
Human resource management — Skills and capabilities metrics cluster

*Management des ressources humaines — Indicateurs de mesure pour
les compétences et aptitudes*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 260, *Human resource management*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

ISO 30414 highlights guidelines on the following core human capital reporting (HCR) clusters or areas:

- compliance and ethics;
- costs;
- diversity;
- leadership;
- organizational culture;
- organizational health, safety and well-being;
- productivity;
- recruitment, mobility and turnover;
- skills and capabilities;
- succession planning;
- workforce availability.

This document deals specifically with the cluster of metrics in the skills and capabilities area of ISO 30414. Future documents will address other learning and development metrics, including measures for informal or unstructured learning.

Organizations invest significant sums to increase the skills and capabilities of their employees. The expectation is that this investment will help the organization accomplish its mission, achieve its goals and address its critical needs at lower cost or in less time. Research has shown that organizations which invest more in their employees tend to perform better. Furthermore, investing in employee skills and capabilities is often critical to attracting and retaining the most desirable employees. Finally, in many organizations, investing in the skills and capabilities of employees leads to higher employee engagement, which is associated with higher motivation and productivity in addition to higher retention.

For all these reasons, investors, analysts and employees will benefit from greater transparency about the investment in skills and capabilities. Investors and analysts can value an organization more highly if it invests in its employees. Existing employees can find greater opportunities to grow and develop if the organization invests more heavily in their skills and capabilities. And job seekers can be more attracted to an organization that invests in its people.

Given the significant investment organizations make in their human capital, it is important to be able to accurately and consistently measure the cost of this investment. It is also important to understand how many employees participate in formal training, how much training they receive and what type of training is provided. Senior leaders, as well as learning and development professionals, will also be interested in the competency levels of the workforce, both as a guide to the need for training and as a reflection of the impact of the investment in skills and capabilities. In other words, investment in human capital should produce a more competent workforce which in turn will help the organization succeed.

The metrics within the skills and capabilities cluster as documented in ISO 30414 are as follows:

- a) Total development and training cost: this metric is defined as the sum of all spending on training and development within an organization.
- b) Percentage of employees who participate in training compared with total number of employees per year: this metric is defined as the number of employees who participate in at least one formal training experience divided by the total number of employees.

- c) Average formalized training hours per employee: this metric is defined as total formal training hours for all employees divided by the number of full-time equivalent (FTE) employees.
- d) Percentage of employees who participate in formalized training in different categories: this metric is defined as the number of employees who participate in at least one formal training experience divided by the total number of employees shown by category (e.g. leadership).
- e) Workforce competency rate: this metric is defined as the average competency ratings assigned to employees.

This document describes the following components for each of the above metrics:

- general;
- description;
- purpose;
- formula;
- how to use.

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Human resource management — Skills and capabilities metrics cluster

1 Scope

This document describes and defines the five metrics of skills and capabilities. This document also provides the formula for each metric and describes the common metrics which employ the five metrics.

This document also highlights issues that need to be considered when interpreting the skills and capabilities data, especially when deciding on the appropriate intervention internally and when reporting these to external stakeholders (e.g. regulators, investors).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 30400, *Human resource management — Vocabulary*

ISO 30414, *Human resource management — Guidelines for internal and external human capital reporting*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 30400 and ISO 30414 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

learning

<learning and development> broad, multifaceted set of activities focused on improving the performance of individuals and organizations through the knowledge, skills and abilities of people

Note 1 to entry: Learning is the act of obtaining or acquiring new knowledge, skills and abilities and occurs through the impact of education, training and instruction, practice or study on the individual.

Note 2 to entry: Formal learning is when the learner outcomes are defined and structured by the curriculum, learning and instructional design and by the organizing body or individual.

Note 3 to entry: Can include reflective learning, which is a formal or informal process that deliberately draws on experience to thinking about events, relationships and learning activities to identify what has been learned and to generate and consider ideas.

Note 4 to entry: Can include team learning, which is a social and relational process that occurs from collaboration between individuals leading to coordination of knowledge and behaviours as a feature of their work processes.

Note 5 to entry: Workplace learning is the acquisition of work-related knowledge and skills that is the result of training that takes place at work.

Note 6 to entry: Can include learning through the means of communication technology, sometimes referred to as e-learning.

Note 7 to entry: People also learn from others, which can raise awareness of the organization's diversity and inclusion principles and strategic objectives.

Note 8 to entry: Blended learning involves combining different modes of learning to achieve desired learner outcomes.

3.2 development

<learning and development> set of learning activities to raise the threshold of performance of a person, group of people or organisation

Note 1 to entry: This development often includes both formal and informal methods or processes.

