Low Postures

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. Low postures estimates are considered part of the physical demand for workers in the U.S.

There are four positions included in low postures:

- **Crawling** – moving about on hands and knees or hands and feet.
- **Crouching** – bending the body downward and forward by bending the legs and spine.
- **Kneeling** – bending the legs at the knees to come to rest on the knee or knees.
- **Stooping** – bending the body forward and down while bending the spine at the waist 45 degrees or more either over something below waist level or down towards an object on or near the ground. Stooping should be significant enough that when bending, if arms were extended, workers’ hands would be at or below the knees. Stooping must be performed while standing.

The low posture estimates indicate the percentage of workers with the requirement to perform critical tasks in low postures and are provided as:

- **Not required** – when no low posture position is generally required to perform critical tasks.
- **Required** – when the job, the nature of critical tasks performed, or the physical settings of work environment dictates the use of specific low postures.
- **Worker’s choice** – when none of the criteria from required apply and workers may choose the posture they use. For instance, workers may be able to either crouch or kneel to perform a job requirement.

Workers may be required to perform some critical tasks in a specific low posture and other critical tasks may allow for choice in low postures.

Low postures were not required for 41.3 percent of civilian workers. There were some occupations where 100 percent of workers were not required to perform critical tasks in low postures. For example, postsecondary economics teachers, operations research analysts, and switchboard operators.

While 58.7 percent of civilian workers were required to perform critical tasks in low postures, crouching was required for 10.0 percent of workers. Another 38.2 percent of civilian workers were able to choose whether to crouch to complete critical tasks. (See Chart A.)

**Chart A. Percentage of civilian workers with low posture requirements, 2021**

![Chart A](chart.png)

Crawling was required for 73.1 percent of firefighters, 61.2 percent were required to crouch, 61.2 percent were required to kneel, and 60.4 percent were required to stoop. (See Chart B.)

Chart B. Percentage of workers with low posture requirements by occupation, 2021

Crawling is the only low posture that involves movement, and it is less easily replaced by other low postures. Although crawling is less interchangeable, there may be instances where workers have a choice whether to crawl or perform another posture. For example, electricians may have a choice of whether to crawl while working on low wiring, but they may also stoop, kneel, or crouch if they prefer. Crawling was required for 14.5 percent of electricians. (See Chart C.)

Chart C. Percentage of workers with choice of low posture by occupation, 2021

Durations of low postures

Low posture duration estimates are also published when possible. However, these measure the duration of low postures and are not available for individual postures (crawling, crouching, kneeling, and stooping).

Duration estimates provide the percentage of workers performing low posture by the portion (or range) within the workday spent performing critical tasks in low postures. For instance, 13.4 percent of workers in management occupations were required to perform critical tasks in low postures up to two percent of the workday (seldom) and 5.9 percent were required to perform tasks in low postures occasionally (two percent to 1/3 of the workday).
The sum of these estimates equals the total percentage of workers in management occupations with low posture requirements: 19.3 percent.

Similarly, while 65.3 percent of machinists were required to perform tasks in low postures, 33.6 percent of these workers performed critical tasks in low postures occasionally (from two percent to 1/3 of the workday) and 31.2 percent performed tasks in low postures seldom (up to two percent of the workday).

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Seldom</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating, air conditioning, and refrigerator mechanics</td>
<td>9.5</td>
<td>62.1</td>
<td>28.4</td>
<td>100</td>
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<tr>
<td>and installers</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Maids and housekeeping cleaners</td>
<td>8.7</td>
<td>75.0</td>
<td>16.3</td>
<td>100</td>
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<tr>
<td>Cleaners of vehicles and equipment</td>
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<td>67.5</td>
<td>31.8</td>
<td>99.3</td>
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<tr>
<td>Physical therapist assistants</td>
<td>-</td>
<td>67.7</td>
<td>8.8</td>
<td>98.9</td>
</tr>
<tr>
<td>Bus and truck mechanics and diesel engine specialists</td>
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<td>67.0</td>
<td>27.1</td>
<td>96.5</td>
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<tr>
<td>Childcare Workers</td>
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<td>80.1</td>
<td>-</td>
<td>92.4</td>
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<td>Chefs and head cooks</td>
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<td>-</td>
<td>90.1</td>
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<tr>
<td>Shipping, receiving, and inventory clerks</td>
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<td>61.1</td>
<td>-</td>
<td>77.4</td>
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<tr>
<td>Bartenders</td>
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<td>51.8</td>
<td>2.2</td>
<td>85.7</td>
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<td>Occupational health and safety specialists</td>
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<td>24.4</td>
<td>-</td>
<td>68.6</td>
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<tr>
<td>Machinists</td>
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<td>33.6</td>
<td>-</td>
<td>65.3</td>
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<tr>
<td>Hosts and Hostesses</td>
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<td>16.4</td>
<td>-</td>
<td>33.2</td>
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<tr>
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<td>10.4</td>
<td>-</td>
<td>32.1</td>
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<tr>
<td>Office clerks, general</td>
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<td>-</td>
<td>28.8</td>
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<tr>
<td>Dental Hygienists</td>
<td>17.7</td>
<td>5.9</td>
<td>-</td>
<td>23.7</td>
</tr>
</tbody>
</table>

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

Articles:
- Use of personal protective equipment to mitigate noise exposure in 2020
- Civilian occupations required to spend the most time outdoors in 2020
- 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)
- 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 ORS homepage or download the ORS complete dataset to explore the latest estimates.