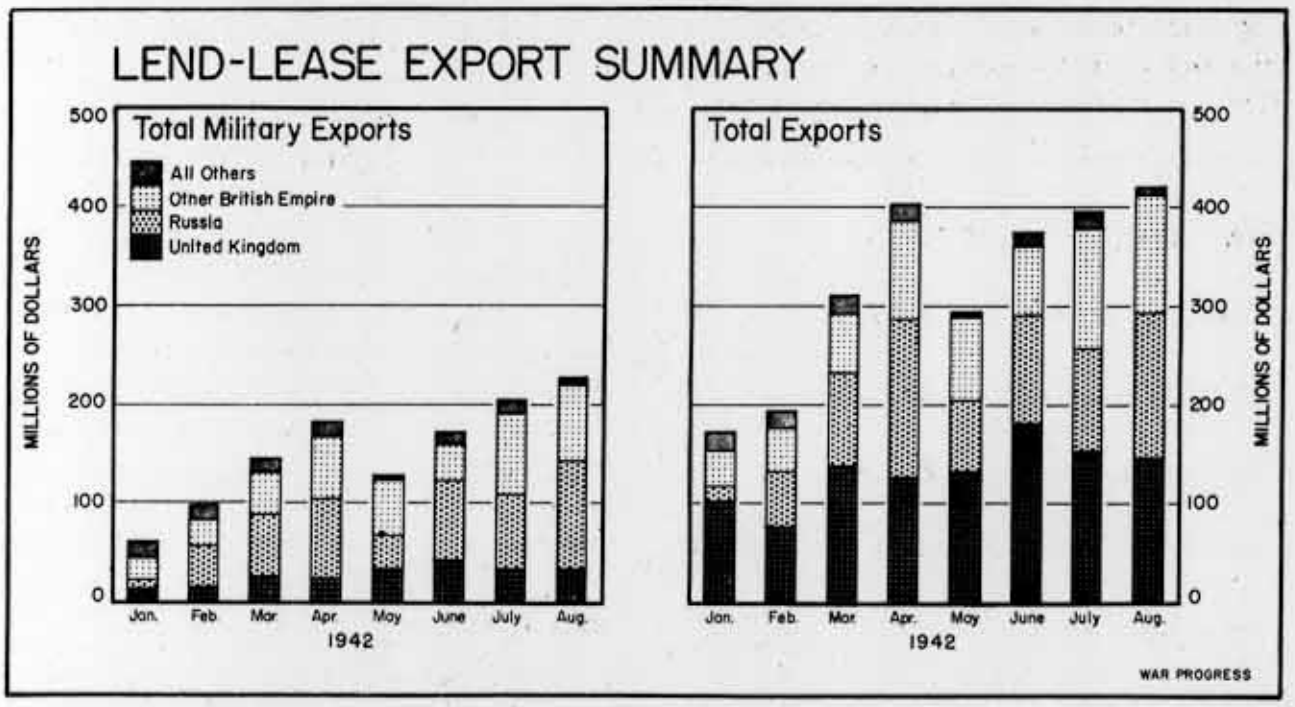
Lend-Lease Shipments Keep Rising

And go to more corners of the earth. Russia passes Great Britain for first time in dollar volume, gets bulk of munitions. Middle East is bolstered.

LEND-LEASE EXPORTS are increasing at a slightly accelerating rate. Last month they reached a peak of $422,700,000--7% above July, compared with a 6% July gain over June. About half the shipments in July and August consisted of munitions; a third industrial and other commodities; the remainder agricultural products.

In August, Russia became our biggest lend-leaser. About $148,500,000 of goods went to the U.S.S.R., compared with $146,300,000 to the United Kingdom. In the previous month, Russian shipments totaled $103,400,000; the United Kingdom's, $154,600,000. However, other parts of the British Empire which are under attack or directly menaced by the Axis are being increasingly reinforced. Thus, Egypt now ranks next to the United Kingdom as a lend-lease recipient, followed by India, Australia and New Zealand, Canada (which receives lend-lease goods to replace munitions she has manufactured for the United Kingdom), and Iran and Iraq. The following table indicates the rankings--with Russia and Britain far in the lead:

	August	July
	(in millions)	
U.S.S.R.	$148.5	$103.4
United Kingdom	146.3	154.6
Egypt	35.8	30.5
India	30.7	22.9
Australia & New Zealand	23.9	25.6
Canada	12.1	12.5



LEND-LEASE EXPORTS HAVE RISEN SHARPLY SINCE THE ABRUPT DECLINE IN MAY. MILITARY EXPORTS ARE NOW PREPONDERANT. IN JANUARY, THEY WERE ONLY 35% OF THE TOTAL; IN AUGUST, THEY WERE 53%. SHIPMENTS TO THE UNITED KINGDOM REACHED A PEAK IN JUNE, HAVE SINCE DECREASED, WHILE EXPORTS TO OTHER PARTS OF THE BRITISH EMPIRE HAVE NEARLY DOUBLED. EXPORTS TO RUSSIA ARE STILL SLIGHTLY UNDER THE APRIL HIGH.

	August	July
	(in millions)	
Iran & Iraq.....	10.9	7.9
Union of S. Africa.....	3.9	3.2
Gold Coast.....	3.0	9.5
British E. Africa.....	0.3	5.9
Brazil.....	2.5	4.4
Turkey.....	2.3	1.0
China.....	2.1	8.3

Mounting aid goes to the South Pacific area, but only a trickle reaches unoccupied China, now virtually a land-locked nation. Meanwhile, new countries are becoming prominent in the lend-lease picture. The Gold Coast of Africa, on the aerial route from the United States and South America to the Middle East, received $12,500,000 of lend-lease goods during July and August. Monthly shipments to British East Africa, along the Red Sea link between the Mediterranean and the Indian Ocean, rose from $2,600,000 in the first six months of 1942 to over $6,000,000 in July and August. Brazil is also getting increasing lend-lease assistance. Exports in July and August--mostly ordnance, ammunition, aircraft, tanks, and metals--totaled $6,900,000 or nearly twice those in the first half year.

Russia still gets the bulk of lend-lease munitions, the United Kingdom most of the agricultural products and industrial commodities (WP-Aug21'42,p1). The major items in Russia-bound cargoes are bombers, fighter planes, tanks, trucks, automatic weapons, and ammunition. In August, the U.S.S.R. obtained 43% of all lend-lease ordnance and stores, 58% of the aircraft and parts, and 41% of the tanks and other vehicles. (See chart, page 3.)

IN THIS ISSUE:

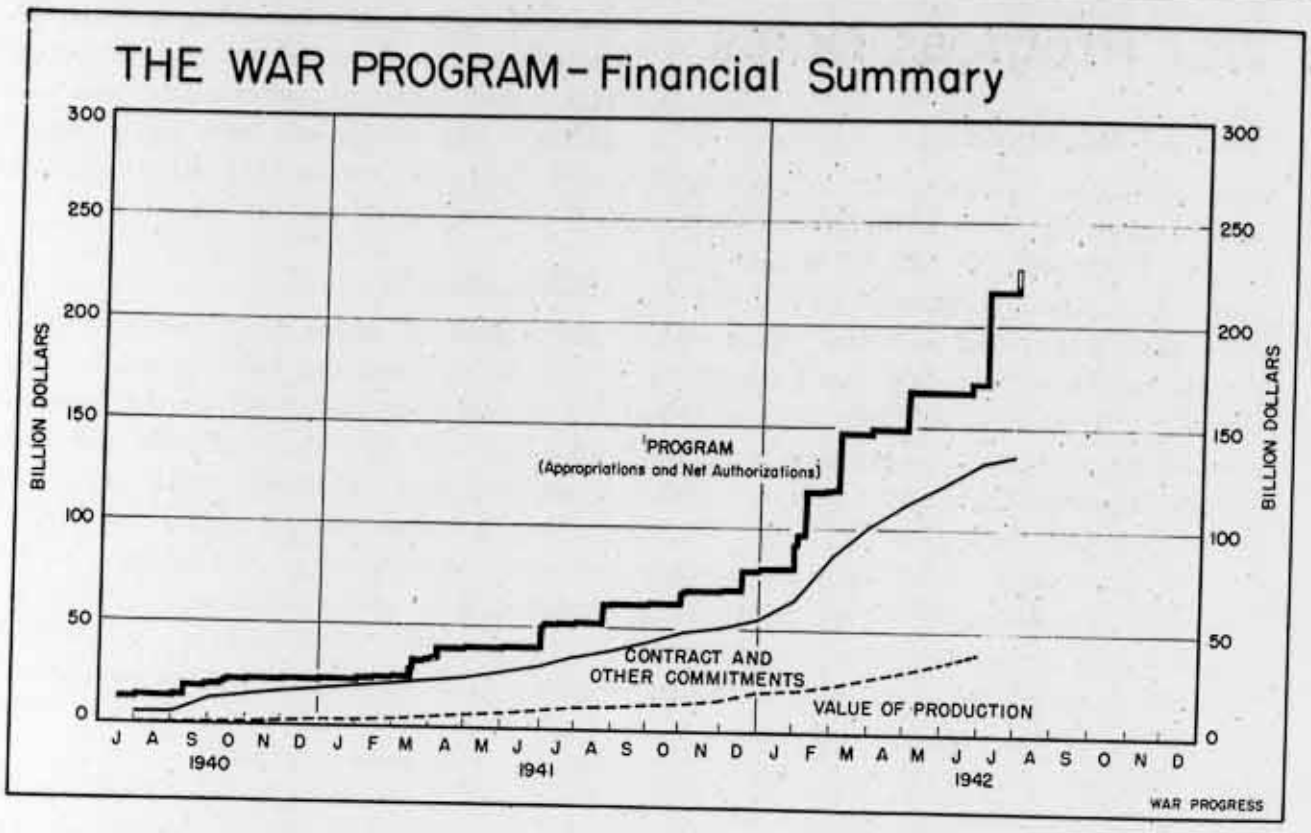
MOST OF FOOD TO BRITAIN

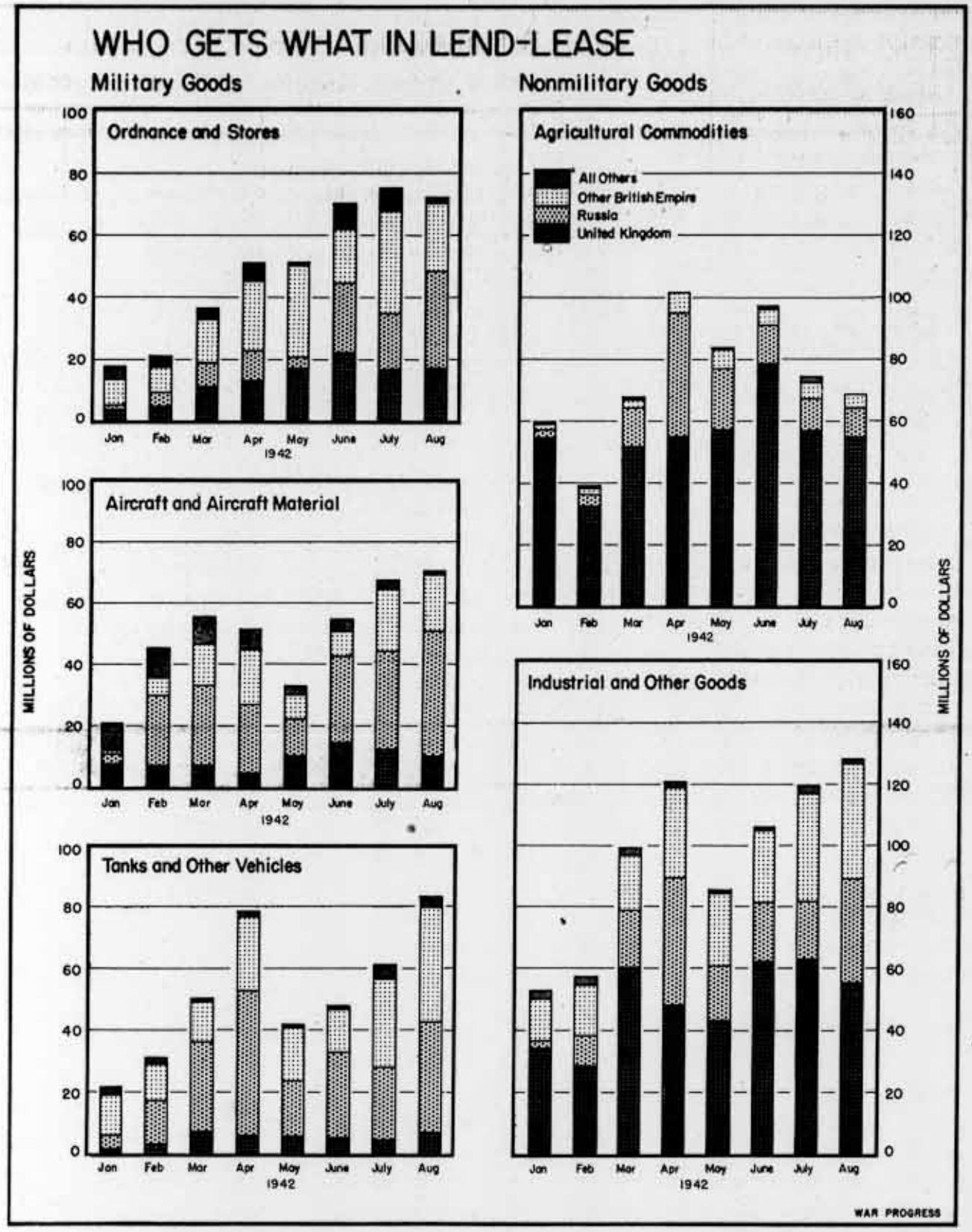
We also ship Russia quantities of aviation gasoline and lubricants, fabricated metals, chemicals, tools, food, and clothing. In August, for instance, Russia got 1,400,000 pounds of bacon, 5,300,000 pounds of pork, 7,500,000 pounds of canned meat, 18,400,000 pounds of vegetable oils, 500,000 pounds of refined sugar, 300,000 yards of cotton duck, 750,000 pounds of sole leather, and 186,000 pounds of cigarette paper. (The Russian usually rolls his own.)

The United Kingdom is getting about 80% of lend-lease agricultural products, 45% of industrial and other commodities, 25% of ordnance and ammunition, and lesser proportions of aircraft, tanks, and other vehicles. Agricultural shipments alone averaged about $57,000,000 in July and August. The bulk consisted of meat (fresh, cured, and canned), milk products, cheese, dried egg products, canned fish, canned and dried fruits and vegetables, and lard.

ARMS FOR EGYPT

Other parts of the British Empire receive from the United States chiefly war materials, foodstuffs, and metals for munitions. The leading items in Egyptian lend-lease for the last two


THE WAR PROGRAM - Financial Summary
BILLION DOLLARS
300
250
200
150
100
50
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS



THESE CHARTS INDICATE INCREASED LEND-LEASE EMPHASIS ON MUNITIONS IN RECENT MONTHS. TANK AND AIRCRAFT SHIPMENTS REACHED NEW HIGHS IN AUGUST; AND THOUGH ORDNANCE ON THE WHOLE WAS DOWN SLIGHTLY, SUCH CARGOES DESTINED FOR RUSSIA WERE UP 70%. INDUSTRIAL AND OTHER GOODS (INDIRECT WAR) ALSO CLIMBED TO NEW HIGHS. HOWEVER, CONTRARY TO THE OVERALL TREND, EXPORTS OF AGRICULTURAL COMMODITIES—80% OF WHICH ARE CONSIGNED TO THE UNITED KINGDOM—DROPPED FOR THE THIRD MONTH IN A ROW.

months have been tanks, trucks, aircraft, ordnance and ammunition, gasoline and lubricating oil, shipping containers, canned and dried foods (easily transported with the armies), and iron and steel manufactures.

The composition of exports to Australia is similar to Egypt's, except that such things as metal ores, tin plate, cloth, and drugs are added; foodstuffs are absent. To India go considerable quantities of food and metals, in addition to munitions, while lend-lease exports to Iran and Iraq have been virtually confined to the requirements of the armies poised to defend those countries against a German break-through on the Nile or in the Caucasus.

"Production Will Win the War"

Survey indicates workers believe munitions output alone will beat Axis. Men like first-hand reports on how their products function in combat.

SURVEYS CONDUCTED by the Office of War Information suggest that many war workers have become obsessed with the notion that production is all-important; they seem to think that mere volume of American munitions output--of and by itself --will inevitably overwhelm the Axis.

The typical war worker isn't worried about keeping his job during the war, but a substantial number--30%--expect a serious depression and unemployment after the war. Only about 20% anticipate postwar prosperity and continued employment, and most of these are in industries which have been on the upgrade--such as aircraft and chemicals.

TWO MAIN CLASSES

The survey divided workers into two main classes: those who are satisfied with their jobs; those who aren't. To satisfied workers, wages were less important than working conditions in determining their attitudes toward the war and management (chart, page 5). On the other hand, when workers were dissatisfied, their chief grievance was usually wages. (About half of the workers questioned said they were satisfied with their present rate of pay; 20% more were satisfied, but with reservations.)

Only 13% of the workers expressed outright approval of wage freezing; an additional 49% approved with qualifications. The two chief qualifications were (1) that wage differentials be ironed out before freezing and (2) that wages be adjusted to the cost of living (chart opposite).

OPPOSE JOB FREEZING

Generally, workers opposed job freezing even though one-third felt it would speed production. But 40% objected to it as an invasion of individual rights. And the type of job-freezing plan frequently governed a worker's attitude. A flexible plan, in which the worker could shift his job if approved by an appeals board, won favor. A rigid plan was vigorously opposed. Workers in high-paying jobs were not so opposed to job freezing as those in low-paying ones.

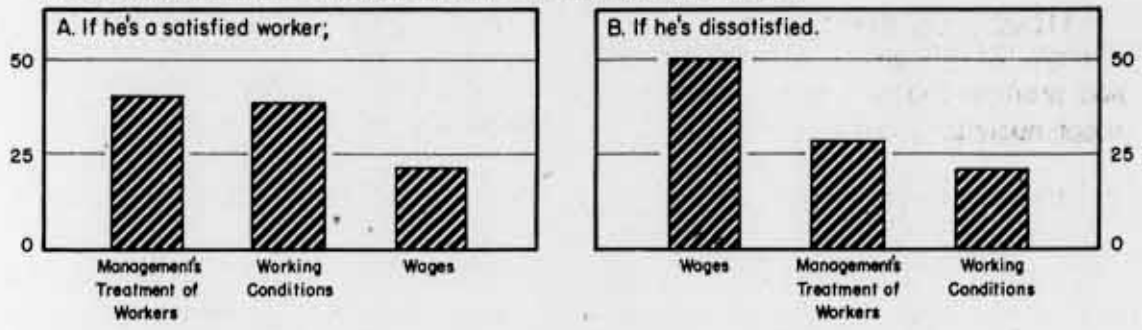
WHY PRODUCTION LAGS

Approximately one-third of the workers voiced no criticism of the rate of war production in their plants. Among those who felt that production was being impeded, the following causes were most frequently cited: shortage of materials, lack of skilled workers, various management deficiencies (such as

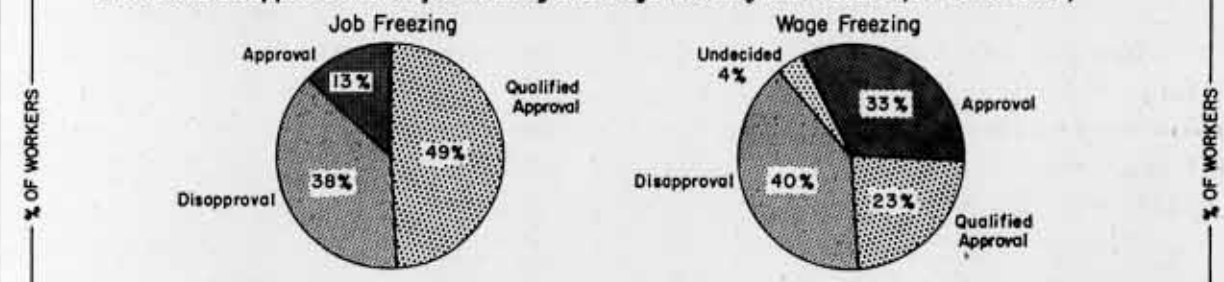
THE WAR WORKER'S POINT OF VIEW

The Office of War Information has taken a sample survey to discover how workers feel about their war jobs, their bosses, their working hours, wages, etc. The object was to evaluate that hard-to-measure commodity—morale. These are some of their findings:

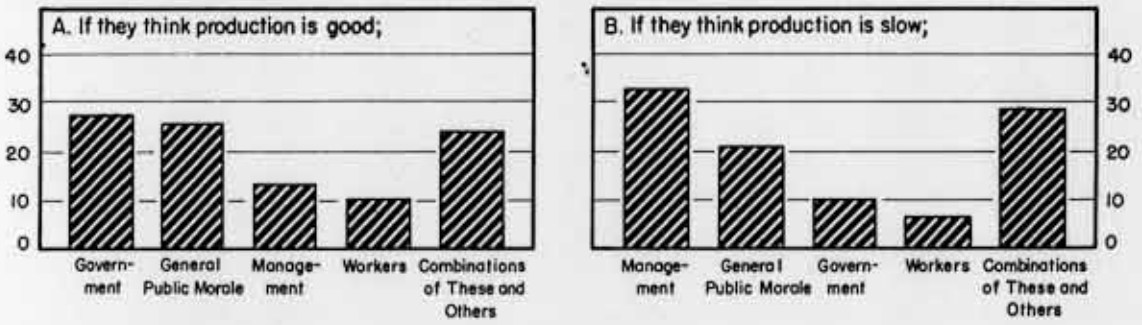
1. Ask a worker what's most important to him about his job and he'll say:



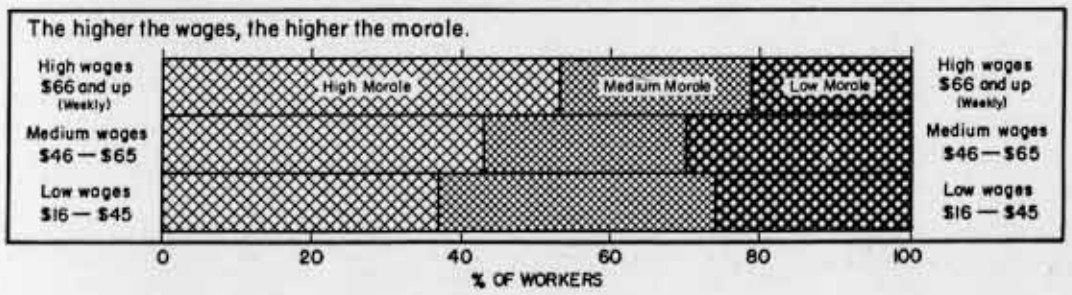
2. Workers disapprove of both job freezing and wage freezing with about equal vehemence;



3. When workers feel that war production is going well, they chiefly credit the government; when they feel it's slow, they largely blame management. Here's how workers distribute their (A) praise or (B) blame:



4. And when OWI investigators tried to measure morale, their findings showed this:



poor organization of work, distrust of management, poor use of skills, etc.).

War workers get the biggest lift from reports on combat performance of the products they turn out. But only one out of every five interviewed had been exposed to this particular type of production incentive.

Concentration--For Space and Labor

Need to (1) conserve man-hours, (2) obtain storage room, and (3) speed conversion prompts industry and government to adopt nucleus-plant production.

DESPITE NEWSPAPER HEADLINES heralding the concentration of our stove, typewriter, and bicycle industries, concentration in the United States is still in the planning stage.

It's true that War Production Board orders have forced certain stove, typewriter, and bicycle companies out of normal production; it's true, also, that what production was left went to the remaining companies. But, by definition, that is not concentration; for the firms put out of production retained no participating interest in the industry.

FIVE WAYS TO CONCENTRATE

Great Britain's formula indicates what concentration is and how it developed. After the war started, nonwar industries had a hard time getting raw materials; they had to operate at part time, and machines and workers were idle many hours per week. Concentration was designed to save labor, create additional storage space--especially for foodstuffs--and to improve overall industrial efficiency.

Industries were at first permitted to work out their own concentration--selecting certain firms to stay in business and certain other firms to "retire" for the duration. Later, the government felt it necessary to impose plans.

Five procedures have been followed: (1) the agency method--nucleus firms manufacture and keep alive trade lines of closed firms as well as their own; (2) pooling--all firms share profits with closed firms; (3) transfer of quotas--nucleus firms pay for right to produce wartime quotas of closed firms; (4) compensation by royalty--nucleus firms pay closed firms a royalty on products made; and (5) mergers, which lead to permanent concentration.

UNLIKE LAST WAR

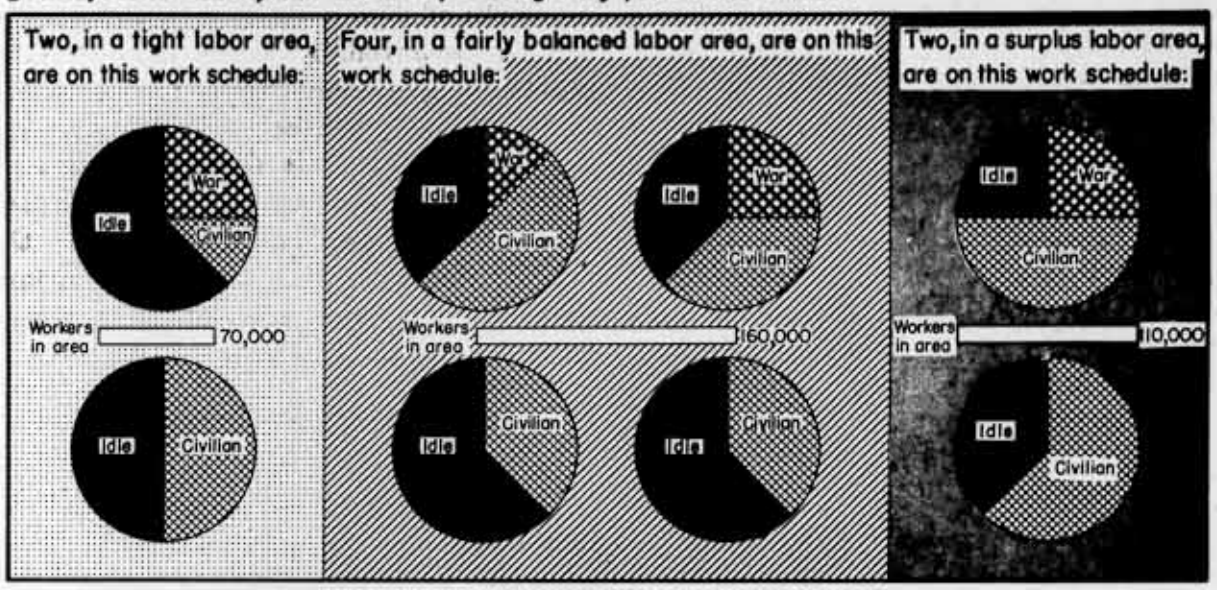
A difference between British concentration in this and the last war is that in 1914-18 it was uncontrolled and led to postwar monopolies. Now, however, return to the prewar status is envisioned. The government is trying, as much as circumstances permit, to protect the "little man" but isn't always achieving this objective. And when it comes to starting up anew after the war, many businessmen may prefer to sell rights to functioning firms, as some are already doing. It might be a sale of postwar nuisance value, so to speak.

English firms closed out of accustomed lines are not all necessarily doomed to inactivity. Premises may be retained by the government for vitally needed storage, or the firms may convert to war work. Income received from new sources, however, reduces claims on nucleus firms.

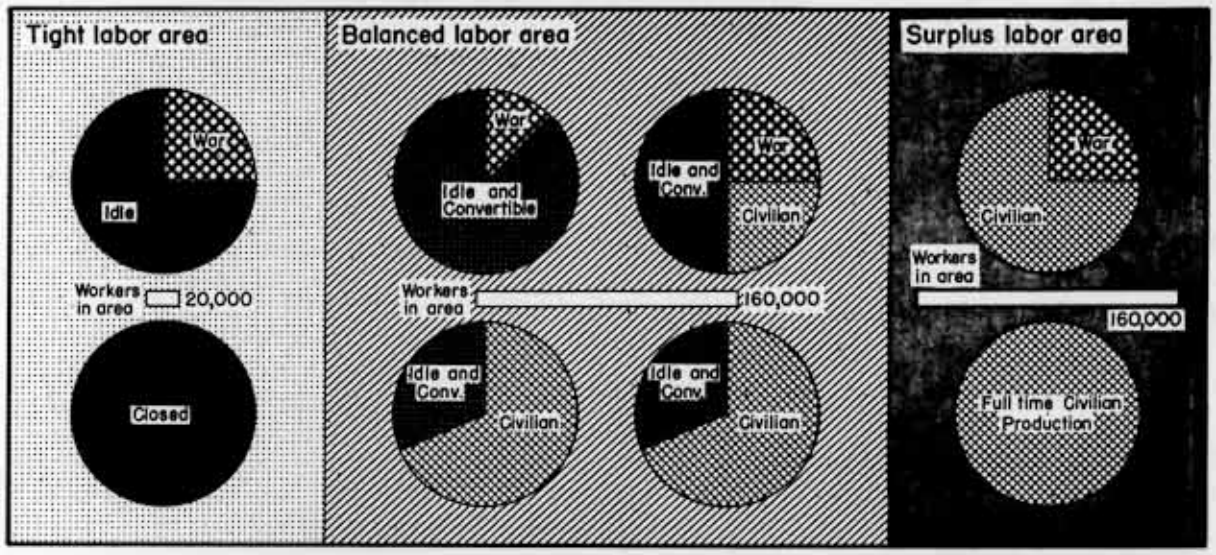
When war began, the British nonfood industries subsequently concentrated had about 1,000,000 registered workers;

THE THEORY OF CONCENTRATION

Suppose you have eight plants in a durable consumer—goods industry; some produce war goods, some don't; but all are operating only part time. And...



And now you concentrate those plants and this is what you get:



WAR PROGRESS

CONCENTRATION ADHERES TO NO RIGID FORMULA. BUT SOME GENERAL PURPOSES ARE CLEAR: TO FREE WORKERS IN TIGHT LABOR AREAS FOR WAR WORK; TO REDUCE DEMANDS FOR POWER AND TRANSPORTATION IN CERTAIN REGIONS; TO SPEED CONVERSION OF PLANTS TO WAR OUTPUT.

IN THE ABOVE EXAMPLE, CONCENTRATION HAS ELIMINATED CIVILIAN PRODUCTION IN THE TIGHT LABOR AREA AND THE NEED FOR NEW HOUSING, UTILITIES, ETC. HAS BEEN REDUCED. ONE PLANT IN THAT AREA HAS BEEN CLOSED ENTIRELY, THE OTHER CONTINUES TO PRODUCE WAR GOODS, BUT BECAUSE LABOR IS SCARCE, PRESUMABLY ITS EXPANSION WILL BE LIMITED. BOTH PLANTS IN THE SURPLUS LABOR AREA ARE WORKING FULL TIME. IN THE IN-BETWEEN AREA ONE PLANT HAS BEEN FREED FOR COMPLETE CONVERSION TO WAR WORK. OBSERVE THE HYPOTHETICAL SHIFT IN EMPLOYMENT. IN PLANTS IN THE TIGHT-SUPPLY AREA IT DECLINES FROM 70,000 TO 20,000 WORKERS; IN THE LOOSE AREA IT RISES FROM 110,000 TO 160,000; IT IS UNCHANGED IN THE BALANCED AREA. IN THE CHART, THE AMOUNT OF CIVILIAN OUTPUT IS THE SAME AFTER CONCENTRATION AS BEFORE. BUT IT IS FEASIBLE TO CUT CIVILIAN OUTPUT WHILE CONCENTRATING IT.

Before Concentration--and After

ALREADY, 40 manufacturing industries have been concentrated in Britain--31 nonfood, 9 food; 9 additional industries and retail distribution are awaiting early concentration.

The following table indicates how concentration has varied from industry to industry. Bedding, for example, started with 50 establishments, now has 35--a plant curtailment of 30%. Umbrella plants were cut 63%.

Industry	Before Concentration	Open After Concentration	Closed
Bedding	50	35	15
Bicycles	7	3	4
Boots, shoes	653	408*	245
Braces	27	18	9
Carpets	61	17	44
Corsets	57	39	18
Cotton, rayon	1,988	1,364	624
Cutlery, razor blades	171	98	73
Fellmongery (sheep pelts)	103	53	50
Fountain pens	13	11	2
Glazed tiles	22	11	11
Gloves	141	98	43
Hosiery	956	441**	515
Iron and steel	49	29	20
Jewelry	22	16	6
Jute	104	91***	13
Leather goods	197	100	97
Linoleum	14	8	6
Musical instruments	7	7	–
Paper boxes	113	54	59
Paper mills	200	188	12
Photography	24	22	2
Pianos	23	10****	13
Pottery	201	90	111
Silk	104	59	45
Sports goods	29	20	9
Toilet preparations	79	39	40
Toys	35	18	17
Umbrellas	44	16	28
Woodworking	347	344	3
Wool	782	713	69
	6,623	4,420	2,203

* 76 partly closed
** 25 partly closed
*** 4 partly closed
**** piano production just ceased.

Scheduled for early concentration are: bacon curing, soap manufacturing, edible fat melting, and egg packing; also brushes, casein buttons, printing ink, patent medicines, clothing and retail distribution.

early raw material shortages and limitation orders planlessly cut this working force 30%--to about 700,000. But 300,000 of these were already operating on war work; of the 400,000 engaged in civilian operations, about 190,000 were released by concentration (with about 30,000 more scheduled to go). The experience of the food industry was similar. Candy companies, for example, had about 55,500 workers before the war. Shortages and limitation orders reduced employment to about 30,000; concentration cut this down to 20,000.

EFFICIENCY NOT SOLE STANDARD

Efficiency has not been the sole standard for staying in business; the most efficient plants frequently have been drawn into war production, and smaller and less up-to-date firms have remained to carry on. In concentrated industries one-third of the plants have been closed; but the remaining two-thirds have less than 50% of total capacity.

About half the British concentration has been at the expense of cotton textiles. This industry released about 100,000 workers; it closed 624 establishments, leaving 1,364 in operation, partly on government contracts; it freed 26,000,000 square feet of floor space out of a total of 52,000,000. Hosiery made the next largest contribution; it closed 515 out of 956 plants, releasing about 30,000 workers and 5,250,000 square feet of floor space.

SPEEDED BY BOMBINGS

Bombings of London speeded up British concentration. Businessmen were convinced the country was imperiled, that drastic measures were needed. However, coincidentally, resistance developed, especially on special industry problems. To cope with this, each industry con-

centration plan incorporated special provisions to meet special problems.

The farm machinery and equipment industry has been named as the first candidate for concentration in the United States. Others under tentative consideration are warm air furnaces, boilers, cutlery, dairy machinery, enamel kitchen utensils, flatware and hollowware, pulp and paper, milk can production, railroad cars, sugar refining, cork products and unit heaters.

U. S. POLICY UNLIKE BRITISH

In its embryonic stage, American concentration leans more heavily toward the capital goods and metal-working industries than does British concentration. British capital goods industries had largely been converted to war work when concentration started. Consumers' goods almost wholly dominate the English concentration picture. The U. S. has hardly yet approached these industries with concentration in mind. Thus concentration in this country is, in a sense, aimed more directly at conversion.

GUIDING PRINCIPLES

The prescription for American concentration calls for (1) the designation of smaller firms as nuclei to produce for themselves and for larger firms on a cooperative, profit-sharing basis and (2) the selection of nucleus firms as much as possible in "loose" labor areas and in regions where warehouse and power facilities are not strained. The elimination of railroad crosshauling must also be taken into consideration in selecting nucleus firms.

Guiding principles for U. S. concentration are as follows: (1) concentration programs must not foster postwar monopolies--plans that facilitate the re-entry of the largest possible number of firms after the war are preferred; (2) concentration programs should be accompanied by standardization and simplification; (3) firms remaining in business should compensate those going out, as in Great Britain.

War Progress Notes

HAIRLINING THE TANK

THE ARMY is now using cattle hair felt instead of foam rubber for interior padding in tanks and for seat cushions of jeeps. Approximate savings of crude rubber (foam is about 85% crude) per vehicle are as follows:

Combat Vehicle	Pounds
Aero tank	14
Assault tank	19
Light tank	14
Medium tank	19
¼-ton jeep	12

The switch is expected to save some 2,997,000 pounds--or 133 long tons--of crude rubber next year.

GRAVEYARD RUBBER

DETERIORATION SETS IN early on idle rubber, so the OPA and the WPB are making a sample checkup of auto graveyards in several large cities to determine the number of tires available either for use on cars or as scrap.

PLASTIC PENNIES?

GLASS AND PLASTICS are being considered for the content of the penny, which now consists of 95% copper and 5% tin and zinc. The mint hasn't received copper for pennies since May; last year it used 4,000 tons to produce more than 1,400,000,000 pennies.

Machinery to make a glass cent would require about six months to build, but existing plastic button-making equipment, which might be suitable for turning out a "synthetic" cent, could probably be made available much sooner.

Mint metallurgists have been trying to find substitutes for critical metals in minor coins since February; the new silver-copper-manganese 5-cent piece, for example, eliminates all the nickel and 25% of the copper formerly used.

SAME AS USUAL

THE COST OF LIVING INDEX rose about 0.5% from July to August. Nonfood components of the index remained stable, food costs continued to rise.

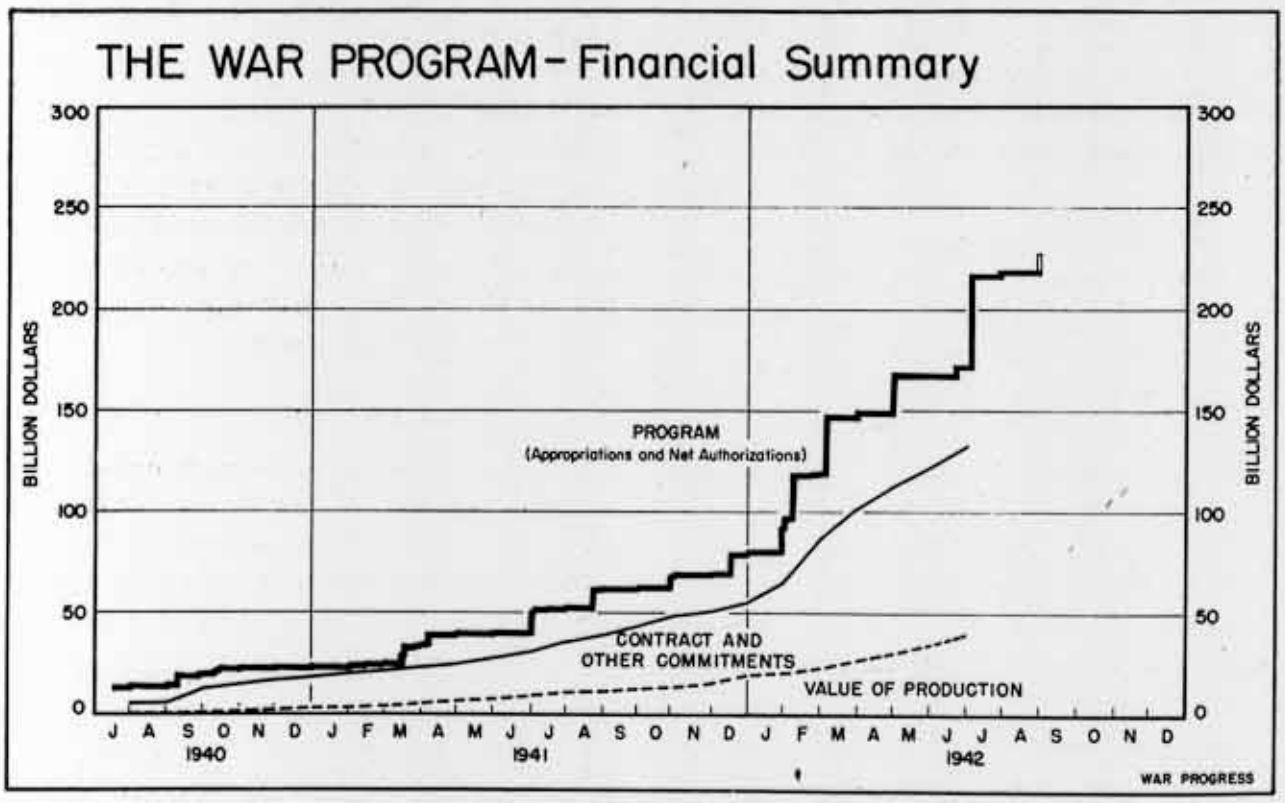
INEXPERIENCED WOMEN

LACK OF EXPERIENCE in factory work is retarding the employment of women in war industries. Of 158,000 women questioned in a Detroit survey, one out of three said they would and could take factory war jobs, but less than half of these had previous experience. Some 14,000 others could qualify for clerical jobs but had no interest or experience in factory work.

About 40% of the women queried would have to provide for care of children outside the home. Most of these--42,000 --said they would not be available for war work.

200,000 GUINEA PIGS

ADD GUINEA PIGS to the list of wartime shortages. Normal requirements for testing serums, antitoxins and viruses are roughly 200,000 guinea pigs a year; but demand for biologicals, chiefly from the armed forces, has jumped requirements some 50% over last year's levels --and supply is trailing. There are only three or four large producers of guinea pigs in the United States but schoolboy breeders are an auxilliary source of supply. Guinea pigs bring $3.50 today--only $1.25 a year ago.

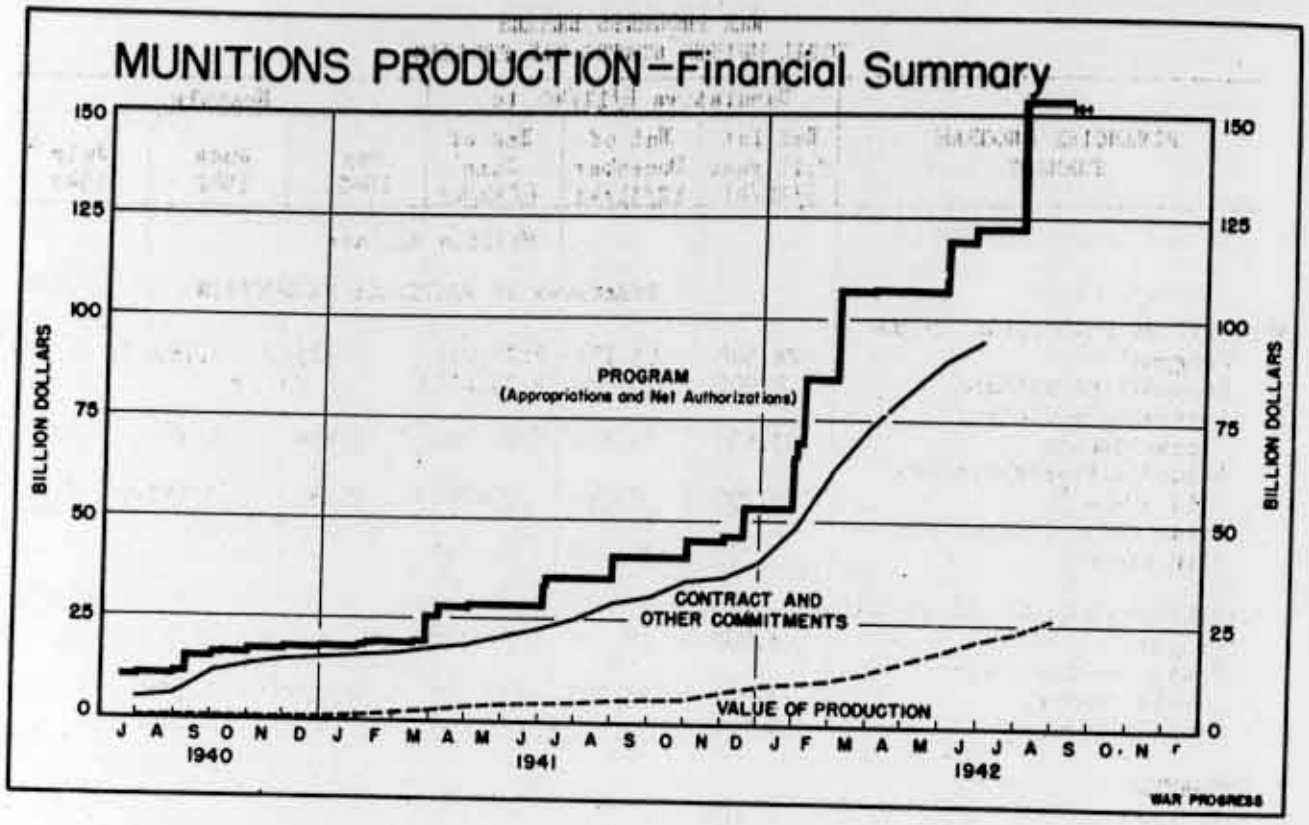


WAR PROGRESS SERIES
TOTAL WAR PROGRAM IN THE UNITED STATES

	Cumulative 6/11/40 to			Monthly		
	End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	May 1942	June 1942	July 1942 [h]
●TOTAL WAR PROGRAM IN THE U.S.[a]			(Million dollars)			
Program-Pending						p 9,525
Program-Enacted	40,861	80,604	p 174,384	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	31,587	56,625	p 134,094	p 9,731	p 12,098	n.a.
Value delivered and/or in place [b]	8,547	18,573	p 39,222	p 4,060	p 4,602	n.a.
Checks paid [c]	8,536	17,965	p 37,562	3,925	p 4,156	p 4,824
MUNITIONS PRODUCTION & WAR CONSTRUCTION, TOTAL						
Program	37,027	69,305	p 156,214	0	p 5,358	p 32,543
Uncommitted Balance	7,597	18,281	p 33,761	-	-	-
Contracts and other commitments	29,430	51,024	p 122,453	p 9,107	p 9,999	n.a.
Value delivered and/or in place [b]	6,795	14,750	p 32,184	p 3,465	p 3,882	n.a.
Value not delivered nor in place	22,635	36,274	p 90,269	-	-	-
PRODUCTION OF MUNITIONS						
Program	28,566	53,738	p 124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 2,955
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
WAR CONSTRUCTION						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value delivered and/or in place [b]	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a
Value not delivered nor in place	3,260	5,405	p 15,727	-	-	-
NON-MUNITIONS WAR ITEMS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Contracts and other commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued	1,752	3,823	p 7,038	p 595	p 720	n.a.

●Graph appears on opposite page.
Table continued on Page 13.

For footnotes see Page 22.


MUNITIONS PRODUCTION–Financial Summary
BILLION DOLLARS
150
125
100
75
50
25
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL WAR PROGRAM IN THE UNITED STATES

	Cumulative 6/11/40 to			Monthly		
	End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	May 1942	June 1942	July 1942
●TOTAL WAR PROGRAM IN THE U.S.[a]			(Million dollars)			
Program-Pending						p 9,525
Program-Enacted	40,861	80,604	p 174,384	0	p 5,615	p 44,252
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	31,587	56,625	p 134,094	p 9,731	p 12,098	n.a.
Value delivered and/or in place [b]	8,547	18,573	p 39,222	p 4,060	p 4,602	n.a.
Checks paid [c]	8,536	17,965	p 37,562	3,925	p 4,156	p 4,824
MUNITIONS PRODUCTION & WAR CONSTRUCTION, TOTAL						
Program	37,027	69,305	p 156,214	0	p 5,358	p 32,543
Uncommitted Balance	7,597	18,281	p 33,761	-	-	-
Contracts and other commitments	29,430	51,024	p 122,453	p 9,107	p 9,999	n.a.
Value delivered and/or in place [b]	6,795	14,750	p 32,184	p 3,465	p 3,882	n.a.
Value not delivered nor in place	22,635	36,274	p 90,269	-	-	-
PRODUCTION OF MUNITIONS						
Program	28,566	53,738	p 124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 3,039
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
WAR CONSTRUCTION						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value delivered and/or in place [b]	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a
Value not delivered nor in place	3,260	5,405	p 15,727	-	-	-
NON-MUNITIONS WAR ITEMS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,709
Uncommitted balance	1,677	5,698	p 6,529	-	-	
Contracts and other commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued	1,752	3,823	p 7,038	p 595	p 720	n.a.

●Graph appears on opposite page.
Table continued on Page 13.

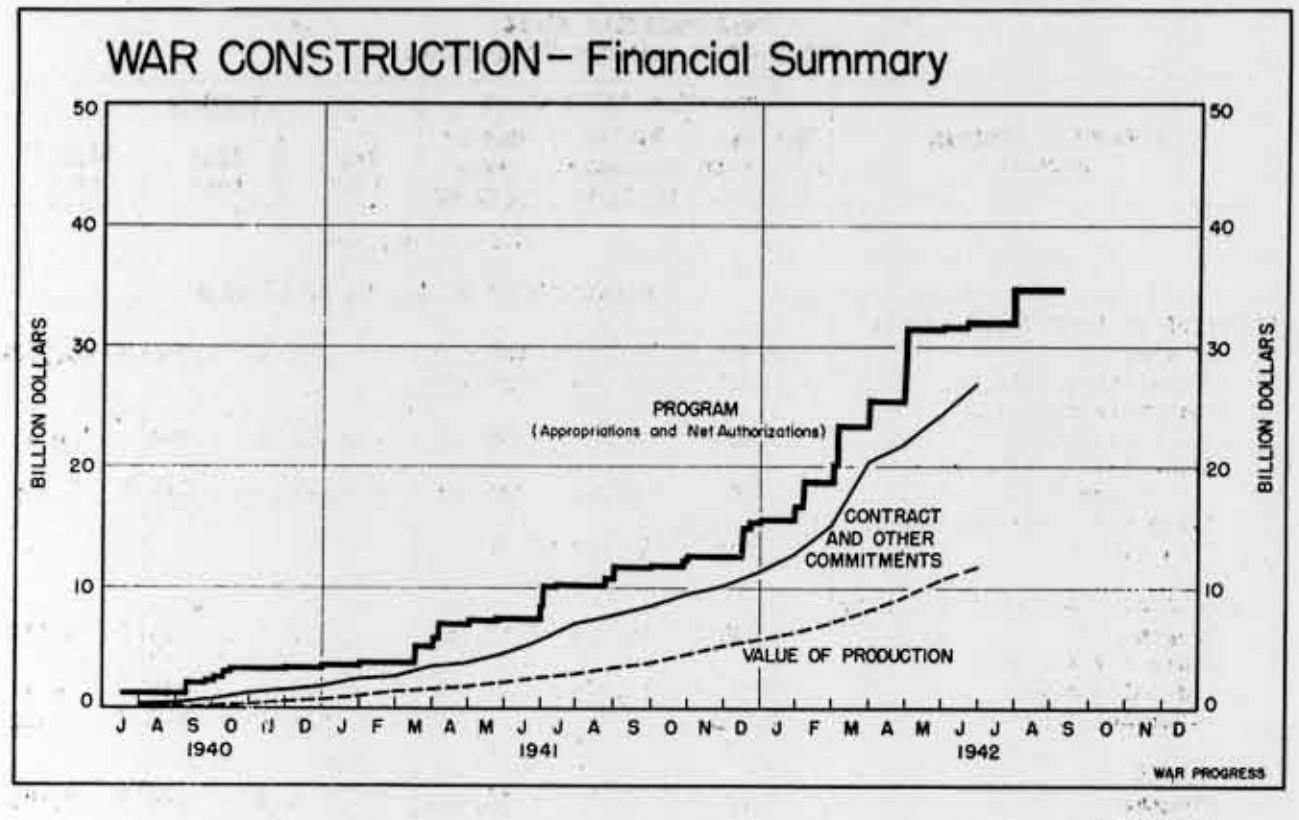
For footnotes see Page 18.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July[h] 1942
			Million dollars			
			BREAKDOWN OF MUNITIONS PRODUCTION			
● MUNITIONS PRODUCTION, TOTAL						
Program	28,566	53,738	P124,097	-25	P 4,756	P 29,952
Uncommitted balance	4,901	13,929	P 29,106	-	-	-
Contracts and other commitments	23,665	39,809	P 94,991	P 6,668	P 6,942	n.a.
Value delivered and/or in place[b]	4,290	8,940	20,449	2,248	2,638	P 2,955
Value not delivered nor in place	19,375	30,869	P 74,542	-	-	-
AIRPLANES, PARTS & ACCESSORIES						
Program	8,582	15,072	P 37,586	0	P -215	P 9,737
Contracts and other commitments	7,381	13,298	P 33,945	P 2,409	P 2,838	n.a.
Value delivered	1,010	2,265	4,752	471	510	P 549
ORDNANCE						
Program	7,778	17,488	P 36,400	0	P 285	P 9,548
Contracts and other commitments	5,418	10,354	P 26,873	P 2,278	P 2,360	n.a.
Value delivered	700	1,685	4,998	696	731	P 904
NAVAL SHIPS						
Program	6,796	9,605	P 18,460	0	P 2,922	P 0
Contracts and other commitments	6,442	7,930	P 12,276	275	P 276	n.a.
Value delivered and/or in place	810	1,665	3,383	399	404	P 451
MERCHANT SHIPS						
Program	1,442	3,288	P 8,653	-25	P 1,054	P 0
Contracts and other commitments	1,484	2,381	P 6,880	P 607	P 618	n.a.
Value in place	240	510	1,188	131	176	187
OTHER MUNITIONS AND SUPPLIES						
Program	3,968	8,285	P 22,998	0	P 710	P 10,667
Contracts and other commitments	2,940	5,846	P 15,017	P 1,099	P 850	n.a.
Value delivered	1,530	2,815	6,128	551	817	P 864

● Graph appears on opposite page.
Table continued on Page 15.

For footnotes see Page 22.


WAR CONSTRUCTION– Financial Summary
BILLION DOLLARS
50
40
30
20
10
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT
AND OTHER
COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942 [h]
			(Million dollars)			
BREAKDOWN OF WAR CONSTRUCTION						
●WAR CONSTRUCTION, TOTAL (LAND, BLDGS., EQUIP.)						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value in place	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a.
Value not in place [b]	3,260	5,405	p 15,727	-	-	-
INDUSTRIAL FACILITIES (LAND, BLDGS., EQUIP.)						
Program	5,120	8,112	p 17,610	25	p 707	p 172
Contracts and other commitments	2,865	6,318	p 16,697	p 1,047	p 1,592	n.a.
Value in place	960	2,800	p 5,990	p 629	p 615	n.a.
INDUSTRIAL FACILITIES, BUILDINGS ONLY						
Program	1,607	3,137	p 6,660	p 389	p 768	n.a.
Value in place	575	1,753	p 2,990	p 287	p 307	p 344
POSTS, DEPOTS, STATIONS						
Program	2,849	6,063	p 13,115	0	p -105	p 2,419
Contracts and other commitments	2,625	4,381	p 9,890	p 1,317	p 1,390	n.a.
Value in place	1,430	2,670	p 5,179	p 545	p 580	p 845
DEFENSE HOUSING						
Program	492	1,392	p 1,392	0	p 0	p 0
Contracts and other commitments	275	516	p 875	p 75	p 75	n.a.
Value in place	115	340	p 566	p 43	p 49	p 52
BREAKDOWN OF NON-MUNITIONS						
NON-MUNITIONS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued by agencies [b]	1,752	3,823	p 7,038	p 595	p 720	n.a.
STOCKPILE						
Program	983	2,399	p 2,713	0	p 0	p 0
Commitments	470	1,050	p 1,140	p 30	p 0	n.a.
Checks issued by agencies	192	488	p 1,011	p 102	p 100	n.a.

●Graph appears on opposite page.
Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	Monthly May 1942	June 1942	July 1942 h
			(Million dollars)			
			BREAKDOWN OF NON-MUNITIONS (Continued)			
AGRICULTURAL EXPORTS (LEND-LEASE)						
Program	625	1,522 p	2,138	0 p	0 p	0 p
Commitments	66	561 p	1,143 p	65 p	149 p	n.a.
Checks issued by agencies	1	211 p	629	87 p	90 p	n.a.
PAY, SUBSISTENCE & TRAVEL f						
Army Military						
Program	944	3,013 p	3,904	0 p	0 p	8,534 p
Commitments	934	2,030 p	3,849 p	281 p	285 p	n.a.
Checks issued	696	1,510 p	2,744 p	220 p	315 p	n.a.
Navy Military						
Program	378	963 p	2,478	0 p	232 p	0 p
Commitments	334	610 p	1,143 p	110 p	104 p	n.a.
Checks issued	388	642 p	1,042 p	70 p	98 p	n.a.
Civilian Payroll						
Program	32	247 p	299	0 p	46 p	542 p
Commitments	32	140 p	255 p	15 p	20 p	n.a.
Checks issued	356	682 p	1,115 p	79 p	80 p	n.a.
MISCELLANEOUS NON-MUNITIONS						
Program	872	3,155 p	6,638	0 p	-21 p	2,852 p
Commitments	321	1,210 p	4,111 p	123 p	1,541 p	n.a.
Checks issued by agencies	119	290 p	497 p	37 p	37 p	n.a.

p Preliminary

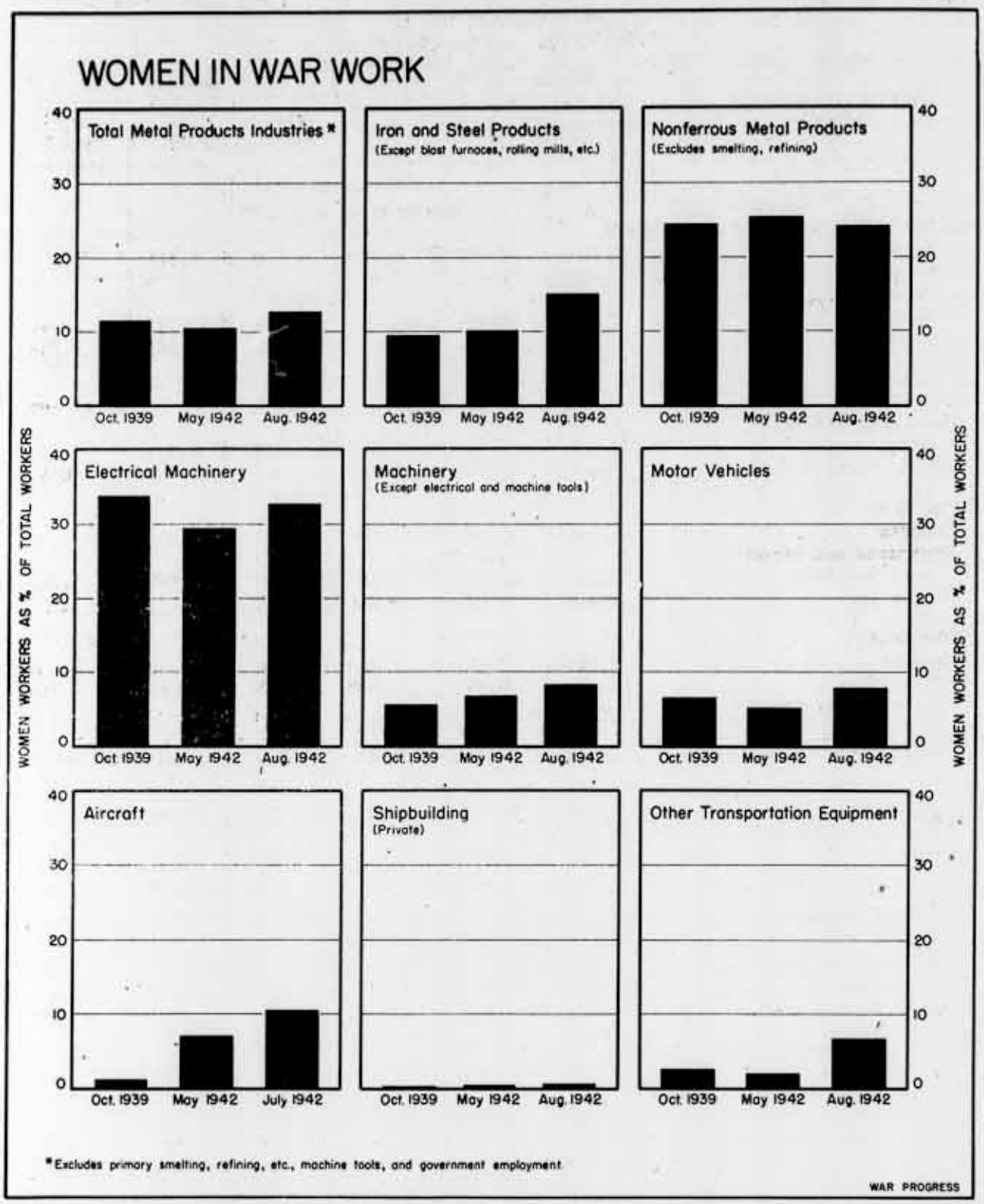
Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942 h
			(Million dollars)			
	d		BREAKDOWN OF AGENCIES			
UNITED STATES FINANCED WAR PROGRAM						
Program	37,075	76,508	p 170,288	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	27,801	52,529	p 129,998	p 9,731	p 12,098	n.a.
Checks paid	6,431	15,251	p 34,510	3,880	p 4,123	p 4,794
U. S. ARMY						
Program	13,134	31,981	p 84,468	0	p 0	p 42,090
Contracts and other commitments	11,404	23,334	p 70,402	p 6,138	p 8,397	n.a.
Checks paid	3,636	7,889	15,649	1,497	1,662	n.a.
U. S. NAVY						
Program	12,308	20,024	p 47,990	0	p 4,355	p 0
Contracts and other commitments	11,182	16,327	p 32,325	p 1,971	p 2,361	n.a.
Checks paid	2,217	4,726	10,128	1,229	1,237	n.a.
LEND-LEASE						
Program	7,000	12,985	p 18,410	0	p 0	p 0
Allocations	5,177	11,345	14,085	508	-281	382
Contracts and other commitments	2,458	6,282	10,665	305	484	n.a.
Checks paid	21	910	4,099	626	665	n.a.
U. S. MARITIME COMMISSION						
Program	784	2,734	p 7,654	0	p 1,070	p 0
Contracts and other commitments	886	1,724	p 6,333	608	p 631	n.a.
Checks paid (Net) e	44	156	642	93	114	n.a.
RFC AND SUBSIDIARIES						
Program	2,623	5,130	p 7,704	0	p 0	p 0
Contracts and other commitments	1,151	3,569	p 7,916	p 509	p 0	n.a.
Checks issued by RFC	350	956	p 2,510	327	p 300	p 300
OTHER U. S. AGENCIES						
Program	1,226	3,654	p 4,062	0	p 190	p 2,381
Contracts and other commitments	720	1,293	p 2,357	p 200	p 225	n.a.
Checks paid	163	614	1,482	108	145	n.a.
FOREIGN ORDERS						
Program (Orders)	3,786	4,096	p 4,096	0	p 0	p 0
Commitments	3,786	4,096	p 4,096	0	p 0	p 0
Checks issued by Purchasing Missions	2,105	2,714	p 3,052	45	p 33	p 30

For footnotes see Page 22.



FROM OCTOBER, 1939, TO AUGUST, 1942, THE NUMBER OF WOMEN EMPLOYED IN THE METAL PRODUCTS INDUSTRIES MORE THAN DOUBLED, AND THE PROPORTION TO TOTAL WORKERS ROSE FROM 11.4% TO 12.7%. FROM OCTOBER, 1939, TO MAY, 1942, THERE WAS A SHARP RISE IN THE NUMBER OF WOMEN ENTERING THE METAL PRODUCTS INDUSTRIES; BUT MALE EMPLOYMENT INCREASED AT SUCH A RAPID PACE THAT THE PROPORTION OF WOMEN FELL TO 10.4%. BETWEEN MAY AND AUGUST, HOWEVER, WOMEN WENT INTO THESE INDUSTRIES IN SUCH NUMBERS THAT THE PROPORTION TO TOTAL WORKERS ADVANCED TO A NEW HIGH—ALL LINES INCREASING EXCEPT NONFERROUS METALS.

THE MOST SIGNIFICANT GAINS DURING THE 34-MONTH PERIOD WERE IN IRON AND STEEL PRODUCTS, AIRCRAFT, AND OTHER TRANSPORTATION EQUIPMENT (CHIEFLY RAILROAD EQUIPMENT).

ECONOMIC ACTIVITY RELATED TO THE WAR

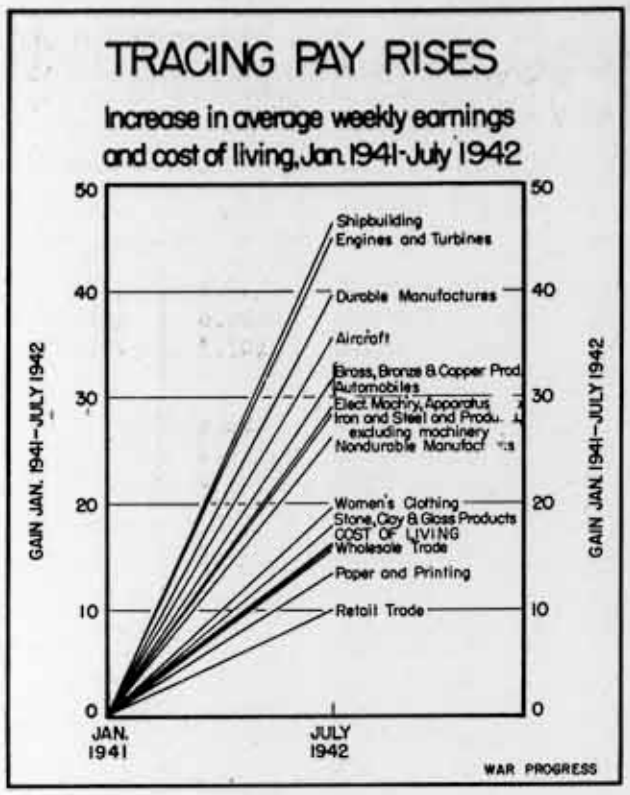
Note: Certain statistical series included in these tables are nonconfidential and are published in such public documents as the Federal Reserve Bulletin, Survey of Current Business, etc. Obviously inclusion here should not be construed as a limitation on their use.

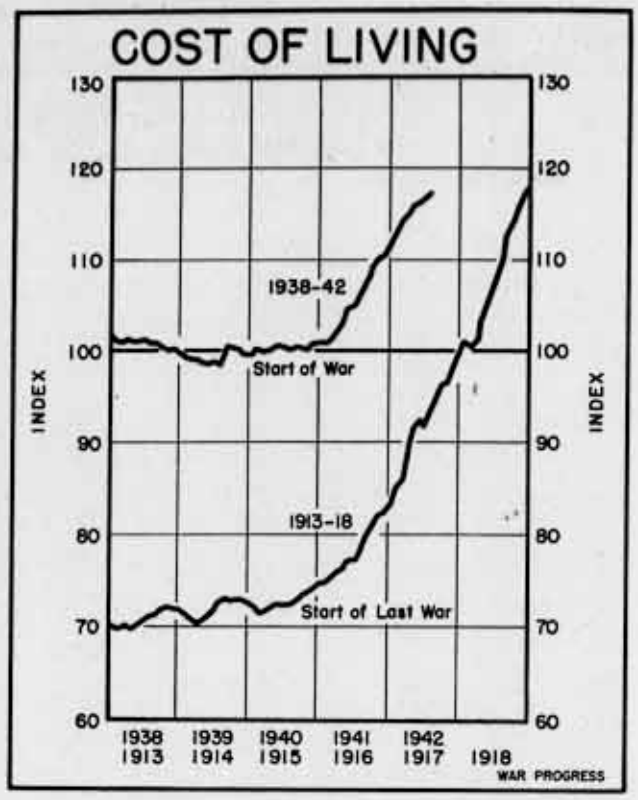
	1940	1941	1942			
	July	July	May	June	July	Aug.
● BLS COST OF LIVING INDEX (1935-39 = 100)						
All items	100.3	105.3	116.0	116.4	116.9	117.4
Food	97.4	106.7	121.6	123.2	124.6	126.1
Rent	*104.6	106.1	109.9	108.5	107.7	107.6
AVERAGE HOURS WORKED PER WEEK						
All manufacturing industries	37.3	40.3	42.6	42.6	42.4	
Durable goods	37.9	41.5	45.0	45.1	44.7	
Nondurable goods	36.7	39.0	39.7	39.6	39.6	
11 selected war industries combined	39.3	43.1	46.5	46.5	46.2	
Machine tools	47.5	50.9	54.1	53.8	52.8	
Aircraft	42.0	44.8	47.5	47.2	46.7	
Shipbuilding	39.3	44.8	48.8	48.4	48.5	
AVERAGE HOURLY EARNINGS (Cents)						
All manufacturing industries	66.7	74.4	83.1	84.0	85.0	
Durable goods	72.7	82.6	92.3	93.3	94.6	
Nondurable goods	61.5	65.7	72.2	72.7	73.2	
11 selected war industries combined	78.6	88.9	98.7	99.7	101.2	
Machine tools	76.8	84.1	96.5	97.4	97.3	
Aircraft	73.8	81.2	97.8	99.8	99.7	
Shipbuilding	86.2	101.3	109.0	108.9	113.3	
● AVERAGE WEEKLY EARNINGS (Dollars)						
All manufacturing industries	25.25	31.22	37.43	38.00	38.52	
Durable goods	28.52	35.84	43.40	44.02	44.61	
Nondurable goods	21.87	25.07	28.24	28.33	28.61	
11 selected war industries combined	30.76	38.66	45.92	46.43	47.12	
Machine tools	36.45	42.80	52.24	52.47	51.58	
Aircraft	30.48	36.57	45.81	46.92	46.27	
Shipbuilding	34.03	45.54	53.67	52.74	55.19	
EMPLOYMENT (Thousand workers)						
Total civil nonagricultural	36,800	40,200	41,400	41,800	42,300	42,800
War industries						
Private, 18 selected ind.	1,663	2,560	3,603	3,738	p 3,879	
Private contractors, public construction	13	412	834	940	988	
Public	117	225	371	400	417	
Total	1,793	3,197	4,808	5,078	p 5,284	
Deep sea merchant vessels	51	50	47	47	45	
Total WPA employment	1,655	1,055	786	698	525	
UNEMPLOYMENT						
Number of unemployed (thous.)	9,300	5,700	2,600	2,800	2,800	2,200

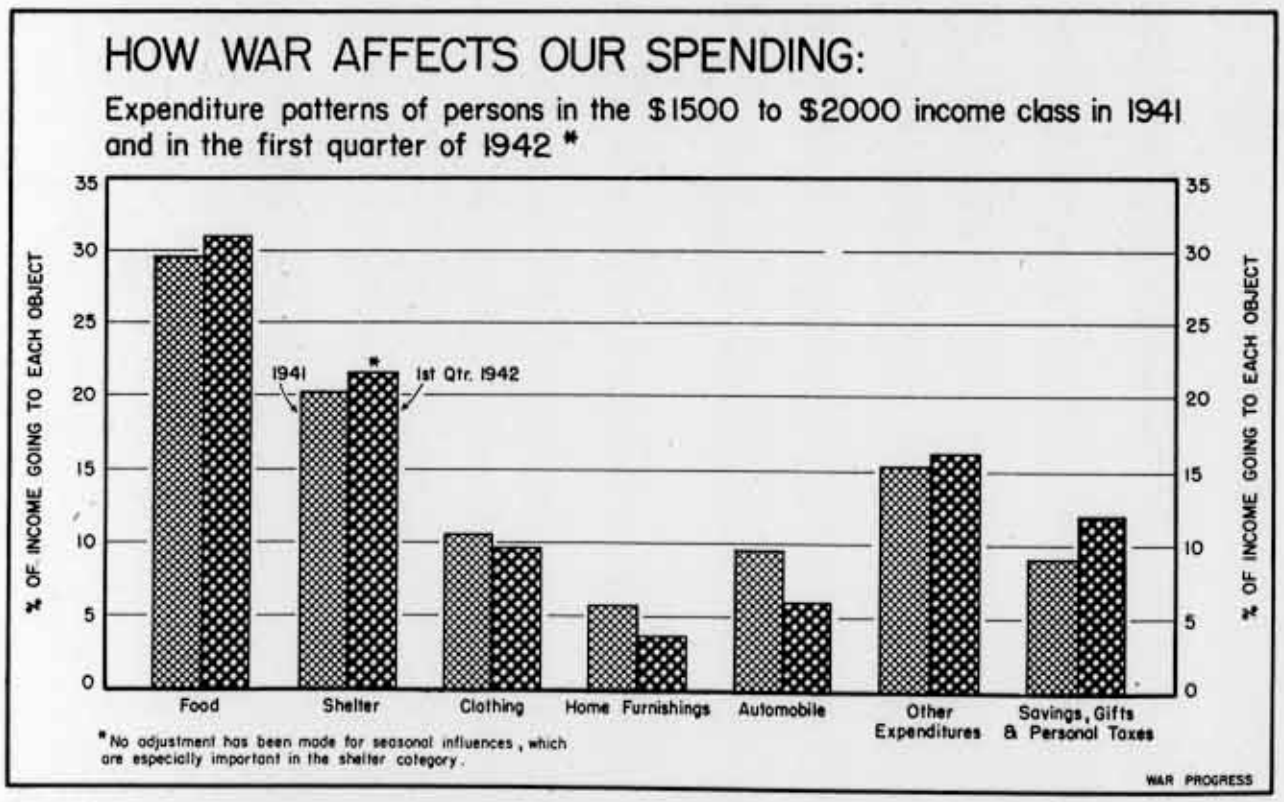
● Graphs appear on following page.

* June, 1940.

p Preliminary data.







THE WAR'S EFFECT UPON AMERICA'S CONSUMPTION PATTERN IS EVIDENT IN THIS COMPARISON OF 1941 EXPENDITURES WITH EXPENDITURES IN THE FIRST QUARTER OF 1942 BY PERSONS IN THE $1,500–$2,000 INCOME BRACKET. THE SHARPEST DECREASES ARE IN DURABLES—AUTOMOBILES AND FURNITURE, OUTPUT OF WHICH IS DOWN SHARPLY. INCREASED FEDERAL FINANCING SHOWS UP IN INCREASED PROPORTIONS OF INCOME GOING TO SAVINGS AND TAXES. THE RELATIVE RISE IN FOOD PRICES EXPLAINS THE PROPORTIONATE INCREASE IN EXPENDITURES FOR FOOD.

ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
					Week Ending	
	July	July	July	August	Sept. 5	Sept. 12
BLS PRICE INDEXES						
Strategic materials	123.6	140.3	147.7 p	147.8 r	148.7	148.7
Critical materials (8/39	107.5	115.2	123.9 p	124.0	124.0	124.1
Basic commodities =100)	108.5	148.7	167.2	166.9	167.3	168.1
Machine tools	109	117	118	118	-	-
All commodities(1926=100)	77.7	88.8	p 98.7	p 99.0	p 99.1	p 99.2
TRANSPORTATION						
Carloadings (thous. per wk.)	706	853	830	869	889	815
Unloads for export (dly.av.)						
Atlantic & Gulf ports(no.)	1,494	1,614	1,718	1,876	* 1,899	* 1,908
Pacific ports (no.)	112	159	608	718	* 626	* 653
Surplus cars (dly.av.thous.)						
Total	132	77	77	64	53	
Box cars	55	30	47	42	37	
Coal Cars	48	27	12	6	5	
Bad order cars, total first of month (thous.)	153	85	57	55	(Sept.1) 53	
ELEC. POWER PROD. (mil. kwh.)	12,094	14,323	16,004	p 16,415	3,673	3,571
WAR BOND SALES (mil. dollars)	-	342	901	697	167	151

	1941	1942				
	June	April	May	June	July	August
PLANT UTILIZATION						
Shipbuilding (Private)	(Equivalent hours of full capacity operation[a])					
61 yards[b]	61.1	72.9	76.4	77.0	78.5	p 79.7
Three best yards	77.3	97.9	108.4	112.0	111.6	p 111.5
Machine tools						
Plant utilization						
All plants	76.1	90.3	89.7	90.7	89.9	90.4
Three best plants	111.6	138.9	138.7	144.0	144.0	138.2
Machine utilization						
All plants	n.a.	110	109	110	110	110
Three best plants	n.a.	167.2	167.3	167.7	167.7	167.3

* Friday unloads p Preliminary n.a. Not available r Revised

[a] Total man-hours in one week divided by the number of workers on the first shift.

