

1941
OPA sets limits on
prices and rents

1942
Income taxes are
raised to finance war

1943
FDR creates
Office of War
Mobilization

1943
United Mine
Workers call
several strikes

1941

1942

1943

1944

1 The Shift to Wartime Production

SECTION PREVIEW

Objectives

- 1 Explain how American businesses mobilized for war.
- 2 Summarize how World War II affected the American work force.
- 3 List the methods the government used to finance the war.
- 4 **Key Terms** Define: Office of War Mobilization; Liberty ship; wildcat strike; war bond; deficit spending.

Main Idea

At the beginning of World War II, the government mobilized industries and workers to produce materials for the war.

Reading Strategy

Formulating Questions Before you read this section, look at the illustrations and then write one question for each of the main headings. Answer the questions as you read.

Supplying goods to the Allied forces at the start of World War II helped boost the American economy. The country began to emerge from the Depression as a result of this production. Industries were eager to start making cars, refrigerators, and washing machines again, and consumers were eager to buy them. For the sake of the war effort, however, the American economy soon had to convert full time to making war equipment.

Mobilizing the Economy for War

President Roosevelt understood that the outcome of the war ultimately depended on America's ability to produce enough bombers, tanks, uniforms, and other war materials. The war had destroyed many factories in Europe, cutting down the other Allies' production. Japan's conquests in the Pacific cut off supplies of rubber, oil, and tin.

The Government Steps In To meet the demand, FDR knew that the government would have to coordinate the production of American

businesses. Even before Pearl Harbor, new government agencies were dealing with the war economy. In April 1941, an executive order established the Office of Price Administration (OPA). Its job was to keep shortages from sending up prices and rents and causing inflation. Later the OPA oversaw rationing of scarce resources.

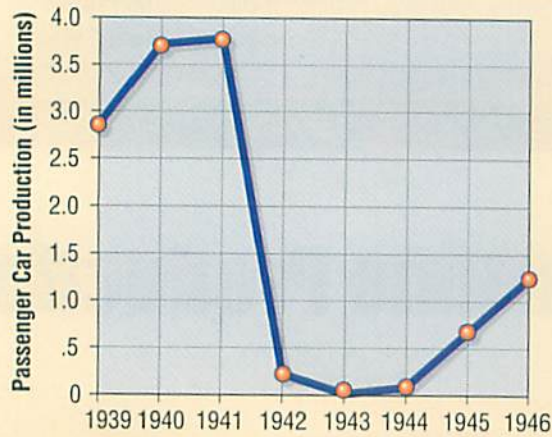
The War Production Board (WPB) was set up in January 1942 to direct the conversion of peacetime industries to those that made war goods. It quickly halted the production of hundreds of civilian consumer goods, from cars to lawn mowers to bird cages. The armed forces gave out contracts and scheduled production, but the WPB set priorities and allocated raw materials.

As the war went on, dozens of other agencies were set up to deal with war production, labor questions, and scarce resources. To

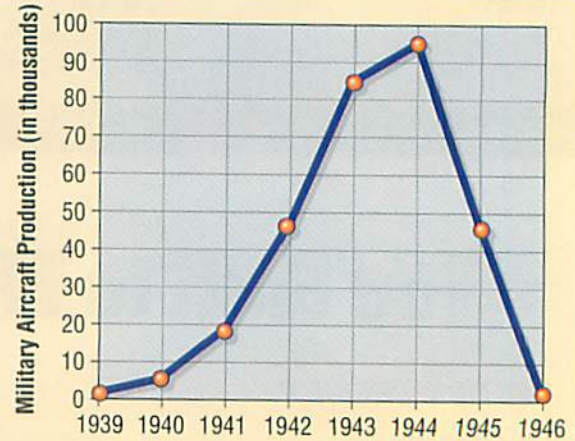


Many advertisements linked their products to wartime patriotism.

Passenger Car and Military Aircraft Production, 1939–1946



Source: *Miracle of World War II: How American Industry Made Victory Possible*, by Francis Walton



Source: *Historical Statistics of the United States, Colonial Times to 1970*



Interpreting Graphs Many industries were converted to military production during World War II. **Economics** What overall trends in auto production and military aircraft production do these graphs show?

centralize those agencies, in May 1943 the President organized a superagency, the **Office of War Mobilization**. James F. Byrnes, a long-time member of Congress and close presidential

adviser, headed it. Working from a makeshift office in the White House, Byrnes had such broad authority that he was often called the “assistant president.” Some people said that Byrnes ran the country while FDR ran the war.



Welder Benny Chan gives the “V for Victory” sign. **Culture** Why was patriotism linked to industry?

