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Defense Progress: May 1941
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From Desk of
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To:

Major-General Watson

Corrections for the President's copy

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BF
Defense Contracts

SUMMARY OF DEFENSE PROGRESS

NUMBER 39 MAY 9, 1941

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● 1,376 MILITARY AIRPLANES were delivered by United States manufacturers during April, an increase of 23 percent over March and 151 percent over last July. April deliveries, however, were 42 percent of the deliveries expected in the peak month, August 1942. The 7,726 planes delivered between July 1, 1940, and April 30, 1941, represent about 10 percent of the total number of planes to be produced under all current programs. TWO

Errata

The date in the fifth line in the brief at the top of page TWO should read, "August 1942," and not "August 1932."

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SUMMARY OF DEFENSE PROGRESS

Issue Number 39 May 9, 1941

E r r a t a

Pages 11 and 12 of Issue Number 39 of the Summary of Defense Progress, for May 9, should be interchanged.

Page 53. Third line of footnote 1. Delete "and for the carrying out of the lease-lend program."

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The President 1-1

SUMMARY OF DEFENSE PROGRESS

NUMBER 40

MAY 16, 1941

OFFICE OF PRODUCTION MANAGEMENT

BUREAU OF RESEARCH AND STATISTICS - STACY MAY, CHIEF

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SUMMARY OF DEFENSE PROGRESS

NUMBER 40 MAY 16, 1941

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- CANADA WILL DEVOTE NEARLY 40 PERCENT of her national income to war purposes in the current fiscal year as compared with an expenditure of less than one percent in peacetime. In less than two years she has transformed herself from an unarmed peace economy to one on a total war footing. Nearly one-quarter of the war expenditures, including British, has so far been for plants to produce war materials. 2

- THE NUMBER OF APPROVED APPLICATIONS for Certificates of Government Protection and of Non-Reimbursement, as of April 15, 1941, has been small compared to the total number of applications. Disapprovals have been negligible in amount, and the great majority of applications are still pending. 9

- DURING MARCH THERE WAS AN INCREASE in the week-end black-out in the airplane industry, as the proportion of productive employees working in plants operating only five days per week rose from less than 12 percent to over 24 percent of the total. Engine and propeller plants are utilizing their facilities much more intensively than airframe plants. 12

- FOUR DEFENSE INDUSTRIES (aluminum, firearms, explosives, and aircraft) showed a decrease in hours from February to March. The machine-tool and machine-tool-accessories industries continued to operate in excess of 50 hours per week per wage earner. 19

- MILITARY SEPARATIONS FROM INDUSTRY in March were generally higher in defense industries than in manufacturing industries as a whole. Voluntary quits rose in the defense industries, the highest being reported by the aircraft industry. 22

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- PRICES OF ALL KINDS OF COMMODITIES ADVANCED on a broad front during the past week, in spite of official statements urging the necessity of keeping prices down. Four factors in this price advance stand out: the sharp rise in shipping costs, the effect of pending Congressional action on agricultural prices, higher consumer incomes, and, finally, uncontrolled speculation and extensive forward buying to avoid the effects of possible future shortages. 25
- DEFENSE PROGRESS DATA 28

SUMMARY OF DEFENSE PROGRESS

NUMBER 40 MAY 16, 1941

THE MAGNITUDE OF THE CANADIAN WAR EFFORT

Canada will devote nearly 40 percent of her national income to war purposes in the current fiscal year as compared with an expenditure of less than one percent in peacetime. In less than two years she has transformed herself from an unarmed peace economy to one on a total war footing. Nearly one-quarter of the war expenditures, including British, have so far been for plants to produce war materials.

Nearly 40 percent of the Canadian national income is to be devoted to defense purposes in the current fiscal year ending March 1942, according to the budget of April 1941. This compares with a defense effort of .8 of one percent of the national income in fiscal year 1938-39, 5.1 percent in fiscal year 1939-40, and 20.7 percent in fiscal year 1940-41. Within the short space of less than two years, Canada has transformed herself from a country virtually without any military equipment to one on a total war footing. These estimates of the Canadian defense effort include the British expenditures in Canada which are largely paid for by the repatriation of Canadian securities held in Great Britain. Table 1 shows the magnitude of the Canadian defense effort in peace and wartime.

The Dominion Government's recent budget estimates expenditures at approximately $2,600 million. This sum may be roughly divided into $450 million for civilian expenditures, $1,300 million (a minimum estimate)

of direct outlays by the Dominion Government for war purposes, and a further net $850 million for financing war expenditures by the British Government in Canada.[1]

TABLE 1 - DEFENSE EXPENDITURES IN CANADA

Fiscal Year[a]	Dominion Government	British Government	Total	National Income	Defense Expenditures as Percent of National Income
	(Million Dollars)				(Percent)
1935-36	17	0	17	3,464	0.5
1936-37	22	0	22	3,759	0.6
1937-38	33	0	33	4,162	0.8
1938-39	34	0	34	4,132	0.8
1939-40	133	91	224	4,376	5.1
1940-41	800	225	1,025	4,950	20.7
1941-42	1,300	850	2,150	5,350	40.2

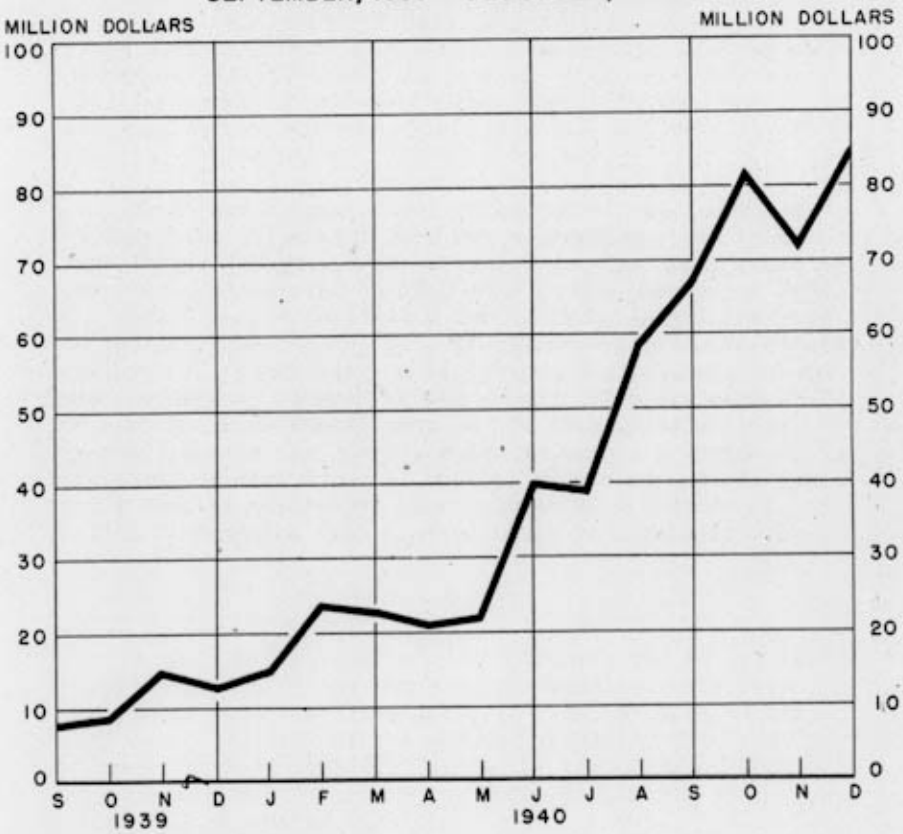
[a] The Canadian fiscal year runs from April 1 to March 31 of the following year.

[1] The estimated credit balance on current account with Great Britain is $1,150 million, but the Canadian Government apparently expects to run a debit balance of $300 million with the United States, thereby transferring that much of the fiscal and economic burden to the United States. Prior to the recent declaration of economic cooperation between Canada and the United States, Canada's debit balance with the United States was expected to amount to $470 million but the increased exports to the United States under the declaration are expected to reduce this to $300 million. In so far as the lease-lend program will charge to Great Britain the cost of some goods now bought by Canada but destined for Great Britain, the gross amount of the credit balance with Great Britain and the debit balance with the United States will be reduced but this will not affect the net credit balance with Great Britain.

It remains to be seen whether these totals, which seem colossal for a country with a population of only 11 million and a lower per capita income than the United States, can in fact be reached. It is remarkable, however, that they can even be reasonably contemplated, considering that only $30 million, less than one percent of the national income, was being spent on defense before the outbreak of war less than two years ago.

CHART I—MONTHLY CASH DISBURSEMENTS FOR THE CANADIAN WAR EFFORT*

SEPTEMBER, 1939 – DECEMBER, 1940



*Exclusive of British Expenditures.

Since the beginning of the war, the growth of defense expenditures has been rapid. During the first sixteen months, Canadian outlays alone (excluding the British) increased about 20 percent per month. During the fiscal year ending March 1940, Canadian war expenditures were roughly $130 million, and nearly $100 million more were provided for the British. In the year ending March 1941, war expenditures were about $800 million and substantially more than $200 million were provided for the British.[2]

Chart I shows monthly Canadian war expenditures on a cash basis, exclusive of British expenditures, for the first sixteen months of the war. The low rate of war expenditure from September 1939 to May 1940, reflects the "static" phase of the war. Since May 1940, the rate of Canadian war expenditures has increased very rapidly, reflecting the "dynamic" phase of the war.

While the volume of war expenditures has increased rapidly, the national income has apparently grown by an even larger amount. Prosperity was greater and purchasing power more widespread in 1940 than in any year since 1930. The recent budget forecast a further substantial increase in the national income, but, if widespread price increases are avoided, it is very unlikely that the national income can increase by as much as war expenditures are scheduled to expand. Some curtailment of civilian investment is provided for in the budget, which announces a system of licensing on most types of capital extension and all installation of machinery. Curtailment of aggregate civilian consumption will also probably be involved. To

[2] Up to the end of 1940, funds were transferred to British account mainly by the purchase of Canadian securities previously held in Great Britain. (Canada entered this war, as the United States entered the last, with a very large debt held abroad). Since the beginning of 1941, Canada has been financing the British authorities by direct purchases of sterling.

that end, the burden of taxation has been very greatly increased, chiefly in the form of corporate income taxes and personal income taxes on the middle and lower income groups. Savings campaigns have been put into operation, and unemployment insurance (which involves a measure of "forced savings" in a period of active employment) is being introduced. It is certain that some groups will have to diminish their consumption in the face of increased consumption by other groups--the previously unemployed and under-employed.

Canadian war production can be divided into three fairly distinct periods. In the first period, from the declaration of war to May 1940, Canada was called upon chiefly for increased supplies of raw materials and foodstuffs. In May and June 1940 it became clear that Great Britain was not going to be able to produce all the mechanized and technical war equipment that was necessary, and Canada's help was urgently requested. However, if Canada was going to meet the call and make an appreciable contribution to the prosecution of a mechanized war, a great deal of preparation and plant extension was required, since the nation is not yet highly industrialized. The simpler types of military vehicles were already being produced by the Canadian plants of Ford and General Motors, and small ships could be constructed without much preliminary preparation, but for the remainder (small arms, guns, tanks, bombs, larger ships, etc.) and for the increased output of explosives, airplanes, and other products it was necessary to construct and equip new factories. Thus, the second period of Canadian war activity was characterized by capital expansion between May 1940 and May 1941. Now, in May 1941, the third period of actual production may be considered to have begun. Most of the new plants projected in 1940 will come into operation during 1941. For example, eight out of ninetten chemical and explosive plants are already in operation, and five more are expected to be in operation by the middle of the year.

Roughly, one-quarter of the total war expenditures in Canada so far has been devoted to expansion of plant and equipment. By the beginning of April 1941 capital commitments amounted to nearly $400 million[1], of which one-quarter was for chemical and explosive plants, one-quarter for plants for guns and mountings, one-tenth for plants for shells, and the remainder for plants for railway equipment, aircraft, automotive equipment, machine tools, tanks, bombs, and a large number of miscellaneous products. Nearly one-third of this plant extension program was purely on British account, although administered by the Canadian Department of Munitions and Supply. Rather more than one-third was purely on Canadian account. The remainder was on joint account.

The Army, in the fiscal year 1940-41, received somewhat more than 50 percent of the Canadian war expenditures, exclusive of those wholly for British account. The Air Services, including outlays on the Commonwealth Air Training Plan, received somewhat less than half that spent on Military Services, or 23 percent of the total; while Naval Services, in their turn, received somewhat less than half that spent on the Air Services, or almost 11 percent of the total. The breakdowns are shown in Table 2.

In part this distribution of outlays may be taken to reflect the official decision to build up the Canadian army, in both men and equipment. In part, however, the distribution of outlay has been dictated by the type of war products which could be produced quickly. It may be expected to change appreciably as new plants and other facilities come into production. The direction of the change is not so easy to predict, partly because it will depend on decisions regarding the proportion of the output of the new plants allocated to the various Canadian services and to the British. However, it may be guessed that the proportion devoted to Air Services may actually dimin-

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[1] The relationship between commitments and actual expenditures may be judged from the fact that by the end of 1940 commitments amounted to $300 million and nearly $200 million had actually been spent.

ish because of the inevitably limited capacities of the Canadian aircraft industry. The proportion devoted to Naval Services may well increase because of the intensive shipbuilding program initiated during the past winter: this will partly depend, however, on the extent to which Canadian ships are assigned to the United States.

TABLE 2 - CANADIAN WAR EXPENDITURES 1940-41
(Fiscal year ending March 31, 1941)

	(Million Dollars)	(Percent)
Department of National Defense		
Military Services	$ 404.7	51.1
Naval Services	85.2	10.7
Air Services	185.0[1]	23.4
General Expenses	3.2	0.4
Plant Extension Program (financed through Dept. of Munitions and Supply)	84.9[2]	10.7
Department of Munitions and Supply (Administration)	2.3	0.3
War Expenditures by all other Departments	26.6	3.4
TOTAL WAR EXPENDITURES	$ 791.9	100.0

1 Consisting of $119 million as Canada's share (the major part) of the British Commonwealth Air Training Plan and $66 million for purely Canadian air establishments at home and overseas.

2 Including all purely Canadian outlays, some on joint account with the British, and none of the purely British. Total capital outlays substantially exceeded $200 million.

Source: Appendix to the Budget, pp. 12-13. House of Commons Debates, Canada, April 29, 1941.

STATUS OF CERTIFICATES OF GOVERNMENT PROTECTION
AND NON-REIMBURSEMENT
AS OF APRIL 15, 1941

Approvals of Certificates of Government Protection and of Non-Reimbursement have been much smaller than the number of applications received, although the number of disapprovals has been negligible. Most of the applications are still pending. These are the certificates which, along with the Certificate of Necessity, have been provided for in the Second Revenue Act of 1940. This Act contains provisions which enable corporations acquiring or constructing industrial facilities after June 10, 1940, to amortize the cost of such facilities over a five-year period for income and excess profits tax purposes, provided the facilities are certified as necessary to national defense. The first step in qualifying for the special amortization provisions is to obtain a Certificate of Necessity. Next, it is necessary to obtain Certificates of Government Protection in those cases in which the Government will reimburse the contractor for the cost of the facilities. If no reimbursement by the Government is involved, it is desirable to secure a Certificate of Non-Reimbursement. All three certificates must be approved either by the War or Navy Departments, in conjunction with the ACCND. The Certificates of Government Protection and of Non-Reimbursement are discussed in greater detail below.

Certificates of Government Protection

If a corporation enters into an Emergency Plant Facilities contract providing for reimbursement for facilities, or a Government supply contract which recognizes in the contract price a more than normal amount for depreciation, then a Certificate of Government Protection must be obtained, as well as a Certificate of Necessity, before accelerated amortization may be obtained. This Certificate of Government Protection certifies that the contract in question adequately protects the United States with reference to the future use and disposition of these facilities. It should be noted that Certificates of Necessity are issued for facilities, whereas Certificates of Government Protection certify contracts entered into involving reimbursement for

facilities either directly (EPF contracts) or indirectly (certain Government supply contracts).

A study of the applications for Certificates of Necessity which had been approved through April 15 was presented in Issue Number 38 of the Statistical Summary of Defense Progress. The cost of the facilities for which the Government will reimburse the contractor either directly or indirectly were estimated at $163 million. For the corresponding period the value of facilities against which Certificates of Government Protection had been issued amounted to only $107 million. The status of the applications of Certificates of Government Protection as of April 15 is shown below with the estimated cost of facilities for which applications have been approved.

STATUS OF APPLICATIONS FOR CERTIFICATES OF GOVERNMENT PROTECTION AS OF APRIL 15, 1941

Status	Total		War		Navy	
	No.	Est.Cost Thousand Dollars	No.	Est.Cost Thousand Dollars	No.	Est.Cost Thousand Dollars
Total received	190	$ -	106	$ -	84	$ -
Approved	41	107,040	15	65,265	26	40,775
Disapproved	1	115	1	115	0	0
Action pending	134	a	77	a	57	a
Withdrawn	14	-	13	-	1	-

a Not available.

Certificates of Non-Reimbursement

In order that a contractor may establish conclusively that he is not being reimbursed for new or acquired facilities covered by a Certificate of Necessity, and hence does not need a Certificate of Government Protection in order to utilize the accelerated rate of amortization, he may apply for a Certificate of Non-Reimbursement. This certificate, which relates to a particular supply contract when approved by either the War or Navy Departments and the ACCND, certifies that no reimbursement for

new facilities (no more than normal depreciation) is recognized in the Government contract for supplies.

Only 3 certificates of Non-Reimbursement had been approved by the ACCND as of April 15. The value of contracts involved has not yet been ascertained. The status of these applications as of April 15, 1941, is as follows:

STATUS OF APPLICATIONS FOR CERTIFICATES OF NON-REIMBURSEMENT AS OF APRIL 15, 1941

Status	Total	War	Navy
Total received	1,251	778	473
Approved	3	0	3
Action pending	1,204	743	461
Withdrawn	44[a]	35	9

[a] Includes nine applications denied because applications for Certificates of Necessity were disapproved.

