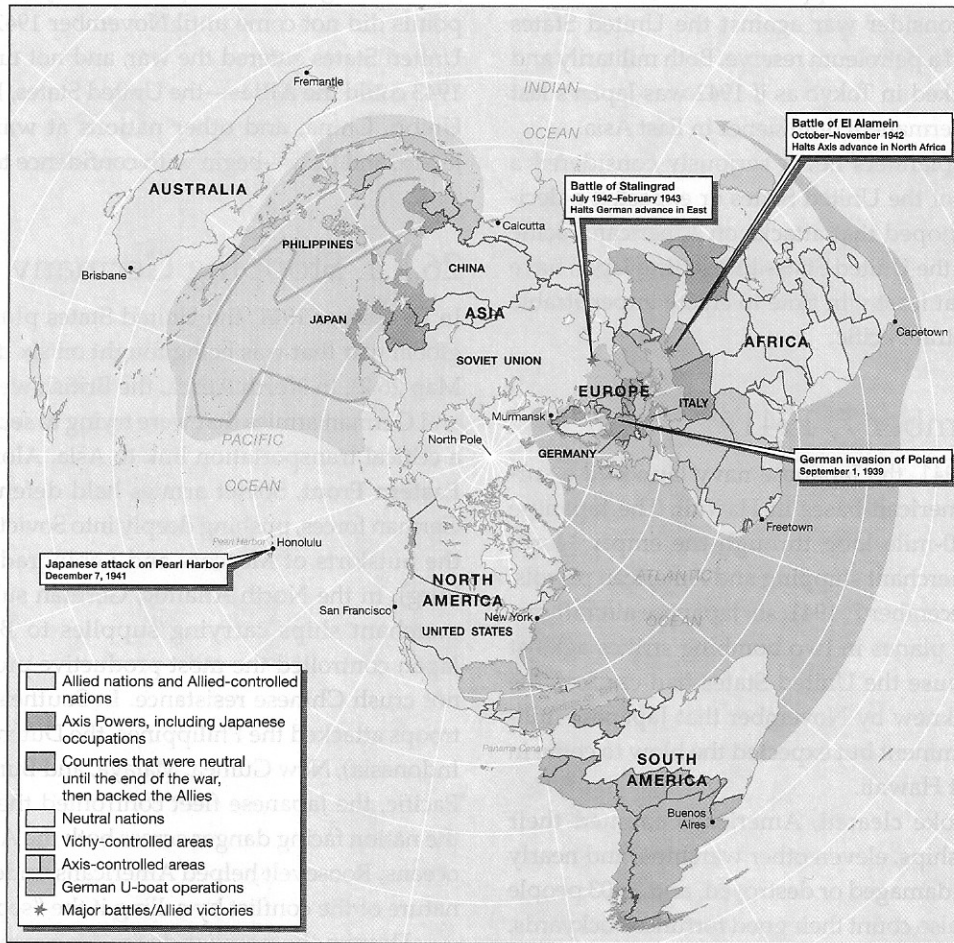


MAP 26.2 A Global War



World War II was truly a global war. As this map indicates, fighting engulfed both sides of the Eurasian continent and spread into the Atlantic, Pacific, and Indian oceans. The United States was the only major belligerent nation that was insulated from the battle fronts by two oceans.

and brought in ammunition. For both Hitler and Stalin, the city became a test of will that outweighed even its substantial military importance.

The Red Army delivered a counterstroke on November 18 that cut off 290,000 Axis soldiers. Airlifts kept the Germans fighting for more than two additional months, but they surrendered in February 1943. This was the first German mass capitulation, and it came at immense human cost to both sides. The Soviet army suffered more deaths in this battle than the United States did in the entire war.

Behind the victory was an extraordinary revival of the Soviet capacity to make war. In the desperate months of 1941, the Soviets dismantled nearly 3,000 factories and rebuilt them far to the east of the German advance in the midst of Siberian winter. As many as 25 million workers and their families followed the factories eastward. By the time the two armies clashed at Stalingrad, the Soviets were producing four times as many tanks and warplanes as the Germans, portending the outcome of the battles to come.

26.2.2 The Survival of Britain

After the failure of German air attacks in 1940, the British struggled to save their empire and supply themselves with food and raw materials. In World War I, German submarines (known as U-boats, from *Unterseeboot*) had nearly isolated Great Britain. In 1940 and 1941, they tried again. Through the end of 1941, German “tonnage warfare” sank British, Allied, and neutral merchant vessels faster than they could be replaced.

