

BUILDING BLOCK INQUIRY C3 TEACHERS

What did military industrialization cost the US?

C3 Framework Standard	D2.His.14.9-12. Analyze multiple and complex causes and effects of events in the past.
C3 Teachers Topic, Concept & Skill	★ Era 5: Development ★ Conflict & Change ★ Knowledge

Industrialization in the early 20th century changed warfare in fundamental ways. Technological innovations during World War I, made possible by industrialization, made war more destructive than ever before. At the same time, medical and scientific advancements helped save lives. In this building block inquiry, students explore both the destructive and constructive costs of industrialization on the military during World War I.

Featured Sources

Source Set: Technology during World War I

Formative Performance Tasks

COLLABORATE	Brainstorm how mass production impacted warfare.
DELIBERATE	Evaluate each innovation and assign it a numeric cost score. Add the individual cost scores to calculate your final cost score.
PRODUCE	Summarize the cost of industrialization on the military based on final cost scores.

Teacher Guidance

Class begins with the teacher displaying an image of a modern factory assembly line. As a class, students brainstorm ways mass production impacted warfare.

Next, the teacher divides students into small groups and distributes a copy of the [Source Set](#) to each group. Working together, students evaluate each image and determine whether the innovation shown represents a constructive cost (saves lives) or a destructive cost (causes damage). Then, students assign each innovation a numeric cost score on their [graphic organizer](#).

After evaluating the sources, students calculate the final cost score by adding the scores they assigned to each innovation. (Note: the teacher may need to remind students to include the negative sign for each destructive cost when finding the sum of the values.) Based on their calculated final cost score, students summarize the cost of industrialization on the military.

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Source A: Souilly (Meuse) France. "Miss Winifred Bryce, of 294 Henry Street, Brooklyn, N.Y. giving gum and cigarettes to wounded soldiers on a hospital train. Miss Bryce was connected with American Red Cross Evacuation Hospital #6-7, Souilly", October 14, 1918, *Library of Congress*



Public domain. Available at the Library of Congress: <https://www.loc.gov/item/2017666367/>

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Source B: Detroit Publishing Co, "U.S.S. Free Lance, a Gatling gun and crew", ca. 1898, *Library of Congress*



Public domain. Available at the Library of Congress: <https://www.loc.gov/item/2025164794/>

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Source C: “Adjustable abduction arm splint made in ARC splint shops at Villa St Michel. This splint is articulated at the joints in order to bring arm to right angle with body or can be used at any height according to the treatment required for the fracture. Can also be used as Thomas arm splint. Adopted by army medical corps”, August 2, 1918, *Library of Congress*



Public domain. Available at the Library of Congress: <https://www.loc.gov/item/2017674538/>

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Source D: “Mobilized Strength and Casualties”, excerpted from *The War of the Nations: Portfolio of Rotogravure Etchings*, 528, *Library of Congress*

United States and Mobilized Nations

Nation	Mobilized	Dead	Wounded	Prisoners or Missing	Total Casualties
United States	4,272,521	67,813	192,483	14,363	274,659
British Empire	7,500,000	692,065	2,037,325	360,367	3,089,757
France	7,500,000	1,385,300	2,675,000	446,300	4,506,600
Italy	5,500,000	460,000	947,000	1,393,000	2,800,000
Belgium	267,000	20,000	60,000	10,000	90,000
Russia	12,000,000	1,700,000	4,950,000	2,500,000	9,150,000
Japan	80,000	300	907	3	1,210
Rumania	750,000	200,000	120,000	80,000	400,000
Serbia	707,343	322,000	28,000	100,000	450,000
Montenegro	50,000	3,000	10,000	7,000	20,000
Greece	230,000	15,000	40,000	45,000	100,000
Portugal	100,000	4,000	15,000	200	10,000
Total	39,676,864	4,869,478	11,075,715	4,956,233	20,892,226

Public domain. Available at the Library of Congress:

<https://www.loc.gov/collections/world-war-i-rotogravures/articles-and-essays/events-and-statistics/mobilized-strength-and-casualty-losses/>

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Source E: Portable X-ray vehicle used by the French military and the Red Cross, “Voiture radiologique Massiot [voiture équipée pour pratiquer la radiologie, service de santé militaire de l’armée française et de la Croix-Rouge],” 1914, *Bibliothèque nationale de France*



Source gallica.bnf.fr / Bibliothèque nationale de France

Public domain. Available at the Bibliothèque nationale de France: <https://catalogue.bnf.fr/ark:/12148/cb40504352c>

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Source F: N.Y Central News Photo Service, "A formidable weapon in trench warfare", ca. 1916-1918, *Library of Congress*



Public domain. Available at Library of Congress:

https://www.loc.gov/resource/ppmsca.40788/?_cf_chl_f_tk=tMYqOYq5eVdrGo1s4OaAyfJlmrtWSEuDx6DAULc89eM-1783425325-1.0.1.1-WS3ZZeg419xPT.GNb0xaZivDHw.g7HfM_q7AbtUvmlQ

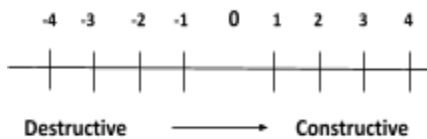
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Graphic Organizer: What did military industrialization cost US?

Part 1: Analyze each image. Evaluate whether the innovation represents a **Constructive Cost** (saves lives) or a **Destructive Cost** (causes more damage). Give each cost a score by circling a number on the cost scale.

Destructive (-4 to -1): Weaponry designed for high-volume lethality, automated trenches, or heavy casualties.

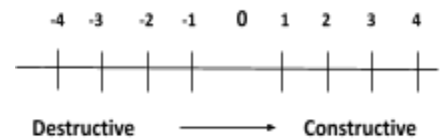
Constructive (+1 to +4): Medical advancements, sanitation tools, or diagnostic technology designed to save lives.



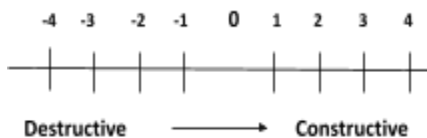
Evidence from source:



Evidence from source:



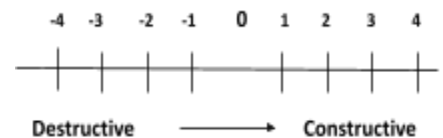
Evidence from source:



Evidence from source:



Evidence from source:



Evidence from source:

Part 2: Add all the values you circled above to calculate your **final cost score** (don't forget the negative sign if needed!). Based on your final cost score, summarize the cost of military industrialization.

Source A	Source B	Source C	Source D	Source E	Source F	Final Cost Score
_____ +	_____ +	_____ +	_____ +	_____ +	_____ =	_____

Overall, military industrialization cost...