CEM Benchmarking

Pension Administration Data Quality

2024

Executive summary

Introduction

Each year, CEM conducts research on a topical pension administration issue. Participation in this research is included in the price of your Pension Administration Benchmarking Subscription.

This year's research is on data quality in the context of pension administration. It explores the quality of the data that is required to ensure a member receives the benefit they are entitled to, no matter their status. Four areas are addressed: policies for data quality management, critical data elements, data quality assessments, and the impact of data quality on member outcomes.

29 plans across four countries participated in this research.

Key takeaways

There is a significant range in data maturity across plans. Once plans move to digital - after replacing legacy systems and when servicing members online - formalizing data quality management and data governance appears to become a priority. Here's a quick overview of the results for all research participants:

38% have a formal policy on data quality. The majority of participants do not.

64% have identified critical data elements required to calculate the benefit a member is entitled to.

57% spend relatively more time manually cleaning data, as opposed to improving data cleaning tools. On average, most effort is spent on cleaning employer data.

78% of data policies were established in the last five years.

59% assessed the quality of their critical data elements in the last year.

66% track the number of mistaken benefit payments, and the magnitude of the mistakes.

29 plans participated in this research

United States

Arizona State Retirement System
California State Teachers' Retirement System
Delaware Public Employees' Retirement System
Florida Retirement System
Indiana Public Retirement System
Iowa Public Employees' Retirement System
Michigan Office of Retirement Services
New Mexico PERA
North Carolina Retirement Systems
New York State and Local Retirement Systems
Public Employees Retirement System of Ohio
Oregon Public Employees Retirement System
South Dakota Retirement System
State Teachers Retirement System of Ohio
Teacher Retirement System of Texas
Teachers' Retirement System of Louisiana
Virginia Retirement System
Washington State Department of Retirement Systems

Canada

Alberta Pensions Services Corporation
Federal Public Service Pension Plan
- RCMP [1]
- Canadian Forces Pension Plans [1]

OPSEU Pension Trust
Ontario Teachers' Pension Plan
Saskatchewan Municipal Employees Pension Plan
TTC Pension Fund Society
Wise Trust

Netherlands

ABP
Pensioenfonds Zorg & Welzijn

United Kingdom

Royal Mail Pensions Trustees Ltd.
Kent Pension Fund

1. The participant's data quality management is outsourced to the parent organization named above.

4 Countries

373,891 Median number of members

836 Median number of employers

Comparison of your total data quality management score

CEM sub-divided your responses to our one-off survey on data quality management into three categories:

- Data quality management policy
- Critical data elements
- Data quality assessment

By scoring and ranking each of these categories, the plans with the most comprehensive data quality management programs are identified. This is how your program compares:

Category	Weight	# of questions	Your score [1]	Your ranking versus all participants [2]				
				All average	Low	Medium		High
Data quality management policy	50%	6	---	35				
Critical data elements	25%	6	---	56				
Data quality assessment	25%	4	---	46				
Total	100%	16	---	43				

1. The methodology for calculating the data quality management score can be found in the following pages.
2. Your ranking versus all participants works as follows: one square (low) is a percentile ranking of 0% to 20%, two squares is 20% to 40%, three squares (mid) is 40% to 60%, four squares is 60% to 80%, and five squares (high) is 80% to 100%.