[b] 61 private shipbuilding yards having approximately 80% of total employment in private shipbuilding and repair.

FOOTNOTES

WAR PROGRESS SERIES

n.a. Not available P Preliminary
r Revised.

a Total war program includes all funds and authorizations made available for war purposes by the United States Government plus foreign orders placed in this country since November 1939. The major portion of the existing program has been approved since June 11, 1940, but some authorizations (particularly portions of the naval expansion program, the merchant shipbuilding program, and the stockpile program) were made available even earlier. All funds are shown during the fiscal year in which they are available for obligation.

b Value delivered and/or in place includes (1) value delivered and/or in place for ships and value of production for other munitions, (2) value in place for war construction, and (3) checks issued by finance officers for non-munitions items.

c Checks paid include (1) all checks paid out of the Treasury General Fund; (2) checks issued by the Reconstruction Finance Corporation and subsidiary Government corporations;(3) checks issued by foreign purchasing commissions.

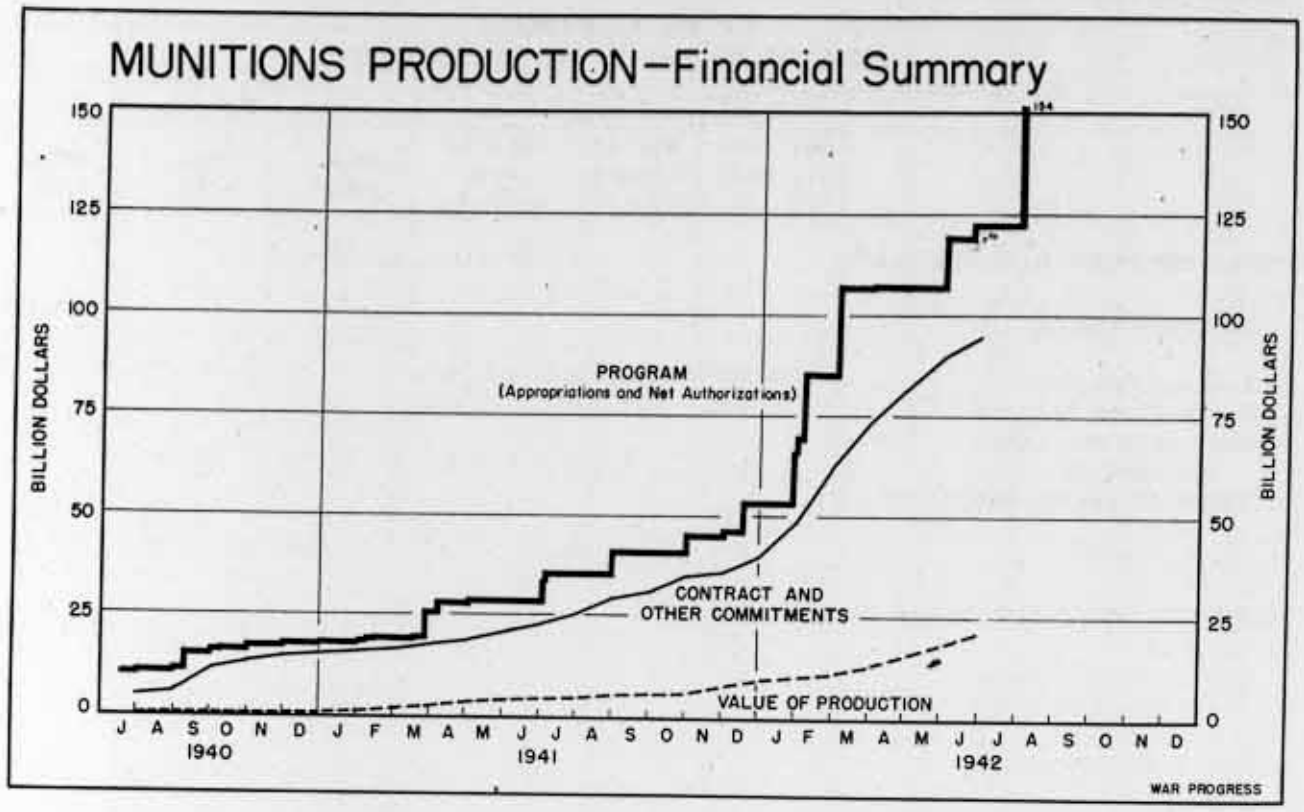
d United States financed program includes the war activities of all United States Government agencies (including Lend-Lease) plus the war activities of government owned corporations, but does not include foreign orders.

e Report on checks paid by the Treasury for the account of the Maritime Commission makes allowance for receipts credited to the Construction Loan Fund.

f Program and obligations for pay for civilians and for the Navy include only that specifically mentioned in appropriation bills, while the cash disbursement figures include, in addition, executive war pay which cannot be separately distinguished in the appropriation bills.

g Ordnance and naval ships figures revised back to January 1942. In comparing these with prior figures, ordnance and naval ships should be combined.

h For data now available for August see War Progress Notes on Page 8, Issue 104.


MUNITIONS PRODUCTION—Financial Summary
BILLION DOLLARS
150
125
100
75
50
25
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS

Confidential
(British Secret)

Which Cargo Planes and Why ?

Eight Critical Metals
New Production Data

Number 106 September 25, 1942

Which Cargo Planes and Why

Need to cover large distances emphasizes importance of low fuel consumption and high payloads. But production is concentrated in a short-hop craft.

ON MAY 10, shortly before Rommel began his push towards Egypt, almost one-fifth of the R.A.F. fighters and bombers in the Middle East were grounded for lack of spare parts. Cargo planes could have transported the necessary parts from England in four or five days (chart, page 3). But they weren't available--and the ship voyage around the Cape of Good Hope to Suez takes 48 days.

BUILDING A FLEET

To meet such contingencies in the future, the United States is beginning to assemble a fleet of cargo planes. All of our cargo craft are converted passenger planes or bombers--such as the Consolidated 4-engine Liberators--yanked from the assembly line minus some armor, armaments, and bomb racks. Altogether, some 20% of the heavy and medium transports and multi-engined bombers scheduled for production in 1942 and 1943 will be turned into cargo planes.

The cargo plane, however, cannot be regarded as a substitute for the merchant ship. If all cargo planes scheduled for production through 1943 were now available, their freight-carrying capacities would amount to only 3% of our dry-cargo space requirements.

FOR CRITICAL SUPPLIES

Because of its relatively limited capacity, the cargo plane is not designed for full freight haulage. Its purpose is chiefly to carry critical supplies to points of immediate need. And for that purpose, the most efficient, economical craft, which can span great ocean or land masses, are needed.

INTRODUCING A NEW STATISTICAL FORMAT:

WITH THIS ISSUE, War Progress revises its statistical presentations. The old War Progress value-in-place series, which appeared weekly, are replaced by a more detailed group of tables and charts. The tables will be presented once a month, and charts will be shown in weekly rotation by object, that is, overall summary one week, aircraft the next, ships the third, and so on.

Weekly statistics--heretofore shown--will be limited to "Key Statistics of the Week" which relate directly to the war effort (page 8); thus total carloadings are omitted, but petroleum loadings--because they reflect gasoline rationing and rubber-tire troubles--are presented. Steel operations are shown as a percentage below capacity--to suggest to what extent resources are not fully utilized.

Monthly economic data do not appear in this issue but will be shown next week. Chart series heretofore presented, plant utilization, Federal Reserve production figures, etc. will appear as usual. Financial data relating to the war effort will appear once a month.

Yet, as our building program is now constituted, we seem to fall short of maximum efficiency in cargo planes.

Some 15 types of cargo and transport planes have reached the production or experimental stage. And more than 60% of total 1942-43 production is concentrated in the Douglas DC-3 type medium transport. Although this is extremely serviceable as a troop carrier on short hops, it ranks extremely low in cargo-carrying efficiency. The Glenn L. Martin Mars, which rates highest as a freight carrier, is not even on the production line, and it may take 15 to 20 months to get it into production. So the Mars is not an immediate answer to the cargo plane problem.

MARS ON TOP

If, for example, we were to assign points for the rating on each of six tests of payload efficiency--12 for the highest rating in each test, 11 for second place, etc.--the Mars would have a top score of 70 out of a possible 72 points. The C-46 Commando would rank next with 67 points. Yet the Commando schedules represent only 11.4% of total production.

The six tests which have been used to measure payload efficiency are: (1) the ratio of cargo weight to total weight at take-off for 2,400-mile hops (the longest scheduled flight for air carriers); (2) also for 750-mile hops; (3) the ratio of cargo weight to fuel weight at 2,400 miles; (4) also for 750 miles; (5) pounds of cargo per ton of critical materials--steel, nickel, chrome, etc. --used in the plane; and (6) pounds of cargo per $1,000 of cost. On that basis, the ranking of the planes as cargo carriers--not as combat personnel carriers --and their proportion of production schedules, would be as follows:

Type	Cargo-Plane Efficiency Points	% of 1942-43 Production
PB2M Mars*	70	----
C-46 Commando	67	11.4%
C-87 Liberator	61	1.3
C-54	53	3.3
JR2S	45	0.5
PB314 Clipper*	42	----
PB2Y Coronado	35	0.1
C-69 Constellation	30	0.9
C-75 Stratoliner*	22	----
PBM3 Mariner	20	0.2
DC-3 Type	16	62.9
Lodestar	5	9.7
C-62	**	1.4
C-76	**	7.6
C-93	**	0.7
		100.0

*Not in production
**Data not available

As the table shows, about 90% of 1942-43 production is concentrated in 12 planes for which performance data are available, and most is in low-rated models. Next to the Commando, the second most desirable type of plane now

IN THIS ISSUE:

in production is the C-87, a cargo version of the B-24 Liberator heavy bomber. But under present plans, the Liberators will account for only 1.3% of the total cargo plane output in 1942 and 1943.

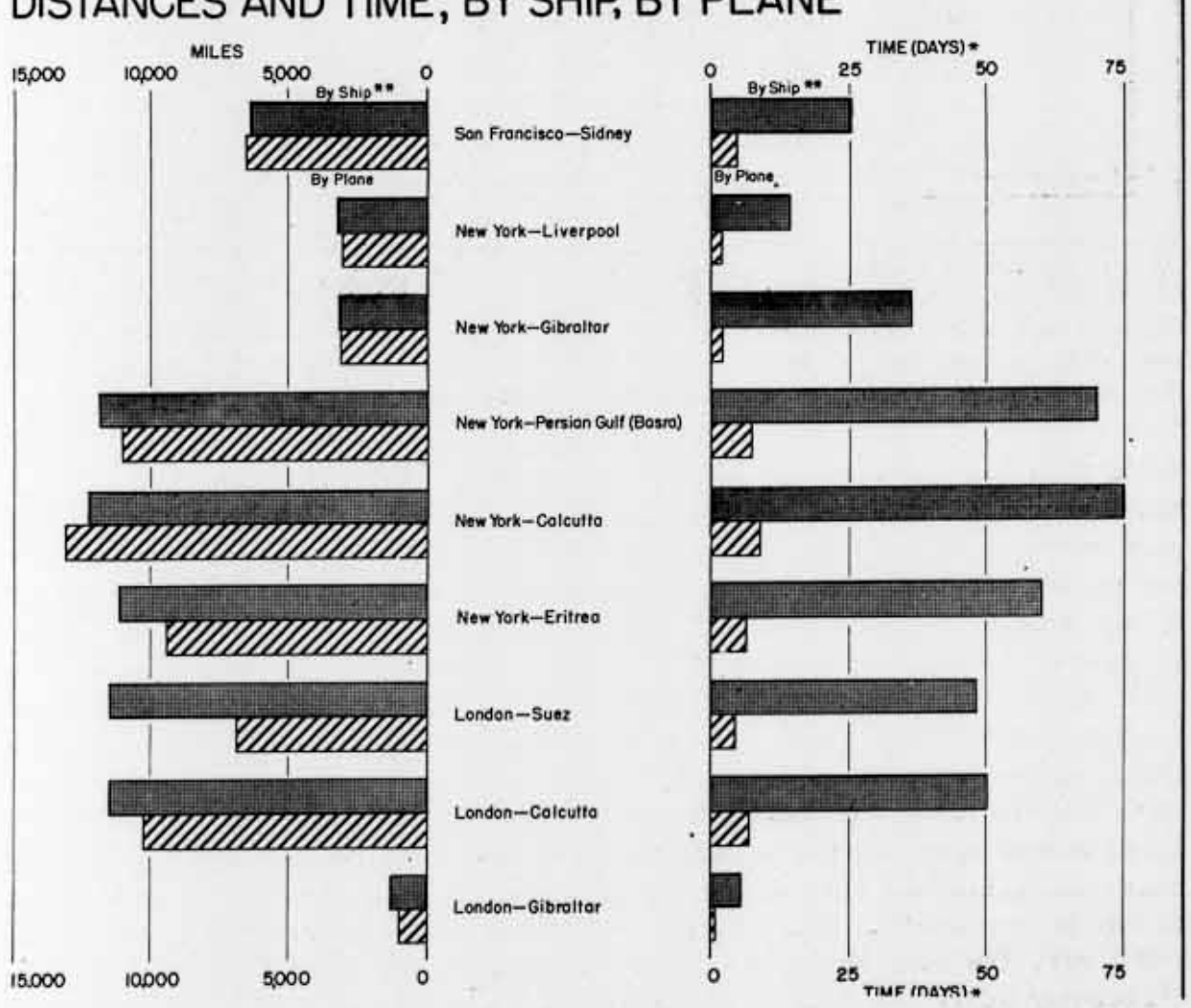
SEAPLANES BELOW ICE BELT

The Douglas C-54, a 4-engine heavy transport, is next on the list but its current production schedule calls for only 3.3% of the whole program. The converted seaplanes, JR2S and PB2Y, are less efficient, though they carry the same gross weight. Seaplanes, however, may be used to greater advantage than landplanes in certain combat theaters, especially below the ice belt.

At the bottom of the scale are the C-69 Constellation, C-75 Stratoliner, the PBM3 Mariner, the Lockheed Lodestar, and Douglas DC-3, which is the smallest of the air freighters and, next to the Lodestar, is rated least efficient of the 12. On the 2,400-mile haul--the distance, for instance, from San Francisco to Hawaii--the DC-3 type consumes three to four times as much fuel per ton-mile as the Commando or Liberator; has a lower cargo capacity per $1,000 cost; and can carry only about one-fifth as much freight.

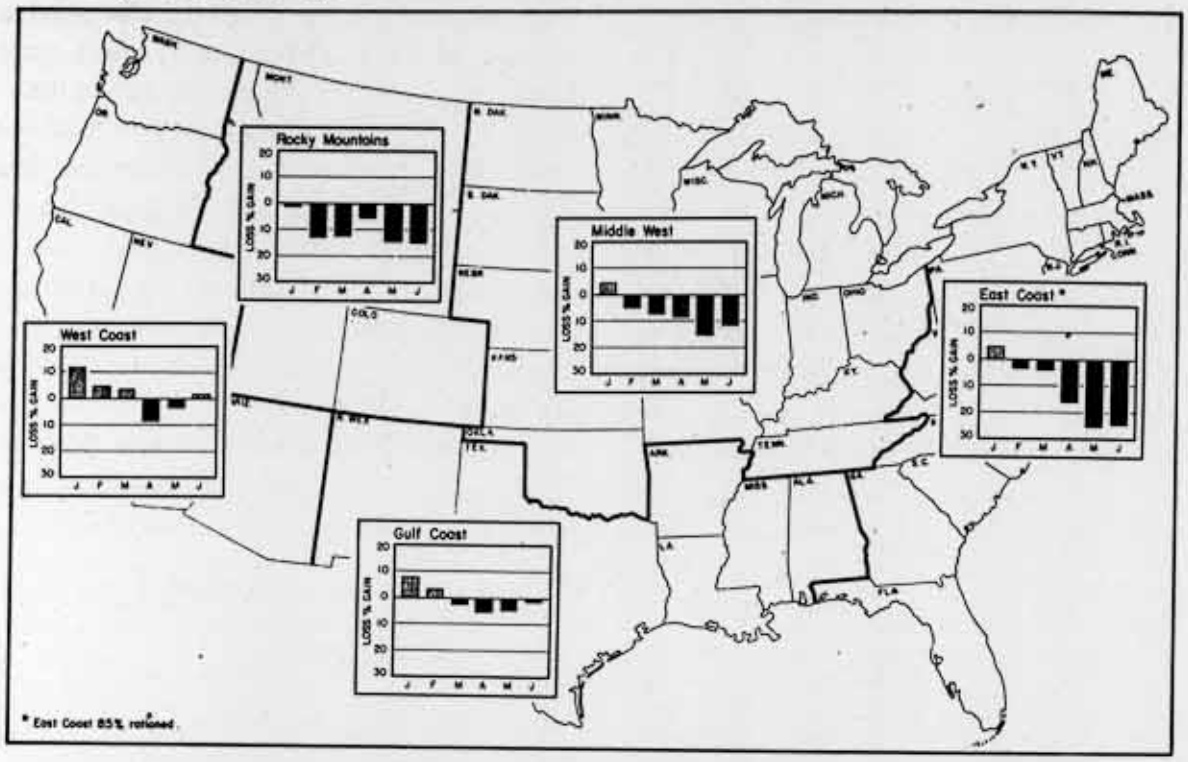
On the 750-mile hop, the DC-3 type

DISTANCES AND TIME; BY SHIP, BY PLANE



GASOLINE SALES ARE DOWN EVERYWHERE; BUT MOST SHARPLY IN THE EAST

% change from year ago



WAR PROGRESS

GASOLINE CONSUMPTION IS DOWN THROUGHOUT THE UNITED STATES. IN JUNE, FOR EXAMPLE, AUTOMOBILISTS WERE CONSUMING ONLY 86% OF THE MOTOR FUEL THEY USED IN JUNE, 1941. DECLINES IN CONSUMPTION SET IN AFTER PEARL HARBOR, ONCE IT BECAME CLEAR THAT RUBBER TIRES WOULD BE HARD TO GET. BIGGEST DROP HAS TAKEN PLACE IN THE EAST, FIRST AS A RESULT OF RESTRICTION OF GASOLINE SHIPMENTS TO DEALERS, THEN MORE PRECIPITATELY AFTER FORMAL RATIONING OF CIVILIANS TOOK PLACE. TODAY THE EAST IS ABOUT 85% RATIONED.

makes a better showing. And since this model accounts for about 63% of the entire cargo-plane program--more of these are coming off the assembly line than of all others combined--we must use it as a work horse, to make up for the critical shortage of larger air carriers.

Most cargo planes can be used interchangeably as troop transports. For example, in one week a plane can be utilized to move spare airplane parts; the next week, fitted out with wooden seats, it may be employed to haul troops. By and large, the same criteria of payload efficiency apply to both. But there is an exception.

In Crete, for instance, the Germans needed small troop-transport planes which could land in open fields. In this capacity, the large cargo plane, such as the Commando, will not do. It needs prepared air bases. Hence, the small plane, capable of landing in an open field or on a small runway, is still an essential part of the military accoutrement.

DC-3 AS TROOP CARRIER

For this reason, the current expansion of facilities for manufacturing DC-3's must be assumed to be in their capacity as troop carriers and not as freighters, in view of their low efficiency rating for long-distance haulage. Also, they are old-line planes and pro-

duction bugs have been killed. But if cargo considerations are uppermost, it might be desirable to divert some of the materials to increase plant facilities to manufacture Commando planes.

We might also correct the imbalance in the cargo-plane program in other ways, such as: (1) convert a larger proportion of the B-24 heavy bombers--of which considerable output is scheduled--into cargo planes; (2) abandon production plans for some of the less efficient models; and (3) develop a new and simple cargo plane, using engines for which we have surplus capacity and noncritical materials, such as low-carbon steel tubing with fabric covering for the fuselage, and poplar plywood wings.

Divergent Trends in Critical Metals

Steel, copper, zinc, and lead production are flattening out, limiting war effort. Aluminum, manganese, magnesium, and tungsten are still headed up.

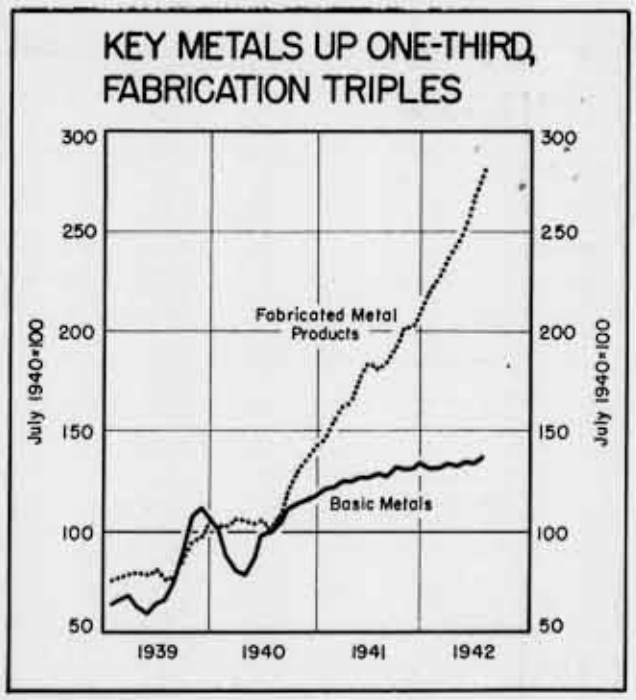
DOMESTIC PRODUCTION of critical metals --as might be expected--has risen sharply since the 1937-38 depression. Among eight key metals, increases to date have ranged from 120% for lead to 1,500% for magnesium; but from now to the end of 1943, gains can hardly be as steep, as the following table shows:

Metal	Since 1937-38 Lows	Now to 1943 Peak
Aluminum.....	445%	85%
Copper.....	230	15
Lead.....	120	Nil
Magnesium.....	1,500	395
Manganese.....	840	240
Steel ingots..	280	16
Tungsten.....	280	105
Zinc.....	145	16

Dates for peak capacity vary. Zinc will reach maximum output in January, 1943; steel, manganese, and magnesium around six months later; copper, aluminum, and tungsten in December, 1943 (charts, page 6).

But estimates of increases may be overoptimistic. In recent months, copper, lead, manganese, zinc, and steel ingot output have declined. Steel operations are right up close to capacity; labor shortages have held back mining of copper, lead, manganese, and zinc.

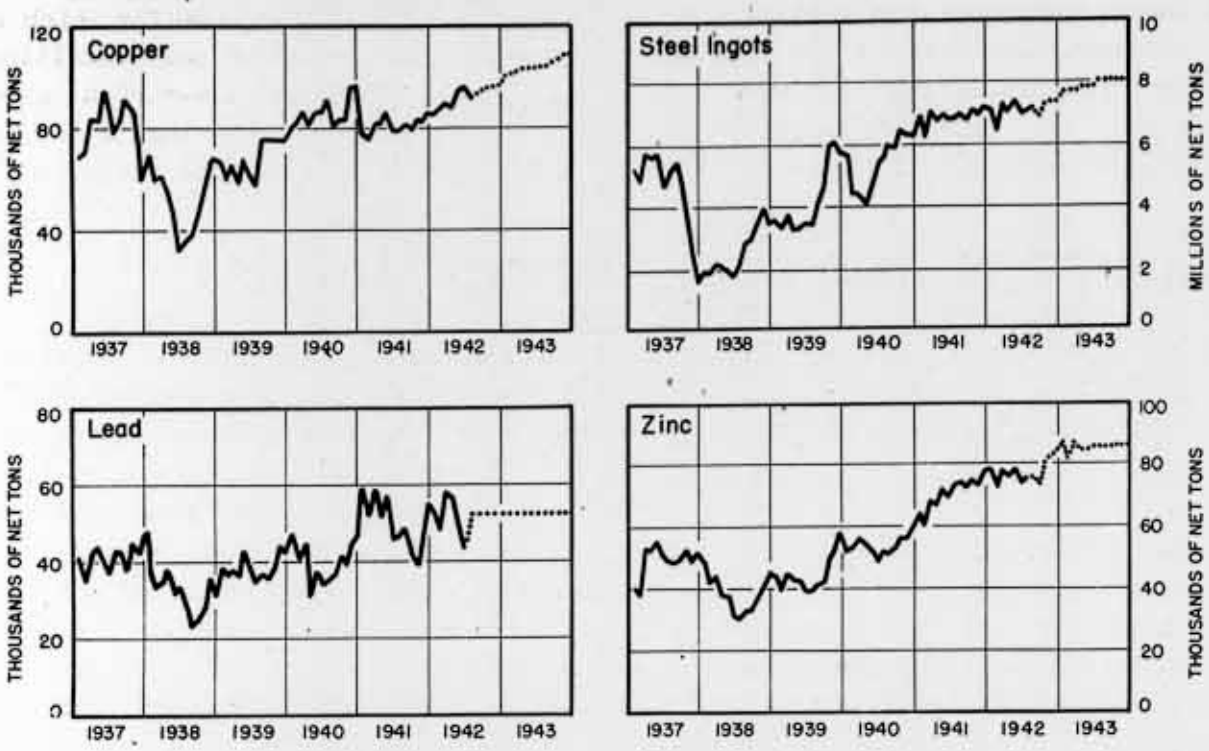
Copper, steel, and zinc--the old-established metals--have already approached their peaks and today are limiting factors in production. (Production and consumption of lead are more nearly in balance, but expected increases in demand next year may exhaust the



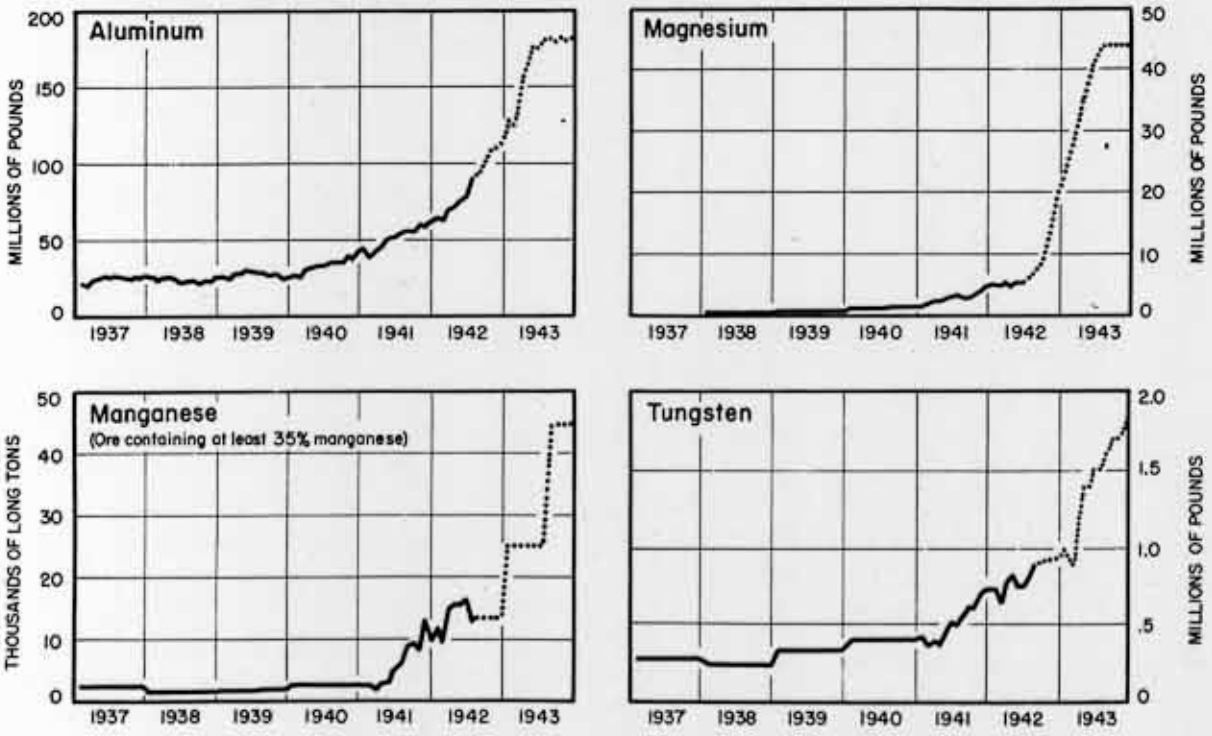
SINCE JULY, 1940, OUTPUT OF BASIC METALS—STEEL, COPPER, ZINC, ETC.—INCREASED 36%. BUT FABRICATED PRODUCTS—MACHINERY, GOVERNMENT-ARSENALS OUTPUT, ETC.—ROSE 180%. INFERENCE: WAR PRODUCTION REQUIRED MORE WORK PER TON OF METAL THAN PEACETIME PRODUCTION.

MIXED TRENDS IN U.S. METALS PRODUCTION

1. The output of these is scheduled to flatten out:



2. But the output of these is scheduled to rise sharply:



WAR PROGRESS

present stockpile.) Since July, 1940, fabrication of metal products has risen nearly 300% whereas the increase in key metals has been only about 30% (chart, page 5). But to achieve large increases in munitions output scheduled from now on, either substitutes must be found or conservation practiced. For capacity cannot quickly be expanded.

A DIFFERENT CLASS

Aluminum, magnesium, manganese, and tungsten are in a different class. Expansion in these metals is developing rapidly. Prior to 1941, practically all our manganese and tungsten were imported. But exploration has resulted in extensive developments. Manganese output next year wil run to about one-third of estimated new supply; in tungsten, the proportion will be around two-thirds.

ALUMINUM, MAGNESIUM

New plants are lifting aluminum schedules from almost 100,000,000 pounds this month to over 180,000,000 pounds at the end of 1943. The situation in magnesium is similar--with monthly output scheduled to rise from 8,800,000 pounds to almost 44,000,000 pounds by August, 1943.

Keeping Track of the War Effort

New statistical series provides detailed figures on nation's production progress: value of plane output, tanks, ordnance, etc. Parts can be related to whole.

THIS WEEK War Progress introduces a new and more detailed set of statistics on the value of war production. Whereas the former data prepared by the Munitions Branch of the Statistics Division covered only eight major categories--aircraft, combat vehicles, ordnance, naval ships, etc.--the new data are divided into more than 60 individual categories. Thus, we can now examine the relative production progress of the war effort's minor as well as major parts, in relation to the whole. For these data have a common denominator: they are expressed in dollar terms.

A GRAPHIC SEQUENCE

For executives in the war agencies concerned with a quick, overall view of what goes on, War Progress each month will present tables of the more significant categories (page 12); and each week it will publish charts to show graphically what has happened, is happening, and is scheduled to happen on the production front. These charts will appear in sequence: aircraft, ground ordnance, naval ships, merchant ships, etc.

CUTTING DOLLAR VALUES

The statistical principles behind these new data are comparatively simple. The Munitions Branch collects item-by-item data on the physical output of war materials--how many planes, tanks, rounds of ammunition, etc., and of what type are produced each month. Then each of these items is assigned a "unit cost" value. An M3 tank costs so much, a 20mm. shell so much, and so on. Then deliveries of each item are multiplied by the unit cost, an allowance is made for incomplete coverage, and that gives the dollar value of physical output of tanks, planes, guns, etc.

That procedure does not apply to naval vessels or merchant ships, for these oftentimes take months to produce, yet

KEY STATISTICS OF THE WEEK

	Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
War program - Checks paid (millions of dollars)	1,311	1,123	1,107	643	304
War bond sales (millions of dollars)	163	151	143	117	48
Commodity prices (Aug. 1939 = 100)					
28 Basic commodities	168.4	168.0	166.8	166.0	155.8
Controlled	161.3	161.2	161.4	161.7	155.3
Uncontrolled	186.2	185.2	180.5	177.5	156.6
Nonferrous metal scrap	115.8	115.8	118.3	132.5	133.2
Petroleum carloadings (no. of cars)					
Total	54,644	53,523	53,748	54,056	47,077
Movement into East	28,557	27,948	27,266	14,453	2,396
Exports (no. of freight cars unloaded for export daily)					
Atlantic Coast ports	1,569	1,664	1,574	1,708	1,476
Gulf Coast ports	818	653	711	297	139
Pacific Coast ports	323	244	330	450	366
Strikes affecting the war effort					
Number in progress	11	18	25	n.a.	n.a.
Man-days lost	24,706	63,333	50,236	n.a.	n.a.
Unused steel capacity (% operations below capacity)	3.8	2.8	2.7	1.0	3.2

n.a. Not available.

work goes on all the time. So, instead of handling ships on a delivery basis, they are treated on a work-done basis--"value put in place" is the technical term. If 10% of a ship costing $5,000,000 is completed in a month, the value put in place would be $500,000. Construction is treated in similar fashion.

PAY AND SUBSISTENCE

The value of nonmunitions items (pay, subsistence, travel, etc.) is handled just as the businessman would expect--on an actual expenditure basis: how much the Treasury pays out in any month for food, traveling, and shelter (other than construction) for troops, and so on.

In addition to compiling actual figures of past production (the retrospect), the Munitions Branch also calculates what production is scheduled to be (the forecast). This forecast represents expected production as reported by the Army, Navy, Joint Aircraft Committee, and the Maritime Commission, and it is based upon (1) schedules already under contract; (2) the estimated output of planned facilities--new plants, shipyards, etc. Forecasts are revised monthly, in the light of actual accomplishments. (Thus, if schedules are set too high for one month, they may be revised downward. Or, conversely, what sometimes happens is that if a schedule is not made in one month, the deficit is pushed forward to a future month--thus the forecast tends to pile up on itself.) There are no monthly forecasts of nonmunitions items.

WHAT ARE OBJECTIVES?

In addition to forecasts, the Munitions Branch also computes the dollar value of the production objectives of the armed services. These go a step beyond the forecasts, and will be pre-

sented in War Progress' new series of tables and charts. The objectives (page 12) take into account what the armed services strategically may want--how many tanks, guns, etc., but they also are adjusted for feasibility: how many tanks, guns, etc., can be produced on the basis of raw materials supplies and plant capacity.

However, objectives for individual items are not always available. In the case of the Navy, there is no separate announced objective. The Army, on the other hand, estimates what type of equipment and how much are required, based upon the number of men under arms, shifts in the Army's organizational structure, and tables of basic allowance. Then, procurement officers proceed to adjust production schedules to meet the objectives. In the War Progress tables published today, separate objectives are given for army items, but no separate objectives are shown for navy items. And in computing the overall relationship of total war program to total objective, the navy forecast is assumed to be the objective.

Barns, Attics, Closets

Survey of the American home takes measure of available supplies of scrap. Farmers are biggest source of steel and rubber, city dwellers of grease.

THE MARKET RESEARCH DEPARTMENT of Young & Rubicam has just completed for the Statistics Division, WPB, a sample survey of American homes to determine how much salvageable scrap is hidden in barns, attics, and overcrowded closets. Here are the findings:

Some 3,900,000 tons of steel scrap can be rounded up. Though it took years for farmers and housewives to build up such a scrap pile, it would last only eight weeks in the nation's steel mills. As you might readily guess, most of the household scrap (83%) is in rural attics and farmyards. It's chiefly located west of the Mississippi.

About one-third of the families in the United States have scrap rubber to dispose of. Again, the farmers and residents of small villages are the big scrap owners (70%). About 97,000 tons of scrap rubber are collectible--enough to keep rubber reclaiming plants going two or three months.

The survey indicated that American housewives are still far from being tin-can conscious. Two out of every three families are not putting aside cans for salvage, primarily because they aren't aware that they're supposed to save them.

As for grease, the survey revealed that more is available in urban homes than in rural, probably because city dwellers consume more meat per capita than persons living on farms.

War Progress Notes

SPEEDUP FOR INVASION?

AUGUST PRODUCTION of tank landing craft --similar to the type used at Dieppe-- exceeded schedules by 55%, thus marking the first significant output of these vessels since launching of the program last spring. Some 95% of the entire program is slated for completion this year, the balance by April, 1943.

NINE PASSENGERS; TWO TIRES

A SMALL TRAILER that carries nine passengers and mounts only two 7.00x15 tires is the latest suggestion to meet the possible pinch in war-worker transportation next year. Dimensions: length, 8 feet; width, 6-feet-4-inches; headroom, 5-feet-6-inches. Motive Power: any passenger car. Around half of its

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

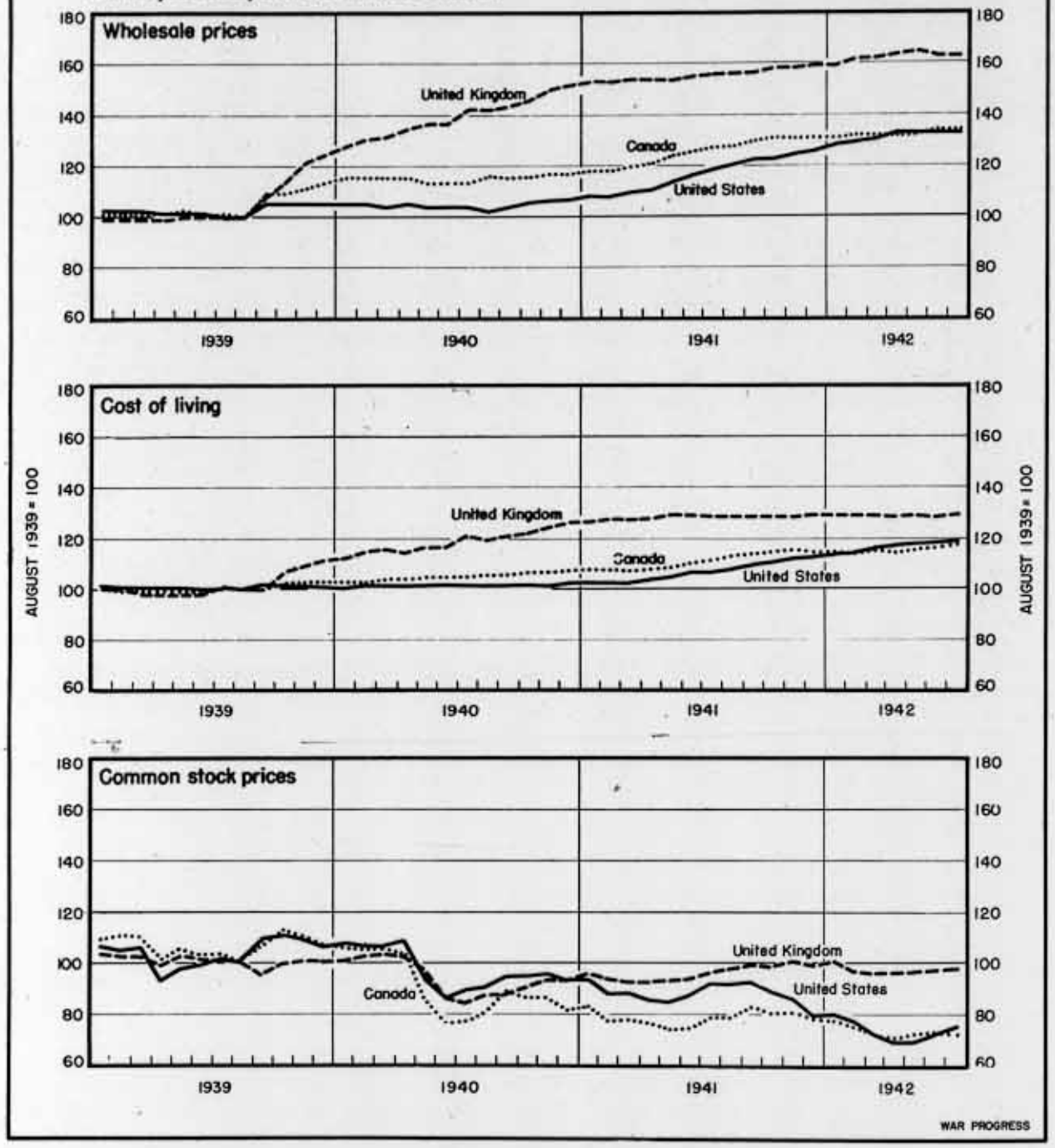
FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF MUNITIONS PRODUCTION			
● MUNITIONS PRODUCTION, TOTAL						
Program	28,566	53,738	P124,097	-25	P 4,756	P 29,952
Uncommitted balance	4,901	13,929	P 29,106	-	-	-
Contracts and other commitments	23,665	39,809	P 94,991	P 6,668	P 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	P 3,039
Value not delivered nor in place	19,375	30,869	P 74,542	-	-	-
AIRPLANES, PARTS & ACCESSORIES						
Program	8,582	15,072	P 37,586	0	P -215	P 9,737
Contracts and other commitments	7,381	13,298	P 33,945	P 2,409	P 2,838	n.a.
Value delivered	1,010	2,265	4,752	471	510	P 565
ORDNANCE						
Program	7,778	17,488	P 36,400	0	P 285	P 9,548
Contracts and other commitments	5,418	10,354	P 26,873	P 2,278	P 2,360	n.a.
Value delivered	700	1,685	4,998	696[c]	731	P 918
NAVAL SHIPS						
Program	6,796	9,605	P 18,460	0	P 2,922	P 0
Contracts and other commitments	6,442	7,930	P 12,276	275	P 276	n.a.
Value delivered and/or in place	810	1,665	3,383	399[c]	404	P 494
MERCHANT SHIPS						
Program	1,442	3,288	P 8,653	-25	P 1,054	P 0
Contracts and other commitments	1,484	2,381	P 6,880	P 607	P 618	n.a.
Value in place	240	510	1,188	131	176	P 182
OTHER MUNITIONS AND SUPPLIES						
Program	3,968	8,285	P 22,998	0	P 710	P 10,667
Contracts and other commitments	2,940	5,846	P 15,017	P 1,099	P 850	n.a.
Value delivered	1,530	2,815	6,128	551	817	P 880

● Graph appears on opposite page.
Table continued on Page 15.

For footnotes see Page 18.

PRICES HERE AND ABROAD

A comparison of wholesale markets, cost of living, and common stocks in Great Britain, Canada, and the United States.



WAR PROGRESS

WAR AFFECTS PRICES IN SIMILAR WAYS, THOUGH NOT AT THE SAME TIME. FIRST IN ENGLAND, THEN IN CANADA AND THE UNITED STATES, RISING WAR EXPENDITURES, SHIPPING SHORTAGES, LABOR SHORTAGES, ETC. PUSHED UP WHOLESALE PRICES AND THE COST OF LIVING. FIRST IN ENGLAND, THEN IN CANADA, AND ONLY RECENTLY AND PARTIALLY IN THE UNITED STATES, THE IMPOSITION OF CONTROLS HAS CAUSED THESE INDEXES TO FLATTEN OUT. STOCK PRICES FELL IN ENGLAND UNDER THE PRESSURE OF SEVERE CORPORATE TAXES AND MILITARY DEFEATS; RELAXATION OF TAXES AND IMPROVEMENT OF THE WAR OUTLOOK AFTER DUNKIRK HAVE PRODUCED SOME RECOVERY. BUT U. S. STOCK PRICES ARE STILL IN THE SAG STAGE THE BRITISH PASSED THROUGH OVER A YEAR AGO.

1,250-pound weight is metal (principally for floor base, axle, springs, and brake) but less than 5% is in critical alloy steels; the rest is wood. Some 25 of the units--which can be mass-manufactured at a price of about $400--may soon be built for "sample" operation around war plants.

SHOT BY FEMALES

INCREASINGLY, ammunition is getting the feminine touch. Women are being taken on by ammunition makers for jobs requiring quick eyes and nimble fingers, as the following table suggests:

Plants	Women as % of Total Workers
Tanks and parts	5%
Guns (over 60 cal.)	6
Firearms (60 cal. and under)	18
Fighting and fire control equipment	18
Ammunition--except for small arms	27
Ammunition--60 cal. and under	38
Explosives	10

The labor shortage took care of the prejudice against women in arsenals:

DOUBLING THE CEILING

A HOTEL PROPRIETOR figured out a way to beat price ceilings. To get a room, guests were required to register twice and pay for each registration. OPA figured out a way to beat the proprietor--got an injunction.

WOMEN IN WHITE

LOVE-STORY PULPS have been asked to glamorize the nursing profession. The object is to get eligible young women to choose nursing as a career, thus offsetting the current shortage of women in white. To cover military and civilian requirements, at least 55,000 new students should enter training in the current academic year, 65,000 next. New students in the 1941-42 academic year approximated 45,000.

BY-PRODUCT OF CONCENTRATION

IN GERMANY, the process of concentrating production in fewer and bigger units has produced scrap. Authorities have ordered the scrapping of all idle industrial equipment which is not likely to be brought back into production within a short time. The rapid increase of concentration in German industry is indicated by the rise of compensation for overhead paid to eliminated firms. In 1940, such compensations averaged 67,000 marks a month; in the first six months of this year, they averaged 270,000 marks.

PROBLEM OF THE WEEK

AIR RAID PRECAUTIONS authorities are studying ways to prevent the escape, during bombings, of criminals from prisons, insane from asylums, and wild animals from zoos.

MORE CLAY, LESS CAST IRON

CLAY PIPE--already being used by the Navy's Bureau of Yards and Docks in fields and other open spaces--is now being specified for all structures, floor load permitting. Maximum savings of cast-iron soil pipe are estimated at 6,000 to 8,000 tons per month.

PAPER IN PLANES?

PAPERBOARD instead of metal for packing shells has been commonplace for about a year. But now new military uses for paper are being studied. Possibility at present is a plastic-treated paperboard that may become a basic material in aircraft construction.

PRODUCTION PROGRESS

General Summary (Value of production, in millions of dollars)

		Total Program	Total Munitions & Construction	Total Munitions	Total Construction	Non-munitions		
1942	Jan.	2,435	2,043	1,435	608	392	1942	Jan.
	Feb	2,586	2,140	1,516	624	446		Feb.
	Mar.	3,068	2,521	1,763	758	547		Mar.
	Apr.	3,709	3,068	2,091	977	641		Apr.
	May	4,166	3,459	2,366	1,093	707		May
	June	4,571	3,882	2,637	1,245	689		June
	July	5,097	4,356	2,907	1,449	741		July
	Aug.	p5,473	p4,713	p3,141	p1,572	p760		Aug.
	Sept.		5,834	4,306	1,528			Sept.
	Oct.		6,264	4,759	1,505			Oct.
	Nov.		6,721	5,216	1,505			Nov.
	Dec.		7,034	5,532	1,502			Dec.
1943	Jan.		7,181	5,846	1,335		1943	Jan.
	Feb.		7,347	6,013	1,334			Feb.
	Mar.		7,603	6,272	1,331			Mar.
1942 Estimate (Actual plus Forecast)		62,325	52,035	37,669	14,366	10,289	1942 Estimate (Actual plus Forecast)	
1942 Objective		64,723	54,434	40,064			1942 Objective	
1943 Forecast		110,484	92,349	81,049	11,300	18,135	1943 Forecast	
1943 Objective		111,488	93,353	82,053			1943 Objective	
1942 - 43 Estimate as % of Objective		98%	98%	97%			1942 - 43 Estimate as % of Objective	

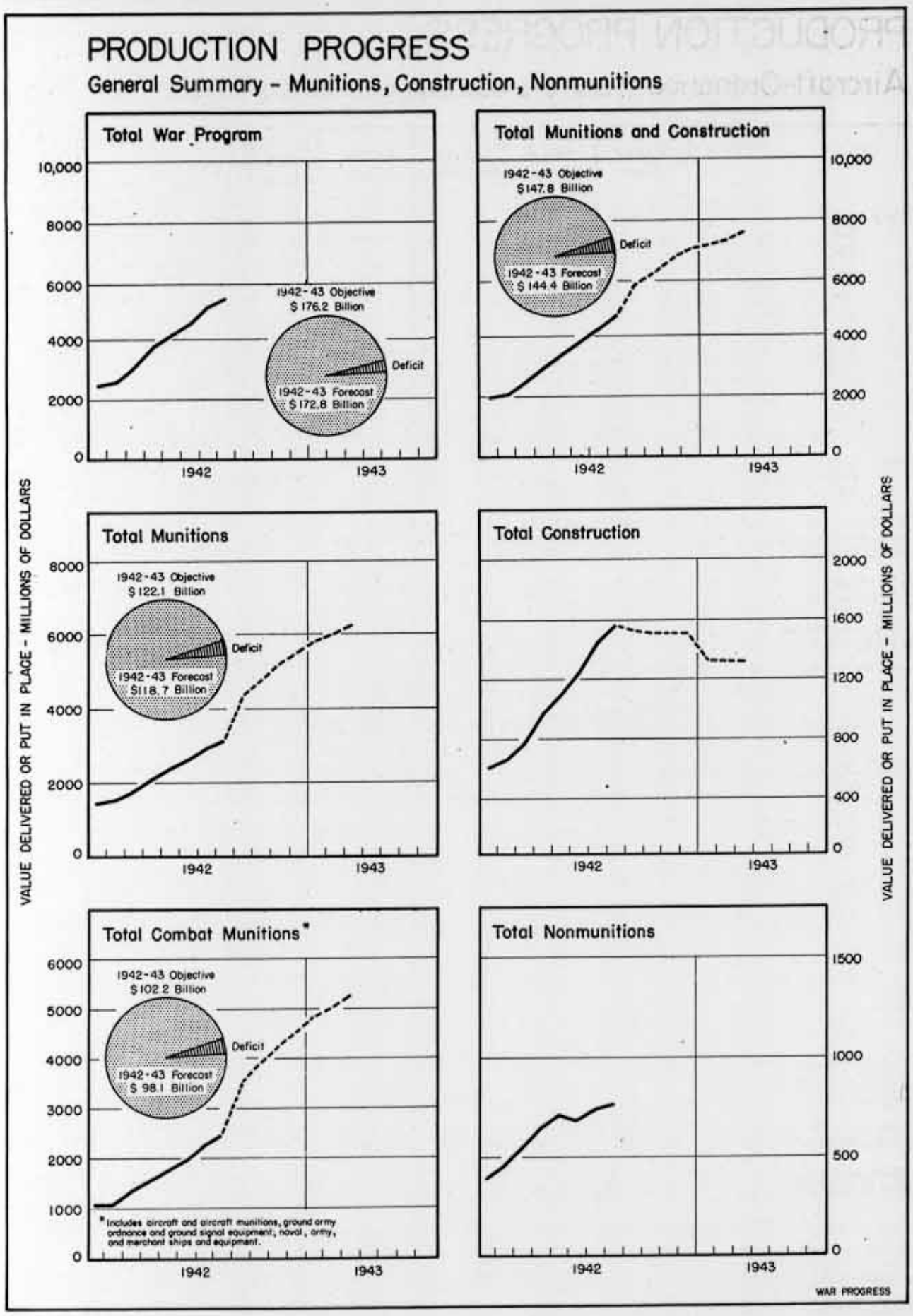
		*Combat Munitions	Aircraft & Aircraft Munitions	†Total Ground Army Munitions	Naval and Army Vessels & Equip.	Merchant Vessels		
1942	Jan.	1,031	381	236	335	79	1942	Jan.
	Feb.	1,091	442	241	310	98		Feb.
	Mar.	1,306	525	313	374	94		Mar.
	Apr.	1,516	560	397	460	129		Apr.
	May	1,776	649	444	536	147		May
	June	1,957	713	490	568	186		June
	July	2,202	753	629	623	197		July
	Aug.	p2,401	p834	659	p699	p209		Aug.
	Sept.	3,433	1,153	1,003	1,054	223		Sept.
	Oct.	3,854	1,260	1,211	1,144	239		Oct.
	Nov.	4,220	1,365	1,418	1,181	256		Nov.
	Dec.	4,507	1,470	1,568	1,197	272		Dec.
1943	Jan.	4,839	1,636	1,741	1,177	285	1943	Jan.
	Feb.	5,005	1,745	1,795	1,177	288		Feb.
	Mar.	5,259	1,907	1,877	1,185	290		Mar.
1942 Estimate (Actual plus Forecast)		29,324	10,105	8,609	8,481	2,129	1942 Estimate (Actual plus Forecast)	
1942 Objective		32,256	12,950	8,472	8,707	2,129	1942 Objective	
1943 Forecast		68,747	27,939	22,936	14,350	3,522	1943 Forecast	
1943 Objective		69,933	32,531	20,162	13,718	3,522	1943 Objective	
1942 - 43 Estimate as % of Objective		9 %	84%	110%	102%	100%	1942 - 43 Estimate as % of Objective	

*Fighting Items: Includes aircraft and aircraft munitions; ground army ordnance and ground signal equipment; naval, army, and merchant ships and equipment. † Ground army ordnance and ground signal equipment.
p Preliminary.

NOTE: Dotted line separates actual figures from forecast figures.

PRODUCTION PROGRESS

General Summary – Munitions, Construction, Nonmunitions



WAR PROGRESS

PRODUCTION PROGRESS

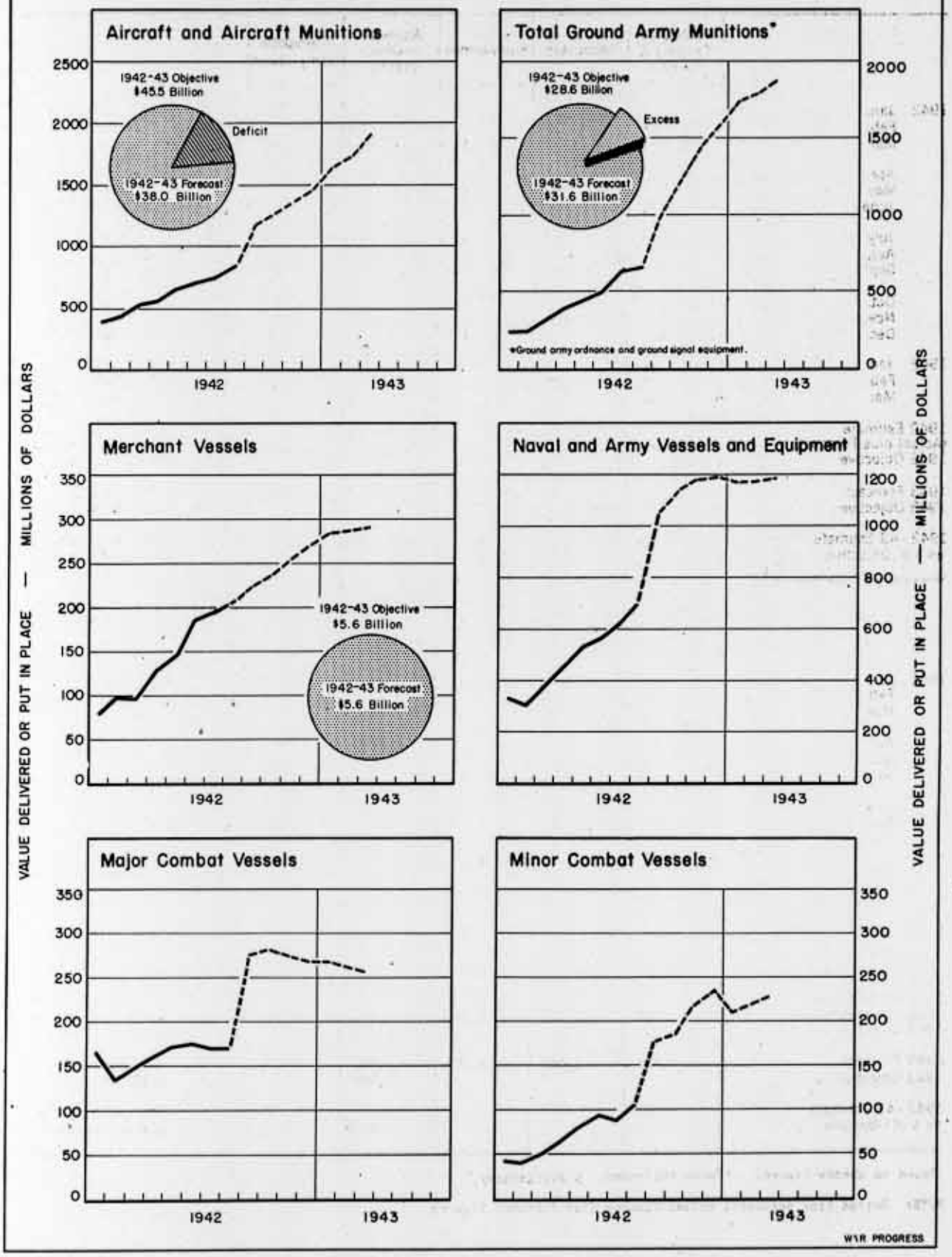
Aircraft-Ordnance (Value of production, in millions of dollars)

		Combat Planes	Aircraft Armament	Aircraft Ammunition	Artillery & Equip.	Artillery & Tank Cannon Ammunition	
1942	Jan.	151	14	26	15	42	1942 Jan.
	Feb.	179	17	27	18	48	Feb.
	Mar.	210	20	43	36	72	Mar.
	Apr.	197	23	38	42	84	Apr.
	May	241	29	47	29	88	May
	June	260	29	50	27	99	June
	July	276	29	56	48	118	July
	Aug.	284	29	59	56	102	Aug.
	Sept.	385	31	104	81	161	Sept.
	Oct.	426	33	120	125	180	Oct.
	Nov.	444	34	156	167	211	Nov.
	Dec.	487	36	160	184	231	Dec.
1943	Jan.	547	37	169	198	234	1943 Jan.
	Feb.	610	43	170	201	240	Feb.
	Mar.	704	43	173	208	241	Mar.
1942 Estimate (Actual plus Forecast)		3,542	324	888	828	1,436	1942 Estimate (Actual plus Forecast)
1942 Objective		4,936	278	988	958	1,244	1942 Objective
1943 Forecast		11,427	506	1,984	2,455	2,835	1943 Forecast
1943 Objective		14,107	668	1,850	1,821	2,653	1943 Objective
1942 - 43 Estimate as % of Objective		79%	88%	101%	118%	110%	1942 - 43 Estimate as % of Objective

		Antiaircraft Guns & Equip.	Antiaircraft Ammunition	Small Arms & Infantry Weapons	Small Arms & Infantry Weapon Ammunition	Combat Vehicles	
1942	Jan.	17	16	14	33	87	1942 Jan.
	Feb.	16	11	14	38	89	Feb.
	Mar.	20	8	19	54	89	Mar.
	Apr.	26	21	23	69	111	Apr.
	May	40	21	30	84	123	May
	June	52	21	36	89	137	June
	July	65	30	30	115	171	July
	Aug.	78	28	30	113	177	Aug.
	Sept.	99	28	37	198	297	Sept.
	Oct.	125	30	47	230	361	Oct.
	Nov.	151	45	55	265	406	Nov.
	Dec.	160	60	62	289	459	Dec.
1943	Jan.	186	57	71	327	530	1943 Jan.
	Feb.	200	58	75	331	560	Feb.
	Mar.	212	63	78	346	595	Mar.
1942 Estimate (Actual plus Forecast)		849	319	402	1,577	2,507	1942 Estimate (Actual plus Forecast)
1942 Objective		993	227	479	1,497	2,373	1942 Objective
1943 Forecast		2,382	604	955	4,473	7,834	1943 Forecast
1943 Objective		2,585	580	763	3,790	6,705	1943 Objective
1942 - 43 Estimate as % of Objective		90%	115%	109%	114%	114%	1942 - 43 Estimate as % of Objective

PRODUCTION PROGRESS

Selected Items – Aircraft, Ground Army, Ships



PRODUCTION PROGRESS

Ships–Construction–Nonmunitions (Value put in place, in millions of dollars)

	Battleships, Cruisers & Carriers	Destroyers	Submarines	Antisubmarine Vessels	Transports (Army, Navy)	
1942 Jan.	63	76	26	42	2	1942 Jan.
Feb.	55	62	18	41	1	Feb.
Mar.	67	63	18	49	1	Mar.
Apr.	72	68	18	62	3	Apr.
May	73	75	23	79	4	May
June	75	81	20	91	11	June
July	68	81	21	86	7	July
Aug.	p71	p73	p25	p102	p9	Aug.
Sept.	120	117	39	171	10	Sept.
Oct.	123	113	45	191	12	Oct.
Nov.	120	113	43	209	15	Nov.
Dec.	116	112	40	226	16	Dec.
1943 Jan.	116	106	45	201	17	1943 Jan.
Feb.	115	102	45	211	20	Feb.
Mar.	114	98	45	221	21	Mar.
1942 Estimate (Actual plus Forecast)	1,023	1,034	336	1,349	91	1942 Estimate (Actual plus Forecast)
1942 Objective						1942 Objective
1943 Forecast	1,293	1,004	506	3,261	247	1943 Forecast
1943 Objective						1943 Objective
1942 - 43 Estimate as % o Objective						1942 - 43 Estimate as % of Objective

	Landing Vessels	Industrial Facilities	Aircraft Fields & Bases	Clothing & Personal Equip.†	Military Pay*	
1942 Jan.	3	342	54	59	138	1942 Jan.
Feb.	1	358	54	53	157	Feb.
Mar.	2	392	68	66	175	Mar.
Apr.	3	485	86	78	228	Apr.
May	6	524	129	79	259	May
June	14	565	160	95	287	June
July	48	604	228	101	p320	July
Aug.	p98	p660	p259	p105	p350	Aug.
Sept.	138	586	270	105		Sept.
Oct.	169	534	344	110		Oct.
Nov.	174	533	345	110		Nov.
Dec.	150	533	344	110		Dec.
1943 Jan.	150	517	267	110		1943 Jan.
Feb.	150	517	267	110		Feb.
Mar.	150	516	266	110		Mar.
1942 Estimate (Actual plus Forecast)	806	6,116	2,341	1,071	4,458	1942 Estimate (Actual plus Forecast)
1943 Objective				697		1943 Objective
1943 Forecast	1,800	4,000	2,250	1,320	9,107	1943 Forecast
1943 Objective				1,499		1943 Objective
1942 - 43 Estimate as % of Objective				109%		1942 - 43 Estimate as % of Objective

*Based on checks issued. †Value delivered. p Preliminary.

NOTE: Dotted line separates actual figures from forecast figures.

WAR PROGRESS

Confidential
(British Secret)

Europe's Food Plight

Number 107

October 2, 1942

Europe's Diminishing Food Supply

Germany takes best of bare subsistence fare as spread of war cuts crops, but sees to it that industrial workers in occupied lands get enough to keep going.

CONTINENTAL EUROPE enters the fourth year of war facing famine, as in Greece, and bare subsistence, as in Germany. In every country--neutral or belligerent --the food situation has deteriorated. The severe winter of 1941-42, the increasing draft of peasants into the Axis and Russian armies, the growing shortage of seed, fertilizer, horses, and machinery, the diminution of food reserves, dislocation of transportation, and naval blockade of the Continent have put many countries on less than subsistence rations (map, page 4).

The most serious deficiencies in the next year will generally appear on the protein and fatty side of the diet. Meats, eggs, and dairy products will be scarcer than in the first three years of war, especially in northern Europe, because many regions, unable to import feeds, have had to slaughter much of their livestock, particularly pigs and poultry.

LESS GRAIN, FEWER VEGETABLES

Grain will be less plentiful, too. This year's wheat and rye harvest is believed to be less than in normal, prewar years. The supply of potatoes and sugar--which bulk larger in the continental diet than in the United States--is expected to equal last year's. But the vegetable output is off, despite greater plantings and more intensive truck gardening, and fruit production--never so great as in the United States --may decline a good deal.

Germany continues to be better fed than any country in Continental Europe for two reasons: (1) It has attained a high degree of self-sufficiency in agriculture; (2) it draws on the resources of occupied and satellite countries.

Until the invasion of Russia, most Germans managed fairly well. Rationing had been in effect for several years, as Hitler prepared for war. So people were getting used to a sparse diet. But war with Russia changed things. Not only did grain and vegetable oil imports cease, but German armies required increased quantities of food. More than that, Soviet resistance was stronger than expected and Hitler had to dig in for a long war.

BELOW PREWAR CALORIES

Last spring, the German government decided to conserve the food supply by cutting the meat and fat rations 20% to 25% and the bread ration 10%. Simultaneously, consumption of potatoes--the big staple in central and eastern European menus—was restricted. This brought the German workers' diet down to between 87% and 96% of prewar calories. But recently promises were made to raise the bread and meat rations somewhat. No serious shortages--such as those which appeared in 1918--are immediately in prospect. But quality is exceedingly low, with bread and potatoes constituting the principal items, garnished with artificial vitamins, fancy concentrates, and ersatz meats and beverages (WP-Sept-4'42, p6).

Italy is living on a lower standard

than Germany. Decreased production, army requirements, and greater exports to Germany--which in 1940-41 took four-fifths of all the vegetables shipped out of Italy and two-thirds of the fruits --only partially account for this. Of equal importance is the breakdown in the distribution system.

DEBASING BREAD

The sale of nearly every food item is controlled by the government. But high black market prices induce farmers to divert considerable produce from the open market, despite severe penalties. Only people who can afford to buy in the black market, or who live on farms or have connections with farmers, get a decent food supply. The consumer who depends on the official rations gets only from half to two-thirds as much bread as in Germany, and one-fifth to one-half as much meat and fats (chart, page 3). And, as in other countries, the Italian bread has been debased--by government edict--with rice, barley, and other flours to conserve wheat. Potatoes are also restricted, and cheese, once plentiful, has become relatively scarce owing to the decline in the milk output.

IN THIS ISSUE:

France is not much better off than Italy. Severe food shortages continue in many regions. Here, too, the peasants refuse to sell their crops at the low government prices. The black market flourishes, and local authorities (now rather independent of the central administration) encourage the farmers in their bailiwicks to disobey regulations. The movement of the supplies that are collected is hindered by the shortage of rolling stock, much of which has been taken over by the Germans.

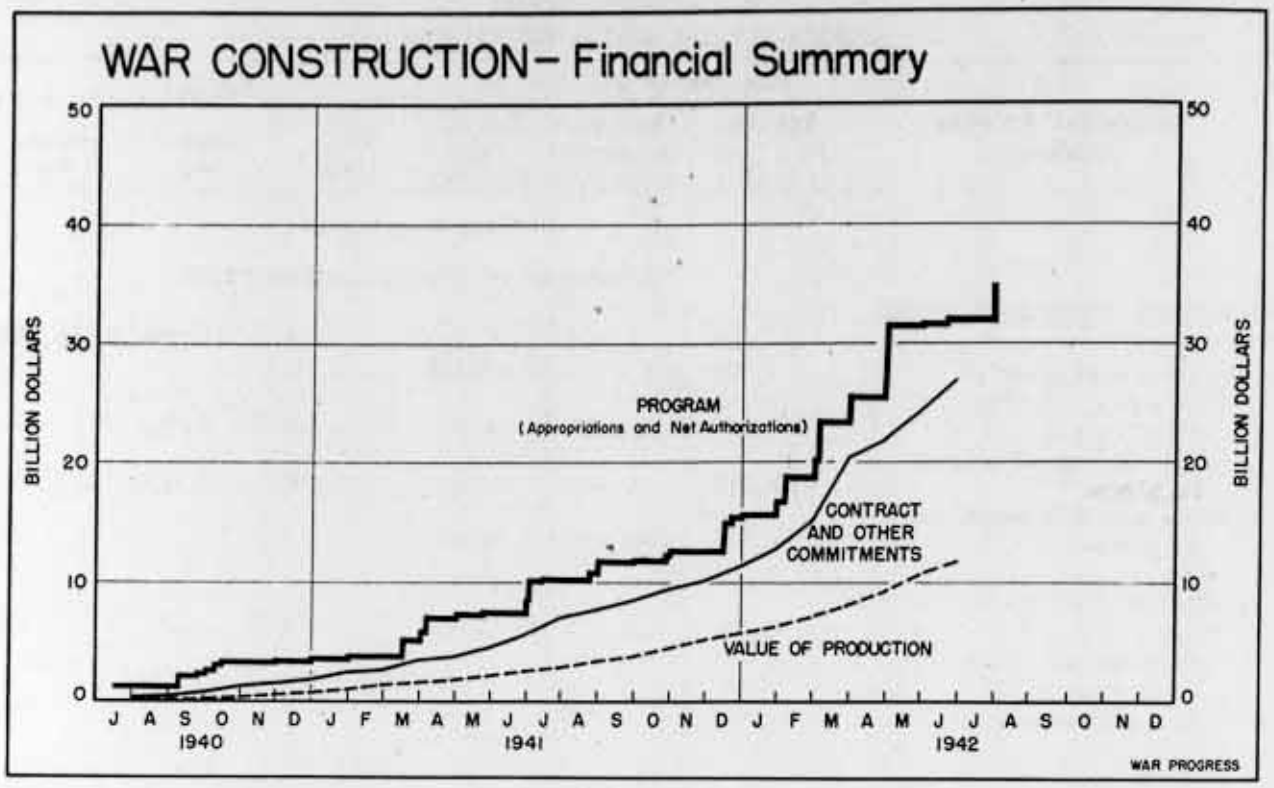
BALKANIZING THE FRENCH DIET

German levies have also cut into the French diet. It is estimated that the Nazis have requisitioned, for shipment to Germany and feeding the army of occupation, about 8% of the 1941-42 wheat crop, 20% of the meat output, and 20% of the fats and oils production. And the French, once the best-fed nation in Europe, are now on a level with some of the traditionally underfed Balkan peoples. Incidentally, unoccupied France is no better off than the occupied zone.

BELGIUM AND HOLLAND

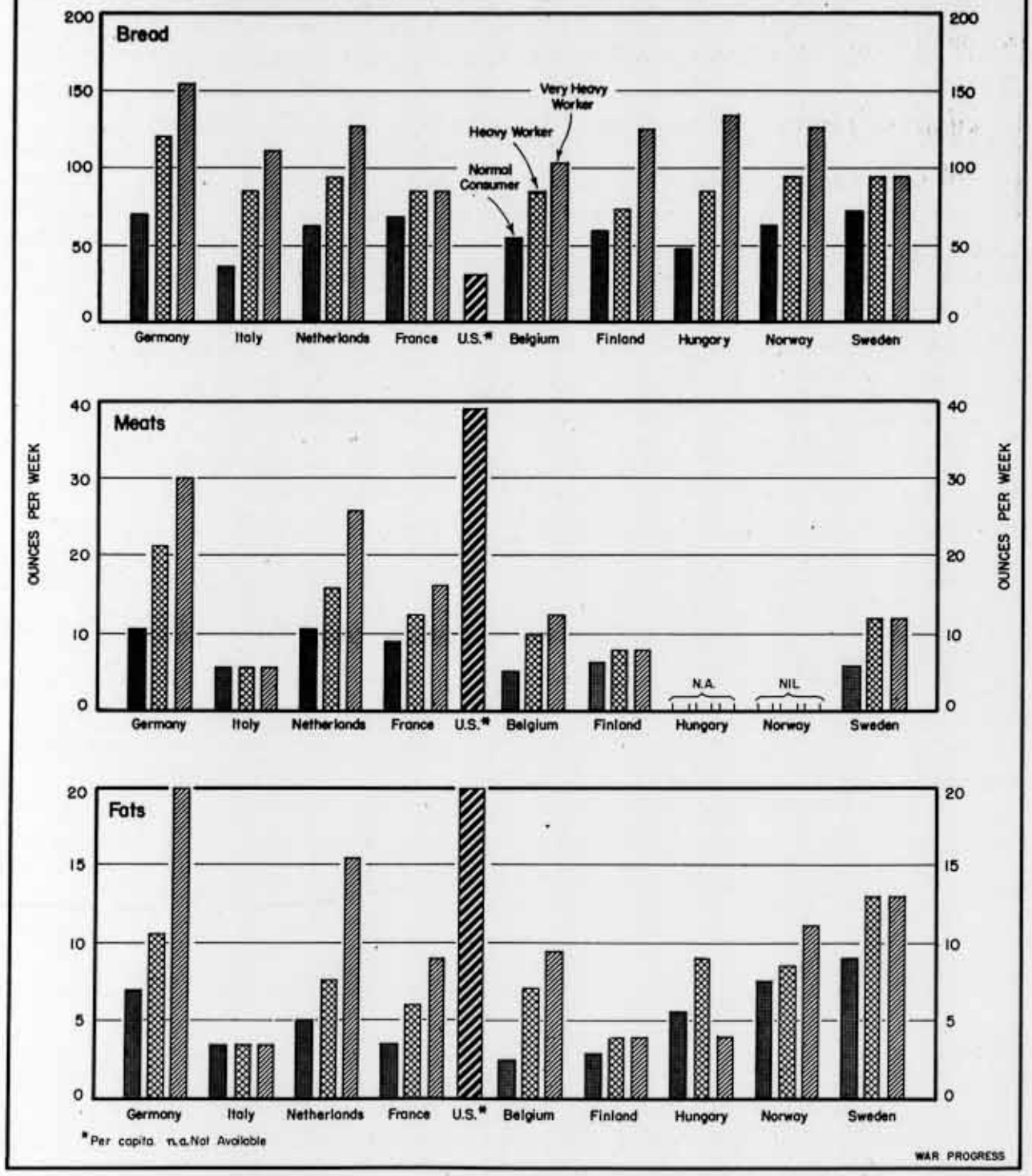
Belgium and Holland present somewhat contrasting situations. Holland, an important agricultural country before the war, is still eating relatively well, although it has to feed an army of occupation and large numbers of Nazi soldiers sent for rest and recuperation. In Belgium, a highly industrialized country, there are serious food deficits, owing partially to German confiscation of considerable amounts of meats and vegetables. The Germans see to it, however, that those employed in factories working on German orders get more than the scanty normal rations.

Among Scandinavian countries, Norway and Finland have been hardest hit. In Norway the official rations, as in other


WAR CONSTRUCTION– Financial Summary
BILLION DOLLARS
50
40
30
20
10
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT
AND OTHER
COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

HITLER TAKES CHARGE OF EUROPE'S CUPBOARD

Input of food is graded according to output, as rations are related to workers' needs. France fares better than Italy.



