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# Updating Vocational Interests Information for the O\*NET Content Model

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# Updating Vocational Interests Information for the O\*NET Content Model

## Introduction

The Occupational Information Network (O\*NET) is a comprehensive system developed by the U.S. Department of Labor that provides information for over 900 occupations within the U.S. economy. The occupational information collected is guided by the [O\\*NET Content Model](#), the conceptual foundation of O\*NET (Mumford & Peterson, 1999). The O\*NET Content Model provides a framework that identifies the most important types of information about work and integrates them into a theoretically and empirically sound system. The purpose of the current effort was to: (a) update and enhance the RIASEC vocational interest descriptions included in the O\*NET Content Model (Holland, 1997), and (b) expand the O\*NET Content Model to include basic interest dimensions (Su et al., 2019).

RIASEC general interests have been included in the O\*NET Content Model since its inception. The information is incorporated throughout the O\*NET system (i.e., websites, vocational interest assessment, database, web services) and is used extensively by millions of students and job seekers annually, application developers, and researchers. Modern and rich RIASEC descriptions are needed.

The expansion of the O\*NET Content Model to include basic interests is also very important. The more specific and precise basic interests support the development and understanding of the RIASEC general interests. In addition, their inclusion in the O\*NET Content Model is a first step towards adding new ways to assess vocational interests and to link interests to occupations in the O\*NET system. Basic interests will potentially provide future O\*NET customers with more detailed, targeted options for identifying and exploring occupations.

The present report describes updating and enhancing the RIASEC descriptions, and development of 41 basic interest descriptions based on the Comprehensive Assessment of Basic Interests (CABIN; Su et al., 2019) for inclusion in the O\*NET Content Model. We begin with a brief discussion of interests and how they are defined, their importance to career development and work outcomes, and their role within the O\*NET Program. Next, we discuss how RIASEC descriptions were updated and how the 41 basic interests were identified and described for inclusion in the O\*NET Content Model.

## Definition of Vocational Interests

Vocational interests are preferences to engage in activities and contexts in which activities occur that motivate goal-oriented behaviors and orient individuals toward certain work environments (Rounds & Su, 2014). Importantly, interests are based upon work activities and these activities have two elements: an action and a target object or context. For example, the activity, “build kitchen cabinets”, has the action of “build” and an object of “kitchen cabinets”. Another example, “teach a high school class”, has the action of “teach” and the object and context of “high school class”. These work activities become vocational interest assessment items when individuals report their degree of liking or disliking the activity. These work activities, now interest items, can be organized into two kinds of scales: *general interest scales* and *basic interest scales*.

*General occupational interest scales* assess broad themes of preferences (broad interest dimensions) that include a heterogeneous set of work activities or settings. The most familiar

general interest scales are the Realistic-Investigative-Artistic-Social-Enterprising-Conventional theoretical model (acronym RIASEC, Holland, 1997). Each of these RIASEC scales has a theme that unites a wide range and variety of work activities and occupations. For example, the broad range of activities for Realistic include designing, building, or repairing of equipment, materials, or structures, engaging in physical activity, or working outdoors. Realistic occupations are often associated with engineering, mechanics and electronics, construction, woodworking, transportation, machine operation, agriculture, animal services, physical or manual labor, athletics, or protective services. The simple, easy to understand RIASEC interest scales serve as a good starting point for career explorers, job seekers, and counselors. They also lead to a wide variety of career options and channels. However, because RIASEC scales are broad and heterogeneous, there is also a need to develop more precise information on the kinds of interests that are best related to specific occupations. Basic interests are more numerous and more specific than the broader general interest domains which they comprise and therefore provide more precise information on which kinds of interests are related to which occupations.

*Basic occupational interest scales* are specific, homogeneous facets of interests that group together work activities that share similar properties and represent the same abstract object, such as engineering, medical science, music, or accounting. An important characteristic of basic interests is that they rely on everyday language and definitions and therefore, they are easy to communicate to a variety of individuals (e.g., students, adults). For example, the basic interest dimension *Teaching* includes a variety of activities in education that reflect the same underlying interest of instructing students to facilitate learning and development. Basic interest labels (e.g., Athletics, Engineering, Performing Arts, Music, Writing, Religious Activities, Sales, Law, Accounting) often convey sufficient information to understand the meaning of the basic interest. Basic interests can be thought of as “building blocks of general interests” and can be linked to the RIASEC model. Each RIASEC general interest is then composed of multiple basic interests as shown above with the example of Realistic work activities. Importantly, the associated basic interests can help counselors, end users, and researchers gain a better understanding of each RIASEC theme. Initial development of basic interest scales can be traced to the Strong Interest Inventory (Campbell et al., 1968), followed later by the Jackson Vocational Interest Survey (JVIS; Jackson, 2000) and the Basic Interest Markers (BIM; Liao et al., 2008). Recently, Su et al. (2019) proposed yet the most comprehensive set of basic interests.

### **Importance of Vocational Interests**

The importance of vocational interests for educational and occupational choice and work-related outcomes has been recently highlighted in a series of meta-analyses. Vocational interests are highly accurate predictors of career choices, including educational majors and future occupations (Hanna & Rounds, 2020). Vocational interests have been linked with various criteria of job performance (Nye et al., 2017; Van Iddekinge et al., 2011) and job satisfaction (Hoff et al., 2020). These meta-analytic studies are based on the RIASEC model (Holland, 1997) to describe and classify occupational interests. Since the early 1970's, the RIASEC taxonomy has been widely used to develop vocational interest measures (Nauta, 2010).

At the basic interest level, work activities are grouped to transcend specific situations or job descriptions, identifying shared properties of occupations, such as context, setting, objects of interest, and processes. Basic interests span across specific job titles, making this level of the taxonomy more flexible than measures of general interests, such as the Holland's (1997) RIASEC types. Measures of basic interests make finer distinctions among areas of vocational interests, thus allowing for a model that may be more representative of interest structure. An additional advantage is that basic interests provide a level of flexibility that corresponds to

changes in the labor market associated with a transition to a knowledge-based economy. In this context, basic interests reflect the nature of the changing work environment of the knowledge-based economy and the fast-paced technology changes in industry. Basic interests offer individuals the opportunity to maintain a sense of career coherence based on a set of activities they value.

### **Vocational Interests within O\*NET**

Vocational interest information is an important part of the O\*NET Program's support of educational planning, career exploration, career guidance, job search, and organizational placement (Rounds et al., 2021). The O\*NET Content Model defines interest information compatible with Holland's RIASEC model of personality types and work environments (Holland, 1997). The RIASEC model was selected because of its extensive use across a variety of applied settings, as well as its prevalent use within research. The model was familiar to and preferred by vocational counselors and employment program professionals/directors (e.g., One Stop Centers, Employment Security Offices, Workforce Development Centers). The move towards and emphasis on self-assessment also necessitated the selection of a model that was easy for end users to understand and use. As noted above, within Holland's model, six interest categories are used to describe the work environment of occupations: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (i.e., RIASEC). Corresponding Occupational Interest Profiles and high-point codes are published within the O\*NET database and [O\\*NET web services](#) (Rounds et al., 1999b; Rounds et al., 2008; Rounds et al., 2013). An OIP consists of six numerical scores indicating how descriptive each RIASEC dimension is of an O\*NET-SOC occupation (Gregory et al., 2019). In addition, a profile of one to three high-point codes indicates which RIASEC dimensions are most descriptive of an O\*NET-SOC occupation. The number of high-point codes offered for an O\*NET occupation depends on the number that meet a minimum degree of descriptiveness for the O\*NET-SOC occupation. Interest data for O\*NET-SOC occupations is disseminated through various O\*NET websites ([O\\*NET OnLine](#); [My Next Move](#); [My Next Move for Veterans](#); [Mi Proximo Paso](#)), available through the [O\\*NET database](#) and web services (National Center for O\*NET Development, 2022), and plays a critical role in facilitating career exploration processes in conjunction with [O\\*NET's Interest Profiler](#) assessment to identify O\*NET-SOC occupations that may align with an individual's vocational interests (Gregory & Lewis, 2016; Rounds et al., 2021).

