Health Sciences

By Jobs for the Future (JFF) and Beyond School Bells (BSB)

Health Sciences Posters

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Career Connection Posters

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Biostatisticians play a critical role in forwarding the field of medical sciences. They use mathematics and statistical theories to collect, organize, interpret, and evaluate numerical data. Their responsibilities include:

- Drawing conclusions or make predictions based on data summaries or statistical analyses.
- Designing research studies in collaboration with physicians, life scientists, or other professionals.
- Preparing articles for publication or presentation at professional conferences.
- Writing program code to analyze data using statistical analysis software.

**SELF**

**SKILLS**
- I have the necessary education and credentials to conduct research in the life and medical sciences.
- I enjoy thinking critically and using evidence to justify claims.
- I like to stay current on the latest research that can help inform new discoveries.

**ABILITIES**
- I can clearly explain ideas to others.
- I am able to work well with computers and data software.
- I can easily interpret numbers and their values within a given formula.
- I have a strong understanding of mathematics and applied statistics.

**PERSONALITY TRAITS**
- I enjoy working with numbers.
- I like to explain new findings to community members.
- I work well on a team.
- I pay great attention to detail.
- Conducting research to inform practice is important to me.

**SECURITY**

- Entry Level 0-5 yrs: $45K
- Mid-Career 5-10 yrs: $80K
- Experienced 10-20 yrs: $130K

**NEXT STEPS**

1. Biostatistician
2. Department Administrator
3. Department Manager
4. Research Director

Employers require a bachelor’s and master’s degree in mathematics, biomathematics, statistics, biostatistics, or a related major. Some require a doctorate degree.

**BIOSTATISTICIAN**

**SOCIETY**

Biostatisticians play a critical role in forwarding the field of medical sciences. They use mathematics and statistical theories to collect, organize, interpret, and evaluate numerical data. Their responsibilities include:
An EMT is often the first link to survival in an emergency. It is a crucial role that can mean the difference between life and death! On the scene, some of the duties an EMT is responsible for include:

- Assess injuries, administer emergency medical care, and extricate trapped individuals.
- Transport injured or sick persons to medical facilities.
- Administer first aid treatment or life support care to sick or injured persons in pre-hospital settings.
- Operate equipment, such as electrocardiograms (EKGs), external defibrillators, or bag valve mask resuscitators, in advanced life support environments.

**PERSONALITY TRAITS**
- I express concern for others when they are in trouble.
- I am honest and genuine when I communicate with others.
- I can remain calm under pressure and when faced with new challenges.
- I am able to control my feelings and actions well.

**ABILITIES**
- I can clearly explain situations to others.
- I am able to work well with my hands.
- I can visually scan and understand my surroundings.

**SKILLS**
- I have the basic training required to treat a patient during first response.
- I enjoy thinking of creative solutions to difficult problems.
- I enjoy communicating with others in a social environment.

**SOCIETY**

Associate's Degree EMT program, Registered Apprenticeships, or other Certified EMT Programs (can be as short as 1 semester for the Basic Level!) required.
Neurology Technicians produce images, such as CT-scans, of the human brain for use in diagnosing medical problems (for example, a brain disease or injury). Their daily tasks include:

- Operate CT scan equipment to conduct and analyze medical brain scans.
- Take and examine CT scan images to locate abnormalities, such as evidence of brain disease or injury.
- Consult with a neurologist to determine a final diagnosis when abnormalities are found in the scan.
- Analyze and record test data to issue reports that use charts, graphs, or narratives.

**PERSONALITY TRAITS**
- I enjoy communicating with people of all ages.
- I am clear and calm when I share instructions.
- I quickly notice when people are in discomfort or are afraid, and I adapt my behavior to help them stay calm.
- I pay great attention to detail.
- My teammates can depend on me.

**ABILITIES**
- I have a strong understanding of the brain and neuroscience.
- I can visually scan and understand CT scan images.
- I am able to work well with computers and technology.
- I can clearly explain situations to others.

**SKILLS**
- I have the basic training required to assist neurologists in taking CT scan images of a patient’s brain.
- I enjoy thinking critically and using evidence to justify claims.
- I like to stay current on the latest research that can help inform new discoveries.

