Category and additive codes

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. Relationships between the estimates are shown through the category and additive groups assigned to estimates in the Excel dataset and the database query tools.

The category code is the same for all related estimates. For example, all sitting estimates have the same category code. The additive code is used to show how estimates sum together. Sometimes estimates sum to 100 percent while others sum to another estimate. (See Table 1.)

Table 1. Definition of additive codes

Additive code	Additive relationship
000	Estimate is not additive. The category code provides the relationship with other requirements.[1]
0XX	Estimates sum to 100 percent and no additional relationships exist.
AXX	Estimates sum to 100 percent and additional relationships exist.
BXX	Estimates do not sum to 100 percent but sum to related estimates.
CXX	Estimates do not sum to 100 percent but sum to related estimates and correspond to the sum of the B estimates.
DXX/EXX/FXX/GXX	Estimates sum to 100 percent and are related to other estimates with the same category code that sum to 100 percent (denoted by AXX).
HXX/IXX/JXX/KXX	Estimates sum to 100 percent and are related to other estimates with the same category code.
LXX/NXX/PXX	Estimates do not sum to 100 percent but sum to related A estimates.
MXX/OXX/QXX	Estimates do not sum to 100 percent but sum to related estimates and correspond to the L, N, and P estimates.
XXX	Estimates are not additive, but a relationship exists.
YXX	Estimates sum to average workday.
ZXX	Estimates sum to 100 percent of the workday.

Footnotes:

1 Examples of non-additive estimates include percentile distributions.

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

Some job requirements are presented as required or not required. For example, interaction with the general public was required for 79.2 percent of civilian workers and was not required for 20.8 percent. Together these estimates sum to 100 percent. All interaction with the general public estimates have a category code of 090 and an additive code of 090. The additive code begins with a zero which indicates the estimates in the category sum to 100 percent and no additional relationships exist.

Many environmental conditions and physical demands indicate both whether the job requirements are required as well as the associated duration of the workday required to complete critical tasks. As an example, consider outdoor exposure as shown in table 2. All outdoor exposure estimates have a category code 065. The percentage of workers not exposed to the outdoors and the four duration estimates (seldom, occasionally, frequently, constantly) sum to 100 percent of workers. This is indicated with the additive code A65.

Additionally, the percentage of workers exposed to the outdoors is equal to the sum of the four duration estimates. The additive code for all workers exposed to the outdoors is B65 as it does not sum to 100 percent but does sum to the related duration estimates.

Table 2. Percentage of civilian workers with outdoor exposures, 2023

Exposure to the outdoors	Estimate	Category code	Additive code
Exposed	33.0	065	B65
Seldom (up to 2% of the workday)	10.2	065	A65
Occasionally (2% up to 1/3 of the workday)	15.1	065	A65
Frequently (1/3 up to 2/3 of the workday)	3.7	065	A65
Constantly (2/3 or more of the workday)	4.1	065	A65
Not exposed	67.0	065	A65

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

Some physical demands measure whether one or both extremities are needed when completing the job requirement. One of these is fine manipulation.[1] All fine manipulation estimates have a category code 036. Fine manipulation required, not required, and the four duration estimates follow the same additive code construct as outdoor exposure. Only one hand was needed for 37.1 percent of civilian workers requiring fine manipulation, and 61.7 percent of workers required both hands. These sum to the total percentage of workers requiring fine manipulation, 98.8 percent. The additive code for the one or both hands estimates is C36 which shows that they add to the related B estimates.

Where categories have groups of estimates that sum to 100 percent and that relate to the A estimates, the additive groups begin with a D, E, F, or G. Low posture estimates have a category code 001.[2] These estimates measure whether low postures are required, not required, and the durations. Additionally, estimates for each of the four low postures (crawling, crouching, kneeling, and stooping) are published. Kneeling was not required for 59.6 percent of civilian workers, 33.8 percent of workers were able to choose kneeling when low work was required, and 6.6 percent required kneeling when completing low work. These sum to 100 percent and are related to the low postures A estimates. The additive code for kneeling estimates is F01.

