I have just had word from Chicago that a full
taken out in the words
shows Courtray well ahead, Thompson second
and Kelly a close fourth.
H. T. F.
THE WHITE HOUSE
WASHINGTON

Miss Bertrin looks like greenhouse or something
Found in Rm. 2k in Rm. Ros.

(Time Marshall)

Found by Beth Decker.

Refiled in Frances Perkins file.

Forward at a better place!

My dear Mr. Perkins,

I am addressing this letter to you because women are much more minded than men. This morning's news contained information of a proposed legislation to draft all men between the ages of 18 to 65 for military duty.

This in my estimation is extremely cruel and a disgrace to American civilization and humanity. Those tottering old men who have lived and worked their life and whose heart action begins usually to fail at such an age and who are not entitled to take a rest should not be subjected to such cruelty at such an age. Dear dear, dear Mr. Perkins use your influence with the President I beseech you to spare the old folks.

Sincerely,

Delia Williams
21 Marlowe Rd
Torrence MD
CITIZENS UNEMPLOYED RELIEF LEAGUE
A Non-Partisan Economic Organization

571 Clinton st.
BUFFALO, N. Y.

Dear Representative;

For what reason should this nation interfere in this European war 3,000 miles away, and direct our nation's energy and effort in behalf of some foreign nation at the expense of the unemployed people that are in need and lacking of income ever here.

We participated in the last world war and we didn't solve the European problem, then why should we become a part of this war again? when our nation's energy is needed at home in behalf of the people that are in need ever here.

There is only one way to solve our national problem and that is by establishing constant security for each man and woman with constant and equal income according to the general individual needs and plus an income for each child born, when there is security there is unity, that is the "backbone" of the nation's defense, when there is a lack of income the nation is divided and lacking of unity due to unequal income.

For instance an individual who gets an income beyond his daily needs, as an example let us take Mr. Alfred P. Sloan Jr., who is reported to receive an income of $515,000 yearly, now at $1,000 a year Mr. Sloan would do 515 people out of an income, and then take those people that get a million a year constantly, they would do 99,000 people out of income and one that gets $10,000 a year would do nine people out of income etc. if the individually accumulated money is not turned back into capital it naturally stops the circulation of commodities and this increases more unemployment and poverty due to lack of income on the one hand and surplus money and goods on the other.

Money don't do any body any good lying in the bank or in the ground in Kentucky, unless every one has an equal surplus of money in the bank then every one would be able to buy because each and every one would have an equal buying power, just because there is no work that is no reason why the incomes of the men and women in this country should be cut off, that day has passed, because we are in a new stage of industrial development; 50,000,000 people today can produce as much as 45,000,000 people 20 years ago, what is needed now is a constant equal income for every one.

We had hopes in this administration but it looks like it is a failure.

Respectfully,

The Citizens Unemployed Relief League

W. Bennett Rec. Sect'y

PLEDGED TO COOPERATE WITH ORGANIZED LABOR
Read this recommendation and mail it to your Honorable Representative.

The Citizens Unemployed Relief League condemns the economy of the Republican and Democratic parties, also, the idea of raising funds to help other foreign nations while the unemployed here have to remain on low rations and a low standard of living. What is the reason for the discrimination? Who is trying to wiggle this nation into the European war? What we want is more economics right here.

Gentlemen, the problem is over here, not over there. We unemployed need an income like other citizens, a year-round income of $1500.00 for every single individual and $1500.00 for married couples, for each man and wife and added income for each addition to the family, payable on a weekly basis in checks cashable at any bank. Also, provide an increase in income after the first year to meet the cost of living and then increase the total production to meet the national total income. This would mean security, the income we are now asking for we have paid for thru low wages.

What is the reason for maintaining poverty in the land of plenty? Surely it isn't due to the lack of money or man power, and we know it isn't due to lack of industrialization of the means of production. The fact is they are running on part time and producing a surplus of goods on the market. What is needed today to equalize the buying power in this nation is to raise all the incomes of the lower class to a higher level and the higher ones down to a lower level, also put the unemployed people back on the same level of a buying basis by means of unemployment insurance. This would keep all the people on a buying basis and help to stave off the depression, the cause of which is surplus goods on the market.

We now recommend to Congress: to combine two organization, the Local Welfare Dept. and the Unemployed Social Security Act into one, the funds of these two organizations into one Federal Unemployed system. This in itself would help to increase the individual benefits, the balance to be appropriated by the Government which would be enough to meet the needs of all unemployed for the year.

Under our present duplicated systems, neither of these agencies is enough to maintain an individual in good health, the hospital records proving these facts. The local, state or federal governments gain nothing from it. The State pays in the end thru Hospitalization, the state hospital, and thru the increased cost of crime.

The reason for working people having a low buying pow or is that the employing class does not pay the laboring class enough money in relation to the amount of wealth produced. That is why the national wealth is concentrated in the hands of a few people — due to low wages and the private ownership of the means of production. When we have over-production, we have depression.
Then there are only a few people left to do all the buying, because they have all the money. When the laboring class stop working they stop buying as their incomes were just large enough to carry them thru while they were working. There you have the reason for the nation's surplus on one hand and poverty on the other; all due to unequal incomes, private capital is responsible for the depression, for stopping circulation of consumptive goods, by cutting 1/3 of people from buying and by paying low wages.

According to the World Almanac from 1920 to 1938 there were 28,000 or so business failures a year; in other words it was caused by the over-expansion of private business enterprises and over-capitalization in the means of production and not enough money being spent on wages to buy the consumptive goods. This was all due to the profiteering system, and results in idle money, idle men, and poverty because a few men want to hog it all. Besides, there is more than plenty for all. There is too much individuality--meaning just for a few.

Now the employing class wants the co-operation of the laboring class. Labor co-operated right along and the employers got all the benefits. How about the employers co-operating by lowering their incomes to the level of the working people? --- and to be one of the boys equals and take part in the production? Then we want an equal right and equal interest in the means of production without buying stocks or bonds as we have paid for all that thru low wages. Give us records of income and cost of production. On that basis we can cooperate only --- on a national plan of economy.

We have further suggestions:-- Free all idle money and private capital, trust funds, interest on money and profits of private business ever and above the cost of production. Also, let's have individual savings over $1,000.00 turned over into a national fund under Federal employment insurance on a national and local collective benefit system for each individual man or woman that is out of work. This to include the aged, sick who would receive the standard wages and hospitalization, also hospital improvements and other health benefits without any red tape.

Free the land from the control of the few for the public, the people to have the use of the land. One half of the population today are rent-payers. Then the other half of the population should be free from taxation and to be renters like the rest of the rent-payers. The rents now to be paid into a local public collective fund to be used for housing, schools, hospitals, roads and this Department would also keep up property on a collective basis. The policy of this Department would be determined by the vote of the people which would do away with two collective agencies.

Back to work! If the industries cannot employ all the working population at one time, we suggest that the able unemployl and not too old work, thereby relieving the people that are now working and let them go on a vacation with pay for from four to six months. That is the stage we are in in America and has been for the last ten years. In the development of the means of production one third can go on a vacation with pay while the other two thirds of the population remain at work. This is the only way to bring about a balance between the rich and poor --- each and every citizen to have an equal income, to have equal buying power, not we are on equal footing and with equal rights, this should be the American way without favoritism.
The incomes of general managers of industries should not be over $500.00 per year above other workmen in the shop, and should also apply to Government representatives. Their incomes should not be more than $2,000.00 per year above expenses above the American income.

The cause of all isms, foreignisms, Nationalism, Communism, and Nationalism or other isms, are the outgrowth of our own American conditions due to lack of income and security. Then why not prove the conditions.

We condemn anyone, whether an American citizen or a foreigner, who stands for a low standard of living for us.

Our federal laws should be based on the presented conditions, that we have outlined above. We expect your cooperation to improve our conditions.

Name: ________________________________

Address: ______________________________
CROSS REFERENCE SHEET
NATIONAL DEFENSE

FILE UNDER

FROM:

DATE

TO:

DATE

SUBJECT:

NAMES OF PERSONS WHO OFFER SERVICES DURING EMERGENCY

George M. Glenn, (Pensions-Misc.)
Mrs. Ernest F. Eidlitz (Misc)
Robert F. Valentine (Misc)

James J. Bambrick, Jr. (Civil Service Comm)

PAPERS FILED UNDER

SEE ALSO:
June 18th, 1940.

Madam Frances Perkins,
Secretary of Labor,
Washington, D. C.

My dear Miss Perkins:

In response to the request of President Roosevelt to all citizens of the United States to cooperate fully with our Government in our present defense plans, may I, on behalf of the entire membership of the Golden Slipper Square Club, through you, offer our services in any capacity the Government may call upon us to serve.

Our membership, as you no doubt recall, consists of 1200 business and professional men, comprising a good cross-section of Philadelphians.

Yours for a Greater U. S. A.

Cordially,

AJS:A

Albert J. Sylk
American Federation of Labor

Executive Council
President, William Green
Secretary-Treasurer, General Grant
A. P. of L. Building, Washington, D. C.

First Vice-President, William L. Harrison
Corporation Bldg., Indianapolis, Ind.
Second Vice-President, Y. A. Konnak
Room 90 of A. F. of L. Bldg., New York, N. Y.
Third Vice-President, Rewane Way
170 Lexington Ave., New York, N. Y.
Fourth Vice-President, James B. Carey
144 Broadway, New York, N. Y.
Fifth Vice-President, G. W. Brown
100 Fifteenth St., N. W., Washington, D. C.
Sixth Vice-President, Geo. M. Kehoe
Railway Clerks' Bldg., Chicago, Ill.
Seventh Vice-President, David J. York
22 East Madison St., Indianapolis, Ind.

Frank P. Fenton
Director of Organization
Room 409, A. F. of L. Bldg.

Washington, D. C.
June 13, 1940

Madam Frances Perkins
Secretary of Labor
United States Department of Labor
Washington, D. C.

Re: National Defense Program

My dear Madam Perkins:

I am enclosing herewith a copy of a letter to Mr. Franklin Delano Roosevelt, President of the United States of America, White House, Washington, D. C., relative to the National Defense Program.

Please be advised that this letter is sent to you for your information.

With kindest regards and best wishes, I am

Sincerely yours,

[Signature]

Frank P. Fenton
Director of Organization
American Federation of Labor
June 15, 1940

Mr. Franklin Delano Roosevelt, President
United States of America
White House
Washington, D. C.

Re: National Defense Program

My dear President Roosevelt:

It is needless for the undersigned to indicate to you their willingness to cooperate in every possible way to do everything in our power to further the National Defense Program.

All of the undersigned and many other representatives of organized labor are now sitting as representatives with the heads of the various Government agencies, such as apprenticeship training, vocational education, National Youth Administration, the Secretary of Labor's Committee for National Defense, the C.C.C., and all the organizations where the Government has recognized for a long while that labor can make a genuine contribution.

Our experience on some of these committees indicates that the approach that is made is very academic instead of realistic. They still discuss the academic question of the training of youth to learn trades from purely an academic viewpoint for the use of the hand and brain, and as a stimulant to learn the related academic subjects.

They say that the training is not to fit these workers for any particular trade, but to teach them how to use tools. I think that this is an unfortunate procedure, particularly when we all realize so earnestly that our program must be practical to meet an immediate need.

Therefore, we, the undersigned, recommend that, in order to coordinate these activities in a more realistic manner, you appoint a coordinating committee with equal representation of employers and representatives of labor, augmented with the
heads, or representatives of the heads, of the
Government organizations that are carrying on
work in the field of training young workers to
apply themselves in the field of the mechanical
arts. This committee should be empowered to
employ a coordinator.

Within the past two weeks, there have been num-
berous rumors and newspaper reports concerning
plans for civilian training in connection with
the National Defense Program. According to
these reports, the office of education is plan-
ning to keep vocational schools open this summer
for intensive training for production workers.
It also has been rumored that the National Youth
Administration is planning to train a million
young men for airplane production. This plan
seems to us to be thoroughly unrealistic. It
has been demonstrated, since the Smith-Hughes
Bill was adopted, that short training courses
are only effective if given for a certain job.

There seems to be no information of what jobs
the defense program will open up. Certainly the
three or four billions of dollars to be appro-
priated by this Congress will give employment
to less than one million men of whom approximately
ten per cent will be skilled.

These skilled workers must of necessity be re-
cruited from the unemployed and from those who
have the required training, but who are at present
engaged in other lines.

We respectfully submit that there are hundreds
of thousands of these men capable of doing the
work with perhaps a short period of adaptation
through the more specialized process. The semi-
skilled job would also be filled with these al-
ready trained workers who are registered as un-
employed with the employment service. The un-
skilled jobs require no training except the brief
period of breaking in, which I submit to you must
be done on the job to be affected, and we agree
that youth should get a share of these jobs. We
have not a youth problem, but an unemployment
problem. Consideration should be given and all men
would benefit from the training...
President F. D. Roosevelt - June 18, 1940 --
Page 3

should be registered between the ages of forty and fifty-five years, who have worked in railroads and on other employment and who were let go because of their age, but who are trained, skilled men of long years of occupational experience.

If this is the approach, then it seems to us that these rumors of huge training projects and training along these lines will only embitter youth by holding out possibilities of jobs at the end of their training period, which jobs it is apparent will not materialize in any appreciable degree.

Giving youth general training that will make them more adaptable in industry has always had the support of the American Federation of Labor, but we are definitely opposed to short-time training courses, which, in most instances, lead nowhere; and we are opposed if a job means displacement of older workers.

Schools and training centers are not the place to train for these skills. They can give the related instruction, but work experience must be had on the job under systematic apprenticeship.

The American Federation of Labor's position on the question of apprenticeship training for skilled trades is that we have always supported such a program. We will also give our assistance to any reasonable program which is necessary for national defense.

We definitely feel that organized labor should be fully represented in forming the policies and carrying out the training courses. Certainly there can be no real training without the full cooperation of organized workers at this time.

We can assure you that the cooperation will be forthcoming for any training program that is worked out on the basis of reality and on a determination of needs. However, we think that such a program should be limited to the needs necessary for national defense, and that the above-mentioned committee, which we recommend, with a coordinator,
ought to take a census on men who actually are trained and unemployed -- of men who are working in other jobs and who have training, but who cannot leave their present jobs unless they are assured of another steady position -- of the semi-skilled and specialists in industry who can be re-trained -- of the available machinery that we now have in cooperative and trade schools that receive Federal assistance.

The question of skilled trades also is determined by the locality -- some localities having a large group of unemployed, where it is possible that there might be a shortage in another.

The question of transportation and housing needs to move these workers from one locality to another is another factor. This kind of a study or census seems to be imperative.

Respectfully submitted by:

Frank P. Fenton
Director of Organization
American Federation of Labor

Robert J. Watt
International Representative
American Federation of Labor

Harvey W. Brown
International President
International Association of Machinists

THE SECRETARY OF LABOR'S ADVISORY COMMITTEE
Announces New Committee.
As another step in perfecting American defenses, the President today announced the personnel of the new National Research Committee. Mr. Roosevelt disclosed last Friday that he was setting up the committee under Dr. Vannevar Bush, president of Carnegie Institution of Washington.

Other members it was announced today will be Dr. J. B. Conant, president of Harvard University; Dr. Richard C. Tolman of California Institute of Technology; Dr. Karl Compton, president of Massachusetts Institute of Technology; Commissioner of Patents Conway P. Coe; Dr. Lyman J. Briggs, director of the National Bureau of Standards; Dr. F. H. Jewett, president of the National Academy of Sciences, and the Secretaries of War and Navy.

As his first appointment this morning, the Chief Executive saw the Big Four legislative leaders—Vice President Garner, Speaker Bankhead, Senate Majority Leader Barkley and House Majority Leader Rayburn.

As they left the White House Senator Barkley said he expected Congress to complete action this week on defense legislation, but that no plans have yet been made concerning adjournment or recess over the political conventions. He said the European situation was discussed, but the President had not mentioned today's economic conference.

Later Mr. Roosevelt was to see Chairman Norman H. Davis of the American Red Cross. In this connection, Mr. Early told his press conference that word of the pending congressional appropriation of $50,000,000 for Red Cross refugee relief had unfortunately resulted in a decline of private contributions to the Red Cross' own private funds. Actually, he said, the Red Cross needs generous response to its appeal for $20,000,000.

Among others scheduled to see the President during the day were William M. Leiterson of the National Labor Relations Board and James P. Fostel of Dillon, Read & Co.

It was believed that Mr. Leiterson was coming to the White House to discuss pending proposals for amendment of the National Labor Relations Act. Mr. Fostel has been mentioned for appointment as administrative assistant to the President.
The undersigned hereby indorse the sentiments as expressed in the "Stop Hitler Now" advertisement that appeared in newspapers throughout the country. We feel that the United States can and should devote itself to a program that will consist of building up the defenses of the United States, and of sending all the help that we can, and by that we mean planes, guns, munitions and food, to the Allied forces, so that our American youth will stay in peace on American soil.

We agree that the United States contains the richest territory for exploitation on earth today, and that there is no doubt that the international gangsters, both Communist and Fascistic, want it.

Therefore, we sincerely hope that you will use your good offices in seeing to it that as much help as possible is given to the Allied forces, so that this world may be made a better one to live in.

Very truly yours,

John F. McMahon, President
Herbert S. Bauch, Vice-President

PLEASE ADDRESS ALL COMMUNICATIONS TO J. F. McMahon, 490 - 5th Street, Brooklyn, N. Y.
June 11th, 1940

Hon. Frances Perkins,
Secretary of Labor,
Washington, D. C.

Dear Madam Secretary:

Will you please do all you possibly can immediately to speed up our national defense to a point giving us superior and larger numbers of airplanes, tanks, troops and ships than Germany, Italy, Japan and Russia all combined. The first line of our defense is helping England and France in every way possible and doing it NOW.

I do not, like some, have to wait to hear the roar of cannon on our shore, or bombs exploding in our cities to realize that we are gravely threatened.

I gladly stand ready now and always to co-operate in every way possible.

Very truly yours,

GORDON E. STRAUSE,
June 4, 1940

American Petroleum Institute
50 West 50th Street
New York, N.Y.

Mr. W. E. Boyd, Jr.
Executive Vice-President
American Petroleum Institute
50 West 50th Street
New York City

Dear Mr. Boyd:

I have great pleasure in advising you of the unanimous approval of the Board of Directors of the American Petroleum Institute by a meeting in Fort Worth, Texas, on May 29, 1940, and the subsequent approval at a membership meeting, of the following resolution:

This will acknowledge receipt of your letter of June 4th. Thank you for writing.

Very truly yours,

And at the same meeting of the Board, with like approval by a membership meeting, the following resolution was adopted:

In order to combat the conditions portrayed by the President in his public address to the citizens of the United States on the evening of May 26, 1940, and in order to afford an opportunity for insurable American citizens to make a real, practical contribution to effective national defense, the American Petroleum Institute approves in principle the pending amendment to the National Defense Act introduced by U.S. Senator Morris Sheppard, of Texas, and authorizing a new special militia in the War Department to be known as the National Defense Corps.

Respectfully submitted,

[Signature]

American Petroleum Institute
Hon. Frances Perkins,
Secretary of Labor,
Washington, D.C.

Dear Madam Secretary:

I have the very great pleasure of advising you of the adoption by the Board of Directors of the American Petroleum Institute at a meeting in Fort Worth, Texas, on May 29, 1940, and the subsequent approval at a membership meeting, of the following resolution:

"The American petroleum industry pledges its full, complete, and voluntary cooperation with the government of the United States, and with all agencies of the government in the furtherance of national defense and security.

"The resources, the facilities, the services, and the personnel of the industry can be voluntarily and effectively mobilized in a cooperative program of government and industry for national defense, and the industry pledges, with confident assurance, its ability to furnish a complete, adequate, and continuous supply, at all times, wherever desired, of petroleum and its products to the fullest requirement of the military and naval establishments of the United States, as well as the industrial and civilian requirements of the nation."

Also, at the same meeting of the Board, with like approval by a membership meeting, the following resolution was adopted:

"In order to combat the conditions portrayed by the President in his public address to the citizens of the United States on the evening of May 26, 1940, and in order to afford an opportunity for innumerable American citizens to make a real, practical contribution to effective national defense, the American Petroleum Institute approves in principle the pending amendment to the National Defense Act introduced by U.S. Senator Morris Sheppard, of Texas, and authorizing a new special militia in the War Department to be known as the National Defense Corps."

Respectfully submitted,

[Signature]

W. R. Boyd, Jr.
Executive Vice-President

AMERICAN PETROLEUM INSTITUTE
50 WEST 50TH STREET
NEW YORK, N.Y.

June 4, 1940
Hon. Frances Perkins,
Secretary of Labor,
Washington, D.C.

My dear Mr. Secretary:

The greatest danger we are facing is the possibility that, if Germany wins the war, the English and French Navies and the English and French possessions in the Western Hemisphere will be taken by Germany.

This would give Germany and the Axis control of the Atlantic, Pacific and other oceans, and would accentuate our desperate position in our own defense, and especially in our enforcing the Monroe Doctrine. As we foresee that danger, should we not guard against it by every means in our power?

Could we not enter into an agreement to give England and France every aid in our power immediately and financial aid, by a guarantee of their credits for purchases in the United States to the extent of five billion dollars, after they have exhausted their own resources, in return for which they would agree that if the surrender of their respective Navies and possessions in the Western Hemisphere ever became necessary, they would turn them over to the United States in payment of their indebtedness and the aid in supplies and money which we would agree to give them.

In such event, America could be their only hope for the future, and the United States instead of Germany would command the Atlantic and Pacific and other oceans and would be in a much more powerful position to aid the Allies in the terms of peace.

England and France would have this proof of our real sentiments and intentions, and rather than scuttle the ships or turn them and their Western Hemisphere possessions over to Germany, they would fulfill their agreement and deliver them to the United States. It would be a fait accompli, and England and France would take the consequences under such protection as the United States might be able to give.

