

PATHWAYS TO GLOBAL HEALTH CAREERS



ENTRY LEVEL DEGREE REQUIRED

COMMUNITY COLLEGE

UNIVERSITY

ASSOCIATE

BACHELOR

MASTER

DOCTORATE

MEDIAN SALARY

\$ 150,000
\$ 125,000
\$ 100,000
\$ 75,000
\$ 50,000
\$ 25,000

Denote salary ranges | * Salary varies widely

CAREERS

Transportation, Distribution, & Logistics

Human Services, Education, & Training

STEM

Government & Public Administration

Health Sciences

Agriculture, Food, & Natural Resources

Business & Finance

Information Technology

LOGISTICS/SUPPLY CHAIN MANAGER

INDUSTRIAL PLANT/LAB MANAGER

COMMUNITY HEALTH ADVISOR

INTERNATIONAL AID WORKER*

SOCIAL WORKER

PROFESSOR OF HEALTH EDUCATION

BIOMEDICAL LAB TECHNICIAN

BIOENGINEER

CLIMATE SCIENTIST/ANALYST

BIOSTATISTICIAN

LEGISLATIVE ASSISTANT/AIDE

FOREIGN SERVICE OFFICER/DIPLOMAT

MEDICAL RECORDS & HEALTH INFORMATION TECHNICIAN

PUBLIC HEALTH NURSE

NURSE MIDWIFE

EPIDEMIOLOGIST

PHARMACIST

VETERINARIAN TECHNICIAN

HYDROLOGIST

AGRICULTURAL SCIENTIST

VETERINARIAN

BOOKKEEPER

ADMINISTRATIVE ASSISTANT

ENTREPRENEUR*

FUNDRAISING/DEVELOPMENT OFFICER

MARKETING & COMMUNICATIONS MANAGER

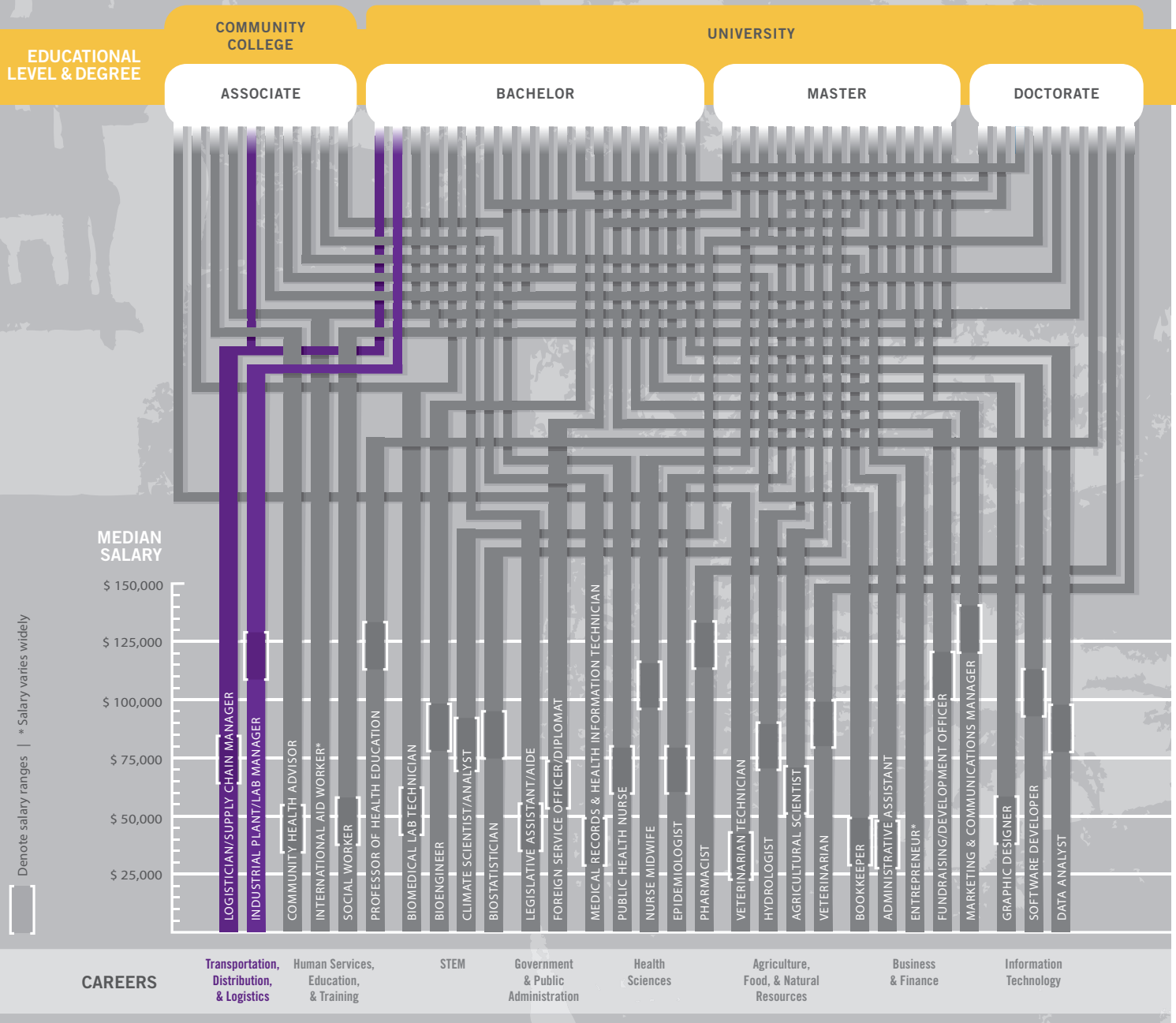
GRAPHIC DESIGNER

SOFTWARE DEVELOPER

DATA ANALYST



TRANSPORTATION, DISTRIBUTION, & LOGISTICS



GLOBAL HEALTH CAREERS IN Transportation, Distribution, & Logistics

Global Sourcing Advisor/Manager, Medical Supply Distribution Manager, **Logistics/Supply Chain Manager**, Operations Research Analyst, Purchasing Manager, Warehouse Operations Associate/Supervisor, **Industrial Plant/Lab Manager**, Quality Control Inspector, Industrial Engineer

Logistics/Supply Chain Manager

Median Salary: \$74,600 Annually

Job Description: A Logistics/Supply Chain Manager is responsible for coordinating and negotiating an organization's supply chain, which is the system in which a product is developed, manufactured, and delivered to the customer. A Logistics/Supply Chain Manager develops relationships with suppliers, manufacturers, and customers and may be involved in complicated contract negotiations among these parties. In a global health context, this role would help to ensure that medical supplies, vaccines or lab samples get to where they are needed. They use specialized software programs to estimate costs and timelines for the manufacture, storage, packaging, and shipping of products, looking for ways to increase efficiency and reduce costs. Logistics/Supply Chain Managers try to predict and plan for problems, but also must quickly respond to issues that develop in the supply chain.

Minimum Education: At the minimum, an Associate's or Bachelor's degree will be required.

- **High School Coursework:** Courses in computer technology, math, and accounting. Also, joining the Technology Student Association, FBLA, or DECA would be helpful for job preparation.
- **Post-High School Study:** A Bachelor's degree in Business Administration, Supply Chain Management, or Engineering, along with on-the-job training. You may need additional training on computer software and technologies.

Certification: Certifications are available for Logisticians to demonstrate advanced levels of competence and expertise in areas such as inventory management, supply chain operations, and global supply chain management.

Internships, Apprenticeships, Volunteer Opportunities:

Americorps has a variety of volunteer opportunities that could help strengthen your job skills, including the FEMA Corps program. Look for internship opportunities related to supply chain management, contract negotiations, transportation/distribution, or business administration.

Industrial Plant/Lab Manager

Median Salary: \$119,000 Annually

Job Description: Industrial Plant Managers or Scientific Laboratory Managers direct the work of the people who operate a plant or conduct the research in a lab. They provide day-to-day supervision of the facility and its staff with an eye toward project management, quality control, and inventory. They may be focused on research and development or manufacturing. Many Managers will have been scientists or plant workers themselves before advancing to a management role.

Minimum Education: At the minimum, a Bachelor's degree, though some positions will require an advanced degree.

