MUSEUM on Main Street

The Way We Worked Exhibition Script

Section 1: INTRO

"Who made America,
Whose sweat and blood, whose faith and pain,
Whose hand at the foundry, whose plow in the rain
Must bring back our mighty dream again."
--Langston Hughes, "Let America Be America Again," 1938

The last 150 years hold stories about American workers that are too incredible to ignore: Stories of hope, strength, dedication, unity, and bravery.

The Way We Worked calls us to look at these stories and to consider how we play a part in them. Take a moment to rethink where, how, with whom, and why we work. Hard-working Americans of every ethnicity, class, gender, and age power our nation. Be inspired by how far we've come and join the excitement for what lies ahead.

Credit panel:

The Way We Worked, an exhibition created by the National Archives, is a Museum on Main Street project organized by the Smithsonian Institution. Brought to you by the {state humanities council}. Funded by the United States Congress.

{State} programming supported by {funders} Exhibition designed, edited, and produced by the Office of Exhibits Central, Smithsonian Institution

Why are these photographs in the National Archives?

Most of the images in this exhibition were taken by photographers working in Federal agencies. When the photos are no longer considered necessary, they are sent to the National Archives.

Federal entities commissioned these photos for many reasons, including: documenting progress on large-scale public projects such as courthouses, dams, bridges, and post office buildings; recording military operations and personnel or documenting civilian workers on the home front during wartime; capturing everyday conditions in cities, towns, and everywhere in between.

The photographic holdings in the National Archives are immense and continually growing. In the Washington, D.C., area alone, 11 million photos are in the still picture stacks, almost 23 million aerial and satellite photos are among cartographic records, and thousands of photos are interfiled with written records. Archivists care for millions of photographic records in the Archives' Presidential libraries and thousands more in regional facilities.



Section 2: WHERE WE WORKED

Imagine the darkness of a coal mine, fierce winds atop a skyscraper, waves of heat from a foundry against your skin, or the beeping of monitors in modern hospitals. Where we work affects us deeply. No two farms, ships, or offices are ever the same. A workplace changes over time, creating new experiences and challenges. Either we mold it to fit our needs, or we adjust as best as we can.

Where we work may seem obvious, but look around. Americans work just about everywhere!

Background Image:

ROW BY ROW

Although technology helps, cultivating and harvesting crops is still labor-intensive. A new term, "stoop labor," was popularized by the 1940s to describe the physically demanding bending, pulling, and heavy lifting done by field hands every day.

Weeding sugar beets for \$2.00 an hour near Fort Collins, Colorado, by Bill Gillette, June 1972.

National Archives, Records of the Environmental Protection Agency

"Put another season's promise in the ground" --Field Behind the Plow, song by Stan Rogers, 1980

Banner:

Factories, Mines, Rivers, Offices, Stores, Oceans, Sky, Land, Communities, Home

Background Image:

Driving a steel piling, October 1935.

National Archives, Records of the Bureau of Reclamation, Engineering and Research Center

IN THE ELEMENTS [on fence section]

Millions of Americans work outside, where comfort is relative and Mother Nature calls the shots. These laborers know what it feels like to haul in a net of fish on cold, swelling seas or dig hundreds of feet into the earth. Workers must adapt their lives to shifting conditions and the rhythms of the seasons.

IN RUGGED TERRAIN [on fence section]

Dangling against unforgiving rock, these construction workers dealt routinely with the worst of the elements – desert heat, relentless winds, and the ever-present danger of falling – while drilling holes for explosives into canyon walls.

Hoover Dam construction workers, April 1933.

National Archives, Records of the Bureau of Reclamation

ON THE FARM [on fence section]

Seasonal rhythms determine a crop farmer's day.

Graphic: Pie chart quadrants read-

SPRING – Till, fertilize, and plant SUMMER – Harvest wheat FALL – Harvest soybeans and corn WINTER – Budget and repairs Midwestern farm, ca. 2000.

U.S. Department of Agriculture

IN THE FORESTS [on fence section]

Logging was no small feat before modern trucks. Lumber was harvested in the winter so that large sleds could slide the logs over the frozen ground. Loggers cut, hauled, and piled timber all day, six days a week. "River drivers" sent the logs downriver to sawmills in the spring.

Rolling logs into a river, Michigan, by W.J. Beal, 1901.

National Archives, Records of the Forest Service

ON AMERICA'S WATERS

Jobs upon oceans, lakes, and rivers are among the oldest and most dangerous. Commercial fishermen are 28 times more likely to suffer potentially deadly injury than other workers. Vessels become floating homes while they work long hours on open waters. Sailors on a New England whaling ship en route to Alaska in 1868 faced up to three years at sea and ports of call before their journey's end.

Gusty Chocknok, skipper of the salmon gillnetter F/V Helen Marg, operating in Bristol Bay, Alaska, by Karen Ducey, ca. 1990.

National Oceanic and Atmospheric Administration

Wharf jammed with merchants and dock workers, Boston, Massachusetts, ca. 1890.

National Archives, Records of the U.S. Fish and Wildlife Service

Shipping halibut caught in Puget Sound, Tacoma, Washington, by N.B. Miller, September 1888.

National Archives, Records of the U.S. Fish and Wildlife Service

Harvesting herring on the Maine coast, 1969.

National Oceanic and Atmospheric Administration

"Way, haul away, we'll haul for better weather Way, haul away, we'll haul away Joe!" --Haul Away Joe, traditional sea chantey

"If you don't watch it, you're gonna get knocked off the steel. When something is coming toward me, I can *feel* it."

--Mickey McDonald (Mohawk, Akwesasne), skyscraper construction worker, 1962

HIGH ABOVE THE CITY

Construction workers defy wind, cold, gravity, and even death. More than 3,400 workers built New York City's Empire State Building, the tallest building of its day. They blazed at a record pace for skyscraper construction – 102 stories in just 410 days.

Workman on the framework of the Empire State Building, New York City, ca. 1930-31.

National Archives, Records of the Works Progress Administration

IN THE MINES

Underground miners descend hundreds of feet into the earth to extract natural resources like coal or copper. Danger is constant: flammable methane gas, carbon monoxide, toxic dust, collapses, or injury from equipment. A "nipper," like 14-year-old Jo Puma (seated, bottom photo), opened mine doors for heavy coal wagons.

Crew of miners with coal wagon, Pittston, Pennsylvania, January 1911.

National Archives, Records of the Children's Bureau

[Interactive Miner Hat]

At the turn of the 20th century, John Lukasavicius left Lithuania to join his father in a Pennsylvania coal mine. After just three weeks in the mines, he moved to Michigan to work in a furniture factory.

"During the three weeks I spent there, I never saw the sunlight because we went down in the mine before the sun came out and we finished work after the sun had set. I never saw any other part of the world around except the mine and the boardinghouse."

Interview, Connecticut Works Progress Administration, The University of Connecticut Homer Babbidge Library, 1939

MILITARY SERVICE

Military workers must be prepared for assignments in any type of environment and deal with adversities every day. Thousands of men and women serve in the Air Force, Army, Marine Corps, Navy, Coast Guard, and National Guard today. They are soldiers, sailors, pilots, drivers, mechanics, doctors, draftsmen, translators, and teachers. Global threats take them to any corner of the world at a moment's notice. Local crises might summon them to help their home communities. The call of duty knows no boundaries.

Iowa Army National Guard soldiers in Hills, Iowa, by Staff Sgt. Oscar M. Sanchez-Alvarez, U.S. Air Force, June 2008.

Onboard the aircraft carrier USS Theodore Roosevelt, July 20, 2008. Photo by Mass Communication Specialist 3rd Class Jonathan Snyder. U.S. Department of Defense, U.S. Navy.

[Spinner] MEDICINE

A U.S. Army doctor operates in an underground surgery room in the Solomon Islands, December 1943.

National Archives,

Records of the Office of the Chief Signal Officer

MEDICINE

Rural hospital operating room, Van Wert, Ohio, 1924.

National Archives,

Records of the Bureau of Agricultural Economics

[Spinner] FAITH

A U.S. Navy chaplain conducts Mass for Marines at Saipan,

by Sgt. Steele, June 1944.

National Archives, Records of the U.S. Marine Corps

FAITH

Priest offers Communion at Holy Angels Catholic Church in Chicago, by John H. White, October 1973.

National Archives, Records of the Environmental Protection Agency

U.S. Marines land an amphibious craft during battle, Tinian Island, in the Pacific Ocean, July 1944.

National Archives, Records of the U.S. Coast Guard

"It is not just a job. The army really is your entire life....When you're deployed, there isn't any time off work."