### **Updating the RIASEC Interest Descriptions for the O\*NET Content Model**

The current RIASEC descriptions within the O\*NET Content Model (heretofore called, the "O\*NET RIASEC descriptions") were initially developed at the onset of the O\*NET Content Model and then refined during the development of the O\*NET Interest Profiler Long Form ([Lewis & Rivkin, 1999](#); [Rounds et al., 1999a](#); [Rounds et al., 1999c](#)). Given their age, the O\*NET RIASEC descriptions may be dated due to changes in industry and occupations and foremost, changes in required work tasks. To ensure these descriptions reflect the current world of work, we used a variety of information to update them for the O\*NET Content Model.

The updated RIASEC descriptions we developed broadly model Holland's (1997) RIASEC definitions. However, a major exception is that our updated O\*NET RIASEC descriptions, conceptualize Holland's model as a vocational interest model of six multidimensional traits, with each of these RIASEC traits related to multiple *basic interests*. To update the O\*NET RIASEC descriptions, we used basic interests drawn from comprehensive assessment of basic interests (CABIN; Su et al., 2019). CABIN consists of 41 basic interests and their corresponding scales. Each basic interest scale is content-specific and unidimensional. Items are representative of the

occupations and work tasks covered by each scale. To ensure that, at the item level, the basic interest assessment covered the full range of the world of work, Su et al. (2019) extracted information about work tasks for all the occupations in the O\*NET system to develop the items. Another difference between Holland's RIASEC definitions and the updated O\*NET RIASEC descriptions is that the latter do not include Holland's surplus meaning drawn from correlates (e.g., abilities, competencies, values, and personality traits). In general, the updated O\*NET RIASEC descriptions follow closely the idea that vocational interests are grounded in work activities and these activities have two elements: an action and a target object or context (Rounds & Su, 2014). For example, the activity, "study the effects of a new medicine", has the action of "study" and an object of "new medicine". Another example, "teach a pre-school class", has the action of "teach" and the object and context of "pre-school class".

### **Writing Updated O\*NET RIASEC Descriptions**

For each RIASEC interest, we developed:

- a written definition,
- lists of illustrative work activities,
- lists of illustrative occupations (drawn from the [O\\*NET-SOC 2019 taxonomy](#)), and
- lists of keywords.

To write these RIASEC definitions, several steps and guidelines were followed. We also illustrate the process of writing these O\*NET definitions with the Investigative interest definition.

**Step 1:** The first step was to review the RIASEC definitions developed for the O\*NET Content Model and more recent definitions written for the Interest Profiler manual (Rounds, Hoff, & Lewis, 2021). Below, we provide descriptions of Investigative interests from the latest O\*NET Content Model prior to the update, as well as from the Interest Profiler manual (Rounds et al., 2021):

**Current Content Description:** *Investigative occupations frequently involve working with ideas and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.*

**Interest Profiler Manual Description:** *Investigative careers involve working with ideas, and scientific and research pursuits. Investigative activities often require an extensive amount of thinking. These careers can involve searching for facts and figuring out problems mentally.*

*Example basic interests: medical science, life science, physical science, mathematics  
Example careers: biologists, veterinarians, and chemists.*

**Step 2:** The second step was mine the new basic interests' descriptions developed and linked to each RIASEC dimension as part of this work (see the next section of this report titled: *Establishing a Basic Interests Structure for O\*NET*) for information that would be helpful for updating each RIASEC dimension's description. For example, the seven basic interests for Investigative are *Physical Science, Life Science, Medical Science, Social Science, Humanities, Mathematics/Statistics, and Health Care Service*. We used the descriptions for these seven Investigative basic interests to identify representative actions and objects/context for use in

updating the Investigative interest description. For example, the illustrative actions we identified for Investigative interests were “Study, Research, Test, Analyze, and Diagnose,” and for the objects/context we identified were “Science, Physical, Life, Medical, Social, Behavior, and Laboratory.” We subsequently used these actions and objects as “keywords” that we included in each RIASEC dimension’s description.

**Step 3:** Next, we wrote updated RIASEC definitions that followed a common structure. Each description started with a sentence that begins with “Work involves...” followed by text that provided a high-level abstraction of the variety of work activities represented by illustrative actions and objects getContexts associated with the given RIASEC dimension. For example, for Investigative interests, the first sentence of the updated definition read: *“Work involves studying and researching non-living objects, living organisms, disease or other forms of impairment, or human behavior”*. The next sentence was written to parsimoniously reflect the heterogeneity of occupations that involve the given RIASEC dimension. *“Investigative occupations are often associated with physical, life, medical, or social sciences, and can be found in the fields of humanities, mathematics/statistics, information technology, or health care service.”* Note that all the basic interests in Step 2 are represented in this definition.

**Step 4:** With the descriptions above in place, we next generated illustrative work activities from the Interest Profiler that broadly covered the content of basic interests linked to the RIASEC interests. Similarly, we selected O\*NET-SOC 2019 occupations that were illustrative of the O\*NET RIASEC descriptions developed in Step 3. In both cases of illustrative work activities and occupations, we aimed for broad coverage of the RIASEC dimension in question, and ensured the activities and occupations were mutually exclusive across RIASEC dimensions. As an example, for Investigative interests, we identified the following illustrative activities and occupations:

#### **Illustrative activities**

Work in a biology lab.

Study ways to reduce water pollution.

Develop a way to better predict the weather.

Develop a new medicine.

#### **Illustrative occupations**

19-2031.00	<a href="#">Chemists</a>
19-1029.04	<a href="#">Biologists</a>
19-1042.00	<a href="#">Medical Scientists, Except Epidemiologists</a>
19-3041.00	<a href="#">Sociologists</a>

**Step 5:** Upon completion of the four steps above, the definitions, illustrative work activities, illustrative occupations, and keywords for each RIASEC dimension were reviewed and edited by the authors of this report for clarity and accuracy. Appendix A of this report provides final definitions, illustrative work activities, illustrative occupations, and keywords for each RIASEC dimension that were delivered to O\*NET for inclusion in the O\*NET Content Model and/or O\*NET database. The information will be included in the O\*NET 27.2 Database and corresponding websites update scheduled for release in February of 2023.