**NEXT STEPS**
1. Neurology Technician
2. Clinical Neurology Technician
3. Neurodiagnostic Technologist
4. Self-employed Neurodiagnostic Professional

**SOCIETY**
Neurology Technicians produce images, such as CT-scans, of the human brain for use in diagnosing medical problems (for example, a brain disease or injury). Their daily tasks include:

**SECURITY**
Entry Level 0-5 yrs: $25K
Mid-Career 5-10 yrs: $39K
Experienced 10-20 yrs: $60K

High School diploma or HSE, Associate's Degree in a Neurology Technician program (1-2 years after post-high school).

**SELF**

**SKILLS**
- I have the basic training required to assist neurologists in taking CT scan images of a patient’s brain.
- I enjoy thinking critically and using evidence to justify claims.
- I like to stay current on the latest research that can help inform new discoveries.

**PERSONALITY TRAITS**
- I enjoy communicating with people of all ages.
- I am clear and calm when I share instructions.
- I quickly notice when people are in discomfort or are afraid, and I adapt my behavior to help them stay calm.
- I pay great attention to detail.
- My teammates can depend on me.

**ABILITIES**
- I have a strong understanding of the brain and neuroscience.
- I can visually scan and understand CT scan images.
- I am able to work well with computers and technology.
- I can clearly explain situations to others.

**SKILLS**
- I have a strong understanding of the brain and neuroscience.
- I can visually scan and understand CT scan images.
- I am able to work well with computers and technology.
- I can clearly explain situations to others.
Occupational Therapists help people improve, develop, recover and maintain their ability to perform tasks in their daily living and working environments. Their responsibilities include:

- Select patient activities and exercises
- Support clients in completing activities and exercises
- Monitor and document each patient's treatment progress
- Use computer applications programs to help clients improve decision-making, abstract-reasoning, problem-solving, and perceptual skills, as well as memory, sequencing, and coordination

**SELF**

**SKILLS**
- I have the necessary education and credentials to support patients who are recovering from various injuries and/or suffering from other health issues.
- I enjoy thinking critically.
- I have strong planning skills.
- I can guide and instruct people.

**ABILITIES**
- I can clearly explain ideas to others.
- I can effectively manage a team.
- I am able to work well with computers and use different types of software.
- I am physically fit and can lift patients and equipment as needed.

**PERSONALITY TRAITS**
- I enjoy working with people.
- I like to help people improve their health and well-being.
- I work well on a team.
- I pay great attention to detail.

**SECURITY**

<table>
<thead>
<tr>
<th>Entry Level 0-5 yrs</th>
<th>Mid-Career 5-10 yrs</th>
<th>Experienced 10-20 yrs</th>
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<tr>
<td>$53K</td>
<td>$80K</td>
<td>$116K</td>
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**NEXT STEPS**

1. Occupational Therapist
2. Occupational Therapy, Clinical Area Specialist
3. Occupational Therapy Department, Manager or Director
4. Occupational Therapist, Postsecondary Teacher

Employers require a master's degree or higher in occupational therapy.

**SOCIETY**

Occupational Therapists help people improve, develop, recover and maintain their ability to perform tasks in their daily living and working environments. Their responsibilities include:

- Select patient activities and exercises
- Support clients in completing activities and exercises
- Monitor and document each patient's treatment progress
Phlebotomists work directly with patients in laboratories and hospitals. They draw blood for tests, transfusions, research, or blood donations. Their responsibilities include:

- Draw blood from patients and blood donors.
- Talk with patients and donors so they are less nervous about having their blood drawn.
- Verify a patient or donor's identity to ensure proper labeling.
- Label the drawn blood for testing or processing.
- Enter patient information into an onsite database.
- Assemble and maintain medical instruments such as needles, test tubes, and blood vials.

**PERSONALITY TRAITS**
- I express concern for others when they are in trouble.
- I consider myself a patient person.
- I find it easy to calm others down.
- I can remain calm under pressure and when faced with new challenges.
- My teammates can depend on me.
- I like to keep my space neat and always know where my belongings are.

**ABILITIES**
- I can clearly explain situations to others.
- I am able to work well with my hands.

**SKILLS**
- I have the basic training required to draw and handle blood.
- I enjoy communicating with others in a social environment.
- I notice details easily.
- I enjoy thinking through and solving problems.