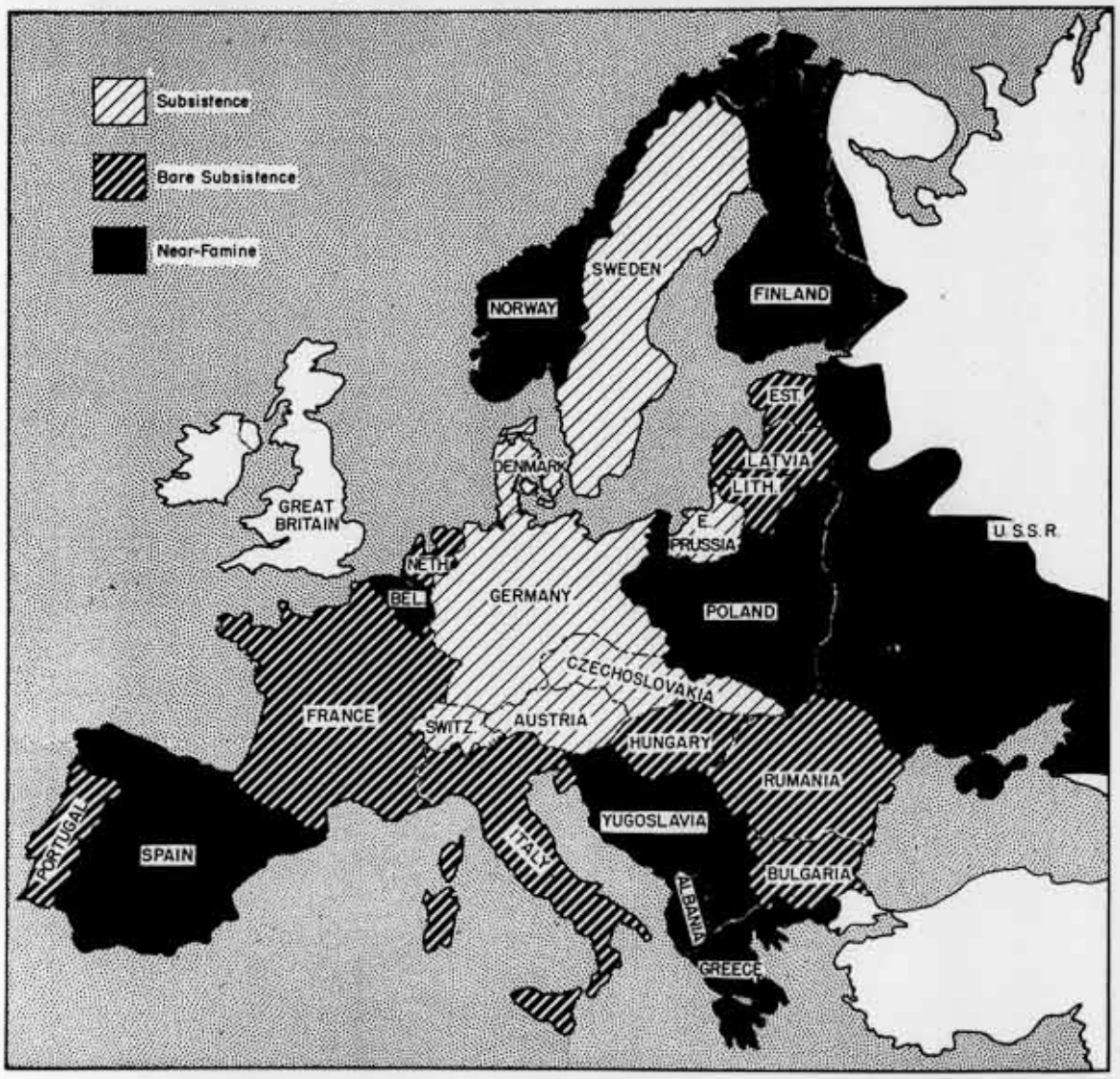
GERMANY RATIONS WORKERS ON THE BASIS OF ENERGY REQUIRED FOR JOBS AND SEES TO IT THAT WORKERS IN OCCUPIED COUNTRIES GET ENOUGH FOOD TO KEEP THEM PRODUCING. NOTE THAT U. S. BAR IN CHART IS ON A PER CAPITA BASIS. AMERICA'S PER CAPITA SUPPLY OF BREADSTUFFS IS LOWER THAN GERMANY'S, BUT THAT IS A MATTER OF CHOICE. THE U. S. DIET IS FAR BETTER BALANCED THAN EUROPE'S. (HITLER HAS RECENTLY PROMISED TO RAISE BREAD AND MEAT RATIONS BUT THIS HAS NOT BEEN PUT INTO EFFECT AS YET.)

countries, are meager enough, but often not even these are purchasable, and the black market provides the only possibility of buying food. Most of the available fish--a major item in the normal diet--is reserved for the occupation troops; cheese and butter have disappeared entirely, and the flour is very poor.

The position of Finland is the worst among Axis allies. In 1941 the wheat and rye crop was down 25%, the potato crop 43%, the feed-grain crop 33%, and hay 50%. By March, 1942, the number of

ONE-FOURTH OF A WORLD, ILL-FED

The Continental diet ranges from near-famine to subsistence.



WAR PROGRESS

THIS MAP ATTEMPTS TO EVALUATE THE FOOD SUPPLIES OF CONTINENTAL EUROPE. GERMANY AND THE ANSCHLUSS COUNTRIES—AUSTRIA, CZECHOSLOVAKIA, AND DENMARK—FARE FAIRLY WELL. BUT HOLLAND, FRANCE, ITALY, AND THE BALKANS, HARDER HIT BY THE DISLOCATIONS OF WAR, ARE NOW IN BAD SHAPE. FINLAND, OCCUPIED RUSSIA, NORWAY, POLAND, BELGIUM, AND GREECE ARE PUT IN THE NEAR-FAMINE CLASS. QUALITATIVELY, THOUGH NOT QUANTITATIVELY, SWEDEN'S FOOD SITUATION IS SUPERIOR TO GERMANY'S.

cows had declined by 25%, thus undermining the important Finnish dairy industry. Imports of foodstuffs from the usual sources--chiefly other Scandinavian countries and Russia--were almost entirely cut off. As a result, Finland relies on Germany for food supplies instead of contributing to it.

In the Balkans, bad weather, drafting of peasants into Axis armies, and continual fighting have cut down the Axis' usual large food haul. Last year, the wheat, rye, barley, and oat crops were about 7% below normal; and this year about 10% to 15% less acreage was planted. The people of the Balkans are feeling the war sharply. Rumanians and Bulgarians eat scantily (chart, page 4), and parts of Yugoslavia are on the verge of starvation.

GREEKS STARVING

In Greece, the loss of grain-producing regions to Axis countries, havoc of war, and exactions of the occupying armies have brought the nation to a state of famine. Ration allowances have been steadily reduced, until normal consumers get about 28 ounces of bread a week (compared with 122 before the war). But even this is not available for days at a time. People are dying from hunger on the streets of Athens, and the few grain ships which do reach the country through the International Red Cross scarcely alleviate the situation. About 700,000 persons--one-seventh of the entire population--get their only warm meal each day at the soup kitchens. Greece's hope is that the Axis will supply seed and planting facilities to enable the country to produce sufficient food to keep the people alive.

The neutral countries, except Spain, are among the best fed in Europe, though living only at, or near, bare subsistence levels. Sweden's favorable prewar position has deteriorated because of poor crops in 1940 and 1941 and the dwindling of imports. Large stockpiles of grain and feedstuffs cushioned the impact until this year, but only a good harvest will raise the Swedish diet--now, as official rations show, somewhat lower in quantity but higher in quality than Germany's.

SPAIN'S PLIGHT

Portugal still gets some supplies from overseas, but the Portuguese menu is not up to prewar standards. Spain, since its Civil War, has suffered grievously. Grains and livestock supplies are low, despite imports from Argentine and Portugal. The Germans, too, take out some food from the country. And here, as elsewhere, the farmers hoard their crops and the black market deprives many poor people of even their official rations.

Shells without Cases

Production of fuses outruns cartridge cases while inventories of components pile up. Meantime, finished rounds of ammunition lag behind schedule.

MOST FREQUENTLY CITED EXAMPLE of production maladjustment or imbalance is ammunition. Typical case is faster production of fuses than of cartridge cases. Consider what has happened since Pearl Harbor.

Production of projectiles and fuses for 20mm. to 105mm. ammunition has outrun cartridge cases, with the result that today some $155,000,000 of steel, copper, aluminum, man-hours, and wear and tear on machinery are tied up in unused components--waiting for cartridge cases. And the relationship is getting worse, not better.

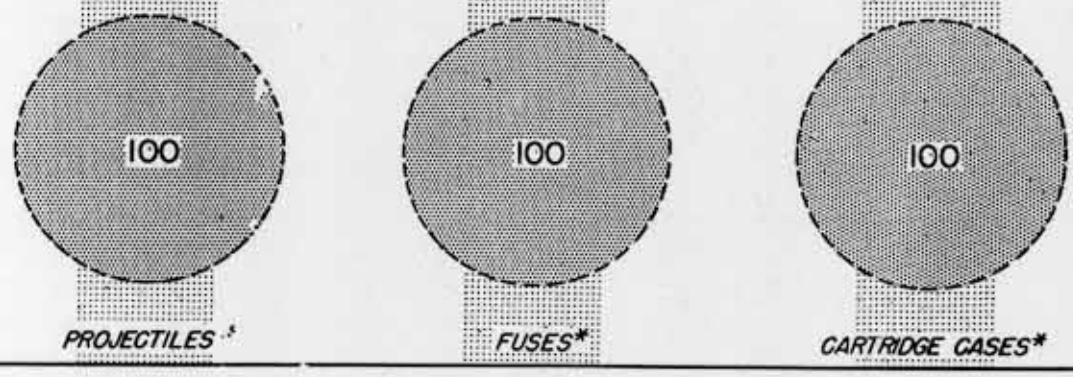
Between now and the end of the year,

x PROJECTILES + y FUSES + z CARTRIDGE CASES =

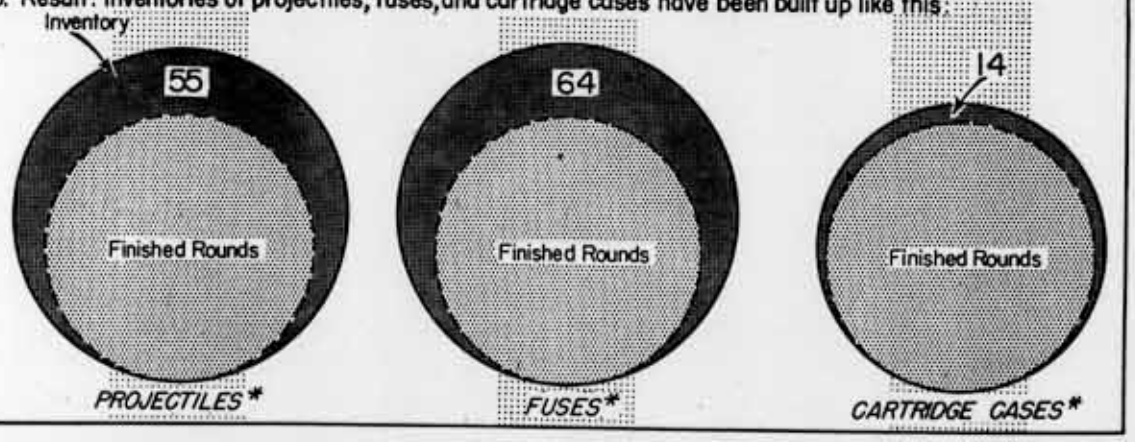
The situation since Pearl Harbor in 20 mm to 105 mm ammunition:

1. We've produced this volume of projectiles, fuses, and cartridge cases:

2. This volume of projectiles, fuses, and cartridge cases has gone into finished rounds:



3. Result: Inventories of projectiles, fuses, and cartridge cases have been built up like this:

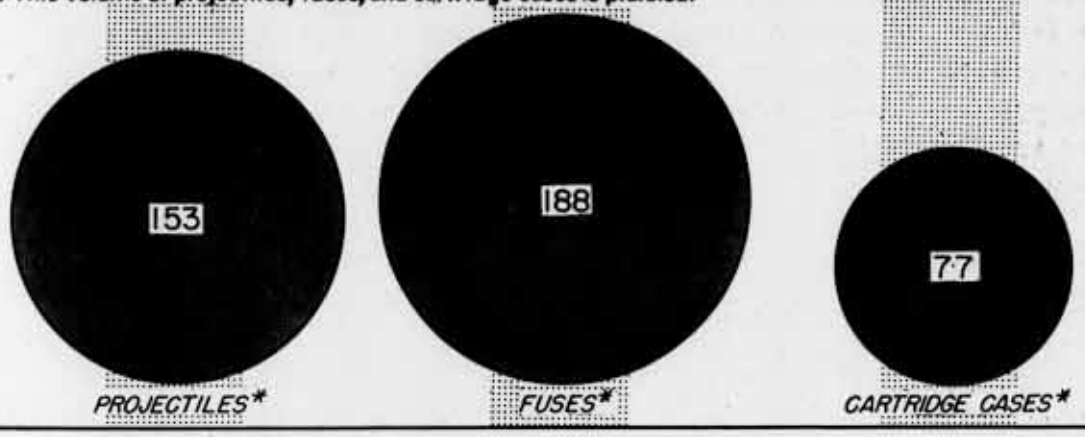


* Weighted index of production of ammunition components; complete rounds = 100.

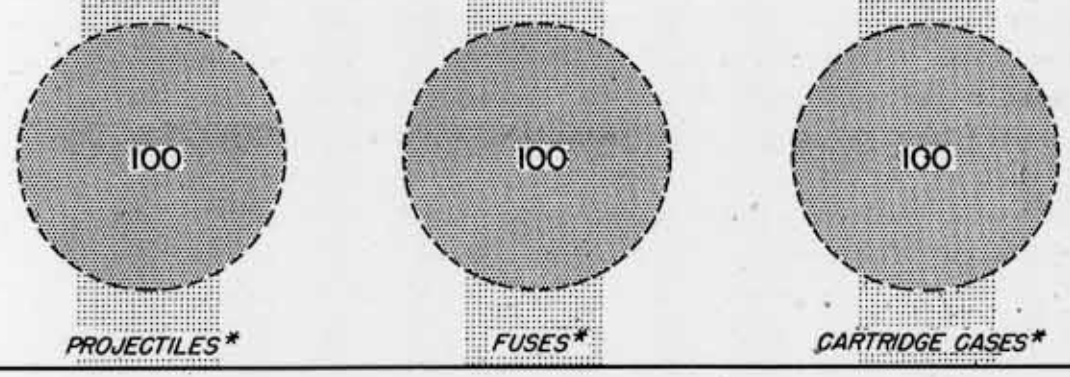
PRODUCTION IMBALANCE AND TIED-UP RAW MATERIALS

And schedules covering the last four months of the year are even more askew.

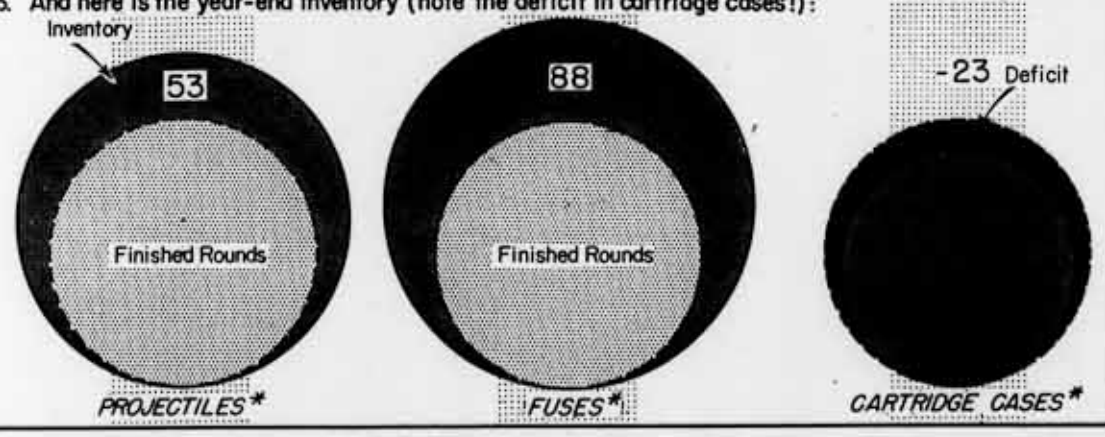
4. This volume of projectiles, fuses, and cartridge cases is planned:



5. This volume is scheduled to go into finished rounds:



6. And here is the year-end inventory (note the deficit in cartridge cases!):



* Weighted index of production of ammunition components; complete rounds = 100.

"THE FORECAST" IS NOT A "PREDICTION"

MUNITIONS PRODUCTION in August (WP-Sept11'42,p1) ran true to form. New highs were reached, but actual output --at $3,141,000,000--ran 14% behind the first-of-the-month forecast. This accords with past performance. As War Progress noted three weeks ago, "planning eyes have been bigger than our production stomach."

This is graphically indicated in the series of aircraft charts in this week's issue. On page 14, for instance, the August forecast called for $332,000,000 of combat planes; but actual output was $286,000,000, a 14% shortage. Similarly with other aircraft items--service planes, armament, ammunition, etc.

Apparently our forecasts are too ambitious. They represent the schedules laid out by the various procurement agencies--Army, Navy, Joint Aircraft Committee, and Maritime Commission. And they seem to be considerably more than the nation's plant, materials, and manpower capacity are up to.

If forecasts were low in one or two items, it might be assumed that this or that particular production performance was out of line; but since forecasts generally are above actual results, it must be assumed that it is they that are out of line. Thus, forecasts--as now made up--cannot be regarded as realistic predictions of what is apt to happen In a rough way, they indicate the trend of our production, not the level.

production schedules call for still faster deliveries of projectiles and fuses than of cartridge cases--so much so, indeed, that an actual inventory deficit in cartridge cases is indicated; that is, we will produce fewer cartridge cases than completed rounds called for in the schedule.

EXCESS INVENTORIES

In the first eight months of this year, out of every 10 projectiles produced, six went into finished rounds, four into inventory. And for every three fuses inserted in rounds, two more went to the stockpile. Cartridge-case stocks on August 31, on the other hand, amounted to only 14% of those used in completed rounds, scarcely more than a normal inventory (i.e., necessarily in transit or in pipelines of production).

Practically all types of projectiles show large inventories. On August 31, inventories of 75mm. armor-piercing and semi-armor-piercing projectiles ran to 51% of what had gone into completed rounds; the 105mm. H.E. howitzer projectile inventory was 67% of input. These two items alone accounted for almost 40% of the dollar value of total projectile production during the first eight months this year.

Without exception, fuses were way ahead of schedule.

In contrast, most cartridge cases are loaded as they come off the production line, with two notable exceptions: Output of the 105mm. shell cases ran 24% ahead of loadings on August 31, and output of 37mm. antiaircraft shell cases was 44% ahead of loadings.

THE ALTERNATIVES

To bring about production balance, either we must step up cartridge-case deliveries or cut down on output of fuses and projectiles. Though the latter would correct production imbalance, it would

mean abandonment of our ammunition forecasts and objectives.

The Army is well aware of this problem and already is setting up controls to obtain closer balance.

War Progress Notes

OIL FOR EASTERN FURNACES

A YEAR AGO, the Eastern Seaboard was getting most of its oil by tanker; only 7% of the petroleum tank cars loaded each week moved into the East. But now that tankers are needed for overseas, the East has become dependent on the tank car, and loadings are up correspondingly. Half of the tank cars loaded with petroleum products--27,851 out of 55,788 in the week ended September 26--now move across the Alleghenies (table, below). And when gasoline rationing is extended to the rest of the country, tank cars now moving between Midwest points will be freed to carry additional oil into the East.

★★★★★ FINAL

THE UNITED STATES produced more than 1,000,000 tons of merchant ships in September and broke a world's record. According to preliminary figures, 93 ships were delivered; this was 37% over August's 68 ships and 5% above the September forecast. The ships totaled 1,016,000 deadweight tons, 35% above the August tonnage and 11% above the forecast. No country heretofore has turned out a million tons of shipping in a single month.

MANPOWER AND STATISTICS

FROM 20 TO 100 CABLES a day go from Washington to London asking for hurry-up statistical information. But fre-

KEY STATISTICS OF THE WEEK

	Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
War program - Checks paid (millions of dollars)	1,308	1,311	1,135	681	318
War bond sales (millions of dollars)	196	163	151	113	57
Commodity prices (August 1939 = 100)					
28 Basic commodities	169.4	168.4	166.9	166.7	155.5
Controlled	161.2	161.3	161.4	162.0	155.0
Uncontrolled	190.0	186.2	181.1	178.9	155.8
Nonferrous metal scrap	115.8	115.8	118.3	132.5	133.2
Petroleum carloadings (no. of tank cars)					
Total	55,788	54,644	55,234	54,056	47,032
Movement into East	27,851	28,557	27,442	15,743	3,135
Exports (no. of freight cars unloaded for export Friday)					
Atlantic Coast ports	1,354	1,569	1,635	1,947	1,690
Gulf Coast ports	271	323	320	470	282
Pacific Coast ports	829	818	724	407	175
Strikes affecting the war effort					
Number in progress	13	11	18	n.a.	n.a.
Man-days lost	18,674	24,706	31,628	n.a.	n.a.
Unused steel capacity (% operations below capacity)	2.7	3.8	2.4	1.2	3.1

ECONOMIC TRENDS

Production – Labor Disputes – Employment

	Latest Month*	Preceding Month	2 Months Ago	6 Months Ago	Year Ago	Same Month 1939	Same Month 1937
PRODUCTION (1935-39 = 100)							
Industrial production-total	p186	181	177	167	163	106	119
Durable Manufactures	p257	252	245	220	199	105	131
Iron and steel	196	200	196	193	185	110	142
Pig iron	190	192	193	189	182	113	153
Aircraft	p2,728	2,542	2,374	1,672	1,113	190	105
Railroad cars	p265	264	284	304	236	75	170
Locomotives	p493	492	487	438	306	103	199
Shipbuilding - private yards	p1,887	1,718	1,537	1,040	485	126	112
Copper smelting	160	153	170	141	135	a113	145
Zinc smelting	178	177	180	189	175	95	112
Zinc shipments	132	139	143	151	143	99	115
Lead shipments	186	193	202	198	200	96	115
Nondurable manufactures	p144	139	136	138	142	110	109
Cane sugar meltings	78	69	73	88	117	120	126
Rubber products	p75	75	72	89	133	112	94
Rubber consumption	83	77	81	102	156	107	100
Minerals	p138	132	132	125	135	94	120
Copper production	175	165	181	160	152	a116	152
Zinc production	132	138	143	138	125	90	108
Lead production	127	134	128	131	110	95	118
Government (1939 = 100)							
Mfg. in gov't arsenals and quartermaster depots	2,185	2,003	2,003	1,639	1,178	95	n.a.
Shipbuilding - gov't yards	1,878	1,757	1,757	1,272	771	105	n.a.
LABOR DISPUTES							
All industries							
Number of strikes in progress	475	520	440	245	698	448	746
Workers involved (thousands)	100	100	117	63	305	119	239
Man-days idle (thousands)	450	450	550	353	1,825	1,101	2,270
Strikes affecting the war effort							
Number in progress	229	222	192	57	n.a.	n.a.	n.a.
Workers involved (thousands)	79	81	85	23	n.a.	n.a.	n.a.
Man-days idle (thousands)	266	234	255	119	n.a.	n.a.	n.a.
EMPLOYMENT (thousands)							
Nonagricultural-total	p37,789	37,234	36,665	35,062	35,457	29,955	30,920
Manufacturing-total	p14,978	14,641	14,302	13,693	13,337	10,117	11,175
Durable goods	p8,298	8,082	7,880	7,244	6,789	4,290	5,220
Nondurable goods	p6,680	6,559	6,422	6,449	6,548	5,827	5,955
Construction	p2,131	2,108	1,991	1,594	2,173	1,587	1,360
All other	p20,680	20,485	20,372	19,775	19,947	18,251	18,385

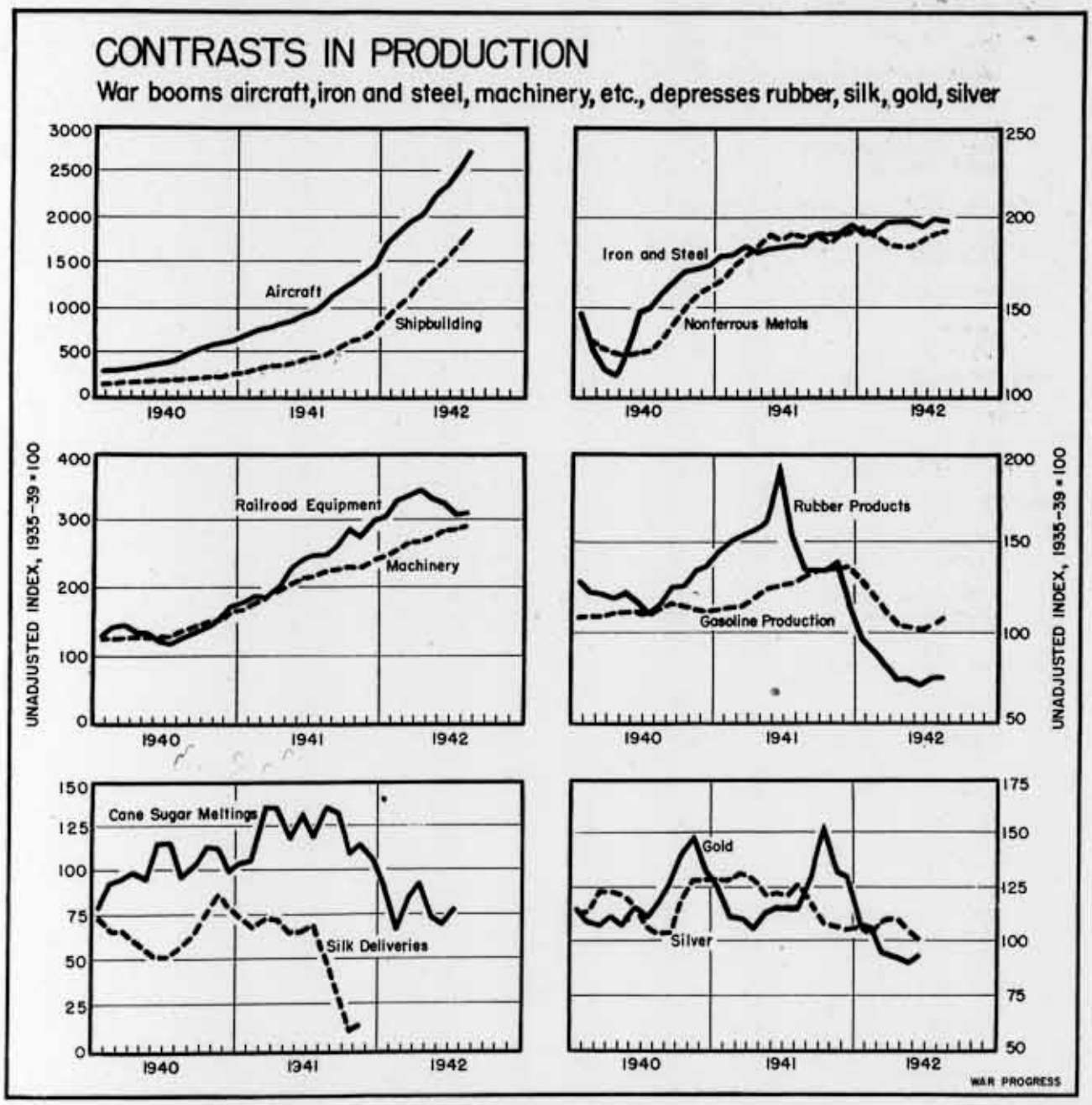
*August, except the following production indexes, which are for July: Lead shipments, cane sugar meltings, rubber consumption, zinc production, lead production, and government production. a Average for 1939. n.a. Not available. p Preliminary.

quently replies don't come back for weeks. The war's demand for men has cut down Britain's home-front supply of statisticians and accountants.

BELT-TIGHTENING

EVIDENTLY, real civilian belt-tightening is still some months off. No more metal furniture, electric fans and irons, or radio receiving sets are being made for civilian use; but Montgomery Ward's catalog offers such items for sale.

Among curiosities revealed by the catalog: A priority is necessary to buy an electric motor, but none is needed for certain items having electric motors



BUSINESS NEVER MOVES IN UNISON. SOME INDUSTRIES, LIKE GOLD MINING, THRIVE ON BEAR MARKETS, AND THERE ARE ALWAYS SOME THAT FALL OFF IN A BULL MARKET.

IN THIS WAR BOOM, THE FIRST AND HARDEST HIT WERE INDUSTRIES DEPENDENT UPON SUPPLIES FROM THE WEST PACIFIC, SUCH AS RUBBER AND SILK. LACK OF SHIPPING HAS DEPRESSED SUGAR AND GASOLINE. PARTICULAR BOTTLENECKS AFFECT OTHER BUSINESSES. BUT THE EMERGENCE OF THE GENERAL, UNBREAKABLE BOTTLENECK—LABOR—IS SEEN IN GOLD AND SILVER.

ECONOMIC TRENDS

Prices – Retail Sales – Transportation – Foreign Trade

	Latest Month *	Preceding Month	2 Months Ago	6 Months Ago	Year Ago	Same Month 1939	Same Month 1937
COMMODITY PRICES (1926 = 100)							
All commodities (wholesale prices)	p99.2	p98.7	p98.6	96.7	90.3	75.0	87.5
Farm products	106.1	105.3	104.4	101.3	87.4	61.0	86.4
Foods	100.8	99.2	99.3	94.6	87.2	67.2	86.7
All other than farm products and foods	p95.6	p95.7	p95.6	94.9	90.8	80.1	86.1
Raw Materials	101.2	100.1	99.8	97.0	87.6	66.5	84.8
Semimanufactured goods	92.7	92.8	92.8	92.0	89.5	74.5	86.6
Manufactured goods	p98.9	p98.6	p98.6	97.0	91.5	79.1	89.0
Producers' goods (1929 = 100)	105.3	105.1	105.8	103.5	96.1	79.7	95.9
Durable	106.8	106.8	106.8	106.1	104.1	94.6	102.0
Nondurable	104.0	103.6	104.9	101.1	89.9	67.4	91.4
Consumers goods (1929 = 100)	102.7	102.9	102.7	98.5	89.9	76.9	88.2
Durable	115.1	115.2	115.3	112.9	101.9	92.6	93.0
Nondurable	100.8	101.0	100.8	96.3	88.0	74.4	87.4
RETAIL SALES (million dollars)							
Total	p4,679	4,428	4,506	3,842	4,718	3,399	3,442
Durable goods	p857	818	842	693	1,258	852	979
Nondurable goods	p3,823	3,610	3,663	3,149	3,459	2,547	2,464
TRANSPORTATION							
Freight carloadings (thousand cars weekly)	876	870	830	793	885	776	803
Less-than-carload	87	90	86	146	154	156	167
Miscellaneous	412	400	379	369	382	309	321
All other	377	380	365	278	349	311	315
FOREIGN TRADE (million dollars)							
Exports—total	p610	525	696	653	330	236	265
Lend-Lease	a375	295	403	155	33	-	-
Other	p235	230	293	498	297	236	265
By countries							
Canada	p100	97	110	128	74	40	47
Latin America	p63	58	76	140	70	50	51
United Kingdom	p208	168	185	187	103	36	34
U.S.S.R.	p117	73	169	27	3	b	3
India, Australia, and Oceania	p37	56	63	25	11	9	11
China	p8	5	13	8	6	5	5
All other	p77	67	80	138	63	96	114
Imports—total	p223	192	223	338	261	178	278
By countries							
Canada	p51	46	52	57	47	26	38
Latin America	p106	78	87	123	82	44	68
All other	p66	68	84	158	132	108	172

*Commodity prices, August, except producers' goods and consumers' goods, which are July. Retail sales, August. Transportation, September. Foreign trade, June. a Lend-lease exports were $397,000,000 in July and $423,000,000 in August. b Less than $500,000. p Preliminary.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF WAR CONSTRUCTION			
●WAR CONSTRUCTION, TOTAL (LAND, BLDGS., EQUIP.)						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value in place	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a.
Value not in place [b]	3,260	5,405	p 15,727	-	-	-
INDUSTRIAL FACILITIES (LAND, BLDGS., EQUIP.)						
Program	5,120	8,112	p 17,610	25	p 707	p 172
Contracts and other commitments	2,865	6,318	p 16,697	p 1,047	p 1,592	n.a.
Value in place	960	2,800	p 5,990	p 629	p 615	n.a.
INDUSTRIAL FACILITIES, BUILDINGS ONLY						
Program	1,607	3,137	n.a.	p 389	n.a.	n.a.
Value in place	575	1,753	p 3,165	p 260	p 278	n.a.
POSTS, DEPOTS, STATIONS						
Program	2,849	6,063	p 13,115	0	p -105	p 2,419
Contracts and other commitments	2,625	4,381	p 9,890	p 1,317	p 1,390	n.a.
Value in place	1,430	2,670	p 5,179	p 545	p 580	n.a.
DEFENSE HOUSING						
Program	492	1,392	p 1,392	0	p 0	p 0
Contracts and other commitments	275	516	p 875	p 75	p 75	n.a.
Value in place	115	340	p 566	p 43	p 49	n.a.
			BREAKDOWN OF NON-MUNITIONS			
NON-MUNITIONS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,709
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued by agencies [b]	1,752	3,823	p 7,038	p 595	p 720	n.a.
STOCKPILE						
Program	983	2,399	p 2,713	0	p 0	p 0
Commitments	470	1,050	p 1,140	p 30	p 0	n.a.
Checks issued by agencies	192	488	p 1,011	p 102	p 100	n.a.

●Graph appears on opposite page.
Table continued on following page.

For footnotes see Page 18.

--even items with detachable motors. A priority is necessary to buy a painter's brush, but a power paint sprayer, complete with electric motor and rubber hose, can be bought without a priority.

COFFEE CANS FOR TANKS

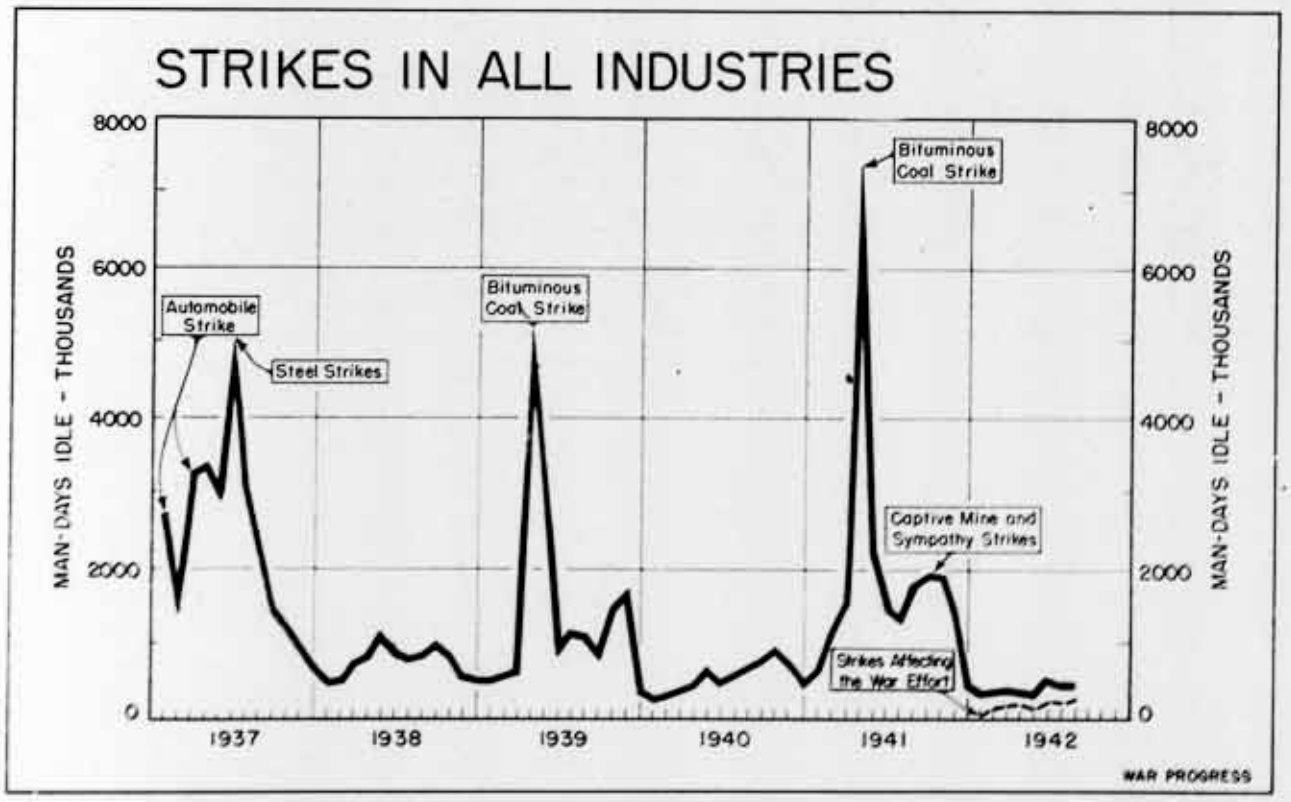
RECENT ELIMINATION of metal cans for packaging coffee will save around 130,000 tons of steel, enough to build some 3,600 medium tanks. Around 70% of all coffee now crossing retail counters goes into paper bags--four-fifths of it in a specially designed unit that seals in essential oils; the other 30% is packaged in glass containers.

TRY THE ARMY

MEN IN THE armed services have been buying toiletries and cosmetics for the women "back home" in such volume that distributors fear possible shortages in certain items by Christmas. In the interests of "morale," post exchanges and ships' stores are copiously supplied with all the toiletries and cosmetics, despite production restrictions that went into effect last summer. So if your wife or sweetheart can't buy her favorite lipstick or toilet water, the chances are a friend in the Army, Navy, or Marine Corps can.

BUYING SHIFTS

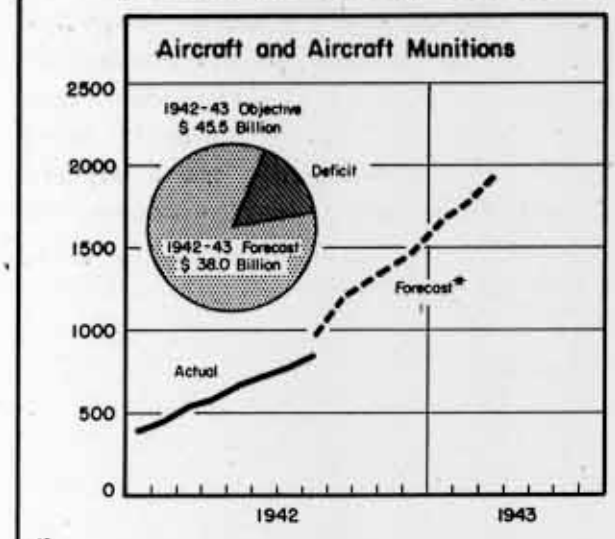
AS PREDICTED, consumers unable to buy durable goods are spending increasing sums on nondurables. Sales of durable goods stores in August were one-third less than a year ago (table, page 12); nondurable goods store sales rose 11%.

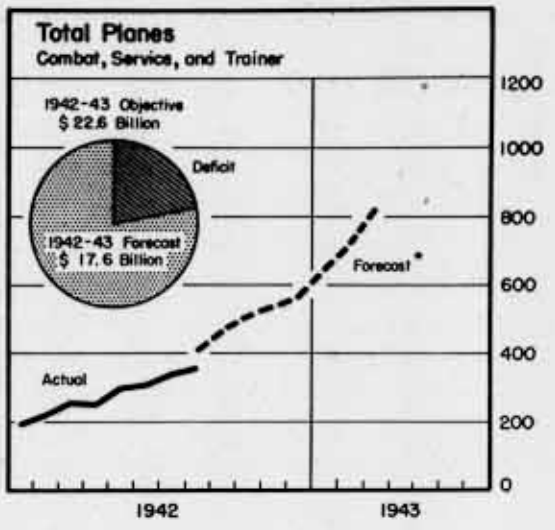


THERE WERE MORE STRIKES AND MORE STRIKERS IN THE FIRST EIGHT MONTHS OF THIS YEAR THAN IN THE FIRST EIGHT MONTHS OF 1940, WHEN THE U. S. WAS AT PEACE —2,884 STRIKES INVOLVING 600,000 WORKERS, COMPARED WITH 2,604 STRIKES INVOLVING 481,000 WORKERS TWO YEARS EARLIER. BUT QUICK DENUNCIATION OF "OUTLAW" STRIKES BY UNION LEADERS, QUICK ACCEPTANCE OF LABOR BOARD DECISIONS, AND—IN A FEW CASES—ARMY SEIZURE OF PLANTS KEPT THE STRIKES SHORT. RESULT: FEWER MAN-DAYS WERE LOST THAN IN ANY OTHER RECENT YEAR.

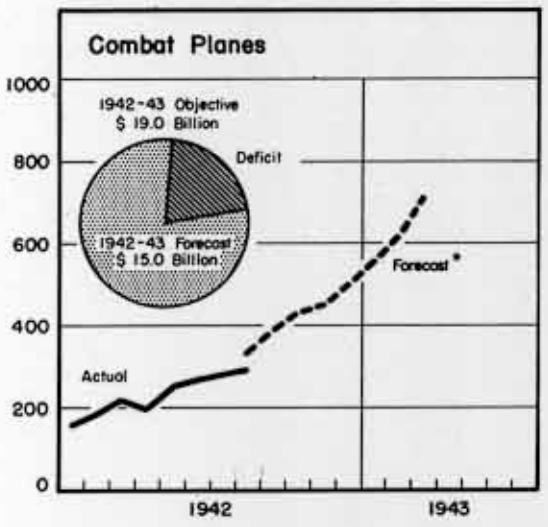
PRODUCTION PROGRESS

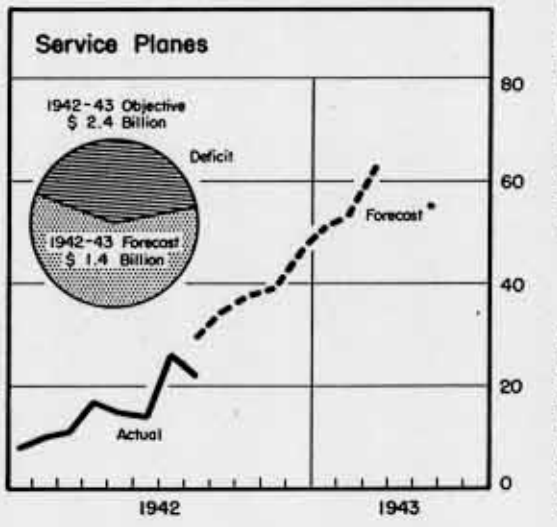
Aircraft and Aircraft Munitions



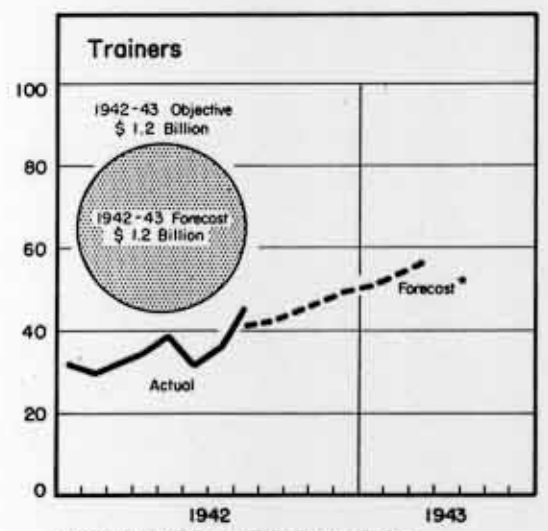


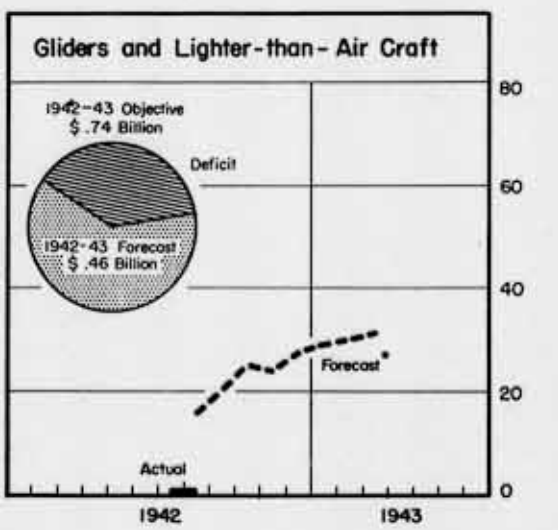
VALUE DELIVERED — MILLIONS OF DOLLARS





VALUE DELIVERED — MILLIONS OF DOLLARS

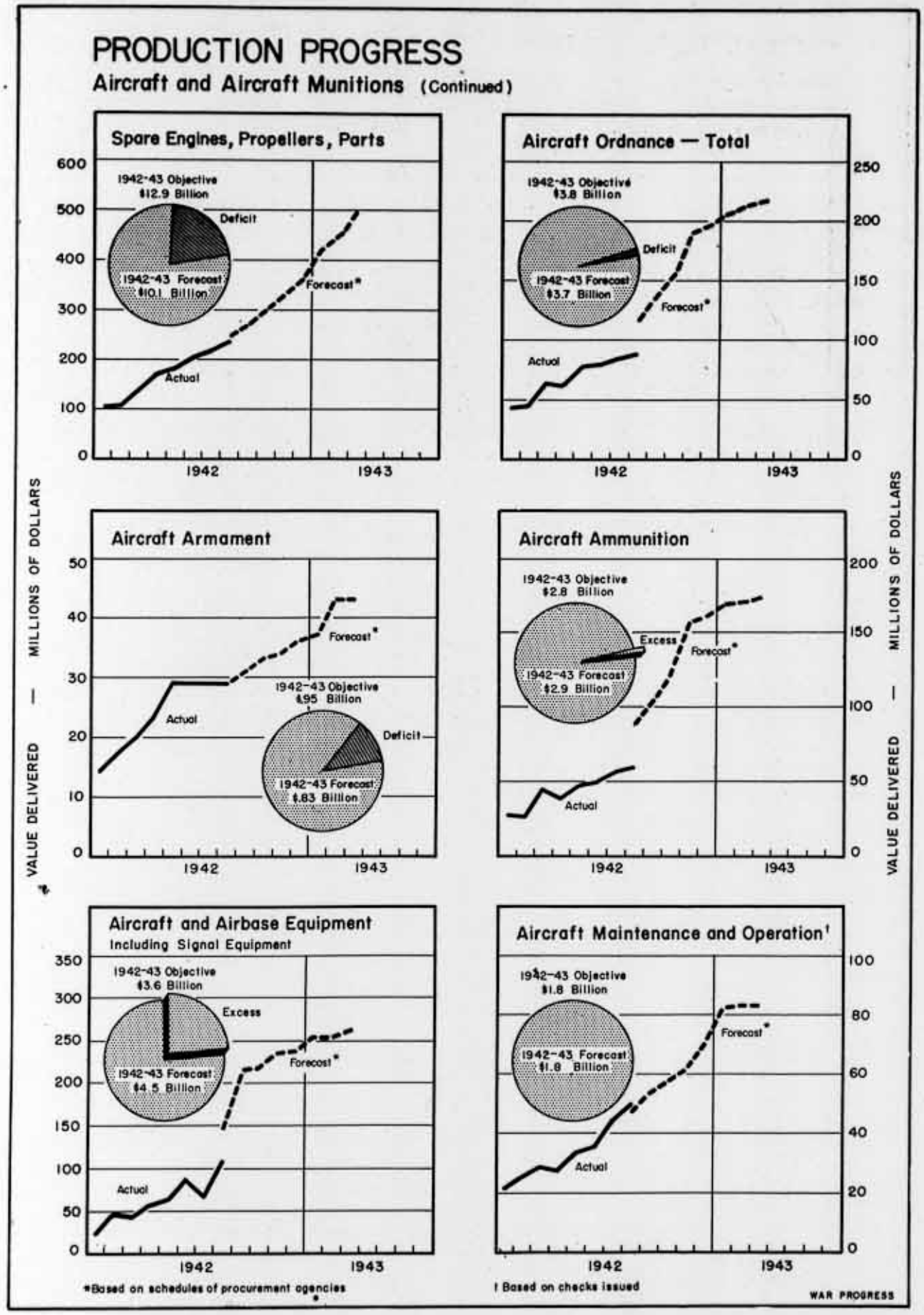




* Based on schedules of procurement agencies

PRODUCTION PROGRESS

Aircraft and Aircraft Munitions (Continued)

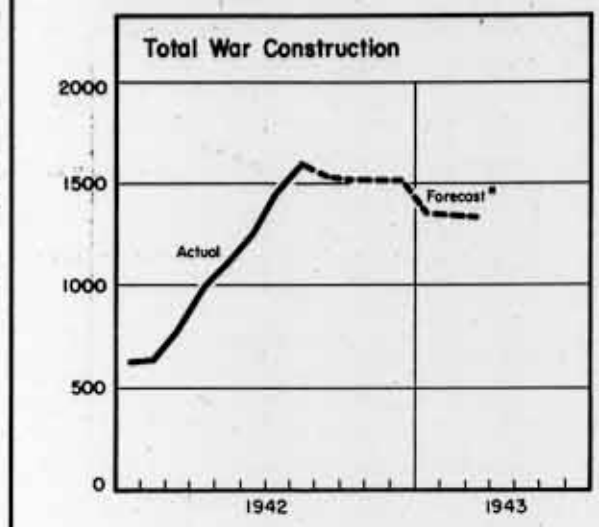


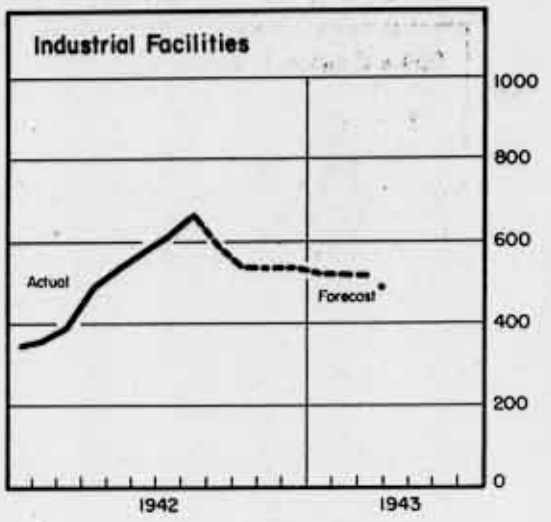
*Based on schedules of procurement agencies

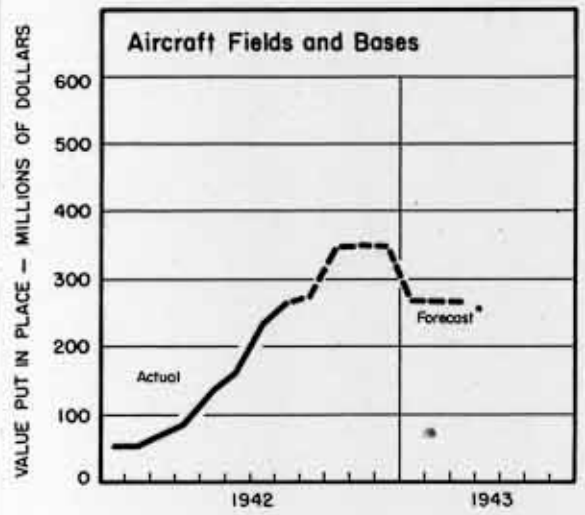
† Based on checks issued

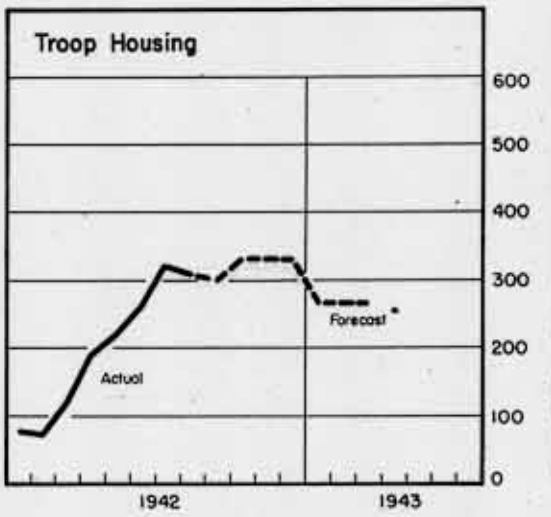
PRODUCTION PROGRESS

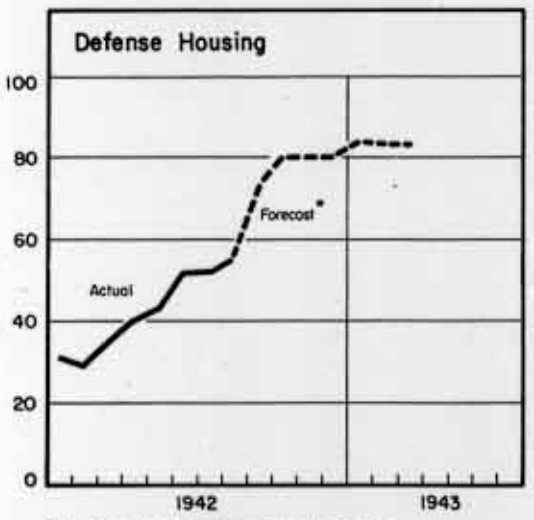
War Construction

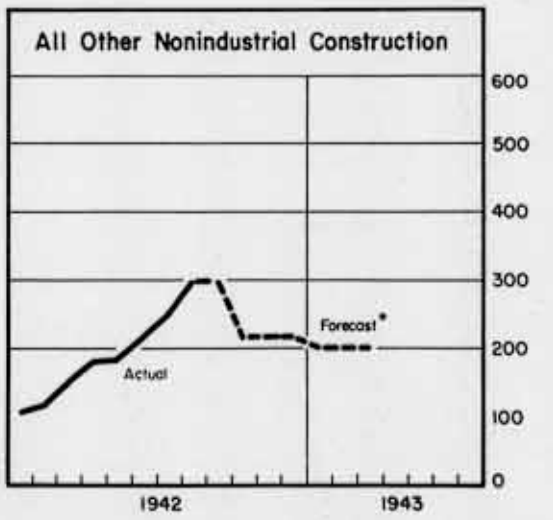












* Based on schedules of procurement agencies

WAR PROGRESS

The President

WAR PROGRESS

Confidential
(British Secret)

Building the Navy

September War Output
Scorecard on Merchant Shipping
Cutting the Metals Pies

Number 108

October 9, 1942

The Biggest Navy Grows Bigger

Construction of combat ships outpaces losses, and tonnage since Pearl Harbor is up one-third Shortages of men and materials and low plant utilization slow program.

THE ANNOUNCED LOSSES of U. S. combat ships now amount to about 125,000 tons. But naval construction since Pearl Harbor more than offsets this damage (chart, page 3). And today the combat fleet is not only the biggest in the world, but also bigger than ever.

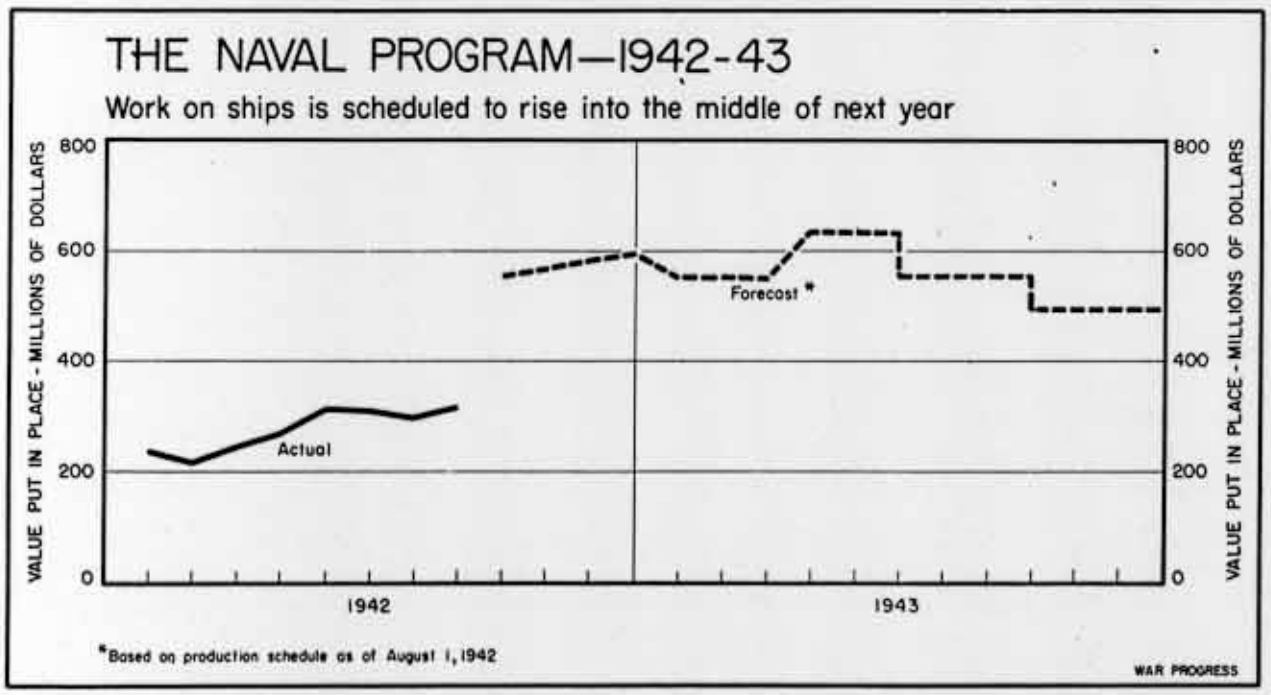
NAVY SCHEDULED TO QUADRUPLE

It aggregates more than 1,750,000 tons, about one-third larger than in the summer of 1940, when the big naval construction program really got under way just after the fall of France. It compares with a pre-Pearl Harbor Japanese fleet of 990,000 tons. Losses since then have brought the Japanese total down considerably, perhaps as much as 250,000 tons. The British fleet before Pearl Harbor was about 1,370,000 tons.

On the basis of current plans for combat ships, the size of the Navy will more than quadruple (not allowing for sinkings and transfers to other nations). Schedules call for the addition of another 6,000,000 tons, bringing the total projected combat tonnage by 1946 to about 8,000,000, exclusive of converted vessels.

Through August, 8% of the authorized tonnage of combat vessels had been delivered, another 6% had been launched and 14% more is on the ways. But for over two-thirds of the combat vessels, the keels have not been laid. That's primarily because the program has been greatly expanded in the last few months.

The importance of the airplane carrier has been accentuated. By sinking the Prince of Wales and Repulse, the Japanese showed that heavy ships with-



out adequate air protection are an easy prey. The battles of the Coral Sea and Midway, in which the opposing warships never came within firing range, also emphasized the power of the aircraft carrier.

CARRIERS, SUBS, SMALL CRAFT

As a result, plans for five battleships of 60,500 tons each and four large cruisers of 27,000 tons each were indefinitely postponed, and the number of aircraft carriers was increased by over 150%. It takes about 40 months to build a 60,000-ton battleship, only half that to construct a carrier (WP-June19'42,p1).

A 225% increase in heavy cruisers also offset the drop in battleship and large-cruiser plans. In addition, schedules called for the tripling of submarine units, and building of almost 10,000 landing vessels. (Only about 1,700 landing vessels were on order before Pearl Harbor.)

Other changes in the naval program since our entry into the war largely reflect the need of (1) convoying ships and (2) combating the submarine menace. To save fast destroyers and cruisers from the job of convoying slow freighters, the 1,575-ton destroyer escort vessel has been designed and 866 are to be constructed (WP-Aug28'42,p4). This item alone accounts for almost half the minor combat vessel tonnage. Over 100 units of a new type of ship, the auxiliary aircraft carrier, are also on order. And demands for ships equipped with listening devices and depth charges have increased many fold.

TOTAL CONSTRUCTION BEHIND FORECASTS

Construction of major combat vessels has made the most progress. The Navy has had little difficulty in meeting the schedules for battleships, cruisers, carriers, destroyers, and submarines. But in the last few months, total volume of work completed (as measured by value in place) has fallen behind forecasts. Through August, 410,000 tons, or 11%, had been delivered and put into service; another 324,000 tons were launched; and keels were laid for 711,000 tons more. Some 2,264,000 tons or 61% were still in the pre-keel laying stage.

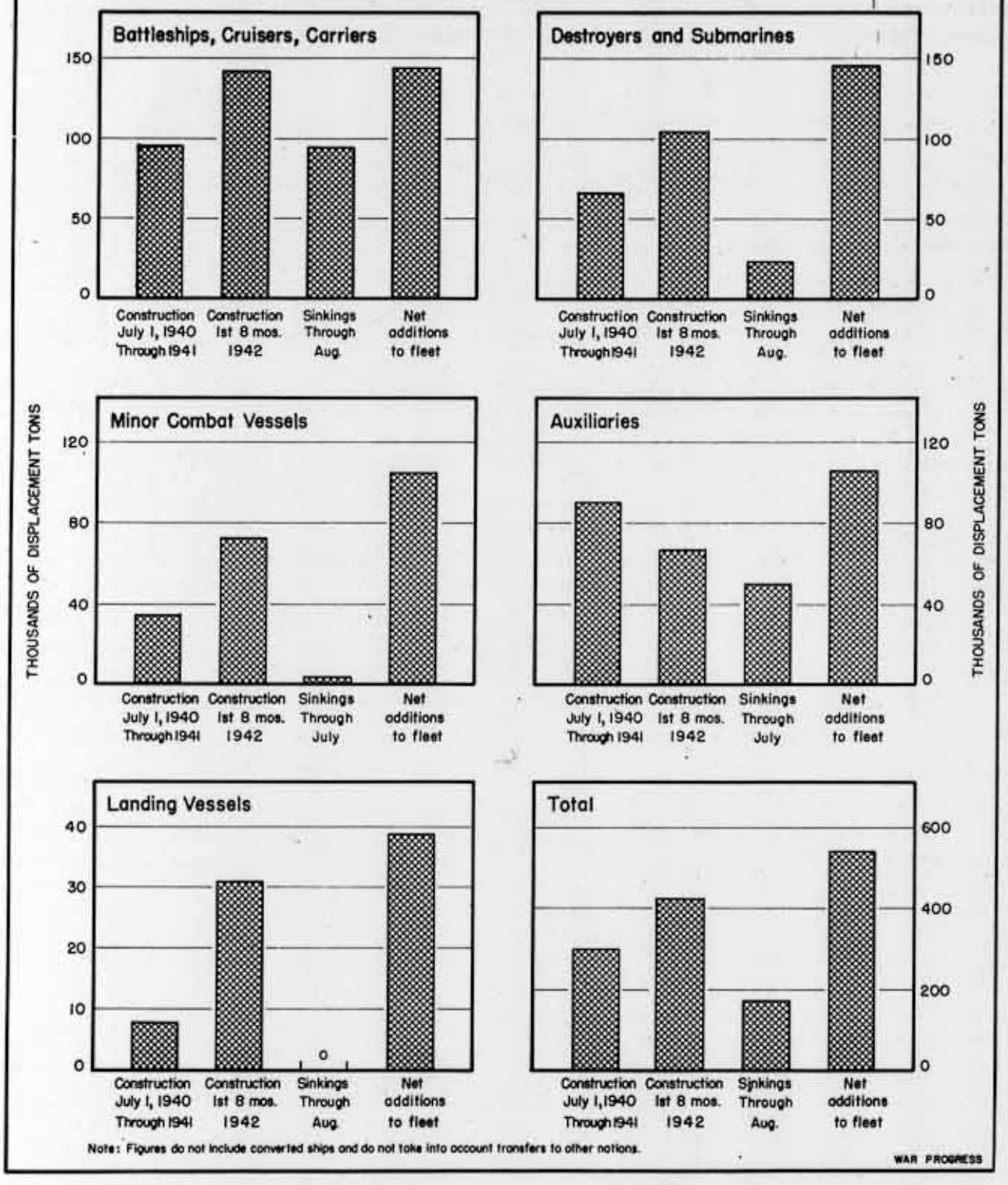
MINOR COMBAT VESSELS

The minor combat vessel program--especially the antisubmarine types--has been slower, partly because precedence was given to the landing craft program in allocating materials. Pre-Pearl Harbor forecasts have not been met. Through August, only 109,000 tons, or 4% of the entire program, had been completed; 3% of the tonnage had been launched and another 7% was in the keel-laid stage, while 86% had not yet been started. However, completion of minor combat vessels is due to rise sharply. Forecasts call for delivery of some 500 ships in the last four months of 1942--more than the total delivered in the

IN THIS ISSUE:

NAVAL CONSTRUCTION OUTPACES SINKINGS

Announced losses far below additions to combat fleet so far this year.



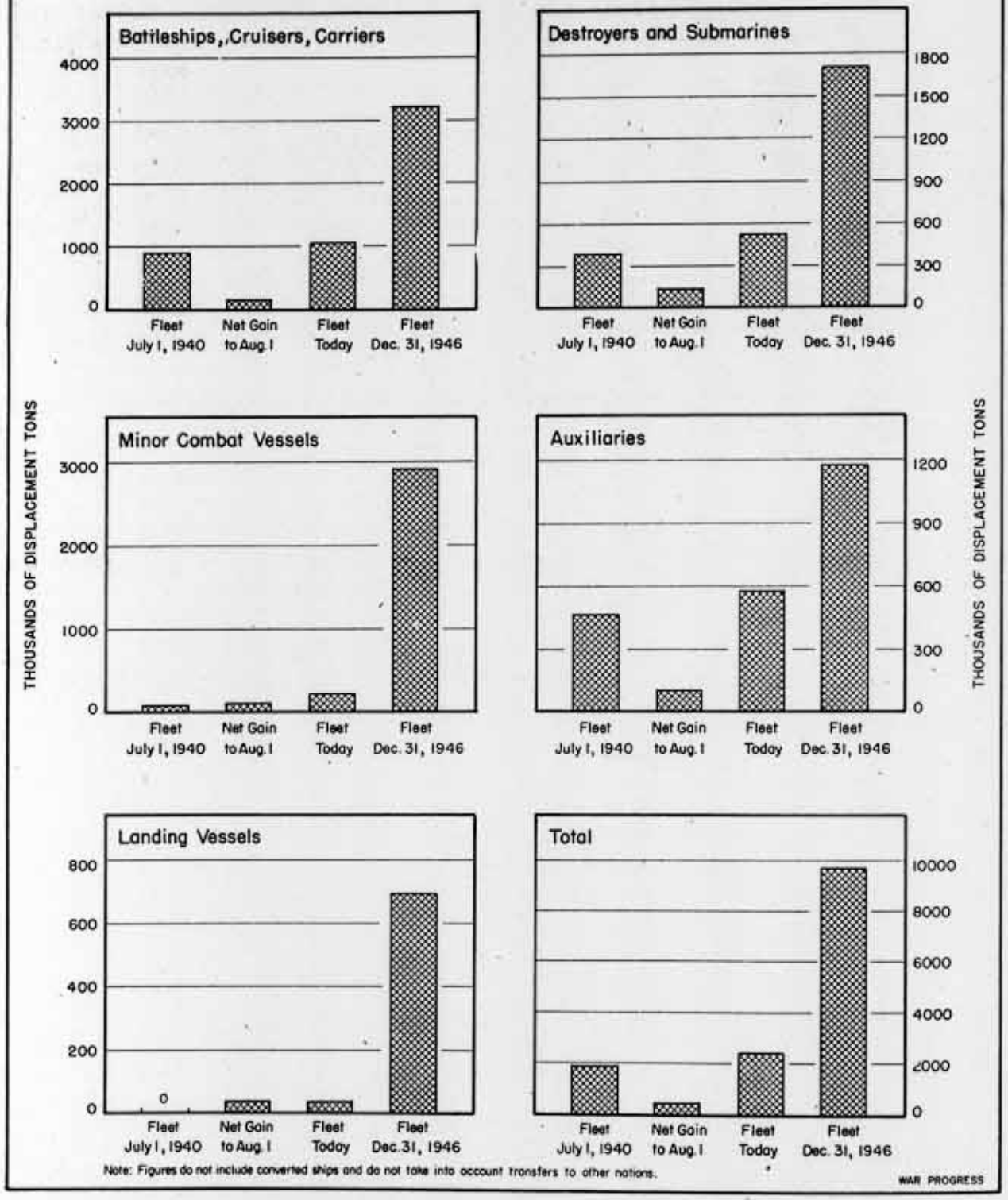
Note: Figures do not include converted ships and do not take into account transfers to other nations.

WAR PROGRESS

NAVAL CONSTRUCTION IN THE FIRST EIGHT MONTHS OF 1942 WAS TWO AND A HALF TIMES ANNOUNCED SINKINGS. NET ADDITIONS TO THE FLEET SINCE JULY, 1940, WERE 542 000 TONS. BATTLESHIPS, CRUISERS, AND CARRIERS LED IN TONNAGE COMPLETED—239,000—BUT LOSSES OF 95,000 TONS CUT NET GAINS BELOW THAT OF DESTROYERS AND SUBMARINES. ANNOUNCED SINKINGS OF MINOR COMBAT VESSELS—SUBCHASERS, MINE VESSELS, MOSQUITO CRAFT, ETC.—TOTALED ONLY 4,000 TONS, BUT CONSTRUCTION LAGS KEPT NET ADDITIONS BELOW EXPECTATIONS.

AMERICA'S PLANS FOR A FIVE-OCEAN NAVY

Size of combat fleet is slated to increase fourfold before end of 1946.



Note: Figures do not include converted ships and do not take into account transfers to other nations.

WAR PROGRESS

THE FIVE-OCEAN NAVY, WHEN COMPLETED, WILL HAVE BALANCED OFFENSIVE AND DEFENSIVE POWER. CHIEF INCREASE —2,000%—WILL BE IN MINOR COMBAT VESSELS USED FOR ANTISUBMARINE, CONVOY, AND PATROL WORK. TONNAGE OF MAJOR COMBAT VESSELS—BATTLESHIPS, CRUISERS, CARRIERS, DESTROYERS, AND SUBMARINES—WILL TRIPLE AND THAT OF AUXILIARIES DOUBLE. LANDING VESSELS FORM A SMALL BUT SIGNIFICANT PART OF THE PROGRAM.

first eight months.

Although relatively few deliveries have been made, the landing-vessel program has managed to make somewhat better progress in terms of meeting schedules. This program had not been formulated until early this year. Through August, about 39,000 tons, or 6% of the program, had been completed. Delivery of most of the remainder is scheduled for next year.

The auxiliary ship schedule is nearer completion than any other part of the naval construction program. About one-fifth of the authorized 762,000 tons has been completed, 9% has been launched, and keels have been laid for 20%. Half the tonnage has not been started.

Altogether, two-fifths of the forecast for 1942 naval construction (in dollar value) was delivered in the first eight months. But September deliveries were about 50% greater (in dollar value) than August's, and deliveries are expected to pick up speed in the next few months, reaching a peak in December, 1943.

However, scarcity of labor, shortages of raw materials and machinery, and low plant utilization have slowed up work. These are continuing problems.

Fourth, and Crucial, Quarter for PRP

Unlike three months ago, Requirements Committee sets firm industry-by-industry allocations of critical metals. Military items favored, civilian products cut.

UNDER THE PRODUCTION REQUIREMENTS PLAN for distributing critical metals, the Requirements Committee is charged with the responsibility of apportioning supplies by industries. That responsibility the Requirements Committee did not assume in the third quarter. Applications on PD-25A forms were processed before the committee acted.

And because data were incomplete, the recommendations were liberal. Total allocations exceeded third-quarter supplies by 10% to 15% (WP-July10'42,p5).

COPPER REQUESTS CUT 36%

This quarter, Requirements Committee recommendations hewed to the supply line and were issued in time to be effective. Cuts in requests run from zero in the case of magnesium to 36% in copper products. This the following table, showing percentage of allocations to requests, indicates:

Metal	% Allocation to Request
Alloy steel products....	80%
Brass and bronze.....	77
Carbon steel products...	72
Stainless steel products	70
Zinc.....	70
Copper products.....	64
Aluminum.....	64 to 96
Magnesium.....	100

Manufacturers of military products took the lightest cuts, ranging from 13% in alloy steel to 20% in carbon steel products; and the allotments for military end products were greater, both in volume and in percentage, than the actual use in the second quarter (charts, pages 6,7).

Civilian type goods were cut severely. For instance, carbon steel allocation amounts to only 46% of requests in the case of agricultural machinery; to 30% of requests for textile machinery; to 25% of requests for metal bottle caps. In brass and bronze, manufacturers of food products machinery got only 41% of what they requested; lighting fixture

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
		BREAKDOWN OF NON-MUNITIONS (Continued)				
AGRICULTURAL EXPORTS (LEND-LEASE)						
Program	625	1,522 p	2,138	0	p 0	p 0
Commitments	66	561 p	1,143	p 65	p 149	n.a.
Checks issued by agencies	1	211 p	629	87	p 90	n.a.
PAY, SUBSISTENCE & TRAVEL [f]						
Army Military						
Program	944	3,013 p	3,904	0	p 0	p 8,534
Commitments	934	2,030 p	3,849	p 281	p 285	n.a.
Checks issued	696	1,510 p	2,744	p 220	p 315	n.a.
Navy Military						
Program	378	963 p	2,478	0	p 232	p 0
Commitments	334	610 p	1,143	p 110	p 104	n.a.
Checks issued	388	642 p	1,042	p 70	p 98	n.a.
Civilian Payroll						
Program	32	247 p	299	0	p 46	p 534
Commitments	32	140 p	255	p 15	p 20	n.a.
Checks issued	356	682 p	1,115	p 79	p 80	n.a.
MISCELLANEOUS NON-MUNITIONS						
Program	872	3,155 p	6,638	0	p -21	p 2,641
Commitments	321	1,210 p	4,111	p 123	p 1,541	n.a.
Checks issued by agencies	119	290 p	497	p 37	p 37	n.a.

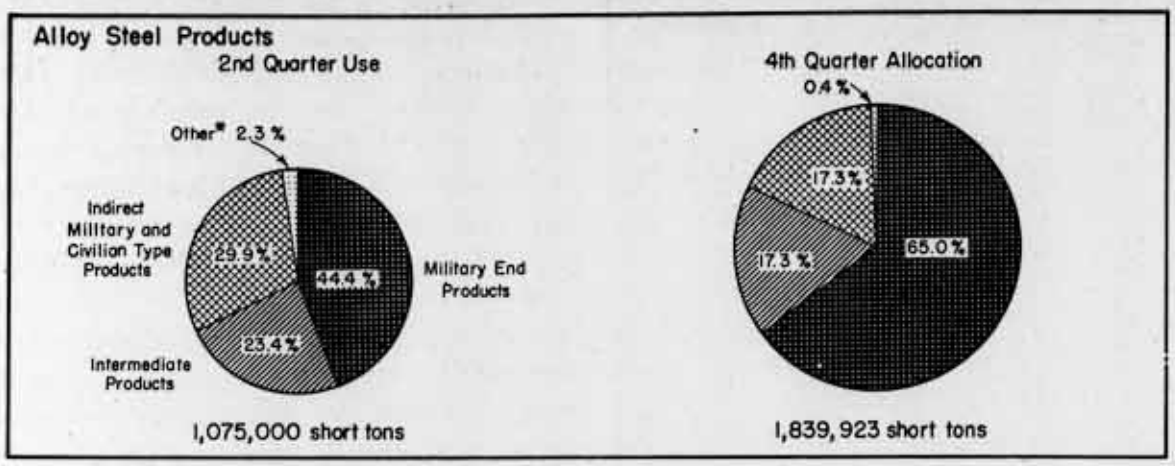
p Preliminary

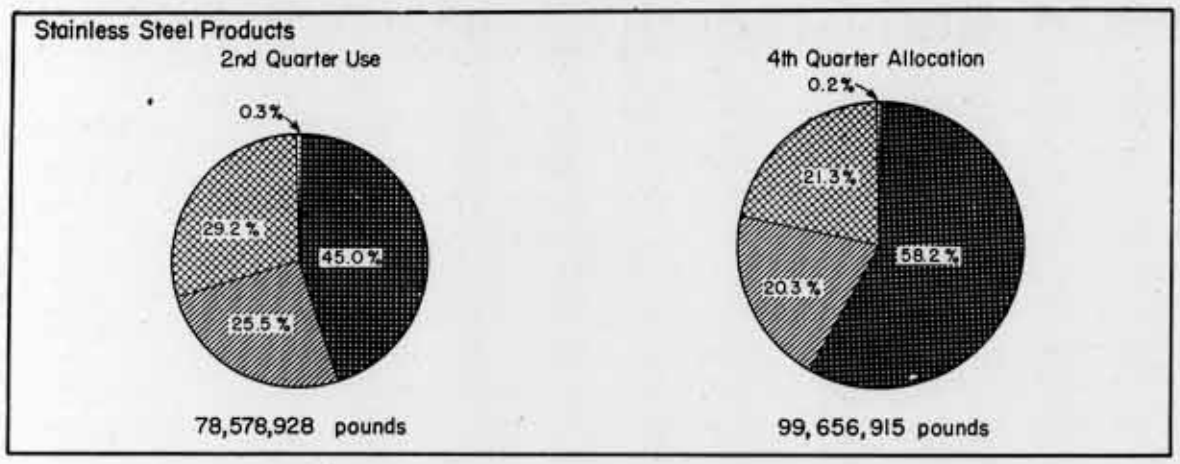
Table continued on following page.