## Establishing a Basic Interests Structure for O\*NET

CABIN (Su et al. 2019) was selected to provide the foundation for basic interest dimensions in the O\*NET Content Model. CABIN augments existing RIASEC descriptions and measures by providing a set of 41 basic interest scales that are content-specific, homogenous, and most important, cover the full range of interest domains. Basic interests can reflect contemporary work tasks and emerging sectors of economy, allowing for more precise assessment of interest in careers. Use of ongoing updates to the O\*NET database creates the possibility for a dynamic process to eventually emerge where work activities and task information collected periodically have the potential to be rapidly transformed into items for basic interests and new occupations. These newly developed basic interests can be used to refine or update the basic interest structure specified in this report over time and be used to update or develop a new generation of general interest themes and/or descriptions (as we illustrated in the previous section).

### Process and Results

To convey the meaning of the 41 basic interests to prospective users of the O\*NET Content Model, we developed:

- written definitions,
- lists of illustrative work activities,
- lists of illustrative occupations (drawn from the [O\\*NET-SOC 2019 taxonomy](#)) for each basic interest, and
- linkages from each basic interest to the RIASEC themes.

Two cardinal rules guided our work. The first was to consider the basic interest labels and CABIN items offered by Su et al. (2019) as a starting point (see Su et al., [2019], Appendix A, pp. 712-714). Each of Su et al.'s basic interest scales have four items (e.g., an example item for the *Health Care Service* basic interest is "Treat patients for acute illnesses or injuries"). The second rule was to develop basic interest definitions and illustrative work activities and occupations that were grounded in language used in [O\\*NET Database 27.0](#). To illustrate how these rules were used to develop basic interest descriptions for the O\*NET Content Model, we use the Health Care Service basic interest as a working example below.

**Step 1:** We first used [O\\*NET's Occupation Keyword Search](#) to conduct a search for all O\*NET occupations that resulted from using the given basic interest's label as the basis for an initial search term (e.g., searching for occupations based on the keywords "health care").

**Step 2:** Next, we drew keywords from the given basic interest dimension's CABIN items (e.g., the four CABIN Health Care Service items) and used those in another occupation keyword search. These keywords were actions and objects central to the definition of the given basic interest. In the present example, actions were "Treat, Diagnose, and Care," and objects were "Patients, Impairments, and Illness." From this iterative process, we selected illustrative occupations that represented the given basic interest dimensions, and where possible, drew them from different SOC job families or [O\\*NET job zones](#) to illustrate diversity in how the basic interest manifests from an occupation perspective ([National Center for O\\*NET Development, 2008](#); [Rivkin & Craven, 2021](#)). We also ensured the resulting lists of illustrative occupations were mutually exclusive across basic interests. For example, for the Health Care Service basic

interest, we identified the following illustrative set of occupations from the O\*NET-SOC 2019 taxonomy via this process:

29-1141.00	<a href="#">Registered Nurses</a>
29-1215.00	<a href="#">Family Medicine Physicians</a>
29-2043.00	<a href="#">Paramedics</a>
31-9092.00	<a href="#">Medical Assistants</a>
29-1021.00	<a href="#">Dentists, General</a>

**Step 3:** With illustrative occupations identified for each basic interest, we next developed a set of work activities for each basic interest. We first reviewed the occupational definitions, tasks, and detailed work activities (DWAs) from [O\\*NET Database 27.0](#) for the list of occupations we developed for the given basic interest. With this as a starting point, we attempted to identify a set of four DWAs that represented a diverse range of ways the basic interest manifests across the illustrative occupations. As needed, we considered occupational task statements if DWAs were not sufficient for providing at least four representative activities. We subsequently edited the identified DWAs/task statements for each basic interest to ensure there was a clear action and object for each activity and that they would be understandable to a wide audience. For example, for the Health Care Service basic interest, we identified the following work activities via this process:

- Provide preventive care to individuals.
- Prescribe medications.
- Administer first aid treatment or life support to injured persons.
- Develop medical treatment plans for patients.

**Step 4:** With illustrative occupations and work activities identified for each basic interest, we then constructed a brief one to two sentence definition of each basic interest dimension based on consideration of the occupations and work activities identified in previous steps, as well as the CABIN items for that basic interest.<sup>1</sup> For example, the definition we developed for the Health Care Service basic interest was as follows:

“Work involves providing health care services to individuals to include the diagnosis, prevention, or treatment of diseases and other forms of illness or impairment.”

Next, we wrote a basic interest definition that more broadly involved actions and objects. For Health Care Service, we used the word “individuals” rather than “patients” and linked the actions with “or.”

**Step 5:** Upon completion of the four steps above, the definitions, illustrative occupations, and illustrative work activities for each basic interest dimension were reviewed and edited by the authors of this report for clarity and accuracy. Appendix B of this report provides final definitions, illustrative work activities, and illustrative occupations for each basic interest dimension that were delivered to O\*NET for inclusion in the Content Model and/or O\*NET database. The

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<sup>1</sup> We took care to avoid duplication of CABIN items in any of the basic interest definitions and illustrative work activities we developed for the O\*NET Content Model due to copyright protections on the CABIN items given their publication in an American Psychological Association (APA) journal.

information will be included in the O\*NET 27.2 Database and corresponding websites update scheduled for release in February of 2023.

### ***Mapping Basic Interests to RIASEC Interests***

We mapped each basic interest dimension to one or more RIASEC general interests following Su and colleagues' (2019) results of confirmatory factor analysis (CFA) (Table 6, p. 705) and exploratory structural equation modeling (ESEM) (Table 8, p. 707) of the CABIN basic interest scales. For the most part, Su et al.'s CFA and ESEM results were consistent across the two analyses. Thirty of the 41 basic interests mapped to the same RIASEC general interests. In cases where the CFA and ESEM results differed, we used the ESEM results to inform our mapping of basic interests to the RIASEC general interests. We deferred to the ESEM results due to the relatively better fit of the ESEM model to the data, and the theoretical meaningfulness of cross-loadings observed in the ESEM results (i.e., when non-trivial cross-loadings were present, they reflected cases where a given basic interest appeared to genuinely reflect elements of more than one RIASEC general interest). In cases of non-trivial cross-loadings ( $>.30$ ) of basic interests from the ESEM, we linked the basic interest to their respective RIASEC general interests associated with the non-trivial loadings. The following 12 basic interests were linked to two RIASEC general interests:

<b>Basic Interests</b>	<b>Linked RIASEC General Interests</b>	
Animal Service	Realistic	Social
Athletics	Realistic	Enterprising
Social Science	Social	Investigative
Humanities	Investigative	Artistic
Mathematics/Statistics	Investigative	Conventional
Health Care Service	Investigative	Social
Culinary Art	Artistic	Social
Religious Activities	Enterprising	Social
Professional Advising	Enterprising	Social
Marketing/Advertising	Enterprising	Artistic
Finance	Conventional	Enterprising
Human Resources	Social	Conventional

Note that for two of the basic interests above, we observed loadings less than .30 in magnitude, but still linked the basic interest to more than one RIASEC general interest given their conceptual relevance. Religious Activities had trivial loadings on Enterprising (.24) and Social (.16). Culinary Art also had similar trivial loadings on Artistic (.26) and Social (.29). In these two cases, we linked both basic interests to their respective RIASEC general interest. The final RIASEC linkages for each basic interest dimensions are included with the basic interest descriptions in Appendix B.

### ***Summary and Future Directions***

The present report summarizes efforts to update and enhance the RIASEC descriptions, and develop 41 basic interest descriptions (based on the Comprehensive Assessment of Basic Interests (CABIN; Su et al., 2019) for inclusion in the O\*NET Content Model. For each of the six RIASEC general interests and the 41 basic interests, we developed written definitions and lists of illustrative work activities and occupations (drawn from the [O\\*NET-SOC 2019 taxonomy](#)). The enhancement of RIASEC information also included the identification of related keywords for each interest. The development effort included linking each basic interest to the RIASEC general interests. Since RIASEC general interests are multidimensional, basic interests helped

more systematically identify the kinds of work activities that compose the RIASEC interests, allowing for the creation of richer updated descriptions of the RIASEC general interests for the O\*NET Content Model.

It is important to note that the basic interest descriptions developed for the O\*NET Content Model are grounded in O\*NET occupational definitions, core tasks, and detailed work activities. We used this O\*NET information to develop illustrative work activities, identify occupations, and write the basic interest definitions. Given their grounding in O\*NET information, the process we used for developing basic interest and RIASEC definitions described in this report can provide a model for future revisions to the basic interest and RIASEC descriptions (to include introduction of new basic interests) as the world of work changes. For example, periodically, as new types of occupations are added to O\*NET, the Center may consider evaluating whether the existing set of basic interests provide coverage for those new occupations, and if not consider expanding the set of basic interest dimensions as needed. Similarly, as occupations are removed from O\*NET or combined with other occupations, the Center may consider evaluating whether the existing set of basic interests can be pruned back considering changes to the world of work.

Lastly, addition of the 41 basic interests to the O\*NET Content Model represents a first step in opening up possibilities for new ways to link individuals' vocational interests to O\*NET occupations. For example, in the future, O\*NET occupation basic interest profiles could be developed and added to the O\*NET database, offering the public an additional, more detailed way to identify and explore O\*NET occupations of interest beyond the RIASEC content currently available in the O\*NET system.

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## Appendix A: RIASEC Dimension Definitions for the O\*NET Content Model

All illustrative occupations listed in this appendix are based on the [O\\*NET-SOC 2019 taxonomy](#) and drawn from [O\\*NET Database 27.0](#).

### 1. Realistic

#### Definition

Work involves designing, building, or repairing of equipment, materials, or structures, engaging in physical activity, or working outdoors. Realistic occupations are often associated with engineering, mechanics and electronics, construction, woodworking, transportation, machine operation, agriculture, animal services, physical or manual labor, athletics, or protective services.

#### Keywords

Actions: Build, Repair, Maintain, Install, Drive, Work with Hands

Objects: Plants, Animals, Electronics, Real-World Materials like Wood, Outdoors, Machines, Equipment, Tools

#### Illustrative activities

Repair household appliances.

Build kitchen cabinets.

Put out forest fires.

Drive a truck to deliver packages to offices and homes.

#### Illustrative occupations

17-3024.01	<a href="#">Robotics Technicians</a>
47-2031.00	<a href="#">Carpenters</a>
53-3052.00	<a href="#">Bus Drivers, Transit and Intercity</a>
45-2091.00	<a href="#">Agricultural Equipment Operators</a>

#### Associated Basic Interest dimensions

Mechanics/Electronics

Transportation/Machine Operation

Engineering

Physical/Manual Labor

Nature/Outdoors

Athletics

Construction/Woodwork

Protective Service

Agriculture

Animal Service

## 2. Investigative

### Definition

Work involves studying and researching non-living objects, living organisms, disease or other forms of impairment, or human behavior. Investigative occupations are often associated with physical, life, medical, or social sciences, and can be found in the fields of humanities, mathematics/statistics, information technology, or health care service.

### Keywords

Actions: Study, Research, Test, Analyze, Diagnose, Discover, Think, Problem Solve  
 Objects: Science, Knowledge, Laboratory, Ideas, Facts

### Illustrative activities

Work in a biology lab.  
 Study ways to reduce water pollution.  
 Develop a way to better predict the weather.  
 Develop a new medicine.

### Illustrative occupations

19-2031.00	<a href="#"><u>Chemists</u></a>
19-1029.04	<a href="#"><u>Biologists</u></a>
19-1042.00	<a href="#"><u>Medical Scientists, Except Epidemiologists</u></a>
19-3041.00	<a href="#"><u>Sociologists</u></a>

### Associated Basic Interest dimensions

Physical Science  
 Life Science  
 Medical Science  
 Social Science  
 Humanities  
 Mathematics/Statistics  
 Health Care Service

### 3. Artistic

#### Definition

Work involves creating original visual artwork, performances, written works, food, or music for a variety of media, or applying artistic principles to the design of various objects and materials. Artistic occupations are often associated with visual arts, applied arts and design, performing arts, music, creative writing, media, or culinary art.

#### Keywords

Actions: Create, Perform, Write, Design, Dance, Compose, Self-Express  
 Objects: Art, Media, Music, Theatre, Graphics

#### Illustrative activities

Compose or arrange music.  
 Draw pictures.  
 Create special effects for movies.  
 Write books or plays.

#### Illustrative occupations

27-1013.00	<a href="#">Fine Artists, Including Painters, Sculptors, and Illustrators</a>
27-2011.00	<a href="#">Actors</a>
27-2042.00	<a href="#">Musicians and Singers</a>
27-1012.00	<a href="#">Craft Artists</a>

#### Associated Basic Interest dimensions

Visual Arts  
 Applied Arts and Design  
 Performing Arts  
 Music  
 Creative Writing  
 Media  
 Culinary Art  
 Humanities  
 Marketing/Advertising

## 4. Social

### Definition

Work involves helping, teaching, advising, assisting, or providing service to others. Social occupations are often associated with social, health care, personal service, teaching/education, or religious activities.

### Keywords

Actions: Help, Teach, Educate, Guide, Advise, Nurture  
 Objects: People, Service, Social, Health, Communication

### Illustrative activities

Teach a high school class.  
 Give career guidance to people.  
 Help people with personal or emotional problems.  
 Perform rehabilitation therapy.

### Illustrative occupations

25-2021.00	<a href="#">Elementary School Teachers, Except Special Education</a>
21-1021.00	<a href="#">Child, Family, and School Social Workers</a>
29-1141.00	<a href="#">Registered Nurses</a>
21-1012.00	<a href="#">Educational, Guidance, and Career Counselors and Advisors</a>

### Associated Basic Interest dimensions

Culinary Art  
 Teaching/Education  
 Social Service  
 Health Care Service  
 Religious Activities  
 Personal Service  
 Professional Advising  
 Animal Service  
 Social Science  
 Human Resources

## 5. Enterprising

### Definition

Work involves managing, negotiating, marketing, or selling, typically in a business setting, or leading or advising people in political and legal situations. Enterprising occupations are often associated with business initiatives, sales, marketing/advertising, finance, management/administration, professional advising, public speaking, politics, or law.

### Keywords

**Actions:** Manage, Supervise, Negotiate, Market, Sell, Lead, Direct  
**Objects:** Employee, Customer, Product, Business, Law, Politics

### Illustrative activities

Manage a department within a large company.  
Start your own business.  
Market a new line of clothing.  
Represent a client in a lawsuit.