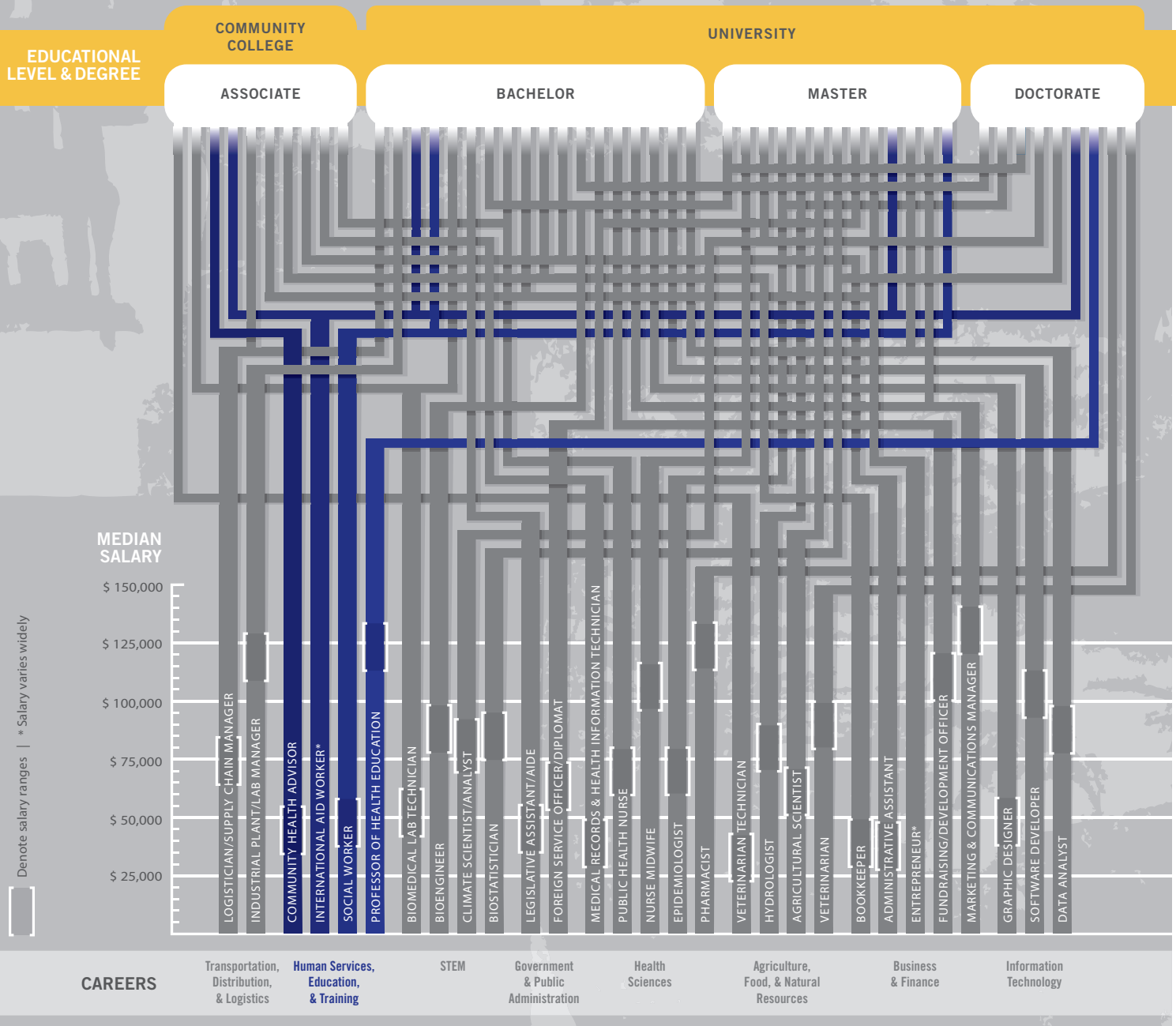
- **High School Coursework:** Courses in science, math, engineering, biotechnology, computer technology, business, and accounting would be helpful.
- **Post-High School Study:** A Bachelor's degree that combines a scientific discipline with business administration and managerial training would be ideal.

Certification: Certifications are available depending on the chosen specialization.

Internships, Apprenticeships, Volunteer Opportunities:

Look for internship opportunities related to STEM fields and for volunteer opportunities to develop leadership skills.

HUMAN SERVICES, EDUCATION, & TRAINING



GLOBAL HEALTH CAREERS IN Human Services, Education, & Training

Community Health Advisor, Built Environment Specialist, Dietetic Technician, Dietitian, Environmental Health Advocate, Health Service Administration, Social/Human Services Assistant, Public Health Practice and Program Management, **International Aid Worker**, Health Inspector, Psychologist/Counselor, Sociologist, Cultural Anthropologist, **Social Worker**, Curriculum Developer, Humanities Teacher, Science Teacher, Math Teacher, Social Studies Teachers, Health Teacher, **Professor of Health Education**, Community Liaison, Peer Counselor, Tribal Health Counselor

Community Health Advisor

Median Salary: \$46,000 Annually

Job Description: Community Health Advisors (CHAs) help people take greater control over their health and their lives. They educate people about how to prevent disease and injury as well as how to access health and human service systems. CHAs educate people about how to navigate the health care and social services systems. CHAs provide culturally appropriate health education and information by teaching concepts of health promotion and disease prevention. Specifically, they gather information for medical providers and they translate literal and medical languages. CHAs ensure that people get the services they need through case finding, making referrals, and providing follow up. CHAs usually work in low-income communities where people may have limited resources and lack quality health care and the means to pay for it.

Minimum Education: Associate's degree.

- **High School Coursework:** Four years of a world language (such as Spanish), health, social studies, English literature, and speech classes. A student organization such as SkillsUSA would be beneficial to join as well.
- **Post-High School Study:** Associate's degree in health and/or sociology; coursework in business and a world language would also be helpful. Some states may require certification. Some jobs may require a Certified Health Education Specialist (CHES) credential.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer work with individual and family services, social advocacy organizations, or outpatient care centers. Americorps has relevant volunteer programs as well.

International Aid Worker

Median Salary: Volunteer or paid (salaries vary)

Job Description: Many work for long-term development projects in fields such as education, sanitation, health, urban/rural/small business development, and agriculture helping low-income communities improve their economic conditions and create sustainable livelihoods of their own. For short-term projects, specific skills in engineering, health, or logistics may be needed. Work may include: administering the day-to-day work of an office or team; managing, monitoring, and evaluating projects; organizing fundraising; researching and writing project proposals and reports; planning for long-term development and/or disaster management to reduce the need for crisis intervention; evaluating the response required in fast-moving emergency situations; negotiating and liaising with public and non-governmental organizations (NGOs); implementing security procedures to ensure the safety of staff working in unstable areas, maintaining an overview of the security situation, and making appropriate decisions; and lobbying and advocacy work to present the needs of communities to donors, governments, and the public.

Minimum Education: Varies depending on job and employer, from high school diploma to Doctoral degree.

- **High School Coursework:** Courses in health, science, social studies, and four years of a world language.
- **Post-High School Study:** Varies depending on what type of humanitarian work is chosen.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer opportunities with domestic aid organizations like Red Cross or Americorps or with foreign aid organizations like Mercy Corps or Peace Corps. Americorps has a variety of volunteer opportunities, including the FEMA Corps program focused on disaster preparedness and response.

Social Worker

Median Salary: \$48,000 Annually

Job Description: Social Workers help people to navigate through challenges in their daily lives. Issues such as mental health, life-threatening disease, disabilities, substance abuse, family problems, access to housing, and employment are the types of issues they help people negotiate. In a global health setting, they may support refugees, women, or children who have encountered gender-based violence, exploitation, trauma, or mental health issues. Social Workers may connect their clients to critical resources, conduct research, advocate for improved services, or become involved in planning or policy development. Social Workers spend most of their time working in a refugee center, health clinic, hospital, or social service agency.

Minimum Education: Bachelor's degree. Some positions may require a Master's degree in social work.

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take courses in social studies, English literature, a world language (such as Spanish), and speech. A student organization such as SkillsUSA would be a great way to develop skills in the service industry.
- **Post-High School Study:** Bachelor's degree in social work, psychology, or sociology with a minor in social services, policy, or administration. You may want to also pursue a Master's degree in social work.

Licenses: All states and the District of Columbia have licensing, certification, or registration requirements regarding social work practice. Most states require two years or 3,000 hours of supervised clinical experience for licensure of clinical social workers.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer or paid jobs as a social work aide. Also, volunteer work with an organization such as Americorps will help you develop leadership experience and social service skills.

Professor of Health Education

Median Salary: \$123,000 Annually

Job Description: Many people choose to be a professor to be surrounded by others who enjoy learning and they can continue to do research in the field they enjoy most. Professors work in four-year colleges or universities. They have flexible schedules in which they teach and attend committee meetings 12–16 hours per week. They also have office hours for student questions and concerns. The rest of their time is devoted to course preparation, grading, study, research, graduate student supervision, authoring papers, traveling to make presentations at conferences and professional meetings, and other activities.

Minimum Education: Master's degree or Doctoral degree in health or health education.