THE BATTLE OF THE ATLANTIC. The British fought back in what came to be known as the **Battle of the Atlantic**. Between 1939 and 1944, planning and rationing cut Britain’s need for imports in half. At sea, the British organized protected convoys. Merchant ships sailing alone were defenseless against submarines. Grouping them with armed escorts “hardened” the targets and made them more difficult to find in the wide ocean.

Nevertheless, German submarines dominated the Atlantic in 1942, sinking 144 ships in June alone. U-boats

operated as far as the Caribbean and the Carolinas, where the dangers of Cape Hatteras forced coastal shipping out to sea. The balance shifted only when Allied aircraft began to track submarines with radar, spot them with searchlights as they maneuvered to the surface, and attack them with depth charges. New sonar systems allowed escort ships to measure submarines' direction, speed, and depth. By the spring of 1943, American shipyards were launching ships faster than the Germans could sink them. Within a few months, Germany was losing two U-boats for every cargo vessel it destroyed and the Allies had effectively won the Battle of the Atlantic.

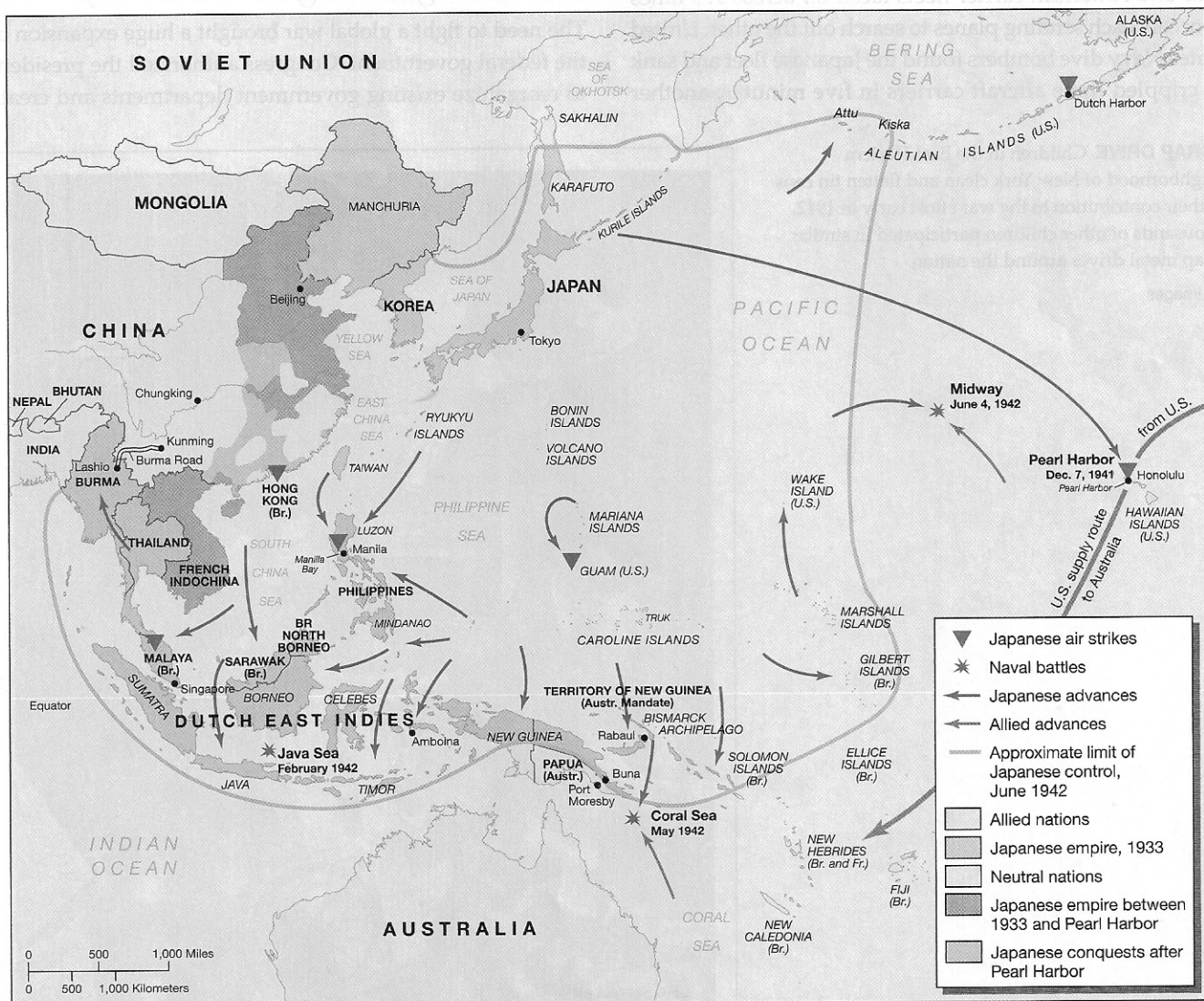
NORTH AFRICA. British ground fighting in 1942 centered in North Africa, where the British operated out of Egypt and the Italians and Germans from the Italian colony of Libya. By October 1942, Field Marshal Erwin Rommel's German

