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Human resource management — Cost-Per-Hire

Management des ressources humaines — Coût par embauche

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Foreword

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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).

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

Introduction

0.1 General

Cost-Per-Hire (CPH) is a commonly used metric in recruitment to measure the efficiency (defined in financial terms) to fill an open position within an organization. The information provided from the use of this metric assists the recruitment function of human resources in terms of the budgeting and benchmarking of recruitment costs. This document covers the definition, assembly and documentation techniques required to produce the CPH.

A central requirement in the design of this document is to provide practitioners with a standard tool to calculate metric CPH. This document allows the calculation of accurate and comparable costs of recruitment through an algorithm to calculate the recruiting costs. Although this document is structured at a high level, specific consideration and responses are also addressed for consideration by individual organizations based on their unique hiring environments and requirements.

This document defines three types of CPH formulae.

— Cost-Per-Hire Internal (CPHI) defines a formula and methodology for creating the CPH measure appropriate for a particular organization. This metric is not designed for comparison with other organizations' CPH data. It is designed to be a comprehensive reflection of CPH data for a single organization.

— Cost-Per-Hire Comparable (CPHC) defines a formula and methodology for creating the CPH measure appropriate for comparison across organizations. This metric uses a similar methodology to CPHI; however, it uses a subset of data that is more likely to be used across organizations and is helpful in building acceptably strong comparisons of costs between organizations.

— Hire-Cost-Ratio (HCR) defines a formula and methodology comparing the total cost of hiring against the total compensation of the newly hired individuals in the first year of their employment. This formula varies from the CPHI or CPHC only in the denominator; whereas CPHI or CPHC are ratios of costs to the number of hires, the HCR is a ratio of costs to total first-year annual compensation of the new hires.

Recognizing that organizations operate differently, and incur unique costs, this document allows for variance within organizations while still providing a robust methodology for creating a CPH metric which enables comparison between organizations.

A CPH metric does not fully describe the adequacy of a recruiting effort within an organization. Variances of recruiting costs exist based on position type, position level, external market demand and geographic region. In addition, a cost measurement dimension does not account for other key factors in making recruiting decisions, such as the time it takes to fill a position, the quality of a hire or customer (hiring manager and candidate) satisfaction. It does not measure any post hire costs or damage to the organization by not having the employee in place.

0.2 Using this document

Organizations use the CPH metric to measure the cost of a recruiting operation. Organizations have found the metric useful in understanding their own internal operations with regard to recruiting and in identifying areas for improvement. Known uses of the CPH metric include those listed in Table 1.

Table 1 — Uses of CPH metric

Organizations	Departments and individuals who perform, manage or evaluate recruiting costs
— As benchmark data to be compared with data from other companies, competitors, other divisions, etc. — As a budget planning tool, quarterly and annually — As a comparator in recruitment process outsourcing (RPO) decisions — As a factor in strategic planning and budgeting tasks, to determine future costs in investment decisions — As a component of tracking and assessing the total cost of workforce turnover — As an ongoing measure of the recruiting function's overall performance	— In setting sourcing budgets and strategy — In assessing source cost-effectiveness — As a measure of process improvement success — As a component of overall recruiting process efficiency — In measuring and comparing sub-group performance — In measuring and comparing hiring performance by employee segments, such as professional versus hourly hires — As a measure of individual recruiter performance — As a screening criterion in the interview/selection process for recruiter hiring — As a proficiency benchmark in recruiter training — As an input in workforce planning scenarios

Human resource management — Cost-Per-Hire

1 Scope

The purpose of Cost-Per-Hire (CPH) is to measure the economic value of the effort taken to fill an open position in an organization. This document describes actions to be taken when calculating CPH to maintain quality and transparency, including creating a representative data set, using a transparent source of data, minimizing data errors and ensuring that periodic audits of processes occur on data input.

Central to CPH as described in this document are the features of the visual display of the metric, emphasizing transparency of data inputs, processes and the formula used within the metric.

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 and the following apply.

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

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
Cost-Per-Hire
CPH
measure to identify costs associated with *recruitment* (3.9)

Note 1 to entry: It is calculated by taking the average of total recruitment costs divided by the number of hires.