THE WEEK-END BLACK-OUT IN THE AIRPLANE INDUSTRY*

There was an increase in the week-end black-out in the airframe industry during March. As can be seen in Table 1, the proportion of productive [a] employees in the airframe industry employed in plants operating only 5 days per week rose from less than 12 percent to over 24 percent during the month. This increase in the week-end black-out resulted from the switch during the month of two important plants from a six-day to a five-day work-week basis. Engine and propeller plants decreased the week-end black-out slightly during the month, when the proportion of wage-earners in 7-day plants rose from 29 percent to over 32 percent of the total.

TABLE 1 - DISTRIBUTION OF PRODUCTIVE EMPLOYEES IN THE AIRPLANE INDUSTRY ACCORDING TO PLANT OPERATING WEEK FEBRUARY AND MARCH 1941

Length of Work Week	Airframes		Engines and propellers	
	Feb.	March	Feb.	March
	(Percent of Productive Employees)			
5-day week	11.8	24.2	4.0	3.8
6-day week[a]	88.2	63.0	66.8	63.7
7-day week	b	12.8	29.2	32.5
Total	100.0	100.0	100.0	100.0

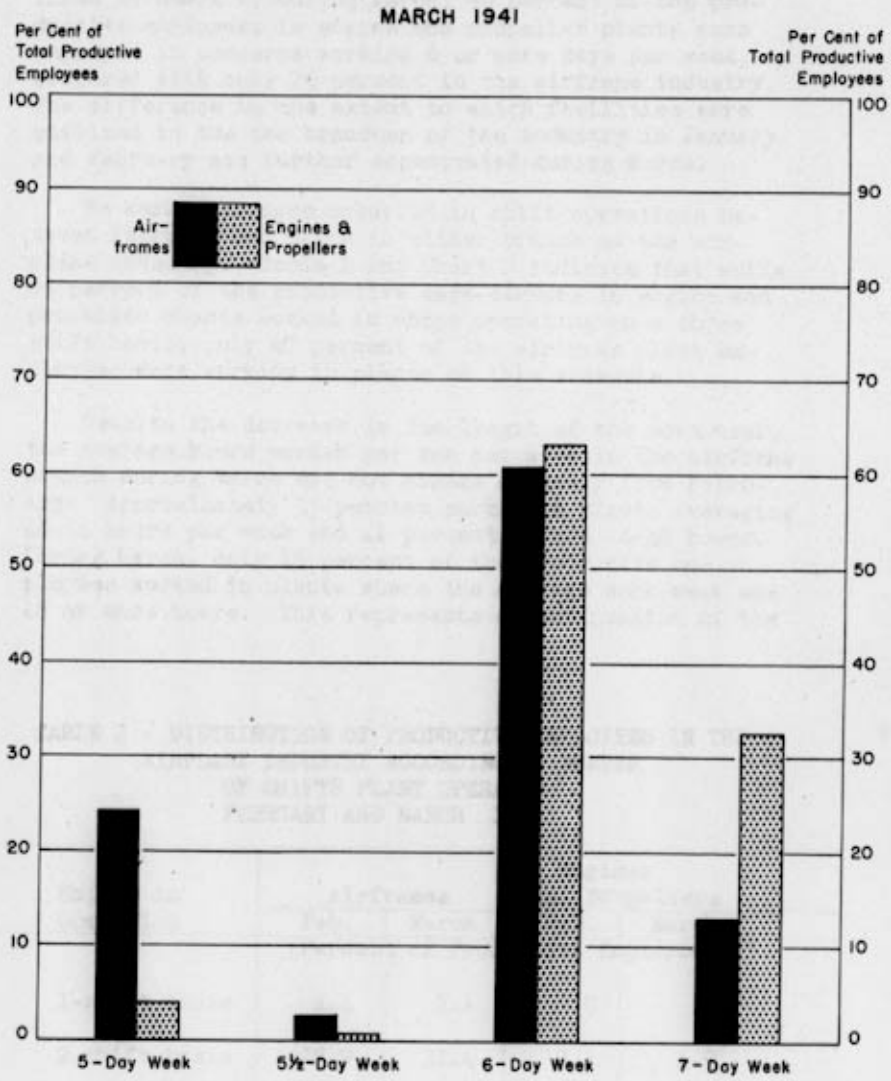
[a] Including 5½ day work week.

[b] One plant on 7-day week included with 6-day plants.

[a] "Productive" employees are those working directly on the products under consideration, as distinguished from "nonproductive" employees charged with engineering, development, administrative, and maintenance operations.

CHART I- DISTRIBUTION OF PRODUCTIVE EMPLOYEES ACCORDING TO PLANT OPERATING WEEK

MARCH 1941



Engine and propeller plants are using their facilities much more intensively than airframe plants. As shown in Chart 1, during March, 96 percent of the productive employees in engine and propeller plants were employed in concerns working 6 or more days per week, as compared with only 76 percent in the airframe industry. The difference in the extent to which facilities were utilized in the two branches of the industry in January and February was further accentuated during March.

No marked changes occurred in shift operations between February and March in either branch of the airplane industry. Table 2 and Chart 2 indicate that while 95 percent of the productive wage-earners in engine and propeller plants worked in shops operating on a three shift basis, only 67 percent of the airframe plant employees were working in plants on this schedule.

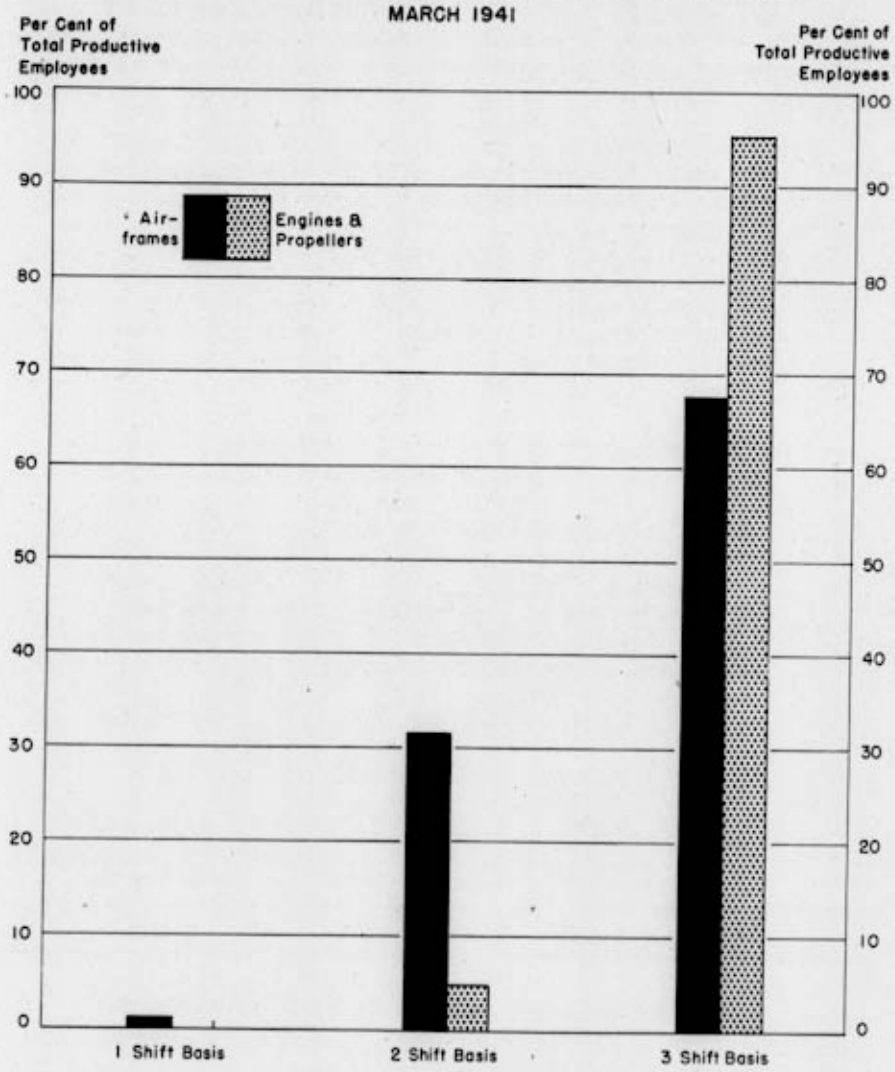
Despite the decrease in the length of the work-week, the average hours worked per man per week in the airframe branch during March did not change markedly from February. Approximately 33 percent worked in plants averaging 40-44 hours per week and 44 percent worked 44-48 hours. During March, only 15 percent of the productive employees worked in plants where the average work-week was 48 or more hours. This represents a continuation of the

TABLE 2 - DISTRIBUTION OF PRODUCTIVE EMPLOYEES IN THE AIRPLANE INDUSTRY ACCORDING TO NUMBER OF SHIFTS PLANT OPERATED FEBRUARY AND MARCH 1941

Shifts in Operation	Airframes		Engines and Propellers	
	Feb.	March	Feb.	March
	(Percent of Productive Employees)			
1-shift basis	1.4	1.1	0	-
2-shift basis	28.9	31.4	2.1	4.9
3-shift basis	69.7	67.5	97.9	95.1
Total	100.0	100.0	100.0	100.0

CHART 2 - DISTRIBUTION OF PRODUCTIVE EMPLOYEES ACCORDING TO NUMBER OF SHIFTS PLANT OPERATED

MARCH 1941



decrease from 25 percent in January to 19 percent in February [b].

Even less change in hours worked took place in the engine and propeller industry. Almost 97 percent of the workers were in plants where the average was 44 hours or more per week during March.

Classifying the plants by shifts according to length of work-week reveals that in the airframe industry the three-shift system was used most extensively by plants operating 7 days a week. Approximately 17 percent of the total productive workers engaged in 7-day plants worked on the third shift, but only 8 percent worked on this shift in 6-day plants. Excepting 5 1/2-day plants, approximately 60 percent of productive workers in the airframe industry were on the first shift regardless of the

TABLE 3 - DISTRIBUTION OF PRODUCTIVE EMPLOYEES IN THE AIRPLANE INDUSTRY ACCORDING TO AVERAGE HOURS WORKED PER MAN PER WEEK FEBRUARY AND MARCH 1941

Average Hours Per Man Per Week	Airframes		Engines and propellers	
	Feb.	March	Feb.	March
	(Percent of Productive Employees)			
Under 40	7.7	7.0	a	a
40 - 43.9	31.4	33.2	3.4	3.4
44 - 47.9	41.7	44.5	70.8	70.0
48 and over	19.2	15.3	25.8	26.6
Total	100.0	100.0	100.0	100.0

[a] One plant reported an average less than 40 hours per man per week.

[b] See Statistical Summary of Defense Progress Number 34, page 29.

length of work-week. [c] The number of days the plant operated [d] in the engine and propeller plants, made little difference. The distribution of employees among shifts was almost identical in all cases, namely 47 percent on the first shift, 31 percent on the second shift, and approximately 22 percent on the third shift.

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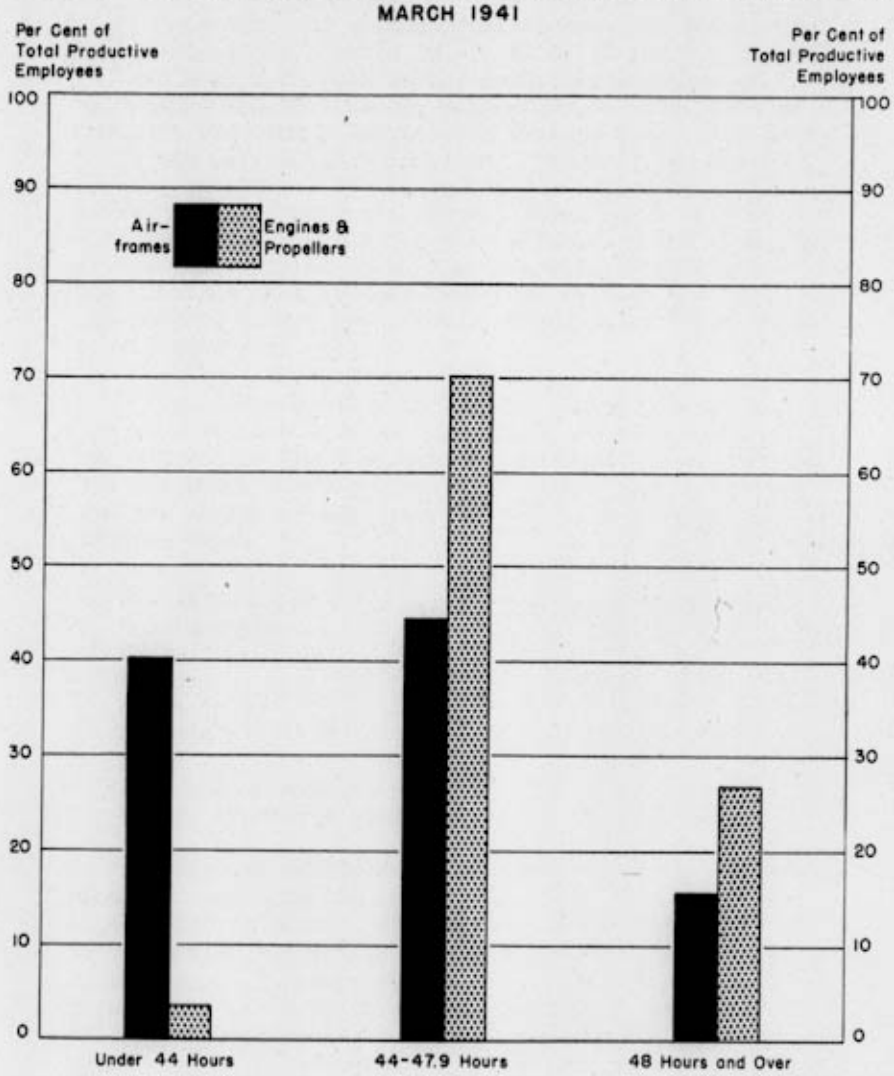
[c] Slightly more than 77 percent of the workers were assigned to the first shift in 5 1/2-day plants.

[d] For the few plants working less than 6 days per week, the concentration was on the first shift, with the third shift of practically no consequence.

*Source: United States Bureau of Labor Statistics.

CHART 3- DISTRIBUTION OF PRODUCTIVE EMPLOYEES ACCORDING TO AVERAGE HOURS WORKED PER MAN PER WEEK

MARCH 1941



HOURS AND EARNINGS IN DEFENSE MANUFACTURING INDUSTRIES MARCH 1941*

Machine-tool and machine-tool-accessories industries continued to operate in excess of 50 hours per week per wage earner in March, reporting averages of 51.9 hours and 50.9 hours, respectively. The firearms industry reported a decrease in average hours from over 50 in February to 48.0 in March. Three of the eleven defense industries listed in Table 1 (aluminum, explosives, and aircraft) also showed lower hours in March than in February. Part of the decrease in the aluminum plants was reported to be due to a lack of materials. The aluminum-manufactures industry was also the only industry to show a reduction in hours below those which prevailed a year ago.

Wage-rate increases affecting nearly two percent of the wage earners covered took place between February 15 and March 15. These increases averaged 6.7 percent for the 109,000 workers concerned. Some of the industries and the number of employees affected by the wage increases were:

Electrical machinery	7,477	Employees
Cotton goods	7,014	"
Glass	6,690	"
Canning	6,483	"
Automobiles	4,560	"
Chemicals	4,496	"
Steel	4,360	"
Foundries & machine shops	4,328	"
Brass, bronze, & copper products	3,225	"

Hourly and weekly earnings for workers in the combined 90 manufacturing industries surveyed reached new high levels in March. Average hourly earnings amounted to 69.7 cents and weekly earnings reached $29.11. The durable-goods industries, which have been particularly affected by the defense program, showed an increase of 17.3 percent in weekly earnings over the year as compared with a rise of 8.5 percent in the nondurable-goods industries. All of the defense industries listed in Table 1 showed increases in both hourly and

TABLE 1 – HOURS AND EARNINGS IN SELECTED DEFENSE INDUSTRIES
MARCH 1941

	Average Weekly Earnings			Average Hours Worked per Week			Average Hourly Earnings		
	Mar. 1941	Percentage Change from Feb. 1941	Percentage Change from Mar. 1940	Mar. 1941	Percentage Change from Feb. 1941	Percentage Change from Mar. 1940	Mar. 1941 (cents)	Percentage Change from Feb. 1941	Percentage Change from Mar. 1940
Aircraft	$35.02	– .4	+16.2	45.2	– .9	+ 7.1	78.3	– .1	+6.6
Shipbuilding	39.58	+1.7	+19.5	44.2	+2.9	+13.9	89.3	–1.1	+4.9
Explosives	35.14	–2.3	+ 7.6	40.5	–1.3	+ 3.7	86.8	–1.0	+3.7
Machine tools	41.73	– .2	+12.9	51.9	+ .1	+ 8.3	80.1	– .2	+4.2
Blast furnaces, steel works & rolling mills	34.94	+1.2	+21.0	40.1	+ .4	+15.6	87.3	+ .7	+4.5
Foundry and machine shop products	34.39	+2.4	+18.0	44.7	+1.8	+11.2	76.9	+ .7	+6.0
Aluminum manufactures	28.71	–9.0	+ 1.0	38.0	–9.2	– 4.4	75.6	+ .2	+5.5
Brass, bronze, and copper products	36.45	+2.9	+22.9	44.4	+1.4	+12.2	82.2	+1.5	+9.7
Chemicals	33.93	+1.3	+ 7.7	41.0	+ .8	+ 2.7	82.9	+ .5	+5.1
Electrical machinery	34.46	+2.0	+17.5	44.3	+1.4	+11.5	78.0	+ .6	+5.2
Engines, turbines, etc.	40.14	+4.3	+16.7	46.0	+1.9	+ 7.2	87.4	+2.4	+8.6

weekly earnings over March 1940. The highest hourly earnings were reported for shipbuilding (89.3 cents), engines, turbines, and water wheels (87.4 cents), blast furnaces (87.3 cents), and explosives (86.8 cents). Weekly earnings were highest in machine tools ($41.73) and engines, turbines, etc. ($40.14).

*Source: United States Bureau of Labor Statistics.