### Illustrative occupations

41-2031.00	<a href="#"><u>Retail Salespersons</u></a>
11-2011.00	<a href="#"><u>Advertising and Promotions Managers</u></a>
23-1011.00	<a href="#"><u>Lawyers</u></a>
13-1161.01	<a href="#"><u>Search Marketing Strategists</u></a>

### Associated Basic Interest dimensions

Professional Advising  
Business Initiatives  
Sales  
Marketing/Advertising  
Finance  
Management/Administration  
Public Speaking  
Politics  
Law  
Athletics  
Religious Activities

## 6. Conventional

### Definition

Work involves following procedures and regulations to organize information or data, typically in a business setting. Conventional occupations are often associated with office work, accounting, mathematics/statistics, information technology, finance, or human resources.

### Keywords

Actions: Organize, Record, File, Sort, Inspect, Attention to Detail  
 Objects: Information, Data, Regulations, Office, Procedures, Files, Rules

### Illustrative activities

Keep shipping and receiving records.  
 Load computer software into a large computer network.  
 Develop a spreadsheet using computer software.  
 Inventory supplies using a handheld computer.

### Illustrative occupations

13-2061.00	<a href="#">Financial Examiners</a>
43-9061.00	<a href="#">Office Clerks, General</a>
15-1242.00	<a href="#">Database Administrators</a>
13-1041.01	<a href="#">Environmental Compliance Inspectors</a>

### Associated Basic Interest dimensions

Mathematics/Statistics  
 Information Technology  
 Finance  
 Accounting  
 Human Resources  
 Office Work

## Appendix B: Basic Interest Dimension Definitions for the O\*NET Content Model

All illustrative occupations listed in this appendix are based on the [O\\*NET-SOC 2019 taxonomy](#) and drawn from [O\\*NET Database 27.0](#).

### 1. Mechanics/Electronics

#### Definition

Work involves maintaining and repairing of machinery, such as automotive engines, electronic equipment, computers, and communication systems.

#### Illustrative activities

Make repairs to industrial robots.  
 Install computer systems.  
 Repair motors and generators.  
 Maintain aircraft engines.

#### Illustrative occupations

49-2094.00	<a href="#">Electrical and Electronics Repairers, Commercial and Industrial Equipment</a>
49-9081.00	<a href="#">Wind Turbine Service Technicians</a>
17-3024.01	<a href="#">Robotics Technicians</a>
49-3011.00	<a href="#">Aircraft Mechanics and Service Technicians</a>
49-2092.00	<a href="#">Electric Motor, Power Tool, and Related Repairers</a>

#### Associated RIASEC dimensions

Realistic

### 2. Construction/Woodwork

#### Definition

Work involves constructing, installing, or repairing structures and fixtures made of wood.

#### Illustrative activities

Build and install cabinets.  
 Construct wood stairways.  
 Build and finish furniture.  
 Operate woodworking machines.

#### Illustrative occupations

51-7042.00	<a href="#">Woodworking Machine Setters, Operators, and Tenders, Except Sawing</a>
47-2031.00	<a href="#">Carpenters</a>
51-7011.00	<a href="#">Cabinetmakers and Bench Carpenters</a>
51-7021.00	<a href="#">Furniture Finishers</a>
51-7031.00	<a href="#">Model Makers, Wood</a>

#### Associated RIASEC dimensions

Realistic

### 3. Transportation/Machine Operation

### Definition

Work involves driving vehicles, such as vans, trucks, trains, and buses to transport people or materials. Work can also involve operating heavy equipment, such as cranes, forklifts, bulldozers, and backhoes to move materials or earth.

### Illustrative activities

Transport materials in a truck or van.  
 Drive a bus or motor coach.  
 Operate a bulldozer to move dirt.  
 Operate a forklift to move boxes.

### Illustrative occupations

53-7051.00	<a href="#">Industrial Truck and Tractor Operators</a>
53-4011.00	<a href="#">Locomotive Engineers</a>
53-3052.00	<a href="#">Bus Drivers, Transit and Intercity</a>
53-3032.00	<a href="#">Heavy and Tractor-Trailer Truck Drivers</a>
53-3054.00	<a href="#">Taxi Drivers</a>

### Associated RIASEC dimensions

Realistic

## 4. Physical/Manual Labor

### Definition

Work involves manually unloading and moving freight, stock, luggage, or other materials, or performing other physical labor.

### Illustrative activities

Manually move cargo and freight.  
 Perform physical labor at a construction site.  
 Unload, sort, and move materials, equipment, or supplies.  
 Clean a work area.

### Illustrative occupations

53-7062.00	<a href="#">Laborers and Freight, Stock, and Material Movers, Hand</a>
47-2061.00	<a href="#">Construction Laborers</a>
45-2041.00	<a href="#">Graders and Sorters, Agricultural Products</a>
47-5081.00	<a href="#">Helpers--Extraction Workers</a>

### Associated RIASEC dimensions

Realistic

## 5. Protective Service

### Definition

Work involves maintaining order and protecting life and property by conducting investigations and enforcing laws and regulations to prevent or solve crimes.

### Illustrative activities

Maintain order and protect life by enforcing laws.

Investigate criminal activity.

Apprehend and arrest suspects.

Guard inmates in a prison.

### Illustrative occupations

33-3051.00	<a href="#">Police and Sheriff's Patrol Officers</a>
33-9032.00	<a href="#">Security Guards</a>
33-3051.04	<a href="#">Customs and Border Protection Officers</a>
33-3021.00	<a href="#">Detectives and Criminal Investigators</a>

### Associated RIASEC dimensions

Realistic

## 6. Agriculture

### Definition

Work involves planting, cultivating, and harvesting crops, plants, or trees, or raising farm animals. Work can also involve preparing plant and animal products for distribution to consumers, or protecting natural resources to maximize their use in farming.

### Illustrative activities

Inspect crops for disease.

Raise and tend to farm animals.

Plant, cultivate, and harvest crops.

Develop plans to reduce soil erosion and protect rangelands.

### Illustrative occupations

11-9013.00	<a href="#">Farmers, Ranchers, and Other Agricultural Managers</a>
45-2092.00	<a href="#">Farmworkers and Laborers, Crop, Nursery, and Greenhouse</a>
45-1011.00	<a href="#">First-Line Supervisors of Farming, Fishing, and Forestry Workers</a>
19-1031.02	<a href="#">Range Managers</a>

### Associated RIASEC dimensions

Realistic

## 7. Nature/Outdoors

### Definition

Work involves planning, restoring, and conserving natural areas and wildlife habitats.

### Illustrative activities

Plant a public garden.  
 Train conservation workers in planting tree seedlings.  
 Manage public forested lands for recreational purposes.  
 Conserve wildlife habitats.

### Illustrative occupations

37-3011.00	<a href="#">Landscaping and Groundskeeping Workers</a>
19-1032.00	<a href="#">Foresters</a>
19-4071.00	<a href="#">Forest and Conservation Technicians</a>
19-2041.02	<a href="#">Environmental Restoration Planners</a>

### Associated RIASEC dimensions

Realistic

## 8. Animal Service

### Definition

Work involves feeding, grooming, exercising, or otherwise providing care to promote and maintain the well-being of pets and other animals in settings such as kennels, animal shelters, and zoos.

### Illustrative activities

Provide treatment to sick or injured animals.  
 Supply animals with food, water, and personal care.  
 Train animals to assist persons with disabilities.  
 Exercise animals in a shelter.