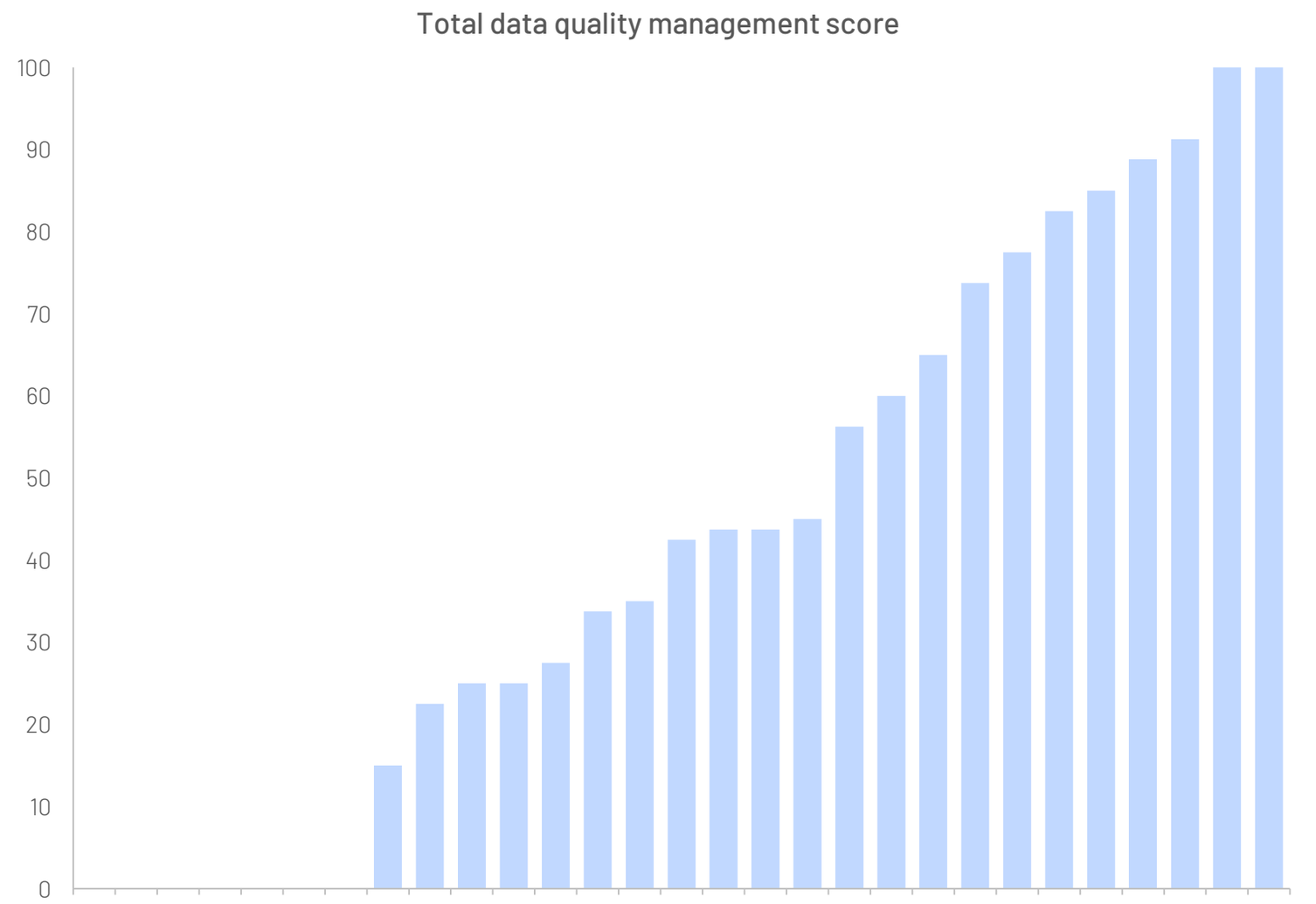
Fewer than 50% of plans have a formal data quality management policy.

17 of 29 participants scored 0 out of 100 for data quality management policy.

8 of 29 participants scored 0 out of 100 for critical data elements.

12 of 29 participants scored 0 out of 100 for data quality assessment.

Your ranking versus all other participants



Once plans move to digital - after replacing legacy systems and when servicing members online - formalizing data quality management and data governance typically becomes a priority.

There are several drivers that result in a higher data quality management maturity:

- **Major events**
  Like the modernization of a pension administration system or switch to a new service provider.

