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ABSTRACT

This field trip program, a 90-minute interpretive tour and a 90-minute hands-on workshop, provides students with the opportunity to explore the causes and nature of the conflict between workers and owners which grew out of the Industrial Revolution. The workshop complements the tour by bringing the significance of historic resources to life as students work on an assembly line. The workshop's scenario takes the "workers" through a loss of control, a cut in wages, and possible unionization and a strike; the tour focuses on the issues which led workers to resist owners. During the program, the students visit the Boott Cotton Mills Museum and conduct investigations of historical situations which caused workers to organize and protest. The program culminates with students participating in an activity where they investigate the nature of work in the future. The activity guide presents the theme, lists program objectives, provides historical background, and enumerates pre- and post-visit activities. A glossary of terms is included. (BT)

Workers on the Line

Activity Guide

Tsongas Industrial History Center

Program Description

The Workers on the Line program consists of a 90-minute interpretive tour and a 90-minute hands-on workshop. The tour and workshop provide students with the opportunity to explore a common topic: the causes and nature of the conflict between workers and owners which grew out of the Industrial Revolution. On the tour, students discover firsthand the unique resources of Lowell and the Park. The hands-on workshop complements the tour by bringing the significance of historic resources to life as students work on an assembly line.

In the workshop, students become workers on textile printing assembly lines. As they take on the role of production workers, they experience a loss of control over their lives as equipment is "speeded up." When wages are cut, they must decide whether to join a union and go on strike.

Students who vote to join a union are challenged to voice their grievances and suggest better ways to improve the work place. They elect shop stewards to negotiate a better deal with management. After a negotiating session, students implement the changes they have won, and see if their solutions are effective.

The interpretive tour focuses on the issues which led workers to resist owners: low pay, long hours, speedups, hazardous working conditions, and a general loss of control over their lives.

Students visit the Boott Cotton Mills Museum. They conduct investigations of historical situations which caused workers to organize and protest and what the results of those protests were. A visit to the Boott Mills weave room, with the thunderous roar of eighty-eight power looms, is a graphic example of one important worker grievance.

The program culminates with students participating in an activity where they investigate the nature of work in the future.

Theme & Objectives

Theme

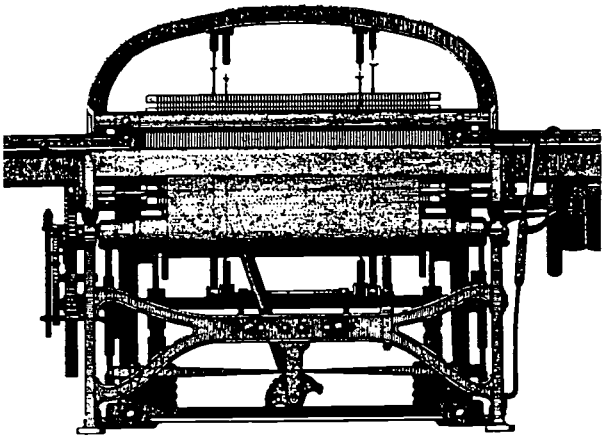
The Industrial Revolution was a defining era in American history. All that we consider "modern" was significantly shaped by this period, whether it be in technology, politics, art, culture, or the nature of work itself.

During the Industrial Revolution, control over the workplace generally shifted from workers to owners. Workers reacted in different ways; a common response was to organize into unions and fight back. This struggle took place in many different types of workplaces and, indeed, continues today.

Program Objectives

After visiting the Park and completing the activities in this guide, students will be able to:

- *Discuss labor-management conflict and how it was symbolized by a change in power relationships. This will be shown as students experience a deterioration in the work experience, and a reduction in buying power.*
- *Discuss some aspects of the history of organized labor: why it was a logical response to factory production; when it occurred; what some results were.*
- *Discuss what the nature of work may be in the future.*
- *Describe the nature of factory production and list some different types of factory operations.*



Workers on the Line

Why do some people work with their hands while others control this work from offices? Why do the people who actually produce goods have so little influence in the factory system? Why did so many working people join together in unions to protect their rights? These are some of the questions which are addressed in Workers on the Line.