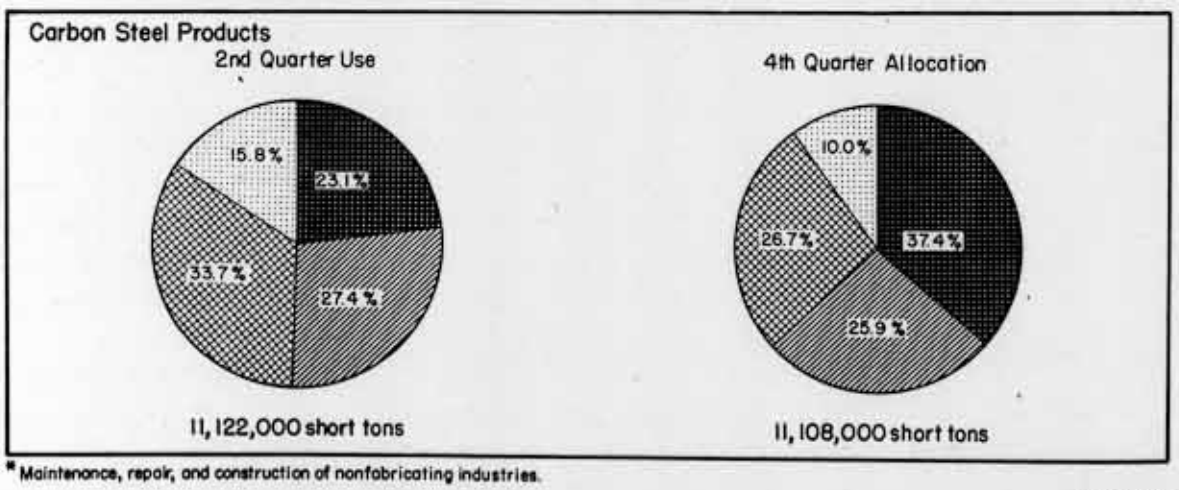
For footnotes see Page 18.

THE REQUIREMENTS COMMITEE CUTS THE METAL PIES —

Apportionment for military end items in fourth quarter greatly exceeds use in second quarter;







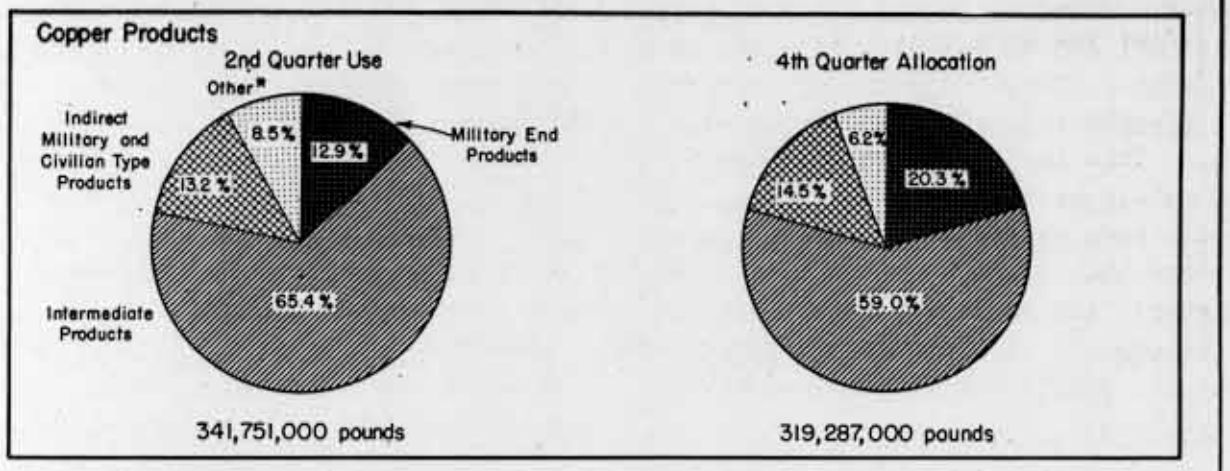
* Maintenance, repair, and construction of nonfabricating industries.

WAR PROGRESS

MOVEMENT OF METALS INTO MILITARY PRODUCTS IS BECOMING INCREASINGLY PRONOUNCED. IN THE SECOND QUARTER ONLY ONE METAL GROUP—BRASS AND BRONZE—WAS USED TO A GREATER EXTENT IN MILITARY THAN IN CIVILIAN-TYPE PRODUCTION. BUT THIS QUARTER TWO OTHER METALS WILL GO MAINLY INTO FIGHTING STUFF—ALLOY STEEL (65%) AND STAINLESS STEEL (58%). ALLOCATIONS FOR MILITARY AND INTERMEDIATE PRODUCTS LEAVE RELATIVELY SMALL SUPPLIES FOR CIVILIAN-TYPE PRODUCTS—12½% OF ALL ALLOCATED BRASS AND BRONZE, 20% EACH OF ALLOY

—AND ALLOTMENTS TO "FIGHTING STUFF" INCREASE SHARPLY

intermediate products bulk large, however.



*Maintenance, repair, and construction of nonfabricating industries.

WAR PROGRESS

STEEL, STAINLESS STEEL, AND COPPER PRODUCTS, AND ABOUT 35% OF CARBON STEEL AND ZINC. AND, OF COURSE, MANY CIVILIAN-TYPE PRODUCTS GO TO THE ARMED SERVICES.

THE INCREASING TREND OF METALS TOWARD MILITARY END PRODUCTS IS AN INDICATION OF THE CONVERSION OF INDUSTRY TO WAR. HOW MUCH FURTHER WE SHALL HAVE TO GO ON THAT ROAD WILL BE REFLECTED IN THE ALLOCATIONS FOR THE FIRST QUARTER, 1943, WHETHER OR NOT PRP OR SOME OTHER MATERIALS CONTROL SYSTEM IS THEN IN EFFECT.

manufacturers were allocated 29% of requests, and producers of electric appliances 18% of requests. And so it went (table, below).

In setting up allocations, the Requirements Committee sets aside reserves for exports and reserves for noncoverage. This last includes an allowance for metals used in construction, for metals used by small businesses (users of less than $5,000 worth of metals per quarter), and an allowance for emergency allotments and late-arriving applications. Fourth-quarter allotments were as follows:

Products	Allocations	Exports	Noncoverage
Magnesium.	100.0	No set limits	
Aluminum..	90.0	—	10.0
Steel:			
Stainless	85.2	4.0	10.8
Alloy....	83.4	8.1	8.5
Carbon...	77.2	15.4	7.4
Copper*...	81.6	9.5	8.9
Zinc.....	52.1	41.9	6.0

* Includes copper content of brass, bronze, and copper products.

Except for military end products, PRP processors will follow Requirements Com-

Clamping Down on Civilian Production

WHAT PART OF CIVILIAN PRODUCTION is essential? The answer to this question will vary at different stages of the war. But what is essential now--in the fourth quarter of 1942—has been quite definitely indicated by the Requirements Committee's allocation of metals to the producers of civilian-type goods. The cuts made in the metal requests for such goods are illustrated below. Severe as these cuts are, they do not constitute the last word in fourth-quarter curtailment of civilian-type production. The Office of Operations will scrutinize allocations, and, where it is possible, make further curtailments or withdraw allocations altogether--just in case the requests have been unduly inflated.

% BY WHICH ALLOCATIONS WERE LOWER THAN REQUESTS

	Carbon Steel	Alloy Steel	Stainless Steel	Copper	Brass & Bronze	Zinc
Metal bottle caps.....	75%	48%	90%	62%	46%	46%
Tin cans.....	51	42	84	34	36	36
Sheet metal work.....	61	62	80	69	60	60
Lighting fixtures.....	56	66	71	70	71	71
Electric appliances.....	70	50	30	82	82	82
Household refrigerators.....	87	100	--	90	90	90
Domestic laundry equipment.....	68	70	93	33	53	53
Metal office, mess furniture...	72	52	90	51	50	50
Agricultural machinery.....	54	62	90	51	57	57
Oil field machinery equipment..	50	57	70	53	45	45
Food products machinery.....	65	65	90	64	59	59
Textile machinery.....	70	73	90	80	72	72

mittee industry-by-industry allocations. Thus, the allocation of 85,000 tons of carbon steel to manufacturers of internal combustion engines may not be increased; however, one manufacturer may get a smaller proportion of his request than another, if his inventories are high.

In the case of military end products, interindustry shifts can take place, though the total quantity stays fixed. Thus, in the fourth quarter, 4,152,000 tons of carbon steel are allotted to military end products. That total may not be raised, but at the request of the armed services and the Maritime Commission, shifts may be made within end-product groups. Thus, steel allocated to tanks may be increased while steel for guns may be decreased, or vice versa.

Production Spotty in September

Airplane production shows 10% gain in dollar volume, less than 1% in units, but is far below the forecast. Minor combat vessels drop. Ordnance results are mixed.

PRELIMINARY FIGURES on September munitions output suggest a decidedly spotty performance. As might be expected, gains over August were general; but once again actual results fell far behind forecasts for a majority of items. No overall estimate of output was possible as War Progress went to press, but it hardly seemed likely that the increase over August would run much above last month's 6%.

Acceptances of airplanes were up less than 1% over August. Forecasts, however, continued to climb sharply, and physical output came to only 86% of the schedule. In dollar terms, the gain over August was 10%. This reflects the increasing proportion of heavier and more expensive types of planes, especially bombers.

M-4 TANKS

Ordnance was marked by sharp ups and downs. Most types of combat vehicles were produced in satisfactory quantities, even though a continuing shortage of tracks was a handicap. M-4 medium tank assemblies were just about at the forecast level, and 13% above the August rate. Most of the light tanks made good showings, as did scout cars and large personnel carriers.

Antiaircraft guns, generally, were up to or better than forecasts, though the important 90mm. mobile unit fell 21% short, failing for the first time in many months to approach or exceed expectations. The 105mm. howitzers were far below forecast, but the 75mm. tank gun ran 17% above. Small arms and infantry weapons also ran generally below the forecasts. Aircraft armament was for the most part up to schedule.

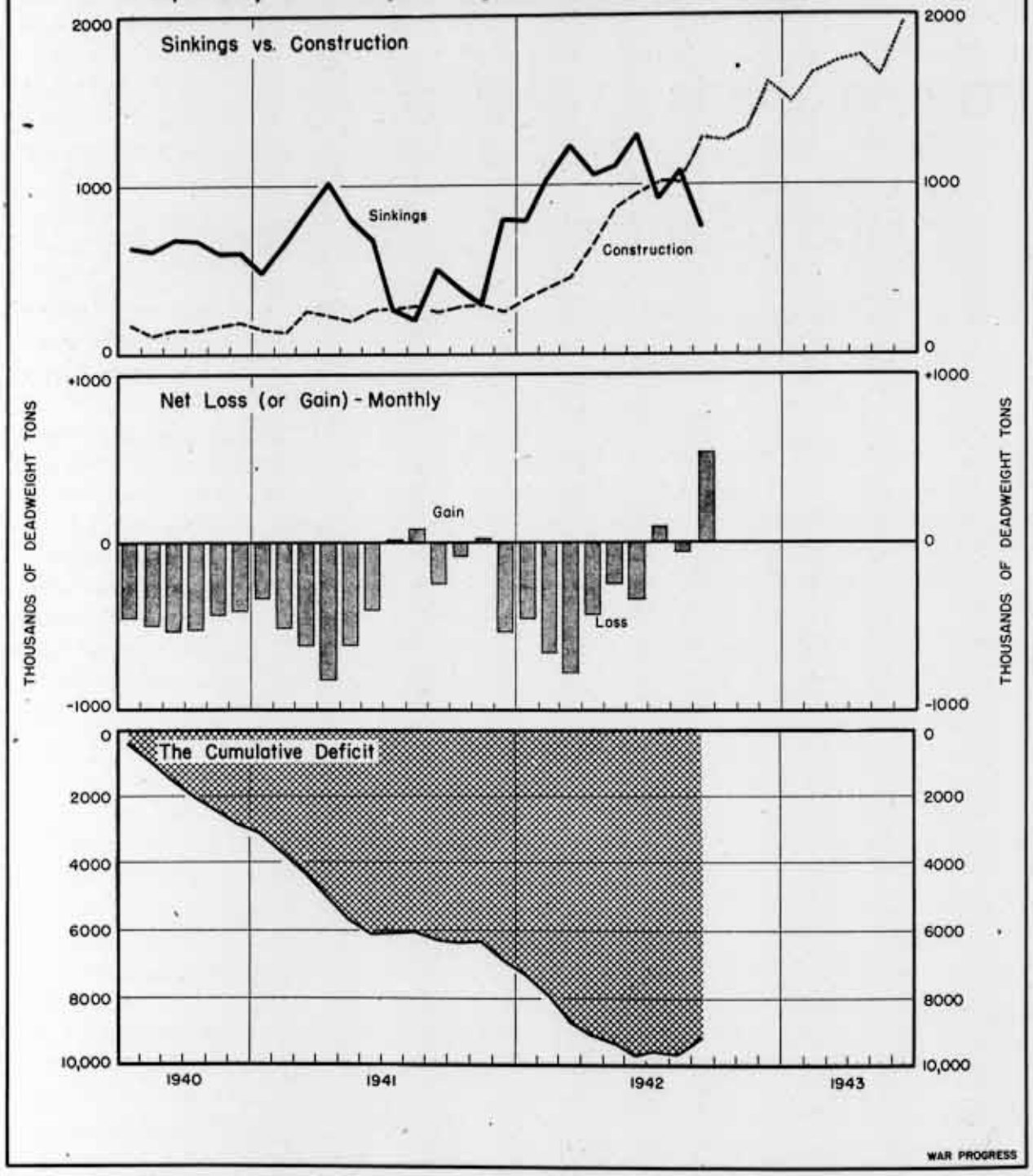
AMMUNITION, NAVAL SHIPS

Ammunition for field, tank, and anti-tank guns was loaded fairly close to schedule. During September, several types of rounds for heavy pieces--8-inch guns and 240mm. howitzers--were delivered for the first time. In most cases, loadings of aircraft ammunition exceeded forecasts.

Total deliveries of major combat vessels exceeded schedules and August actuals, but minor combat ships failed to keep pace either with forecasts or August deliveries. Fewer minesweepers, subchasers, and mosquito craft were turned over to the Navy than in August. The same was true of naval auxiliaries

SCORECARD ON MERCHANT SHIPPING

Construction of United Nations ships continues to rise. Sinkings drop sharply in September, but later reports may cut indicated gain in tonnage.



ADDITIONAL SINKINGS REPORTS RECEIVED RECENTLY HAVE CONVERTED AN AUGUST GAIN IN MERCHANT SHIP TONNAGE INTO A LOSS. LOW SINKINGS INITIALLY REPORTED FOR SEPTEMBER ARE LIKELY TO GROW SIMILARLY AS MORE NEWS COMES IN. BUT IT IS UNLIKELY THAT THE BIG TONNAGE GAIN NOW INDICATED CAN BE ENTIRELY WIPED OUT. THE SEPTEMBER RISE IN CONSTRUCTION FROM 1,000,000 TO 1,265,000 TONS IS A FIRM GAIN; AND IF SINKINGS AVERAGE NO HIGHER THAN IN THE PAST SIX MONTHS, THE MERCHANT FLEET WILL MORE THAN HOLD ITS OWN.

and of most types of landing craft. Tank landing craft deliveries were substantially larger than the forecast, however, and were three times greater than in August. Large infantry landing craft were delivered for the first time.

As previously noted, deliveries of merchant ships set a world's record in September (WP-Oct2'42,p9). Fifteen more Liberty ships were delivered than in August. Deliveries of badly needed tankers were up from four to seven.

Carrying Coals to Newcastle

Crisscrossing of freight shipments wastes materials and manpower both nationally and locally. How England and Germany handle crosshaul problem.

IN WARTIME, crosshauling is a luxury. The Germans eliminated it almost automatically with their militarized economy that put an end to free movement of consumers' goods and appropriated the bulk of the country's transportation facilities for shipments to war fronts. England resorted to zoning to cut out crosshauling, compelling all consuming areas to draw supplies from producers near at hand and forbidding shippers to ship across zone lines. In this respect, concentration of British industry helped simplify the problem.

BIG SAVINGS ALREADY

Precise studies of crosshauling are still to be made in the United States, but preliminary soundings indicate that overall savings of from 5% to 15% are possible. In sugar, for example, a recent OPA order aiming to spread available supplies by means of distribution zones coincidentally eliminated 400,000,000 ton-miles of rail crosshauling per year—a saving of 16%.

Paper pulp offers another example of what can be done. WPB, working with actual orders of paper mills, has redirected them to nearer sources of supply in four grades of paper pulp and will save about 225,000 car-miles thereby in October—one-third normal mileage. The WPB directives accounted for 170,000 of these car-mile savings; the balance was worked out by the industry itself. Top saving possible in these four products is 400,000 car-miles per month.

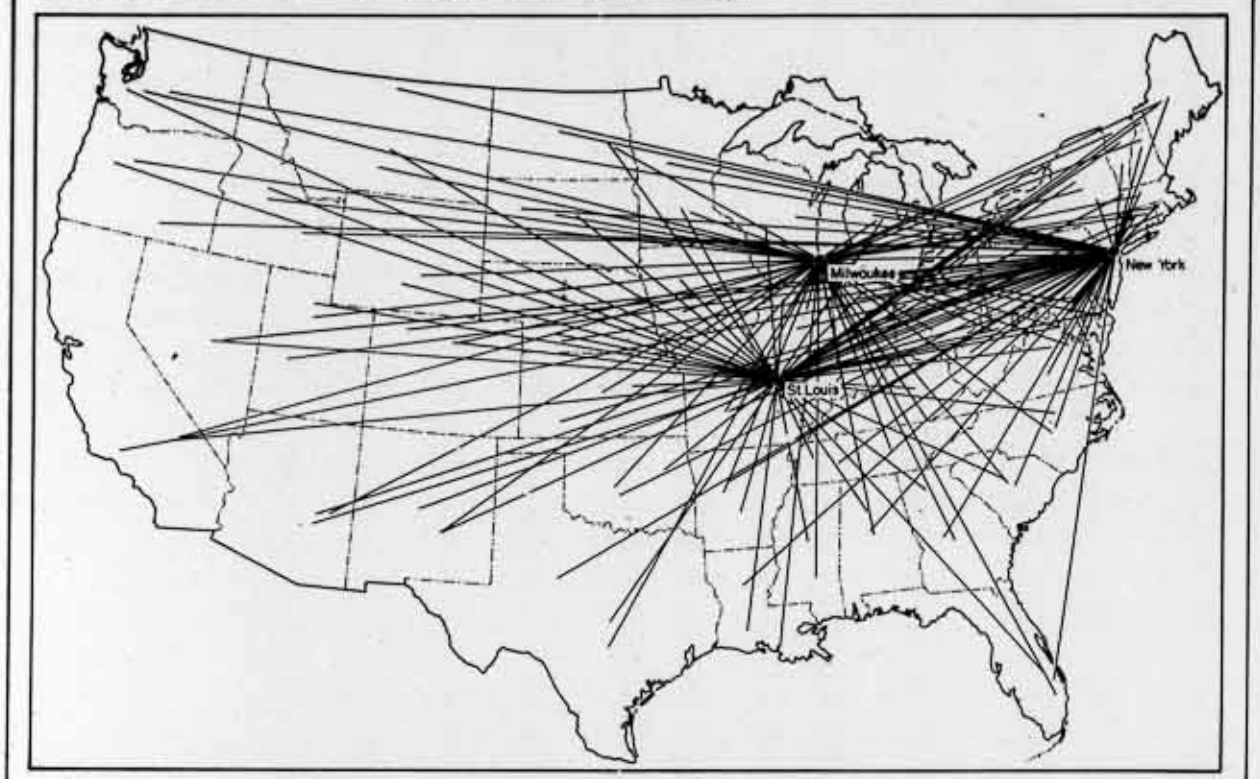
Some industries are honeycombed with crosshaul patterns. Shipments of 55-gallon steel drums are 15% crosshauled. During March, April, and May of this year, 28,416 tons of these drums out of total shipments of 182,693 tons were considered crosshauled. In other words, they went to or through zones where local producers could amply supply the receiver.

Beer is another case of crosshauling; the nationally distributed brands frequently move between two points at the same time. For every Milwaukean who likes Ruppert's, there's a New Yorker who must have his Pabst (map, page 12). Because they involve the return of empty bottles, beer shipments really amount to a double crosshaul.

COAL CROSSHAULS TO BE CUT

Major items of railroad freight—like bituminous coal, iron and steel--are subject to widespread crosshauling, as yet of undetermined amount. In normal times differences in grade and performance result in zigzag movements of bituminous coal, but war needs may override considerations of optimum efficiency in production in order to achieve optimum efficiency in transportation.

BALLANTINE'S TO MILWAUKEE, PABST TO ST. LOUIS, BUDWEISER TO NEW YORK – A study in crosshauling of beer.



BEER IS RELATIVELY ONLY SMALL BEER IN THE TRANSPORTATION PICTURE. MORE IMPRESSIVE TONNAGE TOTALS, AND POSSIBLY MORE CROSSHAULING BOTH IN VOLUME AND IN PERCENTAGE, CAN BE SHOWN FOR COAL, IRON AND STEEL, PETROLEUM, ETC. BUT BEER IS A PAT EXAMPLE OF PURE CROSSHAULING AND INVOLVES ALSO AN OUTSHIPMENT OF 91% WATER AND THE RETURN SHIPMENT OF EMPTY BOTTLES. THE MAP ABOVE SHOWS HOW THREE BRANDS OF BEER—PABST (MILWAUKEE), BALLANTINE'S (NEWARK) AND ANHEUSER-BUSCH (ST. LOUIS)—SHIP INTO EACH OTHER'S BAILIWICKS.

The iron and steel industry is the biggest contributor of long hauls and probably also of crosshauls on a tonnage basis--partly because of the basing-point system of pricing and old established trade relationships. ODT charts of iron and steel movements suggest the possibility of reallocating orders among rolling and finishing mills to bring the actual consumer nearer the supplier. There is considerable interpenetration of markets in this field.

A seasonal crosshaul situation exists in oranges; Florida and California growers compete for eastern markets between October and May. In the case of this commodity, considerable price and quality differentials are involved, but a number of crosshauled branded consumers' goods are identical in price as well as type.

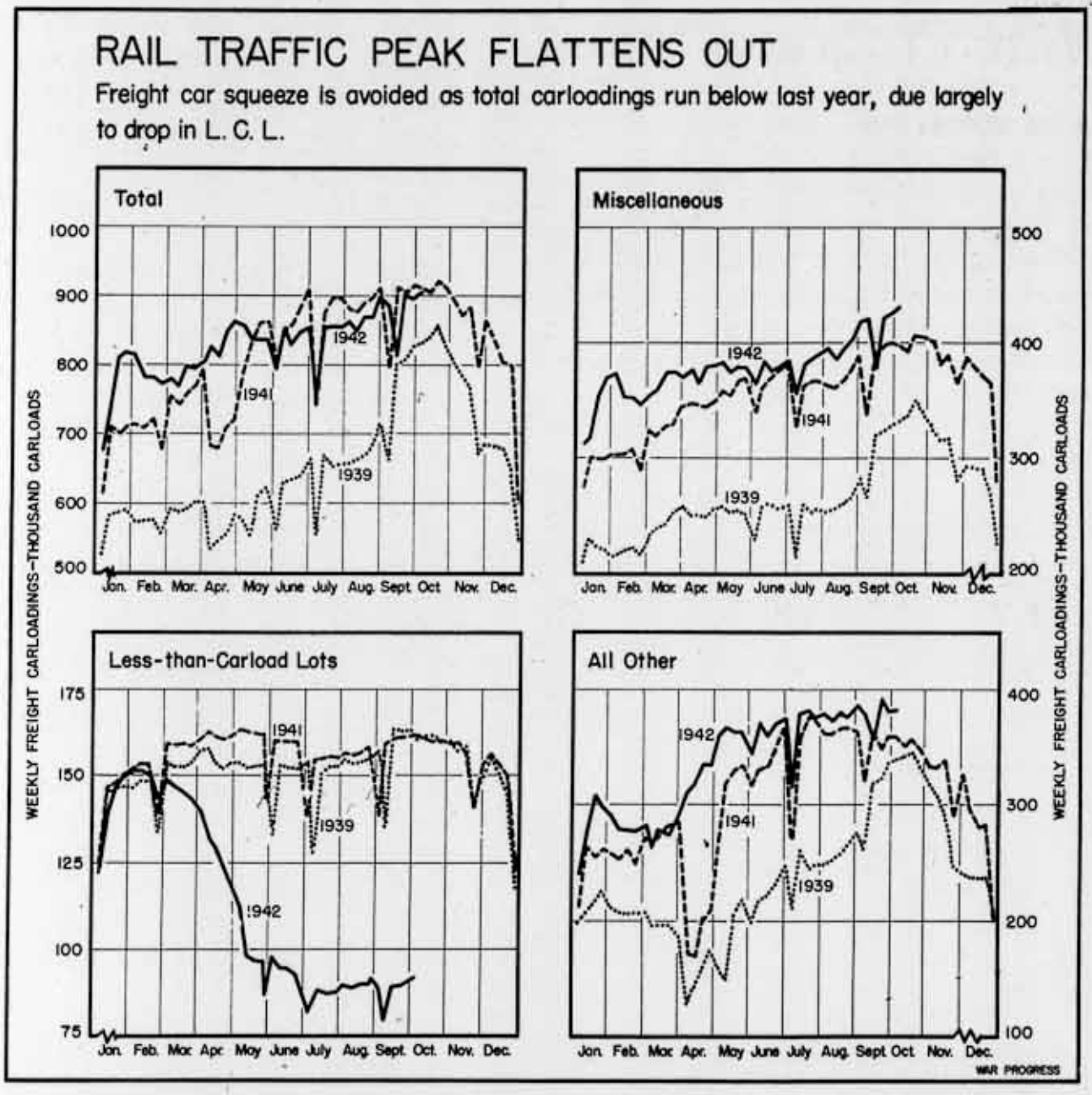
REDUCE LOCAL CROSSHAULS

Crosshauling is a local problem, too. By consolidating deliveries, Hartford, Conn., milk truck mileage, for example, could be cut more than 85%—from 5,000 to 700 miles daily. In New York City, it was found that by consolidating deliveries of 12 department stores, 53 trucks would do the work of 100; mileage could be cut 60%, helpers 17%, and stops 20%.

If the United States comes around to

concentration of industry (WP-Sep18'42, p6) considerable curtailment of cross-hauling would follow almost as a matter of course—as in England, concentration would tend to zone production, hence shipments. This applies especially to the consumers' goods field. Here "L" and "M" orders have curtailed output, thereby reducing the aggregate volume of waste railroad and truck motion, though not necessarily the percentage.

Direct transportation allocations



U. S. RAILROADS GOT PAST THE FALL TRAFFIC PEAK LAST YEAR WITHOUT ANY ACUTE SQUEEZE, AND THIS YEAR THEIR PROBLEM IS A LITTLE EASIER. FREIGHT CARLOADINGS IN RECENT WEEKS HAVE BEEN RUNNING SLIGHTLY LOWER THAN A YEAR AGO; LAST WEEK, THEY WERE 1.1% LESS THAN IN THE LIKE WEEK OF 1941. TO HANDLE THE LOAD, THE RAILROADS HAVE ABOUT 5% MORE CARRYING CAPACITY AND TRACTIVE POWER THAN LAST YEAR. CHIEF REASON FOR THE DROP IN NUMBER OF CARS LOADED IS THE LARGER AMOUNT BEING CARRIED IN EACH L.C.L. CAR UNDER THE ODT ORDER OF LAST SPRING, WHICH REQUIRED A STEPUP TO SIX, EIGHT, AND THEN TEN TONS MINIMUM LOAD. TIGHTER LOADING OF OTHER CARS AND ANTICIPATION OF COAL NEEDS HAVE ALSO HELPED FLATTEN THE AUTUMN PEAK.

would cut to the heart of the problem, but they would require intensive study of order books, and certainly are not on the docket as yet.

However, as centralized control over raw materials develops into a finer art than it is today--if and as a central allocations board directs the flow of materials to particular industries and factories--transportation routes will unquestionably be taken into account and crosshauling reduced considerably.

War Progress Notes

AFTER DEHYDRATION, COMPRESSION

FOOD DEHYDRATION has been a great shipping spacesaver. Now science is trying to go a step farther--by compression of dehydrated products. Problem is to compress before foods are thoroughly dehydrated and later to rehydrate. For instance, powdered eggs have not been compressed because they cannot be rehydrated satisfactorily. Dehydration of meat is being studied and 40 tons have been produced as a sample. Dehydrated and compressed foods cannot be used under all conditions--because water is not everywhere in adequate supply, as in desert operations.

MINES NEED MEN

U. S. OUTPUT of several critical metals lags from 5% to 25% for lack of labor to mine them. Better-paying war jobs--and also the armed services--are pulling men out of the mines. Adequate manpower could increase copper production 5%, molybdenum 16%, manganese 20%, zinc 20%, and tungsten 25%.

Incidentally, miners around Climax,

KEY STATISTICS OF THE WEEK

	Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
War program - Checks paid (millions of dollars)	1,253	1,308	1,254	690	335
War bond sales (millions of dollars)	243	196	167	126	67
Commodity prices (August 1939 = 100)					
28 Basic commodities	169.9	169.4	167.5	167.2	155.3
Controlled	161.3	161.2	161.2	162.0	155.4
Uncontrolled	191.4	190.0	183.5	181.0	156.1
Nonferrous metal scrap	115.8	115.8	115.8	132.5	133.2
Petroleum carloadings (no. of tank cars)					
Total	52,848	55,788	54,312	54,750	48,848
Movement into East	25,389	27,851	27,495	16,335	4,099
Exports (no. of freight cars unloaded for export Friday)					
Atlantic Coast ports	1,317	1,354	1,612	1,823	1,687
Gulf Coast ports	304	271	287	434	423
Pacific Coast ports	787	829	626	306	243
Strikes affecting the war effort					
Number in progress	7	13	24	n.a.	n.a.
Man-days lost	9,505	18,674	36,095	n.a.	n.a.
Unused steel capacity (% operations below capacity)	1.4	2.7	3.6	1.4	1.9

n.a. Not available

Col.--our leading molybdenum-producing region--have been leaving their jobs for higher-paying work at nearby Panda, where the Army is building a camp for ski-troopers.

STEEL PLATE SLIPS

STEEL PLATE SHIPMENTS in September totaled 1,062,000 tons, the second drop in a row since October, 1941, when shipments of 593,150 tons started a succession of monthly peaks. The trend this year has been as follows:

Month	Approx. Shipments (thousands of tons)
January	755
February	759
March	879
April	896
May	1,021
June	1,051
July	1,124
August	1,098
September	1,062

The decline in August reflected a flood which curtailed production at one plant; September shipments were down because of heating-furnace trouble at another.

IF AT FIRST YOU DON'T SUCCEED

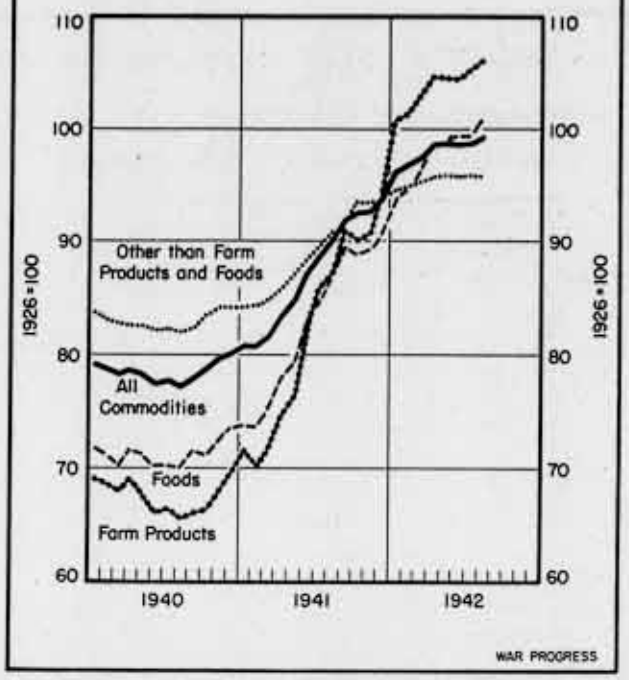
SARAN, ONE OF Dow Chemical's newer plastics, has great tensile strength and resistance to water. Considered as a possible substitute for metal in cold-water pipe, it was put to a test by WPB, which placed it near rats. The rodents made a meal of the first experiment.

TRADING LEAD FOR ZINC

UNDER A PROPOSAL now being studied, Australia--one of the largest zinc-lead producers in the British Empire--would mine more zinc (at the expense of lead) and ship it to the United States to relieve our shortage. Australia's lead deficit would be made up by shipments from our growing government stockpile--now around 225,000 tons, or some three months' supply.

FARM PRICES LEAD THE REST

They started lower and now they are much higher; what's more, the trend is still up.



EVER SINCE PRICE CEILINGS WERE INSTITUTED IN MID-MAY, PRICES OF INDUSTRIAL COMMODITIES, WHICH ARE COMPLETELY CONTROLLED, HAVE BEEN STABLE. HOWEVER, FARM PRODUCTS, LARGELY UNCONTROLLED, HAVE CONTINUED TO RISE SHARPLY. THE EFFECT HAS BEEN NOT ONLY TO INCREASE THE COST OF LIVING (NOTE THE MOVEMENT OF FOOD PRICES) BUT ALSO TO PUSH UP ALL COMMODITIES.

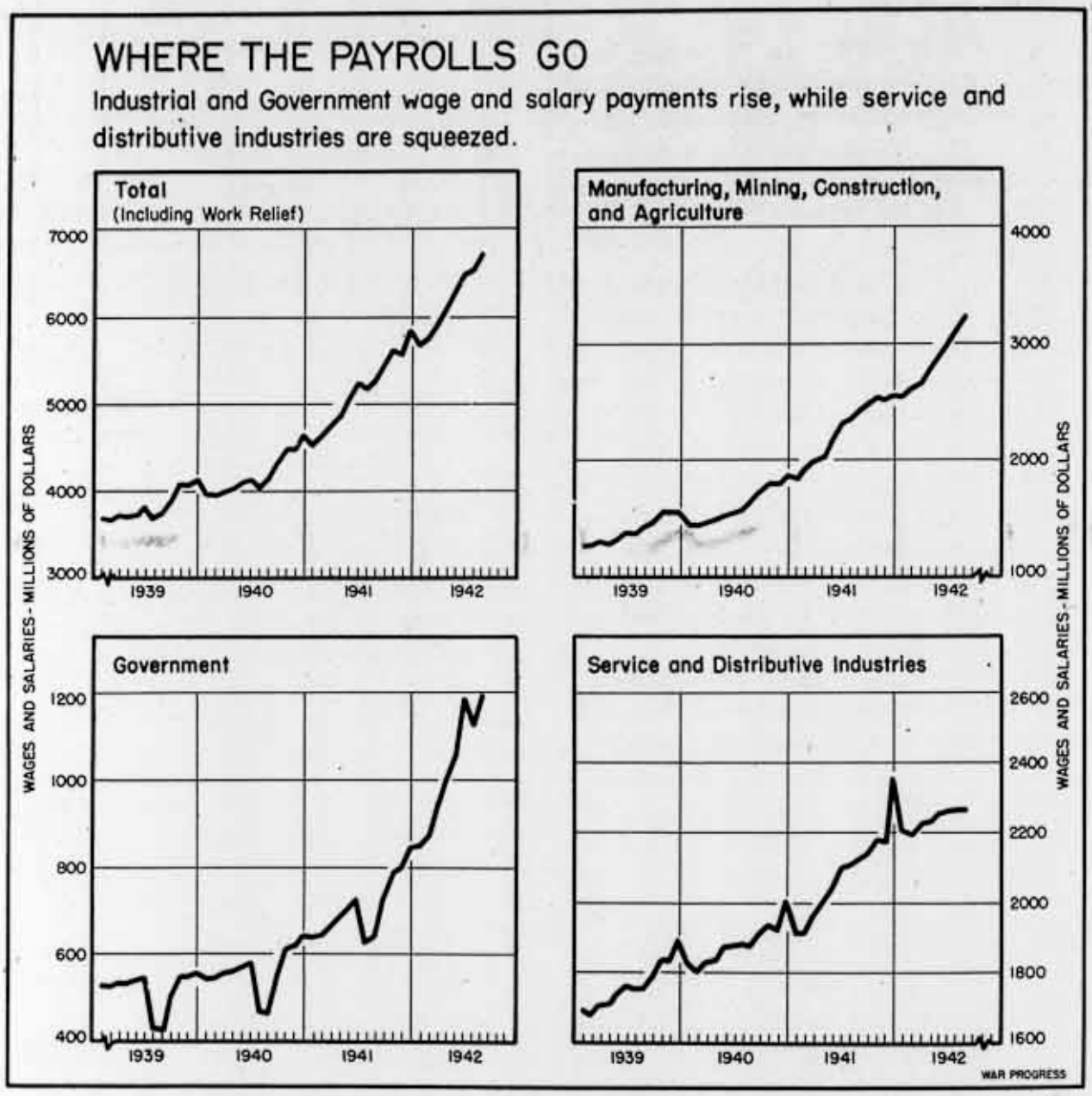
RETAIL STOCKPILE

IN CONTRAST to last year, when the scramble to build up inventories continued through the summer, stocks of goods in distributors' hands have been declining. Wholesalers' stocks continued to rise until February of this year, when the combination of heavy stocking by retailers and limitation of production on a long line of civilian goods finally reversed the trend (chart and table, page 18). By drawing on wholesalers,

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
	d		BREAKDOWN OF AGENCIES			
UNITED STATES FINANCED WAR PROGRAM						
Program	37,075	76,508	P 170,288	0	P 5,615	P 44,252
Uncommitted balance	9,274	23,979	P 40,290	-	-	-
Contracts and other commitments	27,801	52,529	p 129,998	P 9,731	P 12,098	n.a.
Checks paid	6,431	15,251	P 34,510	3,880	P 4,123	P 4,794
U. S. ARMY						
Program	13,134	31,981	P 84,468	0	P 0	P 42,090
Contracts and other commitments	11,404	23,334	P 70,402	P 6,138	P 8,397	n.a.
Checks paid	3,636	7,889	15,649	1,497	1,662	n.a.
U. S. NAVY						
Program	12,308	20,024	P 47,990	0	P 4,355	P 0
Contracts and other commitments	11,182	16,327	P 32,325	P 1,971	P 2,361	n.a.
Checks paid	2,217	4,726	10,128	1,229	1,237	n.a.
LEND-LEASE						
Program	7,000	12,985	P 18,410	0	P 0	P 0
Allocations	5,177	11,345	14,085	508	-281	n.a.
Contracts and other commitments	2,458	6,282	10,665	305	484	n.a.
Checks paid	21	910	4,099	626	665	n.a.
U. S. MARITIME COMMISSION						
Program	784	2,734	P 7,654	0	P 1,070	p 0
Contracts and other commitments	886	1,724	P 6,333	608	P 631	n.a.
Checks paid (Net)[e]	44	156	642	93	114	n.a.
RFC AND SUBSIDIARIES						
Program	2,623	5,130	P 7,704	0	P 0	P 0
Contracts and other commitments	1,151	3,569	P 7,916	P 509	P 0	n.a.
Checks issued by RFC	350	956	P 2,510	327	P 300	P 300
OTHER U. S. AGENCIES						
Program	1,226	3,654	P 4,062	0	P 190	p 2,162
Contracts and other commitments	720	1,293	P 2,357	P 200	P 225	n.a.
Checks paid	163	614	1,482	108	145	n.a.
FOREIGN ORDERS						
Program (Orders)	3,786	4,096	P 4,096	0	P 0	P 0
Commitments	3,786	4,096	P 4,096	0	P 0	P 0
Checks issued by Purchasing Missions	2,105	2,714	P 3,052	45	P 33	P 30

retailers have managed to keep pace with consumer buying. Though the amount of goods on merchants' shelves is below the May peak, it has not changed for three months; however, it may soon begin to reflect the depletion of wholesale stocks, which cannot readily be rebuilt. Manufacturers' stocks continue to mount; the rapid expansion in war production has demanded increased inventories of raw materials and goods-in-process.



PAYROLLS HAVE RISEN SHARPLY SINCE THE OUTBREAK OF THE WAR. SALARIES AND WAGES PAID TO MANUFACTURING, MINING, CONSTRUCTION, AND FARM WORKERS TODAY CONSTITUTE 35% OF TOTAL INCOME PAYMENTS, AGAINST ONLY 26% IN AUGUST, 1939. UNTIL RECENTLY, PAYROLLS IN SERVICE AND DISTRIBUTIVE INDUSTRIES HAD LIKEWISE BEEN ADVANCING, BUT NOT SO RAPIDLY. NOW THE RISE HAS STOPPED—WITH MEN BEING LOST TO THE ARMED SERVICES AND TO WAR INDUSTRIES AND WITH LESS GOODS TO DISTRIBUTE. THIS TREND IS LIKELY TO CONTINUE. GOVERNMENT PAYROLLS, WHICH HAVE NEARLY TRIPLED IN THE PAST THREE YEARS, KEEP ON RISING.

ECONOMIC TRENDS

National Income – Federal Finances – Construction

	Latest Month*	Preceding Month	2 Months Ago	6 Months Ago	Year Ago	Same Month 1939	Same Month 1937
NATIONAL INCOME							
Gross national product – annual rate (seasonally adjusted – billion dollars)	p155.4	p152.2	149.0	136.7	124.4	88.2	n.a.
War	p62.7	p58.0	49.9	29.4	15.4	-	-
Nonwar	p92.7	p94.2	99.1	107.3	109.0	88.2	n.a.
Income payments (million dollars)	p9,269	9,435	9,553	8,002	7,518	5,501	5,897
Salaries and wages–total	p6,721	6,545	6,498	5,746	5,263	3,724	3,862
Manufacturing, mining, construction, agriculture	p3,228	3,114	2,998	2,611	2,420	1,416	1,579
Service industries, including railroads and utilities	p958	959	959	942	909	760	775
Distributive industries	p1,303	1,298	1,298	1,250	1,218	992	1,010
Government	p1,197	1,129	1,190	871	636	421	385
Work relief wages	p35	45	53	72	80	135	113
All other income payments	p2,548	2,890	3,055	2,256	2,255	1,777	2,035
Income payments – annual rate (billion dollars)	p116.3	114.1	112.0	105.5	94.8	71.3	73.9
FEDERAL FINANCE (billion dollars)							
Expenditures–total	5.9	5.2	5.2	3.4	1.9	.7	.6
War	5.4	4.9	4.5	2.8	1.3	-	-
All other	.5	.3	.7	.6	.6	.7	.6
Receipts – total	2.5	.6	.8	3.6	1.1	.7	.7
Income tax	2.1	.2	.3	3.1	.8	.3	.5
All other	.4	.4	.5	.5	.3	.4	.2
Federal debt							
Gross debt	86.5	81.7	77.1	62.4	51.4	40.9	36.9
Balance in general fund	4.3	3.2	3.3	3.5	2.3	2.2	2.9
Net debt	82.2	78.5	73.8	58.9	49.1	38.7	34.0
Guaranteed obligations (excluding those owned by the Treasury)	4.6	4.6	4.6	5.7	6.9	5.4	4.6
Net debt and gtd. obligations	86.8	83.1	78.4	64.6	56.0	44.1	38.6
War bond sales – total funds rec'd (million dollars)	755	697	901	558	232	-	-
Series E	510	454	508	338	105	-	-
Series F	61	52	74	41	18	-	-
Series G	184	191	319	179	109	-	-
CONSTRUCTION (million dollars)							
Facilities - applications for certificates of necessity							
Total approved	p194	162	296	442	46	-	-
Private funds	p176	105	258	431	42	-	-
Public funds	p18	57	38	11	4	-	-
Pending	n.a.	n.a.	554	765	673	-	-

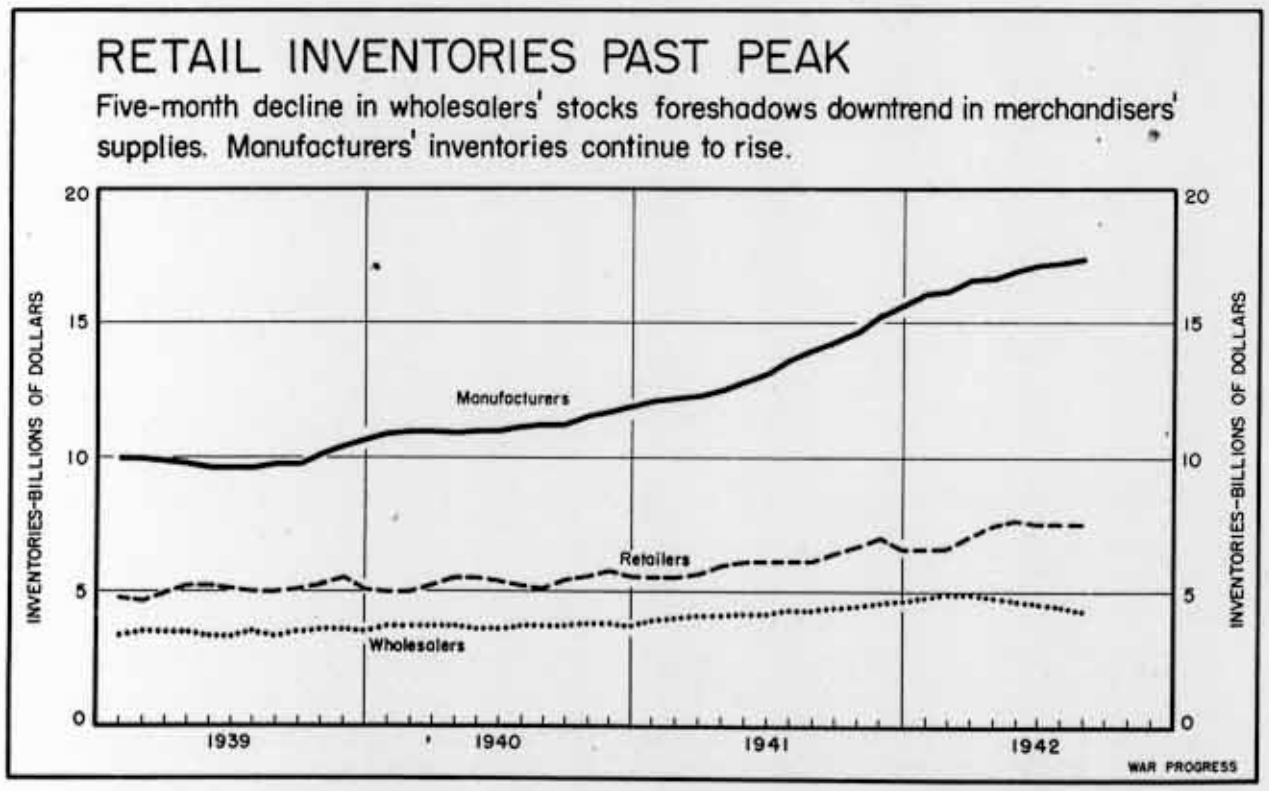
*August, except Federal Finance, which is for September. n.a. Not available. p Preliminary.

ECONOMIC TRENDS

New Orders, Shipments, Inventories

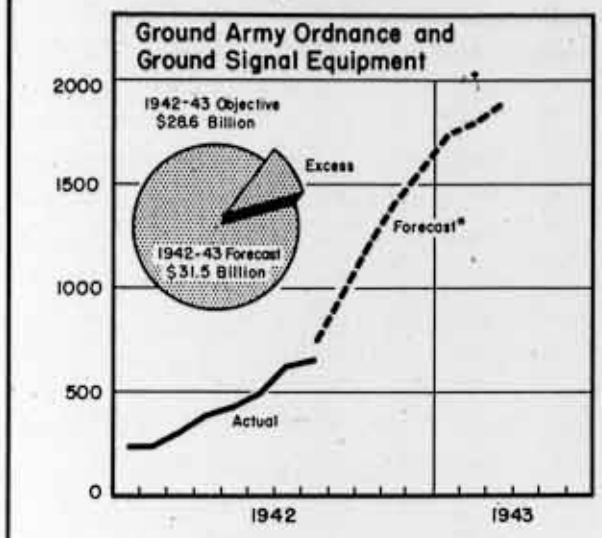
	Latest Month*	Preceding Month	2 Months Ago	6 Months Ago	Year Ago	Same Month 1939	Same Month 1937
NEW ORDERS, SHIPMENTS, INVENTORIES							
New orders-mfrs.(Jan. 1939 = 100)	p245	256	314	292	196	105	
Durable goods	p361	399	545	463	257	107	
Nondurable goods	p170	163	166	182	157	103	
Shipments-mfrs.(1939 avg. = 100)	p213	207	202	199	168	95	
Durable goods	p274	264	256	232	192	89	
Nondurable goods	p166	163	160	173	149	100	
Inventories (1939 avg. = 100)							
Manufacturers-total	p175.4	174.2	172.9	163.0	140.0	98.8	
Durable goods	p198.6	195.8	193.2	180.8	155.8	98.0	
Nondurable goods	p155.0	155.3	155.1	147.4	126.2	99.5	
Raw materials	p198.6	197.5	196.8	185.5	150.3	93.7	
Goods in process	p263.0	258.1	256.1	240.2	205.9	102.4	
Finished goods	p118.4	118.7	117.0	110.9	103.7	101.5	
Wholesalers	p124.2	128.0	132.5	139.2	124.0	98.6	
Retailers	p147.8	147.8	147.7	132.0	121.8	98.0	

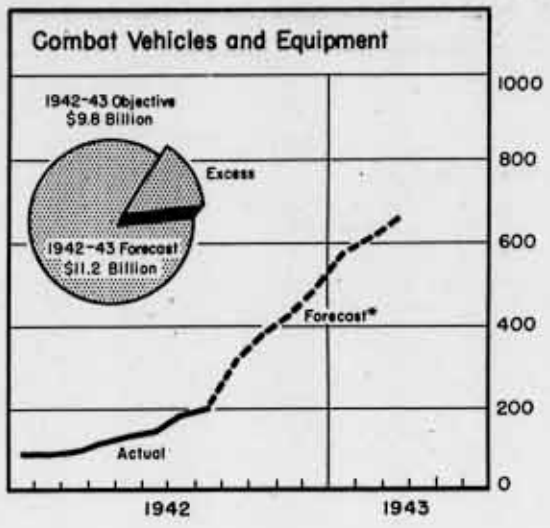
*August. p Preliminary.

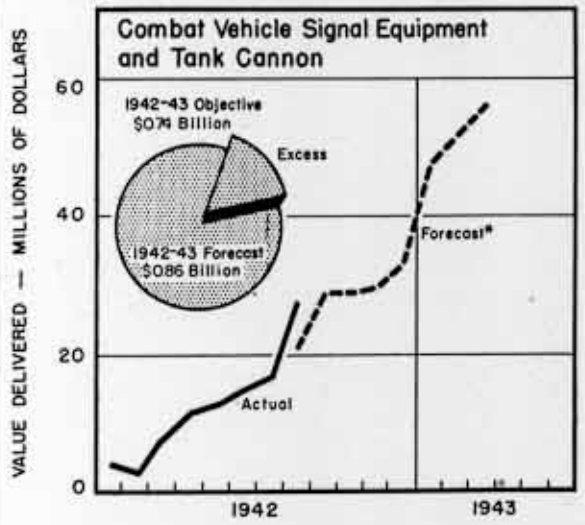


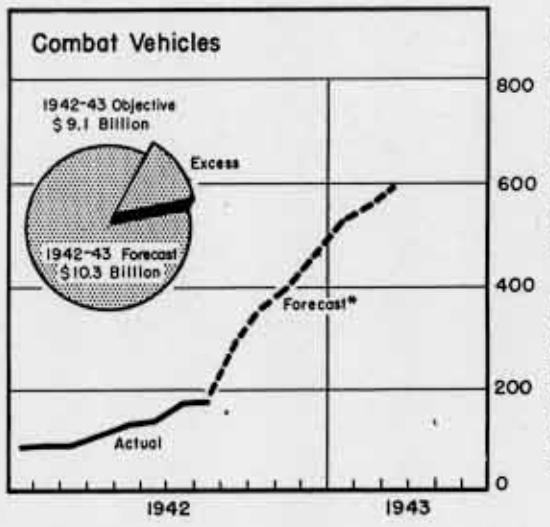
PRODUCTION PROGRESS

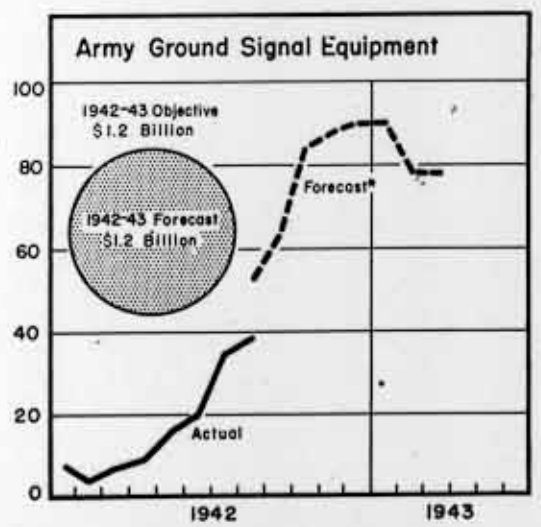
Ground Army Munitions

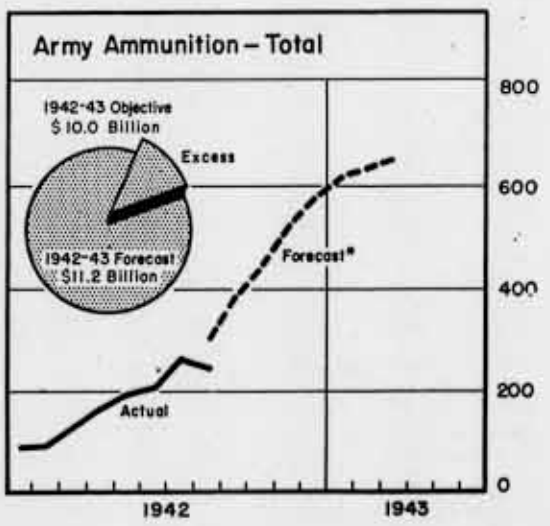










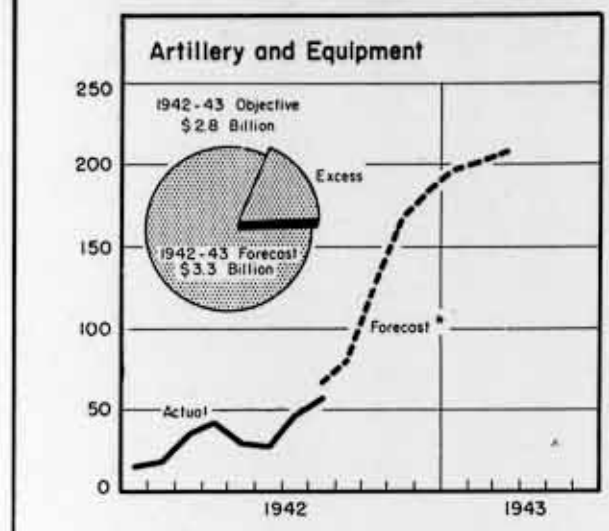


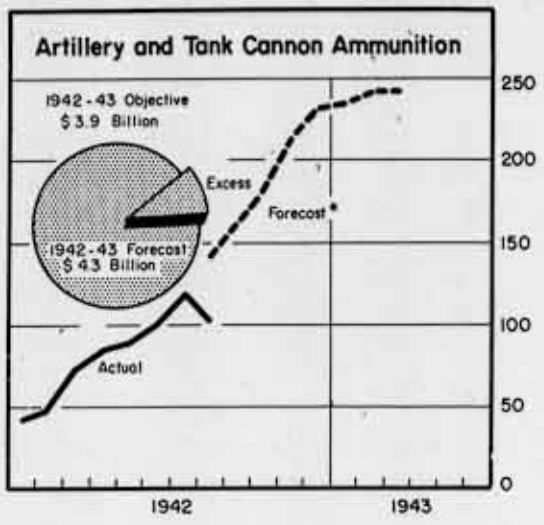
* Based on schedules of procurement agencies.

WAR PROGRESS

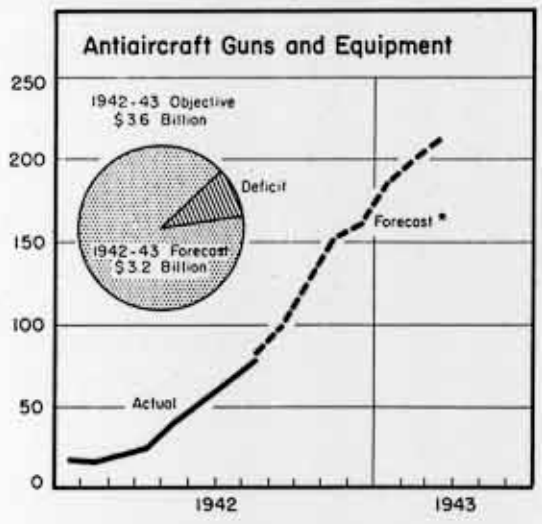
PRODUCTION PROGRESS

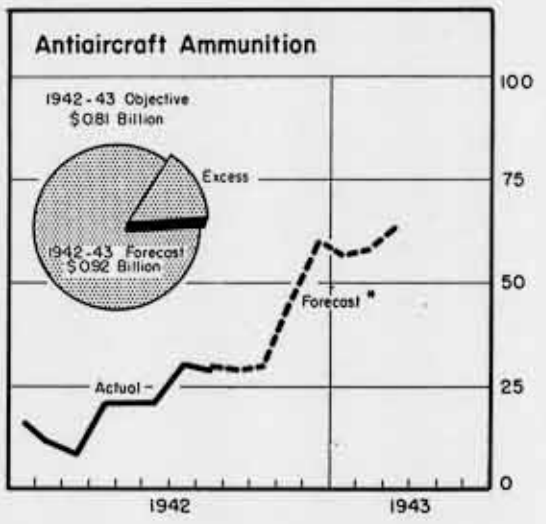
Ground Army Munitions (continued)





VALUE DELIVERED — MILLIONS OF DOLLARS





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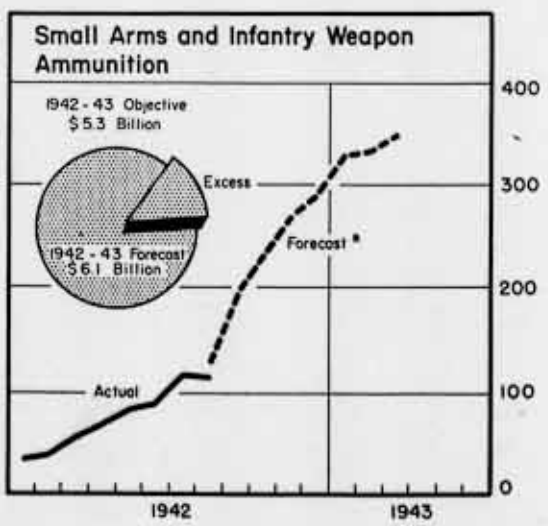


* Based on schedules of procurement agencies

WAR PROGRESS

Confidential
(British Secret)

War Production—Nine Months' Roundup

Number 109

October 16, 1942

Big 1942 Production Deficit Looms

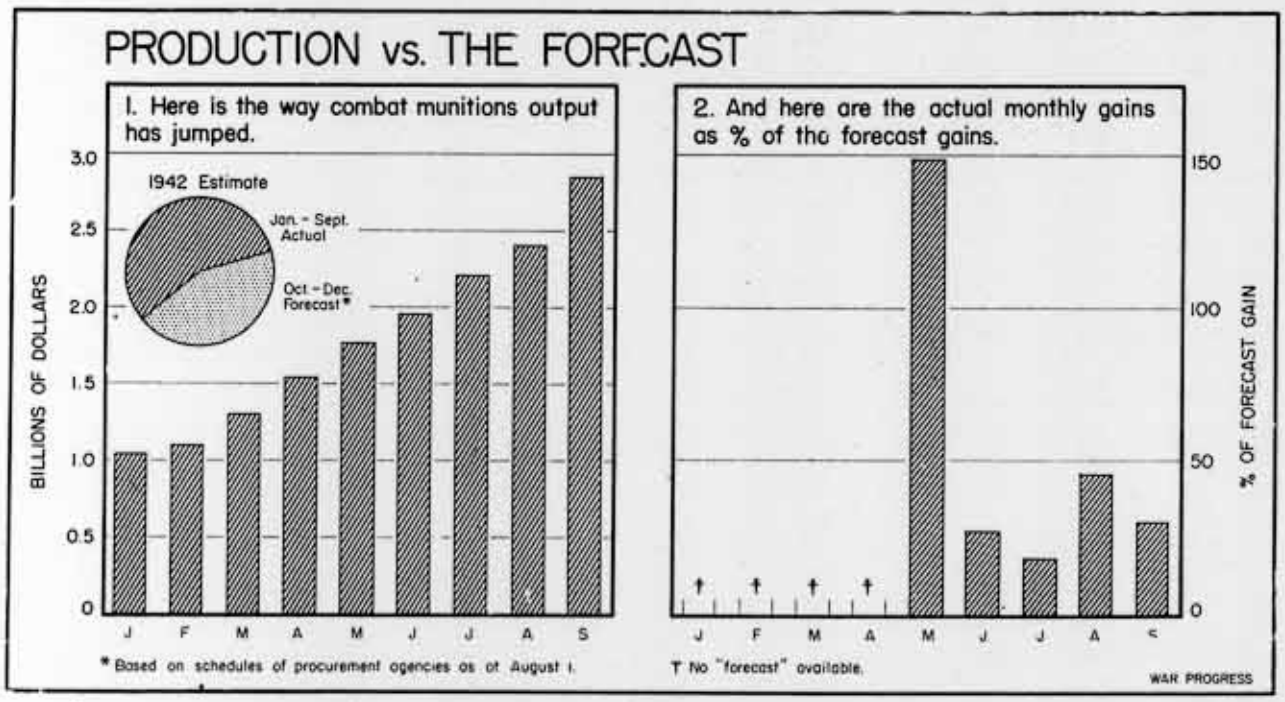
A 72% gain in fourth quarter output of combat munitions--"fighting stuff"--is needed to meet year's forecast; September rise of only 13% indicates prospect is poor.

IN THE FIRST QUARTER of this year, production of fighting items--total combat munitions--amounted to $3,425,000,000; in the second quarter, production jumped $1,850,000,000--or 54%--to $5,280,000,000; and in the third the rise was $2,000,000,000--or 38%--to $7,300,000,000. Thus quarterly gains have held steady--about $2,000,000,000; but percentagewise they're going down.

And to meet the forecast for the last quarter, combat munitions output will have to jump more than $5,000,000,000--or 72%--to $12,580,000,000. It would have to rise $8,000,000,000 to meet the year's objective. Thus the inference is that 1942 output will fall far short of the overall schedules or objectives of procurement agencies, especially since overall production last month ran about 20% behind the forecast as of August 1. On the basis of the September 1 forecast, the showing may be less discouraging.

SEPTEMBER PROJECTION

Lifted principally by mounting naval and army ship construction, combat munitions output jumped about 13% in September. If similar month-to-month gains could be achieved in the last quarter, overall combat munitions output would be 21% short of the quarterly forecast,



COMBAT MUNITIONS OUTPUT, MONTH-BY-MONTH, PRESENTS A NICELY PROPORTIONED STATISTICAL PICTURE OF STAIR-STEP INCREASES. BUT THE PRECISE PATTERN FALLS FAR SHORT OF THE FORECAST TEMPO. EXCEPT FOR MAY, GAINS IN OVERALL VALUE (DELIVERED OR PUT IN PLACE) OF FIGHTING STUFF—GROUND ARMY MUNITIONS, AIRCRAFT AND AIRCRAFT MUNITIONS, NAVAL AND ARMY VESSELS AND EQUIPMENT, AND AIRCRAFT AND AIRCRAFT EQUIPMENT—HAVE BEEN SHARPLY UNDER THE INCREASES CALLED FOR IN SCHEDULES LAID OUT BY PROCUREMENT AGENCIES.

though some categories--if they maintained their September rate of gains--might go over the top: naval and merchant ships and small arms and infantry weapons, for instance.

And for the most part, output in the fourth quarter must rise considerably to approach the year's forecast. Thus, in artillery and equipment and antiaircraft guns and equipment, final quarter production would have to exceed that of the first nine months if the full-year schedule is to be met.

The following table indicates the percentage of 1942 output which must be crammed into the final quarter to achieve the forecast.

Group	% Still to be Done to Achieve 1942 Forecast
Total combat munitions.....	46%
Aircraft & aircraft munitions.....	42
Combat planes.....	39
Service combat planes.	45
Trainers.....	30
Ground ord. & ground sig. equip.....	50
Combat vehicles & equip.....	49
Artillery & equip.....	59
Antiaircraft guns & equip.....	52
Small arms & infantry weapons.....	40
Army ammunition.....	48
Merchant vessels.....	36
Naval & army vessels..	42

Although output of combat munitions was spotty in September (WP-Oct9'42,p9), the month-to-month gain, at 13%, showed a sharp pickup over the July-August increase of only 9% in combat munitions.

UPTURN IN NAVAL SHIPS

A large part of the increase was accounted for by naval ships. In this category, however, the figures are of a highly preliminary nature, so later returns may force a readjustment. Big factor in the naval upturn has been the construction of landing craft, schedules of which have been advancing sharply. Actual deliveries in September fell below the forecast, but in August they were above expectations. And the program as a whole is moving forward rapidly.

The estimated August-September gain in naval and army vessels and equipment was better than 20% (the July-August advance was only 12%). But September value in place is estimated about 16% below forecast. On a value-in-place basis, merchant vessels gained 10% to exceed the forecast by 3%.

In contrast, ground army munitions were only up 4%, as compared with a July-August advance of 5%. Ground army munitions recorded an exceptionally sharp spurt in July, which showed a 28% gain. Thus, recent performance may to

IN THIS ISSUE:

PRODUCTION PROGRESS—Preliminary

Value delivered or put in place in September—millions of dollars.

	September Preliminary	August Actual	% Change	September Forecast*	September Preliminary as % of Forecast
Total munitions	n.a.	3,141	--	4,306	--
Combat munitions (a)	2,702	2,401	+13	(c)3,392	80
Aircraft and aircraft munitions	937	834	+12	1,153	81
Ground army munitions (b)	687	659	+4	1,003	68
Naval and Army vessels and equipment	848	699	+21	(c)1,013	84
Merchant vessels	230	209	+10	223	103
Combat planes	321	286	+12	385	83
Aircraft armament	28	29	-3	31	90
Aircraft ammunition	56	59	-5	104	54
Artillery and equipment	54	56	-4	81	67
Antiaircraft guns and equipment	86	78	+10	99	87
Small arms and infantry weapons	43	37	+16	41	105
Artillery and tank cannon ammunition	110	102	+8	161	68
Antiaircraft ammunition	33	28	+18	28	118
Small arms and infantry weapon ammunition	127	113	+12	198	64
Combat vehicles	184	177	+4	297	62

*Based on schedules of procurement agencies as of August 1. (a) Fighting Items: Aircraft and aircraft munitions: ground army ordnance and ground signal equipment; naval, army, and merchant vessels and equipment. (b) Ground army ordnance and ground signal equipment. (c) Adjusted. n.a. Not available.

some extent represent a so-called marking time at a sharply higher-than-in-June level of output. However, the fact remains that ordnance deliveries as a whole are running sharply below forecasts.

Some items are not getting into initial production on schedule. Though on the September docket, armored cars, for example, are still to be turned over to the Army. (That, in the nation which has produced 5,000,000 motor vehicles in a year!) Of 16 ordnance items scheduled to come into production in September, only four were actually delivered, and none of these four was produced in anywhere near the quantity anticipated. In all, ground ordnance and signal equipment were 32% below the forecast.

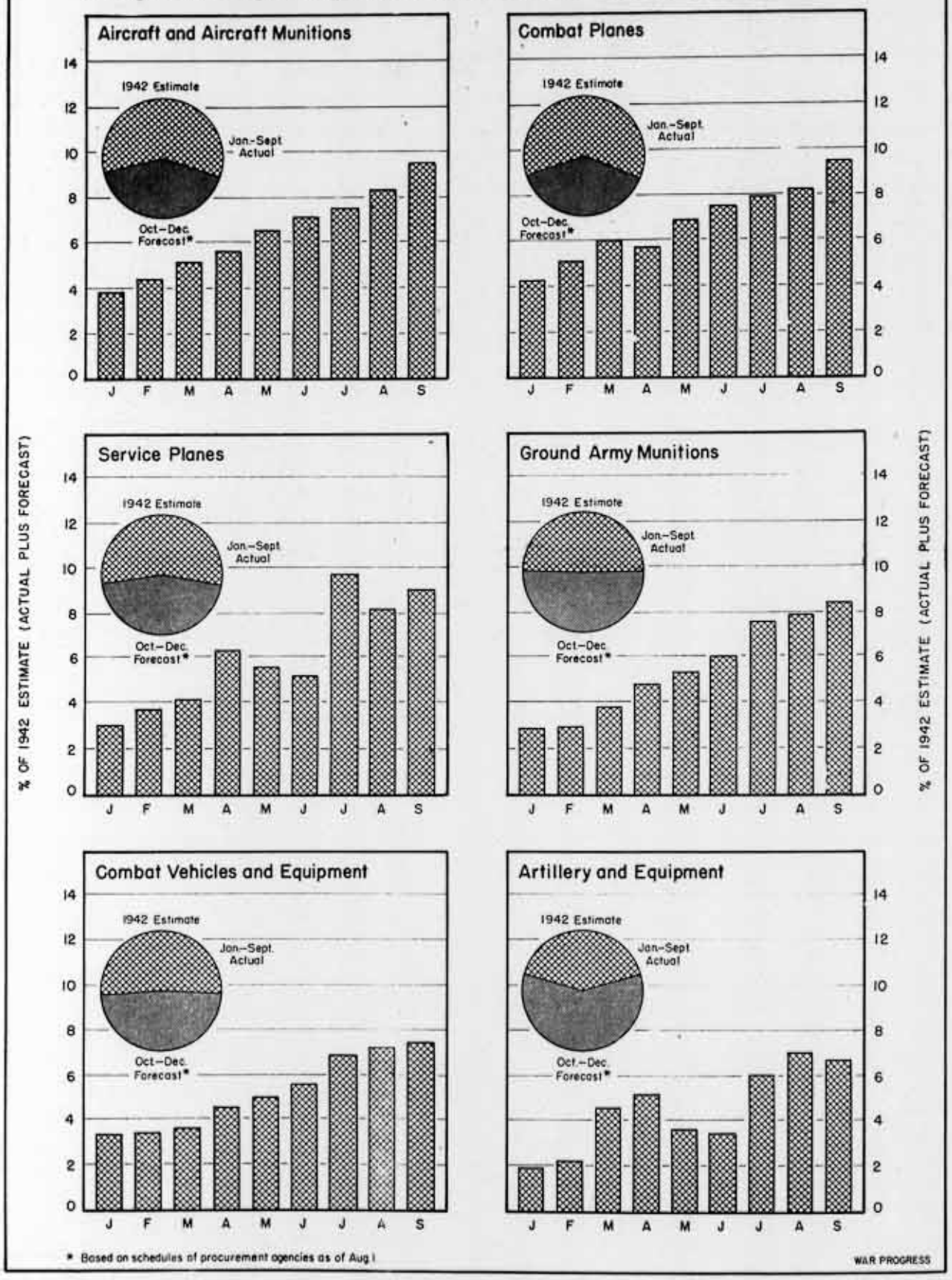
As previously noted, airplane acceptances in September were up less than 1% in number over August. In value terms, largely because of the greater proportion of four- and two-engined bombers, the gain in airplane acceptances was 10%. Production of aeronautical and air base equipment has been rising somewhat faster than aircraft output, and the month-to-month gain for aircraft and aircraft munitions and equipment was about 12% over August. (The July-August gain was 11%.) September overall output lagged 19% behind the forecast, combat planes, 17%.

SCHEDULES TOO LIBERAL

It is now clear that production of planes for the year will fall 7% to 10% short of scheduled output, and more than 20% short of the year's original objective. As the table shows, 39% of combat plane output must be jammed into the last quarter to meet the schedule. The overall 20% lag behind forecast in September re-emphasizes that scheduling of production has been far too liberal,

U. S. COMBAT MUNITIONS OUTPUT KEEPS GOING UP–

Changes from August range from a 4% decrease for artillery and equipment



* Based on schedules of procurement agencies as of Aug. 1

WAR PROGRESS

Confidential

(British-Secret)

War Output Picks up Speed, Despite Materials Shortages

Number 100

August 14, 1942

FOOTNOTES

WAR PROGRESS SERIES

n.a. Not available
r Revised.
P Preliminary

a Total war program includes all funds and authorizations made available for war purposes by the United States Government plus foreign orders placed in this country since November 1939. The major portion of the existing program has been approved since June 11, 1940, but some authorizations (particularly portions of the naval expansion program, the merchant shipbuilding program, and the stockpile program) were made available even earlier. All funds are shown during the fiscal year in which they are available for obligation.

b Value delivered and/or in place includes (1) value delivered and/or in place for ships and value of production for other munitions, (2) value in place for war construction, and (3) checks issued by finance officers for non-munitions items.

c Checks paid include (1) all checks paid out of the Treasury General Fund; (2) checks issued by the Reconstruction Finance Corporation and subsidiary Government corporations;(3) checks issued by foreign purchasing commissions.

d United States financed program includes the war activities of all United States Government agencies (including Lend-Lease) plus the war activities of government owned corporations, but does not include foreign orders.

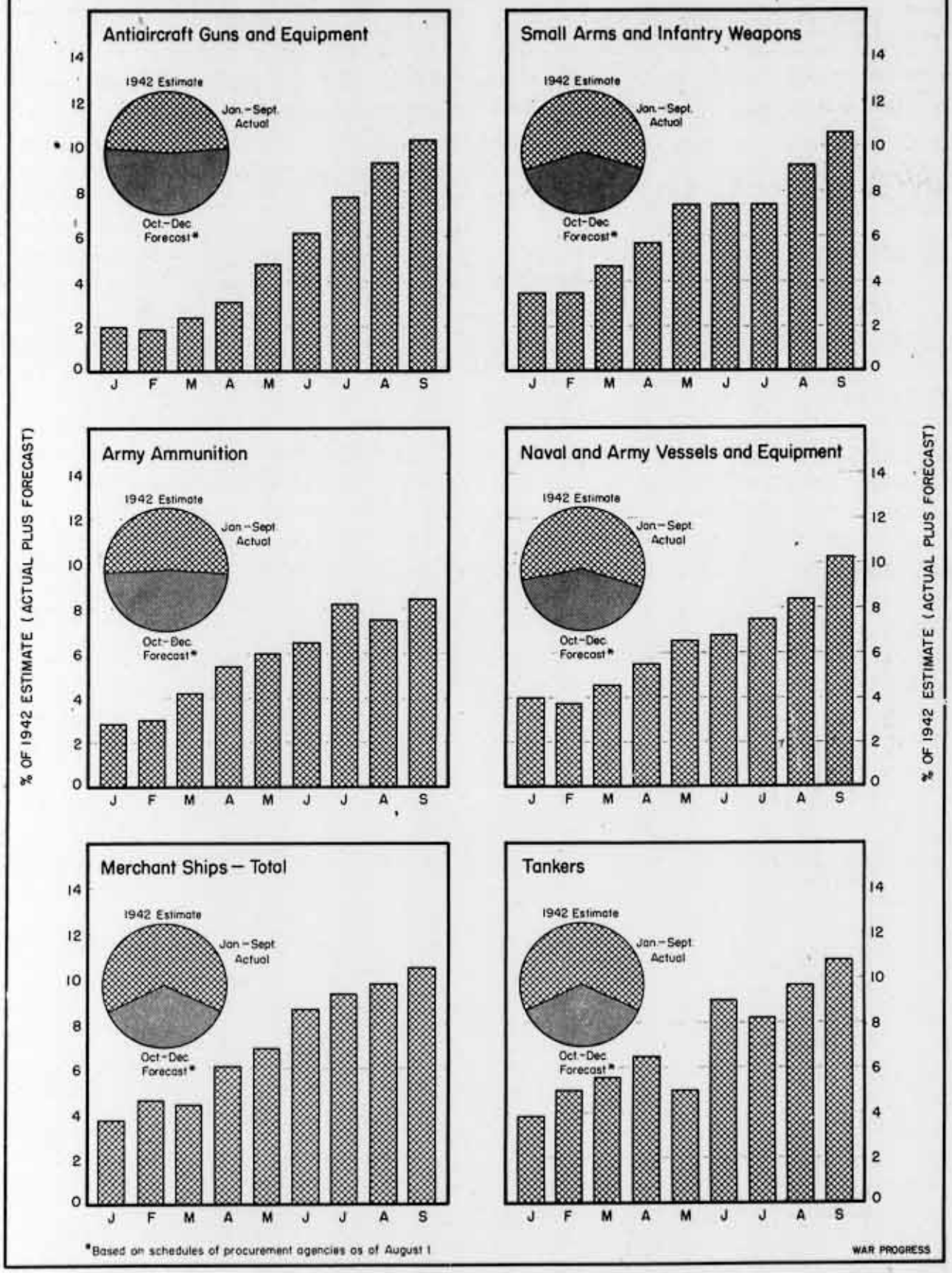
e Report on checks paid by the Treasury for the account of the Maritime Commission makes allowance for receipts credited to the Construction Loan Fund.

f Program and obligations for pay for civilians and for the Navy include only that specifically mentioned in appropriation bills, while the cash disbursement figures include, in addition, executive war pay which cannot be separately distinguished in the appropriation bills.

g Ordnance and naval ships figures revised back to January 1942. In comparing these with prior figures, ordnance and naval ships should be combined.