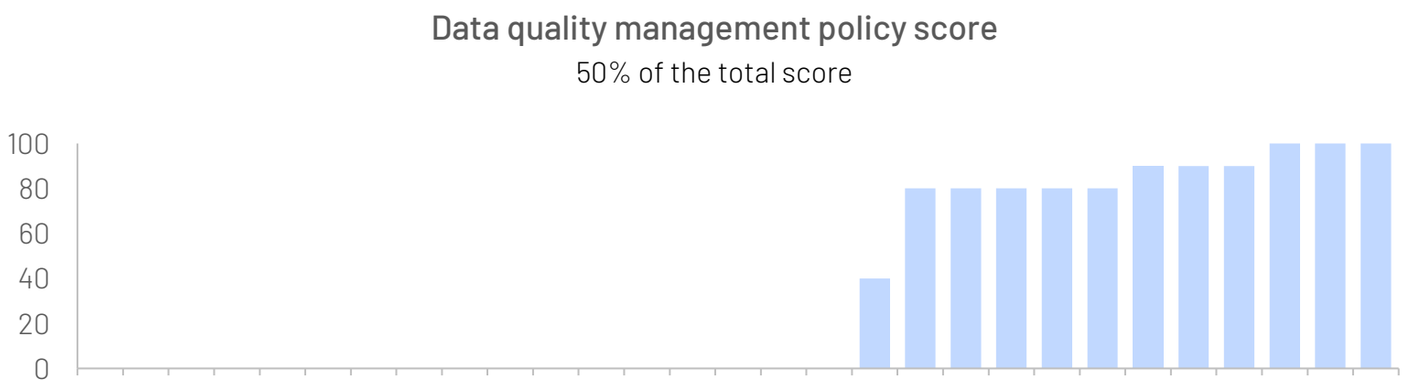
- **Time since legacy system modernization**

- **Service digitalization**
  As measured by the relative volume of online retirement applications.

- **Number of employers**

Data quality management policy

Methodology



Methodology		Your data	Your score
+50	if you have a written policy on data quality	---	---
	if your written policy includes a definition of:		
+10	data quality	---	---
+10	a data governance framework	---	---
+10	your risk tolerance (in quantitative or qualitative terms)	---	---
+10	use and requirements of external data sources	---	---
+10	a policy for correcting mistaken benefit payments	---	---
	Total score		---

"We recognize the importance and are in the process of formalizing a data governance program."

"We don't have anything formal now, but we have several processes in place that validate the quality of our critical data during the execution of tasks."

"Until system modifications can be completed to prevent future issues, we will use daily data quality audit reports that identify data issues that may impact customer deliverables."

A third of participants have a formal written policy on data quality.

Policy framework

The following are included in formal data quality management policies by participants who have these policies:

Does the policy include:	You	Average
Definition of data quality	---	85%
Data governance framework	---	77%
Critical data elements	---	69%
Policy for correcting mistaken benefit payments	---	69%
Use and requirements of external data sources	---	62%
Risk tolerance (in qualitative or quantitative terms)	---	62%

For the plans that have a formal written policy on data quality:

- 80% have a dedicated data management group, or committee, that is responsible for maintaining it.
- 100% have business users maintain the policy.

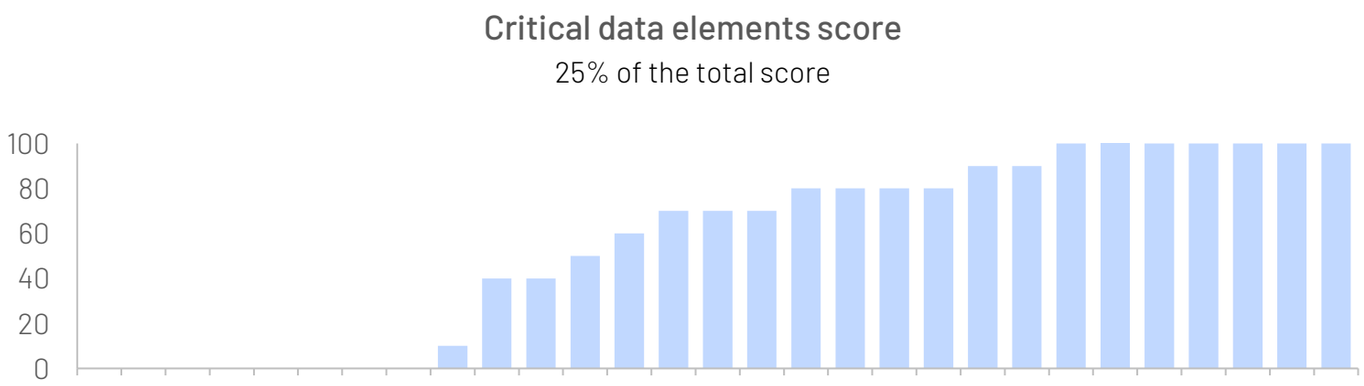
38% of peers have a written policy on data quality

5 years is the average time since it was established

78% of data policies were established in the last five years.