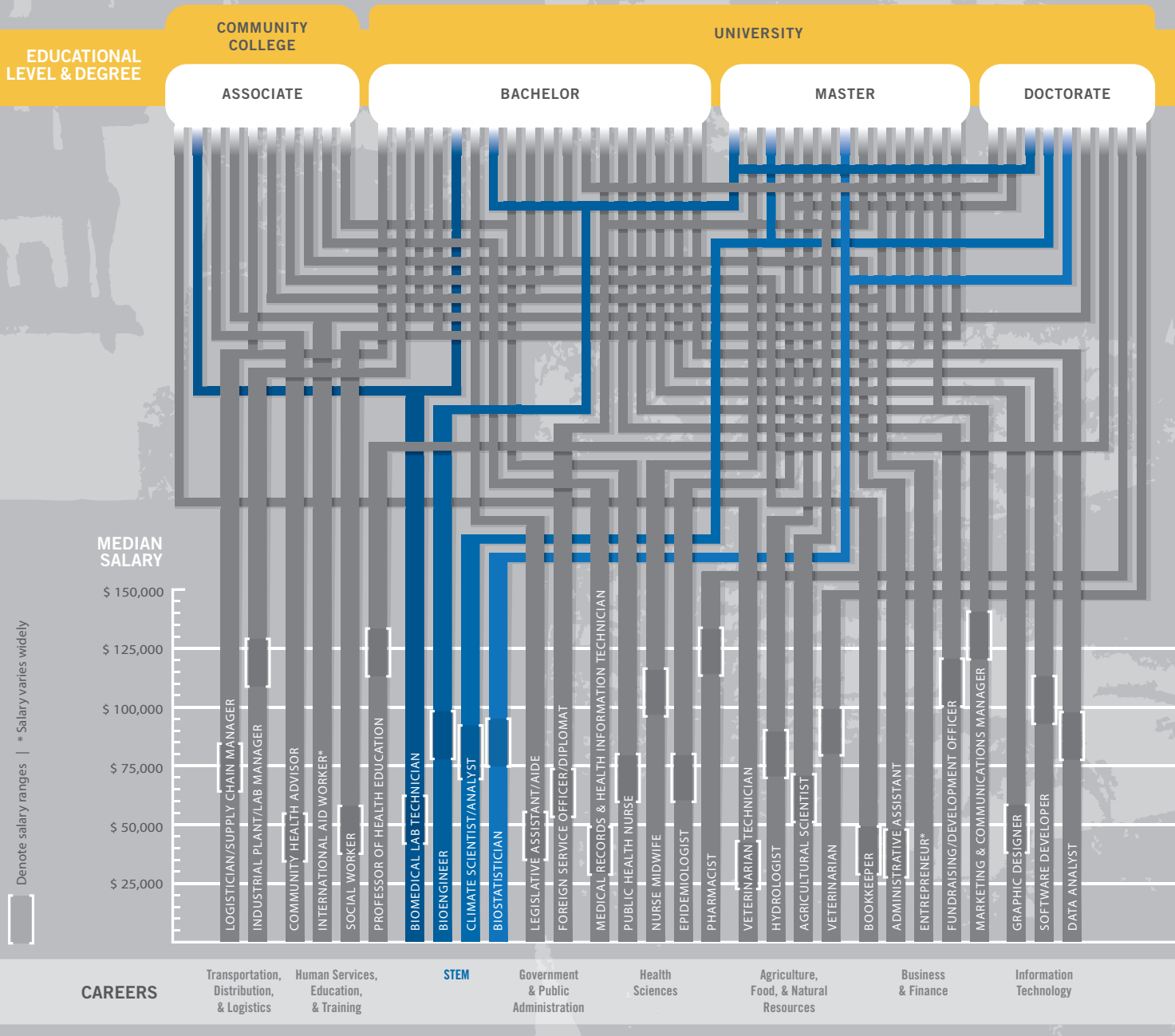
- **High School Coursework:** Coursework to meet college entrance requirements with an emphasis on health and science.
- **Post-High School Study:** Bachelor's degree in health, with a minor in communications, sociology, psychology, or one of the sciences. Follow your undergraduate studies with a Master's degree in a specific health discipline, such as nutrition or epidemiology. Finally, earn a Doctoral degree in health or education.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer work with an organization such as Americorps will help develop leadership and teaching experience. In graduate school, work as a teaching assistant for undergraduate-level courses. In graduate school, you will need to conduct a research project and write a thesis or dissertation. It often is important to try to publish research articles in peer-reviewed journals in order to obtain a professorship.

STEM

Science, Technology, Engineering, & Mathematics



To download an electronic copy of this poster and accompanying career fact sheets, visit www.wghalliance.org/resources

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GLOBAL HEALTH CAREERS IN STEM

Lab Assistant, **Biomedical Lab Technician**, Research Assistant, Research Associate, Media Prep Specialist, Bioinformatics, Imaging Specialist, Lab Manager, Associate Scientist, Field Application Scientist, **Bioengineer**, Research Scientist, Clinical Research Associate, Modeling/Prototype Builder, Biochemist, Chemist, Protein Chemist, Drug Developer, Microbiologist, Immunologist, Molecular Biologist, Geneticist, Industrial Microbiologist/Fermentation Specialist, **Climate Scientist/Analyst**, Patent Agent, Chemical Engineer, **Biostatistician**, Genetic Engineer

Biomedical Laboratory Technician

Median Salary: \$52,000 Annually

Job Description: Laboratory technicians contribute to research on global health diseases. Most medical laboratory technicians work in hospital laboratories, public health laboratories, biomedical companies, universities, industrial medical laboratories, pharmaceutical companies, forensic medicine laboratories, and the armed forces. Medical laboratory technicians carry out laboratory procedures on blood, tissue, and other bodily fluids using laboratory equipment such as microscopes, chemicals, and computers. Technicians usually perform these duties under the supervision of a medical laboratory scientist, pathologist, or other professionals that specialize in biological sciences. Technicians are responsible for reporting lab results to other medical personnel, as well as maintaining equipment and laboratory records.

Minimum Education: Associate's degree or Bachelor's degree. Many community and technical colleges provide specific instruction in medical laboratory technology.

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, courses in algebra, geometry, biology, chemistry, physics, computer skills, English, and health.
- **Post-High School Study:** Two-year Associate's degree program in medical laboratory technology that includes clinical training.

Licenses: National certification is earned through an examination given by the Board of Registry of the American Society of Clinical Pathologists, the National Certification Agency for Medical Laboratory Personnel, or the American Medical Technologists.

Internships, Apprenticeships, Volunteer Opportunities: Look for internships at a biomedical research institute or university research lab. There are also biomedical education programs available to high school students.

Bioengineer

Median Salary: \$88,000 Annually

Job Description: Bioengineers are also known as biomedical engineers. They bring together expertise in engineering and medical sciences to solve healthcare problems. Bioengineers are often involved in the design and manufacture of medical devices, equipment, therapies, and software used to address global health challenges. They may work in university research labs, industry labs, manufacturing facilities, or hospitals.

Minimum Education: Bachelor's or Master's degree. Research and academic positions usually require a Doctoral degree.

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take as many advanced science, math, engineering, and computer science courses as possible.
- **Post-High School Study:** Most jobs will require a Bachelor's degree in bioengineering, biomedical engineering, or a related specialty engineering degree, like neural engineering or tissue engineering. Many jobs may also require a graduate degree.

Internships, Apprenticeships, Volunteer Opportunities:

Look for internship positions at a biomedical research facility or a university research lab. As an undergraduate, look for a Research Experience for Undergraduates summer program through the National Science Foundation.

Climate Scientist/Analyst

Median Salary: \$80,500 Annually

Job Description: Climate Scientists or Analysts study the local and global climate, including global climate change and impacts on human health, animal health, and the earth's systems. Most work takes place indoors in an office or lab, with some occasional field work. Climate Scientists may have a background in atmospheric science, meteorology, or environmental science. Some may become involved in policy work.

Minimum Education: Master's degree. Research and academic positions usually require a Doctoral degree.

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take as many advanced science, math, and computer science courses as possible.
- **Post-High School Study:** A Bachelor's degree in atmospheric science, meteorology, or environmental science will prepare you for graduate studies in climate science.

Internships, Apprenticeships, Volunteer Opportunities:

When you are an undergraduate, seek out internship opportunities through your college's science department.

Biostatistician

Median Salary: \$85,000 Annually

Job Description: Biostatisticians are statisticians who work in health-related careers. They collaborate with other researchers in the health field to design studies, collect data, and analyze data sets. They use statistical software to make sense of data and then transform it into useful information for researchers. Biostatisticians help researchers answer questions related to statistics and give advice on topics such as the size of a sample or methods used to collect data. Studies they create may relate to how a disease progresses, the safety of a new treatment or medication, or the impact of risk factors associated with a medical condition for human and animal health. They also perform

studies on plants. Biostatisticians work for biomedical research companies, health care facilities, hospitals, government agencies, and universities. The statistical information that they analyze is used for publications, presentations, and for professional meetings.

Minimum Education: A Master's degree in biostatistics, statistics, or mathematics usually is the minimum educational requirement for most statistician jobs. Research and academic positions usually require a Doctoral degree in statistics.