Industries Convert As production of consumer goods stopped, factories converted to war production. Shirt factories made mosquito netting. Typewriter plants made machine guns. On February 1, 1942, after the last cars rolled off the assembly lines, workers began converting automobile factories to produce bombers. The OPA took over the 500,000 new cars in stock. During the war years, it carefully rationed out cars to people who really needed them, such as country doctors.

In addition to converting plants, the Ford Motor Company built a huge new factory to make B-24 Liberator bombers, using the assembly-line techniques used for cars. When the Willow Run plant, near Ann Arbor, Michigan, opened in 1942, it was the largest factory space in the world. The assembly line stretched for a mile across what was once a flat meadowland. Willow Run had production problems at first, but by late 1943 it was building 340 planes a month.

Entrepreneurs in other industries also revolutionized production. Henry J. Kaiser introduced mass production techniques to shipbuilding and set production speed records. Instead of building a ship from the keel up,

Kaiser's engineers built sections of the ship in different parts of the shipyard. As huge cranes brought in the finished sections, welders put them together. The Kaiser shipyards also speeded up operations with crews that specialized in making one part, such as bows or bulkheads (walls).

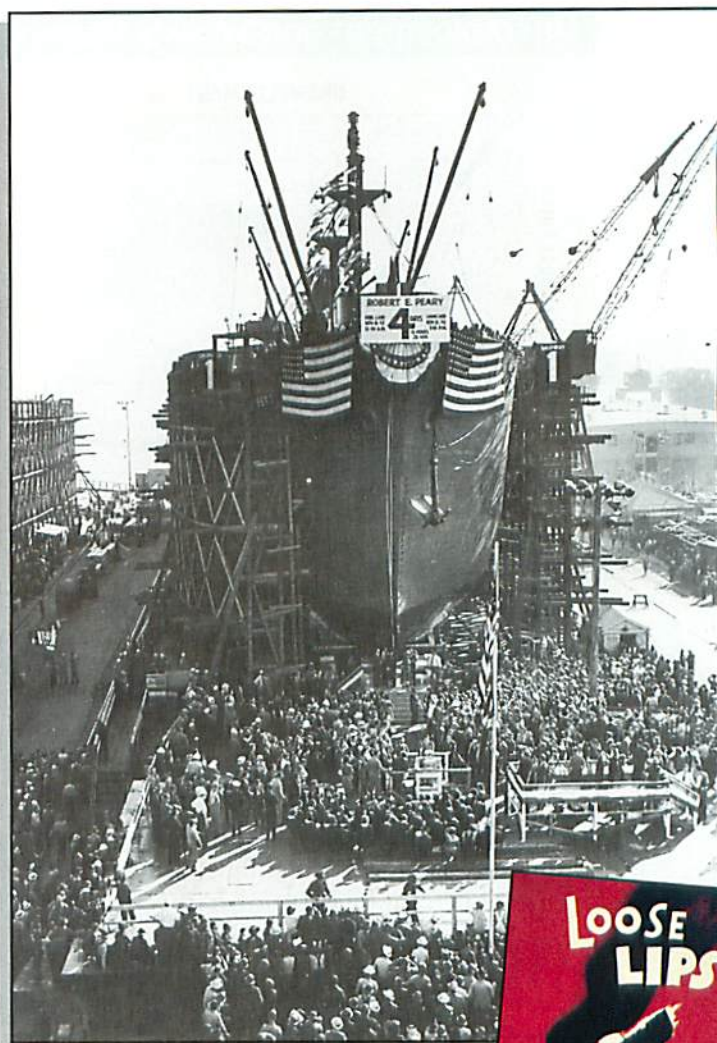
The vessels that made Kaiser famous were called **Liberty ships** (though other shipyards also built them). They were large, sturdy merchant ships that usually carried supplies or troops, but were sometimes converted to hospital ships or other uses. In 1941 it took an average of 150 days to build one Liberty ship. As the war went on, Kaiser shipyards cut building time to an average of 46 days and even set a record of 14 days.

New Business Approaches War production demanded new approaches to business. As Secretary of War Henry L. Stimson put it, "If you are going to try to go to war, or to prepare for war, in a capitalist country, you have to let business make money out of the process." To guarantee profits, the government established the "cost-plus" system for military contracts. The military paid development and production costs, plus a percentage of costs as profit. Pride and patriotism also provided industry leaders with motivation. Factories with good production records could fly pennants bearing the Army-Navy "E" for Excellent.

Thousands of business executives went to Washington to work in the new government agencies that were coordinating war production. As government employees, they received a token "dollar-a-year" salary, while remaining on their own companies' payrolls.

Some entrepreneurs found profitable new markets for their products during the war. Robert Woodruff, head of Coca-Cola, declared in December 1941: "We will see that every man in uniform gets a bottle of Coca-Cola for five cents wherever he is and whatever it costs [the company]." By the time the war was over, American troops had drunk 5 billion bottles of Coca-Cola. At the same time, Woodruff's company had established a future "army" of civilian consumers, those who had enjoyed the drink while in uniform.

