

UNIFIED CAREER OUTCOMES TAXONOMY 2017 Experiment 2 (UCOT Exp2)

TIER 1: WORKFORCE SECTOR, full detail

Sector	Definition	Coding clarifications
Academia	Any post-secondary academic institution where training occurs, including colleges, universities, some medical centers, or free-standing research institutions.	Includes teaching hospitals. Does not include K - 12 schools.
Government	Any organization operated by federal, state, local or foreign governments.	Includes Veterans Affairs hospitals and some K – 12 schools.
For-Profit	Any organization that operates to make a profit, including some industry research.	
Nonprofit	Any non-governmental organization that does not operate to make a profit.	
Other	Individuals who work at an organization not included in other options or who are on extended leave of absence from the workforce.	Includes individuals known to be unemployed.
Unknown	No current career information is known.	Reserve for individuals without any title or any available employment information.

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TIER 2: CAREER TYPE, full detail

Career Type	Definition	Coding clarifications and examples
Primarily research	The primary, although not necessarily only, focus is the conduct or oversight of scientific research.	See guidance document for suggestions on how to code faculty titles. *Includes postdoctoral research positions.
Primarily teaching	The primary, although not necessarily only, focus is education and teaching.	See guidance document for suggestions on how to code faculty titles. *Includes postdoctoral teaching positions.
Science-related	Career that is relevant to the conduct of scientific research but does not <i>directly</i> conduct or oversee research activities.	Program Officer; Physician; Medical Science Liaison; Editor; Healthcare Consultant
Not related to science	Career that is not directly relevant to the conduct of scientific research.	Bank Manager; Campaign Manager; Golf Instructor; Chef; Painter
Further training or education	Temporary training position or enrollment in further education.	Law School Student; MD/PhD Student; AAAS Fellow
Unemployed/Unknown	Not currently employed or no information is known.	Family caretaker; retired; unemployed.

*NOTE: In UCOT Exp2 at the Career Type tier, our schema classifies the traditional academic postdoctoral scientist based on the broad content of their work (e.g., research or teaching) as opposed to as "Further Training or Education". We concluded that their temporary training status would be captured in their Job Function ("Postdoctoral"). This recommendation is rooted in the desire to accurately capture the type of postdoctoral training that the individual is pursuing.

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TIER 3: JOB FUNCTION, full detail

Job Function	Definition	Coding clarifications	Job Title Examples	Common Coding Scheme
Administration	Administrative-intensive roles in which the individual is managing people, projects, and resources.	Spends more than 50% of their time in administrative duties that are internal to the organization.	Program Manager; Scientific Reviewer; Assistant Dean of Faculty Affairs; Department Chair; Program Officer; Director of Research Administration/Grants	Assistant Dean (no active lab); Academia > Science-related > Administration. Program Officer: Government > Science-related > Administration.
Business development, consulting, and strategic alliances	Role relevant to the development, execution, management, or analysis of a business. Role may include external relationship management, refinement of operational efficiency, or fee-based advisory services.	Director or higher-level positions that have primarily <i>externally-facing</i> responsibilities	Business Development Manager; Consultant; VP of Medical Strategy; Venture Capitalist; CEO (non-founder); Chief Medical Officer; Dean (no active lab); Director of Research Center; Director of Medical Affairs	Consultant: For-Profit > Science-related > Business Development. Director of Medical Affairs: For-profit > Science-related > Business Development. Dean of Sciences Division (no active lab): Academia > Science-related > Business Development. Director of the NIH: Government > Science-related > Business Development.
Clinical research management	Role that is responsible for the oversight, management, or design of clinical research trials.		Clinical Trial Liaison; Director, Clinical Strategy; Director of Laboratory Animal Resources	Clinical Coordinator: For-Profit > Science-related > Clinical research management.
Clinical services	Role that involves that administration of clinical services or research.		Genetics counselor; Clinical laboratory staff; Radiologist; Physician Assistant; Pharmacologist; Pharmacy Intern; Lab Director	Genetic Counselor at Teaching Hospital: Academia > Science-related > Clinical Services.
Data science, analytics, and software engineering	Role that primarily involves programming, analytics, advanced statistics, data communication, and/or software development.		Computational Biologist; Analytics Data Scientist Consultant; Sr. Software Architect; Genomic Data Analyst; Software Engineer	Software Engineer: For-Profit > Science-related > Data science, analytics, and software engineering.

UNIFIED CAREER OUTCOMES TAXONOMY 2017 Experiment 2 (UCOT Exp2)

Job Function, continued...

Job Function	Definition	Coding clarifications	Job Title Examples	Common Coding Scheme
Entrepreneurship	Founder or co-founder of their own business or enterprise, and employer of at least one other person.	This category should not be used for C-suite executives of established companies, they should be classified as "Business Development" unless they were also involved in founding the company. Freelance specialists should be classified in the field of their specialization (e.g., science communications, consulting).	Owner; CEO and Founder	Founder and CEO of Science Writing Company: For-Profit > Science-related > Entrepreneurship.
Group Leader or Principal Investigator	Role that involves leading a research team in any research environment. The individual is clearly responsible for funding and managing a research group.	This job function will be used in multiple sectors (academia, nonprofit, for-profit, government).	Principal Scientist; Director of Immunological Research; Senior Center Director; Research Scientist Lead; Professor	Assistant Professor (with active research lab): Academia > Primarily Research > Group Leader or Principal Investigator. Principal Scientist (commercial industry company): For-Profit > Primarily Research > Group Leader or Principal Investigator.
Healthcare provider	Role where the primary responsibility is providing healthcare.	These individuals usually fall into the Career Type "Science-related," unless it is clear that they are primarily performing research; in that case, the career type might be "Primarily Research"	Physician; Resident; Nurse; Veterinarian; Dermatologist	Physician at a government hospital: Government > Science-related > Healthcare Provider.
Intellectual property and law	Role that involves the curation, management, implementation or protection of intelligence and creation, including patents, trademarks, copyrights, or trade secrets.	Law students belong to this Job Function (instead of "Completing further education") because their career outcome is specific. Their training status will be captured at the Career Type level as "Further Training."	Patent agent; Patent attorney/Associate; Technology transfer specialist; Patent Examiner; Technology manager; Law Student	Law Student: Academia > Further Education > Intellectual property and law. Technology manager at start-up: For-Profit > Science-related > Intellectual property and law.