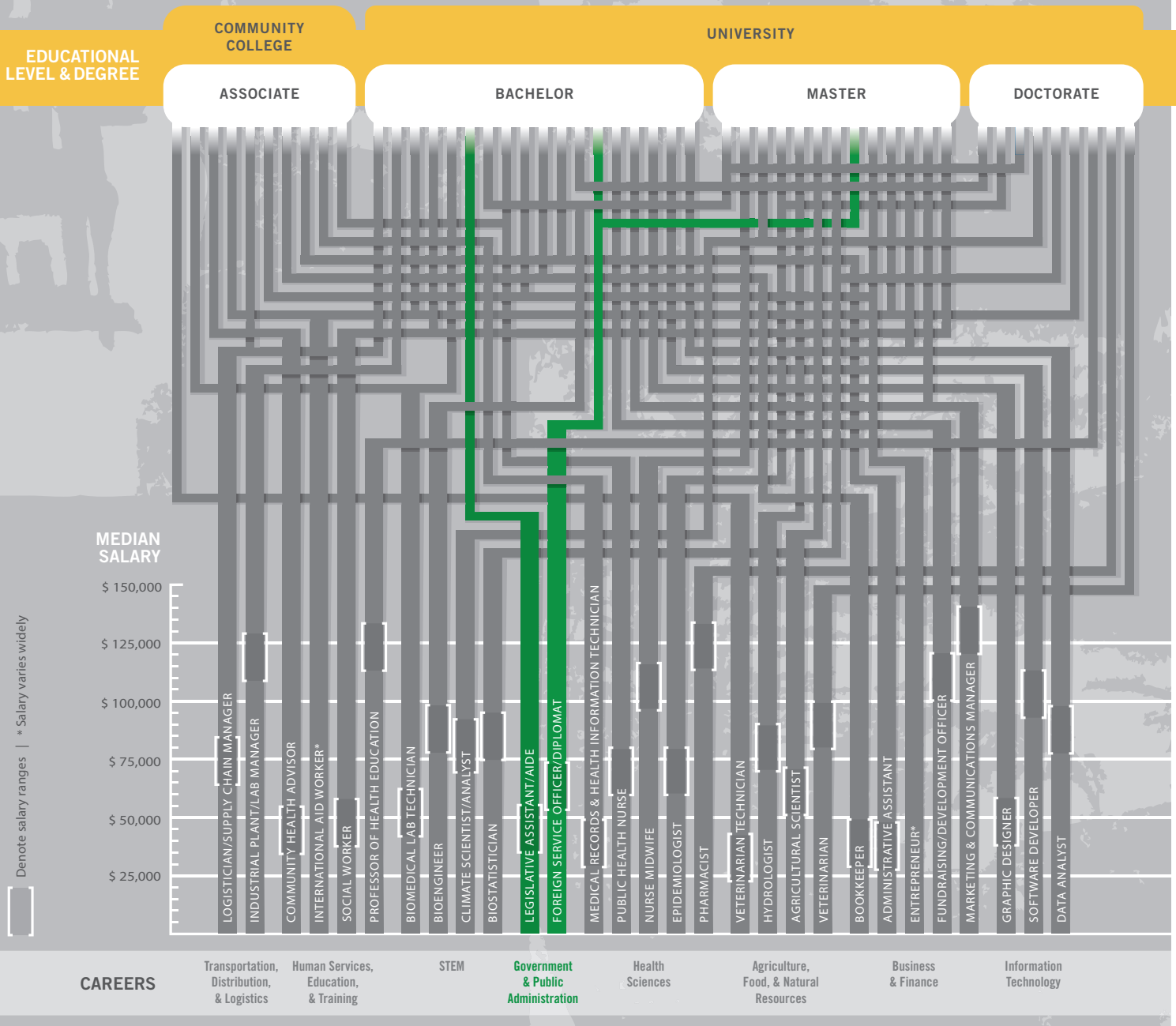
- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take advanced biology and math, as well as computer technology courses. Also, joining the Technology Student Association would be helpful for college entrance and job preparation. Math Olympiads would be another group to consider joining.
- **Post-High School Study:** Bachelor's degree in statistics and biology or a program in biostatistics. Required subjects for statistics majors include differential and integral calculus, statistical methods, mathematical modeling, and probability theory. Additional recommended courses for undergraduates include linear algebra, design and analysis of experiments, applied multivariate analysis, and mathematical statistics. You may also want to pursue a Master's degree in statistics, mathematics, or biostatistics. Research and academic positions usually require a Doctoral degree in statistics.

Internships, Apprenticeships, Volunteer Opportunities:

While you are an undergraduate, seek out internship opportunities through your college's math or science departments.

GOVERNMENT & PUBLIC ADMINISTRATION

Government, Public Administration, & Law



GLOBAL HEALTH CAREERS IN Government & Public Administration

Lawmaker, Politician, **Legislative Assistant/Aide**, Patent Lawyer, Human Rights Lawyer, Paralegal, Legal Secretary, Country Director, Global Health Policy Analyst, Diplomat, Philanthropist, Peace Corps Volunteer, **Foreign Service Officer/Diplomat**, FDA Consumer Safety Officer, District Director of Health, Medical Director for Global Issues and Projects

Legislative Assistant/Aide

Median Salary: \$45,700 Annually

Job Description: A Legislative Assistant/Aide is a political position that works as a member of the staff of a legislator. They may work in the legislator's office on Capitol Hill in Washington, DC and/or in state or regional offices. Often, they are assigned by their legislator to a particular area, such as U.S. foreign policy, development, or healthcare, and become experts at the committee meetings and relevant bills under consideration. They may prepare reports, briefs, or statements for the legislator and respond to mail or phone calls from their constituents.

Minimum Education: Bachelor's degree.

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take courses in communication, debate, journalism, U.S. government, and economics. Consider joining FBLA or student government.
- **Post-High School Study:** Most jobs will require a bachelor's degree in political science, government, or communication. Consider a minor in global health, foreign policy, or biotechnology.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer for the campaign of a local politician. Consider applying to the Congressional Page Program for high school students or look for opportunities at your state capital.

Foreign Service Officer/Diplomat

Median Salary: \$64,500 Annually

Job Description: A Foreign Service Officer/Diplomat is a public servant who represents the interests of the U.S. government and aims to protect and support American

citizens in other countries. Most Foreign Service Officers (FSOs) work in the U.S. embassies and consulates that are located in other countries. Some of these posts could be dangerous in times of military or political conflicts. FSOs need to be composed, culturally adaptable, and resourceful leaders who are willing to move across the globe. They may pursue one of five career tracks: consular officers, economic officers, management officers, political officers, and public diplomacy officers. To be eligible for this job, you must be a U.S. citizen.

Minimum Education: Most FSOs will have at least have a Bachelor's degree.

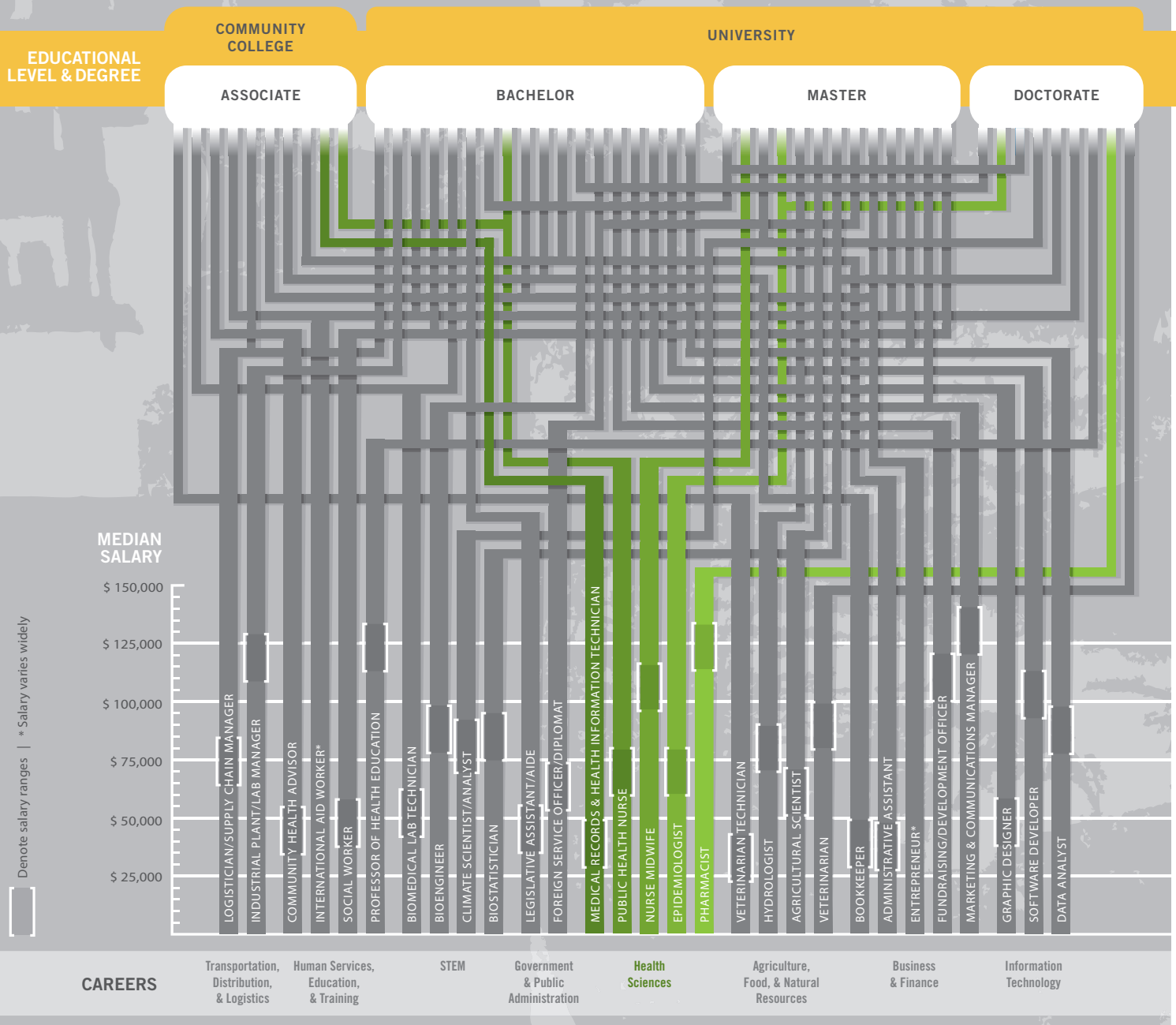
- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take courses in U.S. government, geography, economics, statistics, and a world language. Consider joining student government.
- **Post-High School Study:** Most jobs will require a Bachelor's degree in political science, pre-law, business, history, or anthropology. It will be important to develop language skills for the region of the world in which you hope to serve. Fluency in more than one language will make you a competitive candidate. Part of the hiring process includes passing the Foreign Service Officer Test (FSOT).