With these fleets added to our own, we would be able to carry on in peace or war until we could utilize our immense industrial resources and our mechanical and engineering skill. Our ingenuity, originality, engineering skill and resources are so preponderating that we would overwhelm and dominate the uncivilized world and could dictate terms to Germany, Italy, Japan and Russia. We could do our job of restoring the world to its proper equilibrium.
That one plant alone in six months time could be ready to turn out 1,000 planes a day, staggers the imagination as to the potential power of the United States, which if involved, will make the German war power insignificant by comparison.

The Axis will be fully cognizant of all that would take place in the United States, and Germany, Italy, Japan and Russia would have intelligence enough not to enter into a hopeless contest.

England, France and the other ravaged Nations, with the aid of the United States, could be restored to freedom and Germany and the Axis wiped out of military existence.

This could be accomplished by diplomatic pressure in all probability, without any actual war.

Then a proper league of Nations with power, could be created, which would insure eternal peace and restore the joy of life to the peoples of the world.

Very respectfully yours,

[Signature]
Dear Mr. Eichelberger:

This "Stop Hitler Now" advertisement is most admirably composed but it contains not one word about shutting off shipments of war supplies to the enemies of Democracy which is just as important as sending help to the Allies—and the way to help the Allies is to prod this Government to get on with Ford, General Motors, and others on standardized types of planes which will not be subject to change. This is the way Germany did it and the way the Allies and ourselves have NOT done it.

Italy's entrance into the war automatically shuts off war supplies through that channel, but there are still other routes to be blocked. LETS DO THAT NOW TOO.

I have already sent you one subscription I believe but I enclose another one herewith. But, of all things let's shut off supplies to the enemy who is trying to engulf us by every means in his power. What abject insanity to think of any other course. Such imbecility deserves defeat.

Faithfully yours,

[Signature]

Robert J. Caldwell

Mr. Clark E. Eichelberger,
The League of Nations Association,
8 West 40th street,
New York City.

We can't spend ourselves rich any more than we can drink ourselves sober.
June 10, 1940

Honorable Frances Perkins  
Secretary of Labor  
Washington, D. C.

Dear Secretary Perkins:

If we do not let it be known at once that we are prepared to supply in the defense of the Allies, and by the same token, ourselves, every bit of force that we can, economic and otherwise, we are jeopardizing the future of American Democracy and our way of life.

I think that that portion of our air force which in the judgment of our President could be spared, should be sent to the aid of the Allies now; that our fleet be brought into the Atlantic, used to convoy all available materials to the Allies, and to aid them in the Mediterranean and in the English Channel and the North Sea. Such step need not require a declaration of war, although, of course, it would mean war upon Germany. We would be doing nothing more than Germany and Italy did in Spain.

If Germany wins quickly, our present force would be useless to us, standing alone against the air force and combined fleets of Germany, Britain and France, the latter two of which certainly could be exacted by Hitler for immunity from destruction upon land of England and France. These forces, if used immediately, might turn the tide. If we join the Allies now, Japan would anticipate that in the end Germany would not win, and therefore scarcely would dare strike in the Pacific. If we now sit idly by and the Allies are defeated and our fleet is brought to the Atlantic to defend the attack of Hitler that is sure to come, Japan will then have a free hand in the Pacific.

For our protection alone, we must join the Allies and join them now. I might add that these sentiments are not those of myself alone, but represent the viewpoint of many friends and associates.

Very truly yours,

Morton L. Nernoff  
1585 E. Mendocino St.  
Altadena, Calif.
March 4, 1941

Honorable Frances Perkins
Secretary of Labor
Washington
D. C.

Dear Madam Secretary

I send you herewith a mimeographed advance copy of the Twentieth Century Fund report on Labor and National Defense. The first four chapters are factual findings for which the research staff headed by Lloyd G. Reynolds of Johns Hopkins is responsible. The fifth chapter is made up of conclusions and recommendations of the Twentieth Century Fund Labor Committee of which I am chairman. It is to that part of the report that I want to direct your attention. The printed reports are not yet available. That is the reason why you have not received a copy sooner.

My experience with Frazier Maciver on the committee leads me to think that he might be included in your list of possible representatives of industry; and perhaps Mr. William L. Chenery might also be included.

Sincerely yours

William H. Davis
CONFIDENTIAL

LABOR AND NATIONAL DEFENSE

THE FACTUAL FINDINGS
by Lloyd G. Reynolds

Revised
2/20/41

New York

THE TWENTIETH CENTURY FUND

1941

FOR RELEASE
Monday, March 3, 1941
Chapter 1

LABOR REQUIREMENTS AND LABOR SUPPLIES

1. The Adequacy of the Total Labor Supply

THE RAPID EXPANSION of employment in the defense industries has raised the question whether the defense program will not suffer soon from a general scarcity of labor. It is impossible to give any conclusive answer to this question. Existing estimates of unemployment do not indicate the total reserve of labor power which might be available, much less the kinds of occupational skills available. Nor is it possible to estimate accurately the total labor demand for the defense program. It is only possible to make an informed guess on these matters, but a comparison of these guesses may be of interest.

The main published estimates of unemployment are those of the American Federation of Labor, the Congress of Industrial Organizations, the National Industrial Conference Board and Mr. Robert Nathan. These

ference Board lowest, the AF of L series following a middle course, while all the estimates tend to rise and fall together.

An external check on the reliability of these estimates has been provided recently by the regular decennial census covering the last week of March 1940. Preliminary tabulations of a sample of the census enumeration indicate that there were 5,110,000 persons completely unemployed and seeking work in the week of March 24-30, 1940. Adding 1,300,000 who had jobs but were not actually at work and 2,905,919 employed on emergency work programs, gives a total of 9,315,919 who were not at work in private industry during the census week. In addition, there were 1,789,000 whose employment status could not be determined but some of whom probably were members of the regular labor force, and 1,986,000 reported as neither working nor seeking work. The census results check quite closely with the published estimates of unemployment, especially with the Conference Board figure of 9,269,000 for March 1940.

There has been some disagreement among experts as to which of the published estimates comes closest to the true level of unemployment.

2. See Russell A. Nixon and Paul A. Samuelson, "Estimates of Unemployment in the United States," The Review of Economic Statistics, pp. 101-111, August 1940. These writers believe the AF of L estimate to be most nearly correct. The Conference Board figure, however, is preferred by W. S. Woytinsky, of the Committee on Social Security of the Social Science Research Council.

In view of the census results, however, it seems reasonable to accept the figure of the National Industrial Conference Board. In November 1940, the latest month for which data are available, the Conference Board estimated the full-time unemployed at 7,217,000.

Not all of this unemployed labor power, however, can be called
into use for defense production. It is necessary to take account of the efficiency of the unemployed group, which is certainly lower than that of employed workers. It has been estimated that workers on WPA construction projects are only three-quarters as productive as workers on private construction (though part of this is due to restrictions on the use of mechanical equipment). The potential productivity of the million or more workers on direct relief is undoubtedly still lower, and many of these must be written off as unemployable.

Moreover, the unemployed include some two million workers engaged on WPA, NYA and CCC projects. Not all of these workers are available for private employment, since some are needed for the irreducible minimum of construction and repair work on roads, parks, public buildings, etc. Again, part of the unemployed (some 1,300,000 in March 1940) are on temporary lay-off and expect to return to their regular jobs. They are not available for new employment. Others of the unemployed are not readily available because of geographical isolation from the centers of expanding labor demand.

When all of these deductions have been made, the "visible supply" of labor is considerably reduced—how much can only be guessed with allowance for a large probable error. A reasonable guess might be that there were between four and five million workers available in November 1940 to meet additional labor demands. A final correction must be made on account of the conscription program. It is impossible to say what proportion of the 900,000 men who will undergo military training during 1941 will...
be withdrawn from private employment but it seems likely that a substantial majority of them will be. This would mean that the unemployed labor force available in the near future is probably not far from four million.

The above discussion relates only to persons already in the labor market, and the figures given are in no sense an estimate of the total labor reserve. The industrial working force is moderately flexible, and can be increased at need by drawing on agricultural workers, women, and others not now in the labor market. This means that the total labor potential of the country is considerably higher than the present working force.

**Defense Demands for Labor**

The defense program as defined by the President is now limited only by the capacity available for armament production. Fiscal limitations have been virtually discarded. Specific estimates of labor demand, however, are not yet available except for the appropriations and contract authorizations passed by Congress during 1940. These appropriations assumed a navy of three million tons, a fully-equipped army of 1,200,000 men with critical items of equipment for an additional 800,000, an air fleet of 35,000 planes with production facilities for 50,000 planes annually. While this program has now been greatly expanded, it is still worth while to present the original estimates as an illustration of the methods which must be used. The probable effect of 1941 appropriations on labor demands will then be discussed.

Estimates of labor requirements have been prepared for the Defense Commission by the Division of Construction and Public Employment
in the United States Bureau of Labor Statistics. It is estimated that (4) expenditures of $18.6 billion for construction and supplies will create

6. Defense appropriations and contract authorizations passed during 1940 total more than eighteen billions, but only the amount shown was used in preparing employment estimates. The estimates do not include appropriations for wages or salaries of civilian employees or enlisted personnel, but only money for the construction, purchase and manufacture of supplies and equipment.

some 8.4 million man-years of employment. The methods used are only (5) approximate, however, and the result is probably too high rather

5. Direct labor requirements for shipbuilding and construction are estimated from experience on previous projects, while estimates for aircraft, tanks and other new items are based on current surveys. The aggregate direct labor requirements are broken down occupationally by using analyses of the occupational structure of the industry. The Division makes its own grouping of occupations into "skilled," "semi-skilled" and "unskilled" on the basis of discussion with employers and union officers. Expected material purchases are reduced to labor requirements by using past studies of labor productivity in steel, cement, lumber, sand and gravel, and other important materials. See, for example, the Monthly Labor Review for May 1935 (steel), March 1936 (cement), May 1937 (lumber), and July 1939 (sand and gravel).
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than too low. Direct labor requirements for such new articles as tanks and combat planes cannot be estimated at all closely. As volume production is attained output per man may increase greatly. Moreover, most of the studies of indirect labor requirements in the production of materials are several years old, and labor productivity may have increased considerably since they were made. The steel study, for example, was based on 1933 data and a 55-60 per cent rate of operation. Technological changes and higher rates of operation have considerably reduced labor requirements per unit of output in this industry. For these reasons the figure of 8.4 million man-years may be taken as a maximum, and actual labor requirements may easily fall considerably below this estimate.

It is estimated that about 35 per cent of the men demanded will be skilled workers, 40 per cent semi-skilled and 25 per cent unskilled. This distribution, as would be expected, is very similar to that of all manufacturing industry as reported by the 1930 Census. In shipbuilding and a few smaller industries more than half of the men required are skilled workers. In general, however, the skilled labor problem arises not because a disproportionate number of skilled men is required but because the supply of such men has shrunk appreciably since 1929.

The Time-Pattern of Demand

The number of man-years required does not tell us the number of men required unless the time-distribution of labor demand is known. A demand for eight million man-years distributed evenly over a five-year
period can be met by 1.6 million workers. But if demand is concentrated within a single year, eight million workers will be necessary. The defense demand for labor will increase more slowly than is generally realized. The signing of a contract usually does not mean a large immediate expenditure of funds. Battleships and aircraft carriers require five years or more to complete, while most of the proposed aircraft production depends on plants not yet built and tools not yet manufactured.

The time-pattern for the projects initiated in 1940 is reasonably clear. Activity on construction projects, which suffer from no serious shortages of either labor or materials, should rise as rapidly as seasonal conditions permit and should be completed within two years. Naval construction covered by authorized expenditures will increase steadily for about three years, reach a peak in 1943, and then decline. The machine

6. A barracks is usually completed within eight or nine months, though large projects sometimes require a year or more. The new naval air stations are expected to require fifteen to eighteen months. The contracts recently let for new powder and tank plants call for completion by the fall of 1941. The longest construction jobs will be those on drydocks and fleet bases, which may require a full two years.

7. Time-patterns of shipyard work compiled by the Construction Division of the Bureau of Labor statistics indicate that destroyers and submarines are substantially completed in three years, light cruisers in four years, aircraft carriers and battleships in five years. Employment builds up gradually to a peak toward the middle of the construction period, remains approximately constant for almost a year, and then declines. In the construction of aircraft carriers, for example, this employment plateau occurs from about the thirtieth to the forty-second month; in the construction of destroyers, from about the twentieth to the thirtieth month. The program authorized in 1940 calls for the construction of about two hundred ships on approximately one hundred ways available throughout the United States. This means that all ways will be fully occupied for the next five years. After 1943 employment on the larger vessels will begin to decline, while employment on the second "crop" of destroyers and submarines will not have reached its peak.
tool industry, which has increased its capacity 50 per cent during the past year and is still unable to meet all demands, will probably expand further and should work to full capacity for at least eighteen months. Quantity production of field artillery, medium tanks, and other major ordnance items cannot be expected for a year or more because of the time required to construct plant and equipment; peak production of these items will therefore probably come in 1942. The level of activity in steel will be a composite of activity in the major steel-using industries. Capacity operation seems assured for a period of from two to three years.

The Airplane Picture

The least predictable of the major defense industries is airplanes and airplane engines. Employment will rise irregularly as new plants are brought into production. The rate at which new plants will be constructed depends partly on the speed with which machinery can be obtained, and partly on the volume of British war orders. If the original goal of 35,000 airplanes is to be reached by the contract limit of June 1, 1942, and large numbers of planes are shipped to Great Britain, it will be necessary for the industry to triple its present capacity by the spring of 1942.

8. In December 1940, production of combat planes was about 900, or a rate of 10,800 per year.

These industry patterns put together make the following picture: the employment to be created by 1940 appropriations will be spread over a period of about five years. As new plants are finished and as shipyard work reaches a more advanced stage, employment will rise at an accelerating
rate, probably reaching a peak some time in 1942. While employment in shipbuilding will continue to rise through 1943, this will be insufficient to counteract a decline in building construction, aircraft, machine tools and other industries which will reach their employment peak before that time.

If this picture is correct, the additional employment arising directly from 1940 defense appropriations will rise to a peak of not more than three million some time during 1942. The fact that peak employment will be reached at different times in different industries will make possible a good deal of transference from one sort of defense work to another, thus helping to alleviate any scarcity of skilled workers. By the time shipbuilding approaches its peak, for example, it should be possible to transfer a considerable number of machinists and tool makers from tool plants which have passed their peak of activity.

The New Program of 1941

Since the above estimates were prepared, President Roosevelt has requested additional defense appropriations of almost $11 billion, plus an undefined amount for shipment of war materials to Great Britain and other belligerents. Instead of the $9 billion originally scheduled for expenditure during 1942, twice this amount or more may actually be expended. It does not follow, however, that six million additional workers will be required in 1942 instead of three million. It is necessary
to distinguish between additional armament production, which may be attained in part by diverting plants and workers from other products, and additional employment, which depends rather closely on the completion of new plants.

It is probably safe to say that Congress appropriated in 1940 as much as could have been spent during 1941 and 1942 on the output of existing and projected shipyards, arsenals, and aircraft factories. How, then, can spending be doubled in the immediate future? Primarily by diverting existing plant capacity from non-essentials to armaments. It is likely, for example, that a good deal of automobile capacity will be diverted to airplane engines and parts, tanks, and similar items. But payment of several billion dollars to the automobile industry for these items need not cause a large increase in total employment. It will mean primarily that automobile workers have been transformed into aircraft or tank workers. The War Department's Industrial Mobilization Plan, which will doubtless be used to the extent deemed necessary, provides for wholesale transformation of plants and workers to armament production—a shift in labor demand rather than a net addition to labor demand. In some cases, indeed, priority regulations may reduce employment by preventing plants producing non-essentials from securing raw materials.

The amount of labor employed in armament production may well increase by five million or more before the end of 1942, but a considerable part of this increase—perhaps as much as two million—will have to consist of labor diverted from the production of other goods. If the war should continue into 1943, of course, there will be time for the completion of a new batch of armament plants over and above those already planned, causing another jump in additional
labor requirements. In this event the rising trend of employment will continue beyond 1942 and reach a higher peak at some later date. There is at present no basis whatever for predicting when this peak may be reached or what the maximum employment at the peak may be. With the American economy geared more and more closely to the European war, all predictions must depend on the expected intensity and duration of the conflict.

**Indirect Effects of Defense Spending**

The estimates given above cover employment on the production of armaments, the production of raw materials for the armament industries, and new plant construction financed from government funds. But they do not include the labor necessary for maintenance and repair of naval vessels, aircraft, naval and air bases, army training camps, etc., nor the labor required for construction of privately-financed plants. It must be remembered, too, that the employment of several million persons on defense work will increase the total wage-bill of the country and therefore the demand for consumer goods. Additional workers will find jobs in the consumer goods industries, generating still further purchasing power. This "multiplier" effect of defense spending cannot be estimated with any precision. Its force will depend mainly on the way in which defense expenditures are financed and on the willingness of business and individuals to spend their increased incomes. The larger the proportion of defense expenditures financed by credit creation, and the larger the proportion of income spent rather than saved, the greater will be the stimulus to employment. Both of these factors are highly uncertain and
will probably work in opposite directions. A large share of government spending will be financed by creation of new demand deposits, but these deposits may circulate rather slowly because of general uncertainty about the duration of the defense program. It is unlikely that the employment multiplier will be greater than two i.e., an addition of one worker in consumer goods industries for each worker added in the defense industries -- and it may be considerably less.

Other doubtful factors in the situation are the behavior of prices and the extent to which shortages of plant capacity will appear in various industries. The defense industries are now operating close to full capacity, and can provide additional employment only as new plants are finished. The slower the rate at which new plants are built, the slower will be the rate of expansion in employment. The more successful the defense program is in overcoming bottlenecks and other obstacles to production, the more likely we are to have shortages of labor. The behavior of prices will be an important factor in the consumer goods industries. The greater the rise in prices, the less consumers can buy with their enlarged incomes, and the smaller will be the volume of employment.

**A General Labor Shortage?**

The uncertainties pointed out above render any estimate of total labor requirements entirely speculative. On the basis of 1940 appropriations, it seemed reasonable to predict an increase in employment of around six million between the fall of 1940 and the fall of 1942. At present one can say merely that—barring an early peace—the increase will be larger than this, and that it will certainly exceed the number
of unemployed persons in the labor market. It does not follow, however, that all will be well until the present unemployed have been completely absorbed, and that we will then be faced with a sudden and absolute "general shortage" of labor. It would certainly be wrong to conclude that all employable workers will have jobs by the end of 1942. It is a commonplace that labor shortages can exist in certain localities or trades in spite of considerable unemployment in other areas. Because of the peculiarly unbalanced character of the present expansion, this "frictional unemployment" is likely to be unusually large during the next few years. Many of the unemployed will not be absorbed because they are in the wrong places or the wrong occupations, and there may well be unemployment of two million or more even at the peak of defense production.

A large part of the increased requirements will therefore have to be met by workers not previously in the labor market. There will be a net addition of more than a million to the working force during the next two years through the normal excess of new workers over retirements. Several million women workers entered industry during the World War, and this experience may be repeated during the next few days. There is a considerable reservoir of unused labor in agriculture. A marked expansion of industry could probably draw at least two million persons out of agriculture without reducing agricultural production. (10) The labor force may also be expanded in the vertical direction through an increase in the hours worked. As soon as recruitment of new workers becomes difficult there will undoubtedly be a general tendency toward lengthening of the work-week.

The next two years will witness very complicated shifts in the labor market. Shortages will appear quite early in particular industries
and localities. The points of shortage will increase with the decline of unemployment, just as on a rocky shore more and more rocks appear above a receding tide. These shortages might logically be met by transfer of unemployed workers from areas and occupations in which they are not needed, by attraction of new persons into the labor market, or by lengthening of working hours. In practice, all three of these methods will be used in varying degree. Providing efficiency does not suffer, it would be desirable that they be adopted in the following order: (1) transfer of unemployed workers, (2) lengthening of hours, (3) attraction of additional workers.

From a long-run standpoint, this last step might better be avoided entirely. The greater the inflation of the working force during the present emergency, the greater will be the urban unemployment when the emergency has passed. It is easy to attract farm boys into industry, but it is much harder to get them to go back to the farms.

The question whether there will be a "general shortage" of labor turns out on analysis to have little meaning. If this phrase means a complete inability to secure additional man-hours of work, there will certainly be no general shortage. But particular shortages will appear and will grow in number with the passage of time. The real problem concerns the methods to be used in meeting these shortages. Can the existing unemployed be transferred to the points where labor is demanded with sufficient speed to avert an undesirable inflation of the working force and an undue increase in working hours? Attempts to do this through retraining of workers, inducements to mobility, and effective organization of the labor market are discussed below. From a long-run standpoint there is the additional problem of how to meet the unemployment which will occur after the peak of defense production is passed. Unless careful plans are made to bridge the gap between crisis and "normalcy," a disastrous collapse of employment is almost certain to occur.
2. The Adequacy of the Skilled Labor Supply

Shortages in particular crafts have already occurred, and are certain to increase in future. Labor is not a homogeneous commodity and a scarcity of toolmakers cannot be made up by an abundance of weavers. But again, it is not easy to say just what is meant by a "shortage." Does a shortage exist whenever a particular employer cannot find at the factory gate a sufficient number of suitable workers willing to accept his current wage rates? Obviously not; for many of these apparent shortages can be corrected by a change in wage rates or living requirements, an appeal to the State Employment Service, or a slight rearrangement of processes or retraining of workers. At the other extreme a shortage might be defined as a situation in which no workers are available capable of being trained to do the job. But this definition is too broad. In this sense there are no shortages at all. As a compromise, a shortage may be said to exist first, when workers with reasonable proficiency at a particular job cannot be recruited within a reasonable distance by the offer of attractive wages and conditions, or could be had only by taking them away from other jobs; and, second, where the time required to train additional workers for the job is so long as to delay production schedules. This second condition is important. It will be pointed out below, for example, that there is no real shortage of aircraft production workers, since most of these workers can be trained in less time than an aircraft factory can be built. This definition attempts to distinguish apparent shortages, which can be met by short training courses or geographical transference of labor, from genuine shortages, which may require basic changes in the process of production.

