North Carolina
Retirement System

CEM Pension Administration Benchmark Report - 2023

July 25, 2024

Key takeaways:

Cost

- You were the second lowest cost in the CEM universe.

- Your total pension administration cost of $30 per active member and annuitant was $79 below the peer average of $109.

- Between 2017 and 2023 your total pension administration cost per active member and annuitant increased by 4.3% per annum.

- During the same period, the average cost of your peers with 7 consecutive years of data increased by 2.2% per annum.

Service

- The CEM service model was updated to capture the change in digital adoption and transformation in the pension industry over the last eight years. It also takes a more member-centric view: scores are calculated by member journey.

- Your total service score was 80. This was slightly below the peer median of 81.

- Your service score has increased from 72 to 80 between 2017 and 2023.

Insights are based on the 70 global pension systems that participate in the benchmarking service.

Systems

United States
Arizona SRS
CalPERS
CalSTRS
Colorado PERA
Delaware PERS
Florida RS
Idaho PERS
Illinois MRF
Indiana PRS
Iowa PERS
Kansas PERS
LACERA
Michigan ORS
Minnesota State RS
Nevada PERS
New Mexico PERA
North Carolina RS
NYC TRS
NYCERS
NYSLRS
Ohio PERS

Oregon PERS
Pennsylvania PSERS
PSRS PEERS of Missouri
South Dakota RS
STRS Ohio
TRS Illinois
TRS of Louisiana
TRS of Texas
University of California RP
Utah RS
Virginia RS
Washington State DRS

Australia
ESS Super

South Africa
Eskom Pension and Provident Fund

Canada
Alberta Pension Services
Alberta Teachers
BC Pension Corporation
Canadian Forces PP
Federal Public Service PP
LAPP of Alberta
Municipal Pension Plan of BC
Ontario Pension Board
Ontario Teachers
OPTrust
RCMP

The Netherlands
ABP
Metaal en Techniek
PFZW

United Kingdom [1]
Armed Forces Pension Scheme
BSA NHS Pensions
BT Pension Scheme
Greater Manchester PF
Hampshire Pension Services
Kent Pension Fund
Local Pensions Partnership
Lothian PF
Merseyside PF
Pension Protection Fund
Principal Civil Service
Railpen
Royal Mail Pensions
Scottish Public Pensions Agency
South Yorkshire Pensions Authority
Surrey County Council
Teachers' Pensions
Tyne & Wear PF
Universities Superannuation
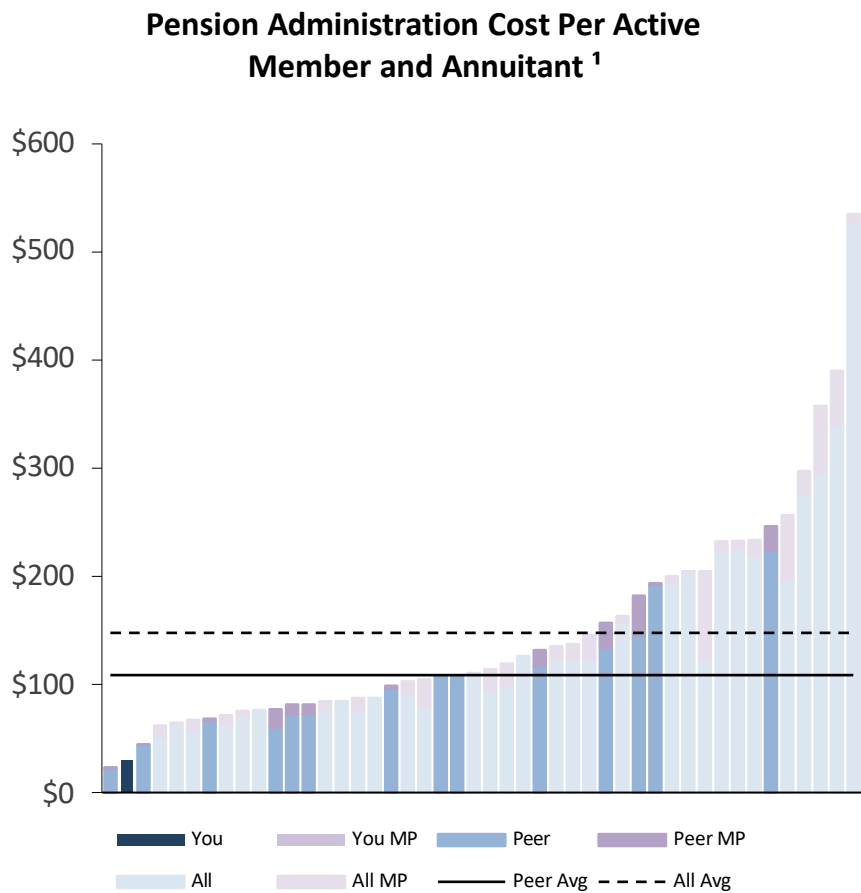West Midlands Metro
West Yorkshire PF

1. Systems in the UK complete a different benchmarking survey. Their data is not included in this report.

This report compares your pension administration costs and member service to a custom peer group.

#	System	Number of members (in 000s)		
		Active Members	Annuitants	Total [1]
1	CalPERS	926	792	1,717
2	Florida RS	645	483	1,128
3	NYSLRS	514	515	1,029
4	**North Carolina RS**	**474**	**357**	**831**
5	CalSTRS	459	329	788
6	Virginia RS	354	240	594
7	Washington State DRS	352	226	578
8	Ohio PERS	308	221	529
9	Michigan ORS	161	287	449
10	Arizona SRS	215	171	386
11	Colorado PERA	245	137	382
12	STRS Ohio	215	159	374
13	Oregon PERS	184	165	349
14	Illinois MRF	181	153	334
15	Iowa PERS	180	134	314
	Median	308	226	529
	Average	361	291	652

Custom Peer Group for North Carolina RS

1. Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded because they are less costly to administer than active members or annuitants.

Your total pension administration cost of $30 per active member and annuitant was $79 below the peer average of $109.

Pension Administration Cost Per Active Member and Annuitant [1]

Category	$000s	$ per Active Member and Annuitant	
	You	You	Peer Avg
Business-As-Usual Costs	24,811	30	99
Major Project Costs [1]	0	0	9
Total Pension Administration	24,811	30	109

We include costs that are directly related to pension administration (e.g., staff costs or an third-party costs) plus attributions of governance, financial control, IT, building and utilities, HR, support services and other costs.

The costs associated with investment operations and investment management are specifically excluded.

Your total pension administration cost $24.8 million also excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of $0.6 million.