Critical data elements

Methodology



	Methodology	Your data	Your score
+ 50	if you have identified critical data elements	---	---
	if you have described the following attributes for each critical data element:		
+ 10	data domain	---	---
+ 10	source of the data	---	---
+ 10	data flow	---	---
+ 10	data dimension	---	---
+ 10	risk tolerance	---	---
	Total score		---

A critical data element is a data element that is required to accurately calculate the benefit a member is entitled to.

Plans typically differentiate between common and plan-specific data. Examples include:

<u>Common data:</u>

- Social security or national insurance number
- Member name
- Gender
- Key dates (e.g., birth, pension service, membership start, first contribution)
- Membership status
- Last status change
- Address

<u>Plan-specific data:</u>

Data related to your plan types and a member's status and status changes in the context of your plan types.

The scope of data assessments, as defined by the number of critical data elements, varies widely.

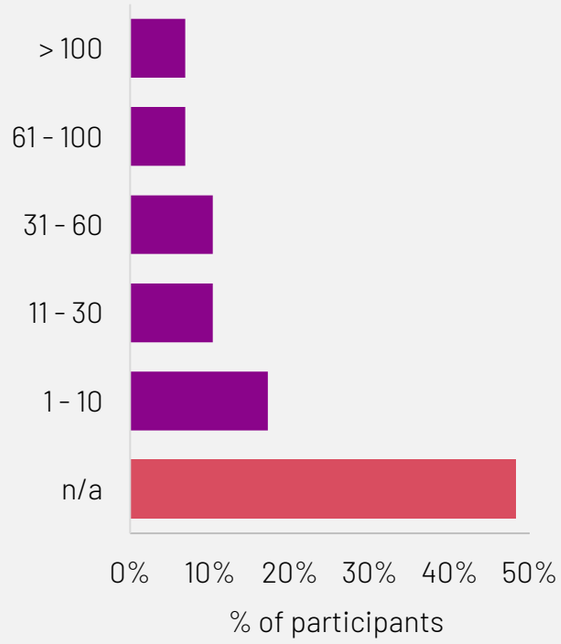
Identified critical data elements

A critical data element is a data element that is required to correctly calculate the benefit a member is entitled to. Participants report a wide number of critical data elements. A third of participants report between 1 and 10 data elements, and two peers report more than 200 data elements.

The following attributes of critical data elements are documented by participants who have identified these elements:

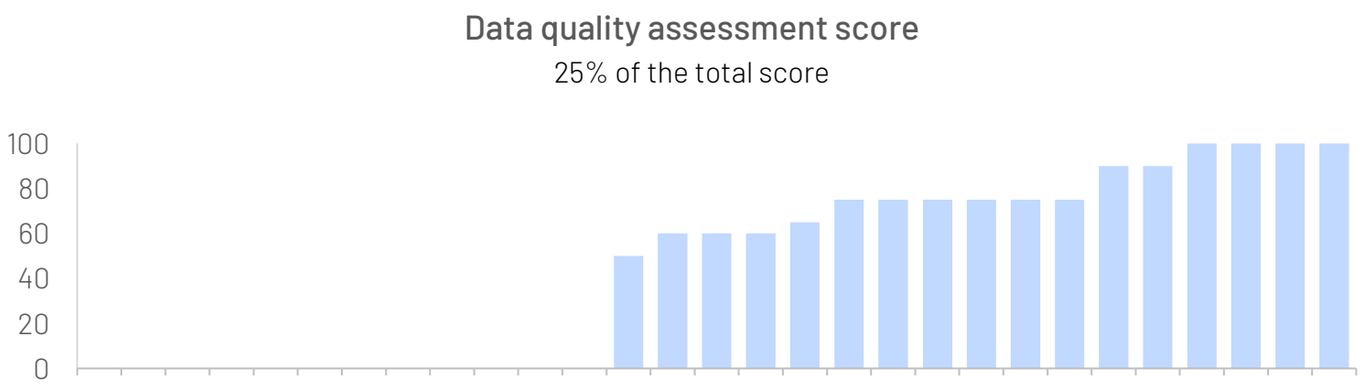
	You	Average	Definition
Data source	---	89%	For example, an employer, a member or another third-party entity.
Data domain	---	84%	The collection of values that a data element may contain. For example, the data element 'gender' may have the data domain 'female', 'male', 'other'.
Data flow	---	74%	A description of how data flows through your systems and processes.
Data dimension	---	71%	Examples of data dimensions are validity, accuracy, completeness, consistency, timeliness and/or uniqueness.
Risk tolerance	---	60%	Accepted deviation from the norm in qualitative or quantitative terms