--Battalion S-6 Officer Katie Brinn, United States Army Signal Corps, 2010

IN OUR COMMUNITIES

Imagine even one day without teachers, postal carriers, firefighters, policemen, bus drivers, or trash collectors. As our towns and cities grew, so too did the need for these public servants. Although often uncelebrated or unseen, they are essential to our modern lives. These workers keep our communities and conveniences running around the clock.

SACRIFICE

The attacks of September 11, 2001, focused national attention on the work of New York's firefighters and police officers. In the collapse of the World Trade Center towers, more than 400 firefighters and policemen died. For weeks after the collapse, rescue personnel scoured the rubble to search for survivors and to recover victims.

SAVING LIVES

Firefighters risk fire, smoke, toxic gases, building collapse, explosions, heat exhaustion, and falling debris to save lives. They also act as medical first responders, contain forest and brush fires, or serve as community educators.

A firefighter rescues a child, International Association of Fire Fighters photograph, ca. 1960.

National Archives, General Records of the Department of Labor

Background Image:

Firefighters amidst the rubble of the World Trade Center, New York City,

by Andrea Booher, September 2001.

Department of Homeland Security, Federal Emergency Management Agency

"Teaching might even be the greatest of the arts since the medium is the human mind and spirit."

-- John Steinbeck, author

IN CLASSROOMS

Teaching has seen big changes over the past 100 years. In the 1800s, an elementary teacher was typically a young woman who taught a mixed-aged class of schoolchildren in a single room. Increased focus on school reform and funding by 1900 required that teachers be trained and certified.

Background Image:

Music teacher with children's choral group, ca. 1935.

National Archives, Franklin Delano Roosevelt Library

[Spinner]

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National Archives.

Records of the Office of the Chief Signal Officer

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Rural hospital operating room, Van Wert, Ohio, 1924.

National Archives,

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National Archives, Records of the Environmental Protection Agency

CIVIC DUTY

Public works employees provide indispensable services to their communities, repairing highways, delivering mail, and removing trash. Exposed to hazardous

chemicals and heavy machinery, and sometimes working through the night, their jobs are dangerous and often underappreciated.

"From the third floor window You watch the mailman's slow progress Through the blowing snow. As he goes from door to door"

-- The Mailman, poem by Franz Wright, 1998

Letter carrier unlocks a mail collection box, ca. 1947.
Smithsonian Institution, National Postal Museum

Sanitation worker, Cleveland, Ohio, by John Alexandrowicz, April 1973. National Archives, Records of the Environmental Protection Agency

OLD JOBS, NEW JOBS

While some jobs disappear, new ones continue to rise. In 1910, milkmen went door-to-door, operators were in every elevator, and "pingirls" reset bowling pins. These jobs are memories now because of technological advances and changed social standards. What jobs were created or have disappeared in your lifetime? Now, imagine what the future holds!

Background Image:

Lifting turbine blades with a crane, Golden, Colorado, April 2001, by Warren Gretz. National Renewable Energy Laboratory

Young women delivering ice, 1918.

National Archives, Records of the War Department General and Special Staffs

[Staggered Image Interactive]

Meatpacking plants had assembly lines, hoists, and ice-rooms by 1910, but processing is now faster and more sanitary.

Cudahy Packing Co., Omaha, Nebraska, 1910.

National Archives, Records of the Bureau of Animal Industry / Women processing and wrapping chicken, Magee, Mississippi,

photo by Joe Valbuena, June 1977. U.S. Department of Agriculture Small, family-run stands were the norm before one-stop, national discount retailers. An average Wal-Mart store today is about the size of two football fields.

Fruit and vegetable stand, Center Market, Washington, D.C., February 1915.

National Archives.

Records of the Bureau of Agricultural Economics / A Wal-Mart Supercenter cashier and customer. 2001

walmartstores.com, Inc.

WITHIN FOUR WALLS

As America's wealth, industries, and service-based economy grew, more Americans than ever came indoors to work. Increasingly, jobs are located within the four walls of an office, factory, store, or home. And these places change continually as our society changes. Take a look inside – there's more than what meets the eye.

Background Image:

Tulip Town Market, Oak Ridge, Tennessee,

by James Edward Westcott, July 1945. National Archives, General Records of the Department of Energy

IN THE MARKET

During World War II, many Americans moved from farming communities to larger towns to support the war effort. Oak Ridge, Tennessee, was created in 1942 as part of the U.S. atomic weapons program. These women were among the hundreds who worked in the town's first businesses.

IN THE HOME

Whether raising children or doing chores – like these farmers (bottom photo) who "put up" their harvest in jars and cans – a home is a busy place! A parent's labor may be unpaid, but professionals in many fields, such as childcare and medicine, work inside their clients' homes.

"When you work in the house, you are working a big job. I loved that."

--Lucille Preston, 1985

From A World War II Journey: From Clarksdale, Mississippi, to Richmond, California, 1942

Farm family cans a butchered hog, Haskell County, Kansas, by Irving Rusinow, ca. 1940. National Archives, Records of the Bureau of Agricultural Economics

PERSONAL WORKSTATIONS [on fence section]

All-too-familiar office cubicles were invented in 1968 by Robert Propst, who called them "Action Offices." He believed that the privacy and personalization of partitioned desks would improve productivity and morale. Forty years later, some generations of Americans have worked only in cubicles.

Office building, Golden, Colorado,

by Mike Linenberger, 2009. National Renewable Energy Laboratory

WORKING FROM HOME [on fence section]

Do you telecommute? In 2009, an estimated 45.1 million Americans worked from home offices at least one day per week thanks to technology. That's more than the combined populations of Texas and Florida!

Home office, 2000.

The Center for Universal Design, Centers for Disease Control

IN A FACTORY [on fence section]

The second Industrial Revolution (1870-1914) expanded American industries and technology. World War II (1941- 45) made us a manufacturing powerhouse, with about one-third of workers employed in factories. Less than one-tenth of today's labor force are factory workers.

Workers leaving after their shift, Columbia, Tennessee, 1958.

Columbia, Tennessee, Black Star

FAMILIES SHARE THE LOAD [on fence section]

Does everyone in your household pitch in to help support your family? Mrs. Battaglia worked in a garment factory in 1908. On Saturdays she brought work home so that her children, 12-year-old Tessie and 7-year-old Tony, could help out. At two or three cents per garment, the family could earn \$1.50 per day – enough for half of the week's food bill.

The Battaglia family sewing trousers, New York City,

by Lewis W. Hine, January 1908. National Archives, Records of the Children's Bureau

[Graphic: Typewriters with percentages]

JOIN THE OFFICE PARTY

Percentage of Workforce in Managerial, Clerical, and Sales Jobs

1940: Under 33% 2009: Over 70%

Interior view of Lever Brothers office building, New York City, Lever House photograph, ca. 1959.

National Archives,

Records of the U.S. Information Agency

"Night Shift" poster by Nydorf, ca. 1944.

National Archives, Records of the Office of Government Reports

DANGEROUS WORK, EVEN INDOORS

Before computer automation and safer thermal suits, steel workers had very close encounters with molten hot iron and flames. In the 1920s they fought for and won a fair eight-hour workday. Today, steel mills and other factories continue to run every minute of every day, thanks to workers on 8- and 12-hour shifts.

Background Image:

Tapping a blast furnace at the M. A. Hana Steel Co., near Buffalo, New York.

by Thomas W. Parker, ca. 1950. National Archives,

Records of the U.S. Information Agency

[Shorthand book]

By using symbols instead of words, secretaries could take down dictation faster.

Gregg Shorthand Guide, ca. 1900.

Section 3: How We Worked

Nothing affected the way we work like technology. Until the early 1800s, most jobs involved manual labor and animal power, but new inventions helped ignite an industrial revolution. How we worked changed forever.

Mills and factories sprang up, towns were born, and innovations helped farmers produce more. Cottage industries gave way to city and factory jobs. Workers banded together in unions to protect their rights and lives amid the industrial rush.

Technology continues to change how we work. How will it change our future?

BEFORE THE SMARTPHONE

Telephone calls used to be switched manually. Skilled operators connected calls in less than 4 seconds and often gave local news and train alerts, too.

Switchboard operators direct overseas calls, December 1943.

National Archives, Records of the Women's Bureau

"Every great invention takes a livelihood away from 50,000 men & within ten years creates a livelihood for half a million."

--Mark Twain, letter to William Dean Howells, 1888

Banner:

Technology, Tools, Computers, Plow, Industry, Farms, United, Machines, Handcrafted

Background Image:

Riveter at Hog Island Shipyard, Pennsylvania, 1918.

National Archives, Records of the War Department

FROM AGRICULTURE TO INDUSTRY

Beginning about 1830, waves of Americans left the countryside to work in cities, where new technology changed lives. In factories, mills, offices, and shops, life now revolved around the clock instead of the seasons. Engineers and laborers built modern wonders with huge machines.

