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Human resource management — Workforce allocation

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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 (refer www.iso.org/directives).

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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

The allocation of work to workers is the one of the most fundamental management tasks and responsibilities in an organization. It has a profound impact on people, the organization's ability to deliver, and financial outcomes.

The Human Resource function should have a significant role in promoting and driving balanced outcomes. Development and monitoring of an allocation framework and allocation policies, as well as compliance, are essential for good allocation practises to be applied by the organization.

Workforce allocation encompasses a broad range of processes, practices and management activities that address organizational performance, people management and compliance issues. These processes focus on a critical resource—people— and thus significantly influence the social climate and performance of an organization. Decisions resulting from these processes directly impact people's well-being, relationships, motivation, performance and the organization's overall capability, output and collective intelligence.

Allocation occurs in many ways. Work can be directed by the organization or selected by the worker. Decisions can be made using human judgement or automated tools. Workers can be informed when to attend shift work, what activity to complete in project work, what job to do, and be appointed to a position or be informed in other ways.

This standard recommends good practices common to all types of allocation. It recommends an allocation framework, processes and steps and explains how to prepare, assign and inform allocation decisions.

Allocation processes follow workforce planning processes that segment the workforce, calculate gaps, and plan recruiting, training and transfers (refer to Human Resource management –Workforce Planning ISO 30409). Allocation processes generally cease at a level before workers self-manage their work, possibly including decisions on individual tasks. Workforce allocation is a subset of broader workforce management processes and interfaces with absence management and timekeeping processes.

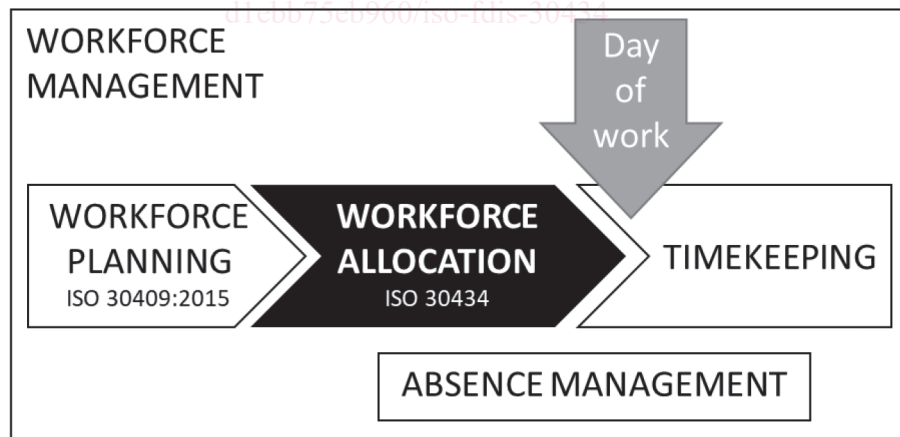


Figure 1 — Workforce Management and Allocation Processes

The principles of effective workforce allocation are central to good management practices in all organizations. It ensures the organization's work requirements are identified and this work is allocated adequately to workers by:

- 1) complying with state and organizational regulations, policies, rules and agreements
- 2) ensuring zero harm to workers, whether physical, mental or to their well-being
- 3) allocating work with equity and respect

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- 4) considering options for flexibility in work times and work formats
- 5) enabling transparent and fair allocation decisions
- 6) communicating decisions clearly and in a timely manner while confirming acknowledgement

Users of this standard include:

- a) workforce professionals, including resource managers, workforce managers, workforce schedulers, roster coordinators, allocation coordinators, staffing coordinators, workforce coordinators and workforce analysts
- b) human resource managers
- c) frontline and executive managers
- d) workforce policy makers
- e) project managers and consultants involved in workforce systems and processes
- f) vendors of workforce technology
- g) trade union/employee representatives and employer groups

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Human resource management — Workforce allocation

1 Scope

This standard describes a framework of processes, practices, and management activities for allocating work to workers. Its high-level principles and processes are applicable to all allocation methods and workforce types. It can be used in all types of organizations and industry sectors, and from small teams to large complex organizations. It is indifferent to the workforce sourcing method, whether the workforce is made up of internal employees or externally sourced workers.

This standard also addresses the relationship between allocation decisions and stakeholders, including operations, finance, human resource functions and, most importantly, the worker.

This document explains how to create an allocation framework, design an allocation process, document, communicate, measure and improve the process. It also suggests corrective actions to stop or mitigate undesirable outcomes.