-BUT ITEM-BY-ITEM GAINS ARE FAR FROM UNIFORM

to a 20% gain for navy and army ships.



*Based on schedules of procurement agencies as of August 1

WAR PROGRESS

and it reiterates the need for more careful analysis of what our facilities can and cannot do with the raw materials at hand.

At the same time, the 13% increase in output of fighting items indicates that more raw materials are now going directly into munitions. This suggests that smaller amounts of critical materials are going into construction and civilian goods; it may also suggest that we are beginning to get more military end products out of the factory "pipelines" into which we have been pouring critical materials--the starting inventory for new plants--for so long.

War Building Minds Its Metals

Simpler designs, substitutes save steel, copper, zinc as construction volume is scheduled to drop 25% in 1943. But further conservation is needed.

PRELIMINARY ESTIMATES of 1943 construction of barracks, airfields, defense housing, shipways, war plants, defense highways, etc. (both in and out of continental United States) approximate $10,700,000,000 (excluding industrial machinery and equipment)--some 25% below the record-breaking 1942 total (chart, page 7). But the use of critical building materials is expected to decline even more sharply--from 29% for lead to 45% for structural shapes--as follows:

Material	% Decline in Construction Use, 1942 to 1943
Cast iron.....	32%
Copper.....	31
Lead.....	29
Lumber.....	34
Steel plates.....	35
Structural shapes.....	45
Zinc.....	30

In defense housing and public works, to be specific, dollar value will decline from $1,900,000,000 in 1942 to around $1,300,000,000 in 1943--a fall of 31%. The use of steel, however, will drop 48% (from 375,000 tons to 195,000 tons) and copper will be down 51% (from 16,200 tons to an estimated 8,000 tons).

Changes in the composition of the program will be a factor in the greater-than-dollar-value declines. War plant construction--which requires heavy structural materials--will be down 50%. But standardization, simplification, substitution, and lower specification requirements are also potent influences.

SHEDDING THE FRILLS

New specifications permit higher stresses, thus requiring lighter structural members to support given live and floor loads; standardization of building codes reduces requirements for plumbing, thus demanding less lead and cast iron; simplifications of design cut down on frills, thus eliminating copper and steel. Clay for soil pipe saves cast iron, reinforced concrete for storage tanks saves steel plate, lumber for industrial plants saves structural and reinforcing steel.

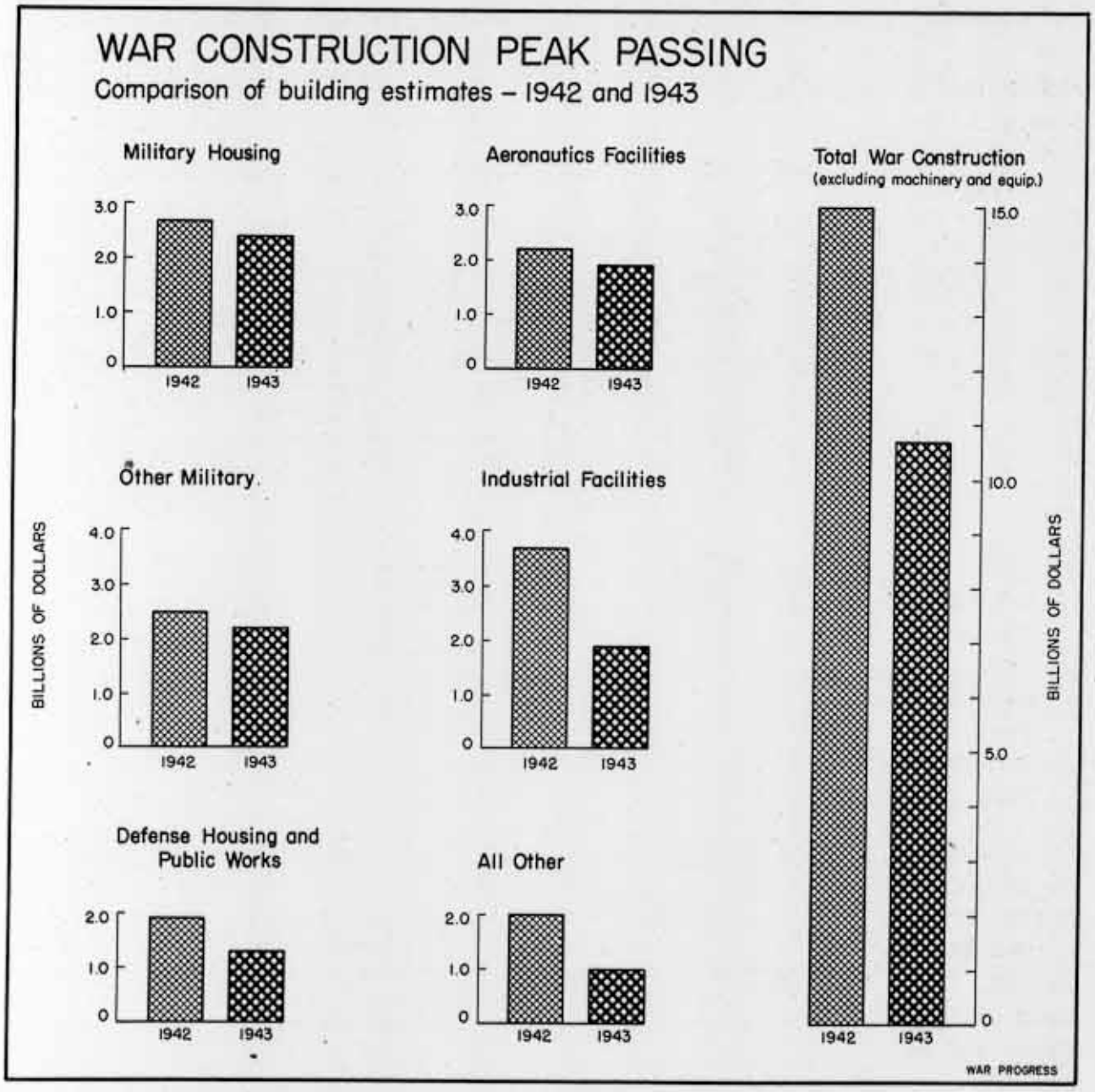
In some instances, substitutes themselves have become scarce; lumber is a case in point (WP-Aug21'42,p5). Consequently, further economies have become necessary. The Army, for example, emphasizing temporary-type structures in its barracks program, will be using less than 1,000 board feet of construction lumber per man in 1943, compared with more than 2,000 board feet in 1942.

But despite reduced requirements for

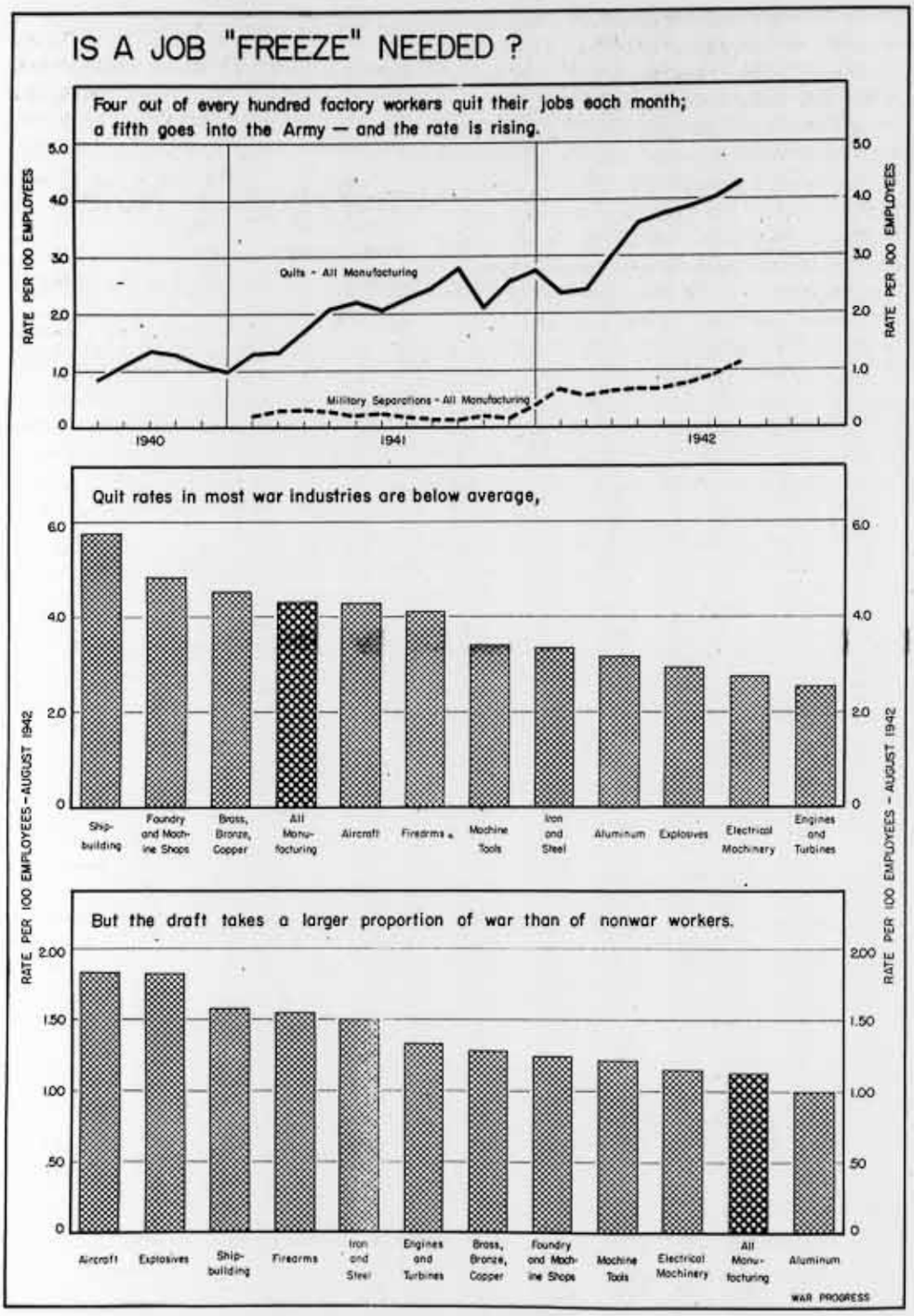
war construction--together with conservation--the supply of critical building materials will remain tight. Direct munitions demand for copper, steel, etc. is greater than in construction. And while war construction next year will be down approximately one-fourth, munitions production (output of planes, tanks, ships, guns, etc.) is scheduled to more than double--from around $38,000,000,000 to more than $80,000,000,000. Thus, savings on war construction account will be gobbled up quickly, as indicated by the following table:

Material	Cut in 1943 War Construction Program	Increased Needs, 1943 Munitions Program
	(thousands of tons)	
Copper.....	55	750
Lead.....	65	120
Steel plates..	500	2,000
Zinc.....	25	160

Moreover, except for steel plates--where a small margin of surplus exists



IS A JOB "FREEZE" NEEDED ?



--estimated new supply of these key materials next year (including lumber) will be insufficient to meet the total demand for war construction, munitions production, essential civilian production, and export.

BRICKS FOR BOARD

Hence, war construction will be forced to seek further methods of conservation, particularly by using building materials that are relatively plentiful, such as:

1. Brick, tile, and concrete block: Increased utilization would save more than 3,000,000,000 board feet of lumber and 50,000 tons of steel nails annually.

2. Clay and concrete sewer pipe: Increased utilization could save about 300,000 tons of cast iron and steel annually.

3. Gypsum board: Increased utilization would save upwards of 750,000,000 board feet of lumber annually.

And that doesn't take account of increased use of glass, asbestos board, laminated fiberboard, and certain types of plastics, which can be substituted for steel, lumber, and other short materials.

War Progress Notes

ADD "TREMENDOUS TRIFLES"

AS A RESULT of a suggestion made by a government arsenal's metal-shop foreman, the hang wire container in 1,500,000 parachute flares will be made of pressed wood plus a thin metal rim, instead of all metal. Savings: 1,900,000 pounds of steel and 9,300 pounds of cadmium. Cost: 5 cents per unit, versus 30 cents for the all-metal job (WP-Aug28'42,p8).

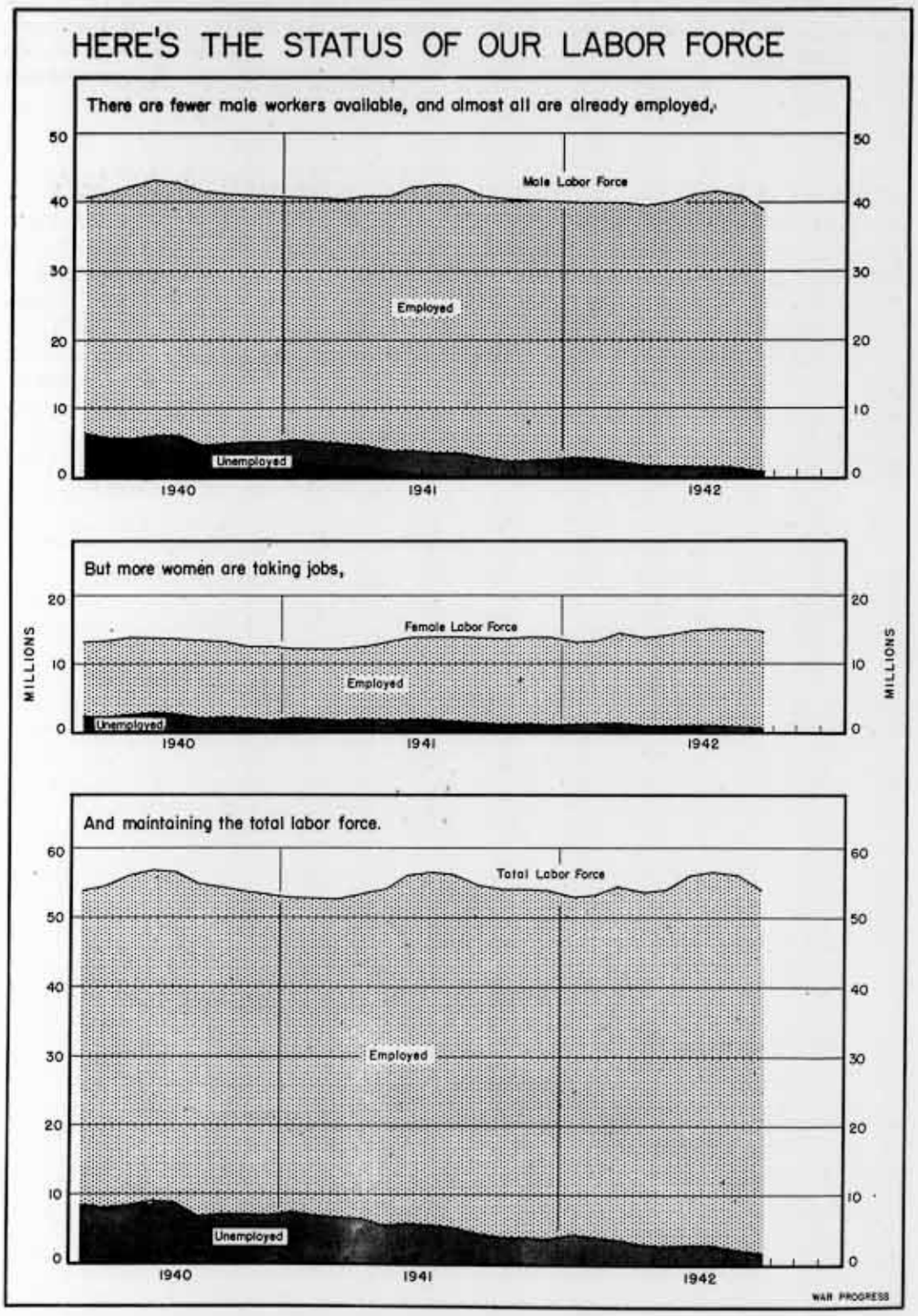
CHOCOLATE SOLDIERS—'42 VERSION

REGULAR SUBSISTENCE allowance in the Army ranges from 62 to 64 cents a day for enlisted men to $1 a day for avia-

KEY STATISTICS OF THE WEEK

	Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
War program - Checks paid (millions of dollars)	1,278	1,253	1,123	680	372
War bond sales (millions of dollars)	184	243	151	114	66
Commodity prices (August 1939 = 100)					
28 Basic commodities	169.6	169.9	168.0	167.2	153.8
Controlled	161.4	161.3	161.2	161.7	155.5
Uncontrolled	190.0	191.4	185.2	181.7	149.6
Nonferrous metal scrap	115.8	115.8	115.8	132.5	128.4
Petroleum carloadings (no. of tank cars)					
Total	52,691	52,848	53,498	54,245	47,345
Movement into East	25,306	25,389	27,948	18,243	4,322
Exports (no. of freight cars unloaded for export Friday)					
Atlantic Coast ports	1,343	1,317	1,664	1,885	1,490
Gulf Coast ports	363	304	244	322	441
Pacific Coast ports	847	787	653	418	189
Strikes affecting the war effort					
Number in progress	9	7	18	n.a.	n.a.
Man-days lost	46,280	9,505	63,333	n.a.	n.a.
Unused steel capacity (% operations below capacity)	-.2	1.4	2.8	2.8	1.6

n.a. Not available.


HERE'S THE STATUS OF OUR LABOR FORCE
There are fewer male workers available, and almost all are already employed.
Male Labor Force
Employed
Unemployed
50
40
30
20
10
0
1940
1941
1942
But more women are taking jobs,
Female Labor Force
Employed
Unemployed
MILLIONS
20
10
0
1940
1941
1942
And maintaining the total labor force.
Total Labor Force
Employed
Unemployed
60
50
40
30
20
10
0
1940
1941
1942
WAR PROGRESS

tion cadets. Members of the Women's Auxiliary Army Corps are allowed the same amount as enlisted men. The lowest cost ration is the so-called Type "D" emergency. It consists of three special chocolate bars, costs 25 cents.

SPEED CEILING

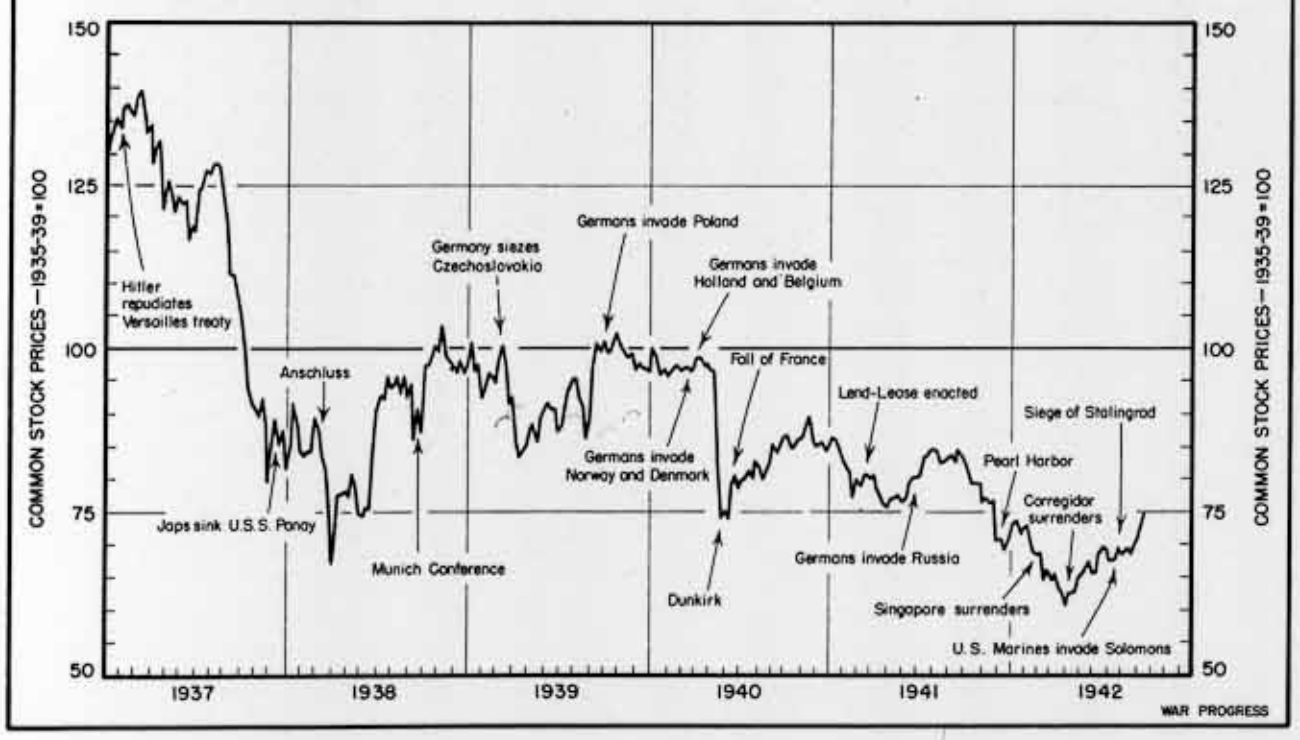
SPEED LIMIT of 35 miles per hour to save wear and tear on tires could be automatically enforced country-wide if the nation's 27,000,000 motor cars were equipped with governors--standard equipment for years with many truck fleet operators. Hitch is that governors require aluminum and copper in their manufacture--though plastics might be substituted. Also, governors cut down "pick-up" employed in passing other cars and might send the accident ratio soaring before drivers got the feel of them.

TURNABOUT

BRITAIN'S LUMBER is so tight—imports of soft timber are down to 5% of the prewar volume--that wood is not available as a steel substitute. On the contrary, steel must be diverted into such uses as coal mine props, shelving, barracks, etc. Incidentally, the symbolic British umbrella has been cut from 16 and 12 ribs to eight to save steel.

IS STALINGRAD A STOCK MARKET TURNING POINT?

Russian resistance to German attacks coincides with upturn in share prices on New York Stock Exchange.



LATELY, WALL STREET HAS HAD A BURST OF EXCITEMENT. STOCK PRICES HAVE RISEN SHARPLY, AS THE UPTILT AT THE END OF THE CURVE SHOWS. AND VOLUME OF DAILY TRADING HAS DOUBLED AND TRIPLED. OBVIOUS EXPLANATION IS THAT STALINGRAD HAS HELD OUT. STALINGRAD MAY BE TO WALL STREET WHAT DUNKIRK WAS TO "THE CITY." BEFORE DUNKIRK, THE BRITISH FELT THAT ANYTHING COULD HAPPEN; AFTER DUNKIRK, THEY FELT THAT THE WORST HAD HAPPENED. SHARES ROSE. BUT OVER HERE, PRICES DROPPED. POSSIBLE U. S. ENTRY INTO THE WAR WAS BAD NEWS TO WALL STREET, THREATENING AS IT DID GOVERNMENT CONTROL OF BUSINESS, HIGHER TAXES, LOWER PROFITS. NOW, HOWEVER, THE WAR, ITSELF, DETERMINES THE FUTURE OF STOCKS. AND THE RECENT UPTURN IN PRICES MAY BE A REFLECTION OF INCREASED SPECULATIVE CONFIDENCE IN VICTORY.

ECONOMIC TRENDS

Labor Turnover – Labor Force

	Latest Month*	Preceding Month	2 Months Ago	6 Months Ago	Year Ago	Same Month 1939	Same Month 1937
LABOR TURNOVER (rate per hundred)							
All manufacturing industries							
Accessions	7.90	8.29	8.25	6.02	5.43	5.06	3.36
Separations - total	7.06	6.75	6.46	4.82	4.14	3.01	3.99
Quits	4.31	4.03	3.85	2.41	2.46	0.82	1.23
Layoffs	0.87	1.06	1.21	1.39	1.13	2.05	2.57
Discharges	0.42	0.43	0.38	0.29	0.30	0.14	0.19
Military separations	1.13	0.93	0.78	0.56	0.14		
11 Selected war industries							
Quits							
Aluminum	3.17	3.51	3.88	1.91	3.47	0.64	1.35
Aircraft	4.29	3.76	3.60	2.68	2.87	1.45	1.22
Brass, bronze, and copper products	4.53	3.78	3.15	2.45	2.66	0.56	
Electrical machinery	2.76	2.36	2.27	1.78	2.05	0.75	1.02
Engines and turbines	1.53	1.67	1.50	1.55	1.45	0.65	1.44
Explosives	2.92	2.25	2.43	1.94	1.91	0.92	1.07
Firearms	4.11	3.65	4.29	2.27	3.97	n.a.	n.a.
Foundry and machine shop	4.84	4.15	3.75	2.30	2.71	0.49	1.12
Iron and steel	3.34	2.78	2.72	1.52	1.50	0.40	1.17
Machine tools	3.41	3.02	2.86	2.23	2.55	0.79	1.43
Shipbuilding	5.77	4.67	5.71	3.27	2.35	0.78	1.68
Military separations							
Aluminum	1.00	1.19	0.94	0.88	0.17		
Aircraft	1.84	1.34	0.93	0.74	0.13		
Brass, bronze, and copper products	1.28	0.95	0.84	0.67	0.15		
Electrical machinery	1.15	1.03	1.02	0.75	0.13		
Engines and turbines	1.33	1.11	0.74	0.51	0.08		
Explosives	1.83	1.07	0.91	0.56	0.12		
Firearms	1.55	1.16	1.20	0.60	0.03		
Foundry and machine shop	1.25	0.93	0.85	0.51	0.13		
Iron and steel	1.50	1.24	1.04	0.68	0.17		
Machine tools	1.22	0.95	0.74	0.40	0.06		
Shipbuilding	1.58	1.07	0.91	0.56	0.10		
LABOR FORCE (millions)							
Employment - tot.	52.4	54.0	54.0	50.9	50.3	n.a.	n.a.
Male	38.2	39.7	39.9	37.6	38.0	n.a.	n.a.
Female	14.2	14.3	14.1	13.3	12.3	n.a.	n.a.
Unemployment - total	1.7	2.2	2.8	3.6	4.5	n.a.	n.a.
Male	1.0	1.4	1.7	2.4	3.0	n.a.	n.a.
Female	0.7	0.8	1.1	1.2	1.5	n.a.	n.a.
Total labor force	54.1	56.2	56.8	54.5	54.8	n.a.	n.a.
Male	39.2	41.1	41.6	40.0	41.0	n.a.	n.a.
Female	14.9	15.1	15.2	14.5	13.8	n.a.	n.a.

*Labor turnover, August; labor force, September. n.a. Not available.

ECONOMIC TRENDS

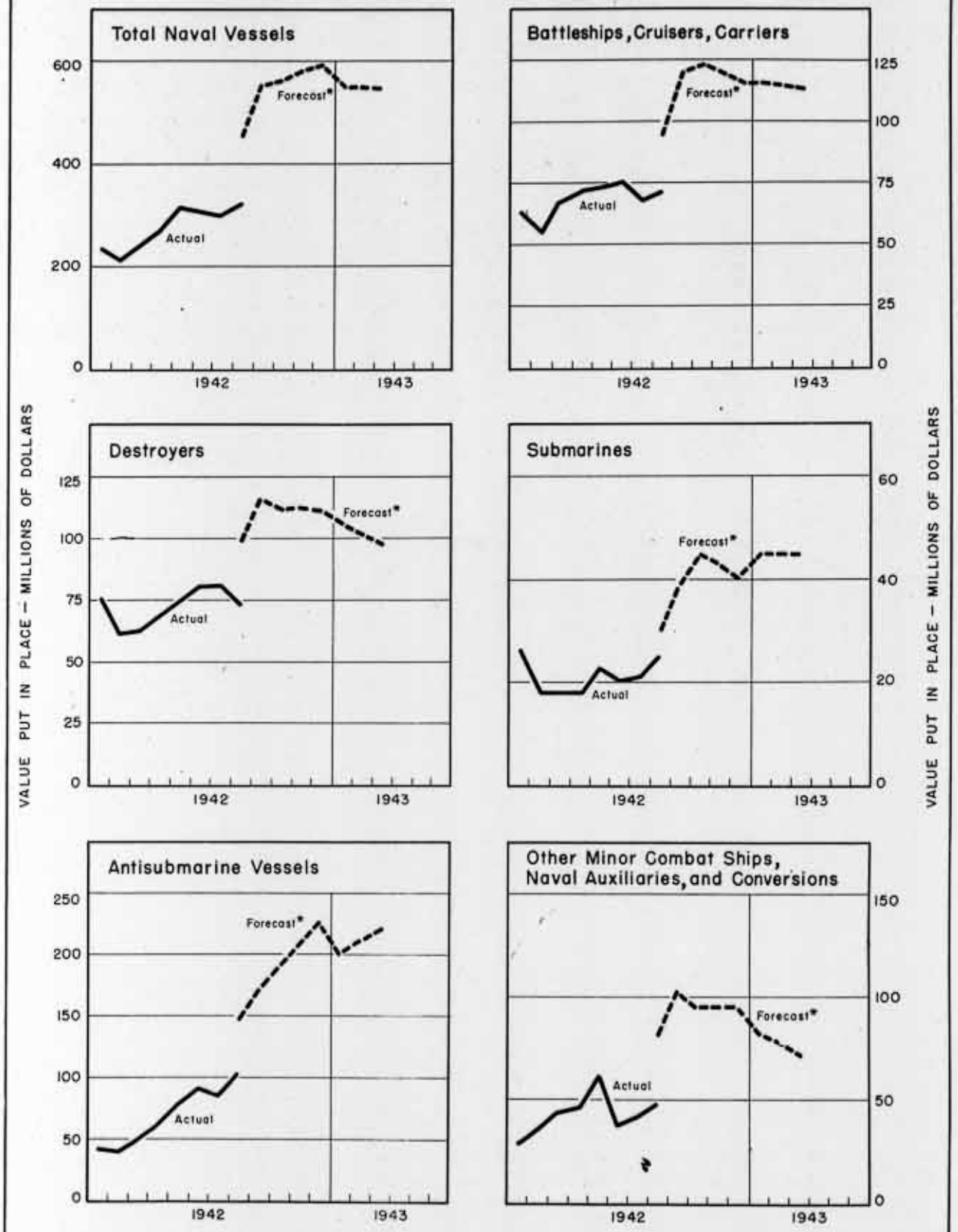
Plant Utilization – Commodity Prices

	Latest Month*	Preceding Month	2 Months Ago	6 Months Ago	Year Ago	Same Month 1939	Same Month 1937
PLANT UTILIZATION†							
Airframes							
All plants	89.2	87.1	86.3	87.3	76.2		
Three best	113.4	111.6	105.8	102.7	90.0		
Aero engines							
All plants	105.9	106.1	106.0	106.3	93.8		
Three best	123.8	129.7	124.8	126.3	109.2		
Aircraft propellers							
All plants	107.7	106.8	103.1	98.8	89.8		
Three best	131.0	131.7	135.2	135.9	114.0		
Shipbuilding and repair							
All private construction yards	79.1	78.3	77.3	72.7	a62.0		
Three best	p111.5	111.6	112.0	99.8	a80.2		
Major repair yards	75.3	74.2	70.5	73.1	a63.7		
Tanks							
All plants	p76	73	72	80	a69		
Best plant	n.a.	90	93	109	a97		
Machine tools							
All plants	90.4	89.9	90.7	85.1	a77.9		
Three best	138.2	144.0	144.0	127.1	a113.9		
Large plants	97.1	96.3	97.5	89.7	a79.2		
Medium plants	80.0	80.0	80.4	77.7	a67.2		
Small plants	67.4	67.2	66.3	62.8	a58.4		
Machine utilization in machine tool plants							
All plants	110	109	109	103	n.a.		
Three best	167.3	167.7	167.7	164.7	n.a.		
Large plants	121	121	120	114	n.a.		
Medium plants	99	98	99	92	n.a.		
Small plants	74	75	74	67	n.a.		
COMMODITY PRICES							
Producers' goods (1929 = 100)	105.4	105.3	105.1	104.1	97.5	79.2	94.3
Durable	108.9	108.8	108.8	108.4	105.2	94.7	102.2
Nondurable	104.0	104.0	103.6	102.1	91.6	66.8	88.4
Consumers goods (1929 = 100)	103.8	102.7	102.9	99.9	92.0	76.9	88.7
Durable	116.3	115.1	115.2	114.1	102.6	92.3	96.2
Nondurable	101.9	100.8	101.0	97.6	90.3	74.5	87.5

*August. † Number of man-hours weekly divided by the number of workers on the largest shift, Monday through Friday; machine utilization figures are based on machine operator hours. a September, 1941. n.a. Not available.
p Preliminary.

PRODUCTION PROGRESS

Naval, Army, and Merchant Ships and Equipment



* Based on schedules of procurement agencies as of August 1.

ECONOMIC ACTIVITY RELATED TO THE WAR

Note: Certain statistical series included in these tables are nonconfidential and are published in such public documents as the Federal Reserve Bulletin, Survey of Current Business, etc. Obviously inclusion here should not be construed as a limitation on their use.

	1940	1941	1942			
	July	July	June	July	Week ending Aug. 1	Week ending Aug. 8
BLS PRICE INDEXES						
Strategic materials	123.6	140.3	147.6	p 147.5	147.5	147.5
Critical materials (8/39 =100)	107.5	115.2	123.2	p 123.9	123.9	123.9
Basic commodities (8/39 =100)	108.5	148.7	166.4	167.2	166.4	166.9
Machine tools (8/39 =100)	108.7	117.6	118.0	118.0	-	-
All commodities (1926=100)	77.7	88.8	p 98.6	p 98.7	p 98.6	p 98.6
ELEC. POWER PROD. (mil. kwh.)	12,094	14,226	15,179	p 15,975	3,649	3,637
WAR BOND SALES (mil. dollars)	-	342	634	901	205	194
EMPLOYMENT (thous.)						
Total civil nonagricultural	35,904	39,908	p 41,415			
War industries						
Private, 18 selected ind.	1,663	2,559	p 3,690			
Private contractors, public construction	13	412	p 882			
Public	117	225	400			
Total	1,793	3,196	p 4,972			
Deep sea merchant vessels	51	50	47			
Total WPA employment	1,655	1,055	698	525		
UNEMPLOYMENT (WPA ESTIMATE)						
Number of unemployed (thous)	9,300	5,600	2,800	2,800		

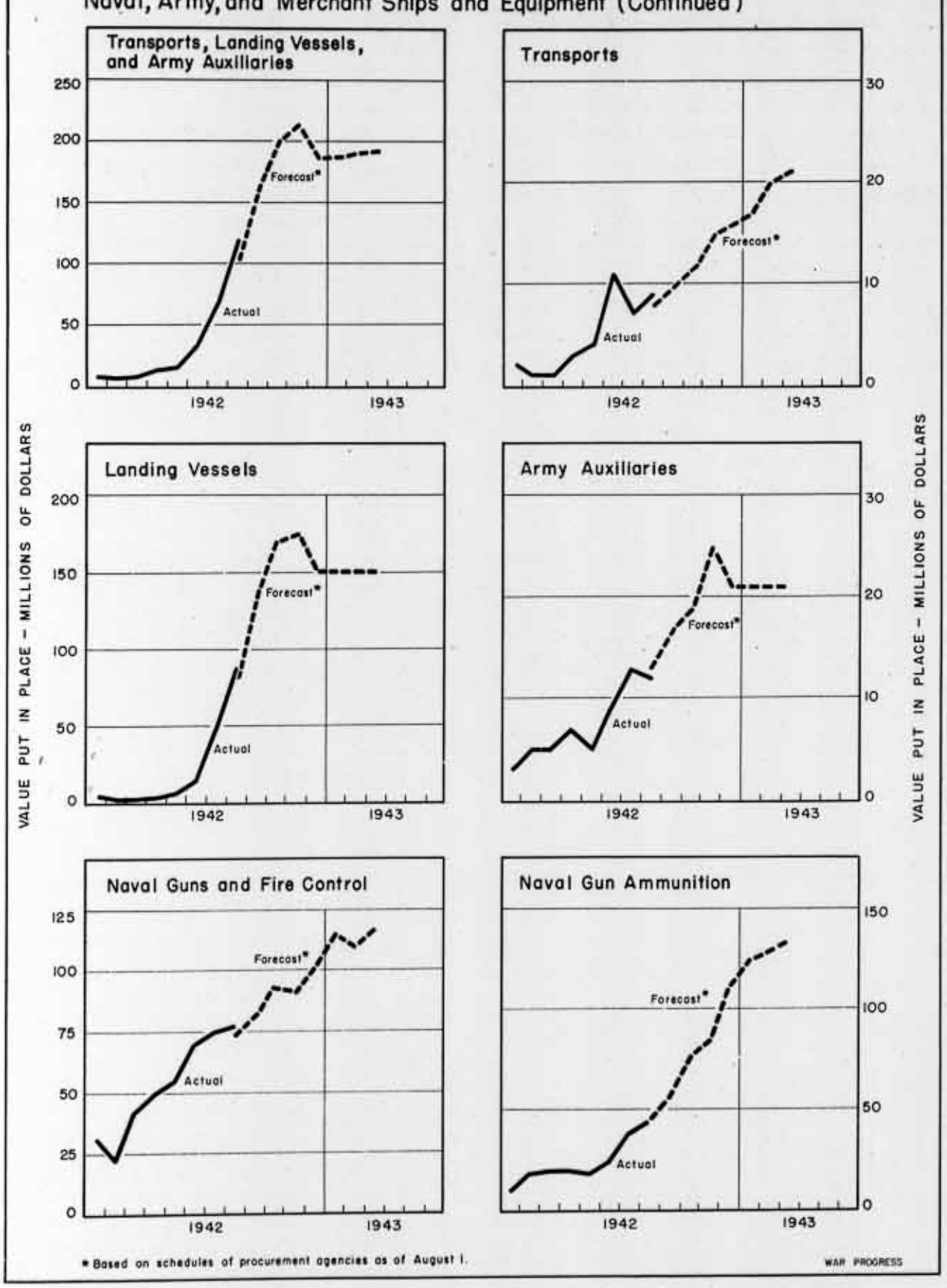
	1941	1942				
	June	March	April	May	June	July
PLANT UTILIZATION						
	(Equivalent hours of full capacity operation[a])					
Shipbuilding (Private)						
61 yards[b]	61.1	72.7	72.9	76.4	77.0	p 82.0
Three best yards	77.3	95.1	97.9	108.4	112.0	p 115.0
Machine Tools						
Plant utilization						
All plants	76.1	r 85.0	r 90.3	r 89.8	r 90.2	p 88.9
Three best plants	111.6	r 134.1	r 138.9	138.7	144.0	p 144.0
Machine utilization						
All plants	n.a.	106	110	109	110	110
Three best plants	n.a.	166.6	167.2	167.3	167.7	p 167.6

p Preliminary n.a. Not available r Revised

[a] Total man-hours in one week divided by the number of workers on the first shift.
[b] 61 private shipbuilding yards having approximately 80% of total employment in the shipbuilding industry.

PRODUCTION PROGRESS

Naval, Army, and Merchant Ships and Equipment (Continued)

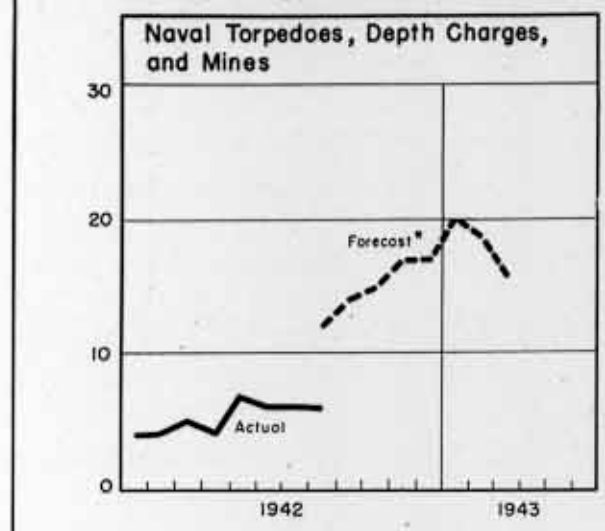


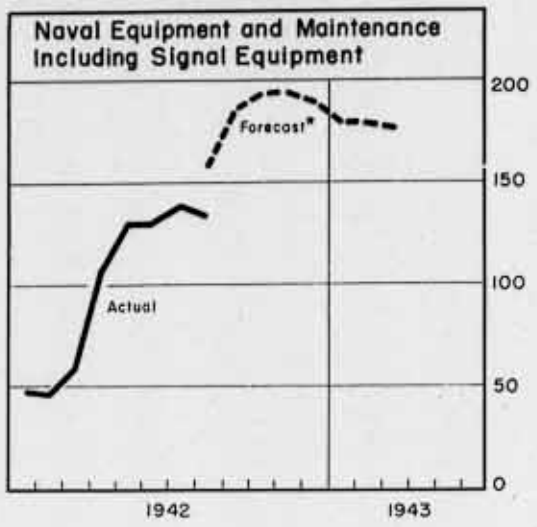
* Based on schedules of procurement agencies as of August 1.

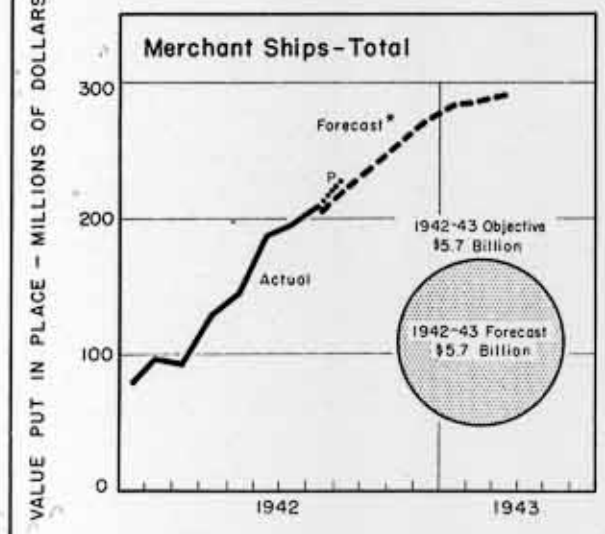
WAR PROGRESS

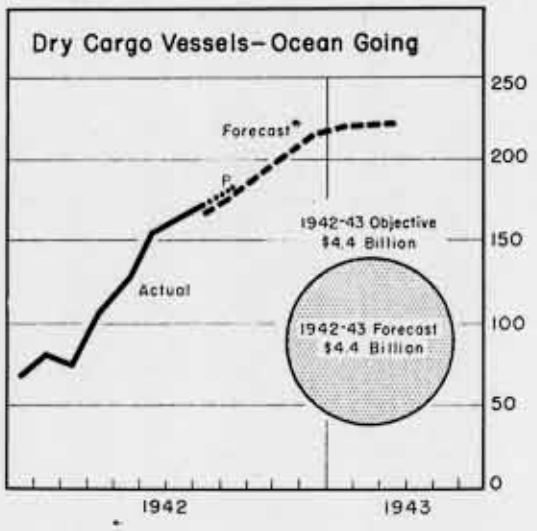
PRODUCTION PROGRESS

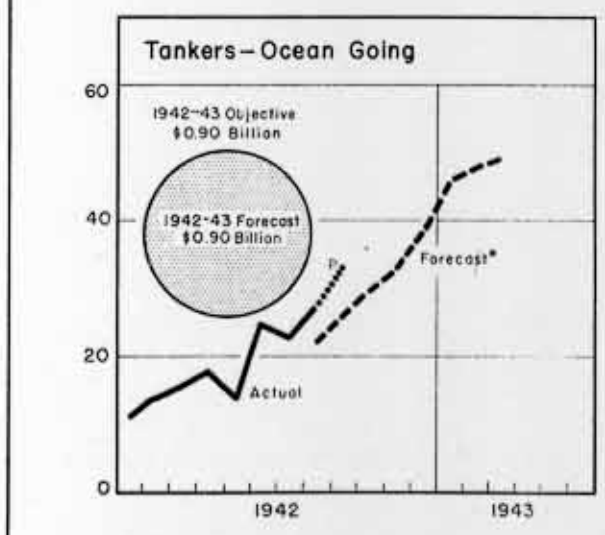
Naval, Army, and Merchant Ships and Equipment (Continued)

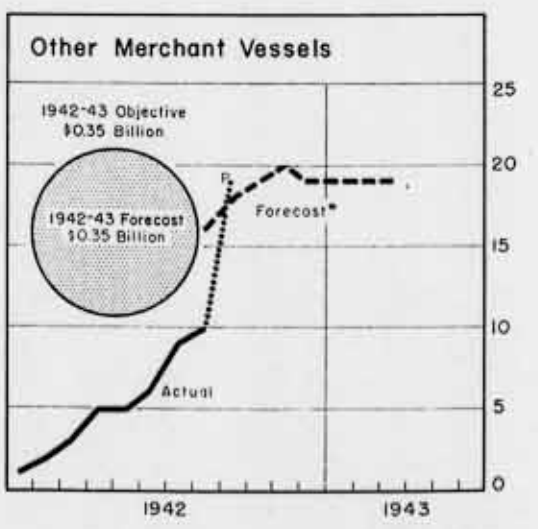








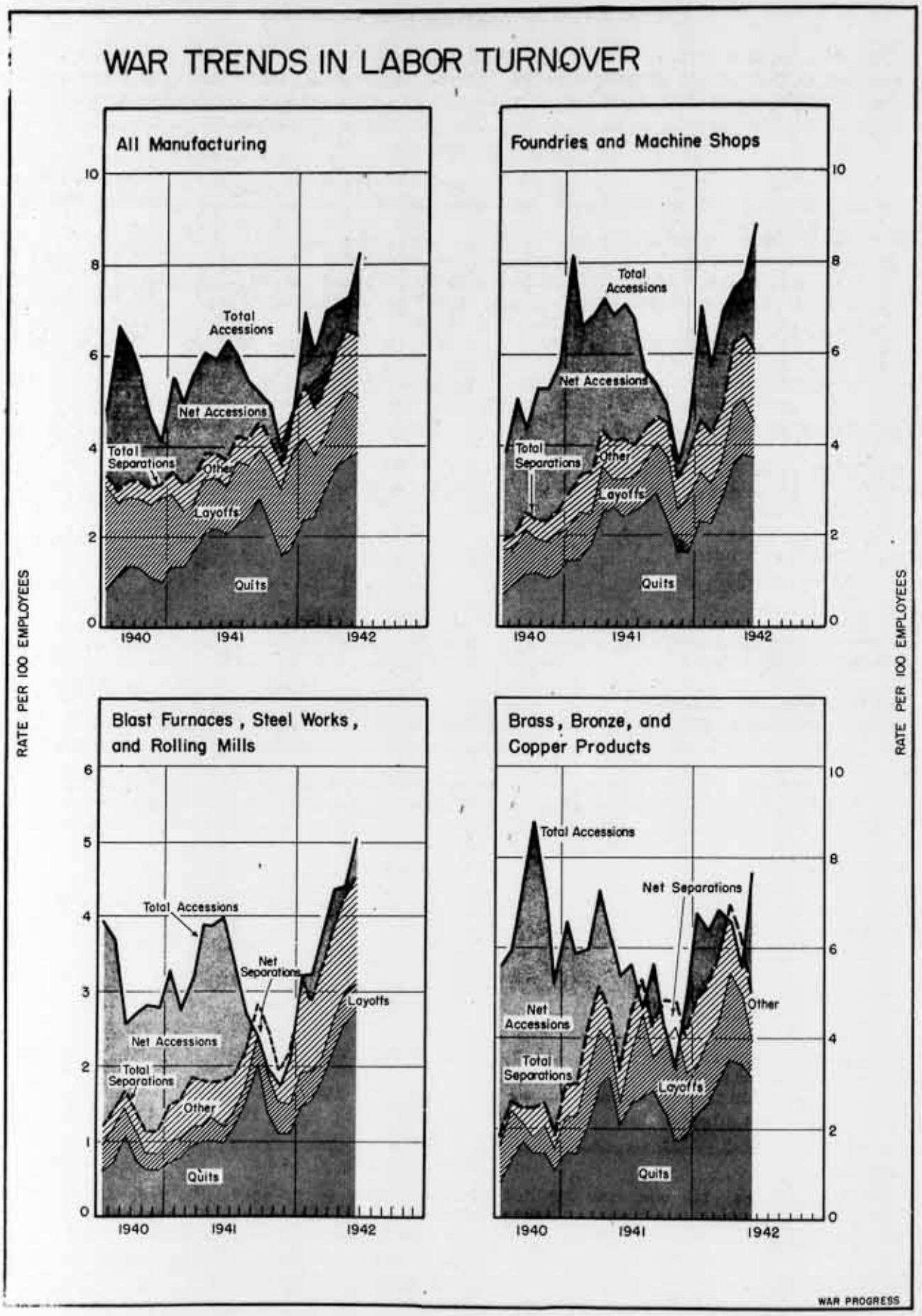




* Based on schedules of procurement agencies as of August 1. P-Preliminary

WAR PROGRESS

WAR TRENDS IN LABOR TURNOVER



ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	June	March	April	May	June
● LABOR TURNOVER						
			(Rate per 100 employees)			
ALL MANUFACTURING						
Total accessions	4.77	6.31	6.99	7.12	7.29	8.25
Total separations	3.35	3.71	5.36	6.12	6.54	6.46
Quits	0.85	2.06	3.02	3.59	3.77	3.85
Layoffs	2.25	1.03	1.19	1.31	1.43	1.21
Discharges	0.14	0.26	0.33	0.35	0.38	0.38
Military separations	n.a.	0.26	0.63	0.68	0.68	0.78
11 MAJOR WAR INDUSTRIES[a]						
Total accessions	5.09	6.97	8.90	8.86	r 8.92	10.09
Total separations	1.85	3.09	4.91	5.32	r 5.93	5.92
Quits	0.84	1.73	2.91	3.22	r 3.51	3.61
Layoffs	0.73	0.62	0.61	0.68	0.77	0.64
Discharges	0.15	0.29	0.42	0.43	0.47	0.48
Military separations	n.a.	0.26	0.73	0.83	0.82	0.93
AIRCRAFT						
Total accessions	12.40	10.77	9.54	10.31	10.38	11.91
Total separations	3.57	3.21	5.60	5.29	5.67	5.14
Quits	2.96	2.33	3.70	3.79	4.06	3.60
Layoffs	0.15	0.32	0.12	0.14	0.07	0.05
EXPLOSIVES						
Total accessions	4.30	7.82	4.48	3.85	4.66	4.83
Total separations	1.32	2.47	3.04	3.50	3.17	4.05
Quits	0.73	1.16	1.95	1.92	1.93	2.43
Layoffs	0.40	0.55	0.09	0.26	0.11	0.02
FIREARMS						
Total accessions	n.a.	15.47	10.24	8.88	r 10.81	6.88
Total separations	n.a.	1.54	4.90	4.75	r 6.13	6.10
Quits	n.a.	1.20	3.79	3.88	r 4.85	4.29
Layoffs	n.a.	0.20	0.06	0.04	0.10	0.46
SHIPBUILDING						
Total accessions	13.00	12.12	18.15	16.44	16.56	17.38
Total separations	5.40	6.00	7.13	7.25	9.22	9.41
Quits	1.14	2.37	4.27	4.29	5.20	5.71
Layoffs	3.71	2.71	1.26	1.29	1.43	1.37
MACHINE TOOLS						
Total accessions	3.05	6.28	7.89	7.48	7.05	7.69
Total separations	2.09	2.84	3.77	4.84	4.56	4.35
Quits	1.28	1.99	2.75	3.50	3.17	2.86
Layoffs	0.21	0.15	0.11	0.07	0.12	0.09

● Graph appears on opposite page. r Revised n.a. Not available

[a] Includes aircraft; explosives; firearms; shipbuilding; machine tools; brass, bronze, and copper products; engines and turbines; electrical machinery; blast furnaces, steel works, and rolling mills; aluminum; and foundries and machine shops. Data for July, 1940 and March, 1942 are for seven industries excluding engines and turbines, aluminum, explosives, and firearms.

ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	April	May	June	July
TRANSPORTATION						
Freight carloadings (thous. per wk.)						
Total	706	853	838	834	846	830
Coal, coke, and ore	198	236	234	264	269	255
All other	508	617	604	570	577	575
Miscellaneous	273	356	376	376	382	379
Less than carload lots	142	151	131	98	94	86
Grain and livestock	61	67	48	47	50	59
Forest products	32	43	49	49	51	51
Freight carloadings as percent of capacity[a]						
Total	80.0	91.6	85.5	84.8	85.9	83.7
Coal, coke, and ore	80.5	90.0	84.9	95.5	97.3	91.7
All other	77.6	90.2	83.7	78.8	79.4	78.6
Unloads for export (no. per mo.)						
Total	49,781	54,982	74,061	72,228	73,188	72,102
Atlantic coast ports	32,598	37,842	51,153	43,515	44,170	39,566
Gulf coast ports	13,724	12,207	10,902	14,796	14,317	13,702
Pacific coast ports	3,459	4,933	12,006	13,917	14,701	18,834
Freight equipment(1st of mo. thous.)						
Total cars						
Owned	1,645	1,661	1,718	1,726	1,731	1,736
Serviceable	1,492	1,576	1,658	1,664	1,668	1,679
Active	1,365	1,496	1,601	1,608	1,588	1,597
Coal, coke, and ore cars						
Owned	785	797	818	820	820	824
Serviceable	701	749	787	790	790	796
Active	655	722	770	778	781	782
All other cars						
Owned	860	864	900	906	911	912
Serviceable	791	827	871	874	878	883
Active	710	774	831	830	807	815

[a] Peak capacity represents full utilization of all serviceable cars at the highest utilization rate since the beginning of the defense program. For total carloadings, the peak utilization rate was .591 carloadings per active car (June, 1941); coal, coke, and ore, .350 carloadings per active car (August, 1941); all other, .828 carloadings per active car (June, 1941).

WAR PROGRESS

Confidential

(British-Secret)

Lend-Lease Exports Recover from May Setback

Lumber – a Critical Material ?

Number 101 August 21, 1942

Lend-Lease Exports Stage Comeback

Almost all of drop in May has been recovered. Russia gets major share of munitions items, Britain largest total. Shipping space a problem.

LEND-LEASE EXPORTS are picking up again. They dropped from a peak of $400,000,000 in April to $295,000,000 in May because of a shortage of cargo space, convoy difficulties, and an inability to reach certain theaters of war. But in June they increased to $375,000,000 and last month to $395,000,000. So they're only slightly under the highest month.

The United Kingdom is still our biggest "lend-leaser," with Russia second (WP-June26'42,p4); in munitions, Russia leads Britain proper, but not the Empire. Of the $2,150,000,000 of lend-lease goods exported in the first seven months of 1942, Britain got about 43% and Russia, 28%. The balance went mainly to Egypt, Australia and New Zealand, India, and China (chart, page 4).

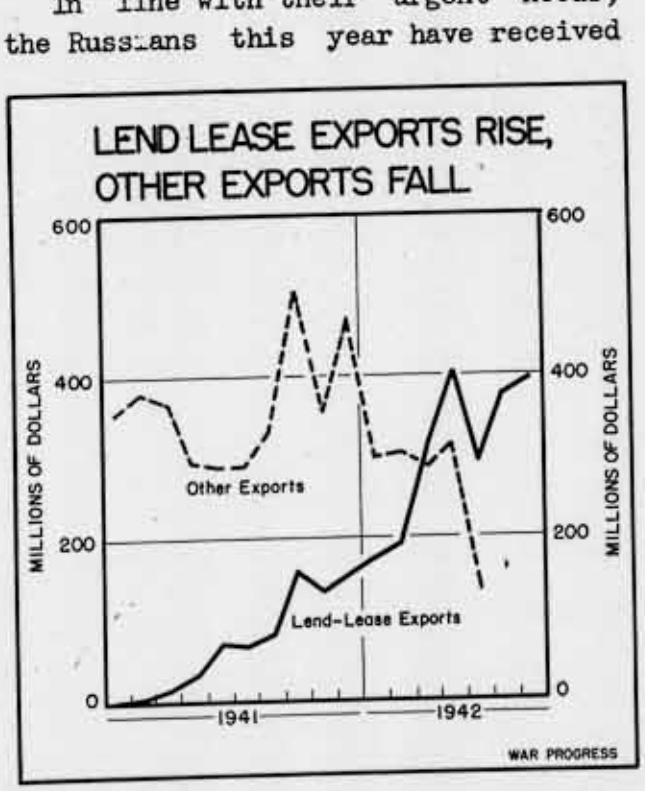
Big Jump in Munitions

In contrast with 1941, when most lend-lease shipments consisted of agricultural and industrial commodities, about 45% of the 1942 exports have been munitions--ordnance and stores, airplanes and aeronautical materials, tanks and other vehicles. Agricultural items so far this year comprised only 25%, and industrial commodities and nonmunitions, 30%.

Russia's proportion of monthly shipments jumped from 8% in January to 40% in April, but has since declined. It is now running at about one-quarter of all lend-lease exports.

Much more goods have been available to Russia (and to other countries) than have left our shores. But lack of merchant vessels and the need for convoys have slowed up shipments. Moreover, Nazi attacks during the long Arctic day have made the Murmansk route dangerous, though sinkings in recent months have been lower than press reports suggest. The other major gateway to Russia--through Basra in the Persian Gulf--has been relatively free, and the Japanese have let Russian vessels with American nonmilitary goods go through their waters to Vladivostok.

In line with their urgent needs, the Russians this year have received



BEGINNING WITH MARCH, 1942, LEND-LEASE SHIPMENTS JUMPED INTO LEADING PLACE IN THE EXPORT PICTURE. SINCE THEN, THEY ARE DOMINATING EXPORTS MORE AND MORE, PARTICULARLY IN VIEW OF DIMINISHING DELIVERIES ON BRITISH DIRECT-PURCHASE CONTRACTS. THE DOMINION OF CANADA IS OUR BIGGEST REMAINING CASH CUSTOMER.

more planes, tanks, and trucks than the British. (In ordnance, the reverse was true.) We sent Russia about half the 1942 lend-lease tanks and military vehicles; two-fifths of the planes and parts; and one-fifth of the ordnance and stores, foodstuffs, and industrial commodities (chart, page 3). Other shipments include cloth and boots for the Red Army; machine tools, aluminum, steel, and rolled brass; huge quantities of sugar, flour, wheat, canned meat, and other foodstuffs.

Food for Britain

So far this year, 75% of all lend-lease foodstuffs and 50% of industrial and other commodities went to Great Britain, compared with 10% of the tanks and other vehicles, 20% of the aircraft and 30% of the guns and ammunition. England's munitions factories are getting copper, zinc, aluminum, etc.; her farms, machinery, seed, and fertilizers. Major foodstuffs shipped are meat, fish, vegetables, fruits, canned goods, and dairy products.

Almost one-quarter of all lend-lease exports have been delivered to the British colonies and dependencies. The British armies in the Middle East are fighting with the help of lend-lease supplies--ordnance, tanks, trucks, etc. Munitions exports to Egypt have just risen to the highest level since April, and shipments to Iran and Iraq continue to move in a fairly steady stream.

★★★★★ FINAL

MILITARY PLANE production in the first 15 days of this month was slightly less than in the first 15 days of last month--$132,800,000, against $134,200,000. Trainer and service planes bettered the July figures, and so did heavy bombers, but light bombers were off rather sharply.

Recently, plane acceptances have run increasingly below expectations--May output was 7% under the monthly forecast, June and July, 13%. The lag this month may be even greater; to realize the $423,800,000 forecasts, production in the last 16 days must be 30% greater than in the corresponding period of July.

IN THIS ISSUE:

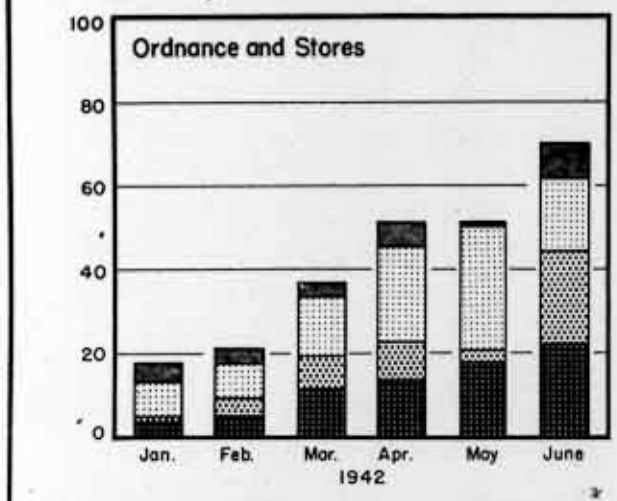
Pacific Fighting Zone

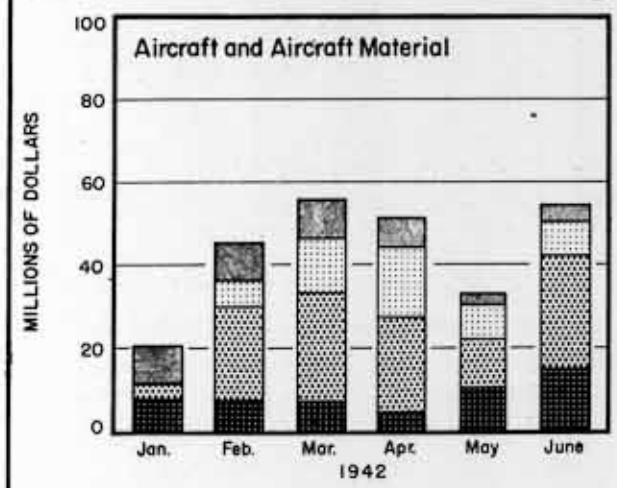
Although American troops are in the Southern Pacific, munitions shipments to Australia and New Zealand are still being maintained. (Shipments to U. S. troops abroad are not included in lend-lease exports.) India has received increasing quantities of guns, ammunition, and trucks. India and Australia have also received iron and steel for their armament plants, while Canada has obtained parts going into finished munitions destined for England. The latter items are not charged to Canada, but to Great Britain.

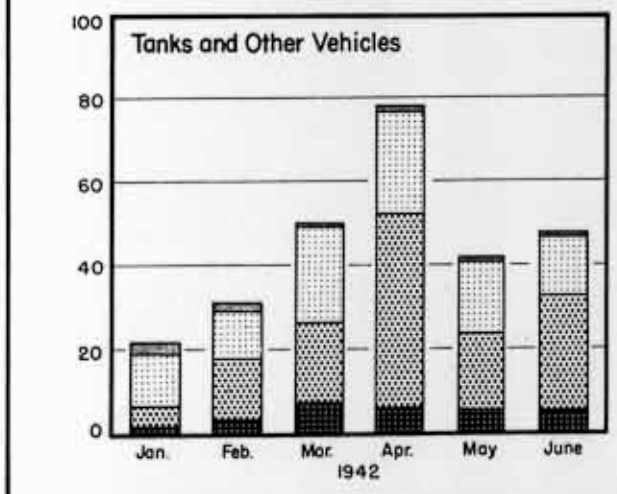
Lend-lease cargoes have been deliv-

WHO GETS WHAT IN LEND-LEASE

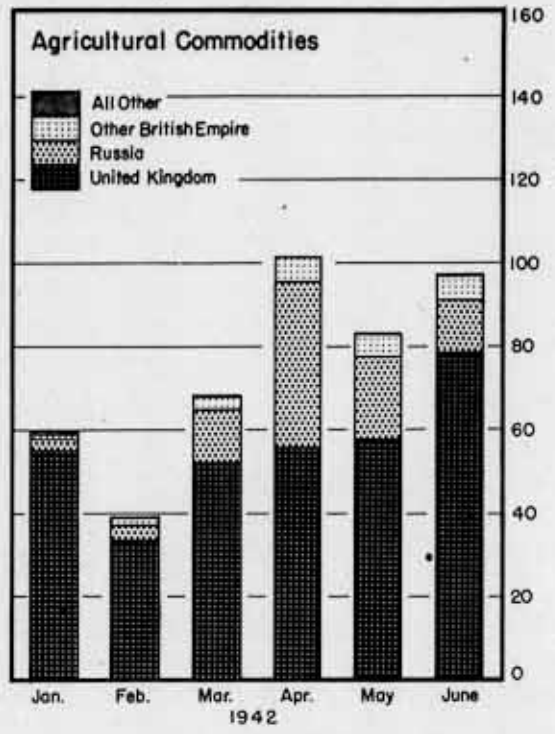
Military Goods

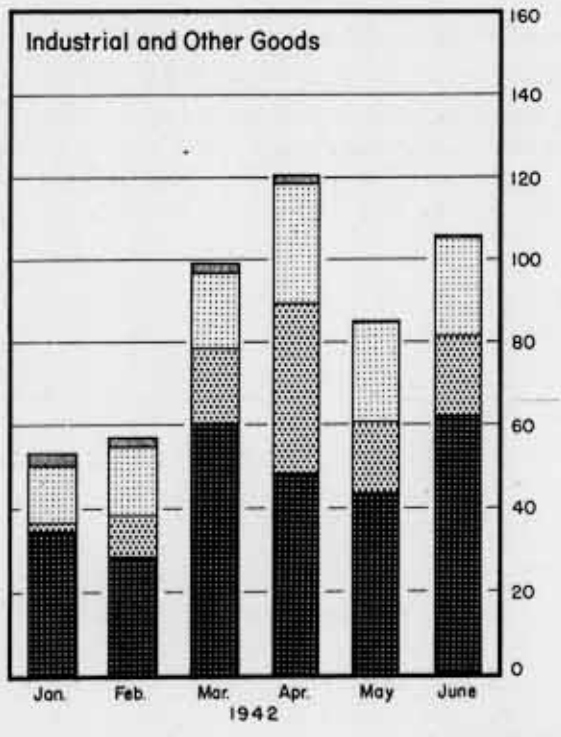






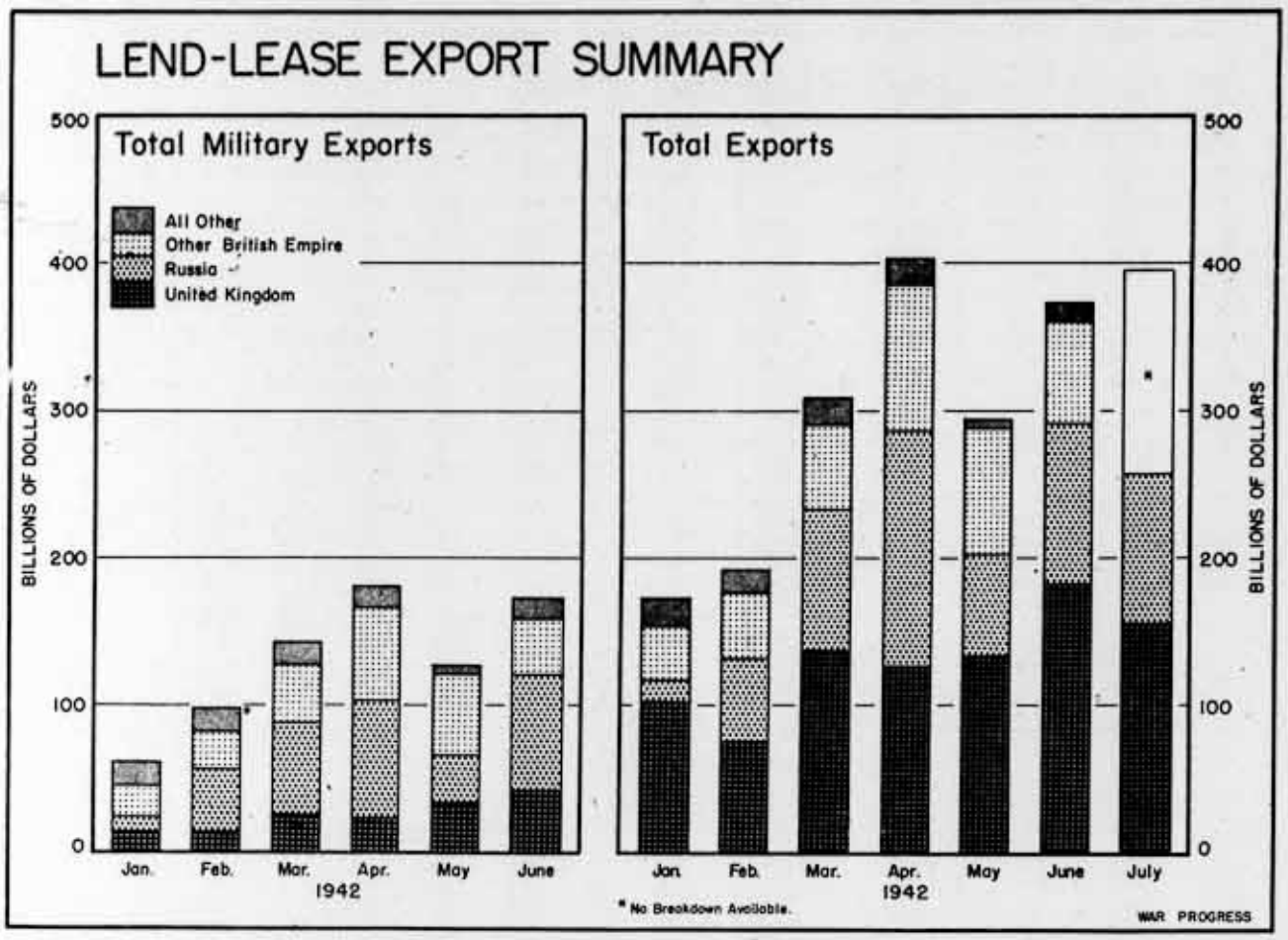
Nonmilitary Goods





WAR PROGRESS

RUSSIA GOT THE BIGGEST SHARE OF LEND-LEASE TANKS, TRUCKS, AND AIRPLANES IN THE FIRST SIX MONTHS OF THE YEAR. AND GREAT BRITAIN GOT MOST OF THE FOODSTUFFS AND INDUSTRIAL COMMODITIES. BUT LARGE SHIPMENTS OF LEND-LEASE ORDNANCE, MILITARY VEHICLES, AND OTHER EQUIPMENT WENT TO BRITISH FORCES IN THE MIDDLE EAST, MALAYA, HONG KONG, BURMA, AUSTRALIA, AND INDIA.



IN JANUARY, LEND-LEASE EXPORTS WERE DIVIDED AS FOLLOWS: 35% MILITARY, 65% NONMILITARY. SINCE THEN, THE PROPORTION OF MILITARY SHIPMENTS HAS RISEN TO 45% TO 50% OF THE TOTAL, WITH RUSSIA GETTING THE LION'S SHARE. RUSSIA AND THE BRITISH EMPIRE CONTINUE TO MONOPOLIZE LEND-LEASE. EXPORTS TO CHINA HAVE FALLEN SHARPLY AND TODAY WOULD BE ONLY A PINPOINT LINE ON THE CHART.

ered to nearly all the major outposts of the United Nations--Burma, Malaya, and Hong Kong, before they fell to Japan; Malta, Gibraltar, and Cyprus; the island of Bahrein in the Persian Gulf, and the Aden protectorate on the Red Sea; conquered Italian East Africa, the Union of South Africa, Rhodesia, Nigeria, Sierra Leone, the Gold Coast, etc.

Latin America

Shipments to China and others than Russia and the British Empire represent about 5% of all lend-lease exports this year. The loss of Burma virtually closed the door to China, and only a dribble of supplies has entered in recent months. But Latin American republics, particularly Brazil and Chile, are obtaining more munitions and industrial commodities.

Increasing Importance

Lend-lease has become increasingly important in the total export picture, too. In December, it accounted for only one-fourth of all exports, but is now about three-fourths. (Chart, page 1.) As contracts for cash purchases of war goods made in 1940 and 1941 by the British government are completed, the lend-lease portion of exports will rise even higher.

War Output Up Another 15%

July duplicates June gain, indicating that losses due to materials shortages are sporadic, not general. But deliveries are still below forecast.

MUNITIONS ACTIVITY continues to pick up. Production in July, according to preliminary figures, was 15% higher than in June, duplicating the June gain over May, and quadrupling the May gain over April.

These month-to-month increases in output suggest that the overall war effort is moving along, despite scare headlines proclaiming plant shutdowns because of shortages of such critical materials as steel plate, alloy steels, copper, etc. The statistics imply that the shutdowns and stoppages are sporadic, rather than general. And any inference that the war effort as a whole is slowing down is unwarranted.

Behind Forecasts

That does not imply that production is all that it should be. On the contrary. For example, in July, total munitions output amounted to about $3,000,000,000 (preliminary), but the schedules called for $3,250,000,000. Thus the lag was around 8%.

Not all categories are behind forecasts. In actual units delivered, service planes, 75mm. antitank, and 90mm. antiaircraft guns were well above the July goal; but the number of combat planes, aircraft ammunition, and minor naval craft (minesweepers, torpedo boats, etc.) were far below the forecast.

What is apparent is that production is uneven in relation to schedules. In some cases, as the following table shows, July production has outstripped the forecast; in others, the forecast is not even approached. Similarly, in some cases July output was twice as great as June deliveries (small subchasers, for example); in others, the improvement was moderate (combat planes, merchant ships, etc.):

Physical Units	% June Deliveries	% July Forecast
Combat planes.....	106%	85%
Service planes....	137	120
Trainers.....	109	93
Medium tanks.....	135	114
Light tanks.....	115	103
Large combat vessels.....	116	140
Small combat vessels.....	146	67
Large subchasers..	100	63
Small subchasers..	200	62
Minesweepers.....	120	74
Torpedo boats.....	300	63
Merchant ships....	108	96
Liberty ships.....	104	95
Tankers.....	120	100
90mm. antiaircraft guns.....	164	133
40mm. Bofors.....	150	110
Aircraft ammun....	115	57
Bombs (excl. naval)	125	110
Antiaircraft amm..	144	218
Small arms ammun..	120	110

Tank assemblies did particularly well. Medium-tank production increased 35% over June and light-tank 15%. Both topped the forecast, and only moderate increases in monthly rates of production above the July level will be nec-

From Abundance to Scarcity

Swing from steel, plus increased construction, lifts demand for lumber, while supply drops. Result: Restrictions on use of both soft and hard woods must tighten.

A YEAR AGO, the lumber industry launched a nation-wide advertising campaign proclaiming: "Forest products will not build a field gun or tank, but will release materials indispensable for actual fighting tools."

