

Wilmington, Delaware, WWII Heritage City

A series of lessons from the [World War II Heritage Cities Lesson Collection](#)



Figure 1: A British minesweeper built by American Car and Foundry Company in Wilmington, Delaware. Picture is estimated to be from 1943. (Courtesy of the Hagley Museum and Library)¹

Introduction

The three lessons, and culminating fourth lesson, support the development of understanding the significance of [Wilmington, Delaware](#), as a [World War II Heritage City](#).

The first lesson focuses on local defense industries and the diverse workforce, such as in shipbuilding. The second lesson explores the role of women in service as pilots (Women Airforce Service Pilots, or WASPs) at the New Castle Army Air Base. The third lesson shares how local civilians volunteered to meet wartime needs on the home front through defense work and creative efforts to collect and encourage material and financial donations. The final lesson guides students in summarizing the contributions of Wilmington, Delaware, and leads into a comparison with other World War II home front cities as a culminating

¹ [British Minesweeper, 1943], [1993 GL Box 1, Folder 1], [American Car and Foundry Company World War II era photographs (AVD_1993257_0012)], Hagley Museum & Library, Wilmington, DE 19807

activity. Throughout the series, students engage with primary and secondary sources, such as newspaper articles, oral histories, and photographs, to connect local experiences to broader themes of the U.S. home front.

Lessons (with World War II home front topics):

The first three lessons listed can be taught individually or collectively, in any order. The final lesson is to support students in combining learning across the three lessons, and/or comparison to other World War II home front cities in a culminating activity.

1. Wartime Industries in Wilmington, Delaware, World War II Heritage City (p. 5)

- Wartime industry
- Shipbuilding
- Somen in the workforce
- African American history
- Civilian workforce
- Economic and population growth

2. The Service of Women Airforce Service Pilots (WASP) in Wilmington, Delaware, World War II Heritage City (p. 18)

- Army air force
- Women Airforce Service Pilots (WASP)
- Women's Auxiliary Ferrying Squadron (WAFS)
- Armed forces
- Women's history

3. Home Front Volunteerism in Wilmington, Delaware, World War II Heritage City (p. 29)

- Civilian defense

- Civilian home front efforts
- Material drives
- War stamps
- Funds and bonds
- Red Cross

4. [Wilmington, Delaware: Comparing and Connecting WWII Home Front Cities \(p. 39\)](#)

Positioning these Lessons in the Curriculum:

The standards listed beneath the lesson links are a collection of standards covered in the lesson collection. The lessons have been aligned to national standards and topics, as well as to the Delaware Social Studies Standards (as of 2018). Objectives for each lesson, materials, and resources are listed within the lesson.

Time period: World War II

Topics: World War II, women's history, African American history, workforce migration, science and technology

United States History Standards for Grades 5-12

This lesson relates to the following [National Standards for History](#) from the UCLA National Center for History in the Schools:

Era 8: The Great Depression and World War II (1929-1945)

Standard 3: The causes and course of World War II, the character of the war at home and abroad, and its reshaping of the U.S. role in world affairs

Curriculum Standards for Social Studies

This lesson relates to the following [Curriculum Standards themes for Social Studies](#) from the National Council for the Social Studies:

- Theme 2: Time, Continuity, and Change
- Theme 5: Individuals, Groups, and Institutions

- Theme 8: Science, Technology, and Society
- Theme 9: Global Connections

Relevant Common Core Standards

These lessons relate to the following [Common Core English and Language Arts Standards for History and Social Studies](#) for middle and high school students:

Key Ideas and Details

- CCSS.ELA-LITERACY.RH. 6-12.1
- CCSS.ELA-LITERACY.RH. 6-12.2

Craft and Structure

- CCSS.ELA-LITERACY.RH. 6-12.4

[Integration of Knowledge and Ideas](#)

- CCSS.ELA-LITERACY.RH.6-12.7
- CCSS.ELA-LITERACY.RH.6-12.9

Range of Reading and Level of Text Complexity

- CCSS.ELA-LITERACY.RH. 6-12.10

Delaware Social Studies Standards

The lessons align to the following standards defined by the Delaware Social Studies Standards (as of 2018).

Grades 6 – 12: History Anchor Standards

- Standard One: Students will employ chronological concepts in analyzing historical phenomena [Chronology].
- Standard Two: Students will gather, examine, and analyze historical data [Analysis].
- Standard Three: Students will interpret historical data [Interpretation].
- Standard Four: Students will develop historical knowledge of major events and phenomena in world, United States, and Delaware history [Content].

The lesson series was written by Sarah Nestor Lane, an educator and consultant funded by a National Council on Public History's cooperative agreement with the National Park Service.

Lesson 1: Wartime Industries in Wilmington, Delaware, World War II Heritage City

About this Lesson

This lesson is part of a series about the World War II home front in [Wilmington, Delaware, World War II Heritage City](#). The lesson includes readings and photographs to help students understand wartime industry and manufacturing in the area. Students will explore how local manufacturers met wartime demands through industries such as shipbuilding. The lesson highlights the increasing employment of women in local factories to address labor shortages. An optional extension reading discusses training opportunities for African American workers.

Objectives:

1. Describe the impact of World War II on workforce development, training, and local industries in Wilmington.
2. Describe how local industries contributed to the U.S. and the Allied forces, and how they adapted to do so.
3. Compare local, historical perspectives on wartime industries to synthesize and connect to larger wartime perspectives and themes.

Materials for Students:

1. Photos: Figures 2-6 (*can be displayed digitally*)
2. Readings 1, 2, 3 (and optional extension)
3. *Recommended:* Map of Delaware, with Wilmington marked



Getting Started: Essential Question

In what ways did Wilmington's industries support the war effort, and what challenges did workers face in doing so?

Photos



Figure 2: "Navy Reveals City Shipyards Helped With Four Invasions." The photo shows a tank landing craft like those made in Wilmington. The ship shows how the bow opens to receive and discharge cargo. In this photo, troops are using it to go to the fighting front. (Journal-Every Evening, Oct. 2, 1943)



Figure 3: An image of the broadside view of a British motor minesweeper, from the United States Navy Dept., Bureau of Ships. The ship was built by the American Car & Foundry Co. in Wilmington. Dated 3/12/43. (Courtesy of the Hagley Museum and Library)²

² [Broadside view of British Motor Minesweeper, 1943-03-12], [1993 GL Box 1, Folder 1], [American Car and Foundry Company World War II era photographs (AVD_1993257_014)], Hagley Museum & Library, Wilmington, DE 19807



Figure 4: Landing Ship, Tank (LST) under construction at the Dravo Shipyard in Wilmington, DE during WWII (Credit: City of Wilmington)



Figure 5: Small metal badge from American Car & Foundry with the words, 'War Service Ship Building' and the image of a ship, serial number 73503. This functioned as a security badge to allow workers onto the docks. Undated, but created between 1941 and 1945. (Courtesy of the Hagley Museum and Library)³

³ [Small badge, 1943 (approximate)], [1993 GL Box 1, Folder 1], [American Car and Foundry Company World War II era photographs (AVD_1993257_016)], Hagley Museum & Library, Wilmington, DE 19807



By the numbers: example production numbers

- The U.S. Navy designated Dravo as the lead shipyard in 1941 for production of Landing Ships, Tank (LST); Destroyer Escorts (DE); and Landing Ships, Medium (LSM). In total, the Dravo shipyard manufactured 34 LSMs, 5 LSTs, 15 Des, 6 Anti-submarine Patrol Craft, and 17 Gate Vessels. (These vessels were designed to place anti-submarine nets in strategic harbors.)
- Dravo took 1.5 months to complete the nation's first LSM in April 1944. This progressed to a 16-day turnaround, then one week, and finally, Dravo averaged one ship every 3.2 days until contracts were fulfilled in 1945.
- The Wilmington American Car & Foundry Company plant and Bethlehem Steel's Harlan Plant (adjacent to Dravo) together produced almost 1000 45-50-foot Landing Craft Medium. These were used to transport supplies and tanks and could be used in shallow water deployments.



Quotations to consider:

"Miss A. E. Williams, of the personnel department of Dravo Corporation, said women are being used for sheet metal work, welding and in the pipe shop at the firm's shipyard, and that she has received 'excellent reports from foreman.' The warning that women must be treated with equality in planning the campaign was given by Mrs. George Lewis Callery, chairman of the American Women's Voluntary Services. She suggested the term 'womanpower' be used in addition to the word 'manpower.'

- "Drive to Enroll Women for Jobs," *Wilmington Morning News*, Dec. 5, 1942

"Our men of Wilmington have adopted as their war-cry the 'SOS' – not, however, as a cry of distress or a call for help but to emphasize the grim determination to 'Speed Our Ships' on their way to victory that is assured by the inward spirit of resolution and devotion of which the Navy 'E' is the outward and visible sign and symbol."

- Charles J. Hardy, president of the American Car and Foundry at the award presentation of the Navy "E" Pennant, quoted in "Wilmington Shipyard Gets 'E' Pennant Award," *Journal-Every Evening*, April 2, 1942



Read to Connect

Teacher Tip: This background text highlights manufacturing and industrial contributions in Wilmington, Delaware, as well as the growth of the workforce and the challenges that came with it. The other texts in this lesson focus on training programs and the role of women workers. For additional information on ship manufacturing, see [Reading 1](#) in [Lesson 4](#). Some voluntary employee efforts, such as a fundraising drive for a B-29 bomber, are shared in [Lesson 3](#).

