

BenchmarkAdmin

2023 Benchmarking Analysis for North Carolina Retirement Systems

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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

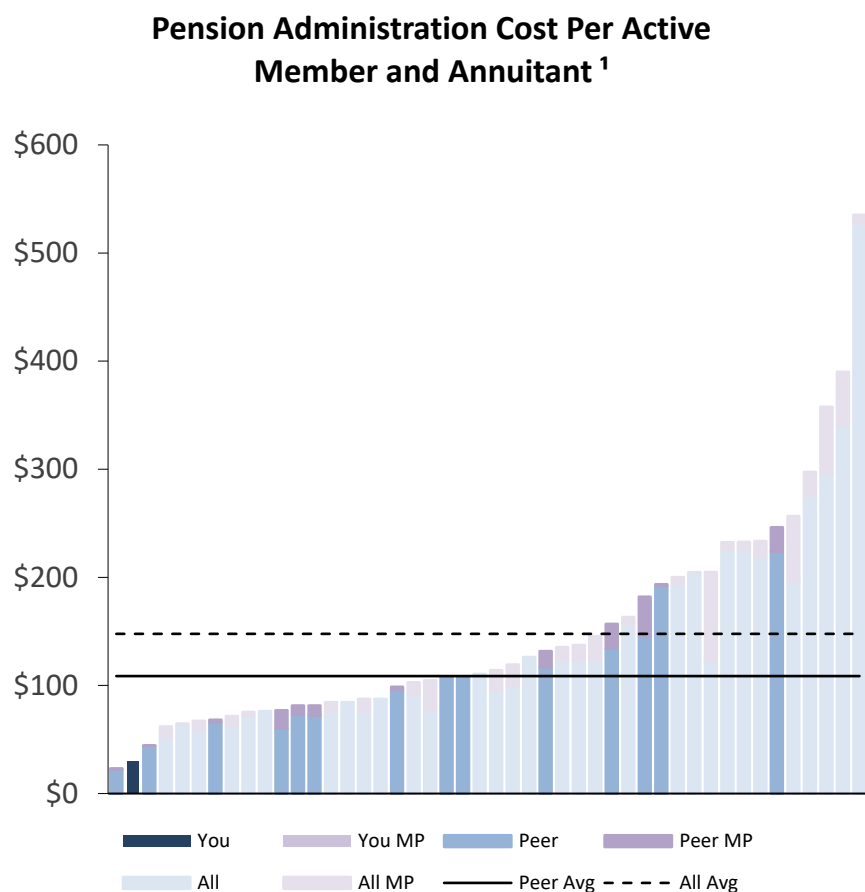
1. Systems in the UK complete a different benchmarking survey. Their data is not included in this report.

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

Custom Peer Group for North Carolina RS				
		Number of members (in 000s)		
#	System	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

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.



1. Major project costs are denoted by the lighter shading on the bars. These one-off costs correspond to administration projects only.

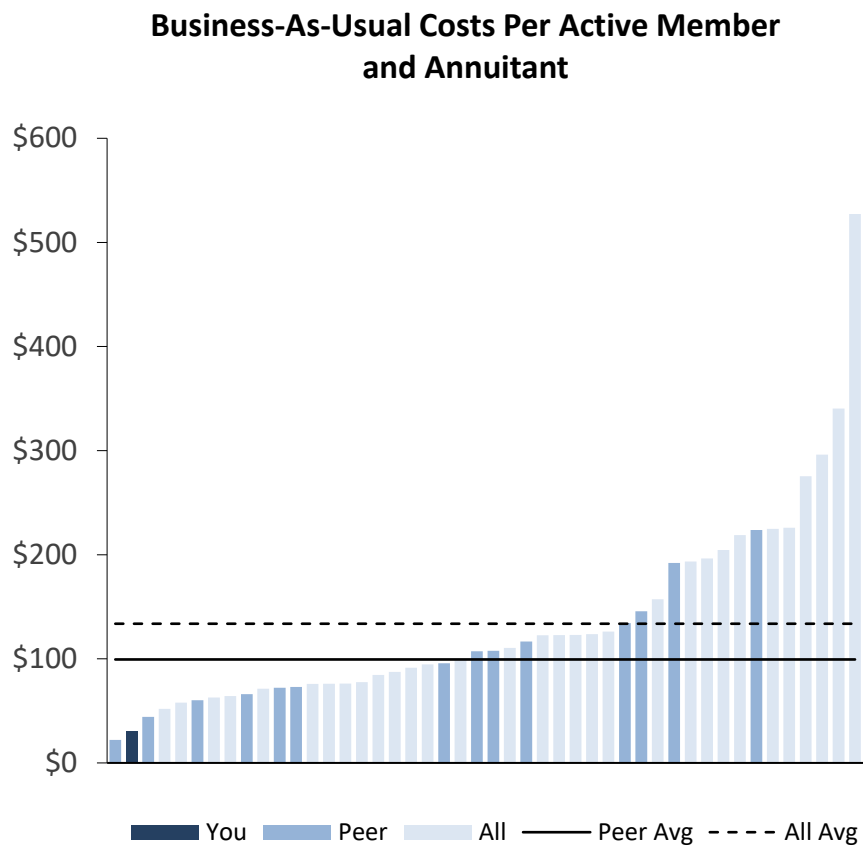
	\$000s	\$ per Active Member and Annuitant	
Category	You	You	Peer Avg
Business-As-Usual Costs	24,811	30	99
Major Project Costs ¹	0	0	9
Total Pension Administration	24,811	30	109

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.

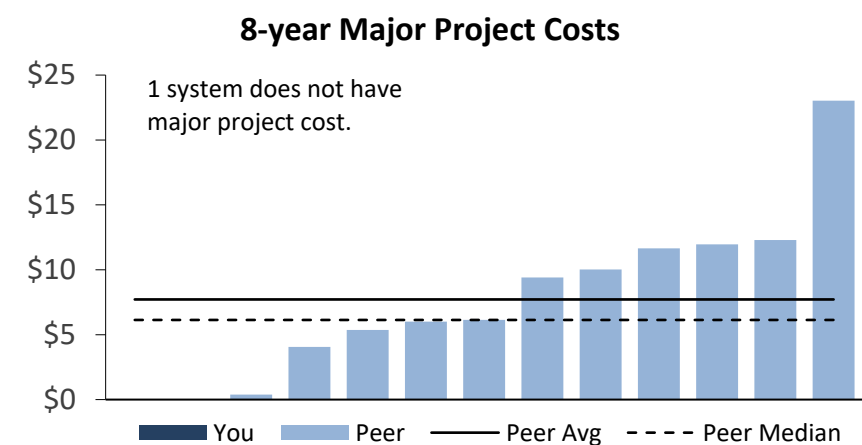
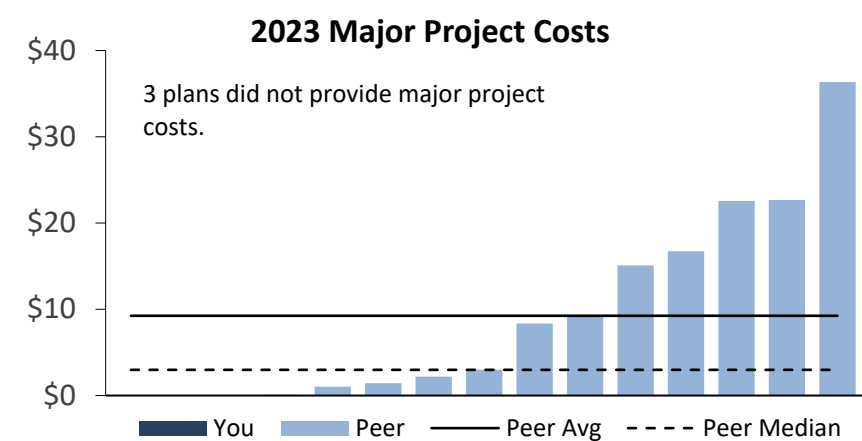
Your total pension administration cost \$24.8 million also excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$0.6 million.

Your Business-As-Usual (BAU) costs of \$30 per active member and annuitant was \$69 below the peer average of \$99.



	\$000s	\$ per Active Member and Annuitant	
Category	You	You	Peer Avg
<u>Front office</u>			
Member Transactions	5,462	7	14
Member Communication	4,972	6	18
Collections & Data Maintenance	1,657	2	8
<u>Governance and support</u>			
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.



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.

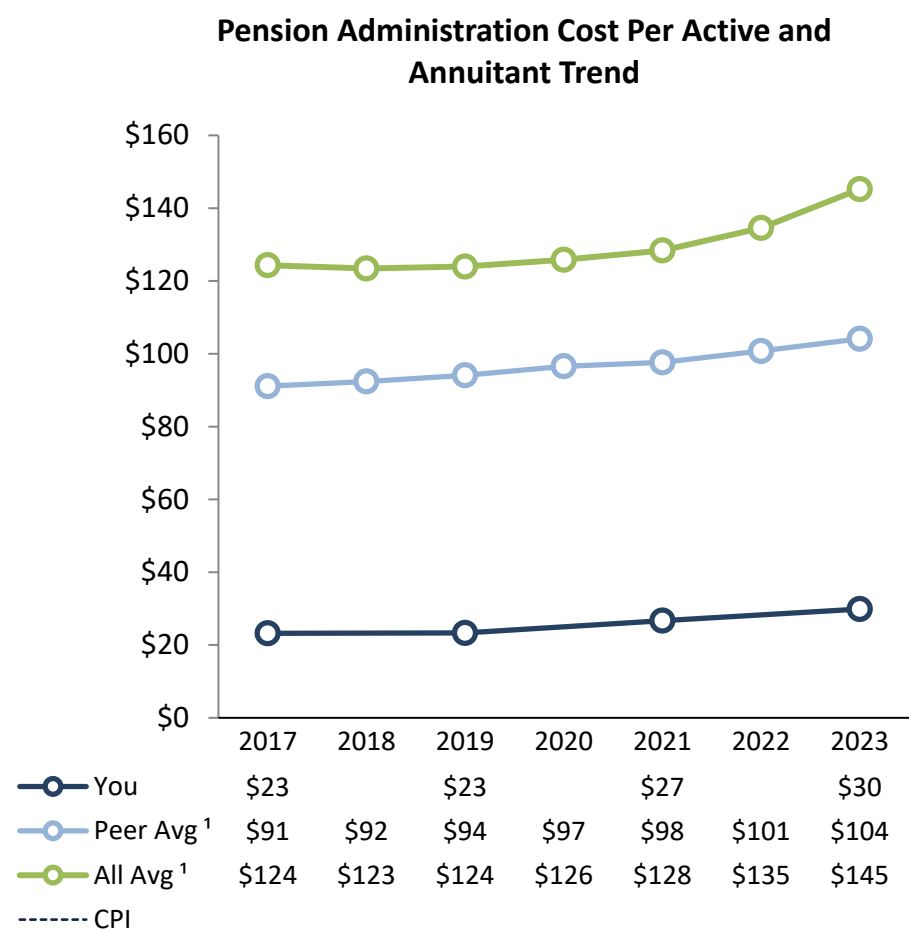
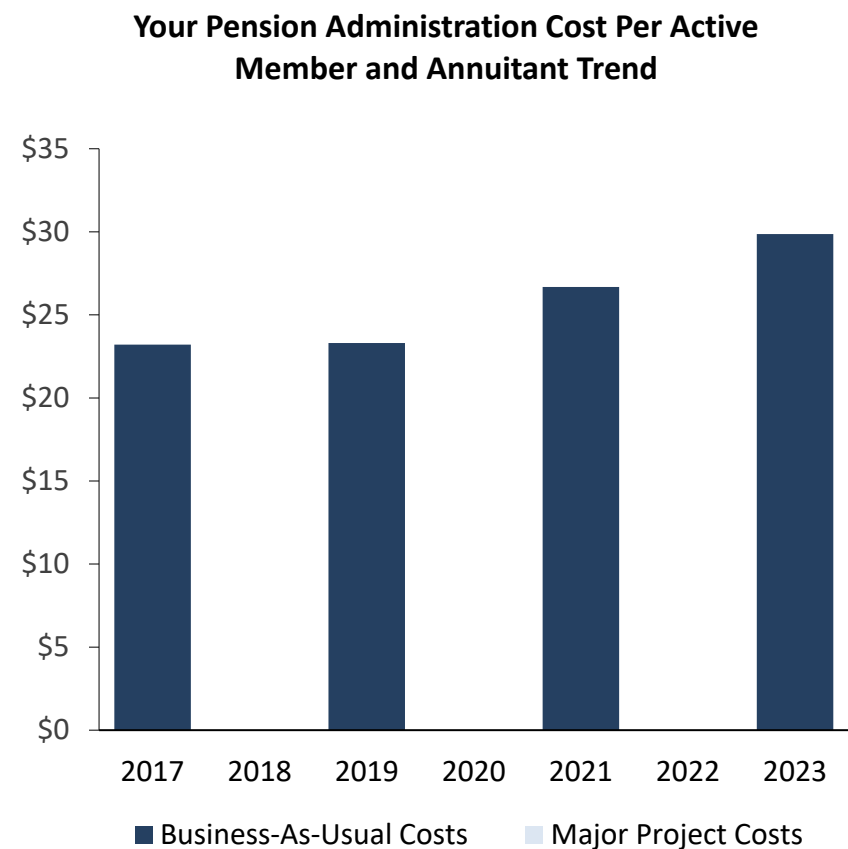
Reasons why your total cost per member was \$79 below the peer average:

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	<u>\$9,203</u>	<u>\$16,690</u>	
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	<u>\$3</u>	<u>\$11</u>	
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%.