LABOR TURNOVER IN DEFENSE INDUSTRIES*

Military separations from industry continued to increase during March and were generally higher in the defense industries than in manufacturing as a whole, as Table 1 indicates. In all manufacturing, 45 out of every 10,000 wage earners left industry to enter the United States armed forces during March. About one out of every 13 persons added to industrial pay rolls during the month took places vacated for military service. Aluminum and brass, bronze, and copper products showed the greatest proportionate losses of employees for military services, while shipbuilding showed the least. Although the accession rate was relatively high in the aircraft industry, one in every 16 new employees replaced a worker withdrawn to enter the armed forces. Voluntary enlistments in the Army and Navy and the induction of the National Guard into the regular service accounted for the relatively high level of the military separations

TABLE 1 – MILITARY SEPARATIONS IN ALL MANUFACTURING AND IN SELECTED DEFENSE INDUSTRIES[A]

INDUSTRY	1940				1941		
	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
	(RATES PER 100 EMPLOYEES)						
ALL MANUFACTURING ESTABLISHMENTS REPORTING MILITARY SEPARATIONS	0.22	0.19	0.13	0.08	0.33	0.39	0.45
AIRCRAFT	B	0.41	0.32	0.18	0.43	0.50	0.54
SHIPBUILDING	0.21	0.09	0.07	0.06	0.24	0.51	0.39
MACHINE TOOLS	0.15	0.11	0.05	0.07	0.24	0.36	0.48
BRASS, BRONZE, AND COPPER PRODUCTS	0.15	0.14	0.16	0.06	0.31	0.82	0.68
ALUMINUM	0.24	0.47	0.14	0.08	0.27	0.57	0.76
FOUNDRIES AND MACHINE SHOPS	0.19	0.24	0.19	0.11	0.36	0.46	0.58
ELECTRICAL MACHINERY	0.10	0.19	0.19	0.09	0.30	0.40	0.57
IRON AND STEEL	0.06	0.09	0.08	0.05	0.24	0.30	0.44

A BASED SOLELY ON ESTABLISHMENTS WHICH REPORTED LOSSES OF WAGE EARNERS TO THE ARMED FORCES. REPORTS COVER BOTH VOLUNTARY ENLISTMENTS IN THE ARMY, NAVY, AND NATIONAL GUARD, AND "SELECTIVE SERVICE" INDUCTIONS.

B NOT AVAILABLE.

TABLE 2 – MONTHLY SEPARATION AND ACCESSION RATES IN ALL MANUFACTURING AND IN SELECTED DEFENSE INDUSTRIES

INDUSTRY	DATE	SEPARATION RATES					ACCESSION RATES		
		QUIT	DIS-CHARGE	LAY-OFF	MISC. SEPAR-ATION[A]	TOTAL SEPAR-ATION	RE-HIRE	NEW HIRE	TOTAL ACCES-SION
		(RATES PER 100 EMPLOYEES)							
ALL MANUFACTURING[B]	MAR. 1941	1.70	0.21	1.06	0.43	3.40	1.24	4.38	5.62
	FEB. 1941	1.33	0.19	1.20	0.43	3.15	1.08	3.84	4.92
	MAR. 1940	0.67	0.15	2.53	0.11	3.46	1.38	1.56	2.94
DEFENSE INDUSTRIES:									
AIRCRAFT	MAR. 1941	2.28	0.42	0.79	0.50	3.99	0.22	8.43	8.65
	FEB. 1941	2.21	0.50	0.24	0.46	3.41	0.42	7.30	7.72
	MAR. 1940	1.55	0.42	2.20	0.02	4.19	0.51	8.38	8.89
SHIPBUILDING	MAR. 1941	2.00	0.37	3.51	0.60	6.48	2.95	10.93	13.88
	FEB. 1941	1.85	0.36	3.21	0.70	6.12	2.70	8.34	11.04
	MAR. 1940	0.95	0.33	3.65	0.08	5.01	1.12	5.92	7.04
MACHINE TOOLS	MAR. 1941	1.85	0.42	0.07	0.54	2.88	0.20	5.75	5.95
	FEB. 1941	1.58	0.37	0.13	0.34	2.42	0.43	4.37	4.80
	MAR. 1940	1.21	0.41	0.28	0.09	1.99	0.10	3.87	3.97
BRASS, BRONZE AND COPPER PRODUCTS	MAR. 1941	2.06	0.19	1.16	0.62	4.03	0.21	5.76	5.97
	FEB. 1941	1.42	0.25	0.81	0.49	2.97	0.77	5.13	5.90
	MAR. 1940	0.43	0.24	4.67	0.02	5.36	1.27	0.48	1.75
ALUMINUM	MAR. 1941	1.54	0.22	2.32	1.24	5.32	0.60	2.80	3.40
	FEB. 1941	1.28	0.23	1.13	1.76	4.40	1.40	4.06	5.46
	MAR. 1940	0.53	0.16	1.25	0.35	2.29	1.76	2.20	3.96
FOUNDRIES AND MACHINE SHOPS	MAR. 1941	1.82	0.38	0.67	0.55	3.42	0.32	6.52	6.84
	FEB. 1941	1.50	0.37	1.04	0.46	3.37	0.55	6.07	6.62
	MAR. 1940	0.57	0.17	2.43	0.11	3.28	0.58	1.93	2.51
ELECTRICAL MACHINERY	MAR. 1941	1.19	0.17	0.23	0.75	2.34	1.02	5.57	6.59
	FEB. 1941	1.05	0.15	0.37	0.63	2.20	0.43	5.88	6.31
	MAR. 1940	0.40	0.11	1.36	0.33	2.20	0.82	1.63	2.45
IRON AND STEEL	MAR. 1941	0.93	0.13	0.24	0.55	1.85	0.33	2.80	3.13
	FEB. 1941	0.76	0.09	0.27	0.43	1.55	0.38	2.37	2.75
	MAR. 1940	0.35	0.08	3.81	0.12	4.36	0.51	0.37	0.88

A BEGINNING WITH SEPTEMBER 1940, WORKERS LEAVING TO ENTER ARMY OR NAVY ARE INCLUDED IN "MISCELLANEOUS SEPARATIONS."

B RETURNS FROM APPROXIMATELY 7,300 MANUFACTURING ESTABLISHMENTS EMPLOYING MORE THAN THREE MILLION WORKERS.

rate in September and October 1940. Since December inductions under the selective service program have been a major factor in the steadily increasing rate each month. Establishments reporting losses of workers to the armed forces lost 0.33, 0.39 and 0.45 workers for every hundred employees during January, February, and March, respectively.

Accessions of workers in manufacturing plants in March reached the highest rate (5.62 for every 100 employees) for any March since 1934 and the highest for any month since August 1940. Eight leading defense industries, however, failed to equal their January accession rates. Table 2 shows that accessions continued to exceed separations in all of these industries, except aluminum, where accessions receded and layoffs and quits rose sharply. Several aluminumware plants reported reduced schedules because of lack of materials.

Layoffs showed little change between February and March, except for the sharp rise in aluminum manufacturing. The continued high layoff and accession rates in the shipbuilding industry are probably due to the migration of workers to other yards upon the completion of certain stages in ship construction. In all eight industries, the rate of voluntary quits rose, the highest rate of quits, 288 for every 10,000 employees, being reported by the aircraft industry. Quits advanced sharply in brass, bronze, and copper products, and in the foundry and machine-shop industry.

In five of the selected defense industries hirings exceeded losses by a greater amount than in manufacturing as a whole. Hirings exceeded losses by the greatest amount in the shipbuilding industry, but this industry is still not increasing its working force at the pace necessary to complete the program within the desired time. The machine-tool industry, which must have an average net accession each month of 3 workers for every 100 employees to meet its schedules is just equaling its needs.

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*Source: United States Bureau of Labor Statistics.

SUMMARY OF RECENT PRICE DEVELOPMENTS
WEEK ENDED MAY 10, 1941*

Highlights. Prices of all kinds of commodities moved toward higher levels on a broad front during the past week. The advance was led by a sharp upswing in basic commodity markets in which speculation seems to be playing a considerable part. Prices of petroleum products extended their gains, many chemicals and drugs moved sharply higher, premiums for scrap metals were wider, while cotton and other textile markets moved upward sharply despite recent official statements of a general governmental policy of avoiding price advances. Quotations for foodstuffs were up considerably on reports of possible legislation, increasing the loan values on various crops.

Basic Commodity Prices. Basic commodity markets discarded all their recent signs of hesitancy and moved up sharply and quite generally during the week ended May 10. The Bureau of Labor Statistics' daily index of the spot prices of 28 basic commodities jumped about 2-1/2 percent to 142.7 percent of its August 1939 level. Fully 20 of the 28 commodities participated in this renewed upswing and of these the following seven, lard, cottonseed oil, print cloth, tallow, coffee, resin, and cotton, recorded gains of 5 percent or more during the week. With the exception of resin, all of the commodities mentioned reached levels higher than at any time since the declaration of war. Prices for several of the metals for which price ceilings have been established continued nominally unchanged.

Of the many causes contributing to this broad advance, four appear to be outstanding. Imported commodities are reflecting the increasingly critical character of the shipping situation and the rapid advance in shipping costs. Domestic agricultural products are being strongly influenced by pending Congressional action designed to increase crop loans. The impact of higher consumer incomes is being increasingly felt. Finally, uncontrolled speculation, coupled with the desire of industrial and commercial buyers to protect themselves against possible shortages or price advances in the future, appears to be an increasingly serious aggravating factor.

Petroleum and Its Products. Release of tanker tonnage to Great Britain led to predictions this week that fuel oil prices would soon rise to their "highest level in recent years." The loss of tonnage in the important Gulf Coast-North Atlantic route combined currently with a sharply increased demand for the entire range of major refined petroleum products. Expected to be especially affected are prices of the light fuel oils used for home heating purposes, demand for which is rapidly rising. Many suppliers are currently said to be reluctant to fix top prices on 1941-42 contracts.

Chemicals. Prices of chemicals and drugs advanced this week with undiminished strength. Among botanical drugs, essential oils and aromatics, where average prices are now from 200-300 percent greater than pre-war levels, price rises were as usual most spectacular. Included in these groups are many imported commodities, new supplies of which in some cases are unobtainable from ordinary sources in Europe and the Far East. Increasing shortage of heavy industrial chemicals and coal tar products drove prices in the resale market to new highs, according to trade reports, though contract quotations for the most part remained unchanged. Speculation is said to play a prominent part in the advances, contract buyers making quick turnovers in the resale market.

Consumers' Goods Markets. Prices of practically all raw materials entering into consumer goods advanced during the week ended May 10. Basic foodstuff prices in wholesale markets rose 3.6 percent. Advances in the prices of domestic grains were attributed to proposed Federal legislation to increase their loan values. In the raw fiber markets the advance of 5 percent for raw cotton was attributed principally to the expected higher loan basis. Raw silk prices increased nearly 4 percent, due in part to the rumor that silk might be subjected to a high import duty. Spot prices for wool tops rose approximately 2 percent, and quotations for May contracts reached the highest level reported since the inauguration of trading on the futures exchanged in 1934.

Prices for practically all constructions of cotton gray goods were advanced during the week, while demand expanded sharply. Failure of prices to halt, even

temporarily, after the Government's attitude toward price increases was expressed at the May 2 conference in Washington, is reported to have prompted even the more conservative buyers to attempt to cover further ahead at present levels.

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*Source: United States Bureau of Labor Statistics.

DEFENSE PROGRESS SERIES

Agency and Object	January	February	March	April	Week Ending May 3	Week Ending May 10
UNITED STATES DEFENSE PROGRAM #	(Million dollars, data cumulated since June 1940)					
Total Enacted Program			27,175	31,212		
U. S. ARMY AND NAVY DEFENSE PROGRAM*	(Million dollars, data cumulated since June 1940)					
TOTAL ARMY AND NAVY						
Enacted Program 1	16,385	16,555	19,284	22,758		
Contract Awards 2	11,802	12,269	13,022	13,653		
Cash Expenditures	1,818	2,401	3,038			
SHIPS AND PARTS (NAVY)						
Enacted Program	5,282	5,282	6,288	6,348		
Contract Awards	4,823	4,877	£ 4,500	4,502		
Cash Expenditures	394	472	558			
GUNS, AMMUNITION, MISC. ORD. 3						
Enacted Program	3,955	3,955	4,649	5,342		
Contract Awards	1,892	1,993	2,739	3,011		
Cash Expenditures	261	324	394			
AIRPLANES, ENGINES, ACCESSORIES						
Enacted Program	3,060	3,060	3,173	4,380		
Contract Awards	2,270	2,299	2,418	2,462		
Cash Expenditures	219	274	334			
POSTS, DEPOTS, STATIONS						
Enacted Program	1,321	1,321	2,222	2,584		
Contract Awards	802	887	931	1,021		
Cash Expenditures	493	683	878			
OTHER EQUIPMENT & SUPPLIES 4						
Enacted Program	1,405	1,575	1,575	1,713		
Contract Awards	1,040	1,123	1,243	1,365		
Cash Expenditures	351	467	593			
INDUSTRIAL FACILITIES 5						
Enacted Program	1,362	1,362	1,377	2,391		
Contract Awards 6	975	1,090	1,191	1,292		
Cash Expenditures	100	181	281			
ACCND STOCKPILE PROGRAM 7	(Million dollars, cumulated since May 1940)					
Recommended Stockpile	485	485	485	485	485	485
Purchases (including those in excess of recommendation) 8	288	369	387	400	404	406
Purchases, excluding excess 8	250	303	312	325	£ 324	327
Deliveries	110	124	133	149	151	153
FAMILY DEFENSE HOUSING PROGRAM 18	(In terms of housing units, cumulated since Aug. 1, 1940)					
Fund Allocations 19	54,083	72,251	72,803	77,435	87,260	87,260
Construction Contracts Awarded	34,791	38,740	45,157	54,139	58,542	61,335
Construction Completed	1,314	2,515	5,424	9,024	9,604	9,929

Data are as of March 17 and April 5, 1941.
* Data are as of the end of the month. The most recent figures are as of May 1, 1941
£ Revised data.
For numbered footnotes see Issue 39, pages 53 and 54.

DEFENSE PROGRESS SERIES (Continued)

Agency and Object	January	February	March	April	Week Ending May 3	Week Ending May 10
UNITED STATES ARMED FORCES	(Thousands, officers and enlisted men)					
Army[15]	693	r 867	p 1,004	p 1,211		
Navy and Marine Corps[16]	r 271	r 278	r 293	p 296	p 301	
Total	r 964	r 1,145	r 1,297	p 1,507		
PRIORITY CERTIFICATES & EXTENSIONS ISSUED	(Cumulated since February 17, 1941)					
By Army, Navy Munitions Board and Countersigning Officers			72,662	126,482	138,116	
By OPM Priorities Division			3,047	4,726	5,021	
Total to Date			75,709	131,208	143,137	
CERTIFICATES OF NECESSITY ISSUED	(Million dollars, cumulated since June 10, 1940)[21]					
Total Cost of Facilities on Active Applications		1,025	1,034	1,113		
Cost of Facilities Approved		346	815	896		
Cost of Private Facilities		261	659	733		
Cost of U.S. Financed Facilities		85	156	163		
Cost of Facilities Pending Approval		678	217	213		
B. L. S. WHOLESALE PRICE INDEXES[9]						
Strategic Materials[10] (8/39=100)	r 126.1	r 127.3	r 131.2	135.5	136.8	137.2
Critical Materials[10] (8/39=100)	111.5	r 111.4	r 112.0	112.4	112.6	112.5
Basic Commodities[11] (8/39=100)	r 120.5	r 121.3	r 129.7	136.9	139.1	142.7
Machine Tools (8/39=100)	114.6	115.1	115.1	116.4		
All Commodities[12] (1926=100)	80.8	80.6	81.5	p 82.8	83.2	84.0
EMPLOYMENT[9]	(Thousands of employees as of pay rolls nearest the 15th of the month)					
Private, Leading Defense Industries[13]	465	491	p 511			
Public Defense Employment[14]	645	731	681			
Total Direct Defense Employment	1,110	1,222	1,192			
Total Civil Nonagricultural	r 36,621	36,928	p 37,218			
LABOR DISPUTES[9]	(All United States Industries, monthly figures)					
Number of Strikes[17]	325	365	p 475			
Total Number of Workers Involved (Thousands)	108	p 105	p 165			
Total Man Days Idle (Thousands)	625	1,000	1,400			
Number Strikes Beginning in Month	220	240	330			
NATIONAL INCOME[20]	(Annual rate in billion dollars)					
Total Income Payments (adjusted for seasonal variations)	79.4	79.8	80.3			

p Preliminary data.
r Revised data.
For footnotes see Issue 39, pages 53 to 54.

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SUMMARY OF DEFENSE PROGRESS

NUMBER 41

MAY 23, 1941

OFFICE OF PRODUCTION MANAGEMENT

BUREAU OF RESEARCH AND STATISTICS - STACY MAY, CHIEF

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SUMMARY OF DEFENSE PROGRESS

NUMBER 41 MAY 23, 1941

BRIEFS OF CONTENTS

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- ESTIMATED 1941 SUPPLIES of cork, wood pulp, silk, and cattle hides fall short of the estimated 1941 military and civilian requirements. These commodities are largely or wholly imported. If shipping facilities are reduced, supplies will be much lower than now estimated and the deficiencies will be greater. 2
- MORE THAN 60 PERCENT of the ordnance, naval ships, and airplanes and 87 percent of the industrial facilities scheduled for 1940 and 1941 remain to be produced in the last eight months of 1941. Unless more rapid progress is made in the construction of facilities, the production of materiel in 1942 will fall radically short of requirements. 9
- THE GEOGRAPHIC CONCENTRATION of prime contracts decreased slightly during the month of April. Over 90 percent of the contracts for airplanes are still concentrated in only eight States. 13
- $1.8 BILLION HAS BEEN ADDED to the Naval program by the passage of Title I of the 1942 Navy Budget. Net funds and authorizations now available to the United States Navy amount to $13.6 billion. The total defense program, including British purchases, now amounts to $41.6 billion. 17
- DEFENSE PROGRESS DATA this week presents additional and revised series indicating the magnitude of the total defense program in the United States, progress being made in carrying out this program, and its impact on the economic life of the nation. 18

SUMMARY OF DEFENSE PROGRESS

NUMBER 41

MAY 23, 1941

THE PRESENT STATUS OF SELECTED RAW MATERIALS

***ESTIMATED 1941 SUPPLIES** of cork, wood pulp, silk, and cattle hides fall short of the estimated 1941 military and civilian requirements. These commodities are largely or wholly imported. If shipping facilities are reduced, supplies will be much lower than now estimated and the deficiencies will be greater.*

Current estimates of the requirements and supplies for 1941 of five selected important raw materials which are largely or wholly imported, accent the crucial role which the supply of shipping facilities is playing and will increasingly play in the current year. In addition, they emphasize the problems which will be imposed upon the American economy if the shipping lanes are in any way shut off to ships supplying the United States. The five commodities are cork, rubber, wood pulp, silk, and hides and skins. The estimates are shown in Table 1. The estimated supplies for 1941 of four of the five fall short of the estimated requirements. The estimated supply of the fifth, (crude rubber) is considerably in excess of the estimated requirements for 1941. For all five, the estimated supplies are based on the assumption that imports in 1941 will continue to arrive in substantial amounts.