and Italian forces were within striking distance of the Suez Canal. At El Alamein, however, General Bernard Montgomery forced the enemy to retreat in early November and lifted the danger to the Middle East.

26.2.3 Retreat and Stabilization in the Pacific

Reports from eastern Asia after Pearl Harbor were appalling. The Japanese attack on the Philippines (see Map 26.3) had been another tactical surprise that destroyed most American air power on the ground and isolated U.S. forces. In February, a numerically inferior Japanese force seized British Singapore, until then considered an anchor of Allied strength. In a three-month siege, Japan overwhelmed

MAP 26.3 World War II in the Pacific, from Pearl Harbor to Midway



The first six months after the Japanese attack on Pearl Harbor brought a string of Japanese victories and conquests in the Pacific, the islands southeast of Asia, and the British colonies of Malaya and Burma. Japan's advance was halted by a standoff battle in the Coral Sea, a decisive U.S. naval victory at Midway, and the length and vulnerability of Japanese supply lines to the most distant conquests.

Filipino and U.S. defensive positions on the Bataan Peninsula outside Manila; thousands of their captives died of maltreatment on their way to prisoner-of-war camps in what is remembered as the Bataan Death March. On May 6, the last American bastion, the island fortress of Corregidor in Manila Bay, surrendered. The Japanese fleet was virtually undamaged at the end of April, and the Japanese army was triumphant in conquest of European and American territories in Southeast Asia.

THE BATTLES OF THE CORAL SEA AND MIDWAY. The first check to Japanese expansion came on May 7–8, 1942, in the Battle of the Coral Sea, where U.S. aircraft carriers halted a Japanese thrust toward Australia and confirmed that the U.S. Navy could fight effectively. In June, the Japanese struck at the island of Midway, 1,500 miles northwest of Honolulu. Their goal was to destroy American carrier forces. Having cracked Japanese radio codes, U.S. forces were aware of the plan and refused the bait. On the morning of June 4, the Japanese and American carrier fleets faced off across 175 miles of ocean, each sending planes to search out the other. United States Navy dive bombers found the Japanese fleet and sank or crippled three aircraft carriers in five minutes; another

damaged Japanese carrier sank later in the day. The Battle of Midway ended Japanese efforts to expand in the Pacific.

26.3 Mobilizing for Victory

What steps did the U.S. government take to organize the economy for war?

War changed the lives of most Americans. Millions of men and women served in the armed forces, and millions more worked in defense factories. In order to keep track of this staggering level of activity, the number of civilian employees of the federal government quadrupled to 3.8 million, a much greater increase than during the New Deal. The breadth of involvement in the war effort gave Americans a common purpose that softened the divisions of region, class, and national origin while calling attention to continuing inequalities of race.

26.3.1 Organizing the Economy

The need to fight a global war brought a huge expansion of the federal government. Congress authorized the president to reorganize existing government departments and create

SCRAP DRIVE Children in the East Harlem neighborhood of New York clean and flatten tin cans as their contribution to the war effort early in 1942. Thousands of other children participated in similar scrap metal drives around the nation.

AP Images



new agencies. The War Manpower Commission allocated workers among vital industries and the military. The War Production Board invested \$17 billion for new factories and managed \$181 billion in war-supply contracts, favoring existing corporations because they had experience in large-scale production.

The Office of Price Administration (OPA) fought inflation with price controls and rationing that began with tires, sugar, and coffee and eventually included meat, butter, gasoline, and shoes. “Use it up, wear it out, make it do or do without” was the OPA’s slogan. Consumers used ration cards and ration stamps to obtain scarce products. With gasoline scarce, horse-drawn delivery wagons made a comeback.

By slowing price increases, the OPA helped convince Americans to buy the war bonds that financed half the war spending. Americans also felt the bite of the first payroll deductions for income taxes as the government secured a steady flow of revenues and soaked up some of the high wages that would have pushed inflation. In total, the federal budget in 1945 was \$98 billion, eleven times as large as in 1939, and the national debt had increased more than sixfold.