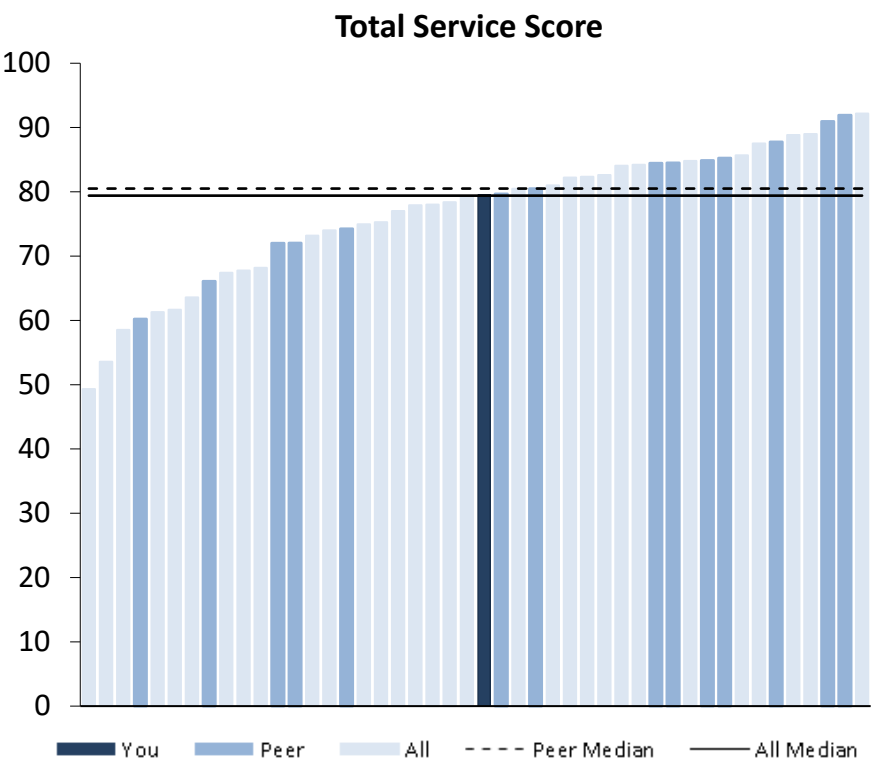
2. To avoid double counting, governance and support costs are adjusted for differences in cost per FTE.

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



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.



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.

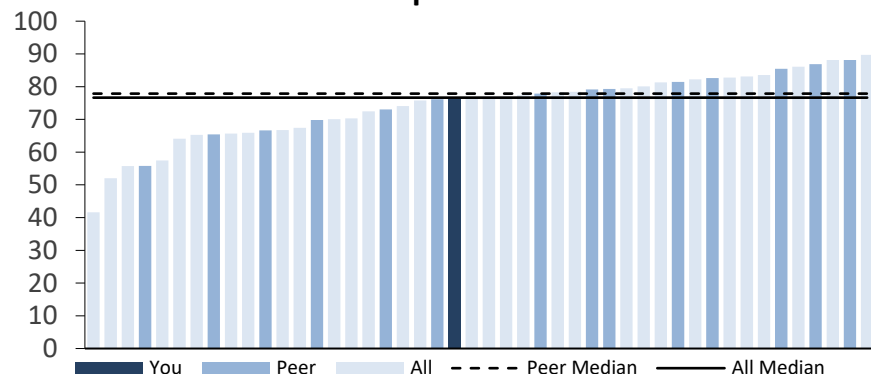
Higher service is not necessarily cost-effective. For example, the ability to answer the telephone 24 hours a day is higher service, but not cost effective.

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

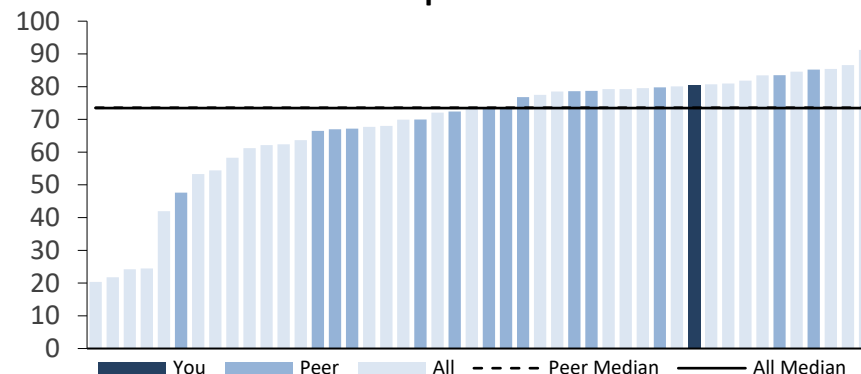
Service score by member journey and activity

Active Member Experience Service Score



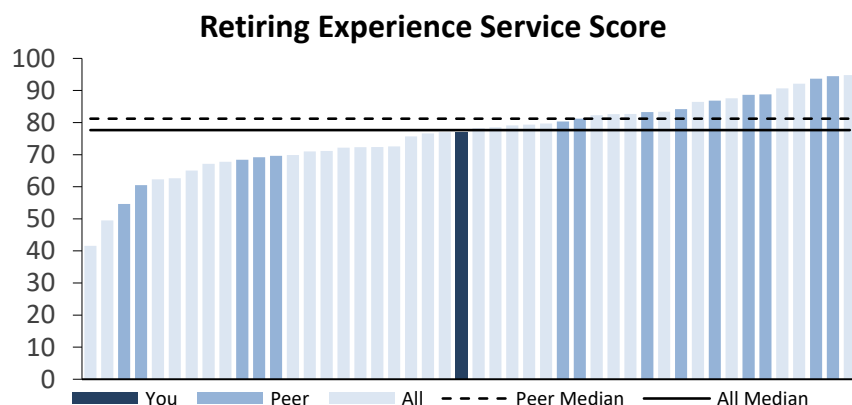
Activity	Weight	Peer	
		You	Median
Targeted campaigns	7.5%	29	49
Purchases and Transfers-in	10.0%	78	62
Member statements	12.5%	65	75
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Personal information	5.0%	80	90
Salary and service credit information	5.0%	100	100
Secure website accessibility	30.0%	100	98
Contact center: 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

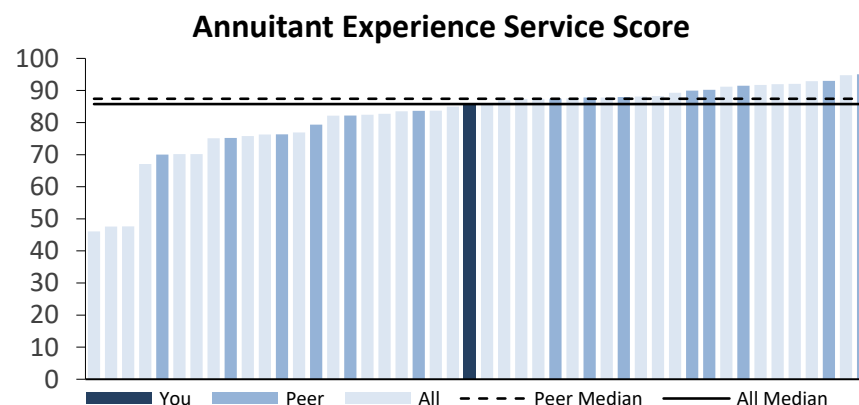


Activity	Weight	Peer	
		You	Median
Targeted campaigns	10.0%	32	30
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Tracking inactive members	10.0%	70	67
Transfers-out	5.0%	100	93
Personal information	7.5%	80	90
Salary and service credit information	5.0%	100	100
Secure website accessibility	40.0%	100	89
Contact center: accessibility	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)



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 inception	10.0%	70	90
Disability inception	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



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

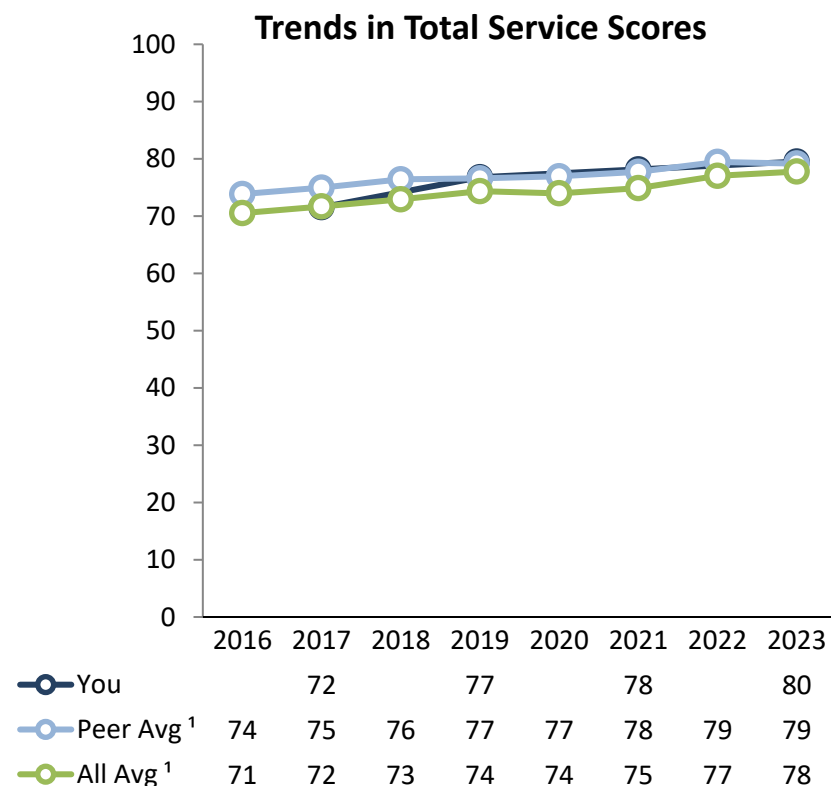
Higher than peers

- 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% Yes)
 - 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 availability 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% Yes).
- 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



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 percentage 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.

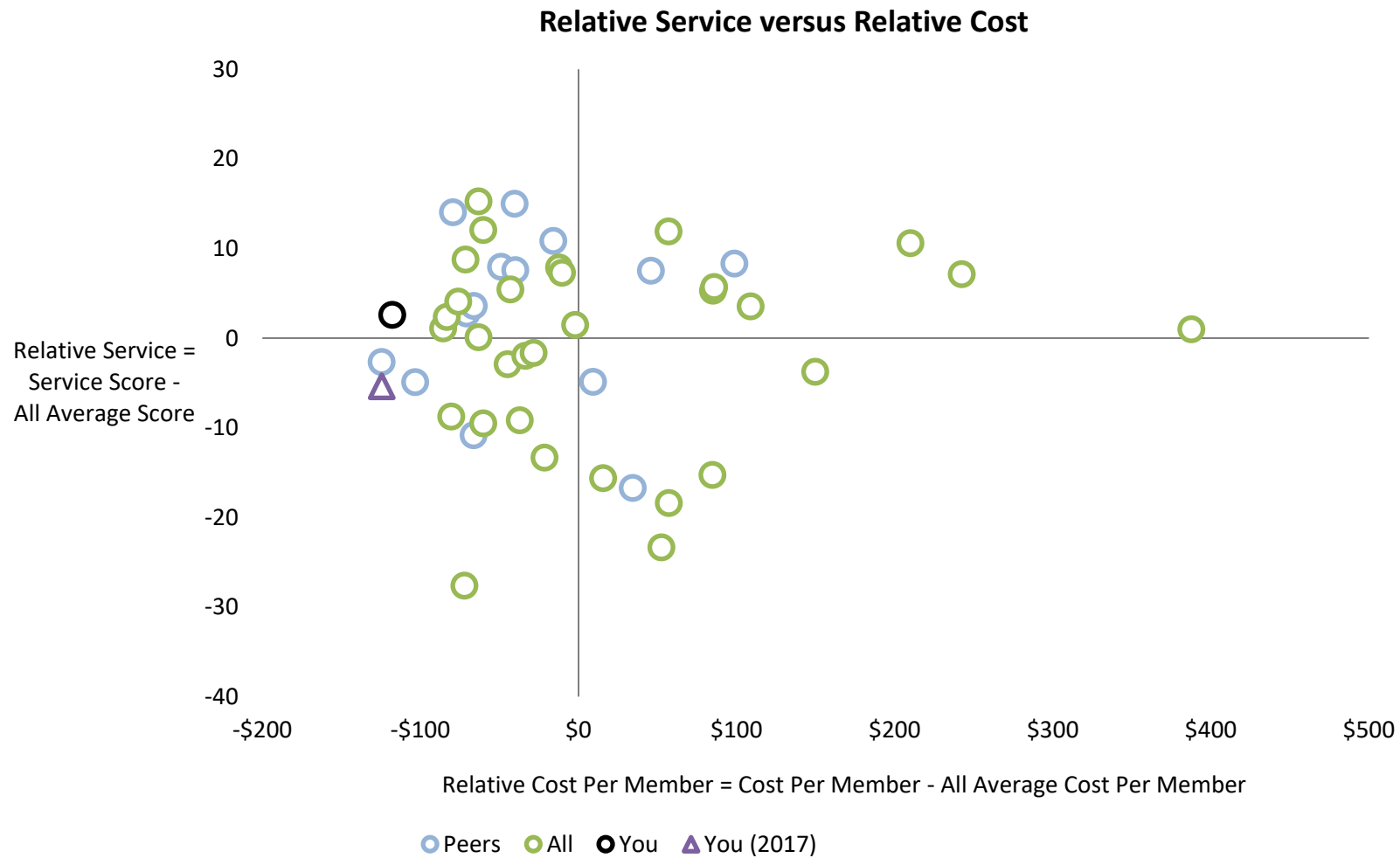
Changes that had a negative impact compared to 2017

- **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 availability, 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.