Reading 1: Background Text

War Industries on the Home Front in Wilmington, Delaware

By Sarah Nestor Lane

During World War II, Wilmington, Delaware became a center of home front war production. One example of critical wartime production was the Dravo Corporation shipyard, located along the Christina River. At its peak, 10,500 employees worked there, making it one of the largest employers in the state. Dravo built ships such as Landing Ship Tanks (LSTs), Destroyer Escorts (DEs), and Landing Ship Mediums (LSMs). These were designed to carry soldiers, tanks, and supplies to the front lines. Workers pushed themselves to meet deadlines with the motto “Today, Not Tomorrow.”

Other factories in Wilmington also converted to wartime production. The Pusey and Jones Corporation shifted from papermaking machinery to constructing cargo ships and dredges. The Wilmington “Jackson and Sharp” plant of American Car and Foundry produced wooden minesweepers, landing craft, and pontoons. The Du Pont Company, founded and headquartered in Wilmington, made gunpowder, explosives, and new synthetic materials like rubber substitutes.

A Growing and Changing Workforce

Meeting wartime production goals required a massive labor force. Workers of many backgrounds worked in Wilmington war industries, including women, immigrants, and African Americans, who all had long faced various barriers in industrial work.

Women joined Wilmington’s war industries in large numbers, taking on jobs that had once been closed to them. This was critical, since much of the male workforce was called to military service. Women worked in the shipyards, like at Dravo, in positions such as welders. One woman was elevated to be a crane operator at Dravo, which was a high-skill and desirable job. They also worked in secretarial and office roles.

Dravo drew workers from Polish, Irish, Chinese, and Italian immigrant communities. One example of migration was Chinese workers who came to Wilmington. Many came specifically to work at the Dravo Corporation. By 1943, about 300 Chinese immigrant employees were on staff. One, George S. Sang, not only worked in the shipyard but also wrote a weekly column in Chinese for the Dravo employee publication. He also did part-time work for the American Citizen War and Defense Audience. In a column he reported most Chinese workers at Dravo had been in the country from three to ten years.

African American men and women also found opportunities in Wilmington's war industries, though they faced barriers. At Dravo, African American workers were employed but often faced discrimination in hiring and training. Advocacy groups like the Wilmington Service Council of the National Urban League and the local branch of the N.A.A.C.P. fought for equal opportunities. African American women also took on industrial jobs, roles rarely open to them before the war.

Housing and Segregation Challenges

The demand for workers in the local industries led to population growth in Wilmington. This led to challenges in housing. Thousands of new workers needed places to live, resulting in rising rents and overcrowding.

African American workers in Wilmington faced additional housing challenges because of discriminatory segregation practices. Many neighborhoods refused to allow the families to move in, pushing them into limited and often poor-quality housing. City and Federal Housing Authority policies led to redlining. Redlining was when banks and the government refused to give loans or mortgages to people in certain neighborhoods because of their race and not because of their finances.

The Wilmington Housing Authority used public housing projects to enforce segregation by placing war workers in separate developments based on race. One housing project, Southbridge, opened in South Wilmington and included 180 units. This was not nearly enough. In March 1943, the Wilmington Housing Authority announced a second project, Millside, located less than a mile south of Southbridge and outside of Wilmington. Millside had 588 rental units and functioned as a self-contained community with a school, shopping center, community building, and child care center. Other large-scale housing projects in the city were reserved for white workers, reinforcing the racial segregation that shaped wartime Wilmington.

Lasting Impact

Wilmington was a critical contributor to the national war effort, producing materials and building ships that were crucial to the Allied efforts. Wilmington's wartime industries demonstrated both the strengths and contradictions of the American home front. The industrial growth brought on and exposed challenges such as housing shortages, segregation, and the struggles of immigrant workers seeking stability.

The legacy of Wilmington's home front efforts is remembered today with its designation as a World War II Heritage City. The Riverfront Corporation of Delaware dedicated Dravo Plaza in Wilmington to boatyard workers in 1999. Dravo Plaza honors the Dravo Shipbuilding Corporation's critical and nonstop wartime contributions. There is a "Points of Remembrance" compass rose with names of ships built at the shipyard. Wilmington also has a World War II Memorial and a Holocaust Memorial.

Questions for Reading 1, By the Numbers, Quotations to Consider, and Photos

1. Identify examples of industries in Wilmington during the war.
2. Find Wilmington on a map. How did its geographic location support local industries? Think about both manufacturing and transportation.
3. What types of ships were built by the Dravo Corporation? What purpose did they serve?
4. What groups of people were included in the local workforce? What were some challenges they faced or impacts they experienced?
5. Review the other resources (By the Numbers, quotations, and photos). As you do, use "SIT" to record or discuss 1–2 pieces of evidence for each letter: What is . . . **S**urprising, **I**nteresting, and **T**roubling?
6. *Extension – Optional Activity:* Explore this [1942 DuPont Company magazine](#) to learn more about the company's wartime production (Hagley Digital Archives).

Photo



Figure 6: "Miss Lessie Walker of this city, learns arc welding at the Weld School operated by the Dravo Corporation as part of its training program in which hundreds of men and women, many of them inexperienced in industrial work, are learning to help build ships." This picture accompanied the newspaper article used for Reading 2.

Reading 2: Newspaper Article

Teacher Tip: Discrimination and segregation were widespread in war industries and training during this time. Some training programs on the home front were segregated. The language in the text reflects those discriminatory attitudes and includes terms that are not be appropriate today. An example of segregated training can be found in the [Extension: Additional Reading](#).

1,500 at 'Dravo College' Have Shipyard for Campus

Army-Navy 'E' is School Flag and Students Are Paid for Attending Class in Training Program to Speed Ship Building

Wilmington Morning News, March 31, 1943

The biggest technical school in the state has a shipyard for a campus, the Army-Navy 'E' for the school flag, and its students get paid for going to class.

This wartime educational phenomenon is at the Dravo Corporation Shipyard and is simply referred to as 'the training program.'

But it's a school with about 1,500 students. In its classes, in a special school building, and all around the yard, waiters are learning to be welders, former salesmen are becoming shopfitters, and housewives who never before handled machinery more complicated than a can opener are adept pupils at sheet metal work and pipefitting.

It is no wonder then that a few call it Dravo College even if there are no ivy-covered walls, school traditions, and college pennants. The walls are the fresh gray of factory buildings. The traditions are just the old American ones of being eager to tackle a new job, and quick to get the 'know how.' And instead of pennants there are war posters on the classroom walls like the one in which a wounded soldier is saying 'Doing all you can brother?'

The great expansion in shipyards and the manpower problem made it necessary to set up the program. For after the shipyards and U.S. Employment Service scoured the country for skilled workers – and still needed more – the only thing to do was to make new ones through training.

The Dravo in-plant training program is similar to the educational work being carried on in other war plants here and in other cities: in the Wilmington area, however, it is by far the largest. The courses offered extend from elementary instruction in various crafts for 'green' workers, all the way to specialized engineering courses of college grade.

The war plants have recently been hiring untrained men and women in large numbers, so that the basic factor in this gigantic program is the training of inexperienced personnel. Many of these new workers in the arsenal of Democracy are former bartenders, barbers, salesmen of articles now scarce, waitresses, and housewives. They have come to the U.S.E.S. sends them to the war plants.

Most of them have never worked in industry, and many have never handled tools. To transform these inexperienced men and women into useful shipbuilders is the job of the training program.

Many Want to be Welders

Many of the new workers want to be welders. Dravo has a school to train them in which more than 50 students, both men and women, can be taught at once. Nearly 1,000 trainees have gone through the 'weld school.'

Eighty percent of these are entirely 'green,' know nothing at all about arc welding. Such workers are hired as trainees and placed in the school where experienced instructors show them how to maintain the proper arc length, and how to keep their hands steady by bracing themselves. In separate booths in the lower floor of the school the future welders, with

goggles and masks, try out what they have been told and shown. Using pieces of scrap metal, they try to make the simple T-fillet joint, starting with the work flat. They practice and are corrected by the instructors until they learn the technique; then more practice. They gradually progress to the more difficult positions, on 'vertical' and 'overhead' work.

About two-thirds of the students have the aptitude and perseverance to get through the welding course and this usually takes about 80 hours and results in the trainee entering the shipyard as a tack welder. After a period in the yard the tacker returns to school for upgrading until he passes the Navy test for welders.

Of the third who do not take to welding, a high proportion go to other work for which they find they have more aptitude. They find their niches and soon become good productive workers.

The weld school supplements its instruction in the booths with classroom work, and a series of movies showing what to do and what not to do.

When the tacker leaves the school and goes on the job his participation in the training program is not over. He can get more training to help him advance, and he gets instruction right on the job to show him how to apply his new welding skill.

Another phase of training at Dravo is the 'helper upgrader' program, in which there are two hours of instruction and six hours of production work per day. This schooling is offered in arc welding sheet metal work, electrical work, and burning and cutting. There are about 300 helpers increasing their skills in this program.

A third type of instruction is the 'upgrader program' which – unlike the others- is offered on the workers own time, during three two-hour sessions each week. Nearly 300 workers who want to advance in position are learning blueprint reading for various crafts, ship-fitting, pipe-fitting, mechanical erection, and other work.

Another activity of 'Dravo College' is yard instruction, in which are welding, electrical pre-fabrication work, ship-fitting, ship machine work, chipping, and spray painting are being taught to more than 600 men and women.