MOVING THE EARTH

Mammoth projects called for mammoth machines. Behemoths like the "five-yard dipper" helped the 12,000-person workforce build the Grand Coulee Dam. Mason City, Washington—the first completely electric city in America—was built to house the workers.

Worker on a "five-yard dipper" during construction of Grand Coulee Dam, Washington, April 1936.

National Archives—Rocky Mountain Region (Denver, Colorado), Records of the Bureau of Reclamation "A tool is but the extension of a man's hand, and a machine is but a complex tool."

--Henry Ward Beecher, from the sermon "Earthly Immortality," 1870

MECHANIZING THE FARM

As more farmers left for the city, new tools, like tractors and threshers, helped fill the labor gap by yielding more crops in less time with fewer people.

Background Image:

Corn planting in Tennessee,

by Marion Post Wolcott, May 1940. Library of Congress, Prints and Photographs Division

Harrowing the fields, Shelby County, Iowa,

by Irving Rusinow, May 1941.

National Archives,
Records of the Bureau of Agricultural Economics

Threshing wheat by machine, Questa, New Mexico,

by Irving Rusinow, ca. December 1941.
National Archives,

Records of the Bureau of Agricultural Economics

TEXTILE TECHNOLOGY

The textile industry was one of the first to transform America. Former farm workers found themselves operating machines in noisy mills where lint filled the hot air. They moved fast to load bobbins of thread and to repair broken strands. Other laborers starched the threads or kept the machinery running by stoking furnaces.

[Graphic: 2 Barns] LEAVING THE FARM

Percentage of Americans Who Are Farmers

1900: 40 % 2008: 2%

[Flipbook: Technology & The Worker] WE RUN ON HUMAN POWER Women sort sweet potatoes, Minnesota, October 1983.

U.S. Department of Agriculture

HELP IN THE HOME

"Since I was in charge of the household during the day, I did the wash and everything too. We had no hot water, so I heated all the hot water on the stove. I filled up the washer—we had the old, wringer-type washer—and I'd wash the clothes."

- Marian Eastman, a teenager in 1950s New Jersey

After World War I, "modern homes" had gadgets: electric washing machines, mangles (to wring water out of cloth), irons, and vacuum cleaners. Advertisers promised that they made chores a "joy!"

Farm woman using her electric mangle, Montgomery County, Indiana, --by J.M. Butzko, August 12, 1930.

National Archives, Records of the Extension Service *Eastman interview (2000) from* Remembering the 20th Century: An Oral History of Monmouth County.

--Courtesy Monmouth County Library, New Jersey

USE CAUTION

"We [tested for radioactive residues] desks, drawer handles, any place where people were and the things [workers] touched.

"I remember one time we had to rope off the entire lab wing because an analyst . . . contaminated a hallway by spilling something on the floor and then walked around with it on his shoe."

- Henry Peterson, former technician at the Idaho National Laboratory

Technology made some jobs safer, but it also created dangerous jobs that were unimaginable 100 years ago. Human experience is still crucial to read data and maintain safety.

Operating a nuclear power plant turbine in Fort St. Vrain, Colorado,
--by Bruce McAllister, May 1972.
National Archives, Records of the Environmental Protection Agency

Peterson interview (1999) from Proving the Principle: A History of the Idaho National Engineering and Environmental Laboratory, 1949–1999,

--by Susan M. Stacy

HANDCRAFTED

"One day, one of the young boys came up to me and he said, 'The piece I want is this shape, but we cannot do it. . . . Is there any other place where I can send the job out?' . . .

"I said I would rough it out on the milling machine, and on the lathe, and on the grinder, to get as close as possible, and then after I would freehand it. . . . I finished it completely by hand, with a file."

 Michel Bilger, was a toolmaker apprentice when he was 15 years old

The skill of working by hand is increasingly rare. Yet surgeons, carpenters, and jewelers are among the many craftsmen who know, the most precise tools are their hands.

Worker at Hamilton Watch Company, Lancaster, Pennsylvania,
--by Lewis W. Hine, ca. 1936–37.
National Archives, Records of the Work Projects Administration

Bilger interview (1981) from Connecticut Workers and a Half Century of Technological Change, 1930-1980,

--Archives & Special Collections at the Thomas J. Dodd Research Center, University of Connecticut Libraries

HELP FROM ANIMALS

"Concerning oxen, there must be 50–60 strong and 14–16 horses besides those which bring food and fodder up here from the station. Four horses are used for every load, but then you must believe that they make huge loads! . . .

"Enough to say that it is hard work with long days."

--Andrew P. Solem, Norwegian immigrant writing to his family from Empire Lumber Co. Camp

Draft animals like oxen and horses were indispensible co-workers before mechanization. These animals hauled heavy loads and pulled everything from canal boats and plows to logging sleds over frozen ground.

Logs heading to market, Huron-Manistee National Forest, Michigan, ca. 1887.

--National Archives, Records of the U.S. Forest Service

Solem letter (1891) from Andrew P. Solem Papers, 1879–1899.
--University of Wisconsin Digital Collections

ON THE LINE

"I experienced the famous 'Ford Speed-Up.' When I went to work at the plant in January, they were turning out 242 Ford cars a day, and you multiply that by two and that's how many right fenders I sandpapered every day. When I quit four months later, we were turning out 535 cars a day, and I was sandpapering all the right-hand fenders just like I did at the beginning without any extra help."

- Justin McCarthy, worked at a Ford assembly plant in the late 1930s

Thousands of Americans work on assembly lines, making everything from radios to cars to toys. When Ford Motor Company began in 1903, it had only a few hundred workers. By the 1930s, the River Rouge Ford plant was the world's largest foundry with over 100,000 employees.

Workers assemble radios, New York, 1945.

--National Archives, Records of the Office of War Information

McCarthy interview (1971) *from* Hard Times: An Oral History of the Great Depression,

--by Studs Terkel

HUMAN INGENUITY

"It was just after World War II, and electronics had started to move into hospital equipment I used to pick [my wife] up after work, and they would say, 'Earl, could you fix this device for us?'

"So . . . a brother-in-law and I said maybe there's a business in repairing medical electronic equipment.

"We just set up a repair service, and we were repairing every kind of thing that was brought to us."

 Earl Bakken, Medtronics founder and maker of the first selfcontained pacemaker

Lewis Hine called this photograph "Mechanic in his shrine—the heart of the turbine." Despite its size, the powerful machine won't last without us to care for it.

Turbine mechanic, New York City,

--by Lewis W. Hine, 1924.

National Archives, Records of the Works Progress Administration

Bakken interview (2007)

--from The Institute of Electrical and Electronics Engineers History Center, New Brunswick, New Jersey

[end flipbook]

"When I die, don't bury me at all,
Just hang me up on the spoolroom wall.
Place a knotter in my hand,
So I can spool in the Promised Land."
--Winnsboro Cotton Mill Blues, American ballad, early 20th century

Magnolia Cotton Mills spinning room, Magnolia, Mississippi, by Lewis W. Hine, May 1911. National Archives, Records of the Children's Bureau

Workers at Union Mills, Inc., stoke the textile plant's furnaces, Hudson, New York,

by S.G. Knowles, ca. 1917–18.
National Archives,
Records of the War Department, General and Special Staffs

ON THE ASSEMBLY LINES

In the early 1900s Henry Ford realized that it was easier to move parts rather than people. He improved the assembly line system by dividing each manufacturing process into a series of small tasks and installing conveyor belts. Assembly line work takes skill and endurance for the fast-paced, long hours.

Ford Motor Company workers on the first moving assembly line, Highland Park, Michigan, 1913.

National Archives, Records of the U.S. Information Agency

At the GM Assembly Division plant, a car body moves overhead, by Gregory Heisler, Tarrytown, New York, 1981

[Video: featuring assembly line work]

IT'S A SMALL WORKING WORLD

"Mr. Watson, come here. I want to see you."

These were the first words spoken over a telephone in 1876 by Alexander Graham Bell. Since then, communication on the job has come a long way. We are connected instantaneously almost anywhere around the world by satellites, radios, computers, and handheld devices. The digital revolution changed how we communicate at work, whether in the corner store, on the farm, or in the emergency room.

THE FIRST COMPUTER

The ENIAC (the Electronic Numerical Integrator and Computer) is considered the world's first general-use electric computer. It was over 8 feet tall and 80 feet long. Originally built for the Army in 1946, the ENIAC helped pave the way for computers in the workplace.

A programmer operates the ENIAC, ca. 1948.

National Archives, Records of the U.S. Information Agency

MACHINES IN THE OFFICE

As businesses grew more complex, so did office technology. Invented in the late 1800s, dictation machines allowed office workers to compose letters by speaking into a recording device. Typists then transcribed the recordings onto paper. Most business offices also had ticker-tape machines that relayed news from the stock market across the country.

