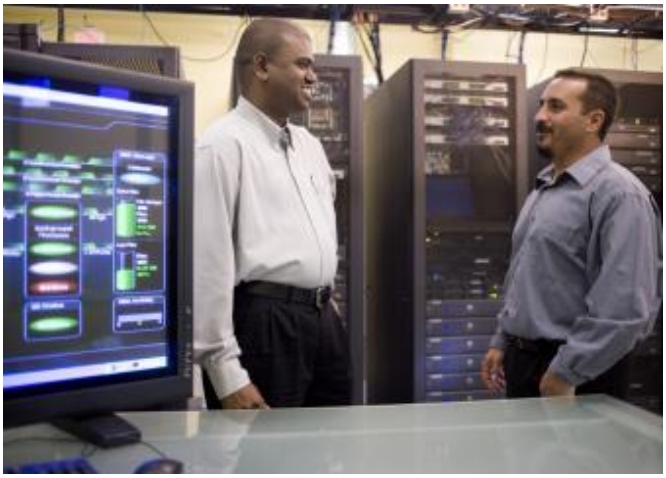


Computer and mathematical workers

This occupational group includes computer and information analysts, software developers and programmers, database and systems administrators, computer support specialists, actuaries, mathematicians, statisticians, operations research analysts, and mathematical technicians.

Cognitive and mental requirements

The qualifications that workers need to use judgement, make decisions, interact with others, and adapt to changes in jobs.

In 2024, more than basic people skills were required for 97.1 percent of computer and mathematical workers, and basic people skills were required for 2.9 percent.

Table 1. Percentage of computer and mathematical workers with cognitive and mental requirements, 2024

Requirement	Yes	No
Adaptability: Work schedule variability	23.2	76.8
Pace: Pause control	94.1	5.9
Telework	66.9	33.1
Work review: Presence of supervisor	37.7	62.3
Work review: Supervising others	14.1	85.9
Working around crowds	<0.5	>99.5

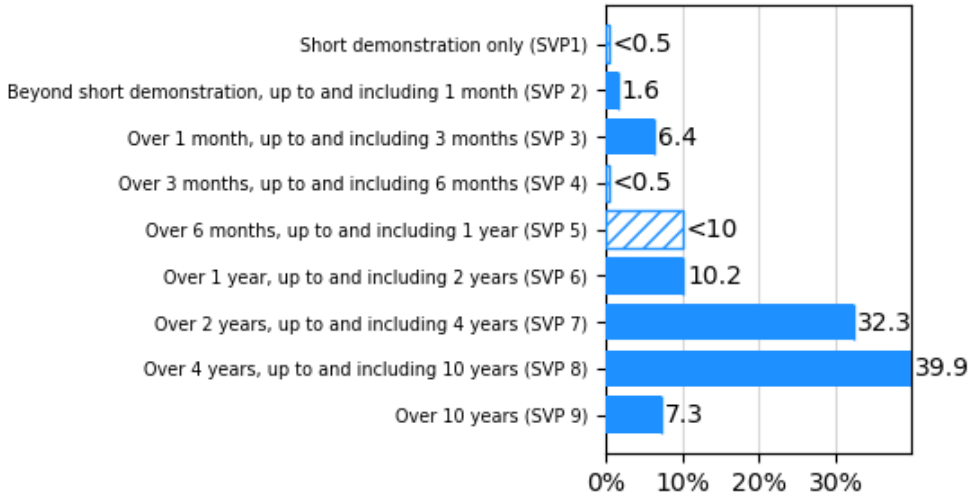
Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey

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 jobs.

In 2024, credentials were required for 18.5 percent of computer and mathematical workers. Prior work experience was required for 73.3 percent and on-the-job training was required for 66.9 percent.