The requirements represent the sum of: (1) the estimates of Army, Navy, and British requirements; and (2) the estimates of civilian requirements. The military requirements correspond to the program discussed in the Statistical Summary of Defense Progress, Issue Number 34, April 4, 1941. The civilian requirements are based on an estimated national income of $87 billion

TABLE 1 – ESTIMATED REQUIREMENTS AND SUPPLIES OF SELECTED RAW MATERIALS FOR 1941

COMMODITY	ESTIMATED REQUIREMENTS 1941	ESTIMATED SUPPLY 1941	ESTIMATED SHORTAGE 1941	PRINCIPAL SOURCE OF IMPORTS
	(THOUSANDS)			
CORK (S. T.)	172	121	51	PORTUGAL
WOOD PULP (S. T.)	8,481	8,331	150	CANADA
CRUDE RUBBER (L. T.)	780	1,425	A	MALAYA, EAST INDIES
RAW SILK (LBS.)	48,500	44,000	4,500	JAPAN, CHINA
HIDES (NUMBER)	25,000	23,100	1,900	SOUTH AMERICA

A ESTIMATED OVERAGE OF 645,000 LONG TONS.

in 1941 and on the further assumption that no deliberate restrictions will be imposed upon civilian consumption.

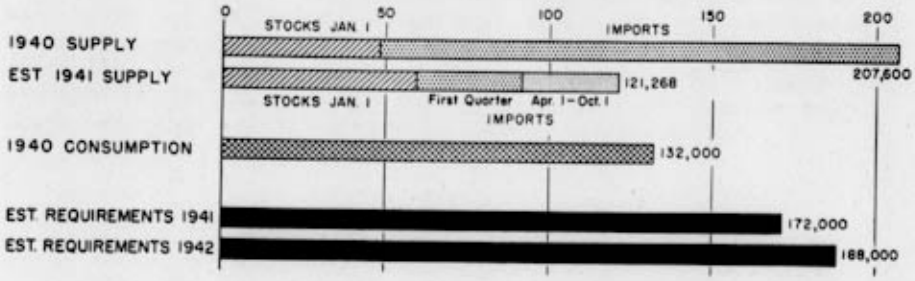
Cork

The relationships between cork requirements and supply are shown in Chart 1.

CHART I – CORK

REQUIREMENTS AND SUPPLY

(THOUSANDS OF SHORT TONS)



A 1940 supply of 208 thousand short tons, consisting of 159 thousand tons of imports and 49 thousand tons of stocks on hand January 1, 1940, contrasts with an estimated 1940 consumption of 132 thousand short tons. Actual stocks on hand at the beginning of 1941 were 59 thousand tons. Imports in the first quarter of the year were 33 thousand tons. It is estimated that between 28 and 30 thousand tons more will come in by November 1, giving an apparent supply from stocks and imports of 120 to 122 thousand tons. Some cork may come in November and December but it is practically impossible now to estimate because of shipping and new crop uncertainties.

Against these totals are to be set the estimated 1941 military, indirect defense and civilian requirements of 172 thousand short tons. If a supply of only 122 thousand tons materializes, there will be a shortage of 50,000 tons. To conserve the domestic supply the Office of Production Management on April 16, 1941 requested cork insulation manufacturers to take no further orders for cork roofing insulation, except for refrigerated spaces. All insulation accounts for 60 percent of normal cork consumption.

Wood Pulp

A large part of American imports of the chemical grades of wood pulp has already been cut off by war. During the period 1936-1939, 16 percent of our total supply or 70 percent of our imports, came from Scandinavian countries. Since the early part of 1940, except for a few small scattered shipments, these sources are no longer available to us. At present the only wood pulp imports are coming from Canada.

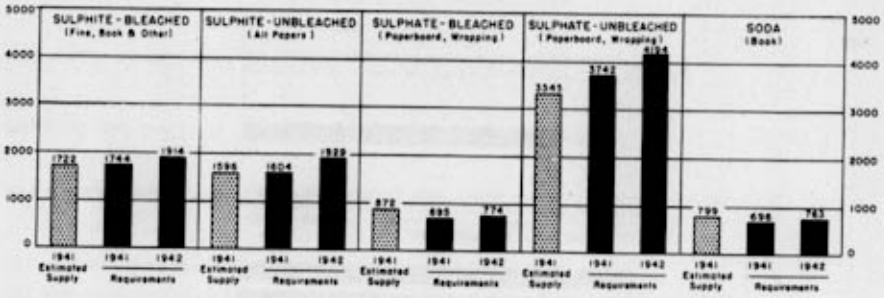
The net shortage of wood pulp for 1941 is estimated at 150 thousand short tons. As shown by Chart 2, this net shortage is made up of the following: a shortage of 400 thousand short tons in the unbleached sulphate grade, plus a shortage of 30 thousand short tons in bleached sulphite and unbleached sulphite minus overages of 177 thousand and 103 thousand tons of bleached sulphate, and soda and miscellaneous grades, respectively.

CHART 2 - WOOD PULP

(Chemical Grades for Paper Manufacture)

REQUIREMENTS AND SUPPLY BY GRADES

(THOUSANDS OF SHORT TONS)



Other types of wood pulp, viz., mechanical grades for paper manufacturing (pulp wood) and chemical grades for explosives and rayon manufacture, including alpha cellulose, appear at present to be in ample supply from combined American and Canadian sources. However, the problem of transportation arises with these grades as well, due to the inaccessibility of the points of original source. Further, the maintenance and expansion of present plant and equipment to handle peak loads depends to an important degree upon unrestricted supplies of chrome- and nickel-steel for mixing tanks and other basic maintenance items.

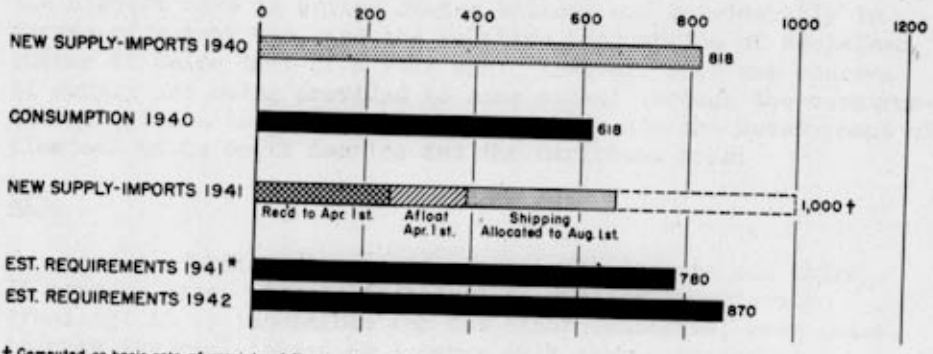
Crude Rubber

In 1940, as indicated in Chart 3, imports were approximately 818 thousand long tons of crude rubber and consumption was 618 thousand long tons. Up to April 1, 1941, imports were 248 thousand tons and on that date there were another 140 thousand tons afloat. Shipping adequate to bring in an additional 275 thousand tons between April 1 and August 1 has been allocated. Thus, the 1941 supply presently in sight is in the vicinity of 663 thousand tons assuming no reallocation or loss in shipping now scheduled.

CHART 3 — CRUDE RUBBER

REQUIREMENTS AND SUPPLY

THOUSANDS OF LONG TONS



† Computed on basis rate of receipts of first quarter and indicated receipts to Aug. 1, 1941.
* These estimates indicate requirements for direct military materiel and indicated civilian demand.

At the end of 1940 stocks of crude rubber were 425 thousand tons inclusive of the Government stockpile. If imports during 1941 continue at the rate established so far this year there is a reasonable expectation of receipts of 1 million long tons. These receipts plus stocks of 425 thousand tons at the beginning of the period, or a total estimated supply in 1941 of 1,425 thousand long tons, compares with 1941 requirements of 780 thousand tons for direct military material and indicated civilian demand. The corresponding 1942 figure is 870 thousand tons. Military, including British, requirements are included in these figures at 50 thousand tons for 1941 and 35 thousand tons for 1942. These represent the Army-Navy Munitions Board estimate of July 1940 adjusted to a 2,000,000-man effort. New military estimates by the Bureau of Research and Statistics of OPM are now in process.

Apparently, in relation to new supply alone, there is an indicated surplus of crude rubber available in 1941 of over 200 thousand long tons. Year-end stocks would increase this margin to 645 thousand long tons. However, it is important to remember that interruption of sea traffic could limit our 1941 supply to less than 700 thousand long tons and imperil

our 1942 supply in its entirety. Moreover, consumption in 1941 is running at a constantly increasing rate month to month, the highest rate in United States history and considerably in excess of a year ago, and the relative consumption of reclaimed rubber is below that of a year ago. However, some new sources of supply are being provided to some extent through the construction of plants to produce synthetic rubber and the development of plantations in South America and the Caribbean area.

Silk

Japan supplies 81 percent of the silk imports and China 15 percent more. Due to technical production superiority (reeling) it is impossible for the other countries, even China, to make any real inroad on Japan's silk supply monopoly.

At the beginning of the year stocks of raw silk in New York warehouses and in transit from Japan totaled 12 million pounds. By the end of April this total had been reduced by 3 million. This indicates a current rate of consumption considerably higher than the import rate and justifies the view that current supply is not adequate for current requirements. The same conclusion results from projecting the current import rate to the end of the year. Receipts in the remaining eight months at the 1940 rate would result in a 1941 supply approximating 44 million pounds - above the 1940 net mill takings total of 38 million but well below the indicated 1941 requirements of 48 million pounds.

With a continuance of the present 1941 rates of consumption and imports the future of the reserve supplies is not bright. Since consumption ate into stocks to the extent of 3 million pounds in the first four months, a further decline of between four and five million can be anticipated in the remainder of the year. In this event 1941 might end with stocks of merely two to three million pounds and a consumption rate of four million pounds a month. In the light of these proportions imports become extremely important.

The highlight of the current silk picture is one of shortage and substitution. In the last four years consumption of raw silk was curtailed 32 percent, dropping from 54 million pounds in 1937 to 36 million pounds in 1940 (waste silk not included) but further

progress in substitution seems necessary, particularly in view of normal and expanding military demand for silk and silk waste in the present emergency. At the present time practically every silk use is being carefully scrutinized and studied with a view to early substitution by long staple cotton or other synthetic or natural fibres. Thus, a present tight inventory situation fraught with increasing shipping and foreign-source uncertainties may be relieved in the way most desirable for national defense.

Cattle Hides

The supply of cattle hides comes from South America. The status of cattle hides has already been discussed in the Summary of Defense Progress, Issue Number 30, March 7, 1941. Here, too, there is the problem of bottoms - the problem of how to get the supplies of hides to the point of their greatest present economic effectiveness from the standpoint of American requirements.

DEFENSE PRODUCTION AND DISBURSEMENTS

MORE THAN 60 PERCENT of the ordnance, naval ships, and airplanes and 87 percent of the industrial facilities scheduled for 1940 and 1941 remain to be produced in the last eight months of 1941. Unless more rapid progress is made in the construction of facilities, the production of materiel in 1942 will fall radically short of requirements.

At least 87 percent of the industrial facilities, 65 percent of the naval ships, 63 percent of the aircraft, and 60 percent of the ordnance required by the end of 1941 remain to be produced in the last eight months of 1941.

These percentages of requirements to be produced by the end of 1941 refer to the proposed program for 1940 and 1941 given in the Summary of Defense Progress, Number 34.[a] For 1940 and 1941 the requirements amount to: industrial facilities, $3,800 million;[b] aircraft, $2,800 million; ordnance, $2,100 million; and naval ships, $1,800 million.

In April the total defense disbursements in the United States, including British, amounted to about $1,066 million. This was the second successive month in which disbursements surpassed the billion-dollar mark. Of the total, $962 million constituted the defense payments made by agencies of the Federal Government, and the remainder was made by the British Purchasing Mission and the Ministry of Shipping. The total disbursements during the first ten months of this fiscal year exceeded $6.7 billion, of which $5 billion was paid out by agencies of the Federal Government. The estimated Federal payments of $962 million in April compared with $853 million in March and $167 million in July 1940.

The disbursements by months are shown in the accompanying three tables. Table 1 gives the cumulated figures for the War Department, Navy Department, and other Federal agencies; Table 2 shows estimates of the United States disbursements by major objects; and Table 3 gives British disbursements for approximately the same object groupings.

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a The figures here used are the latest revisions and differ somewhat from those in Summary of Defense Progress Number 34.
b Does not include land, estimated to cost $200 million.

TABLE 1 – ESTIMATES OF DEFENSE DISBURSEMENTS BY UNITED STATES AGENCIES ▲

CUMULATED BY MONTHS, JULY 1, 1940 TO MAY 1, 1941

(SUBJECT TO REVISION)

AGENCY	1940						1941			
	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.
	(MILLION DOLLARS)									
U. S. ARMY	78	175	270	419	604	875	1,241	1,703	2,209	2,768
U. S. NAVY	84	196	335	472	643	815	1,021	1,219	1,480	1,771
OTHER U.S. AGENCIES	5	16	39	70	107	150	201	263	349	461
TOTAL	167	387	644	961	1,354	1,840	2,463	3,185	4,038	5,000

▲ DISBURSEMENTS ARE ON A CHECKS ISSUED BASIS.

It is still difficult to estimate the extent to which cash payments correspond to the value of production. There are, however, indications that, in so far as construction is concerned, payments through April understate the value in place by perhaps 10 to 15 percent. In the construction of ships alone the difference between payments and work in place is perhaps no more than 10 percent; in other construction it may be as high as 15 percent. Thus, the total payments of $506 million for naval ships shown in Table 2 represent a total value in place of about $560 million. Likewise, on the basis of total payments of $1,104 million, the value of construction in place for stations, bases, fortifications, etc., as of the end of April, may be estimated at about $1.3 billion. The value of Federally-financed industrial facilities in place on April 30 may in the same manner be estimated at about $340 million.

No definite comparison between the production of and payments for ordnance can as yet be made. But in the case of aircraft it can be definitely stated that payments considerably overstate actual output, including planes completed, work in process and parts inventories (including British procurement in this country).

TABLE 2 - ESTIMATES OF DEFENSE DISBURSEMENTS BY UNITED STATES AGENCIES

BY MAJOR OBJECTS a

(Subject to Revision)

Object	Total	1940 July	Aug.	Sept.	Oct.	Nov.	Dec.	1941 Jan.	Feb.	Mar.	Apr.
	(Million dollars)										
Naval Ships	506	29	31	44	40	63	52	62	54	65	66
Aircraft b	491	13	13	15	26	21	29	33	66	126	149
Ordnance c	501	21	25	39	31	42	52	61	43	82	105
Sub-Total	1,498	63	69	98	97	126	133	156	163	273	320
Stations, Bases, Fortifications, etc.	1,104	10	33	31	56	88	124	175	232	190	163
Industrial Facilities	305	1	1	7	8	6	16	49	52	63	102
Other Materials, Equipment and Construction	1,229	36	56	58	84	97	128	150	167	208	245
Total	4,136	110	159	194	247	317	401	530	614	734	830
Pay Rolls	864	57	61	63	70	76	85	93	108	119	132
Total, Including Pay Rolls	5,000	167	220	257	317	393	486	623	722	853	962

a Data are on a checks issued basis. They do not include WPA projects or the regular long range shipbuilding program of the U. S. Maritime Commission.

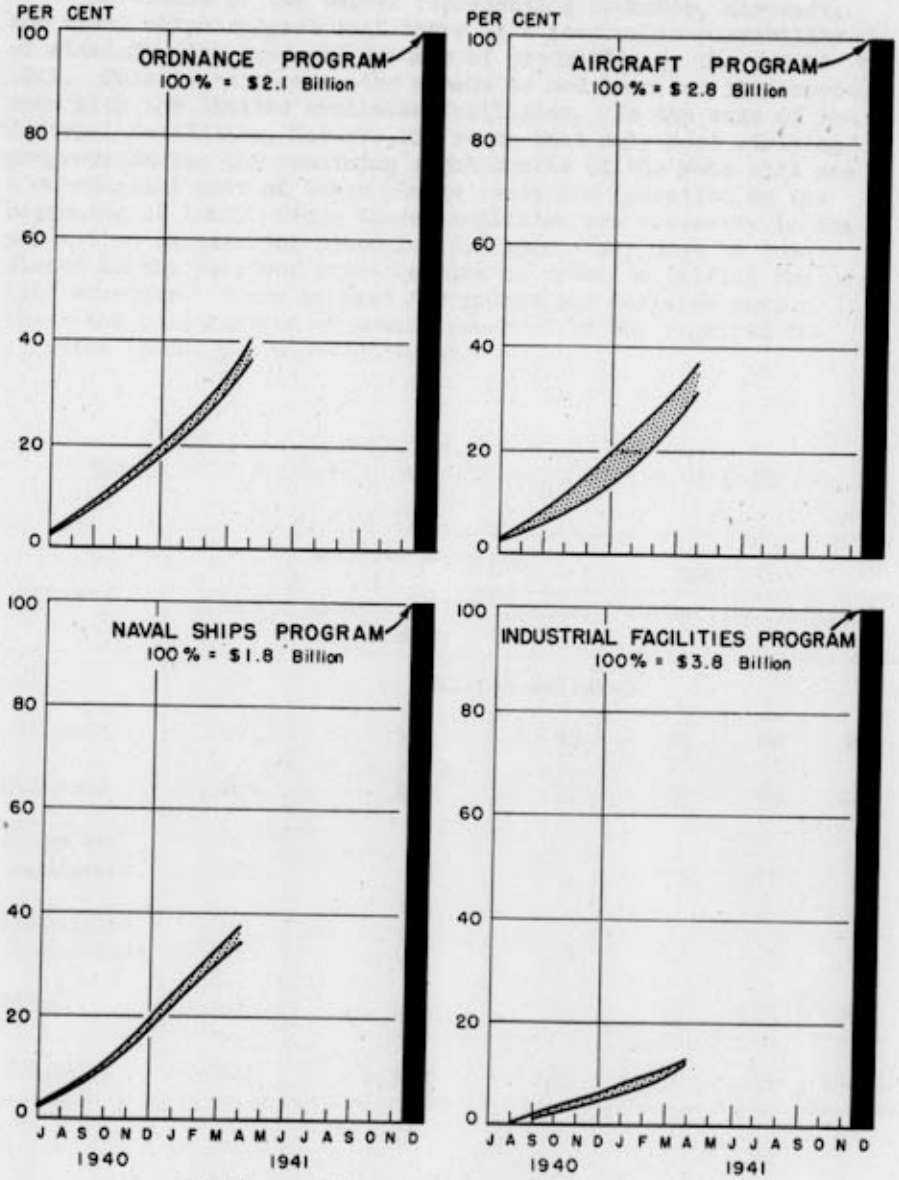
b Disbursements by Air Corps and Bureau of Aeronautics less estimated amounts for maintenance, operation, and other nonaircraft purposes.

c Includes disbursements for armor, armament and ammunition for naval ships.