This standard does not address:

- 1) Absence management/planning or timekeeping
- 2) Role or skill-based workforce planning (refer to ISO 30409)
- 3) Labour standards
- 4) Training or succession planning
- 5) Recruitment (refer to ISO 30405 and ISO 30419)
- 6) Compensation or performance reviews
- 7) Health and safety
- 8) Work ergonomics (refer to ISO 6385)
- 9) Methods of organizing specific types of work (e.g. lean manufacturing, agile project management)
- 10) Automation of tasks using 'digital workers' such as physical robots and artificial intelligence bots

Annexes to this document describe details and foundational concepts of allocation applied in various industries as examples to support the theory.

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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 30400:2016 (E) Human Resource management Vocabulary, ISO 30409 Human Resource management –Workforce Planning, and the following apply.

3.1 workforce allocation
process of preparing, assigning, and informing allocation decisions, collecting the worker response, and adjusting allocation

3.2 allocation decision
determination as to which worker(s) will be assigned to what work

3.3 allocation horizon
period prior to the commencement of work where an allocation decision is made and/or workers and other stakeholders should be informed of an allocation decision

3.4 allocation stage
series of preparation, assignment, inform and respond steps that are taken once or repeatedly around allocation decision(s) related to a specific allocation horizon

4 What is Workforce Allocation

For the purpose of this standard, allocation is the process of preparing, assigning, informing allocation decisions, collecting the worker response, and adjusting allocation.

The act of assignment has four aspects:

- A) matching workers and work
- B) validating target outcomes can be achieved
- C) taking corrective action if needed, and/or
- D) accepting compromise

Organizations should define target allocation outcomes so that assignment decisions can be validated. Validation can involve checking that work will be delivered, workers will be utilized, and workload is reasonable, within target outcomes.

When target outcomes are forecast to not be achieved with the current assignment, then further alternative action or compromise is needed. Alternatively, compromise might be in the form of acceptance of under-delivery, low utilization or higher workloads.

Key to workforce allocation processes is the quantification of effort forecasts for each period. There are four forms of effort:

- 1) demand, the quantity of work that will need to be performed
- 2) allocated work, the work allocated to workers for a specific period
- 3) capacity, the total quantity of workers' availability
- 4) worker availability, the time and duration an individual worker can undertake work

5 Understand your organization

Before defining an allocation framework and processes, a clear understanding of the organization, workers, work, stakeholders, rules and policies should be established and documented.

Organizations can have workforces within workforces, each requiring potentially unique allocation processes. An organization can have multiple workforce allocation processes. In general, each might be based on a unique combination of work and worker characteristics (e.g. skills, competencies, education,

certifications and accreditations, and experience), management’s expectations and individual requirements. Key characteristics (and their attributes) should be identified and documented to a level that enables effective workforce allocation.

NOTE Segmentation, roles, capacity and productivity are inputs into the workforce allocation process. For workforce segmentation in the context of workforce planning, refer to ‘Human Resource management - Workforce Planning. ISO 30409’.

5.1 Organization characteristics

Characteristics of the organization, relevant to allocation, should be identified in a way that considers:

- 1) the organization’s values, vision, mission and strategy
- 2) the organization’s design and structure, including its governance and decision and delegation hierarchies (e.g. subsidiaries, regions/locations, markets, customers, products, service lines, disciplines, projects)

5.2 Work characteristics

Characteristics of work should be identified in a way that considers:

- 1) how work is defined and the granularity at which it is defined and allocated, e.g. project phase, task, shift, where, when, including if the work is done remotely (from home or off-site), and which roles (and skills) are needed for the work
- 2) how demand is quantified, if at all, e.g. headcount, hours per task, Full Time Equivalent (FTE), story points, etc.

The way work, roles and demand are described depends on the nature of the work. Refer to [Table 1](#) for examples.

Table 1 — Examples of work characteristics

Sector/Function	Work	Roles	Demand
Manufacturing	ship, store, pack, assemble, component, line, task	line worker, driver, checker, machine operator, packer	e.g. headcount per shift
Project delivery	portfolio, program, projects, team, phase, element, task	front-end developer, senior bridge designer, stakeholder manager, trainer	e.g. hours per task
Corporate support	Position, location	talent acquisition officer, Eastern region compliance officer, chief financial officer, receptionist	e.g. no. of positions, FTE

5.3 Worker characteristics

Characteristics of workers, relevant to allocation, should be identified in a way that considers:

- 1) worker availability or unavailability
- 2) worker attributes, e.g. their roles, skills, competencies, education (certifications/accreditations), location, preferences and/or limitations (physical, sensory, cognitive)
- 3) source of the worker, e.g. employee, contractor, secondment