It is easier to define labor shortages than to diagnose them. No single source gives a comparison of the probable demand for particular
skills with the available supply of these skills. One is forced to piece together bits of information from different sources.

**Labor Demand Information**

On the demand side, three main sources of information are available. First, the government is itself an important employer of labor. Officers of the Army Ordnance Division and the Navy Shore Establishments Division have prepared estimates of probable labor demands in arsenals and navy yards, broken down by crafts and by time-periods. These estimates are probably reliable though the statements made by local commandants are sometimes seriously exaggerated.

Second, the Construction and Public Employment Division of the Bureau of Labor Statistics requires every firm receiving a defense contract to submit an estimate of the man-years of labor required to complete the contract. Total requirements are then broken down into occupational requirements by using previous studies of the occupational make-up of the industry. This procedure has two defects. In a rapidly-changing industry such as aircraft, the skills required and the proportions in which they are required may change greatly in a year or two. Moreover, the estimates of the Division give the number of man-years of work required in a particular craft, but not the number of men required. Man-year requirements may be reduced to man requirements, however, by using the time-patterns of labor application described above.

Third, the United States Employment Service has recently begun to estimate future labor demands by a direct canvass of employers. Some 20,000 establishments are now visited every month and asked to forecast their probable requirements for the next sixty days. This method has the advantage of including the demand for labor in all types of industry rather than in defense industries alone. Its success, however,
will depend on the accuracy with which employers are able to foresee their own labor demands. In addition to this special canvass the Employment Service's regular figures of placements made and of unfilled orders give some indication of the occupations in greatest demand at a given time.

**Labor Supply Information**

On the supply side, the United States Employment Service and the cooperating state services are the main sources of information. Every worker on WPA or in receipt of unemployment compensation is required to be registered at his local public employment office; other unemployed workers are encouraged to register voluntarily. At intervals a national inventory is taken of the active files which indicates, among other things, the number of workers in each occupational group. The last complete inventory was taken in April 1940. Since the beginning of the defense program, however, a special monthly check has been made of registrants in some fifty key occupations essential to defense industry; this list is being extended, and will include more than five hundred occupations.

This extremely valuable information is far from a complete inventory of the labor supply. It does not include men skilled in a particular trade now working at something else. Many patternmakers, toolmakers, ship loftsmen and other mechanics doubtless have drifted away from their trades during the past decade. Not being unemployed, they have no reason to register with the employment service, and there is no record of their number or location. The employment service files, moreover, do not provide a complete enumeration even of the unemployed, since the unemployed are not required to register unless seeking WPA work. Skilled mechanics,
likely to be among the self-supporting, have always secured jobs mainly through personal contacts and have hesitated to appear at the employment office. The employment service has a very good coverage of production workers and laborers, but a quite incomplete record of the skilled trades which constitute the core of the shortage problem. Finally, it is probable that many of the registrants are not properly classified in the employment service. Workers in search of a job are not likely to minimize their accomplishments. More than one man has registered as a machinist because he once swept the floors in a machine shop.

11. The basic difficulty here is that most of the employment office interviewers have no practical knowledge of the skilled trades and are not capable of weeding out genuine mechanics from pretenders. The Employment Service is conscious of this problem, and has taken two steps to meet it: (1) Lists of "trade questions" have been compiled for more than two hundred occupations and made available to local offices. An interviewer can often eliminate an alleged machinist by asking him several questions on the machinists' list and discovering that he doesn't know the answers; (2) all registrants in several hundred key occupations are being reinterviewed for the express purpose of determining their precise occupational qualifications. This work, nearing completion, has made possible a much more exact classification of registrants, and in some areas has greatly increased the percentage of referrals which are accepted by employers.

The unemployment records of trade unions give an additional source of information. The Patternmakers' League, which includes about 85 per cent of all patternmakers in the United States, keeps a very close record of unemployment among its members. The Machinists, the Electrical Workers, and several other unions also request monthly unemployment returns from their locals. These do not give a complete account of unemployment, because these trades are far from completely organized and because many locals make no report.

Shortages Most Acute in Metal Trades

Almost at the beginning of the defense program serious
shortages developed in certain shipyard crafts, notably copper-smiths, loftsmen and shipfitters. The low volume of shipbuilding during the past twenty years has resulted in an output of craftsmen quite inadequate for present needs. By the end of 1940 there was a general shortage of tool and gauge designers, airplane engineers, tool, gauge and die makers, instrument makers, patternmakers, and fully-trained machinists. The shortage of all-round machinists has now become so acute that most firms have abandoned hope of recruiting machinists and have fallen back on training and promotion of partially-skilled workers, combined in some cases with simplification of production processes. There is also an acute shortage of supervisors in aircraft and other rapidly expanding industries. In many cases men making good money at their trade are unwilling to undertake the responsibility of a supervising job. Men willing to become supervisors do not always have the necessary capacity, and in the stress of expanding production there is no time to weed out the unqualified and to institute proper training courses. The difficulties which have been experienced in getting production from some airplane plants are probably due largely to inexpert supervision.
Shortages of carpenters and other building crafts are reported from some areas, particularly in the southeastern states and on the Pacific Coast. Surpluses of building labor exist in other areas, however, and these surpluses will probably increase as cantonment projects are completed during the spring and summer of 1941. Many localities report a scarcity of operators for turret lathes, grinders, screw machines, drill presses, boring machines, milling machines, and other machine tools. Sheet metal workers, riveters and welders are scarce in some areas. This scarcity of semi-skilled metal workers, localized as yet, will undoubtedly become general during 1941 because of the very large expected labor requirements (Table 1). A shortage of such workers can probably be avoided by adequate training facilities, since most of them can be trained in a few weeks or months. This conclusion applies also to airplane mechanics of all types. It is no longer possible to hire ready-trained airplane workers, but since most of the necessary skills can be learned more rapidly than an airplane plant can be constructed, the problem can be--and is being--met by large-scale training of new workers.

12. Table 1 is by no means conclusive. The expected requirements include only final fabrication in airplane engine plants, airplane assembly plants and shipyards; if arsenals, machine tool plants, foundries, pattern shops and parts manufacturers were included, the demand figures would be considerably larger. Translating man-year requirements into man requirements, however, would cut the demand figures at least in half. The supply figures from the U.S.E.S., as pointed out above, are not a complete inventory of the unemployed. But offsetting this is the fact that many of those registered as machinists or toolmakers are not actually competent in those crafts.

13. Monthly reports on labor market developments are now being issued by the Research and Statistics Division of the Bureau of Employment Security. The above account of present labor shortages was obtained largely from the report for December 1940.
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Expected Requirements in man-years (a)</th>
<th>Registrants at United States Employment Service, August 31, 1940(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airplane assemblers</td>
<td>86,871</td>
<td>143</td>
</tr>
<tr>
<td>Loftsmen and template makers</td>
<td>18,916</td>
<td>57</td>
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<tr>
<td>Machinists and millwrights</td>
<td>388,901</td>
<td>18,031</td>
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<td>Patternmakers</td>
<td>27,567</td>
<td>1,108</td>
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<td>Riveters</td>
<td>54,444</td>
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<td>Sheet metal workers</td>
<td>92,709</td>
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<td>Shipfitters, shipwrights</td>
<td>117,488</td>
<td>214</td>
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<tr>
<td>Tool and die makers</td>
<td>28,933</td>
<td>2,007</td>
</tr>
<tr>
<td>Welders</td>
<td>118,852</td>
<td>11,910</td>
</tr>
</tbody>
</table>

a. Includes airplane engine plants, airplane assembly plants and shipyards; only 1940 appropriations are included.

3. Methods of Meeting Labor Shortages

a. Shortages of Production Workers

Shortages of production workers are as yet localized and temporary. The problem is to anticipate labor requirements by a few months and to train additional workers rapidly enough to meet expanding requirements. Training is already proceeding on a much larger scale than is commonly realized. It is being done and will continue to be done mainly by industry itself. Since a plentiful supply of trainees is assured for some time to come, it is inaccurate to describe the situation as a shortage. Rather it should be said that a rapidly growing demand is being met by a corresponding expansion of supply, though in many instances there is an appreciable lag.

Training in the Aircraft Industry

The aircraft industry, most rapidly expanding at present, is an example of how the situation can be met. Probably less than 10 per cent of the workers in airplane engine and assembly plants are doing jobs which require three or four years’ training. The majority are in semi-skilled occupations, the most important being sheet metal bench hands, airplane assemblers, riveters and specialized machine operators. The latter include such occupations as lathe operators, milling machine operators and grinders. Engine manufacture involves reproduction of large numbers of identical parts and is thus mainly a matter of specialized machine operating plus assembling. Propellers come to the plant as rough castings and are ground down with small hand grinders resembling a vacuum cleaner; fine grinding is delicate work and requires about eighteen months to attain full proficiency. Body parts are still made mainly on the bench by sheet metal workers, riveters and welders. These same crafts play a large part in plane assembly, which takes place on a fixed location and may involve
fifteen or twenty groups of specialized assembly workers. It would be more accurate to call these men "finish fabricators" since their work is quite different from automobile assembly. Putting together the finished parts takes much more time, more fitting is required, tolerances are smaller, and standards of structural soundness set by the Civil Aeronautics Authority must be met.

In most of these occupations a man can begin to become useful after two or three months of training, though not fully proficient for eighteen months or two years. Since it is possible to predict quite closely the time at which plant additions will be completed, a sufficient number of workers to man the plant can be trained in the meantime.

Trainees are drawn almost exclusively from cities and towns adjacent to the plant. While it might seem desirable to bring in unemployed men with some mechanical training from other areas, this is made difficult by the spirit of local protectionism and by the fact that the company is helping to pay local relief bills which may be reduced by employing local labor. Several of the companies interviewed stated that they gave no consideration to boys from "out of state". Training is thus winning out over geographical transference as a means of providing production workers and will probably continue to do so as long as pools of surplus labor remain available in the airplane-producing areas.

It might seem desirable on social grounds to retrain older men in related occupations. But training is in fact being given almost exclusively to youths fresh from school who have the adaptability and vigor which manufacturers demand. This too will probably continue unless the supply of young men is dried up by continued hiring and military conscription.
Methods of Training

Training methods differ. In some companies trainees have been stationed in an existing plant as observers. This method is not entirely satisfactory; the men already on the machines are distracted by the questions of the learners, and their production drops, while the learners usually spoil a good deal of work when first put on their own. Commoner practice, therefore, is to set up a separate school either in the plant or in rented facilities nearby. Standard machines are moved into the school and skilled workmen from the plant are used as instructors. Students are given a course, usually of eight or nine weeks, but varying with the student's ability, in general machine-shop practice and in performance of particular production jobs. On successful completion of the course the student is taken into the plant at the hiring rate of the job for which he has prepared. Company trainees are supplemented by hiring graduates of local vocational schools; in some cases the entire 1940 graduating class of a school has been hired by a single company. While additional training in the plant is required even for vocational graduates they attain full proficiency much more rapidly than boys with no mechanical background.

Government Training Aids

The effort of industry to train its own workers is being actively supported by the Defense Commission through the Training Within Industry 14. For detailed discussion of training methods in various industries, see "Training Solutions of Company Problems," Studies in Personnel Policy, No. 18, National Industrial Conference Board, January 1940; and "Outline of Industrial Relations Policies in Defense Industries," Part IV, Industrial Relations Section, Princeton University, 1940.
Division of Sidney Hillman’s staff. This Division is under direction of Channing Dooley of Socony Vacuum and J. W. Dietz of the Western Electric Company. Both were engaged on somewhat similar work in Washington during the World War. The Division does not plan to do any training of its own, and believes that a large government training program is unnecessary. It intends to act simply as a service agency, studying training methods and helping industry to develop its own along the best lines. Some twenty-two regional offices have been established, each with a staff of field agents prepared to act as advisers to employers desiring their services. It is important to note that under this plan the initiative in training is left entirely to industry. An adequate number of workers will be trained only if employers are able to forecast their labor needs and are willing to institute training programs before the needs develop.

Training in Vocational Schools

The other main training agency of the government is the Office of Education. This office has been authorized since 1933 to grant money to the states for vocational education under the Smith-Hughes Act and the George-Deen Act. During 1937-1938 more than 665,000 students were enrolled in trade and industrial courses in federally-aided schools. At the beginning of the defense program, the Office of Education secured a special appropriation of $15 million to enroll workers in short courses during the summer months. In September a second appropriation of $63 million was secured to continue this short-course program throughout the winter months by using vocational schools after the close of regular day-time classes.

This program is merely an extension of the regular work of the Office of Education. It got under way much faster than other types of training activity mainly because no new organization is needed to administer
Training courses are established by local school authorities under the supervision of the state board for vocational education and subject to final approval by the Office of Education. All direct expenses necessary and approved are met out of the appropriations of the Office. The chief requirement is that the courses must relate to "occupations essential to National Defense." Within these rather vague limits, the occupations selected for training appear to depend largely on the equipment of the school in question. A school with a sheet metal shop establishes courses in sheet metal work, a school with an automobile shop puts in courses in automobile repair, and so on.

Other important features are the occupational background of the trainees, the jobs which they wish to learn, and the prospective labor demands of the vicinity. Each school is expected to form an advisory committee composed of local employers and labor representatives; educators, WPA administrators, Employment Service officials, and others may be ex-officio members. A major function of the advisory committee is to anticipate local demands for labor and to see that the courses offered bear a reasonable relation to prospective requirements.

Two main types of courses are offered: (1) supplementary training
to increase the skill and knowledge of persons already employed in jobs essential to national defense, and (2) pre-employment courses for unemployed persons. The pre-employment courses are also referred to as "refresher" courses because it was intended that they should be used mainly to polish up the rusty skills of men with some mechanical background. In practice a large proportion of the trainees have been youths with little or no work experience. This raises an important question of policy—to what extent should young persons more adaptable to training and more acceptable to employers be given preference in training over older workers with more experience and heavier responsibilities? As a basis for formulating policy on this subject it would be desirable to make a careful analysis of the age-distribution and work history of present trainees.

Students in the supplementary courses must "be endorsed by industry and labor"—which presumably means that they are selected by the local advisory committees—and need not be registered with the public employment service. Students for the pre-employment courses are selected initially by the Employment Service and the WPA. By an informal agreement between the agencies involved, 50 per cent of the trainees are to be taken from WPA rolls so long as WPA is able to provide this proportion. These workers are paid their regular WPA wage while in training. The remaining 50 per cent are selected by the Employment Service from its files. Final selection rests with the school authorities, who may reject any person they find to be unfitted for training. The length of the courses varies, but is usually between five and ten weeks, which means two hundred to four hundred working hours. Emphasis is usually placed on rapid acquisition of a single skill, though some schools attempt to give
the student experience on several machines during the training period.

Results of Training

During July and August 1940 there were 107,757 students enrolled in summer short courses. In the first week of September about 92,000 were actually taking courses: 33,000 supplementary, and 59,000 pre-employment. Of the latter, 22,000 were Work Projects Administration trainees, while 37,000 were drawn from the files of the Employment Service. Since few trainees were graduated before September 1940, we do not yet know what success they have had in finding and keeping jobs. Collection of such information may settle the controversy which has raged about the program since its beginning.

Critics of the program hold that the courses are too fragmentary to give occupational background, that their object could be accomplished more cheaply and effectively by training within industry, and that short-course graduates have no advantage in competition with other workers and are likely to be placed in jobs unrelated to their vocational training. A more moderate opinion is that completion of a training course has some value as a test of willingness to work and is accepted as such by employers. The trainee becomes accustomed to regular shop routine and has overcome initial awkwardness about machinery. While the task of giving him a specific trade skill is still left largely to industry his weeks in the vocational school may reduce the necessary training time. These results are probably worth the cost of the courses.

Unfortunately the program has been publicized as the main answer to the shortage problem, and hopes have been aroused in the trainees which often prove false. At best the type of course offered provides industry
with a superior learner rather than with a fully-equipped production worker. And the program has no relevance whatever to the real labor shortage problem, which arises primarily in the skilled trades.

**Remaining Problems**

If the program is to be continued, the importance of a strong local committee with adequate labor and employer representation cannot be overstated. There have been frequent complaints of inadequate representation from labor groups. There is also need for much closer coordination of the courses offered with local labor demands and with the training activities of industry. One way of accomplishing this has been adopted in Hartford, Connecticut, where prospective trainees must be certified by an employer in the city as conforming to his general hiring requirements. While this does not constitute a guarantee of employment the percentage of subsequent placements has in fact been very high. Where employers are providing adequate plant training in specific skills, there seems no reason for vocational schools to duplicate this training. The range of occupations for which training is offered could probably be narrowed. Training was provided during the summer of 1940 for many jobs which have little relation to national defense, and in fields where no shortage threatened. The physical equipment of many schools is antiquated and does not include the types of machines actually being used in industry. Uniform and acceptable criteria for the

16. There is extreme variation among different schools in the range and newness of their equipment, and this is probably the main factor responsible for local differences in the usefulness of the training program. An item for purchase of equipment is included in the recent appropriation of the Office of Education. It will be very difficult to secure prompt delivery, however, because many machine tool firms have orders for two or three years ahead. This raises the question of whether educational needs are sufficiently important to deserve priority over industrial needs. It is also becoming very difficult to secure additional teachers for vocational schools, since qualified craftsmen can earn more in industry.
selection of trainees have not yet been developed, though the work of
the Employment Service in developing job descriptions and aptitude tests
is laying a foundation for increased efficiency in this field. More
adequate information on placements of trainees and their subsequent work
history would be helpful in judging the usefulness of the program.

The Civilian Conservation Corps and the National Youth Admin-
istration do a certain amount of vocational training as part of their
regular activities. The CCC camps require cooks, truck drivers, auto
mechanics, carpenters and so on. Training in these occupations is part
of the normal operation of the camp. This type of "training on the job"
could be much intensified, but little has yet been done on a national
scale. Most of the skills which might be taught by CCC have military
rather than production value. They are the skills needed by a mechanized
army in the field.

The National Youth Administration also conducts a large number
of work projects to give employment to needy youth. Since most of these
young people have little or no work experience some "on the job" training
is necessary to turn them into productive workers. In August 1940 there
were 1,682 NYA workshops with a total employment of 36,327 persons. Two-
thirds of these, however, were in woodworking, which is not a major
defense occupation and for which no shortage seems likely. The present
facilities can take care of an estimated 73,930 persons without any added
equipment, and appropriations are being sought for this purpose.

World War Experience

The most effective training during the World War was done by
industry itself through the use of "vestibule schools" in the plant. In
these schools workers were trained not for trades but in a few simple
processes, using the same machines and materials under the same conditions prevailing in regular production departments. The creation of training schools was fostered by the Section on Industrial Training of the Council of National Defense, and later by the Training and Dilution Service of the Department of Labor. These agencies were strictly educational and advisory. Their field staffs of production engineers advised plant managers concerning the establishment of training departments, aided in selecting workers to serve as instructors, and paid periodic visits to the plants to observe progress and suggest improvements. By the end of the war 147 schools were operating and about half a million workers had been trained. The Emergency Fleet Corporation did similar work in shipyards. By the end of the war it had assisted in the creation of seventy-one yard training departments, and approximately 85,000 men had been trained. It seems likely that in-plant training will also be found most useful in the present emergency and that emphasis will gradually be shifted more and more in that direction.

Lack of coordination of the various training programs caused much confusion and lost motion during the World War. At the present time an even larger number of training agencies creates a similar danger, especially as there is no very clear demarcation of functions among them. There is also need for more definite orientation of the entire training program toward prospective labor demands. It is worse than useless to train

17. Something is already being done in this direction. Sidney Hillman is advised by a "Coordinating Committee on Labor Supply," made up of representatives of the Civil Service Commission, Civilian Conservation Corps, Committee on Apprenticeship, Office of Education, Federal Security Agency, Bureau of Labor Statistics, National Youth Administration, Social Security Board, War Department, Navy Department and Work Projects Administration. This Committee attempts merely to pool the experience of different agencies and avoid duplication between them. Training activities are administered by individual operating agencies, and principally by the Office of Education.
On the demand side there has been set up a Section on Labor Requirements and Employment Standards headed by Isador Lubin of the Bureau of Labor Statistics. This body, drawing largely on the Bureau of Labor Statistics data discussed above, is expected to furnish demand schedules for labor which can be used to guide training activities.

men for the wrong things and in the wrong places.

b. Shortages of Skilled Mechanics

The training activities described above have been largely concentrated on the production of semi-skilled workers. It is clear, however, that shortages of skilled metal workers will constitute a much more serious problem during the next two years. If the defense program is not to be impeded this situation must be immediately realized and definite steps taken to meet it.

Function of United States Employment Service

The most obvious step is to make full use of existing labor supplies by effective organization of the labor market. Work does not have to be stopped in one district because of a lack of patternmakers while in another district patternmakers sit idle. Purely local shortages can be met by transfer of unemployed mechanics from other areas. While the United States Employment Service is best qualified to make such transfers, only a small proportion of skilled men are now placed through this Service.

18. During the months January-June 1940, the Employment Service made 1,443,214 placements in private employment, an increase of 28 per cent over the corresponding months of 1939. Placements of skilled workers, however, numbered only 78,405, compared with 282,988 for laborers and 365,112 for service workers.

It is estimated by the Employment Service that they now make about 15 per cent of all new placements. If this estimate is correct, it compares quite favorably with the 25 per cent reached by the British service after twenty years of experience.
More serious is the fact that scarcely any of the inter-locality movement of skilled workers passes through the Employment Service. It is not necessary for the Employment Service to make a large percentage of the purely local placements. Where men are simply called back from layoffs, or are returning to former employers, or finding work through friends and relatives, the Service has no need to intervene. Its function is to supplement rather than supersede traditional methods of hiring. The Service is in a favorable position, however, to make most of the placements which involve movement of workers from one area to another. Only in this way can the wastes of random mobility be prevented and local labor surpluses be directed to points of local shortage.