Stock ticker at the Waldorf-Astoria Hotel, New York City,
by Underwood and Underwood, November 1918.
National Archives,
Records of the War Department

Transcribing records at the Dictaphone Sales Corporation, ca. 1925.

National Archives,
Records of the Women's Bureau

LOOK HOW FAR WE'VE COME CRITICAL LINKS

The lives of police officers, firefighters, astronauts, and other high-risk workers depend on enhanced communications. Before the Detroit Police Department became the first in the country to have telephones in the station, people could only send electric signals to police via call boxes.

America's first female astronaut, Sally Ride, communicates with ground controllers, June 1983.

National Archives, Records of the U.S. Information Agency

HIGH TECH - THEN AND NOW

How does your cell phone compare to this 1920s telephone? Advancements helped make tools smaller and faster in the 20th century. Telephones without dials or buttons and manual typewriters gave way to wireless smartphones and computer data cards.

[Object Shelf]

Kellogg telephone, ca. 1915; Manual typewriter, ca. 1925; Blackberry, ca. 2007; IBM Tabulator computer punch cards, ca. 1960.

New York City Police Department, ca. 1908.

Library of Congress, George Grantham Bain Collection

INFORMATION FROM EVERYWHERE

Communications tools provide us with information and enable us to collaborate with people all over the world in seconds. Inventions give rise to other inventions; teleprinters, for example, advanced the technology used by stock ticker machines.

Worker receives news via teleprinter, December 1979.

U.S. Department of Agriculture

A farmer and an agronomist review crop data,

by Bruce Fritz, ca. 2005. U.S. Department of Agriculture

MASSIVE DATA STORAGE

By the late 1960s, corporations and government agencies used mainframe computers on a large scale. These machines processed data faster than ever, but required a large workforce (usually female) to punch data onto cards and check for errors, while technicians (usually male) mounted tapes and processed jobs.

Computer complex for handling travel reservations, January 1968.

IBM Corporate Archives

[Graphic: Envelope]

YOU HAVE MAIL, FASTER

1860: Pony Express Mail - Missouri to California, 10 days

1900: Western Union Telegraph - New York to California, same day

2010: Broadband Internet Email - Internationally, in seconds

"I remember the days when we used to lug around as consultants those 55-pound early portable computers. No wonder my lower back kills me today!"

--Laura E. Campbell, recalling her work for a consulting firm, ca. 1980

WORKERS UNITE

The rapid rise of industry in America increased productivity, but gave little concern for safety. Many workers faced the possibility of physical injury, exploitation, and discrimination on the job. Some banded together in associations and unions, making the turn of the 20th century into a hotbed of labor unrest from the mines to the railroads. Workers continue to rebuke injustice and affirm their rights.

"And by union what we will Can be accomplished still. Drops of water turn a mill, Singly none, singly none."

-- American Miners' Association song, 1864

In March 1911, a fire at the Triangle Shirtwaist Factory in New York City killed 146 workers. Later protests led to new laws governing working conditions.

--National Archives, General Records of the Department of Labor

Child Labor

Imagine this: It is 1912. You are 11 years old. Your father works in a shoe factory, and your mother sews shirts at home. What is your job?

Children traditionally helped with chores in the home or on the family farm. But in the 1800s, many American children also worked in factories, mines, and mills.

Employers liked to hire children because they could pay them low wages. Small fingers could reach into looms when fibers were stuck. Small bodies could squeeze into tight spaces in mines. Many jobs were dangerous, but many families needed the money desperately.

Minimum age rules for child workers were finally set by the Fair Labor Standards Act in 1938.

Children string beans at a packing company, Georgia,
--by Lewis W. Hine, June 1909.
National Archives, Records of the Children's Bureau

DOCUMENTING WORK

Lewis Hine photographed children at work around the country for the National Child Labor Committee. Children's advocates used Hine's photographs to end dangerous and abusive child labor practices.

Young loom workers at Bibb Mill No. 1 in Macon, Georgia,
--by Lewis W. Hine, January 1909.
National Archives, Records of the Children's Bureau

A four-year-old child picks berries in Maryland,

--by Lewis W. Hine, June 1909. National Archives, Records of the Children's Bureau

A "newsie," St. Louis, Missouri,

--by Lewis W. Hine, May 1910. National Archives, Records of the Children's Bureau

- "... no child will be sacrificed on the altar of profit!"
- --Mary Harris "Mother" Jones, workers' rights advocate

DEMANDING ACTION

Either in a union or independently, American workers have never been afraid to demand better wages and working conditions. Highly visible events such as strikes, sit-ins, boycotts, and protest songs, like those written by union organizer Ella May Wiggins, could bring injustices to light and force change. Wiggins was murdered for her part in the Loray Mill strike in North Carolina in 1929.

Buttons from union supporters, ca. 1900–1950.

[Interactive: Audio Box-Labor Songs] "Roll the Union On"

by John Handcox, 1937 Classic Labor Songs from Smithsonian Folkway

"Links on the Chain"

by The Broadside Singers with Phil Ochs, 1964 The Best of Broadside 1962-1988: Anthems of the American Underground from the Pages of Broadside Magazine

"When Kentucky Had No Union Men"

by George Davis, 1967 When Kentucky Had No Union Men

"De Colores"

by Baldemar Velasquez and Aguila Negra, 1995 Classic Labor Songs from Smithsonian Folkways

"One Day More"

by Elaine Purkey, 1995 Classic Labor Songs from Smithsonian Folkways All songs provided courtesy Smithsonian Folkways Recordings.

Early silver miner, Virginia City, Nevada,

by Timothy O'Sullivan, 1867. National Archives, Records of the Office of the Chief of Engineers

"But understand, all workers,
Our union they do fear.
Let's stand together, workers,
And have a union here."
--A Mill Mother's Lament, song by Ella May Wiggins, 1929

United Farm Workers protest poster, 1978.
--Chicago Women's Graphics Collection, Library of Congress

[Interactive Brotherhood of Electrical Workers Hat] Some workers, like truck driver Gary Sheatler, work without supervision or are self-employed. Joining a recognized union related to their trade allows them to be a part of a collective voice. Whether union or not, these workers defend their independence fiercely.

"Trucking's a lot different than a 40-hour week job I figure I'm working all the time, not just what the log book says. . . .

"I have a lot of people I need to answer to, but once I have my truck loaded, and I crawl in the seat behind the steering wheel and shut the door, I'm my own boss."

--Interview, Museum on Main Street, 2009

RISKY BUSINESS

Dangers on the job arise in different forms and situations. A miner faces cave-ins while a chemist may handle toxic materials. The 1970 Occupational Safety and Health Act (OSHA) allowed the Federal government to set and enforce health and safety standards nationwide. It required inspections and allowed workers to file complaints about unsafe conditions.

Activist Justin Dart Jr. (right) and other advocates at the Disability Pride/Americans with Disabilities Act March in New York, July 25, 1993. Signed by President George Bush in 1990, ADA guarantees full access and protection for all Americans with disabilities.

--Photograph courtesy of Yoshiko Dart

Radiation isolation booth, Argonne National Lab, Illinois, January 1967.

--National Archives – Great Lakes Region (Chicago), Records of the Atomic Energy Commission

Section 4: Who Works?

Our workforce is a lively kaleidoscope of young, old, female, and male from every ethnicity. Every talent and perspective adds a new facet.

And this diversity remains strong because of workers who dream big and work hard: Immigrants and migrants start new lives throughout America; men and women fight for greater equality on the job; and families turn businesses into legacies. Americans build a better future through sacrifice, working from sunrise to sunset.

Everyone can enrich the picture. Together, America works.

A COMMUNITY OF WORKERS

South Texas Panorama shows many of the agricultural, professional, and industrial workers who keep communities running. During the Great Depression, federally commissioned artists celebrated American workers in murals, paintings, and sculpture.

South Texas Panorama (Alice, Texas post office),

by Warren Hunter, oil on canvas, 1939.Smithsonian American Art Museum

"I hear America singing, the varied carols I hear,

Those of mechanics, each one singing his as it should be blithe and strong,

The carpenter singing his as he measures his plank or beam . . . Each singing what belongs to him or her and to none else . . ."

--I Hear America Singing, poem by Walt Whitman, 1855

DREAMS AND OPPORTUNITIES

We have unceasing faith in America as a land of opportunity where "life, liberty, and the pursuit of happiness" is open to all. Dreams can come true. These ideals touch everything, especially our right to work.

These ideals inspired immigrants and migrants to uproot their lives to find work. They fueled the civil rights movement when African Americans, Hispanic Americans, and other minorities fought to be included in the American dream.