Internships, Apprenticeships, Volunteer Opportunities:

The U.S. Department of State hosts several internship and fellowship programs for recent graduates of community colleges or universities. Once hired as a FSO, you will attend trainings in Washington, D.C. before being assigned to your station overseas.

HEALTH SCIENCES

Healthcare in Clinical & Community Settings



GLOBAL HEALTH CAREERS IN Health Sciences

Doctor, Field Doctor, Infectious Disease Doctor, Family Medicine Doctor, Pediatrician, Farm Worker's Clinic Physician's Assistant, Nurse, **Epidemiologist**, Nurse Aide, Pediatric Nurse, Nutritionist, **Pharmacist**, Public Health Practitioner, **Medical Records and Health**, Pharmacy Technician, Medical Technician, Phlebotomist, Radiologist, Medical Anthropologist, **Nurse Midwife**, Audiologist, Dentist, Dental Hygienist, Genetic Counselor, Family Advocate, Health Health Promoter, Outreach Worker, Patient Navigator, Health Interpreter, Public Health Aide, Nurse Practitioner, **Public Health Nurse**

Epidemiologist

Median Salary: \$70,000 Annually

Job Description: Epidemiologists study the spread of diseases and disease outbreaks and develop ways to prevent or control them. There are two focus areas for Epidemiologists: research or clinical situations. In the area of research, they figure out how to prevent or control an infectious disease. Clinical work usually entails being a consultant in a hospital, informing medical staff of infectious outbreaks, and providing ways to control the spread of infection. They also help create a hospital's policy for the treatment and control of infectious diseases. Epidemiologists typically work in labs carrying out research, but they may also work with patients to study the effects of certain diseases within the community. Some Epidemiologists work at universities, researching and educating people about how diseases spread. Others work at private corporations, international organizations, and county, state, and federal health agencies.

Minimum Education: Master's degree from a School of Public Health. Some positions may require a Doctoral degree.

- **High School Coursework:** Coursework to meet college entrance requirements, with an emphasis on advanced courses in health, physics, biology, and math.
- **Post-High School Study:** Bachelor's degree in pre-medical studies and enroll in courses that focus on math, biology, health sciences, demographics and research methods; Master's degree in epidemiology. You may also want to pursue a Medical degree or

a Doctoral degree. Many epidemiology programs are at the graduate level and are offered through a university's School of Public Health or School of Medicine.

Internships, Apprenticeships, Volunteer Opportunities:

Internships with health associations, research centers, medical companies, and universities will help you to gain "hands-on" experience in research. As an undergraduate, consider working as a Research Assistant for a professor in your college's epidemiology department.

Pharmacist

Median Salary: \$124,000 Annually

Job Description: Pharmacists administer prescription drugs to individuals. In global health settings, Pharmacists play an important role in helping think about access to and dispensing of medication. They monitor patients to make sure that they are using their medications safely and effectively. A Pharmacist's main responsibility is to educate patients, physicians, and other health practitioners on the variety, dosages, interactions, and side effects of medications. Most Pharmacists work a 40-hour work week in well-ventilated, clean facilities.

Minimum Education: Must earn a four-year Pharm.D. degree from an accredited College or School of Pharmacy, fulfill internship requirements, and successfully pass licensing examinations. Entry requirements for most pharmacy programs include a Bachelor's degree with at least two years of specific

professional study that includes courses in math and science. Admission to pharmacy school is competitive.

- **High School Coursework:** Coursework to meet college entrance requirements, with as many advanced courses in math and science as possible.
- **Post-High School Study:** Bachelor's degree with two years of specific professional study including courses in mathematics, chemistry, biology, and physics, as well as courses in humanities and social sciences. In addition, pursue a four-year Pharm.D. degree from an accredited College or School of Pharmacy.

Licenses: Pass the North American Pharmacist Licensure Exam (NAPLEX), which tests pharmacy skills and knowledge. Almost all U.S. states and the District of Columbia also require the Multi-State Pharmacy Jurisprudence Exam (MPJE), which tests knowledge of pharmacy law. Both exams are administered by the National Association of Boards of Pharmacy (NABP).

Internships, Apprenticeships, Volunteer Opportunities: An internship or volunteer position at a hospital, medical clinic, or assisted living facility will help you to gain skills in the healthcare field.

Medical Records and Health Information Technician

Median Salary: \$39,000 Annually

Job Description: Medical Records and Health Information Technicians take patients' health information including medical history, symptoms, examination results, diagnostic tests, treatment methods, and all other healthcare provider services, and compile or assemble them. They typically work a 40 hour work week in a medical office or clinic setting.

Minimum Education: Associate's degree.

- **High School Coursework:** Biology, math, chemistry, health, and computer science are essential. With the adoption of electronic health records in healthcare facilities, computer technology classes would be beneficial.
- **Post-High School Study:** Associate's degree with coursework in health information technology, medical terminology, anatomy and physiology, health data requirements and standards, clinical classification and coding systems, data analysis,

healthcare reimbursement methods, database security and management, and quality improvement methods.

Licenses: The American Health Information Management Association (AHIMA) offers credentialing as a Registered Health Information Technicians (RHIT). The American Academy of Professional Coders (AAPC) offers coding credentials. The Board of Medical Specialty Coding (BMSC) and Professional Association of Healthcare Coding Specialists (PAHCS) both offer credentialing in specialty coding. The National Cancer Registrars Association (NCRA) offers a credential as a Certified Tumor Registrar (CTR).

Internships, Apprenticeships, Volunteer Opportunities: Volunteer at a hospital, clinic, or assisted living facility to help you gain skills within the healthcare field.

Nurse Midwife

Median Salary: \$111,000 Annually

Job Description: Midwifery is one of the oldest of the health care occupations. Certified Nurse Midwives are a type of Advanced Practice Registered Nurse (APRN) that focus on caring for pregnant women before, during, and after birth. They work in hospitals, clinics, or private practices. They may deliver babies at hospitals, birthing centers, or at their patients' homes. Nurse midwives care for a woman throughout her pregnancy, assist during labor and delivery, and support new parents after their baby has arrived.

Minimum Education:

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take as many advanced science and math courses as possible.
- **Post-High School Study:** You will need to earn a Master of Science in Nursing (MSN) degree from an accredited university, with a focus on midwifery. There are many pathways toward a MSN degree, which include an Associate or Bachelor of Science degree. National certification is also required by passing an exam administered by the American Midwifery Certification Board (AMCB).

Internships, Apprenticeships, Volunteer Opportunities: Look for opportunities to work in a hospital or other health care setting, especially within labor and delivery or neonatal departments.

Public Health Nurse

Median Salary: \$70,000 Annually

Job Description: Public Health Nurses are Registered Nurses (RNs) who work for community-based programs or the government (such as county health departments) to help improve people's health and well-being, with a focus on at-risk and vulnerable populations. They may work directly with patients, or they may work as program managers or educators. Some nurses may be involved in disease prevention, such as community immunization programs. Others may plan for or respond to natural disasters or disease outbreaks. Some nurses may focus on public health education.