### Illustrative occupations

39-2021.00	<a href="#">Animal Caretakers</a>
39-2011.00	<a href="#">Animal Trainers</a>
33-9011.00	<a href="#">Animal Control Workers</a>
29-1131.00	<a href="#">Veterinarians</a>

### Associated RIASEC dimensions

Realistic  
 Social

## 9. Athletics

### Definition

Work involves training, practicing, or competing in athletic events, or supporting those participating in athletics through coaching, training, or officiating.

### Illustrative activities

Compete in an athletic event.

Play sports.

Train for an athletic event.

Coach a sports team.

### Illustrative occupations

27-2021.00	<a href="#">Athletes and Sports Competitors</a>
27-2022.00	<a href="#">Coaches and Scouts</a>
29-9091.00	<a href="#">Athletic Trainers</a>
27-2023.00	<a href="#">Umpires, Referees, and Other Sports Officials</a>
11-9179.01	<a href="#">Fitness and Wellness Coordinators</a>

### Associated RIASEC dimensions

Realistic

Enterprising

## 10. Engineering

### Definition

Work involves applying science and technology to the design, building, testing, and use of electrical and electronic components, mechanical devices and machines, automotive, marine, and aerospace equipment and vehicles, materials, or structures.

### Illustrative activities

Explain engineering drawings.

Test performance of electronic and mechanical systems.

Apply principles of engineering in designing buildings.

Design, construct, and test aircraft, missiles, and spacecraft.

### Illustrative occupations

17-2051.00	<a href="#">Civil Engineers</a>
17-2011.00	<a href="#">Aerospace Engineers</a>
17-3023.00	<a href="#">Electrical and Electronic Engineering Technologists and Technicians</a>
17-3027.00	<a href="#">Mechanical Engineering Technologists and Technicians</a>
17-2199.11	<a href="#">Solar Energy Systems Engineers</a>
17-2141.02	<a href="#">Automotive Engineers</a>

### Associated RIASEC dimensions

Realistic

## 11. Physical Science

### Definition

Work involves studying and researching non-living objects, materials, and phenomena through scientific disciplines such as physics, chemistry, astronomy, meteorology, or geology.

### Illustrative activities

Study formation of stars using space-based telescopes.  
 Investigate the chemical composition of an unknown substance.  
 Study ways to make foods safe and healthy.  
 Use computer models for weather forecasting.

### Illustrative occupations

19-2012.00	<a href="#">Physicists</a>
19-2031.00	<a href="#">Chemists</a>
19-2011.00	<a href="#">Astronomers</a>
19-2021.00	<a href="#">Atmospheric and Space Scientists</a>
19-1013.00	<a href="#">Soil and Plant Scientists</a>

### Associated RIASEC dimensions

Investigative

## 12. Life Science

### Definition

Work involves studying and researching living organisms through scientific disciplines such as biology, botany, zoology, microbiology, physiology, biochemistry, or zoology.

### Illustrative activities

Study the science of genes.  
 Investigate the effects of bacteria on humans and animals.  
 Develop medically useful products for humans.  
 Prepare environmental impact reports on wildlife.

### Illustrative occupations

19-1029.04	<a href="#">Biologists</a>
19-1022.00	<a href="#">Microbiologists</a>
19-1029.03	<a href="#">Geneticists</a>
19-1023.00	<a href="#">Zoologists and Wildlife Biologists</a>

### Associated RIASEC dimensions

Investigative

## 13. Medical Science

### Definition

Work involves studying and researching the causes, nature, effects, and treatments of disease or other forms of impairment or illness.

### Illustrative activities

Investigate the causes of human disease.  
 Evaluate the performance of a newly developed medicine.  
 Conduct research on ways to treat a new type of illness.  
 Study ways of preventing disease.

### Illustrative occupations

19-1041.00	<a href="#">Epidemiologists</a>
19-1042.00	<a href="#">Medical Scientists, Except Epidemiologists</a>
17-2031.00	<a href="#">Bioengineers and Biomedical Engineers</a>
19-1029.02	<a href="#">Molecular and Cellular Biologists</a>

### Associated RIASEC dimensions

Investigative

## 14. Social Science

### Definition

Work involves studying and researching human behavior, society, politics, and social relationships through scientific disciplines such as psychology, sociology, economics, or political science.

### Illustrative activities

Study cultural differences.  
 Study mental and emotional disorders.  
 Study public opinion on political issues.  
 Conduct research on economic issues.

### Illustrative occupations

19-3041.00	<a href="#">Sociologists</a>
19-3033.00	<a href="#">Clinical and Counseling Psychologists</a>
19-3011.00	<a href="#">Economists</a>
19-3094.00	<a href="#">Political Scientists</a>

### Associated RIASEC dimensions

Social  
 Investigative

## 15. Humanities

### Definition

Work involves studying and researching aspects of human history, culture, and language through disciplines such as history, philosophy, the language arts, or area/ethnic studies.

### Illustrative activities

Study the culture and history of a region of the world.  
 Research and compare religious beliefs.  
 Research influences on a literary work.  
 Study the history of the family.

### Illustrative occupations

19-3093.00	<a href="#">Historians</a>
19-3091.00	<a href="#">Anthropologists and Archeologists</a>
25-1062.00	<a href="#">Area, Ethnic, and Cultural Studies Teachers, Postsecondary</a>
25-1123.00	<a href="#">English Language and Literature Teachers, Postsecondary</a>

### Associated RIASEC dimensions

Investigative  
 Artistic

## 16. Mathematics/Statistics

### Definition

Work involves developing and applying mathematics and statistical theory and methods.

### Illustrative activities

Solve mathematical problems.  
 Make predictions based on statistical analyses.  
 Extend mathematical knowledge in the field of geometry.  
 Develop a statistical model to explain human behavior.

### Illustrative occupations

15-2021.00	<a href="#">Mathematicians</a>
15-2041.00	<a href="#">Statisticians</a>
15-2041.01	<a href="#">Biostatisticians</a>
15-2051.00	<a href="#">Data Scientists</a>

### Associated RIASEC dimensions

Investigative  
 Conventional

## 17. Information Technology

### Definition

Work involves designing, developing, testing, and maintaining computer software, hardware, networks, and systems.

### Illustrative activities

Test, maintain, and monitor computer programs and systems.

Write and review code for software.

Research security measures for computer systems.

Diagnose and resolve computer software problems.

### Illustrative occupations

15-1212.00	<a href="#">Information Security Analysts</a>
15-1251.00	<a href="#">Computer Programmers</a>
15-1242.00	<a href="#">Database Administrators</a>

### Associated RIASEC dimensions

Conventional

## 18. Visual Arts

### Definition

Work involves creating original visual artwork for a variety of media and purposes using various techniques and software.

### Illustrative activities

Create computer-generated graphics or animation.

Sketch a picture or design.

Create photography art prints.

Create a sculpture.

### Illustrative occupations

27-1011.00	<a href="#">Art Directors</a>
27-1013.00	<a href="#">Fine Artists, Including Painters, Sculptors, and Illustrators</a>
27-4032.00	<a href="#">Film and Video Editors</a>
27-1014.00	<a href="#">Special Effects Artists and Animators</a>
27-1024.00	<a href="#">Graphic Designers</a>
27-4021.00	<a href="#">Photographers</a>

### Associated RIASEC dimensions

Artistic

## 19. Applied Arts and Design

### Definition

Work involves applying artistic principles to the design and creation of various objects and materials.