Course for Foremen

There is also the foremen training program for present and prospective foremen. The most advanced courses of all, however, are those in electrical engineering and welding engineering and welding engineering – college level courses sponsored by the University of Delaware, and financed with federal funds.

The other courses are also federally financed and are administered through the board of education, which approves the selection of the instructors.

Questions for Reading 2

1. Why was the training program at Dravo Shipyard created during the war?
2. Why was this training program nicknamed “Dravo College?”
3. What steps did trainees go through to learn welding?
4. How did programs like this change who could work in shipyards during the war?
What does that suggest about the impact of the war on training and the local workforce?

Reading 3: Submitted Letter in Newspaper

Excerpt from “The Man About Town” by William P. Frank – a submitted letter

The News Journal, November 1, 1944

“ . . . A NOTE for Dottie, the welder, of the American Car and Foundry in Wilmington:

Out in the Pacific is a group of fighting sailors who want to thank you for a good welding job.

The following letter is self-explanatory and, dear Dottie, in case you’re interested, you can get the address by contacting this column:

The letter is addressed to the American Car and Foundry, Wilmington, where a stout LCM was built:

‘Dear Sirs: This letter is being written upon curiosity of three sailors somewhere in the Pacific. We are in the amphibious force and the crew of one of the LCM’s that your factory made.

‘It’s a good boat and it’s our home; our lives depend upon her. On one of the recent landings one of the crew went down in the fantail to get more ammunition, and he noticed a name on the side which was written with an arc welder and spelled Dottie!

‘We would like to know who Dottie is.

‘So if you will post a notice on the bulletin board for whoever Dottie is to write this address and tell us a little about herself because we have named our boat after her, ‘Dottie.’

‘We didn’t think much of women welders but now that we know our boat was welded by one and it’s still afloat after what it’s been through, we think they’re as good a welder as a man: at least Dottie is.

‘And for the boat you made, it’s a good boat and it made a few [Japanese] we know ‘So Sorry’! We thank you.

‘Dick Richards, Cox.

‘Wallace J. Brown, Mo. MM 2/c

‘Robert E. Fitzgerald, S 2/c.”

Questions for Reading 3

1. Who was “Dottie,” and what role did she play in the war effort?
2. Why do you think the sailors wanted to reach out to Dottie after discovering her name on their boat?
3. How did the sailors’ reaction to Dottie’s work show both the challenges women faced and the changing beliefs on their abilities during the war?
4. How does this reading help us understand connections between the home front and the front lines?

Lesson Closing

Answer the essential question: In what ways did Wilmington’s industries support the war effort, and what challenges did workers face in doing so?

Extension: Additional Reading

Note: Discrimination and segregation were widespread in war industries and training during this time. Some training programs on the home front were segregated. The language in the text reflects those discriminatory attitudes and includes terms that are not appropriate today.

Negro Training Course to Open

100 Will be Instructed in Marine Sheet Metal Work and Marine Pipe Fitting

The Morning News, July 24, 1942

Four new classes to train 100 Negro workers for jobs in the shipbuilding industry as marine sheet metal workers and marine pipe fitters are being added to the training program here, it was announced yesterday by Elmer H. Smith, state director of the United States Employment Service.

The new courses, the first to be offered to Negro workers in the two subjects, will add about 35 percent to the capacity of the city schools to train Negro workers for war industries. The courses are also the first in the training program to be given at Howard High School;

previously announced courses in this phase of the program are being given at Carver Vocational School, which has a capacity of 320 trainees.

The Howard High School classes will be offered in eight-hour periods during the day; and in three-hour periods in the evening. Day classes, particularly designed for unemployed workers, will be held from 8:30 a.m. until 4:30 p.m., while the evening classes, mainly for employed workers, will meet from 6 to 9 p.m.

Persons wishing to enroll for free training in preparation for jobs in these fields should apply at the employment service office at 601 Shipley Street, Mr. Smith said.

There are also vacancies at the Carver School in daytime courses in marine electrical work and other fields, Mr. Smith said. The welding and machine shop classes at this school are now filled to capacity.

Questions for Extension Reading

1. What types of jobs were workers being trained for in this program? Why were these jobs important?
2. How might these training opportunities have helped African American workers during the war, and what challenges might they still have faced?
3. How does this article help us better understand both progress and inequality in the home front workforce?

Lesson 2: The Service of Women Airforce Service Pilots (WASP) in Wilmington, Delaware, World War II Heritage City

About this Lesson

This lesson is part of a series about the World War II home front in [Wilmington, Delaware, World War II Heritage City](#). The lesson contains newspaper articles and a letter, alongside photos, to support learning about the service and contributions of women at New Castle Army Air Base (now Wilmington Airport). The air base's purpose was to support the Air Corps Ferrying Command. It also served as a headquarters center for the pilots of the Women's Auxiliary Ferrying Squadron (WAFS). The WAFS started in 1942, and in 1943 were renamed the [Women Airforce Service Pilots \(WASPs\)](#).

Objectives:

1. Explain the purpose and importance of the New Castle Army Air Base.
2. Describe experiences of women service members in the WAFS (later, WASPs) at New Castle Army Air Base, with details such as types of jobs, challenges, and contributions to the war efforts.
3. Compare local, historical perspectives on service to synthesize and connect to larger wartime perspectives and themes.

Materials for Students:

1. Photos: Figures 7-10 (*can be displayed digitally*)
2. Readings 1, 2, 3
3. *Recommended:* Map of Delaware, with Wilmington and the Wilmington Airport marked



Getting Started: Essential Question

How did the service of women at the New Castle Army Air Base support the Allied war effort and pave the way for women in military aviation?

Photos



Figure 7: "Returning wounded from France on military aircraft (to New Castle AAB); shows interior of plane, with some soldiers lying on cots and others seated." The photo also includes at least two women. Date unknown. (Credit: [New Castle Army Air Force Base, ca. 1941-1945, MIT92], Delaware Historical Society Photograph Collection, Delaware Historical Society, Wilmington, Delaware.)



Figure 8: Mrs. Nancy Harkness Love (left), chief of the Army's first women's ferrying squadron with Mrs. Bett Gillies of Long Island, a candidate for the auxiliary unit at the New Castle Air Base. (This picture accompanied this lesson's Reading 1 in the newspaper.)



Figure 9: WAFS in the ready room at Newcastle AAB, Wilmington, Delaware, 1942. (Image courtesy of WASP Archive, The TWU Libraries' Woman's Collection, Texas Woman's University, Denton, Texas.)



Figure 10: Members of the Women's Auxiliary Ferrying Squadron (WAFS) at Newcastle Army Air Base, Wilmington, Delaware, Winter 1943. (Image courtesy of WASP Archive, The TWU Libraries' Woman's Collection, Texas Woman's University, Denton, Texas.)



By the numbers: New Castle Army Air Base

- New Castle Army Air Base became a major maintenance point on a 22,000-mile route. This route was called the Crescent Transport route and it carried cargo from the states to the easternmost post of India.
- The base was expanded in 1944 with three additional hangars, a terminal building and warehouse. The main hangar and two nose hangars accommodated four C-54 planes. Two planes could be placed in the large hangar, which was a 220-by-202-foot structure. Prior to the expansion there was only one hangar. There was also a station hospital.
- There were five operational squadrons at the air base, but they were consolidated to form one large Operation Squadron in September 1944 to accommodate more transport work.
 - Details from the *Wilmington Morning News*, September 14, 1944
- As the war was ending, the Second Ferrying Group supported the transportation of troops from Paris or Casablanca to New Castle Army Air Base to support reassignment or separation. In June 1945 they anticipated 9,000 monthly returnees traveling through the base.
 - *The News Journal*, June 22, 1945



Quotation to consider:

“Worthwhileness of the recently formed WAFS, with headquarters at the New Castle County Air Base, is indicated by the announcement that another unit is to be established at Dallas, Texas. This is an organization composed of women aviators who are given adequate training so they can ferry airships within the continental confines of the United States.

Although the venture may have been looked upon as an experiment when it was launched a few months ago its proposed expansion indicates that it has proved its practicability as well as its worth.

Aviation is fascinating for women as well as for men. Competent women who can ferry planes replace men who are needed for other military service and help to meet increasing demands for the delivery of planes for the Army.”

- “WAFS Expand,” *The Morning News*, Jan. 9, 1943



Read to Connect

Teacher Tip: The National Park Service article on the [Women Airforce Service Pilots \(WASP\)](#) provides strong background information for this lesson and can be used to help students understand some of the challenges the WASPs faced and contributions they made.

New Castle Army Air Base Background: During the war, the Wilmington Airport was taken over by the United States Army Air Forces and renamed the New Castle Army Air Base (AAB). It opened in May 1943 to support the Air Corps Ferrying Command. The base facilitated the delivery of aircraft overseas to Great Britain and other Allied forces. In June 1945 its mission expanded to include overseas air transport of passengers and cargo.

The New Castle AAB also served as a headquarters center for the pilots of the Women's Auxiliary Ferrying Squadron (WAFS). The WAFS started in 1942, and in 1943 were renamed the [Women Airforce Service Pilots \(WASPs\)](#). The WAFS were a group of highly experienced civilian women pilots. [Nancy Harkness Love](#) served as the first Chief. They ferried a wide range of military aircraft, towed targets for student gunners, and broke new ground as pioneers for women in aviation. For example, Betty Gillies, a WAFS squadron leader at New Castle, became the first woman to fly a P-47 Thunderbolt and was also among the first women to qualify as an aircraft commander on a B-17 Flying Fortress.