Industry had reluctantly begun to convert from consumer goods to defense production in 1940 and 1941, remembering that the government had abruptly canceled contracts when the previous war had ended in 1918. Nevertheless, the nation relied on the organizational capacity of big business when the war came. Existing factories retooled to make war equipment, and huge new facilities turned out thousands of planes and ships. Baltimore, Atlanta, Fort Worth, Los Angeles, and Seattle became centers for aircraft production. New Orleans, Portland, Oregon, and the San Francisco Bay area were shipbuilding centers.

The United States applied mass-production technology to aircraft production at a time when Japan was building warplanes one at a time and Germany in small batches. The most spectacular example was the new Ford plant at Willow Run, Michigan, designed to adapt assembly-line approaches to manufacturing B-24 bombers. Where the typical automobile had 15,000 parts, a B-24 had 1,550,000. The assembly line itself was more than a mile long, starting with four separate tracks that gradually merged into one. By 1943, the plant was delivering ten planes a day. American aircraft workers were twice as productive as their German counterparts and four times more productive than Japanese.

Most defense contracts went to such established industrial states as Michigan, New York, and Ohio, but the relative impact was greatest in the South and West, where the war marked the takeoff of what Americans would later call the Sunbelt. Millions of Americans moved back and forth across the country to war jobs. Washington, DC, teemed

with staff officers, stenographers, and other office workers who helped to coordinate the war effort. Local leaders in cities from Charlotte to Fort Worth to Phoenix saw the war as an economic opportunity and campaigned for defense factories and military bases.

The output of America’s war industries was staggering (see Figure 26.1). One historian estimates that 40 percent of the world’s military production was coming from the United States by 1944. Surging farm income pulled agriculture out of its long slump. Organized labor offered a no-strike pledge for the duration, assuring that no one could accuse unions of undermining the war effort but limiting the economic gains of some workers and dampening the militancy of the CIO. Nevertheless, overall per capita income doubled, and the poorest quarter of Americans made up some of the ground lost during the Great Depression.

26.3.2 The Enlistment of Science

The war reached into scientific laboratories as well as shops and factories. At the center of the scientific enterprise was Vannevar Bush, former dean at the Massachusetts Institute of Technology (MIT). As head of the newly established Office of Scientific Research and Development, Bush guided spending to develop new drugs such as antibiotics, blood-transfusion procedures, weapons systems, radar, sonar, and dozens of other military technologies. The scale of research and development dwarfed previous scientific work and set the pattern of massive postwar federal support for science.

The most costly scientific effort was the development of radar, or radio detection and ranging devices. Building on British research on microwaves, the United States put \$3 billion into the Radiation Laboratory at MIT. Increasingly compact and sophisticated radar systems helped to defeat the German and Japanese navies and to give the Allies control of the air over Europe. Radar research and engineering laid the basis for microwave technology, transistors, and integrated circuits after the war.

In the summer of 1945, *Time* magazine planned a cover story on radar as the weapon that won the war. However, the *Time* story was upstaged by the atomic bomb, the product of the war’s other great scientific effort. As early as 1939, Albert Einstein had written to FDR about the possibility of such a weapon and the danger of falling behind the Germans. In late 1941, Roosevelt established the **Manhattan Project**. By December 2, 1942, scientists proved that it was possible to create and control a sustained nuclear reaction.

The Manhattan Project moved from theory to practice in 1943. The physicist J. Robert Oppenheimer directed the young scientists at Los Alamos in designing a nuclear-fission bomb. The Manhattan Project ushered in the age