The "Great Arsenal of Democracy" In December 1940, Franklin Roosevelt had told Americans that the country must become "the great arsenal of democracy." In each year of war, the United States raised its production



Kaiser's Liberty ship *Robert E. Peary* (above) was built in a matter of days. The government urged Americans to help protect these ships from enemy attack (right). **Economics** How was Kaiser able to produce ships so fast?



goals for military materials, and each year it met them. By the middle of 1945, the nation had produced (in rounded numbers) 300,000 airplanes; 80,000 landing craft; 100,000 tanks and armored cars; 5,600 merchant ships (including about 2,600 Liberty ships); 6 million rifles, carbines, and machine guns; and 41 billion rounds of ammunition.

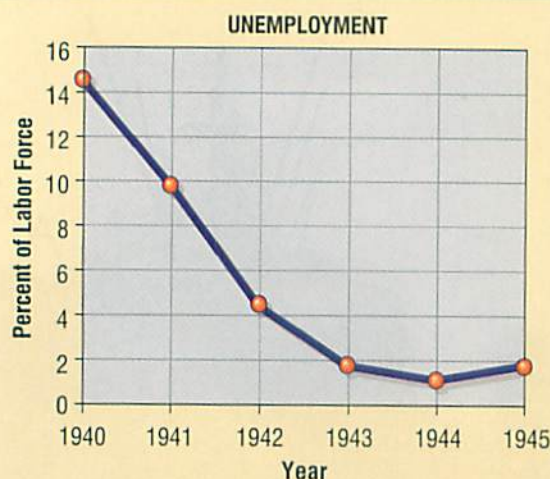
The Wartime Work Force

War production benefited workers, too, ending the massive unemployment of the 1930s.

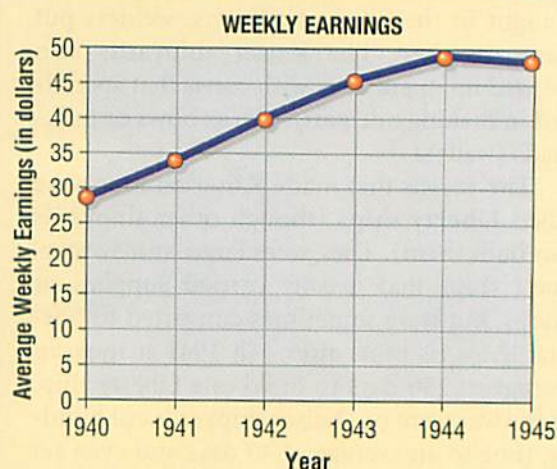
Main Idea CONNECTIONS

What did Franklin Roosevelt mean when he said that America must be the "great arsenal of democracy"?

Unemployment and Weekly Earnings, 1940–1945



Source: Historical Statistics of the United States, Colonial Times to 1970



Source: Historical Statistics of the United States, Colonial Times to 1970



Interpreting Graphs War mobilization had a positive effect on the labor force.

Economics By how much did unemployment fall between 1940 and 1945? By how much did average weekly wages increase during the same period?

As the graphs above show, by 1943 unemployment had fallen dramatically. Average weekly wages in manufacturing, adjusted for inflation, rose 27 percent in a little over three years.

With more people working, union membership rose. Between 1940 and 1941, the number of workers belonging to unions increased by 1.5 million. Union membership continued to rise sharply once the United States entered the war. It went from 10.5 million in 1941 to 14.8 million in 1945.

Two weeks after the attack on Pearl Harbor, labor and business representatives agreed to refrain from strikes and “lockouts”—a tactic in which an employer keeps employees out of the workplace to avoid meeting their demands. As the cost of living rose during the war, however, the no-strike agreement became hard to honor. The government continually had to remind citizens of the importance of the agreement. A construction company superintendent recalled what happened during the building of a military base in New Jersey:



“They started at one time to develop a strike there, and some big guy from the Pentagon came down, and he just laid the cards on the table: ‘There’ll be no strikes.’ Everybody kind of buckled down, and we finished the thing in record time.”

—Leonard Williamson

Still, the number of strikes doubled between 1942 and 1943, and it continued to rise in the last two years of the war. Some of the strikes were **wildcat strikes**—that is, they were organized by the workers themselves and not endorsed by the unions.

The most serious troubles with union labor were in the coal mines. There, John L. Lewis, head of the United Mine Workers union, called strikes on four occasions in 1943. Lewis and the miners watched industry profits soar while their wages stayed the same. They demanded a pay raise to compensate for the rising cost of living. Secretary of the Interior Harold J. Ickes finally negotiated an agreement with Lewis. Meanwhile, Congress passed the Smith-Connally Act in June 1943, limiting future strike activity.

