

Surveyors

SOC: 17-1022 • Career Profile Report

■ Key Facts

\$72,740 Median Salary	56,100 Employment	+4.0% Growth Rate
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■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 17.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

5.8/10 - Fair work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.2/10	Investigative	8.8/10
Artistic	6.4/10	Social	5.2/10
Enterprising	5.8/10	Conventional	6.6/10

■ Top Skills Required

Communication skills, Detail oriented, Physical stamina, Problem-solving skills, Time-management skills, Visualization skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Surveyors are technical professionals who measure, map, and define **land boundaries, elevations, and geographic features**. Their work forms the legal and technical foundation for construction, infrastructure, environmental planning, and property ownership. By combining precise field measurements with geospatial data and legal records, surveyors ensure that land development projects are accurate, compliant, and clearly documented.

This career is well suited for individuals who enjoy outdoor work, technical problem-solving, and applying math and technology to real-world projects. Surveyors play a critical behind-the-scenes role in shaping cities, transportation systems, and land use decisions.

What Do Surveyors Do?

Surveyors collect and analyze spatial data to determine property lines, topography, and site conditions. Their findings are used by engineers, architects, developers, and government agencies to plan and execute projects.

Common responsibilities include:

- Measuring distances, angles, and elevations using surveying instruments
- Establishing property boundaries and land corners
- Preparing maps, plats, and legal descriptions
- Researching land records, deeds, and historical documents
- Using GPS, drones, and geographic information systems (GIS)
- Verifying construction layouts and site positioning
- Ensuring compliance with zoning laws and regulations

Types of Surveyors

Surveying includes several specialized practice areas:

- Boundary and Land Surveyors: Determine legal property lines and resolve boundary issues.
- Construction Surveyors: Provide layout and measurement support for building and infrastructure projects.
- Topographic Surveyors: Map land features, elevations, and natural characteristics.
- Geodetic Surveyors: Measure large areas of the Earth's surface using advanced GPS and satellite data.
- Hydrographic Surveyors: Survey underwater features for ports, waterways, and coastal projects.
- Mining and Engineering Surveyors: Support resource extraction and large-scale engineering work.

Skills and Abilities Needed

Surveyors combine precision measurement with analytical and technical skills.

Core Technical Skills

Personal Qualities That Matter

Education and Training Pathway

Most surveyors follow a structured education and licensure pathway:

- Bachelor's Degree: Typically in surveying, geomatics, civil engineering, or a related field
- Field Experience: Supervised work under a licensed surveyor
- Licensure: Passing state-required surveying examinations
- Continuing Education: Ongoing training to maintain licensure and stay current with technology

Requirements vary by state, but licensure is required for independent practice.

Where Do Surveyors Work?

Surveyors are employed across public and private sectors:

- Engineering and Construction Firms

- Land Development and Real Estate Companies
- Government Agencies and Municipalities
- Transportation and Infrastructure Projects
- Environmental and Resource Management Firms
- Mining, Energy, and Utility Companies

Work often alternates between outdoor fieldwork and office-based data processing.

Is This Career Difficult?

Surveying is technically demanding and requires consistent accuracy. Errors can have legal and financial consequences, making attention to detail critical. The work can also be physically demanding due to outdoor conditions, but it offers variety and tangible results.

Who Should Consider Becoming a Surveyor?

This career may be a strong fit if you:

- Enjoy math, measurement, and spatial problem-solving
- Prefer a mix of outdoor and technical office work
- Like working on construction or land development projects
- Value precision and clear standards
- Want a stable, in-demand technical profession

How to Prepare Early

- Take courses in math, geometry, and physics
- Develop basic computer and mapping skills
- Spend time outdoors and build physical stamina
- Learn about land use, maps, and property concepts
- Explore surveying or engineering internships

Surveyors provide the precise measurements and legal clarity that make safe construction, land ownership, and infrastructure development possible.