1. Major project costs are denoted by the lighter shading on the bars. These one-off costs correspond to administration projects only.
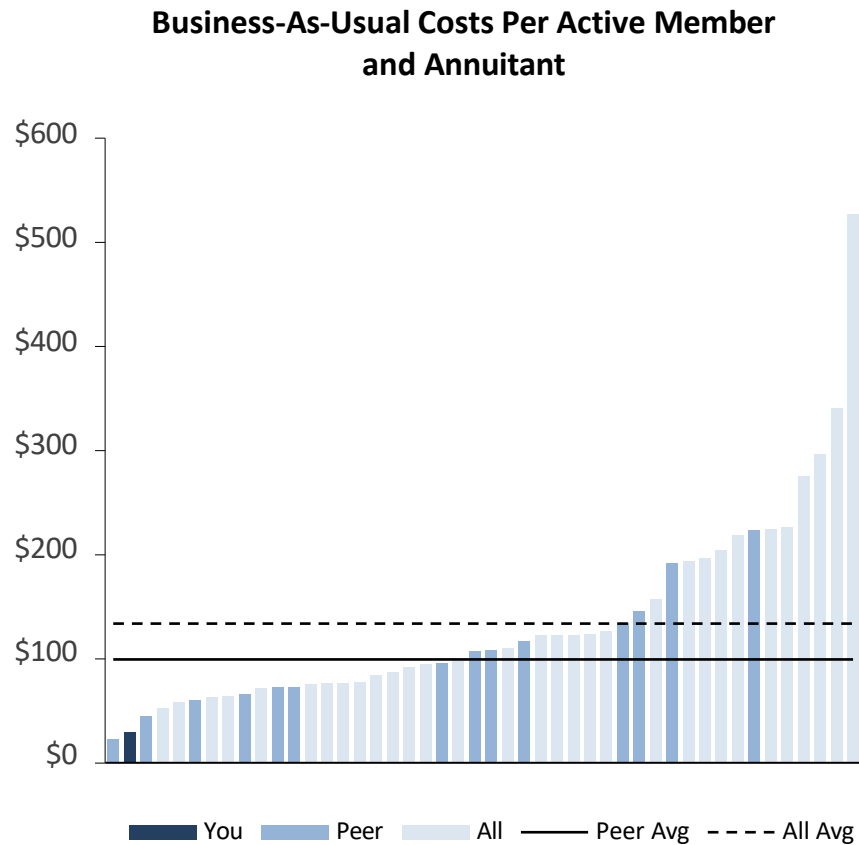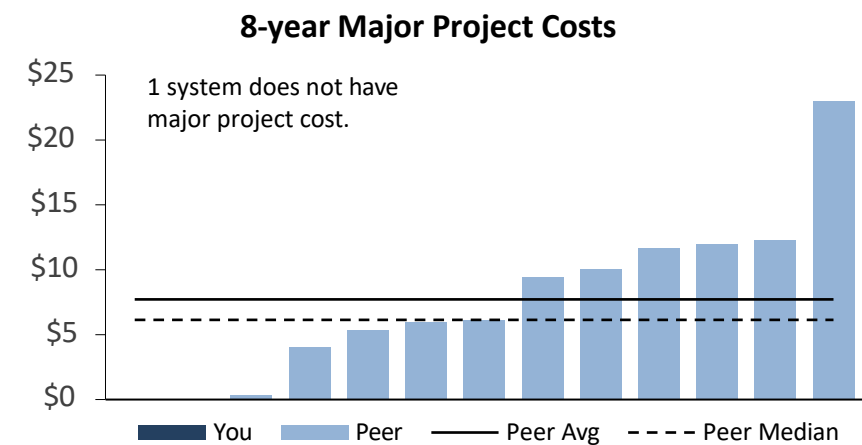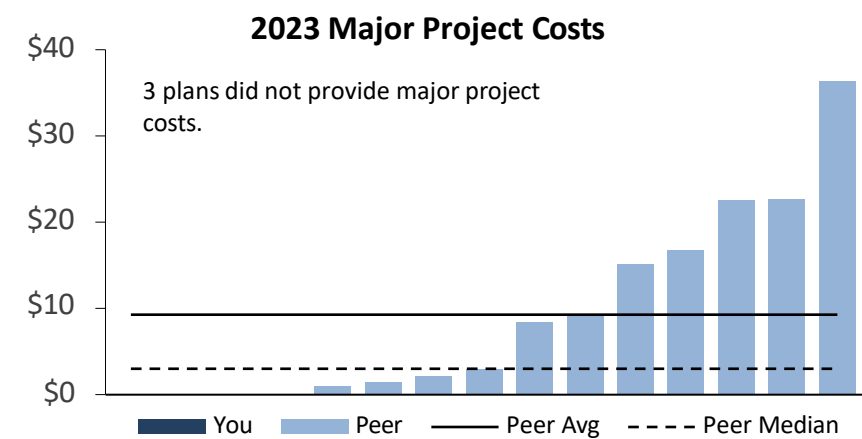
Your Business-As-Usual (BAU) costs of $30 per active member and annuitant was $69 below the peer average of $99.

Business-As-Usual Costs Per Active Member and Annuitant

Legend: You | Peer | All | —— Peer Avg | - - - - All Avg

Category	$000s You	$ per Active Member and Annuitant You	$ per Active Member and Annuitant Peer Avg
Front office			
Member Transactions	5,462	7	14
Member Communication	4,972	6	18
Collections & Data Maintenance	1,657	2	8
Governance and support			
Governance and Financial Control	2,687	3	7
Information Technology	7,241	9	31
Building	305	0.4	6
HR	258	0.3	3
Actuarial	448	1	2
Legal	955	1	4
Audit	483	1	2
Other Support Services	344	0.4	6
Total Pension Administration	24,811	30	99

Your Major Project costs of $0 per active member and annuitant was $9 below the peer average of $9.

2023 Major Project Costs

3 plans did not provide major project costs.

Legend: You | Peer | Peer Avg | Peer Median

8-year Major Project Costs

1 system does not have major project cost.

Legend: You | Peer | Peer Avg | Peer Median

Category	Major Project Cost $000s	$ per Active Member and Annuitant	
	You	You	Peer Avg
Single year 2022/2023	0	0	9
Multi-year average[1]	n/a	n/a	8

What is included in major project costs:

- One-off costs that were not capitalized.
- Current year amortization on capitalized costs.
- Excluding attributed costs for healthcare, and optional and third-party administered benefits, if applicable.

1. These costs are averaged over as many years as possible based on the system participation record, with a maximum of 8 years. Systems that have submitted less than 8 years of data are excluded.

Reasons why your total cost per member was $79 below the peer average:

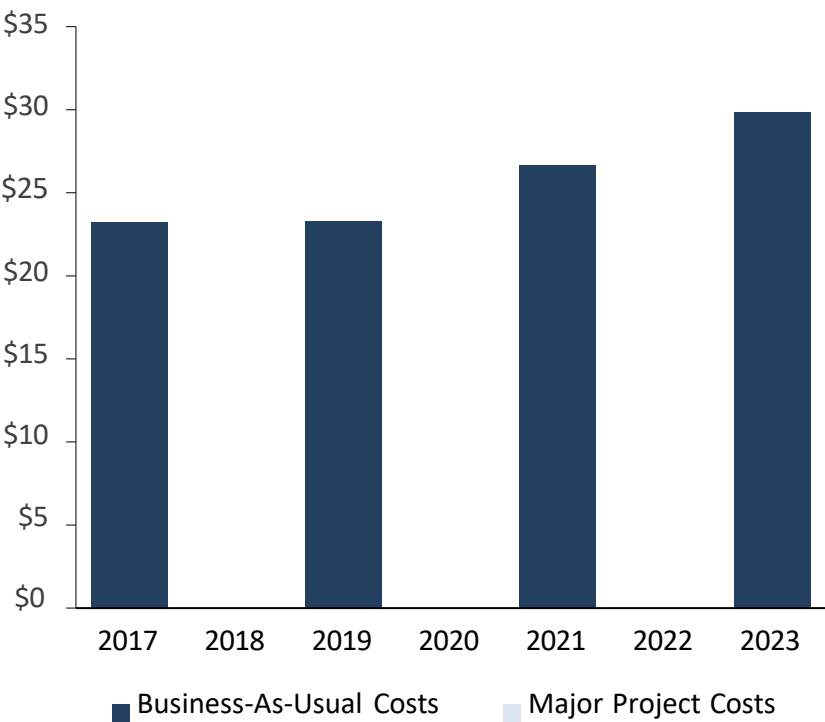| Reason	You	Peer Avg	Impact $ per active member and annuitant
1 Fewer front office FTE per 10,000 members	1.9 FTE	3.2 FTE	-$11
2 Lower third party costs per member in the front office	$1	$5	-$5
3 Lower costs per FTE			
Salaries and Benefits [1]	$74,661	$114,167	
Building and Utilities	$1,725	$10,928	
HR	$1,457	$5,064	
IT Desktop, Networks, Telecom	$9,203	$16,690	
Total	$87,046	$146,849	-$30
4 Lower support costs per member [2]			
Governance and Financial Control	$3	$6	
Major Projects	$0	$9	
IT Strategy, Database, Applications	$6	$18	
IT Security	$0	$2	
Actuarial, Legal, Audit, Other	$3	$11	
Total	$13	$46	-$33
Total			-$79