5.4 Allocation characteristics

Characteristics of allocation, should be identified in a way that considers:

- 1) Method of allocation, e.g. human judgement, technology assisted, automated technology
- 2) Allocation granularity, e.g. whether work is at a project level, phase level, shift, or task level
- 3) Outcome dependence, i.e. whether workers are to be allocated work with or without considering outcomes, e.g. ability to deliver, utilization/productivity or workloads*
- 4) Driving constraints, i.e. whether work or workforce capacity is ultimately fixed at the time of allocation:
 - a) workforce-constrained, i.e. capacity drives work that can be delivered, e.g. typical agile projects, permanent employees in professional services
 - b) work-constrained, i.e. work drives required capacity, e.g. waterfall projects, train drivers, casual employment in retail and manufacturing, fast food retail
 - c) both work and workforce constrained, e.g. hospital units with fixed capacity and critical patients, projects with fixed team sizes and delivery dates
- 5) Implications and complexity, e.g. whether allocation can impact potentially more important work lined up, to what degree individual allocation decisions are interrelated (e.g. inter-project dependencies)
- 6) Allocation strategy, i.e. the approach to matching work to workers, based on the complexity of the allocation scenario, e.g. priority-based iteration over the work and matching of workers, iteration over workers and matching of work, simultaneous matching based on algorithms, etc.

This is not an exhaustive list and can vary depending on the nature of business, regulatory framework, customers and products etc.

*Note: Workload should always be considered and confined within reasonable limits in accordance with any statutory / legal requirements.

5.5 Allocator characteristics

Characteristics of the people responsible and/or the systems used for assigning workers to work should be identified. Allocators could include line managers, functional managers in a matrix organization, workforce planners/allocators, or the workers themselves. Allocator attributes could include their location, skills, competencies, education (certifications / accreditations), role, or more.

EXAMPLE Industrial Engineers in manufacturing, Nurse Managers in Healthcare, Program managers in project-based environments, etc.

5.6 Communication characteristics

Characteristics of communication relevant to allocation should be identified in a way that includes:

- 1) what is communicated, e.g. how workers are informed
- 2) the channels and media used for communication, e.g. digital, emails, notice boards, etc.
- 3) how privacy is protected and security ensured
- 4) communication visibility, equity, efficiency and the culture of the organization
- 5) frequency of communication, channels and media used

5.7 Stakeholders

Stakeholders that influence, or are impacted by, workforce allocation decisions should be identified.

Stakeholders in workforce allocation include, but are not limited to, operations, finance, HR, workers, employee representatives, regulatory / government bodies, and customers.

NOTE Stakeholders provide information input into, or receive information output from, the workforce allocation process (e.g. budgets from finance, shift rosters, availability plans, etc.). This is vital for the workforce allocation process and can include information regarding timely delivery (operations), assignment / allocation of work (people), adherence to budgets (finance), etc.

5.8 Rules and policies

Rules and policies that impact the workforce allocation process should be identified in a way that all stakeholders understand the implications for their role and responsibilities in the allocation process. Including:

- 1) statutory, regulatory and contractual rules that must be complied with
- 2) contractual agreements with:
 - a) employees, e.g. employment contracts
 - b) employee representations, e.g. collective labour agreements
 - c) contractors, e.g. labour lease agreements
 - d) customers, e.g. service level agreements
- 3) organization policies such as:
 - a) safety, e.g. minimum presence of first aiders and/or fire marshals per work area
 - b) gender balance in certain areas / for specific work
 - c) affirmative action plans
 - d) special work requirements in areas prone to natural catastrophes or disasters
 - e) anti-discrimination
 - f) privacy
 - g) data security
- 4) workers requirements and expectations, such as:
 - a) the right to accept or reject work
 - b) travel for work
 - c) overtime/fatigue limitations
- 5) worker autonomy and self-allocation policies
- 6) Flexibility for workers

These might include:

 - a) measures to avoid work-family conflicts or improve work-life balance
 - b) options to organize working time flexibly, e.g. “flextime” or temporal/perpetual part-time work

- c) team self-organization, e.g. workers who assign shifts among themselves, an agile project team that “pulls” tasks from a backlog

7) Flexibility for the organization

Organizations should identify elements of flexibility to address demand fluctuations and uncertainty of work information, e.g.:

- a) time banking to deploy staff flexibly and address seasonal demand fluctuations
- b) stand-by and relief staff to address unforeseeable demand patterns or as a relief for unforeseeable absenteeism
- c) workforce mobility, e.g. within certain geographical boundaries

Certain elements of flexibility may benefit the organization and workers, e.g. when time banks can be availed both by workers (e.g. days-in-lieu) and the organization (e.g. for unforeseen extra work).

