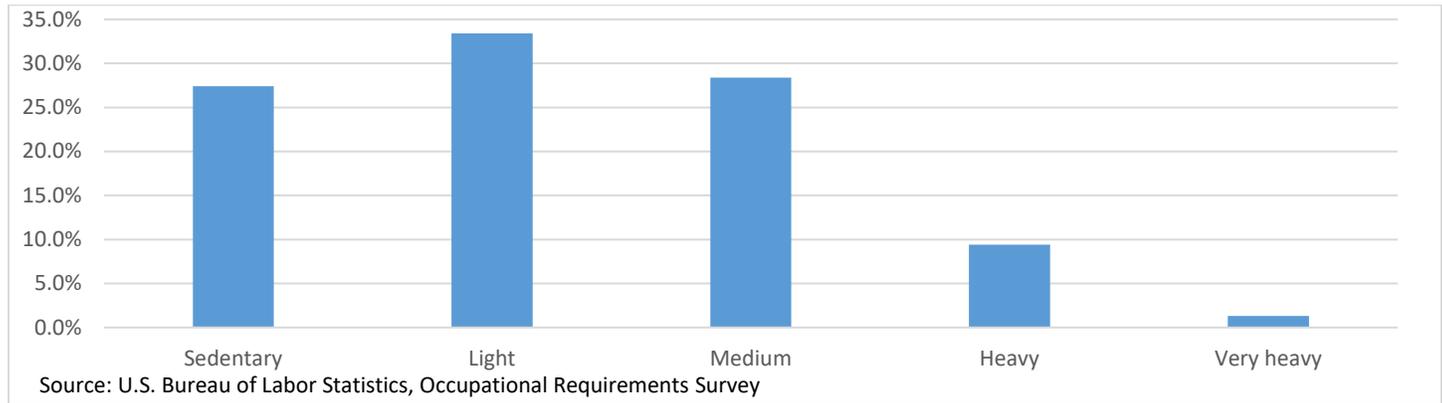


Strength levels

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. Strength estimates are physical demand requirements.

The ORS publishes five strength levels (sedentary, light, medium, heavy, and very heavy), which are based on the job requirements for performing physical demands within specific weight classes and the associated duration. (See Chart A.)

Chart A. Percentage of civilian workers by strength level, 2020



Strength levels are calculated from the weight and duration associated with lifting, carrying, and in some cases, standing.¹

A duration chart is used to calculate the amount of time spent lifting or carrying. There are four categories of time 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). "Negligible weight" includes anything lifted or carried weighing less than one pound.

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. (See Table 1.) Special cases for calculating strength are used when requirements are unable to be determined, and are recorded as "unknown".² (See Table 2.)

Table 1. Determining strength level based on duration of lifting or carrying

Strength level	Duration of lifting or carrying			
	Seldom	Occasionally	Frequently	Constantly
Light work	11-25 pounds	11-25 pounds	1-10 pounds	Negligible weight
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

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

Table 2. Special cases for calculating strength level

Strength level	Description
Unknown	If it is unknown how often lifting or carrying occur or none of the conditions in table 1 are met and standing or sitting are unknown. The estimate is treated as item nonresponse.
Sedentary	If none of the conditions in the strength level chart are met and standing or walking occurs less than or equal to one-third of the workday.
Light work	If none of the conditions in the strength chart are met and does not meet the special conditions for unknown or sedentary.

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

Sedentary strength level

Strength is considered sedentary when none of the conditions in the strength chart are met and standing is less than or equal to 1/3 of the work schedule or workday (See Tables 1 and 2).

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 3.)

Table 3. Percentage of civilian workers with a sedentary strength level by occupation, 2020

Occupation	Estimate	Standard Error
Financial and investment analysts	99.2	0.1
Bill and account collectors	98.4	1.0
Public safety telecommunicators	95.7	1.1
Billing and posting clerks	95.0	2.9
Budget analysts	91.2	6.4
Bookkeeping, accounting, and auditing clerks	90.9	1.3
Purchasing managers	89.2	4.4
Medical secretaries and administrative assistants	89.0	2.6
Computer and information systems managers	88.3	4.9
Human resources specialists	88.2	2.1
Dispatchers, except police, fire, and ambulance	87.7	3.4
Graphic designers	75.9	9.6
Bus drivers, school	69.7	10.8
Medical records specialists	68.9	7.3
Social and community service managers	64.9	9.8

0.1 Standard error is less than 0.5.

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, and it is not unknown, a light strength level is required.³ (See Tables 1 and 2.) Examples of occupations with light strength level requirements include:

- Hosts and hostesses (96.8 percent light strength required) may do activities such as carrying menus and raising and lowering pages for customers in a queue for 2/3 or more of the workday.
- News analysts, reporters, and journalists (74.7 percent light strength required) may carry a laptop for 1/3 to 2/3 of the workday.

Table 4. Percentage of civilian workers with a light strength level by occupation, 2020

Occupation	Estimate	Standard Error
Hairdressers, hairstylists, and cosmetologists	97.1	3.0
Hosts and hostesses, restaurant, lounge, and coffee shop	96.8	1.3
Hotel, motel, and resort desk clerks	80.8	8.8
Waiters and waitresses	77.0	5.2
Maids and housekeeping cleaners	76.0	3.7
Music directors and composers	75.7	14.9
News analysts, reporters, and journalists	74.7	3.7
Dental assistants	72.6	6.5
Gambling cage workers	68.8	11.6
Coaches and scouts	66.6	11.7
Bartenders	66.2	8.7
Occupational health and safety specialists	59.7	7.9
Counter and rental clerks	57.9	9.5

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

Medium strength level

For civilian workers, 28.4 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.
- Chefs and head cooks may carry a 2 pound tray of cooking supplies to prepare dinner meals for 2/3 or more of the workday.

Table 5. Percentage of civilian workers with a medium strength level by occupation, 2020

Occupation	Estimate	Standard error
Animal caretakers	85.4	9.5
Landscaping and groundskeeping workers	67.3	7.1
Chefs and head cooks	65.7	8.6
Nursing assistants	59.2	4.5
Licensed practical and licensed vocational nurses	55.4	5.3
Preschool teachers, except special education	52.5	10.0
Physical therapists	52.1	10.7
Dishwashers	48.9	4.8
Construction laborers	48.6	6.5
Fast food and counter workers	45.9	5.9
Personal care aides	43.5	4.1
Bartenders	31.6	8.4
Waiters and waitresses	22.2	6.1

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

Heavy strength level

For civilian workers, 9.4 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.
- Firefighters might lift a 15 pound hose for 2/3 or more of the workday.

Estimates ranged from 6.0 percent for first-line supervisors of food preparation and serving workers to 59.2 percent of heating, air conditioning, and refrigeration mechanics and installers.

Table 6. Percentage of civilian workers with a heavy strength level by occupation, 2020

Occupation	Estimate	Standard Error
Heating, air conditioning, and refrigeration mechanics and installers	59.2	14.1
Bus and truck mechanics and diesel engine specialists	48.1	8.1
Construction laborers	46.4	6.8
Highway maintenance workers	44.4	11.1
Carpenters	41.1	9.7
Plumbers, pipefitters, and steamfitters	35.1	11.3
Shipping, receiving, and inventory clerks	31.3	6.1
Nursing assistants	30.9	5.5
Physical therapists	23.4	7.4
Personal care aides	17.5	3.2
Landscaping and groundskeeping workers	14.8	6.5
Cooks, restaurant	9.9	1.3
First-line supervisors of construction trades and extraction workers	8.8	1.8
First-line supervisors of food preparation and serving workers	6.0	0.7

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

Very heavy strength level

For civilian workers, 1.3 percent required a very heavy strength level, which indicates requirements beyond the conditions set for heavy work.

Very heavy work was required for 2.7 percent of workers in construction and extraction occupations. Lifting items that weigh 50 pounds or more, like bags of cement or sheets of plywood, for more than 1/3 of the workday would be considered very heavy work. A very heavy work strength level was required for 2.0 percent of healthcare support occupations. Lifting patients to and from their beds for 10 minutes during an 8-hour shift would fall within very heavy work. Very heavy work was required for 1.9 percent of transportation and material moving occupations and 0.5 percent of production occupations.

Additional resources:

- [Latest news release](#)
- [Archived ORS news releases](#)
- [Handbook of Methods](#)
- [Collection manuals](#)
- [Factsheets](#)

Articles:

- [Sitting and standing requirements in 2020](#)
- [Job requirements for animal caretakers on National Mutt Day](#)
- [Three-fourths of workers had to interact with the public in 2019; 4.3 percent worked around crowds](#)
- [Physical requirements in food preparation and serving jobs](#)
- [Job requirements and wages for auto mechanics in 2018](#)
- [Occupational requirements and benefits for nurses in the United States in 2018](#)
- [All The Economics Daily \(TED\) articles on ORS](#)
- [A look at teachers' job requirements, employer costs, and benefits \(PDF\)](#)
- [The Occupational Requirements Survey: estimates from preproduction testing](#)

For additional information on occupational requirements see the [ORS homepage](#) or download the [ORS complete dataset](#) to explore the latest estimates.

¹ See the [sitting and standing factsheet](#) for more information on these requirements.

² In instances where field economists are unable to determine certain job requirements from the respondent, they record these data as "unknown" and strength level is derived through imputation. See the [Handbook of Methods](#) for more information.

³ For more information on work levels, see [National Compensation Survey: Guide for Evaluating Your Firm's Jobs and Pay](#) and the [Calculation](#) section of the [Handbook of Methods](#).