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.

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



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.

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

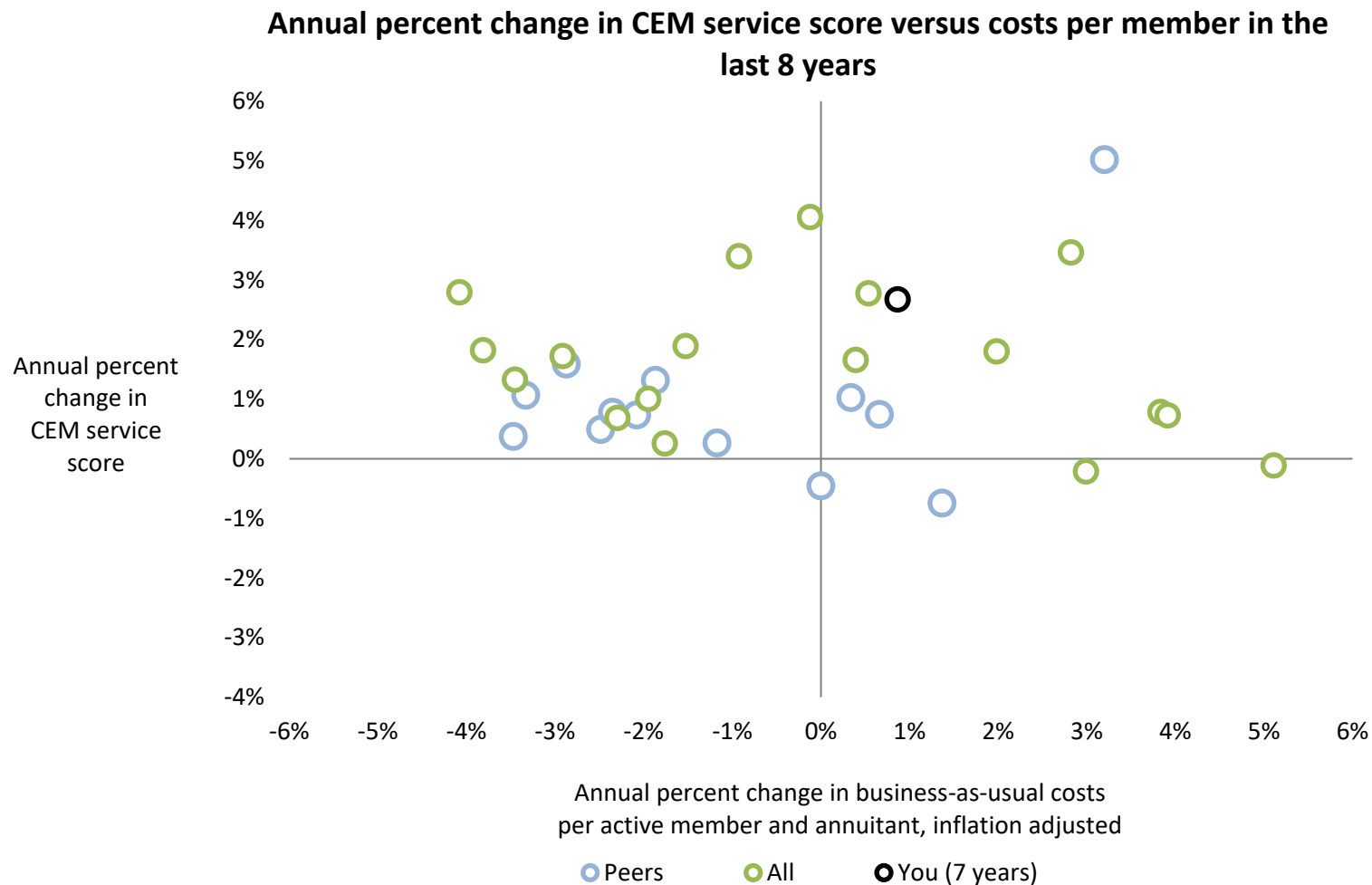
Digitalization

- 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

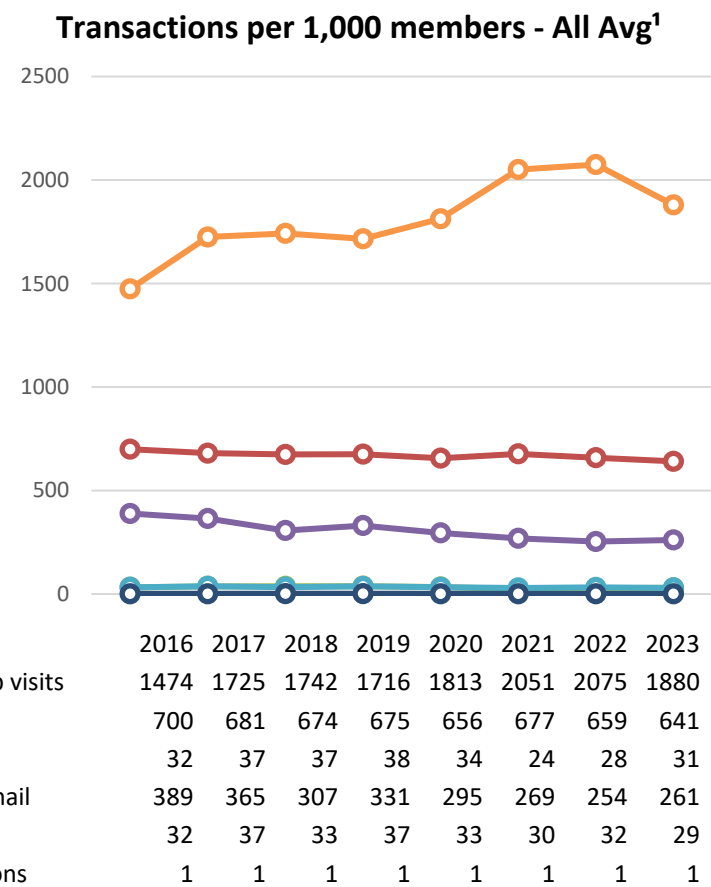
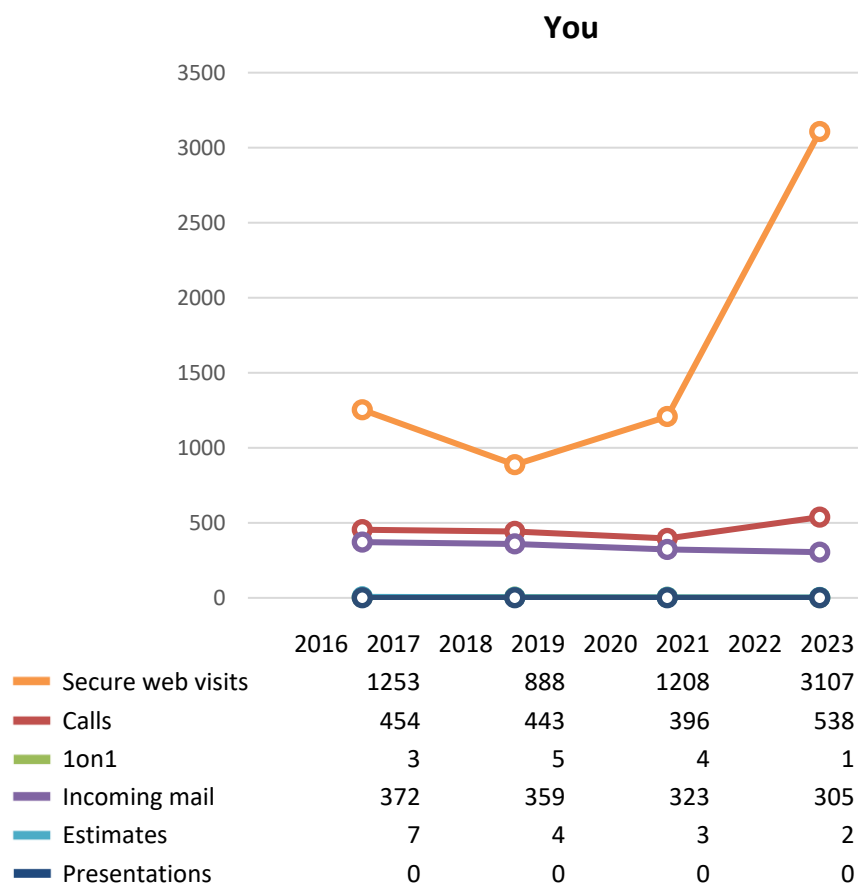
- More transactions are happening on secure websites.
- Organizations continue to adjust to hybrid work models.
- Employee recruitment and retention challenges are disrupting pension operations.
- There has been a substantial decrease in call service levels.

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.



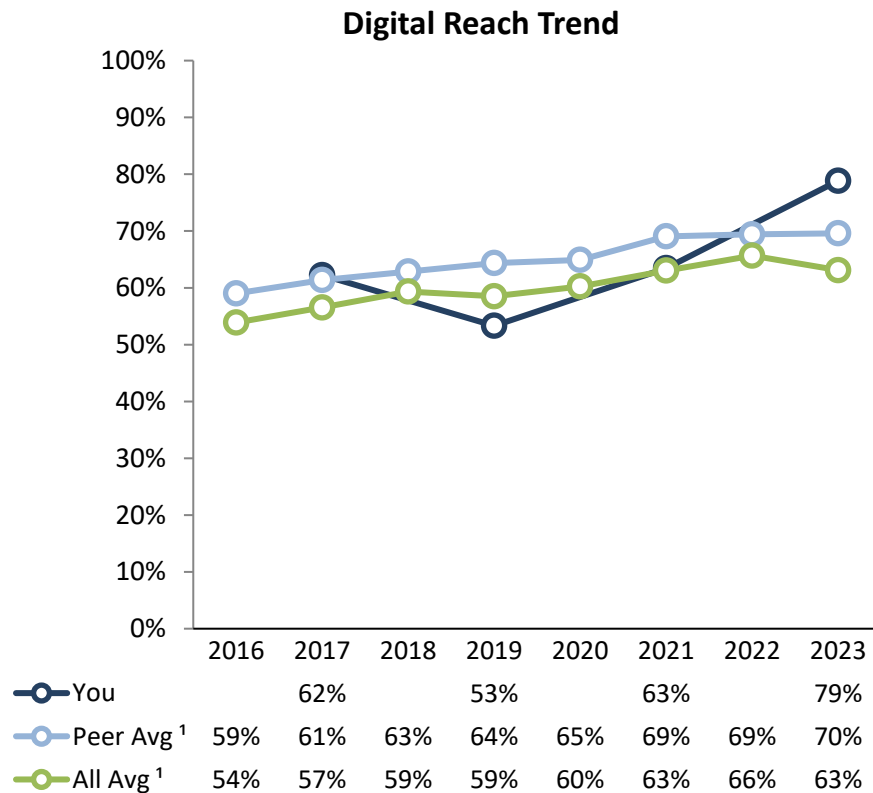
1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).

Greater digitalization is the key driver for higher service scores.



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%.

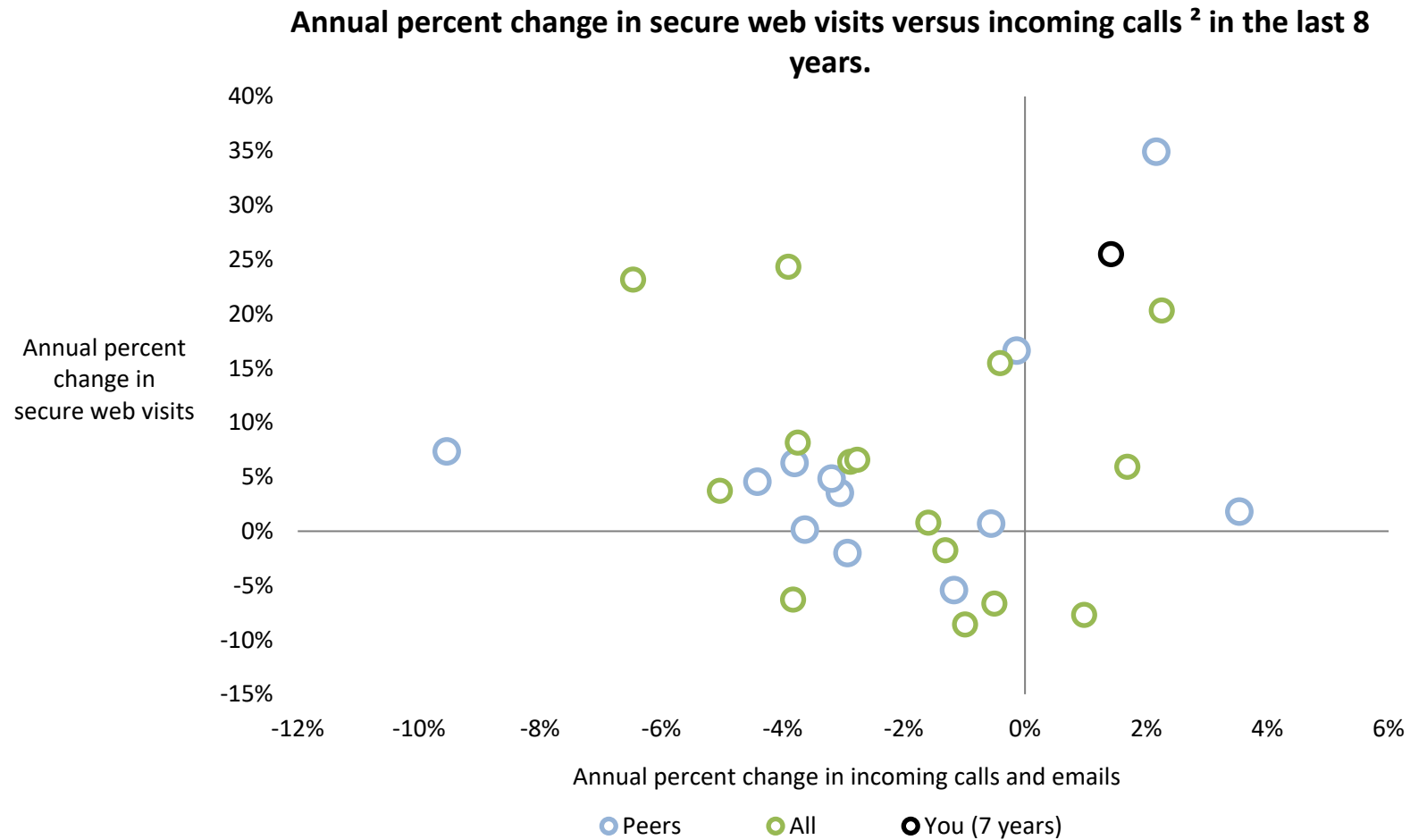


Digital reach measures the proportion of your self-service volumes versus self-service and assisted service transactions, as follows.