64% of participants have identified critical data elements.



Legacy data quality assessment

Methodology



Methodology		Your data	Your score
+ 50	if you have assessed the quality of critical data elements in the last year	---	---
+ 25	if you assess data quality more than once per year	---	---
+ 15	if you have KPIs around data quality	---	---
+ 10	if you report data quality metrics to your Board more than once per year	---	---
	Total score		---

In the Netherlands and the United Kingdom, regulators and/or supervisors have introduced new data quality requirements. They expect plans to review their data and report on their results, at least annually.

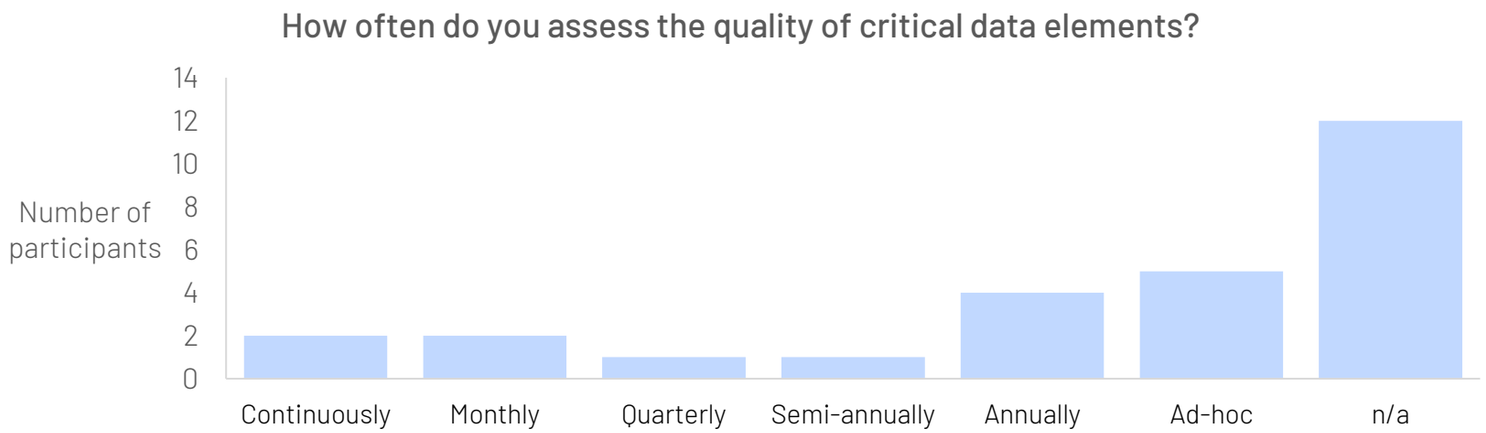
Plans have to assess the following for all critical data, both common and plan-specific data:

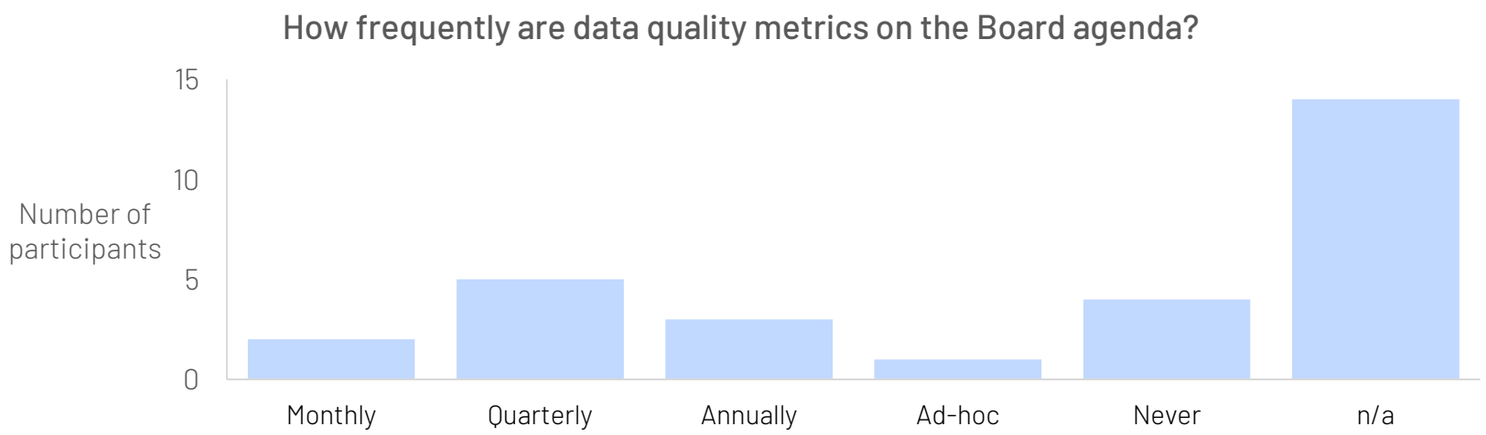
- Missing data (completeness)
- Anomalous data (consistency)
- Data errors (accuracy)

CEM asked participants whether they were interested in comparing data quality for key common data fields versus their peers. For now, most plans indicate these comparisons have limited value, because of regional and contextual differences, and data isn't collected in a globally standardized way.

59% of participants assessed the quality of their critical data elements in the last year.

Data quality assessments





47% of data quality assessments were triggered by a major event.

59% of participants have KPIs around data quality.

5 participants have KPIs related to process outcomes, such as task accuracy, timeliness and member satisfaction.

6 participants have KPIs related to the quality of the source data. They report on the correctness, completeness and validity of data.

A majority of participants spend most of their data quality effort on cleaning employer data.

Effort

Where do you spend the most effort?	You	Your ranking versus all participants [1]				
		All average	Low	Medium		High
Historical data	---	22%				
Data from members	---	15%				
Data from employers	---	40%				
Data from other third-party entities	---	7%				
Data generated by internal systems or processes	---	15%				
Other	---	0%				