A considerable increase in the use of the Service could probably be secured by voluntary methods. But employers and skilled workers will not be persuaded to make greater use of it unless its existence is better publicized and the quality of its work is raised. Improvement of physical facilities would do much to overcome the tradition that the employment office is merely an idling place for unskilled laborers. Interviewers with sufficient knowledge of the skilled trades to earn the respect of both workers and employers might be secured by higher salaries, more careful selection, and more thorough training in job specifications. The commonest complaint of employers is that Employment Service interviewers are not able to distinguish competent workmen from pretenders and that men referred by the Employment Service are often entirely useless. A careful attempt to discover and match the qualifications of registrants with the requirements of employers would avoid useless referrals and greatly increase the prestige of the Service. Rapid machinery for regional and national clearance of orders is very important. The best clearance machinery will be worthless,
however, unless local offices are skilled enough in placement to make it worth while for employers to place orders and for workers to register.

Clearance work has lagged behind other functions of the Employment Service, partly because most areas have had large labor surpluses during the past decade and geographical mobility has not been called for. Where metropolitan areas extend across state lines as in Chicago, New York and Providence, interstate clearance has developed to some extent, but regional and national clearance has remained almost entirely on paper. Under the stimulus of the emergency, however, a national clearance system was set up in July for Civil Service workers. This was followed in October by the creation of thirteen regional offices for clearance of private employers' labor needs. Employer orders for defense workers that cannot be filled by employment offices within a given state will be referred to one of the regional offices, which will route them to the localities where such workers may be available.

One difficulty which has been encountered in clearing orders for Civil Service jobs is that some arsenals and navy yards order more men than they really need and then pick and choose among those referred by the Employment Service. The men, who may have been recruited at some distance, are seriously inconvenienced and the Employment Service, which has undertaken in good faith to move them to jobs, suffers a loss of prestige. This difficulty will probably be encountered also in private clearance. Another major problem is to reduce the length of time required for an order to pass through the successive steps in clearance procedure.

Inducements to Mobility

It has been proposed that travel funds be advanced by the government through the Employment Service because the costs of movement may prove
an important obstacle to transference of labor. Such a program, however, would involve the Service in additional administrative work. Employers, and in some cases unions, are usually willing to advance travel money to qualified workers. These possibilities should probably be exhausted before government aid is attempted. It is doubtful whether travel costs are in fact a major barrier to mobility for skilled workers. More important are home ownership and other financial attachments to a community, reluctance to leave friends and relatives, and the natural tendency to hope that "something will turn up."

In some cases an unfavorable wage structure is the main barrier to movement. The simplest way to redistribute labor, in the initial stages at least, is to raise wages in the areas where labor is demanded. This would largely do away with the need for institutional aids. In other cases seniority rules may be in the way. Workers with several years seniority in an automobile plant may prefer to remain unemployed in Detroit until a job appears rather than to look for work elsewhere. If this should prove to be an important factor, workers who move to defense jobs might be enabled to retain seniority rights in their old jobs for a specified period. High initiation fees charged by local building trades unions appear to have hindered mobility in some cases. In still other cases absence of adequate housing facilities constitutes a difficulty. Some workers are now forced to drive from thirty or forty miles to their jobs in shipyards or steel mills. The lack of housing near the job deters other workers from taking jobs in these plants even though they may be sorely needed.

19. More detailed discussion of this problem will be found in Housing for Defense, Chapters 1-3.
Moving the Job to the Man

The process of bringing workers and jobs together does not involve movement on one side only. Even if labor were perfectly mobile, an attempt to funnel all of the available labor supplies into existing industrial areas would encounter housing shortages and other serious difficulties. It is necessary at the same time to approach the problem from the other end by locating new plants in areas where surplus labor is available. This is already being done to some extent by locating munitions plants in agricultural regions and by attempting to spread the manufacture of airplane parts among small sub-contractors, leaving only final assembly to be done at the central plant. Many factors must be considered in deciding how far decentralization of production should be carried. But the wide dispersion of the labor reserve, and its very considerable inertia, constitute a strong positive argument. The argument for decentralization is particularly strong where suitable idle plant space and idle labor are available, as they are in many "ghost towns" abandoned by their former industries.

Need for Apprenticeship

The above methods cannot meet the problem of a general shortage of particular skills. The Employment Service cannot produce men from nowhere. And it is now too late to train mechanics from the ground up for a demand which will reach its peak within two years. This does not mean that regular apprenticeship can be neglected. To reduce apprentice quotas now would be to gamble that the emergency will have passed within two or three years. If it continues longer an extremely acute and embarrassing shortage of skilled metal workers will follow, but this can be avoided by an increase in apprenticeship during the next few months.
The Navy has already increased its apprentices from two thousand to four thousand out of an expected total employment in navy yards of 175,000. After the four-year "gestation period" this should be enough to meet the estimated annual wastage of 5 per cent among skilled workers. A number of aircraft and machine tool companies are also increasing their apprentice programs. Whether enough is being done in this direction is difficult to say because of the impossibility of predicting the duration of the emergency. Some increase in apprenticeship is obviously necessary as a safety measure, and the work of the Federal Committee on Apprenticeship is helping to meet this need. Most plants now have far fewer apprentices than allowed by union regulations and a large expansion could occur without union opposition.

How the Supply of Mechanics May Be Increased

For the next two or three years, within which newly-trained apprentices will not be available, the situation is serious but by no means desperate. Several steps might be taken to increase the supply of all-round mechanics and to reduce the need for them. Members of crafts which are likely to become scarce could be exempted from military training. Local draft boards already have authority to grant deferrals to men considered indispensable in industry, but uncertainty as to what the local
practice will be has an unsettling effect on the labor market. Cases are reported, for example, of men leaving private jobs for government jobs because they believe that this will enable them to secure exemption more easily. These uncertainties could be eliminated and the supply of scarce skills more effectively conserved by issuing a master list of deferred occupations to be applied by all local boards. This list would include not only occupations already scarce, but also occupations which are likely to become scarce within the conscription period. It is much easier to foresee the need for certain types of men in industry than to try to recall them from the Army after the need has arisen.

21. The experience of Great Britain during the World War is pertinent here. Indiscriminate recruiting led to a loss of 20 per cent of the skilled labor supply during the first year of the war. While some of these men were later recalled from the front to industry, the procedure was slow and occasioned frequent conflicts between the Army and the Ministry of Munitions. In the spring of 1915, a "badging" system was adopted which exempted workers in specified plants from military service. This proved quite unsatisfactory, for key workers in non-munitions plants were called for service while low-skilled workers in no sense necessary to production were exempted simply because they worked in a munitions factory. The "badging" system was therefore changed late in 1915 so as to apply to occupations rather than plants. See Humbert Wolfe, Labour Supply and Regulation, Oxford University Press, London and New York, 1923, Chapter IX.

The number of mechanics available for employment could also be increased by raising or removing age limits on hiring and retirement. The skilled labor force at present is disproportionately old because of the failure to train replacements during the depression. Almost half of the skilled metal workers registered with the Employment Service in April 1940 were over forty-five years of age. Many of these men are fully efficient but have been barred from employment in recent years because of employer preference for younger workers. The Civil Service hiring limit
for arsenal and navy yard workers was recently raised from forty-eight to sixty-two and similar increases have been made by many private firms. This practice will probably be generally adopted and efficient older workers will be absorbed before more drastic measures have to be adopted. By raising age limits and offering attractive wages it may also be possible to recapture many mechanics who have drifted into other occupations. The extent to which shipbuilding workers have drifted into other jobs is indicated by the Employment Service Inventory of April 1940 which lists shipyard workers in almost every state of the union. The Patternmakers' League also reports a large drift of its members into other occupations. The whereabouts of these members are known and many of them could probably be induced to return to the trade if they were assured some stability of employment.

The skill of available craftsmen can be more completely utilized by promoting them to jobs which require their full ability. All-round machinists who have been operating a specialized machine can be advanced to non-repetitive production, installation and repair work or supervisory positions. The personnel manager of one aircraft plant which has been following this policy stated, "We've been amazed to find how small a proportion of skilled mechanics we really need." Complete replacement of machinists on all jobs which can be done by machine operators might decrease the apparent demand for machinists enough to remove any serious shortage in this craft. Effective application of this policy requires a thorough survey of the minimum requirements of each job in the plant and of the capacity of each worker employed. Companies which have not yet made such surveys may soon find them necessary.
A Reservoir of Skills

The output of mechanics can be speeded up without lowering basic apprenticeship standards. Apprentices can be graduated early as an emergency measure. Semi-skilled men can be trained to do mechanics' work in less time than would be required to train an entirely inexperienced man. Both methods are now in use by the Navy Department. Apprentices are allowed to begin doing journeymen's work and drawing journeymen's wages at the end of their third year. At the same time, however, they give up their right to the special training which apprentices receive. In addition, men with some mechanical background are being brought in as "helper trainees" to enable them to qualify as mechanics within a year or two. Instruction is mainly through supervised shop work, with additional classes in shop mathematics, blue-print reading, etc. At the end of the course trainees are taken on as machinists at the minimum rate, provided positions are available and they can meet the Civil Service experience requirements. If positions are not available, they may be retained as helpers until jobs develop. In this way a reservoir of skill is being built up which can be tapped as needed.

Another possibility is to divert members of the same "occupational family" to crafts in which a shortage exists. A good machinist can be turned readily into a tool maker, a draftsman into a loftsman, a sheet-metal worker into a coppersmith. The occupational classifications of the Employment Service, and their tabulations of secondary as well as primary skills of unemployed registrants, will in time prove very useful in this connection.

Dilution In Skilled Trades

If all these methods fail to relieve a shortage, it may be
necessary to use the more drastic expedient of breaking down production processes into simpler elements, which can be performed by workers with only a few months' training. A casting, for example, may be machined by several operators on specialized machines, instead of all operations being performed by one all-round mechanic. This process of dilution of the machinist's trade has been going on gradually for at least thirty years, and would simply have to be somewhat speeded. The gain from the subdivision of processes is not a net gain, since there is an increased need for advance planning of operations and routing of work, setting up of work in the machine, supervision of the machine operators, and inspection of the product. But the essential end of reducing the number of all-round mechanics is achieved. The Training Within Industry Division of Mr. Hillman's staff is devoting a large part of its time to conferences of production men and engineers in fields where dilution appears necessary. Real progress has already been made in the cases of instrument makers and optical lens workers.

(22)

22. For description of steps which might be taken to simplify the processes of building construction, see Housing for Defense, pp. 80-84, 90.

The metal trades unions show no disposition to oppose training programs wherever it can be shown that a genuine shortage exists. They insist, however, that the need for additional workers be demonstrated before large-scale training is launched and that training should be directed toward proven occupational needs. This policy seems sound not only from the union's standpoint but also from the social standpoint. In any event a surplus of skilled metal workers will follow the present crisis, and this surplus should be kept as small as possible.
The question of dilution, which strikes at the basis of the trade union by disintegrating the trade itself, is more controversial. Dilution is a one-way road, and it will not be possible after the crisis to restore to the skilled trades the work which has been lost to them in the meantime. Naturally the unions want to delay the process until it is absolutely necessary. They seem willing to compromise, however, provided the new semi-skilled workers are paid the rate previously earned by journeymen on the same work. District 44 of the Machinists, for example, has insisted that machine operators in arsenals and navy yards be paid the machinists' rate and has resisted all attempts to introduce a new Civil Service classification of machine operators at a lower rate.

Many employers deny that there is any justification for this demand, and it will probably give rise to serious controversy if dilution proceeds very far. Serious difficulties were encountered in Great Britain during the World War. In order to induce the strong engineering unions to agree to dilution the government was finally obliged to promise that semi-skilled workers taking over work formerly done by skilled men should be paid the customary price for the job, that the suspension of established union practices should last only until the end of the war, and that the government would use its influence to secure the re-establishment of union rules after the war. Both labor and employers have vital interests in questions of training and dilution. It is obviously necessary that both groups be represented on all planning agencies, and with technically qualified and interested personnel.

Priorities

The final and most drastic step would be the application of priorities in the hiring of scarce types of labor. Priorities on orders,
of course, are already in use in several industries, and this yields an indirect system of labor priorities. A system of direct labor priorities would require all hiring of certain crafts to be done through the Employment Service, which would give precedence to the defense industries according to a definite rating scale. Such extreme interference with labor's freedom of movement will probably not be necessary so long as we continue to pursue a policy of defense. In the event of a major war, however, use of priorities would be clearly the most efficient way to proceed. Labor support for such a policy could probably be secured only by the issuance of specific guarantees—for example, a guarantee that workers' earnings would not be reduced as a result of transference to a different plant or industry.
Chapter 2

LABOR STANDARDS

Given the rate of defense production which existing appropriations provide, will it be possible to maintain intact labor's recent gains? With this question, of the highest importance, the present chapter is concerned.

In recent months government officials of all ranks have announced repeatedly that the social gains of the past decade are not to be sacrificed to defense production. No one doubts their sincerity and all would agree that these aims are desirable. But desire to achieve a given end is quite different from ability to achieve it. If the rate of defense expenditure is set, the question whether existing levels of hours and real wages can be maintained is answered almost automatically by the number of workers and the amount of equipment available for production. It is not for the most part subject to deliberate control. If, therefore, the government is promising more than it can fulfill, the eventual disillusionment and bitterness which may follow will be a serious barrier to national unity. Since no one would advocate relaxation of existing standards of health and safety, wages and hours are the open questions.

1. Working Hours

A record reduction in weekly working hours has taken place during the last ten years. The standard week, which has been declining
gradually for at least fifty years, \(^{(1)}\) had by 1929 reached an average

1. The average scheduled weekly hours in manufacturing industry fell steadily from 60 hours in 1890 to 43 hours in 1937. See Paul H. Douglas, \textit{Real Wages in the United States, 1890-1926}, Publication No. 9, Pollak Foundation for Economic Research, Boston and New York, 1930, and reports of the U.S. Bureau of Labor Statistics. It should be noted that these are normal working hours, which run somewhat above actual hours.

of 49 hours for all manufacturing industry. The great depression brought further reductions as plants worked short-time rather than dismiss part of their workers; in 1932 the average working time in manufacturing was only 35 hours per week. During the ensuing recovery the working week, instead of returning to 48 hours, as might normally have been expected, became stabilized at about 40 hours. It has remained very close to this level ever since.

The initial impulse to this shorter week came from the NRA codes, most of which fixed a 40 hour ceiling in order to hasten re-employment. When NRA came to an end in 1935, employers generally had become adjusted to the shorter hours and maintained them voluntarily or as a result of union agreement. In many cases a five-day week has been substituted for a six- or five-and-a-half-day week, while in continuous process industries the six-hour shift has increasingly replaced the eight-hour shift. The Fair Labor Standards Act of 1937 did not introduce a new and shorter working week. It merely wrote into law the prevailing custom of manufacturing industry. Retail stores and service establishments engaged in intra-state trade are not covered by the Act, and have continued to work somewhat longer hours.

The shortness of our working week, particularly as compared with that of the European belligerents, has led many to argue that the easiest way to speed up our production of defense materials is to lengthen
working hours. One writer recently went so far as to state that defense production could be increased 50 per cent by working 60 hours a week instead of 40 hours. (2) The actual situation, as any plant manager knows, is much more complicated. As hours are increased the worker's hourly output eventually begins to decline so that total output no longer increases proportionately with the lengthening of hours. After a certain point, indeed, further increases in hours will cause such a sharp reduction in hourly output that total output also declines. (3)

3. This lesson is very slowly learned. Both in the World War and the present war, the belligerents began by raising hours above the optimum point and were later forced to reduce them. In September 1939, Germany removed all limits on the working hours of adult men, and many men began to work twelve and fourteen hours a day. The result was fatigue, discontent, and a considerable decrease in the tempo of industrial production. On December 12, 1939, the working day was once more limited to ten hours; night work for women and young people was again prohibited, and their working week restricted to 56 hours. See John C. de Wilde, "Germany's Wartime Economy," Foreign Policy Reports, June 15, 1940, p. 90.

The Fatigue Factor

The main reason for declining hourly output as hours are increased is the growing fatigue of the worker. While the exact nature of fatigue is still a subject of debate, the fact that it exists is obvious. Output tends to fall off toward the end of the working day, and the longer the day the sharper the decline in the last few hours. Growing fatigue leads to an increase in accidents and spoiled work, so that the real gain in production is less than it would seem. The resistance of workers to disease is reduced and more time is lost.
through sickness. Absenteeism increases as workers begin to seek relief from the strain of constant exertion. Moreover, fatigue and its effects on production are largely independent of the worker's attitude. "During the continued performance of work the objective results of nervous fatigue precede in their onset the subjective symptoms of fatigue. Without obvious sign and without his knowing it himself, a man's capacity for work may diminish owing to unrecognized fatigue... It is of great importance to note that a special and strenuous voluntary effort in labor, if it be maintained under a badly-arranged timetable of work and rest, does not necessarily bring increased output over a long period, however praiseworthy the effort may be."


While attempts to rouse workers to a pitch of patriotic enthusiasm may result in extraordinary efforts for short periods, they cannot in the long run offset the physiological results of overwork.

The Optimum Week

There are thus two critical points in the process of lengthening the work week. After the first, usually reached fairly early, hourly output begins to decline. After the second, which is of course considerably higher, total output begins to decline. The number of hours which will result in maximum total output as usually termed the optimum working week.

It is unfortunate that very little is known about the actual length of the optimum-week. The studies conducted during the World War by the British Health of Munitions Workers Committee yielded indeterminate results. Women, boys and men engaged on relatively heavy work, sometimes produced more in 50 hours than in 60 or 65 hours. In lighter types of work,
however, maximum output was sometimes attained at 70 hours or more. In some cases the optimum appeared to be a zone rather than a point, variations of ten or fifteen hours in the work week yielding little or no change in total output. The meaning of the results is further obscured by the impossibility of keeping conditions other than hours unchanged for the duration of the experiments.

It is also very doubtful whether results obtained in the Britain of 1914-1918 can be applied to the United States of 1940. It seems likely that the tempo of work and the degree of concentration required is generally higher in American plants, and the optimum work week therefore shorter. The only safe conclusion is that the length of the optimum week will vary from industry to industry, from occupation to occupation, and from worker to worker, and that we have no very definite knowledge about it. There is some reason to think that it may lie between 48 and 60 hours for most occupations in the United States, though in some cases it may be less than 48 hours while in others it is doubtless above 50.6. The optimum week

5. Reports of the British Health of Munitions Workers Committee, particularly Memoranda Nos. 5, 12, and 20. Certain of these reports were reprinted as Bulletins of the U. S. Bureau of Labor Statistics. See also P. Sargent Florence, The Economics of Fatigue and Unrest and the Efficiency of Labour in English and American Industry, Henry Holt and Company, New York, 1924, pp. 220.

6. There is some support for this supposition in a recent survey conducted by Fortune magazine. Some 15,000 executives of leading United States corporations were asked how many hours they could work per week without a decrease of production. The answers were distributed as follows: forty hours-4.6 per cent; forty-eight hours-48.0 per cent; fifty-six hours-19.0 per cent; sixty hours or more-12.1 per cent; "don't know," or no answer-16.4 per cent. See "Fortune Survey of Executive Opinion," Fortune, September 1940, p. 112.
is also changing constantly because of changes in production methods, workers' attitudes and other factors. Workers will probably work somewhat longer hours without a decrease of production if they are fully convinced of the necessity of the armament program and believe that they are receiving fair treatment under it.

It would be generally agreed that a 40-hour week is below the maximum for most occupations. This raises no serious problem so long as production can be increased by hiring additional workers. As shortages of faculty workers develop during the next two years, however, a general lengthening of working hours will probably be accepted without much debate. The real controversy will come over the issue of overtime payment. Should workers who are required to work more than 40 hours per week be paid time and a half for the extra hours as the Fair Labor Standards Act provides, or should a different policy be adopted?

Longer Hours Inevitable for Scarce Skills

The scarce skill groups mentioned in Chapter 1 are already working more than 40 hours in many cases. Although workers in manufacturing industry as a whole averaged only 38.8 hours per week in September 1940, aircraft workers averaged 44.9 hours, engine workers 44.7 hours, and machine-tool workers 48.4 hours. Some airplane plants are working two twelve-hour shifts while men are being trained to make up a third shift. Since aircraft workers can be trained very fast, however, these long shifts will probably be only a temporary phase in the industry's expansion. Overtime work for tool makers and other scarce crafts will probably last for a longer period. Many machine tool plants are now

working eleven-or twelve-hour shifts with no relief in sight. Men are not available to make up a third shift and cannot readily be trained.

Necessary overtime of this sort can be worked without any change in existing legislation. The Fair Labor Standards Act imposes no absolute limit on working hours, but provides that (with certain exceptions) time and a half must be paid for all hours above 40 per week.\(^8\) Overtime

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8. The analogy sometimes drawn between the Fair Labor Standards Act and the French forty-hour law of 1936 is highly misleading. The French Act imposed an absolute maximum, with overtime permitted only in very exceptional circumstances. It reduced hours from a generally prevailing level of 48 per week, while the Fair Labor Standards Act at most prevented an increase of hours. Finally, the French act required existing wages to be maintained; this provision, which amounted to an increase of some 20 per cent in hourly rates, naturally had a dislocating effect on French industry.

Similarly misleading is the statement that the 40-hour week was responsible for France's failure to produce a sufficient number of airplanes and other types of armament. Actually, the 40-hour week was gradually abandoned during the summer of 1938, and after the Munich Agreement a 60-hour maximum was set for all defense industries. German industry, which had operated an eight-hour day and 48-hour week from 1934 through 1938, did not adopt a 60-hour week until January 1939 -- several months after France had taken this step.