Financing the War

Wartime production was so vital that the United States government was willing to spend whatever was necessary. Federal spending increased from \$9.4 billion in 1939 to \$95.2 billion in 1945. The Gross National Product (GNP) more than doubled in that time. Overall, the cost to the federal government between 1941 and 1945 was about \$321 billion—ten times as much as World War I.

Higher taxes paid for about 41 percent of the cost of the war. The Revenue Act of 1942

increased the number of Americans who paid income taxes from 13 million to 50 million people. It also introduced the idea of withholding income taxes from people's paychecks, known as "pay-as-you-go." Income tax rates went up gradually during the war years, reaching a high of 94 percent for the richest taxpayers. Extra taxes were also levied on corporate profits and consumer goods.

The government borrowed the rest of the money from banks, private investors, and the public. Starting in late 1942, the Treasury Department launched bond drives to encourage Americans to buy **war bonds**, government savings bonds that financed the war. Movie stars and war heroes urged the public to "buy bonds." Even schoolchildren brought their dimes or quarters to school each week, buying defense stamps that would eventually add up to the price of a bond. Total war bond sales brought in about \$156 billion.

During the Depression, British economist John Maynard Keynes had argued for **deficit spending**—government spending of borrowed money—to get the economy moving. Many other economists believed the economy would recover if government left it alone. There was some deficit spending in the 1930s, but government borrowing skyrocketed during World War II. Deficit spending turned the economy around overnight, bringing wartime prosperity. It also created a huge national debt that caused economic problems later.



This war bond poster used powerful images to convince people to buy war bonds. **Economics** How else did the government raise money to pay for the war?

SECTION 1 REVIEW

Comprehension

- 1. Key Terms** Define: (a) Office of War Mobilization; (b) Liberty ship; (c) wildcat strike; (d) war bond; (e) deficit spending.
- 2. Summarizing the Main Idea** What steps did the government take to mobilize industries and labor for war production?
- 3. Organizing Information** Create a web diagram to organize the different types of actions taken by government and business to convert the American economy into a wartime economy.

Critical Thinking

- 4. Analyzing Time Lines** Review the time line at the start of the section. Choose one entry and explain its consequences.
- 5. Formulating Questions** Imagine that you are a government planner in 1942. Draw up a list of "nonessential" civilian goods that will be rationed or not produced at all.

Writing Activity

- 6. Writing a Persuasive Essay** You are making a speech at a bond drive, trying to persuade people to buy war bonds. Write a draft of the speech you will give.

1941
OPA begins
rationing
auto tires

1941
Birthrate begins
to rise from
Depression levels

1942
Popular movies such as
Casablanca combine patri-
otism and entertainment

1943
Point rationing begins

1943
All-American
Girls' Softball
League begins

1940

1942

1944

2 Daily Life on the Home Front

SECTION PREVIEW

Objectives

- 1 Describe some features of American popular culture during World War II.
- 2 Explain how shortages and controls affected everyday civilian life.
- 3 List some of the ways the government enlisted public support for the war.
- 4 **Key Terms** Define: Office of War Information; victory garden.

Main Idea

As the war economy brought both prosperity and shortages, the government worked to keep Americans at home involved in the war effort.

Reading Strategy

Formulating Questions Before you read, rewrite each of this section's main headings in the form of a question. Look for answers to the questions as you read.



Low
traffic
speeds
helped
save on
fuel and
rubber.

The daily life of most Americans during World War II was filled with constant reminders of the war. Nearly everyone had a relative or friend in the military, and people closely followed war news on the radio. The war uprooted families, too. Many soldiers' wives and children moved in with relatives. Other people moved to new places to take defense jobs. Although the wartime economy gave many people their first extra cash since the Depression, shortages and rationing limited what people could buy. Books, movies, and sports provided a chance to escape wartime worries. At the same time, many Americans of all ages took part in the war effort by buying bonds or recycling paper and tin.

Wartime Popular Culture

Americans' morale was quite high as wartime spending ended the Depression. In 1941, about 34 percent of all American families had incomes of less than \$1,000 a year. By 1945,

new jobs created by the war brought that figure below 20 percent. One measure of people's optimism was an increase in the birthrate. The population grew by 7.5 million between 1940 and 1945, nearly double the rate of growth for the 1930s. The postwar "baby boom" that extended through the 1950s really began during World War II.

As the wartime economy expanded, many Americans suddenly found themselves earning more money than they needed for basic necessities. They were eager to spend this extra income on new cars, trucks, or home appliances. Since war production made those goods unavailable, they looked for other ways to spend their money.

Books and Movies People bought and read more books and magazines. The new Pocket Books company, founded by Robert de Graff in 1939, developed a market for small-size paperback books. De Graff believed that more Americans would read if books were less expensive, more widely available, and easy to carry. He published paperback versions of recent bestsellers at just 25 cents. In only two months,