Reading 1: Newspaper Article

Flying Chief of WAFS Busy Organizing First Ferry Unit

Several Candidates Await Mrs. Love Upon Her Return From Washington; Women's Unit Will Deliver Planes for the Present

Journal-Every Evening, September 11, 1942

The WAFS of the skyways are now lining up with their cousins, the WAACS of the Army and the WAVES of the Navy in the expanding war services of American women.

The WAFS – Women's Auxiliary Ferrying Squadron – are now being organized at the New Castle County Air Base, south of Wilmington, under the direction of attractive Mrs. Nancy Harkness Love who has been flying since she was 16.

With applications pouring in from all parts of the nation, Mrs. Love was desk bound today at the air base, whipping into shape the initial unit of women 'ferriers' for the Army air forces.

Ferry Light Ships

For the time being, the WAFS will ferry only primary training planes and light liaison ships from factories and other depots to stations within the continental limits of the United

States.

The 28 year old director of what is described as the experimental unit of the ferrying forces, is the wife of Lieut. Col. Robert M. Love, deputy chief of staff of the Air Transport Command. Their home is in Boston.

She is a native of Houghton, Mich., studied two years at Vassar and has been married six years. She has no children. She has had a commercial pilot's license for nine years and was once employed by the C>A.A., in its air marking program.

[Part of Group Here](#)

The squadron here will be part of the 2nd Ferrying (Domestic) Group of which Col. Robert H. Baker is commanding officer, which has its headquarters at the air base.

Although the first squadron will have only 50 women, Mrs. Love said today she is sure there are from 500 to 600 women pilots who could meet the minimum requirements:

21 to 35 years of age, high school graduate, commercial license with 200 H.P. rating, 500 hours' flying time; at least 50 hours in past 12 months, and American citizenship. Applications can be sent to the Air Transport Command, Army Air Forces, War Department, Washington, or to Mrs. Love.

The WAFS will mean a great relief for the Army pilots in the domestic ferry service.

It will mean, officials said, that the Army pilots will be able to devote more attention to the larger ships.

As for the future of the WAFS – flying the heavier ships – ‘the women will have to prove their capabilities in those fields,’ officers said.

Mrs. Love estimates that there are no more than 15 women pilots in the nation now qualified to fly multi-engined [sic] planes but she said that additional training would quickly qualify many of the hundreds of women fliers who have the other qualifications.

[Been Here Since Sunday](#)

Although Mrs. Love has been at the air base since Sunday, the formation of the WAFS was not made public until yesterday after she had a conference in Washington with Secretary of War Stimson and Army Air Force officials.

But by the time she returned to New Castle County Air Base in the middle of the afternoon, three or four candidates were already awaiting her and their flying ability checked.

The WAFS will be housed at the air base. They will be under civil service status but will eventually wear uniforms, the design of which has not been determined. Until then, while on duty, they will wear flying togs or slacks.

Pay will be \$3,000 a year plus \$6 a day on trips.

Training Period

Accepted applicants will be put through a special course of instruction from two weeks to a month during which they will be familiarized with all types of military planes. After 90 days' trial they will be given permanent civil-service status.

Military discipline will prevail in the WAFS barracks, so far as hours are concerned. One of the buildings at the field will be turned over to the women pilots. Mrs. Love will live there also.

Maj. Gen. Harold M. George, commanding the Air Transport Command, said tentative plans call for ultimate expansion of the auxiliary to include all the women pilots available.

Those at the Air Base yesterday were Miss Cornelia Fort, 23, of Nashville, Tenn., who has over 1,000 hours flying time, and Mrs. Betty Gillies, 35, of New York, who has been flying since 1928. Her husband is vice-president of Grumman Aircraft Engineering Corporation.

'The WAFS, at first, will be limited to flying smaller aircraft – such as training and liaison planes – within the United States,' Secretary of War Stimson said.

Their duties thus will be more restricted than those of their British counterparts, the 'Atagirls' of the English Air Transport Auxiliary. The British women fly more than 140 different types of aircraft ranging from Spitfire to heavy bombers. Organized in January, 1941, the Atagirls now number more than 100 under the command of Pauline Gower.

Questions for Reading 1, By the Numbers, and Quotation to Consider

1. Who organized the Women's Auxiliary Ferrying Squadron (WAFS), and where was it based?
2. What qualifications did women need to join the WAFS?
3. How does the description of Nancy Harkness Love as "attractive" reflect gendered attitudes of the time? What does this, and other language in the text, suggest about how women in the WAFS were viewed compared to their male counterparts?
4. *Reading and Quotation to Consider:* How did WAFS provide "relief" and "help to meet increasing demands" for the Army?
5. *By the Numbers:* What roles did the New Castle Army Air Base fill on the home front?

Reading 2: Letter Excerpt

Note: The letter was written on New Castle Army Air Base letterhead. The letter is part of the WASP Archive, The TWU Libraries' Woman's Collection, Texas Woman's University, Denton, Texas and can be [accessed here](#). Below are excerpts from the letter.

Letter From Dorothy Scott to her mother, December 13, 1942

“ . . . You see, my flying suit is fleece-lined which means wool and so I pull my scarfs up around my face so they must be large. Also the PTs are open planes and the wind howls. . .

You see, starting next week my life will be a matter of 12 hrs. here each two weeks and the rest of the time on the road. It's really hectic but wonderful.

Don't worry about me dropping in sudden-like because I'll know my destination ahead of time and can give you several days notice. It may be a wire worded like 'Union 1700' which would be Union Airport, L.A. at 5 o'clock in the afternoon (24 hr. clock). If ever you can't make out the wording call an airport or weather station.

You ask about my experiences, they really accumulate but seem even commonplace to me now. I'll give some daily routine.

Yesterday (Saturday) is parade day except that it was called off on account of fog. Usually the entire post marches out onto a runway and forms by squadrons with the WAFS last. If there are only 4 of us on the post we don't make a very large showing. We stand at attention and get inspected, then 'at ease' while our leader calls down the line 'present or accounted for, sir' then we 'right face, forward march' and go past the Colonel (commanding officer) and his staff doing 'eyes right' then we march back to the hanger, fall out, and dash for a radiator to warm up.

Ground school is really unique. With only 4 of us in class its very informal and varied. We get in on any special lectures being given officers so I've learned everything from tropical diseases to altitude flying.

Then we accumulate lessons in drill, manual of arms (with rifles), gas mask drill, morse code, and even taking machine guns apart. It's not that we are going to use all this, but it's available so we learn it – and do I like it! I can do a neat 'present arms' or yank down a sub-machine gun using only a cartridge. I know sentry procedure and how the army is organized, and can put on a gas mask in about 3 seconds.

Then for my own information I explore airplanes in the hangars – all types from the flying fortress to our little *laisson* [sic] craft. Also I'm going to get link trainer time after I graduate (we can't before).

. . . I had some pictures taken of me in helmet and goggles but they won't be ready until after Christmas. You'll get one too, date uncertain.

Look mag. for Jan 15 (about) will feature us and I'm in the picture of the P.T. taking off and maybe some more.

Ron will be here the 15th or 16th and I'm trying to get red tape slashed so I can take him on one of my practice trips. They are trying to rush us thru so we can start ferrying this next Wed. or Thur. but weather is tough so we'll not get in our 25 hrs transition minimum by then. (I'm glad, otherwise I'd miss Ron.)

Oh yes, we are not commissioned officers when we graduate, still civilians, the commission means like Ron and is only a future possibility, so don't write to 'Lt. Dorothy.' . . .”

Questions for Reading 2

1. What kinds of routines and training does Scott describe in her letter?
2. Why do you think Scott points out that her training included skills she might not use, such as taking apart machine guns? What does this show about how the military prepared some of the WAFS?
3. Why does she say to not write to “Lt. Dorothy?”
4. How might it have felt for women like Scott to take on the responsibilities of military work without being given the status of a service member or commissioned officer? What does this reveal about gender roles and limitations during the war? (*Note: The WASPs were not granted veteran status by the federal government until 1977.*)

Reading 3: Newspaper Article

End of the Wasps

The Morning News, October 7, 1944

After Dec. 20 the Wasps will be no more. The Women Air Force Service Pilots, originally organized two years ago at the New Castle Army Air Base as the WAFS, is being disbanded because its job is done. But it leaves behind it a proud record of service to the country and to the Army Air Forces of which it has been a part.

While the United States was building up the huge air fleets which roam the world's skies today it ran into a shortage of skilled pilots. The women of the WASPS stepped into the breach. They had learned how to fly in civilian life and some of them had proved their right to a ranking among the best pilots of our time.

In the Air Forces they filled a wide variety of assignments in this country. They were engaged in ferrying all types of military planes from single seater fighters to the huge B-29 Superfortresses. They acted as couriers and they towed targets for serial gunnery practice by airmen. And through all of these duties they released male pilots for combat duties overseas and helped to speed the expansion of our fighting air force.

The WASPS organization has never been very large. It numbers only about 1,000 volunteers. But they can retire from service with the satisfaction of a job well done and with the commendation of General Arnold, commander of the Army Air Forces, for ‘outstanding work’ done with ‘skill, versatility, and loyalty.’