Before the Industrial Revolution

Before the Industrial Revolution, most Americans lived on farms and produced the goods that they needed for daily life. In colonial America, food and textiles were the necessities of life. Some people lived in coastal cities and bought food and clothing from nearby farmers and artisans.

Specialized products were produced in these few cities. Traditional craftsmen were trained for years before they became blacksmiths, tailors, printers, shipwrights, or other master craftsmen. These masters instructed apprentices until they, in turn, became journeymen, and later masters. Manufacturing was done by hand, and the laborers were skilled. Craftsmen followed the European system and organized themselves into craft guilds.

In the late 1700s, English inventors devised machinery which totally mechanized the production of textiles, or cloth. These new carding, spinning, and weaving machines were the engine which drove the Industrial Revolution.

Lowell and the Beginning of American Industry

The first large industrial city in the US was Lowell. Water power and raw cotton were combined with human-power and machines to fuel the new American industrial revolution. It was so successful that visitors from around the world came to crow about its accomplishments.

One of the most dramatic results of the Industrial Revolution was the introduction of a permanent working class into the United States. This had been considered an evil by early social thinkers such as Thomas Jefferson. He believed that yeoman farmers would be the bulwark of the young republic.

Early Labor Protests

It became clear to workers very early that their interests were different from those of management. Some of the first strikes in US history took place in Lowell in 1834 and 1836. Women led these strikes.

The strikers had three main grievances: pay cuts, speed-ups, and stretch-outs (where workers are required to watch more machines). They also objected to the premium system, where overseers received a bonus if they drove their workers to surpass production goals.

The Difficulties of Labor Organizing

Most early strikes and protests failed. On the one hand, owners were very rich and powerful and could fire troublemakers. On the other hand, there were periodic depressions in the US economy: 1837, 1857, 1873, 1893. These were caused by overproduction: plentiful goods led to low prices, layoffs and factory shutdowns. No union could succeed when there were large numbers of workers willing to work at any wage.

Another cause of trouble was the fact that owners and managers deskilled their workers. A job which involved several skills was divided into several jobs. Workers could be trained more easily, but they could also be fired more easily. Workers with little or no job security were not as likely to join unions.

In Lowell, and in many other industrial cities, most workers were immigrants. They came from places where life was unacceptable; they weren't going back, and they would take almost any wage. They often knew little about factory life. The old Roman rule of "Divide and Conquer" was the motto of mill managers: French in one room, Polish in another, Greeks in a third. If they don't talk, how can they organize?

For all of these reasons, workers in Lowell found few victories in their repeated attempts to organize. AFL leader Samuel Gompers visited during a 1903 wage dispute, but ownership was better organized and broke the unions with a lockout.

Bread and Roses

The Bread and Roses strike in nearby Lawrence (1912) is perhaps the most famous labor dispute in US history. It was caused by a wage reduction by mill owners. After a lengthy strike marred by violence, it resulted in wage increases for all workers. Soldiers were summoned by mill officials, and several strikers were shot dead. An outraged American public demanded justice for the strikers and children of Lawrence. Hearings were held in Congress, and Lawrence children testified about the harsh conditions in the mills.

The strike spread to Lowell. Once again, police were brought in to intimidate strikers. The various ethnic groups combined, the strikers held firm, and the Lowell workers won the same concesssions which had been won in Lawrence.

After 1912

The success did not last for long. There was no strong union, and owners gradually abandoned Lowell for cheaper locations in the south. Federal laws made it much easier to organize workers in the 1930s (see p. 15 for a description of the National Labor Relations Act). Most of the textile industry had already abandoned New England by that time, though, and it was too late to save thousands of manufacturing jobs in Lowell.