**SECURITY**

- Entry Level 0-5 yrs: $26K
- Mid-Career 5-10 yrs: $30K
- Experienced 10-20 yrs: $32K
- Late Career +20 yrs: $35K

**NEXT STEPS**

1. Phlebotomist
2. Registered Nurse
3. Registered Nurse Practitioner

**REGISTERED NURSE**

- 1 yr experience
- Associate’s degree from a phlebotomy program or other Certified phlebotomy course.

**LICENSED PRACTICAL NURSE**

- 1 yr experience
- Associate’s degree from a phlebotomy program or other Certified phlebotomy course.

**FAMILY NURSE PRACTITIONER**

- 2 yr experience
- Master’s degree in nursing

**PHLEBOTOMIST**

- Phlebotomist
- Entry Level 0-5 yrs
- Mid-Career 5-10 yrs
- Experienced 10-20 yrs
- Late Career +20 yrs

**SOCIETY**

Phlebotomists work directly with patients in laboratories and hospitals. They draw blood for tests, transfusions, research, or blood donations. Their responsibilities include:

- Draw blood from patients and blood donors.
- Talk with patients and donors so they are less nervous about having their blood drawn.
- Verify a patient or donor's identity to ensure proper labeling.
- Label the drawn blood for testing or processing.
- Enter patient information into an onsite database.
- Assemble and maintain medical instruments such as needles, test tubes, and blood vials.
Physical Therapists help people improve mobility, reduce pain, restore function, prevent disability, and enhance fitness and wellness. Their daily tasks include:

**PERSONALITY TRAITS**
- I enjoy working with people.
- I like to help people improve their health and well-being.
- I work well on a team.
- I pay great attention to detail.

**SKILLS**
- I have the necessary education and credentials to support patients with medical problems or other health-related conditions, illnesses, or injuries.
- I enjoy thinking critically.
- I enjoy using data to solve problems.
- I manage my time efficiently.

**ABILITY**
- I can clearly explain ideas to others.
- I have strong observation skills.
- I can move heavy equipment, lift patients, and stand for extended periods.
- I am able to work well with computers and software.

**NEXT STEPS**

1. Physical Therapist
2. Physical Therapy, Business Owner (Self-Employed)
3. Physical Therapist, Clinical Area Specialist
4. Physical Therapist, Postsecondary Instructor

Employers require a master’s degree or doctorate in physical therapy and a state license.

**SELF**

**SECURITY**

- Entry Level 0-5 yrs: $57K
- Mid-Career 5-10 yrs: $84K
- Experienced 10-20 yrs: $119K

**SOCiETY**

Physical Therapists help people improve mobility, reduce pain, restore function, prevent disability, and enhance fitness and wellness. Their daily tasks include:

- Examine, evaluate, diagnose, plan, and treat patients
- Use evidence-based tests and measures to examine and evaluate clients
- Observe and examine an individual's responses to the interventions.
- Record the patient's overall therapy status and note any changes
- Educate and instruct the individual and their family or caregivers about activities and exercises to continue at home, school, or work
Physician Assistants often perform many of the same duties as a doctor! They can conduct complete physicals, provide treatment, and counsel patients, under the supervision of a physician. Their responsibilities include:

- Examine patients to obtain information about their physical condition.
- Interpret diagnostic test results for deviations from normal health.
- Obtain, compile, and record patient medical data, including health history, progress notes, and results of physical examination.

**SELF**

**SKILLS**
- I have the basic training required to provide medical treatment for a patient.
- I enjoy communicating with others in a social environment.

**ABILITIES**
- I can clearly explain situations to others.
- I am able to stay focused on the task at hand.

**PERSONALITY TRAITS**
- I express concern for others when they are in trouble.
- I am honest and genuine when I communicate with others.
- I enjoy thinking of solutions to difficult problems.
- I am able to control my feelings and actions well.
- I notice details easily.

**SECURITY**

- Entry Level 0-5 yrs: $85K
- Mid-Career 5-10 yrs: $95K
- Experienced 10-20 yrs: $100K
- Late Career +20 yrs: $103K

**NEXT STEPS**

1. Physician Assistant
2. Physician Assistant, Area Specialist

Minimum of a Bachelor's Degree is required, in many cases a Master's degree is expected.