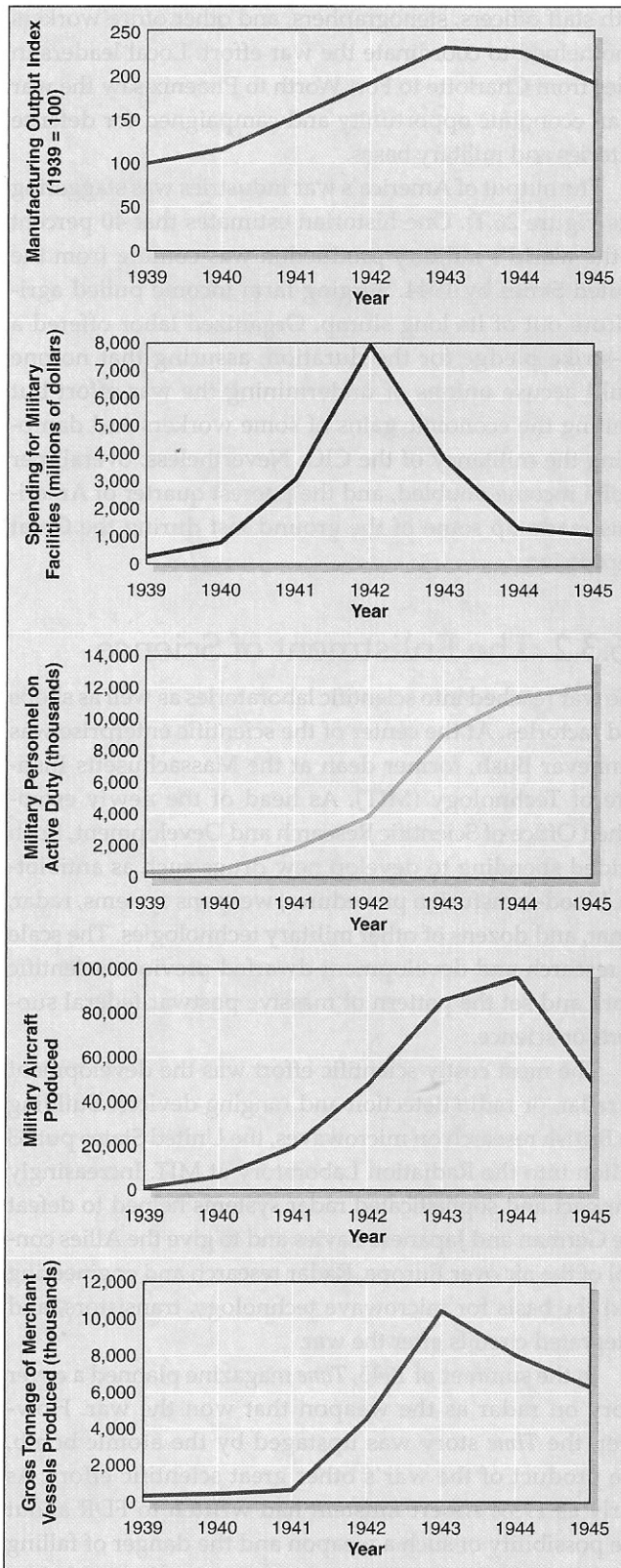


FIGURE 26.1 Making War: The United States Mobilizes, 1939–1945

The U.S. economic mobilization for World War II reached its peak in 1943, the year in which the Allies prepared for the offensives against Germany and Japan that they hoped would end the war. The number of men and women in uniform continued to grow until 1945.

United States Government, Military Records for World War II

of atomic energy. Plutonium from Hanford fueled the first bomb tested at the Trinity site in New Mexico on July 16, 1945. The explosion astonished even the physicists; Oppenheimer quoted from Hindu scriptures in trying to comprehend the results: “Now I am become Death, destroyer of worlds.”