STARTING A NEW LIFE

Forty million immigrants came to America in the 20th century alone. After entering cities like New York City, Galveston, and San Francisco, they worked throughout the country, opened new businesses, and even founded new towns.

Newly arrived immigrants leave a customs processing center at Ellis Island in New York Harbor.

--Library of Congress

[Flipbook] MOVING FOR WORK: IMMIGRANTS & MIGRANTS Settlers in Red Lodge, Montana, were mostly Finnish immigrants who came to mine in the Beartooth Mountains.

Construction of the Finnish Worker's Hall, Red Lodge, Montana, 1912.
--Immigration History Research Center, University of Minnesota

FINDING A NEW HOME

Uya Anma (My Mother Dear)
Let me take my leave, my mother.
Earn money and come home, my child.
As I stay home and pray to the gods.
To this Hawai'i from the faraway Okinawa
We have come all the way for the sake of money.
Thinking it'd only be a few years we came,
But we have now grown our roots deep and with green leaves.

-Nae Nakosone, Japanese poet who immigrated to Hawai'i

Early Asian Pacific immigrants were recruited for labor-intensive jobs in factories, fields, or private homes in western states and Hawai'i. Many

lived under harsh restrictions with little pay, such as the Japanese in Hawai'i. But Asian Americans built strong communities where they worked and carried on cultural traditions.

Laborer of Japanese descent packing cauliflower on large-scale industrial ranch a few days prior to evacuation,

--by Dorothea Lange, Centreville, California, April 1942. National Archives, Records of the War Relocation Authority

Nakosone poem (1880) "Uya Anma (My Mother Dear: A Dialogue)"
-- University of Hawai'i at Manoa, Center for Oral History

ESCAPING POVERTY

"I came looking for a way to send them money. . . . I always thought about my mother and my brothers. I never thought about making my life just for me."

- Jesus Martinez, worked as a bracero for nine years until he was able to bring his widowed mother and siblings to America

More than 4.5 million Mexican workers were the heart of the largest guest worker program in U.S. history called the Bracero Program (1942–1964). (Bracero is the Mexican term for seasonal laborer.) When it began, workers were only guaranteed a minimum of 30 cents per hour even though the national minimum wage was 45 cents per hour.

Mexican irrigator works year round on large-scale farm,
--by Dorothea Lange, Eloy District, Pinal County, Arizona, Nov 1940.

--by Dorothea Lange, Eloy District, Pinal County, Arizona, Nov 1940.

National Archives, Records of the Bureau of Agricultural Economics

Martinez interview (2000)

--from Bracero History Archive, The Institute of Oral History at the University of Texas at El Paso

HOME FRONT OPPORTUNITIES

"It was in '42. My husband just came home one evening and said that there was work in Richmond, California, in the shipyards. 'They're opening up the Kaiser Shipyard, and I would like to go.'

"So I said, 'Why sure!'

". . . The trains were so full of the people coming out to California. . . I had to stand up on the train. . . . "

- Lucille Preston, joined the Great Migration out of Mississippi

World War II created new jobs that were filled by 15 million Americans. Women and minorities entered the workforce to help with the war effort.

A Chinese-American worker at U.S. Navy Yard, Mare Island, California, 1943.

-National Archives,

Records of Naval Districts and Shore Establishments

Preston interview (1985)

--from "A World War II Journey: From Clarksdale, Mississippi, to Richmond, California, 1942" by Judith K. Dunning. The Bancroft Library, University of California, Berkeley.

A MOBILE LIFE

"I cried when I left, but then I also felt that there was a new day for us in California because wages were better

"When we left Oklahoma coming out here . . . I had \$2 left over when we got to Bakersfield. Just \$2 to feed myself, my husband, and my son and that's awful close. We went right on out to the ranch We got out there [and] we started work the next day."

- Juanita Price, was a sharecropper and domestic servant before moving her family to California in 1936

A migrant farming family may move two or three times during the year to follow crop cycles. Before government camps, Great Depression migrants built makeshift shelters on land they had to rent weekly.

African American cotton pickers ready to go to work in the field,
--by Dorothea Lange, Eloy District, Pinal County, Arizona, Nov 1940.
National Archives, Records of the Bureau of Agricultural Economics

Price interview (1981)

 --from "California Odyssey: The 1930s Migration to the Southern San Joaquin Valley," Oral History Program, California State College, Bakersfield

CHILDREN ON THE MOVE

"First, we went to Bainbridge to pick strawberries So, we had to work all through the summer, and when we finished there, we went into the Yakima Valley . . . and if we got there early, we picked tomatoes. "The hardest part was when I had to pick onions. It was really hard. We had to straddle the row . . . and had the sack to our waist and we drug it and threw the onions in until it was about fifty pounds of onions. Then we'd drop it, pick up another sack, and move on through the row."

- Helen Paul, one of nine siblings who worked to support the family

Today, 300,000 of the 1.3 million American migrant agricultural workers are between 12 and 18 years old. Children become invaluable workers for poor families. Legally, a child agricultural worker 14 years or older can work unlimited hours before or after school.

Mexican boy, age 13, coming in from cotton field at noon. He picked 27 pounds of Pima cotton to earn 45 cents in the morning, --by Dorothea Lange, Pinal County, Arizona, Nov 1940.

National Archives, Records of the Bureau of Agricultural Economics

Paul interview (1980)

-- from "Washington Women's Heritage Project," Center for Pacific Northwest Studies, Western Washington University

FROM THE OLD COUNTRY TO NEW CITIES

"I would like to go out to the land of Liberty where you are now and I hope with the help of god I will soon be there, my dear Cousin.... Dear Cousin, this poor Island is in poverty. There is nothing going to keep it up only hunger and hardship.... When you do get this, do not delay but write as soon as this comes to hand.... Sending you all our kind Love and Blessings."

- William Dunne, writing from Belfast, Northern Ireland

Close to a third of Ireland's population left between 1845 and 1855 to escape poverty and famine. Most Irish immigrants built canals, joined railroad crews, became fishermen, or worked as domestic servants.

Irish clam diggers on a wharf, Boston, Massachusetts, 1882.
--National Archives,
Records of the U.S. Fish and Wildlife Service

Dunne letter to John Curtis (April 2, 1851)

--from Historical Society of Pennsylvania, Institute for Ethnic Studies [end flipbook]

"We refuse to believe that there are insufficient funds in the great vaults of opportunity of this nation."

--Martin Luther King Jr., from "I Have a Dream," 1963

FROM ASIA TO AMERICA

Probably fewer than 100 Chinese immigrants lived in California in 1847. By 1852 and the discovery of gold, over 10,000 had arrived to escape poverty and drought in China. They joined mining and railroad crews, but also became farmers, fishermen, and business owners. This success led to a backlash with the Chinese Exclusion Act of 1882, banning new laborers from entering the country.

Workers at Lace House Dry Goods Co., a Chinese-owned business in St. Louis, Missouri, ca. 1909.

--National Archives – Pacific Region (Seattle), Records of the Immigration and Naturalization Service

Chinese shrimp fishers, San Francisco, California, 1889.
--Gulf of Maine Cod Project, NOAA National Marine Sanctuaries;
courtesy of National Archives

[Graphic] SNAPSHOT: How Many Workers Were Foreign-Born? Lowell, MA: 1910 – 82% of weavers in the cotton mills Anaconda, MT: 1894 – 62% of workers at Anaconda Mining Company San Francisco, CA: 1910 – 56.4% of retail dealers

POSSIBLE DREAMS

When they first arrive, immigrants often gravitate toward the same work and neighborhoods as family and friends. They take entry-level jobs that they hope will be stepping-stones to bigger things. Today, many skilled immigrants achieve high-level positions, especially in science, technology, and education.

Dr. Beheruz N. Sethna, of the University of West Georgia, is the first India-born president of an American university.

--Photograph courtesy of the University of West Georgia, 2010

Looking for work at an employment agency for Italian-Americans, San Francisco, California.

--National Archives, Franklin Delano Roosevelt Presidential Library

GREAT MIGRATION

"The North symbolized to me all that I had not felt and seen."

- Richard Wright, from Black Boy (1945)

In 1900, the majority of African Americans lived in the rural South. Beginning with World War I, millions of African Americans left in search of new opportunities. They found work in places like factories, offices, in private homes as maids and cooks, and in service industries.

In 1950, more African Americans worked in blue-collar jobs than in agriculture. They owned their own businesses, and developed vibrant, urban communities. By 1970, five million African Americans had moved north or west.

"There can be no solidarity if one is considered a Black worker and another a White worker. We should be considered just a worker."

--A. Philip Randolph, civil rights pioneer, 1935

PAVING THE WAY

Pullman Palace Car employed more African Americans than any other company. Working as porters on passenger trains, they put in long hours with little rest, but became the base of an African American middle class. Members of the Brotherhood of Pullman Porters, like A. Philip Randolph, became community leaders and civil rights activists. They helped pave the way for all minorities in professional fields.