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%

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).

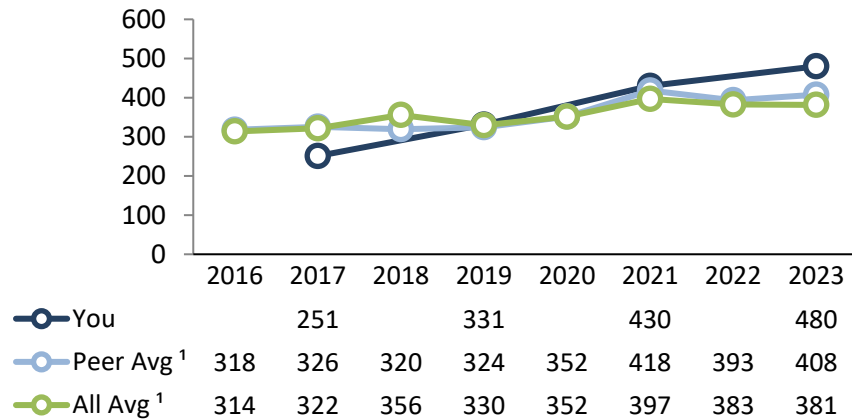
57% of plans with eight consecutive years of data have increased secure web visits while decreasing incoming call and email volumes.



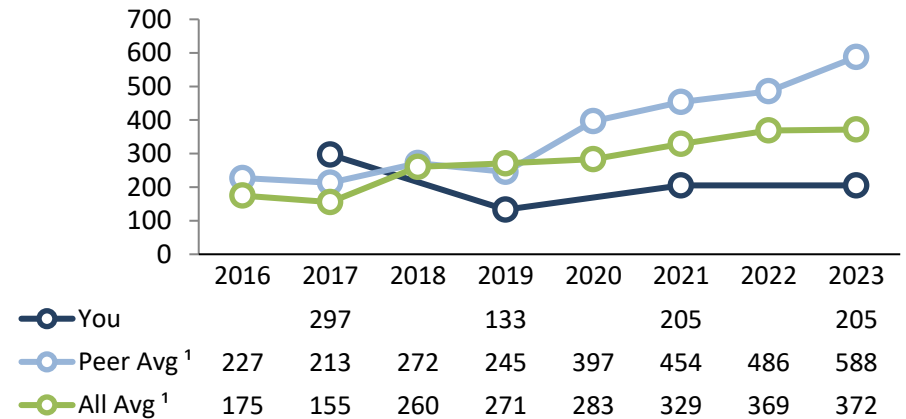
1. Trend analysis is based on systems that have provided 8 consecutive years of data (13 of your 15 peers and 31 of the 46 systems in the universe).
2. Volumes are calculated per 1,000 active members and annuitants.

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

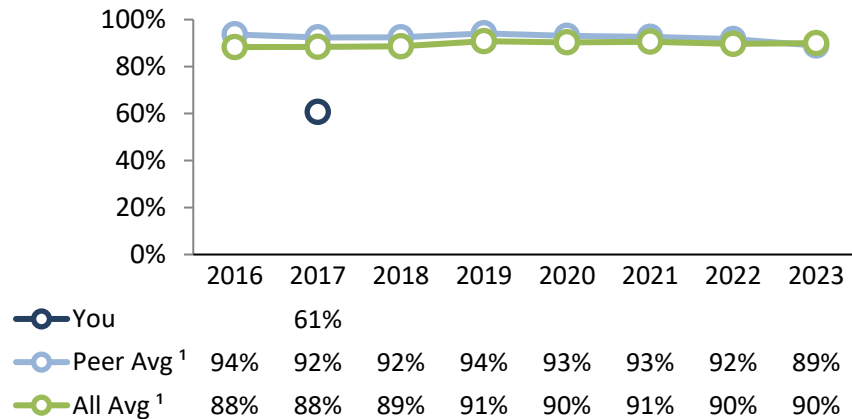
Time on Call, in Seconds



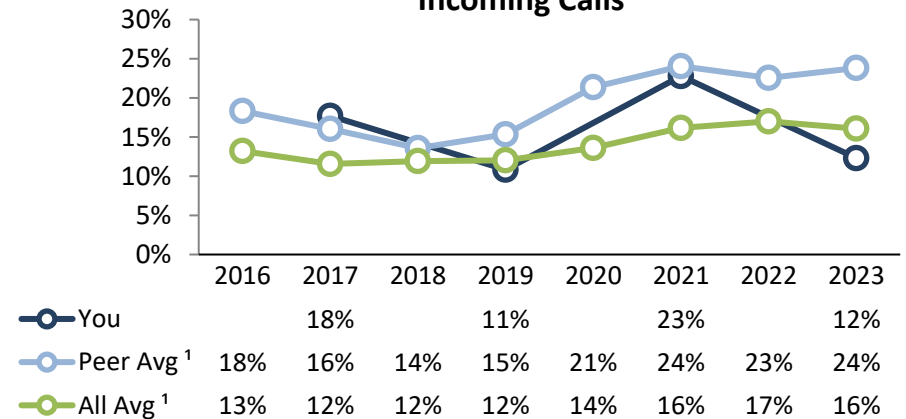
Call Wait Time, in Seconds



Percentage of calls satisfied by the first contact²



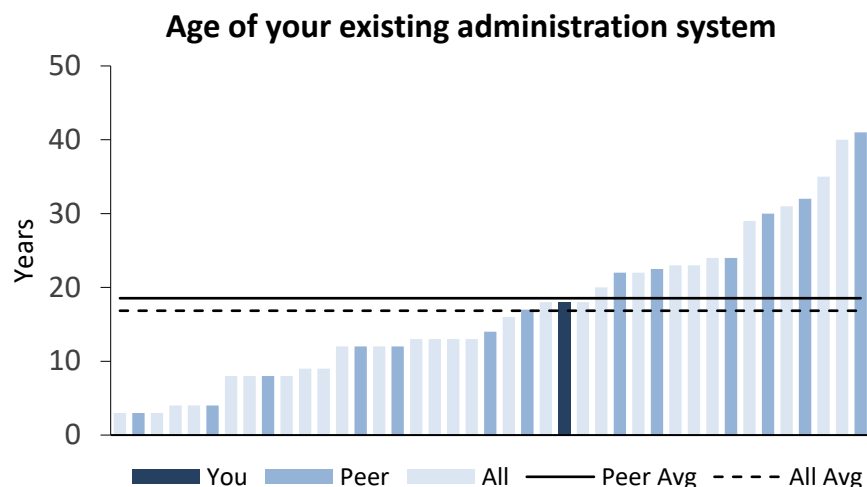
Undesired Call Outcomes as a Percent of Incoming Calls



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.

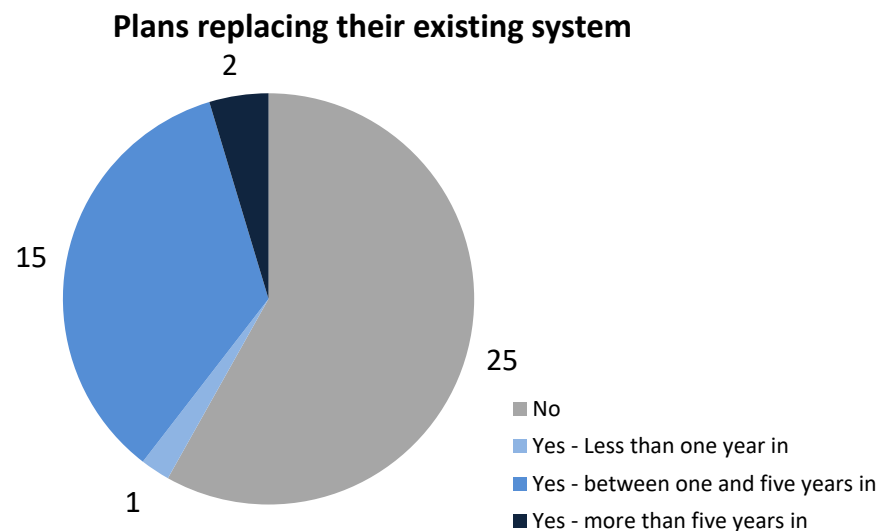


The core pension administration system:

- 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 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

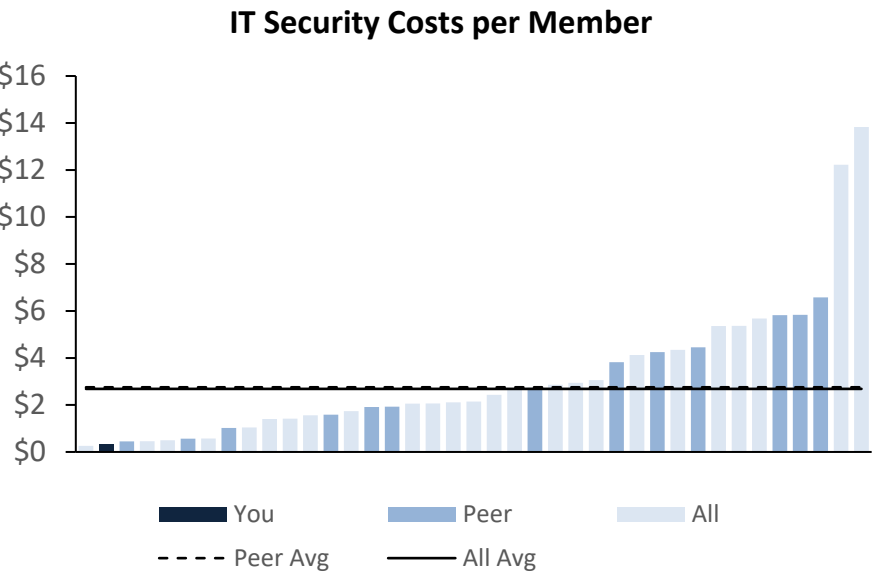
Contact center

- 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.

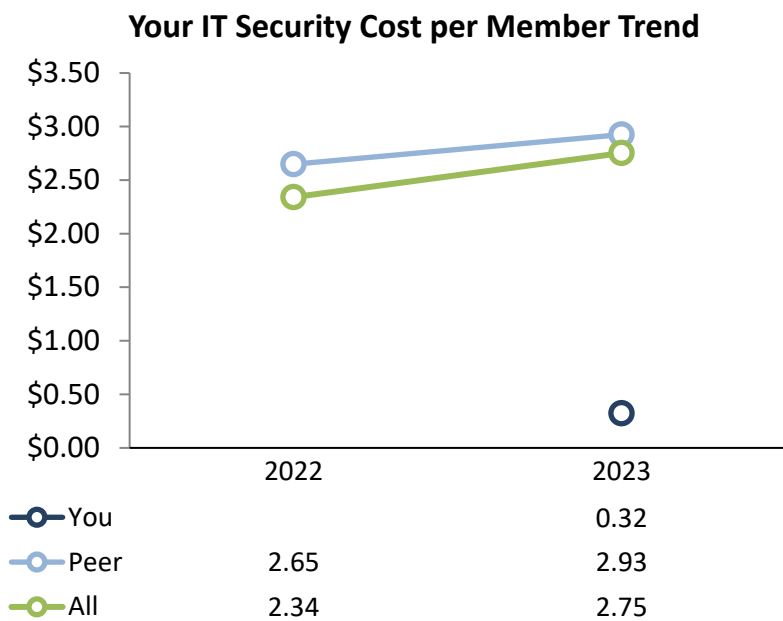
Data quality management

- 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:



Your IT security cost per member was \$0.32 versus a peer average of \$2.75.



2

Peer Characteristics

This section contains:

- Your custom peer group
- A comparison of the characteristics of all participants

Your peer group consists of 15 peers.