26.3.3 Men and Women in the Military

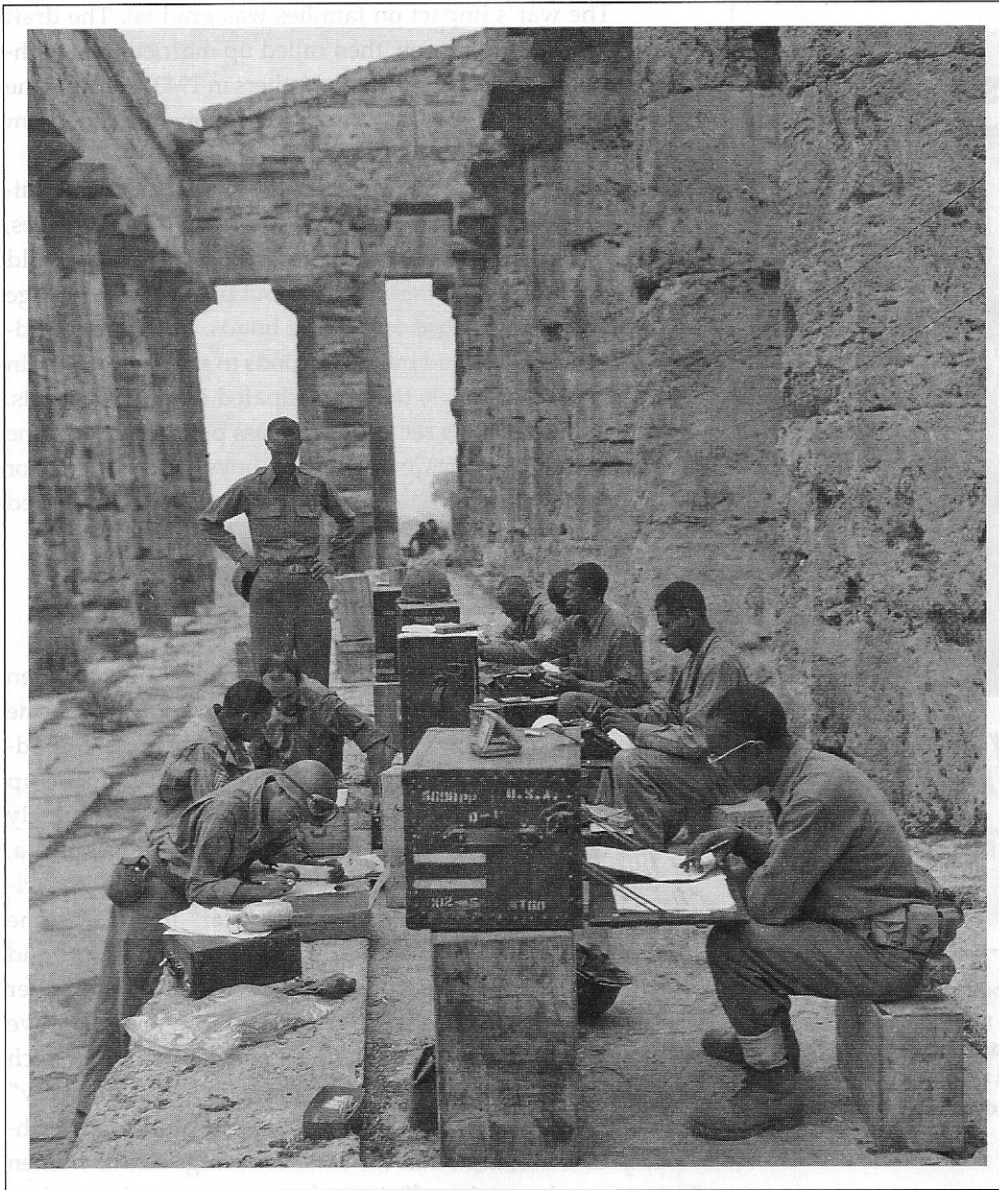
World War II required a more than thirtyfold expansion of the U.S. armed forces from their 1939 level of 334,000 soldiers, sailors, and Marines. By 1945, 8.3 million men and women were on active duty in the army and army air forces and 3.4 million in the navy and Marine Corps, totals exceeded only by the Soviet Union. In total, some 350,000 women and more than 16 million men served in the armed forces; 292,000 died in battle, 100,000 survived prisoner-of-war camps, and 671,000 returned wounded.

NATIVE AMERICANS IN THE MILITARY. Twenty-five thousand American Indians served in the armed forces. Most were in racially integrated units, and Harvey Natcheez, of the Ute tribe, was the first American to reach the center of conquered Berlin. Because the Navajo were one of the few tribes that had not been studied by German anthropologists, the Army Signal Corps decided that their language would be unknown to the Axis armies. Roughly 400 members of the tribe were “code-talkers” who served in Marine radio combat-communication teams in the Pacific theater, transmitting vital information in Navajo.

AFRICAN AMERICANS IN THE MILITARY. Approximately 1 million African Americans served in the armed forces during World War II. African American leaders had pressed for a provision in the Selective Service Act to bar discrimination “against any person on account of race or color.” But as it had since the Civil War, the army organized black soldiers in segregated units and often assigned them to the menial jobs, such as construction work, and excluded them from combat until manpower shortages forced changes in policy.

The average black soldier encountered discrimination on and off the base. Towns adjacent to army posts were sometimes open to white soldiers but off limits to blacks. At some southern bases, German prisoners of war watched movies from the first rows along with white GIs while African American soldiers watched from the back. Military courts were quick to judge and harshly punish black GIs. It took racially based riots at army bases in North Carolina and Georgia to open up equal (although segregated) access to base recreation facilities.

Despite the obstacles, all-black units, such as the 761st Tank Battalion and the 99th Pursuit Squadron, earned



AFRICAN AMERICAN SOLDIERS IN ITALY African Americans served in the military in large numbers during World War II. Here a signals company has set up operations in the ruins of an ancient temple in southern Italy.

National Archives and Records Administration

distinguished records. Hundreds of African Americans trained as airmen at a segregated Tuskegee, Alabama, base. More broadly, the war experience helped to invigorate post-war efforts to achieve equal rights, as had also been true after World War I.