The production progress of ordnance, aircraft, naval ships, and industrial facilities in relation to the proposed progress for 1940 and 1941 is shown in the accompanying chart. The production actually completed, cumulated through April, is represented by the curves moving toward the 100-percent points on the bars. Since disbursements do not measure accurately the actual output, the production progress is represented by a band, in order to indicate the range of estimated production.

On the basis of these estimates, the bands in the production progress charts were drawn as follows: the lower limits of the bands for ordnance, naval ships, and industrial facilities are set by the disbursement figures. The spread between the lower limits and the upper limits represents the estimates of the lag between payments and work done. For aircraft, however, payments exceed production; hence the curve is based on deliveries, with an allowance for work in process.

DEFENSE PRODUCTION IN RELATION TO TOTAL SCHEDULED TO DECEMBER, 1941



Shaded area indicates range of estimated production.

The trends of the curves representing ordnance, aircraft, and naval ships suggest that there is a reasonable possibility of attaining the proposed amounts of production by the end of 1941. This is so because the schedules had been set in accordance with the limited available facilities. In the case of industrial facilities, however, it seems that only most striking progress during the remaining eight months of the year will see a substantial part of these plants ready for operation by the beginning of 1942. Since these facilities are necessary in the production of materiel scheduled for 1942, they must be completed in the shortest possible time in order to fulfill the 1942 schedule. There is need for prompt and decisive action, since the construction of nearly one-half of the required facilities is not yet under contract.

TABLE 3 - CASH PAYMENTS IN THE UNITED STATES
BY THE BRITISH PURCHASING MISSION AND MINISTRY OF SHIPPING

Object	Total	December 1939 to December 1940 Inclusive	1941			
			January	February	March	April
	(Million Dollars)					
Aircraft	771	544	83	46	60	38
Ordnance	266	169	20	27	29	21
Ships and Equipment	84	64	4	6	5	5
Industrial Facilities	185	147	8	14	9	7
Other	622	435	64	37	53	33
Total	1,928	1,359	179	130	156	104

GEOGRAPHIC DISTRIBUTION OF DEFENSE CONTRACTS

The geographic concentration of prime contracts awarded by the War and Navy Departments has been decreased during April. Chart 1 indicates that each of seven States has now received five or more percent of the total awards which can be traced to individual States. Together, these seven States received contracts aggregating $6,219 million, or 57 percent of the total of $11,575 [a] awarded by April 30, 1941. At the end of March, [b] each of eight States had received five or more percent of all defense prime contracts; these eight had received 63 percent of the total awards.

At the end of March, 7.6 percent of the prime contracts were assigned to 29 States which had each received less than one percent of the total. At the end of April, the share awarded in the smaller states had been increased to 9.1 percent of the total.

Contracts for airplanes, engines, parts, and equipment are more highly concentrated than are contracts as a whole, but less concentrated in April than in March. 92 percent of the contracts

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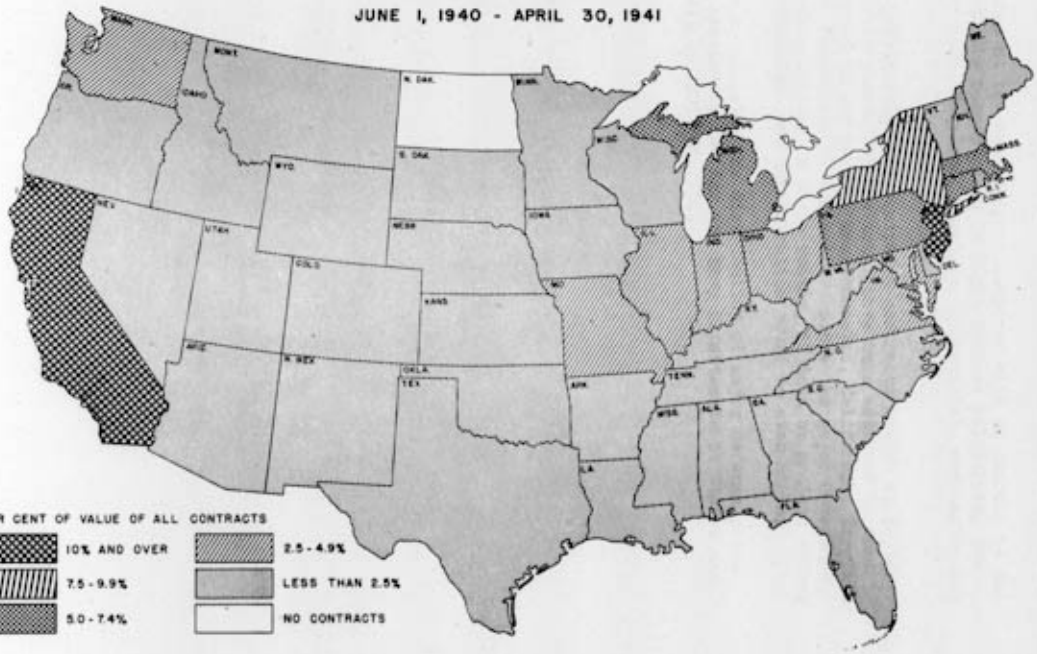
[a] This is the total of public-knowledge awards on which individual reports have been received, excluding awards for fuels, foodstuffs, and services, and excluding all contracts involving less than $10,000. In addition, a total of $2,370 million has been issued in the form of project orders and directives to Army and Navy establishments. Project orders have been omitted from the tabulation but a substantial part of these project order funds are subsequently awarded as prime contracts and included in this tabulation. The total of prime contracts and project orders, $13,945 million, differs from that presented in Defense Progress Data. In Defense Progress Data, (a) project orders are included at one-half reported value; and (b) pay, travel, subsistence, and contracts which are not public knowledge are included.

[b] The tabulation through April reflects the awarding of new contracts, the revision of data and reallocation of contracts previously included and the addition of several contracts for naval vessels previously not reported.

CHART I - MAJOR DEFENSE PRIME CONTRACTS AWARDED BY THE WAR AND NAVY DEPARTMENTS

ALL CONTRACTS

JUNE 1, 1940 - APRIL 30, 1941



for airplanes at the end of April compared with 94 percent at the end of March are concentrated in eight States: California, New Jersey, New York, Maryland, Michigan, Connecticut, Washington and Indiana.

Ship construction and equipment contracts valued at $2,780 million, or 78 percent of the total, have been assigned to companies located in New Jersey, Massachusetts, California, Virginia, Washington, Pennsylvania, and Maine. Since the major Government yards are also located in these States, if data on project orders were also included the concentration would be even higher.

Table 1 indicates the distribution of major defense prime contracts awarded by the War and Navy Departments by States and major objects by April 30, 1941.

DISTRIBUTION OF MAJOR DEFENSE PRIME CONTRACTS AWARDED BY THE WAR & NAVY DEPARTMENTS, BY STATE AND MAJOR OBJECT a

APRIL 30, 1941

STATE b	TOTAL	AIRPLANES, ENGINES, PARTS AND EQUIPMENT c	SHIP CONSTRUCTION AND EQUIPMENT	ALL OTHER
	(THOUSAND DOLLARS)			
GRAND TOTAL d	11,574,746	2,406,416	3,623,143	5,543,185
CONTINENTAL UNITED STATES	10,832,564	2,399,062	3,570,611	4,862,871
ALABAMA	166,429	-	29,396	137,033
ARIZONA	3,337	-	-	3,337
ARKANSAS	4,684	-	-	4,684
CALIFORNIA	1,322,958	663,208	454,681	205,069
COLORADO	136,614	-	39	136,475
CONNECTICUT	541,375	203,914	124,365	213,096
DELAWARE	6,224	-	4,281	1,943
DISTRICT OF COLUMBIA	5,402	-	197	5,205
FLORIDA	94,722	-	46,509	48,213
GEORGIA	84,701	19	5,265	79,417
IDAHO	1,251	-	-	1,251
ILLINOIS	315,403	39,240	23,937	252,226
INDIANA	563,770	120,561	1,574	241,635
IOWA	68,744	41	21	68,682
KANSAS	57,610	37,439	-	20,171
KENTUCKY	48,427	117	241	48,069
LOUISIANA	34,342	-	3,972	30,370
MAINE	185,053	-	174,624	10,429
MARYLAND	337,441	229,840	6,717	100,884
MASSACHUSETTS	686,091	4,043	528,030	154,018
MICHIGAN	670,057	212,866	25,930	431,261
MINNESOTA	43,131	705	439	41,987
MISSISSIPPI	69,443	-	50,014	19,429
MISSOURI	348,744	66,898	1,301	280,565
MONTANA	12	-	-	12
NEBRASKA	14,240	-	13	14,227
NEVADA	4,083	-	-	4,083
NEW HAMPSHIRE	12,335	50	18	12,265
NEW JERSEY	1,356,452	312,063	815,825	228,604
NEW MEXICO	9,362	-	-	9,362
NEW YORK	1,002,853	330,902	137,980	533,971
NORTH CAROLINA	69,563	-	763	68,800
NORTH DAKOTA	-	-	-	-
OHIO	466,643	18,013	124,933	325,697
OKLAHOMA	16,731	1,860	362	14,509
OREGON	50,856	11	36,212	14,633
PENNSYLVANIA	637,063	18,809	177,299	442,955
RHODE ISLAND	61,301	76	5,848	55,377
SOUTH CAROLINA	39,828	47	242	39,539
SOUTH DAKOTA	128	-	-	128
TENNESSEE	75,342	57	1,424	73,861
TEXAS	220,998	215	99,319	121,464
UTAH	9,912	-	65	9,847
VERMONT	1,250	-	-	1,250
VIRGINIA	539,348	-	389,789	149,559
WASHINGTON	422,940	135,791	239,382	47,767
WEST VIRGINIA	87,272	74	1,649	85,549
WISCONSIN	127,588	2,203	58,975	66,410
WYOMING	4,293	-	-	4,293
OFF CONTINENT	23,749	-	758	22,991
UNASSIGNABLE	648,433	9,336	51,774	587,323

a Contracts and project orders involving less than $10,000 have been excluded because the coverage of smaller contracts is incomplete. Although contracts under $10,000 represented about one-fourth of the total number of awards they accounted for less than one-half of one percent of the total value of contracts reported. All awards for fuels, foodstuffs, and certain miscellaneous items have been excluded.

b Contracts have been assigned to States on the basis of the location of producing plants. Whenever it was not possible to determine where the work was to be performed, or whenever a contract could not be assigned to a specific plant of a company which has more than one plant, the value of the contract was included in the "Unassignable" group presented at the end of the table.

c Airplane armament is not included.

d In addition to prime contracts totaling $11,574,746,000, project orders have been issued to Government arsenals and other Government establishments in the amount of $2,370,000,000; the grand total of defense prime contracts and project orders is thus $13,944,746,000.

UNITED STATES NAVY PROGRAM

Over $13,633 million in funds, contract authorizations, and tonnage authorizations are now available for the United States naval program. This amount reflects the approval of Title I of the 1942 Navy Budget on May 6 in which net new additions of $1,810 million were made to the existing program. The total amount appropriated in the new Act is $3,447 million, of which $1,637 million is to liquidate contract authorizations previously granted. The table below shows the distribution of the $13,633 million according to purposes.

TABLE 1 - UNITED STATES NAVY PROGRAM

Purpose	Amount
	(Million Dollars)
Naval Vessels and Equipment	6,736
Armor, Armament, and Ammunition	2,850
Airplanes, Engines, and Accessories	861
Stations, Depots, Bases	987
Industrial Facilities	882
Other Equipment	224
Pay, Subsistence, Training	1,093
Total	13,633

The 1942 Budget for the Army has, as yet, not been approved by the Congress.

DEFENSE PROGRESS DATA

Data previously presented in this section have been revised and new data have been added, both of which serve to indicate more completely:

(1) The magnitude of the total defense program in the United States;

(2) The progress being made in carrying out this program;

(3) Various impacts of the defense program on the economic life of the nation.

The first section of Defense Progress Data shows the size of the armed forces of the United States and the volume of the supplies and equipment which must be obtained to make them effective. It shows the amounts allocated to defense agencies by Congress, British purchases, and the progress which these agencies are making in fulfilling their responsibilities. Also in this section, data on the program are reclassified by selected major objects. It is possible therefore to see the program and progress by individual agencies or by individual objects.

The second section of Defense Progress Data presents some measures of the impacts of the United States defense program upon the whole economy. Data presented in this section will be expanded and new series will be added from time to time.

DEFENSE PROGRESS SERIES

Agency and Object	July 1940	January	March	April	Week Ending May 10	Week Ending May 17
TOTAL UNITED STATES DEFENSE PROGRAM [h]						
UNITED STATES ARMED FORCES [k]	(Thousands, officers and enlisted men, nearest available date)					
Army	289	693	1,004	1,211	1,299	1,321
Navy and Marine Corps	R 196	E 271	E 293	R 296		
Total active strength	R 485	E 964	E 1,297	R 1,507		
FINANCIAL PROGRAM	(Million dollars, data cumulated)					
Total authorized program	14,968 [d]	26,663	35,470	39,771	41,619	
Total cash disbursements	571	4,084	5,969	7,047		
AGENCIES						
U. S. MILITARY						
ARMY - Program	2,620	8,377	9,239	13,135	13,135	13,135
Contract awards & payroll	582	5,951	7,091	7,334	n.a.	7,801
Cash disbursements	78	1,241	2,209	2,768		
NAVY - Program	9,425	11,127	11,530	11,825	13,633	13,633
Contract awards & payroll	1,515	6,009	7,213	7,629	n.a.	7,840
Cash disbursements	84	1,021	1,480	1,771		
TOTAL - Program	12,045	19,504	20,769	24,960	26,768	26,768
Contract awards & payroll	2,097	11,960	14,304	14,963	n.a.	15,641
Cash disbursements	162	2,262	3,689	4,539		
LEASE LEND PROGRAM						
Program			7,000	7,000	7,000	
Contract awards						
Cash disbursements						
BRITISH PURCHASES						
Contract awards	1,282	3,426	3,649	3,710	R 3,750	
Cash disbursements	396	1,538	1,824	1,928		
MARITIME COMMISSION [R]						
Program [f]	840	840	1,154	1,154	1,154	
Contract awards	n.a.	n.a.	n.a.	n.a.	n.a.	
Cash disbursements	8	83	107	121		
DEFENSE HOUSING PROGRAM						
Program	0	325	330	330	330	330
Contract awards [i]	0	128	174	227	238	299
Cash disbursements	0	n.a.	n.a.	n.a.	n.a.	n.a.
OTHER AGENCIES [E]						
Purchases and allocations	801	2,568	2,568	2,617	2,617	
Cash disbursements	5	201	348	455		

R Preliminary data
E Revised data
n.a. Data not available

(continued on next page)

DEFENSE PROGRESS DATA (continued)

Agency and Object	July 1940	January	March	April	Week Ending May 10	Week Ending May 17
OBJECTS	(Million dollars, data cumulated)					
AIRPLANES, MOTORS, ETC.						
Program	1,564	4,476	6,711	8,132	8,248	8,248
Contract awards	889	3,852	4,069	4,172	n.a.	4,291
Cash disbursements	n.a.	778	1,076	1,262		
NAVAL SHIPS & PARTS						
Program	5,765	6,005	6,288	6,348	6,736	6,736
Contract awards	1,207	4,500	4,500	4,527	n.a.	4,543
Cash disbursements	29	321	440	506		
MERCHANT VESSELS						
Program	848	964	1,929	1,939	1,939	R 1,939
Contract awards	n.a.	n.a.	n.a.	n.a.		
Cash disbursements	n.a.	151	186	205		
ORDNANCE						
Program	2,805	4,707	6,530	7,754	8,120	8,120
Contract awards	367	2,491	3,437	3,725	n.a.	3,939
Cash disbursements	n.a.	460	641	767		
OTHER EQUIPMENT						
Program	640	1,974	2,712	3,037	3,038	3,038
Contract awards	434	1,808	2,000	2,064	n.a.	2,120
Cash disbursements	n.a.	1,014	1,434	1,687		
PAY, SUBSISTENCE, & OTHER SERVICES 1/						
Allocated funds	1,834	3,846	4,768	4,988	5,668	5,668
Cash disbursements	n.a.	598	870	1,026	n.a.	1,112
STRATEGIC STOCKPILE PROGRAM 2/						
Stockpile program	390	485	485	485	485	485
Purchases under program	50	237	312	325	327	328
Purchases in excess of program R	0	39	76	76	79	85
Deliveries	26	106	133	149	153	154
CONSTRUCTION						
INDUSTRIAL FACILITIES 3/						
Program	395	2,437	3,370	3,965	3,965	3,965
Contract awards	110	1,397	1,724	1,749	n.a.	R 1,933
Cash disbursements	n.a.	243	381	490		

n.a. Data not available
R Preliminary data
r Revised data

(Continued on following page)