Work is made more expensive than regular work, which is expected to discourage employers from resorting to it except when absolutely necessary. This deterrent is reduced in the defense industries, however, because the higher costs can to some extent be passed on to the government through higher contract prices. The main effect of the Fair Labor Standards Act at present is probably to raise the money cost of defense production and to cause some transfer of income from taxpayers to certain groups of scarce workers. There is also an indirect effect on costs and prices in non-defense industries, which will in some cases be forced to raise wage rates to hold their skilled labor.

It is doubtful, however, whether revision of the Act would effect a substantial reduction in government expenses. Many skilled workers are
protected by union organization or by their individual bargaining strength and they would continue to draw time and a half for overtime regardless of legislation on the subject. The effect of revision would be mainly to remove protection from low-skilled and unorganized workers. Removal of overtime payment would also make it more difficult for the defense industries to recruit labor. At present they are able to attract men from other industries by the offer of overtime work and consequent higher earnings. If this were not possible they would probably have to attract workers by raising basic wage rates, and their labor costs might be as high as before. When fixed-price contracts have already been signed, any reduction of labor costs secured by amending the Act would benefit employers rather than the government.

As labor shortages develop and overtime becomes the general rule, the issue of overtime payment will arise more acutely. Time and a half for all time over 40 hours would then produce a general increase in average hourly earnings. Higher labor costs would lead in turn to higher prices and profits, though there is no reason why they should generate a cumulative inflation if appropriate measures of fiscal policy are adopted. The impact of higher prices would be felt primarily by salaried persons, pensioners and other groups whose incomes are relatively rigid. Workers would probably gain in real income since it is likely that the cost of living would rise less than average hourly earnings. Under NRA a general increase in money wages produced a smaller increase in the cost of living and therefore a gain in real wages.
The wisdom of a general wage increase at a time when the productive system is operating close to capacity and when the real income of some groups is being reduced is open to debate. It should be realized that it is a controversy over the division of the national income and has no direct bearing on production. Policy must therefore be decided on grounds of justice and social expediency. Nor should the psychological connection between this and other aspects of public policy be overlooked. Wage earners look primarily to the profits of employers and the cost of living in appraising the justice of their earnings. It will be difficult to induce them to sacrifice overtime unless excess profits are prevented and the cost of living held in close check.

An additional factor which may be relevant is that wage increases will be demanded in any event during the next two years. If money wages are to be increased, there is something to be said for an increase in the form of overtime payment rather than a raising of basic rates. After the emergency has passed reduction of hours and overtime pay would produce an automatic deflation of wages, while a reduction in basic rates might be very difficult to obtain.
2. Wages

The defense program begins after one of the most rapid wage increases in our history. By 1935 the National Industrial Conference Board figure on hourly earnings of factory workers was slightly above the 1929 level, with the cost of living 17 per cent below 1929. Between 1935 and August 1940, the Bureau of Labor Statistics index showed a further rise of almost 20 per cent in hourly earnings (from 55.9 cents in 1935 to 66.7 cents in 1940), while the cost of living had risen only 3 per cent. Can the higher level of real wages be maintained during the next few years? Can workers have as much as before to eat and wear, while at the same time a much larger proportion of the national income is turned into such non-consumable things as guns and aircraft? What divergent trends in wages are likely to appear in different industries and different occupations? What effect will these trends have on the problem of directing labor supplies to the points of greatest need? An attempt is made below to answer these questions in the light of past experience.

a. The Level of Real Wages

The World War produced, in general, a decline of real wage rates in the belligerent countries because those countries, already working close to capacity, were obliged to divert more and more productive power from consumer goods to armaments. A shrinking output of consumer goods made it inevitable that part or all of the population must accept a lower standard of living. The only question was which groups in the population should bear the brunt of the necessary sacrifices.

Wages Lag Behind Living Costs

This was largely answered by the inflationary methods used to finance the war, which led to a steep rise in living costs in most
countries. Business groups suffered little if any, since profits tended to rise at least as fast as the cost of living. Manual workers, however, took a definite wage cut, particularly in the early years of the war. Money wages rose slowly — usually from six months to a year behind living costs (Table 3). Clerical and professional workers, pensioners, bondholders and other fixed-income groups were hardest hit of all.

The position of the manual workers improved considerably during the last year of the war. Partly because of union activity and growing labor unrest, wage increases were granted more readily than before. At the same time steps were taken to check the rise in profits and to limit the prices of certain necessaries of life. These resulted in a somewhat fairer distribution of the burdens of war than in earlier years. By 1919 the workers had on the average regained their 1914 position in wage rates. Men working overtime enjoyed a larger real income than in 1914, but it is doubtful whether this should be considered a net gain since it was achieved only by additional effort.

The experience of belligerent countries during the first year of the present war seems to have been much the same as in the world War. In Great Britain, the only country for which data are readily available, the cost of living has risen sharply since the outbreak of war. The Labor Gazette index of living costs went up 58 per cent between August 1939 and July 1940. The increase in hourly wage rates, however, has been estimated at only 9 per cent between August 1939 and April 1940. (9)

9. London and Cambridge Economic Service, Bulletin II, Vol. XVIII, April 1940, P. 30. Official figures are not available. Neither the cost of living figure nor the wage estimate can pretend to anything like complete accuracy, but it seems clear that there has been a drastic decline in real wage rates. Real income has not fallen so much, of course, because of the offsetting factor of longer hours of work.
### Table 3

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<td>260</td>
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(a) A. L. Bowley, *Prices and Wages in the United Kingdom, 1914-1920*, Oxford University Press, New York, 1921, p. 106. The cost of living index is that of the Ministry of Labor Gazette, which Bowley regards as somewhat too high because it does not take into account changes in consumption habits. The wage series, prepared by Bowley, refers to weekly earnings in a week of standard strength.

(b) Lucien March, *Mouvement des Prix et des Salaires Pendant la Guerre*, Yale University Press, New Haven, 1925, pp. 244, 297. The cost of living index is for Paris only, but figures for the departments run somewhat higher. The wage series is a composite of the movement of daily wages in different industries.


These series are by no means exact; it should be remembered, too, that they represent rates rather than earnings, which were considerably higher because of overtime work and greater regularity of employment.
Must Living Standards be Reduced?

This experience has led many to assume that American living standards must also be reduced as a result of the defense program, through the diversion of productive capacity from consumer goods to armaments. It is necessary to point out, however, that much of our consumer goods capacity is specialized in such a form as to be quite useless for armament production. It would be impossible, for example, to increase the output of guns by consuming less butter or cotton cloth. Such items may be termed non-competitive consumer goods, since they do not compete with armaments for the use of existing productive capacity. Any reduction in the output of non-competitive consumer goods would be sacrifice for its own sake, serving no useful purpose. Indeed their output can be considerably increased by drawing on the unused capacity which exists in most consumer goods industries.

On the other hand, some consumer goods compete rather directly with armament production. If there is no problem of guns versus butter, there is certainly a problem of automobiles versus tanks and airplanes.

10. The problem of "guns versus butter" arose in Germany because a considerable part of Germany's butter consumption was imported. Reducing butter imports saved foreign exchange which could be used to pay for imports of iron ore, oil, and other war materials.

11. Officials of the United Automobile Workers (CIO) contend that a large output of airplanes could be obtained from automobile assembly and parts plants simply by using capacity now idle because of seasonal and other reasons. It is clear, however, that beyond a certain point airplane and tank production would encroach on automobile production.

Reduced production of such competitive consumer goods is not only possible but very likely. Since all industries compete to some extent for labor, an acute shortage of factory labor might necessitate some reduction even in the output of non-competitive consumer goods. Fearing this contingency, the
output of such goods can be expanded up to the limit of present productive capacity. But it cannot be expanded beyond that limit without appropriating machine tools and other items essential to defense production. The necessity of getting along with present plant and equipment sets a definite limit to consumer goods production within the visible future. If the emergency lasts long enough, deterioration of equipment may lead to some reduction in output.

One can be certain only that the composition of the consumer goods flow will change very considerably during the next few years. It will probably contain more foodstuffs and cotton goods, but fewer automobiles, refrigerators and private airplanes. Whether this new standard of living should be called "higher" or "lower" than the old is difficult to say, since it is impossible to compare directly the satisfaction derived by consumers from different kinds of goods.

It follows that different economic groups will have different degrees of success in maintaining their standard of living. The industries producing the basic necessities of food, clothing and housing have much unused capacity and are largely non-competitive with armament production. Since urban wage earners spend the great bulk of their incomes on these necessities, there seems no reason why their standard of living should not be maintained or even raised. The middle- and upper-income groups, which normally spend a good deal on mechanical equipment, may be forced to make more drastic adjustments in their consumption habits. The extent to which output of competitive consumer goods will be curtailed through diversion of productive capacity depends mainly on the magnitude and speed of the armament program. The program for which appropriations were provided in 1940 could have been carried out with very little diversion of plants from consumer goods. The program now under consideration will require a more far-reaching reorientation of production, reaching into consumer goods as well as into the heavy industries.
b. Differences in Wage Trends

During the World War the money earnings of workers in the war industries rose faster than earnings in other industries. Armament workers tended to gain in real income, while other workers tended to lose (Table 4). The gains of the war workers were probably due partly to overtime work, but certainly hourly earnings also rose. Workers in war industries, however, suffered more severely than other workers during the postwar depression.

Wages of War Workers Will Rise

This experience will probably be repeated, though perhaps on a smaller scale, during the next few years. Employers in the defense industries will tend to offer higher wages to attract desirable workers. They can afford to raise wages because increased costs can be transferred to the government as new contracts are written and have probably been anticipated in most of the existing contracts. Active union organization in most of the defense industries will put pressure on employers to raise wages, and they are unlikely to dispute the issue to the point of a strike when concessions to the union can usually be met by raising contract prices to the government.
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Note: Data prepared for the Temporary National Economic Committee by the U.S. Bureau of Labor Statistics. See Hearings before the T.N.E.C., "December 9, 1939, on behavior of wages and prices during the World War."
Average hourly earnings of aircraft, machine tool and shipbuilding workers probably have already gone up 10 per cent though this is not yet proved by existing statistics. Although they may seem

12. The U. S. Bureau of Labor Statistics figures of average hourly earnings increased as follows between September 1939 and September 1940: all manufacturing, 5.5 per cent; shipbuilding, 6.7 per cent; aircraft, 0.7 per cent; machine tools, 2.4 per cent. Employers interviewed in the aircraft and machine tool industries, however, stated that job for job rates have risen about 10 per cent during this period. The reason this does not show up in the B.L.S. figures is that the proportion of low-skilled workers has increased as production has expanded, thereby holding down the average for all workers in the industry.

unjustified to workers who do not participate in them, these increases serve a useful economic function. The simplest way of transferring labor to the points of greatest need is to raise wages at those points. The available supply of low-skilled workers, already noted, makes it unlikely that general wage increases in the defense industries will go farther than is necessary to make these industries reasonably attractive as compared with others.

Skilled Workers at a Premium

A wage trend which has less economic justification, and which is more likely to get out of hand, is the rise of wage rates for skilled mechanics relative to rates for production workers. During the World War the drafting of four million men into the army created an acute shortage of unskilled labor. While mechanics' rates increased, laborers' rates increased even more, and the gap between the two was considerably narrowed. It was narrowed still further by the wage floors written into NRA codes, which usually resulted in much greater relative increases for low-paid than for high-paid labor. The gap will probably be widened again during the next few years as skilled workers, now scarce, gain relative to unskilled workers, now abundant. The situation of 1917 has been reversed.
Most of the employers interviewed for this report stated that wage rates for skilled metal workers have gone up a good deal in recent months, and that good men are being paid as much as is necessary to hold them. It was also freely admitted that labor scouts are active and that workers are being "pirated" from one production center to another by offers of higher wages — in spite of all agreements to the contrary. Wage rates for the scarce crafts noted in Chapter 1 are certain to be bid up during the next year or two and may reach very high levels.

**Competitive Bidding for Labor**

This process does not seem to serve any useful end. The skilled-unskilled differential is already large enough to induce all who can to train themselves for skilled work. Higher wages will not turn out mechanics any faster. The main effect will be simply increased turnover which is bound to have a disorganizing effect on production. High labor turnover, amounting in some cases to more than 100 per cent per month, was an extremely serious problem during the World War, particularly in the shipbuilding and construction industries. Not only did employers compete for labor by using labor scouts and private employment bureaus, but different government agencies frequently stole each other's labor. In some cases this was unintentional and was due to the differing wage rates set by the multitude of "adjustment boards"; in other cases it appears to have been deliberate.

While turnover is now very low by World War standards, monthly separations from aircraft, machine tool and shipbuilding establishments have doubled during the past year and are still rising. What methods are available for preventing needless and undesirable mobility? The direct remedy is to centralize all hiring in the public employment service and limit the right of scarce workers to change their jobs. During the World
War the British Munitions of War Act forbade munitions workers to leave their jobs without the employer's consent. This "leaving certificate" provision aroused trade-union opposition, however, and was eventually abandoned. Employers in the United States were forbidden in August 1918 to recruit unskilled workers except through the United States Employment Service. But they were not forbidden to hire men who applied to them directly and it is doubtful whether the regulation was very effective.

Under the stress of the present emergency the British trade unions have consented to highly centralized control of the labor market. Not only must hiring be done through the Employment Service, but workers may be transferred to emergency work of any type by order-in-council. Similar methods have been in use in Germany since 1936. Employers in a steadily lengthening list of key industries may not hire additional workers without the consent of the local employment office. Workers in these industries are also forbidden to quit their jobs without notice under penalty of being blacklisted for employment.

Such measures would probably not be acceptable to workers and employers in the United States except under conditions of extreme emergency. A less drastic step would be to require that all inter-locality hiring of certain types of labor be done through the Employment Service while leaving local hiring unrestricted. This step of course would not prevent high turnover due to purely local competition, and would present serious problems of enforcement.

Another approach is to standardize wages on a regional or national basis and thus reduce the incentive to mobility. This was attempted during the World War in both Great Britain and the United States and approximate uniformity of wages was secured in a number of industries. Enforcement of the maximum rates proved a difficult problem, however, and the more effective the enforcement the more strenuously did
employers compete for labor in other ways. In some cases the wage boards were forced to standardize hours and other terms of employment as well as wages. This approach is being seriously considered at present for aircraft and shipbuilding industries. A committee representing labor, employers, the Maritime Commission and the Navy Department has been appointed to report to the Defense Commission on the feasibility of standardizing shipyard wages on a regional basis, and a similar committee for the aircraft industry is under consideration.

Wages in Arsenals and Navy Yards

Arsenals and navy yards are required by an act of July 16, 1862, to pay the prevailing rate for comparable work in the vicinity. Arsenal rates are ordinarily set by local wage boards appointed by the commanding officer. Navy wage determinations are made for all yards in the country at the same time by a specially-appointed wage board sitting in Washington. This board canvasses prevailing rates in the different areas and hears representations of the unions involved. Wage determinations are relatively infrequent. The one now under way is the first since 1928. This means that government wage rates tend to lag behind private rates both on the downswing and the upswing of the business cycles.

Rates in navy yards were not seriously affected by the 1929 collapse, though an indirect wage reduction was effected by hiring a larger proportion of workers at the minimum and intermediate rates. Navy yard rates remained well above private rates during the thirties, and still compare favorably with them. While the Navy has lost some skilled metal workers to private shipyards, it has also attracted skilled men, principally from manufacturing plants paying relatively low wages. Its "balance of trade" in recent months has been approximately even.

Arsenal rates for skilled metal workers are about 10 per cent below navy yard rates. There are considerable differences among the arsenals,
however, and the relatively low rates at some arsenals may have something to do with their reported difficulties in getting labor.

As recovery continues in private industry wages in some crafts may begin to climb above those paid by the government. The better mechanics may then desert the government establishments and new recruits may avoid them. To guard against possible loss of men as private rates climb, army and navy wage determinations could be made at least annually during the next few years. While the government should not want to take the lead in raising rates to needlessly high levels, it should still allow itself to be placed at a competitive disadvantage which would interfere with efficient production. The fact that a large proportion of navy yard machinists are now working at the minimum and intermediate rates makes for flexibility. It will be possible within limits to retain men by promotion to a higher rate without any change in the general wage structure.

The ambiguity in the prevailing wage concept is another source of trouble. What is "comparable work"? And how large is the "vicinity" which must be taken into account? Should the rate for machinists at the Watervliet Arsenal be based upon rates in manufacturing establishments in upstate New York? If so, it will probably prove impossible to attract machinists from New York City, which has considerably higher rates.

In general, a flexible interpretation of the provisions of the law will help to make possible necessary geographical and industrial transference of labor. Legalistic interpretation of "vicinity," "comparable skill" and such terms may obscure consideration of the sources from which labor may be drawn with least industrial dislocation, and of the inducements necessary to draw it.
3. Summary

Whether existing labor standards can be maintained during the next few years cannot be answered definitely at this time. Working hours have already been lengthened considerably in some industries, and will be lengthened in others as labor shortages develop. Overtime payment for hours in excess of 40 per week will become an increasingly controversial issue. It was suggested above that this is essentially a controversy over the division of the national income. Continued payment of overtime would have little effect on production but would result in some redistribution of income in favor of wage earners.

An increase in the output of consumer goods is to be expected in the immediate future, although this increase will be uneven and the production of some items may decline. Workers in defense industries, and particularly skilled mechanics, will probably be better off than before, though workers whose wages do not advance appreciably may suffer a loss in real income. Workers as a whole will probably fare better than middle-class groups with fixed incomes, who are almost certain to lose in real income, for reasons indicated above.

The doubtful factor in the situation is the rate at which armament production will be accelerated during the next year or two. This does not depend primarily on the amounts appropriated by Congress but rather on the success of production officials in inducing an expansion and reorientation of plant capacity. The more successful they are in expanding plant capacity, the sooner will labor shortages appear and a general lengthening of hours occur. The more ingenious they are in diverting plants from consumer goods to armament production, the sooner will certain items begin to drop from consumer budgets.
Chapter 3

ADJUSTMENT OF INDUSTRIAL DISPUTES THROUGH COLLECTIVE BARGAINING

THE REDUCTION of production stoppages due to industrial disputes is one of the most delicate problems in the labor field. The right to quit work in a body is labor's main bargaining weapon. Rarely used by a strong trade union, it is an implicit economic sanction, always in the background of collective bargaining. The right to strike has been synonymous with free trade unionism, and labor regards any infringement of this right as an attack on the principle of unionism itself.

Strike Causes Multiply Under Pressure

Sources of disputes may increase during the next few years—which makes the problem more urgent. Expenditures for national defense will probably cause an appreciable rise in consumer goods prices. The prices of some articles have already risen because of additional excise taxes. Any marked increase in living costs will start demands for wage increases, some of which are bound to be resisted by employers. Even if living costs remain stable, profits will increase in some industries, leading to demands for sharing by labor through higher wages. Already there is feeling in labor circles that business is profiting much more than labor from the defense program. Whether justified or unjustified this feeling is not likely to smooth the course of industrial relations.

Organizing drives are under way or planned in steel, automobiles, shipbuilding, aircraft and a number of other defense industries, with consequent possibilities of "recognition strikes." In some industries,
notably aircraft, the situation is complicated by the dual organization of AF of L and CIO unions. Pressure for production, which may lead employers to encroach on established union rules, will increase friction. Long working hours and speeding up of pace will lead to increased fatigue and nervous tension. Tired workers are apt to engage in sporadic and aimless stoppages — if only to relieve the monotony. Patriotic sentiment in 1917 did not prove strong enough to overcome the continued accumulation of grievances, and a marked increase in the number of strikes followed.

**Machinery for Settlement**

In view of the likelihood of a similar situation arising now it is important to describe the machinery which already exists within industry for peaceable adjustments of disputes. A strike can be prevented or settled only by an agreement between labor and management; while government may assist or persuade the parties to reach an agreement it cannot force them to do so. The few disputes which lead to strikes are brought dramatically to public notice, but a much larger number are adjusted every day by negotiation and compromise. Indeed, if this were not so, collective
bargaining would rapidly become unworkable. It would seem wise, then, to take full advantage of the methods in regular use by unions and employers for minimizing friction and averting stoppages. These methods are the result of long experience in collective bargaining and should not be abandoned lightly.

1. The Collective Agreement

The written agreement binding both parties to observe certain conditions for a stated period of time, is the basic instrument of collective bargaining. It varies with the particular problems of the industry, and with the age and experience of the union. It usually deals with at least the following topics: union recognition, extent of preference in hiring given to union members, wage rates, method of wage payment, working hours, apprenticeship, use of seniority in making promotions or layoffs, adjustment of disputes arising during the life of the agreement, and termination and renewal of the contract. Few agreements cover less ground than this. The agreements of well-established unions tend to be even fuller, frequently including extensive regulation of production methods and even imposing "codes of fair competition" on the employer.

Agreements Are Made to Insure Peace

Strikes and lockouts are almost always prohibited during the life of the agreement. Its whole structure is designed to secure industrial peace during its lifetime. Basic conditions of employment, most likely to provoke controversy, are frozen for a specified period. Adjustment of minor differences and interpretation of terms are provided for by the grievance machinery described below. Crises in industrial relations are thus postponed until the expiration of the agreement, and
may not arise even then. Even if the agreement does not provide for automatic renewal from year to year, renewal tends in fact to be automatic unless there has been a considerable change in prices, profits or volume of production. Acute controversies threatening stoppages of production therefore come up only at long intervals — at turning points in the business cycle, or when one party has used its bargaining strength over a period of years to secure advantages which cannot be defended permanently.