### Illustrative activities

Create appealing product designs for home appliances.  
Create the set for film or theater productions.

Design and create handmade clothes.  
Design displays to sell products in stores.

### Illustrative occupations

27-1012.00	<a href="#">Craft Artists</a>
27-1027.00	<a href="#">Set and Exhibit Designers</a>
27-1021.00	<a href="#">Commercial and Industrial Designers</a>
27-1025.00	<a href="#">Interior Designers</a>

### Associated RIASEC dimensions

Artistic

## 20. Performing Arts

### Definition

Work involves acting as a performer in dance, comedy, or dramatic productions, choreographing of dance performances, or producing live or recorded entertainment.

### Illustrative activities

Act on stage for an audience.  
Study and rehearse roles from scripts.  
Direct stage, television, radio, video, or film productions.  
Create new dance routines.

### Illustrative occupations

27-2011.00	<a href="#">Actors</a>
27-2031.00	<a href="#">Dancers</a>
27-2032.00	<a href="#">Choreographers</a>

### Associated RIASEC dimensions

Artistic

## 21. Music

### Definition

Work involves conducting, composing, or playing music or singing.

### Illustrative activities

Play a musical instrument.  
Perform music for a live audience.  
Create musical compositions, arrangements, or scores.  
Sing in a band.

### Illustrative occupations (O\*NET-SOC 2019 taxonomy)

27-2042.00	<a href="#">Musicians and Singers</a>
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27-2041.00	Music Directors and <a href="#">Composers</a>
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### Associated RIASEC dimensions

Artistic

## 22. Creative Writing

### Definition

Work involves developing creative written works, such as novels, scripts, song lyrics, poetry, stories, or advertisements.

### Illustrative occupations (O\*NET-SOC 2019 taxonomy):

27-3043.05	<a href="#">Poets, Lyricists and Creative Writers</a>
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27-3041.00	<a href="#">Editors</a>
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27-3043.00	<a href="#">Writers and Authors</a>
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15-1255.01	<a href="#">Video Game Designers</a>
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### Illustrative activities

Write a novel.  
Write scripts for movies and media.  
Write advertisements.  
Write poetry or lyrics.

### Associated RIASEC dimensions

Artistic

## 23. Media

### Definition

Work involves producing, developing, writing, directing, or presenting information through print, radio, television, or digital media.

### Illustrative activities

Speak or read from scripted materials on radio or television.

Write and report human interest stories.

Direct a television series.

Develop content for a podcast.

### Illustrative occupations

27-3023.00	<a href="#">News Analysts, Reporters, and Journalists</a>
27-3011.00	<a href="#">Broadcast Announcers and Radio Disc Jockeys</a>
27-2012.00	<a href="#">Producers and Directors</a>

### Associated RIASEC dimensions

Artistic

## 24. Culinary Art

### Definition

Work involves preparing, cooking, and presenting food in a distinctive style usually associated with a specific culture or region.

### Illustrative activities

Coordinate activities of cooks engaged in food preparation.

Create new recipes or food presentations.

Develop a distinctive style of cooking.

Select and ensure freshness of food and ingredients for preparation.

### Illustrative occupations

35-2014.00	<a href="#">Cooks, Restaurant</a>
35-1011.00	<a href="#">Chefs and Head Cooks</a>
35-2013.00	<a href="#">Cooks, Private Household</a>
51-3011.00	<a href="#">Bakers</a>

### Associated RIASEC dimensions

Artistic

Social

## 25. Teaching/Education

### Definition

Work involves teaching through lectures, discussions, and demonstrations in one or more subjects.

### Illustrative activities

Teach social skills to students.

Teach school subjects.

Instruct students in activities designed to further intellectual growth.

Adapt teaching methods to meet students' interests.

### Illustrative occupations

25-2011.00	<a href="#">Preschool Teachers, Except Special Education</a>
25-2012.00	<a href="#">Kindergarten Teachers, Except Special Education</a>
25-2021.00	<a href="#">Elementary School Teachers, Except Special Education</a>
25-2031.00	<a href="#">Secondary School Teachers, Except Special and Career/Technical Education</a>
25-2022.00	<a href="#">Middle School Teachers, Except Special and Career/Technical Education</a>

### Associated RIASEC dimensions

Social

## 26. Social Service

### Definition

Work involves providing social services and assistance to improve the well-being and social and psychological functioning of children and adults.

### Illustrative activities

Advocate for individual or community needs.

Counsel clients with mental health issues.

Provide personal and economic assistance for homeless individuals.

Assist people with special needs.

### Illustrative occupations

21-1021.00	<a href="#">Child, Family, and School Social Workers</a>
21-1014.00	<a href="#">Mental Health Counselors</a>
21-1094.00	<a href="#">Community Health Workers</a>
31-1122.00	<a href="#">Personal Care Aides</a>
21-1013.00	<a href="#">Marriage and Family Therapists</a>

### Associated RIASEC dimensions

Social

## 27. Health Care Service

### Definition

Work involves providing health care services to individuals to include the diagnosis, prevention, or treatment of diseases and other forms of illness or impairment.

### Illustrative activities

Provide preventive care to individuals.

Prescribe medications.

Administer first aid treatment or life support to injured persons.

Develop medical treatment plans for patients.

### Illustrative occupations

29-1141.00	<a href="#">Registered Nurses</a>
29-1215.00	<a href="#">Family Medicine Physicians</a>
29-2043.00	<a href="#">Paramedics</a>
31-9092.00	<a href="#">Medical Assistants</a>
29-1021.00	<a href="#">Dentists, General</a>

### Associated RIASEC dimensions

Investigative

Social

## 28. Religious Activities

### Definition

Work involves conducting religious worship, leading a church or other religious group, and offering moral guidance associated with beliefs and practices of a religious faith.

### Illustrative activities

Provide spiritual guidance.

Organize religious services.

Plan religious education programs.

Lead a religious group.

### Illustrative occupations

21-2021.00	<a href="#">Directors, Religious Activities and Education</a>
21-2011.00	<a href="#">Clergy</a>
25-1126.00	<a href="#">Philosophy and Religion Teachers, Postsecondary</a>

### Associated RIASEC dimensions

Enterprising

Social

## 29. Personal Service

### Definition

Work involves providing personal services to individuals in need of non-medical assistance such as helping arrange or plan for travel, meals, or events.

### Illustrative activities

Make travel arrangements for sightseeing or other tours.

Make reservations for guests, such as for dinner, spa treatments, or golf tee times.

Help individuals plan special events.

Assist customers with problems or questions.

### Illustrative occupations

39-6012.00	<a href="#">Concierges</a>
41-3041.00	<a href="#">Travel Agents</a>
39-7011.00	<a href="#">Tour Guides and Escorts</a>

### Associated RIASEC dimensions

Social

## 30. Professional Advising

### Definition

Work involves providing expert advice, coaching, and counseling on topics such as careers, educational opportunities, and educational and professional development.

### Illustrative activities

Coach students on study skills.

Teach employees leadership and soft skills.

Counsel people how to achieve their professional goals.

Advise people on how to have a successful career.