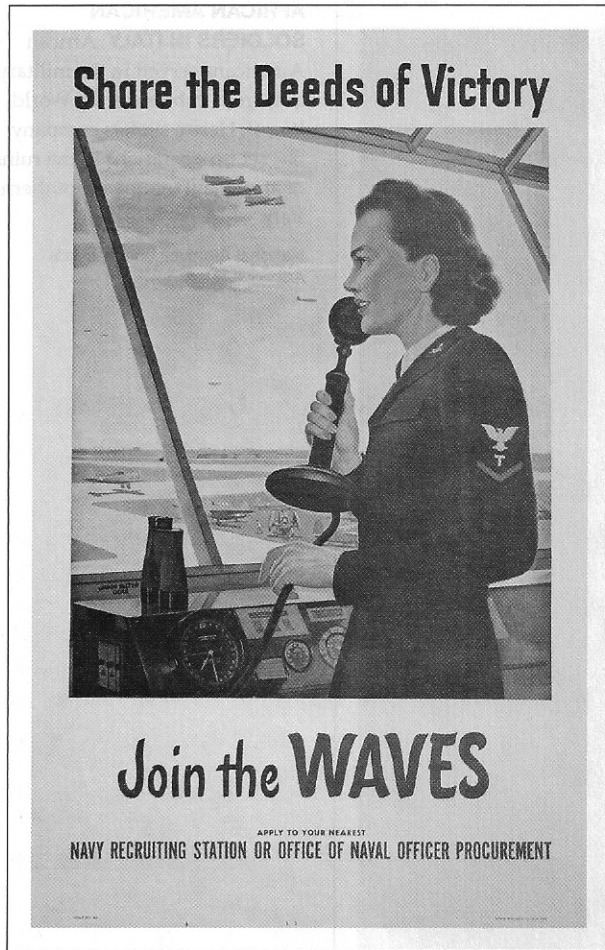
WOMEN IN THE MILITARY. The nation had a different—but also mixed—reaction to the women who joined the armed forces as army and navy nurses and as members of the WACS (Women’s Army Corps), WAVES (Navy), SPARS (Coast Guard), and Marine Corps Women’s Reserve. The armed services tried not to change established gender roles. Military officials told Congress that women in uniform could free men for combat. Many of the women hammered at typewriters, worked switchboards, inventoried supplies. Others, however, worked close to combat zones as photographers, code analysts, weather forecasters, radio operators,

and nurses. WAC officers battled the tendency of the popular press to call females in the service “girls” rather than “women” or “soldiers” yet emphasized that military service promoted “poise and charm.”

26.4 The Home Front

How did the war affect the everyday lives of Americans?

The war inexorably penetrated everyday life. Residents in war-production cities had to cope with throngs of new workers. Especially in 1941 and 1942, many were unattached males—young men waiting for their draft call and older men without their families. Military and defense officials worried about sexually transmitted diseases and pressured cities to shut down their vice districts. At the



WAVES World War II opened new professional opportunities for women, as suggested in the 1943 recruiting poster for the Navy's WAVES (Women Accepted for Voluntary Emergency Service) showing an aviation control tower operator—a role that women quickly dominated at stateside naval air stations.

United States Navy

same time, college officials scrambled to fill their classrooms, especially after the draft age dropped to 18 in 1942. Many colleges and universities responded to federal requests with special training programs for future officers and engineering and technical training for military personnel.

26.4.1 Families in Wartime

Many Americans put their lives on fast forward. Men and women often decided to beat the clock with instant matrimony. Couples who had postponed marriage because of the depression could afford to marry as the economy picked up. War intensified casual romances and heightened the appeal of marriage as an anchor in troubled times. Altogether, the war years brought 1.2 million “extra” marriages, compared to the rate for the period 1920–1939.

The war's impact on families was gradual. The draft started with single men, then called up married men without children, and finally tapped fathers in 1943. Left at home were millions of “service wives,” whose compensation from the government was \$50 per month.

The war had mixed effects on children. “Latchkey children” of working mothers often had to fend for themselves, but middle-class kids whose mothers stayed home could treat the war as an interminable scout project, with salvage drives and campaigns to sell war bonds. In the rural Midwest, children picked milkweed pods to stuff life jackets; in coastal communities, they participated in blackout drills. Seattle high schools set aside one class period a day for the High School Victory Corps, training boys as messengers for air-raid wardens, while girls knitted sweaters and learned first aid.