Note 2 to entry: *Cost-Per-Hire Internal* (3.3) and *Cost-Per-Hire Comparable* (3.2) are subsets of Cost-Per-Hire.

3.2
Cost-Per-Hire Comparable
CPHC
measure to identify costs associated with *recruitment* (3.9) among organizations

3.3
Cost-Per-Hire Internal
CPHI
organization-specific costs associated with *recruitment* (3.9)

3.4
external cost factor
external cost
expense incurred to external vendors or individuals during the course of recruiting

3.5
Hire-Cost-Ratio
HCR
formula and methodology comparing the *Cost-Per-Hire* (3.1) against the total compensation of the newly hired people

Note 1 to entry: This formula varies from *Cost-Per-Hire Internal* (3.3) or *Cost-Per-Hire Comparable* (3.2) only in the denominator; whereas Cost-Per-Hire Internal or Cost-Per-Hire Comparable are ratios of costs to the number of hires, the Hire-Cost-Ratio is a ratio of costs to total first-year annual compensation of the new hires.

3.6
internal cost factor
internal cost
expense related to the internal staff, capital and organizational costs of the *recruitment* (3.9)/staffing function

3.7
system of record
information system considered to be the source for a specific piece of information to be used in a *Cost-Per-Hire* (3.1) metric

3.8
compiler
individual responsible for the creation of a *Cost-Per-Hire* (3.1) metric

3.9
recruitment
process of sourcing, attracting, assessing and employing talent for an existing or new position within the organization

4   Cost-Per-Hire Internal (CPHI)

4.1   Formula

The Cost-Per-Hire Internal (CPHI) metric is designed to measure the costs associated with recruitment activities borne by an employer to fill an open position in the organization. CPH is a ratio of the total dollars expended (in both external and internal costs) to the total number of hires in a specified time period. The CPHI formula may be used by any organization that wishes to measure CPH using a standard methodology. This measure does not require all organizations that adopt it to include a specific set of external or internal costs in order to measure CPH. Different organizations may require different cost factors internally to operate their business.

CPHI is calculated according to Formula (1):

$$\frac{\sum X_{\text{ext}} + \sum X_{\text{int}}}{Y_{\text{tot}}} \tag{1}$$

where

$\sum X_{\text{ext}}$ is the sum of external costs

$\sum X_{\text{int}}$ is the sum of internal costs

Y_{tot} is the total number of hires in a time period

4.2 Cost data in scope (the numerator)

The data used in a CPH metric is bounded by activities related to the sourcing, recruiting and staffing costs (whether external or internal) incurred to hire a candidate to work as an employee in an open position. Data in scope may include, but are not limited to, the data described in Tables 2 and 3.

For the CPHI formula, it is best to use all of the factors listed in Tables 2 and 3. However, the use of any of these metrics is acceptable and should occur when applicable to an organization.

NOTE   It is important that the CPH calculation has a high degree of data quality; this is a lower data quality level than is used for financial reporting.

Table 2 — CPHI external cost data in scope

External cost factor	Explanation
Advertising and marketing expenses	Expenses related to advertising or marketing for a specific requisition or across many requisitions. Examples include expenses related to job boards, social networks, search engine marketing, marketing material production (brochures, websites) or newspapers.
Background checks and eligibility to work expenses	Expenses related to criminal, education, credit and reference checks which conform to local laws and customs.
Compulsory and post compulsory education recruiting	Expenses related to the sourcing and recruiting of talent from compulsory and post compulsory education institutions, including interns, co-ops and graduates who fill full-time positions.
Consulting services	Expenses related to consulting services engaged in the recruitment process, including consulting and outside legal counsel (supporting recruiting).
Contingency fees: contingent to regular	Expenses related to payments made by an organization to a supplier or other parties in the transfer of a contingent worker to a regular employee.
Medical or health testing expenses incurred by the organization related directly to the hiring process	Expenses related to new-hire medical or health tests (of any sort where applicable) that occur before employment begins or during the hiring process.
Employee referral awards/payments	For organizations that grant a defined payment to employees for referring a candidate who is subsequently hired, the defined payments to employees may be included.
Immigration expenses	Legal fees, fees for consulting services, fees for applications or other expenses related to the effort of clearing a new hire to legally be employed by the organization.
Job fair/recruiting event expenses	Fees paid to an event organizer, premiums that may be used specifically for the event, transportation costs, costs related to the design and construction of booths, labour costs to assemble booths, rentals or other expenses.
Pre-screening fees	Expenses related to the use of testing services, validated assessments or other standardized measures to pre-screen talent prior to employment.
Recruitment process outsourcing (RPO) fees	In the event that the employer uses RPO, the sum of the fees incurred in the use of the RPO should be included.
Relocation fees	Expenses incurred in relocating a new hire, including moving expenses, travel and relocation vendors.