1. 31% of your total salaries and benefits relates to benefits. This compares to a peer average of 32%.
2. To avoid double counting, governance and support costs are adjusted for differences in cost per FTE.
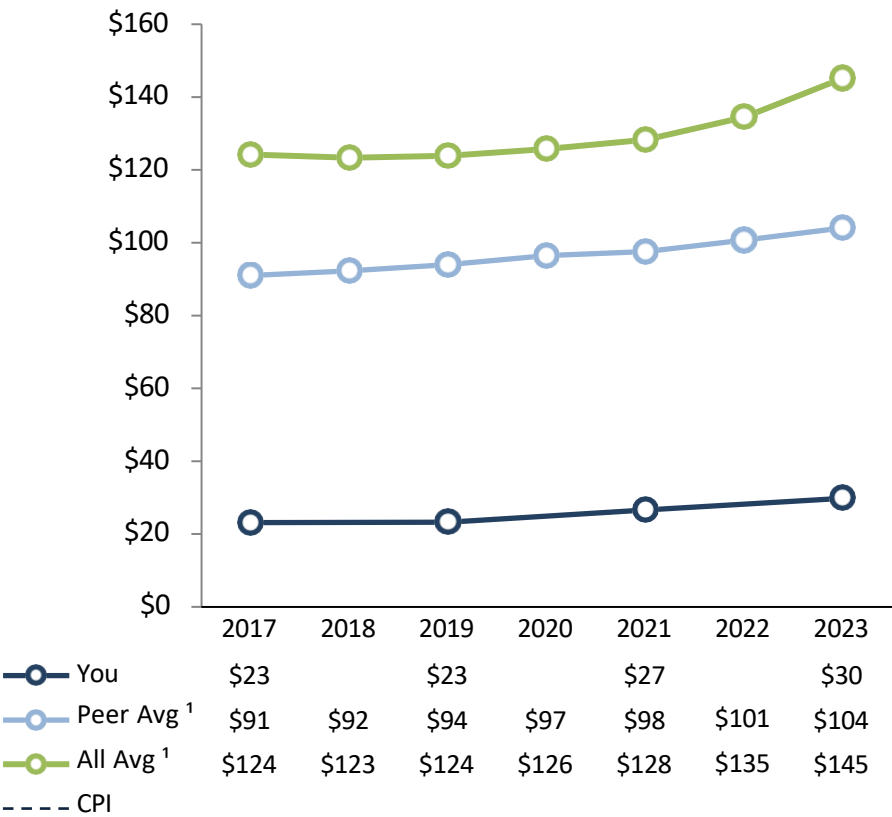
Between 2017 and 2023 your total pension administration cost per active member and annuitant increased by 4.3% per annum.

Your Pension Administration Cost Per Active Member and Annuitant Trend

Business-As-Usual Costs   Major Project Costs

Pension Administration Cost Per Active and Annuitant Trend

	2017	2018	2019	2020	2021	2022	2023
You	$23		$23		$27		$30
Peer Avg [1]	$91	$92	$94	$97	$98	$101	$104
All Avg [1]	$124	$123	$124	$126	$128	$135	$145
CPI							

1. Trend analysis is based on systems that have provided 7 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).

Your total service score was 80. This was slightly below the peer median of 81.

Total Service Score

Legend: You (dark navy), Peer, All, Peer Median (dashed), All Median (solid)
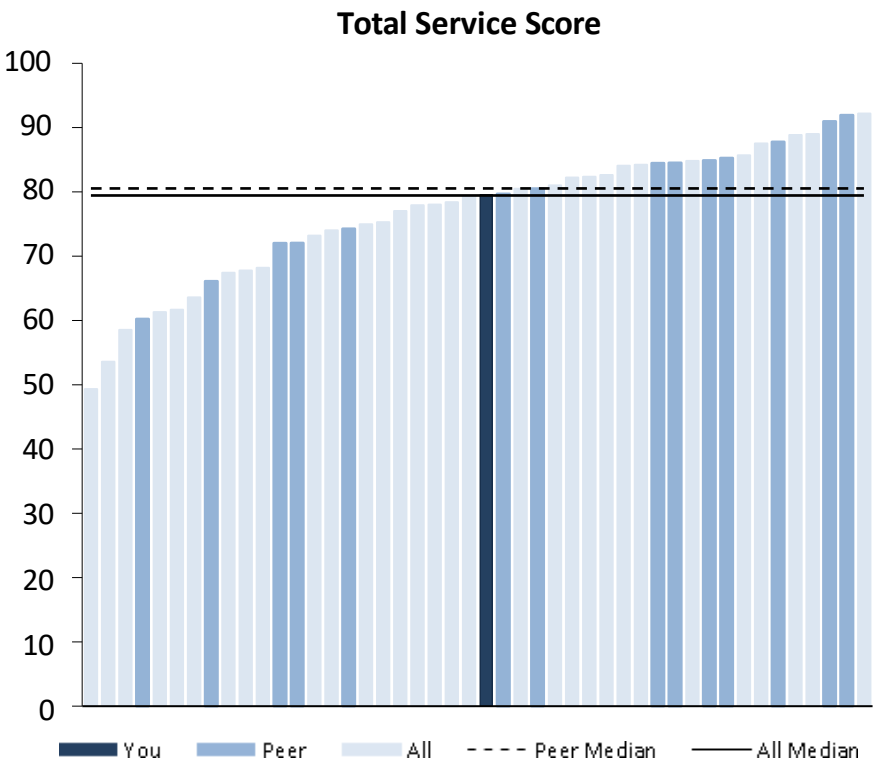
Looking at cost in isolation is unhelpful. Context is required, as is a means to measure value for money. CEM believes the right measure is member service, or the service score.

Service is defined from a member's perspective. Higher service means more channels, faster turnaround times, more availability, more choice, better content and higher quality.

Higher service is not necessarily cost-effective. For example, the ability to answer the telephone 24 hours a day is higher service, but not cost effective.

Your total service score is the weighted average of the service scores for each of the four member journeys below.

Service Scores by Journey

Journey	Weight	You	Peer Median
Active member experience	30%	76	78
Inactive member experience	5%	80	74
Retiring experience	35%	77	81
Annuitant experience	30%	85	87
Total service score	100%	80	81

Service score by member journey and activity

Active Member Experience Service Score
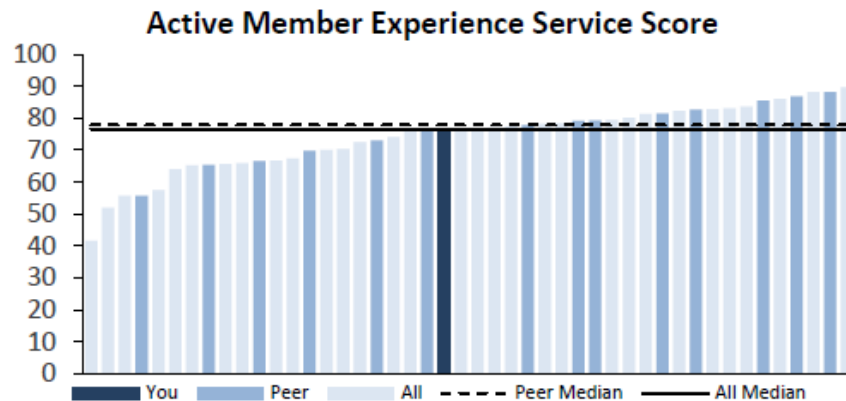
Activity	Weight	You	Peer Median
Targeted campaigns	7.5%	29	49
Purchases and Transfers-in	10.0%	78	62
Member statements	12.5%	65	75
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Personal information	5.0%	80	90
Salary and service credit information	5.0%	100	100
Secure website accessibility	30.0%	100	98
Contact center: accessibility	7.5%	28	45
Contact center: capability	5.0%	78	85
Contact center: call quality	5.0%	80	85
1-on-1 counseling	5.0%	55	94
Member presentations	2.5%	100	100
Feedback	5.0%	80	80
Active member experience service score	100.0%	76	78

Inactive Member Experience Service Score
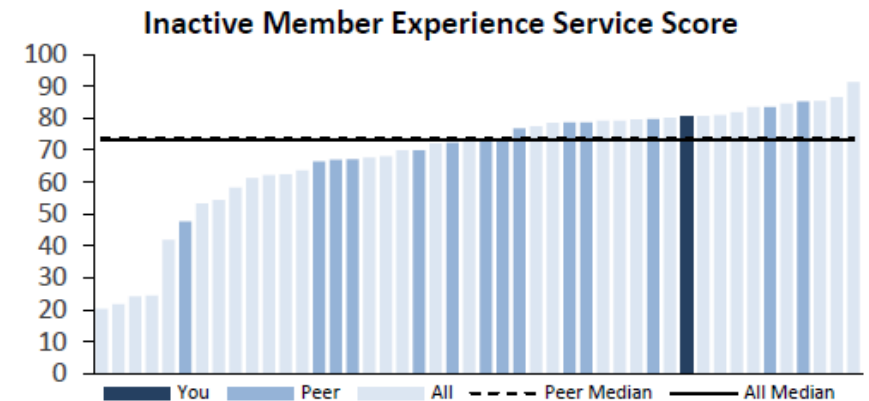
Activity	Weight	You	Peer Median
Targeted campaigns	10.0%	32	30
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Tracking inactive members	10.0%	70	67
Transfers-out	5.0%	100	93
Personal information	7.5%	80	90
Salary and service credit information	5.0%	100	100
Secure website accessibility	40.0%	100	89
Contact center: accessibility	7.5%	28	45
Contact center: capability	5.0%	78	85
Contact center: call quality	5.0%	80	85
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Feedback	5.0%	85	85
Inactive member experience service score	100.0%	80	74