UNIFIED CAREER OUTCOMES TAXONOMY 2017 Experiment 2 (UCOT Exp2)

Job Function, continued...

Job Function	Definition	Coding clarifications	Job Title Examples	Common Coding Scheme
Postdoctoral	A temporary mentored training position following completion of doctoral degree.	At the Career Type level, classify the postdoc according to the type of postdoctoral research that they are engaged in, likely either "Primarily Research" or "Primarily Teaching."	Postdoctoral Fellow; Postdoctoral Research Associate; Postdoctoral Teaching Scholar	Teaching Postdoc: Academia > Primarily Teaching > Postdoctoral. Research Postdoc: Academia > Primarily Research > Postdoctoral.
Regulatory affairs	Role that involves controlling or evaluating the safety and efficacy of products in areas including pharmaceuticals, medicines, and devices.		Regulatory affairs professional; Quality control specialist; Compliance officer; Senior Safety Specialist; Regulatory Scientist	Quality control specialist: For-Profit > Science-related > Regulatory Affairs. Regulatory Affairs Support Manager (academic institution): Academia > Science-related > Regulatory Affairs.
Research staff or Technical director	Role that directly involves performing and managing research.	The individual is involved in research, but not responsible for funding and managing a group. "Staff fellow" is coded here if it is not an official postdoctoral position.	Research Assistant/Associate Professor; Research Instructor; Staff Scientist I/II/III; Senior Scientist; Epidemiologist; Microbiologist; Core/Facilities Director; Research Associate; Biologist; Drug Discovery Scientist; ORISE or EIS Fellow	Industry Staff Scientist: For-Profit > Primarily Research > Research staff or technical director.
Sales and marketing	Role that is related to the sales or marketing of a science-related product or service.	A medical science liaison should be classified as "Technical support and product development."	Associate Director of Clinical and Scientific Marketing; Account Representative; Sales Lead; Life Science Sales Specialists	Account Representative for Cell Manufacturer: For-Profit > Science-related > Sales and Marketing.
Science education and outreach	Role that involves K-12 teaching or public outreach at a primary/secondary school, science museum, scientific society, or similar.	A public school belongs in the Government Sector.	K-12 Educator; High School Teacher; Museum Curriculum Developer; Outreach Program Administrator	High School Teacher at public school: Government > Primarily Teaching > Science Education and Outreach.

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Job Function, continued...

Job Function	Definition	Coding clarifications	Job Title Examples	Common Coding Scheme
Science policy and government affairs	Role that involves policy or program development and review, including analysis, advisory, or advocacy.	Unless a program officer is actively involved in determination of policy, that individual should be classified as "Administration."	Public/Government Affairs Staff; Science Policy Analyst; Public Health Analysts; AAAS Fellow	AAAS Fellow: Non-Profit > Further training > Science Policy and Government Affairs. NIH Program Officer: Government > Science-related > Administration.
Science writing and communication	Role that involves the communication of science-related topics.		Science/Medical/Technical/ Grants/Regulatory Writer; Journalist; Editor; Publisher; Speaker/Presenter	Science Editor: For-Profit > Science-related > Science Writing and Communication
Teaching faculty or staff	Teaching position at post-secondary schools, universities, or institutions with no contractual research responsibilities.	Positions in elementary and high schools should be coded as "Science education and outreach."	Assistant professor; associate professor; professor; Instructor; Lecturer in teaching-intensive institutions; adjunct; visiting faculty	Biology Instructor at 2-year College: Academia > Primarily Teaching > Teaching faculty or staff.
Technical support and product development	Role that requires specialized technical/expert knowledge of a science-related product.		Medical Science Liaison (MSL); Field Application Scientists; Product Development Scientist/Engineer; Technical Support Specialist	Medical Science Liaison: For-profit > Science-related > Technical Support and Product Development.
Other employment	Role that does not require scientific training or involve the direct implementation or communication of science.	Includes: Industry not related to science; politics not focused on science; food or hospitality services; military service; volunteer/mission work.	Campaign Manager; Golf Instructor; Army Captain; Chef; Painter	Army Captain (non-specialist): Government > Not related to science > Other.
Completing further education	Pursuing additional education that usually results in graduation with conferment of a degree or certificate; this does not include traditional academic postdoctoral positions which have their own Job Function "Postdoctoral."	Pursuing additional education where the career outcome is not specific or clear. Postdoctoral trainees should be classified in the "Postdoctoral" Job Function and Career Type based on their broad field.	Student in an MD/PhD, dentistry, nursing, business, or other academic program.	MD/PhD Student: Academia > Further training or education > Completing further education.

UNIFIED CAREER OUTCOMES TAXONOMY 2017 Experiment 2 (UCOT Exp2)

Job Function, continued...

Job Function	Definition	Coding clarifications	Job Title Examples	Common Coding Scheme
Unemployed or Seeking Employment	Known to be temporarily out of the workforce but likely to return.		Full-time parent; Seeking Employment; Family caretaker	Full time parent: Other > Unknown/Other > Unemployed or Seeking Employment.
Deceased/retired	Permanently out of the workforce.			
Unknown	No title or career information can be found for this individual.			