That work stoppages are prohibited by agreement does not mean that they will not occur. It is impossible to prevent the employer or the union from nibbling at the terms of the agreement, thus leading to friction and a possible strike. The union, however, has every reason to keep violations as few as possible. Frequent strikes drain the union’s treasury, cause hardship for its members, lower its public prestige, and, if lost, may lead to a permanent decline in membership and influence. Sheer self-interest forces the union to be primarily a strike-preventing rather than a strike-waging agency.
2. Grievance Procedure

The terms of the agreement are necessarily rather general: statements of intention rather than detailed regulations. Some means must be provided for determining the meaning of the agreement and for transforming general principles into a code of common-law rules. An agreement, for instance, may provide that "ability being equal, seniority shall govern in hiring, layoffs and promotion." But what is meant by ability being equal? Does seniority apply to the craft, the department, the plant, or the company? Does a man transferred from one department to another take his seniority with him? These and other questions arise in ever-changing combinations, calling for some continuous adjustment machinery to pick up where the agreement stops.

The agreement calls not only for interpretation but also for application to particular individuals. This is primarily a matter of fact-finding. It has been agreed, for example, that workers in the same occupation are to receive "equal pay for equal work." But if the work is varied and payment is by the piece, as is the case in the garment trades, determination of what is "equal work" requires the continuous attention of a large staff of job analysts. Again, it has been agreed that men may be discharged for specified reasons. The employer says that John Jones has been discharged for infraction of a specific rule; Jones
denies this and alleges discrimination. Some machinery is needed to determine the facts of the case and to reinstate Jones or confirm his discharge.

Almost all union agreements provide such machinery either directly or by implication. The most explicit statements of grievance procedure are usually to be found in agreements of industrial unions. The comparative reticence of craft union agreements on this point does not mean that grievance machinery is absent, but rather that its form is prescribed by well-established customs of the trade and explicit description is considered unnecessary.

The procedures used, varying widely in detail, tend to follow a general pattern: initial determination of disputes by the foreman and the union committeeman in a particular department and appeal of unsettled cases to successively higher levels of management and union officials, with final decisions resting either with top officials on both sides or with an arbitration tribunal. Agreements of the Steel Workers' Organizing Committee, for example, usually provide that grievances shall be taken up in the following sequence:

Step one: the employee and the foreman of his department;
Step two: a member or members of the union grievance committee (which usually consists of from three to ten plant employees) and the foreman and superintendent of the department;
Step three: a member or members of the grievance committee and the general superintendent or his representative;
Step four: a representative of the national office of the S. W. O. C. and the representatives of the company.

1. Frederick H. Harbison, unpublished manuscript on labor relations in the steel industry.
This process of filtering disputes through a series of appeal courts permits important matters of principle to be carried to the highest authorities on both sides. The success of the system obviously depends on settlement of the great majority of cases at the lower levels. Otherwise, unsettled cases pile up on the top officials, too much of their time is taken up with routine complaints, final settlement of cases is slowed up, and a feeling of annoyance develops on both sides. Prompt settlement of routine cases implies education of both foremen and union committeemen to the responsibilities of their positions. The attitude that success consists in scoring a point on the other side must be replaced by the attitude that success lies in rapid and fair adjustment of disputes. That this attitude takes time to develop is one of the main reasons for the friction and work stoppages commonly found in newly-organized plants.

The Steel Workers' Organizing Committee, for example had great difficulty at first with its grievance machinery. Workers who for many years had been denied all initiative and responsibility could not be made to assume it overnight. Foremen who had been taught to fight the union could not easily be brought to cooperate with it. There was a tendency to turn down all union complaints and leave the matter to be settled by higher officials. Unsettled cases accumulated to an alarming extent. This situation has been improved during the past year or two, by replacing of incompetent foremen, training classes conducted by the union for its committeemen and insistence by top officials on both sides that foremen and committeemen bear their full share of responsibility.

Adequate adjustment machinery smooths the path of industrial relations in two ways. It provides a continuous outlet for grievances
and resentments which might otherwise accumulate to a dangerous extent. This safety-valve service is so well recognized that many companies which are unwilling to sign an agreement will consent to meet with union committees for adjustment of grievances. It also greatly facilitates the negotiation and renewal of agreements by leaving the negotiators free to concentrate on general policy. The basic agreement can be made short and simple, leaving questions of detail for later adjustment through the regular channels. If this is not done, negotiation of agreements takes much more time, there are many more things to argue about, and the danger of a deadlock is correspondingly increased.

3. Voluntary Arbitration

The best adjustment machinery is no guarantee that union and management officials will always be able to agree. Many union agreements therefore provide that cases which cannot be settled by the top officials on both sides shall be taken to an arbitration board, and that its decision shall be final. The arbitrators are sometimes an ad hoc committee, appointed to hear a particular case, and dismissed when a settlement has been reached. Agreements of the International Brotherhood of Electrical Workers, for example, commonly provide for emergency arbitration committees consisting of one, two or three members chosen by each side. These select an additional member to serve as umpire, or, if they are unable to agree, the odd member may be appointed by the head of the United States Conciliation Service or some other public official. Increasingly agreements designate as arbitrator some government agency, such as the United States Conciliation Service, the State mediation board, or the State Department of Labor.

Where the union is well-established, and especially where it has
a joint agreement with all employers in a given competitive area, the
industry itself usually maintains a permanent arbitration authority.
This is often a bi-partisan board of an equal number of union and
employer representatives, as in the case of the national pottery agree-
ment, the Pacific Coast Pulp and Paper agreement, and the New York City
Electrical Workers' agreement. Since the board is drawn from the
industry at large, most of the members will have no personal interest
in a particular case, and the chances of a deadlock are reduced. In
the event of deadlock an umpire can usually be chosen by agreement or
appointed by some public official.

The Impartial Chairman

Another device often used in well-organized industries is that
of the "impartial chairman" - a single, full-time arbitrator, chosen for
his judicial qualities and his knowledge of the industry. He is usually
a professional man who has not identified himself strongly with either
the union or the employers. His salary and expenses are met by equal
contributions from both parties. He is the final authority in matters
of industrial relations during the lifetime of the agreement, and in some
cases has power to fine either party for departure from the agreement.
This device is found most frequently in local agreements, particularly in
the New York City area, where it is used by the clothing workers, the milk
wagon drivers, the hotel employees, and a number of other groups. It is
used on a national scale by the American Federation of Hosiery Workers
and the Full-Fashioned Hosiery Manufacturers. The national agreement gives
the impartial chairman power to adjudicate all disputes which cannot be
settled by the parties, and both sides agree to be bound by his decision.
During the past ten years some fifteen hundred cases have been decided by
The impartial chairman.

The arbitrator or impartial chairman is by no means a czar. He cannot impose a decision which either party considers a blow to its vital interests. This lack of effective sanction for his decisions forces him to descend from the role of judge to that of mediator, to seek in each case a solution which both parties can be brought to accept. If he strives for consistency and abstract justice he will usually lose his job. It follows that arbitration can prevent strikes only when there is some solution acceptable to both sides when their bargaining positions overlap sufficiently to permit of compromise. The possibility of compromise is increased, however, by the desire of both parties to prevent open conflict and to avoid the stigma of a breach of faith. In many cases the arbitrator is able to "save face" for one side or the other by assuming responsibility for an unpleasant decision, which both parties know to be unavoidable.

4. Adjustment Machinery in the Defense Industries

These methods have been most fully developed in industries with a long experience of collective bargaining. Building construction, clothing, railroads, printing, glass, pottery and coal mining are perhaps the most important of this group. The picture is quite different in the industries most directly concerned with national defense—steel, machine tools, aircraft, shipbuilding and the like. Strong trade unions have been developed there only in recent years, and union organization is still very incomplete.
Industrial disputes are much more likely to lead to work stoppages in newly-organized industries than in industries where unionism has long been solidly established.

**Strikes More Prevalent in New Unions**

Strikes in violation of agreement occur most often in newly-organized and relatively weak unions, unable to discipline their members or to hold the employer to strict accountability. Strong and experienced unions are usually successful in checking such strikes in their incipient stages. This is done primarily by centralization of strike funds in the international, requiring approval of international officers before strike benefits may be paid, and participation of international officers in the negotiation of local agreements. Many unions require approval of all local agreements by the international president before they become effective. This procedure has the advantage of bringing in experienced negotiators with a wide knowledge of the industry and a somewhat detached viewpoint.

It is also a convenient alibi for local officers who have made promises to their members which they later find impossible to fulfill. Instead of being forced into a face-saving strike they can blame the international officers for the limited concessions extracted from the employer.

Where an industry is only partially organized the union is under
constant pressure to extend its organization in order to meet non-union competition. If it stops expanding it is in danger of losing the ground already gained. The effort to win new members and new agreements usually brings some strikes. Until recently there was no other way in which an unwilling employer could be obliged to recognize the union. While the National Labor Relations Act has reduced the necessity of "recognition strikes," it has by no means completely eliminated them.

Furthermore, a new agreement usually concedes only a small part of the union's demands. The union usually tries to write more and more of its program into the agreement, which is bound to cause frequent disputes during the first few years of collective bargaining. An old union has in most cases already secured its major demands, and controversy tends to center about details more easily adjusted. In a newly-organized industry, moreover, some employers have usually signed up under duress, and are not yet reconciled to collective bargaining, but are waiting for the first opportunity for a test of strength. Where the union has been established for thirty or forty years, employers tend to accept it as part of the tradition of the industry.

The members and officers of a new union, as well as their foremen and supervisors, are often poorly educated in the techniques and responsibilities of collective bargaining. Grievance machinery works haltingly and too many unsettled cases pile up at the top. Both supervisors and workers try to take the law into their own hands. Short, unauthorized strikes are called over minor disputes, which should properly have been settled through the established channels.

**Slow Growth of Arbitration**

Arbitration procedures develop only with the passage of time.
and the growth of mutual confidence; they are rarely found in newly-organized industries. Employers are usually unwilling to give up any of their sovereignty in industrial relations, until the union has demonstrated its permanence and inspired respect for its intelligence and skill in negotiation. Standing arbitration boards or impartial chairmen function most effectively when employers are organized as well as workers, when bargaining is "collective on both sides". Organization of employers for purposes of collective bargaining does not usually develop until the union has had a strong foothold for some time.

The relatively high ratio of strikes in newly or partially organized industries is proven by the record. Almost all of the major strikes of the past seven years have been in such industries: textiles, iron and steel, automobiles, rubber, motor transport, longshore and marine work. During 1939 nearly 4.2 million man-days were lost through strikes in these six industries. In the strongly-unionized railroad, clothing, hosiery, printing and building trades, employing almost as many workers, only 1.2 million days were lost. (2)


Defense Industries Sparsely Unionized

The defense industries are for the most part unorganized or newly-organized. In 1933 (as in 1917) there was virtually no union organization in steel, automobiles, rubber, oil, chemicals, machine tools, shipyards, electrical manufacturing or airplane manufacture. Today the situation is greatly changed. In each of these industries there are many union members and some union agreements. In few cases, however, do these agreements
cover as much as 50 per cent of those engaged in and about the industry. Organization work is proceeding actively in most fields and may be expected to continue—possibly at a swifter pace—during the next few years.

The Steel Workers' Organizing Committee had 654 agreements and claimed some 500,000 members in May 1940. It is strongest in primary iron and steel production, where its agreements cover about 60 per cent of the half million workers employed. Since the conclusion of the United States Steel agreement in 1937 the main effort of the union has been to bring the "Little Steel" group into line and to extend the organization throughout fabricating plants. The S.W.O.C. has a good many locals in machine tool plants, but only two agreements have so far been secured in this strongly open-shop industry.

The United Automobile Workers (CIO) has contracts with two of the three principal automobile producers. One large automobile company, however, is still non-union, as are most of the parts manufacturers, who together provide a large part of the total employment of the industry. The United Automobile Workers also has seven airplane agreements and substantial membership in eight or ten other plants. The A.F. of L has granted jurisdiction over airplane plants to the International Association of Machinists which has five or six agreements in effect and is continuing its organization work. The number of workers operating under union agreement as of September 1940, however, probably does not exceed 20 per cent of those in the industry.

The Marine and Shipbuilding Workers (CIO) has taken a lead in organizing private shipyards. The S.W.O.C. also has several agreements in this field. Approximately half of the workers in the industry are
covered by union agreements. In navy yards, the pattemmakers, machinists, boilermakers, and some of the other metal trades are well organized, though collective bargaining here is different from that of private industry.

3. There are no written agreements in navy yards, and unions are not given official recognition. Union committees are treated simply as delegations of workers who have a right to petition the Commandant for redress of grievances. There are no specialized industrial relations departments in the yards. Grievances are taken up first with foremen or production officers, then appealed if necessary to the Commandant, and finally, if the matter is sufficiently important, it may be taken by international officers to the Navy personnel officers in Washington. Since many of the working conditions in the yards are prescribed by legislation, the unions also attempt to improve their position by working on Congress. This legislative activity centers in the Metal Trades Department of the AF of L and in District 44 of the Machinists Union, which includes all machinists in government employment.

The arsenals are less thoroughly organized, largely because of the low rate at which they were operating until recently. It is likely, however, that the metal trades unions will become increasingly active in this field.

In electrical manufacturing the United Radio, Electrical and Machine Workers (CIO) has some 200 agreements covering about 140,000 workers, while the International Brotherhood of Electrical Workers (AF of L) has about 300 agreements and 40,000 members in electrical manufacturing. In all, about half the workers in the industry are working under agreements.

The United Rubber Workers (CIO) have agreements with three of the four leading companies and with many smaller producers, covering about 40 per cent of all workers in the industry. Chemical workers are being organized primarily by District 50 of the United Mine Workers although there are also a number of federal locals of the AF of L. The number of workers under agreement, however, is still relatively small. About half of the workers in oil production and refining are under agreements of the Oil Field Workers Union (CIO).
Summary

While it is true that the total number of union members today is three times the number in 1917, the chances of peaceful settlement of disputes are not correspondingly improved. The industries concerned most directly with national defense were almost entirely non-union in 1917. Now they are 30 or 40 per cent unionized, with aggressive organizing campaigns under way or projected in most fields. This formative character of unionism in the basic industries makes friction in them more likely. The adjustment of grievances and renewal of agreements is hampered by inexperience and by the hang-overs of old antagonisms. Machinery for voluntary arbitration of disputes is almost entirely lacking. Battles still rage around certain non-union centers. Many disputes in defense industries are therefore likely to get out of hand and result in strikes, unless some agency outside the industry intervenes to facilitate a settlement. The main government agencies concerned with the adjustment

4. The number of strikes recorded by the Bureau of Labor Statistics during 1940 was somewhat below the 1939 total, and the number of man-days lost through strikes was only about one-third as great as in 1939. There was a moderate increase in the number of strikes during the last four months of 1940, as usually happens in periods of industrial recovery. The popular impression that the number of strikes has greatly increased is probably due largely to fuller newspaper reporting of those which have occurred.

of industrial disputes are discussed in the next chapter.
Chapter 4

ADJUSTMENT OF INDUSTRIAL DISPUTES THROUGH GOVERNMENT AGENCIES

The number of government agencies concerned with industrial relations has markedly increased since the World War. The only important agency in 1917 was the United States Conciliation Service in the Department of Labor. The small staff of the Service was quite unable to meet the increased war demand for mediation work. Emergency conciliation boards were set up on all sides and a conciliator assigned to a dispute by one agency was often embarrassed to find two or three others on the same mission. Most of this machinery disappeared with the end of the war. The Conciliation Service and the Railroad Labor Board plodded on almost alone through the twenties and early thirties.

Since 1933, however, a new growth of industrial relations agencies has taken place: the National Labor Relations Board, state labor relations boards, state mediation boards, the Railway Mediation Board, the Maritime Labor Board, in addition to an expanded and revitalized United States Conciliation Service.

The object of these agencies is to supplement rather than to supersede the methods of private adjustment. Most disputes are settled and must continue to be, by the parties concerned. Where private negotiation fails to show any basis for agreement, however, an experienced "outsider" can sometimes point out lines of compromise and facilitate a settlement.
1. Mediation Agencies

Much the largest mediation agency in the United States is the Mediation Service of the Department of Labor. Authorized by the statute creating the Department of Labor, it has been broadly expanded in recent years and now has a staff of some seventy conciliators. The maximum number of conciliators employed during the World War was sixty-three. During the fiscal year 1938-1939 the Service intervened in 1,678 labor disputes involving nearly 1.5 million workers. In 761 of these cases a strike had been called. These strikes represented about one-quarter of the total recorded in the United States during this time, and were in general the largest and most important.

In recent months the attention of the Service has been focused on disputes which threaten to interrupt defense production. Seven of the most experienced conciliators have been assigned to vital defense industries, and the facilities of the Service have been freely used by the Defense Commission. Unless the conciliation staff is increased, however, the Service may now be forced to give less attention than is desirable to non-defense industries. Besides its size, the quality of its personnel probably needs improvement.

Conciliation Boards in the States

More than forty states have passed legislation on mediation and conciliation. In most of these, however, mediation has simply been added to the duties of the State Secretary of Labor or some other existing official, and the acts are therefore largely ineffective. Mediation is a service which has to be sold to both unions and employers, and
requires the full time of an experienced staff. Only in ten states which have created such a staff is much mediation work actually done. (2)

2. Pennsylvania, Massachusetts and New York have state mediation boards. Alabama, Indiana and Illinois have one or two regular mediators. In Wisconsin, Minnesota, Michigan and Utah the state labor relations board is a mediatory as well as a law enforcement agency. In most of the South, Midwest and far West, however, and in some highly industrial states such as Ohio, there is no functioning mediation machinery at all.

The most active boards appear to be those of New York, Pennsylvania and Massachusetts. During the calendar year 1939, the New York State Mediation Board's eight-man staff mediated 310 disputes involving 89,012 workers and received 531 requests for arbitration. (3) In the year ending


November 30, 1938, the Massachusetts Board of Conciliation and Arbitration handled 311 conciliation cases and several hundred arbitration cases. (4)


There is no clear jurisdictional line between the work of the state and federal services. The state boards usually have authority to mediate any dispute arising within the state, even though interstate commerce may be involved. The United States Conciliation Service has a similar blanket jurisdiction for the entire country. In practice, conflict is avoided by informal arrangement. When a request comes to the federal Service from a state which has a mediation board of its own the state board is ordinarily notified, and the case is frequently turned over to it. This leaves the federal Service free to concentrate its limited staff on states which have no effective mediation machinery.
In very important disputes, however, involving the industry of several states or the production of essential defense materials, a conciliator from the federal Service sometimes participates with state conciliators.

Disputes come to the attention of mediation agencies in various ways. Unions and employers who have knowledge or experience of the Service often request aid directly. Requests come more frequently from unions than from employers. In recent months about 65 per cent of all requests for the assistance of the United States Conciliation Service have come from unions, 25 per cent from employers, and in the remaining instances the Service intervened on its own motion or at the call of public officials. Copies of the more important union agreements are kept on file, with their expiration dates. It is then possible to tell about when negotiations for a renewal will begin and to follow their progress. Indications of impending disputes are also obtained from the newspapers. It is possible in many cases to intervene before a stoppage has occurred. In less than half of the disputes handled by the United States Conciliation Service during 1938-1939 had matters reached the stage of a strike or lock-out. Exactly half of the cases handled by the New York State Board during 1939 were submitted for mediation before a strike had occurred. This preventive work is increasing in volume as knowledge of the mediation service becomes more widespread. The chances of a settlement are always better if the mediator arrives on the scene before controversy has grown acute and a strike has aroused antagonisms.

How Mediators Work

Because of the great variety of situations which arise it is hard to generalize about the technique of mediation. Since the mediator
can intervene only by consent of both parties and has no coercive power. His first task is to create confidence by showing a grasp of the problem and a non-partisan attitude. The next step is usually to define the area of controversy by discovering on what points the parties are already in substantial agreement. Beyond this the method followed varies from case to case. The mediator may hold joint conferences to debate the issues and explore possible bases of settlement. He may confer with each side separately, and serve as a medium for the transmission of proposals. If these methods do not work he may have to improvise a plan of settlement and urge both parties to accept it.

The force of public opinion provides a mild sanction for his proposals, particularly if the public has suffered considerable inconvenience from the strike.

The proportion of mediation cases successfully adjusted usually runs above 90 per cent. The United States Conciliation Service was able to adjust all but 146 of the 1,678 disputes in which it intervened during 1938-1939. The New York State Mediation Board adjusted all but 30 of 310 cases during 1939. Many of these disputes would have been settled without mediation, but they would probably have been settled more slowly and with much greater loss of working time. The salaries of the mediators are repaid many times in savings to the public, and additional expenditures in this direction would yield good returns.

Mediation agencies also are increasingly becoming information centers and general service agencies in matters of industrial relations. During the fiscal year 1938-1939 the United States Conciliation Service answered 730 requests for information, held 329 conferences with labor and managerial groups, received 456 miscellaneous complaints (most of which were turned over to the National Labor Relations Board and other
government agencies), conducted 95 technical fact-finding inquiries, and served as arbitrator in 99 cases.

Union agreements increasingly provide for arbitration of unsettled grievances by a state or federal conciliator. The New York State Mediation Board appoints an arbitrator under the State arbitration act whenever both parties to a dispute will agree to accept the award. The volume of disputes submitted for arbitration has grown steadily and numbered 531 in 1939. The arbitrator's decision has the force of a court award, but is almost always accepted voluntarily by the parties; legal action has been necessary in only two or three cases. The conflict between arbitration and mediation functions is met by assigning different personnel to the two tasks. It is a great convenience to groups unable to afford permanent arbitration machinery of their own to have a panel of public arbitrators who can be called in when needed. This type of work may be expected to increase in importance as its merits are publicized, and increased provision for it will be necessary in the budgets of mediation agencies.

2. The Railway Labor Act

Unlike the agencies just discussed, the Railway Labor Act applies only to a single industry. This industry, however, is not only a very large employer of labor but also an essential part of the national defense. The Act in its present form is the product of continuous experimentation since the last war. It regulates industrial relations to an

unparalleled degree. Its success in preventing stoppages of railroad service has led to suggestions that its principles should be applied to industry in general.