**SOCIETY**

Physician Assistants often perform many of the same duties as a doctor! They can conduct complete physicals, provide treatment, and counsel patients, under the supervision of a physician. Their responsibilities include:

- Examine patients to obtain information about their physical condition.
- Interpret diagnostic test results for deviations from normal health.
Radiologic Technicians produce images, such as x-rays, of parts of the human body for use in diagnosing medical problems (for example, to detect a broken bone). Their daily tasks include:

- Adjusting and maintaining imaging equipment.
- Preparing patients for procedures, including taking a medical history and answering questions about the procedure.
- Positioning the patient and the equipment in the location needed to get the correct image.
- Operating computerized equipment to take the images.
- Keeping detailed patient records

**PERSONALITY TRAITS**
- I express concern for others when they are experiencing pain and injury.
- I am clear and direct when I communicate with others, and I am an active listener.
- I pay great attention to detail.
- My teammates can depend on me.
- I am very caring and gentle.

**ABILITIES**
- I can clearly explain situations to others.
- I am able to work well with my hands.
- I can visually scan and understand x-ray images.
- I have strong math and science skills.

**SKILLS**
- I have the basic training required to assist radiologists in taking x-ray images of patients.
- I can stand for long periods of time and help to lift/move patients when necessary.
- I enjoy communicating with others in a social environment.

**SECURITY**
- Entry Level 0-5 yrs: $56K
- Mid-Career 5-10 yrs: $70K
- Experienced 10-20 yrs: $77K

**NEXT STEPS**
1. Radiologic Technologist
2. Radiologic Technologist II
3. Lead Radiologic Tech
4. Radiologic Supervisor

High School diploma or HSE, Associate’s Degree in a Radiologic Technician program (can be as short as 2 years or less of training!)
Healthcare Social Workers assess and support individuals and their families to understand and address diagnoses, chronic, acute, or terminal illnesses, after a severe stroke or heart attack. Their responsibilities include:

- Advise family caregivers.
- Develop and coordinate plans for individual patient treatment and rehabilitation plans.
- Provide patient education and counseling.
- Monitor, evaluate, and record a patient’s progress according to measurable goals, and then revise treatment and rehabilitation plans as needed to reflect changes in a patient's condition.

**SELF**

**SKILLS**
- I have the necessary education and credentials to help patients understand their health conditions.
- I enjoy thinking critically.
- I enjoy using data to solve problems.
- I manage my time efficiently.

**ABILITIES**
- I can clearly explain ideas to others.
- I can use data to make well-informed decisions.
- I am able to work well with computers and data software.
- I have strong coordination skills.

**PERSONALITY TRAITS**
- I enjoy working with people.
- I like to help people improve their health and well-being.
- I work well on a team.
- I pay great attention to detail.

**ABILITIES**

**SECURITY**

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<tbody>
<tr>
<td>$32K</td>
<td>$52K</td>
<td>$77K</td>
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**NEXT STEPS**

1. Healthcare Social Worker
2. Researcher and/or Consultant
3. Manager or Director
4. Healthcare Social Work Postsecondary Teacher

**SOCIETY**

Most states and employers require a Master’s degree in Social Work. All states require a license to practice.
Surgical Technicians are a direct link to saving lives in the operating room. They assist surgeons, registered nurses, or other surgical professionals during surgical operations. Their responsibilities include:

- Helping surgeons by holding instruments, cutting sutures, and counting sponges, needles, and other supplies.
- Preparing and transporting patients for surgery.
- Passing instruments and other supplies to surgeons and assistants during operations.
- Cleaning and organizing the operating room and medical equipment used in surgeries.

**Self**

**Skills**
- I have the basic training required to assist surgical professionals in operating on patients.
- I enjoy thinking of creative solutions to difficult challenges.

**Abilities**
- I can clearly explain situations to others.
- I use logic to come up with solutions to difficult challenges.
- I am able to work well with my hands.

**Personality Traits**
- I notice details easily.
- I am honest and genuine when I communicate with others.
- I am able to control my feelings and actions well.
- I can remain calm under pressure and when faced with new challenges.
- My teammates can depend on me.
- I am comfortable with changes and adjust to situations quickly.

**Security**

An Associate’s degree or a postsecondary certificate is required.

**Next Steps**

1. Surgical Technician
2. Registered Nurse
3. Clinical Nurse Manager
   - Family Nurse Practitioner

**Society**

Entry Level 0-5 yrs
Mid-Career 5-10 yrs
Experienced 10-20 yrs
Late Career +20 yrs

Surgical Technicians are a direct link to saving lives in the operating room. They assist surgeons, registered nurses, or other surgical professionals during surgical operations. Their responsibilities include: