## Strength levels

The Occupational Requirements Survey (ORS) publishes job-related information on physical demands; environmental conditions; education, training, and experience; as well as cognitive and mental requirements. The job requirements reflect those necessary for workers to perform critical tasks in support of the critical job functions, and not the capabilities of individual workers.

The ORS publishes five strength levels (sedentary, light, medium, heavy, and very heavy), which are part of the published physical demands, and are calculated from the weight and duration associated with lifting, carrying, and in some cases, standing.<sup>1</sup>

Chart A. Percentage of civilian workers by strength level, 2023 30% 20% 10% 0% Sedentary Light Medium Heavy Very heavy

Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey

Duration levels are used to calculate the amount of time spent lifting or carrying. There are four duration levels in relation to a job's workday schedule: seldom (up to 2 percent), occasional (2 percent to 1/3), frequent (1/3 to 2/3), and constant (2/3 or more).

For example, if workers deliver items weighing between 26-50 pounds occasionally, then the job would be classified as a medium strength level. However, if they delivered slightly heavier items (51-100 pounds) or the duration of carrying or lifting 26-50 pounds increased to being performed frequently, then the job would be classified as a heavy strength level. "Negligible weight" includes anything lifted or carried weighing less than one pound. (See Table 1.)

Table 1. Determining strength level based on lifting or carrying duration or percentage of the workday spent standing

| Strength level  | Duration of lifting or carrying |                 |                           | Percent of workday standing $[1]$ |                              |
|-----------------|---------------------------------|-----------------|---------------------------|-----------------------------------|------------------------------|
| Strength level  | Seldom                          | Occasionally    | Frequently                | Constantly                        |                              |
| Sedentary work  | Up to 10 pounds                 | Up to 10 pounds | Negligible <sup>[2]</sup> | No weight                         | Less than or equal to 1/3[3] |
| Light work      | 11-25 pounds                    | 11-25 pounds    | 1-10 pounds               | Negligible weight[2]              |                              |
| Medium work     | 26-50 pounds                    | 26-50 pounds    | 11-25 pounds              | 1-10 pounds                       |                              |
| Heavy work      | 51-100 pounds                   | 51-100 pounds   | 26-50 pounds              | 11-25 pounds                      |                              |
| Very heavy work | >100 pounds                     | >100 pounds     | >50 pounds                | >25 pounds                        |                              |

<sup>[1]</sup> Standing estimates includes time spent standing, walking, and in low postures.

Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey.





<sup>[2]</sup> Negligible weight includes anything lifted or carried weighing less than 1 pound.

<sup>[3]</sup> When the sedentary lifting or carrying requirements are met, and more than 1/3 of the workday is spent standing, light work is required.

#### Sedentary strength level

Strength is considered sedentary when none of the conditions in the strength chart are met and standing is required less than or equal to 1/3 of the work schedule or workday.

For civilian workers, 29.3 percent of workers were required to work at a sedentary strength level. Occupations with critical tasks where workers typically spend the day sitting and occasionally lift items of little weight, like a pen or a few pieces of paper, require sedentary strength. (See Table 2.)

Table 2. Percentage of civilian workers with a sedentary strength level by occupation, 2023

| Occupation  | Estimate | Standard error |
|---|----------|----------------|
| Aerospace engineers   | >99.5    | [1]            |
| Software quality assurance analysts and testers   | >99.5    | [1]            |
| Word processors and typists   | >99.5    | [1]            |
| Architectural and civil drafters  | 99.5     | <0.5           |
| Software developers   | 99.0     | <0.5           |
| Financial and investment analysts   | 98.5     | <0.5           |
| Web and digital interface designers   | 98.1     | 0.8            |
| Bill and account collectors   | 97.6     | 1.1            |
| Proofreaders and copy markers   | 96.6     | 3.2            |
| Public safety telecommunicators   | 96.6     | 1.3            |
| Budget analysts   | 96.5     | 2.6            |
| Computer programmers  | 96.5     | 1.1            |
| Insurance sales agents  | 96.4     | 2.0            |
| [1] The standard error is not available for this estimate.<br>Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey |          |                |

# Light strength level

If the work level of an occupation does not meet the conditions for the other strength levels, including sedentary, a light strength level is required. For civilian workers, 32.9 percent of workers were required to work at a light strength level. Examples of occupations with light strength level requirements include:

- Hosts and hostesses may do activities such as carrying menus and raising and lowering pagers for customers in a queue for 2/3 or more of the workday.
- Hotel, motel, and resort desk clerks might spend more than 1/3 of their workday standing.

Table 3. Percentage of civilian workers with a light strength level by occupation, 2023

| Table 3. Fercentage of civilian workers with a light strength level by occupation, 2023        |          |                |  |  |
|--|----------|----------------|--|--|
| Occupation   | Estimate | Standard error |  |  |
| Barbers  | 99.1     | 0.9            |  |  |
| Hairdressers, hairstylists, and cosmetologists   | 98.5     | 1.3            |  |  |
| Middle school teachers, except special and career/technical education                          | 95.3     | 0.9            |  |  |
| Secondary school teachers, except special and career/technical education                       | 91.2     | 0.9            |  |  |
| Hosts and hostesses, restaurant, lounge, and coffee shop                                       | 89.9     | 3.6            |  |  |
| Physics teachers, postsecondary  | 87.7     | 3.5            |  |  |
| Gambling managers  | 87.4     | 6.1            |  |  |
| Opticians, dispensing  | 86.9     | 8.1            |  |  |
| Hotel, motel, and resort desk clerks   | 82.5     | 5.4            |  |  |
| Teachers and instructors, all other  | 81.3     | 6.7            |  |  |
| Adult basic education, adult secondary education, and english as a second language instructors | 81.1     | 10.4           |  |  |
| Chemists   | 79.2     | 6.1            |  |  |
| Waiters and waitresses   | 78.3     | 2.1            |  |  |
| Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey                      |          |                |  |  |

## Medium strength level

For civilian workers, 28.6 percent of workers were required to work at a medium strength level. Examples of occupations with medium strength level requirements include:

- Animal caretakers may lift 30 pound bags of grain to feed horses at the racetrack for up to 2 percent of the workday.
- Packers and packagers, such as a grocery store bagger, could be lifting or carrying groceries weighing more than 1 pound for 2/3 or more of the workday.

Table 4. Percentage of civilian workers with a medium strength level by occupation, 2023

| Occupation  | Estimate | Standard error |
|---|----------|----------------|
| Foundry mold and coremakers   | 91.2     | 4.6            |
| Animal caretakers   | 88.4     | 4.8            |
| Veterinary assistants and laboratory animal caretakers                    | 86.1     | 9.8            |
| Production workers, all other   | 84.5     | 8.3            |
| Tapers  | 83.3     | 8.7            |
| Multiple machine tool setters, operators, and tenders, metal and plastic  | 82.5     | 6.9            |
| Couriers and messengers   | 82.4     | 10.4           |
| Forging machine setters, operators, and tenders, metal and plastic        | 81.7     | 7.0            |
| Textile cutting machine setters, operators, and tenders                   | 80.3     | 8.5            |
| Veterinary technologists and technicians                                  | 79.5     | 4.7            |
| Helpers-production workers  | 76.5     | 4.7            |
| Roofers   | 74.7     | 7.2            |
| Magnetic resonance imaging technologists                                  | 74.5     | 10.4           |
| Packers and packagers, hand   | 71.2     | 3.6            |
| Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey | '        |                |
|   |          |                |

## **Heavy strength level**

For civilian workers, 8.2 percent of workers were required to work at a heavy strength level. Examples of occupations with heavy strength level requirements include:

- Construction laborers at a building site may wear a 30 pound tool belt from 1/3 to 2/3 of the workday.
- Bus and truck mechanics and diesel engine specialists might occasionally lift truck parts weighing over 50 pounds.

Table 5. Percentage of civilian workers with a heavy strength level by occupation, 2023

| Occupation  | Estimate | Standard error |
|---|----------|----------------|
| Light truck drivers   | 64.2     | 4.4            |
| Heating, air conditioning, and refrigeration mechanics and installers   | 52.5     | 6.7            |
| Outdoor power equipment and other small engine mechanics  | 49.9     | 14.5           |
| Occupational therapy aides  | <45      | [1]            |
| Bus and truck mechanics and diesel engine specialists   | 43.3     | 6.9            |
| Electrical power-line installers and repairers  | 43.3     | 9.9            |
| Control and valve installers and repairers, except mechanical door  | 41.8     | 10.0           |
| Podiatrists   | <35      | [1]            |
| Weighers, measurers, checkers, and samplers, recordkeeping  | <35      | [1]            |
| Construction laborers   | 34.8     | 4.3            |
| Highway maintenance workers   | 33.7     | 7.1            |
| Industrial machinery mechanics  | 31.2     | 4.4            |
| The standard error is not available for this estimate.  Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey |          |                |

#### Very heavy strength level

For civilian workers, 1.0 percent required a very heavy strength level, which indicates requirements beyond the conditions set for heavy work. Examples of occupational groups with heavy strength level requirements include:

- Laborers in construction and extraction occupations may lift items that weigh 50 pounds or more, like bags of cement or sheets of plywood, for more than 1/3 of the workday.
- Workers in healthcare support occupations may lift patients to and from their beds for 10 minutes during an 8-hour shift.

Table 6. Percentage of civilian workers with a very heavy strength level by occupational group, 2023

| Occupation  | Estimate | Standard error |
|---|----------|----------------|
| Construction and extraction occupations                                   | 1.8      | <0.5           |
| Transportation and material moving occupations                            | 1.8      | <0.5           |
| Healthcare support occupations  | 1.3      | <0.5           |
| Personal care and service occupations                                     | 0.9      | <0.5           |
| Arts, design, entertainment, sports, and media occupations                | 0.6      | <0.5           |
| Community and social service occupations                                  |          | <0.5           |
| Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey |          |                |

#### Additional resources:

- Latest news release
- Archived ORS news releases
- Handbook of Methods
- Collection manuals
- Factsheets

## **Articles:**

- All The Economics Daily (TED) articles on ORS
- Minds at work: what's required according to the Occupational Requirements Survey (PDF)
- A look at teachers' job requirements, employer costs, and benefits (PDF)
- Occupational Requirements Survey: Third wave testing report (PDF)
- Occupational Requirements Survey: results from a job observation pilot test
- The Occupational Requirements Survey: estimates from preproduction testing

For additional information on occupational requirements see the <u>ORS homepage</u> or download the <u>ORS complete dataset</u> to explore the latest estimates.

1 See the <u>sitting and standing factsheet</u> for more information on these requirements.