Porters in Erie Railroad lounge car, ca. 1949.

--National Archives, Records of the U.S. Information Agency, Erie Railroad Company photograph Journalist Ted Poston led the Office of War Information Negro Press Section and advised President Roosevelt, Washington, D.C., ca. 1941.

--National Archives, Records of the Office of War Information

MIGRANT WORK

Millions of Americans live hard, unsettled lives as migrant workers. Agricultural workers move constantly with the seasons to harvest crops.

Mexican farm worker in lettuce field, Blythe, California,
--by Charles O'Rear, May 1972.
National Archives, Records of the Environmental Protection Agency

FAMILY FARMS

Family farms are icons of independence. For new immigrants, owning a farm was a foothold in a new country. For many children, farm life defined the American work ethic. Some farmers struggled as agriculture grew focused on expensive technology and consolidation. Many left agriculture, but the family farms that remain are important for the economy and sustainability.

Children feeding pigs, Beltsville, Maryland, ca. August 1973.
--U.S. Department of Agriculture

Herbert Allen works with his son Trentis on the Allen family farm, Humphreys County, Mississippi, June 1996.

-- U.S. Department of Agriculture

"Part of the challenge of being a farmer and self-employed is you . . . have to know a little bit about everything, being a 'Jack-of-all-trades' . . . "

--Michael Mann, fifth-generation farmer from Boykins, Virginia Interview, Museum on Main Street, 2011

[Interactive farmer hat]

Pat and Sharon O'Toole planned to attend law school, but decided instead to carry on the legacy of the ranch that their family has owned for more than a hundred years. The ranch became their life's work, and they intend to pass it on to their two children.

Pat: "We're very blessed to have children that 'get it.' They've been working since they were old enough to hold a branding iron."

Sharon: "It's just a wonderful piece of landscape, and it's our responsibility and privilege to work on it and try to keep it going."

--Interview, Museum on Main Street, 2009

Farmer in Shelby County, Iowa,

--by Irving Rusinow, ca. May 1941. National Archives, Records of the Bureau of Agricultural Economics

AT ANY AGE

We work a lot and for a long time. Some of us start at very young ages in a family business—feeding animals on a farm, setting silverware in a diner, or lending a hand in a store. Others start as teenagers with summer jobs or internships.

Americans are working longer today even than just a generation ago.

WORK NEVER STOPS

Americans are no strangers to "burning the midnight oil." Factories, businesses, and mines operate around the clock in shifts. Tasks completed at night or early in the morning help keep daytime workers going without missing a beat.

G.E. Mitchell works overtime at night, Washington, D.C.,
--by Joseph O'Donnell, September 1949.
National Archives, Records of the U.S. Information Agency

Early morning delivery to E&A Soul Food Restaurant, Paterson, New Jersey,

--by Susan Levitas, August 1994. Library of Congress

WORK HARD, GET AHEAD

This Office of War Information poster from World War II promotes the spirit of an American work ethic: hard work will protect our freedoms.

Poster, "This Is America, Keep It Free."
--National Archives, Records of the Office for Emergency
Management, Office of War Information

WHAT WAS YOUR FIRST JOB?

High school and college-age students often find jobs in the retail and food service industries. Many become interns or apprentices to older workers, learning skills passed on through generations. In their first ten years as wage earners, young workers may hold as many as seven different jobs.

[Graphic]

10

The average number of jobs an American has before turning 36 years old.

50

The percentage of Baby Boomers (34 million) who expect to work after age 70.

A young woman works at drive-in restaurant, Rifle, Colorado,
--by David Hiser, July 1973.
National Archives, Records of the Environmental Protection Agency

A young member of the Dannheim family makes chocolate ice cream bars in his family's dairy, New Ulm, Minnesota,

--by Flip Schulke, July 1974. National Archives, Records of the Environmental Protection Agency A veteran naval yard employee instructs an apprentice, ca. May 1942.
--National Archives, Franklin Delano Roosevelt Library Public Domain
Photographs

[Video: "What Was Your First Job?"]

WOMEN AGAINST THE ODDS

Delicate. Simple-minded. Timid.

Generations of women struggled against stereotypes like these to win equality in the workplace. Their grit and willingness to tackle any job created more opportunities for all women.

Over the 20th century, women increasingly earned jobs usually held by men and proved more than capable. Women entered the workforce at higher levels of power and started their own businesses. Succeeding generations of girls are determined to follow their dreams.

CONTRIBUTING TO THE WAR EFFORT

As more male workers joined the armed forces during World Wars I and II, women filled their jobs on the home front. Women who served the country through wartime work made celebrated contributions to industry and gave rise to the image of "Rosie the Riveter."

Women working on Great Northern Railway locomotive, Great Falls, Montana, ca. March 1918.

-- National Archives, Records of the Women's Bureau

TO SERVE THEIR COUNTRY

More than 400,000 women served in the American military during World War II, but were discouraged from pursuing military careers when it ended. However, cultural views began to change during the 1970s and 1980s. Women advanced in every level and branch of the military, comprising roughly 16 percent of total armed forces personnel by 2009.

- U.S. Navy WAVES recruitment poster, ca. 1941–45.
 - --National Archives, Records of the Office of Government Reports
- U.S. Army recruitment poster, 1990.

-- National Archives.

Records of the U.S. Army Training and Doctrine Command

[Interactive military hat]

Katie Brinn decided to carry on the Brinn family military legacy, following the service of her grandfather (Navy), father (Army), and mother (Army Nurse Corps). She joined the U.S. Army Signal Corps in 2006.

"Serving the country is something that my family has always been big on . . . and they impressed that upon me from a young age."

--Interview, Museum on Main Street, 2009

MULTITASKING

In the 1970s, debates raged about how and if women should balance work and family responsibilities. But for women working on the farm, this issue was nothing new.

Jean Schnelle works on her family farm while caring for her son Dwight, Lockwood, Missouri,

--by Michelle Bogre, ca. 1978.
National Archives, Records of the U.S. Information Agency

"Something which we think is impossible now is not impossible in another decade."

--Constance Baker Motley, first female African American federal judge

SMASHING THE GLASS CEILING

Early in the 20th century, women entering the white-collar workforce found mostly clerical work. Their limited advancement up the career ladder was termed a "glass ceiling": You could see the upper levels, but you couldn't get there. Breaking that ceiling to managerial and executive ranks took activism, legislation, and women proving themselves as equals day-in and day-out since the 1960s.

Executives in a business meeting, Kansas City, Missouri,
--by Scott Lute, 2009.
Photograph courtesy of Country Club Bank

Census Bureau workers review data, Washington, D.C., ca. 1940.

--National Archives, Records of the Census Bureau

[Graphic]
A CHANGING WORKFORCE
Percentage of married mothers working outside the home 1975 - 37%; 2000 -- 63%

IN MEDICINE AND SCIENCE

As women gained ground in graduate-level school enrollment and medical programs during the second half of the 19th century, they broke through barriers in medicine and science professions.

Ellen Lew analyzes a sample to identify amino acids, Berkeley, California, ca. 1976.

--National Archives, Records of the Office of the Secretary of Agriculture

Dr. Anita Figueredo reviews x-rays, Washington, D.C., 1944.
--National Archives, Records of the Office of War Information

Section 5: Why We Work

Work is practical, providing an income and the means for survival.

Work is challenging, testing our physical and intellectual limits.

Work is fulfilling, giving us an identity and a chance to fulfill dreams.

Work is communal, uniting us and sustaining communities.

Work has value. Why do you work?

A COMMON PURPOSE

The people of Newport News have a 150-year-old heritage of shipping and shipbuilding. Proud shipbuilders and their excited families continue to crowd launches of new ships as they did in 1939 for a ship built for the World's Fair.

Ship launch in Newport News, Virginia, 1939.

--Photograph courtesy of The Library of Virginia

"The best prize that life has to offer is the chance to work hard at work worth doing."

--Theodore Roosevelt, 26th President of the United States

COMMUNITIES AT WORK

Some communities become famous for their local industries. These businesses are a source of pride, often linked to local heritage and tradition. Their workers become a kind of hometown hero. Towns celebrate their sweat and skill with festivals, concerts, parades, sports teams, and even the city nickname.

Workplaces create community, too. Co-workers draw strength from one another in both good and stressful times. Friendships extend to the ballpark for softball games, bowling alley, or union hall where their families meet.

Take a look around at everyone in your work community.

[Interactive steelworker's hat]

Steel mills are fiery, dangerous places and gave steelworkers a reputation of toughness. When Robert Buday started at the Homestead (Pennsylvania) Steel Works in 1956, no one was given a face shield, and most workers just wore regular clothes.