Pre-Visit Activities

1. Cottage Industries to Factory Production

Before the Industrial Revolution, most goods were created by hand by craftsmen classified into three categories: apprentice, journeyman, and master craftsman. A master craftsman was a person who had mastered all the techniques and skills of a given craft. After many years of practice, he was regarded as an expert who then passed along his knowledge and skills to apprentices, young boys who spent many years under his direction. A journeyman was a craftsman who had completed apprenticeship but did not yet have the experience or skill to be designated a master. A craftsman knew the whole process of creating an object; for example, each woodcrafter knew how to create a chair from start to finish.

With the advent of the Industrial Revolution, the job of creating an object became broken down into many steps, each of which was done by a different person. In the case of the wooden chair, one person might lathe the legs, another would create the seat, another would make the arms and back, and all the parts would then go to yet other people who would assemble them. The advantages were that single tasks could usually be done over and over faster than when one person did everything start to finish.

Craft Simulation Activity

Distribute the in-line skate page to every student. Explain that they are each a craftsperson who will assemble the skates start to finish. They must be cut out, blades glued on, and colored to the best of their ability. Each will be asked to track the amount of time it takes to complete the task. After everyone has completed the skates, compile and average the different times it took all the students to complete the task. This will be the "standard" time it takes to produce in-line skates by hand. Point out the differences in "quality" among the hand-created skates. Are there some who have apparently mastered the craft of making in-line skates and some who still need some time as apprentices?

Factory Simulation Activity

Divide the class into production lines of 5-8 students each. Each of the following tasks will be assigned to a different student on the line:

1. *Cut out right blade*
2. *Cut out left blade*
3. *Cut out right boot*
4. *Cut out left boot*
5. *Glue blade to right boot*
6. *Glue blade to left boot*
7. *Color boots*
8. *Inspect final product, put aside rejects, keep line moving*

Using the "standard" of time determined during the craft lesson, see how many skates can be created during the same amount of time. Do the same activity again and see which of the production lines can produce even more skates.

Considering Each Method

Have each student complete a questionnaire:

	Craft	*Factory*
• *What was your role?*		
• *Which method produced more goods?*		
• *Which method generally produced higher quality goods?*		
• *Which job required more skill?*		
• *Which method is more efficient / profitable?*		

Reviewing the Results

- *What were some of the major differences between the two methods?*
- *Why was the factory method so attractive from a business standpoint?*
- *How would consumers be affected by this new method?*
- *How would workers accustomed to the craft method feel about working in a factory? Why?*

2. Labor/Management Conflict

The Setting

This activity is set in the large factory of the Massachusetts Chocolate Corporation, located in northeastern Massachusetts. Mr. Bernard Bigwig, Agent to the Board of Directors for the Corporation, has circulated the following letter to the company's overseers:

May 13, 1915

To Factory Overseers:

Profits at the Massachusetts Chocolate Corporation have been dwindling for the last few months. The Board of Directors attributes this to the high cost of labor at the factory—as you know, we are already paying both our Wrappers and Packagers 16 cents per hour for a 54 hour work week. Faced with several alternatives, the Board has chosen one which should increase profits and minimize potential conflicts with workers. The following is the Official Improvement Plan:

1. *Wrappers and Packagers will continue to receive their previous wages, but will have to adhere to new requirements in order to avoid a pay cut.*
2. *Wrappers will be responsible for wrapping an additional 5 chocolates per minute.*
3. *Packagers will have a 5 minute reduction in time for packing crates with chocolates.*
4. *These changes will be implemented gradually (over three weeks), so that workers can become accustomed to production changes.*
5. *Any workers unable or unwilling to work towards the new goals will be dismissed.*

It is your responsibility, as Overseers, to see that these changes occur smoothly, with minimal worker conflict. As an added incentive for you to carefully manage the new Improvement Plan, we will initiate a premium system in which each Overseer will receive a bonus of $5.00 for each week that your workers reach our new production goals.

By increasing the number of chocolates produced and reducing costs, we are certain that the Massachusetts Chocolate Corporation will maximize profits and be able to sell to new markets that we have not been able to reach before.

