

Working on the Bay Bridge.

Instructions for Teachers

This lesson uses excerpts of oral histories from the museum exhibit. These histories can help students understand how some people felt about their jobs on the bridge. These histories are available at the museum, some in written form, some in oral form. The oral histories could be used *before the visit or after*, depending on how you prefer to use them.

Start by having students create a list of jobs that they think people might have on the Bay Bridge. Also ask them what they think working on the bridge would be like and why they think they would (or would not) enjoy working there. See if their list matches the jobs covered by this lesson.

Make sure that students understand the job groups listed in this lesson: Construction workers; Toll collectors; Maintenance workers; Tow truck drivers; and Engineers. Explain that there are several jobs included in construction and maintenance—laborers (including carpenters), painters, welders, supervisors, etc.

Originally the bridge was built as a public works project designed to create jobs and opportunities at a time when many people were struggling because of the challenges of the economy. Share this information with students, explaining what public works projects were (government funded jobs to provide employment and stimulate the economy). Also briefly explain that the original bridge was built when the country was going through the Depression, and that at that time many people were unemployed and jobs were not readily available for many who needed and wanted work.

There are 5 groups of workers represented; some include separate jobs within that group. **You probably will want to divide the worksheets so that each student or group (depending on how your students work) covers at least one or two groups.** There are three worksheets that have oral histories. **The fourth page is a follow-up activity to be completed by each student or group *after* going to the museum.**

If you use the oral histories *before* your visit:

Have students share something about the jobs they learned about with the class. When you go to the museum have students look for more information about the jobs they learned about including tools/equipment used, clothing, etc. Have them record their findings. *After your visit* allow time for students to share what they found/saw at the museum. Use the follow-up activities (including the follow-up worksheet) that you feel are appropriate.

Make sure students use only pencils for work done at the museum.

If you use the oral histories *after* your visit:

While students are at the museum have them write down 2 or 3 jobs they see at the exhibit and something interesting about the jobs and/or the tools/equipment the workers use to do their jobs. When you return to school use the oral histories and the follow-up activities that you feel are appropriate. Be sure to allow time for students to share what they found/saw at the museum.

Make sure students use only pencils for work done at the museum.

Additional follow-up activities for the lesson:

Changes in the workforce over the years

The last question on the follow-up activity (C) talks about changing opportunities for women. Make sure students understand that today women could fill *all* of the job positions.

In addition to changes in gender, there have also been improvements in safety: Evelyn Rodes spoke of how dangerous the jobs were when the Bay Bridge was originally built. More than 20 people lost their lives and probably several more were injured in those early years, partly because there were not many safety requirements and policies. Then Richard Mooradian speaks of how safe things were in 1979 when he worked as a tow truck driver, with very few injuries or accidents.

Have a discussion with students about some of these changes and how they reflect many of the changes that have taken place in the region and the nation as a whole.

Dramatization

Since these are oral histories, with the actual language from individuals, it might be fun to have students read the histories out loud to the class, as if they are telling the stories. There are eleven individual histories in this lesson. A few people have more than one contribution, but they are in different jobs and could be represented by different students.

You could make it a casual activity by having volunteers agree to read or you could put together “costumes” to make it seem more realistic. You might make vests out of yellow butcher paper for students to wear. They could wear coats and sweaters to show how they dealt with the cold. Engineers might wear ties while laborers would wear casual clothing (or coveralls). Maybe also consider hard hats, khaki colored shirts to make them seem like uniforms, and other touches to enhance the dramatization.

Student worksheet—Oral histories

Construction workers—laborers, carpenters:

[The Bay Bridge]...was one of the biggest public works projects in the history of the country, and being so successful, and being done in such a short time. They built it In three years... I think at that time, it was kind of accepted that this is what government did for you. They built things so it would make your life better.

—**Greg Bayol** was born in 1947. He was a highway maintenance worker then went to Caltrans to work in the public affairs office.

We lived in Oakland. Daddy came up from the Valley, because he lost everything on account of what happened...One day he came home and he says, "I got a better job. I'm going to go and see this fellow in San Francisco. He liked my attitude, so he's putting me to work as a carpenter." He liked heavy construction, like bridges and big buildings...He worked from just being a regular carpenter to almost being an engineer.

A lot of people lost their lives on that bridge...There were no safety nets or nothing...If you were working class, you were doomed. You figured you're either going to get killed, or you're going to die falling off of something...They worked nights. They worked twenty-four hours a day. They built that bridge in three and a half years.

—**Evelyn Rodes** born in 1915 remembers her father's stories (Albert Roy Pura) about working on the bridge as a contract laborer

...And the people of the United States of America don't realize what a monumental item those two bridges are, for what they stand for...because see, both told a story of the future ...this gives you an answer, I think, to the meaning of the two bridges, particularly the Oakland Bay Bridge...we're taking a piece of the [old bridge] we just closed...with all of it's cantilever [design]. I think what we've done is [create]...an American bridge...

—**Jack Lamborn** was born in 1926. His father worked for U.S. Steel which provided scrap metal for the original cantilever section of the Bay Bridge.

Toll Collectors:

We went to San Francisco, and that's when I noticed that they had girl toll collectors... Luckily I passed the test and I got a job on the bridge as a toll collector. That's my first job. [People] were just surprised, because before the war [World War II] started, it was all men...[The] Bay Bridge meant a lot to me, because I liked work there very much...I always think, I'm a part of the first Bay Bridge. I always had some nice, soft feelings about it.