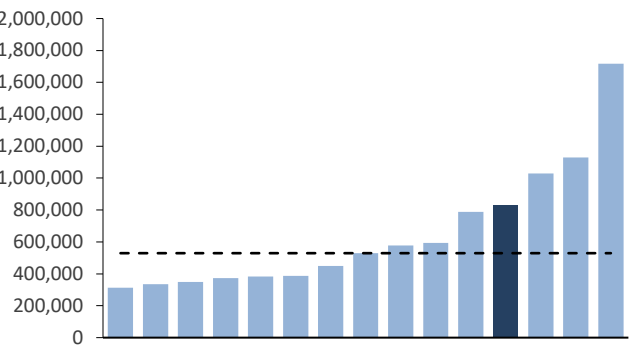
The most relevant comparisons are to systems similar to you in total membership and nationality. Your peer group consists of the following 15 systems:

Custom Peer Group for North Carolina RS			
	Active Members	Annuityants	Total
CalPERS	925,799	791,514	1,717,313
Florida RS	644,977	483,375	1,128,352
NYSLRS	514,150	514,629	1,028,779
North Carolina RS	473,933	356,781	830,714
CalSTRS	458,645	328,954	787,599
Virginia RS	353,851	239,733	593,584
Washington State DRS	352,207	225,572	577,779
Ohio PERS	308,453	220,876	529,329
Michigan ORS	161,161	287,363	448,524
Arizona SRS	215,299	171,137	386,436
Colorado PERA	244,688	137,446	382,134
STRS Ohio	214,852	159,039	373,891
Oregon PERS	183,655	165,337	348,992
Illinois MRF	181,227	152,894	334,121
Iowa PERS	179,903	133,848	313,751
Peer Median	308,453	225,572	529,329
Peer Avg	360,853	291,233	652,087

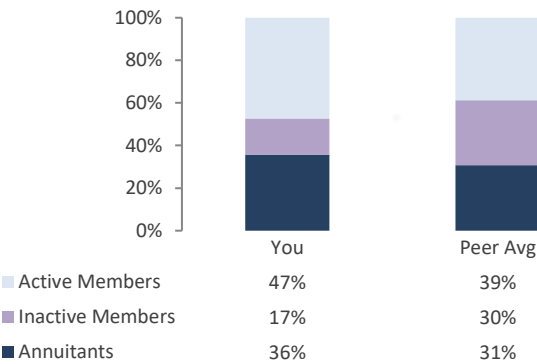
Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded when determining cost per member because they are much less costly to administer than either active members or annuityants.

Graphical summary of peer characteristics

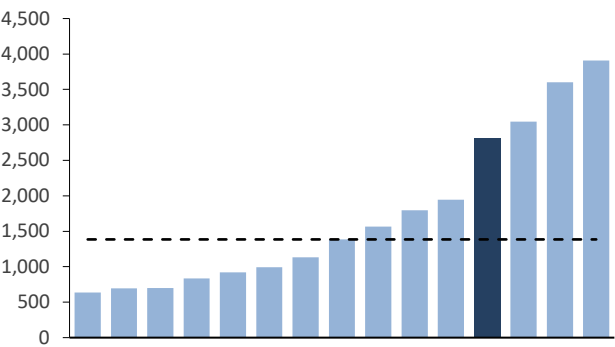
Active Members and Annuitants



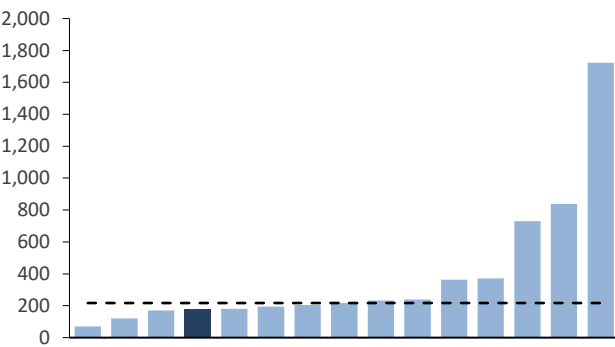
Membership Mix



Number of Employers

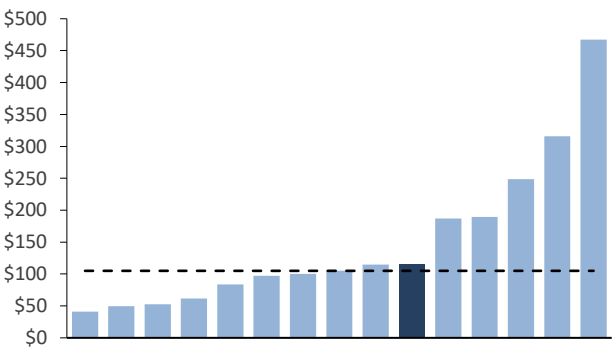


Pension Administration FTE

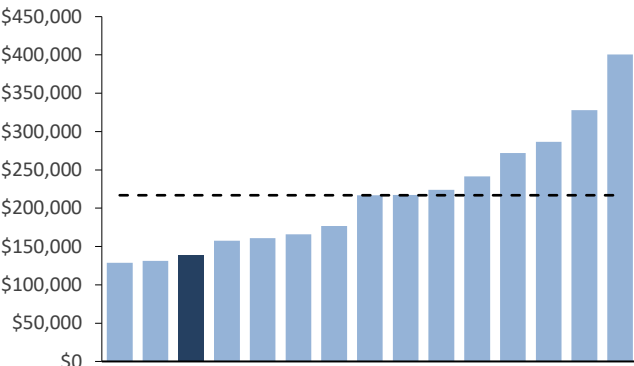


Total Assets

in \$ billions



Total Assets per Active Member and Annuitant



■ You ■ Peer - - - Peer Median

Profiles of the 50 benchmarking participants

(excluding UK systems)

Participant	Members by Type (000s)			Member Groups									Plan Types							
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree Healthcare
Canada																				
Alberta Pension Services	226	133	63		X		X	X	X	X		X	X							
Alberta Teachers	43	32	12			X							X							
BC Pension Corporation	382	233	105		X	X	X	X	X	X	X	X	X		X					X
Canadian Forces PP	89	120	23							X			X							
Federal Public Service PP	397	292	51		X								X							
LAPP of Alberta	167	84	40		X		X	X	X			X	X							
MPP of BC	241	124	57		X		X	X	X	X	X	X	X		X					X
Ontario Pension Board	50	42	8		X			X					X							
Ontario Teachers	184	156	66		X	X	X						X							
OPTrust	55	43	13		X			X			X	X	X							
RCMP	22	23	1		X			X					X							
The Netherlands																				
ABP	1,233	997	783									X	X							
PFZW	1,365	581	1,102									X	X							
Pensioenfonds Metaal en Techniek	430	245	538									X	X							
South Africa																				
EPPF	39	34	2		X										X					
Australia																				
ESS Super	37	49	29			X		X	X	X			X					X	X	

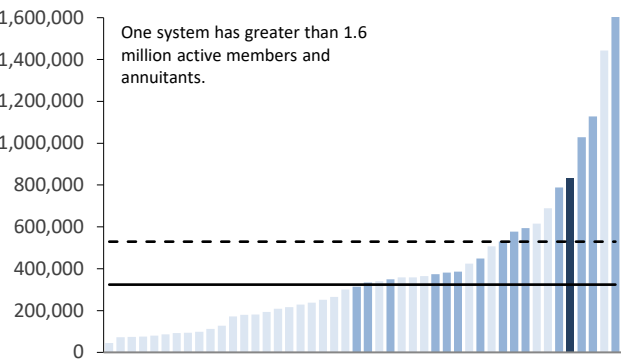
Profiles of the 50 benchmarking participants

continued

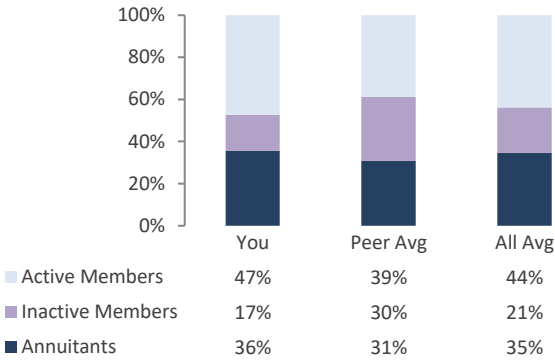
Participant	Members by Type (000s)			Member Groups									Plan Types							
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (Judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree
United States																				
Arizona SRS	215	171	261		X	X	X		X	X			X	X						X
CalPERS	926	792	521		X		X	X	X	X			X							X
CalSTRS	459	329	234		X	X	X						X		X					
Colorado PERA	245	137	328		X	X	X	X	X	X			X					X	X	X
Delaware PERS	46	34	24		X	X	X	X	X	X			X							
Florida RS	645	483	121		X	X	X	X	X	X			X				X	X		
Idaho PERS	74	53	50		X	X	X	X	X	X			X						X	
Illinois MRF	181	153	157				X	X	X				X							
Indiana PRS	250	174	2		X	X	X	X	X	X			X				X	X	X	
Iowa PERS	180	134	90		X	X	X	X	X	X			X							
Kansas PERS	152	113	76		X	X	X	X	X	X			X	X			X			
LACERA	97	75	20					X	X	X			X							X
Michigan ORS	161	287	582		X	X	X	X		X			X					X	X	X
Minnesota State RS	58	54	33		X			X		X			X					X		
Nevada PERS	112	82	20		X	X	X	X		X			X							
New Mexico PERA	48	46	29	X	X			X	X	X			X							
North Carolina RS	474	357	170		X	X	X	X	X	X			X							
NYC TRS	126	91	32	X		X	X						X						X	
NYCERS	182	176	73	X			X	X		X			X							
NYSLRS	514	515	181		X		X	X	X	X			X							
Ohio PERS	308	221	757		X			X		X			X	X				X	X	X
Oregon PERS	184	165	78		X	X	X	X	X	X						X			X	X
Pennsylvania PSERS	258	249	175		X	X	X						X							X
PSRS PEERS of Missouri	130	107	70			X	X					X	X							
South Dakota RS	43	33	25		X	X	X	X	X	X			X							
STRS Ohio	215	159	166			X							X					X	X	X
TRS Illinois	170	131	147		X	X							X							
TRS of Louisiana	95	85	35			X	X						X				X	X		
TRS of Texas	953	490	559		X	X	X						X							X
University of California Retirement Plan	141	87	121			X	X	X		X		X	X					X		X
Utah RS	101	80	62		X	X	X	X	X	X			X					X	X	
Virginia RS	354	240	208		X	X	X	X	X	X			X						X	
Washington State DRS	352	226	335		X	X	X	X	X	X			X						X	

Graphical summary of all participant characteristics

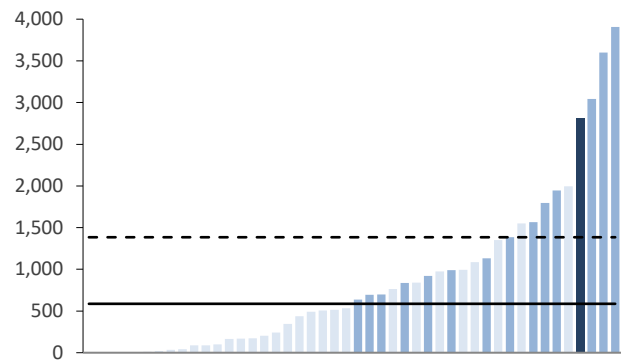
Active Members and Annuitants



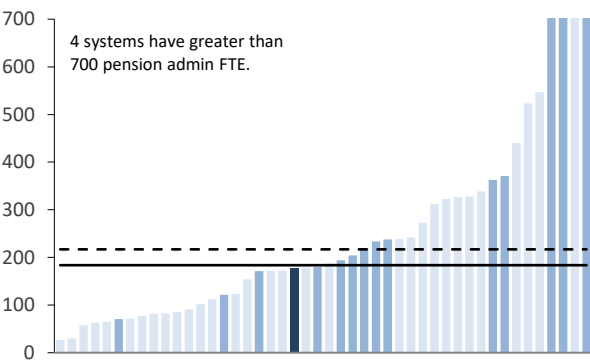
Membership Mix



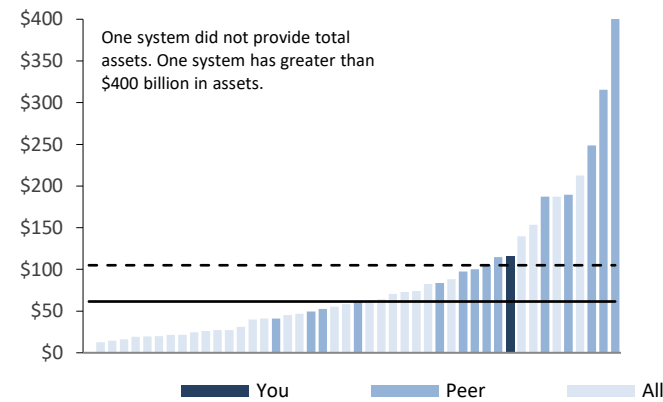
Number of Employers



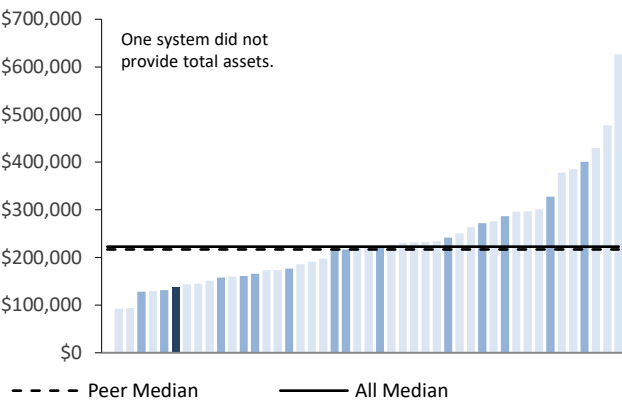
Pension Administration FTE



Total Assets
in \$ billions



Total Assets per Active Member and Annuitant



3

Total Cost

This section:

- Compares your total cost per member.
- Quantifies the impact of FTE per member, costs per FTE, third party costs and back-office costs.
- Compares your costs per member type.

Your total pension administration cost was \$24.8 million or \$30 per active member and annuitant.