Service score by member journey and activity
(continued)

Retiring Experience Service Score
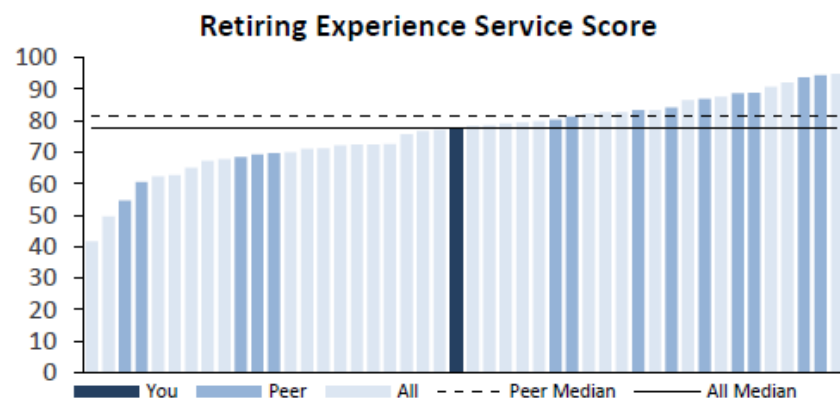
Activity	Weight	You	Peer Median
Targeted campaigns	7.5%	45	100
Pension estimates: self-service	7.5%	83	79
Pension estimates: assisted service	2.5%	65	86
Retirement applications	7.5%	80	75
Pension inceptions	10.0%	70	90
Disability inceptions	5.0%	90	80
-	n/a	n/a	n/a
Personal information	2.5%	80	90
Salary and service credit information	2.5%	100	100
Secure website accessibility	20.0%	100	100
Contact center: accessibility	7.5%	28	45
Contact center: capability	5.0%	78	85
Contact center: call quality	5.0%	80	85
1-on-1 counseling	7.5%	55	94
Member presentations	5.0%	100	100
Feedback	5.0%	95	80
Retiring experience service score	100.0%	77	81

Annuitant Experience Service Score
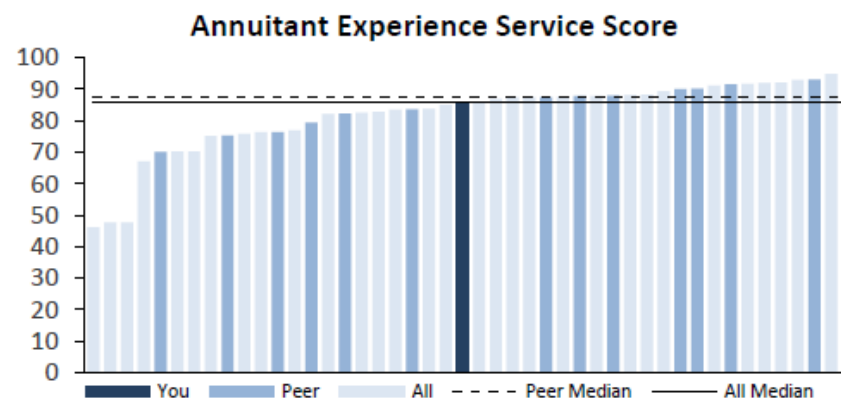
Activity	Weight	You	Peer Median
Targeted campaigns	10.0%	63	59
-	n/a	n/a	n/a
-	n/a	n/a	n/a
-	n/a	n/a	n/a
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Pension payments	30.0%	98	98
Personal information	5.0%	80	90
-	n/a	n/a	n/a
Secure website accessibility	32.5%	100	100
Contact center: accessibility	7.5%	28	45
Contact center: capability	5.0%	73	85
Contact center: call quality	5.0%	80	85
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Feedback	5.0%	70	70
Annuitant experience service score	100.0%	85	87

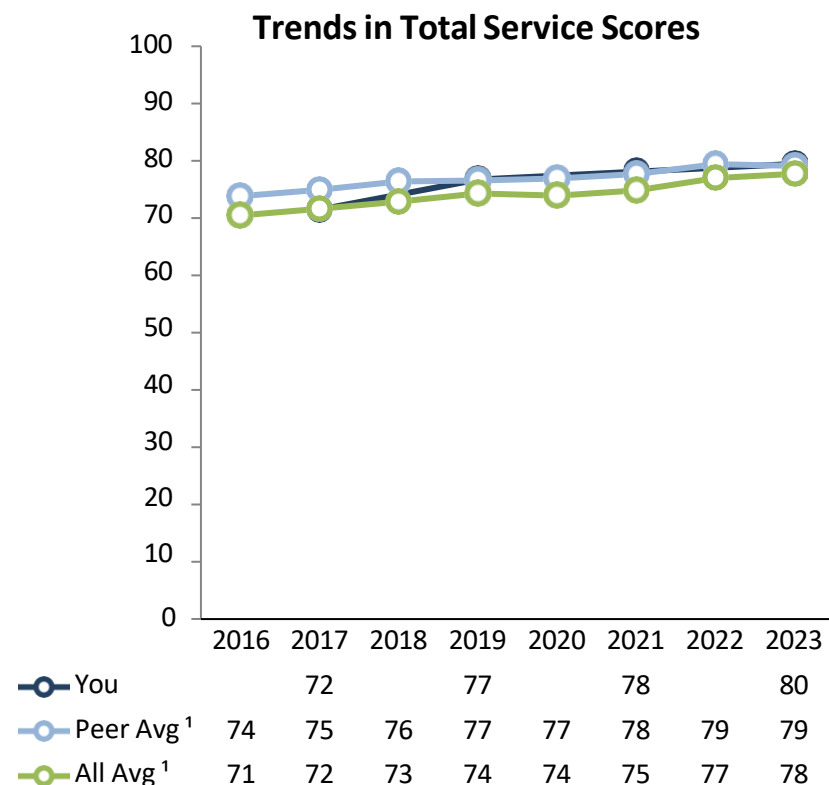# Key outliers where you were different than your peers

Higher than peers

- You had full points for website accessibility across all four journeys with your members accessing their secure area in higher numbers than your peers.

- The following processes had lower turnaround times:
  - Transfers-out completion: 14 days (peers: 45.6 days)
  - Written pension estimates: 2.5 days (peers: 11.7 days)
  - Decision disability: 2 months (peers: 3.6 months)

- A number of your contact center metrics were better:
  - Call wait time: 205 seconds (peers: 538 s)
  - Undesired call outcomes: 12.3% (peers: 21.5%)
  - Callback: requested over phone and website (peers: 13.3% both)

- You surveyed all transactions: secure website, calls, 1-on-1 counseling and presentations (peers: 46.7%, 80.0%, 73.3%, 86.7% respectively).

- You sent targeted communication in the following cases:
  - Inactive members: leaving the plan, eligibility to retire and a newsletter (peers: 40.0%, 66.7% and 40.0% Yes)
  - Annuitants: Pension amount changes and new to retirement (peers: 64.3%, 60.0% Yes)

Lower than peers

- You did not survey your active, inactive members and annuitants (peers: 86.7%, 53.3% and 86.7% Yes).

- Your percentages of inceptions, i.e. members paid within 1 month, were lower:
  - Service pensions: 76.7% (peers: 87.9%)
  - Survivor pensions: 20.6% (peers: 73.5%)

- The following contact center metrics had a negative impact:
  - First Call Resolution: you did not track this metric. 11 of your peers did and their average was 88.9%.
  - Menu layers: you had 4 layers (peers: 2.1 layers)
  - You offered no estimates over the phone (peers: 66.7% Ye
  - Email response time: 2.0 days (peers: 1.2 days)
  - Your members could not change their address over the phone (peers: 80.0% Yes)

- Your availibility for 1-on-1 counseling as a percentage of active members was 0.2% (peers: 2.5%). You also did not offer counseling for walk-ins (peers: 80.0 Yes).

- You did not send targeted communication to your active members such as new member enrollment (peers: 86.7%

- The data on your member statement is on average 5 months old (peers: 0.5 months).