—**Frances Ryan** was born in North Dakota in 1921. After seeing female toll collectors wearing attractive uniforms when she crossed the Bay Bridge, she immediately inquired about a job and took the civil service exam.

Maintenance Workers—painters, welders, cone crew:

[We had to wear] coveralls and jackets because it's cold out there...if you wanted something, a bite for lunch or something to drink, you took it with you. And a hat. They didn't have hard hats when I went to work there. Nobody wore a hard hat. And as far as safety belts, well, you was given one and nobody wore them.

Well, before we got to sandblasting, we also steam cleaned them, the areas that we had to clean...All the years of salty water spray and stuff like that...most of the rust—if we had rust, we sand blasted it off...We used to...sand blast it down to the bare metal and go through the whole system of paint.

[After sand blasting] we'd go in and prime with red lead [paint]...And then a few days later we'd go in and put on a second coat of the same places.

Whether we'd spray or brush or roll, it depends what area it was. When you spill a bucket from the upper deck,...you probably hit thirty, forty cars. I think it happened once or twice in the ten years that I was there.

—**Jack Giolitti** was born in 1935. In 1959 he applied for a job on the Bay Bridge as a painter.

Working on this bridge right here—they're all nice, but working on this one, because you get to see San Francisco, you get to see Oakland, there's boats, there's waves—there's nothing like it...I love working on this bridge and just the view you get from it. There's never a dull view for me. I don't care what time of year. It could be storming. It's beautiful. Midnight, pitch black, it's beautiful. It is. It's a beautiful place to work.

—**Richard Mooradian** was born in 1957. At an early age he developed an interest in mechanics. In 1979, he took a job driving tow trucks for Caltrans and then, within a few years, he became a structural steel welder for the department.

With all the work in the traffic, on climbing on the structure itself and that, there were very few serious injuries of any kind. I was very surprised. Safety was a real concern, and everybody kind of took their time...on the Bay Bridge,...we had a seven mile lane closure. You would be putting the cones out...then picking [them] up, you would be picking up the cones and tossing them and catching them. You'd have two guys in the back of the cone truck. One guy would be either placing them or picking them up. We had smaller cones in those days, where you could toss them. Then the guy would be sitting there and he'd catch them and he'd stack them.

—**Bob Sorenson** is a native of Green Bay, Wisconsin, where he was born in 1950. His family moved to California in 1951. In 1977 he joined Caltrans as a maintenance worker with many different jobs on the bridge.

Tow truck drivers:

I like the action of being in traffic, dodging cars...on occasion...I'll drive tow trucks on overtime...when we get out on the bridge, we're in a lane of traffic. Normally, on the freeway, you're on a shoulder. But here, you're in the lane of traffic...the trucks are equipped with red lights, sirens, warning amber lights. We [also] put flares out. The truck is basically like a fire truck. It has a water tank on it for putting out car fires...you really have to listen—it's not just visually looking; you have to listen to the traffic...you always have to really be looking, because otherwise, someone can plow into you.

—**Richard Mooradian** was born in 1957. At an early age he developed an interest in mechanics. In 1979, he took a job driving tow trucks for Caltrans.

...tow service involved the tow trucks and keeping the roadway clear...[It] was headquartered at the toll plaza. That's where you reported...I remember we always wore coveralls...Always had hooded sweatshirts...because the weather out there—today would be so miserable out there working. You're freezing.

—**Bob Sorenson** is a native of Green Bay, Wisconsin, where he was born in 1950. His family moved to California in 1951. In 1977 he joined Caltrans as a maintenance worker with many different jobs, including tow truck driver.

Engineers:

...it was engineering in the raw. It wasn't something you just pull out of a textbook and start doing...I ended up being in charge of the design engineering section... We worked very closely with the lab in Sacramento, because things were changing. The paints were changing, so corrosion was increasing. What we didn't know, [the lab] filled in knowledge. They had one of the best labs in the world, at the time.

—**Bob Bridwell** was born in Edgar, Nebraska in 1932. He enrolled in an engineering program at Heald College, eventually joining San Francisco Bay Toll Crossings as a Junior Engineer.

It was the depth of the Depression, and there were many young men out there on the catwalk glad to have a job of any sort. They came out in suit coats and light sweaters to face the cold winds and the fog, wrapping themselves in burlap sacks or bits of canvas they might find to keep warm.

—**Arthur L. Elliott** was an engineer on the San Francisco Bay Bridge in 1986.

Student worksheet—Complete after Musum Visit

**Construction workers—laborers, Toll Collectors, Maintenance Workers—
painters, welders, cone crew, Tow truck drivers, Engineers:**

A. Which job on the bridge would you want to have? Explain why you would choose that job.

B. If you could ask each worker one question about their work, what would you ask them?
See if someone in your class can answer your questions, imagining they had that job.

C. When Frances Ryan started working as a toll collector (probably around 1940 or so) it was the only job on the bridge that hired women (people were surprised to see women working outside of the home—at that time most women were expected to work only within their homes as wives and mothers).

Today there are still women toll collectors, but women also fill other jobs. What jobs would you expect women to have on the bridge today that were not available to Frances Ryan during the 1940's?