

Industrial Engineering Technologists and Technicians

SOC: 17-3026 • Career Profile Report

■ Key Facts

\$64,790

Median Salary

74,600

Employment

+2.0%

Growth Rate

■ Requirements & Salary Range

Education: Associate'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

7.2/10 - Good 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

Analytical skills, Communication skills, Critical-thinking skills, Detail oriented, Math skills, Observational skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Industrial Engineering Technologists and Technicians are applied engineering professionals who help organizations **improve efficiency, productivity, and quality** across manufacturing, logistics, healthcare, and service operations. They work closely with industrial engineers to analyze processes, collect data, test systems, and implement practical improvements that reduce waste, lower costs, and streamline workflows.

This career is well suited for individuals who enjoy problem-solving, data-driven decision-making, and turning process ideas into real-world improvements.

What Do Industrial Engineering Technologists and Technicians Do?

Industrial engineering technologists and technicians focus on the practical application of efficiency and process-improvement methods.

Common responsibilities include:

- Observing and documenting production or service processes
- Collecting data on time, motion, materials, and labor usage
- Assisting with process improvement and workflow redesign
- Testing new systems, layouts, or procedures
- Supporting quality control and productivity initiatives
- Preparing reports, charts, and documentation
- Helping implement safety, efficiency, and cost-reduction measures

Areas of Focus

These professionals may work across different operational areas:

- Manufacturing and Production Systems: Improving factory layouts and workflows.
- Quality Assurance and Control: Supporting defect reduction and consistency.
- Supply Chain and Logistics: Streamlining inventory, warehousing, and distribution.
- Lean and Continuous Improvement: Applying efficiency and waste-reduction methods.
- Human Factors and Ergonomics: Improving safety and worker efficiency.
- Operations Analysis: Supporting data-driven operational decisions.

Skills and Abilities Needed

Industrial engineering technologists and technicians combine analytical thinking with hands-on implementation.

Core Professional Skills

Personal Qualities That Matter

Education and Training Pathway

Most industrial engineering technologists and technicians enter the field through technical education:

- Associate or Bachelor's Degree: In industrial engineering technology or a related field
- Hands-On Laboratory and Project Work: Applying efficiency concepts
- Internships or Co-op Programs: Gaining real-world operational experience
- On-the-Job Training: Learning company-specific systems and processes
- Continuous Learning: Staying current with tools and improvement methods

Where Do Industrial Engineering Technologists and Technicians Work?

These professionals are employed across many industries:

- Manufacturing and Industrial Facilities
- Healthcare Systems and Hospitals
- Logistics, Warehousing, and Distribution Centers
- Business Operations and Service Organizations
- Government and Public Sector Agencies
- Consulting and Process Improvement Firms

Work environments are typically office-based with time spent on the production floor or in operational settings.

How Much Do Industrial Engineering Technologists and Technicians Earn?

Earnings vary by industry, education level, and responsibility:

- Entry-Level Technicians: Typically earn competitive technical wages
- Experienced Technologists: Often earn higher pay with process improvement expertise
- Specialized or Lead Roles: May earn more with responsibility for system-wide improvements

Compensation often includes benefits and advancement opportunities.

Is This Career Difficult?

This career is intellectually demanding but not physically intensive. Professionals must understand complex systems, analyze data accurately, and balance efficiency goals with real-world constraints. The challenge lies in translating analysis into practical improvements that people and organizations can successfully adopt.

Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy analyzing how systems and processes work
- Like improving efficiency and reducing waste
- Prefer applied, hands-on technical roles
- Are comfortable working with data and people
- Want a versatile career across many industries

How to Prepare Early

- Study math, statistics, and basic engineering concepts
- Learn spreadsheet and data analysis tools
- Practice problem-solving and process thinking
- Gain exposure to manufacturing, logistics, or operations environments
- Explore industrial engineering technology programs

Industrial engineering technologists and technicians turn efficiency ideas into action, helping organizations work smarter, safer, and more effectively by improving the systems that drive everyday operations.