

The Home Front

Military and Economic Mobilization

In response to growing threats from the Axis Powers during the late 1930s, the United States Congress passed a series of Neutrality Acts and embarked on a more aggressive military preparedness program. In 1938, Congress announced that it sought "a Navy second to none," and doubled the tonnage of combat vessels two years later. The nine battleships and eleven *Essex* class aircraft carriers that were part of that build-up, however, were not commissioned until 1943. By the summer of 1941, the military draft contributed to the 1.2 million men in the U.S. Army.

Following the attack on Pearl Harbor, the United States swiftly mobilized its armed forces and national economy. The United States proved to be the "Arsenal of Democracy," as President Roosevelt promised, spending about \$350 billion directly on the war. Americans also participated in greater numbers than any previous conflict. A total of more than 16 million served in the armed forces, including 11 million soldiers, 4 million sailors, and 670,000 marines. The army figures include the air corps, which hit a peak of 2.4 million in early 1944. Ten million of those who served were drafted. More than 400,000 Americans were killed during the war, and another million wounded.

The United States played the pivotal economic role in the outcome of World War Two. Military mobilization erased the last vestiges of the Great Depression and triggered an economic boom. In 1941, only about 15 percent of the Gross National Product (GNP) went to the military; by 1944, it topped 40 percent. The United States by that time was producing twice as much war material as Germany and Japan combined. Eventually, American war plants turned out 300,000 aircraft, 90,000 tanks, and 100,000 naval vessels.

Naturally, not everything went smoothly in the massive military build-up. It was some time before the Navy received torpedoes with reliable detonators, but eventually submarines sank 60 percent of the Japanese merchantmen and 30 percent of the enemy warships in the Pacific theater. In the air war, American industry developed a series of heavy bombers, including the long-range B-29. These "super fortresses" arrived at Saipan in 1944 and, under the command of General Curtis E. LeMay, conducted extremely effective night attacks on Japanese factories and military targets. The Arsenal of Democracy provided crucial support, as well, to Allied nations through the Lend-Lease program.

Economic wartime planning began before the attack on Pearl Harbor. In the summer of 1939, the War Resources Board was formed under the leadership of Edward Stettinius, and it began planning for a mobilization of the nation's military resources. The following year, the Office of Production Management (OPM) was organized to coordinate defense projects. William Knudsen, head of General Motors, directed the OPM. Shortly after the attack on Pearl Harbor, former Supreme Court justice James Byrnes was appointed chair of the War Production Board, formed to establish priorities for industrial mobilization. The more efficient Office of War Mobilization, also headed by Byrnes, replaced the board in early 1943. This agency became the central office for national economic mobilization.

Soon after the United States entered the war, representatives of industry and labor organizations met with President Roosevelt and pledged to maintain maximum production levels. The government formed a National War Labor Board to implement the no-strike pledge and negotiate contract disputes. In the summer of 1942, the board approved a 15 percent wage increase for unionized steel workers. The following year, however, John L. Lewis of the United Mine Workers threatened a strike over salary grievances. President Roosevelt ordered the Interior Department to seize the mines, but ultimately the miners were granted most of their demands.

In response to labor unrest, Congress in July 1943 passed the Smith-Connally Act, or the War Labor Disputes Act. This law made it a criminal offense to provoke strikes in industries working on government contracts and authorized the seizure of companies and plants needed for the war effort. The most dramatic use of the Smith-Connally Act was directed at Sewell Avery, president of the giant retail company Montgomery Ward. Sewell defied a War Labor Board ruling, and the Commerce Department seized the company and held collective bargaining elections. Avery continued his feud with the government and Montgomery Ward was placed under

the control of the U.S. Army for the final months of the war. For the most part, however, management and labor worked relatively harmoniously in mobilizing American industrial production, half of which went to the war effort.

The war generally was not an economic hardship on the home front. Price controls and rationing were considered essential to prevent rampant inflation and maintain civilian morale. The Office of Price Administration was created in early 1940, as American industry was harnessed to aid the British fight against Hitler. Some consumer goods were not produced during the war. Passenger cars, for example, were not built between 1942 and 1946, as the auto plants retooled to provide the military with jeeps, trucks, and tanks. Goods that contributed to the war effort were rationed, including tires, gasoline, shoes, sugar, coffee, and meat; but the amounts permitted under rationing were frequently greater than Americans had been able to afford at the height of the Great Depression.

American agriculture was also harnessed to support the fight against the Axis. Food production reached an historic high in 1944, and almost one-quarter of the crops went directly to the military, including Lend-Lease aid to the Allies. Production increased despite fewer farm laborers and only a slight rise in total acreage planted. Fortunately, the "Dust Bowl" had ended and better weather conditions contributed to the increase. So, too, did mechanization and the widespread use of fertilizers. Before a shortage of workers hindered the war effort, the military draft was amended to defer two million farm laborers. Government planning also helped, as did the temporary influx of some 200,000 farm workers (*braceros*) from Mexico. Many city residents contributed to the cause by planting "victory gardens," and raising some of their own produce.

Scientists made key contributions to the Allied victory. After the outbreak of war in Europe, the National Defense Research Committee was created. The following year, the Office of Scientific Research and Development was given broader powers under the leadership of Dr. Vannevar Bush. Synthetic rubber, plastics, and sonar were developed and new weapons invented, including the bazooka. Penicillin, discovered by Sir Alexander Fleming in 1929, was instrumental in saving countless lives. Radar was utilized by all the belligerent nations, with the British leading the way for the Allies. The most significant scientific project of the war was the development of the atomic bomb.

German scientists led the way in the field of atomic energy in the late 1930s. Niels Bohr, a Danish physicist, alerted American scientists of the military potential of the German research. Albert Einstein, a Jewish refugee, and Enrico Fermi, an Italian Nobel laureate teaching at Columbia University, were among those who persuaded President Roosevelt to sponsor atomic research. Congress eventually appropriated more than two billion dollars for the "Manhattan Project," the codename for the development of the atomic bomb.

In December 1942, a team of scientists at the University of Chicago working under the supervision of Dr. Fermi, triggered the first successful chain reaction in a uranium isotope, U-235. Under the direction of General Leslie R. Groves at Los Alamos, New Mexico, Robert J. Oppenheimer assembled the scientists and engineers who built the first atomic weapon. On July 16, 1945, in the remote sands of Alamogordo, the atomic bomb was successfully tested. The following month, President Harry S. Truman made the decision to use atomic weapons against Japan.