NOTE   Many organizations pay employees after a specific tenure of the new employee. For the compiler of the CPH metric, it can cause concern that the actual expenses are not incurred in the same time period for which CPH is being measured. The compiler of the CPH statistic is free either to use the actual monies paid to employees in the time period or, alternatively, to treat the anticipated expense as an accrual. In that event, if there are, for example, 10 hired candidates via employee referral, at €X per hire, the compiler would record employee referral expenses as 10 × €X, regardless of whether payment was made to the employee in that time period. The compiler of the metric notes which technique was used in the CPH statistic.

Table 2 *(continued)*

External cost factor	Explanation
Sourcing costs	List purchases, licenses to databases, memberships in organizations to assist in networking and any other sourcing.
Travel and expenses, candidate	Expenses incurred by a candidate and reimbursed by the organization.
Travel and expenses, recruiter	Expenses incurred during the act of recruiting for the organization and reimbursed by the organization.
Technology costs	Costs of operating any supporting infrastructure technology for the recruiting process, including talent acquisition systems, candidate relationship management systems and reporting systems.
Third-party agency fees	Fees paid to external agencies (contingent or retained).
NOTE Many organizations pay employees after a specific tenure of the new employee. For the compiler of the CPH metric, it can cause concern that the actual expenses are not incurred in the same time period for which CPH is being measured. The compiler of the CPH statistic is free either to use the actual monies paid to employees in the time period or, alternatively, to treat the anticipated expense as an accrual. In that event, if there are, for example, 10 hired candidates via employee referral, at €X per hire, the compiler would record employee referral expenses as 10 × €X, regardless of whether payment was made to the employee in that time period. The compiler of the metric notes which technique was used in the CPH statistic.	

Table 3 — CPHI internal cost data in scope

Internal cost factor	Explanation
Cost of recruiting staff	Fully loaded costs, including base salary, benefits and bonus/performance incentives, for regular recruiters (full- or part-time) and contract recruiters.
Cost of sourcing staff	Fully loaded costs, including base salary, benefits and bonus/performance incentives, for regular recruiters (full- or part-time) and contract recruiters.
Internal overhead for government compliance	Incremental internal labour expenses involved in creating, submitting, monitoring and processing materials to comply with governmental regulations.
Non-labour office costs	Office expenses, including a representative portion of rent, capital expenses and incidentals, incurred while supporting the recruiting function. If exact data on these expenses exist, then those data should be used. However, it is acceptable to take a percentage of overall office costs based on recruiting headcount.
Recruiting learning and development	Expenses related to expanding the capabilities of a recruiting team through formal and informal learning opportunities.
Referral fees	Many organizations pay employees after a specific tenure of the new employee. For the compiler of the CPH metric, it may cause concern that the actual expenses are not incurred in the same time period for which CPH is being measured. The compiler of the CPH statistic is free either to use the actual monies paid to employees in the time period or, alternatively, to treat the anticipated expense as an accrual. In that event, if there are, for example, 10 hired candidates via employee referral, at €X per hire, the compiler would record employee referral expenses as 10 × €X, regardless of whether payment was made to the employee in that time period. The compiler of the metric should note what technique was used in the CPH statistic.
Secondary management cost of time for events	Multiply number of hours by an appropriate internal rate to determine estimated total cost of employee time spend on recruiting events.
Secondary management cost of time for recruiting	Multiply number of interviews by an appropriate internal rate to determine estimated total cost of hiring manager time.
NOTE All labour expenses are assumed to be total expenses, including salary and benefits.	