Activity ¹	Cost \$000s	\$s per Active Member and Annuitant			% of Total Pension Administration Cost		
	You	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions							
a. Pension Payments	669	0.80	3.32	4.80	2.7%	3.1%	3.3%
b. Pension Inceptions and Written Pension Estimates	1,897	2.28	4.59	7.63	7.6%	4.2%	5.2%
c. Refunds, Withdrawals, and Transfers-out	1,680	2.02	1.94	4.10	6.8%	1.8%	2.8%
d. Purchases and Transfers-in	248	0.30	1.46	3.71	1.0%	1.3%	2.5%
e. Disability	<u>968</u>	<u>1.17</u>	<u>2.33</u>	<u>3.28</u>	<u>3.9%</u>	<u>2.1%</u>	<u>2.2%</u>
	5,462	6.57	13.65	23.53	22.0%	12.6%	15.9%
2. Member Communication							
a. Contact Center	3,541	4.26	8.39	8.11	14.3%	7.7%	5.5%
b. Mail Room, Imaging	513	0.62	2.20	3.11	2.1%	2.0%	2.1%
c. 1-on-1 Counseling	290	0.35	2.25	3.21	1.2%	2.1%	2.2%
d. Member Presentations	322	0.39	1.49	1.57	1.3%	1.4%	1.1%
e. Mass Communication	<u>306</u>	<u>0.37</u>	<u>3.59</u>	<u>4.32</u>	<u>1.2%</u>	<u>3.3%</u>	<u>2.9%</u>
	4,972	5.98	17.92	20.33	20.0%	16.5%	13.8%
3. Collections and Data Maintenance							
a. Data and Money from Employers	996	1.20	4.23	5.16	4.0%	3.9%	3.5%
b. Service to Employers	412	0.50	2.77	1.99	1.7%	2.5%	1.3%
c. Data Not from Employers	<u>249</u>	<u>0.30</u>	<u>1.14</u>	<u>1.75</u>	<u>1.0%</u>	<u>1.0%</u>	<u>1.2%</u>
	1,657	1.99	8.14	8.90	6.7%	7.5%	6.0%
4. Governance and Financial Control							
a. Financial Administration and Control	2,194	2.64	3.83	6.04	8.8%	3.5%	4.1%
b. Board, Strategy, Policy	231	0.28	2.45	6.06	0.9%	2.3%	4.1%
c. Government and Public Relations	<u>262</u>	<u>0.31</u>	<u>0.91</u>	<u>1.66</u>	<u>1.1%</u>	<u>0.8%</u>	<u>1.1%</u>
	2,687	3.23	7.20	13.77	10.8%	6.6%	9.3%
5. Major Projects							
a. Amortization of non-IT Major Projects	0	0.00	0.00	0.26	0.0%	0.0%	0.2%
b. Non-IT Major Projects (if you don't capitalize)	0	0.00	3.34	2.42	0.0%	3.1%	1.6%
c. Amortization of IT Major Projects	0	0.00	1.43	2.49	0.0%	1.3%	1.7%
d. IT Major Projects (if you don't capitalize)	<u>0</u>	<u>0.00</u>	<u>4.48</u>	<u>8.86</u>	<u>0.0%</u>	<u>4.1%</u>	<u>6.0%</u>
	0	0.00	9.25	14.01	0.0%	8.5%	9.5%
6. Information Technology							
a. IT Strategy, Database, Applications (excl. major projects and IT security)	5,345	6.43	19.98	22.18	21.5%	18.4%	15.0%
b. IT Desktop, Networks, Telecom (excl. IT security)	1,627	1.96	8.49	10.10	6.6%	7.8%	6.8%
c. IT Security	<u>269</u>	<u>0.32</u>	<u>2.75</u>	<u>2.68</u>	<u>1.1%</u>	<u>2.5%</u>	<u>1.8%</u>
	7,241	8.72	31.22	34.97	29.2%	28.7%	23.7%
7. Support Services and Other							
a. Building and Utilities	305	0.37	5.56	9.10	1.2%	5.1%	6.2%
b. Human Resources	258	0.31	2.57	4.90	1.0%	2.4%	3.3%
c. Actuarial	448	0.54	1.81	2.60	1.8%	1.7%	1.8%
d. Legal and Rule Interpretation	955	1.15	3.72	6.09	3.9%	3.4%	4.1%
e. Internal and External Audit	483	0.58	1.99	3.45	1.9%	1.8%	2.3%
f. Pay-as-you-go Benefits for Retired Staff	0	0.00	0.89	0.94	0.0%	0.8%	0.6%
g. Other Support Services	<u>344</u>	<u>0.41</u>	<u>4.74</u>	<u>5.14</u>	<u>1.4%</u>	<u>4.4%</u>	<u>3.5%</u>
	2,793	3.36	21.27	32.22	11.3%	19.6%	21.8%
Total Pension Administration ²	24,811	29.87	108.65	147.73	100%	100%	100%

1. Refer to the appendix C for detailed activity definitions.

2. The fully-attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from pension administration costs to ensure comparability. Refer to the last page of this section to see how the above costs reconcile to the administration costs provided on your survey.

Quartile comparisons of the components of total cost

The table below shows activity costs on a 'per member' basis (e.g. call center cost per member). In section 4, the same costs are compared on a 'per unit of activity volume' basis (e.g. call center cost per call).

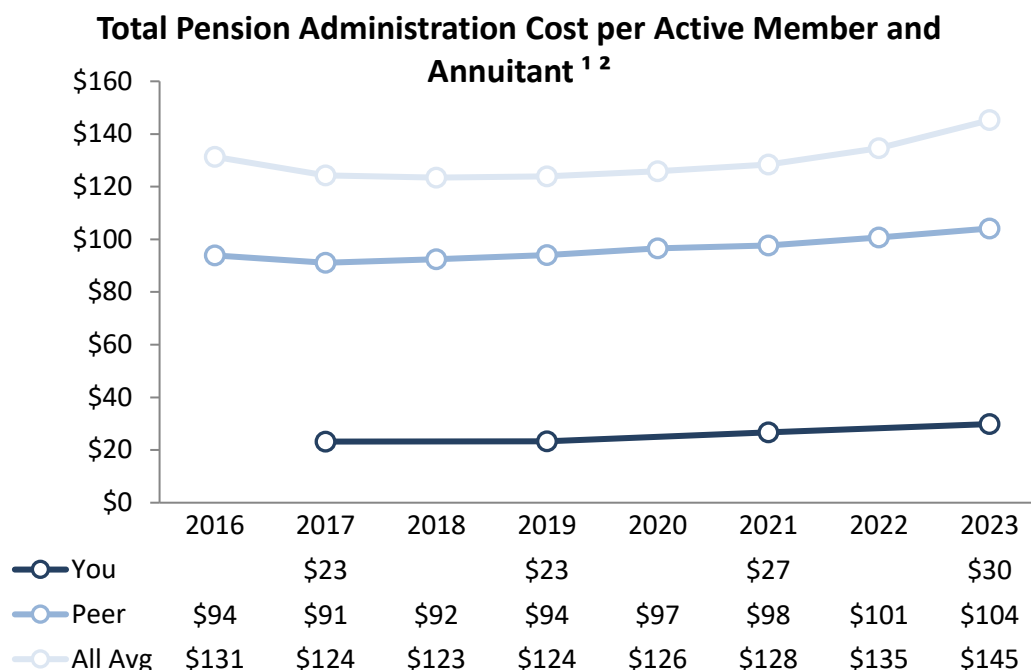
Activity ¹	\$ Cost per Active Member and Annuitant								All Participants					
	You	Avg	Max	Peer					Avg	Max	Q3	Med	Q1	Min
1. Member Transactions														
a. Pension Payments	0.80	3.32	10.06	3.66	2.11	1.77	0.80		4.80	17.29	5.92	3.66	1.74	0.47
b. Pension Inceptions and Written Pension Estimates	2.28	4.59	10.14	6.71	3.25	2.30	1.40		7.63	32.15	10.35	5.91	3.71	1.40
c. Refunds, Withdrawals, and Transfers-out	2.02	1.94	5.51	2.50	1.78	0.71	0.30		4.10	17.29	5.55	2.45	1.33	0.30
d. Purchases and Transfers-in	0.30	1.46	5.32	1.75	1.10	0.47	0.21		3.71	18.10	4.15	1.40	0.72	0.21
e. Disability	<u>1.17</u>	<u>2.33</u>	6.68	3.66	1.85	0.80	0.22		<u>3.28</u>	71.59	2.18	0.83	0.22	0.00
	6.57	13.65	31.98	17.77	9.32	6.64	4.90		23.53	133.66	31.20	17.68	8.65	4.90
2. Member Communication														
a. Contact Center	4.26	8.39	20.44	11.11	7.57	4.84	1.72		8.11	32.18	10.40	6.07	4.56	0.00
b. Mail Room, Imaging	0.62	2.20	4.98	3.90	1.23	0.89	0.61		3.11	35.21	3.86	1.39	0.79	0.00
c. 1-on-1 Counseling	0.35	2.25	8.62	2.37	1.57	0.42	0.00		3.21	11.06	5.58	2.05	0.66	0.00
d. Member Presentations	0.39	1.49	7.76	1.13	0.64	0.34	0.00		1.57	10.71	1.53	0.76	0.52	0.00
e. Mass Communication	<u>0.37</u>	<u>3.59</u>	6.51	4.84	3.78	2.24	0.37		<u>4.32</u>	16.83	5.86	3.69	2.18	0.37
	5.98	17.92	46.23	23.33	17.97	9.04	5.98		20.33	94.39	24.92	18.16	11.85	5.98
3. Collections and Data Maintenance														
a. Data and Money from Employers	1.20	4.23	18.20	4.26	2.21	1.31	0.59		5.16	43.33	6.39	2.74	1.68	0.00
b. Service to Employers	0.50	2.77	7.65	3.74	1.56	1.16	0.48		1.99	7.65	2.84	1.42	0.80	0.00
c. Data Not from Employers	<u>0.30</u>	<u>1.14</u>	2.54	1.58	0.89	0.54	0.17		<u>1.75</u>	9.06	2.28	1.13	0.55	0.00
	1.99	8.14	22.78	10.59	5.54	3.89	1.24		8.90	43.33	11.32	5.89	3.71	0.00
4. Governance and Financial Control														
a. Financial Administration and Control	2.64	3.83	10.15	4.47	3.14	2.09	0.64		6.04	33.64	7.72	4.20	2.94	0.33
b. Board, Strategy, Policy	0.28	2.45	6.72	3.70	1.87	1.08	0.14		6.06	41.28	8.15	4.28	1.82	0.14
c. Government and Public Relations	<u>0.31</u>	<u>0.91</u>	3.20	1.44	0.58	0.17	0.09		<u>1.66</u>	10.33	2.17	1.06	0.32	0.00
	3.23	7.20	18.19	8.79	6.19	4.08	1.32		13.77	85.25	16.64	10.12	5.43	1.32
5. Major Projects														
a. Amortization of non-IT Major Projects	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.26	4.63	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	0.00	3.58	32.18	1.36	0.00	0.00	0.00		2.47	32.18	1.71	0.00	0.00	0.00
c. Amortization of IT Major Projects	0.00	1.53	13.26	1.00	0.00	0.00	0.00		2.54	14.53	4.38	0.00	0.00	0.00
d. IT Major Projects (if you don't capitalize)	<u>0.00</u>	<u>4.80</u>	22.68	8.61	1.25	0.03	0.00		<u>9.05</u>	82.27	6.95	1.49	0.00	0.00
	0.00	9.25	36.34	15.91	2.98	0.55	0.00		14.01	82.27	18.77	8.65	1.12	0.00
6. Information Technology														
a. IT Strategy, Database, Applications (excl. major projects and IT security)	6.43	19.98	44.74	29.41	17.95	8.55	2.93		22.18	79.17	29.35	20.73	9.25	2.93
b. IT Desktop, Networks, Telecom (excl. IT security)	1.96	8.49	14.55	11.98	9.53	4.76	1.28		10.10	39.54	12.06	8.52	4.87	0.99
c. IT Security	<u>0.32</u>	<u>2.75</u>	6.58	4.35	1.93	0.79	0.00		<u>2.68</u>	13.83	4.05	1.99	0.52	0.00
	8.72	31.22	53.88	43.18	27.96	21.34	4.77		34.97	117.27	39.94	30.20	19.55	4.77
7. Support Services and Other														
a. Building and Utilities	0.37	5.56	19.09	6.78	4.06	2.76	0.37		9.10	55.51	9.36	6.43	3.22	0.37
b. Human Resources	0.31	2.57	8.84	3.15	2.45	0.61	0.22		4.90	34.36	6.29	2.92	1.43	0.14
c. Actuarial	0.54	1.81	6.53	2.20	1.50	0.74	0.45		2.60	16.90	2.94	1.76	1.04	0.00
d. Legal and Rule Interpretation	1.15	3.72	8.79	6.18	2.78	1.34	0.77		6.09	43.81	6.02	3.63	2.49	0.76
e. Internal and External Audit	0.58	1.99	3.86	3.37	1.54	1.02	0.31		3.45	27.90	3.81	2.35	1.24	0.04
f. Pay-as-you-go Benefits for Retired Staff	0.00	0.89	11.60	0.11	0.00	0.00	0.00		0.94	12.90	0.02	0.00	0.00	0.00
g. Other Support Services	<u>0.41</u>	<u>4.74</u>	17.82	5.69	2.69	0.64	0.00		<u>5.14</u>	28.34	6.68	3.62	1.00	0.00
	3.36	21.27	55.41	25.52	17.25	9.89	3.27		32.22	175.56	36.81	22.68	14.43	3.27
Total Pension Administration²	29.87	108.65	246.33	144.36	98.70	72.61	23.19		147.73	535.38	198.50	112.29	81.36	23.19

1. Refer to the appendix C for detailed activity definitions.

2. Only averages will add to totals. The Max/ Q3/ Med/ Q1/ Min activity costs will not add to their respective totals and subtotals because, for example, the system with the median cost (i.e., the middle value) will not be the same for all activities and totals.