Operation of the Act

The most important feature of the Act is the creation of a National Mediation Board of three members to mediate disputes over rates of pay, rules or working conditions, which the parties are unable to settle. If mediation proves unsuccessful, the Board must try to persuade the parties to submit the dispute to arbitration. If arbitration is also refused the Board notifies both parties in writing that its efforts have been unsuccessful. If the dispute is important enough to threaten a serious interruption of service, however, the Board is required to notify the President of the United States, who may then appoint an emergency board to investigate the issues. During the period of investigation, and for thirty days after the special report is filed, neither party may make any change in the conditions out of which the dispute arose. The recommendations of the emergency board, however, do not have to be accepted, and a strike or lock-out after the thirty-day waiting period is entirely legal.

This procedure is a combination of voluntary action and compulsion. The ultimate right of the parties to fight out their differences in a strike is carefully preserved. But this right may not be exercised until the machinery of the Act has been fully utilized. The cooling-off period thus imposed is at least thirty days in all cases, and may be as long as ninety days if an emergency board is created, providing opportunity for continued negotiation and for fullest exploration of all angles of the controversy. The result is that by the time a strike
would be legal it has usually become unnecessary. In the five years
the amended Railway Labor Act has been in operation, there have been
no major strikes in the industry. Five emergency boards have been
appointed since 1934, and in no instance did a strike occur after their
report was made. A nation-wide railroad strike was averted in 1938 when
the railroads accepted an emergency board recommendation and withdrew
their demand for a 15 per cent wage cut.

The Act further creates a standing tribunal, the National Railroad
Adjustment Board, to hear disputes arising out of the interpretation or
application of existing agreements. The disputes which come to it are
more numerous, but on the average less important, than those which come
before the National Mediation Board. They involve minor adjustments
rather than major alterations in existing rules.

Applicability to Other Industries

Would creation of similar mediation boards in other industries
reduce strikes to the low level which prevails on the railroads?
Certain peculiarities of the railroad industry affect the answer.
Unionism on the railroads is seventy years old and its strength is
equalled in few, if any, other industries. Partly as a result of the
guarantees contained in the Railway Labor Act, the national unions have
been able to enroll the great majority of railroad workers. The shop
crafts represent about 80 per cent of the workers in this category,
while the running trades are almost 100 per cent organized. The major
railroads no longer hope to escape or stamp out union organization, thus removing one of the chief causes for a strike. The fact that railroads are regulated in so many ways, moreover, leads them to submit more readily to public regulation of their industrial relations. Wage increases or cuts which are forced on them can be used as an argument before the Interstate Commerce Commission for rate adjustments. And the public inconvenience and anger which a railroad strike would cause strengthens the hand of the Mediation Board in pressing for a peaceful settlement.

The railroad unions have less reason than other unions to oppose postponement of strikes. Their members are uniquely disciplined. In the train-operating trades, particularly, unionism is a fixed habit of mind, a solid business proposition. Union leaders need not fear that postponement of a strike for sixty days will lead to a collapse of morale, nor that employers will take advantage of the waiting period to hire strike-breakers and lay in munitions of war.

While the work of the National Mediation Board should not be minimized, industrial peace in the railroad industry is probably due more to the great strength and general acceptance of union organization, the long experience of the industry with collective bargaining, and the public regulation of other phases of railroad operation. Most of these conditions are absent in the newly-organized or unorganized defense industries. Any attempt to apply semi-compulsory methods of adjustment to these industries would probably be opposed by both unions and employers. Even if this opposition could be overcome and a law enacted, the results would probably not follow the railroad pattern. This is not to say that the attempt should not be made. But it would be an experiment in largely unknown territory. The results of the Railway Labor Act throw no clear
light on the probable outcome,

3. National and State Labor Relations Boards

The National Labor Relations Board, unlike the boards discussed above, was not intended to be an adjustment agency. Primarily it is a law-enforcement agency to protect the right of employees to bargain collectively, to prevent discrimination against union members and domination of labor organizations by employers, to define appropriate units for collective bargaining, and to determine and certify employee representatives in disputed cases. It has no authority whatever to prevent strikes from being called or to undertake mediation for their settlement.

Reduction of Strike Causes

The National Labor Relations Act, however, tends to reduce the necessity for strikes by making available alternative procedures. Before the passage of the Act an employer who refused to recognize or bargain with a union could be forced to do so only by a strike, and union recognition has in the past been one of the major sources of industrial controversy. Today a union which is refused recognition can apply to the Labor Board. If a hearing or an election shows that it has a majority of all workers in an "appropriate bargaining unit" the Board will certify it as bargaining representative for that unit. If the employer still refuses to deal with it charges may be filed against him under Section 8, and after hearing the case, the Board may order him to comply with the Act. Again, discharge of union

7. Contrary to popular impression, violation of a Board order carries no penalties. The employer may appeal the Board's order or may simply continue to ignore the union. In this event, however, the Board may apply to a federal circuit court for enforcement, and the case may then be appealed as far as the Supreme Court. If the courts uphold the Board's order, and if the employer still refuses to comply, he may be held in contempt of court and punished accordingly.
leaders or members could formerly be corrected only by calling a strike. Charges may now be filed against the employer under Section 8, and if a hearing reveals that workers were discharged because of their membership in the union, the Board can order the employer to reinstate them with back pay. In these ways the Board's machinery makes possible redress of grievances without stoppages of production.

Only a small proportion of all "complaint cases" (17.1 percent in the fiscal year 1939-1940) actually reach the stage of formal hearings. Conversation with the complainant often reveals that there is no real evidence of a violation of the Act, or that the action complained of is not covered by the Act. Where there seems to be some basis for complaint, the employer is notified and an attempt is made to reach an informal settlement. Discussion between the employer, union representatives and agents of the Board usually results in withdrawal of the charges or adjustment of the grievance by the employer. Strictly speaking, this is not mediation work. The Board agent is seeking voluntary compliance with the law if the law appears to have been broken, and he has no authority to compromise. Unlike the mediator, he has legal weapons in reserve; if the employer does not choose to comply voluntarily, he may later be brought up for formal hearing. The Board's informal settlements resemble mediation work, however, in that they provide a means for the removal of grievances which might otherwise lead to a strike.

Procedure Is Slow

In the anticipation of strikes, the Board suffers from the slowness of its procedures. Rather than face months of delay, unions often take the law into their own hands and attempt to force recognition of the union or reinstatement of discharged members through a strike. Much of this slowness is inherent in the requirements of due process.
The Board must allow the parties full opportunity to express their views at each stage. Ordinarily it must also: allow a week or so for investigation; give at least ten days' notice of hearing; allow about a week for hearing, two or three weeks for preparation of the intermediate report, about a month for the filing of briefs and exceptions to the intermediate report, and a month for the work of the Review Section; give ten days' notice of oral argument, and so on. The time required for both complaint and representation cases has already been materially reduced during the last two or three years.

8. The average time at present for a representation case is about four months, for a complaint case, about six months. During the fiscal year 1937-1938 the median elapsed time in complaint cases was approximately thirteen months. For this type of case, then, the speed of Board procedure has been more than doubled in two years. See Attorney-General's Committee on Administrative Procedure, Monograph No. 18, National Labor Relations Board, U. S. Government Printing Office, Washington, 1940.

as the Board has worked out from under its initial backlog of cases and developed better operating procedures. More time might be saved by better routing of cases in the Washington office and by other administrative improvements.

StateLabor Relations Acts

In 1937 Massachusetts, New York, Pennsylvania, Wisconsin and Utah passed state labor relations acts which tended to follow the pattern of the National Labor Relations Act. By 1939, however,
A conservative reaction had produced a quite different sort of state legislation. Minnesota and Michigan in that year passed labor relations acts placing restrictions on unions as well as on employers, while the 1937 acts of Pennsylvania and Wisconsin were also "equalized" by drastic amendments.

   Minnesota: Laws of 1939, ch. 440.

Acts which remain in approximately their original form are:
   Utah: Laws of 1937, c. 55.
   Massachusetts: Laws of 1937, c. 436.

As yet there is no considerable body of experience under these acts. Many of their restrictive provisions will probably turn out to be unenforceable. The Minnesota and Michigan acts leave enforcement of these provisions to the ordinary courts, which is certain to limit their effectiveness. Even where special administrative machinery has been provided, as in Wisconsin, the more drastic provisions of the act have been invoked only infrequently. New York's "little Wagner Act" continues in its original form. Jurisdictional conflicts there with the National Labor Relations Board have been avoided by a cooperative arrangement, and the existence of the state board has very considerably lightened the work of the national board.
4. Compulsory Arbitration

None of these adjustment agencies provides any guarantee that strikes will not occur. When the best efforts of conciliators fail the disputants are free to fight out their differences. Fear that frequent strikes will disrupt defense production has led to the advocacy of compulsory settlement of industrial disputes. A recent survey of the Institute of Public Opinion showed that 79 per cent of those interviewed favored complete prohibition of strikes in defense industries. Among farmers, business and professional men and white-collar workers the sentiment for compulsory arbitration is almost universal.

10. No attempt is made here to examine all of the commonly-proposed regulations for trade unions. Adequate discussion of even such an apparently simple proposal as compulsory incorporation of unions would carry us far beyond the limits of the present study.

Difficulties of Compulsory Settlement

It is easy to make out an abstract case for compulsory arbitration of disputes by a public agency. Very few of its advocates, however, understand the practical difficulties. These difficulties need to be seriously weighed before attempting so drastic an innovation. In no democratic country has it proven possible to prevent strikes simply by legislation. Under an authoritarian regime disturbances may be minimized, though never entirely prevented, by the constant threat of imprisonment or death. In a country unwilling to resort to such methods there is no way by which a thousand workers who quit work in a body can be prevented from doing so.

Experience of Canada and Australia

Only three illustrations need be cited. The Canadian Industrial
Disputes Investigation Act of 1908 provides that all unsettled disputes in the mining and public utility industries must be submitted to investigation by a special board composed of one representative each of employers, employees and the public. No strike or lock-out may be called during the investigation, but the findings of the board are not binding and a strike called after the submission of the board's report is entirely lawful. During the years 1907-1925, 536 cases were handled under the Act. In 91 per cent of these cases a strike was averted or ended but in addition to some 47 lawful strikes declared after the end of an investigation, there were 425 unlawful strikes in which the requirements of the Act were simply ignored. Even more strikes might have occurred had the Act not been in existence. For many years, however, no attempts have been made to invoke the penalties provided in the Act for participants in an unlawful strike. Any attempt to enforce this section would have alienated all union support and would probably have brought the quick repeal of the Act.

Australia has had a compulsory arbitration statute since 1904. Strikes which extend into two or more states are prohibited, and matters in dispute must be submitted to the Commonwealth Court of Arbitration. Most of the states have similar legislation governing intrastate disputes. Yet during the past twenty-five years Australia has had far more strikes relative to her population than either the United States or Great Britain.

While many of these strikes were clearly illegal, penalties have seldom been imposed on the strikers. Part of the difficulty lies in the slowness of the arbitration procedure. The Commonwealth Court frequently takes a year or more to arrive at a settlement, which leads workers to resort to the strike as a speedier method of securing their demands. The strength of the labor party, which makes punishment of strikers politically inexpedient, has also been a factor.

Great Britain in Wartime

During the World War, Great Britain introduced compulsory arbitration of disputes in the war industries. The Munitions of War Act of July 1916 made strikes and lockouts illegal, imposed heavy penalties for violations, and provided that all disputes must be referred to the Board of Trade for settlement. During the next thirty-three months however, more than one and a half million munitions workers took part in illegal strikes and made themselves liable to potential fines of more than £55 million. Only about one-fifth of one percent of all the workers in the illegal strikes were actually prosecuted. (12)


The first important attempts to enforce the act occurred on the Clyde in October 1915. Three shipwrights were arrested and imprisoned for strike activities, whereupon 97,000 organized workers threatened to close down all work on the Clyde unless the men were released. The Ministry of Munitions yielded, and thereafter did not attempt strict enforcement of the Act. Only one major strike was broken by the government during the war.
A strike of munitions workers at Coventry in July 1918 was ended by a threat to draft the strikers for overseas service.

During the present war, strikes in war industries have once more been banned by an Order-in-Council agreed to by both labor and employers, but the Order contains no penalty provisions against strikers. The government has relied on the influence of labor members of the cabinet and on the long history of cordial relations between unions and employers. The regular machinery of collective bargaining has proven able to adjust disputes even in a severe emergency and relatively few strikes have occurred.

These facts do not prove that compulsory arbitration is valueless. They do, however, discredit the naive and widely-held view that the remedy for strikes is simply to prohibit them. In a democratic country the main responsibility for strike-prevention must rest with the parties to industry. Strikes will diminish as workers and managers gain a reasonable respect for each other's rights and a working knowledge of available adjustment devices.

Legal Compulsion Doubtful for America

The use of compulsory arbitration in Australia and elsewhere rests upon general acceptance of the principle of collective bargaining. In New Zealand, indeed, union membership is compulsory in industries covered by the arbitration law. Union dues, membership regulations, and similar matters are rather closely controlled by the arbitration tribunal. Where the conflict is over a denial of labor's right to organize, as in some United States industries even now, a compulsory arbitration board could do little more than duplicate the work of the National Labor Relations Board. Compulsory arbitration also necessarily involves wide government control over the conditions of employment. It is no accident that the
Commonwealth Court of Arbitration now regulates wages, hours and working conditions throughout the greater part of Australian industry. When a government agency is substituted for the strike as the final arbiter of industrial differences it is bound to have a decisive voice in settling the terms of employment. This is not necessarily an argument against compulsory arbitration. But few American unions or employers would want so much government supervision, nor is the present emergency acute enough to force them to accept it.

Finally, a great deal of actual compulsion is possible without much legal compulsion. Informal pressure on both parties may be more effective than prohibitions and penalties, as witness the case of the Railway Labor Act. While the Act does not prohibit strikes or lockouts, it has in practice largely prevented them.

Wartime Experience of the United States

The experience of the United States during the World War, leads to the same conclusion. Strikes or lockouts were never prohibited. A large number of emergency agencies were set up, however, to adjust disputes arising in particular industries.

13. Some of the more important of these agencies were: Cantonment Adjustment Commission, National Harness and Saddlery Adjustment Commission, Board of Control for Labor Standards in Army Clothing, Arsenal and Navy Yard Wage Commission, Industrial Service Sections of the Ordnance Department, Quartermaster's Corps, and Aircraft Division, Shipbuilding Labor Adjustment Board, National Adjustment Commission (longshore work), Industrial Relations Division of the Emergency Fleet Corporation (private shipyards), Industrial Relations Division of the U.S. Housing Corporation, the Fuel Administration, Marine and Dock Industrial Relations Division, New York Harbor Wage Adjustment Board, Railroad Wage Commission, Railway Boards of Adjustment (three boards dealing with questions other than wages and hours). For detailed discussion of the work of these agencies, see Gordon S. Watkins, Labor Problems and Labor Administration in the United States during the World War, University of Illinois Press, Urbana, 1920; A. M. Bing, War-Time Strikes and Their Adjustment E. P. Dutton and Company, New York, 1921; War Department, Report of Activities in the Field of Industrial Relations during the War, September 1919.
These consisted usually of an equal number of employer and union representatives plus one or more public representatives, though boards in industries supplying the Army often consisted entirely of officers. The multiplicity of agencies resulted partly from the absence of collective bargaining machinery in most of the war industries and also from the failure to create a central war labor administration at the beginning of the war. Each department was left free to stake out its own claim and the result was frequent conflict of jurisdictions and policies. Attempts at coordination during 1918 were not very successful, and labor policy continued to be highly decentralized until the end of the war.

In April 1918 a National War Labor Board was created, consisting of a large number of employer and labor members under the joint chairmanship of William Howard Taft and Frank Walsh. It had jurisdiction over industries which had no adjustment boards of their own, and also had power to hear appeals from the decisions of the then existing industry boards. In industries having no adjustment boards, the War Labor Board functioned through two-member subcommittees or "panels", from which an appeal could be carried to the full Board. By the time of the Armistice the Board had heard 455 cases and made 72 awards. Much of its most valuable work, however, was done informally. Its agents set up a large number of shop committee systems which smoothed the path of industrial relations and made appeals to the Board unnecessary. It also developed a staff of expert advisers to assist in arranging informal settlements and in administering Board awards.

Certain general principles laid down by the Administration at the beginning of the war were generally observed by the adjustment boards. Labor's right to organize was guaranteed in language very similar to that of the National Labor Relations Act, and workers
discharged for union membership were entitled to reinstatement with back pay. As regards union recognition and the closed shop, the status quo was to prevail; employers who had not granted a closed shop before the war were not required to adopt it, and vice versa. Established labor standards were to be maintained. A basic eight-hour day, with time and a half for overtime and double time for Sundays, was accepted by almost all the boards. Union wage scales were usually accepted as indications of the "prevailing wage."

In return for these guarantees and for equal representation of labor on the adjustment boards, AF of L leaders agreed to submit all disputes for adjustment and not to sanction strikes until every means of settlement had been exhausted. There is no doubt that national union officials made a sincere effort to avoid strikes, although local officials, in closer touch with the grievances of the membership, could not always be held in line. Employers in the war industries were also induced to accept the adjustment boards. Since they were dependent on government contracts for their market and on priority rulings for their raw materials, pressure could be put on them to submit disputes for mediation. In many cases this provision was written into the supply contract.

**Government Pressure Seldom Applied**

The awards of the adjustment boards, though not binding, were almost invariably accepted. In only three important cases did the government have to exercise compulsory powers during the war. The facilities of the Western Union Company and of the Smith and Wesson Company were commandeered after these companies had refused to desist...
from discriminating against union members and other types of anti-union activity. (14) On the other side, a group of Bridgeport machinists who

14. Jurisdiction over Smith and Wesson was given to the Army, while authority over Western Union was transferred to the Postmaster General. Union members in Western Union asserted that this decision catapulted them from the frying pan into the fire. Postmaster General Burleson had shown strong opposition to unionization of postal employees, and Western Union employees claimed that anti-union discrimination was more vigorous and effective under government than under private control. See A. M. Bing, op. cit., pp. 106-111.3

had refused to go back to work after an award of the War Labor Board were obliged to do so by a letter from President Wilson threatening to blacklist them at the Employment Service and to withdraw their draft exemption. In several less important cases, notably in barracks construction and lumbering, the Army broke strikes by sending in enlisted men to do the work of the strikers.

The policy followed may be termed semi-compulsory arbitration. Machinery was provided for the adjustment of unsettled disputes. Employers and unions were earnestly urged to make use of this machinery. The very large number of strikes in 1917 may appear to indicate the failure of this policy. It is significant, however, that the number of strikes fell off considerably in 1918. (15)

15. There were 1,663 recorded strikes in 1915; 3,788 in 1916; 4,450 in 1917; and 3,353 in 1918. By months, the war record was as follows:

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<td>Jan.</td>
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<td>May</td>
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<td>July</td>
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<td>Aug.</td>
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<td>Dec.</td>
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Since most of the adjustment boards did not begin operations until late in 1917 or early in 1918, this result is probably largely due to their work. Many of the war-time strikes were in consumer goods industries with which the adjustment boards were not concerned. At no stage did strikes seriously hamper the war effort.

Policy of Defense Commission

The Defense Commission is now following a somewhat similar policy. In addition to making frequent use of the United States Conciliation Service, Sidney Hillman's office is developing a small mediation staff of its own, drawn partly from union and partly from management circles. It keeps close watch on disputes in the defense industries and assigns mediators to any dispute which threatens a serious interruption of production. The Defense Commission, of course, can intervene only with the consent of the parties and has no power to enforce a settlement. So far, however, mediation has never been refused or a settlement rejected.

Mr. Hillman's Labor Advisory Council, composed of high officials of the major international unions concerned with defense production, provides a channel for pressure on local unions to effect a settlement. The intervention of the Commission has also sometimes provided an alibi for local officials forced to retreat from an untenable position. Influence can be exerted on the management side of a controversy through direct negotiation, invoking the aid of business members of the Defense Commission or calling in leaders of the industry whose opinion commands general respect.

These methods have to date (November 1940) averted any serious stoppages in defense production. Important disputes have been adjusted in aluminum, aircraft, shipbuilding, electrical manufacturing and other industries. Most of these disputes, however, involved questions of wages and conditions rather than the basic issue of union recognition.
leading non-union employers are confronted with a demand for recognition, as seems likely soon, successful adjustment will be much more difficult. A union will usually compromise on questions of wages or working conditions. But it cannot compromise on the issue of union recognition without sacrificing its existence. There is little evidence that labor can be dissuaded from insisting on its legal right to organize and bargain collectively. Unless the government is able to bring about compliance with the law by speedy and equitable methods, many unions may resort to strikes for recognition rather than take their chances on a favorable court decision some years later.

The solution urged by some labor leaders is to withhold defense contracts from firms which have been convicted of violating the National Labor Relations Act. The feasibility of this proposal has been much debated. Its opponents argue that the policy would seriously interfere with production of armor plate, naval vessels, airplane engines and other scarce defense items. Its supporters contend that a clearly-expressed determination to withhold orders would be sufficient to bring about compliance with the law, and that no actual interruption of production need occur. Most of the defense contracts have already been signed and without the adoption of this policy by the Defense Commission. There is some recent indication, however, that a clause requiring compliance with labor legislation will be written into contracts granted on a competitive basis. While harmony has been preserved for the time being, the problem has been shelved rather than solved, and the possibility of large-scale recognition strikes still hangs unpleasantly on the horizon.
A Single Board for Defense Industry?

The semi-compulsory methods usual in this country will probably continue to prove more desirable than complete compulsory arbitration on the Australian pattern. The main question is one of procedure rather than of policy: Should the informal methods now practiced by the Defense Commission continue, or should procedure be formalized under a statute similar to the Railway Labor Act? There is something to be said on both sides: Adjustment work in the defense industries will almost certainly continue to grow in future, and using a permanent agency with uniform procedures, an established personnel, and express statutory authority has certain advantages. The present arrangement, on the other hand, has the merit of flexibility. Any mistakes which draw down the wrath of industry or labor can be quickly corrected by administrative orders. A statute is harder to amend, provides an easier target at which the dissatisfied can shoot, and might become the center of a controversy which would irritate rather than pacify industrial relations.