Questions for Reading 3

1. Why were the WAFS (and later, WASP) created, and what kinds of missions did they carry out during the war?
2. General Arnold praised the WASPs for their “skill, versatility, and loyalty.” Based on the text and other lesson readings, were the WASPs treated equally to other male pilots in the military? Use evidence to support your answer.
3. *Extension:* Use additional evidence from [Women Airforce Service Pilots \(WASP\)](#) in your response.
4. How do you think the involvement of women in military service during World War II impacted the future of military service?

Lesson Closing

Answer the essential question: How did the service of women at the New Castle Army Air Base support the Allied war effort and pave the way for women in military aviation?

Additional Resources

[A Migrant Story – Nancy Harkness Love](#) (Keweenaw – National Historical Park, Michigan)

[Learning from Women in Aviation](#) (Curiosity Kit: American Aviation History from the National Park Service)

[Maud B. Duke Collection](#) (Veterans History Project: Library of Congress)

- *Note: Duke discusses her time as a member of the WAC (Women's Army Corps) spending transit time at New Castle Army Air Base from 11:15-13:45 in the interview. Some language and content outside of this time frame may be sensitive and/or outdated; review before sharing with students.*

[Women Airforce Service Pilots \(WASP\)](#) (National Park Service)

[Women Airforce Service Pilots \(WASP\)](#) (National Air and Space Museum – Smithsonian)

Additional People Articles: WASPs:

[Hazel Ying Lee](#)

[Maggie Gee](#)

[Ola Mildred Rexroat](#)

Lesson 3: Home Front Volunteerism in Wilmington, Delaware, World War II Heritage City

About this Lesson

This lesson is part of a series about the World War II home front in [Wilmington, Delaware, World War II Heritage City](#). The lesson contains readings, statistics, and photos to learn ways that local civilians volunteered to meet wartime needs on the home front. The readings show examples of civilian defense work and creative ways of collecting and encouraging material and financial donations.

Objectives:

1. Identify examples of ways civilians in Wilmington volunteered and contributed to home front causes.
2. Explain the impact of these home front efforts, such as civilian defense initiatives and fundraising, on supporting the war effort and the community.
3. Compare local, historical perspectives on volunteerism to synthesize and connect to larger wartime perspectives and themes.

Materials for Students:

1. Photos: Figures 11-14 (*can be displayed digitally*)
2. Readings 1, 2, 3
3. *Recommended:* Map of Delaware, with Wilmington marked



Getting Started: Essential Question

How did civilians in Wilmington support the war effort through volunteering and other home front activities?

Photos



Figure 11: War Bond Rally in Rodney Square, Wilmington, Delaware, June 22, 1944 (Courtesy of Delaware Public Archives and the City of Wilmington)

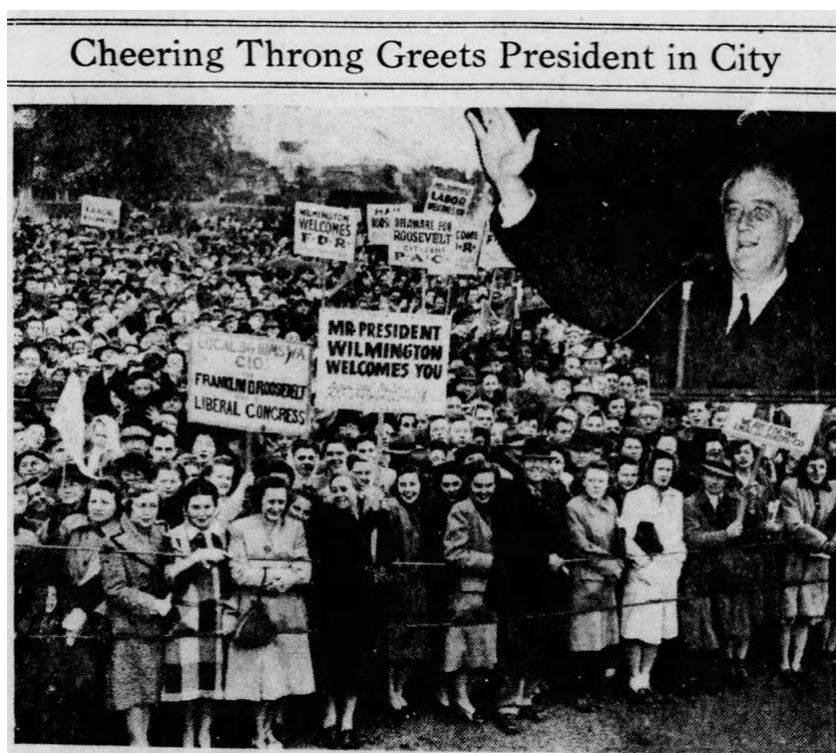


Figure 12: An estimated 6,000 to 10,000 people gathered for President Roosevelt's stop in Wilmington, Delaware on October 27, 1944. He gave a seven-minute appearance and "praised Delaware's war contribution." (The Morning News, Oct. 28, 1944)



Figure 13: A photo of a vehicle from the Delaware Chapter of the American Red Cross Motor Corps in 1942. The Delaware branch of the Red Cross was formed in Wilmington in 1905. (Courtesy of the Delaware Public Archives)

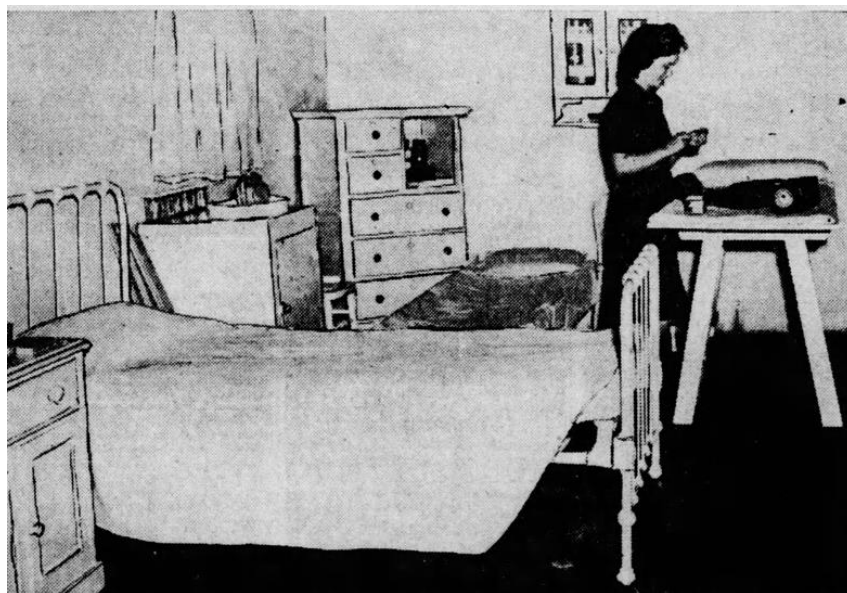


Figure 14: "Using the 'operating table' as a work bench, Mrs. Frances Hollingsworth, director of the Brookland Terrace Civilian Defense Dressing Station, readies supplies for use in event of an air raid. The equipment at the station was donated by members of the community and 'worked over' to suit its present use." This photo accompanied Reading 1 in the newspaper.



By the numbers:

- In 1945 in the state of Delaware there were 80 4-H clubs. This included a presence in Wilmington. The monetary value of 2,500 war projects by the state's 4-H clubs in 1944 was \$81,256, or nearly \$1.5 million today. Projects included material drives, war bond and stamp drives, and agricultural projects for wartime food production.
 - "2,500 War Projects of State's 4-H Clubs Realize \$81,256," *Journal-Every Evening*, March 3, 1945
- On July 8, 1943, about 1,000 people attended a "Victory Sing" in Rodney Square, Wilmington. The event featured performances by children and World War I veterans, and attendees donated old and broken phonograph records to be reprocessed for use by service members.
 - "1,000 Attend Victory Sing," *Journal-Every Evening*, July 9, 1945



Quotations to consider:

"Wilmingtonians unused to colorful public conveyances were startled yesterday when the novel red, white and blue trolley coach of the Delaware Power and Light Company promoting the sale of war bonds, began making its runs over the Washington Street route. It will be used from time to time on other routes.

Cooperating with the local War Savings Staff, the traction company had one of its standard green and cream-colored coaches repainted in the national colors and inscribed with large-letter slogans, 'Buy U.S. War Bonds' on the sides. A replica of the Minute Man symbol of war savings also was painted on the front of the coach."

- "Coach is Decorated to Aid War Bond Sale," *The Morning News*, Oct. 21, 1942

"Donations to the Red Cross by crowds at the practice games of the Phillies at Wilmington Park have totaled \$512.74 in less than two weeks, Charles W. Baker, Jr., state chairman of the \$715,900 Red Cross war fund drive, announced today.

Eddie Glennon, manager of the Phillies, suggested to the Delaware Chapter that uniformed workers should be sent to the park each day to seek donations from the crowds who are admitted to the practice games without charge.

Not one person – even the smallest child – has passed by the Red Cross volunteers without contributing something, Mrs. Leslie Stone, in charge of the volunteers, reported."

- "Baseball Fans Aid Red Cross," *Journal-Every Evening*, March 31, 1945



Read to Connect

Teacher Tip: The readings and resources in this lesson show different examples of civilians volunteering or contributing financially to support the home front. If needing to shorten the lesson, you may assign students to small groups, with each group reading one example and sharing their findings.

Additional articles are provided as resources at the end of the lesson that can also be used as background texts for volunteering and contributions on the American home front.