Defense Progress Data (Continued)

AGENCY AND OBJECT	July 1940	January	March	April	Week Ending May 10	Week Ending May 17
POSTS, DEPOTS, HOUSING	(Million dollars, data cumulated)					
Program	727	1,749	2,677	3,123	3,420	3,420
Contract awards	230	929	1,590	1,711	n.a.	1,734
Cash disbursements	10	519	941	1,104		
CERTIFICATES OF NECESSITY ISSUED	(Nearest available date) A					
Cost of facilities applied for			1,034	1,113		
Cost of approved facilities			815	896		
Privately financed A			659	733		
U. S. financed A			156	163		
Cost of facilities on application			217	213		
DEFENSE HOUSING A	(Total number of housing units to date)					
Fund allocations		56,528	80,183	86,361	96,286	96,286
Construction contracts awarded		36,191	48,416	60,293	68,217	68,866
Construction completed		1,314	5,424	9,024	9,929	10,712
PRIORITY CERTIFICATES & EXTENSIONS ISSUED	(Number to date)					
Total			75,709	131,208	165,341	186,235

ECONOMIC ACTIVITY RELATED TO DEFENSE

FED. RES. INDUSTRIAL PRODUCTION	(Indexes, seasonally adjusted, 1935-9=100)					
Durable mfrs.	112	121	127	130		
Nondurable mfrs.	132	170	170	166		
Total industrial production	121	139	143	139		
BLS PRICE INDEXES						
Strategic materials (8/39=100)	123.8	X 126.1	131.9	135.9	138.1	139.1
Critical materials (8/39=100)	107.6	111.5	X 112.0	112.4	112.5	112.8
Basic commodities (8/39=100) A	108.3	X 120.5	X 129.7	136.9	142.7	143.9
Machine tools (8/39=100)	108.7	114.6	115.1	116.4		
All commodities (1926=100)	77.7	80.8	81.5	X 83.2	84.0	84.6
NICB COST OF LIVING INDEX (1923=100)	85.7	86.0	86.3	86.9		
FEDERAL DEBT	(Billion dollars, end of month)					
Net public debt A	41.5	43.9	44.4	44.8		
NATIONAL INCOME	(Annual rate, billion dollars)					
Total income payments	73.3	79.4	80.3			

n.a. Data not available
X Revised data

(continued on next page)

DEFENSE PROGRESS SERIES (Continued)

AGENCY AND OBJECT	July 1940	January	March	April	Week Ending May 10	Week Ending May 17
EMPLOYMENT 1	(Thousand men, date nearest 15th of month)					
Private, leading defense industries 1	1,749	2,088	2,161			
Public defense employment 2	132	612	653			
Total direct defense employment	1,881	2,700	2,814			
Total civil nonagricultural	35,454	36,621	37,218			
W. P. A. employment 4	1,659	1,834	1,764	1,607	1,519	1,497
UNEMPLOYMENT (NICB Estimate)	(Monthly total)					
Number of unemployed	8,566	7,367	6,142			
LABOR DISPUTES 3	(Monthly figures)					
Number of strikes in progress	290	f 322	g 475			
Workers involved (thousands)	76	108	g 165			
Man days idle (thousands)	552	f 662	1,400			
Strikes beginning in month	182	f 213	330			

Sources

1 Office of the Defense Housing Coordinator.

2 United States Department of Commerce, Bureau of Foreign and Domestic Commerce.

3 United States Department of Labor, Bureau of Labor Statistics.

4 Work Projects Administration. Weekly figures are as of May 7 and May 14.

Footnotes

a Monthly data are as of the close of the month, unless otherwise indicated.

b Includes orders and disbursements in this country since December 1939 by the British Purchasing Mission and the Ministry of Shipping.

c Includes regulars, all retired and reserve men and officers on active duty, National Guard in Federal service, and Selective Service trainees.

d Includes $7,339 million in tonnage authorizations.

e Includes the regular and emergency shipbuilding programs of the United States Maritime Commission.

f Includes FY 1940 funds carried over.

g Includes expenditures for defense purposes by the regular nonmilitary departments and other Federal agencies.

h Includes estimates of subsistence of 42 cents a day for each man in the Army and 47 cents a day for each man in the Navy.

Footnotes continued on next page

Defense Progress Data Footnotes (Continued)

j Monthly figures as of the Saturday nearest the close of the month.

k The commodities in excess and the value of their excess purchases were: antimony, $3 million; manganese, $32 million; quinine, $.5 million, and tungsten $50 million.

l Industrial Facilities is not an exact measure of the volume of new facilities since it does not include contracts with private financing agencies.

m Includes RFC loans to private industry for industrial facilities which are also covered under Industrial Facilities above.

n The entire cost of United States financed facilities is included under Industrial Facilities above.

o Monthly figures are as of the close of last full week of the month.

q Index numbers for the week are as of the Saturday closing the week.

r Gross Public Debt less balance in the General Fund.

s Includes employment in aircraft, shipbuilding, machine tools, engines, aluminum, explosives, and construction.

t Civilian employment in arsenals and navy yards. The Corps of Engineers and W.P.A. are excluded.

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PSF
Defense Contracts

Weekly Progress Reports from the following Defense Divisions and Agencies:

Office of Price Administration and Civilian Supply

Transportation Division

Division of Defense Housing Coordination

Division of State and Local Cooperation

Report #45
May 28, 1941
Copy # A-1
- C O N F I D E N T I A L -

OFFICE OF PRICE ADMINISTRATION AND CIVILIAN SUPPLY CONFIDENTIAL
Leon Henderson, Administrator

May 28, 1941

Weekly Operations Progress Report

Prices. Meetings were held during the past week with representatives of the New York Cocoa Exchange, New York Produce Exchange, Commodity Exchange, Inc., and the New York Coffee and Sugar Exchange to discuss measures for the reduction of speculation responsible for recent price increases in cocoa, pepper, rubber, and coffee. At these meetings agreements were reached to increase margin requirements and to take immediate steps to discourage solicitation of speculative accounts in the above commodities.

On May 23 this Office issued a schedule to be effective May 26, 1941, fixing ceiling prices for various grades of combed cotton yarn to apply to all deliveries under old contracts after May 26, as well as to new contracts. This action was taken following extensive studies made by this Office and after meetings with the industry. In issuing the schedule it was stated that a cost study would be undertaken promptly to determine whether the schedule works such hardship on marginal firms as to threaten a curtailment of production.

Staff. Mr. Robert E. Sessions has been appointed Assistant Director of the Price Division and assumed his duties on May 26. Mr. Sessions has been serving as Assistant to the General Manager of the Tennessee Valley Authority at Knoxville, Tennessee. In his new capacity Mr. Sessions will assume responsibility for the coordination of the work of the Section Chiefs in the Price Division.

The following appointments have been made to the staff of Mr. Joseph L. Weiner, Assistant Administrator in Charge of Civilian Allocation:

Melvin G. de Chazeau as Chief of the Iron and Steel Section. Mr. de Chazeau has been serving as consultant in the Materials Branch of the Production Division of the Office of Production Management.

Edward T. McCormick as Chief of the Fuel Section. Mr. McCormick has been serving as advisor to Miss Harriet Elliott on priorities.

V. Lewis Bassie as Chief of the Standards and Research Section. Mr. Bassie was formerly chief of the Civilian Requirements Section of the Bureau of Research and Statistics of the Office of Production Management.

TRANSPORTATION DIVISION
Ralph Budd, Commissioner

CONFIDENTIAL

May 28, 1941

Weekly Operations Progress Report

Climbing to a new peak for the year, the volume of revenue freight transported by motor truck in April increased 4.4 per cent over March and 38.3 per cent over the volume carried in April, 1940, according to reports released by the American Trucking Associations.

Comparable reports were received by ATA from 202 motor carriers in forty-two states. The reporting carriers transported an aggregate of 1,509,143 tons in April, as against 1,446,104 tons in March, and 1,111,604 tons in April, 1940.

Slightly more than 78 per cent of all the freight transported in the month was reported by carriers of "general freight". The volume of this category increased 6.7 per cent over March, and 41.6 per cent over April of the previous year.

Transporters of petroleum products, accounting for almost 7 per cent of the total tonnage reported, showed an increase of 4.9 per cent in April, as compared with March, and an increase of 10.8 per cent over April, 1940.

Movement of new automobiles and trucks, constituting almost 6 per cent of the total tonnage, decreased 19 per cent under March, but held 9.2 per cent over April, 1940. The decline under March was attributable, in part, to strikes in manufacturing plants.

Haulers of iron and steel products reported about 4½ per cent of the total tonnage. The volume of these commodities showed a decrease of 7.8 per cent under March, but increased 25.5 per cent over April of last year.

A little more than 4 per cent of the total tonnage reported was miscellaneous commodities, including tobacco, milk, textile products, building materials, coal, cement and household goods. Tonnage in this class increased 18.4 per cent over March and 37.1 per cent over the volume hauled in April, 1940.

During the week ended May 24 the four principal ore loading railroads loaded into boats at upper lake ports a total of 2,281,391 long tons of ore compared to 1,687,392 tons during the corresponding week in 1940. For the season to date there have been 15,017,235 tons of ore loaded into boats compared to 5,750,007 tons during the corresponding period of 1940. Ore loadings are at present 9,267,228 tons ahead of the 1940 level.

Arrangement was made this week with railroads having grain elevators at Baltimore, Philadelphia, New York and Norfolk, which will permit

TRANSPORTATION DIVISION (Continued)

the storage of 4,300,000 bushels of Government grain now held in the middle west at eastern seaboard. It was necessary for railroads to sign the Uniform Grain Storage Agreement of the Department of Agriculture before the Government could utilize this space, thus freeing a similar amount of space for handling of the coming wheat crop. Report today shows that the grain-carrying railroads have more freight cars stored for grain loading than on the corresponding date in 1940, indicating that the railroads from a transportation standpoint can handle the grain crop without any serious difficulty providing storage space is available. Farmers have been urged by the Department of Agriculture to increase storage of grain on farms, which to the extent done will avoid difficulties due to lack of storage space at terminal elevators. The position of the Transportation Division, which has been made known to all concerned, is that freight cars must not be used for storage of grain and will not be furnished for loading unless such storage space is available.

Following recent action of the Advisory Commission concerning the building up of coal stocks by all consumers during the summer months, President Pelley of the Association of American Railroads, on our request, yesterday notified all railroads of the commission action and asked them to assist in two ways:

(1) By building up their stock of company fuel during the summer months; and

(2) By having their freight agents, freight solicitors, and others who may come in contact with coal receivers urge upon such receivers the desirability of building up coal stocks.

During the past week study has been made of the extent to which freight car construction has been, is being, or will be impeded through lack of steel. Report on the subject has been given to Mr. Knudsen with request for his assistance to the end that the importance of transportation be recognized, and an adequate supply of steel be made available to the railroads and the car and locomotive builders.

A conference is being held Wednesday with representatives of the trucking industry to enable them to discuss the requirements of truck transportation so far as equipment is concerned.

A representative of this division is attending a meeting in New York Wednesday called by the Defense Highway Traffic Committee of that state to discuss, in cooperation with highway authorities of neighboring states, the handling of highway traffic during any emergency condition.

TRANSPORTATION DIVISION (Cont'd)

WAREHOUSING SECTION

The Warehousing Section is sending an inquiry to all Government procurement officers asking as to their storage requirements up to the end of June and for a longer period if possible. In this letter full offer of cooperation in meeting such requirements is made.

The storage situation is gradually tightening in the general territory east of the Mississippi River to the North Atlantic ports, - New York to Norfolk, north of the Mason & Dixon Line and south of the Great Lakes. Especially is this true of the well known transit points. The warehousing industry in the interest of increasing the flexibility of movement and handling is suggesting a broadening of the railroad transit arrangements.

As space becomes more scarce means should be found to use the western, northern and southern portions of the country where there is much idle warehouse space. Co-ordinated planning appears to this section to be urgently needed and should not wait until congestion appears.

Analysis of the May 1st refrigerated warehouse space figures secured by the Department of Agriculture shows widely varying conditions in different sections. The following fourteen typical points show the following occupancy figures:

Port Cities	% Of Refrigerated Space Occupied
Boston	45%
New York	45%
Philadelphia	51%
Norfolk	69%
New Orleans	60%
Houston	57%
Los Angeles	38%
San Francisco	53%
Portland, Ore. -	8%
Seattle	45%
Interior	
Chicago	70%
Minneapolis and St. Paul	70%
St. Louis	86%
Dallas and Fort Worth	61%

In St. Louis freezer space appears to be fully occupied while cooler space is 80% occupied.

TRANSPORTATION DIVISION (Cont'd)

It is readily seen that the trend is to keep the food supplies in the interior at transit points where they can be readily sent to any part of the country or any port. However, this commercial practice may not be always a wise one in connection with foods that may be destined for overseas shipment. At least a sizeable proportion might well be kept in warehouses at ports which are known to be used for shipments to England, Red Sea or China for quick forwarding in cases of emergency changes in shipping allocations.

DIVISION OF DEFENSE HOUSING COORDINATION
C. F. Palmer
Coordinator

CONFIDENTIAL

May 28, 1941

Weekly Operations Progress Report

Status of the Defense Housing Program as of May 24, 1941

Status of Projects	No. of Family Dwelling Units	Change this Week	Trailers
Housing under allocation	87,260	-	2,309
Under construction contract	62,970	1,490	2,109
Housing completed	12,261	1,604	

Progress of Legislation

On May 24, the President signed the bill providing the $150,000,000 Lanham Act appropriation and $15,000,000 for temporary shelter. This becomes Public Act No. 73.

Additional Projects Approved by the President

On May 26, the President approved defense housing projects totalling 9,701 units in 28 localities under Public Act No. 42 (amendment to Lanham Act) and projects totalling 192 units in five localities under Public Act No. 781.

On May 23, temporary shelter programs for three localities were approved by the President as follows: Ravenna, Ohio, 100 trailers; Burlington, Iowa, 100 trailers; Paso Robles, California, 74 trailers.

Progress of Homes Registration

Homes Registration Offices have been established and are now in operation in 74 localities. The value of the services performed by these offices is illustrated in Wilmington, North Carolina where 800 vacant rooms were disclosed. It had previously been thought that no accommodations existed in that locality.

Addition to the Staff

Frank A. Vanderlip has been appointed Regional Coordinator for Region II. Mr. Vanderlip was formerly with the Public Buildings Administration.

Status of Surveys

The following reports were received during the week ending May 24:

DIVISION OF DEFENSE HOUSING COORDINATION (Cont'd)

BES Labor Reports (mostly in preliminary or incomplete form): Pontiac, Michigan; Denver, Colorado; Rockford, Illinois-Beloit, Wisconsin; Newport, Rhode Island; Jamestown, New York; Akron, Ohio (supplementary); Portland, Maine (supplementary); Binghamton, New York; Omaha, Nebraska (supplementary); Springfield, Massachusetts; Canton-Massillon, Ohio (supplementary).

WPA Vacancy Reports: Phoenix, Arizona; Sacramento, California; Atlanta, Georgia; Chicago, Illinois; Baton Rouge, Louisiana; Meridian, Mississippi; Toledo, Ohio; Philadelphia, Pennsylvania; Houston, Texas, Wichita Falls, Texas.

FHA Housing Reports: Mobile, Alabama; Phoenix, Arizona; Benicia, California; Monterey Peninsula-Salinas, California; San Diego, California (resurvey); Panama City, Florida; Atlanta, Georgia; Savannah, Georgia; Gary-Hammond, Indiana; Portland, Maine; Victoria, Texas; Wichita Falls, Texas.

Requests were initiated for BES Labor Surveys in Pittsfield, Massachusetts; Lacaren-Port Clinton, Ohio; and Orange-Port Arthur, Texas (the last being an extension of the Beaumont resurvey previously requested); for WPA vacancy surveys in New Orleans, Louisiana; and Beaumont-Port Arthur; and for a FHA survey of Portland, Oregon.

DIVISION OF STATE AND LOCAL COOPERATION
Frank Bane, Director

CONFIDENTIAL

May 28, 1941

Weekly Operations Progress Report

1. Aircraft observation service

   a. The Division developed further arrangements with the G.H.Q. Air Force for the nationwide aircraft warning service; the defense councils are to begin work immediately on organization of observation posts in the Atlantic and Pacific coastal areas and the supplying of volunteer personnel for work at air corps, filter, and information centers.

   b. State problems related to the organization of the aircraft warning service were discussed with the chairman of the Georgia Committee for National Defense, the Virginia Defense Council (at a meeting in Richmond), and the Pennsylvania Defense Council; a representative of the Division is to go to Harrisburg to assist in establishment of the warning service in Pennsylvania.

2. Community facilities

   a. A representative of the Division attended the Senate Committee hearings on H.R.4545, the revised community facilities bill, on May 19 and 20.

   b. The county superintendent of schools and two other citizens from Burlington, Iowa, conferred with a representative of the Division regarding community facilities.

   c. The Division was represented at a meeting of Region IV of the Social Security Board to discuss community facility problems in Maryland, the District of Columbia, Virginia, North Carolina, and West Virginia.

   d. Representatives of the Division conferred with Mr. Harold Burr, territorial director for the Social Security Board in Hawaii, regarding acute defense problems, particularly lack of defense housing, inadequate health department personnel and hospital facilities, and lack of recreational facilities for defense workers.

3. Protection of defense plants

   Representatives of this Division and of the War Department are working on the problem of defense plant protection.

DIVISION OF STATE AND LOCAL COOPERATION (CONT'D)

4. Test campaigns for collection of aluminum scrap

In cooperation with the Office of Production Management, the Division has developed two test campaigns for the collection of scrap aluminum one in Madison, Wisconsin, the other in Richmond, Virginia, to be conducted from May 30 to June 7.

5. "Industrial clinics" on subcontracting

In cooperation with the Defense Contract Service Section, particularly the Group Resources Unit, the Division is developing a plan for "industrial clinics" in various sections of Ohio and Illinois under the auspices of the defense councils, with a view to the extension of subcontracting and the organization of Group Resources Units in areas capable of handling subcontracts.

6. WPA assistance to defense councils

An agreement has been reached by the Division with the WPA for the development of a $5,000,000 nationwide project for WPA assistance to State and local defense councils.