For categories with multiple related groups that sum to 100 percent, the additive code begins with H, I, J, or K. The distinction between these estimates and those in the previous paragraph (D, E, F, or G) is that they are not subgroups, and do not have related A estimates. For example, all hearing requirements estimates have a category code 059. Requirements to hear over the telephone have an additive code J59 while requirements to hear in-person speech have an additive code H59. Both are types of hearing requirements measured and the additive groups sum to 100 percent. (See table 3.)

Table 3. Percentage of civilian workers with hearing requirements, 2023

Hearing requirements	Required	Not required	Category code	Additive code
Speech in-person	99.3	0.7	059	H59
Other remote speech	23.2	76.8	059	I59
Telephone	77.8	22.2	059	J59
Other sounds	31.3	68.7	059	K59

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

Additive groups that begin with L, M, N, O, P, and Q are all credential estimates and part of the education, training, and experience requirements.[3] All credential estimates have a category code 012. Credentials were required for 45.3 percent of all civilian workers and not required for 54.7 percent. These sum to 100 percent of workers. Three individual credential requirements are also published: certifications, licenses, and educational certificates. Certifications were required for 5.8 percent of civilian workers, and 39.5 percent of workers did not require a certification. These do not sum to 100 percent, but rather to the percentage of all workers that required credentials, 45.3 percent. (See table 4.)

Credential estimates also capture the length of time needed to obtain credentials. In some instances, the time is captured by other education, training, and experience requirements. For example, if an associate degree is part of the criteria for obtaining a certification, the time is counted under the degree requirements and no time is associated with the credential.[4] Additional time was associated with obtaining a certification for 2.5 percent of workers, and 3.3 percent of workers did not have time associated with obtaining a certification in addition to the time needed for other education, training, and experience requirements. These estimates sum to the percentage of workers that required a certification, 5.8 percent. (See table 4.)

Table 4. Percentage of civilian workers with credential requirements, 2023

Credential requirements	Yes	No	Category code	Additive code
Credentials required	45.3	54.7	012	A12
Certification required	5.8	39.5	012	L12
Certification with associated time	2.5	3.3	012	M12
License required	19.1	26.2	012	N12
License with associated time	3.2	15.8	012	O12
Educational certificate required	2.8	42.5	012	P12
Educational certificate with associated time	2.4	<0.5	012	Q12

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

The use of personal protective equipment (PPE) is measured for four environmental conditions. These are noise intensity level, hazardous contaminants, heights, and proximity to moving mechanical parts. When the use of PPE fully mitigates exposure, workers are considered not exposed. For example, 93.1 percent of civilian workers were not exposed to hazardous contaminants, and 2.2 percent of workers were not exposed to hazardous contaminants because PPE use fully mitigated exposure. All hazardous contaminant estimates have a category code 081. The percentage of workers where PPE fully mitigated exposure has an additive code X81 as it does not sum to other estimates but is a subset of workers not exposed.

Both the Y and Z additive groups are related to the sitting and standing requirements.[5] All sitting estimates have a category code 078 while all standing estimates have a category code 077. For the purposes of time and percentage of workday, workers are always considered to be sitting or standing. Civilian workers spent an average of 3.46 hours sitting and 4.18 hours standing per workday. Adding these together gives the average workday, and both estimates have an additive code beginning with a Y. On average, civilian workers spent 43.7 percent of the workday sitting and 56.3 percent of the workday standing. These sum to 100 percent and have additive codes Z78 and Z77, respectively.

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 ORS homepage or download the ORS complete dataset to explore the latest estimates.

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1 See the gross and fine manipulation factsheet for more information on these requirements.

2 See the low postures factsheet for more information on these requirements.

3 See the credentials factsheet for more information on these requirements.

4 See the minimum formal education factsheet for more information on these requirements.

5 See the sitting and standing factsheet for more information on these requirements.