Reading 1: Newspaper Article

Brookland Terrace's Civil Defense 'Hospital' Result of Community Effort; Every One Helped

Even Orange Crates Were Used to Make Equipment; Center is Ready for War Emergencies; Equipment Delivery Truck is Improvised Ambulance

Journal-Every Evening, September 19, 1942

Glistening white, the result of newly acquired coats of paint, the Brooklyn Terrace civilian defense dressing station and its 'hospital equipment' are testimonies of the resourcefulness and determination of that community.

From the 'operating table' with its saw-horse legs and the blanket closet which the attendants proudly declare was formerly five orange crates, to the modern surgical instruments neatly arranged on a table, the whole setup gives the impression of cool efficiency and the ability to handle a tough situation.

Located in a portion of the basement in the home of Mr. and Mrs. Alfred Bishel, 201 Brooklyn Avenue, the station has been in operation and "in process" for about three months.

Community Effort

After deciding on the location, residents of the community set out to get their equipment together. The result is the well-equipped and adequately staffed station with facilities for three patients and more cots on call in various houses if needed.

'Everything was donated,' emphatically declared Missus Francis Hollingsworth, director of activities (who later modestly admitted she was a registered nurse). 'We didn't buy a single piece of equipment. Of course we had to improve a lot of things, but the men and women of the community did that.'

“That cabinet, for example,” she said, indicating what had apparently been a bureau. ‘We women took care of changing its size and design. The men said we damaged their tool some, especially the plane, but we’re right proud of the finished job.’

Equipment of Station

Equipment at the station now consists of one bed, two cots, one linen chest, two supply cabinets, one blanket cabinet, 1 operating table and some chairs. The men of the rescue squad are making two stretchers so that the ones borrowed from the Red Cross can be returned. Kerosene lanterns and cans of Sterno for heating purposes are available in case the electric power service is interrupted.

The station is also equipped with an ‘ambulance’ – the delivery truck of the neighborhood grocer, Lester Pearson. It is manned by members of the rescue squad whose job is to locate the patients and deliver them at the dressing station.

Money for the purchase of supplies such as bandages, antiseptics and so forth, came from the general civilian defense fund of the community. These supplies, missus Hollingsworth said, used up most of the money allotted the station. Profits from a soup sale held recently at the station were returned to the general fund and this return nearly offset the original advance. . .

Drills Held

‘Drills are held with each blackout,’ Mrs. Hollingsworth said. ‘Patients are brought in, treated, and sent on to the central station.’

She tells of one drill which came shortly after the station had been set up. A patient requiring splints was brought in. The station was operating without benefit of splints, so she used pieces of firewood from a pile in another part of the basement.

‘The doctor said the job was satisfactory,’ she said, ‘but we have some regular splints now.’

At each signal of raid or blackout, members of the staff go to the station. The nurses and their aides prepare for patients, members of the rescue squad have their stretcher ready and bring their ‘ambulance’ to the station and stand by in readiness to go on call.

And, judging by what has been accomplished, the doctor will report ‘Job satisfactory.’

Questions for Reading 1, By the Numbers, Quotations to Consider, and Photos

1. Why were civilian defense stations and practice drills needed on the home front?
2. How did the community reuse items to make medical equipment, and even an “ambulance”?

3. How do these examples show the effects of wartime shortages and the creative solutions of civilian volunteers?
4. How do small community efforts like this connect to the larger national effort to mobilize for war?
5. *By the Numbers*: What do the examples of 4-H clubs running war projects and the “Victory Sing” show about how young people and communities supported the war effort?
6. *Quotations to Consider*: How do these examples show the ways regular activities were connected to supporting the war effort? What does this reveal about how the war shaped everyday life on the home front?
7. *Photos*: What do you notice about the photos? What surprises you? How do they connect to civilians volunteering and contributing on the home front?

Reading 2: Newspaper Article

War Not Over, Bacon Warns

Coming Times to Call For Calm, Governor Says Gets DuPont, Dravo Award

Journal-Every Evening, March 3, 1945

Gov. Walter W. Bacon asserted last night over WDEL that although our armies and navies are pushing the enemy back, critical days lie ahead – the era of winning the war and the era of winning the peace, and call for ‘cool heads, stout hearts, and willingness to cooperate with one another for the overall happiness and success of our country and state.’

During the radio program which broadcast the acceptance by the governor of a Boeing B-29 Super Fortress Model from employees of the DuPont Company and the Dravo Corporation. Governor Bacon declared that the model is a reminder – a grim reminder – that the war is not over and will not be over until American ships can sail the seas unmolested and American planes can soar through skies uncontested.

Col. R. M. Winfield, in charge of personnel training at Dravo, said: ‘It has been a privilege for us to construct fighting ships for the United States Navy and an even greater privilege now to subscribe to the purchase of the B-29 for the U.S. Army Air Forces. During the Sixth War Bond Drive, the Dravo Corporation employees at the Wilmington yard set for themselves a goal to purchase a B-29. This goal gave us a greater incentive than ever before and as a result we have received a certificate from the War Finance Committee, acknowledging our achievement.’

Employees of the DuPont Company's main office and the Experimental Station bought, during the recent drive, in excess of \$600,000 in war bonds, the purchase price of a B-29 Super-Fortress. A certificate, signed by Henry T. Bush, chairman of the Delaware War Finance Committee, has been presented to these employees acknowledging their contribution.

The employees of Dravo also received a certificate in recognition of \$50,000 worth of bonds bought in excess of any previous drive toward the purchase of 83 units of a B-29. An additional citation, a Treasury Minute Man flag, was presented to Dravo Corporation, because more than 90 percent of its personnel is engaged in the purchase of war bonds through payroll savings. . .

Questions for Reading 2

1. What was Governor Bacon's message?
2. How did employees of DuPont and Dravo support the war effort beyond their regular jobs? Why might the companies have encouraged their employees to do this?
3. Why were [war bond](#) drives an important part of the home front effort?

Reading 3: Newspaper Article

Another Street Dance Planned As First Scores Big Success

Between 7,000 and 8,000 Throng Rodney Square To Hear Jive Bombers, Purchase \$1,657 Worth of War Stamps and Bonds; Jaycees Lauded

The News Journal, August 21, 1943

Another street dance in front of the Public Building is being planned in connection with the promotion of war bond and war stamp sales as a result of last night's phenomenally successful affair sponsored by the Junior Chamber of Commerce and the Delaware War Finance Committee.

A throng ranging from 7,000 to 8,000 milled through Rodney Square while the Jive Bombers orchestra from the New Castle Army Air Base played music for more than 3,000 dancers.

The total sales of war bonds and stamps are expected to go to about \$1,300, including war bonds, the 25 cent war stamp admissions, and victory corsages.

The dance, according to Harry O. Gray, deputy administrator of the Delaware War Finance Committee, is among the first of its kind in the state 'and as far as I know one of the first to be planned in the country as a whole.'

Thanks, Jaycees, Band

Thanking the Junior Chamber of Commerce and the Jive Bombers for their contributions to the war effort, Mr. Gray pointed out that there are not very many countries left today where such a street dance could be held.

‘In the countries that have been conquered by our enemies, the conquerors would forbid such a thing,’ he said. ‘They would not permit this many people to meet in one place. Even in the countries of our Allies an event like this is not possible for a great many reasons, particularly because of continuous blackouts.

‘We know that this war costs a terrific amount of money,’ Mr. Gray continued. ‘We know that the only way we can get that money is from the people of this free country. The United States of America belongs to every one of us. All of us have a share in its great wealth and resources.’

Among the features of the dance were the appearance of Miss Delaware (Mona Crawford), Joe Fisher as guest soloist, Cousin Lee and his Boys, and the North Carolina Ridge Runners.

But in the overall picture, the Jive Bombers was the chief attraction. The men had played earlier in the day at the Delaware War Bond Center, Sixth and Market Streets.

Dances With Leader

Miss Delaware enjoyed the spotlight as she and Sergt. Walter Hendl, leader of the Jive Bombers danced on the steps of the Public Building and later she sold war bonds.

All those who entered a roped-off area reserved for dancing were required to purchase at least a 25 cent war stamp. More than 2,800 of these were sold. Altogether according to first estimates, before the program was concluded, more than \$1,657.50 was received for sale of at least \$712.50 worth of bonds, \$870 in stamps, and \$75 worth of corsages, sold by girls in red, white, and blue pinafores.

The demand was unprecedented, and early in the evening supplies of stamps ran out and more had to be obtained from a bank. Edward C. First, Jr., president of the Wilmington Junior Chamber of Commerce, said, ‘Even on first reports, we are confident to say that this has turned out to be the most successful project of its kind in Wilmington. The spirit shown tonight was particularly gratifying.’

Special thanks were extended to First Lieut. Daniel C. Park, special service officer at the air base, who made possible the appearance of the Jive Bombers. Special mention was also made of the work of the 20 auxiliary policemen, serving under District Commander Lester J.

Ennis, and the city police under Sergt. T.J. Gainer. Harvey Smith acted as master of ceremonies.

Questions for Reading 3

1. Who sponsored the street dance in Rodney Square and what was its purpose?
2. Why did Harry O. Gray say Americans could hold a large street dance while people in conquered nations or even Allied countries could not?
3. Was this event successful? Use details from the text to support your answer.
4. Imagine you are part of the Junior Chamber of Commerce in 1943. What type of event might you have done to increase war bond sales?