3.3 training

process by which an individual or a group of people obtain knowledge, skills and abilities

4 Total development and training cost

4.1 General

Development and training are used to increase the skills and capabilities of the workforce to help an organization accomplish its mission, achieve its goals and meet its needs. Many organizations make significant investments in development and training, and the total development and training cost is an important measure of an organization's investment in human capital. While cost is an input metric, it is nonetheless an indicator of the organization's commitment to invest in its workforce, and some research has shown a correlation to better financial performance. ISO 30414 recommends this metric be reported internally and externally by all organizations.

4.2 Description

Total development and training cost is the sum of all spending on training and development within an organization. Total cost includes items such as salaries and benefits for the staff, overhead costs (such as supplies), direct costs of conducting the training (such as room rental, materials and travel cost for staff), costs for external suppliers [developers, facilitators, learning management system (LMS) providers] and tuition assistance.

NOTE 1 This list is just meant to provide examples of costs to be included. This document calls for all reported training costs to be included.

In practice this is measured as the sum of all spending by the internal training departments and the amount spent on tuition assistance for employees to obtain certificates or degrees. If data are available on training expenditures by other departments (not captured by the training departments), this should be added for a more complete picture. It does not include spending on training-related conferences hosted by other organizations or the travel expenditures for non-training department employees to attend training. It also does not include the opportunity cost (value of the time spent in training) of the participants in the training.

NOTE 2 Others have defined total cost to include opportunity cost, so it is important to know which definition is being used when benchmarking or comparing to another organization. The addition of opportunity costs produces a more accurate measure of total cost.

4.3 Purpose

The purpose of measuring total development and training cost is first to know how much is being spent to develop skills and capabilities so that a judgment can be made about whether more or less should be spent. This is often expressed as an average expenditure per employee or per learner, or as a percentage of payroll or revenue, and varies by organization, depending on the difficulty of the goals and needs as well as the competency rate of the workforce. Challenging goals can require a higher level of investment

to achieve for any given workforce competency level. Likewise, a less proficient workforce (lower competency rating) can require a higher level of investment for any given level of challenge. A second important purpose is to provide the information to external stakeholders and employees so they can make informed decisions about the organization's commitment to invest in its workforce. A third purpose is to provide information so that researchers can better explore the correlation and causality between higher levels of investment in skills and capabilities and organizational performance.

4.4 Formula

4.4.1 General

Total development and training cost is simply the sum of all spending on training and development by an organization.

The operational formula is:

Total development and training cost = sum of spending by all training departments within the organization + sum of spending on training by other departments not already captured by the training departments (if available) + sum of spending on tuition assistance for certificate or degree programmes.

In practice, data for the first part of the formula should be readily available for any organization that has one or more training departments. Most of the spending on training and development should be captured in the training departments' expense statements.

Some organizations are too small to have a dedicated training department and, in this case, there can be an expense line item for training which can be used.

Even in organizations with a training department, it is not uncommon for spending on training to occur outside the training departments. Often, units send their employees to training outside the organization and this training is not typically captured by the training department. If data on these outside expenditures is available, it should be added.

Tuition assistance can be managed by the training department, a different HR function or the business units.

Total development and training cost should be calculated using the most aggregated data available. Start with the departmental expense statements for the training departments which should include all the costs associated with providing the training, including staff expenses, overheads (e.g. room rental, materials, travel, consultants, vendors, LMS), and internal charges (e.g. some organizations charge their training departments for space, HR, IT). Starting with aggregate costs is much easier and more accurate than trying to build up the cost of training on a programme-by-programme basis.

4.4.2 Case study 1

An organization with one centralized training department and five business units.

This example shows the calculation for an organization with five business units and one centralized training department. The tuition assistance budget rests outside the training department. In this example, training is highly, but not completely, centralized in the one training department.

Consequently, the training department accounts for about 80 % of the total development and training cost.

	Spending \$
Training department	515 000
Business unit 1	15 000
Business unit 2	10 000

Business unit 3	35 000
Business unit 4	20 000
Business unit 5	25 000
Tuition assistance	30 000
Total	650 000

4.4.3 Case study 2

An organization with one small centralized training department, three business units with their own training departments and two business units without training departments.

This example shows the calculation for an organization with a decentralized structure for training. There are still five business units but three of those units have their own training department. There is a small central training department with responsibility for leadership development. Tuition assistance again rests outside the training departments.

	Spending
	\$
Training department	65 000
Business unit 1 with training department	115 000
Business unit 2 with training department	145 000
Business unit	25 000
Business unit 4	15 000
Business unit 5 with own training department	230 000
Tuition assistance	30 000
Total	625 000

When aggregate data are not available in a small organization, the cost of training should be calculated on a programme level and then summed, using the following formula for each programme:

Total cost of training and development = (staff time × fully burdened labour and related rate) + other direct programme costs (e.g. room rental, materials, vendors or consultants, travel of staff)

4.4.4 Case study 3

An organization with no training department.