4.3 Total number of hires in a time period (the denominator)

4.3.1 General

The denominator of the CPH equation should be the sum total of the hires that occurred in the time period being measured. Within an organization, there may be several systems that could potentially track the number of hires in a time period. The compiler of the CPH metric should select a system of record to consistently report on these data. The total number of hires variable is subject to the same data collection methodology requirements as cost data.

4.3.2 Defining which types of hires to include in CPHI

For the CPHI, as an internal metric, the compiler of the metric may use organizational discretion on which types of hires are appropriate to include in a CPH calculation.

NOTE 1   The CPHC metric does not afford this type of discretion.

The following is provided as a recommendation of the hires to include and exclude in the calculation of CPHI.

For CPHI, the compiler of the metric may define the exact point a hire is counted in CPH. For example, the compiler may declare that a new hire who has physically started to work should be included in the denominator, or that a new hire who has accepted an offer should be included in the denominator.

NOTE 2   The decision of which definition of "hire" to use (e.g. in this case, "starts" or "offers accepted") affects exactly what the CPHI statistic is measuring. If "starts" are used, the CPHI measures the average cost of successful hiring outcomes of the recruiting effort. If "offers accepted" are used, the CPHI measures recruiting productivity.

Table 4 indicates which hires to include in CPHI.

Table 4 — Hires to include in CPHI

Include	Exclude
— Any hire, whether external or internal, where a requisition was completed (or its equivalent process in the organization) by a hiring manager. Temporary staff who are already on the payroll system and who have been recruited into a full-time position.	— Costs associated with internal restructuring. — Employees whose contracts are automatically renewed. — Employees taking on temporary job rotations or assignments. — Costs associated with mergers and acquisitions. — Employees whose job roles are reclassified.

5 Cost-Per-Hire Comparable (CPHC)

5.1 Formula

The Cost-Per-Hire Comparable (CPHC) formula is designed for comparison between organizations. The CPHC formula uses a more restrictive set of data inputs that may or may not be a useful management tool within one particular organization, but that has use as a benchmarking tool across organizations. While the formula for CPHC does not change as compared with CPHI, the cost data in scope is significantly constrained. The data inputs used in this version of CPH are designed to be reasonably common between organizations.

CPHC is calculated according to Formula (2):

$$\frac{\sum X_{\text{ext}} + \sum X_{\text{int}}}{Y_{\text{tot}}} \tag{2}$$

where

5

$\sum X_{\text{ext}}$ is the sum of external costs

$\sum X_{\text{int}}$ is the sum of internal costs

Y_{tot} is the total number of hires in a time period

5.2 Cost data in scope (the numerator)

Data in scope may include, but are not limited to, the data described in Tables 5 and 6.