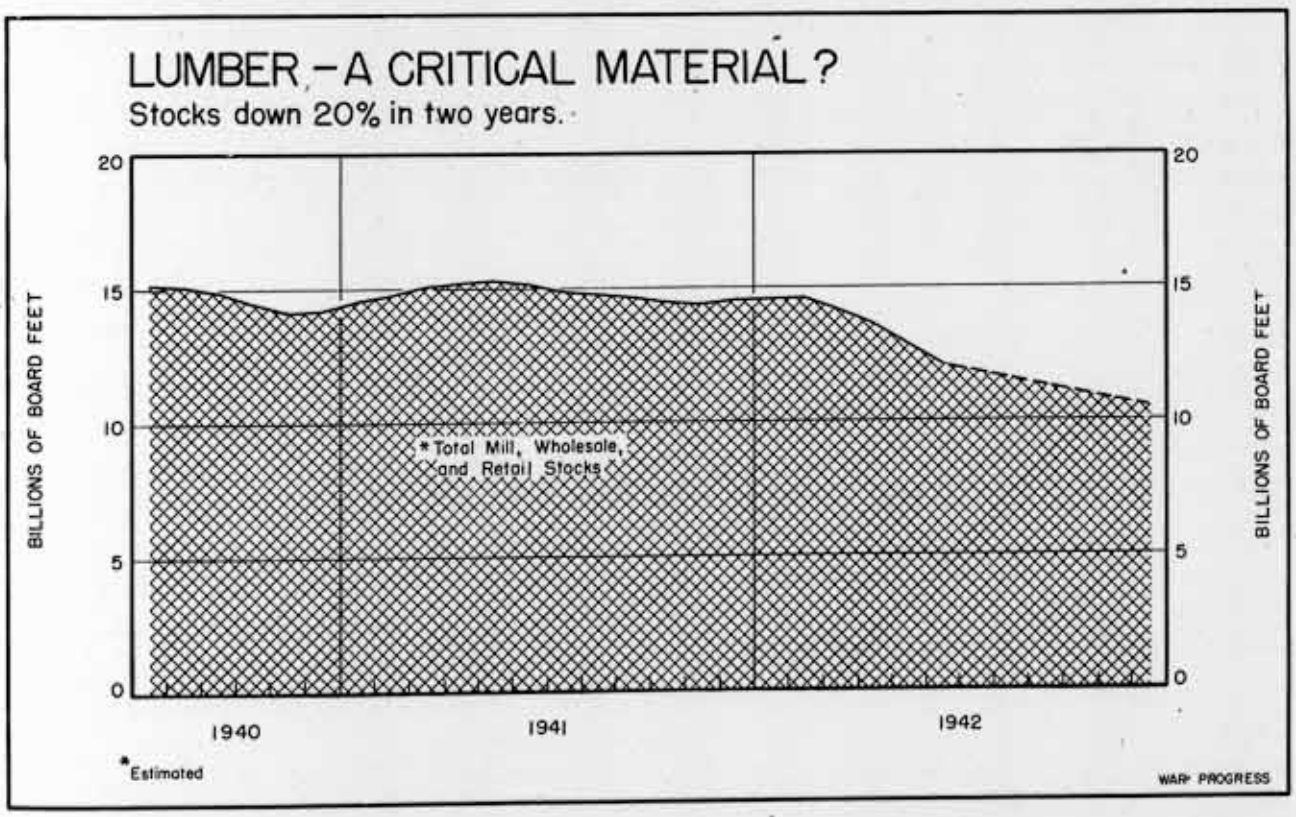
Those were the days when lumber was plentiful, when supply topped demand. In 1941, for example, production plus net imports (500,000,000 board feet) was 36,200,000,000 board feet; consumption was 36,000,000,000 board feet.

But this year, as a result of the shift to lumber, increased construction and other uses, demand is running to 39,000,000,000 board feet. And new supply in 1942 is actually expected to drop--to 35,000,000,000 board feet (including net imports of 700,000,000 board feet). Consequence: Lumber stocks are expected to be down to 10,600,000,000 board feet at the end of 1942, the lowest ever recorded. (Chart below.)

Labor and Spare Parts

Theoretically, the lumber industry has capacity to produce more than we need--at least 44,000,000,000 board feet annually--but...

(1) Labor is a problem. Logging camps and sawmills are losing fallers, buckers,



UNTIL MARCH, 1942, LUMBER PRODUCTION ALMOST KEPT PACE WITH CONSUMPTION, BUT SINCE THEN INVENTORIES HAVE DROPPED AT AN INCREASING RATE. TO FILL THE EXPECTED GAP BETWEEN NEW SUPPLY AND REQUIREMENTS IN THE SECOND HALF YEAR, ANOTHER 1,500,000,000 BOARD FEET--13% OF OUR PRESENT STOCKS--WILL HAVE TO BE DRAWN DOWN. BY THE YEAR'S END, INVENTORIES WILL BE THE LOWEST ON RECORD.

and sawyers to higher-paying shipyards and aircraft plants, especially on the West Coast. (The lumberman has always been a migrant.) The draft is also depleting labor supply.

(2) Transportation equipment is scarce; repair parts are difficult to obtain; and, in some cases, price ceilings are restricting production.

Shifting Species

Chief factors in rising demand are military construction (cantonments, depots, airfields, naval stations, war plants, and offshore bases, as well as ships and boats), and increased output of boxes and crates (largely for packing munitions). Here's where the lumber has been going in the past three years:

Use	1940	1941	1942 (Est.)
Military construction..	4%	10%	23%
Civilian construction..	69	63	47
Boxing and crating.....	13	14	18
Manufactures.....	11	11	11
Exports.....	3	2	1

One result of the lumber pinch is wholesale shifting from one species of wood to another. Douglas fir, for example, is replacing imported teakwood in battleship decking. And because Douglas fir supplies are tight, southern pines have been substituted for it in construction, crating, and other uses. Now southern pines are tight, so users are switching to white fir and redwood.

The Real Problem

Yellow birch and gumwoods are being substituted for imported mahogany in aircraft wing coverings, industrial patterns, pontoons, subchasers, and "mosquito" boats. Red oak may soon replace white oak, which has been used principally in flooring and furniture, but which currently supplants steel in the production of certain munitions, chiefly ships.

But shifts to more plentiful species, or even to lower grades of lumber, are only a palliative. They do not cope with the real problem--the overall shortage. What's needed is a greater utilization of the industry's capacity, notably in the South.

Rigid Restrictions

In the meantime, the use of softwoods (southern pines, Douglas fir, and ponderosa pine)--which comprise some 85% of the total lumber supply--is restricted to military and war plant construction. And even more rigid restrictions are being worked out.

For lumber has gone the way of all important raw materials; once plentiful, it's now moving onto the scarcity list, creating new problems.

"Production Drive"

WPB's joint management-labor committees have lifted output noticeably in some plants; are most effective where good labor relations already exist.

BACK IN MARCH, the War Production Board launched its drive for joint management-labor committees to speed up production. Since then, such committees have been established in about 1,300 plants. Although statistics are almost nonexistent, it is nevertheless known that the plan has lifted production considerably in individual plants.

Four Crucial Factors

Field investigations suggest that workers respond best when labor-management relations are good to begin with. The investigators found that four major

factors underlie all committee efforts to get a sustained stepup in output: They are:

1. Financial incentives: Workers tend to slacken in their efforts when they feel that the benefits from increased production go to the management, with little or no gain for the employees. The individual worker wants to participate in the financial gains resulting from his labor-and-time-saving suggestions; he wants bonuses for extraordinary efforts. As one worker put it: "There just isn't anything that makes you work as hard as some of Uncle Sam's folding money." Similarly, where fees and royalties are paid for ideas, workers begin to think harder about possible improvements than when rewarded with certificates or speeches.

2. Guarantees of piece rates: "All-out" production depends very much on whether or not the workers believe that higher output per hour will not result in a downward revision of piece rates. Furthermore, workers want it understood that supernormal efforts made now will not establish new yardsticks for production and wage rates in the postwar period. (Agreements to that effect have already been written into contracts signed recently by companies and unions.)

3. Labor relations: When management and labor representatives are at loggerheads to begin with, a joint committee will accomplish little. The success or failure of the production drive, therefore, depends largely on the quality of the relations already existing between a company and its workers. Patriotic appeals are not always effective. A union is apt to stick to its traditional opposition to speed-up policies if its relations with management are acrimonious and its status as a bargaining agency is not secured through contracts with the company.

4. War work: When the management fails to demonstrate that war production is the sole consideration for speed-up measures, workers will soon resume their old pace and may also become indifferent or hostile. Field investigators found that it is difficult, if not impossible, to get hearty cooperation when nonwar projects are undertaken side by side with armaments production.

Raw Material

TUNGSTEN, TIN, AND BULLETS

THE ARMY AND NAVY ferrying services are bringing back critical materials from China as well as returning pilots. The materials are sent from China to Calcutta and thence by rail to Karachi, where they are picked up by our planes and flown across Africa to Brazil and the United States. In the two months ending July 15, the following items were brought in:

Tungsten....	79 tons
Tin.....	47 "
Mica.....	20 "
Silk.....	70 "
Bristles....	32 "

The Naval Air Transport Service has flown beetles, needed to combat the weevil which is destroying Manila hemp plants, from the Fiji islands to Honduras.

OVERHEATED RUBBER

ROAD FRICTION generates 25% to 50% more heat in synthetic rubber tires than in those made of natural rubber. This is tough on ordinary cotton carcasses. But carcasses made of high tenacity rayon, a superstrong yarn now being used in airplane, military truck, and large commercial tires, stand up better. What's

more, they can be made in lower gauges (thinner, in other words) than ordinary cotton cords, hence require less rubber in the coating process.

U. S. output of high tenacity rayon is running at a record rate--48,000,000 pounds annually. Most of this goes into heavy duty tires. But if synthetic tire production is to expand, an additional 300,000,000 pounds may be needed. Half of this could be obtained by converting plants now making regular rayon.

Meanwhile, experiments are being made to develop a special low-gauge cotton cord to withstand intense heat. Moreover, technological advances in synthetic rubber manufacture may overcome the heat handicap.

ACCIDENTS OUTPACE EMPLOYMENT

INDUSTRIAL ACCIDENTS rose 46% in 21,400 manufacturing plants last year, while employment advanced only 21% and man-hours, 26%.● Reasons for this wartime increase in accidents are: longer work weeks and longer hours; the influx of inexperienced and older workers; operation of novel machines designed for or converted to war production; lack of safety devices, which cannot always be promptly installed because of shortages of materials.

The Bureau of Labor Statistics is now setting up a reporting system to collect month-by-month information on industrial accident trends.

WPA SCRAP HUNT

SINCE APRIL, WPA workers have been hunting for scrap along the back roads of the country. So far, they have collected 54,000 tons of metal, 2,400 tons of rubber, and quantities of other materials. One sixth of all WPA employees in Mississippi collected 15,500 tons of metal, the Wisconsin total was 10,500 tons, and Oklahoma and Michigan, 4,100 tons each.

War Progress Notes

HOURS AND EARNINGS IN WAR INDUSTRIES

OVERTIME WORK in eleven selected war industries raised the average work week to 46.5 hours in June—up 2.2 hours from a year ago and 4 hours higher than all manufacturing industries combined (see chart, page 20). Wage earners averaged more than 50 hours a week in machine tools and accessories, pumps, sewing machines, and miscellaneous machinery industries.

Greatest increases over May occurred in brass, bronze, and copper products (1.2 hours); smelting and refining (0.9); and engines, turbines, waterwheels and windmills (0.9). Only four of the 43 durable-goods industries reporting averaged less than 40 hours a week in June. These were the brick, glass, pottery, and marble-granite-slate industries, which are affected by restrictions on private building.

Hourly earnings in June averaged 84.0 cents for all manufacturing and 99.7 cents for eleven selected war industries, compared with 73.8 and 87.9 cents last June. Wage boosts, overtime premiums, and shifts of workers from low to high-wage industries are major factors in the rise.

AIRCRAFT PLANT UTILIZATION

EMPLOYMENT in the aircraft industry was 3.6% higher in July than in June. In airframe and engine plants, the increased employment was about equally distributed between the first shift and second and third shifts, so little change occurred in the plant utilization index.

In propeller plants, employment on the first shift increased only 1%, while second and third shifts combined increased 15% —plant utilization rose 3.7 hours to a new high of 106.8. In each sector Saturday and Sunday employment was higher than in June, although the percentage increases were smaller than those for regular weekday employment.

BOND SALES DROP AGAIN

SALES OF WAR BONDS were $145,000,000 for the week ended August 15—down $49,000,000 from the preceding week. To reach the Treasury goal of $1,000,000,000 for August, weekly sales must average $225,000,000.

COST OF LIVING

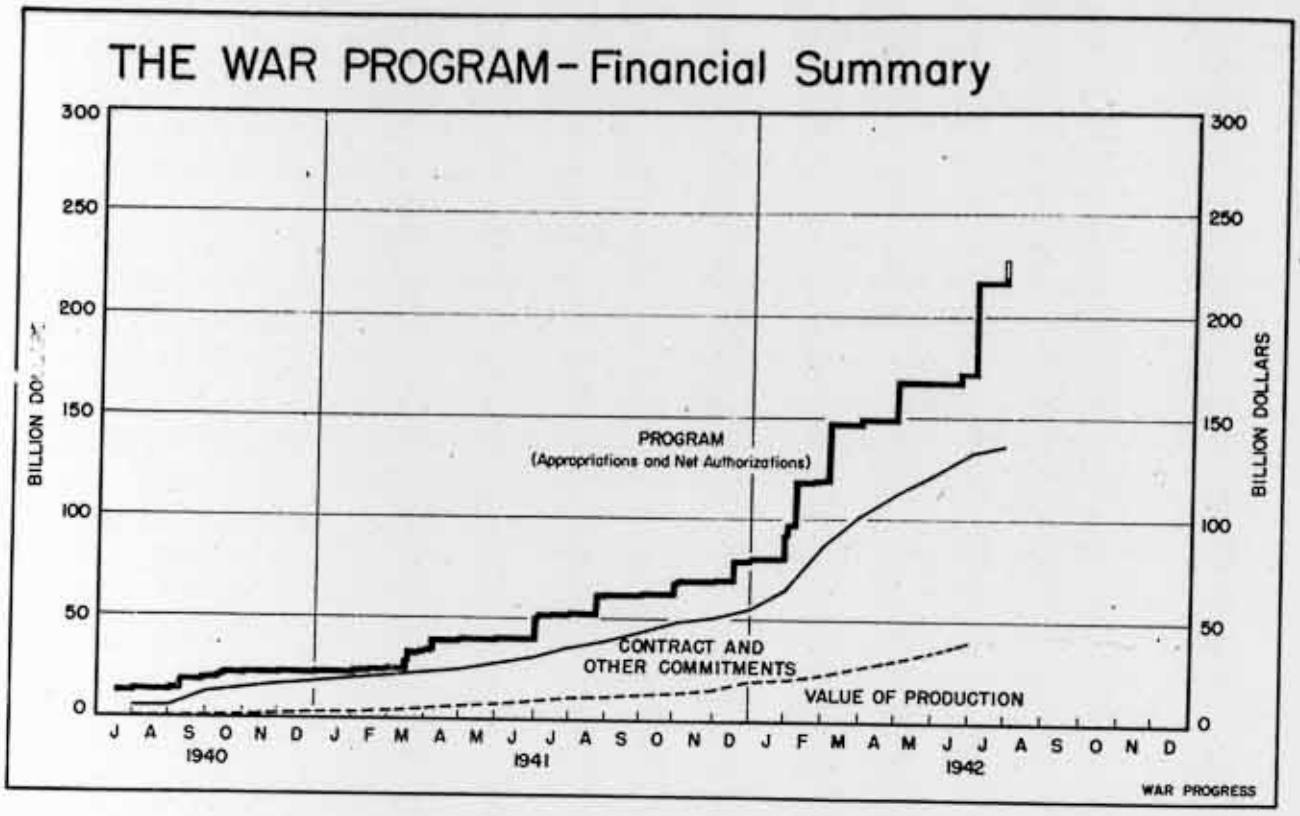
RISING FOOD PRICES boosted the cost-of-living index to 116.9 for July--up 0.5 points from June and 11% higher than a year ago. Clothing, rent, and other living costs combined remained unchanged. (Chart, page 19.) July food prices were 17% higher than a year ago; other living costs have risen only 8%.

TRAINING WAR WORKERS

SOME 2,400,000 WORKERS finished Office of Education training courses for war industries during the 1942 fiscal year --more than twice the number trained the preceding year (chart, page 22).

More than 390,000 completed courses in engineering, science and management --over six times the number last year. Supplementary courses to aid in upgrading workers were completed by 857,000, compared with 348,000 last year. Pre-employment and refresher courses show similar gains.

In-plant and on-the-job training have recently been accelerated under the Training Within Industry Program. From Sept., 1941, to the end of July, 158,000 lead men and supervisors in plants employing almost 4,500,000 workers had received job instruction training. Of these, more than half were trained in the last three months.

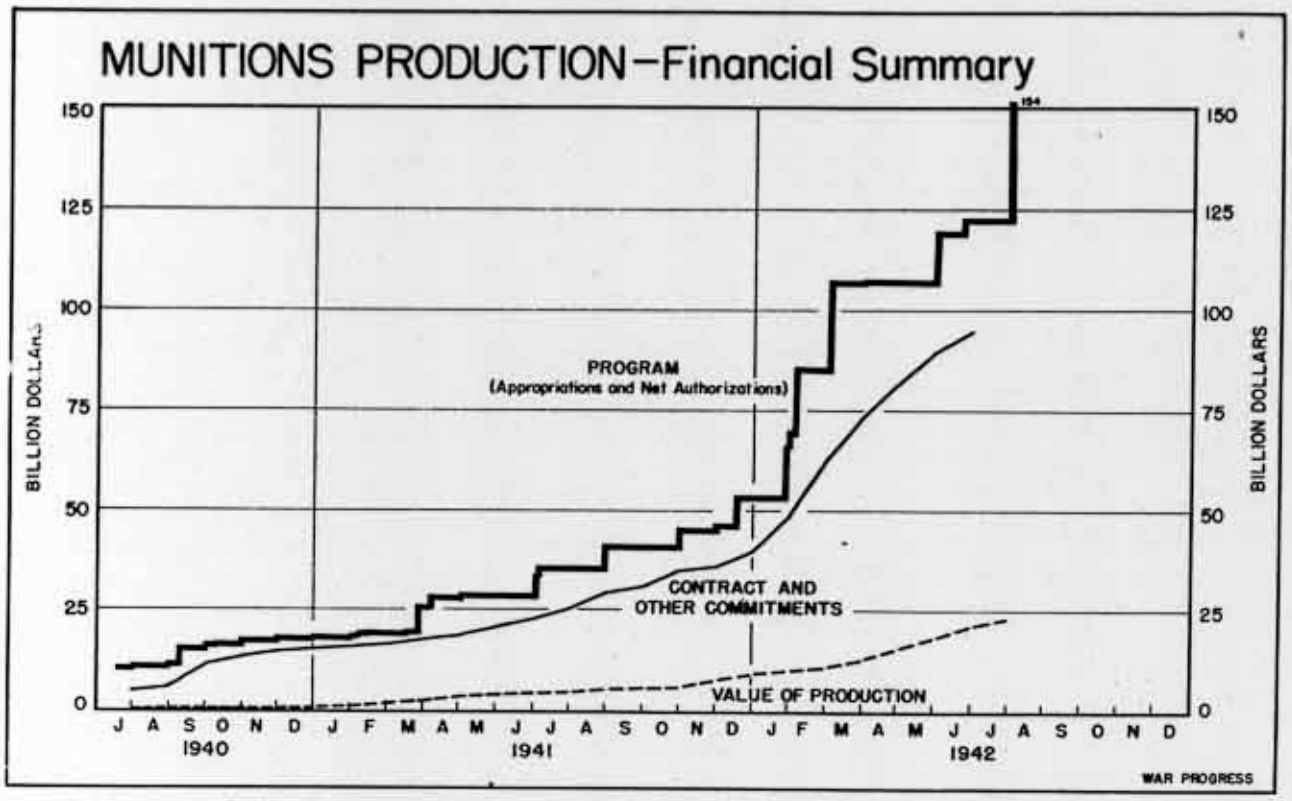

THE WAR PROGRAM - Financial Summary
300
250
200
150
100
50
0
BILLION DOLLARS
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL WAR PROGRAM IN THE UNITED STATES

	Cumulative 6/11/40 to			Monthly		
	End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	May 1942	June 1942	July 1942
● TOTAL WAR PROGRAM IN THE U.S.[a]			(Million dollars)			
Program-Pending						p 9,525
Program-Enacted	40,861	80,604	p 174,384	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	31,587	56,625	p 134,094	p 9,731	p 12,098	n.a.
Value delivered and/or in place [b]	8,547	18,573	p 39,222	p 4,060	p 4,602	n.a.
Checks paid [c]	8,536	17,965	p 37,562	3,925	p 4,156	p 4,824
MUNITIONS PRODUCTION & WAR CONSTRUCTION, TOTAL						
Program	37,027	69,305	p 156,214	0	p 5,358	p 32,543
Uncommitted Balance	7,597	18,281	p 33,761	-	-	-
Contracts and other commitments	29,430	51,024	p 122,453	p 9,107	p 9,999	n.a.
Value delivered and/or in place [b]	6,795	14,750	p 32,184	p 3,465	p 3,882	n.a.
Value not delivered nor in place	22,635	36,274	p 90,269	-	-	-
PRODUCTION OF MUNITIONS						
Program	28,566	53,738	p 124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 3,044
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
WAR CONSTRUCTION						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value delivered and/or in place [b]	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a
Value not delivered nor in place	3,260	5,405	p 15,727	-	-	-
NON-MUNITIONS WAR ITEMS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Contracts and other commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued	1,752	3,823	p 7,038	p 595	p 720	n.a.

For footnotes see Page 18.

● Graph appears on opposite page.
Table continued on Page 13.

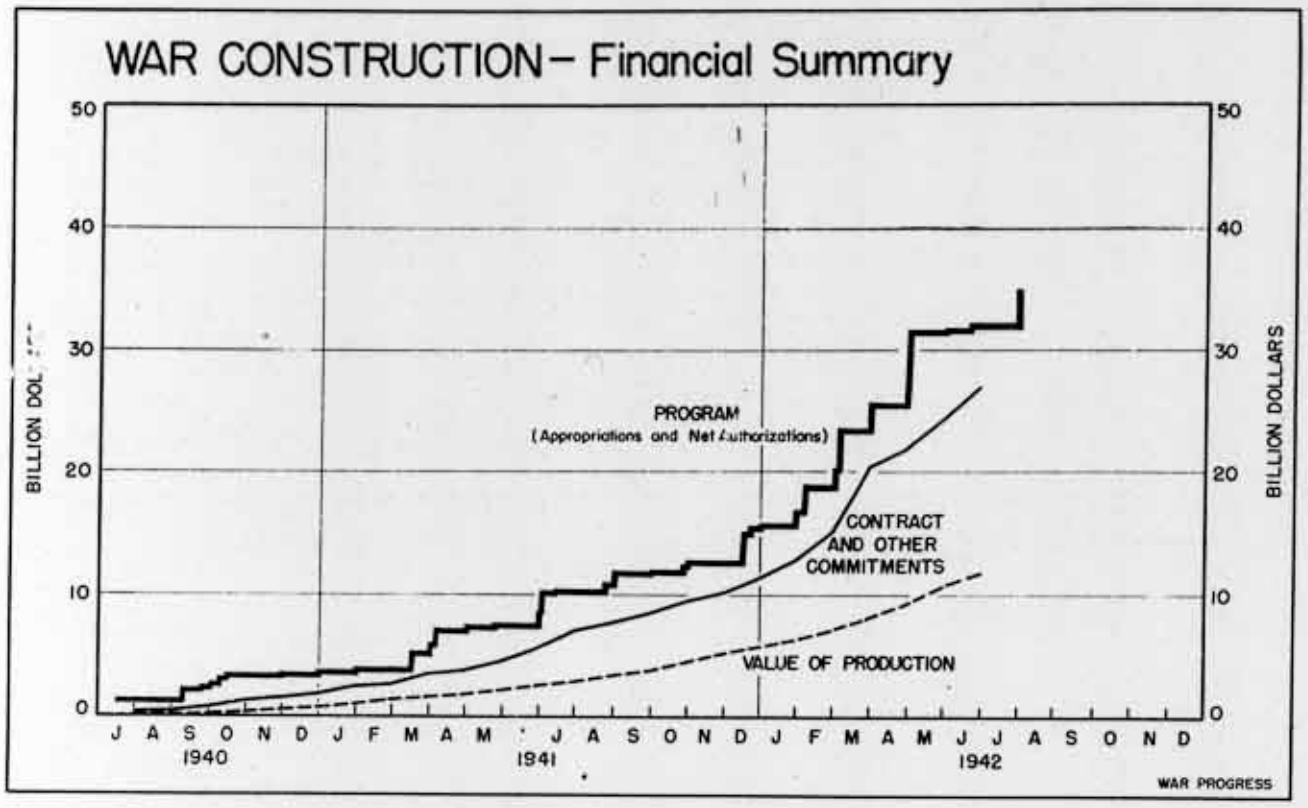

MUNITIONS PRODUCTION—Financial Summary
150
125
100
75
50
25
0
BILLION DOLLARS
154
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF MUNITIONS PRODUCTION			
● MUNITIONS PRODUCTION, TOTAL						
Program	28,566	53,738	p124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 3,044
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
AIRPLANES, PARTS & ACCESSORIES						
Program	8,582	15,072	p 37,586	0	p -215	p 9,737
Contracts and other commitments	7,381	13,298	p 33,945	p 2,409	p 2,838	n.a.
Value delivered	1,010	2,265	4,752	471	510	p 565
ORDNANCE						
Program	7,778	17,488	p 36,400	0	p 285	p 9,548
Contracts and other commitments	5,418	10,354	p 26,873	p 2,278	p 2,360	n.a.
Value delivered	700	1,685	4,998	696[c]	731	p 918
NAVAL SHIPS						
Program	6,796	9,605	p 18,460	0	p 2,922	p 0
Contracts and other commitments	6,442	7,930	p 12,276	275	p 276	n.a.
Value delivered and/or in place	810	1,665	3,383	399[c]	404	p 494
MERCHANT SHIPS						
Program	1,442	3,288	p 8,653	-25	p 1,054	p 0
Contracts and other commitments	1,484	2,381	p 6,880	p 607	p 618	n.a.
Value in place	240	510	1,188	131	176	187
OTHER MUNITIONS AND SUPPLIES						
Program	3,968	8,285	p 22,998	0	p 710	p 10,667
Contracts and other commitments	2,940	5,846	p 15,017	p 1,099	p 850	n.a.
Value delivered	1,530	2,815	6,128	551	817	p 880

● Graph appears on opposite page.
Table continued on Page 15.

For footnotes see Page 18.


WAR CONSTRUCTION– Financial Summary
BILLION DOLLARS
50
40
30
20
10
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT
AND OTHER
COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

essa- y to meet the full-year objective.

In contrast, plane manufacture continued to lag. We built more trainers, pursuit craft, flying boats, and heavy, medium, and single-engined light bombers than in June, but not so many as forecast. Delivery of twin-engined light bombers declined sharply because two major plants ran below their schedules; and output of Navy fighters dropped. As a whole, on the basis of the latest forecasts, it appears that 1942 plane output will fall considerably below the accepted objective.

Small Ship Deliveries Lag

July was a good month for deliveries of large combat vessels. Twice as many small destroyers were delivered as in June, and large destroyer and light cruiser deliveries equalled the June figures. However, work on ships scheduled to be delivered in 1943 and later is actually falling behind this year's objective.

And the small-combat-vessel program lost more ground. July production of torpedo boats, subchasers, and minesweepers was impressive compared with June but was 30% to 40% below the forecast. Few small landing vessels were delivered in July, and this program, which got under way only in March and April, is further behind than any other on the Navy's docket.

By comparison, we didn't do so badly in merchant vessels. Launching of Liberty ships was 5% under the forecast; tankers were up to the mark. But we have two thirds to go--in the five months left--to reach the 1942 merchant ship goal.

Gun Progress Mixed

July output of large guns was mixed. Production of wheeled artillery lagged --except for the 105mm. howitzer--mainly because some of the guns were expected to come into production and didn't. However, we turned out more antitank and antiaircraft weapons than in June--especially the light self-propelled antitank gun and the 40mm. Bofors and 90mm. antiaircraft guns; and two important field pieces came into production for the first time.

The record for small arms and infantry weapons was not imposing. Manufacture of .45 caliber submachine guns, .30 caliber machine guns, .30 caliber carbines, and 60mm. mortars was much below the forecast, while the .30 caliber Springfield and Garand rifles just reached it. However, about twice as many Browning automatics were delivered as the forecast called for.

Ammunition Gains

July loading of ammunition was the most promising to date. In a majority of items--for example, armor piercing ammunition--loadings ran above schedule and considerably beyond June totals. Exceptions were aircraft and mortar ammunition. Rate of output of these, however, is expected to increase when new plants come into production late this year and early next (WP-July24'42,p6).

IN THIS ISSUE:

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
BREAKDOWN OF WAR CONSTRUCTION						
●WAR CONSTRUCTION, TOTAL (LAND, BLDGS., EQUIP.)						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value in place	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a.
Value not in place [b]	3,260	5,405	p 15,727	-	-	-
INDUSTRIAL FACILITIES (LAND, BLDGS., EQUIP.)						
Program	5,120	8,112	p 17,610	25	p 707	p 172
Contracts and other commitments	2,865	6,318	p 16,697	p 1,047	p 1,592	n.a.
Value in place	960	2,800	p 5,990	p 629	p 615	n.a.
INDUSTRIAL FACILITIES, BUILDINGS ONLY						
Program	1,607	3,137	n.a.	p 389	n.a.	n.a.
Value in place	575	1,753	p 2,990	p 287	p 307	p 344
POSTS, DEPOTS, STATIONS						
Program	2,849	6,063	p 13,115	0	p -105	p 2,419
Contracts and other commitments	2,625	4,381	p 9,890	p 1,317	p 1,390	n.a.
Value in place	1,430	2,670	p 5,179	p 545	p 580	n.a.
DEFENSE HOUSING						
Program	492	1,392	p 1,392	0	p 0	p 0
Contracts and other commitments	275	516	p 875	p 75	p 75	n.a.
Value in place	115	340	p 566	p 43	p 49	n.a.
BREAKDOWN OF NON-MUNITIONS						
NON-MUNITIONS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued by agencies [b]	1,752	3,823	p 7,038	p 595	p 720	n.a.
STOCKPILE						
Program	983	2,399	p 2,713	0	p 0	p 0
Commitments	470	1,050	p 1,140	p 30	p 0	n.a.
Checks issued by agencies	192	488	p 1,011	p 102	p 100	n.a.

●Graph appears on opposite page.
Table continued on following page.

For footnotes see Page 18.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF NON-MUNITIONS (Continued)			
AGRICULTURAL EXPORTS (LEND-LEASE)						
Program	625	1,522 p	2,138	0 p	0 p	0
Commitments	66	561 p	1,143 p	65 p	149	n.a.
Checks issued by agencies	1	211 p	629	87 p	90	n.a.
PAY, SUBSISTENCE & TRAVEL [f]						
Army Military						
Program	944	3,013 p	3,904	0 p	0 p	8,534
Commitments	934	2,030 p	3,849 p	281 p	285	n.a.
Checks issued	696	1,510 p	2,744 p	220 p	315	n.a.
Navy Military						
Program	378	963 p	2,478	0 p	232 p	0
Commitments	334	610 p	1,143 p	110 p	104	n.a.
Checks issued	388	642 p	1,042 p	70 p	98	n.a.
Civilian Payroll						
Program	32	247 p	299	0 p	46 p	542
Commitments	32	140 p	255 p	15 p	20	n.a.
Checks issued	356	682 p	1,115 p	79 p	80	n.a.
MISCELLANEOUS NON-MUNITIONS						
Program	872	3,155 p	6,638	0 p	-21 p	2,852
Commitments	321	1,210 p	4,111 p	123 p	1,541	n.a.
Checks issued by agencies	119	290 p	497 p	37 p	37	n.a.

p Preliminary

Table continued on following page.

For footnotes see Page 18.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
	d		BREAKDOWN OF AGENCIES			
UNITED STATES FINANCED WAR PROGRAM						
Program	37,075	76,508	p 170,288	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	27,801	52,529	p 129,998	p 9,731	p 12,098	n.a.
Checks paid	6,431	15,251	p 34,510	3,880	p 4,123	p 4,794
U. S. ARMY						
Program	13,134	31,981	p 84,468	0	p 0	p 42,090
Contracts and other commitments	11,404	23,334	p 70,402	p 6,138	p 8,397	n.a.
Checks paid	3,636	7,889	15,649	1,497	1,662	n.a.
U. S. NAVY						
Program	12,308	20,024	p 47,990	0	p 4,355	p 0
Contracts and other commitments	11,182	16,327	p 32,325	p 1,971	p 2,361	n.a.
Checks paid	2,217	4,726	10,128	1,229	1,237	n.a.
LEND-LEASE						
Program	7,000	12,985	p 18,410	0	p 0	p 0
Allocations	5,177	11,345	14,085	508	-281	n.a.
Contracts and other commitments	2,458	6,282	10,665	305	484	n.a.
Checks paid	21	910	4,099	626	665	n.a.
U. S. MARITIME COMMISSION						
Program	784	2,734	p 7,654	0	p 1,070	p 0
Contracts and other commitments	886	1,724	p 6,333	608	p 631	n.a.
Checks paid (Net)e	44	156	642	93	114	n.a.
RFC AND SUBSIDIARIES						
Program	2,623	5,130	p 7,704	0	p 0	p 0
Contracts and other commitments	1,151	3,569	p 7,916	p 509	p 0	n.a.
Checks issued by RFC	350	956	p 2,510	327	p 300	p 300
OTHER U. S. AGENCIES						
Program	1,226	3,654	p 4,062	0	p 190	p 2,381
Contracts and other commitments	720	1,293	p 2,357	p 200	p 225	n.a.
Checks paid	163	614	1,482	108	145	n.a.
FOREIGN ORDERS						
Program (Orders)	3,786	4,096	p 4,096	0	p 0	p 0
Commitments	3,786	4,096	p 4,096	0	p 0	p 0
Checks issued by Purchasing Missions	2,105	2,714	p 3,052	45	p 33	p 30

FOOTNOTES

WAR PROGRESS SERIES

n.a. Not available
r Revised.
P Preliminary

a Total war program includes all funds and authorizations made available for war purposes by the United States Government plus foreign orders placed in this country since November 1939. The major portion of the existing program has been approved since June 11, 1940, but some authorizations (particularly portions of the naval expansion program, the merchant shipbuilding program, and the stockpile program) were made available even earlier. All funds are shown during the fiscal year in which they are available for obligation.

b Value delivered and/or in place includes (1) value delivered and/or in place for ships and value of production for other munitions, (2) value in place for war construction, and (3) checks issued by finance officers for non-munitions items.

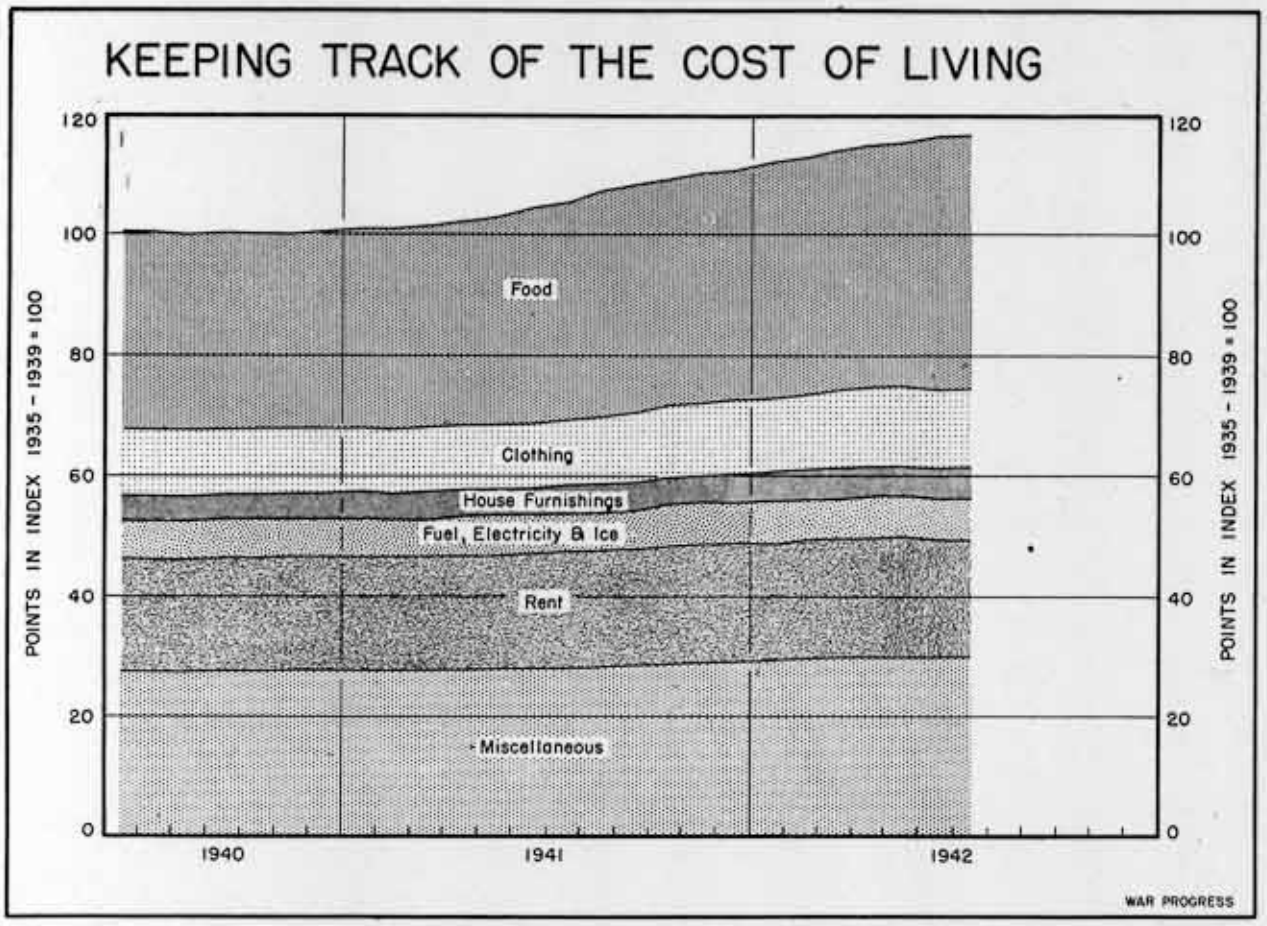
c Checks paid include (1) all checks paid out of the Treasury General Fund; (2) checks issued by the Reconstruction Finance Corporation and subsidiary Government corporations;(3) checks issued by foreign purchasing commissions.

d United States financed program includes the war activities of all United States Government agencies (including Lend-Lease) plus the war activities of government owned corporations, but does not include foreign orders.

e Report on checks paid by the Treasury for the account of the Maritime Commission makes allowance for receipts credited to the Construction Loan Fund.

f Program and obligations for pay for civilians and for the Navy include only that specifically mentioned in appropriation bills, while the cash disbursement figures include, in addition, executive war pay which cannot be separately distinguished in the appropriation bills.

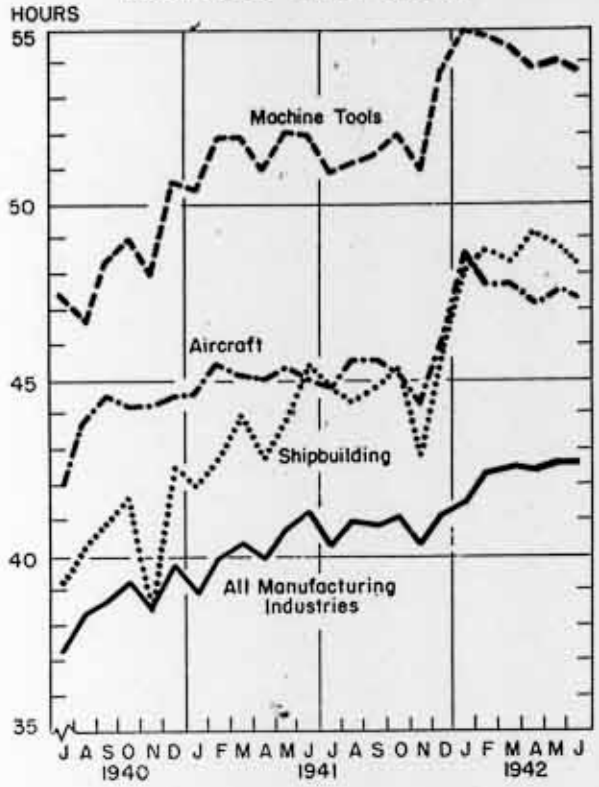
g Ordnance and naval ships figures revised back to January 1942. In comparing these with prior figures, ordnance and naval ships should be combined.



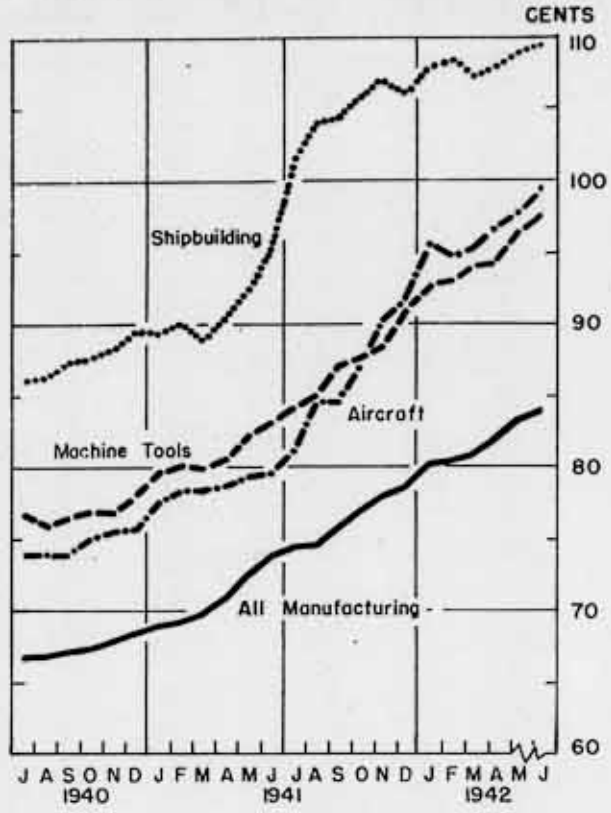
ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
					Week ending	
	July	July	June	July	Aug. 8	Aug. 15
BLS PRICE INDEXES						
Strategic materials	123.6	140.3	147.6 p	147.5	147.5	147.5
Critical materials (8/39 =100)	107.5	115.2	123.2 p	123.9	123.9	123.9
Basic commodities (8/39 =100)	108.5	148.7	166.4	167.2	166.9	167.2
Machine tools (8/39 =100)	108.7	117.6	118.0	118.0	-	-
All commodities (1926=100)	77.7	88.8	p 98.6	p 98.7	p 98.6	p 98.9
TRANSPORTATION						
Freight cars						
Loadings (thous. per week)	706	853	846	830	850	869
Unloads for export (dly. av.)						
Atlantic & Gulf ports (no.)	1,494	1,614	1,950	1,718	1,838	1,820
Pacific ports (no.)	112	159	490	608	773	727
Surplus cars (dly. av. thous.)						
Total	132	77	83	77	67	
Box cars	55	30	57	47	43	
Coal cars	48	27	9	12	7	
Bad order cars, total, first of month (thous.)	153	85	63	57	(Aug.1) 55	
ELEC. POWER PROD. (mil. kwh.)	12,094	14,226	r 15,182	16,004	3,637	
WAR BOND SALES (mil. dollars)	-	342	634	901	194	145

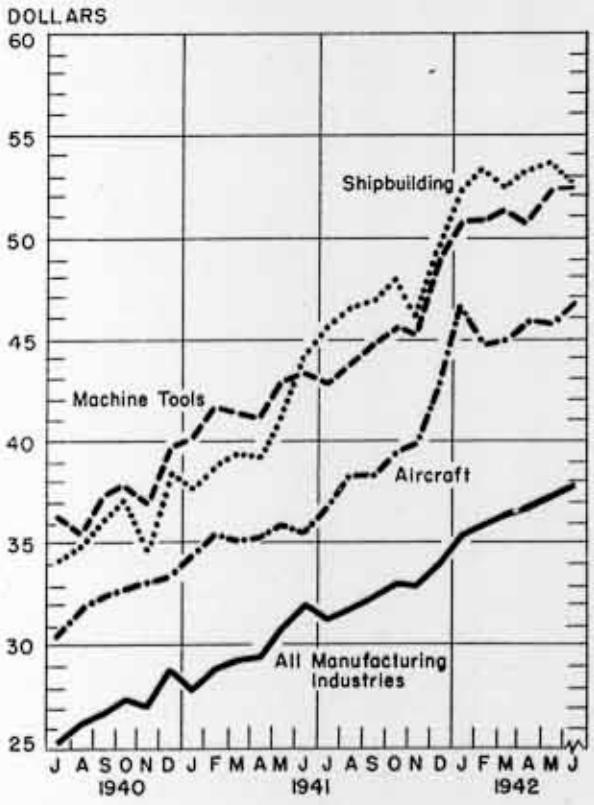
AVERAGE HOURS WORKED PER WEEK



AVERAGE HOURLY EARNINGS



AVERAGE WEEKLY EARNINGS



COST OF LIVING

1935-39 = 100

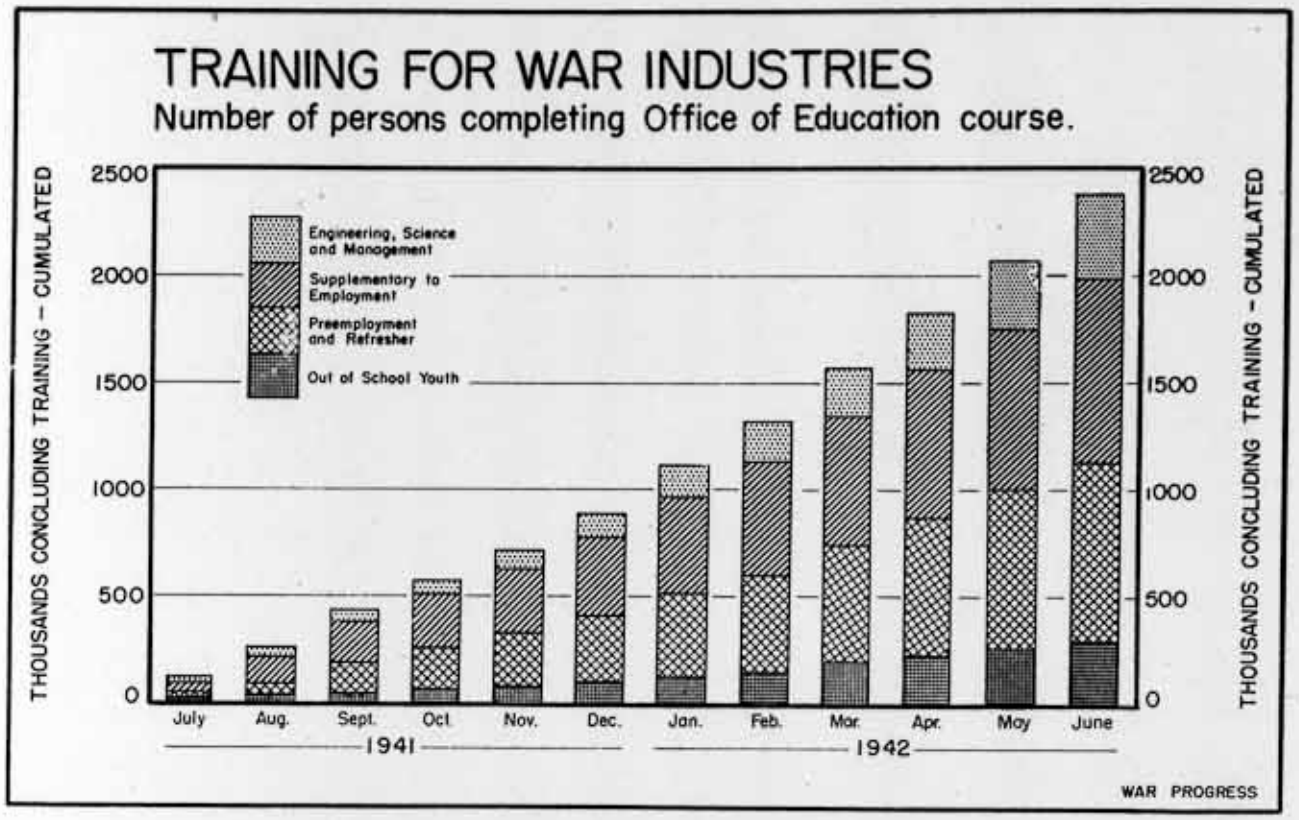
ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	April	May	June	July
●BLS COST OF LIVING INDEX (1935-39 = 100)						
All items	100.3	105.3	115.1	116.0	116.4	116.9
Food	97.4	106.7	119.6	121.6	123.2	124.6
Rent	*104.6	106.1	109.2	109.9	108.5	107.7
▲AVERAGE HOURS WORKED PER WEEK						
All manufacturing industries	37.3	40.3	42.4	42.6	42.6	
Durable goods	37.9	41.5	44.7	45.0	45.1	
Nondurable goods	36.7	39.0	39.7	39.7	39.6	
11 selected war industries combined	39.3	43.1	46.3	46.5	46.5	
Machine tools	47.5	50.9	53.9	54.1	53.8	
Aircraft	42.0	44.8	47.2	47.5	47.2	
Shipbuilding	39.3	44.8	49.2	48.8	48.2	
AVERAGE HOURLY EARNINGS (Cents)						
All manufacturing industries	66.7	74.4	81.9	83.1	84.0	
Durable goods	72.7	82.6	91.0	92.3	93.3	
Nondurable goods	61.5	65.7	71.4	72.2	72.7	
11 selected war industries combined	78.6	88.9	97.6	98.7	99.7	
Machine tools	76.8	84.1	94.4	96.5	97.4	
Aircraft	73.8	81.2	96.6	97.8	99.6	
Shipbuilding	86.2	101.3	108.0	109.0	109.2	
AVERAGE WEEKLY EARNINGS (Dollars)						
All manufacturing industries	25.25	31.22	36.63	r 37.43	37.99	
Durable goods	28.52	35.84	42.57	r 43.40	44.06	
Nondurable goods	21.87	25.07	r 27.78	r 28.24	28.23	
11 selected war industries combined	30.76	38.66	45.31	45.92	46.43	
Machine tools	36.45	42.80	50.79	52.24	52.47	
Aircraft	30.48	36.57	45.94	45.81	46.75	
Shipbuilding	34.03	45.54	53.30	53.67	52.82	
PLANT UTILIZATION						
Aircraft Industry						
Airframes		(Equivalent hours of full capacity operations)				
All plants	n.a.	76.2	88.0	87.0	86.5	87.2
Three best plants	n.a.	97.0	114.1	109.6	105.8	111.6
Aero engines						
All plants	n.a.	95.6	106.1	104.5	106.0	106.1
Three best plants	n.a.	112.2	124.4	127.3	124.8	129.7
Propellers						
All plants	n.a.	91.5	99.5	101.0	103.1	p 106.8
Three best plants	n.a.	116.5	130.4	135.2	135.2	131.7

▲Chart appears on opposite page. *June, 1940. r Revised.

●Chart appears on Page 19.

a Total man-hours in one week divided by the number of workers on the first shift.



ECONOMIC ACTIVITY RELATED TO THE WAR

	Number concluding training					In training of June 1942
	FY 1940-1941[a]	Cumulative July 1, 1941 to end of				
		March 1942	April 1942	May 1942	June 1942	
		(Thousands)				
VOCATIONAL TRAINING FOR WAR PRODUCTION WORKERS						
Office of Education Programs						
Out-of-school youth	223	192	227	254	275	34
Preemployment-refresher [b]	342	546	646	746	859	192
Supplementary to employment	348	606	690	748	857	154
Engineering, science, and management	66	227	273	318	393	96
Total	979	1,571	1,836	2,066	2,384	476
Training-within-industry-WPB						
Job Instructor Training Program [c]						
Job instructors trained	-	45	63	98	125	
Employees in plants served	-	2,295	2,759	3,416	2,529	
		(Number)				
Plants served	-	1,801	2,216	2,752	2,773	

[a] Not adjusted for dropouts.
[b] About 18 percent of the enrollees in preemployment--refresher courses were NYA war project workers referred to training courses.
[c] Job instructor training started September 1, 1941.

The President

WAR PROGRESS

Confidential

(British-Secret)

DECLASSIFIED

MAR 23 1973

Scorecard on Merchant Shipping

Speed-up in Convoy Protection

Number 102 August 28, 1942

Needed: A Production Budget

Shutdowns of plants indicate urgency of an item-by-item schedule of output in order to correct diseconomy in use of copper, steel, and other critical supplies.

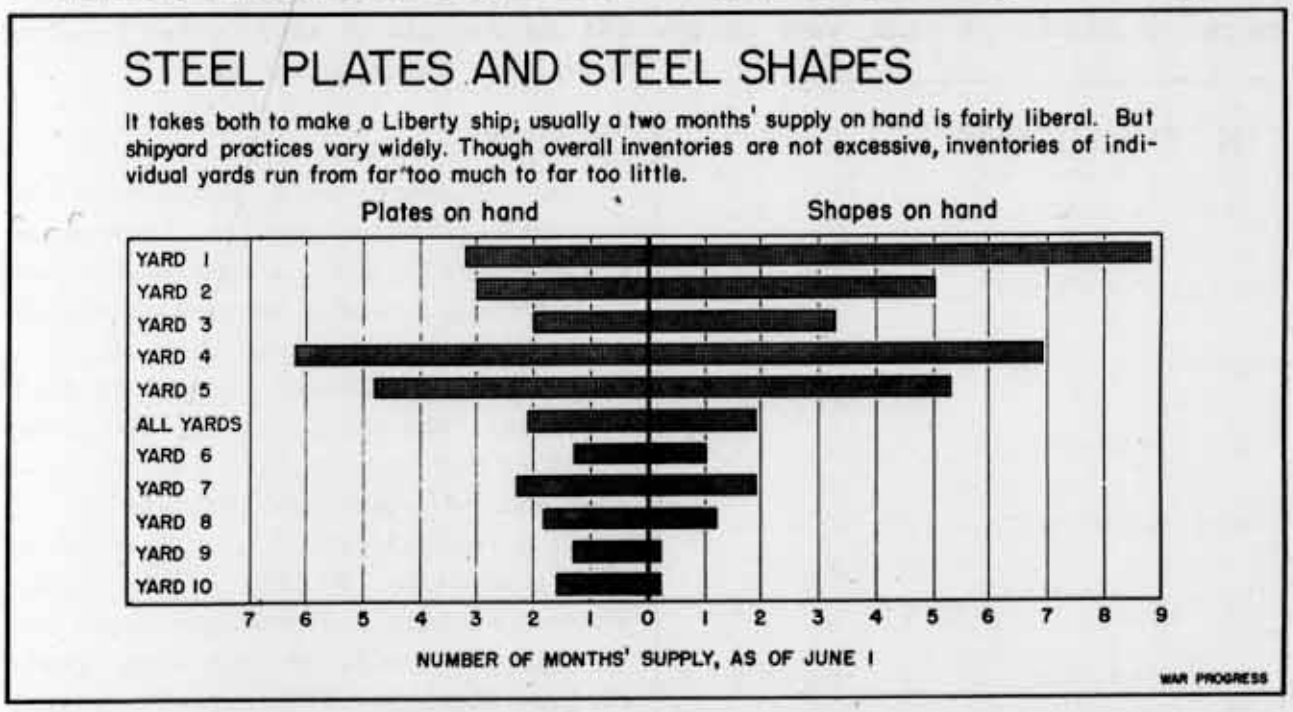
MUNITIONS OUTPUT this month will run around $3,700,000,000; in December, the monthly rate is scheduled at $5,500,000,000. In terms of raw materials, the implications are unmistakable.

Already, sporadic shortages of steel plates, various alloy steels, copper, and other materials have forced plant shutdowns. They will not be the last. For, if materials are insufficient to satisfy the demands of a $3,700,000,000 monthly output, they are not likely to meet the requirements of an output 50% greater in December.

However, materials can be stretched. Data recently developed indicate this. They show three main types of "imbalance" in the use of raw materials. (Incidentally, imbalance is a term that is destined to become a byword in war production circles in coming months.) For example:

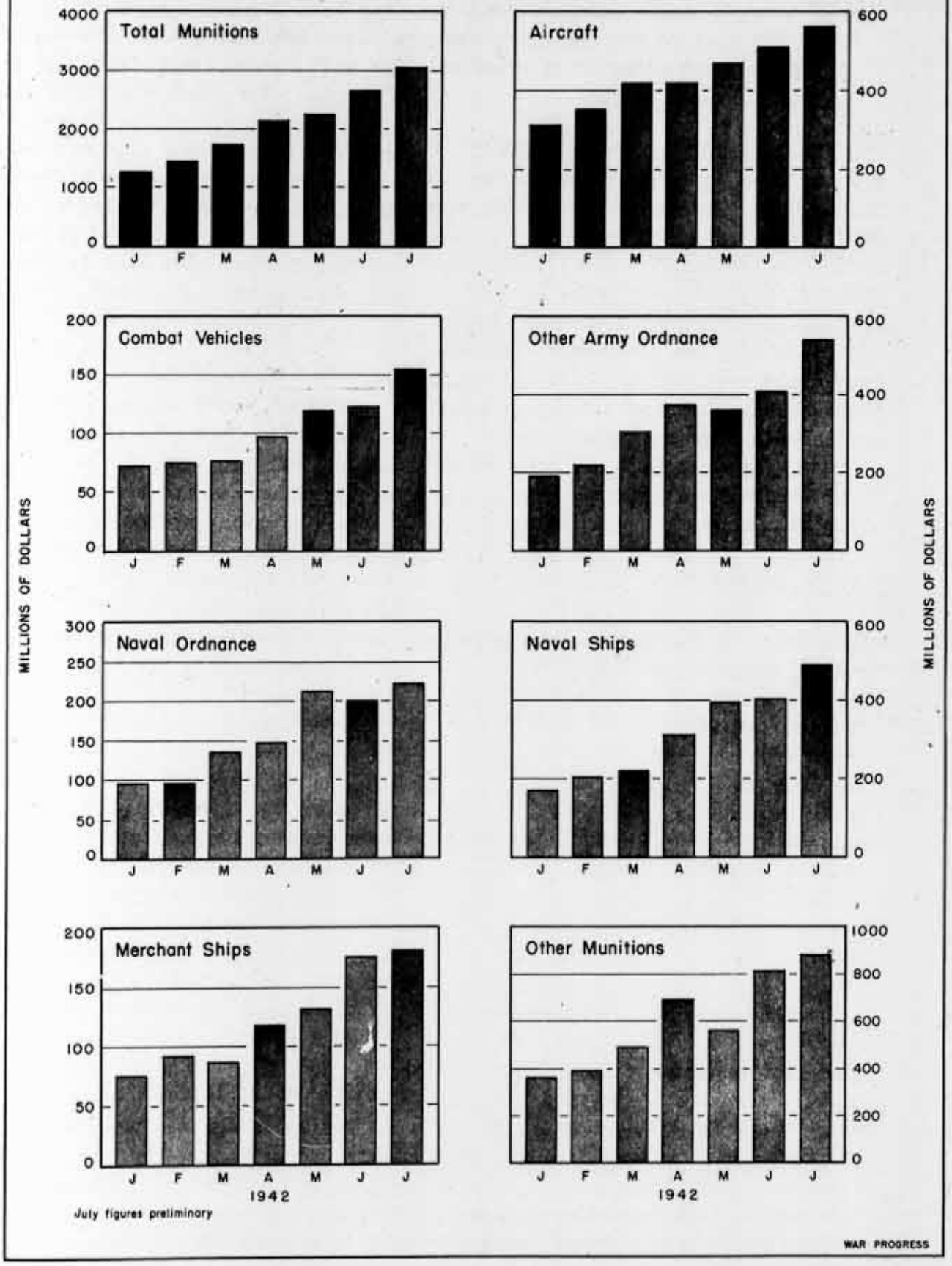
1. We are using critical materials, such as steel, copper, and machine tools, in building new plants—tank, airplane, etc.--when plants already in existence are operating far below capacity. Here you have imbalance between the facilities program and the current operating rate. Materials go into new buildings and machinery, when conceivably they might be directed to end products, if existing plant utilization were increased.

2. We are producing certain types of



THIS CHART INDICATES TWO TYPES OF UNBALANCED INVENTORY. FIRST, SOME SHIPYARDS HAVE MUCH LARGER STOCKS OF STEEL THAN OTHERS. SECOND, STOCKS OF INDIVIDUAL YARDS ARE OUT OF LINE; THUS, YARD 1 SHOWS A NINE MONTHS' SUPPLY OF PLATES AND ONLY THREE MONTHS' SUPPLY OF SHAPES. YARD 10 SHOWS UNBALANCE THE OTHER WAY—1.6 MONTHS' SUPPLY OF PLATES, 0.2 MONTHS' SUPPLY OF SHAPES. THE 0.2 MONTHS' SUPPLY IS TOO LITTLE.

MUNITIONS OUTPUT—Month by Month



July figures preliminary

WAR PROGRESS

components, such as fuses and rotating bands for shells, much faster than the shell cases. As a consequence, copper piles up in semifinished products which have to lie in stock waiting for ammunition plants to turn out cases. And we are producing certain types of ammunition faster than the guns to fire them. In the meantime, some gun plants are closing or slowing down production for want of copper.

3. We have imbalance in plant inventories, too. One plant will be overstocked with copper or steel plate, for instance, while another plant will be understocked. Again, the overall effect is to keep critical materials out of production channels.

Shipyards an Example

Liberty shipyards are a good example of this. Ordinarily, a two months' supply of shapes and plates on hand is fairly liberal. And a checkup of all yards, as of June 1, showed that average stocks of plates on hand were enough for 2.1 months, while inventories of shapes averaged 1.9 months. So the all-yard picture was decidedly in balance.

Individual yards, however, revealed decided imbalance. Thus, a yard which laid ten keels a month had only one-sixth as many tons of shapes on hand as a yard which laid less than two keels a month. And a yard which had been averaging 2½ keel layings a month had more steel plates than a yard laying nine keels monthly.

Imbalance Corrected

In one case, a shipyard had hardly one week's supply of shapes--obviously too narrow a margin for efficient operation. This disproportionate distribution has since been corrected by the shipment of shapes from slower-producing, overstocked yards. Here, the knowledge of inventory stocks permitted amelioration of inventory imbalance. And the shipyard situation, as the result of such intra-industry shift of plates and shapes, is in much better balance today than three months ago.

Two Steps

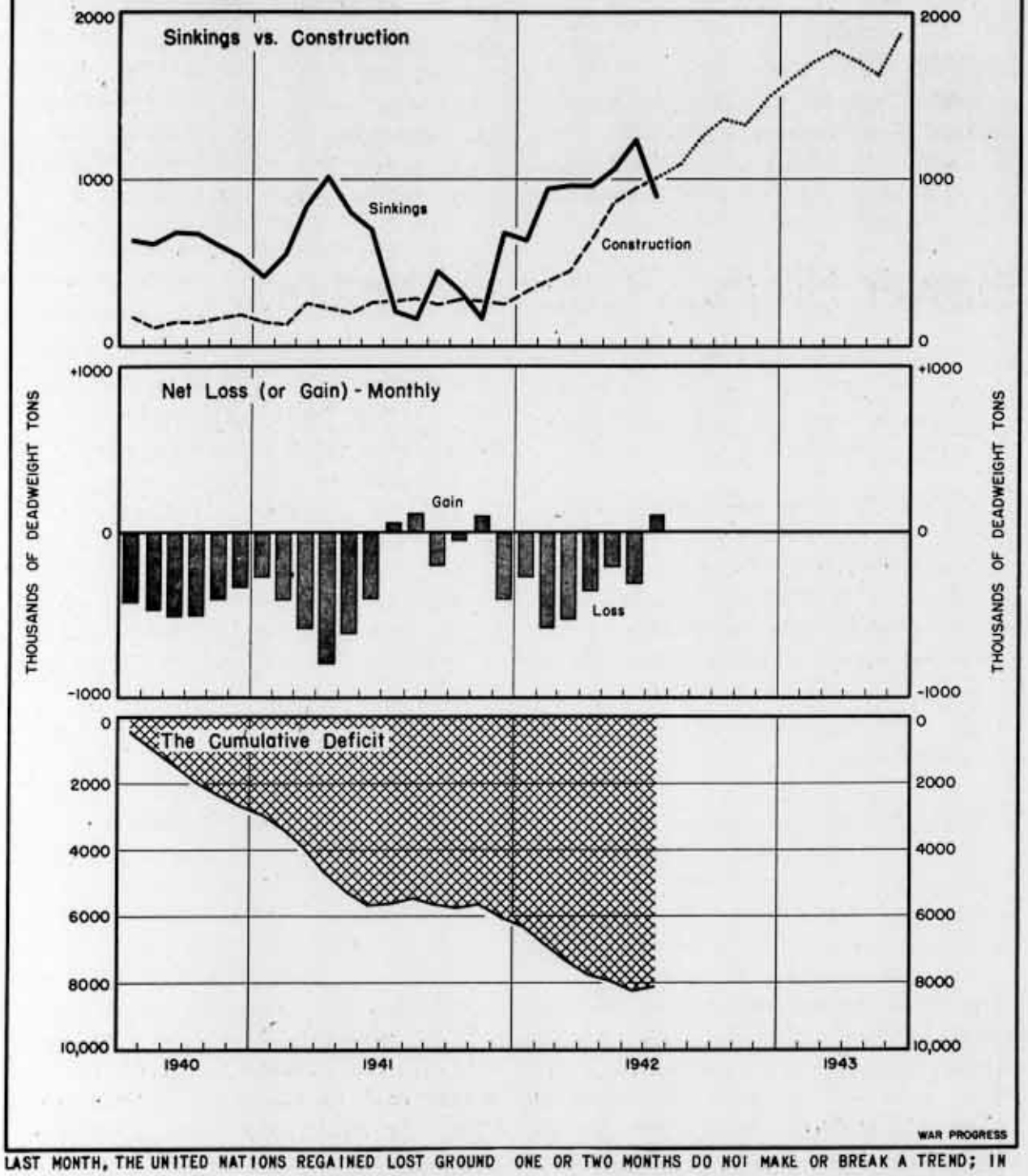
The shipyard case epitomizes the current production problem. Raw materials generally are no longer sufficient to go around, hence it becomes necessary so to direct the distribution of critical supplies as to get more of the most essential end products for the armed services and the civilian economy. To that end two steps are indicated:

1. A re-examination of all items on the production docket. This should suggest certain end products which may be dispensed with or cut down--especially items in which current output exceeds either objectives or complementary items. Such pruning would keep raw materials out of overstockpiles and free them for active utilization.

IN THIS ISSUE:

SCORECARD ON MERCHANT SHIPPING

Sinkings drop sharply, and for first time in eight months construction exceeds losses.



LAST MONTH, THE UNITED NATIONS REGAINED LOST GROUND IN THE BATTLE OF SHIPPING. WITH CONSTRUCTION OF MERCHANT SHIPS UP 5% AND SINKINGS DOWN 30%, THERE WAS A NET INCREASE IN TONNAGE. AND PRELIMINARY AUGUST REPORTS INDICATE CONTINUED LOW SINKINGS. HOWEVER, ONE OR TWO MONTHS DO NOT MAKE OR BREAK A TREND; IN 1941, CONSTRUCTION OUTRAN SINKINGS IN THREE MONTHS —JULY, AUGUST, AND NOVEMBER—BUT THOSE GAINS WERE FOLLOWED BY A SUCCESSION OF MONTHLY DEFICITS AS SINKINGS ROSE TO A NEW HIGH.

2. A production budget which is a production budget. Such a budget would set forth--item-by-item and month-by-month--a schedule of end products to be produced for the armed forces and the civilian economy.

How Much? What? When?

Such a budget would supersede our present miscellaneous schedules, each put out by a different procurement agency; for it would be an all-embracing budget and would cover many areas of production and scheduling which have yet to be definitized.

In short, the production budget would establish clearly and undebatably--and for the first time--this: How much we shall make of what--and when.

For, not until we have such a budget --not until we know which end products are needed and how soon--can we hope to synchronize the flow of raw materials into our productive machine.

Slower Ships, Faster Protection

By cutting speed of destroyer escort vessels from 24 to 20 knots, the Navy makes one engine serve for two. Production program is more than doubled.

TO RELIEVE 35-knot destroyers and 33-knot cruisers from the job of protecting convoys traveling at 12 to 14 knots, the Navy is speeding up and enlarging its building program for destroyer escort vessels. These are 1,500-ton ships --about two-thirds as large as a destroyer, but twice the size of the largest subchaser.

Program Up 200%

As recently as May, only 300 such vessels were on the docket—to be delivered by July, 1944. New schedules call for delivery of 497 ships by that date. Furthermore, the schedule has been stretched out another six months, and by January, 1945, deliveries should run to 720 ships. Adding in 160 ships which have not yet been scheduled but which will be built later, the overall program has been boosted almost 200%.

Changes in specifications are the chief reason for the 197-ship increase in deliveries over the next two years. Of the 300 ships in the original program, 183 were to have been diesel powered and were designed for a top speed of 24 knots. But by cutting the required speed to 20 knots, the number of diesel engines needed is halved--four to a vessel, instead of eight. This means releasing enough propulsion machinery to power 183 more ships--and because hulls for these ships can be built much more rapidly than engines, it speeds up the entire production program.

Earlier Deliveries

Furthermore, the changed plans will push forward initial deliveries. (We shall get ships this November instead of next March.) Original plans for 24-knot diesel-powered vessels called for a composite drive--diesel and diesel-electric—and one big cause of delay was reduction gears, which will not be available in adequate quantities until next spring. But diesels, generators, and motors will be ready late this fall. Thus, by using only diesel-electric power--which doesn't require reduction gears--on some of the ships, deliveries can be initiated several months sooner.

The Navy hasn't changed specifications on steam-powered destroyer escorts

—they'll still make 24 knots. But the plant constructed to build steam turbines for these ships will be able to turn out more than previously expected; and this, plus the six-month extension of the building schedule, has made it possible to plan 275 steam-powered escort vessels, instead of the 117 in the old schedule.

Speed Not Essential

The destroyer escorts are fully armed to combat submarines or planes which attack their convoys—they carry listening devices, depth charges, torpedo tubes, machine guns, and antisubmarine-antiaircraft guns—but they are wholly defensive vessels and do not have to be fast enough to hunt down enemy vessels. Thus, the change in speed requirements on the diesel-powered ships does not change their essential character.

Accent on Octane

As war planes are called upon to fly farther, faster, and higher, quality of aviation gasoline must constantly rise. And supply becomes a problem.

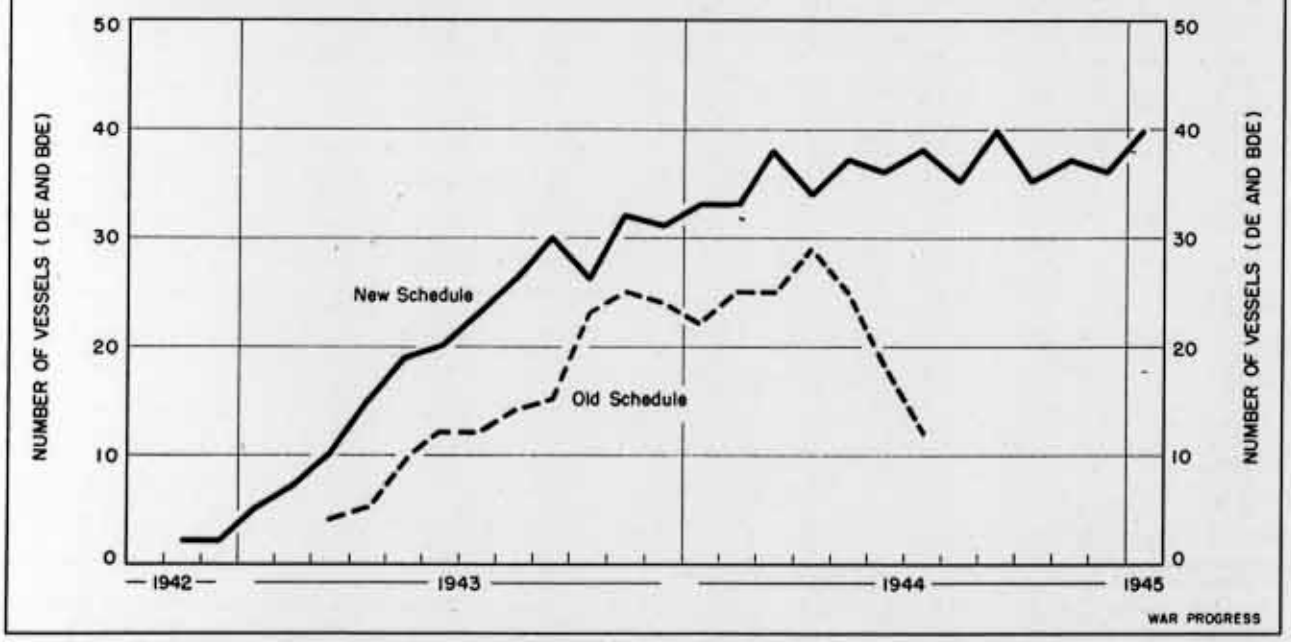
PRODUCTION of high-octane aviation gasoline has more than doubled over the past twelve months, but still the supply is insufficient to meet estimated requirements for the Army, Navy, export, ferry services, and engine and aircraft builders (whose needs for testing purposes run to some 8% of total supply). We've been drawing on our visible stocks.

Higher Octane Rating

If the problem were simply to produce more 100-octane gasoline, we could look forward to a balance between supply and demand early next year, with a surplus

SPEEDING PROTECTION FOR MERCHANT SHIPS

Schedule of destroyer escort vessels is stepped up, with initial delivery date advanced four months.



ONLY A LITTLE OVER A YEAR AGO, DESTROYER ESCORT VESSELS HAD NOT EVEN REACHED THE BLUEPRINT STAGE. SIX MONTHS AGO, A CONSTRUCTION SCHEDULE WAS FIRST BEING LAID OUT. BUT TODAY, THIS VESSEL IS SLATED TO PLAY A MAJOR PART IN CONVOYING MERCHANT SHIPS. WHEREAS THERE WERE ONLY 300 DE AND BDE VESSELS ON THE PRODUCTION DOCKET THREE MONTHS AGO, NOW 720 HAVE BEEN SCHEDULED. AND TOTAL AUTHORIZATIONS RUN TO 880.

accumulating throughout 1943. For, by that time, enough new capacity will have been built to overcome the indicated deficiency.

But today production of 100-octane gasoline isn't enough. Combat requirements are constantly pushing planes to more exacting performances--they must travel longer distances, fly to higher altitudes, move with greater speed. And higher and higher quality is needed to get maximum efficiency for long-range cruising on the one hand, and power for take-off, climb, and maneuverability on the other. That means stepping the "gas" up above the 100-octane mark.

Blending Agents

Each time we hike up the quality of gasoline, however, we must use more blending agents--alkylates, isopentane, cumene; hydrocodimer, neohexane, etc. Just as tetraethyl lead peps up the gasoline that goes into your automobile, so these blending agents put the added zip in fuel for airplane engines.

Supplies of these blending agents--particularly alkylates--are tight. And thus they are the bottleneck in aviation gasoline output. So chemists are constantly on the hunt for more of these "gasoline upgraders."

Requirements to Double

Cumene, for instance--recently developed--is made from benzene. And while it is not a full substitute, it is one of the materials that helps to conserve alkylates. But the supply is precarious, because benzene will be needed next year for the synthetic rubber program. And if benzene isn't available for cumene, production of aviation gasoline could fall approximately 10%.

Current estimates of "ultimate" aviation gasoline requirements are based largely upon Army and Navy expectations --so many United Nations' planes available needing so much gasoline. And, beginning in 1944, requirements are likely to double today's demand.