This example shows the calculations for a small organization with three programmes. The first two programmes are developed and taught internally while the third programme is purchased and facilitated by an outside vendor. The following have been calculated or estimated:

a) Programme 1

- staff time to develop, deliver and manage = 40 hours (see NOTE 1);
- average labour and related rate for staff = \$35/hour (see NOTE 2);
- burden rate for staff = \$50/hour (see NOTE 2);
- fully burdened labour and related rate = \$35/hour + \$50/hour = \$85/hour;
- direct costs = \$5 000.

b) Programme 2

- staff time to develop, deliver and manage = 80 hours;

- average labour and related rate for staff = \$40/hour;
- burden rate for staff = \$50/hour;
- fully burdened labour and related rate = \$40/hour + \$50/hour = \$90/hour;
- direct costs = \$10 000.

c) Programme 3

- staff time to manage vendor = 20 hours;
- average labour and related rate for staff = \$50/hour;
- burden rate for staff = \$50/hour;
- fully burdened labour and related rate = \$50/hour + \$50/hour = \$100/hour;
- direct cost = Vendor cost = \$25 000.

NOTE 1 “Develop, deliver and manage” includes all the effort associated with identifying and confirming the need for training, designing and developing it or selecting and managing a vendor to do the same, delivering the training or managing a vendor to deliver, reinforcing the learning, measuring results and closing the programme out.

NOTE 2 The labour and related rate includes hourly salary plus any benefits tied directly to hourly salary, such as employer-paid taxes. The burden represents the overhead cost and can be calculated as departmental expense less the labour and related and direct (programme-attributable) costs. The burden rate is the burden cost divided by the number of hours actually worked in a year, which takes into account the fact that employees don't work 40 hours per week $\times$ 52 weeks per year due to vacations, holidays, sick days and time spent in staff meetings and training. (The accounting department can help determine the burden rate. As the example shows, the burden rate can easily be as much or more than the labour and related rate.)

The programme costs can now be calculated as follows:

Programme 1 cost = (40 hours $\times$ \$85/hour) + \$5 000 = \$3 400 + \$5 000 = \$8 400.

Programme 2 cost = (80 hours $\times$ \$90/hour) + \$10 000 = \$7 200 + \$10 000 = \$17 200.

Programme 3 cost = (20 hours $\times$ \$100/hour) + \$25 000 = \$2 000 + \$25 000 = \$27 000.

Finally, the total cost of training and development for the organization can be calculated as follows:

Total cost of training and development = \$8 400 + \$17 200 + \$27 000 = \$52,600.

4.5 Use

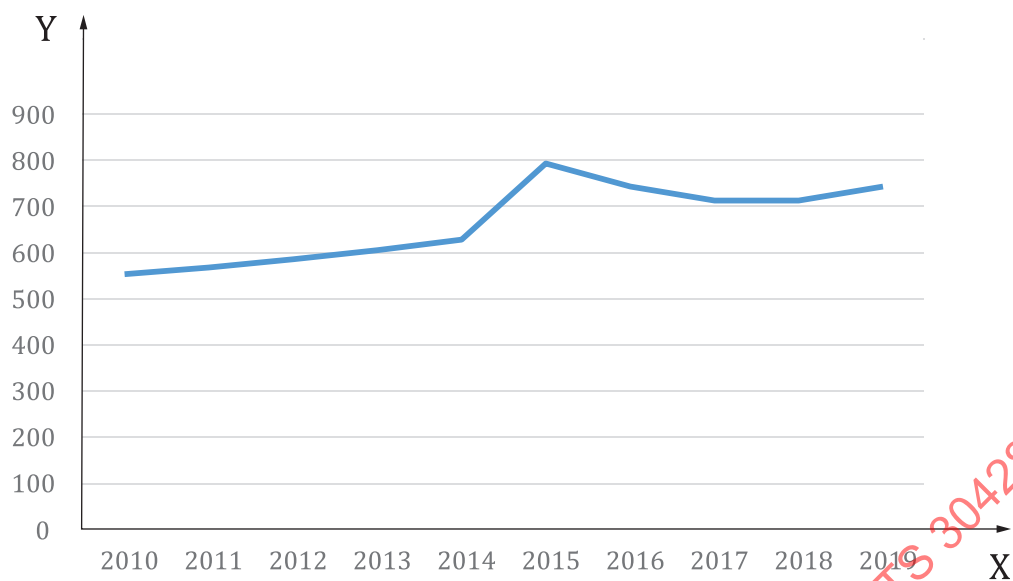
4.5.1 General

The use of this metric and its derivative metrics is explored for three different user groups: internal users, external users and academic users.

4.5.2 Internal users

Total development and training cost is a key metric of an organization's investment in its workforce. As such, every organization should know the value of this metric and it should be managed strategically to produce the desired results. Key internal users include the CEO, CFO, heads of HR and learning and development, and employees. The right investment in development and training differs for each organization depending on the challenge of its goals and needs and on the existing competency of its workforce.

It is common to track total development and training cost over time as illustrated in [Figures 1](#) and [2](#).



Key

X year

Y total development and training cost, \$

Figure 1 — Total development and training cost

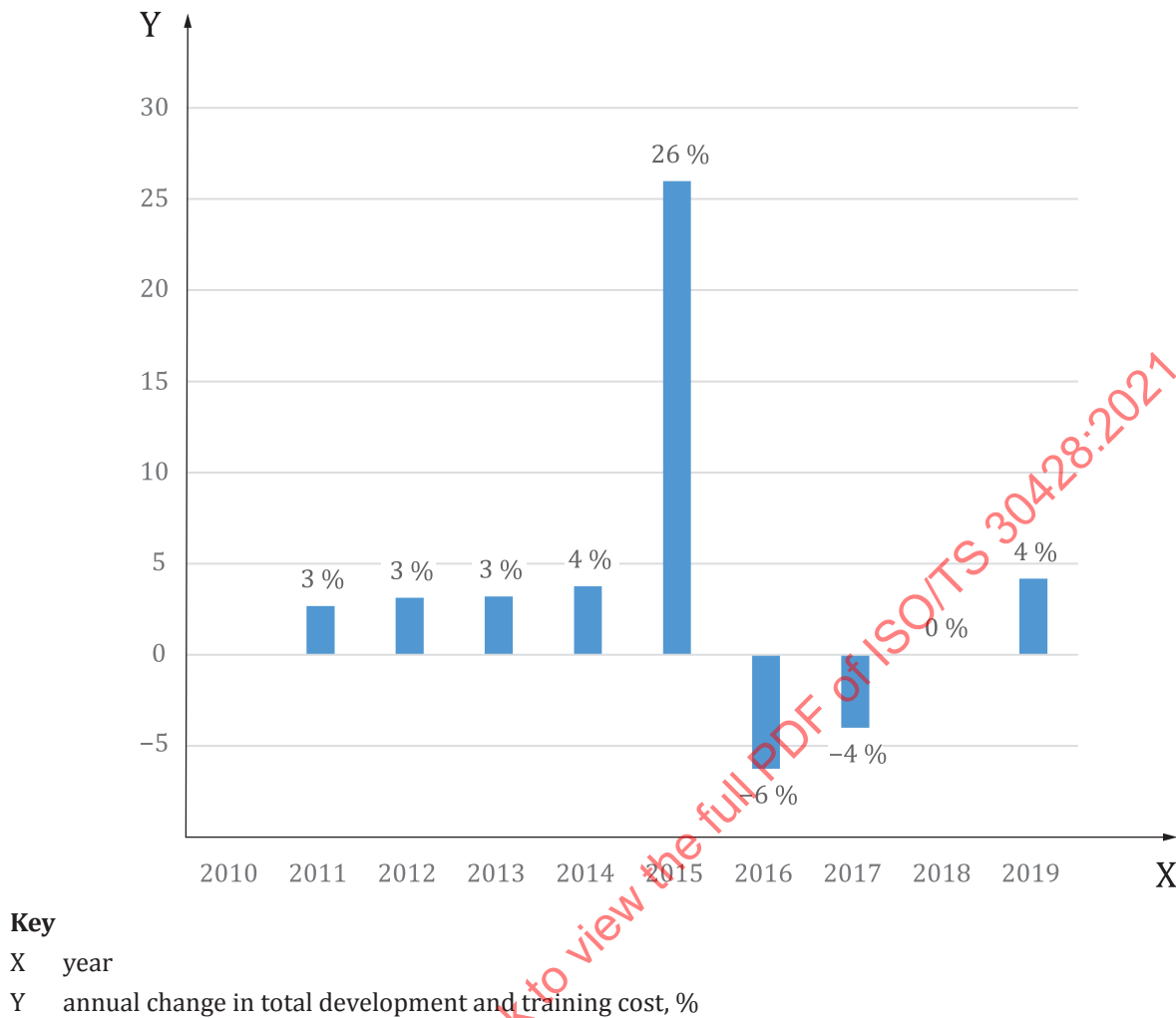


Figure 2 — Annual change in total development and training cost

Figure 1 shows the level of spending each year while Figure 2 shows the change. The annual percentage change is a commonly benchmarked metric. In this example, spending increased by 3 % to 4 % per year until 2015 when it increased significantly in support of a major organizational initiative. Spending then decreased in 2016 and 2017 and finally stabilized in 2018 as the initiative was completed. Trend growth resumed in 2019.

With the caveat still in mind that the optimal level of spending is unique for each organization and should reflect the level of organizational challenge and workforce competency, organizations often benchmark their own level of investment in training and development against other organizations. Since the amount invested typically scales with the size of the organization, it is common to express the cost of training and development as a ratio which makes comparisons to other organizations more meaningful. The four most common ratios are:

- 1) Average expenditure per employee = total development and training cost/number of employees.
- 2) Average expenditure per learner = total development and training cost/number of learners.
- 3) Total development and training cost as a percentage of payroll = total development and training cost/total payroll.
- 4) Total development and training cost as a percentage of revenue = Total development and training cost/total revenue.