Sincerely,

Bernard Bigwig
Agent of the Board of Directors

Analyzing the Letter

Distribute a copy of Mr. Bigwig's letter to each student. Ask the students to write three questions they would ask Mr. Bigwig, based on the content of the letter. After sharing some of these questions and answers, have the class as a whole discuss the letter and respond to the following:

- *Summarize the Board of Directors' plan to improve the Massachusetts Chocolate Corporation's situation?*
- *Why does the Board of Directors feel that the Official Improvement Plan needs to be implemented?*
- *Find evidence from the letter which shows that working conditions at the factory would not be considered acceptable in the U.S. today.*
- *From an overseer's point of view, what parts of the plan would you like? What parts would you dislike? Why?*
- *How do you think the workers will react to the Improvement Plan? Why?*

The Next Sequence of Events

On June 13 the new procedures begin. Many workers are upset with the plan but do nothing. They are afraid of how the management might react. However, in spite of past firings of "difficult" workers, many Packagers and Wrappers begin to protest this new plan. These Wrappers and Packagers request a meeting with the managers. This unprecedented request is quickly rejected by the Board until the workers stage a one-day walkout which completely halts production. At first the Board directs the Overseers to fire those workers but then reconsiders and tells the Overseers to meet with representatives of the workers at a hearing to explain why the plan is necessary. In addition, the Board permits all Packagers and Wrappers to attend the hearing, hoping this move will show their "good will."

Understanding Management and Labor's Point of View

- *Divide the class into groups of four or five students each -- One group plays the Over seers. Other groups contain Wrappers and Packagers.*
- *Workers -- list three complaints workers have with the new plan. Choose one representative from each group.*
- *Overseers -- list at least three reasons why the plan is necessary.*
- *Have the class as a whole share their ideas and explore the reasons for the opposing points of view between workers and management.*

Critical/Divergent Thinking

The Board of Directors of the Massachusetts Chocolate Corporation has pinpointed the reason for loss of profits at the high cost of labor. We are not told how much time the board spent studying the possible reasons for the decline of profits. Are there other reasons that might explain profit-loss? Factors to consider: the market for chocolate, origin of raw materials, technology required to produce the chocolates, advertising strategy, management procedures, failure of the management to plan for the future, etc. Have the class brainstorm all the possible reasons that the company is not producing as great a profit as it did in the past.

3. Working Conditions and the Rise of Unions

The Conditions Workers Faced

Have students read these quotations on conditions of the Industrial Era:

1. **Discontent with the regimentation of Lowell factory life in the Lowell Offering, 1841 (from Labor and the Rise of Industrialism in Lowell):**

   "I am going home where I shall not be obliged to...be dragged about by the ringing of a bell, nor confined in a close noisy room from morning till night...We cannot have time to eat, drink, or sleep; we have only thirty minutes...to...partake of our food, and return to the noisy clatter of machinery. Up before day, at the clang of the bell—and out of the mill by the clang of the bell—into the mill, and at work, in obedience to that ding-dong of a bell—just as though we were so many living machines."

2. **The stretch-out*, which Lowell's female mill operatives faced, Voice of Industry, 1844 (from Managing the Mills):**

   "It is a subject of... general complaint among the operatives, that while they tend three or four looms, where they used to tend two, making nearly twice the number of yards of cloth, their pay is not increased to them, while the increase to owners is very great. Is this just?"

3. **The premium system**, implemented in many of Lowell's textile mills in the 1840s (from Women at Work):**

   "The premium system is a curse to us...I have worked under this plan, and know too well the base treatment of overseers in many instances.-Often have girls...been so afraid of the 'Old Man' they dare not ask to go out when sick; for they know he would have a great deal to say. 'The work must not be stopped, and if you are not able to work you better stay out all the time.'"