Your service score has increased from 72 to 80 between 2017 and 2023.[2]

Trends in Total Service Scores

	2016	2017	2018	2019	2020	2021	2022	2023
You		72		77		78		80
Peer Avg [1]	74	75	76	77	77	78	79	79
All Avg [1]	71	72	73	74	74	75	77	78

1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).

2. Historic scores have been restated to reflect changes in methodology. Your historic service scores will differ from previous reports.
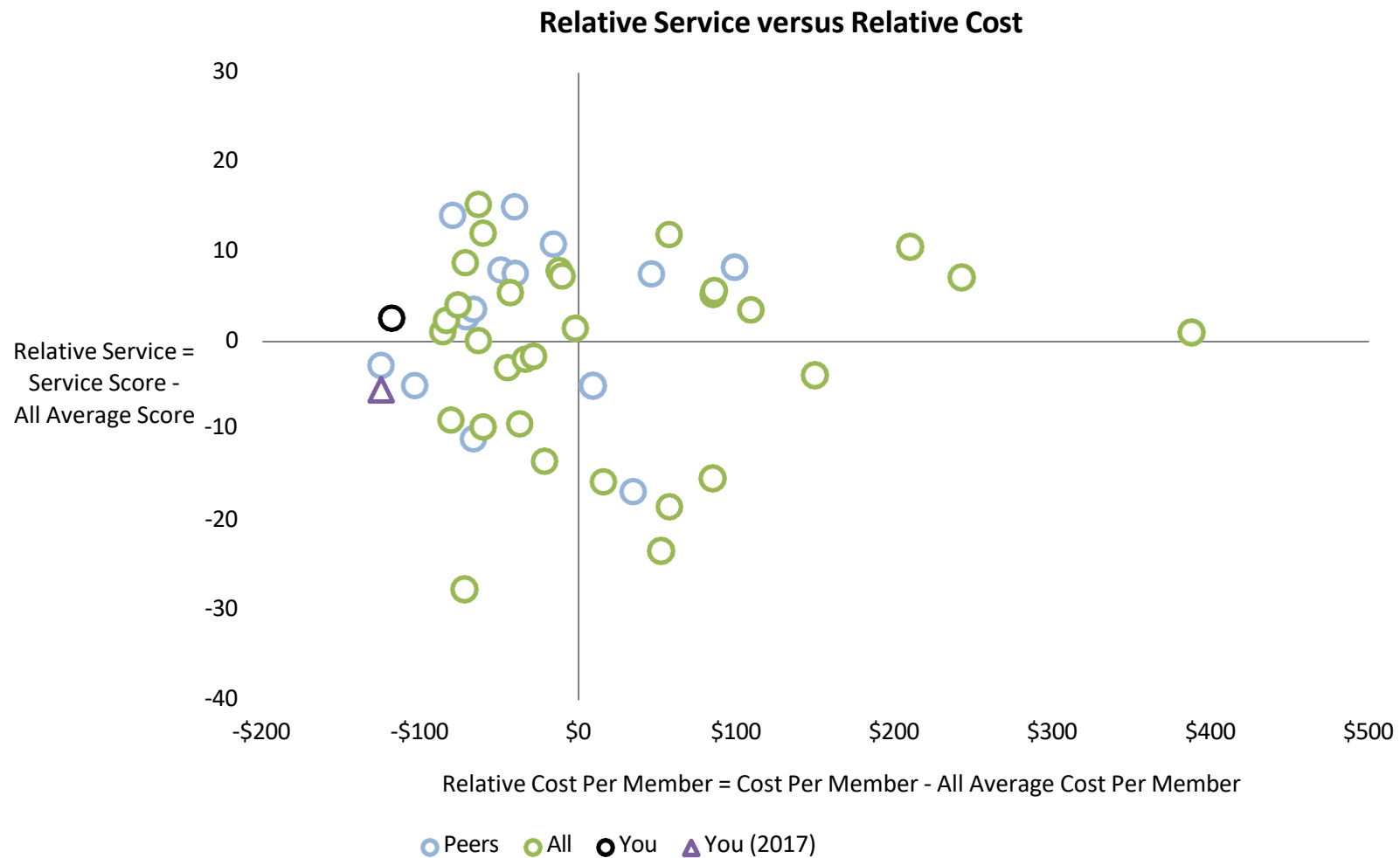
Changes that had a positive impact compared to 2017

- **Website**: Starting in 2019, your members can submit a retirement application through the secure portal. They now also have the option to upload documents.
- **Contact center**: You've made a number of improvements:
    - Call wait time: decreased from 297 seconds to 205 seconds.
    - Email response time: from 9 days to 2.
    - Undesired call outcomes: although no impact on your service score, the precentage decreased from 17.7% to 12.3%.
- **Customer Experience**: You expanded your surveying program and added secure website, calls, 1-on-1 counseling and the retirement experience.

Changes that had a negative impact compared to 2017

- **Pension inceptions**: Your inceptions paid within 1 month without a cashflow interruption, decreased:
    - Service pensions: from 91.1% to 76.7%
    - Survivor pensions: from 88.6% to 20.6%
- **1-on-1 counseling**: Your availibility, i.e. members counseled as a percentage of active members, decreased from 0.6% to 0.2%. Starting in 2019 you stopped offering counseling for walk-ins.

You were lower cost and higher service than the average participant in the CEM universe.

Relative Service versus Relative Cost

Relative Service = Service Score - All Average Score

Relative Cost Per Member = Cost Per Member - All Average Cost Per Member

○ Peers ○ All ○ You △ You (2017)

Key takeaways:

Cost

- You were the second lowest cost in the CEM universe.

- Your total pension administration cost of $30 per active member and annuitant was $79 below the peer average of $109.

- Between 2017 and 2023 your total pension administration cost per active member and annuitant increased by 4.3% per annum.

- During the same period, the average cost of your peers with 7 consecutive years of data increased by 2.2% per annum.

Service

- The CEM service model was updated to capture the change in digital adoption and transformation in the pension industry over the last eight years. It also takes a more member-centric view: scores are calculated by member journey.

- Your total service score was 80. This was slightly below the peer median of 81.

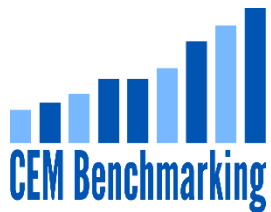- Your service score has increased from 72 to 80 between 2017 and 2023.
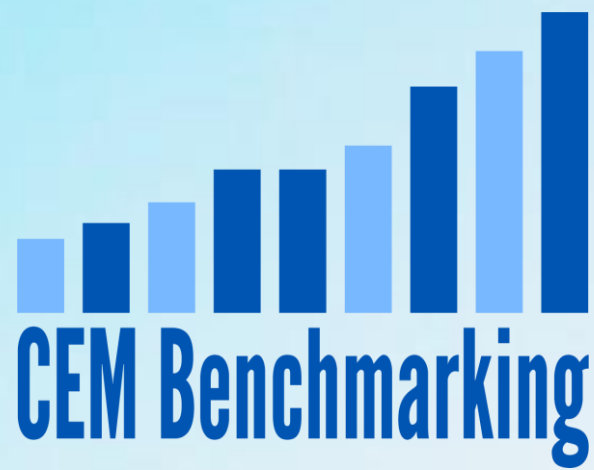
Thank you

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CEMbenchmarking.com

Appendix – Global Trends

Pension service organizations globally are experiencing significant changes.

Legacy system modernization AI
Service digitalization Cybersecurity
Data quality management Operational Excellence
Customer Experience Member engagement
Hybrid work Employee recruitment and retention
Regulatory change

Digitalization

- Members have higher expectations based on their interactions with companies in other industries.

- Upgrading or replacing legacy systems is impacting the costs for most organizations.

- As digitalization increases, there is a growing concern about cybersecurity and data quality…

- … and there are opportunities with robotic automation and AI.

Post-pandemic impacts

- More transactions are happening on secure websites.

- Organizations continue to adjust to hybrid work models.

- Employee recruitment and retention challenges are disrupting pension operations.

- There has been a substantial decrease in call service levels.