The average expenditure per employee is widely used and benchmarked, so it is relatively easy to compare one organization with another. For example, suppose we have data for two organizations:

a) Organization 1

- total development and training cost = \$100 000;
- total number of employees = 50;
- average expenditure per employee = $\$100\,000/50 = \$2\,000$ per employee;

b) Organization 2

- total development and training cost = \$200 000;
- total number of employees = 50;
- average expenditure per employee = $\$200\,000/50 = \$4\,000$ per employee.

It is clear from the data that organization 2 invests more overall than organization 1 and that it spends more per employee. However, it can be the case that the goals of organization 1 are easier to attain than those of organization 2, and it can be the case that the competency rate of the workforce is higher in organization 1. Consequently, both organizations can be at optimum investment levels for training and development based on their unique situations. It can even be the case that organization 1 is spending too much while organization 2 is spending too little, given their respective levels of challenge and workforce competency.

If an organization uses contingent workers, an alternative measure of per-person spending is to divide total development and training cost by the number of workers, where the number of workers equals employees + contract workers + temporary employees.

NOTE Total development and training cost does not include training provided by the contracting or temporary agencies. It does include training provided by the organization to contract or temporary workers.

This is appropriate if the contingent workers require the same type of investment as employees to be productive. If different categories of the workforce require different amounts of training then a table showing the average spending per worker by category is recommended.

Some benchmarks for this measure use FTE rather than headcount for number of employees. This produces a larger average expenditure than headcount since $FTE < \text{headcount}$. Use of FTE can be appropriate when FTE greatly exceeds headcount and when part-time employees need the same amount of training as full-time employees.

Another common comparison is average expenditure per learner, which simply replaces the number of employees with the number of learners. For example, if organization 1 has 30 learners, the average spend per learner is \$3 333:

Average expenditure per learner = $\$100\,000/30 = \$3\,333$ per learner.

Some prefer to compare the total cost of training and development to payroll or revenue. If the organization spends \$100,000 on training and development and has a payroll of \$2 500 000, the percentage of payroll is 4 %:

Total cost of training and development as a percentage of payroll = $\$100\,000/\$2\,500\,000 = 4,0\%$.

If revenue is \$10 000 000 the ratio is 1 %:

Total cost of training and development as a percentage of revenue = $\$100\,000/\$10\,000\,000 = 1,0\%$.

These two metrics are also commonly benchmarked, but the same caveats apply. An organization with training cost as a lower percentage of payroll or revenue than the benchmark (or a comparison organization) does not necessarily need to spend more. Likewise, an organization spending a higher percentage on training than the benchmark should not necessarily reduce its budget. The right level

of investment depends on individual circumstances. Furthermore, these ratios vary significantly by organization size and industry.

Internal users should also examine the distribution by categories of interest. For example, it is interesting to know if average expenditures are similar or different across units and regions or across different categories of employees (e.g. management versus non-management) or by employee demographics (e.g. gender or age).

4.5.3 External users

Another purpose of the training and development cost metric is to allow external stakeholders to compare organizations against each other and the benchmark, and to provide time series data to analyse an organization's investment in training and development over time. Key users here include investment analysts and the CEOs and CFOs of other organizations. They will be interested in the same ratios described in 4.5.1 and be able to calculate all four ratios with data generally available for publicly traded companies.

Given the limitations discussed in 4.5.1 about comparisons to other organizations and to the benchmark, it is important for management to provide background and context when sharing the total cost of training and development externally. Management will possibly want to discuss the level of challenge and the competency rate of the workforce as well as their expectations for the impact of the training.

The same issues are likely to be present when comparing trends over time for a single organization. Here again there is a need for management to provide context and explain why the current year metrics are higher or lower than previous years.

Other key external users include potential employees who would prefer to work for an organization that invests in its workforce. Prospective employees are likely to be particularly interested in the average expenditure per employee and learner.

4.5.4 Academic users

A final use for the total cost of training and development is in academic research to identify how it relates to a variety of outcomes, including employee engagement, turnover, sales, productivity, compliance, and profit or surplus. With large enough data sets and with information provided by management, it can be possible to predict the outcomes from training and development while controlling for other factors.

5 Percentage of employees who participate in training

5.1 General

The percentage of employees who participate in training provides an important measure of the breadth or reach of training within an organization. This metric helps answer the question of whether an organization provides training and development opportunities to just a few or to many. This metric of breadth or reach complements metrics of depth, such as average expenditure per learner and average hours of formal training. ISO 30414 recommends this metric be used for internal reporting by all organizations.