7. Each State defense council was furnished with a copy of the U. S. Government Manual, March 1941, edition.

8. A representative of the Division discussed public personnel problems at the Eastern Regional meeting of the Civil Service Assembly in Washington, D. C. on May 19 and 20; another representative of the Division addressed the annual meeting of the Pennsylvania AAA Motor Federation at Altoona, Pennsylvania, May 23.

9. Addition to staff

Miss Ethel J. Swing, formerly staff member of the State and Local Government Section of Princeton University, joined the staff on May 19 as an assistant to Miss Frederic in the Reports and Studies Section.

SUMMARY

OF

DEFENSE PROGRESS

BUREAU OF
RESEARCH AND STATISTICS
STACY MAY, CHIEF

ECONOMIC ANALYSIS SECTION
MORRIS A. COPELAND, CHIEF

This summary contains CONFIDENTIAL information affecting the defense of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

SUMMARY OF DEFENSE PROGRESS

NUMBER 42 MAY 31, 1941

BRIEFS OF CONTENTS

Page

APRIL RATES OF PRODUCTION of airplanes, of combat vehicles, and of Army-type guns were each about one third of their respective scheduled peak production rates under existing contracts according to newly constructed indexes of production. April production, however, was between 75 and 100 percent higher than average monthly production during the ten months since the start of the defense program. 2

OVER 40 PERCENT of the funds appropriated for Defense Aid have not yet been allocated to purchasing departments or agencies. At the end of the first two months, despite the urgency of the program, only 16 percent of the $752 million authorized for new facilities had been allocated. 5

WATER-BORNE IMPORTS will have to be reduced to less than half the 1940 level if limited to present American flag vessels. 7

CIVILIAN AND MILITARY WOOL REQUIREMENTS for fiscal year 1942 cannot be met by domestic production plus imports at the current rate. Domestic production is not expected to meet more than 51 percent of the total requirements while the shipping situation makes it difficult to predict the amount of imports. 10

DEFENSE PROGRESS DATA 14

SUMMARY OF DEFENSE PROGRESS

NUMBER 42 MAY 31, 1941

PRODUCTION OF SELECTED DEFENSE EQUIPMENT

Existing programs call for the ultimate delivery of 76,000 airplanes and some $7½ billion of Army-type guns and combat vehicles to the United States and Great Britain. In the past 10 months Congress has provided funds for the purchase of 61,000 planes, $4 billion worth of Army-type guns, and $0.5 billion worth of combat vehicles, but at the end of April only 41,000 planes, $1.5 billion guns, and $0.3 billion combat vehicles had been ordered.

Newly constructed index numbers comparing April production, average production per month during the first 10 months of Fiscal Year 1941, and scheduled peak production under existing orders for these three major items are shown in the accompanying chart. Separate indexes are provided for airplanes, Army guns, and combat vehicles. Indexes of Fiscal Year 1940 production of military airplanes, Army guns, and combat vehicles are not shown since production was too small to be significant.

Each index represents the number of units produced, adjusted to take account of the importance of the different types of planes, guns, and vehicles. a

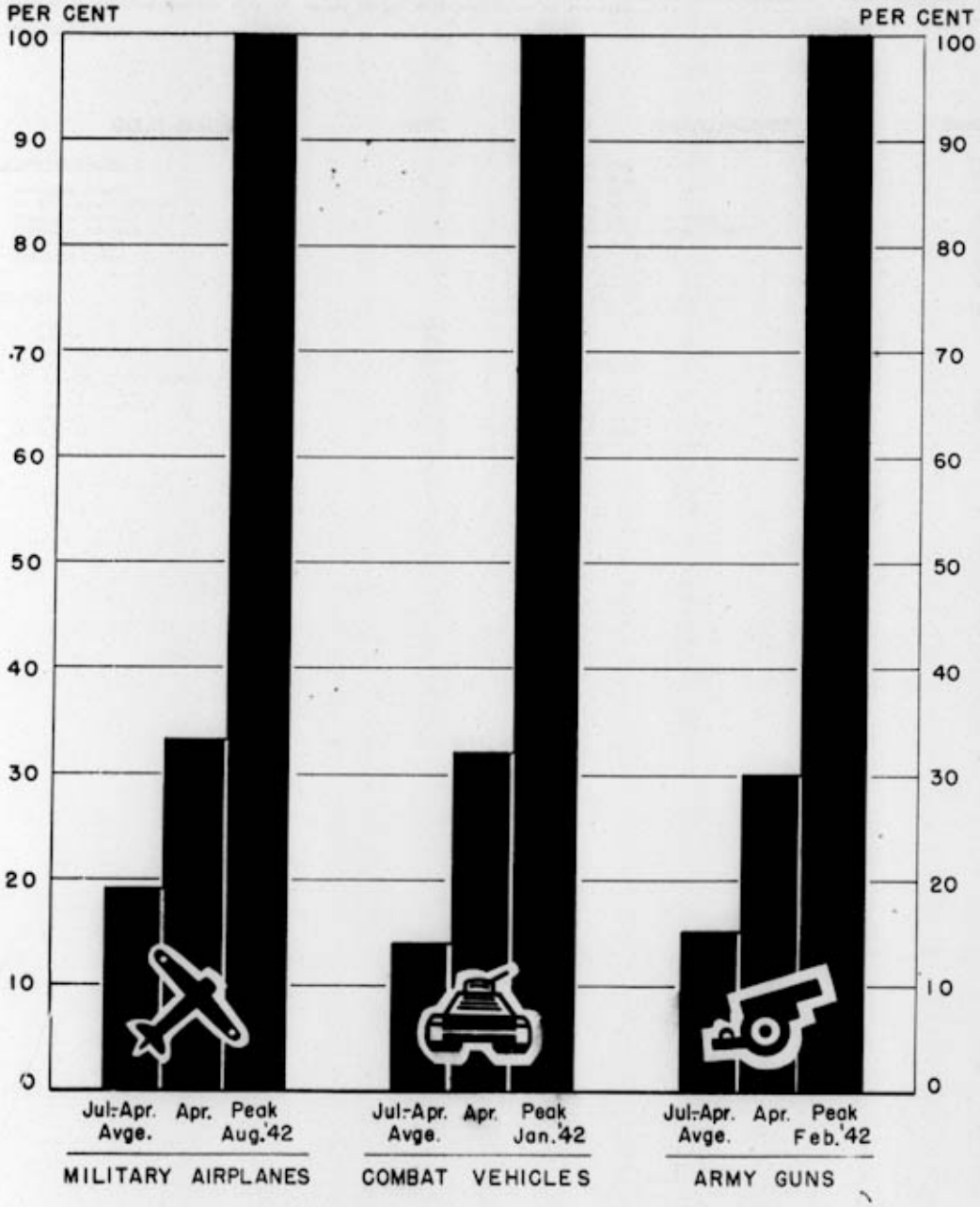
Airplanes. The airplane index will reach a peak in August 1942 under existing contract schedules. At present, the production index is one-third of the peak rate. However, there has been an increase in production during the 10 months between July 1940 and April 1941, with the result that April production of airplanes was about 75 percent greater than the 10-month average.

Combat Vehicles. The index of combat vehicle production indicates that April production was only a third of the scheduled peak production in January 1942. April production, however, was more than twice average production during the past 10 months, primarily due to the rapid progress of the light scout car program. Present schedules for these light scout cars will be completed by the end of June 1941.

Guns. The index of production of Army-type guns in April was the lowest, relative to the peak (February 1942), of the three indexes. Production during this month was only 30 percent of the scheduled peak production but was twice the average monthly production since July. The index for Army-type guns includes all guns produced for the U. S. Army (exclusive of airplane ordnance), field artillery and small arms for "Defense Aid", and guns purchased by the Army for the Navy.

Similar indexes are now in the process of computation for the naval ship program, merchant ship program, and for defense construction. These indexes and indexes covering other details of the program will be presented in subsequent issues.

INDEXES OF
PRODUCTION OF AIRPLANES, COMBAT VEHICLES, AND GUNS



A Military airplanes are in terms of numbers produced, adjusted for the size of the plane. Gun production is adjusted for the range, rapidity of fire, and weight of projectile of each type gun. Adjustment has been made for modernization or modification of existing armament which is usually an easier production problem than production of new equipment. Combat vehicles production is adjusted for the size and weight of the different types of vehicles.

The table below indicates the weights used in computing the three index numbers:

TYPE OF EQUIPMENT	WEIGHT
MILITARY AIRPLANES	
4-Engine Bomber	4
2- & 1-Engine Bomber	2
2-Engine Pursuit	2
1-Engine Pursuit	1
Other Tactical	1
Training Plane	1
ARMY GUNS	
8" Gun	2,269
8" Howitzer	925
240 mm Howitzer	1,357
155 mm Gun	800
155 mm Gun (modification)	212
155 mm Howitzer	110
105 mm Howitzer	1,018
90 mm Gun, AA	1,316
3" Gun, AA	647

TYPE OF EQUIPMENT	WEIGHT
75 mm Gun	333
75 mm Howitzer	508
81 mm Mortar	16
60 mm Mortar	8
37 mm Gun, Anti-tank	77
37 mm Gun, Anti-aircraft	339
37 mm Gun, Tank	33
.50 cal. MG, AA	98
.50 cal. MG	94
.30 cal. MG	17
.30 cal. MG (modification)	8
.45 cal. Sub-MG	12
Rifle, M1	3
COMBAT VEHICLES	
Heavy Tanks	50
Medium Tanks	30
Light Tanks	13
Scout Cars	6
Personnel Carriers	9

THE STATUS OF THE DEFENSE AID PROGRAM

Over 40 percent of the funds appropriated for Defense Aid have not yet been allocated to purchasing departments or agencies, although it is now two months since the Lend-Lease Act was approved. However, the individual agencies to which funds have been allocated, have not delayed in making contracts and commitments.

On May 15, despite the urgency of the program, only $4.1 billion of the available $7 billion had been allocated to the War, Navy, Maritime Commission, or other United States agencies for purchasing the equipment or supplies authorized in the Lend-Lease Act. As can be seen in Table 1, very small progress had been made up to May 15 in allocating funds for one of the most important items - new industrial facilities. Up to that time only $122 million (16 percent of the total) of the $752 million authorized for new facilities had been allocated. Between May 15 and May 21 an additional $10 million was allocated for the following purposes: $4 million for facilities, making the total allo-

TABLE 1 - ALLOCATIONS OF FUNDS FROM DEFENSE AID ACT AS OF MAY 14, 1941

Object	Total authorized Funds	ALLOCATIONS TO AGENCIES					
		Total	War	Navy	Maritime Comm.	Treas.	Agric.
	(MILLION DOLLARS)						
Ordnance	1,343	896	641	255	-	-	-
Aircraft	2,054	1,904	1,802	99		3	
Tanks & Vehicles	362	290	290	-	-		
Vessels	629	541	-	41	500		
Misc. Military	260	119	103	12	-	4	-
Ind. Facilities	752	122	23	49	50		
Agric. Commod.	1,350	228	2	51	-	134	41
Testing & Repair	200	29	4	21	4		
Expenses	40	3	3	-	-		
Administr.	10	-	-	-	-		
Total	7,000	4,132	2,868	528	554	141	41

cated by May 21, $126 million and $5 million additional for vessels making the total allocation $229 million.

Reports from the Army and the Maritime Commission reveal that on May 15, between 95 and 100 percent of the funds allocated to these agencies for the purchase of supplies and equipment, or the construction of facilities, had either been placed under formal contract or were covered by letters of intent. Small remaining balances are being held free for spot purchases of supplies or for repairs to existing equipment. Similar information is not yet available for the Navy.

ESTIMATED IMPORT CAPACITY OF AMERICAN FLAG VESSELS FOR CARRYING DRY CARGO IMPORTS

If the United States should be compelled to carry all its imports in American flag vessels, there would be a shortage of shipping capacity which would necessitate reducing total water-borne imports by more than 50 percent below the 1940 tonnage. Sufficient American-flag tonnage, however, is available for carrying all the required strategic and critical defense materials, and about half of the essential items. During 1940 a total of 26,000,000 long tons of dry cargo was imported into the United States, of which only 9,700,000 tons or 36.8 percent was carried by

TABLE 1 – ESTIMATED IMPORT CAPACITY OF AMERICAN FLAG DRY CARGO VESSELS & REQUIREMENTS FOR IMPORTED STRATEGIC, CRITICAL AND ESSENTIAL MATERIALS

Present Area of Operation	Approximate Dry Cargo Tonnage in Trade [A]	Turn-Arounds Per Year	Approximate Annual Import Carrying Capacity of Dry Cargo Fleet on Present Routes	Required Imported Materials 1941			Imports of Dry Cargo Carried by Amer. Flag Vessels 1940
				Strategic & Critical	Essential	Total	
	Thousand Long Tons		(Thousand Long Tons)				
Latin America:							
A. East-West Coasts	465	5 – 6	2,300 – 2,800	2,000	3,300	5,300	3,300
B. Nearby [B]	396	12 – 15	4,800 – 5,900	1,800 [B]	2,400 [B]	4,300 [B]	3,500
Far East	920	2 1/2-3	2,300 – 2,800	2,400	2,100	4,500	1,700
Europe	34	4 1/2-6	150 – 200	250	560	810	500
Africa	380	2 1/2-3	950 – 1,100	1,300	90	1,390	700
Total	2,195		10,500 – 12,800	7,750 [C]	8,450	16,200	9,700
Around World Trade	113						

[A] Freighters only: one-third the gross tonnage added to approximate dead weight or long tonnage. The estimated carrying capacity is based on number and overall size of vessels in each trade as shown by the Maritime Commission's Report No. 300, March 31, 1941.

[B] Includes Central America, Caribbean area, North Coast of South America and Newfoundland, Canada, and Mexico. Assuming that a large part of the Canadian and Mexican trade can be carried by rail, the requirements from those countries have been omitted.

[C] Includes copper and nitrates which were designated as critical materials by Public No. 664, 76th Congress.

American flag vessels.

Table 1 shows, by trade areas, the required imported tonnage of strategic, critical, and essential materials for 1941, the estimated capacity of American flag freighters for carrying dry cargo imports, and the total tonnage of dry cargo imports carried by American flag vessels in 1940.

The table indicates that there is an excess carrying capacity for overseas cargo of 2,700,000 to 5,000,000 long tons over the required tonnage for strategic and critical materials. The estimated requirements include some 2,000,000 long tons to complete governmental stockpiles during 1941, and additional tonnage to meet all industrial needs for the year. When essential materials are included in the requirements, there is a calculated overall shortage of from 3,400,000 to 5,700,000 long tons for the calendar year 1941.

British, Norwegian, Greek, Panamanian, and other flag vessels carried 63 percent of the total imported tonnage in 1940. If no foreign tonnage were to be available after June 30, 1941, there would be a deficit of the order of 4 to 6 million tons for the fiscal year 1941-1942.

The only trade area in which there is excess capacity for the three categories of materials combined is nearby Latin America. Part of the indicated excess in this area arises from the omission of Canada and Mexico on the requirements side, on the assumption that the bulk of materials from these areas can be transported by land. All other trade areas indicate a serious shortage of shipping for the combined materials.

The shipping shortage indicated by the table, is probably understated because the calculated carrying capacity of American-flag vessels is based on a full load for each voyage, more or less on a port to port (bilateral) call. In practice, much ocean shipping is indirect, or of a triangular nature, the vessels frequently returning to the home port partially loaded.

Moreover, during the first quarter of 1941 only 17 percent of the required tonnage of strategic and critical materials were imported into the United States, although a considerably larger percentage of some of the essential materials, such as coffee, were imported during the corresponding period. In order to obtain vital defense materials official priorities, as anticipated in the Bland Bill, which has already passed the House, will be invoked.

A further possible adverse factor may be introduced into the situation by sinking losses.

There are some factors, however, which may tend to remedy the deficiency aspects of ocean shipping. First, some additional space in American-flag vessels may be provided by the 113,000 long tons which represent 14 freighter vessels operating in "around the world" trade during the first quarter of 1941. The annual carrying capacity of these 14 vessels is sufficient, if placed in the African trade approximately to supply the indicated deficiency of that area. Second, some tonnage of strategic, critical and essential materials may be carried by combination passenger and freight vessels which are not included in the tabulation. Third, some overseas tonnage may be supplied by transfer of domestic coast-

wise vessels to foreign trade. Fourth, the launching of new vessels and foreign tonnage, tied up in American waters, will supply some additional shipping for imported defense materials. Fifth, the essential materials constitute more than 50 percent of the total of the required tonnage of the three categories of materials in 1941. There are various degrees of importance among the materials classified as essential, and some space may be conserved through the elimination of the "less essential" items. The essential materials with the tonnage required in 1941, are as follows:

Essential Materials	Required long tons 1941
Sugar	2,600,000
Iron Ore	2,500,000
Coffee	890,000
Coke	535,000
Zinc Concentrates	297,000
Coconut Oil & Copra	250,000
Burlap	238,000
Other	1,140,000
Total	8,450,000

Sixth, total imports of dry cargo into the United States amounted to 26,000,000 long tons in 1940, of which 63 percent was carried by foreign flag vessels. This total in 1940 was 10,000,000 tons, over and above the tonnage requirements for strategic, critical, and essential materials in 1941, and is composed of thousands of items, such as lumber, salt, long staple cotton, fertilizer materials, not encompassed in any category of defense materials. In an official priorities system, a large proportion of this tonnage devoted to other than defense materials may be eliminated.

WOOL: ESTIMATED REQUIREMENTS AND SUPPLY 1941 and 1942

The civilian and military wool requirements for fiscal year 1942 cannot, it is estimated, be met by domestic production plus imports at the current rate. Although the United States is one of the principal wool-growing countries in the world, domestic production in fiscal year 1941 is expected to meet only about 55 percent of total requirements; and in fiscal year 1942 is not expected to meet more than 51 percent of the total requirements on the basis of a 1.9 million-man army; and only 43 percent of the total requirements on the basis of a 2.8 million-man army. If plans should be laid for a 4 million-man army, estimated wool production could not account for more than one-quarter of the total fiscal year 1942 requirements.

Table I and Chart 1 show the estimated civilian and military requirements and the United States production for fiscal years 1941 and 1942.