Table 5 — CPHC external cost data in scope

External costs	Explanation
Advertising and marketing expenses	Expenses related to advertising or marketing for a specific requisition or across many requisitions. Examples include expenses related to job boards, social networks, search engine marketing, marketing material production (brochures, websites) or newspapers.
Background checks and eligibility to work	Expenses related to criminal, education, credit and reference checks on prospective hires.
Compulsory and post compulsory education expenses	Expenses related to the sourcing and recruiting of talent from compulsory and post compulsory education institutions including interns, co-ops and graduates who fill full-time positions.
Medical testing expenses	Expenses related to new-hire medical tests (of any sort) that occur before employment begins or during the on-boarding process.
Employee referral awards/payments	For organizations that grant a defined payment to employees for referring a candidate who is subsequently hired, the defined payments to employees may be included. Many organizations pay employees who refer candidates after a specific tenure of the new employee. For the compiler of the CPH metric, it may cause concern that the actual expenses are not incurred in the same time period for which CPH is being measured. The compiler of the CPH statistic is free either to use the actual monies paid to employees in the time period or, alternatively, to treat the anticipated expense as an accrual. In that event, if there are, for example, 10 hired candidates via employee referral, at €X per hire, the compiler would record employee referral expenses as 10 × €X, regardless of whether payment was made to the employee in that time period. The compiler of the metric should note what technique was used in the CPH statistic.
Job fair/recruiting event expenses	Fees paid to an event organizer, premiums that may be used specifically for the event, drayage/shipping costs, costs related to the design and construction of booths, labour costs to assemble booths, rentals or other expenses.
Recruitment process outsourcing (RPO) fees	In the event that the employer uses RPO, the sum of the fees incurred in the use of RPO should be included.
Sourcing costs	List purchases, licenses to databases, memberships in organizations to assist in networking and any other sourcing costs.
Technology costs	Costs of operating any supporting infrastructure technology for the recruiting process, including talent acquisition systems, candidate relationship management systems and reporting systems.
Third-party agency fees	Fees paid to external agencies (contingent or retained).
Travel and expenses, candidate	Expenses incurred by a candidate and reimbursed by the organization.
Travel and expenses, recruiter	Expenses incurred during the act of recruiting for the organization and reimbursed by the organization.

Table 6 — CPHC internal cost data in scope

External costs	Explanation
Cost of recruiting staff expenses	Fully loaded costs, including base salary, benefits and bonus/performance incentives, for regular recruiters (full- or part-time) and contract recruiters.
Cost of recruiting staff	Fully loaded costs, including base salary, benefits and bonus/performance incentives, for regular recruiters (full- or part-time) and contract recruiters.
Employee referral awards/payments	For organizations that grant a defined payment to employees for referring a candidate who is subsequently hired, the defined payments to employees may be included. Many organizations pay employees who refer candidates after a specific tenure of the new employee. For the compiler of the CPH metric, it may cause concern that the actual expenses are not incurred in the same time period for which CPH is being measured. The compiler of the CPH statistic is free either to use the actual monies paid to employees in the time period or, alternatively, to treat the anticipated expense as an accrual. In that event, if there are, for example, 10 hired candidates via employee referral, at €X per hire, the compiler would record employee referral expenses as 10 × €X, regardless of whether payment was made to the employee in that time period. The compiler of the metric should note what technique was used in the CPH statistic.
Non-labour office costs	Office expenses, including a representative portion of rent, capital expenses and incidentals, incurred while supporting the recruiting function. If exact data on these expenses exist, then those data should be used. However, it is acceptable to take a percentage of overall office costs based on recruiting headcount.
Recruiting learning and development	Expenses related to expanding the capabilities of a recruiting team through formal and informal learning opportunities.
NOTE Any data category not specifically described above for CPHC is out of scope.	

5.3   Total number of hires in a time period (the denominator)

5.3.1   General

The denominator of the CPH equation should be the sum total of the hires that occurred in the time period being measured. Within an organization, there may be several systems that could potentially track the number of hires in a time period. The compiler of the CPH metric should select a system of record to consistently report on these data. The total number of hires variable is subject to the same data collection methodology requirements as cost data.

5.3.2   Defining which types of hires to include in CPHC

For the CPHC, as a comparable metric, the compiler of the metric may not use discretion on which types of hires are appropriate to include in a CPH calculation. The following is the definition of hires to include and exclude in the calculation of CPHC.

For the CPHC, the compiler of the metric should include only hires who have physically started to work for the organization in the denominator.

Table 7 indicates which hires to include in CPHC.

Table 7 — Hires to include in CPHC

Include	Exclude
— Any hire, whether external or internal, where a requisition was completed (or its equivalent process in the organization) by a hiring manager. Fractional hires should not be used in this calculation. Comparing across organizations using full-time equivalents is difficult. For organizational comparison we count only employees. — Temporary staff who are already on the payroll system and have been recruited into a full-time position.	— Supplementary workers (e.g. contractors, agency staff and consultants not on the payroll system). — Workers paid by a third party. — Costs associated with internal restructuring. — Employees whose contracts are automatically renewed. — Costs associated with mergers and acquisitions. — Employees taking on temporary job rotations or assignments. — Employees whose job roles are reclassified.