26.4.2 Women in the Workforce

As draft calls took men off the assembly line, women changed the composition of the industrial workforce. The war gave them new job opportunities that were embodied in the image of “Rosie the Riveter.” Women made up one-quarter of West Coast shipyard workers and nearly half of Dallas and Seattle aircraft workers. In California, the war opened new possibilities for Mexican American women, adding “Rosita the Riveter” to the wartime workforce. Most women in the shipyards were clerks and general helpers. The acute shortage of welders and other skilled workers, however, opened thousands of lucrative journeyman positions to them. Aircraft companies, which compounded the labor shortage by stubborn “whites only” hiring, developed new power tools and production techniques to accommodate the smaller average size of women workers, increasing efficiency for everyone on the production line.

By July 1944, 19 million women held paid jobs, up 6 million in four years. Women typed and filed in offices, but they also wrote propaganda for the Office of War Information and analyzed intelligence data for the office of Strategic Service. Women's share of manufacturing jobs rose from 22 to 33 percent, many of them as W.O.W.s or Woman Ordnance Workers. Mirroring the sequence in which the military draft took men, employers recruited single women before turning to married women in 1943 and 1944. The federal government funded daycare programs that served 600,000 children. Some women worked out of patriotism. Many others, however, needed to support their families and already had years of experience in the workforce. As one of the workers recalled of herself and a friend, “We both had to work, we both had children, so we became welders, and if I might say so, damn good ones.”

From Then to Now

Military Draft or Volunteer Military

As war ravaged Europe and East Asia, the United States instituted the nation's first peacetime military draft in 1940. With a brief suspension in 1947–1948, the Selective Service System assumed an omnipresent role in the lives of young men for a third of a century.

This changed on July 1, 1973, when Congress allowed draft authority to expire, leaving the United States to depend on volunteers to staff its armed services. Under the political pressures of the Vietnam War and heeding arguments in favor of free choice, President Richard Nixon put his weight behind recommendations to end the draft, and members of both parties were happy to go along. Energetic military recruiters replaced local draft boards as the points of contact between young Americans and the military.

The result, at best, has been a highly trained, motivated, and professional military that has offered particular opportunities to women and African Americans. Members of the military are now older and more likely to be married than in the 1950s and 1960s. The contemporary armed forces have similarities to a mature industry in which investments in sophisticated equipment make it possible to function effectively with fewer workers—although the small size of the regular armed forces has meant greater use of the National Guard and Reserves and repeated deployments during the long wars in Afghanistan and Iraq.

A volunteer military also means that a smaller proportion of the American population has direct

REGISTRATION CARD—(Men born on or after April 28, 1897 and on or before February 16, 1957)		ORDER NUMBER
1. SERIAL NUMBER	2. NAME (PRINT)	
2014	HUDDIE LEDBETTER	
3. PLACE OF RESIDENCE (Print)	4. PLACE OF BIRTH (Print)	
604 E 93 ST. N.Y. N.Y.	N.Y. N.Y.	
5. MARITAL STATUS (Print)		
SAME		
6. TELEPHONE	7. AGE IN YEARS	8. PLACE OF BIRTH (Type or number)
NONE	53	FREEDPORT
9. DATE OF BIRTH (Print)		
1 23 1889 LOUISIANA		
10. NAME AND ADDRESS OF PERSON WHO WILL ALWAYS KNOW YOUR ADDRESS		
MARTHA LEDBETTER 604 E 93 ST. N.Y.C.		
11. EMPLOYER'S NAME AND ADDRESS		
UNEMPLOYED		
12. PLACE OF EMPLOYMENT OR BUSINESS		
I AFFIRM THAT I HAVE FURNISHED ABOVE ANSWERS AND THAT THEY ARE TRUE.		
13. SIGNATURE (Print)		
Huddie Ledbetter		
14. U. S. FORM 1 (Revised 4-1-52)		

WORLD WAR II DRAFT CARD Blues singer Huddie Ledbetter, better known as Leadbelly, was one of tens of millions of American men who registered with draft boards during World War II.

United States Army



ARMED FORCES RECRUITING An all-volunteer armed forces requires constant public relations and recruiting efforts.

John Parrot/Stocktrek Images/Getty Images

experience of military life, either directly or through a family member. Because of the closure and concentration of military bases, nearly half of active-duty military in the United States in 2015 were in just five states—California, Texas, Georgia, North Carolina, and Virginia—many of them living in or near huge self-contained bases. As World War II drew to a close in 1945, one out of every twelve Americans was on active duty. At the height of the Cold War in the mid-1950s, the figure was roughly one out of fifty. In recent years, it has been one in two hundred.

Question for Discussion

- What difference does it make for national politics that active military personnel now make up a smaller share of the American population than at any time since the 1930s?