


	Current Number of Workers 2006	Projected Number of Workers 2016	% Change to 2016	Average Annual Openings	 Medical/Clinical Lab Technologists SOC # 29-2011	
Regional	200	250	25.00%	10		
Texas	12,750	15,950	25.10%	515		
Education/ Training Time	Is License Required?	Wage Rate \$/Hr. 2008 Regionally	Percent Female	Average Age	Job Turnover	Why Most Job Openings Occur
Bachelors	No	\$24.06	70.7%	37.6	Low	Equal Growth/ Replacement

JOB DESCRIPTION

Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff. **Critical staffing need for medical/biotech industry.**

WHERE DO WORKERS FIND JOBS?

General Medical and Surgical Hospitals
 Offices of Physicians
 Medical and Diagnostic Laboratories
 Federal Government, Except Education
 Specialty (except Psychiatric and Substance Abuse)
 Hospitals
 Colleges, Universities, and Professional Schools

RELATED COLLEGE PROGRAMS

CIP 510808 Veterinary/Animal Health
 Technology/Technician and Veterinary Assistant
 CIP 511002 Cytotechnology/Cytotechnologist
 CIP 511005 Clinical Laboratory Science/Medical
 Technology/Technologist

IMPORTANT KNOWLEDGE

ARTS AND HUMANITIES

* English Language

BUSINESS AND MANAGEMENT

* Customer and Personal Service

HEALTH SERVICES

* Medicine and Dentistry

MATHEMATICS AND SCIENCE

* Biology

* Chemistry

* Mathematics

IMPORTANT SKILLS

COMPLEX PROBLEM SOLVING SKILLS

* Complex Problem Solving

CONTENT

* Active Listening

* Reading Comprehension

* Speaking

* Writing

PROCESS

* Critical Thinking

* Monitoring

IMPORTANT ABILITIES

IDEA GENERATION AND REASONING

ABILITIES

* Inductive Reasoning

* Problem Sensitivity

VERBAL ABILITIES

* Oral Comprehension

* Oral Expression

* Written Comprehension

* Written Expression

VISUAL ABILITIES

* Near Vision

NATURE OF THE WORK: Medical/Clinical Lab Technologists

Clinical laboratory testing plays a crucial role in the detection, diagnosis, and treatment of disease. Clinical laboratory technologists, also referred to as clinical laboratory scientists or medical technologists, and clinical laboratory technicians, also known as medical technicians or medical laboratory technicians, perform most of these tests.

Clinical laboratory personnel examine and analyze body fluids, and cells. They look for bacteria, parasites, and other microorganisms; analyze the chemical content of fluids; match blood for transfusions; and test for drug levels in the blood to show how a patient is responding to treatment. Technologists also prepare specimens for examination, count cells, and look for abnormal cells in blood and body fluids. They use automated equipment and computerized instruments capable of performing a number of tests simultaneously, as well as microscopes, cell counters, and other sophisticated laboratory equipment. Then they analyze the results and relay them to physicians. With increasing automation and the use of computer technology, the work of technologists and technicians has become less hands-on and more analytical.

The complexity of tests performed, the level of judgment needed, and the amount of responsibility workers assume depend largely on the amount of education and experience they have.

Clinical laboratory technologists perform complex chemical, biological, hematological, immunologic, microscopic, and bacteriological tests. Technologists microscopically examine blood and other body fluids. They make cultures of body fluid and tissue samples, to determine the presence of bacteria, fungi, parasites, or other microorganisms. Clinical laboratory technologists analyze samples for chemical content or a chemical reaction and determine concentrations of compounds such as blood glucose and cholesterol levels. They also type and cross match blood samples for transfusions.

Clinical laboratory technologists evaluate test results, develop and modify procedures, and establish and monitor programs, to ensure the accuracy of tests. Some technologists supervise clinical laboratory technicians.

Technologists in small laboratories perform many types of tests, whereas those in large laboratories generally specialize. Technologists who prepare specimens and analyze the chemical and hormonal contents of body fluids are called clinical chemistry technologists. Those who examine and identify bacteria and other microorganisms are microbiology technologists. Blood bank technologists, or immunohematology technologists, collect, type, and prepare blood and its components for transfusions. Immunology technologists examine elements of the human immune system and its response to foreign bodies. Cytotechnologists prepare slides of body cells and examine these cells microscopically for abnormalities that may signal the beginning of a cancerous growth. Molecular biology technologists perform complex protein and nucleic acid testing on cell samples.

Clinical laboratory technicians perform less complex tests and laboratory procedures than technologists perform. Technicians may prepare specimens and operate automated analyzers, for example, or they may perform manual tests in accordance with detailed instructions. Like technologists, they may work in several areas of the clinical laboratory or specialize in just one. Histotechnicians cut and stain tissue specimens for microscopic examination by pathologists, and phlebotomists collect blood samples. They usually work under the supervision of medical and clinical laboratory technologists or laboratory managers.