

RAILROAD ENGINEER



SALARY

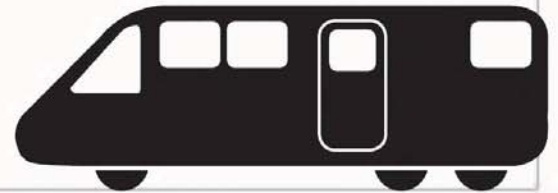
Trainee railroad engineer ★★★★★
Experienced railroad engineer ★★★★★

INDUSTRY PROFILE

Large industry • Passenger transportation is the largest employer, followed by freight services • Competitive field, with many more applicants than jobs

JOB DESCRIPTION

This skilled profession involves operating passenger or freight trains on local or national rail networks, stopping at stations or depots to collect and deliver passengers or cargo. The role requires acute concentration over long periods of time, and the ability to react quickly and calmly to unexpected situations. Engineers may specialize in a particular type of train, such as high-speed trains.



AT A GLANCE



YOUR INTERESTS Trains and railroad equipment • Travel and transportation • Vehicle mechanics • Mathematics • Physics • Engineering • Geography



ENTRY QUALIFICATIONS A good high-school education is usually sufficient, but some rail companies may ask for higher-level qualifications.



LIFESTYLE Railroad engineers work in shifts at any time of the day or night, during the working week, and on weekends and holidays.



LOCATION When working on long-distance routes, overnight stays may be required. Most engineers must live within an hour's travel from their home station.



THE REALITIES As they have to work alone for long periods, engineers must be self-motivated. Experienced staff are well-paid and receive free rail travel.

▼ RELATED CAREERS

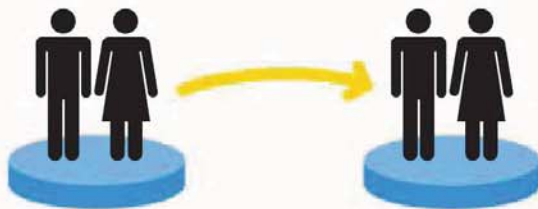
- ▶ **TRUCK DRIVER** *see pp. 224–225*
- ▶ **BUS DRIVER** Drives a bus on a particular route, picking up and dropping off passengers at marked bus stops. Bus drivers ensure the safety of passengers, sell tickets, and check bus passes.
- ▶ **COACH DRIVER** Drives a coach—either hired by a private group, or a public service that makes scheduled stops—to destinations such as airports, tourist attractions, or major cities. Coach drivers load and unload luggage, take fares, and check passenger lists.
- ▶ **RAIL ENGINEERING TECHNICIAN** Builds, maintains, and repairs train engines, cars, and wagons. Servicing a train's mechanical and electrical systems is an important part of the job.
- ▶ **TRAM DRIVER** Operates electrically powered trams on a fixed rail route in a town or city, taking on and dropping off passengers at stations.

CAREER PATHS

Prospective railroad engineers must first pass a series of aptitude tests and medical examinations. Once they have qualified, engineers undergo further training specific to the route and class of train on which they will be operating.

RAIL TECHNICIAN While most firms require drivers to be 21, you can join a rail technician apprenticeship out of high school. This can lead to a trainee engineer job.

TRAINEE You can apply for a place as a trainee engineer with a national or regional rail company, then undergo practical and theoretical training to qualify as an engineer.



RAILROAD ENGINEER

As well as controlling the train, you must check the engine and the train's systems before setting off and follow line-side signals. With experience, you can move into training, safety, or management roles.



TOURIST TRAIN DRIVER

Operates trains on themed or heritage railroads, including vintage or steam-powered engines, which require specialized skills to operate.



ENGINEER TRAINER

Instructs new recruits to become engineers, training them in railroad regulations, signals, the principles of train movement and handling, and route awareness.



TRAIN SAFETY INSPECTOR

Assesses other train engineers to ensure they are working efficiently and safely by accompanying them on train trips and simulations to ensure that safety standards are met.



LIGHT-RAIL TRAIN ENGINEER

Operates passenger trains or trams on urban underground and light-rail services. This specialized role involves rapid passenger transfers and frequent stops.



TRAIN OPERATIONS MANAGER

Works in a management position for a train operating company, overseeing engineer routes, schedule changes, and the maintenance and deployment of trains.

SKILLS GUIDE



Attention to detail in order to interpret line-side signals and follow rules and procedures.



Good communication skills for answering customer inquiries when not in the driver's cab.



Strong problem-solving skills to resolve issues, such as service delays or a lack of trains or staff.



Physical and mental resilience to concentrate for long periods of time while driving at high speed.



A willingness to work flexibly when colleagues are absent or services are disrupted.