While flexibility is beneficial for both the workers and the organization the principle is to drive organizational efficiency and effectiveness while maintaining workers’ well-being.

5.9 Objectives and success factors

The objectives of workforce allocation should be identified and guided by the principles (Refer to Introduction).

Success factors should be defined so the organization can measure the success of allocation in the following ways:

- 1) validate forecast outcomes against target outcomes (refer to [Clause 7.5.2.3](#)) and
- 2) measure the success of past allocation system performance (refer to [Clause 9](#))

Forecast outcomes are essential for validation processes and can be categorized for:

- a) delivery, e.g. output, timely delivery, performance
- b) people, e.g. workload, physical, mental and social well-being
- c) finance, e.g. utilization, adherence to budgets

Success factors that define target allocation outcomes and system performance should be documented based on objectives. They should be expressed in ranges of tolerance (e.g. forecast utilization might be limited between 110% and 80%). This will enable the organization to confirm forecast outcomes are acceptable, period by period, into the future, and monitor the performance and progress of the workforce allocation processes to generate a feedback loop for continuous improvement.

6 Create a framework

Every organization should have an effective workforce allocation framework that supports the organization’s operational objectives and successful delivery of performance goals. The allocation framework should accommodate one or more workforces (each with its own distinct allocation process) and include common management principles.

- 1) Responsibilities and authority should be confirmed and documented in a job or position description that provides a mandate, specific scope and an explanation of the authority that the job can or should exercise.

A workforce allocation function might be integrated in other organizational functions or reside as an independent unit in the organization. It should be provided scope and authority to affect the desired operational outcomes.

- 2) Accountability for allocation delivery should be confirmed and documented in a set of performance goals that are measurable, contribute to the organizational strategy and have clearly defined ownership within the organizational structure.

Accountability should ensure organizational integrity so that policy and practices are compatible. In applying workforce allocation practices, the organization's environmental, social and corporate governance standards should be observed.

Workforce allocation function accountability should be documented in job descriptions or duty statements that include associated metrics that measure the job's effectiveness. Attaching accountability creates transparency critical to the communication with workers. It allows people to trust what the organization says it values and ensures that stated expectations are aligned and valid.

- 3) Operational resourcing for effective workforce allocation should be confirmed and documented to ensure clear visibility of workload, capacity and capability has been established. The workforce allocation function should ensure that it has access to all information relating to the distributable workload it is servicing, resource capacity, and to any constraints.

Workforce allocators should be trained (even accredited) and operate with a solid understanding of the needs, goals and constraints of the organization and stakeholders.

- 4) Leadership. Expectations for leadership in driving the importance of workforce allocation should be confirmed and documented. Leadership should drive agreement, enablement and sustainment of desired operational outcomes. Leadership should align other organizational functions and ensure an appropriate level of employee participation and involvement of employee representations in line with legal requirements, organizational policies and culture.
- 5) Transparency of the framework should ensure workers understand the organization's expectations by making allocation rules and protocols concise, accessible, consistently applied and supported by operational leadership. Ways to communicate the framework should be confirmed and documented.
- 6) Autonomy: Acknowledging the ability of workers to exercise some degree of autonomy around accepting or declining assigned work should be documented. Exercising an option to decline or query the assignment may occur due to the workers' capacity, capability, authority or license to operate; this characteristic must be considered and incorporated into the allocation process.
- 7) Communication to every worker and stakeholder, at every level, ensures an effective and sustainable allocation process should be confirmed and documented. Communication processes should support a culture of good allocation and organizational policies for transparency, equity and efficiency.

Communication processes should be designed to protect worker privacy and ensure security of sensitive allocation information. Communication mechanisms should be contemporary and accessible to all employees.

- 8) Continuous improvement that provides an ability to monitor and measure contributory components for performance, effectiveness, and compliance should be confirmed and documented. This should incorporate the ability to analyse, recommend and apply process improvements in allocation and organizational outcomes.

7 Design the process

An allocation process should be designed and documented for each workforce based on work and workforce characteristics (refer to [Clause 5](#)). At a minimum, each allocation process should define the applicable pool, unit(s), allocation steps, allocation stages, horizons, periods, information flow and responsibilities, as recommended below. Typically, allocation processes are repetitive in nature.

The relationship between organization, workforce, units, and pools is presented in [Figure 1](#). Refer to [Annex C](#) for examples of allocation processes for various types of workforce.