### Illustrative occupations

21-1012.00	<a href="#">Educational, Guidance, and Career Counselors and Advisors</a>
13-1151.00	<a href="#">Training and Development Specialists</a>
13-1011.00	<a href="#">Agents and Business Managers of Artists, Performers, and Athletes</a>

### Associated RIASEC dimensions

Enterprising

Social

## 31. Business Initiatives

### Definition

Work involves creating strategic plans or taking actions to expand an organization's business or market share.

### Illustrative activities

Create business strategies or policies to increase productivity.  
 Identify partner companies to pursue new business opportunities.  
 Plan activities of businesses to maximize returns on investments.  
 Develop a long-term strategic plan for a company.

### Illustrative occupations

11-1011.00	<a href="#">Chief Executives</a>
13-1022.00	<a href="#">Wholesale and Retail Buyers, Except Farm Products</a>
13-1161.01	<a href="#">Search Marketing Strategists</a>

### Associated RIASEC dimensions

Enterprising

## 32. Sales

### Definition

Work involves selling goods or services.

### Illustrative activities

Direct sales or customer service activities.  
 Persuade customers to buy a new product.  
 Demonstrate products to consumers.  
 Sell goods at bargain prices.

### Illustrative occupations

41-2031.00	<a href="#">Retail Salespersons</a>
41-4012.00	<a href="#">Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products</a>
41-3031.00	<a href="#">Securities, Commodities, and Financial Services Sales Agents</a>
41-9091.00	<a href="#">Door-to-Door Sales Workers, News and Street Vendors, and Related Workers</a>

### Associated RIASEC dimensions

Enterprising

### 33. Marketing/Advertising

#### Definition

Work involves promoting or creating a public image for products, services, or organizations to attract interest, engagement, or sales.

#### Illustrative activities

Plan an advertising or marketing campaign.  
 Use social media to market a company.  
 Promote a new product by advertising.  
 Develop promotional materials for advertising.

#### Illustrative occupations

11-2021.00	<a href="#">Marketing Managers</a>
11-2011.00	<a href="#">Advertising and Promotions Managers</a>
27-3031.00	<a href="#">Public Relations Specialists</a>
13-1161.00	<a href="#">Market Research Analysts and Marketing Specialists</a>

#### Associated RIASEC dimensions

Enterprising  
 Artistic

### 34. Finance

#### Definition

Work involves directing and managing financial activities, such as planning and investments for an individual or organization to generate income.

#### Illustrative activities

Make investments to generate future income.  
 Manage large amounts of money for a business.  
 Plan and direct financial decisions for a business.  
 Analyze financial and securities of a company.

#### Illustrative occupations

13-2051.00	<a href="#">Financial and Investment Analysts</a>
11-3031.00	<a href="#">Financial Managers</a>
11-3031.01	<a href="#">Treasurers and Controllers</a>
13-2061.00	<a href="#">Financial Examiners</a>
13-2052.00	<a href="#">Personal Financial Advisors</a>

#### Associated RIASEC dimensions

Conventional  
 Enterprising

## 35. Accounting

### Definition

Work involves examining, analyzing, and interpreting accounting records for financial statements, or maintaining, auditing, or evaluating records and accounts.

### Illustrative activities

Prepare budgets for a business.  
 Keep accounting records for a company.  
 Prepare employee payroll.  
 Verify and record numerical data for financial records.

### Illustrative occupations

43-3031.00	<a href="#">Bookkeeping, Accounting, and Auditing Clerks</a>
13-2011.00	<a href="#">Accountants and Auditors</a>
43-3021.00	<a href="#">Billing and Posting Clerks</a>
43-3051.00	<a href="#">Payroll and Timekeeping Clerks</a>

### Associated RIASEC dimensions

Conventional

## 36. Human Resources

### Definition

Work involves recruiting, selecting, and training job applicants, maintaining employee personnel records, administering compensation and employee-benefit programs, and conducting employee performance reviews.

### Illustrative activities

Recruit and hire employees for a company.  
 Conduct training to improve employee skills and organizational performance.  
 Interpret and explain company policies and benefits to employees.  
 Maintain employee personnel records.

### Illustrative occupations

13-1071.00	<a href="#">Human Resources Specialists</a>
11-3121.00	<a href="#">Human Resources Managers</a>
43-4161.00	<a href="#">Human Resources Assistants, Except Payroll and Timekeeping</a>
13-1141.00	<a href="#">Compensation, Benefits, and Job Analysis Specialists</a>

### Associated RIASEC dimensions

Social  
 Conventional

## 37. Office Work

### Definition

Work involves clerical and administrative tasks for an organization such as answering phones, bookkeeping, updating records, scheduling appointments or meetings, and editing of documents and files.

### Illustrative activities

- Operate office machines, such as printers and scanners.
- Answer telephones, direct calls, and take messages.
- Maintain and update filing, inventory, and database systems.
- Schedule appointments for customers.

### Illustrative occupations

43-5051.00	<a href="#">Postal Service Clerks</a>
43-9061.00	<a href="#">Office Clerks, General</a>
43-4071.00	<a href="#">File Clerks</a>
43-6014.00	<a href="#">Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</a>

### Associated RIASEC dimensions

Conventional

## 38. Management/Administration

### Definition

Work involves planning, directing, or coordinating the daily operations of an organization, and overseeing personnel, business, or administrative services.

### Illustrative activities

- Plan or coordinate one or more administrative services.
- Develop organizational goals or objectives.
- Supervise organizational operations or projects.
- Manage an organization or group of people.

### Illustrative occupations

11-1021.00	<a href="#">General and Operations Managers</a>
11-3012.00	<a href="#">Administrative Services Managers</a>
11-9111.00	<a href="#">Medical and Health Services Managers</a>

### Associated RIASEC dimensions

Enterprising

## 39. Public Speaking

### Definition

Work involves speaking before an audience to educate, entertain, or influence the listeners.

### Illustrative activities

Be a speaker at a club meeting.  
Discuss your ideas on a podcast.  
Provide a public announcement on TV or radio.  
Make a public speech to raise money for a worthy cause.

### Illustrative occupations

25-1122.00	<a href="#">Communications Teachers, Postsecondary</a>
13-1131.00	<a href="#">Fundraisers</a>

### Associated RIASEC dimensions

Enterprising

## 40. Politics

### Definition

Work involves engaging in political activities to influence government policy.

### Illustrative activities

Engage in a political debate.  
Campaign for political office.  
Lead a political campaign.  
Develop knowledge of government policy decisions.

### Illustrative occupations (O\*NET-SOC 2019 taxonomy)

11-1031.00	<a href="#">Legislators</a>
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### Associated RIASEC dimensions

Enterprising

## 41. Law

### Definition

Work involves studying and applying legal knowledge.

### Illustrative activities

Provide legal advice to clients.  
Draw up legal documents.  
Defend a client in court.  
Mediate legal disputes.

### Illustrative occupations

23-1011.00	<a href="#"><u>Lawyers</u></a>
23-1023.00	<a href="#"><u>Judges, Magistrate Judges, and Magistrates</u></a>
23-1021.00	<a href="#"><u>Administrative Law Judges, Adjudicators, and Hearing Officers</u></a>
23-2011.00	<a href="#"><u>Paralegals and Legal Assistants</u></a>

### Associated RIASEC dimensions

Enterprising