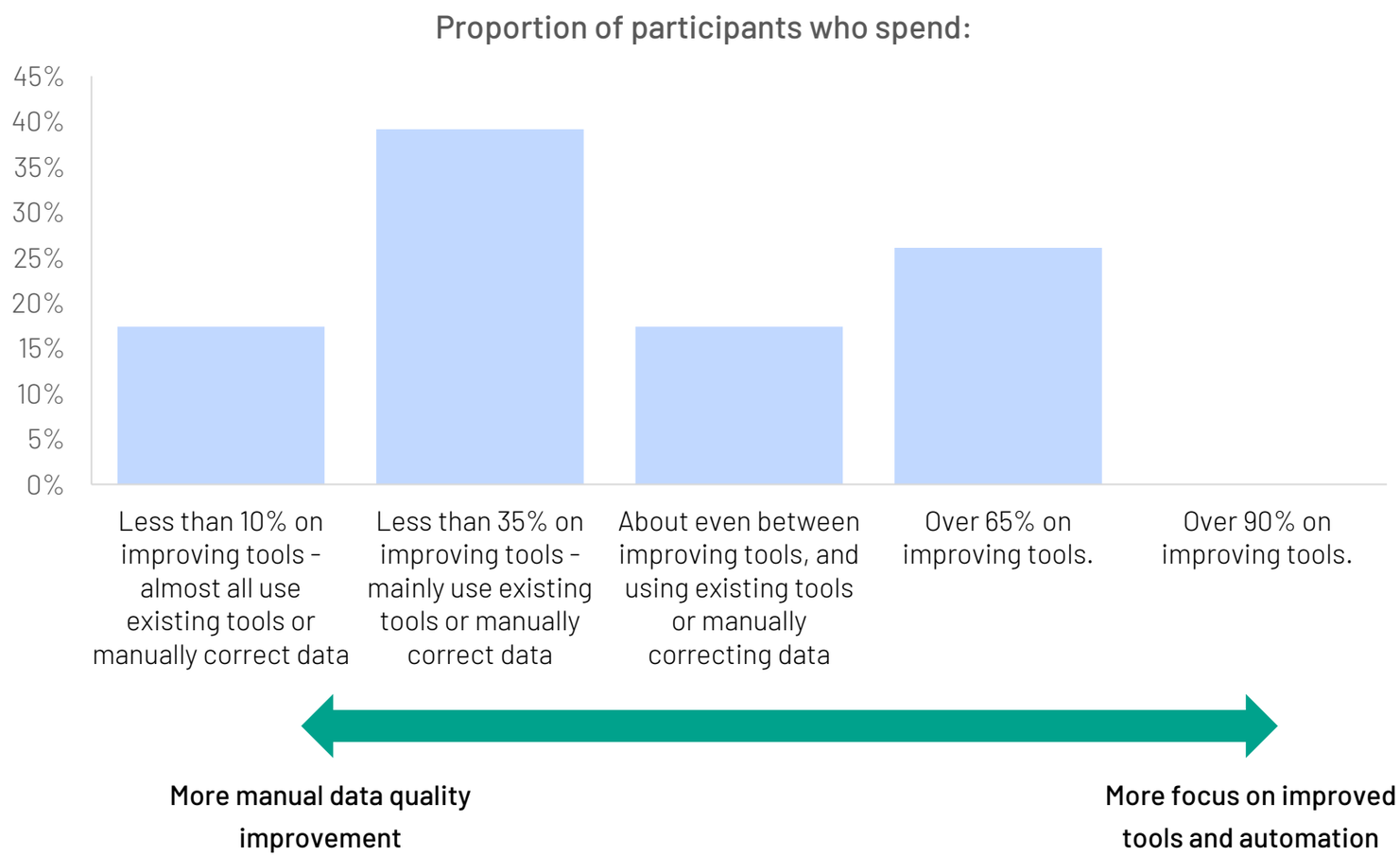
1. Your ranking versus all participants works as follows: one square (low) is a percentile ranking of 0% to 20%, two squares is 20% to 40%, three squares (mid) is 40% to 60%, four squares is 60% to 80%, and five squares (high) is 80% to 100%.

69% of participants spend most of their effort cleaning data from employers.

24% of participants spend most of their effort cleaning historical data in their systems.

Most peers spend relatively more time using existing tools and manually cleaning data.

Data cleaning

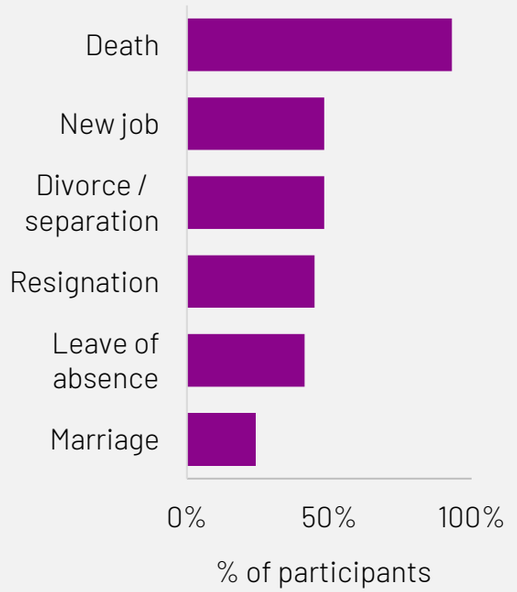


55% of peers use off-the-shelf tools to improve data quality.

10% of peers use machine learning to perform large-scale analyses on data for data quality purposes.

Impact of data quality on member outcomes

Will you initiate a member transaction or communication based on data supplied by third parties, including employers, for the following life events:



Contact us if you have any questions

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Each year, CEM conducts client-sponsored research on a topical issue. Our clients receive access to our research repository.

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