4. **Children as coal miners in Pennsylvania, as reported in the Labor Standard of May 17, 1879 (from The Labor Movement in the United States):**

   "These little fellows go to work in this cold, dreary room at seven o'clock in the morning and work till it is too dark to see any longer. For this they get one to three dollars a week. One result of their work is clean, free coal that burns away to ashes in the grate; another result I found in a little miner's graveyard...where more than every other stone bears the name of some little fellow under fifteen years of age."

5. **The privation of a Fall River, Massachusetts, family in 1883 (from Bread and Roses):**

   "I have a brother who has four children beside his wife and himself. All he earns is $1.50 a day. He works in the iron works at Fall River. He only works nine months out of the twelve. There is generally three months of stoppage...and his wife and family all have to be supported for a year out of his wages of nine months..."

6. **The opulence which the wealthiest businessmen enjoyed in the early twentieth century (from The Labor Movement in the United States):**

   "...the champion of all the turn-of-the-century chateaux was George W. Vanderbilt's ducal palace at Asheville, North Carolina...It had 40 master bedrooms, a Court of Palms,...a Banquet Hall,...a Tapestry Gallery, and a Library with 250,000 volumes. It was surrounded by an estate which covered 203 square miles."

*Stretch-Out: The assignment of additional pieces of machinery to each operative
**Premium System: The payment of cash bonuses to overseers whose workers produced the most goods

Reviewing the Quotes

- *Why does the mill operative in Quote 1 feel as though workers are like " so many living machines"?*
- *Why does the worker in Quote 2 feel that the stretch-out is unfair?*
- *Who is the "Old Man" in Quote 3?*
- *Based on the description in Quote 5, why do you think so many children, such as the miners in Quote 4, have to work rather than attend school?*
- *Imagine you are one of the children mining coal in Pennsylvania. Why would George Vanderbilt's mansion probably make you feel even worse about your situation?*

Front Page News

Divide the class into groups of three news gatherers each. Have each group concentrate on one quote (from quotes 1-5) and write a front page news story based on the information in the quote. Have them include a "photo," headline, and masthead for their newspaper.

Organizing into Unions

Students in the Workers on the Line program will participate in their own union meeting and learn about the significance of union activity in Lowell since the early years of textile mills. Have the class explain why organizing into a union might be the most effective way to improve working conditions. Next, have each group from the above "Front Page News" activity organize a union to defend the rights of the workers they write about in their newspapers. The following are some of the things their unions will need: 1. a name, 2. a slogan, 3. a symbol, 4. a poster advertising an upcoming union meeting, and 5. a speech that will convince workers to join their union.

Exploring Labor History

Have students research important people, organizations, and events in Lowell and American Labor History. The following are some suggested topics:

- *The Industrial Workers of the World*
- *The Ten Hour Movement*
- *Samuel Gompers, AFL-CIO*
- *The Lawrence Bread and Roses Strike*
- *Sarah Bagley, Lowell Female Labor Reform Association*
- *Lowell turnouts of 1834 and 1836*

Post-Visit Activities

1. Expression Through Songs and Poems

Examining Popular Songs

Faced with harsh working and living conditions, factory workers and their supporters often wrote poems and songs which conveyed this plight. Similarly, many contemporary songs describe particular political or social issues. Have the class listen to tapes, radio, and compact discs at home to identify these kinds of songs. Have them list the title, artist, and message of each song. In class, have your students explain the purpose of these contemporary songs. Next, have the class examine the following:

A song expressing workers' desire for an eight-hour workday in 1886:

We mean to make things over
We're tired of toil for naught
But bare enough to live on; never
An hour for thought.
We want to feel the sunshine: we
Want to smell the flowers
We're sure that God has willed it
And we mean to have eight hours.
We're summoning our forces from
Shipyard, shop and mill
Eight hours for work, eight hours for rest
Eight hours for what we will!