Lesson Closing

Answer the essential question: How did civilians in Wilmington support the war effort through volunteering and other home front activities?

Additional Resources

[The American Home Front During World War II: Rationing, Recycling, and Victory Gardens](#)

[Canning and Food Preservation on the World War II Home Front](#)

[Victory Gardens on the World War II Home Front](#)

More national connections to home front volunteerism can be found at [The American Home Front and World War II](#) and [World War II Heritage City Lessons](#).

Lesson 4: Wilmington, Delaware: Comparing and Connecting WWII Home Front cities

About this Lesson

This lesson is part of a series teaching about the World War II home front, with Wilmington, Delaware designated as a World War II Heritage City. The lesson contains photographs, readings and a culminating project. The first reading connects to shipbuilding, one of the key wartime industries in the area. The second reading connects the region to the designation of a Heritage City. The culminating project contributes to learners' understandings of the city as a WWII Heritage City, with the opportunity to combine lesson themes from the three other lessons in the Wilmington, Delaware [collection](#). This is to summarize the city's contributions and encourage connections to overall home front efforts.

Objectives:

In a culminating product:

- a. Describe World War II home front defense industries in Wilmington and experiences of the diverse workforce.
- b. Explain the contributions and challenges faced by women service members at New Castle Army Air Base.
- c. Summarize the impact of financial contributions and volunteerism of civilians in Wilmington to home front wartime efforts.
- d. *Optional:* Describe similarities and differences of Wilmington and other Heritage city(s) / World War II home front(s).

Materials for Students:

1. Photos: Figures 15-18 (*can be displayed digitally*)
2. Readings 1, 2 (and optional media activity)
3. Maps, project materials (as needed)
4. Student graphic organizers (See Figure 19 at end of lesson, for reference)

- Create Comparison Matrices for your students to use. To compare two cities, create a one-page sheet with three columns and four rows. Label the left column Theme/Topic and the other columns City 1 and City 2. For a Comparison Matrix for three cities simply add an additional column.
- Create two Single-Point Rubrics to assist students' self-assessment. One is for assessing proficiency in meeting teacher-selected standards. One is for assessing proficiency in meeting objectives.
- For the rubric on standards, create a one-page sheet with three columns and four rows of content. Label the first column "Areas for Improvement," the second column, "Proficient (Meeting Standard)," and the third column, "Areas of Exceeding Standard." Leave the first and third columns blank. In each row of the second column identify a Standard and indicate a space for noting the evidence for meeting the standard. Include a space at the bottom of the page for assigning points for each column.
- For the rubric on objectives, create a one-page sheet with three columns and four rows of content. Label the first column "Areas for Improving toward Objective," the second column, "Proficient (Meeting Objective)," and the third column, "Areas of Exceeding Objective." Leave the first and third columns blank. In the four rows of the second column identify these four objectives:
 - a. Describe World War II home front defense industries in Wilmington and experiences of the diverse workforce.
 - b. Explain the contributions and challenges faced by women service members at New Castle Army Air Base.
 - c. Summarize the impact of financial contributions and volunteerism of civilians in Wilmington to home front wartime efforts.
 - d. *Optional:* Describe similarities and differences of Wilmington and other Heritage city(s) / World War II home front(s).

Include a space at the bottom of the page for assigning points for each column. See the last photo of this lesson for reference.

Getting Started: Essential Question

Why was Wilmington chosen as a World War II Heritage City, and what are its similarities and differences to other home front cities?

Photos

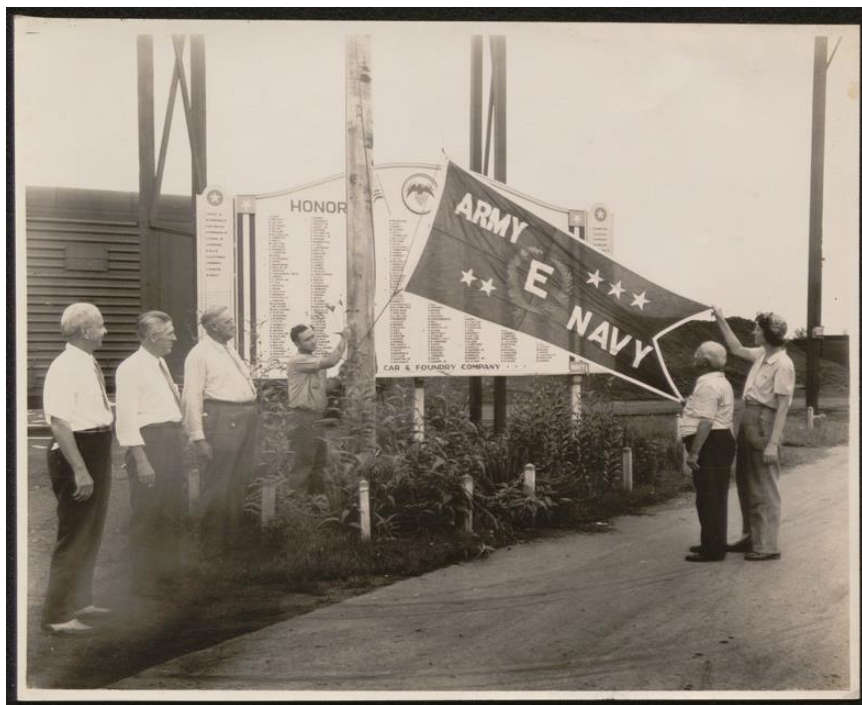


Figure 15: An image of American Car & Foundry Co. receiving the Army-Navy Production Award (the Navy 'E'). This award was for production facilities who met criteria for "Excellence in Production." 1942. Guest Rear Admiral William Carleton Watts is quoted in the lesson quotation to consider. (Courtesy of the Hagley Museum and Library)⁴



Figure 16: Newcastle AAB, Wilmington, Delaware. WAFS Dorothy Fulton, Kathryn Bernheim, Helen McGilvery, Nancy Batson, and Gertrude Meserve study the specs for P-39s at the Buffalo, NY factory in January 1943. (Image courtesy of WASP Archive, The TWU Libraries' Woman's Collection, Texas Woman's University, Denton, Texas.)

⁴ [A.C.F. Yard, 1944], [1993 GL Box 1, Folder 1], [American Car and Foundry Company World War II era photographs (AVD_1993257_007)], Hagley Museum & Library, Wilmington, DE 19807



Figure 17: American Car & Foundry Co. yards, showing ships under construction in 1944. (Courtesy of the Hagley Museum and Library)⁵



Figure 18: Dravo Plaza dedication in Wilmington, Delaware, 1999. The plaza was named in honor of the wartime contributions of the Dravo Corporation and its workforce. (Courtesy of the City of Wilmington)

⁵ [Raising of Army Navy 'E' flag, 1942], [1993 GL Box 1, Folder 1], [American Car and Foundry Company World War II era photographs (AVD_1993257_003)], Hagley Museum & Library, Wilmington, DE 19807



Quotations to consider:

“The Navy at Hawaii is undaunted. The Marines still hold at wake. Will you meet their challenge?’ Into the Wilmington plant came the stirring telegram on December 17, 1941, from the late Frank Knox, then Secretary of the Navy. Wilmington immediately accepted the challenge; four and a half years later the renowned Army-Navy ‘E’ banner, with five well-earned white stars, was flying above the plant.”

- “Ships,” an American Car and Foundry Company publication, 1946. *The [full publication](#) is available from the Hagley Museum and Library.*

“The American Car and Foundry Company is a huge organization with many plants scattered throughout our country. It is producing a correspondingly huge amount of war material of many descriptions and for all branches of the armed forces. Today, however, we are interested particularly in this Wilmington plant of the parent company where ships, the greatest need for any navy, are being built. Here, on the banks of the Delaware and in the heart of the shipbuilding industry, we are on historic ground, for into this river have been launched and ships ever since the birth of the republic, that have helped so much to make our country great.”

- Rear Admiral William Carleton Watts, quoted in “Wilmington Shipyard Gets ‘E’ Pennant Award,” *Journal-Every Evening*, April 2, 1942



By the numbers: examples of employment and population numbers

- The Dravo Corporation had a peak of 10,500 workers in Wilmington, Delaware in 1942. By 1946 only 126 workers remained.
- The Du Pont Company was founded and headquartered in Wilmington. At peak production, there were 75,000 workers *nationwide* working on building and operations.
- American Car and Foundry Company had approximately 19,000 employees *nationwide*.
- In 1950, the population of Wilmington, Delaware was 110,356. In 2020, the population was 70,898. (U.S. Census).

Reading 1: Newspaper Article

Teacher Tip: Provide context to students on segregation in war industries during this time, and how historical language or labels reflecting discrimination are not appropriate today. The race-based labeling and reference to segregation in the text reflects wrongful, discriminatory attitudes.

City Yards Build 824 Navy Craft In 4-Year Period

The Morning News, October 28, 1944

Wilmington shipyards have turned out 824 vessels and other floating equipment for the Navy since 1940, Commander S.M. Alexander, supervisor of shipbuilding in Wilmington, revealed yesterday in a Navy Day review of production in this area.

The vessels and equipment of 19 different types varying from drydock caisson gates to destroyer escorts, are valued at approximately \$114,000,000 and displace over 81,000 tons.

The largest single items are 415 steel tank lighters of two different sizes constructed by the American Car and Foundry Company, and 265 others built by the Bethlehem Harlan Plant, now the Harlan and Hollingsworth Corporation.