90% of plans with eight consecutive years of data improved their service score between 2016 and 2023. On average, the improvement was 1.7% per year. 58% of plans improved their service score while decreasing their business-as-usual costs per member.
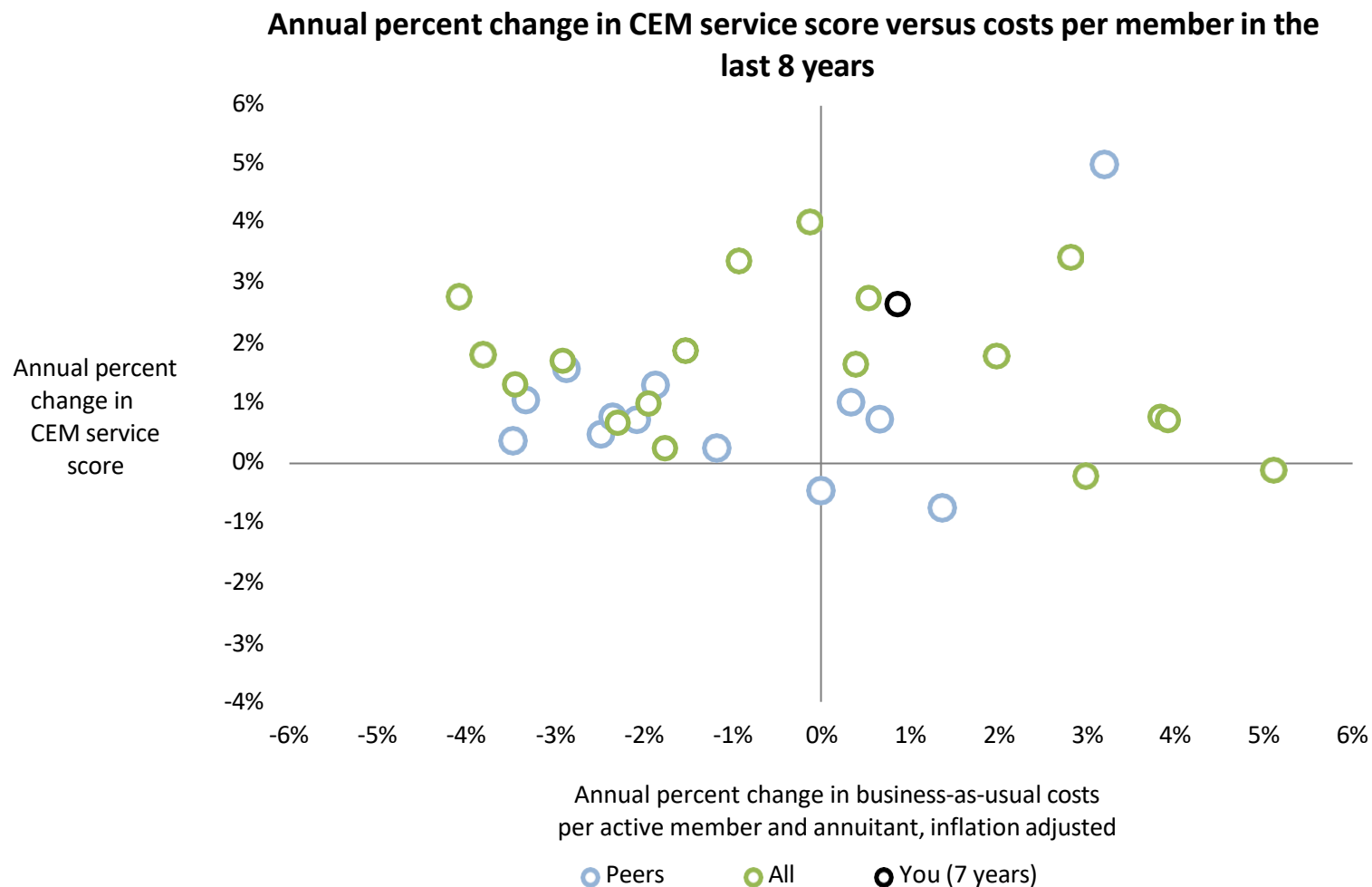
Annual percent change in CEM service score versus costs per member in the last 8 years

Annual percent change in CEM service score

Annual percent change in business-as-usual costs per active member and annuitant, inflation adjusted

○ Peers   ○ All   ⬤ You (7 years)

1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).

Greater digitalization is the key driver for higher service scores.

You

	2016	2017	2018	2019	2020	2021	2022	2023
Secure web visits		1253		888		1208		3107
Calls		454		443		396		538
1on1		3		5		4		1
Incoming mail		372		359		323		305
Estimates		7		4		3		2
Presentations		0		0		0		0

Transactions per 1,000 members - All Avg[1]

	2016	2017	2018	2019	2020	2021	2022	2023
Secure web visits	1474	1725	1742	1716	1813	2051	2075	1880
Calls	700	681	674	675	656	677	659	641
1on1	32	37	37	38	34	24	28	31
Incoming mail	389	365	307	331	295	269	254	261
Estimates	32	37	33	37	33	30	32	29
Presentations	1	1	1	1	1	1	1	1

1. Trend analysis is based on 31 systems that provided 8 consecutive years of data.

Between 2017 and 2023 your digital reach increased from 62% to 79%.

Digital Reach Trend

	2016	2017	2018	2019	2020	2021	2022	2023
You		62%		53%		63%		79%
Peer Avg [1]	59%	61%	63%	64%	65%	69%	69%	70%
All Avg [1]	54%	57%	59%	59%	60%	63%	66%	63%

1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).
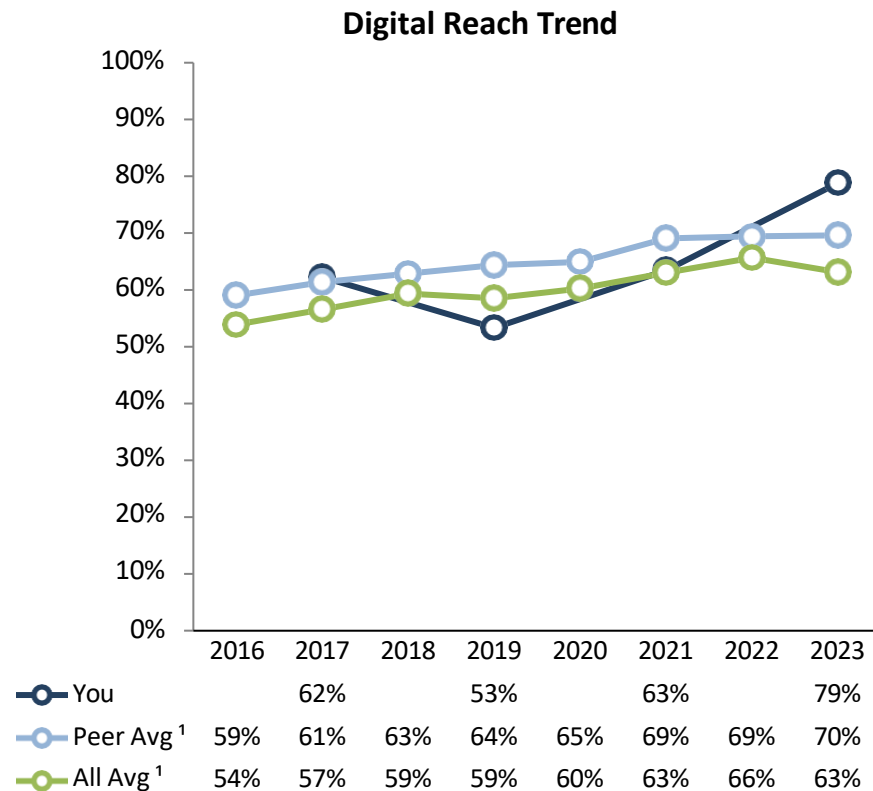
Digital reach measures the proportion of your self-service volumes versus self-service and assisted service transactions, as follows.