"I worked at heat-treat and forge as laborer and moved up to hooker, which meant you hooked up steel and put it in the furnace And the furnaces were around 2,000 degrees.

"You put your hand in front of your face, that's all; that was your protection."

--Interview, Rivers of Steel Heritage Area Project, Homestead, Pennsylvania, ca. 2000

PART OF THE LANDSCAPE

A town's main industry often shapes its landscape. Silos dominate the skyline in Hanley Falls, Minnesota, as they do in most small agricultural communities.

Aerial view of Hanley Falls, Minnesota,

--by Vincent H. Mart, 1987. Minnesota Historical Society

STEEL CITY

Pittsburgh, Pennsylvania, produced a third of America's rolled steel by 1930. Workers fed burning furnaces, poured and purified molten iron, and formed steel. Foundries, smoke stacks, loaded barges, and tough steelworkers are still an indelible part of the city's identity.

Jones and Laughlin Steel Company plant, Pittsburgh, Pennsylvania, May 1973.

--National Archives, Records of the Environmental Protection Agency

"The mill was always in my life, even as a baby. I always heard and smelled the mill."

--Ken Kobus, steel mill worker's son from Pittsburgh, Pennsylvania Interview, ca. 2000 by StoryCorps

[Object case]

HOMETOWN CONNECTIONS

Communities trumpet their connection to well-known products right down to their nicknames, tourist attractions, souvenirs, and names of sports teams. Spam is manufactured in "Spam Town USA" Austin, Minnesota; Dodge City, Kansas, was known as "The Cowboy Capital" as early as 1890; and with large bakeries in their communities, Claxton, Georgia, and Corsicana, Texas, both claim to be "Fruitcake Capital of the World."

Longaberger Basket Company Headquarters, Newark, Ohio, 2006.
--Photograph courtesy of Terri Cobb

"Peachoid" Water Tower, Gaffney, South Carolina,
--by Kim Fortner, ca. 2010.
Photograph courtesy of Gaffney Board of Public Works

"Salmon Capital of the World," Ketchikan, Alaska, ca. 2010.
--Photograph courtesy of Alexandra MacKenzie

LOCAL PRIDE

Thousands of high school and other young athletes play proudly for teams named for their town's most famous workers and industry. When they root for the home team, they salute a work legacy.

Alabama

Holt Ironmen (Tuscaloosa)

Alaska

Tikigaq Harpooners (Point Hope)

Arizona

Wickenburg Wranglers

Arkansas

Bauxite Miners

California

San Benito Haybalers (Hollister)

Colorado

Rocky Ford Meloneers

Connecticut

Danbury Hatters

Delaware

Dover Senators

Florida

Tarpon Springs Spongers

Georgia

Cairo Syrupmakers

Hawaii

Molokai Farmers (Hoolehua)

Idaho

Potlatch Junior-Senior Loggers

Illinois

Roxana Shells

Indiana

Speedway Sparkplugs

Iowa

Everly Cattlefeeders

Kansas

Hutchinson Salt Hawks

Kentucky

Silver Grove Big Trains

Louisiana

Patterson Lumberjacks

Maine

Morse Shipbuilders (Bath)

Maryland

Brunswick Railroaders

Massachusetts

Ashland Clockers

Michigan

Calumet Copper Kings

Minnesota

Moorhead Spuds

Mississippi

Heidelburg Oilers

Missouri

University of Missouri – St. Louis Rivermen

Montana

Sweetgrass County Sheepherders (Big Timber)

Nebraska

Cozad Haymakers

Nevada

Fernley Vaqueros

New Hampshire

Woodsville Engineers

New Jersey

Fort Lee Bridgemen

New Mexico

Cliff Cowboys and Cowgirls

New York

Potsdam Sandstoners

North Carolina

East Carteret Mariners (Beaufort)

North Dakota

Hebron Brickmakers

Ohio

East Liverpool Potters

Oklahoma

Eufaula Ironheads

Oregon

Tillamook Cheesemakers

Pennsylvania

North East Grape Pickers

Rhode Island

North Kingston Skippers

South Carolina

Mullins Auctioneers

South Dakota

Dell Rapids Quarriers

Tennessee

Atomic City Bombers Baseball Club (Oak Ridge)

Texas

Knippa Rockcrushers

Utah

Jordan Beetdiggers (Sandy)

Vermont

Fair Haven Union Slaters

Virginia

Hampton Crabbers

Washington

Ilwaco Fishermen

West Virginia

Musselman Applemen (Inwood)

Wisconsin

Ashland Oredockers

Wyoming

Midwest Oilers

CAMARADERIE

In the close confines of factories and offices, workers naturally forge personal connections that may extend beyond the work day to social events or company sports teams. Among the military, the camaraderie formed in dangerous combat zones leads to lifelong bonds.

Workers leave their shift together at the Pennsylvania Shipyards, Beaumont, Texas,

--by John Vachon, June 1943. Library of Congress Hawaiian pineapple cannery workers at the Katakura & Company plant, November 1928.

--National Archives, Records of the Women's Bureau

Members of Company A, 3rd Battalion, 22nd Infantry (Mechanized), 25th Infantry Division listen as a fellow soldier plays guitar, Vietnam, January 1968.

--National Archives, Records of the Department of the Army

Workers for the St. Paul Gas and Light Company at a dance, St. Paul, Minnesota, 1928.

--Minnesota Historical Society

COMPANY TOWNS

"Company towns" were founded throughout the United States in the late 1800s. Owners knew productivity would rise if workers and their families could remain close to the action. Workers, like the miners pictured below in West Virginia, forged communities in company-built housing, general stores, health clinics, and even schools. Some companies, like Inland Coal Company in Wheelwright, Kentucky, provided amusements like movie theaters for families.

Miners in West Virginia,

--by Russell Lee, August 1946. National Archives, Records of the Solid Fuels Administration for War

Food, clothes, medicine, and post office at the Gilliam Coal and Coke Company store, Gilliam, West Virginia,

--by Russell Lee, August 1946. National Archives, Records of the Solid Fuels Administration for War

Workers rented their homes from employers. Pickett Yarn Mill, High Point, North Carolina,

--by Lewis W. Hine, ca. 1937. National Archives, Records of the Work Projects Administration

Miners and their families gather at a soda fountain before a weekend movie, Wheelwright, Kentucky,

--by Russell Lee, August 1946. National Archives. Records of the Solid Fuels Administration for War

WHAT WE WEAR

Clothes are part of every worker's toolbox. From hazmat suit to suit-and-tie, work dress is diverse and not always our choice. Whether professional, practical, or protective, work clothes transform us. We dress for success on the job.

Clothes are powerful symbols that tell others where we work and even what we do. The badge of a police officer symbolizes authority, the white coat of a doctor represents years of medical training, and the fast-food restaurant uniform is the company's public persona.

Imagine yourself in someone else's shoes, hat, overalls, suit . . .

STANDARDIZATION

While some uniforms project authority, others symbolize a corporate brand. Standardized uniforms and dress codes are used everywhere from retail stores to car repair shops. An estimated 2.6 million Americans wear uniforms representing fast food restaurants every day.

Flight attendants, ca. 1962.

--Photograph courtesy of Sheila Warmack

"Take Pride in Your Job," Western Union poster
--Archives Center, Smithsonian Institution

PINNED IDENTITY

Whether it's used for tracking workers or special access, some workers carry their identity in a pin, badge, or tag. Badges are extensions of workers, publicly identifying who they are and for whom they work.

Identification pins and badges, ca. 1920 – 1940

"They have a room there that's 60° below zero. . . .I had to wear two and three pairs of woolen stockings, two pairs of underwear, a couple of woolen skirts, and all the sweaters I had."

--Marge Paca, Cudahy packinghouse worker from Illinois WPA interview 1939, Library of Congress.

The dress slacks and white shirts of "white collar" workers became a new kind of uniform. Hawthorne Works engineers, Western Electric Company, Cicero, Illinois, August 1945.

--National Archives, Records of the Federal Communications Commission, courtesy of Western Electric Corporate Archives

PROTECTION

A fighter pilot would never practice high-flying maneuvers in a necktie or high heels. Flight suits are specifically designed to meet the demands of gravitational forces and high-altitude flying. Hard hats, gloves, and goggles are all examples of protective, functional clothing. Hairnets are federally required in the food industry to protect consumers.

The gear carried by combat soldiers today can top more than 130 pounds. Army infantrymen in Korea, December 1952.

--National Archives, Records of the Office of the Chief Signal Officer

Milk bottling worker, near Milwaukee, Wisconsin,

--by Ken Hammond, June 1994. U.S. Department of Agriculture

Space shuttle space walk by Astronaut XXX XXXX

-NASA

[Interactive flip hook]

What is the purpose of these clothes: Protection, Authority, or Standardization?