Minimum Education:

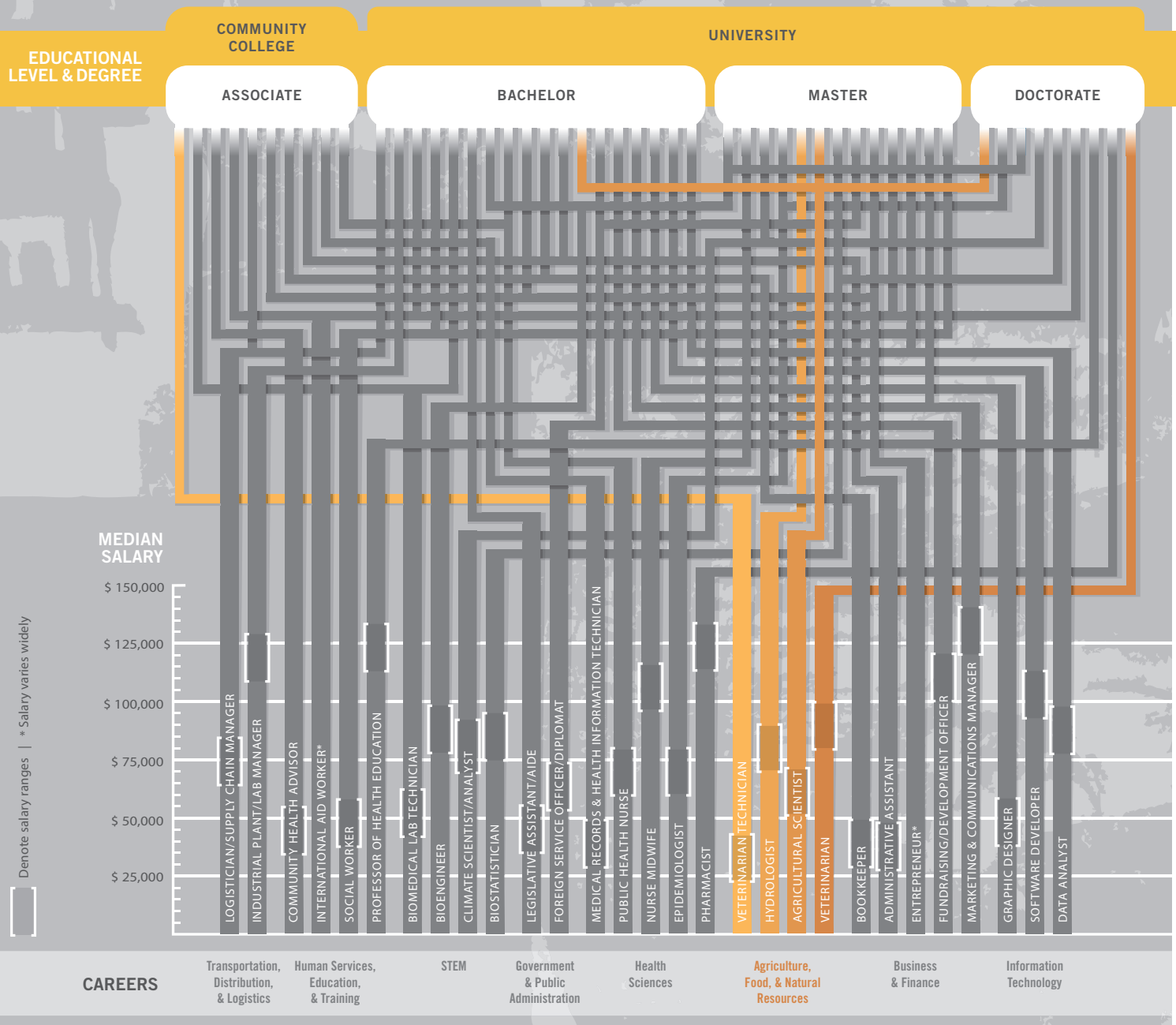
- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take as many advanced science and math courses as possible. Studying a world language, such as Spanish, would also be helpful.
- **Post-High School Study:** You will need either an Associate's degree in nursing or a Bachelor of Science degree in nursing from an accredited program. For some positions, a Master's degree in public health may be needed. RNs also must pass the National Council Licensure Examination (NCLEX-RN).

Internships, Apprenticeships, Volunteer Opportunities:

Look for volunteer opportunities with local health clinics or community-based organizations.

AGRICULTURE, FOOD, & NATURAL RESOURCES

Farming, Ranching, & Natural Resource Management



GLOBAL HEALTH CAREERS IN Agriculture, Food, & Natural Resources

Veterinarian Technician, **Hydrologist**, Entomologist, Animal Disease Vaccine Developer, Immunologist, Wildlife Biologist, Animal Behaviorist, Farm Management and Agribusiness, Farm Worker, Animal Husbandry, Greenhouse Technician, Seed Producer, Park Ranger, **Agricultural Scientist**, Weed Controller, Weed Scientist, Plant Nutritionist, Soil Microbiologist, Wetland Specialist, Nursery Operator, Horticulture Salesperson, Geographic Information Systems (GIS) Specialist, **Veterinarian**, Forestry Manager, Protected Areas Manager, Environmental Engineer, Geo-engineer

Veterinarian Technician

Median Salary: \$33,400 Annually

Job Description: Veterinarian Technicians enjoy working with animals. They perform tasks under the direct supervision of a licensed veterinarian. Veterinarian Technicians work in private clinics, boarding kennels, animal shelters, research facilities, and rescue leagues. Primary job responsibilities include performing medical tests and helping with the diagnoses of diseases and medical conditions of animals. Other job components may include performing laboratory tests such as urinalysis and blood counts, assisting with dental care, preparing tissue samples, taking blood samples, and assisting veterinarians with a variety of other diagnostic tests.

Minimum Education: Associate's degree from an American Veterinary Medical Association (AVMA)-accredited community/technical college.

- **High School Coursework:** As many high school science, biology, and math courses as possible.
- **Post-High School Study:** A two-year Associate's degree from an AVMA-accredited community college program in veterinary technology, with coursework in clinical and laboratory studies. Graduates generally begin work as a trainee under a licensed Veterinarian.

Licenses/Exams: Each state regulates Veterinary Technicians differently, though all states require them to pass a credentialing exam. Most states utilize the Veterinary Technician National Exam (VTNE). For those seeking employment in a research facility, the American

Association for Laboratory Animal Science (AALAS) exam is recommended.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer to help with animal care at a veterinarian hospital, wildlife rehabilitation center, animal shelter, kennel, farm, or stable.

Hydrologist

Median Salary: \$79,900 Annually

Job Description: Hydrologists are specialists in surface and underground water. They work with specific instruments to track precipitation and the flow of water above and below the earth's surfaces, as well as monitoring the change in regional and global water cycles. Hydrologists help develop water sources and water treatment systems in rural communities around the globe.

Minimum Education: Master's degree in hydrology.

- **High School Coursework:** Coursework to meet college entrance requirements, including as many science and math courses as possible. Computer technology courses are also helpful.
- **Post-High School Study:** Bachelor's degree in earth science or geo-science with a minor in geology, chemistry and/or biology. Master's degree in hydrology.

Licenses: A number of states require geoscientists and hydrologists who offer their services directly to the public to obtain a license from a state licensing board. These vary by state.

Internships, Apprenticeships, Volunteer Opportunities:

Volunteer or intern with a geology firm. Consider volunteer work abroad, with organizations like Peace Corps or Engineers Without Borders, to help communities develop and manage water supply systems.

Agricultural Scientist

Median Salary: \$62,900 Annually

Job Description: Agricultural Scientists research and study how to improve agricultural processes and techniques. They may specialize in plant science, soil science, food science, or animal science. In the global health sphere, they may be focused on how to increase the nutritional content of foods, may work to prevent diseases in farm animals, or may study food safety issues. They may work in a lab or office, and may spend some time at farms or field sites. Agricultural scientists are employed by industry, universities, and the government.

Minimum Education: At the minimum, a Bachelor's degree is required, though many jobs will require a Master's degree or Doctorate.

- **High School Coursework:** Coursework to meet college entrance requirements. In particular, take as many advanced science and math courses as possible. If offered, take career and technical education courses related to horticulture or agriculture.
- **Post-High School Study:** A Bachelor's degree in agricultural science is required. Every state in the U.S. has at least one land-grant college that offers this type of degree.

Internships, Apprenticeships, Volunteer Opportunities: In high school, consider participating in Future Farmers of America, 4-H, or other service organizations related to agriculture or agribusiness.

Veterinarian

Median Salary: \$90,400 Annually

Job Description: Veterinarians care for the health of livestock, wildlife, laboratory animals, and pets. They do everything from working in a private practice, to conducting research in a laboratory, to working outdoors in all kinds of weather. In the global health sphere, Veterinarians may use their skills to treat and protect humans from diseases carried and spread by animals, and conduct research on human and animal health issues.

Minimum Education: Must earn a four-year Doctor of Veterinary Medicine (DVM) degree from an accredited college of veterinarian medicine and successfully pass a licensing exam. Acceptance into these programs requires a Bachelor's degree with emphasis on life sciences and chemistry. Admission to veterinarian school is highly competitive.