Cost trends

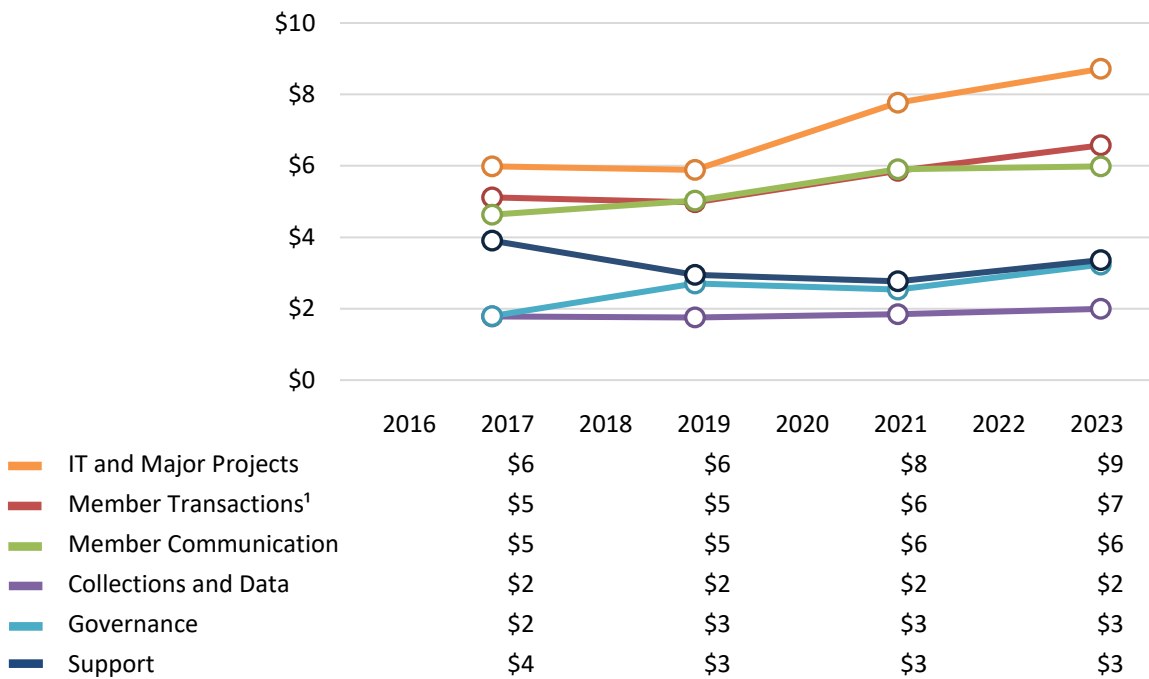
The total pension administration costs of your peers that have participated for 8 consecutive years have grown at a compound annual rate of 1.5% between 2017 and 2023. Your growth rate for the same period is unavailable.



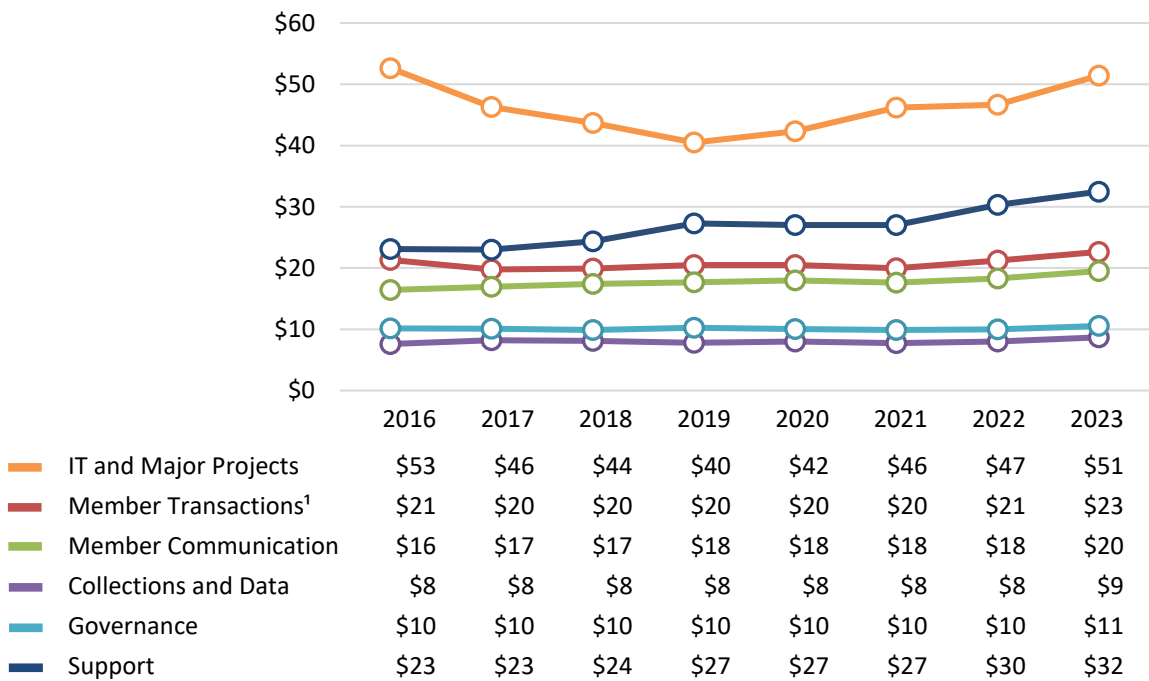
1. Trend analysis is based on systems that have participated for 8-consecutive years (13 peers and 31 World systems). This ensures that trends are not caused by changes in the composition of the participants.
2. All foreign currency amounts have been converted to USDs using Purchasing Power Parity figures as per the OECD (see Appendix B). The same exchange rate was used for both the current and prior years. The benefit of using the same exchange rate for prior years is that changes in costs reflect fluctuations in your peers' costs and not fluctuations in foreign exchange.

Cost category trends

Cost per Member - You



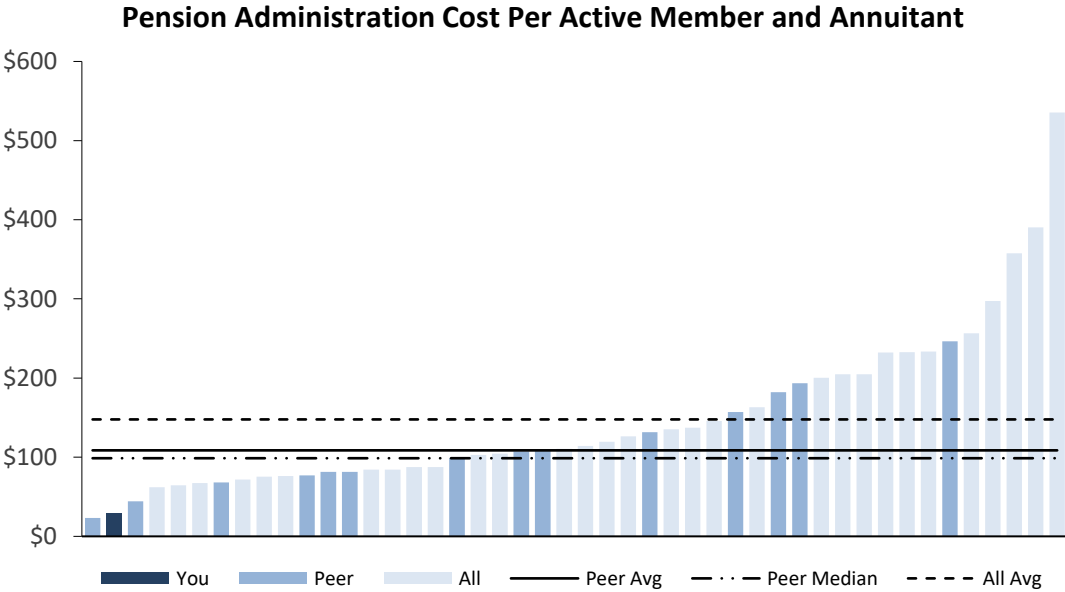
Cost per Member - All Avg



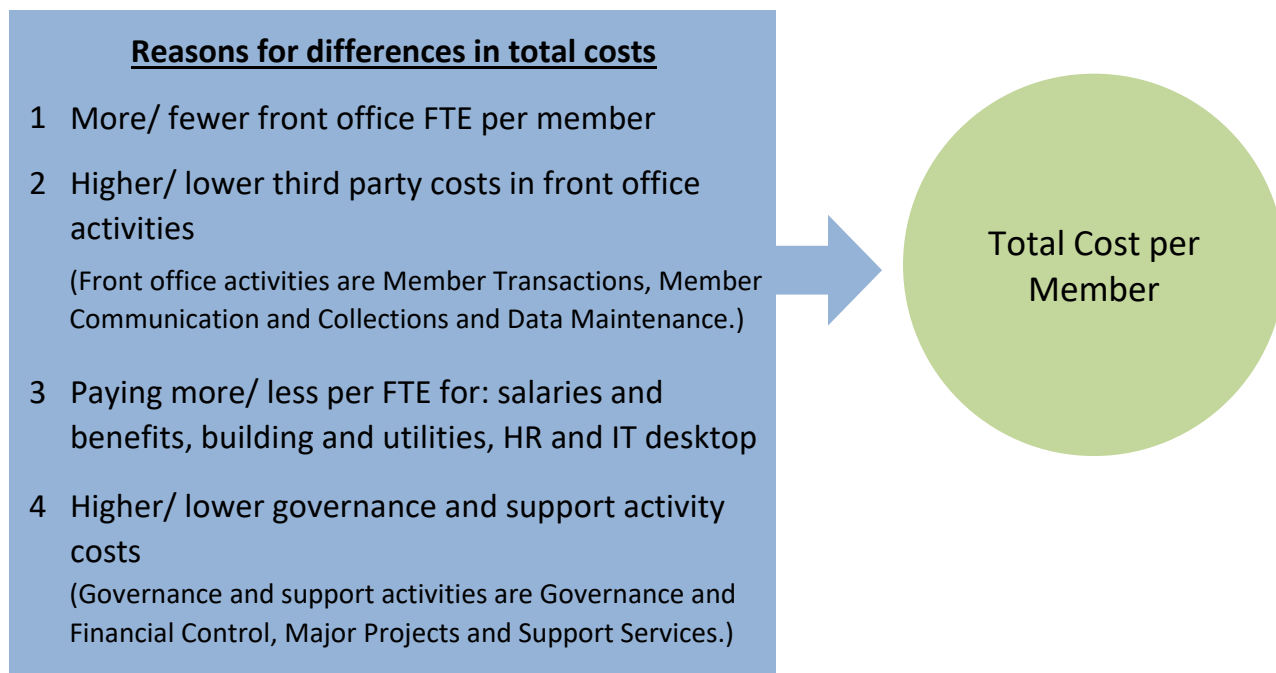
¹ Pension written estimates was moved from member communication to member transactions category in 2023.

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

Your total pension administration cost was \$30 per active member and annuitant. This was \$79 below the peer average of \$109 (and \$69 below the peer median of \$99).



CEM uses the following cost model to explain differences in total costs:



In this section, CEM quantifies the amount by which differences in each of the 4 reasons identified above cause your total pension administration cost to differ from the peer average.

Average versus Median

In the other sections of this report, CEM compares your performance to the median (i.e., the middle value or 50th percentile). This is because medians are less sensitive to outlier data than averages. An example of an outlier is a single peer with unusually high costs. In this section, we compare and reconcile your total costs to the peer average because:

- There are interactions between the reasons for differences in total cost that would be lost if we used
- It is necessary if we want the reasons to add to 100%. The sum of median parts does not add up to the median total.

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

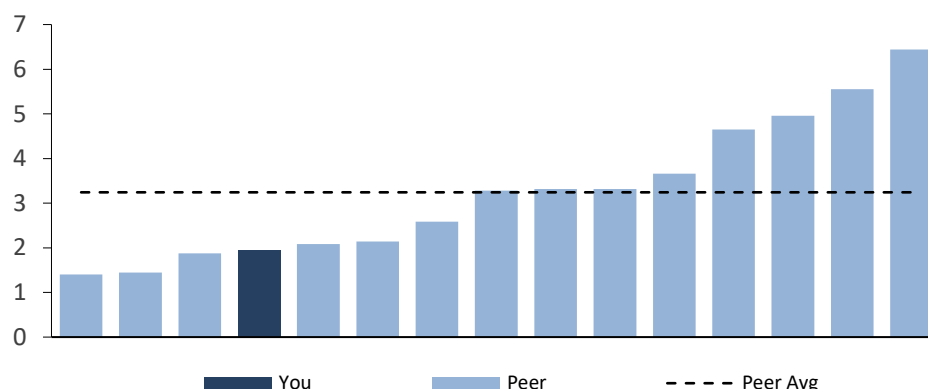
Reason	You	Peer Avg	Impact \$s per active member and annuitant
1 Fewer front office FTE per 10,000 members	1.9	3.2	-\$11
2 Lower third party costs per member in the front office	\$1	\$5	-\$5
3 Lower costs per FTE			
Front office Salaries & Benefits	\$71,738	\$106,256	
Governance, support Salaries & Benefits	<u>\$105,063</u>	<u>\$148,526</u>	
Blended Average	\$74,661	\$114,167	
Building and Utilities	\$1,725	\$10,928	
HR	\$1,457	\$5,064	
IT Desktop, Networks, Telecom	<u>\$9,203</u>	<u>\$16,690</u>	
Total	\$87,046	\$146,849	-\$30
4 Lower support costs per member ¹			
Governance & Financial Control	\$3	\$6	
Major Projects	\$0	\$9	
IT Strategy, Database, Applications	\$6	\$18	
IT Security	\$0	\$2	
Actuarial, Legal, Audit, Other	<u>\$3</u>	<u>\$11</u>	
Total	\$13	\$46	-\$33
Total			-\$79

1. To avoid double counting, peers' governance and support costs are adjusted for differences in cost per FTE.

Reason 1: You had fewer front office FTE per member.