6 Hire-Cost-Ratio (HCR)

6.1 Formula

It may be useful for organizations to analyse costs not by the number of hires recruited, but by the total compensation of hires placed in the organization. This HCR formula normalizes recruiting costs based on compensation as a proxy for the relative value of the new hire to the firm. The types of hiring across organizations vary significantly. For example, an executive recruiting team hiring only 10 people at a total compensation of €175 000 each may have exactly the same costs as a team that hired 200 hourly employees; however, their respective CPH statistics will be very different. This demonstrates why it is best to compare HCR and CPH when evaluating a recruiting team.

The HCR varies from the CPHI or CPHC only in the denominator; whereas CPHI or CPHC are ratios of costs to the number of hires, the HCR is a ratio of costs to total first-year compensation of the new hires.

HCR is calculated according to Formula (3):

$$\frac{\sum X_{\text{ext}} + \sum X_{\text{int}}}{Y_{\text{tot,FYC}}} \times 100 \tag{3}$$

where

$\sum X_{\text{ext}}$ is the sum of external costs

$\sum X_{\text{int}}$ is the sum of internal costs

$Y_{\text{tot,FYC}}$ is the total first-year compensation of hires in a time period

Like CPHI or CPHC, the HCR is a ratio; however, the CPH is expressed as a percentage.

EXAMPLE   The following is a sample calculation of the HCR:

Sum of external costs: €100 000

Sum of internal costs: €100 000

Total first year compensation: €2 000 000

Calculation: $\dfrac{100\,000 + 100\,000}{2\,000\,000} \times 100$

HCR: 10 %

6.2   Cost data in scope (the numerator)

The definition of the numerator of the HCR formula does not vary from the stated definition in the CPHI formula within this document.

6.3   Total first-year compensation of hires (the denominator)

6.3.1   General

The denominator of the HCR formula should be the sum total of the first-year compensation for hires that occurred in the time period being measured. Within an organization, there may be several systems that could potentially track the total compensation of hires in a time period. The compiler of the CPH metric should select a system of record to consistently report on these data. The total number of hires variable is subject to the same data collection methodology requirements as cost data.

6.3.2   Defining which types of hires to include in CPH

Users may use the same discretion in counting hires in the HCR as they do for CPHI.

6.3.3   Defining total compensation

The total first-year compensation of hires used in the denominator of the HCR formula is the anticipated first-year (12-month rolling) financial compensation offered to and accepted by the new hires. The HCR denominator represents anticipated value to the organization; it is not required that the new hires actually fulfil their first year of service. Total first-year compensation may include traditional and reasonably recognized compensation elements found in an initial offer letter, including salary, benefits, bonuses, incentives, fair value of equity awards, automobile use, and additional medical.

7   Assembling a CPH metric

7.1   Data collection methodology requirements

A common issue in using CPH is an end user's questions about the accuracy and source of the data used. Commonly, cost data may be stored in several areas and have been merged to create the metric. Note that 100 % accuracy in content and scope is not required for a valid CPH metric. However, what is required is that the data have been subjected to a reasonable amount of scrutiny in how they are collected and validated.

It is preferred that source cost data be derived from system of record sources (e.g. general ledger, talent acquisition system), and that steps are taken both to organize costs into logical cost codes and to educate end users on how to use appropriate cost codes.

7.2   Evaluating data

7.2.1   Representative data set

The data should be reasonably representative of the costs incurred for each area being measured. When defining representative data, the compiler of the CPH metric should consider both the scope of the data (i.e. whether costs been included for all hires that occurred in the time period) and the depth of the data (i.e. whether there has been a reasonable amount of scrutiny to ensure that the costs being used are representative of the costs incurred). Recommended actions to ensure that the data are representative of costs incurred include the following:

— periodic review of costs and their cost centres (codes), e.g. the compiler of the CPH metric may examine current cost centres to find that two new cost centres are being used, and these two new centres contain data relevant to the metric;

— periodic tests of variance of specific costs between reporting periods, e.g. the compiler of the CPH metric may notice that in one reporting period, technology costs related to recruiting are 50 % lower than in a previous period; the variance may be worth scrutiny.