5.2 Description

The percentage of employees who participate in training is defined as the number of employees who participate in at least one formal training experience divided by the total number of employees. Formal training includes learning activities such as instructor-led training, virtual instructor-led training (instructor is at a different location than the participants), online or e-learning, simulations and formal coaching (where a designated coach mentors the participant, as opposed to informal coaching or feedback, which can occur at any time and is generally not measured). Structured or formal mobile learning which is part of a formal course is also included.

The number of employees can be further segmented by category of employees (management, non-management), location or unit, or by type of training (e.g. non-compliance-related training).

NOTE Many organizations have an LMS to record participation in formal training. The LMS provides the number of employees who have participated in at least one instance of formal training (referred to as “unique participants”). For example, if an employee takes two courses during the year, the employee is counted as one unique participant with two instances of total participation.

5.3 Purpose

The purpose of this metric is to evaluate the breadth or reach of the organization’s training effort. The organization can have above-average spending on training and development, but the effort is focused on a small number of employees. For example, some organizations can invest heavily in leaders, managers and a few specialists, but provide very few development opportunities for most employees. This metric is of particular interest to senior leaders, including CEOs and heads of HR and learning and development, especially when there is a goal to improve employee engagement and surveys indicate that employees currently are not satisfied with their development opportunities. It will also be of interest to existing and potential employees.

5.4 Formula

The formula for percentage of employees who participate in training is:

Percentage of employees who participate in training = number of employees who participate in at least one formal training experience/total number of employees

For example, suppose the organization has the following numbers of employees:

Number of employees who participated in training = 950.

Total number of employees = 1 000.

In this case the percentage who participated in training is 95 %:

Percentage who participated in training = $950/1\,000 = 95\%$.

The number of employees who participate in training can be segmented by categories of interest. For example, suppose the following breakdowns are available:

Number who participated in non-compliance-related training = 450.

Number of management employees who participated in training = 97.

Total number of management employees = 100.

Number of non-management employees who participated in training = 853.

Total number of non-management employees = 900.

The percentages of employees who participate in training can now be calculated:

Percentage of employees who participated in non-compliance training = $450/1\,000 = 45\%$.

Percentage of management employees who participated in training = $97/100 = 97\%$.

Percentage of non-management employees who participated in training = $853/900 = 95\%$.

If the organization uses a contingent workforce, workforce can be used instead of number of employees to provide an alternative measure of participation.

5.5 Use

This metric is intended to demonstrate the breadth or reach of the training effort. The percentage of employees who take training will be of particular interest to CEOs and heads of HR and learning and development. This metric complements the ratios of average expenditure and percentage of revenue or payroll, and the two types of metrics taken together provide a more holistic picture of an organization's investment in its workforce.

The overall percentage of employees who participate in training should reflect the organization's learning strategy. For example, does the organization strive to ensure that every employee has learning opportunities beyond compliance training? If so, is a target or plan set at the start of the year and is the percentage who participate in training then managed throughout the year towards the plan? This is particularly important if the organization wants to increase its employee engagement score and if employees have indicated that they would like more learning opportunities. The organization can analyse and manage this metric by category of employee as well.

An example of showing the calculations in total and by category is shown in [Table 1](#).

Table 1 — Percentage of employees who participate in training

Category	Number who participated in training	Total number of employees	Percentage of employees who participated in training %
All employees	950	1 000	95
Compliance	930	1 000	93
Non-compliance	450	1 000	45
Male	560	600	93
Female	390	400	98
Management	97	100	97
Non-management	853	900	95
Length of employment			
≤ 1 year	50	50	100
1 to 3 years	250	250	100
4 to 10 years	390	400	98
≥ 10 years	260	300	87
Total	950	1 000	

[Table 1](#) clearly illustrates the importance of at least showing the non-compliance-related training. The headline figure that 95 % of employees participated in training hides the fact that only 45 % of the employees took at least one non-compliance-related course. Female participation (98 %) is slightly higher than male participation (93 %), and management participation just slightly higher than non-management participation, although further analysis for just non-compliance training is desirable.

[Table 2](#) provides an example of an organization which uses a large contingent workforce. In this example, there are 500 contingent workers in addition to 1 000 full- and part-time employees. The participation rate is lower for contingent workers (70 %) than full- and part-time employees (95 %). Just as with full- and part-time employees in [Table 1](#), the participation rate for non-compliance-related training is much lower than for compliance training.

Table 2 — Percentage of workforce who participate in training

Category	Number who participated in training	Total number in workforce	Percentage of workforce who participated in training %
Total workforce	1 300	1 500	87
Contingent workers	350	500	70
Contract workers	10	50	20
Temporary Workers	340	450	76
Compliance	325	500	65
Non-compliance	120	500	12
Full and part-time employees	950	1 000	95
Compliance	870	1 000	87
Non-compliance	450	1 000	45
Male	560	600	93
Female	390	400	98
Management	380	400	95
Non-management	570	600	95
Length of employment			
≤ 1 year	50	50	100
1 to 3 years	250	250	100
4 to 10 years	390	400	98
≥ 10 years	260	300	87

At a minimum, a table for an organization with a large contingent workforce should include an addendum showing the percentage of contract and temporary workers who receive training.