- **High School Coursework:** Coursework to meet college admissions requirements, including as many advanced math and science (especially biology and chemistry) classes as possible.
- **Post-High School Study:** Pre-veterinary courses should emphasize the sciences. In general, veterinary medical colleges require applicants to have taken classes in organic and inorganic chemistry, physics, biochemistry, general biology, animal biology, animal nutrition, genetics, vertebrate embryology, cellular biology, microbiology, zoology, and systemic physiology. Some programs require calculus, statistics, college algebra and trigonometry, or pre-calculus. Most veterinary medical colleges also require some courses in English or literature, other humanities, and the social sciences. Also, courses in general business management and career development teach new graduates how to run a practice effectively. Prospective Veterinarians must graduate with a Doctor of Veterinary Medicine (D.V.M. or V.M.D.) degree from a four-year program at an accredited college of veterinary medicine. Furthermore, applicants must submit test scores from the Graduate Record Examination (GRE), the Veterinary College Admission Test (VCAT), or the Medical College Admission Test (MCAT), depending on the preference of the college to which they are applying.

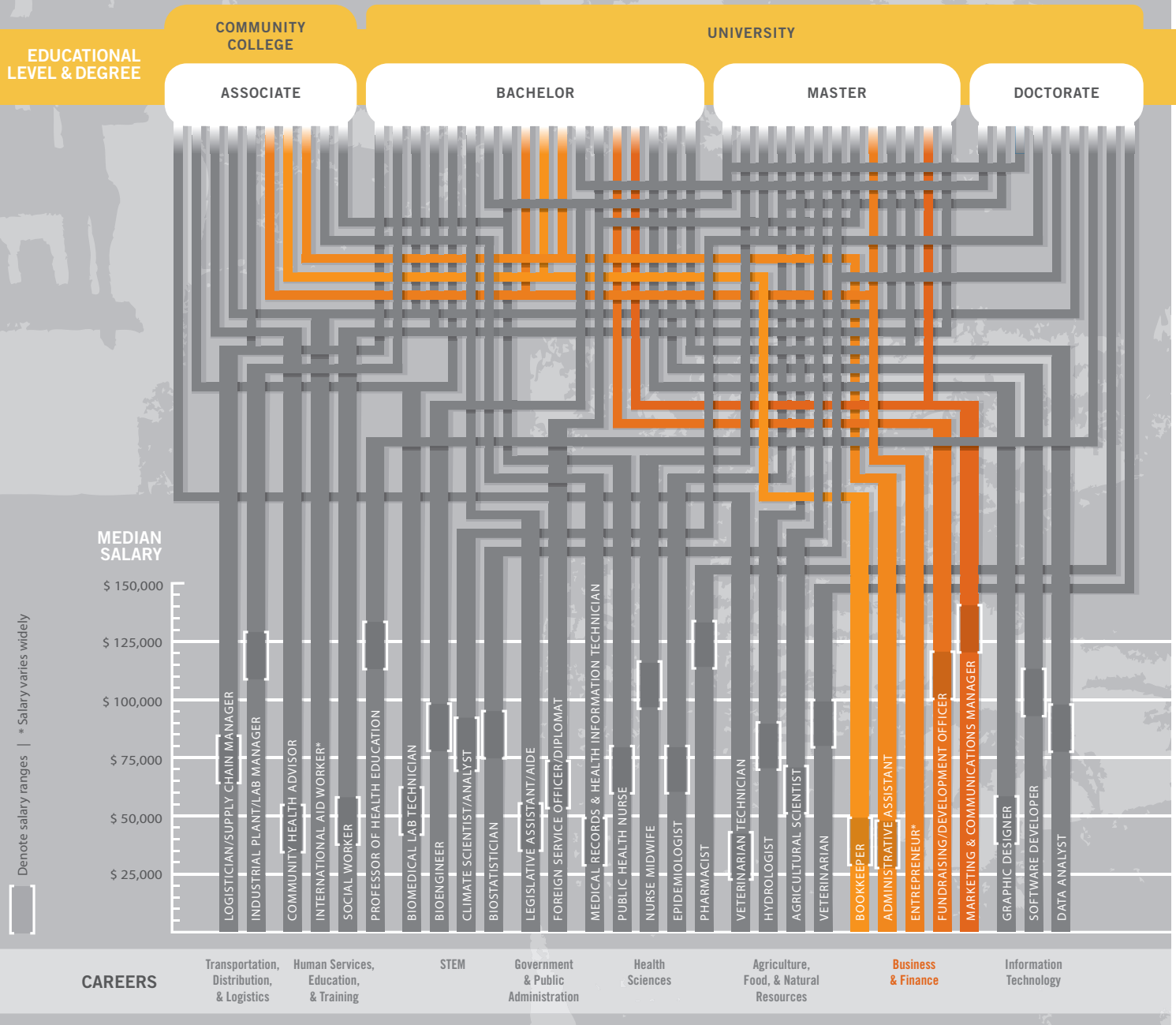
Licenses/Exams: You will need to pass the National Board Examination and/or the North American Veterinary Licensing Exam.

Internships, Apprenticeships, Volunteer Opportunities:

New graduates may want to pursue an internship such as working with veterinarians in clinics, agribusiness, research, or some area of health science, or working with animals on a farm, at a stable, or at an animal shelter.

BUSINESS & FINANCE

Business Management, Administration, & Finance



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GLOBAL HEALTH CAREERS IN Business & Finance

Bookkeeper, Information/Education/Communications Officer, Volunteer Coordinator, Grants Manager, Contracts Manager, **Administrative Assistant**, Receptionist, Human Resources, Public Relations Manager, Project Manager, Program Assistant, Program Officer, Business Advisor, Information and Communications Technologist, **Entrepreneur**, Business Developer, NGO Developer, **Fundraising/Development Officer**, Global Transportation Specialist, Commercialization Officer/Associate, **Marketing Communications Manager**

Bookkeeper

Median Salary: \$39,200 Annually

Job Description: Bookkeepers work on the financial side of non-governmental organizations, community groups, clinics, and/or biomedical research groups. A primary job responsibility of a Bookkeeper is to manage and produce financial records for the organization, including accounts payable/receivable, assets/liabilities, and accounting statements. This job is a good fit for a detail-oriented person with math and computer skills.

Minimum Education: At the minimum, an Associate's or Bachelor's degree will be desired.

- **High School Coursework:** Courses in computer technology, math, and accounting. Also, joining the Technology Student Association, FBLA, or DECA would be helpful for job preparation.
- **Post-High School Study:** A Bachelor's degree in accounting. You may need additional training to work in a medical or legal setting.

Certification: A Certified Bookkeeper (CB) designation would be helpful, especially for those who do not have a Bachelor's degree in Accounting. A Certified Public Bookkeeper certification is also available.

Internships, Apprenticeships, Volunteer Opportunities: Americorps has a variety of volunteer opportunities that could help strengthen your job skills. Look for internship opportunities related to accounting.

Administrative Assistant

Median Salary: \$37,800 Annually

Job Description: This is a good position to gain entry-level skills at non-governmental organizations, community groups, clinics, and/or biomedical research groups. A primary job responsibility of an Administrative Assistant is supporting other team members in keeping the office running smoothly. Among the many aspects of the job are greeting visitors, routing phone calls, coordinating mail and other office paperwork, writing reports, and maintaining databases. Some positions may include basic bookkeeping.

Minimum Education: At the minimum, an Associate's or Bachelor's degree.

- **High School Coursework:** Courses in computer technology, word processing, English literature, composition, accounting, and speech. Also, joining the Technology Student Association or DECA would be helpful for job preparation.
- **Post-High School Study:** A Bachelor's degree, strong computer skills, and a few years of experience as a receptionist may be needed before advancing to an Administrative Assistant position. You may need additional training to work in a medical or legal setting.

Internships, Apprenticeships, Volunteer Opportunities: Americorps has a variety of volunteer opportunities that could help strengthen your job skills. Volunteer for your school, local library, a health clinic, or community organization to help provide administrative support.

Entrepreneur

Median Salary: Varies widely

Job Description: An entrepreneur works to take an idea to the market. They are often self-employed business owners with a good idea for a valuable device, app, product, or service that has a potential customer base. Entrepreneurs often need to learn to be good at many things, including product development, manufacturing, sales, market development, fundraising, and more. They are often fueled by a passion for their invention or idea.

Minimum Education: There is no minimum educational requirement to be an Entrepreneur, although skills in business, entrepreneurship, marketing, sales, and finance would all be helpful.

- **High School Coursework:** Coursework to meet college entrance requirements. Join the Technology Student Association, DECA, SkillsUSA, or FBLA.
- **Post-High School Study:** A Bachelor's degree in a STEM field, Business Administration, or Entrepreneurship will help develop important skills.

Internships, Apprenticeships, Volunteer Opportunities: Look for volunteer opportunities that allow you to gain insight into your area of business interest, such as engineering or computer science.

Fundraising/Development Officer

Median Salary: \$111,300 Annually

Job Description: Development Officers manage an organization's fundraising efforts. They engage donors and mobilize financial resources. They work with a team of staff and consultants to identify, develop, and steward donors, while managing relationships with existing donors and partner organizations. They ensure that donors and partners receive consistent, quality communications, and have highly effective opportunities to engage with business programs. Thus, they have the ability to build relationships and understand what motivates others. Typically, Development Officers work in an office 40 hours a week but also travel regularly.