New Plants

At present-day octane ratings--and even on next year's higher standards--that increase could be taken in stride. But the Joint Aeronautical Board (comprising representatives of the Army and Navy) has requested a further rise in specifications by July, 1944. And tentatively suggested standards indicate that present authorized capacity will be sufficient to turn out only 76% of requirements on that pepped-up basis.

To meet expected demand, some 50 high-octane gasoline plants are under construction or planned. But the bulk of these plants won't come into production until next year; it takes around 18 months from foundation to output. In the meantime, the demand for immediate capacity is so urgent that use of steel plate and other materials has been authorized to convert existing refinery capacity to the manufacture of "blenders."

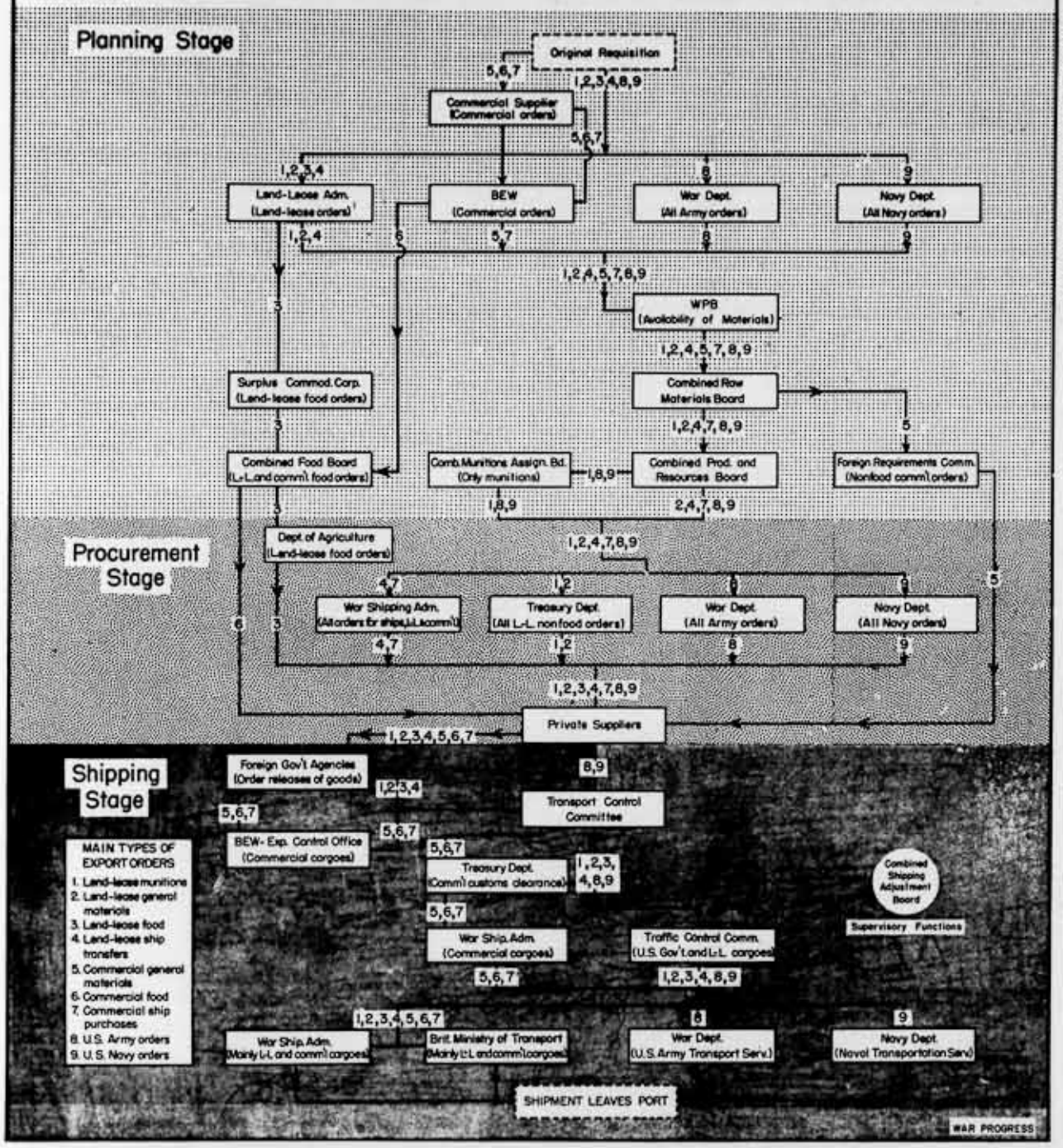
Problem Ahead

Ultimately, however, what will determine this country's supply-and-demand ratio is the quality of gasoline needed. Right now, the Germans are reportedly using a mixture superior to ours in certain respects. Only recently did ours come up to the British in every way. And the emphasis is on getting the so-called ideal blend, which will be better than German aviation gasoline on every count.

Thus, unless estimated requirements drop sharply--and the figures make no explicit allowance for losses due to sinkings, bombings of air bases, possible loss of British or Russian production--a pinch lies ahead. The problem

WHO'S WHO IN EXPORTS

Agencies that plan, procure, and route munitions and general shipments to our armed forces, allies and friendly neutrals.



IT TAKES A LOT OF ADMINISTRATION TO EXPORT A COMMODITY THESE DAYS. AFTER A REQUISITION IS PLACED, SEVERAL AGENCIES MUST DECIDE WHETHER THE GOODS CAN BE SPARED. THIS IS THE PLANNING STAGE. THEN THE COMMODITY MUST BE PROCURED. AND AGAIN SEVERAL AGENCIES MUST PASS ON IT. AFTER PROCUREMENT, THE REQUISITION THEN GOES TO THE TRANSPORT CONTROL COMMITTEE, AND IT IS IN THE FINAL, OR SHIPPING, STAGE. SIXTEEN AGENCIES HAVE RESPONSIBILITIES IN THIS PROCESS; 11 HAVE BEEN CREATED SINCE THE WAR. NO ORDER CLEARS THROUGH ALL OF THE AGENCIES INVOLVED, BUT SOME ARE PROCESSED SEVERAL TIMES BY THE SAME AGENCY.

is not entirely clear cut. We may have to choose between further expansion of capacity now and inferior quality later. Unless--and this a big "unless"--requirements have been estimated on the high side.

Raw Material

NICKEL EARNED

THE AVERAGE NICKEL CONTENT of all nickel steel was 3.25% a year ago; in April of this year the ratio was down to 3.03%. But in specific instances the trend toward conservation is even more conclusive. In June, 1941, American Car & Foundry requested armor plate having 5% nickel content; recent specifications call for 4%. In October, 1941, Chrysler Corporation requested tank castings containing 1.5% nickel; last month, the specification was 0.5%.

GASOLINE BY MOTOR TRUCK

TANK TRUCKS are being pressed into service to help fill the breach in gasoline transportation facilities caused by ship sinkings. According to reports received by the American Trucking Association, truck shipments of petroleum products in July were almost 60% above last year, accounting for 16% of total tonnage hauled, compared with 10% a year ago.

PROPAGANDA PAYS

TEN DAYS AGO, the Army Ordnance Department mailed an illustrated booklet, "Tremendous Trifles," to its approximately 7,000 prime contractors, calling attention to manufacturing shortcuts which save time, materials, and machines. Examples:

On one contract, the use of stamped clips instead of a heavier lock nut assembly saved about nine carloads of steel--and the clips were made 150 times faster.

A primer case, formerly machined from brass bar stock, is now pressed from steel, saving some 23,000,000 pounds of brass a year.

A trigger cover plate requiring 29 machine operations is now manufactured with seven.

In two ordnance districts, 25 screw machines were released by pressing, instead of machining, steel adapters.

The booklet has already paid dividends. A manufacturer suggested redesigning a 32-inch draw bar for ammunition boxes, which is estimated to save 3,500 tons of steel--enough to make 200,000 90mm. shells--between now and the end of the year.

S O S BY CRANKING

OUR BOMBER and transport planes are now being equipped with something new in safety equipment--emergency sea rescue sets. They weigh 25 pounds, will fit between the knees, and, when cranked, send an S O S in two ways: (1) by radio, (2) by an electric light signal. No knowledge of radio or Morse code is needed to operate the set, which represents an improved version of a similar device captured from the Germans.

War Progress Notes

SHIPYARDS TAKE LEAD

SHIPBUILDING now employs more workers than any other war industry. Last month, private shipyards had 720,000 wage earners on their rosters (chart, page 20). This was 500,000 more than last July and 6% of total manufacturing employment. Until June, foundries and machine shops and blast furnaces, steel works, and rolling mills have led in volume of war-industry employment.

Employment in manufacturing industries reached 11,179,000 in July--197,000 above June. For 18 selected war industries, the increase over the month was 141,000. Almost half of this increase was in shipbuilding and one-fourth in aircraft.

FRB PRODUCTION IN JULY

SHIPBUILDING ACTIVITY in July was nearly four times as great as last year and 10% higher than in June. The Federal Reserve Board aircraft production index roughly tripled during the year--was up 8% from June. In the automobile industry, output in July--virtually all armament--was at an annual rate of about $5,000,000,000, compared with the 1941 all-time annual peak of $4,000,000,000. These increases raised the transportation equipment index to 423 in July--up 85% from July, 1941 (chart, page 18). Total durable manufactures were 3% higher than last month and 28% above last year. Nondurable manufactures reached a peak last fall. Currently they are at about the level of July, 1941.

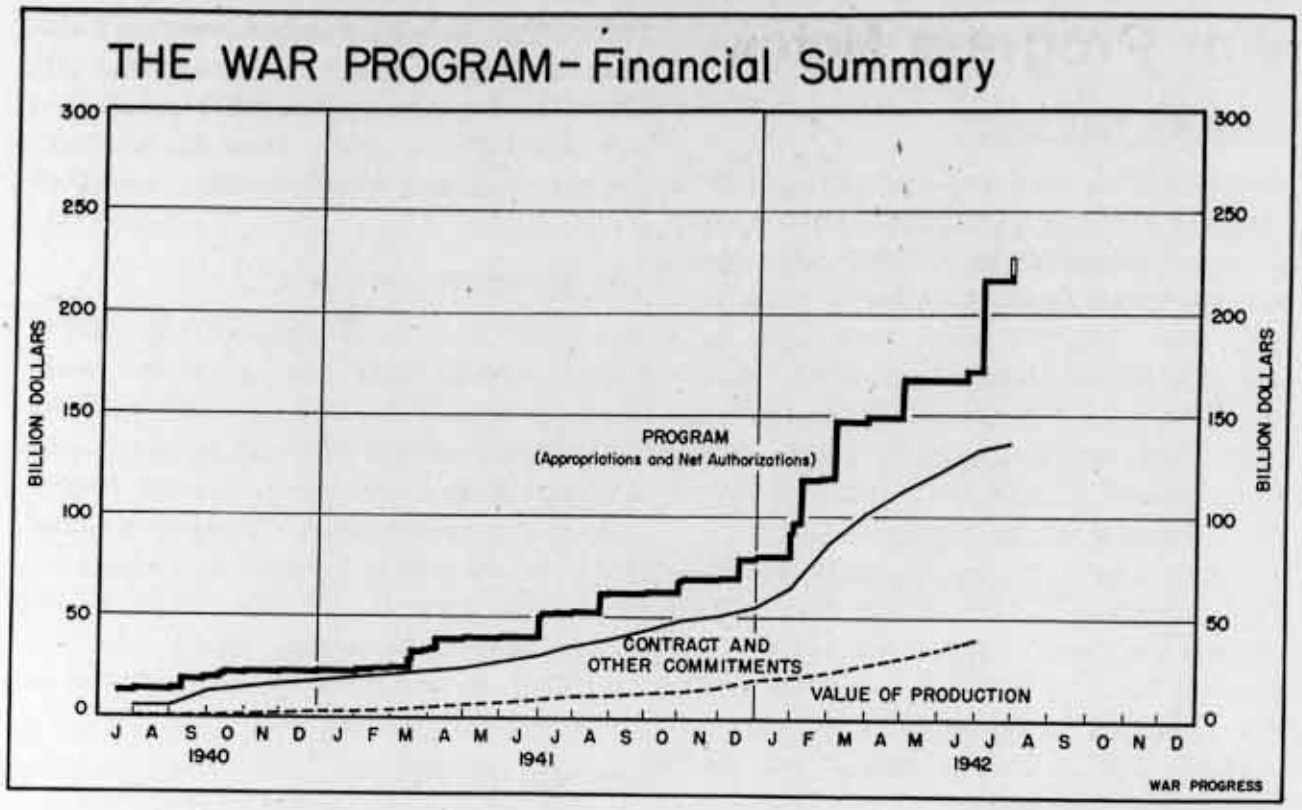
ORE SHIPMENTS INCREASE

IRON ORE SHIPMENTS through the Great Lakes are hitting an all-time peak. Through August 23, they totaled 56,700,000 tons, compared with 48,400,000 tons at this time last year. Chief reason for the increase is a three-week head start in shipments because of good weather in the spring. If the lakes do not freeze over prematurely, about 90,000,000 tons of iron ore will be moved in 1942--10,000,000 more than in 1941.

STRIKES IN JULY

STRIKES IN PROGRESS rose to 520 in July --up 80 from last month but still 22% below last year. Production time lost, however, declined to 450,000 man-days--100,000 less than in June and only 25% of the average time lost per month in 1941.

Half of the man-days lost in July were in war industries. Since the first of the year there have been 732 strikes involving 297,000 workers engaged in war production. Man-days lost have totaled over 1,100,000. This is less than 0.1% of the time worked on war production.


THE WAR PROGRAM - Financial Summary
BILLION DOLLARS
300
250
200
150
100
50
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL WAR PROGRAM IN THE UNITED STATES

	Cumulative 6/11/40 to			Monthly		
	End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	May 1942	June 1942	July 1942
● TOTAL WAR PROGRAM IN THE U.S.[a]			(Million dollars)			
Program-Pending						p 9,525
Program-Enacted	40,861	80,604	p 174,384	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	31,587	56,625	p 134,094	p 9,731	p 12,098	n.a.
Value delivered and/or in place [b]	8,547	18,573	p 39,222	p 4,060	p 4,602	n.a.
Checks paid [c]	8,536	17,965	p 37,562	3,925	p 4,156	p 4,824
MUNITIONS PRODUCTION & WAR CONSTRUCTION, TOTAL						
Program	37,027	69,305	p 156,214	0	p 5,358	p 32,543
Uncommitted Balance	7,597	18,281	p 33,761	-	-	-
Contracts and other commitments	29,430	51,024	p 122,453	p 9,107	p 9,999	n.a.
Value delivered and/or in place [b]	6,795	14,750	p 32,184	p 3,465	p 3,882	n.a.
Value not delivered nor in place	22,635	36,274	p 90,269	-	-	-
PRODUCTION OF MUNITIONS						
Program	28,566	53,738	p 124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 3,044
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
WAR CONSTRUCTION						
Program ●	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value delivered and/or in place [b]	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a
Value not delivered nor in place	3,260	5,4[illegible]	p 15,727		-	-
NON-MUNITIONS WAR ITEMS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	577	5,698	p 6,529	-	-	-
Contracts and other commitments	2,15[illegible]	5,601	p 11,[illegible]41	p 624	p 2,099	n.a.
Checks issued	1,752	3,823	p 7,[illegible]38	p 595	p 720	n.a.

● Graph appears on opposite page.
Table continued on Page 13.

For footnotes see Page 22.

Cracks Appear in Price Ceiling

Control has held cost of living in check so far, but wage boosts and rising farm prices threaten entire price structure. Foods are chief problem.

THE GENERAL MAXIMUM PRICE REGULATION has now been in effect three months. During that time the cost of living has held almost level (chart, page 5). But that doesn't mean all retail prices have stood still, or that price control is an accomplished fact. In several places, OPA ceilings have cracked. And the cracks have begun to form a pattern which suggests that the cost of living is not destined to stay put indefinitely.

Here, for example, are some of the major cracks--and their causes--in OPA's price ceilings:

Ceiling Raised	Cause
Sliced and peeled apples	Rising farm prices
Canned citrus fruits, juices	" " "
Canned fruits and berries	" " "
Canned vegetables	" " "
Contract apparel work	Rising labor costs
Gasoline	Higher transportation
Fuel oil	" "
Glycerin	" "

And that does not complete the picture. For, only this week, OPA indicated that the level of farm prices would force further boosts in food ceilings. Thus, the principal problems, so far, are rising farm prices, higher labor costs, and rising transportation costs.

Rising transportation costs, however, are likely to be nonrecurrent; moreover, they have largely been absorbed by subsidies. But farm prices and wage rates are still relatively free and uncontrolled. The Emergency Price Control Act made no provision for wage control, and farm prices were allowed to advance to 110% of parity, if not higher. In March, the President called on Congress to stabilize farm prices at parity, but nothing has yet been done to make farm price stabilization a fact. And farm prices continue to rise (chart, page 6).

No Wage Stabilization

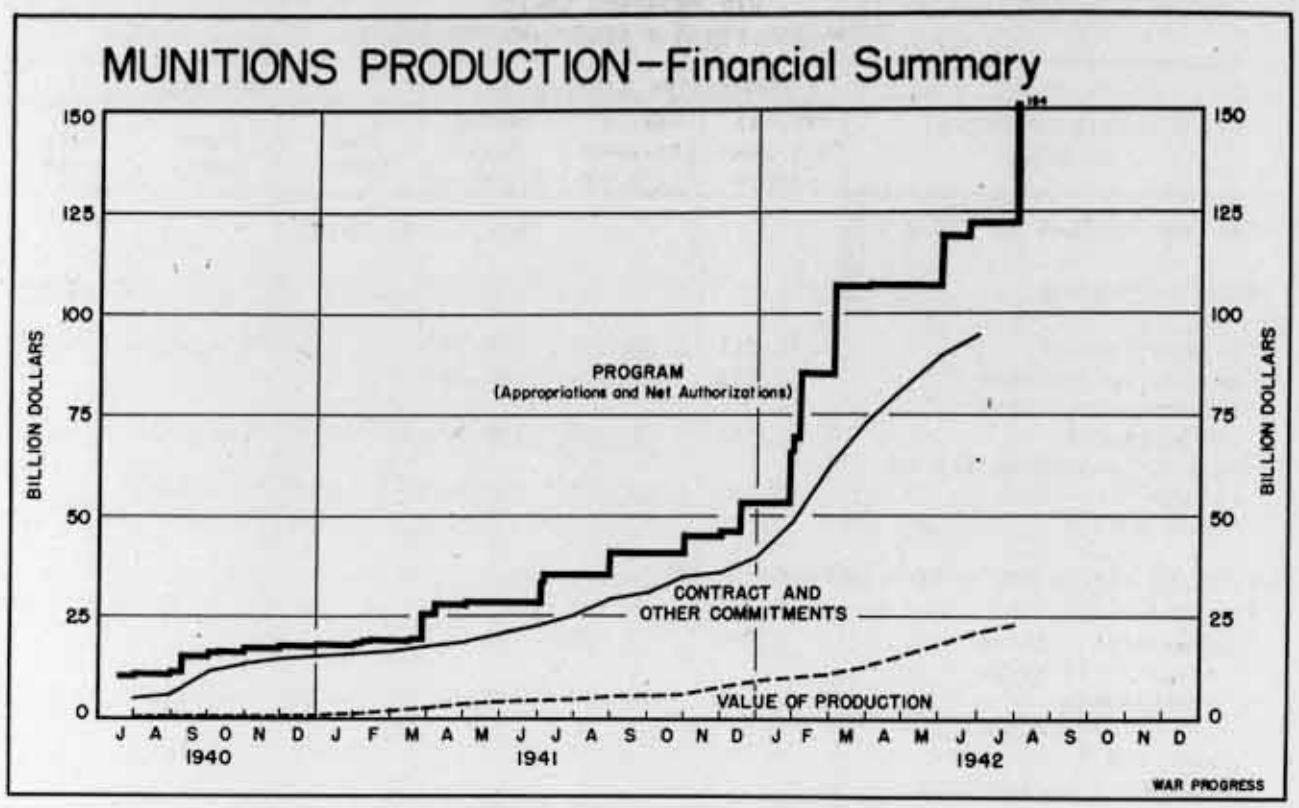
The President's program for wage stabilization has not been translated into action, either. The nearest we have come to control is the War Labor Board's formula, which permits an increase in wages which have risen less than 15% since the beginning of 1941 or which are otherwise "substandard." This leaves plenty of room for wage increases which, however equitable, are nonetheless inflationary.

Essentially, the problem is still what it was three months ago, six months ago, and a year ago. The huge expenditures by the federal government have been pumping buying power into the hands of ultimate consumers. Month by month the national income rises to new highs. (See chart, page 5.) At the same time, the volume of goods available for ultimate consumers has begun to decline. So the income is rapidly outpacing the goods supply.

Integrated Program Lacking

Yet no integrated program to mop up this excess income--by means of higher taxes and savings--has been put into effect.

In the meantime, higher wage rates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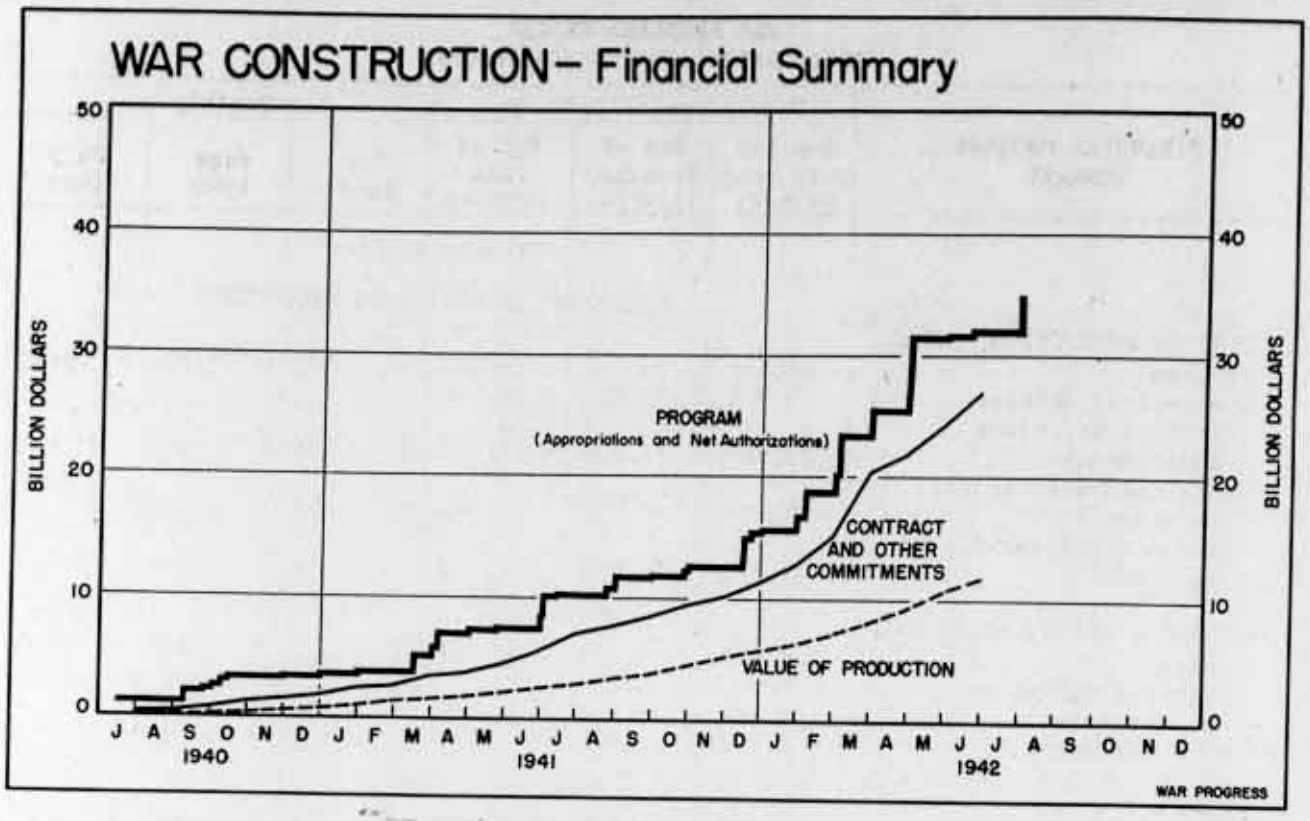
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF MUNITIONS PRODUCTION			
● MUNITIONS PRODUCTION, TOTAL						
Program	28,566	53,738	P124,097	-25	P 4,756	P 29,952
Uncommitted balance	4,901	13,929	P 29,106	-	-	-
Contracts and other commitments	23,665	39,809	P 94,991	P 6,668	P 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	P 3,044
Value not delivered nor in place	19,375	30,869	P 74,542	-	-	-
AIRPLANES, PARTS & ACCESSORIES						
Program	8,582	15,072	P 37,586	0	P -215	P 9,737
Contracts and other commitments	7,381	13,298	P 33,945	P 2,409	P 2,838	n.a.
Value delivered	1,010	2,265	4,752	471	510	P 565
ORDNANCE						
Program	7,778	17,488	P 36,400	0	P 285	P 9,548
Contracts and other commitments	5,418	10,354	P 26,873	P 2,278	P 2,360	n.a.
Value delivered	700	1,685	4,998	696	731	P 918
NAVAL SHIPS						
Program	6,796	9,605	P 18,460	0	P 2,922	P 0
Contracts and other commitments	6,442	7,930	P 12,276	275	P 276	n.a.
Value delivered and/or in place	810	1,665	3,383	399	404	P 494
MERCHANT SHIPS						
Program	1,442	3,288	P 8,653	-25	P 1,054	P 0
Contracts and other commitments	1,484	2,381	P 6,880	P 607	P 618	n.a.
Value in place	240	510	1,188	131	176	187
OTHER MUNITIONS AND SUPPLIES						
Program	3,968	8,285	P 22,998	0	P 710	P 10,667
Contracts and other commitments	2,940	5,846	P 15,017	P 1,099	P 850	n.a.
Value delivered	1,530	2,815	6,128	551	817	P 880

● Graph appears on opposite page.
Table continued on Page 15.

For footnotes see Page 22.


WAR CONSTRUCTION – Financial Summary
BILLION DOLLARS
50
40
30
20
10
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT
AND OTHER
COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
BREAKDOWN OF WAR CONSTRUCTION						
●WAR CONSTRUCTION, TOTAL (LAND, BLDGS., EQUIP.)						
Program	8,461	15,567	P 32,117	25	P 602	P 2,591
Uncommitted balance	2,696	4,352	P 4,655	-	-	-
Contracts and other commitments	5,765	11,215	P 27,462	P 2,439	P 3,057	n.a.
Value in place	2,505	5,810	P 11,735	P 1,217	P 1,244	n.a.
Value not in place [b]	3,260	5,405	P 15,727	-	-	-
INDUSTRIAL FACILITIES (LAND, BLDGS., EQUIP.)						
Program	5,120	8,112	P 17,610	25	P 707	P 172
Contracts and other commitments	2,865	6,318	P 16,697	P 1,047	P 1,592	n.a.
Value in place	960	2,800	P 5,990	P 629	P 615	n.a.
INDUSTRIAL FACILITIES, BUILDINGS ONLY						
Program	1,607	3,137	n.a.	P 389	n.a.	n.a.
Value in place	575	1,753	P 2,990	P 287	P 307	P 344
POSTS, DEPOTS, STATIONS						
Program	2,849	6,063	P 13,115	0	P -105	P 2,419
Contracts and other commitments	2,625	4,381	P 9,890	P 1,317	P 1,390	n.a.
Value in place	1,430	2,670	P 5,179	P 545	P 580	n.a.
DEFENSE HOUSING						
Program	492	1,392	P 1,392	0	P 0	P 0
Contracts and other commitments	275	516	P 875	P 75	P 75	n.a.
Value in place	115	340	P 566	P 43	P 49	n.a.
BREAKDOWN OF NON-MUNITIONS						
NON-MUNITIONS, TOTAL						
Program	3,834	11,299	P 18,170	0	P 257	P 11,928
Uncommitted balance	1,677	5,698	P 6,529	-	-	-
Commitments	2,157	5,601	P 11,641	P 624	P 2,099	n.a.
Checks issued by agencies [b]	1,752	3,823	P 7,038	P 595	P 720	n.a.
STOCKPILE						
Program	983	2,399	P 2,713	0	P 0	P 0
Commitments	470	1,050	P 1,140	P 30	P 0	n.a.
Checks issued by agencies	192	488	P 1,011	P 102	P 100	n.a.

●Graph appears on opposite page.
Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF NON-MUNITIONS (Continued)			
AGRICULTURAL EXPORTS (LEND-LEASE)						
Program	625	1,522 p	2,138	0 p	0 p	0
Commitments	66	561 p	1,143 p	65 p	149	n.a.
Checks issued by agencies	1	211 p	629	87 p	90	n.a.
PAY, SUBSISTENCE & TRAVEL [f]						
Army Military						
Program	944	3,013 p	3,904	0 p	0 p	8,534
Commitments	934	2,030 p	3,849 p	281 p	285	n.a.
Checks issued	696	1,510 p	2,744 p	220 p	315	n.a.
Navy Military						
Program	378	963 p	2,478	0 p	232 p	0
Commitments	334	610 p	1,143 p	110 p	104	n.a.
Checks issued	388	642 p	1,042 p	70 p	98	n.a.
Civilian Payroll						
Program	32	247 p	299	0 p	46 p	542
Commitments	32	140 p	255 p	15 p	20	n.a.
Checks issued	356	682 p	1,115 p	79 p	80	n.a.
MISCELLANEOUS NON-MUNITIONS						
Program	872	3,155 p	6,638	0 p	-21 p	2,852
Commitments	321	1,210 p	4,111 p	123 p	1,541	n.a.
Checks issued by agencies	119	290 p	497 p	37 p	37	n.a.

p Preliminary

Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

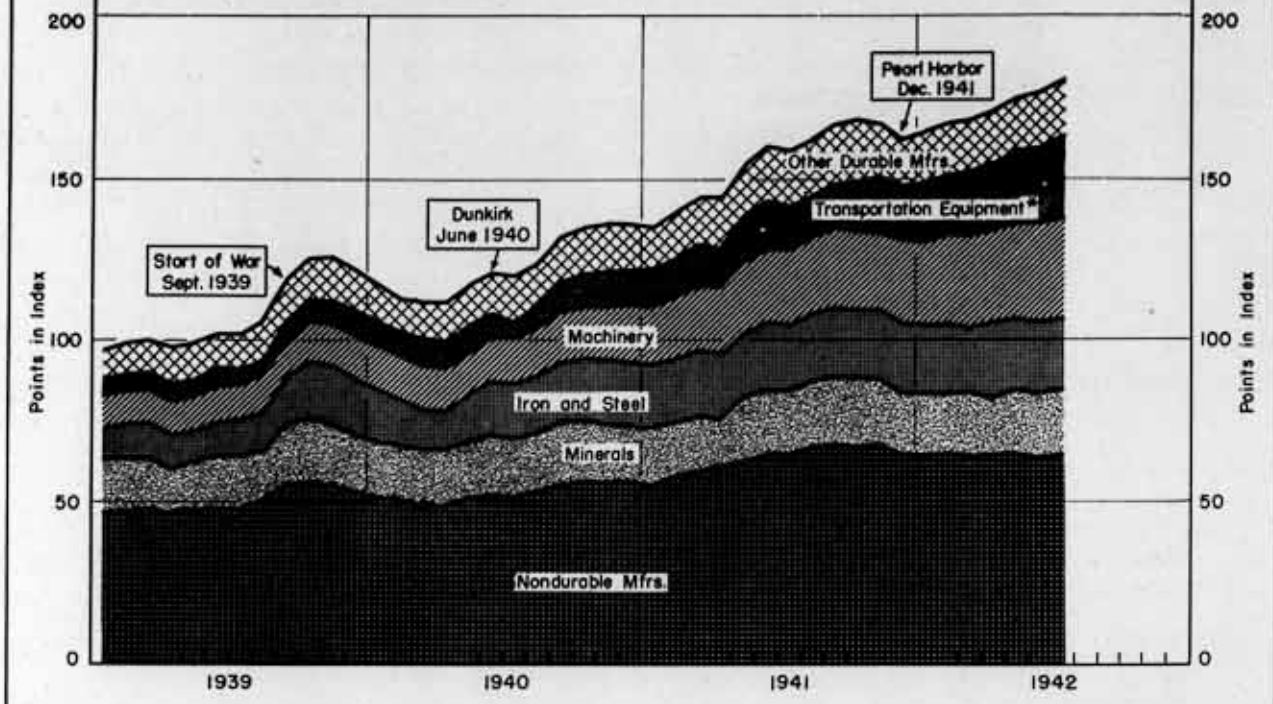
FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
	d		BREAKDOWN OF AGENCIES			
UNITED STATES FINANCED WAR PROGRAM						
Program	37,075	76,508	p 170,288	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	27,801	52,529	p 129,998	p 9,731	p 12,098	n.a.
Checks paid	6,431	15,251	p 34,510	3,880	p 4,123	p 4,794
U. S. ARMY						
Program	13,134	31,981	p 84,468	0	p 0	p 42,090
Contracts and other commitments	11,404	23,334	p 70,402	p 6,138	p 8,397	n.a.
Checks paid	3,636	7,889	15,649	1,497	1,662	n.a.
U. S. NAVY						
Program	12,308	20,024	p 47,990	0	p 4,355	p 0
Contracts and other commitments	11,182	16,327	p 32,325	p 1,971	p 2,361	n.a.
Checks paid	2,217	4,726	10,128	1,229	1,237	n.a.
LEND-LEASE						
Program	7,000	12,985	p 18,410	0	p 0	p 0
Allocations	5,177	11,345	14,085	508	-281	n.a.
Contracts and other commitments	2,458	6,282	10,665	305	484	n.a.
Checks paid	21	910	4,099	626	665	n.a.
U. S. MARITIME COMMISSION						
Program	784	2,734	p 7,654	0	p 1,070	p 0
Contracts and other commitments	886	1,724	p 6,333	608	p 631	n.a.
Checks paid (Net)[e]	44	156	642	93	114	n.a.
RFC AND SUBSIDIARIES						
Program	2,623	5,130	p 7,704	0	p 0	p 0
Contracts and other commitments	1,151	3,569	p 7,916	p 509	p 0	n.a.
Checks issued by RFC	350	956	p 2,510	327	p 300	p 300
OTHER U. S. AGENCIES						
Program	1,226	3,654	p 4,062	0	p 190	p 2,381
Contracts and other commitments	720	1,293	p 2,357	p 200	p 225	n.a.
Checks paid	163	614	1,482	108	145	n.a.
FOREIGN ORDERS						
Program (Orders)	3,786	4,096	p 4,096	0	p 0	p 0
Commitments	3,786	4,096	p 4,096	0	p 0	p 0
Checks issued by Purchasing Missions	2,105	2,714	p 3,052	45	p 33	p 30

For footnotes see Page 22.

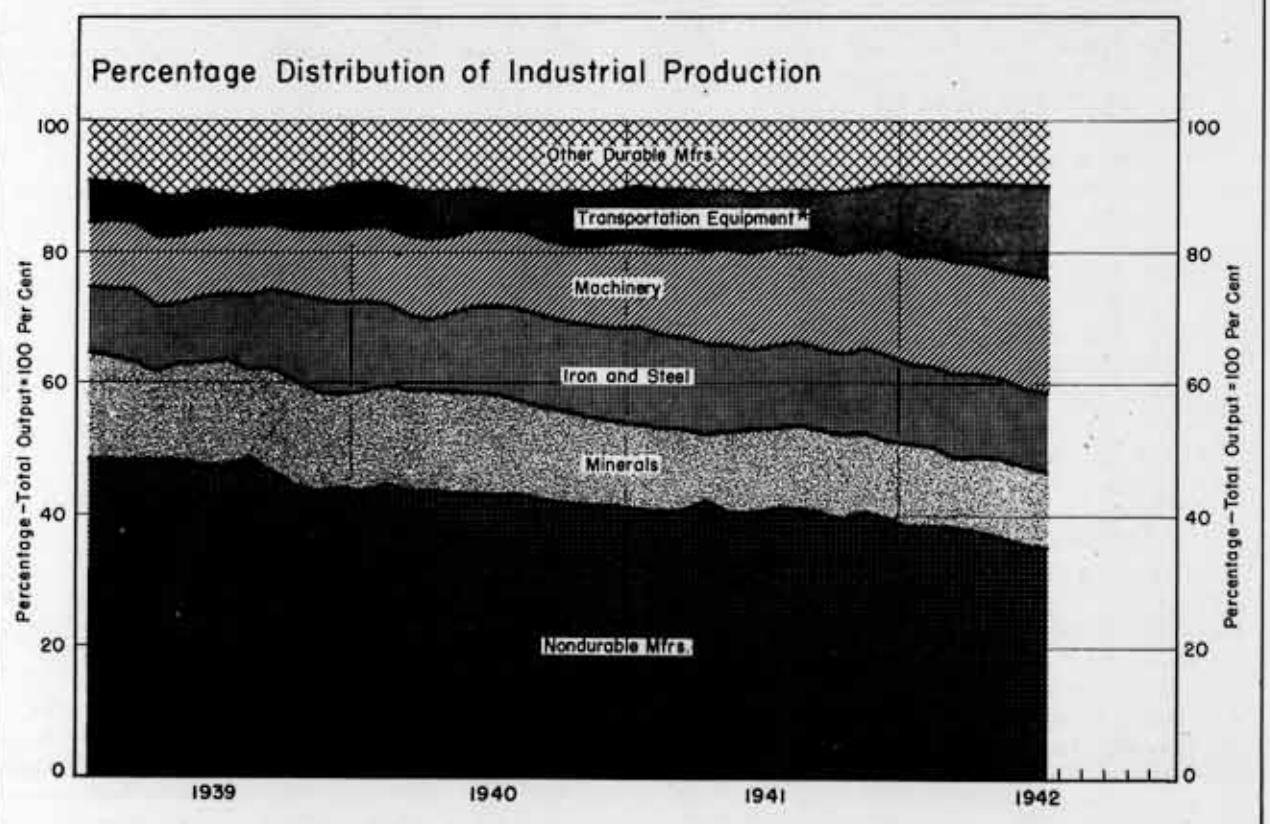
THE SQUEEZE ON NONDURABLE GOODS

Industrial Production by Major Items

(F.R.B. Unadjusted Index 1935-1939 = 100)



Percentage Distribution of Industrial Production



*Aircraft, Shipbuilding, Rail Equipment, Autos, etc.

WAR PROGRESS

ECONOMIC ACTIVITY RELATED TO THE WAR

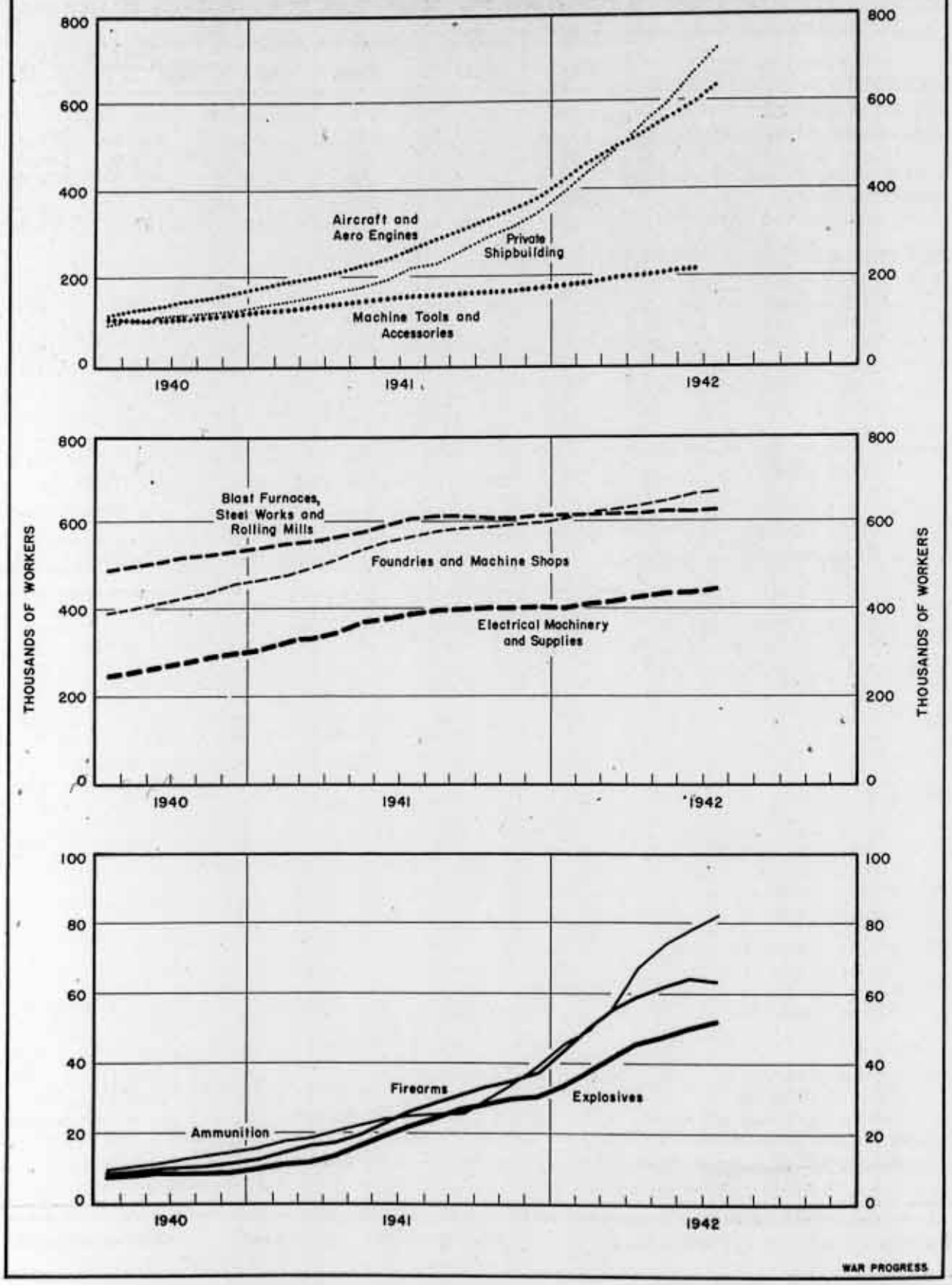
Note: Certain statistical series included in these tables are nonconfidential and are published in such public documents as the Federal Reserve Bulletin, Survey of Current Business, etc. Obviously inclusion here should not be construed as a limitation on their use.

	1940	1941r	1942			
					Week ending	
	July	July	June	July	Aug. 15	Aug. 22
BLS PRICE INDEXES						
Strategic materials (8/39 =100)	123.6	140.3	147.6	147.7	r 147.8	147.8
Critical materials (8/39 =100)	107.5	115.2	123.2	123.9	123.9	124.0
Basic commodities (8/39 =100)	108.5	148.7	166.4	167.2	167.2	166.9
Machine tools (8/39 =100)	108.7	117.6	118.0	118.0	-	-
All commodities (1926=100)	77.7	88.8	98.6 p	98.7 p	98.9 p	98.9
TRANSPORTATION						
Freight cars						
Loadings (thous. per week)	706	853	846	830	869	869
Unloads for export (dly.av.)						
Atlantic & Gulf ports (no.)	1,494	1,614	1,950	1,718	1,820 *	1,904
Pacific ports (no.)	112	159	490	608	727 *	711
Surplus cars (dly.av.thous.)						
Total	132	77	83	77	65	
Box cars	55	30	57	47	44	
Coal cars	48	27	9	12	6	
Bad order cars, total, first of month (thous.)	153	85	63	57	(Aug 1) 55	
ELEC. POWER PROD. (mil. kwh.)	12,094	14,226	15,182	16,004	3,655	3,674
WAR BOND SALES (mil. dollars)	-	342	634	901	145	143

	1940	1941	1942			
	July	July	April	May	June	July
● FED. RES. BD. PROD. INDEXES		(Unadjusted index, 1935-39 = 100)				
Total industrial production	120	159	171	175	177 p	181
Durable manufactures	131	197	232	239	245 p	253
Iron and steel	151	185	198	198	196 p	200
Pig iron	154	181	192	191	192	192
Aircraft	398	997	r 2,089	r 2,238	r 2,374 p	2,571
Railroad cars	117	233	310	290	284	266
Locomotives	116	307	485	497	487	516
Shipbuilding	185	467	1,300	1,416	1,537 p	1,687
Copper smelting	126	131	155	161	r 170	154
Copper deliveries	118	234	195	205	221	245
Zinc smelting	133	173	185	184	180	177
Zinc shipments	124	142	145	146	143	139
Lead shipments	118	200	198	202	193	
Nondurable manufactures	110	138	138	138	136 p	137
Cane sugar meltings	116	117	93	73	69	
Rubber products	109	153	73	r 74	72	77
Rubber consumption	109	156	79	r 80	77	83
Minerals	120	131	125	131	132 p	133
Copper production	133	147	169	174	r 181	166
Zinc production	112	125	146	143	137	
Lead production	112	110	135	128	134	
Government production			(Points in total index)			
Shipbuilding, gov't yards	0.5	1.3	2.4	2.9	2.9	
Mfg. at gov't arsenals and Quartermaster depots	0.2	0.6	1.1	1.1	1.1	

● Graph appears on opposite page. p Preliminary. r Revised. *Friday unloads.

EMPLOYMENT IN KEY WAR INDUSTRIES



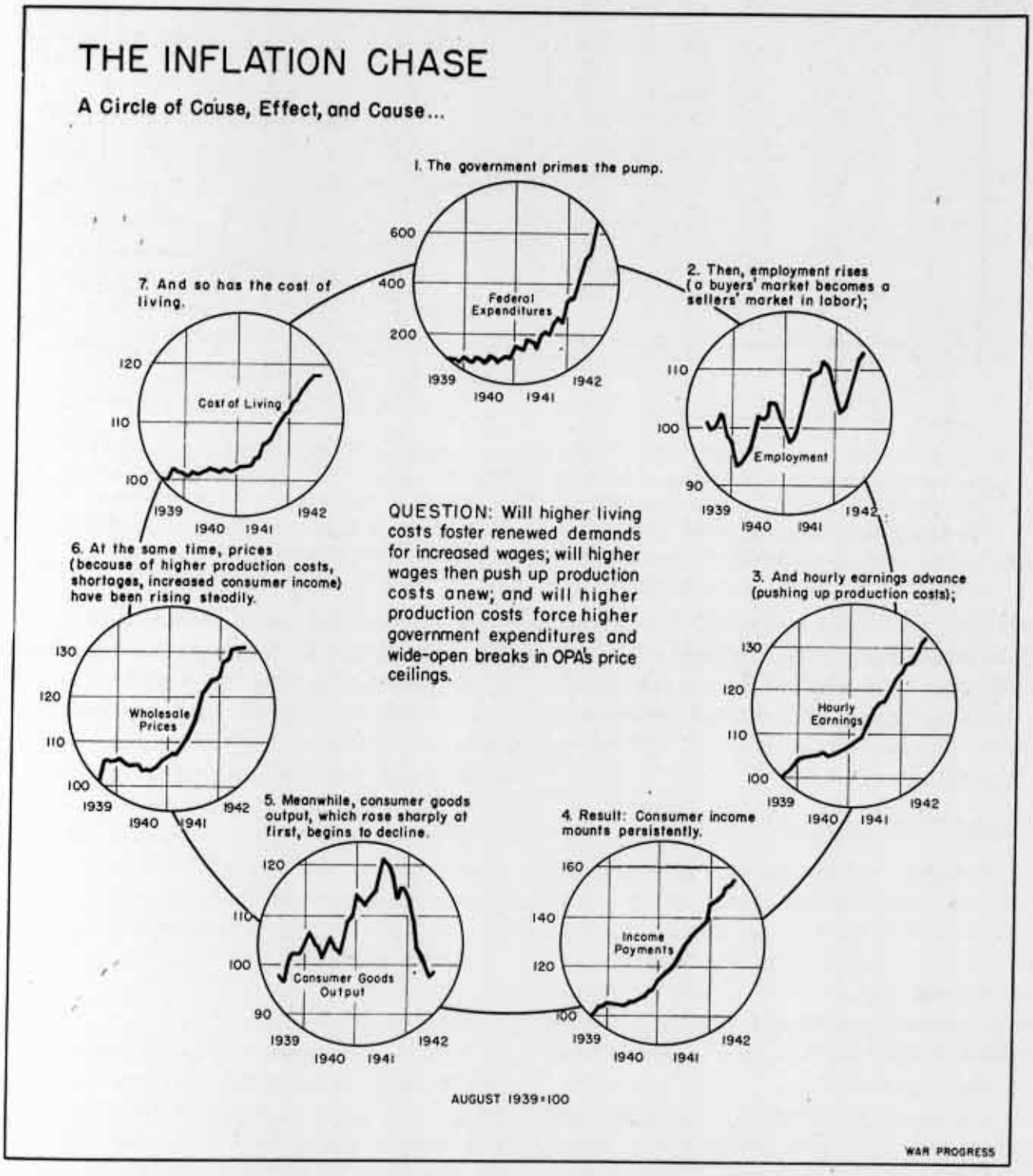
WAR PROGRESS

ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	April	May	June	July
▲ EMPLOYMENT (thousand workers)						
Total civil nonagricultural	35,904	39,908	40,874	41,263	p 41,415	
War industries						
Private, 18 selected industries, total	1,663	r 2,560	r 3,473	r 3,603	3,738	p 3,879
Blst.furn.,st.wrks,etc.	488	604	619	r 622	624	p 624
Foundry & mach.shop prod.	390	567	637	647	656	p 665
Electr.mach.,app.& supp.	246	388	425	432	438	p 447
Smelting and refining	27	31	31	31	31	p 31
Brass,bronze,copper prod.	84	123	r 130	r 130	131	p 131
Aluminum manufactures	29	36	50	51	54	p 54
Machine tools	66	98	126	128	132	p 135
Machine tool accessories	35	58	76	80	82	p 84
Abrasives	9	14	15	16	16	p 17
Screw-machine products	20	33	49	50	52	p 52
Aircraft	88	203	r 392	r 416	443	p 474
Aero-engines	27	58	r 134	r 145	154	p 161
Shipbuilding	96	220	547	600	659	p 720
Firearms	8	26	59	62	64	p 64
Ammunition	9	25	67	74	79	p 82
Explosives	8	22	45	47	49	p 52
Optical goods	13	r 20	23	23	23	p 23
Instruments	20	34	48	49	51	p 63
Private contractors, public construction	13	412	748	834	940	
Public	117	225	r 354	r 371	400	
Total	1,793	r 3,197	r 4,575	r 4,808	5,078	
Deep sea merchant vessels	51	50	47	47	47	45
Total WPA employment	1,655	1,055	867	786	698	525
UNEMPLOYMENT (WPA ESTIMATE)						
Number of unemployed (thous)	9,300	5,600	3,000	2,600	2,800	2,800
LABOR DISPUTES						
All industries i						
Number strikes in progress	390	635	329	p 375	p 440	p 520
Workers involved (thous.)	83	226	74	p 72	p 117	p 100
Man-days idle (thous.)	586	1,326	341	p 325	p 550	p 450
Labor disputes affecting the war effort j						
Number strikes in progress	n.a.	n.a.	95	144	192	222
Workers involved (thous.)	n.a.	n.a.	43	48	85	81
Man-days idle (thous.)	n.a.	n.a.	174	137	255	234

▲ Graph appears on opposite page.
i Bureau of Labor Statistics.
p Preliminary.
n.a. Not available.
j War Labor Board.
r Revised.

and rising farm prices tend not only to increase consumer income, but also to put pressure on the cost of living. And, as the cost of living rises, it generates new demands for wage boosts. And wage boosts in turn tend to lift the cost of all goods produced and thus raise the amount the government must



THE OUTSTANDING FACT ABOUT INFLATION IS ITS CIRCULAR, CUMULATIVE, SELF-EXPANDING CHARACTER. INFLATIONARY DEVELOPMENTS TEND TO SET OFF OTHER INFLATIONARY DEVELOPMENTS—WAGE INCREASES RAISE PRICES, WHICH RAISE THE COST OF LIVING AND RAISE COSTS OF MUNITIONS, WHICH RAISE FEDERAL EXPENDITURES AND SO ON AND ON. WHAT'S NECESSARY NOW IS TO BREAK THE CIRCLE.

FOOTNOTES

WAR PROGRESS SERIES

n.a. Not available
r Revised.

P Preliminary

a Total war program includes all funds and authorizations made available for war purposes by the United States Government plus foreign orders placed in this country since November 1939. The major portion of the existing program has been approved since June 11, 1940, but some authorizations (particularly portions of the naval expansion program, the merchant shipbuilding program, and the stockpile program) were made available even earlier. All funds are shown during the fiscal year in which they are available for obligation.

b Value delivered and/or in place includes (1) value delivered and/or in place for ships and value of production for other munitions, (2) value in place for war construction, and (3) checks issued by finance officers for non-munitions items.

c Checks paid include (1) all checks paid out of the Treasury General Fund; (2) checks issued by the Reconstruction Finance Corporation and subsidiary Government corporations;(3) checks issued by foreign purchasing commissions.

d United States financed program includes the war activities of all United States Government agencies (including Lend-Lease) plus the war activities of government owned corporations, but does not include foreign orders.

e Report on checks paid by the Treasury for the account of the Maritime Commission makes allowance for receipts credited to the Construction Loan Fund.

f Program and obligations for pay for civilians and for the Navy include only that specifically mentioned in appropriation bills, while the cash disbursement figures include, in addition, executive war pay which cannot be separately distinguished in the appropriation bills.

g Ordnance and naval ships figures revised back to January 1942. In comparing these with prior figures, ordnance and naval ships should be combined.

WAR PROGRESS

Confidential
(British Secret)

Stretching Copper -- A Job for the Army and Navy

Our 1942 - 43 Food Supply

Number 103 September 4, 1942

Copper -- Big Army-Navy Problem

With four out of every five tons going to direct military use, armed services face difficult choices: what to use metal for in order to get maximum munitions.

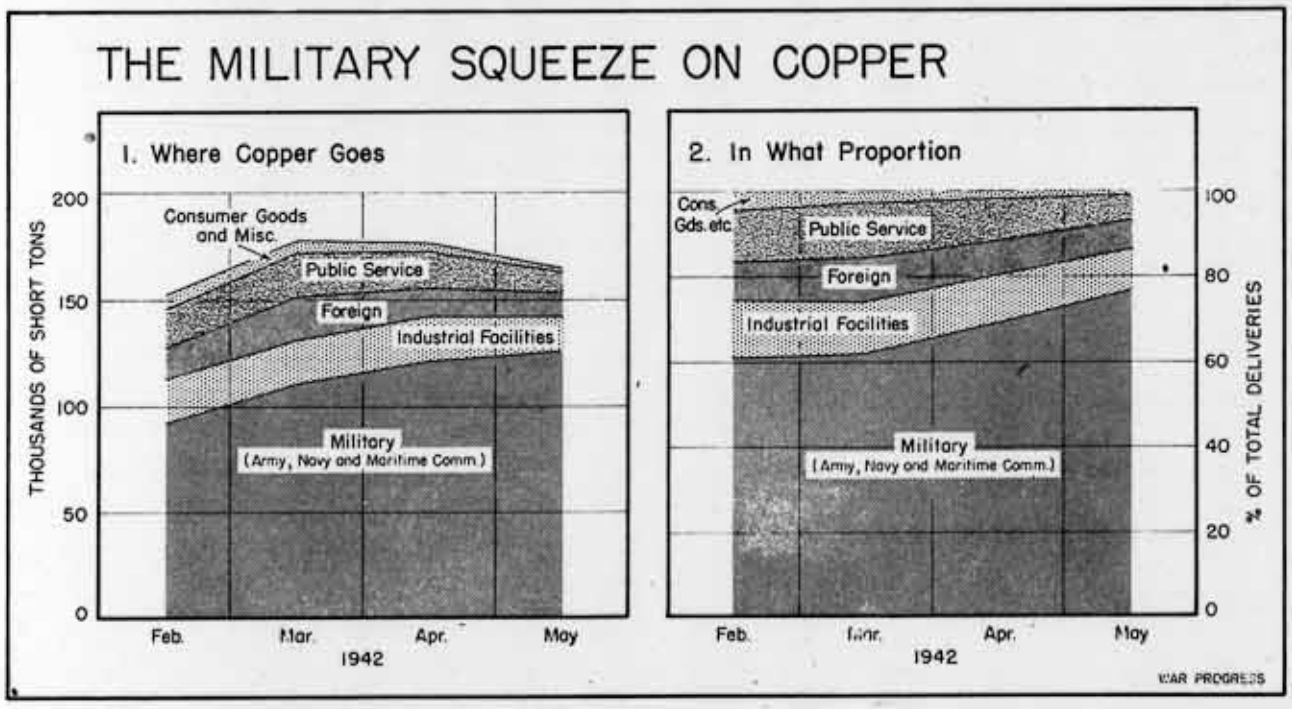
AT THE BEGINNING OF THE YEAR, one out of every two pounds of copper was going to the Army, the Navy, or the Maritime Commission; today, four out of every five pounds are for direct military or shipping needs. Before the year is out, the proportion will step up even further.

SUPPLY INADEQUATE

But those large proportions are not enough. Military requirements are so great that supply is insufficient to meet overall demand. Domestic output of copper, plus imports, is running at an all-time high, yet requirements of 2,850,000 short tons will top this year's new supply by 150,000 tons.

And even this indicated deficit may be on the low side--may be too optimistic. It allows for no diminution in shipping space for copper imports, expected to reach nearly 800,000 tons this year. Nor does it allow for possible curtailment in the rise in copper output; yet many miners are attracted by higher-paying jobs or are being taken in the draft (WP-Aug7'42,p6).

Next year's supply-demand situation is even worse. Estimated requirements of 3,100,000 tons exceed estimated supply by some 250,000 tons. And the estimated supply--at 2,850,000 tons--again may prove to be overoptimistic. It allows for unmolested imports and for an



HERE YOU SEE THE DRAMATIC SHIFT IN THE PATTERN OF COPPER USE THIS YEAR. DELIVERIES AGAINST MILITARY ORDERS HAVE CRESCENDOED MONTH BY MONTH. YET, AS SHOWN IN THE CHARTS, THEY ARE REALLY UNDERSTATED, INASMUCH AS INDIRECT MILITARY USES OF COPPER, SUCH AS IN INDUSTRIAL FACILITIES, COMMUNICATIONS, AND TRANSPORT, ARE NOT SEGREGATED, BUT LEFT IN THEIR PEACETIME CATEGORIES.

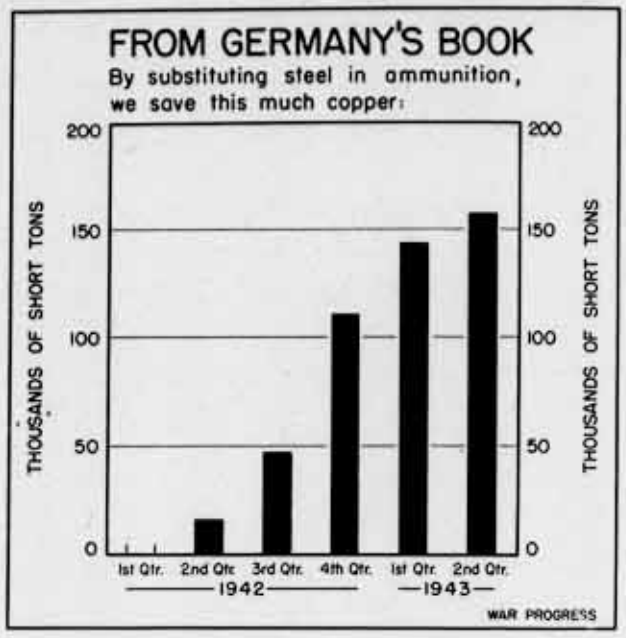
increase of 13% in domestic production --again notwithstanding shipping shortages and a touchy labor situation.

The statistical inferences are clear. It's up to the Army and the Navy to make their copper stretch--for they are getting a 75% share; and even though civilian requirements (now mostly indirect military) may be cut further, the margin is obviously not great.

NO BRASS BUTTONS

Already, the armed forces have taken action. The Navy's Bureau of Yards and Docks is using only half as much copper per $1,000,000,000 of construction as before Pearl Harbor (WP-July31'42,p5). No more brass or bronze is being used in army insignia, belts, or haversacks. And far more important, the Army is using steel instead of copper in shell cases and bullet jackets. Savings here may run to 600,000 tons a year, or possibly higher—half domestic mine production.

Navy shell-case specifications still call for copper, but experiments are under way to see if steel shell cases can be made rust-resistant in sea air. German experience suggests how far such economies in copper can be carried. The Nazis are estimated to be turning out as much ammunition as the United States, but on one-quarter as much copper (WP-June 5'42,p3).



ORDNANCE CHIEF USE

Copper used for ordnance, especially ammunition, constitutes by far the greatest single use, and hence by far the greatest single opportunity for stretching and savings. This is indicated in the following table, which shows estimated requirements for copper, based on scheduled factory production, for Army and Navy ordnance, and the relation of requirements to total copper supply:

	Ordnance Requirements Short Tons	% of Estimated Copper Supply
1942		
1st qtr.	139,000	35%
2nd qtr.	189,000	36
3rd qtr.	252,000	41
4th qtr.	280,000	46
1943		
1st qtr.	303,000	52
2nd qtr.	302,000	52

IN THIS ISSUE:

Thus, half of our copper supply is destined for ordnance; and out of that amount, some 90% goes for ammunition. Right there is the armed forces' biggest "stretch" item. Copper, inadvertently, is going into types of ammunition, weapons, or components that are being produced faster than objectives or forecasts demand, while other ammunition and weapons are running behind schedule because copper is wanting.

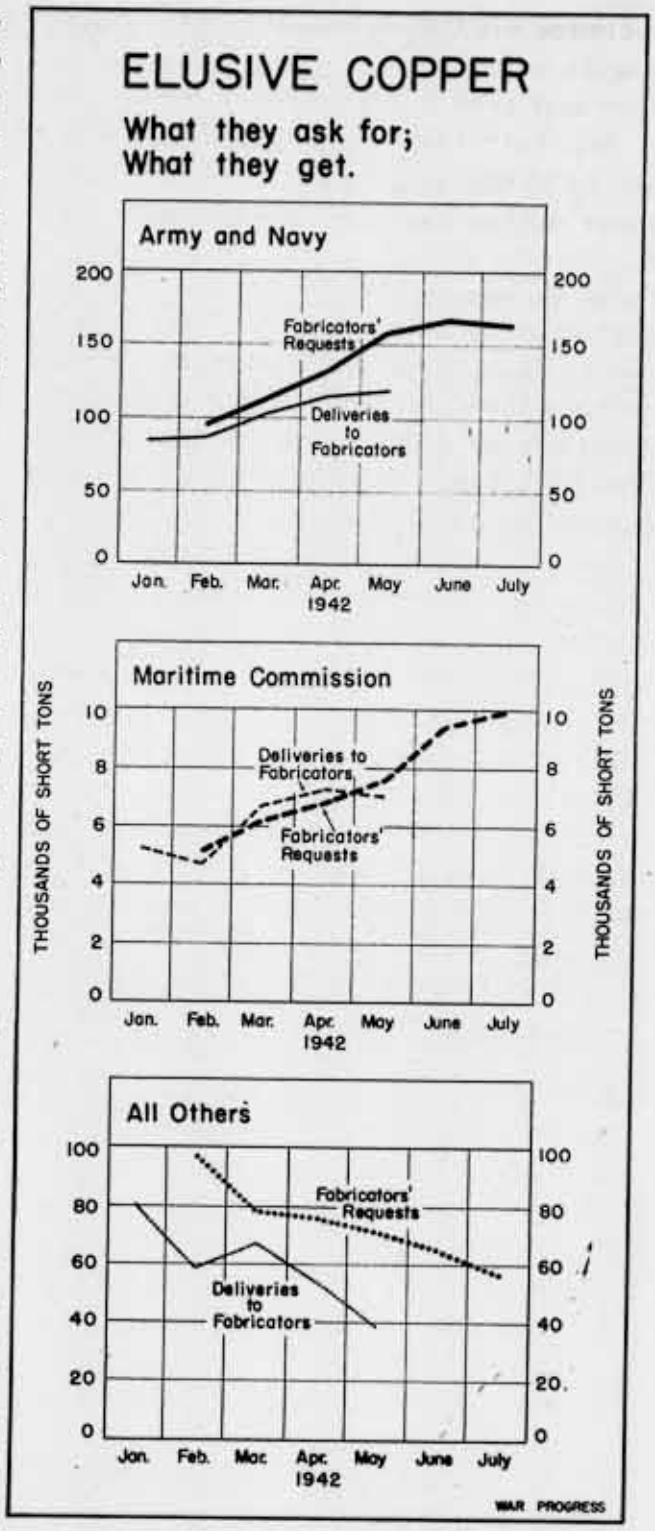
INVENTORY PILE-UP

Furthermore, production of individual components of a given type of ammunition or weapon is not always in balance, and end products can be turned out only as fast as the slowest component. As an example, primers and fuses containing copper are being made faster than completed rounds of ammunition. Thus, copper is stowed away in semi-finished inventories, while raw copper is critically low.

UP TO ARMY AND NAVY

What it finally comes down to is this: Supply is short and demand is long; by far the greatest proportion of the supply goes to the armed services; copper going to all other users cannot be cut sufficiently to make up the deficit. Therefore, what we get out of copper in overall fighting equipment depends on how the Army and the Navy husband, utilize, and stretch their supplies. They can substitute; they can decide to do without certain copper-using items; they can make further efforts to reduce the use of copper in such items as bakery equipment, carbonated beverage dispensers, coffee grinders, dishwashing machines, food mixers, and other noncombat equipment.

But they must make choices on how to use their copper, for there is not enough to go around.



FABRICATORS HOLDING MARITIME COMMISSION CONTRACTS HAVE BEEN GETTING JUST ABOUT AS MUCH COPPER AS THEY NEEDED TO FILL ORDERS. NOT SO THOSE WORKING ON ARMY AND NAVY ORDERS; HERE REQUIREMENTS HAVE SPURTED SO FAST THAT DELIVERIES COULD NOT KEEP UP. SHIPMENTS AGAINST OTHER TYPES OF ORDERS HAVE BEEN DECLINING, ALONG WITH ALLOWABLE REQUESTS. BUT THE INFERENCE IS CLEAR: COPPER IS ON A WARTIME FOOTING.

The Best-Fed Nation on Earth

Good crop year indicates that U.S. will continue to eat well and in variety, though heavy shipments abroad will cut consumption of meat, fish, and canned goods.

IDLE ACRES of arable land are few and far between this year; and if all goes well with crops and livestock between now and harvest, agricultural production for the year ending June 30, 1943, will run 9% higher than in 1940-41 and 25% above the 1935-39 average.

As a result, the United States will continue to be the best-fed nation on earth, but it will not be fed in the manner to which it has been accustomed. Our expanding Army and Navy, together with lend-lease exports, will cut into the civilian supply.

We shall eat more chicken, but less beef and pork. Poultry output will be up 15%--and little chicken goes abroad. But lend-lease and the armed forces are expected to take 6,000,000,000 pounds of the estimated 23,600,000,000 pounds of meat produced in the current crop year, leaving a civilian supply of 17,-300,000,000 pounds, or 135 pounds per person. This compares with 145 pounds in 1941--the last year in which agricultural production was not planned for war purposes.

U-BOATS CUT FISH SUPPLY

Fish for civilians will be off also, for two reasons: First, the catch will be reduced, because many fishing vessels have been taken over by the Navy and the submarine menace has restricted fishing-fleet movements off the East and West coasts. Second, a great proportion of the canned fish will be taken by the armed services and lend-lease. According to present estimates, U.S. civilians will be able to buy only about 55% as much fresh fish and 12% as much canned fish as in 1941. (The shortage of tin, plus huge military and foreign demands and stoppage of imports, is already responsible for the disappearance of some varieties of canned fish from the market.)

MORE CHEESE AND CRACKERS

Dairy and grain products are the brightest spot in the food picture. Despite heavy shipments to Britain and other nations, an estimated 35,000,000-000 pounds of fluid milk and cream, over 1,000,000,000 pounds of cheese, and more than 3,500,000,000 pounds of evaporated and condensed milk will be available for civilian markets. This is about 3% more dairy products than the United States consumed in 1941.

Breadstuffs, too, will be plentiful. With a bumper crop of wheat and the highest stocks of old wheat on record,

★★★★★ FINAL

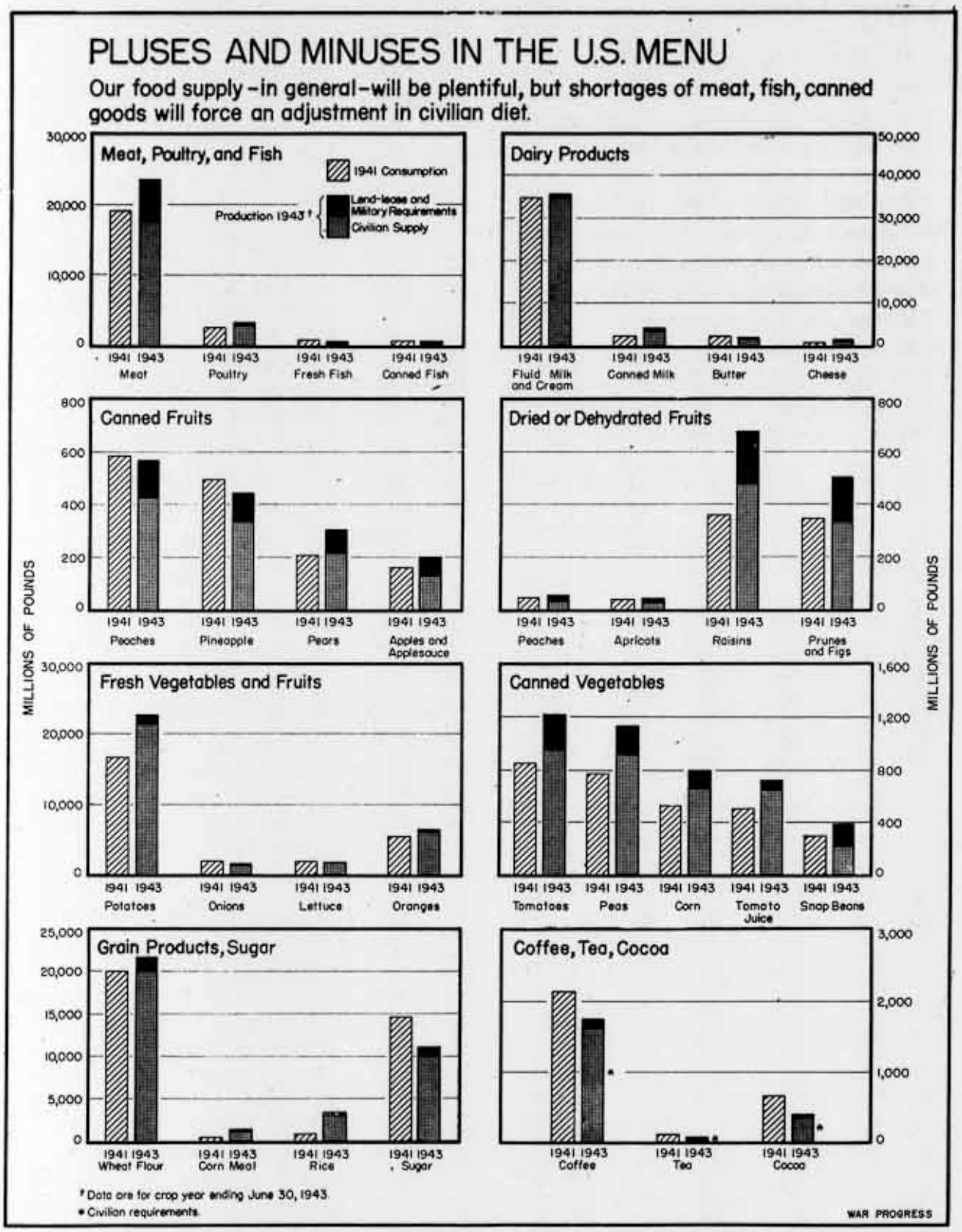
AIRCRAFT PLANTS turned out $353,717,-000 of completed planes last month, a 5% gain over July, but 12% less than the amount called for in the first-of-the-month forecast. Combat plane output, at $286,000,000, was up only 4% and fell 14% behind the forecast. Noncombat plane acceptances rose more than 10%, and were only 3% behind schedule.

As the following table suggests, gains in output of combat planes have been flattening out in recent months:

	Combat	Noncombat	Total
	(millions of dollars)		
May	241	54	295
June	260	45	305
July	275	60	335
August	286	68	354

PLUSES AND MINUSES IN THE U.S. MENU

Our food supply – in general – will be plentiful, but shortages of meat, fish, canned goods will force an adjustment in civilian diet.



† Data are for crop year ending June 30, 1943.
* Civilian requirements.

WAR PROGRESS

TWO YEARS AGO, THE UNITED STATES WAS STILL ON A PRE-WAR FOOD BUDGET. BUT DURING THIS FISCAL YEAR, EXPORT AND MILITARY REQUIREMENTS WILL CUT SHARPLY INTO THE SUPPLY OF MEAT, FISH, DRIED FRUIT, ETC. WHEAT FLOUR FOR CIVILIANS WILL TOP 1941 CONSUMPTION LEVELS, DESPITE HUGE LEND-LEASE AND MILITARY DEMANDS. THERE'LL BE MORE CANNED VEGETABLES THAN WE USED IN 1941, AS THE CHART SHOWS, BUT LESS THAN IN 1942. SINCE TEA, COFFEE, AND COCOA DEPEND UPON SHIPPING, 1943 ESTIMATES ARE CIVILIAN DEMAND, NOT SUPPLY.

Food--Here and Abroad

THE BRITISH and German diets are heavily weighted with carbohydrates. The American enjoys a far more diversified and balanced menu of proteins and fats, as well as starches. This the following table indicates--and the table understates the United States civilian's advantage. U.S. figures are on a per capita basis (no differentiation is made between infant and adult consumption). German and United Kingdom figures are based on adult rations.

	INDICATED WEEKLY CONSUMPTION		
	PER CAPITA	—ADULT RATION—	
	U. S.	BRITAIN	GERMANY
MEAT (LB.)	2.7	1	0.7
MILK (QT.)	2.7	3	NIL
BUTTER (OZ.)	4.8	2	NIL
CHEESE (OZ.)	3.2	8	2.8
EGGS (NO.)	6	0.77	1.5
BREAD (LB.)	2	N.A.	4.4
POTATOES (LB.)	3.3	N.A.	5.5
ORANGES (OZ.)	14.4	NIL	NIL
GRAPEFRUIT (OZ.)	3	NIL	NIL
LEMONS (OZ.)	14	NIL	NIL
SUGAR (OZ.)	8	8	8

N.A. NOT AVAILABLE

The Germans get virtually no butter, but every adult is allowed 7 ounces of fats per week; about 5 ounces of "Nahrmittel" (cereal cakes), and 2.8 ounces of ersatz coffee. On holidays, a small chocolate bar is added. The English import some oranges, but they are reserved for children. A major difference between the English and German ration is that an Englishman can supplement his rations with a restaurant meal; in Germany, restaurant food counts as part of the ration.

we can feed our Army and Navy and send to Britain, Russia, and other countries as much wheat and flour as shipping space allows, without stinting the domestic market. (Indeed, our grain surplus is creating a storage problem, and wooden granaries are being built on farms to prevent the loss of stocks from exposure.)

A banner year is also indicated for the vegetable crop. Commercial acreage planted to vegetables is about the same as last year, but the yields, with some exceptions, such as lettuce and onions, are about 10% higher. And "Victory" gardens have increased about 10% to 15% over 1941 in farming areas, and 25% to 50% in villages, towns, and cities. However, canned vegetables for civilians will be fewer than last year. The Army, Navy, and lend-lease will take a large portion of the pack--for instance, about one-fifth of the peas, tomatoes and corn, and about half the snap beans.

PLENTY OF FRUIT JUICES

Similarly, from 14% to 100% of important canned and dehydrated fruits must be set aside for government use. Military and lend-lease exports are expected to absorb about one-fourth of the canned peaches and pineapple and one-third of the canned pears, apples, and applesauce. Also, the government has tied up the dehydrated and dried fruit crop--since fruit can be best shipped abroad in this concentrated form--and only small quantities of certain grades will be released to the public. The civilian supply of fruit juices will be plentiful.

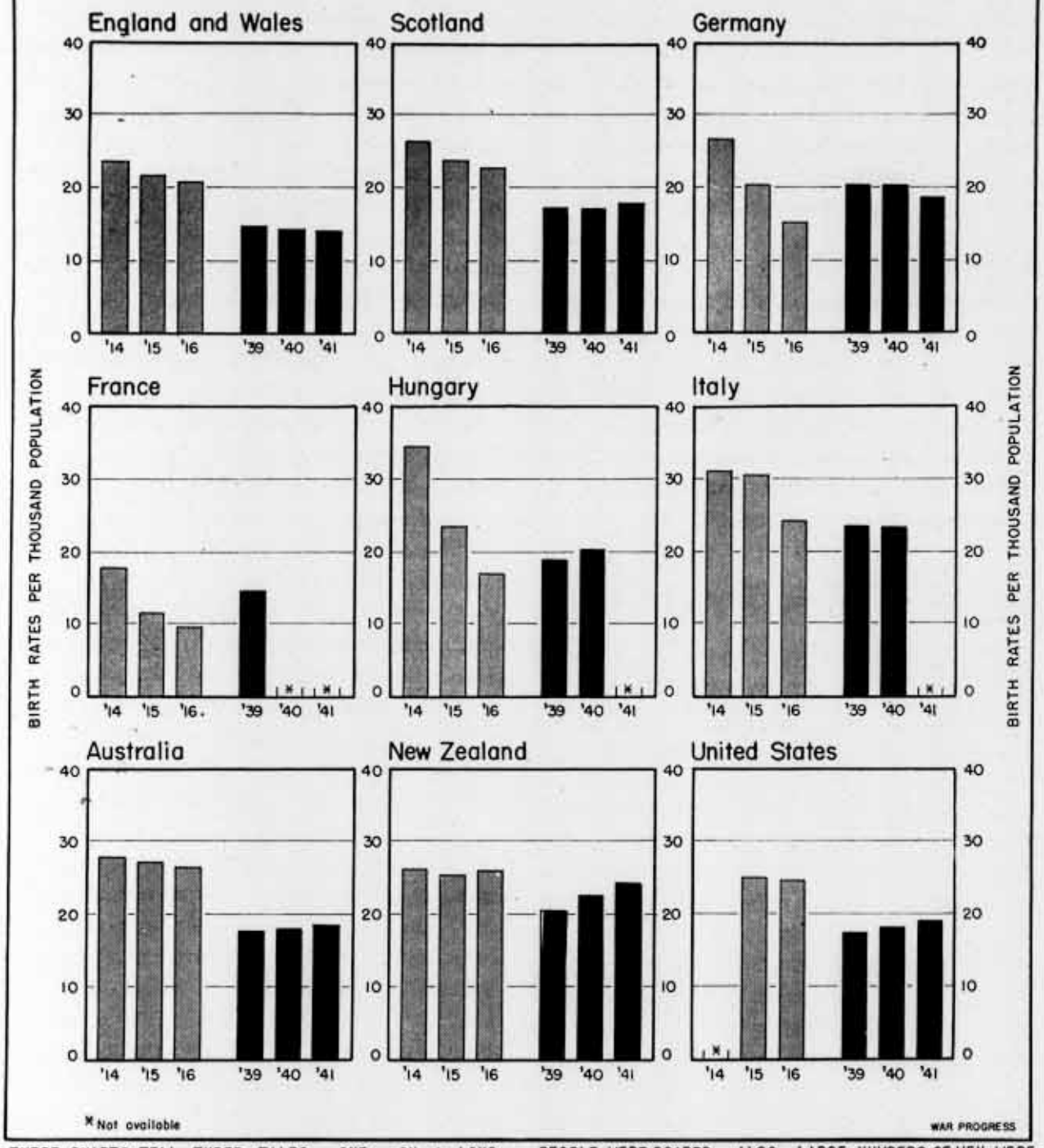
NO BANANAS

Imported food items will be off sharply--as might be expected. Bananas are already scarce--banana boats are being used for war goods. Shipping space has seriously constricted our tea, coffee, and cocoa supplies.

Compared with nations abroad, the United States will still enjoy a comparatively full menu. The German diet

WAR BABIES – THIS TIME AND LAST

Birth rates dropped sharply from 1914 to 1916, but from 1939 to 1941 some increases have taken place.



THESE CHARTS TELL THREE TALES. ONE: ON A LONG-TERM BASIS (1914–1939), THE BIRTH RATE HAS FALLEN EVERYWHERE; THAT GOES FOR COUNTRIES WITH A "POPULATION POLICY" (GERMANY AND ITALY) AS WELL AS FOR COUNTRIES WITHOUT GOVERNMENT BOUNTIES FOR BABIES. TWO: IN THE FIRST TWO YEARS OF THE LAST WAR, THE NUMBER OF BIRTHS FELL SHARPLY THROUGHOUT EUROPE. THE GOLDEN AGE OF FREEDOM AND LIBERALISM WAS OVER; PEOPLE WERE SCARED. ALSO, LARGE NUMBERS OF MEN WERE NEEDED CONSTANTLY AT THE FRONT. THREE: THIS TIME THE FALL IN THE BIRTH RATE HAS BEEN MUCH LESS EMPHATIC. MOBILE (BLITZKRIEG) WARFARE—UP TO THE RUSSIAN CAMPAIGN—REQUIRED LARGE ARMIES FOR SHORT PERIODS ONLY. AND, IN THE UNITED STATES, WAR-BOOMED BUSINESS ACTIVITY RAISED INCOMES OF MANY YOUNG COUPLES TO THE CHILD-HAVING LEVELS.

consists primarily of bread, potatoes, very little meat, and hardly any fruits and vegetables. The average Englishman has a more diversified diet than the German, but far less than the average American. His pound of meat per week compares with 2.6 pounds here. The Englishman must get along on 40 eggs a year; an American averages about 25 a month. Interestingly enough, a German gets more eggs than an Englishman.

GREATER SHORTAGES COMING

However, by the end of 1943, our domestic food supply may shorten considerably. Two factors are at work. Demands of the United Nations are still increasing, while U.S. production may fall off because of (1) scarcity of farm labor, (2) hazards of weather, and (3) transportation difficulties.

WPB Tabs Priorities

150 specialists will check on Army and Navy procurement offices to guard against overissuance of high preference ratings and inventory tie-ups of materials.

THE WAR PRODUCTION BOARD is taking steps to implement its decision to review and approve preference ratings assigned by Army and Navy procurement offices. Some 150 WPB priority specialists are being stationed at procurement offices to see that assignments of PD-3A preference ratings comply with WPB and Army and Navy Munitions Board directives.

Up to now, the prime objective of procurement officers has been to get materials and production fast on their own particular items, even though the overall war program, or parts of it, might be held up as a result. From now on, WPB officials will take a hand in the issuance of preference rating orders and see to it that the overall program--as set forth in WPB and ANMB objectives--is complied with.

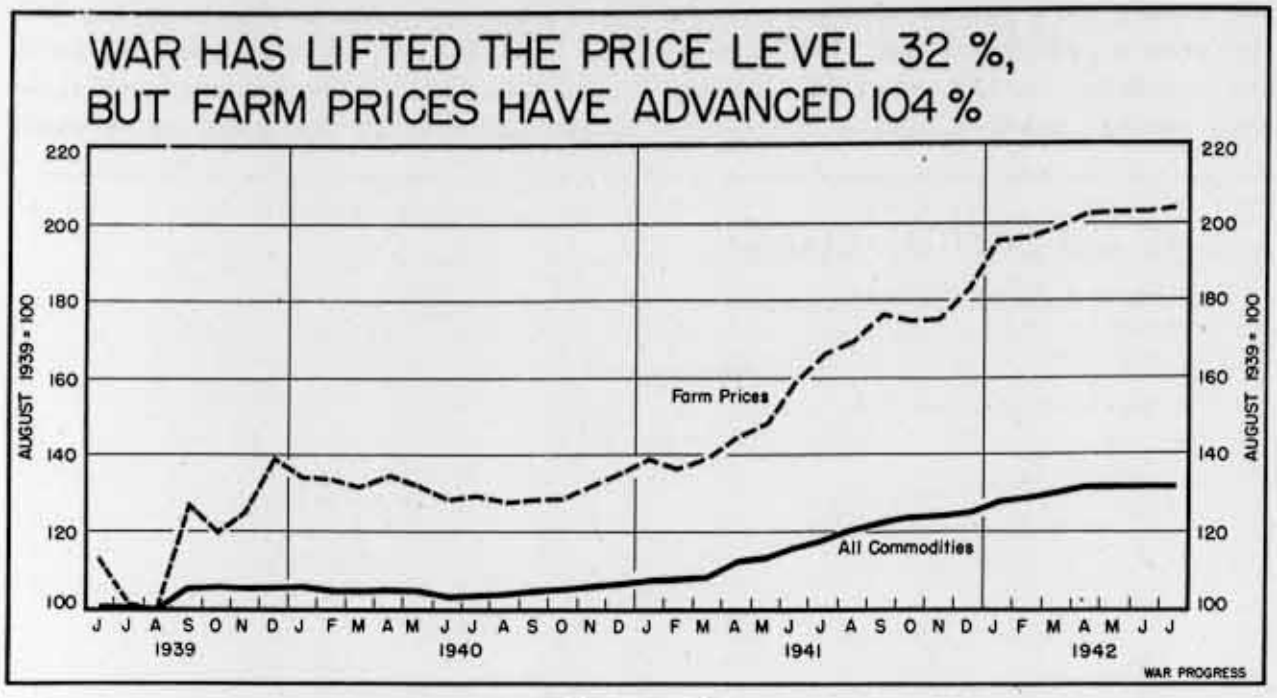
BETTER TIMING

Thus, the 150 priority specialists will check all PD-3A orders to see that materials are not tied up in idle inventories. For example, if an airport is being built, the procurement officer would be justified in assigning a high priority rating for all materials. But the ratings do not have to be issued simultaneously--neither is it necessary to bring materials to the site immediately. Before asphalt can be used on runways, grading and leveling must be finished. Six months may elapse In the past, procurement officers may have issued ratings to get the asphalt at once, thus perhaps depriving another job of the material; WPB officials will see that the rating is issued only when the material is needed.

Another effect of the system will be to check overissuance of ratings. Suppose one procurement district is authorized to issue AA-1 ratings on 1,000 tanks and AA-3 ratings on 3,000 tanks: The WPB priority specialists will countersign AA-1 certificates for materials to make no more than 1,000 tanks, even if the plants in the area are capable of making more than the schedule calls for. Heretofore, procurement officers were not limited by such on-the-spot checks.

NO OVERALL SYSTEM YET

Ultimately, the specialist system of issuing ratings may work up into a plan for overall control of materials utilization. But as yet no adequate system of accounting--of checking ratings issued by the various procurement districts against the overall production schedule and supply of raw materials--has been worked out.



EVER SINCE THE WAR BEGAN IN SEPTEMBER, 1939, DEMANDS FOR A LONG LIST OF COMMODITIES HAVE MULTIPLIED, AND PRICES HAVE RISEN ACCORDINGLY. OF LATE, THE EFFECT OF THIS DEMAND HAS BEEN PARTLY NULLIFIED BY OPA'S PRICE CEILINGS. BUT FARM PRICES ARE A BIG EXCEPTION. THEY REGISTERED THE GREATEST GAINS PRIOR TO THE GENERAL MAXIMUM PRICE REGULATION. AND NOW, THOUGH THEIR RATE OF RISE HAS SLOWED UP, THEY STILL CONTINUE TO ADVANCE.

pay for munitions and other supplies. Thus government expenditures advance some more, increasing the level of national income and consumer purchasing power in a renewed assault on the price structure.

Higher Costs Absorbed

To date, after three months of the General Maximum Price Regulation, what stands out is that it has worked as well as it has. There are reasons for it, of course. At first, profit margins were ample, and manufacturers, wholesalers, and retailers could absorb some of the higher costs.

Also, inventories were large, and merchants were not immediately faced with replacing goods sold with higher-cost stocks. Further, consumers--having bought ahead during 1941, trying to beat price advances--were not heavily in the market for goods.

But soon, consumer stocks will run down and consumer spending habits can be expected to rise to the new--and higher--level of income in the country. What's more, higher taxes and increased replacement costs are making it increasingly difficult for businessmen to hold to the price ceilings. Indeed, some deterioration in quality has already developed; prices are held, but consumers are not getting what they used to get for their money.

Danger Period Ahead

Thus, the factors that acted as a safety cushion during the first three months of General Maximum Price Regulation are likely to begin working in the opposite direction. Consumers will start buying closer to their higher incomes; merchants will have to replace goods at higher costs; and profits won't stand for it. So it would be rash to

Raw Material

EMERGENCY STEELS

MEET A NEW TERM—"National Emergency Steels." More than 40 new steel formulas have been devised to save critical alloying materials, such as chrome and nickel. An early series of N. E. steels called for a 12% increase in molybdenum in order to attain a 25% economy in chrome and nickel. Since "moly" is getting short too, three new series of N. E. formulas have been developed, using about the same amount of molybdenum as formerly. Still another series uses no molybdenum—only manganese, silicon, and chrome. National emergency steels are meeting increasing acceptance. About one-sixth of the total scheduled alloy steel meltings are now in the N. E. categories.

BOMBPROOFING CHART PAPER

BRITAIN HAS GONE IN heavily for concentrating production. But the Admiralty put its foot down when it came to "concentrating" in one plant firms making chart paper; it would not risk having its chart paper supply bombed out.

BACK TO NATURE

NOT FAR OFF is an order to permit requisitioning of certain civilian air-conditioning equipment for transfer to war plants, especially where temperature control is a factor in precision work and manufacturing processes. Examples: ammunition, airplane engine, synthetic rubber, and aviation gasoline production. Object is to save steel, copper, and cast iron by utilizing existing installations. Office workers—perhaps led by employees in the Social Security and Railroad Retirement buildings—may be the first to go back to Nature's temperatures. Department-store shoppers are likely to be next. But air-conditioning systems in theatres, recreation halls, etc., are regarded as necessary for morale—at least now.

IRONY

AN OREGON ALUMINUM ingot plant was recently rushed to completion by top priorities on materials. But when completed, it couldn't open. The neighborhood labor supply had been drained away by the very shipyards and aircraft plants which needed the aluminum the plant was to produce.

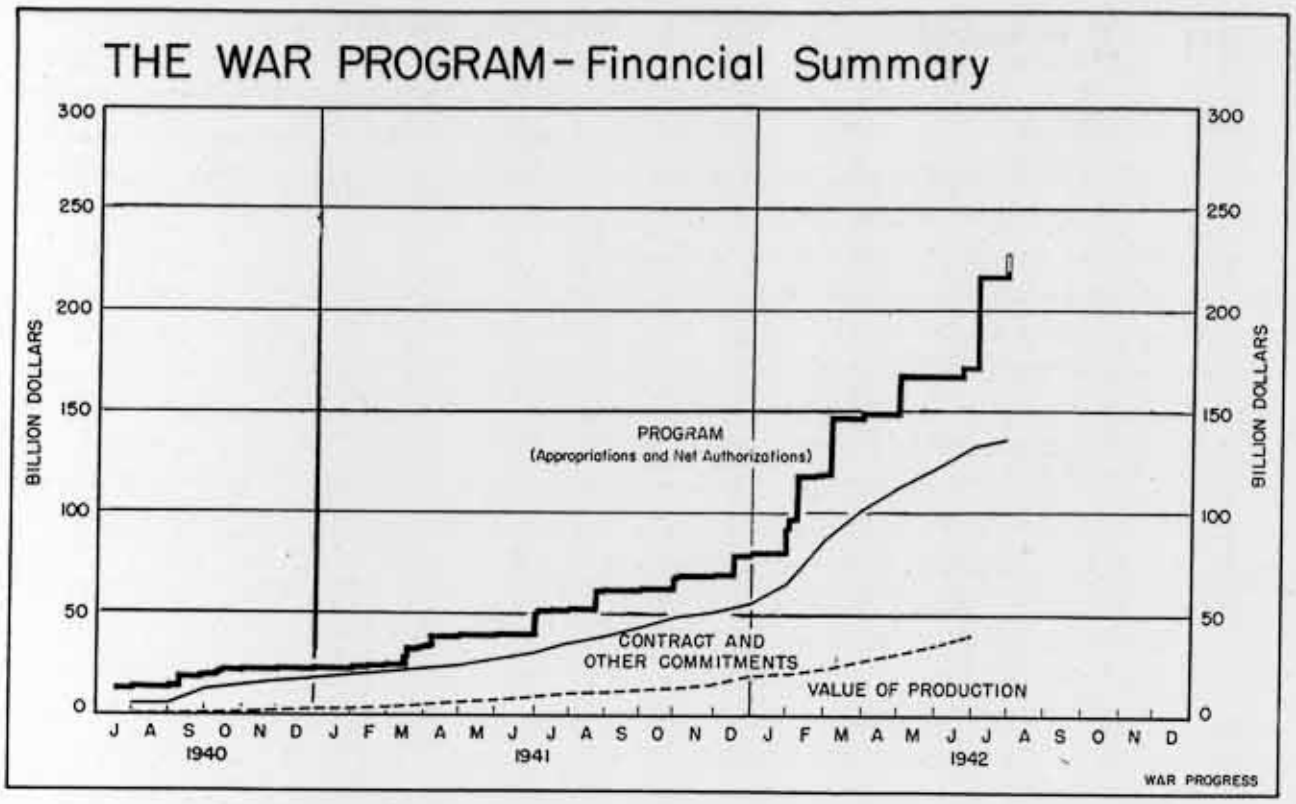
QUOTAS FOLLOW SALES

THE TREASURY has been consistently reducing its monthly quotas for war bond sales—from $1,000,000,000 in July to $815,000,000 in August to $775,000,000 in September. Probable reason: Sales have fallen consistently below the goal. August was 14% behind, July, 10%.

July sales, incidentally, were boosted by relaxation in the purchase rules (chart, page 20). Up to that time, no individual or institution could buy more than $50,000 of high-denomination bonds in any year; in July, that was boosted to $100,000, and big purchases jumped—but not enough to meet the quota.

OPENING THE GAP

SINCE JULY, 1940, the Federal deficit has been consistently financed as follows: two-thirds through sales of bonds to individuals, mutual savings banks, insurance companies, trust funds, etc., and one-third out of bank credit (chart, page 20). With sales of war savings bonds falling behind quotas (above), the Treasury will have to continue to finance a large part of the deficit at commercial banks, thus widening the potential "inflationary gap."

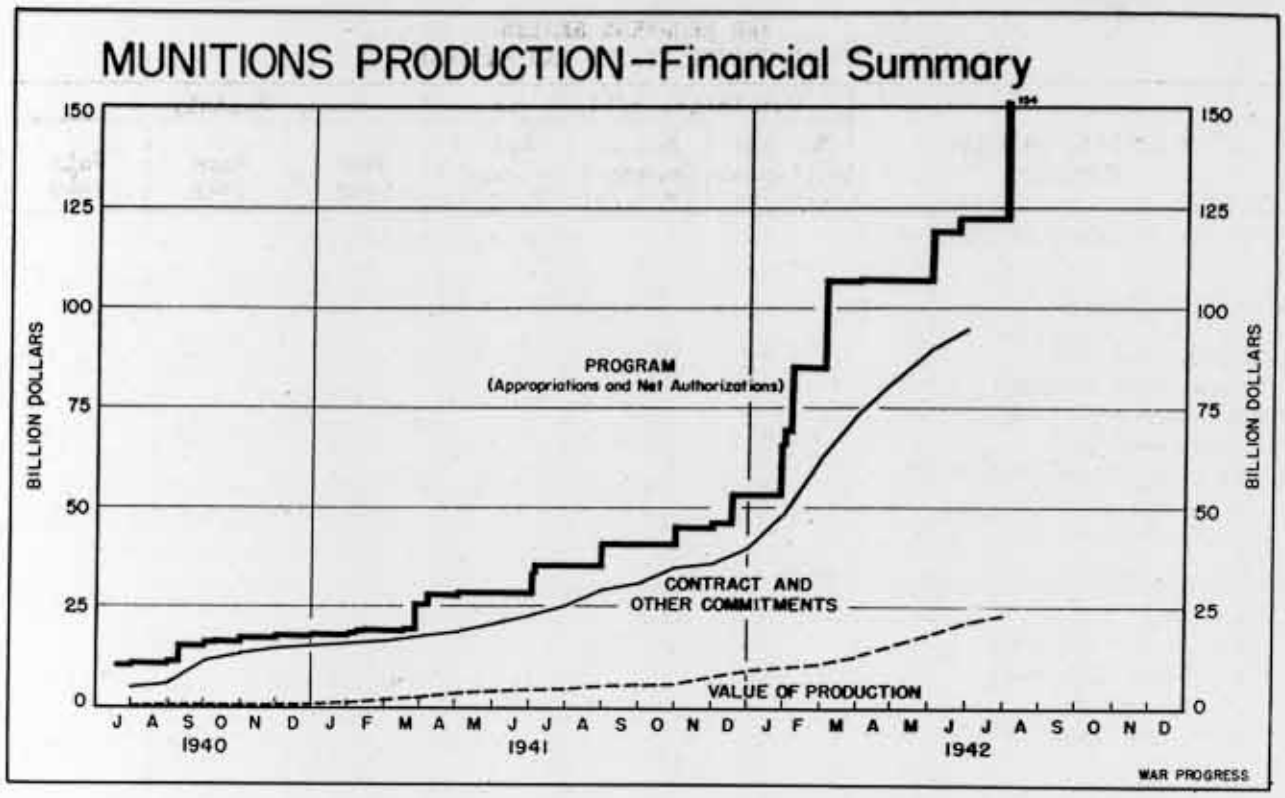

THE WAR PROGRAM - Financial Summary
BILLION DOLLARS
300
250
200
150
100
50
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL WAR PROGRAM IN THE UNITED STATES

	Cumulative 6/11/40 to			Monthly		
	End 1st full year 6/30/41	End of December 12/31/41	End of June 6/30/42	May 1942	June 1942	July 1942
● TOTAL WAR PROGRAM IN THE U.S.[a]			(Million dollars)			
Program-Pending						p 9,525
Program-Enacted	40,861	80,604	p 174,384	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	31,587	56,625	p 134,094	p 9,731	p 12,098	n.a.
Value delivered and/or in place [b]	8,547	18,573	p 39,222	p 4,060	p 4,602	n.a.
Checks paid [c]	8,536	17,965	p 37,562	3,925	p 4,156	p 4,824
MUNITIONS PRODUCTION & WAR CONSTRUCTION, TOTAL						
Program	37,027	69,305	p 156,214	0	p 5,358	p 32,543
Uncommitted Balance	7,597	18,281	p 33,761	-	-	-
Contracts and other commitments	29,430	51,024	p 122,453	p 9,107	p 9,999	n.a.
Value delivered and/or in place [b]	6,795	14,750	p 32,184	p 3,465	p 3,882	n.a.
Value not delivered nor in place	22,635	36,274	p 90,269	-	-	-
PRODUCTION OF MUNITIONS						
Program	28,566	53,738	p 124,097	-25	p 4,756	p 29,952
Uncommitted balance	4,901	13,929	p 29,106	-	-	-
Contracts and other commitments	23,665	39,809	p 94,991	p 6,668	p 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	p 2,955
Value not delivered nor in place	19,375	30,869	p 74,542	-	-	-
WAR CONSTRUCTION						
Program	8,461	15,567	p 32,117	25	p 602	p 2,591
Uncommitted balance	2,696	4,352	p 4,655	-	-	-
Contracts and other commitments	5,765	11,215	p 27,462	p 2,439	p 3,057	n.a.
Value delivered and/or in place [b]	2,505	5,810	p 11,735	p 1,217	p 1,244	n.a
Value not delivered nor in place	3,260	5,405	p 15,727	-	-	-
NON-MUNITIONS WAR ITEMS, TOTAL						
Program	3,834	11,299	p 18,170	0	p 257	p 11,928
Uncommitted balance	1,677	5,698	p 6,529	-	-	-
Contracts and other commitments	2,157	5,601	p 11,641	p 624	p 2,099	n.a.
Checks issued	1,752	3,823	p 7,038	p 595	p 720	n.a.

● Graph appears on opposite page.
Table continued on Page 13.

For footnotes see Page 22.

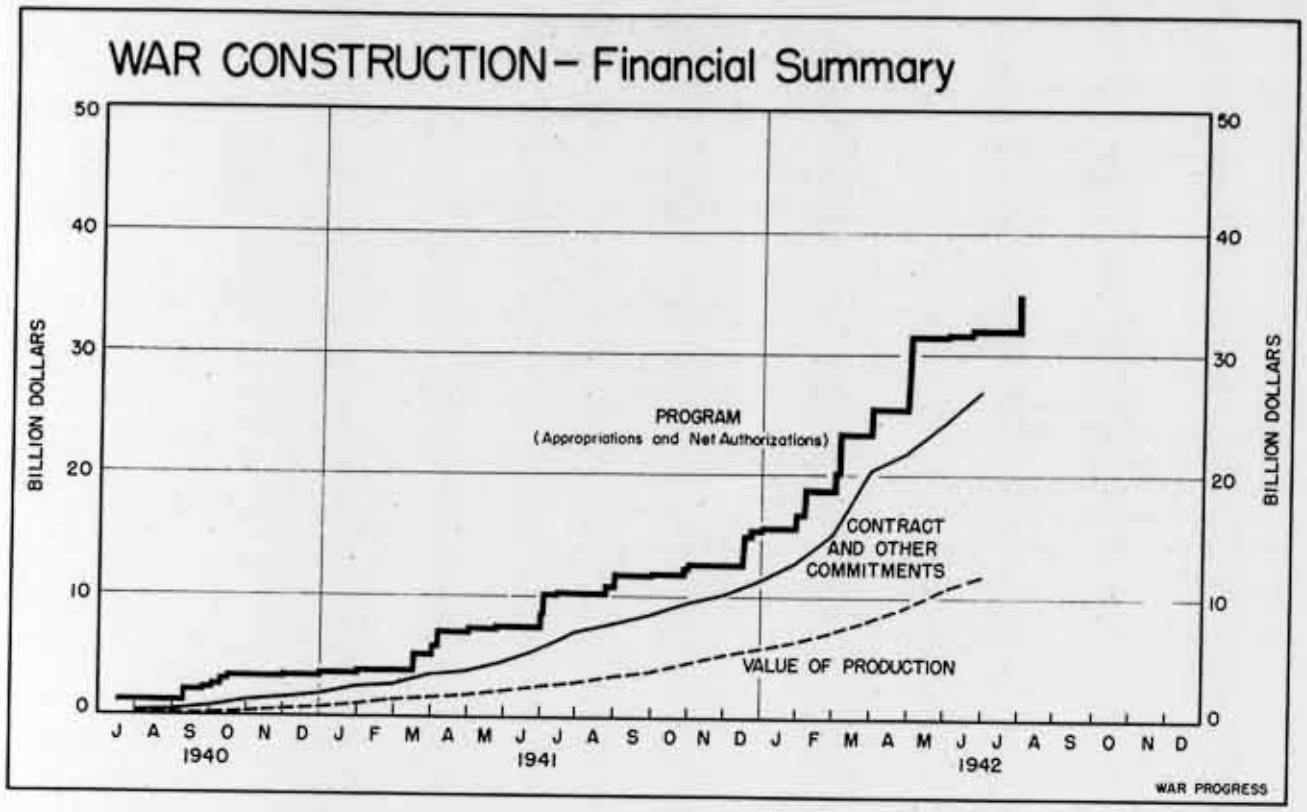

MUNITIONS PRODUCTION–Financial Summary
BILLION DOLLARS
150
125
100
75
50
25
0
194
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT AND
OTHER COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF MUNITIONS PRODUCTION			
● MUNITIONS PRODUCTION, TOTAL						
Program	28,566	53,738	P124,097	-25	P 4,756	P 29,952
Uncommitted balance	4,901	13,929	P 29,106	-	-	-
Contracts and other commitments	23,665	39,809	P 94,991	P 6,668	P 6,942	n.a.
Value delivered and/or in place [b]	4,290	8,940	20,449	2,248	2,638	P 2,955
Value not delivered nor in place	19,375	30,869	P 74,542	-	-	-
AIRPLANES, PARTS & ACCESSORIES						
Program	8,582	15,072	P 37,586	0	P -215	P 9,737
Contracts and other commitments	7,381	13,298	P 33,945	P 2,409	P 2,838	n.a.
Value delivered	1,010	2,265	4,752	471	510	P 549
ORDNANCE						
Program	7,778	17,488	P 36,400	0	P 285	P 9,548
Contracts and other commitments	5,418	10,354	P 26,873	P 2,278	P 2,360	n.a.
Value delivered	700	1,685	4,998	696[e]	731	P 904
NAVAL SHIPS						
Program	6,796	9,605	P 18,460	0	P 2,922	P 0
Contracts and other commitments	6,442	7,930	P 12,276	275	P 276	n.a.
Value delivered and/or in place	810	1,665	3,383	399[e]	404	P 451
MERCHANT SHIPS						
Program	1,442	3,288	P 8,653	-25	P 1,054	P 0
Contracts and other commitments	1,484	2,381	P 6,880	P 607	P 618	n.a.
Value in place	240	510	1,188	131	176	187
OTHER MUNITIONS AND SUPPLIES						
Program	3,968	8,285	P 22,998	0	P 710	P 10,667
Contracts and other commitments	2,940	5,846	P 15,017	P 1,099	P 850	n.a.
Value delivered	1,530	2,815	6,128	551	817	P 864

●Graph appears on opposite page.
Table continued on Page 15.

For footnotes see Page 22.


WAR CONSTRUCTION– Financial Summary
BILLION DOLLARS
50
40
30
20
10
0
PROGRAM
(Appropriations and Net Authorizations)
CONTRACT
AND OTHER
COMMITMENTS
VALUE OF PRODUCTION
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1940
1941
1942
WAR PROGRESS

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF WAR CONSTRUCTION			
●WAR CONSTRUCTION, TOTAL (LAND, BLDGS., EQUIP.)						
Program	8,461	15,567	P 32,117	25	P 602	P 2,591
Uncommitted balance	2,696	4,352	P 4,655	-	-	-
Contracts and other commitments	5,765	11,215	P 27,462	P 2,439	P 3,057	n.a.
Value in place	2,505	5,810	P 11,735	P 1,217	P 1,244	n.a.
Value not in place [b]	3,260	5,405	P 15,727	-	-	-
INDUSTRIAL FACILITIES (LAND, BLDGS., EQUIP.)						
Program	5,120	8,112	P 17,610	25	P 707	P 172
Contracts and other commitments	2,865	6,318	P 16,697	P 1,047	P 1,592	n.a.
Value in place	960	2,800	P 5,990	P 629	P 615	n.a.
INDUSTRIAL FACILITIES, BUILDINGS ONLY						
Program	1,607	3,137	P 6,[illegible]30	P 389	P 768	n.a.
Value in place	575	1,753	P 2,990	P 287	P 307	P 344
POSTS, DEPOTS, STATIONS						
Program	2,849	6,063	P 13,115	0	P -105	P 2,419
Contracts and other commitments	2,625	4,381	P 9,890	P 1,317	P 1,390	n.a.
Value in place	1,430	2,670	P 5,179	P 545	P 580	n.a.
DEFENSE HOUSING						
Program	492	1,392	P 1,392	0	P 0	P 0
Contracts and other commitments	275	516	P 875	P 75	P 75	n.a.
Value in place	115	340	P 566	P 43	P 49	n.a.
			BREAKDOWN OF NON-MUNITIONS			
NON-MUNITIONS, TOTAL						
Program	3,834	11,299	P 18,170	0	P 257	P 11,928
Uncommitted balance	1,677	5,698	P 6,529	-	-	-
Commitments	2,157	5,601	P 11,641	P 624	P 2,099	n.a.
Checks issued by agencies [b]	1,752	3,823	P 7,038	P 595	P 720	n.a.
STOCKPILE						
Program	983	2,399	P 2,713	0	P 0	P 0
Commitments	470	1,050	P 1,140	P 30	P 0	n.a.
Checks issued by agencies	192	488	P 1,011	P 102	P 100	n.a.

●Graph appears on opposite page.
Table continued on following page.

For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
			BREAKDOWN OF NON-MUNITIONS (Continued)			
AGRICULTURAL EXPORTS (LEND-LEASE)						
Program	625	1,522 p	2,138	0 p	0 p	0
Commitments	66	561 p	1,143	p 65 p	149	n.a.
Checks issued by agencies	1	211 p	629	87 p	90	n.a.
PAY, SUBSISTENCE & TRAVEL [f]						
Army Military						
Program	944	3,013 p	3,904	0 p	0 p	8,534
Commitments	934	2,030 p	3,849	p 281 p	285	n.a.
Checks issued	696	1,510 p	2,744	p 220 p	315	n.a.
Navy Military						
Program	378	963 p	2,478	0 p	232 p	0
Commitments	334	610 p	1,143	p 110 p	104	n.a.
Checks issued	388	642 p	1,042	p 70 p	98	n.a.
Civilian Payroll						
Program	32	247 p	299	0 p	46 p	542
Commitments	32	140 p	255	p 15 p	20	n.a.
Checks issued	356	682 p	1,115	p 79 p	80	n.a.
MISCELLANEOUS NON-MUNITIONS						
Program	872	3,155 p	6,638	0 p	-21 p	2,852
Commitments	321	1,210 p	4,111	p 123 p	1,541	n.a.
Checks issued by agencies	119	290 p	497	p 37 p	37	n.a.

p Preliminary

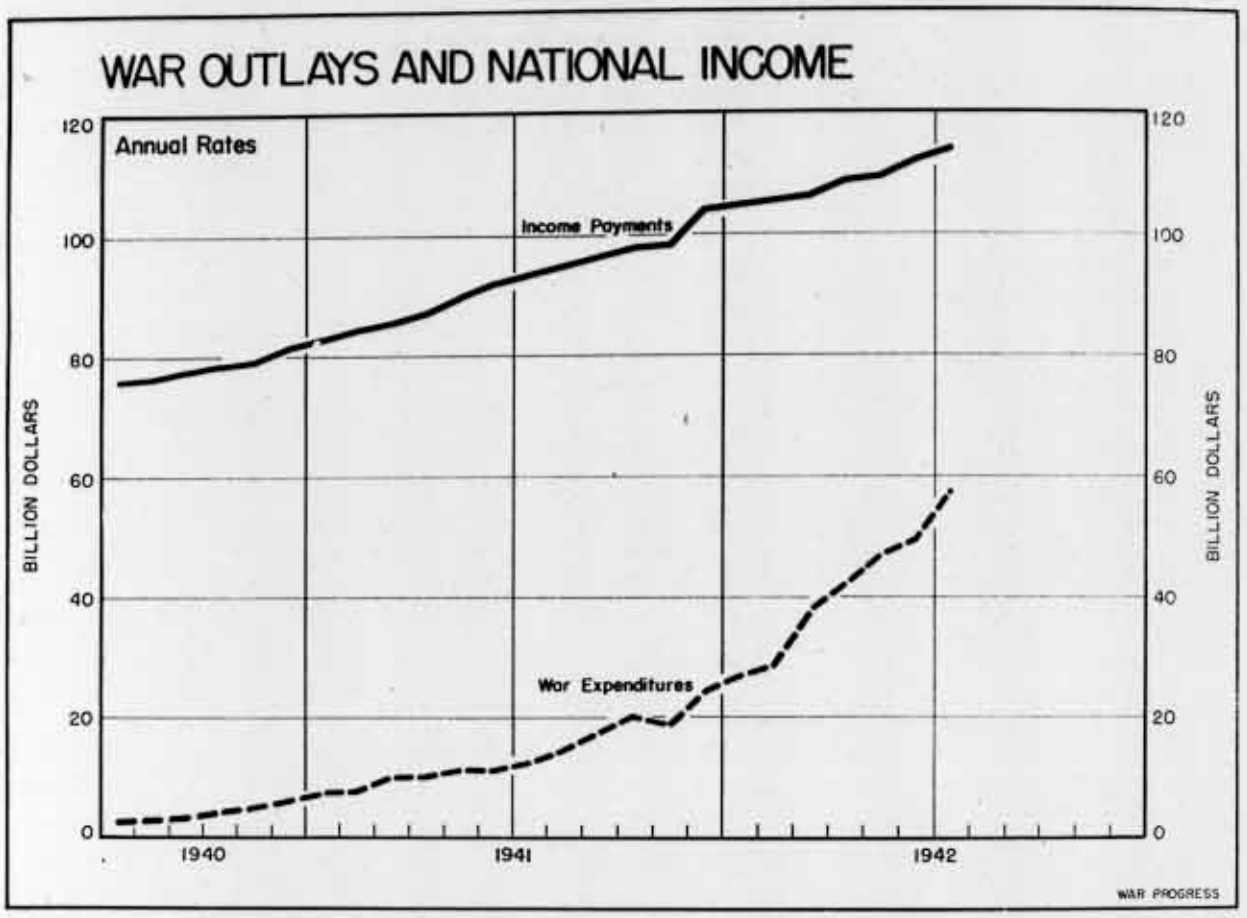
Table continued on following page.

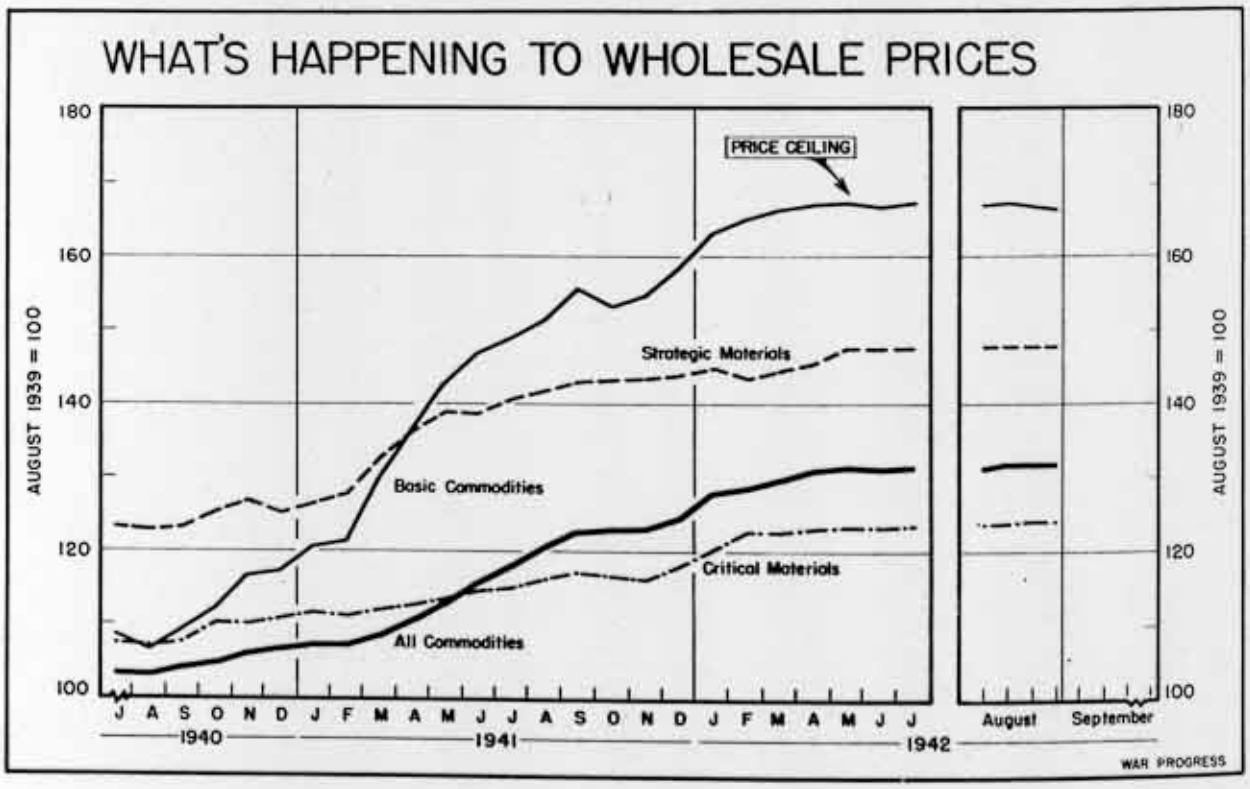
For footnotes see Page 22.

WAR PROGRESS SERIES
TOTAL UNITED STATES WAR PROGRAM

FINANCIAL PROGRAM SUMMARY	Cumulative 6/11/40 to End 1st full year 6/30/41	Cumulative 6/11/40 to End of December 12/31/41	Cumulative 6/11/40 to End of June 6/30/42	Monthly May 1942	Monthly June 1942	Monthly July 1942
			(Million dollars)			
	d		BREAKDOWN OF AGENCIES			
UNITED STATES FINANCED WAR PROGRAM						
Program	37,075	76,508	p 170,288	0	p 5,615	p 44,471
Uncommitted balance	9,274	23,979	p 40,290	-	-	-
Contracts and other commitments	27,801	52,529	p 129,998	p 9,731	p 12,098	n.a.
Checks paid	6,431	15,251	p 34,510	3,880	p 4,123	p 4,794
U. S. ARMY						
Program	13,134	31,981	p 84,468	0	p 0	p 42,090
Contracts and other commitments	11,404	23,334	p 70,402	p 6,138	p 8,397	n.a.
Checks paid	3,636	7,889	15,649	1,497	1,662	n.a.
U. S. NAVY						
Program	12,308	20,024	p 47,990	0	p 4,355	p 0
Contracts and other commitments	11,182	16,327	p 32,325	p 1,971	p 2,361	n.a.
Checks paid	2,217	4,726	10,128	1,229	1,237	n.a.
LEND-LEASE						
Program	7,000	12,985	p 18,410	0	p 0	p 0
Allocations	5,177	11,345	14,085	508	-281	n.a.
Contracts and other commitments	2,458	6,282	10,665	305	484	n.a.
Checks paid	21	910	4,099	626	665	n.a.
U. S. MARITIME COMMISSION						
Program	784	2,734	p 7,654	0	p 1,070	p 0
Contracts and other commitments	886	1,724	p 6,333	608	p 631	n.a.
Checks paid (Net)[e]	44	156	642	93	114	n.a.
RFC AND SUBSIDIARIES						
Program	2,623	5,130	p 7,704	0	p 0	p 0
Contracts and other commitments	1,151	3,569	p 7,916	p 509	p 0	n.a.
Checks issued by RFC	350	956	p 2,510	327	p 300	p 300
OTHER U. S. AGENCIES						
Program	1,226	3,654	p 4,062	0	p 190	p 2,381
Contracts and other commitments	720	1,293	p 2,357	p 200	p 225	n.a.
Checks paid	163	614	1,482	108	145	n.a.
FOREIGN ORDERS						
Program (Orders)	3,786	4,096	p 4,096	0	p 0	p 0
Commitments	3,786	4,096	p 4,096	0	p 0	p 0
Checks issued by Purchasing Missions	2,105	2,714	p 3,052	45	p 33	p 30

For footnotes see Page 22.


WAR OUTLAYS AND NATIONAL INCOME
Annual Rates
Income Payments
War Expenditures
BILLION DOLLARS
120
100
80
60
40
20
0
1940
1941
1942
WAR PROGRESS


WHAT'S HAPPENING TO WHOLESALE PRICES
PRICE CEILING
Strategic Materials
Basic Commodities
Critical Materials
All Commodities
AUGUST 1939 = 100
180
160
140
120
100
J A S O N D J F M A M J J A S O N D J F M A M J J
1940
1941
1942
August
September
WAR PROGRESS

project the horizontal trend in the cost of living very far into the future--unless adequate controls over wages and farm prices are quickly worked out.

Raw Material

WAR WORKERS TO THE ARMY

WAR INDUSTRIES supply relatively more men for military service than nonwar industries. This fact became sharply apparent in June, when the armed forces siphoned off nine out of every 1,000 workers in the war industries as against only seven per 1,000 in nonwar industries. The firearms industry was tops in losses to the armed forces--12 workers per 1,000.

Possible reasons for heavier transfers among war workers are: (1) some Selective Service Boards in densely concentrated defense areas can't help conscripting war workers to fill local quotas, regardless of industry needs; (2) many war industries, such as firearms and airplanes, are comparatively new and have attracted younger and unmarried workers, thus creating a bulge in military eligibles. The relative distribution of women between war and nonwar plants probably is not a major factor in the disparity.

HELP WANTED

IF YOUR WIFE cannot find a maid or if you have to wait in line to get a meal at a restaurant, here's why: Washington hotels, boarding houses, and restaurants employed 8,100 negro workers in prewar days. But, to cope with the influx of war workers and visitors, 3,200—about 40%—more are needed, and can't be found. So if your waiter takes a long time returning after he hands you the napkin, think of this: For want of a dishwasher, he may be in the kitchen washing your cutlery.

DIVERSIFYING THE SHIPMENT

SO AS NOT to put all the eggs in one bottom, wartime shipping authorities diversify their cargoes--mixing foods, guns, tanks and steel. Thus, if a ship goes down, the loss is not all in one crucial item. The punishing effect of losing all-of-a-kind cargoes is illustrated by the East coast oil shortage.

G. P. O. PLATES

OWNERS OF OLD PRINTING PLATES must contribute them to the war effort before acquiring new metal. But one big owner of lead, copper, and zinc plates--the federal government--can't fully comply. A federal law requires the Government Printing Office to hold plates for specified lengths of time.

NO BLUE CHINA

BLUE CHINA AND POTTERY are out for the duration. Manufacturers no longer may use cobalt compounds to get blue coloring, cobalt being needed for tough steel alloys used in shells and delicate parts of high-altitude planes. Imports of blue china from England, including Wedgwood, are forbidden; thus American manufacturers won't lose their markets by default.

ECONOMIC ACTIVITY RELATED TO THE WAR

Note: Certain statistical series included in these tables are nonconfidential and are published in such public documents as the Federal Reserve Bulletin, Survey of Current Business, etc. Obviously inclusion here should not be construed as a limitation on their use.

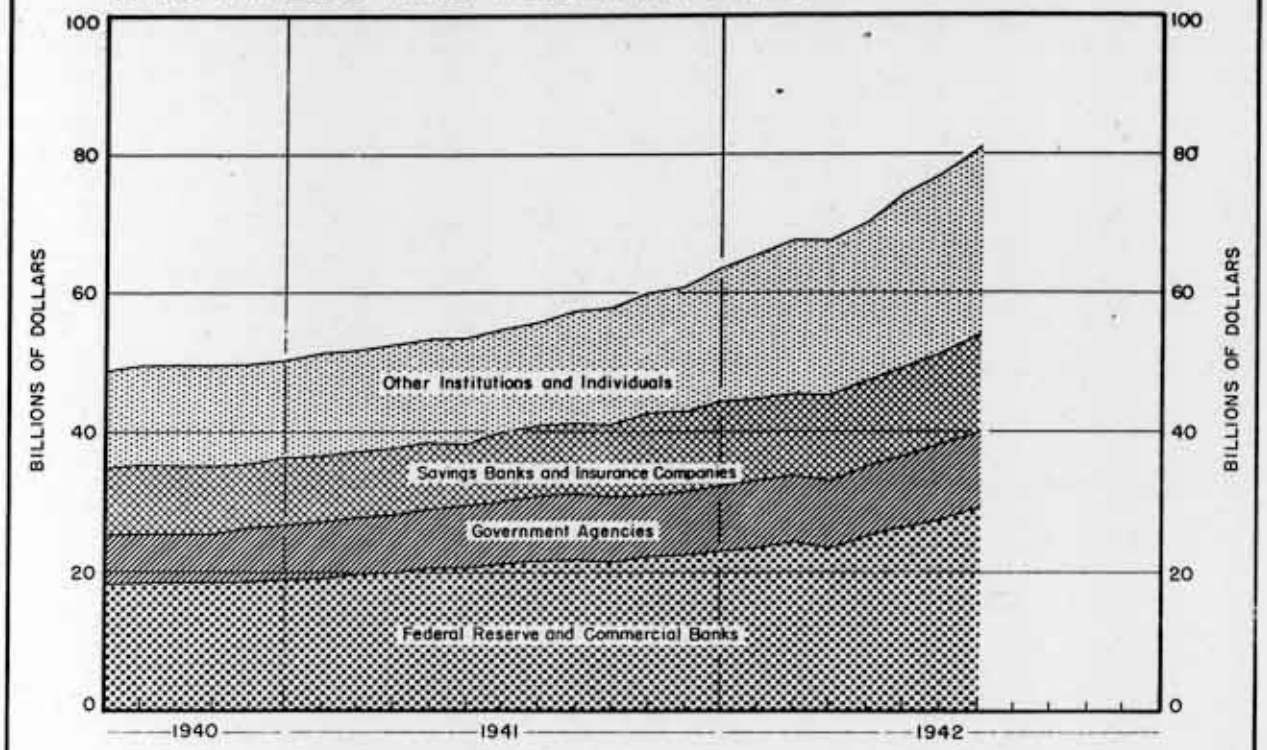
	1940	1941	1942			
	July	July	June	July	Week ending Aug. 22	Week ending Aug. 29
●BLS PRICE INDEXES						
Strategic materials }	123.6	140.3	147.6	147.7	147.8	147.8
Critical materials } 8/39	107.5	115.2	123.2	123.9	124.0	124.0
Basic commodities } =100	108.5	148.7	166.4	167.2	166.9	166.6
Machine tools }	108.7	117.6	118.0	118.0	-	-
All commodities (1926=100)	77.7	88.8	98.6	p 98.7	p 98.9	p 98.9
TRANSPORTATION						
Freight cars						
Loadings (thous. per week)	706	853	846	830	869	899
Unloads for export (dly.av.)						
Atlantic & Gulf ports (no.)	1,494	1,614	1,950	1,718	* 1,904	* 1,955
Pacific ports (no.)	112	159	490	608	* 711	* 724
Surplus cars (dly.av.thous.)						
Total	132	77	83	77	62	
Box cars	55	30	57	47	41	
Coal cars	48	27	9	12	6	
Bad order cars, total, first of month (thous.)	153	85	63	57	(Aug.1) 55	
ELEC. POWER PROD. (mil. kwh.)	12,094	14,226	15,182	16,004	3,674	3,640

	1940	1941	1942			
	July	July	April	May	June	July
●INCOME PAYMENTS						
Annual rate, billion dollars	75.8	93.3	r 108.6	r 109.5	112.0	p 113.7
Monthly income payments						
Total (million dollars)	6,285	7,739	r 8,809	r 8,629	9,553	p 9,383
Salaries & wages, total	4,035	5,168	r 6,073	r 6,258	6,498	p 6,506
Commodity-producing industries	1,571	2,346	r 2,773	r 2,891	2,998	p 3,093
Distributive industries [c]	1,061	1,207	1,280	1,297	1,298	p 1,296
Service industries [c]	819	906	r 951	r 957	959	p 957
Government [c]	465	623	1,001	1,055	1,190	p 1,115
Work relief wages	119	86	68	58	53	p 45
All other income payments	2,250	2,571	2,736	2,371	3,055	p 2,877
RETAIL SALES						
Total (million dollars)	3,643	4,509	4,531	4,499	4,445	p 4,389
Unadj. index, 1935-39=100						
Total, all retail stores	110.4	136.6	139.8	140.3	137.2	p 132.9
Durable goods	129.8	172.1	108.0	109.9	106.0	p 102.1
Nondurable goods	104.1	125.1	150.1	150.1	147.3	p 142.9

●Graph appears on opposite page.
* Friday unloads.

r Revised
[c] Confidential
p Preliminary

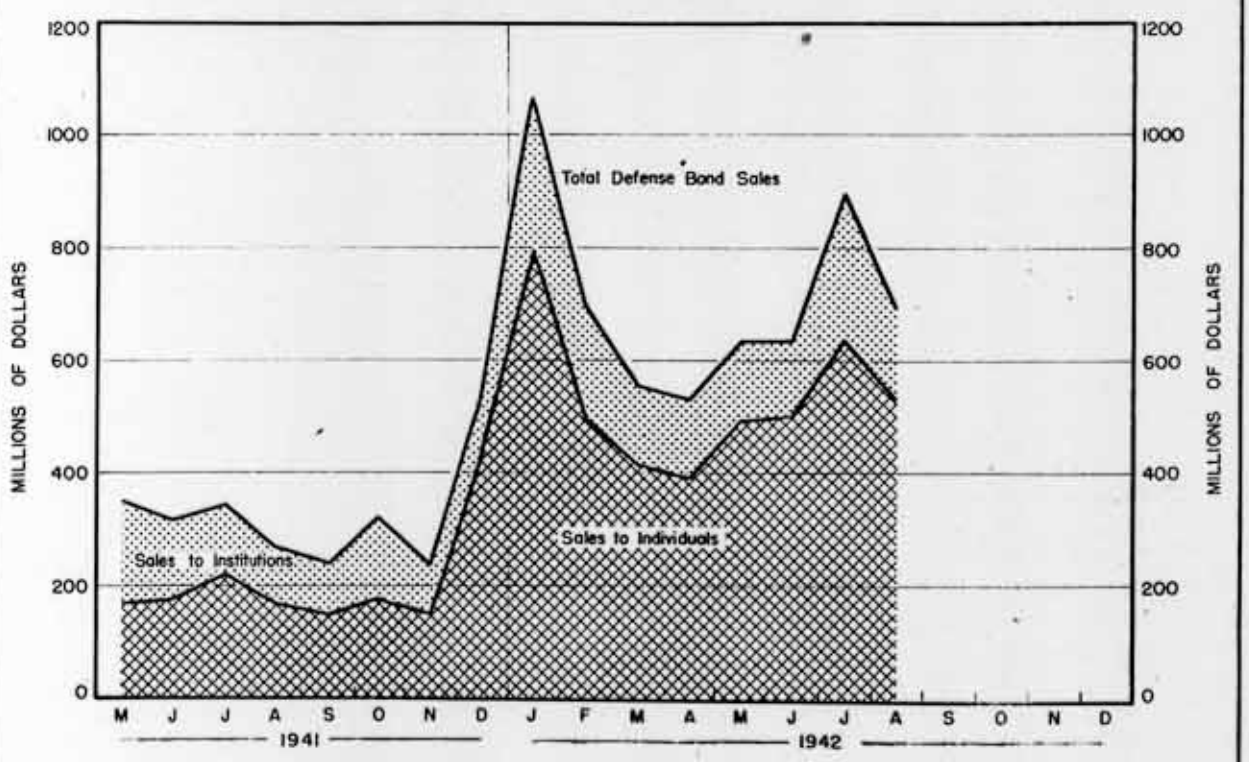
WHO HOLDS THE FEDERAL DEBT



Interest bearing direct and guaranteed obligations.

WAR PROGRESS

TRENDS IN WAR BOND SALES



WAR PROGRESS

ECONOMIC ACTIVITY RELATED TO THE WAR

	1940	1941	1942			
	July	July	May	June	July	August
BUR. FOR. & DOM. COM. MFRS. ORDERS, SHIPMENTS, INVENTORIES			(Indexes)			
New orders, total (1/39-100)	127	212	270	314 p	253	
Shipments, total (1939 av. mo.=100)	103	163	203	202 p	207	
Inventories, total (1939 av. mo.=100)	112.2	136.4	170.4	172.9 p	174.7	
Durable (1939 av. mo.=100)	113.9	150.3	190.2	193.2 p	196.4	
Nondurable (1939 av. mo.=100)	110.7	124.3	153.1	155.1 p	155.7	
● FEDERAL DEBT, END OF MONTH						
Gross debt (Bil. dollars)	43.8	49.5	68.6	72.4	77.1	81.7
Less: Balance in gen. fund	2.3	2.6	2.8	3.0	3.3	3.2
Net	41.5	46.9	65.8	69.4	73.8	78.5
Guaranteed obligations not owned by the Treasury	5.5	6.9	5.7	4.6	4.6	4.6
Total	47.0	53.8	71.5	74.0	78.4	83.1
● WAR BOND SALES (Mil. dollars)	-	342	634	634	901	697
EMPLOYMENT (Thousand workers)						
Total civil nonagricultural*	36,800	40,200	41,400	41,800	42,300	
War industries						
Private, 18 selected ind.	1,663	2,560	3,603	3,738	p 3,879	
Private contractors, public construction	13	412	834	940		
Public	117	225	371	400		
Total	1,793	3,197	4,808	5,078		
Deep sea merchant vessels	51	50	47	47	45	
Total WPA employment	1,655	1,055	786	698	525	
UNEMPLOYMENT						
Number of unemployed(thous.)*	9,300	r 5,700	2,600	2,800	2,800	

●Graph appears on opposite page. r Revised p Preliminary
* Estimate of Sample Surveys Section of Bureau of Census.

FOOTNOTES

WAR PROGRESS SERIES

n.a. Not available
r Revised.
P Preliminary

a Total war program includes all funds and authorizations made available for war purposes by the United States Government plus foreign orders placed in this country since November 1939. The major portion of the existing program has been approved since June 11, 1940, but some authorizations (particularly portions of the naval expansion program, the merchant shipbuilding program, and the stockpile program) were made available even earlier. All funds are shown during the fiscal year in which they are available for obligation.

b Value delivered and/or in place includes (1) value delivered and/or in place for ships and value of production for other munitions, (2) value in place for war construction, and (3) checks issued by finance officers for non-munitions items.

c Checks paid include (1) all checks paid out of the Treasury General Fund; (2) checks issued by the Reconstruction Finance Corporation and subsidiary Government corporations;(3) checks issued by foreign purchasing commissions.

d United States financed program includes the war activities of all United States Government agencies (including Lend-Lease) plus the war activities of government owned corporations, but does not include foreign orders.

e Report on checks paid by the Treasury for the account of the Maritime Commission makes allowance for receipts credited to the Construction Loan Fund.

f Program and obligations for pay for civilians and for the Navy include only that specifically mentioned in appropriation bills, while the cash disbursement figures include, in addition, executive war pay which cannot be separately distinguished in the appropriation bills.

g Ordnance and naval ships figures revised back to January 1942. In comparing these with prior figures, ordnance and naval ships should be combined.

WAR PROGRESS

Confidential
(British Secret)

War Production in August

Scorecard on Merchant Shipping

Number 104

September 11, 1942

Production Drive Losing Momentum

August munitions output is up only 6 % over July, as monthly gain falls increasingly short of forecast. Model changes are partly responsible.

THE RISE in munitions output is definitely losing momentum. Preliminary estimates of August output, at $3,140,000,000, showed a gain of only 6% above the July total. Even more important, month-to-month gains have been declining ever since May, as the following table shows:

Period	Increase	% Increase
May-June	$390,000,000	17%
June-July	317,000,000	12
July-August	185,000,000	6

Yet forecasts have been calling for consistently higher increases. For example, from March to April, output was scheduled to rise $500,000,000, and the actual increase was 85% of that figure; for August, the forecast called for a $750,000,000 gain, but the actual increase was only 25% of the mark. And total munitions production fell 16% short of the forecast.

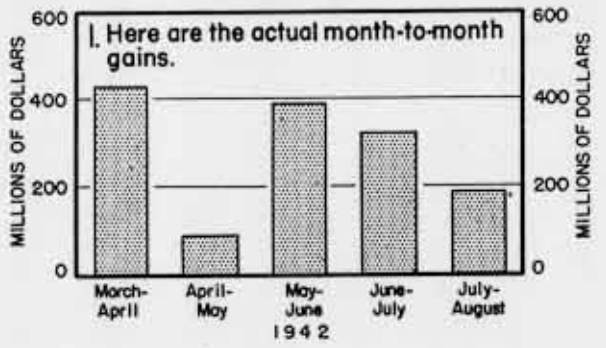
PRODUCTION BEHIND PLANS

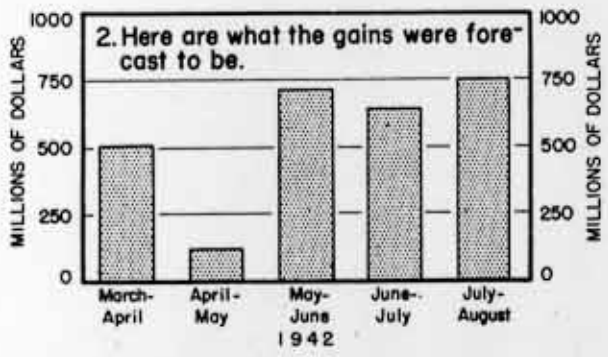
The overall inference is this: Our planning eyes have been bigger than our production stomach--or, to put it differently, our production has not been able to keep pace with our planning. And for the full year, output seems destined to fall considerably short of the production objectives.

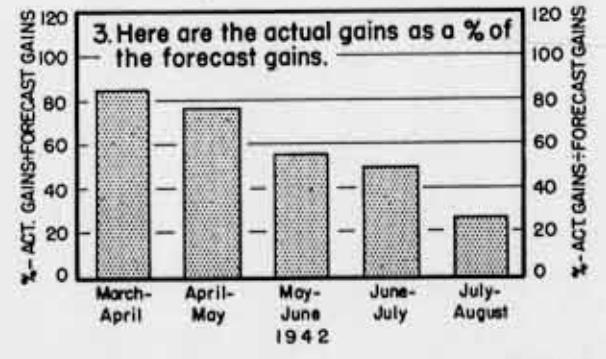
To some extent, August output was damped down by changes in models. Thus,

EXPECTATIONS OUTRUN MUNITIONS OUTPUT

Actual production lags increasingly behind forecasts. For five months now, we have consistently thought we'd do better than we've done.







WAR PROGRESS

output of the M3 tank dropped sharply; it is being superseded by the more powerful and more maneuverable M4. In machine guns, certain types of planes, and other armament items, much the same thing is true. Contracts on older models are running out before plants get into full swing on newer models.

Trends in individual munitions items were uneven. Deliveries of most were up to or better than the July performance, but few categories exceeded the August forecasts, as this table of selected items shows:

Physical Units	% July Deliveries	% August Forecast
Total planes.....	105%	88%
Combat planes.....	104	86
Service planes.....	86	77
Trainer planes.....	131	110
Combat vehicles.....	101	92
Medium tanks.....	97	90
Light tanks.....	107	95
Scout cars and carriers.....	111	110
Major combat vessels	67	111
Minor combat vessels	98	67
Merchant ships.....	95	97
Liberty ships.....	99	93
Tankers.....	67	200
S. P. artillery.....	209	90
Wheeled artillery...	100	78
Small arms and infantry weapons.....	122	102
Antiaircraft guns...	122	92
Artillery ammun.....	86	72
Antiaircraft ammun..	92	93
Small arms ammun....	99	94
Rifles.....	110	101

IN THIS ISSUE:

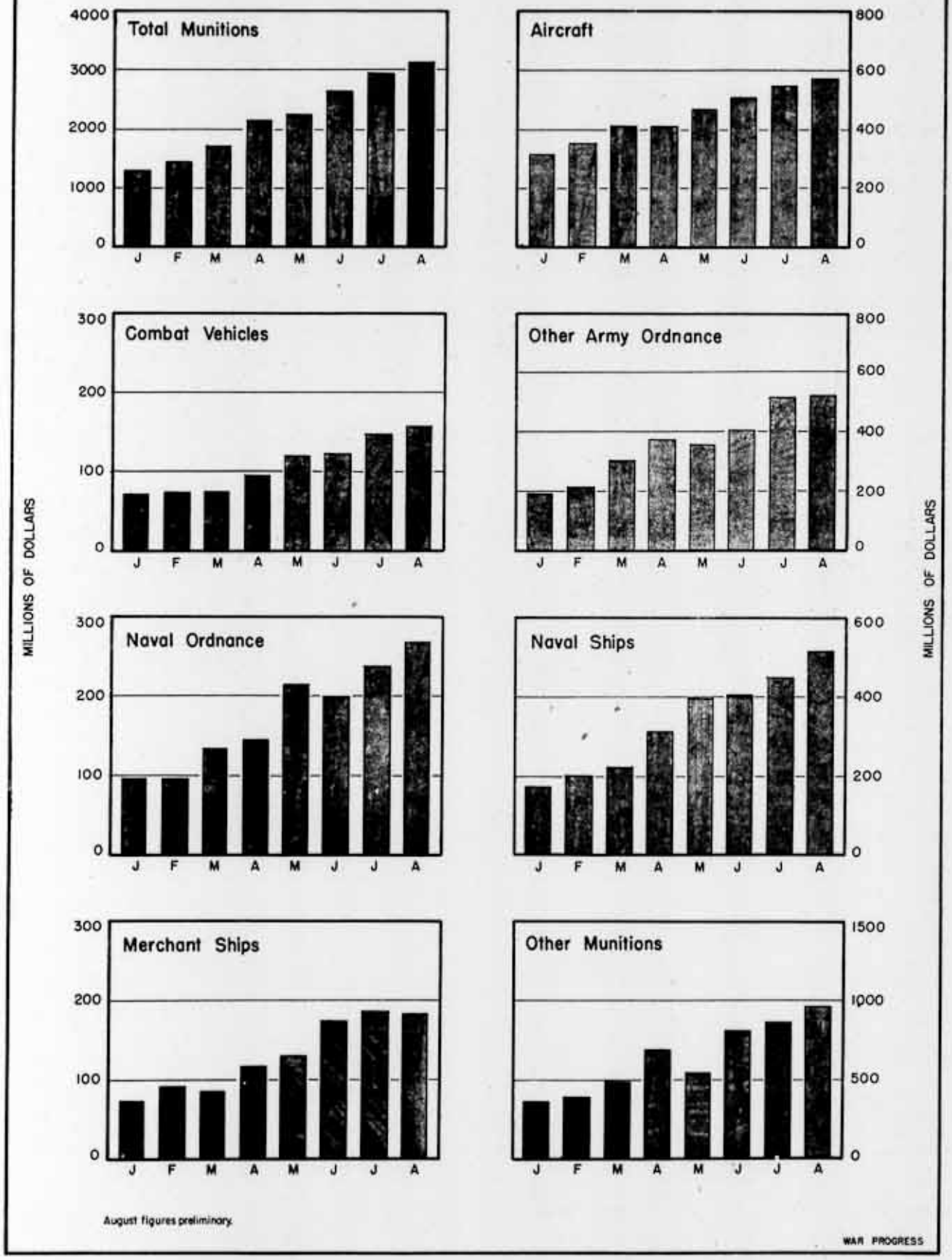
Combat plane deliveries continued to run below the schedule. As a result, production objectives for the full year have been lowered to come within closer range of accomplishment.

Among combat planes, the heavy bombers continue to be one of the star performers; they topped the August forecast slightly and bettered July output by 10%. In the light one-engined bomber class, on the other hand, production fell below July and was 25% behind the forecast. Twin-engined light bomber output recovered from the July slump; one of the plants which ran behind schedule in July doubled output in August.

Tank output was handicapped not only by the model shiftover, but also by a shortage of treads, production of which was held down by lack of adequate supplies of alloy steels. A better showing by scout cars and carriers (up 11% from July and 10% above the forecast) lifted total combat vehicles.

Deliveries of guns were ahead of ammunition, both in relation to July and in approach to forecasts. Output of self-propelled artillery doubled, but because three new models failed to come into production, only 90% of the forecast was achieved. In the case of wheeled artillery, one heavy gun also failed to get started as planned. Aircraft cannon ammunition output, scheduled to double, actually gained only nominally;

MUNITIONS OUTPUT–Month by Month



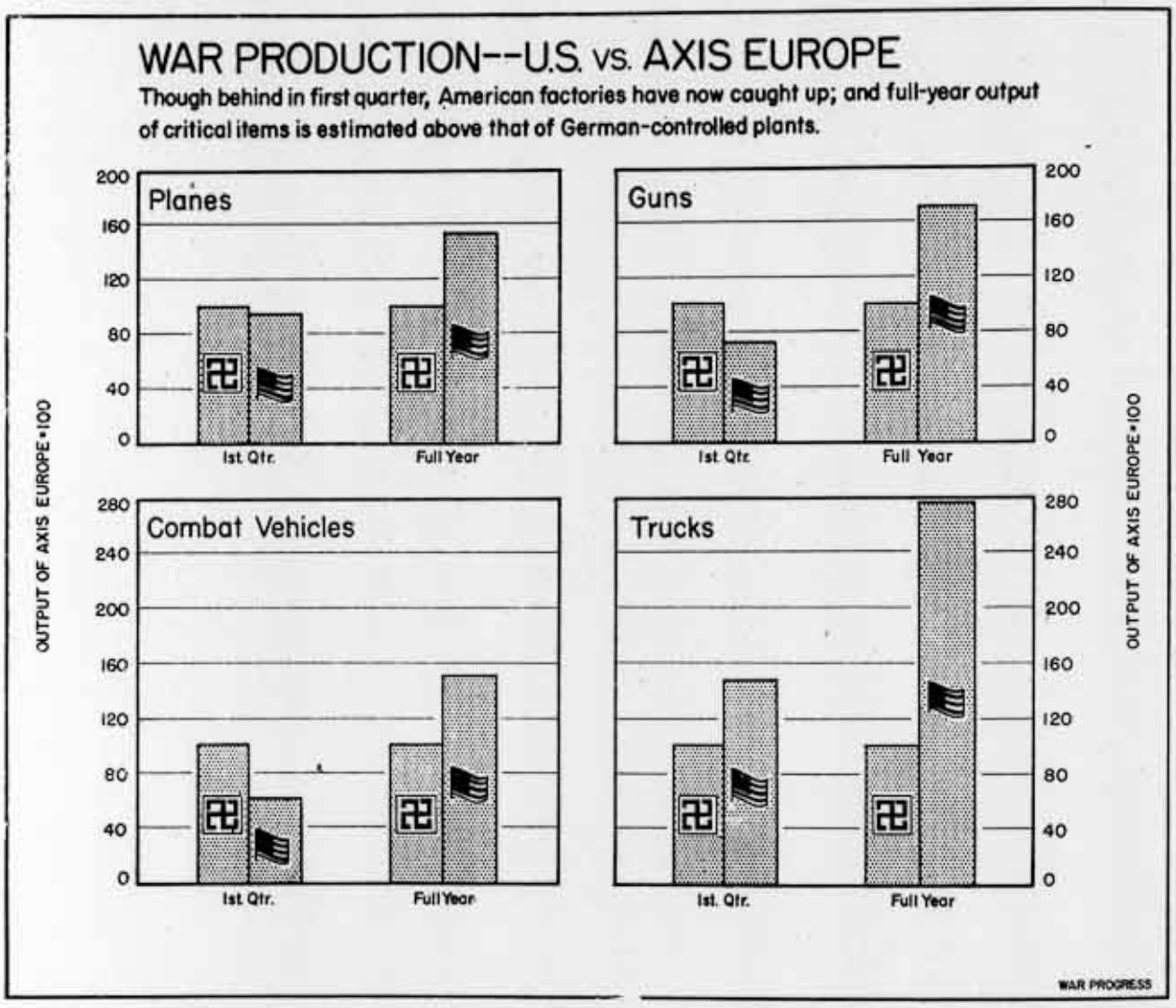
August figures preliminary.

WAR PROGRESS

small arms ammunition did fairly well. Artillery ammunition was off because of a slump in high-explosive shells.

Ground signal equipment was considerably under forecast largely because radio detection devices (Radar) did not come up to expectations. Radar output, though up sharply from July, was less than half the forecast.

In terms of value in place--the amount of work done on completed and uncompleted ships--the entire naval vessel program scored a gain of 15% over July but fell 24% behind the forecast. Actual deliveries of such ocean and coastal convoy craft as aircraft escort vessels, yachts, and minesweepers were considerably under the forecast as well



WE DO NOT KNOW ACCURATELY THE VOLUME OF CURRENT MUNITIONS OUTPUT OF AXIS EUROPE. BUT ESTIMATES HAVE BEEN PREPARED ON THE BASIS OF PREWAR RAW MATERIALS AND PLANT CAPACITY DATA, ALLOWANCES FOR NEW CONSTRUCTION, AND REPORTS ON PRODUCTION OF INDIVIDUAL ITEMS. THESE SUGGEST THAT AMERICAN PRODUCTION, WHICH LAGGED BEHIND AXIS EUROPE IN THE FIRST QUARTER, WILL BE MUCH HIGHER FOR THE FULL-YEAR 1942.

THE CALCULATION IS FOUNDED ON THE ASSUMPTION THAT GERMAN OUTPUT IN THE EARLY PART OF THE YEAR HAD REACHED A PEAK; THAT RAW MATERIALS AND MANPOWER SHORTAGES, PLANT DETERIORATION, AND BOMBINGS ARE MILITATING AGAINST EXPANSION IN TOTAL OUTPUT, IF NOT ACTUALLY CAUSING DECREASES.

THE IMPLICATIONS ARE SIGNIFICANT. THOUGH WE HAVE PASSED GERMANY IN PRODUCTION, WE ARE STILL BEHIND IN ACCUMULATED STOCKS OF FIGHTING EQUIPMENT. THE TASK NOW IS TO PRODUCE STILL MORE AND TO GET THE MUNITIONS TO THE BATTLEFIELDS. (THE ITEMS SHOWN IN THE CHART REPRESENT ABOUT ONE-FIFTH OF TOTAL WAR PRODUCTION IN THIS COUNTRY. FOR THE REMAINING FOUR-FIFTHS, NO COMPARABLE AXIS DATA ARE AVAILABLE.)

as below the July total. Deliveries of landing craft doubled and were up to schedule for the first time.

One less Liberty ship was delivered in August than in July, but this may well have been due to the five Sundays in August as against only four in July. This is the first month in which Liberty ship deliveries did not surpass those of the preceding month.

Conservation Tougher

Long, hard grind of economizing on critical materials lies ahead, as large, obvious ways to curtail have been exhausted; four main types of saving possible.

FROM 200,000 to 300,000 tons of copper, 100,000 tons of zinc, and large amounts of other critical materials will be saved this year by cutting down on civilian and military uses under some 300 L and M conservation orders.

HARDER FROM NOW ON

But from now on, conservation economies will come harder. A good part of the critical-materials fat has been squeezed out of the civilian economy, and additional savings must be sought out by bits and pieces. Today, conservation efforts--in production--have developed into these basic types:

Substitution: In munitions applications alone, more than 10,000,000 pounds of primary aluminum a month (11% of current output) are being conserved by using secondary aluminum. Sheet steel is being saved by substituting wire in army bomb crates. Plastics are replacing hard rubber in aircraft battery cases.

New Production Methods: Use of stampings and castings, instead of forgings which have to be machined, has resulted in substantial savings in time, materials, and money. For example, designing a suspension lug for bombs in pressed steel and mass producing it on otherwise idle stamping presses made available thousands of bombs that were waiting for forged lugs. On one lot of 100,000 of these lugs, 17,000 pounds of steel and 800 machine-tool hours were saved.

Simplification: Stamped clips instead of a lock nut assembly job on army rifles (WP-Aug28'42,p8) saved carloads of steel and thousands of machine hours. In a guinea-pig air-conditioning installation at a Kansas City airplane engine plant, 155 tons of steel were eliminated and power requirements were reduced by 5,000 horsepower.

Standardization: This is just beginning—with Victory bicycles, cuffless trousers, etc. A recent standardization eliminates all but three types of Portland cement (permitting a 20% increase in production to meet the demands of the military construction program). But perhaps more important are the opportunities for standardization of specifications of products used by the Army and Navy. Interchangeability of parts for combat machines lessens the problems of repair and replacements on the battlefronts, though complete standardization of weapons is perhaps impossible in view of the strategic and tactical necessities of a rapidly changing war.

OTHER SHORTAGES DEVELOP

Noncombat items, however, can be more easily standardized. (The Army and Navy specify mess trays nearly identical but sufficiently different to require two sets of stamping dies.)

The most apparent shortages have been in certain metals (aluminum, tungsten, nickel) and these have received the most conservation attention. But in saving these tight materials, others, such as zinc and molybdenum, have run short.