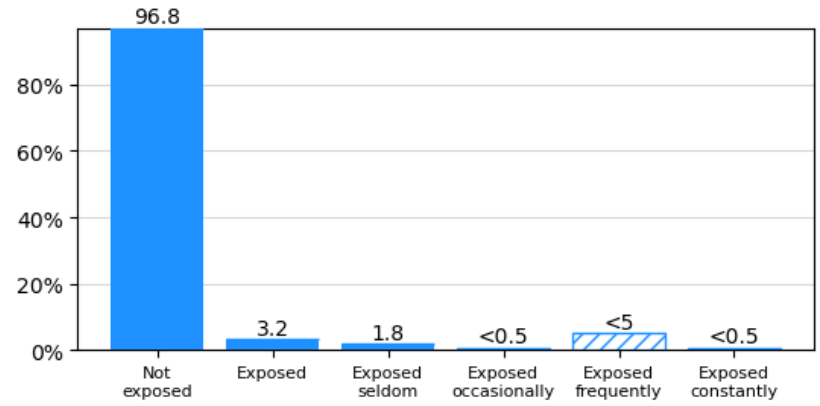
Chart 1. Percentage of computer and mathematical workers by specific vocational preparation (SVP) level, 2024



Note: Striped bars represent range estimates where precise value is unpublished.
Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey

A bachelor's degree was required for 55.1 percent of computer and mathematical workers.

Chart 2. Percentage of computer and mathematical workers with outdoor exposure and duration, 2024



Note: Striped bars represent range estimates where precise value is unpublished.
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.

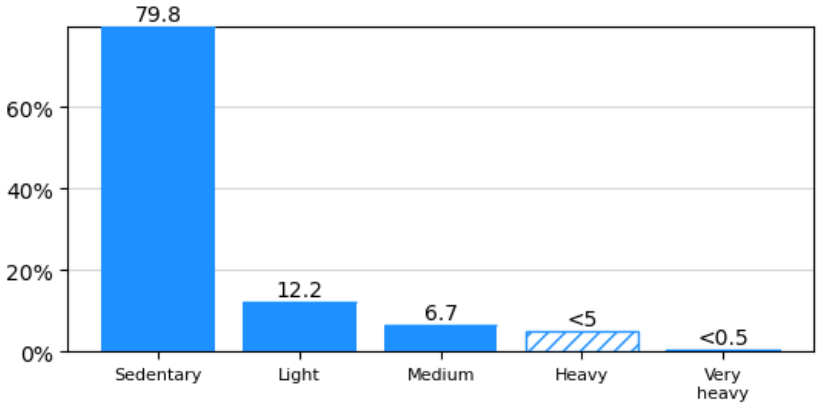
In 2024, a quiet noise exposure was present for 49.8 percent of computer and mathematical workers. Another 50.2 percent were exposed to moderate noise, less than 0.5 percent were exposed to loud noise, and less than 0.5 percent to very loud noise. Personal protective equipment (PPE was used by less than 0.5 percent of workers to mitigate noise exposure, and was not used by greater than 99.5 percent.

Physical demands

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

In 2024, reaching at or below the shoulder was required for 27.6 percent of computer and mathematical workers and was not required for 72.4 percent. For 6.3 percent of workers, reaching at or below the shoulder was seldom performed, for 21.2 percent reaching at or below the shoulder occurred occasionally, less than 0.5 percent frequently, and for less than 0.5 percent reaching at or below the shoulder occurred constantly.

Chart 3. Percentage of computer and mathematical workers by strength level requirements, 2024



Note: Striped bars represent range estimates where precise value is unpublished.
Source: U.S. Bureau of Labor Statistics, Occupational Requirements Survey

Performing work in low postures was required for 17.5 percent of computer and mathematical workers and was not required for 82.5 percent.

The choice to sit or stand when performing critical tasks was available to 88.7 percent of computer and mathematical workers. On average, workers spent 90.3 percent of the workday sitting and 9.7 percent of the workday standing.

Table 2. Percentage of computer and mathematical workers with physical demands, 2024

Requirement	Yes	No
Choice of sitting or standing	88.7	11.3
Climbing structure-related ramps or stairs	3.2	96.8
Driving	13.3	86.7

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