6 Average formalized training hours per employee

6.1 General

The average formalized training hours per employee is another important metric of an organization's investment in its workforce. As with average training expenditure per employee, this is a measure of the depth of commitment to employee development and is readily benchmarked. For a complete picture of an organization's commitment to its workforce, it should be analysed together with a breadth metric such as percentage of employees who participate in training. ISO 30414 recommends this metric for internal reporting by all organizations.

6.2 Description

The metric for average formalized training hours per employee is defined as the total formal training hours for all employees divided by the number of employees. Formal training includes learning activities such as instructor-led training, virtual instructor-led training (instructor is at a different location than the participants), online or e-learning, simulations and formal coaching (where a designated coach mentors the participant, as opposed to informal coaching or feedback, which can occur at any time and is more difficult to measure). Structured or formal mobile learning which is part of a formal course is also included. With the exception of formal coaching and perhaps mobile learning, the training hours should be captured by an organization's LMS in most organizations.

6.3 Purpose

The purpose of this metric is to evaluate the commitment of an organization to developing its workforce. In general, an organization providing more hours of training than another organization is making a greater investment in its employees. Of course, all training is not equal, and it is possible that an organization is providing fewer average hours of training than the benchmark or another organization, but its training is of higher quality and greater impact, which can be reflected in a higher average expenditure per employee. Recognizing the differences in training, organizational challenges and needs, and workforce competency, it is always recommended that a number of metrics are looked at to get a more complete picture of an organization's investment in its workforce. This metric will be of particular interest to heads of HR and learning and development, and also to CEOs.

6.4 Formula

The formula for average formalized training hours per employee is:

Average formalized training hours per employee = total formalized training hours/number of employees

Total formalized training hours is the sum of the training hours for all formal training, including physical and virtual instructor-led training, e-learning, simulations and formal coaching. Structured or formal mobile learning which is part of a formal course is also included. Hours spent learning informally (e.g. on the job, informal coaching, searching for information) are not included.

Average formalized training hours can also be calculated for categories of employees or by training modality (e.g. instructor-led, e-learning).

If the organization uses a large contingent workforce, consideration should be given to using workforce instead of number of employees to provide a more accurate measure.

Some benchmarks use FTE instead of headcount for employees. The use of FTE produces a higher average, since $FTE < \text{headcount}$.

6.5 Use

This metric is intended to demonstrate the depth of an organization's commitment to developing its workforce. The average formalized training hours will be of most interest to heads of HR and learning and development, and also to CEOs. These internal users will be interested to see the depth of training expressed as the overall average per employee but also the total hours and as average per employee by different demographic categories. This metric will assist them in deciding whether the total and average hours are sufficient to meet the organization's needs. The metric will also help them identify any inequities by demographic group and reveal any areas where the number of hours seems out of line given the organization's needs and budget.

If the organization uses a large contingent workforce, workforce can be used instead of number of employees to provide a more accurate measure. In this case, total hours of training includes training for contract and temporary workers provided by the organization (not the agency which employs them). At a minimum, the table should include an addendum showing the data for contract and temporary workers.

An example showing calculations for the total and by category is shown in [Table 3](#), which includes an addendum providing the basic information about contract and temporary workers.

Table 3 — Average formalized training hours per employee

Category	Total formalized training h	Total number of employees	Average formalized training per employee h
All employees	45 000	1 000	45
Compliance	17 000	1 000	17
Non-compliance	28 000	1 000	28
Male	24 000	600	40
Female	21 000	400	53
Management	25 000	400	63
Non-management	20 000	600	33
Length of employment			
≤ 1 year	9 000	50	180
1 to 3 years	13 000	250	52
4 to 10 years	18 000	400	45
≥ 10 years	5 000	300	17
Addendum: contingent and total workforce			
Contingent workers	1 700	500	3
Contract workers	100	50	2
Temporary workers	1 600	450	4
Employees	45 000	1,000	45
Total workforce	46 700	1,500	31

[Table 3](#) not only provides the total hours of training (45 000 h) and the average per employee (45 h), but also important detail to further understand and analyse the average. Compliance-related training accounts for 17 000 h of the 45 000 h which can make sense or not depending on the level of regulation, the risk inherent in the business and culture of compliance. It is interesting to note that women take an average 13 h more training than men, which possibly reflects the results of a campaign to encourage women to take more training to be eligible for promotional opportunities or simply that the newer employees are mostly women. Management take considerably more training than non-management, which raises the question of whether this is intentional or not. The need for training is inversely related to experience, which makes sense with newer employees taking a much higher average amount of training.