The largest craft built here are the 330-foot tank landing ships, the 300-foot destroyer escorts, and the 200-foot Medium Tank Landing ships, all constructed at the Dravo Corporation yard. In addition to five types of self-propelled craft, the firm also turned out 64 units of eight other types of craft, including floating cranes, gate vessels, lighters, caisson gates and an 18,000-ton floating drydock.

The totals do not include 18 passenger cargo vessels built by the Pusey and Jones Corporation for the Maritime Commission. Commander Alexander pointed out that 'merchant shipping to supply the far-flung offensives, particularly in the Pacific theatre, however, is an essential auxiliary to the fleet, and plays a vital role in the success of every invasion.'

Ships built at Dravo, American Car and Harlan, spearheaded the invasion of Sicily. The salvage vessels 'Swivel' constructed by American Car & Foundry Company, did important work in salvaging several Navy craft grounded in a heavy storm during operations on the Normandy Coast.

Used in Invasions

The LST 16, launched at the end of 1942 at the Dravo yard, has been fitted with a flight runway for small observation planes used to control the gunfire of supporting warships,

and took part in the invasions of Oran, Salerno, Anzio, and southern France. Another tank landing ship built at Dravo, has seen action in the Indian Ocean, in the Mediterranean landings and was off Normandy on D-Day.

Commander Alexander pointed out that the first ship constructed here for the Navy during the defense and war programs was an experimental wooden 110-foot subchaser, by American Car in 1940. The plant laid the keels for four wooden minesweepers the next year while completing an order for 30 tank lighters fitted with bullet-proof steel.

Meanwhile the Dravo Corporation erected, launched and fitted out a variety of small steel craft 'including 16 open lighters, 11 gate vessels for tending the nets at harbor entrances, two 25-ton floating cranes, and one drydock caisson gate, and laid the keels for two 170-foot patrol and anti-submarine craft.'

Dravo Expanded

The Dravo yard was expanded late in 1941 at a cost of \$184,000, and immediately after Pearl Harbor the Navy contracted for further expansion of the yard, which had previously depended for fabrication at the firm's Pittsburgh plant. When America entered the war, the Wilmington yard was made into a 'complete and modern shipbuilding plant capable of turning out complex destroyer escort vessels on an assembly line.'

During the last half of 1942 'employment at Dravo climbed from 700 to 5,000 and was steadily increased the following year with emphasis on outside recruitment to minimize the effect on the local labor supply. A check of the rolls in the spring of 1943 showed that 69 percent of all employees were outside Wilmington.' In 1943 employment was approaching 11,000. 'Twenty-five percent' of the productive workers were still in training. Fifteen percent were women who had first proved their worth in the sheet metal shop, then had spread into almost every trade, and to the ships, and were doing a man's job. A high percentage of colored men and women were also employed and were acquiring welding, burning, chipping and other skills,' Commander Alexander reported.

'As the submarine menace was brought under control,' he continued, 'and the demand for landing craft for future invasions grew, there was a general curtailment of the DE program reducing the number of ships to be completed in Dravo Wilmington's original contract in half Oct. 4, sharply curtailing the shop workload and causing the sudden layoff of 1,400 men and women, who were cleared to other war work by the U.S. Employment Service. Confusion regarding the method of determining seniority was clarified by the company and the union through arbitration.'

LSM is Launched

Yesterday Dravo launched the thirty-fourth LSM completed at the yard and designated as LSM 415. . . American Car and Foundry Company recently completed its contract for wooden vessels, but is still engaged in Navy shipbuilding. 'In addition to continuing the flow of the blue and gray LCM(3)'s, the steel shop is fitting, welding and painting sub-assemblies trucked over to Dravo for its LSM vessels.'

Other Wilmington firms engaged in expediting the LSM's are Harlan and Hollingsworth with subcontracts for building pilot houses, Pusey and Jones for machining propulsion shafting, Tolland Manufacturing Company, for pipe flanges, and Benjain F. Shaw for pipe bending.

Questions for Reading 1, Photos, By the Numbers, and Quotations to Consider

1. What is the significance of the number 824?
2. What types of ships were constructed in Wilmington, and how were they used overseas?
3. Do the rates and numbers of ships built in Wilmington during the war surprise you? Why or why not?
4. How did home front contributions in Wilmington support the US and the Allies? Consider both information from this text, By the Numbers, and information from other lessons.
5. *Photos and Quotations to Consider*: Describe how each photo and quotation connects to Wilmington's designation as a Heritage City.

Reading 2: Heritage City Designation

Excerpt from: "[House Report 115-998](#), *"To Direct the Secretary of the Interior to Annually Designate at Least One City in The United States as An 'American World War II Heritage City,' and for other purposes"* (October 30, 2018)

" . . .PURPOSE OF THE BILL

The purpose of H.R. 6118 is to direct the Secretary of the Interior to annually designate at least one city in the United States as an "American World War II Heritage City".

BACKGROUND AND NEED FOR LEGISLATION

On December 7, 1941, military forces of the Empire of Japan attacked the U.S. Naval Fleet and ground bases at Pearl Harbor in Hawaii. On December 8, 1941, one day after what President Roosevelt referred to as, "a date which will live in infamy," the United States

declared war against the Empire of Japan. Three days later, on December 11, 1941, Japan's ally, Germany, declared war on the United States. Sixteen million Americans, mostly young working-age men, served in the military during World War II, out of an overall United States population of 113 million.

While an unprecedented number of Americans served in World War II, the country drastically increased its war production on the home front, serving not only the needs of the armed forces of the United States but her allies as well--in what President Franklin Roosevelt called "The Arsenal of Democracy." The combination of millions serving in the military, during a period of necessary and drastic increases in production, led to significant social changes on the American home front.

The World War II period resulted in the largest number of people migrating within the United States in the history of the country. Individuals and families relocated to industrial centers for good paying jobs out of a sense of patriotic duty. Many industrial centers became "boomtowns," growing at phenomenal rates. One example, the City of Richmond, California, grew from a population of under 24,000 to over 100,000 during the war. . ."

Questions for Reading 2, By the Numbers, and Photos

1. What was the purpose of the bill (H.R. 6118) according to the report?
2. Why did Wilmington experience population growth during the war? What were some of the effects of this rapid change? *[You may also connect to By the Numbers and information from Reading 1 in [Lesson 1](#).]*
3. Why do you think Wilmington was designated as a World War II Heritage City? Connect details from the bill and evidence from the first reading, and/or other readings from the Wilmington lessons.
4. Are there other cities you think of when considering home front contributions during wartime? Which, and why?

Media Activity

Students can explore the interactive map with location descriptions by the City of Wilmington at "[American World War II Heritage City](#)." They can compare and connect the descriptions and locations to primary source texts and images from across the Wilmington, Delaware lesson series. This resource may also be used to support the culminating activity / mastery product.

Culminating Activity/Mastery Product

To demonstrate student understanding, support students in creating a final product that meets the following objectives:

- a. Describe World War II home front defense industries in Wilmington and experiences of the diverse workforce.
- b. Explain the contributions and challenges faced by women service members at New Castle Army Air Base.
- c. Summarize the impact of financial contributions and volunteerism of civilians in Wilmington to home front wartime efforts.
- d. *Optional:* Describe similarities and differences of Wilmington and other Heritage city(s) / World War II home front(s).

Mastery products should be:

- . . . **student-led;** Students work as individuals or in collaborative groups.
- . . . **student-directed:** Students are offered a variety of choices for product type.
- . . . **student-organized;** Teacher facilitates by providing students with the comparison matrices and/or resource links from throughout the series of lessons.
- . . . **student-assessed;** Teacher supports student self-assessment and reflection by providing students single-point rubrics to assess for meeting standards and/or lesson objectives.

Note: Depending on time and scope, the comparison of Wilmington, Delaware to another WWII Heritage or home front city(s) within the mastery product (objectives) may be omitted. However, comparing cities is recommended, as it connects students to a deeper understanding of the WWII home front.

Examples of mastery product choices include, but are not limited to:

- **Written:** Letter (opinion or informative), essay, poem, narratives, biography, articles, class book or children's book, speech or debate (then presented orally), blog / website, plaque or historical displays, pamphlets or rack cards
- **Graphic Organizers:** timeline, flowcharts, mind or concept content maps, Venn diagrams, comparison matrices, posters
- **Artistic Expression:** song, dance, theater (ex. skits), 3-D models, dioramas, photo journal, stamp and coin designs, visual art, architecture/building or monument, museum design

- **Media design and creation:** podcast, historical markers, social media content, interactive virtual maps or tours, infographics, video, comic strips or graphics, game design, slideshows, digital scrapbook

Please view the [NPS Heritage cities lesson collection](#) for information and resources on other cities.

Single-Point Rubric

Areas for Improvement	Proficient (Meeting Standard)	Areas of Exceeding Standard
	Standard: _____ Evidence of meeting standard: •	
	Standard: _____ Evidence of meeting standard: •	
	Standard: _____ Evidence of meeting standard: •	
	Standard: _____ Evidence of meeting standard: •	
Points		

Figure 19: Single-Point Rubric (Standards; Blank) [Teacher selects priority standards for assessment.] Courtesy of Sarah Nestor Lane

Acknowledgment

The lesson series was written by Sarah Nestor Lane, an educator and consultant funded by a National Council on Public History's cooperative agreement with the National Park Service.