



Architecture and engineering occupations

This occupational group includes architects, surveyors, cartographers, photogrammetrists, engineers, drafters, engineering technicians, electro-mechanical technicians, and mapping technicians.

Cognitive and mental requirements

The qualifications that workers need to use judgment, make decisions, interact with others, and adapt to changes in a job.

In 2021, 92.1 percent of architecture and engineering workers were required to have more than basic people skills to perform critical tasks. Basic people skills were required for 7.9 percent of workers.

Table 1. Percentage of architecture and engineering workers with cognitive and mental requirements, 2021

Requirement	Yes	No
Pace: Pause control	93.8	6.2
Interaction with the general public	62.9	37.1
Telework	29.3	70.7
Work review: Supervising others	13.4	86.6
Work review: Presence of supervisor	68.7	31.3

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

Education, training, and experience requirements

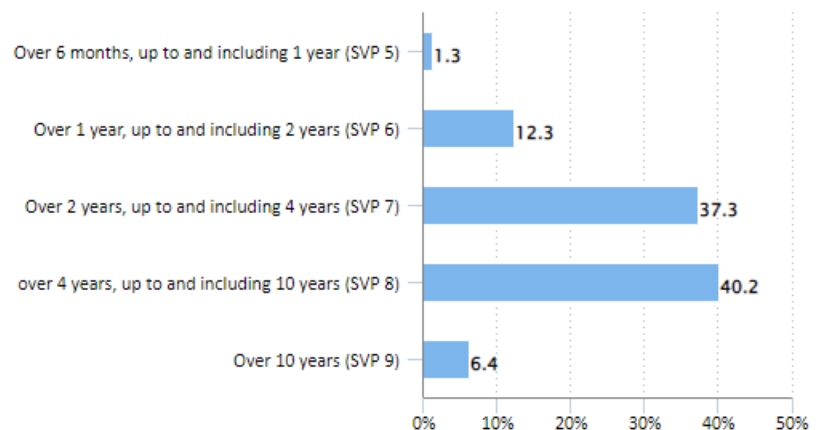
The minimum level of formal education required, credentials necessary, on-the-job training, and prior work experience necessary for average performance in selected jobs.

In 2021, credentials were required for 41.6 percent of architecture and engineering workers.

A bachelor's degree was the minimum formal education requirement for 69.4 percent of workers.

Prior work experience was required for 69.2 percent. Prior work experience was not required for 30.8 percent of workers.

Chart 1. Percentage of architecture and engineering workers by specific preparation time (SVP) level, 2021

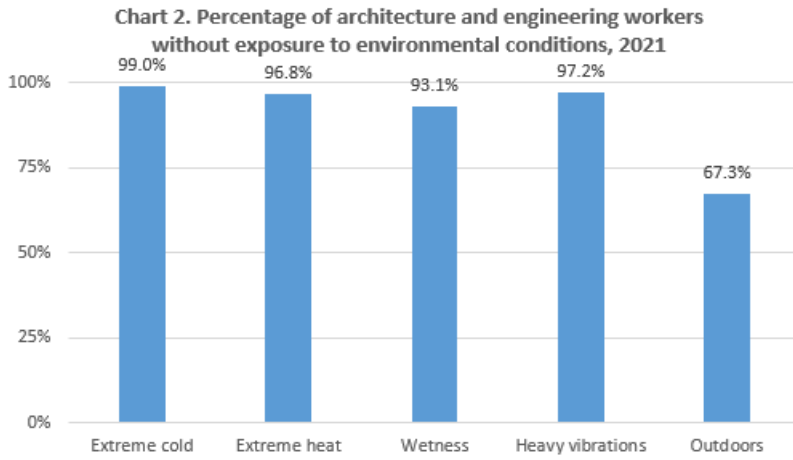


Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey

Environmental conditions

The various tangible or concrete hazards or difficulties that are in the vicinity of where jobs' critical tasks are performed.

In 2021, a quiet noise intensity was present for 31.7 percent of architecture and engineering workers. Another 65.2 percent were exposed to a moderate noise intensity and 2.9 percent to a loud noise intensity. Personal protective equipment (PPE) was not used by 85.7 percent of workers to mitigate the noise intensity, while 14.3 percent did use PPE.



Physical demands

Refer to the physical activities required to perform tasks in a job. The presence and, in some cases, duration of these activities are published.

In 2021, keyboarding was required for 99.8 percent of architecture and engineering workers.

For 0.8 percent of workers keyboarding was seldom performed, 27.6 percent keyboarding occurred occasionally, 66.0 percent frequently, and 5.4 percent keyboarding occurred constantly.

On average architecture and engineering workers sat for 73.8 percent of the workday and stood for 26.2 percent of the workday.

Performing work in low postures was not required for 72.4 percent of workers.

Chart 3. Percentage of architecture and engineering workers by strength level requirements, 2021

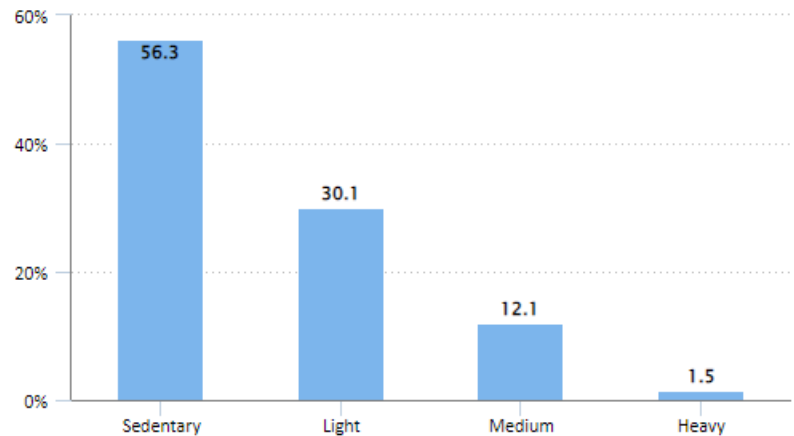


Table 2. Percentage of architecture and engineering workers with physical demands, 2021

Requirement	Yes	No
Choice of sitting or standing	85.5	14.5
Driving	34.0	66.0
Climbing structure-related ramps or stairs	21.9	78.1

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