The addendum provides the basic information for the contingent workforce, showing that contract and temporary workers receive very little training, which is likely to be compliance related.

7 Percentage of employees who participate in formalized training by category

7.1 General

This metric of the percentage of employees who participate in formalized training focuses on the categories or areas of training versus the demographic categories discussed in [Clause 5](#). It answers questions such as what percentage of employees take leadership training or compliance training. It is intended to provide the necessary detail to allow management to see the distribution of training by area and to evaluate whether the training effort is properly aligned to the needs of the organization.

Considering the effort to identify training by area, ISO 30414 recommends this metric for internal reporting by large organizations only.

7.2 Description

The percentage of employees who participate in formalized training by category expands on the metric in [Clause 5](#) to provide detail by area within the organization. It is expected that each organization has some areas or categories in common with most other organizations, as well as some categories more unique to its industry and needs. Examples of areas or categories include compliance, leadership and basic skills. The goal is for each organization to have a list of the most important and relevant categories to manage its own training. This metric is not intended for external reporting so uniformity for benchmarking is not an issue.

Formalized training is defined as formal training and includes learning activities such as instructor-led training, virtual instructor-led training (instructor is at a different location than the participants), online or e-learning, simulations and formal coaching (where a designated coach mentors the participant, as opposed to informal coaching or feedback, which can occur at any time and is more difficult to measure).

Structured or formal mobile learning which is part of a formal course is also included.

7.3 Purpose

The purpose of this metric is to understand the mix of training being taken by employees and then to evaluate whether the mix is aligned to the organization's priorities. In other words, does the mix make sense given the organization's goals, needs and challenges as well as its workforce competency levels? This metric, as with the percentage of employees who participate in formalized training, is an indicator of the breadth of training in an organization. It helps answer questions about which areas are receiving the training. As noted in the other clauses, no single metric for training and development can provide a complete picture of the current state, and the recommendation is to use multiple metrics to understand both the depth and breadth of the training effort.

7.4 Formula

The formula for this metric is:

Percentage of employees who participate in formalized training by category = number of employees who participate in formal training in a category/number of total employees

The calculation is made for each identified category or area, with the numerator reflecting the number who took training in that category and the denominator being the total number of employees in the organization or in a particular category.

For example, if the organization has the following numbers of employees:

Number who participated in leadership training = 65.

Number who participated in compliance training = 930.

Total number of employees = 1 000.

In this example, the percentage who participated in leadership training is 6,5 %:

Percentage who participated in leadership training = $65/1\,000 = 6,5\%$.

And the percentage who participated in compliance-related training is 93 %:

Percentage who participated in compliance training = $930/1\,000 = 93\%$.

NOTE If the organization employs a large contingent workforce for whom training is important, workforce can be used instead of number of employees to provide an alternative measure.

7.5 Use

This metric is intended to show the distribution or mix of training measured as the percentage who participated by category or area. This distribution will be of interest to CEOs and heads of HR and learning and development. The results can be used to assess whether the current mix is aligned to the goals and priorities of the organization when considering the competency levels of those in the identified categories.

There is not a single prescribed list of categories that is appropriate for all organizations. Instead, each organization should create its own list of relevant categories, selecting areas of training used by many employees and areas of interest to senior leadership, which will often reflect important organizational initiatives. Some categories are common across organizations, such as onboarding, compliance and leadership. Every organization also offers some soft skills training, although the specific courses vary. Many organizations also offer a number of courses of general interest which are not aligned to any one topic or category. In addition, organizations typically offer training in relevant professions or specialties, such as marketing, engineering, IT, purchasing and distribution. A company in the manufacturing sector will also have training specific to manufacturing to address the needs of the factories.

An example is provided in [Table 4](#) for an organization with 1 000 employees.

Table 4 — Percentage of employees who participate in formalized training by category

Category	Number who participated in training	Percentage of employees who participated in training
		%
Onboarding	50	5
Compliance	930	93
Soft skills		
Communications	60	6
Team work	80	8
Business acumen	40	4
Innovation	80	8
Problem solving	160	16
Diversity and inclusion	425	43
Total ^a	515	52
Leadership	65	7
Marketing	85	9
Engineering	110	11
IT	95	10
Other professions	55	6
Total professional	345	35
Manufacturing	145	15
General studies	670	67
^a Total is less than the sum since some employees took courses in two or more categories.		

CEOs and heads of HR and learning and development will be interested in the relative frequencies or mix by category. In this example, nearly all (93 %) employees participated in compliance training. Two-thirds also took at least one general interest course. The next-highest frequency (52 %) is for soft skills where the organization has chosen to highlight six areas. Of the six, diversity and inclusion represents the area of most interest (43 %). 35 % of employees have taken some professional training and 15 % have taken manufacturing-related training. From a management perspective, this allows senior leaders to judge whether the mix is appropriate given the goals, challenges and competency levels of the