Digital reach	
Activity	**Volume**
Total secure website visits (A)	2,581,160
Incoming calls (B)	362,189
Incoming emails/secure messages (C)	76,838
Incoming letters (D)	253,205
Digital reach [A / (A + B + C + D)]	79%

57% of plans with eight consecutive years of data have increased secure web visits while decreasing incoming call and email volumes.
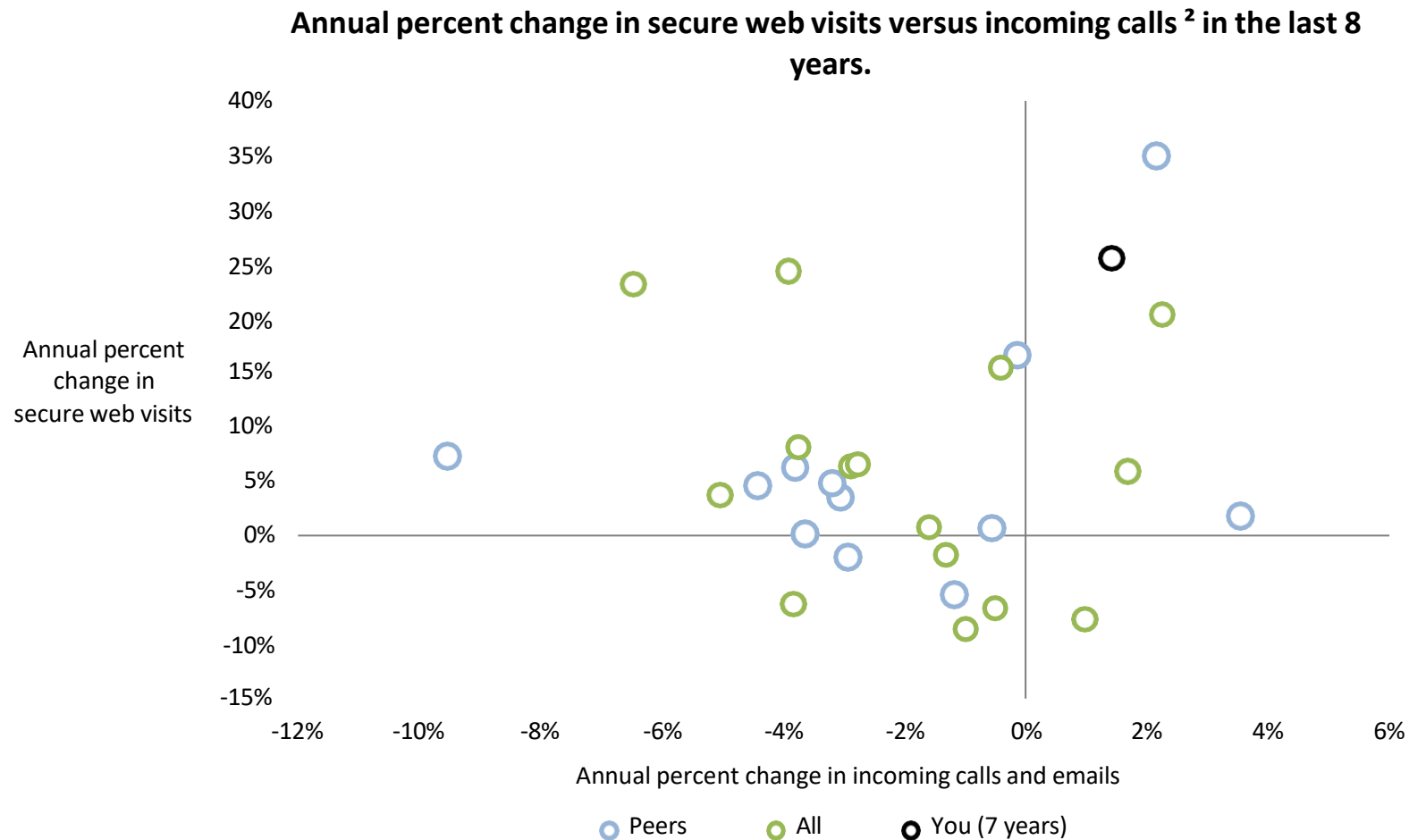
Annual percent change in secure web visits versus incoming calls [2] in the last 8 years.
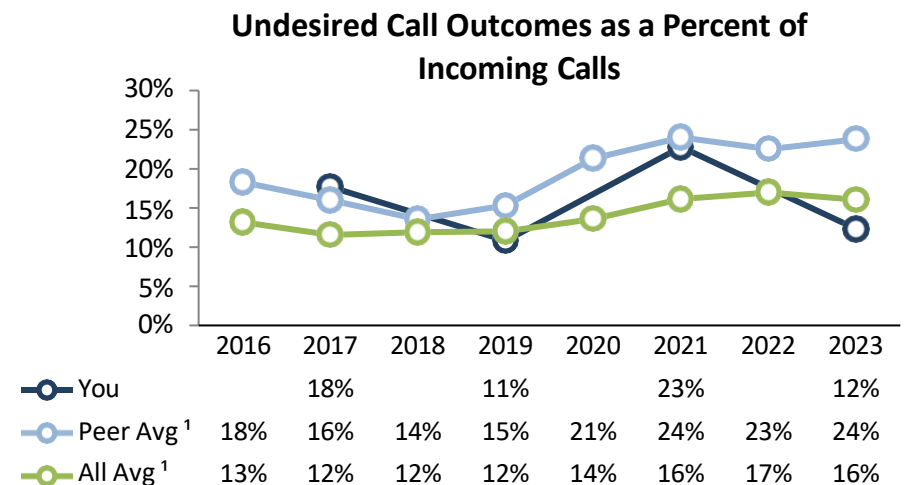
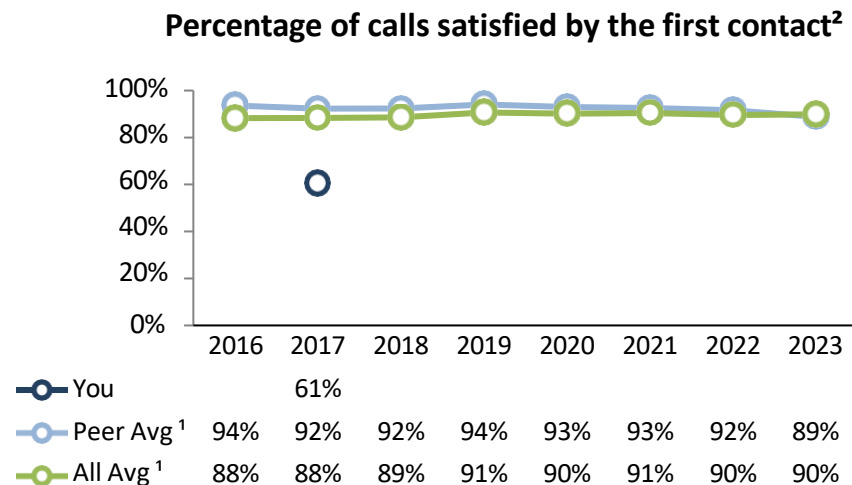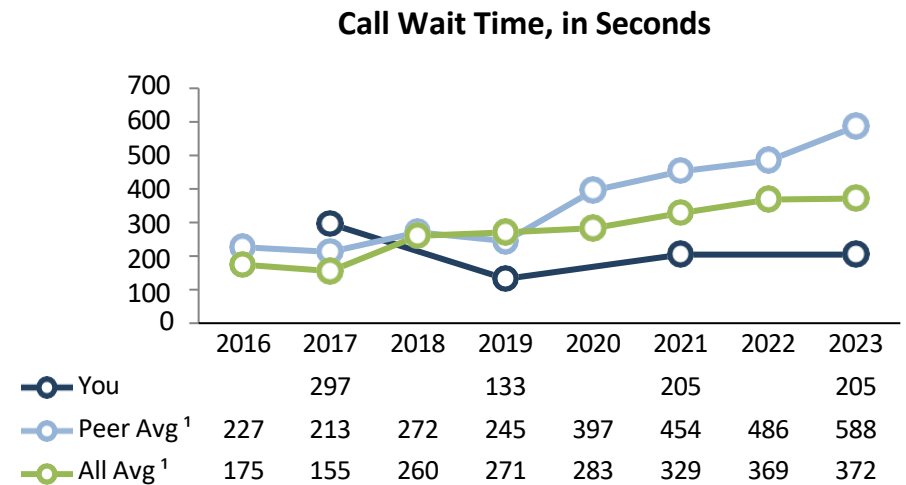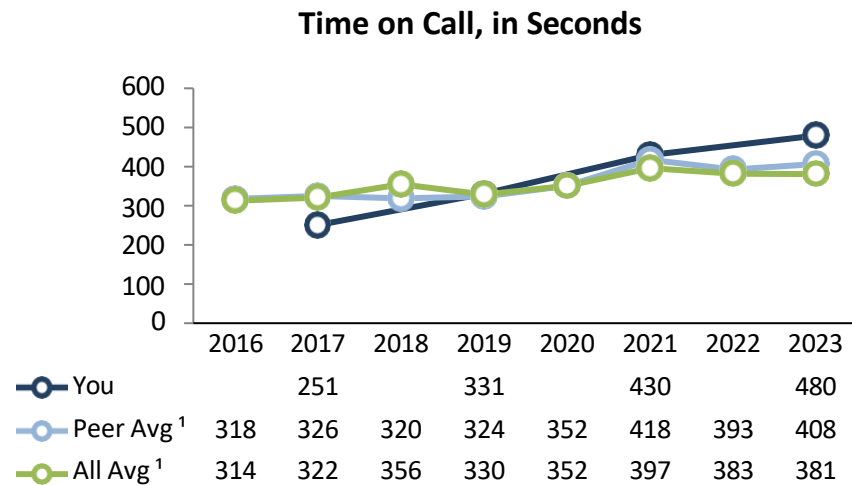

1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).
2. Volumes are calculated per 1,000 active members and annuitants.