The domestic capacity to produce wool cannot be substantially increased in less than two years, though some increase could, in case of emergency, be effected in one year. To increase the number of sheep (wool capacity) substantial price increases for both wool and lamb must be offered as inducements to sheep growers. Prices of wool and lamb would have to be considerably higher than at present and give promise of remaining higher for some time before sheep raisers could be induced to bring about any significant increase in their flocks. While the possibility of increasing the number of sheep grown in the United States warrants further consideration, particularly with respect to how such an increase could be induced in an emergency, no substantial increase in the United States wool production may be reasonably ex-

TABLE 1 - UNITED STATES REQUIREMENTS AND PRODUCTION OF WOOL

Year	Requirements			United States Production	Production as Percent of Requirements
	Civilian	Military	Total		
	(Million Pounds)				
FY 1941	620[a]	244	864	476	55
FY 1942 (1.9 million-man army)	670[b]	259	929	485	51
FY 1942 (2.8 million-man army)	670[b]	464	1,134	485	43

[a] Based on estimated national income of $80 billion dollars.

[b] Based on estimated national income of $90 billion dollars.

pected in the near future. Hence, deficiencies of wool must as usual be provided by imports.

In fiscal year 1941, United States imports are estimated at 402 million pounds. Imports in 1942 will have to be a minimum of 432 million pounds if requirements for a 2.8 million- man army are considered. Moreover, if, during this period, dealers stocks are to be maintained at the level of the past few years, an additional 250 million pounds must be imported. If the military requirements should be raised to provide for a larger armed force, imports may have to be increased substantially. Imports necessary to meet these requirements, assuming stocks of 250-million-pounds, are shown in Table 2 and Chart 2.

TABLE 2 —APPAREL WOOL: DEFICIENCY OF UNITED STATES SUPPLY OF WOOL DURING FISCAL YEARS 1941 AND 1942 AND ESTIMATED MINIMUM IMPORTS REQUIRED TO MEET DEFICIENCY DURING FISCAL YEAR 1942

(million pounds - greasy shorn equivalent)

	FY 1941	FY 1942 (1,900,000 Man Army)	FY 1942 (if P.M.P. 1942 Augmented to 2,800,000 Men)
Total National Requirements	864	929	1,134
Civilian	620	670	670
Military	244	259	464
Estimated Supply			
U. S. Production	476	485	485
Stocks, March 30, 1940	196 a	217 b	217 b
Total U. S. Supply	676	702	702
Deficiency of U. S. Supply	192	227	432
Estimated Imports during 1941	402		
Surplus	210		
Minimum Imports Required To meet deficiency		227	432
To meet deficiency and provide for stock of 250 million pounds		477	682

a Official data—Department of Commerce as of June 29, 1940; does not include stocks of British-owned wool in warehouses.

b Computed surplus fiscal year 1941, allowing for imports during fiscal year 1941.

Supplies in the leading export countries are abundant, and the potential capacity of foreign areas to supply United States requirements has been enhanced by the loss of their outlets for about one billion pounds in the European market because of the British blockade. There may, however, be a real problem in obtaining ships to handle the greatly increased imports needed for the expanding requirements.

CHART I- ESTIMATED REQUIREMENTS AND SUPPLY OF WOOL
(Greasy Basis)
FISCAL YEARS 1941 AND 1942

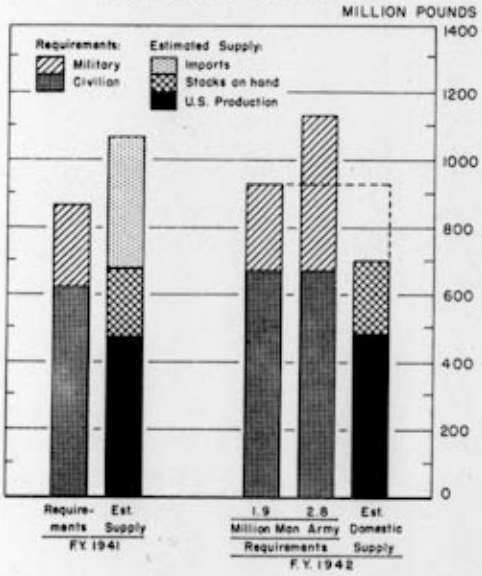
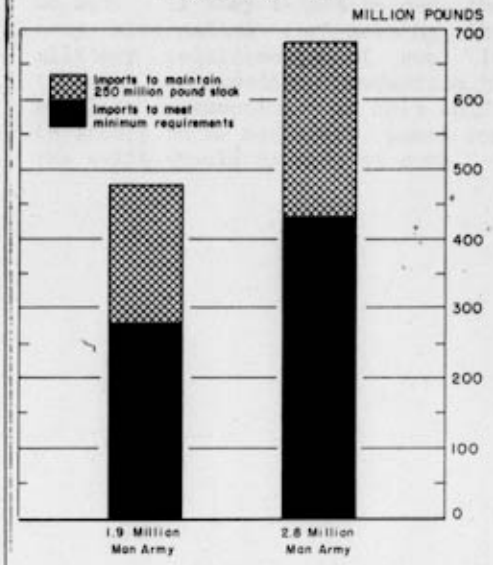


CHART 2 - ESTIMATED DEFICIENCY IN DOMESTIC WOOL SUPPLY
(Greasy Basis)
FISCAL YEAR 1942



By December 31, 1941, it is expected that all wool under the terms of the Australian Wool Agreement will have been delivered to the United States. The completion of these deliveries will provide a stockpile of 250 million pounds, -- equivalent to our average annual carry-over.

According to the terms of the original wool agreement, this wool was to have been delivered in the United States by June 30, and it was

to have been delivered in British bottoms. British ships, however, have not been able to make these deliveries, and, as a consequence, United States lines have carried most of the wool. If wool requirements are increased to satisfy the needs of a 2.8 million-man army, this will put further strain upon the existing shipping facilities.

It becomes increasingly clear that all of the demands upon shipping for strategic, critical, and essential materials are not likely to be met. If they cannot be met, the only alternative for meeting the military requirements of wool is through an immediate reduction in civilian consumption. If this shift is likely to be necessary, plans for the shift should be made at once.

DEFENSE PROGRESS SERIES

Agency and Object	1940 July	1941 January	March	April	Week Ending May 17	May 24
TOTAL UNITED STATES DEFENSE PROGRAM* b						
UNITED STATES ARMED FORCES c		(Thousands, officers and enlisted men)				
Army	289	693	1,004	1,211	1,321	
Navy and Marine Corps	P 196	E 271	E 293	P 296		
Total active strength	P 485	E 964	E 1,297	P 1,507		
FINANCIAL PROGRAM		(Million dollars to date)				
Total authorized program d	14,968	26,663	35,470	39,771	P 39,771	P 39,771
Total contracts + payroll	P 3,379	P 15,514	P 18,127	P 19,710	P 23,773	
Total cash disbursements	571	4,084	5,969	7,047	P 7,660	
A G E N C I E S						
U. S. MILITARY						
ARMY - Program	2,620	8,377	9,239	13,135	13,135	P 13,135
Contracts + payroll	582	5,951	7,091	7,334	7,801	
Cash disbursements	78	1,241	2,209	2,768		
NAVY - Program d	9,425	11,127	11,530	11,825	13,633	P 13,633
Contracts + Payroll	1,515	6,009	7,213	7,629	7,840	
Cash disbursements	84	1,021	1,480	1,771		
TOTAL- Program	12,045	19,504	20,769	24,960	26,768	P 26,768
Contracts + payroll	2,097	11,960	14,304	14,963	15,641	
Cash disbursements	162	2,262	3,689	4,539		
DEFENSE AID (Land-Lease)						
Program			7,000	7,000	7,000	7,000
Allocations g			n.a.	n.a.	P 4,132	
Contracts h			n.a.	n.a.	P 3,373	
Cash disbursements			0	0	P 1	
BRITISH PURCHASES						
Program						
Contracts	1,282	3,426	3,649	3,710	P 3,710	
Cash disbursements	396	1,538	1,824	1,928		
MARITIME COMMISSION i						
Program f	840	840	1,154	1,154	P 1,154	P 1,154
Contracts	n.a.	n.a.	n.a.	810	P 810	
Cash disbursements	8	83	107	121		
DEFENSE HOUSING PROGRAM						
Program	0	325	330	330	330	344
Contracts j	0	128	174	227	239	245
Value in place	0	n.a.	n.a.	n.a.	n.a.	n.a.
Cash disbursements	0	n.a.	n.a.	n.a.	n.a.	n.a.
OTHER AGENCIES k						
Program	801	2,568	2,568	2,617		
Cash disbursements	5	201	348	455		

* Data are as of the close of the month or week or nearest available date.

P Preliminary data E Revised data n.a. Data not available

(Continued on next page)

Object	1940 July	1941 January	March	April	Week Ending May 17	Week Ending May 24
	(Million dollars to date)*					
AIRPLANES, ENGINES, ETC.						
Program	1,564	4,476	6,711	8,132	8,248	P 8,248
Contracts	889	3,852	4,069	4,172	4,291	
Cash disbursements	n.a.	778	1,076	1,262		
NAVAL SHIPS & PARTS						
Program	5,765	6,005	6,288	6,348	6,736	P 6,736
Contracts	1,207	4,500	4,500	4,527	4,543	
Cash disbursements	29	321	440	506		
MERCHANT VESSELS						
Program	848	984	1,929	1,939	P 1,939	P 1,939
Contracts	n.a.	n.a.	n.a.	n.a.	n.a.	
Cash disbursements	n.a.	151	186	205		
ORDNANCE						
Program	2,805	4,707	6,530	7,754	8,120	P 8,120
Contracts	367	2,491	3,437	3,725	3,939	
Cash disbursements	n.a.	460	641	767		
OTHER EQUIPMENT						
Program	640	1,974	2,712	3,037	3,038	P 3,038
Contracts	434	1,808	2,000	2,064	2,120	
Cash disbursements	n.a.	1,014	1,434	1,687		
PAY, SUBSISTENCE, & OTHER SERVICES						
Allocated funds	1,834	3,846	4,768	4,988	5,668	P 5,668
Cash disbursements	n.a.	598	870	1,026	1,112	
ACCND STOCKPILE PROGRAM						
Stockpile program	390	485	485	485	485	485
Purchases under program	50	237	312	325	328	328
Purchases in excess of program	0	39	76	76	85	128
Deliveries	26	106	133	149	154	157
CONSTRUCTION						
INDUSTRIAL FACILITIES						
Program	395	2,437	3,370	3,965	3,965	P 3,965
Contracts	110	1,397	1,724	1,749	P 1,933	
Value in place	n.a.	n.a.	n.a.	n.a.	n.a.	
Cash disbursements	n.a.	243	381	490		
POSTS, DEPOTS, HOUSING						
Program	727	1,749	2,677	3,123	3,420	P 3,420
Contracts	230	929	1,590	1,711	1,734	
Value in place	n.a.	n.a.	n.a.	n.a.	n.a.	
Cash disbursements	10	519	941	1,104		

* Data are as of the close of the month or week or nearest available date.
P Preliminary data R Revised data n.a. Data not available

(Continued on next page)

Object	1940 July	1941 January	March	April	Week Ending May 17	Week Ending May 24
CERTIFICATES OF NECESSITY APPROVED AND PENDING		(Million dollars to date)*				
Total applications			1,034	1,113	1,232	
Approved, private funds			628	E 702	747	
Approved, public funds			187	E 194	200	
Pending			217	213	281	
DEFENSE HOUSING 1		(Number of housing units)				
Fund allocations		56,528	80,183	86,361	96,286	96,560
Construction contracts		36,191	48,416	60,293	68,866	70,630
Construction completed		1,314	5,424	9,024	10,712	13,011
PRIORITY CERTIFICATES & EXTENSIONS ISSUED			(Number)			
Total			75,709	131,208	186,235	200,258

Series	1940 July	1941 January	March	April	Week Ending May 17	Week Ending May 24
ECONOMIC ACTIVITY RELATED TO DEFENSE						
INDUSTRIAL ACTIVITY			(Indexes)			
Durable mfrs. (1935-9=100) 2	112	121	127	130		
Nondurable mfrs. (1935-9=100) 2	132	170	170	166		
Total industrial prod. (1935-9=100) 2	121	139	143	139		
Durable inventories (12/31/38=100) 2	111.9	129.7	132.1			
Nondurable inventories (12/31/38=100) 2	106.4	111.2	111.9			
BLS PRICE INDEXES			(Indexes)			
Strategic materials (8/39=100)	123.8	E 126.1	131.9	135.9	E 139.2	139.0
Critical materials (8/39=100)	107.6	111.5	E 112.0	112.4	112.8	113.6
Basic commodities (8/39=100) 9	108.3	E 120.5	E 129.7	136.9	143.9	144.3
Machine tools (8/39=100)	108.7	114.6	115.1	116.4	E 143.5	
All commodities (1926=100)	77.7	80.8	81.5	E 83.2	84.6	85.0
NICB COST OF LIVING INDEX (1923=100)	85.7	86.0	86.3	86.9		
FEDERAL DEBT			(Billion dollars, end of month)			
Net public debt 8	41.5	43.9	44.4	44.8		
NATIONAL INCOME			(Billion dollars, annual rate)			
Total income payments	73.3	79.4	80.3			
EMPLOYMENT 3			(Thousand men)			
Private, major defense industries 4	E 315	E 882	E 966	E 976		
Public defense 8	E 121	E 198	E 211	E 208		
Total direct defense	E 436	E 1,080	E 1,177	E 1,184		
			(Date nearest 15th of month)			
Total civil nonagricultural	35,454	P 36,621	E 37,227	P 37,617		
W. P. A. employment 4	1,659	1,834	1,764	1,607	1,497	1,474
UNEMPLOYMENT (NICB Estimate)			(15th of month)			
Number of unemployed	8,566	7,367	6,142			
LABOR DISPUTES 3			(Monthly figures)			
Number of strikes in progress	290	E 322	E 475	590		
Workers involved (thousands)	76	108	P 165	555		
Man days idle (thousands)	552	E 662	1,400	7,800		
Strikes beginning in month	182	E 213	330	400		

P Preliminary data E Revised data n.a. Data not available

* Data are as of the close of the month or week or nearest available date.

(Continued on next page)

Defense Progress Data

New and Revised Footnotes

The regular footnotes to Defense Progress Data appear on pages 23-4 of Issue 41.

4 Weekly figures are as of May 14 and May 21.

5 Federal Reserve Board seasonally adjusted indexes.

v Contract awards made by the War and Navy Departments and Maritime Commission and letters of intent issued by the War Department and Maritime Commission. No data are available on Navy Department letters of intent.

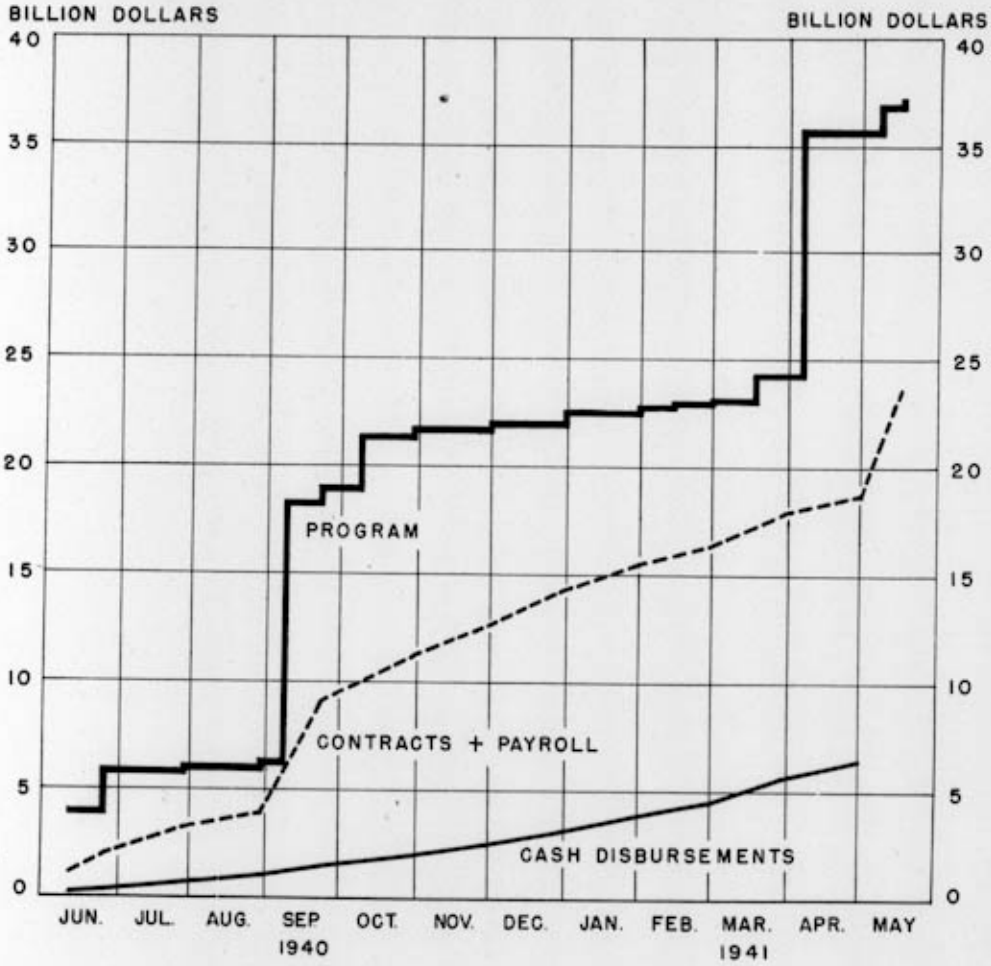
k The commodities in excess and the value of their excess purchases were: antimony, $3 million; manganese, $44 million; quinine, $.5 million; and tungsten, $80 million.

t Includes employment in aircraft, shipbuilding, machine tools, aero-engines, aluminum, explosives, and construction. Figures are for payroll nearest the 15th of the month.

u Civilian employment in arsenals and navy yards, on force account construction, and on WPA construction. Figures represent average weekly employment during the month.

a Allocations of funds to purchasing agencies or departments.

CHART I — ENACTED DEFENSE PROGRAM *
AND CONTRACT AWARDS FOR DEFENSE PURPOSES
JUNE 11, 1940 — MAY 15, 1941



* Army, Navy, Defense Aid and British Programs