Minimum Education: Bachelor's degree.

- **High School Coursework:** Coursework to meet college admissions requirements, including math, science, and health courses. Joining a student organization such as SkillsUSA would be a great way to build skills

in leadership and management. In many high schools, there are career and technical education courses related to business, as well as student organizations such as DECA and FBLA. Participation in these organizations would be helpful for college admissions.

- **Post-High School Study:** Bachelor's degree in business, communications, or public relations, with a minor in health, science, accounting, or finance. A certificate program in fundraising or non-profit management may also be helpful.

Internships, Apprenticeships, Volunteer Opportunities: Seek out volunteer opportunities where you can help lead fundraising efforts for a student program or local non-profit organization. An internship position with a non-profit's development group may be helpful.

Marketing Communications Manager

Median Salary: \$132,200 Annually

Job Description: A Marketing Communications Manager creates, implements, and manages communications programs that describe and promote an organization and its products. This person may work with graphics, brochures, company or product fact sheets, logos, or other promotional products. They also manage the research and development of content for publications and oversee the preparation of presentations and/or speeches geared toward employees.

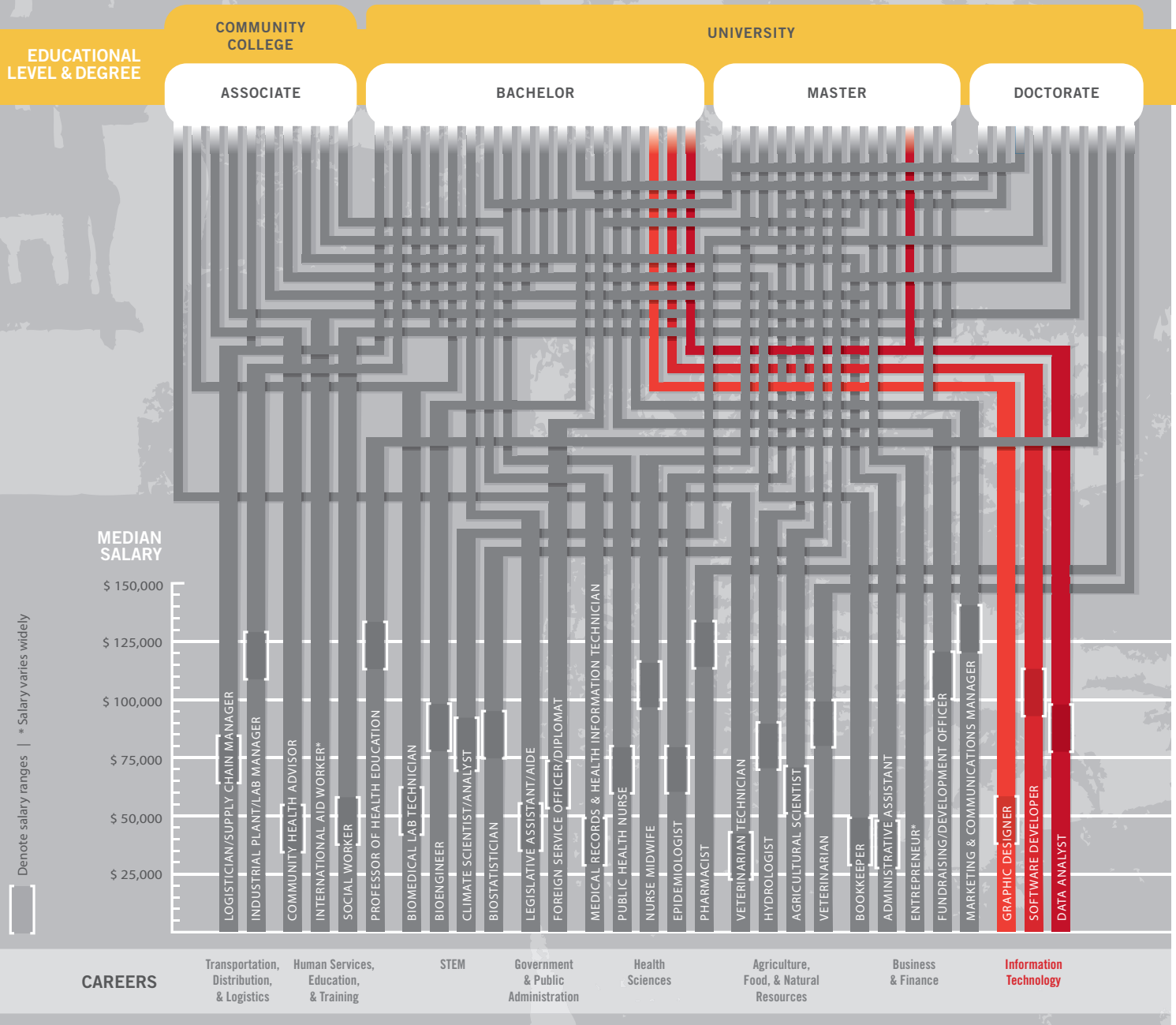
Minimum Education: Bachelor's degree in business communications. Some positions may require a Master of Business Administration (MBA).

- **High School Coursework:** Coursework to meet college admissions requirements. In particular, take courses in English literature, speech, and journalism. You may also want to take four years of a world language (such as Spanish). In many high schools, there are career and technical education courses related to business, as well as student organizations such as DECA and FBLA.
- **Post-High School Study:** Bachelor's degree in psychology, marketing, journalism, or business communications. Some jobs require a Master's in business administration with a focus in marketing.

Internships, Apprenticeships, Volunteer Opportunities: Intern as a marketing assistant for a company in an industry which interests you, such as pharmaceuticals, medical devices, or biomedical research. You may also want to consider an internship with a marketing firm.

INFORMATION TECHNOLOGY

Communications, Design, & Information Technology



GLOBAL HEALTH CAREERS IN Information Technology

Video Producer, Filmmaker, Web Designer, **Graphic Designer**, Technical Writer, Database Administrator, **Software Developer**, Network Administrator, Computer Programmer, App Architect, **Data Analyst**

Graphic Designer

Median Salary: \$48,700 Annually

Job Description: Graphic Designers are creative people who use a background in art to communicate ideas through illustrations, graphics, logos, and text. Their designs may be incorporated into brochures, reports, advertisements, books, websites, or patient education materials produced by a global health organization. They may design these visual concepts by hand or through the use of computer software for layout, illustration, or photo editing. Graphic Designers may be self-employed or work within the graphics, communications, or public relations department of a larger organization.

Minimum Education: At the minimum, a Bachelor's degree is required.

- **High School Coursework:** Coursework to meet college entrance requirements. Take courses in art, design, and communications and develop your portfolio.
- **Post-High School Study:** A Bachelor's degree in graphic design or art, perhaps with a focus in computerized design or commercial graphics.

Internships, Apprenticeships, Volunteer Opportunities:

In high school, consider participating in FBLA or SkillsUSA. Look for internship opportunities related to design.

Software Developer

Median Salary: \$103,600 Annually

Job Description: Software Developers develop applications (apps) or systems for computers and mobile devices. They may work on the design, development, testing, debugging, and launch of computer software. In a global health context, these systems and devices

might help people to access health services, change their behavior, or provide data for decision making. They may write the code themselves, or work closely with Computer Programmers.

Minimum Education: At the minimum, a Bachelor's degree is required.

- **High School Coursework:** Coursework to meet college entrance requirements. Take classes in computer science and look for opportunities to develop coding skills, such as through coding clubs, robotics clubs, Girls Who Code, and similar opportunities.
- **Post-High School Study:** A Bachelor's degree in computer science, programming, or software engineering, with a background in coding. A minor in science, engineering, healthcare, or business may help someone going into the global health sector.

Internships, Apprenticeships, Volunteer Opportunities:

In high school, consider participating in FBLA or SkillsUSA. Seek out internship opportunities with a software development company. Consider participating in an app or software design challenge or Hackathon.

Data Analyst

Median Salary: \$88,300 Annually

Job Description: Data Analysts work with "big data" to understand patterns that can provide insights for policy or business decisions. For example, "big data" sources related to global health include vaccine trials, genetic databases, geopolitical information, social networking websites, disease outbreaks, or climate datasets. This career requires a solid foundation in math and computer programming.

Minimum Education: At the minimum, a Bachelor's degree is required. Advancing to a data scientist position requires a Master's degree.

- **High School Coursework:** Coursework to meet college entrance requirements. Focus on math, statistics, science, engineering, and computer programming courses. Consider participating in FBLA or SkillsUSA.
- **Post-High School Study:** A Bachelor's degree in mathematics, statistics, or computer science can be accompanied by a minor in a science, engineering, or a healthcare field.

Internships, Apprenticeships, Volunteer Opportunities:

Look for opportunities to apprentice with an organization that works with big data or a company where you can develop your computer programming and technology skills.