Take a guess and then flip over for the answer.

(Cover)

Protection

These women wear oxygen masks while cleaning blast furnaces. Gary, Indiana, ca.1941.

National Archives, Records of the Women's Bureau

(Page 1)

Protection

Welding temperatures can reach over 6,000° F. Welder with blowtorch, Maryland, February 1975.

U.S. Department of Agriculture

(Page 2)

Standardization

Easily recognizable "Redcaps" work as porters in rail stations to help passengers with luggage. Amtrak baggage worker at Kansas City, Missouri, June 1974.

National Archives, Records of the Environmental Protection Agency

(Page 3)

Standardization

A worker at Dunkin Donuts, Washington County, Maine, by Ken Hammond, ca. October 1994.

U.S. Department of Agriculture

(Page 4)

Authority

Federal Judge James B. Parsons was the first African American judge appointed to the U.S. District Court for the Northern District of Illinois, Chicago, April 1975.

National Archives, Records of the Environmental Protection Agency

(Page 5)

Authority

Sergeants Laurie Rich and Sherrine Freeman, White House Officers, April 1987.

National Archives, Records of the Office of Personnel Management

[Graphic]
Shapshot: Uniform Dress
10% statistics of working uniforms
60% statistics of working uniforms
30% statistics of working uniforms

AUTHORITY

Clothes can symbolize empowerment and authority. White coats and "scrubs" are synonymous with nurses and doctors, serving as both functional outfits and symbols of their years of training. Uniforms and insignia mark levels of rank, responsibility, and technical specialization, especially within the military or police forces.

Navy Lieutenant Commander Dorothy Ryan checks a patient's medical chart aboard the hospital ship USS Repose, off South Vietnam, April 1966.

--National Archives, Records of the U.S. Marine Corps

The New York City police department was the first in the U.S. to issue uniforms in 1853. A Washington, D.C., police officer, ca. 1917-1919
--National Archives, Records of the War Department

A NEW LOOK AT WORK

Consider all the work that goes on around us. What does your work mean to you? How does work sustain your community?

No matter what work we do — paid, unpaid, in an office, or in our homes — our efforts help drive the nation.

Submarine builder at Electric Boat Company, Groton, Connecticut,
--by Fenno Jacobs, August 1943.
National Archives, General Records of the U.S. Navy

"Without ambition, one starts nothing. Without work, one finishes nothing. The prize will not be sent to you. You have to win it."

-- Ralph Waldo Emerson

[Flipbook: WHY WE WORK]

Coal miners in Pike County, Kentucky,

--by Nan E. Elliot, 1979.

National Archives, Records of Temporary Committees, Commissions, and Boards

A LIFELONG COMMITMENT

"In 1908, I started working for Tobin's when I was fifteen I did all the things around there like sweeping the walk and store and dusting and taking stuff up and down stairs and putting away stock Because of

my work in the store during high school, I decided to become a pharmacist.

"By the time I opened up at seven in the morning and didn't close until ten at night, I didn't have much time to do anything but sleep."

--Louis Ives, worked at Tobin's drugstore in Oberlin, Ohio, for sixty years

Almost 2 million children between 10 and 15 years old were registered workers by 1915, helping to support their families as laborers and apprentices.

Shop boy behind the counter in Preston County, West Virginia, ca. 1915.

--West Virginia & Regional History Collection

Ives interview (1982)

--from "The Memories Within Us: Vignettes from the Oberlin Oral History Project," Oberlin College

NOT READY TO RETIRE

"Any service performed to help others is a job. It doesn't have to be paid. I wanted something hands-on, where I could work by myself, plan my jobs, and follow through with quality, workmanship, and control. . . . So I help people in the neighborhood out because they needed somebody to help them.

"My old job had the benefits, pension, and pay, but the enjoyment and sense of fulfillment I feel from all the little jobs and helping people is better than working for some big company."

--David Ruhl, turned to independent work after being laid off from his factory job

Photographer's Note: "Mr. Benton Stimpson . . . is a poor man, no longer engaged in active farming, but continues to support himself by occasional odd jobs. It is characteristic of the community that Mr. Stimpson is as much respected as one of his more well-to-do neighbors."

Landaff, Grafton County, New Hampshire,

--by Irving Rusinow, March 4, 1941.

National Archives, Records of the Bureau of Agricultural Economics

Ruhl interview (2010)

--by Museum on Main Street

YOUNG MOGULS

"I sold daily newspapers in rural Idaho starting at age seven I think we learn most things about business when we're seven or eight years old. So much of it is about people and relationships . . .

"During eighth, ninth, and tenth grades I worked in a seafood restaurant and as a stock boy at J.C. Penney I gave the money to my family . . . I put my dad through college

"It had a profound effect on my entire life."

--Jon Huntsman, chairman of one of the world's largest chemical companies

Thousands of young Americans get their first taste of the entrepreneurial spirit by running a stand or selling cookies door-to-door.

Youngster mans a roadside stand, Robertstown, Georgia,
--by Al Stephenson, July 1975.
National Archives, Records of the Environmental Protection Agency

Huntsman interview (May 23, 2006)
--from "First Job" by Tom Van Riper, Forbes Magazine

A CULTURAL LEGACY

"To me, 'traditional' means it has to be hand-built, with no electricity, no wheel . . . and fired in an open pit ... I'm pretty strict in my views of what traditional Cherokee pottery is — it's something done 250, 300, or 3,000 years ago.

"To see a fire with a traditional pot in it being fired, it's frustrating, it's exciting, and it's a very hot job Every time I do that, it's a challenge that still keeps me on my toes."

--Joel Queen (Eastern Band of Cherokee), belongs to eight generations of pottery makers and basket weavers

Amish wooden furniture, Mexican American metalworking, and Native American pottery including the black and red pottery of the Santa Clara Pueblo, are only a few examples of cultural and familial traditions passed down through generations in America.

Indians of Santa Clara Pueblo,

--by H.T. Corey, Santa Clara Pueblo, New Mexico, ca. 1916. National Archives, Records of the Bureau of Indian Affairs

Queen interview (2005)

--from "A Conversation with Artist Joel Queen," by Lisa Coston Hall, Tar Heel Junior Historian 45:1 (Fall 2005), North Carolina Museum of History

THE GREATER GOOD

"I realized as I progressed in it, our educational part of it is what Stuck [with me] developing the youth, developing those artists. . .getting their mindsets to change and to begin to understand what culture is, and the importance of culture, the importance of being connected to something that enriches their lives exposing them to resources that may aid them in their quest."

--Richard Thomas, a teacher who formed art groups for teenagers in New Orleans as alternatives to gangs

In 1959, Numa Rousseve, an art professor at Xavier University in New Orleans, coordinated the city's first African American-hosted interracial art show, uniting people through art.

Numa Rousseve, ca. 1936.

--National Archives, Harmon Foundation Collection, Kenneth Space Photographs of the Activities of Southern Black Americans

Thomas interview (2005)

--from "Passing on the Legacy" by Ron Bechet in Art / Vision / Voice: Cultural Conversations in Community, Columbia College Chicago & Maryland Institute College of Art

THE HUMAN VALUE

"They laid off some of the fellas they hired last November. Why? Too many machines. Too much production. Ten years ago, if we straightened twelve thousand feet of half-inch or three-quarter-inch stock, it was a good night's work. Now, we got to straighten forty-five thousand. "Some fellas will try to tell you that these machines make work. They give work to the lads that make 'em. All right. But for every one [worker], [machines] throw ten out of work."

--Joseph Phillips, night shift worker in a Waterbury, Connecticut brass mill in the 1930s

Millions of Americans know the pain of losing a job because of a bad economy, factory closures, or being replaced by a machine. When the Great Depression hit America in the 1930s, up to 25% of workers lost their jobs.

Unemployed men outside a Depression soup kitchen owned by Al Capone, Chicago, Illinois, February 1931.

--National Archives, Records of the U.S. Information Agency

Phillips interview (20 January 1939)

--from Federal Writers' Project interview by Francis Donovan, Library of Congress.

A LIFE'S CALLING

"I never had any sense in making a career out of [photography]. It was more a sense of personal commitment I felt myself more like a cipher, a person that can be used for lots of things, and I like that"

--Dorothea Lange, lifelong documentarian who captured some of the most powerful images of mid-century American life

Working as an artist, Stella "Texas" Elmendorf Tylor traveled the country. She was born in Texas, went to art school in New York City, worked in Illinois, and exhibited works across America. She worked into her 90s.

Stella Elmendorf Tylor, ca. 1910. --Archives of American Art, Smithsonian Institution, Gift of Paul Vanderbilt

Lange interview (May 22, 1964)
--from Archives of American Art, Smithsonian Institution

[end flipbook]