

Learning Activity: Getting Technical about Career Choices

Author: Amanda Geiger, Economic Education Specialist



LEARNING Activity

Compelling Question

How do training and experience impact potential future earnings in a career?

Procedure

1. Give each student a slip from *Handout: Occupation Descriptions*. Have students line up at the front of the class, facing the seated students. For larger classes, you can have more than one student have the same slip or assign them in pairs. You may also choose to have up to 15 students complete this activity while the remainder of the class observes.
2. Ask each student to read aloud their assigned job title and description.
3. After all the students have read their job descriptions, ask them to group themselves by the level of education or training required for each job beyond a high school diploma (bachelor's degree, master's degree, associate's degree, and technical or on-the-job training). Have students reread their job title so that the class can learn which careers need what type of post-secondary education or training.
4. Discuss the requirements and time needed to earn the education/training required for each category. (*Students should notice that the more-unique skill or lower number of available workers in that field often lead to higher income/wages.*)
5. Now instruct students to line themselves up according to median salary. Once students have lined themselves up from lowest to highest median salary, have them reread their assigned job title to the class. Ask students to identify patterns they see between the training and experience necessary to enter a field and the potential future income. Ask students what other factors beyond training/education might make some potential future earnings higher or lower.

Post-Activity Discussion

- What is the connection between training/education and income? How does supply and demand for these types of jobs impact the average wage? (*Generally, the more training or skills required, the higher the wage/income. The fewer people who have the skills needed for the job, the higher the potential earnings for those who do have them.*)
- Are there some careers that are unique to certain areas? How does this impact someone's ability to enter these fields? (*Yes. For example, forestry or logging are in areas with large forests; agriculture products or manufacturing are also concentrated in certain areas.*)
- Which of the careers do you think would be the most difficult to break into and why? (*Answers will vary, but students may mention as difficulties the ability to find a training program, cost of education/training, or length of a program.*) Are there ways to alleviate some of these barriers? (*Answers may include scholarships, apprenticeships, or on-the-job training.*)



Activity **MATERIALS**

Activity materials are on the following pages.

Handout: Occupation Descriptions (page 1 of 3)



Airline and Commercial Pilots—2022 Median pay: \$148,900/year

Typical entry-level education: Airline pilots typically need a bachelor's degree and experience as a commercial or military pilot. Commercial pilots typically need flight training, and some employers may require or prefer them to have a degree. Airline and commercial pilots also must have specific certificates and ratings from the Federal Aviation Administration (FAA).

On-the-job training: Airline and commercial pilots who are newly hired by airlines or on-demand air services companies undergo on-the-job training in accordance with federal regulations. This training usually includes several weeks of ground school and flight training.

What do airline and commercial pilots do? Fly and navigate airplanes, helicopters, and other aircraft.

Dental Assistants—2022 Median pay: \$44,820/year; \$21.55/hour

Typical entry-level education: Postsecondary non-degree award

On-the-job training: None

What do dental assistants do? Provide patient care, take X-rays, keep records, and schedule appointments.

Electricians—2022 Median pay: \$60,240/year; \$28.96/hour

Typical entry-level education: High school diploma or equivalent

On-the-job training: Apprenticeship

What do electricians do? Install, maintain, and repair electrical power, communications, lighting, and control systems.

Elevator and Escalator Installers and Repairers—2022 Median pay: \$99,000/year; \$47.60/hour

Typical entry-level education: High school diploma or equivalent

On-the-job training: Apprenticeship

What do elevator and escalator installers and repairers do? Install, maintain, and fix elevators, escalators, moving walkways, and other lifts.

Firefighters—2022 Median pay: \$51,680/year; \$24.85/hour

Typical entry-level education: Postsecondary non-degree award

On-the-job training: Long-term on-the-job training

What do firefighters do? Control and put out fires and respond to emergencies involving life, property, or the environment.

Handout: Occupation Descriptions (page 2 of 3)



Fitness Trainers and Instructors—2022 Median pay: \$45,380/year; \$21.82/hour

Typical entry-level education: High school diploma or equivalent

On-the-job training: Short-term on-the-job training

What do fitness trainers and instructors do? Lead, instruct, and motivate individuals or groups in exercise activities.

Heating, Air Conditioning, and Refrigeration Mechanics and Installers—2022 Median pay: \$51,390/year; \$24.71/hour

Typical entry-level education: Postsecondary non-degree award

On-the-job training: Long-term on-the-job training

What do heating, air conditioning, and refrigeration mechanics and installers do? Work on heating, ventilation, cooling, and refrigeration systems.

Heavy and Tractor-trailer Truck Drivers—2022 Median pay: \$49,920/year; \$24.00/hour

Typical entry-level education: Postsecondary non-degree award

On-the-job training: Short-term on-the-job training

What do heavy and tractor-trailer truck drivers do? Transport goods from one location to another.

Highway Maintenance Workers—2022 Median pay: \$44,930/year; \$21.60/hour

Typical entry-level education: High school diploma or equivalent

On-the-job training: Moderate-term on-the-job training

What do highway maintenance workers do? Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement and repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road, or plow snow from roadway. Excludes Tree Trimmers and Pruners.

Preschool Teachers—2022 Median pay: \$35,330/year; \$16.99/hour

Typical entry-level education: Associate's degree

On-the-job training: None

What do preschool teachers do? Educate and care for children younger than age 5 who have not yet entered kindergarten. Excludes special education.

Handout: Occupation Descriptions (page 3 of 3)



Radiologic and MRI Technologists—2022 Median pay: \$67,180/year; \$32.30/hour

Typical entry-level education: Associate's degree

On-the-job training: None

What do radiologic and MRI technologists do? Perform diagnostic imaging examinations on patients. MRI technologists operate magnetic resonance imaging (MRI) scanners to create diagnostic images.

Software Developers, Quality Assurance Analysts, and Testers—2022 Median pay: \$124,200/year; \$59.71/hour

Typical entry-level education: Bachelor's degree

On-the-job training: None

What do software developers, quality assurance analysts, and testers do? Software developers design computer applications or programs. Software quality assurance analysts and testers identify problems with applications or programs and report defects.

Tax Preparers—2022 Median pay: \$48,250/year

Typical entry-level education: High school diploma or equivalent

On-the-job training: Moderate-term on-the-job training

What do tax preparers do? Prepare tax returns for individuals or small businesses. Excludes Accountants and Auditors.

Water and Wastewater Treatment Plant and System Operators—2022 Median pay; \$51,600/year; \$24.81/hour

Typical entry-level education: High school diploma or equivalent

On-the-job training: Long-term on-the-job training

What do water and wastewater treatment plant and system operators do? Manage a system of machines to transfer or treat water or wastewater.

Welders, Cutters, Solderers, and Brazers—2022 Median pay: \$47,540/year; \$22.86/hour

Typical entry-level education: High school diploma or equivalent

On-the-job training: Moderate-term on-the-job training

What do welders, cutters, solderers, and brazers do? Use hand-held or remotely controlled equipment to join, repair, or cut metal parts and products.