The nature of member calls has changed in the last eight years.

Time on Call, in Seconds

	2016	2017	2018	2019	2020	2021	2022	2023
You		251		331		430		480
Peer Avg [1]	318	326	320	324	352	418	393	408
All Avg [1]	314	322	356	330	352	397	383	381

Call Wait Time, in Seconds

	2016	2017	2018	2019	2020	2021	2022	2023
You		297		133		205		205
Peer Avg [1]	227	213	272	245	397	454	486	588
All Avg [1]	175	155	260	271	283	329	369	372

Percentage of calls satisfied by the first contact[2]

	2016	2017	2018	2019	2020	2021	2022	2023
You		61%						
Peer Avg [1]	94%	92%	92%	94%	93%	93%	92%	89%
All Avg [1]	88%	88%	89%	91%	90%	91%	90%	90%

Undesired Call Outcomes as a Percent of Incoming Calls

	2016	2017	2018	2019	2020	2021	2022	2023
You		18%		11%		23%		12%
Peer Avg [1]	18%	16%	14%	15%	21%	24%	23%	24%
All Avg [1]	13%	12%	12%	12%	14%	16%	17%	16%

1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).
2. Your responses for First Contact Resolution in later years were "unknown".

You are not replacing your existing pension administration system. 18 systems are replacing their administration system.

Age of your existing administration system

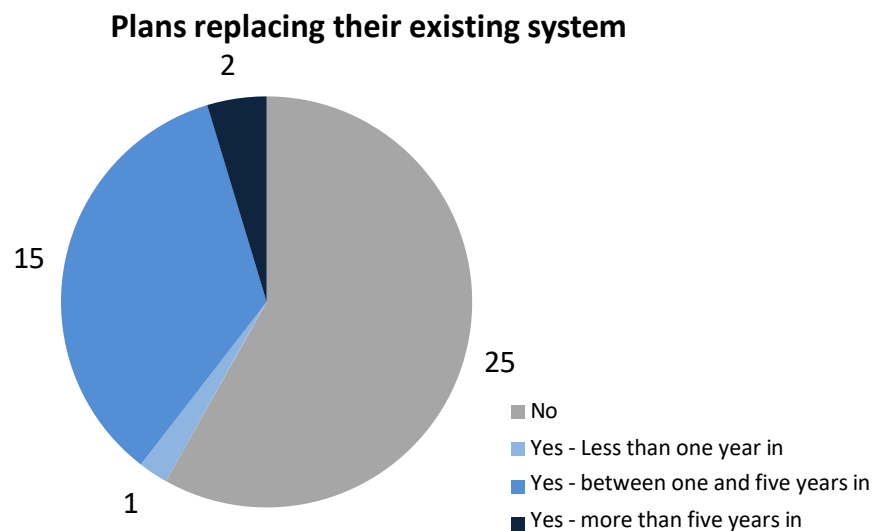Legend: You | Peer | All | —— Peer Avg | - - - - All Avg
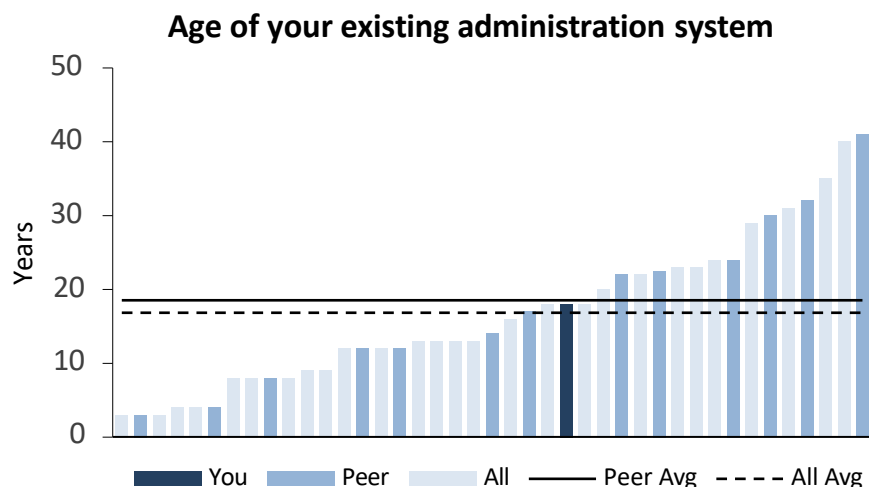
The core pension administration system:
- For 33% of plans, the current system was built in-house.
- For 41% of plans, the current system was built a third-party
- For 17% of plans, their in-house solution was built by a third-party.

System customization:
- 33% of plans whose current system is third-party, required greater than 90% customization on the third-party
- On average, 58% customization was required on third-party solutions.

Plans replacing their existing system

Legend:
- No
- Yes - Less than one year in
- Yes - between one and five years in
- Yes - more than five years in

Plans with cloud access are using AI to improve their operations. Most commonly, plans start with low-risk AI use cases in their contact centers to support to service agents.

Common use cases

Contact center

- Automatically create a call transcript and add the post-call summary to the Client Relationship Management (CRM) system.
- Perform call quality assurance and sentiment assessments.

Document management

- Aggregate internal documents into discrete repositories, with meta data, so staff can easily query these repositories for the data they need.

Automation

- Robotic automation of routine back-office tasks.

Proof-of-life verification

- Tracking/identifying members with facial recognition technology

Less common or higher risk use cases

Contact center

- Redirect members to digital channels and guide workflow with an AI assistant that integrates CRM and browser-based solutions.

- Chatbots for processing member information and answering their questions.

- Predicting a member's next question real-time, on call.

- Real-time, on-call member satisfaction metrics based on voice recognition.

Data quality management

- Large-scale analysis and cleaning of member data.

IT security is an increasing concern for all systems. Your costs and staffing of IT security compare to your peers as follows:

IT Security Costs per Member

Legend: You, Peer, All
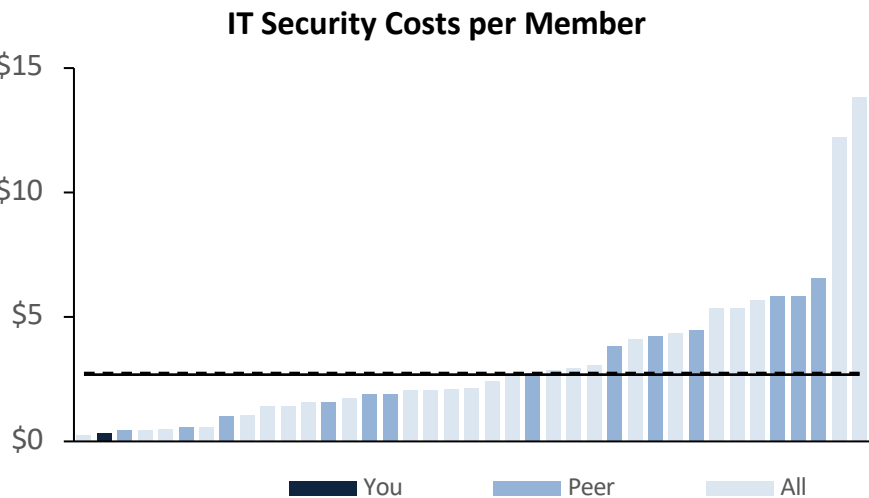
Your IT security cost per member was $0.32 versus a peer average of $2.75.

Your IT Security Cost per Member Trend

	2022	2023
You		0.32
Peer	2.65	2.93
All	2.34	2.75