7.2.2 Periodic review of processes

An examination of the processes that create the CPH data should occur periodically to capture out-of-process events and integrate them into the CPH process. This may include process improvements in data collection, technology/automation projects or other process improvement techniques embraced by the organization. To calculate CPH, it is not required that data capture processes be pristine; however, a commitment to continuous process improvement should exist.

7.2.3 Date ranges

The CPH metric is constrained within a certain time period. To create consistency among multiple reports with different date ranges, the following methodology should be used.

— The date range stated in the metric should fully encompass financial activity within the stated range.

EXAMPLE 1   If expense item X is incurred at 11:59 pm on March 31 for a date range report of January 1 to March 31, then expense X needs to be counted in this report.

— Some costs may be invoiced by a vendor asynchronously to the hire. The compiler of the CPH metric may decide to include costs as they are invoiced or as they are accrued to the hire specifically. The decision on how to track dates of expenses should be made once so it is consistent from report to report.

EXAMPLE 2   If the invoice for a background check arrives on April 1 and the compiler has decided in advance that expenses are recorded on invoice date, then there is no need to restate a Q1 report.

7.3 Use of data segmentation in CPH

7.3.1 General

It may be useful for HR practitioners to view and compare a subset of CPH data. For example, management may wish to track costs over time for a specific division's recruiting without seeing recruiting data from other divisions. CPH allows for flexibility in expressing cost data in any segment the compiler of the metric wishes.

Data segmentation is the practice of slicing (segmenting) CPH data to provide meaningful information on a certain category for an end user. One might segment the CPH data by any number of different criteria. The point of segmentation is to derive a subset of cost data for analysis.

Some examples of criteria that may be used for CPH data segmentation include, but are not limited to, the following:

— geography or location;

— education level;

— leadership level (e.g. individual contributor, manager, senior leader, compulsory and post compulsory hire).

The compiler of the CPH metric may document segmentation methodology in any convenient method, provided that the compiler's intent is clear on what data are being segmented. See Table 8.

Table 8 — Example: Documentation for segmentation method

Item	Definition
Purpose	Determine CPH by geographic business area.
Variables to segment	Region names (e.g. Americas, EMEA, APAC).
	Currency types (e.g. USD, EUR).
	Regional differences of CPH information availability and accuracy.
	Regional organizational influence on CPH.
Time frame	Time period is defined as the month of June 2010.

7.3.2 Adding segmentation data to CPH calculations

To segment the data, the compiler of the CPH metric will add new columns to the raw data to reflect the desired segmentation to be created. See Table 9.

Table 9 — Example: Variable cost raw data

Position title	Business unit	Requi-sition number	Name of hire	Start date	Vendor expens-es €	Adver-tising expenses €	Can-didate travel expenses €	Relo-cation expenses to date €	Antic-ipated relocation expenses €	Hiring bonus €	Em-ployee referral bonus €	Total expens-es €
Mar-keting research manager	Market-ing	MR29–10		2011–02–22	12 899	725	1 090	622	-	15 000	4 800	35 136
NOTE In this example, the compiler adds the column of "Business unit", which will be used in segmentation.												

7.3.3 CPH formula when data segmentation is used

The only material difference in applying the segmented CPH formula is that only the rows of hire data that fall within the stated segment (subset of the data) should be included.

Segmented CPH is calculated according to Formula (4):

$$\frac{\sum X_{\text{ext,subset}} + \sum X_{\text{int,subset}}}{Y_{\text{tot,subset}}} \tag{4}$$

where

$\sum X_{\text{ext,subset}}$ is the sum of subset of external costs

$\sum X_{\text{int,subset}}$ is the sum of subset of internal costs

$Y_{\text{tot,subset}}$ is the total number of hires in a time period within the subset

7.3.4 Assembling a segmented CPH metric

The compiler of a segmented CPH shall use the same level of transparency, data quality and representative data criteria documented in this document, as well as the in-scope and out-of-scope criteria for the metric.