If it is decided to set up for defense industry a body like the Railroad Mediation Board of the War Labor Board of 1918, additional questions arise. What would be its relation to the United States Conciliation Service, the National Labor Relations Board, and other existing agencies? Should it be attached to the Department of Labor or to the Defense Commission? Should there be a single mediation board, or separate boards for each of the chief defense industries? Specialized boards have the advantage of more intimate acquaintance with the problems of a particular industry, but they do involve a serious danger of conflicting decisions and policies. The lack of coordination among the policies of the fifteen or more adjustment agencies created during the World War had many unfortunate effects, particularly in the field of wages. A possible compromise is to set up a single board with specialized "panels" or "sections" for the major defense industries.
Chapter 5
RECOMMENDATIONS OF THE LABOR COMMITTEE

A. Labor Supply

1. In the emergency which the country faces, preparations greater than the need will be much less disastrous than if we underestimate the seriousness of the situation. To meet the already announced enlargement of the defense program, it is clear that the government and the citizens of the United States must press forward with all their resources to release and to apply to defense production the full energies of industrial management and of industrial workers.

2. The emergency has come upon us in a period of substantial unemployment, when millions of American workers are unemployed and other millions are underemployed. There are certain inescapable limitations on the rate of absorption of unemployed workers in defense production; much of the defense production, such as the two-ocean-navy program, will necessarily be spread over a number of years; much of the remaining program calls for the construction of plants and tools, and full absorption of workers is temporarily held back wherever there are shortages of key men. On the other hand, a certain percentage of the unemployed workers are unemployable and cannot be counted as available for defense production; of the employable workers, many are unavailable for defense purposes, and among the truly available workers, many are unskilled or are located far from the centers where defense production is being carried on. The immediate fact is that significant labor shortages already exist, and they threaten to grow as the tempo of defense production is stepped up. The real problem is to prepare the available supply to meet these existing shortages and those which may be foreseen.
3. For directing the national attack on this emergency problem, primary responsibility has been placed upon the Labor Division of the National Defense Advisory Commission. It will need the steady support of the Administration and full collaboration with related government departments and agencies. It is entitled to the cooperation of every person and every organization engaged in defense production, and it should have the benefit of informed and constructive criticism.

4. Training of skilled workers and specialists for lines of work in which shortages are likely to develop, is a vital need and an immediate one. Effective training is far more an industrial than an academic matter, and in this emergency, as during the World War, training in the plant will be found most useful. The Training Within Industry Division of the National Defense Advisory Commission is exerting itself in this direction, and under its guidance it is probable that emphasis will gradually be shifted more and more toward training within industry itself. There is, nevertheless, room and need for carefully-planned collaboration with the apprenticeship training program supervised by the Federal Committee of Apprenticeship, with the expanded vocational school system supervised by the Federal Office of Education and with the National Youth Administration. Coordination of all training programs is an absolute essential and demands the unremitting attention of the Office of Production Management and of the Coordinating Committee on Labor Supply of the National Defense Advisory Commission. In the development of the training program, management and workers should be consulted at all stages and their views should be given greater weight than those of people who are not directly involved in industry.
5. An efficient public employment service available throughout the nation and widely used is essential for the effective application of our labor supply to defense production. The United States Employment Service needs to be developed until it is equipped to serve and is serving all employers in defense industries. The personnel of the Service has been improved in recent years, and it is important that this improvement should be continued and extended. The physical facilities of the Service should be improved. Public knowledge of its work should be enlarged, particularly among employers in the defense industries and among skilled workers. The Service needs to keep informed not only about current labor needs throughout the whole national field, but also about those likely to develop in the foreseeable future. It needs to maintain an efficient nationwide clearance service, and must be able to assist workers to get to the place where they are needed. And it is important that the Service should proceed as rapidly as possible with its program of improvement of its own knowledge of the workers registered with its local offices, particularly its lists of skilled workers. It is fortunate that at this time we have a nationwide Employment Service in operation and that it is becoming increasingly aware of the responsibilities it faces. It merits the support of management and workers, and it, also, should have the benefit of informed and constructive criticism.

6. To offer attractive wages and working conditions is the most direct and simplest way of attracting surplus labor to the places where it is needed. The defense industries by this method will necessarily bid away some of the skilled labor from non-defense industries. But competitive bidding for this labor between the defense industries and the non-defense industries, or competitive bidding for labor within the defense
industries themselves, is an unmitigated evil certain to result in unwise
distribution and wasteful shifting of the available labor units. Wider
distribution of defense orders and more extensive use of subcontracting,
and the careful selection of plant locations with reference to available
labor supply, will tend to diminish competitive bidding and wasteful
migration of labor. Recruiting for labor other than in the locality in
which particular plants are located should be done, as far as practicable,
through the United States Employment Service. To make this effective the
Service should be developed in that direction to the very limit of what
can be achieved by voluntary action. To centralize in the Service by law
all hiring of migrant labor, or to limit by law the right of scarce workers
to change their jobs, are measures of compulsion that lack flexibility and
present appalling problems of enforcement. They should not be resorted to
except in the most extreme emergency.

7. The defense production program calls for "dilution" of skilled
labor and intensification of the progressive training known as "Upgrading."
To facilitate the maximum utilization of plant capacity it will be necessary
to extend as rapidly and as far as possible the "farming out" of equipment
orders by subcontracting sections of the work to plants with idle capacity.
Special efforts in these directions are being made by the National Defense
Advisory Commission and by the War Department. To minimize the demands upon
rare skills changes have to be made not only in the assignment of the
available highly skilled workers to particular occupations but also in
processes and methods of doing work. Established working conditions and
even agreements may have to yield to defense needs, but maximum production
can be attained only if all changes of this kind are consented to by the
workers affected. Representatives of labor are accustomed, and generally
not averse to negotiating such changes.

8. There is need for exemptions from selective military service, uniformly enforced throughout the country, for skilled workers and apprentices in skilled trades in which present shortages exist or are likely to develop in the near future. The sound principle enunciated by the Selective Service Administrator, that in the present situation the needs of defense production must come first, needs to be implemented immediately by uniformly enforced rules to prevent the further depletion of skilled labor supplies available to the defense industries. Responsible and informed representatives of labor and management should be consulted in making such rules, and should participate in their enforcement. If deferments are substituted for exemptions care should be taken that they are long enough to make the trainees' acquired skill fully effective in defense production for the duration of the emergency.

B. Labor Standards

1. Governmental standards established by law for the protection of labor should not be weakened, even temporarily, unless clear necessity therefor exists. The National Defense Advisory Commission has reaffirmed the order of General Crozier, Chief of Ordnance, of November 15, 1917 that

In view of the urgent necessity for a prompt increase in the volume of production vigilance is demanded of all those in any way associated with industry lest the safeguards with which the people of this country have sought to protect labor should be unwisely and unnecessarily broken down. It is a fair assumption that for the most part these safeguards are the mechanisms of efficiency. Industrial history proves that reasonable hours, fair working conditions, and a proper wage scale are essential to high production. * * *

Every attempt should be made to conserve in every way possible all of our achievements in the way of social betterments. But the pressing argument for maintaining industrial safeguards in the present emergency is that they actually contribute to efficiency.
We agree with this declaration, and we find no reason for any relaxation of those legally established standards at this time. Modification should be made only as clear need therefore is shown, and only after consultation with representatives of management and workers.

2. The Fair Labor Standards Act does not limit the number of hours during which any employe may work in any week;¹ it does provide for overtime payment at the rate of time and a half for all hours beyond forty hours per week. In times of underemployment, this is an effective pressure toward sharing both work and leisure. In times of full employment, and particularly when there is a shortage of labor, its effect changes quite fundamentally: it then becomes a method of increasing wages. If or when substantial unemployment has been replaced by widespread shortages of labor, the wisdom of the Act considered as a method of increasing wages by overtime payments will have to be tested by entirely different economic considerations. Some but not all of these considerations are discussed in the research report.

3. Every aspect of the problem of releasing and applying available energies for the defense program calls for agreement between employers and workers. Without their wholehearted cooperation, many snags will develop which will prevent management and workers from putting forth their maximum efforts. Consultation in the planning of policy is as essential as agreement in the final program. Such cooperation can best be secured if both managers and workers have a voice in the determination of labor policies through the agency of a network of labor and management representation.

¹. In this respect, it is totally unlike the French forty-four law of 1936 which prohibited overtime in most industries.
from the bottom up to the top. The need for consultation with and co-
operation of labor was recognized in the setup of the National Defense
Advisory Commission when Mr. Sidney Hillman was included in its member-
ship. And it has now been emphasized by Mr. Hillman’s appointment as
Associate Director General of the Office of Production Management.
Mr. Hillman has had the advice and support of the Labor Policy Advisory
Committee composed of representatives of the AF of L, the CIO and the
Railroad Brotherhoods. The principle of joint boards with representation
of management and labor has been recognized in the setup of the Federal
Committee of Apprenticeship and to some extent in various advisory boards,
such as local boards associated with the work of the Training Within
Industry Division of the National Defense Advisory Commission and with
the vocational training activities supervised by the Office of Education.
The principle has further been applied in the Shipbuilding Stabilization
Committee and has been proposed in connection with aircraft manufacture
and other industries. To extend this principle into a network of labor and manage-
ment representation covering the defense industries many obstacles will have
to be overcome. It will be particularly difficult to overcome them in industries
where there is little organization of management and workers, and these diffi-
culties will be intensified in some industries by the competition between the
American Federation of Labor and the Congress of Industrial Organizations.

Indeed the very idea of individual industries is an oversimplification.
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The principle has further been applied in the Shipbuilding Stabilization Committee and has been proposed in connection with aircraft manufacture and other industries. Any program of extending throughout the defense industries a network of labor and management representation will have to overcome by discussion and agreement obstacles that increase in the several industries as the amount of organization of management and workers therein decreases. These difficulties are intensified in those industries where the American Federation of Labor and the Congress of Industrial Organizations are competing for membership. When labor and management groups capable of consultation in the planning of policy have been set up in the several industries there will remain many problems common to all the defense industries. There is hardly any action tending to stabilize one industry that will not have its repercussions in other industries. Indeed the very idea of individual industries is an oversimplification.
Related industries are not separated by sharp lines of demarcation and have many important areas in which they overlap. For all these reasons there is need for a central national policy board upon which management and labor are equally represented and which is competent to deal with such problems.

C. Prevention and Adjustment of Labor Disputes

1. In the existing emergency it is vital that interruptions of production be held to a minimum. It is the responsibility of management and labor to do everything they can to avoid such interruptions in defense industries. It is the responsibility of government to make constructive contribution to the voluntary settlement of differences between them. On the part of employers, there should be not only full compliance with the laws protecting labor in its right of self-organization, but open-minded acceptance of the processes of collective bargaining. On the part of workers, there should be a determination to settle all controversies in defense industries without strikes. Government should be prepared at all times to supply experienced and well-informed mediation service in all disputes that cannot be settled by direct negotiation between the parties.

2. World experience has demonstrated that the cooperation of labor cannot be gained by compulsion. Strikes in democratic countries can be prevented only by agreement between employers and workers— not by law. The United States got through the first World War without any law prohibiting strikes. The tremendous pressure of the wartime demand for continuous production was made effective through governmental agencies operating on the basis of voluntary agreement. Opposition to compulsion in the settlement of labor disputes is one subject on which there seems to be agreement
in all divisions of the labor movement and in the ranks of management. The solid opposition of labor has often been declared and is well known. The National Association of Manufacturers at its December meeting resolved that "Compulsory governmental arbitration of labor disputes is contrary to American principles." The Committee on Manufacture of the Chamber of Commerce of the United States expressed the belief "that anti-strike laws will prove ineffective and that they will deny fundamental rights to our citizens." The best means for minimizing strikes in defense industries is by agreements arrived at by the process of collective bargaining, rather than by any attempt to prohibit strikes by law.

3. Under the pressure of greatly increased production the causes which lead to serious disputes between management and workers are multiplied. At the same time the national emergency creates a great pressure to avoid interruption of production. This pressure ought to be, and it is, reflected in public opinion and in the attitude of governmental authorities as well as in the realistic determination of management and workers to avoid strikes and lockouts. The principal effort of the government should be directed toward applying this pressure, through established impartial agencies of mediation, to the adjustment of all disputes by agreements between the disputing parties. For this purpose the government has now available effective instruments. The Conciliation Service of the Department of Labor has been expanded and this service has been supplemented, for defense production, by the emergency conciliation machinery set up by the Labor Division of the National Defense Advisory Commission.
4. Both organized labor and organized management have publicly declared their approval of conciliation in all disputes affecting the defense industries. The Labor Policy Advisory Committee of the Defense Commission has declared:

"Labor . . . pledges itself to take no action which may in any way impede production before all conciliation facilities of the Federal government for resolving any existing controversy have been exhausted."

The National Association of Manufacturers has resolved:

"When disputes between employers and employees arise in national defense industries attempts should be made to mediate them in a manner satisfactory to both employers and employees before either a strike or lockout occurs."

The Committee on Manufacture of the Chamber of Commerce of the United States proposes that the Chamber should recommend "that existing conciliatory services now available be enlisted and used to facilitate prompt settlement" of all labor disputes. But in spite of these declarations, and notwithstanding the efforts of the conciliation agencies mentioned in the last paragraph, sporadic strikes in the defense industries have occurred. The processes of conciliation require more than mere withholding of a strike or lockout; they demand that existing conditions be maintained; that labor's pledge "to take no action which may in any way impede production" during the conciliation period be matched by a pledge on the part of management to make no changes in working conditions during that period. These basic requirements need to be supplemented by established procedures to which the parties are more or less accustomed or to which they have expressly agreed. The strikes which have occurred in the defense industries are evidence that, despite the purpose and determination of the national leaders of management and labor, these essentials of effective conciliation have not been brought home to the individual plants.
5. Most collective agreements do, and all of them should, include a covenant not to strike or lockout during the term of the agreement and provide grievance machinery authorized to settle all disputes arising under the contract. Such provisions do not, however, ordinarily take care of disputes arising in negotiations for renewal of the agreement. To bridge this gap in cases in which bargaining relationships have been established, it has been suggested from various sources that a concerted effort should be made by management and labor to include in every existing collective agreement a specific covenant that the working conditions established by the agreement shall be maintained without change, and there shall be no interruption of work during the negotiation of the new agreement or, failing agreement, during mediation proceedings participated in by a conciliation agency named in the covenant. It has further been suggested that the covenant include a provision that if any dispute cannot be settled through the conciliation agency specified in the covenant, and if that agency notifies the President that a stoppage would interfere with defense production, then the status quo shall be maintained and production continued for a specified time within which the President, by appointment of an ad hoc board or otherwise, may attempt a settlement of the controversy. These suggestions have the advantage that they bring into play through an impartial agency in the particular dispute the tremendous pressure of the defense program. It has also been suggested that the procurement contracts of the Army and Navy might well include an equivalent covenant by mutual consent of management and workers, as was done in some instances during the first World War.

6. There is, however, a type of labor dispute to which the foregoing suggestions are not applicable - disputes in plants where no
collective agreement exists and in which questions of organization are involved. In this type of dispute the pressure of the emergency program is nevertheless an available instrument of conciliation. It awakens and intensifies the force of public opinion. This awakening goes beyond the opinion of the outside public into the ranks of workers and managers alike. The National Labor Relations Act, which asserts the right of collective bargaining and prohibits interference by management with the processes of self-organization of the workers, has been sustained and elaborately interpreted by the Supreme Court and its principles are now generally recognized and accepted. The spirit of the statute and a decent respect for prevailing opinion demand, in this period of emergency, universal and ungrudging acceptance by all employers of the processes and implications of collective bargaining. This is a vital need in the interest of maximum defense production. Any refusal at this time by any employer to accord to labor the full rights of self-organization and collective bargaining stipulated in the Act is a dangerous threat to defense production. On the part of labor there is, for the same reasons, a clear obligation to seek the legal remedy in preference to direct action, when confronted with unfair labor practices prohibited by the Act. All pressure which public opinion can exert is called for to enforce these considerations, to the end that the threat to defense production inherent in this type of labor dispute may be minimized.

7. The legal processes of the National Labor Relations Board necessarily involve delay, and in disputes which arise about questions of organization the time element may be of controlling importance if either side is disposed to make militant changes in the status quo. It is urgently necessary, therefore, that this delay be reduced to a minimum in cases seriously affecting the defense program. There seems
to be no reason why any case directly affecting an important defense contract should not be made special and given priority treatment by the Labor Board, if the disputants agree to a complete and faithful maintenance of the status quo until the Board has acted; and if court proceedings have to follow it is not beyond the powers of an equity court to devise orders and procedures which would prevent irreparable injury to either party during the period of delay incident to such proceedings.

8. Besides encouraging the solution of labor problems by joint action of management and labor, and assisting the adjustment of labor disputes by efficient governmental conciliation service, the government can best release the energies available for production by maintaining established labor standards and good working conditions and, above all, by combating increases in the costs of living. Sharp increases in the costs of living are more likely than any other cause to produce strife which dissipates these energies and controversies which lead to strikes. Intelligent governmental action can do much to combat this hazard which, if unchecked, may seriously interfere with our defense production. Price controls alone are not likely to be sufficient. Rises in the costs of living must be guarded against by planned action to preserve and adjust the production of consumer goods. And if or when the program of defense production results in a shortage of consumer goods, then consumer demands must be restricted either by taxes or by encouraging a large volume of savings.

9. The need to plan for the production of consumer goods along with the defense production program is directly related to the problem of how we shall meet the unemployment which will occur after the peak of the defense program is passed. Unless careful plans are made during the
defense production period to meet this crisis when it comes, a disastrous collapse of employment is certain to occur. In this matter the appropriate admonition is "in time of war prepare for peace."

D. Specific Recommendations

In the light of the foregoing we make the following recommendations and suggestions:

1. That there be set up in connection with the Office of Production Management a National Defense Labor Policy Committee whose chairman shall be appointed by the President and whose membership shall be nominated in equal numbers by the national organizations of labor and the national organizations of management.

We suggest:

a. That this Committee should be charged with the responsibility of advising the Office of Production Management on all questions of labor policy affecting production of defense materials, with the right on its own initiative to take up any such question of policy or its administration, and

b. That this Committee should give its immediate attention to securing for both managers and workers throughout defense industries a voice in the determination of labor policies through joint agencies with equal labor and management representation; to coordinating the labor policies of the so-called "stabilization" committees that have been or may be set up in the several defense industries; to formulating a national wage policy for the defense period; to matching the production facilities and the labor supply of industry to the defense program, and to the development of fundamental relations that will promote industrial peace.
2. That the present conciliation services of the government be supplemented by a Federal Emergency Mediation Board of three members appointed by the President.

This Board should, we suggest, supplement rather than supplant, the activities of the National Conciliation Service and the emergency conciliation service of the National Defense Advisory Commission. It would, of course, be necessary to coordinate the new board with these existing services. The Board would serve, as did the War Labor Board in the first World War, as a board of final appeal from all conciliation agencies dealing with the defense program in cases which do not yield to the process of these agencies, and it should be empowered, in any cases in which the parties have agreed to such procedure, to suggest to the President the appointment of a fact-finding board in any case in which an interruption of production would adversely affect the defense program, and to maintain the status quo during an appropriate period of consideration by such Board.

3. That there be initiated a concerted effort to incorporate by voluntary action in all existing collective agreements affecting plants engaged in defense production (a) a specific covenant not to strike or lockout during the term of the agreement and to set up grievance machinery to settle disputes arising under the agreement, in all cases where the collective agreement does not already contain such a covenant, and (b) a further covenant that the working conditions established by the agreement shall be maintained without change, and that there shall be no interruption of work during negotiations for renewal of the agreement; that any dispute which cannot be adjusted shall be submitted without interruption of work to the Federal Emergency Mediation Board, and that if the dispute cannot be settled by that Board and the parties are
unwilling to arbitrate, and if the Board notifies the President that a stoppage would interfere with defense production, then the status quo shall be maintained and production continued for a specified time within which the President, by appointment of an ad hoc board or otherwise, may attempt a settlement of the controversy.

We recognize that this program would not apply in cases where no collective agreement exists. We believe, however, that it would serve, in all cases where collective agreements do exist, to bring home to management and workers in individual plants their responsibility to follow the processes of conciliation in all disputes affecting defense production, and it would automatically provide an agreed waiting time for action by the President in all cases in which conciliation and mediation had failed.

We further suggest that such a program might well be initiated by an agreement between the national organizations of labor and the national organizations of management to recommend to their constituent members the adoption of such covenant in all cases where collective agreements exist.

William H. Davis, Chairman
William L. Chonory
William N. Leiserson
Frazier MacIver
Summer H. Slichter
Robert J. Watt
Edwin Witte
The scenario is that the entrepreneur must decide to base their business on a new technology or innovation. The entrepreneur must consider the market potential, the competitive landscape, and the potential for growth and profitability. It is crucial to analyze the advantages and disadvantages of each option, as well as the potential risks and rewards. The entrepreneur must also consider the resources available, both in terms of capital and human resources. The entrepreneur must be prepared to adapt and change as the business evolves and the market changes.

The entrepreneur must also consider the long-term sustainability of the business. It is important to ensure that the business has a solid foundation, with a clear vision and strategy. The entrepreneur must be prepared to invest time and effort into building a strong brand and establishing a loyal customer base. The entrepreneur must also be prepared to face challenges and setbacks, and to adapt and change as necessary.

In conclusion, entrepreneurship is a challenging and rewarding endeavor. The entrepreneur must be prepared to take risks, work hard, and think creatively to succeed. With determination and perseverance, the entrepreneur can build a successful and fulfilling business.