Analyzing the Lyrics

Review the meaning of this song with the class by asking these questions:

- *Who are the "we" and the "forces" mentioned in the song?*
- *What does "toil for naught" mean?*
- *Why can't the workers "feel the sunshine"?*
- *What does the song writer feel a fair workday would consist of?*
- *If you were the owner of a shipyard, shop, or mill, what would your reaction be to the sentiments of the song writer? Why?*

Reflecting and Writing About Working Conditions

Next, have the students think about their own experiences as workers on the Workers on the Line assembly line. What were some of the difficulties which they endured? What improvements did they seek during the union meeting? With these things in mind have the students break into their workshop assembly line groups and compose a short poem or song, with a title, describing their experiences and aspirations as factory workers. Have the groups read (or sing!) their pieces to the rest of the class.

2. Investigating Labor Legislation of the Twentieth Century

Designing Legislation

Based on their experiences in Workers on the Line, have the students brainstorm and design laws which they feel would help protect workers from abuse.

Landmarks in Labor Legislation

Next, have the class research some important twentieth-century legislation that has protected workers. The following are some suggested topics for research:

- *The Norris-LaGuardia Act, 1932 (forbade exclusion of union members from employment; limited use of injunctions in labor disputes)*
- *The Walsh-Healy Act, 1935 (forbade employment of boys under 16 and girls under 18 for work performed for the federal government)*
- *The Wagner Act, 1935 (guaranteed rights of workers to organize and bargain collectively)*
- *The Fair Labor Standards Act, 1938 (extended the ban on child labor to most occupations)*

3. The Future of Work

The Workplace in 2050

Break the class into groups of 3 or 4. Have the class imagine what a workplace in the year 2050 might be like. They can consider the following:

- *What kinds of products will be in great need in the future?*
- *In what ways will the future workplace be different / similar from the factory in Workers on the Line?*
- *Will automation eliminate many jobs?*
- *Will many factories continue to relocate out of the U.S.?*
- *What additional rights will workers enjoy in the future workplace?*

Plans for the Future

Once the groups have addressed these issues, have them create a floor plan of their factory of the future, indicating some of the jobs workers will have. In addition, have them list some of the rights which workers will have. When plans are complete, have the groups present their ideas to the rest of the class. The class can comment on the ways that this future workplace differs from those they learned about in Workers on the Line and why they would or would not choose to work in this factory of the year 2050.

Terms

AFL-CIO - *the American Federation of Labor (1886) and Congress of Industrial Organizations (1935) were and continue to be the two largest groups of unions in the US. They merged in 1955.*

agent - a man hired by a mill owner to manage a mill.

assembly line - production line of equipment, machinery, and workers along which successive operations are performed until the final product is complete.

brown lung - debilitating, often fatal disease caused by breathing cotton fibers in a textile mill. Also called byssinosis, it was common among mill workers.

craft union - a union where skilled workers are organized according to their craft or skill rather than the industry in which they work.

industrial union - a union where all workers, skilled and unskilled, are organized according to the industry in which they work.

Industrial Workers of the World (IWW) - the first nationwide industrial union (1905); helped lead Lowell's first successful strike in 1912.

lockout - a work stoppage caused by management's decision to "lock workers out." It is usually done when a strike is anticipated or in an attempt to break a union.

National Labor Relations Act (NLRA) - federal law which guarantees the rights of workers, including the right to organize into unions and bargain with owners; it also forbids an employer from punishing workers for union activities.

overseer - factory floor supervisor responsible for meeting production quotas.

premium system - a system where overseers receive bonuses if workers exceed production quotas.

speed-up - increase the speed of machinery in order to increase production and profit.

stretch-out - increase the number of machines assigned to each worker in order to increase production and profit.

Ten Hour Movement - a petition drive by mill workers in the 1840s which attempted to persuade the legislature to reduce the work day from twelve to ten hours.

Union - an organization of workers that attempts to bargain with employers regarding wages and working conditions.

Work Rules

Do not leave your work station without your overseer's permission.

If you are late you will not be paid.

Workers who produce poor quality work will be discharged.

There will be no talking except what is necessary to run the assembly line.

Those who fail to obey orders will be punished.

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