Your 1.9 front office FTE per 10,000 members was 40% below the peer average of 3.2. Front office activities are activities that come in contact with clients or employers, such as paying pensions, member calls and presentations. It excludes Governance and support activities such as Governance and Financial Control, Major Projects and Support Services. Your lower front office FTE per member decreased your total cost per member by \$11 relative to the peer average.

Front office FTE per 10,000 Active Members and Annuitants



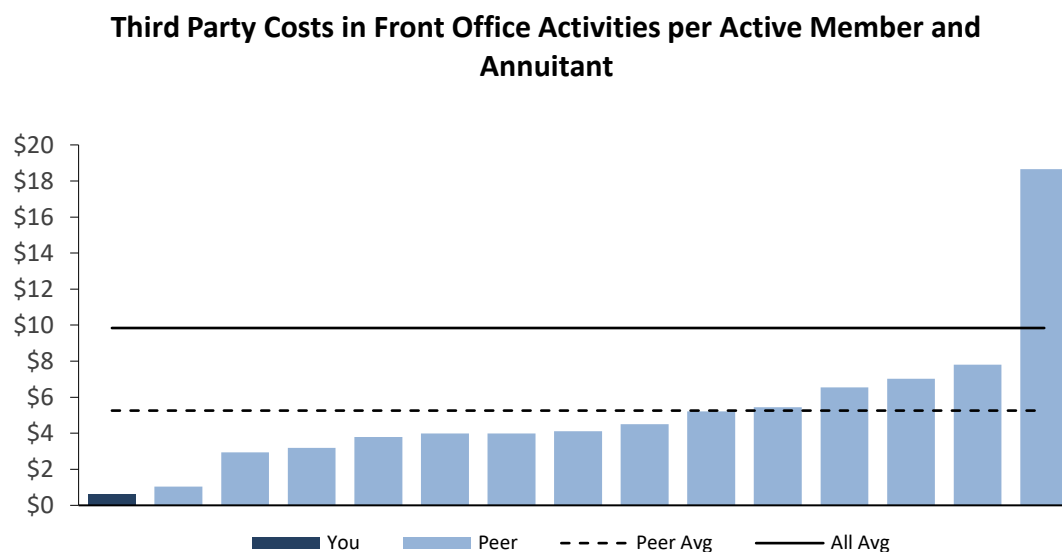
Your front office FTE per 10,000 members is a function of two components: volume per 1,000 active members and annuitants (workloads) and activity volume per FTE (productivity).

One reason you had fewer FTE per member is that you had higher productivity in the front office.

		Volume per 1,000 Active Members and Annuitants			Activity Volume per FTE		
Activity	Volume Description	You	Peer Avg	+/-	You	Peer Avg	+/-
Member Transactions							
Pension Payments	Annuitants	429	445	-15	55,747	30,912	24,835
New Payee Inceptions and Written Estimates	New Inceptions	22	23	-1	689	669	20
Refunds & Transfers-out	Refunds	27	21	6	1,000	1,750	-750
Purchases and Transfers-in	Purchases	2.0	3.4	-1.4	538	339	199
Disability Applications	Disability Applications	1.7	1.2	0.5	110	135	-25
Member Communication							
Calls and Emails	Calls and Emails	538	595	-57	8,996	9,342	-346
Incoming Mail	Incoming Mail	305	321	-16	36,172	28,470	7,702
Members Counseled 1-on-1	Members Counseled	1	14	-13	259	955	-696
Member Presentations	Member Presentations	0.2	0.6	-0.4	44	96	-52
Collections & Data Maintenance							
Data & Money from Employers	Active Members	571	555	15	34,848	31,988	2,860
Service to Employers	Active Members	571	555	15	91,141	42,376	48,765
Data Not from Employers	All Members	1,204	1,514	-309	303,188	257,511	45,678
Weighted Total		35.0	36.8	-1.8	180,420	115,374	65,046

Reason 2: You had lower third party costs in the front office activities.

Your third party costs in the front office activities were \$1 per member which was 88% below the peer average of \$5. Your lower third party costs decreased your total cost per member by \$5 relative to peers.



Differences in third party and other miscellaneous costs in the front office activities reflect differences in:

- Use of consultants
- Departmental travel and education

Reason 3: You had overall lower salaries and benefits, building and utilities, HR and IT desktop costs per FTE.

Cost per FTE		
Costs that vary per FTE	You	FTE-Weighted Peer Avg
Salaries and Benefits		
Front Office	\$71,738	\$106,256
Governance and support	<u>\$105,063</u>	<u>\$148,526</u>
Blended Average	\$74,661	\$112,419
Pay-as-you-go Benefits for Retired Staff	\$0	\$1,747
Building and Utilities	\$1,725	\$10,928
Human Resources	\$1,457	\$5,064
IT Desktop, Networks, Telecom (excl. IT security)	\$9,203	\$16,690
Total	\$87,046	\$146,849

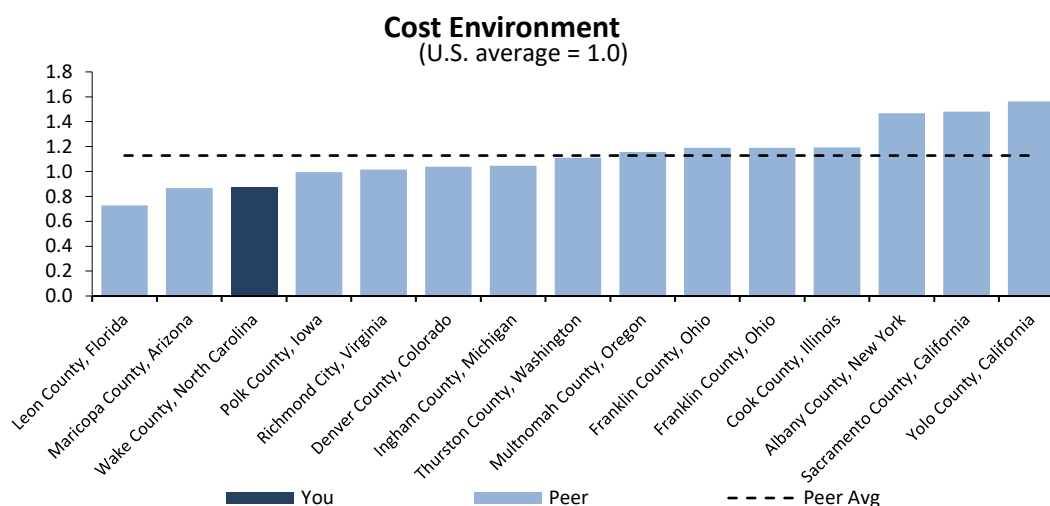
Your cost per FTE for salaries and benefits, building and utilities, human resources and IT desktop of \$87,046 was 41% below the FTE-weighted peer average of \$146,849. Your lower costs per FTE decreased your total cost per member by \$30 relative to the peer average.

The cost model uses the FTE-weighted average because 'Cost per FTE' differences matter more for peers with more FTEs. The FTE-weighted average can be substantially different from the simple average.

Differences in what you pay per FTE reflect differences in:

- Square footage of office space per FTE.
- Organization structure, strategy and history.
- Using consultants for functions associated with high salaries. This will reduce your salary cost per FTE, but increase your third party cost.

Often a key reason for differences in 'cost per FTE' is cost environment. According to the Bureau of Labor Statistics (<http://www.bls.gov/>), labor costs in your area were 22% below the peer average.



Reason 4: You paid less for governance and support activities.

Your adjusted¹ cost per active member and annuitant of \$13 for governance and support activities was below the peer average of \$46. Paying less for governance and support activities decreased your total cost per member by \$33 relative to the peer average.

Governance and support activities	Cost per Active Member and Annuitant		Adjusted ¹ Cost per Active Member and Annuitant	
	You	Peer Avg	You	Peer Avg
Governance and Financial Control	\$3	\$7	\$3	\$6
Major Projects	\$0	\$9	\$0	\$9
IT Strategy, Database, Applications (excl. major projects and IT security)	\$6	\$20	\$6	\$18
IT Security	\$0	\$3	\$0	\$2
Actuarial, Legal, Audit, Other Support Service	\$3	\$12	\$3	\$11
Support Services that Vary per FTE	\$0	\$6		
Total	\$13	\$58	\$13	\$46

1. To avoid double counting, governance and support costs are adjusted for cost per FTE (including salary, building, IT desktop, and HR costs).

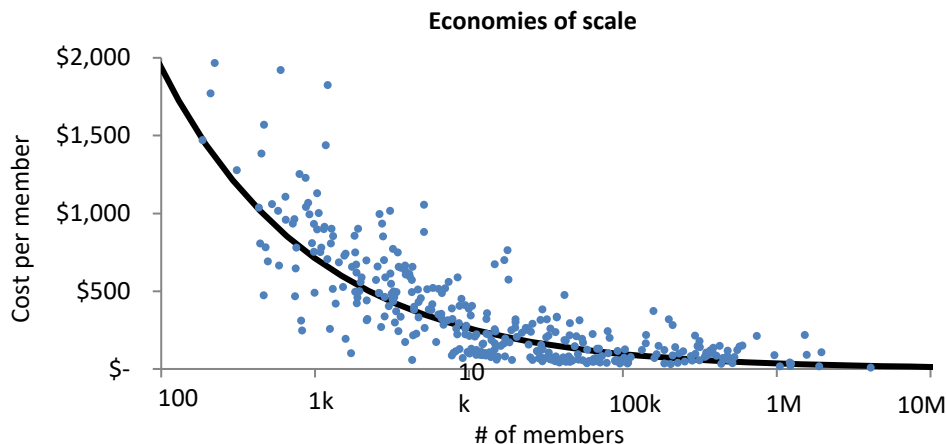
Differences in the adjusted cost per member for non-administration activities reflects differences in:

- How much you do. For example, some systems invest more in disaster recovery.
- IT capability
- IT investment cycle
- Plan complexity

Refer to section '4 - Activity Costs' for detailed analysis and comparison of the sub-activities within each of the non-administration activities to gain insight into where you are doing and paying more and/or less.

Impact of economies of scale

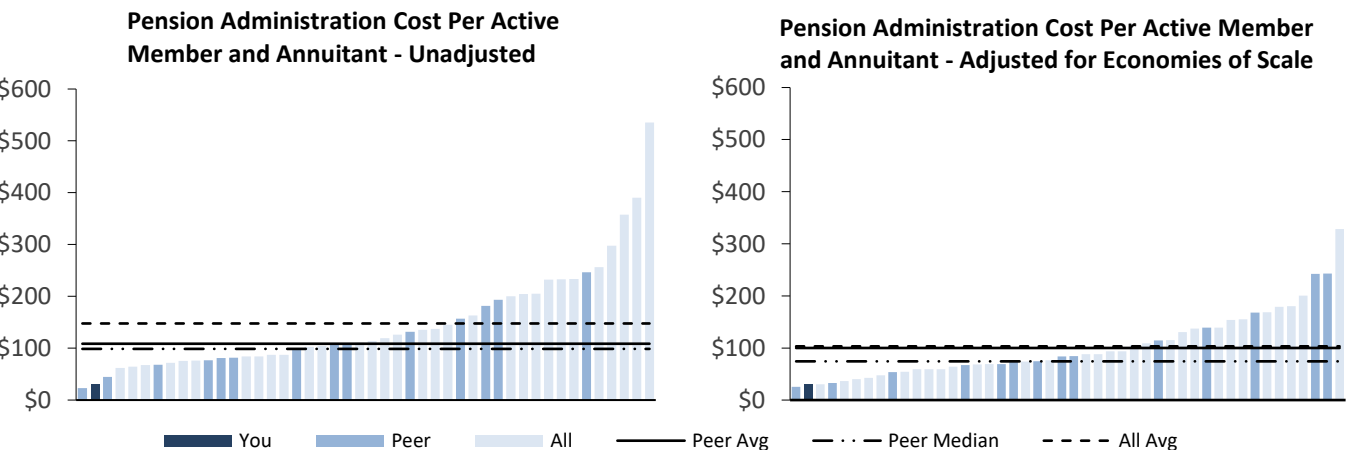
Your peer group is comprised of funds as close to your size as possible because size matters. According to CEM research using cost and membership data from 370 global pension plans, approximately 70% of differences in cost per member can be explained by differences in size.



The following table outlines your implied cost per member based on changes in your membership:

How Changes in Membership Impact Your Cost			
% Change in Members	Implied # of Members	Predicted Cost per Member	Increase/-Decrease
-75%	207,679	\$46	\$16
-50%	415,357	\$37	\$7
-25%	623,036	\$33	\$3
0%	830,714	\$30	\$0
25%	1,038,393	\$28	-\$2
50%	1,246,071	\$26	-\$4
75%	1,453,750	\$25	-\$5

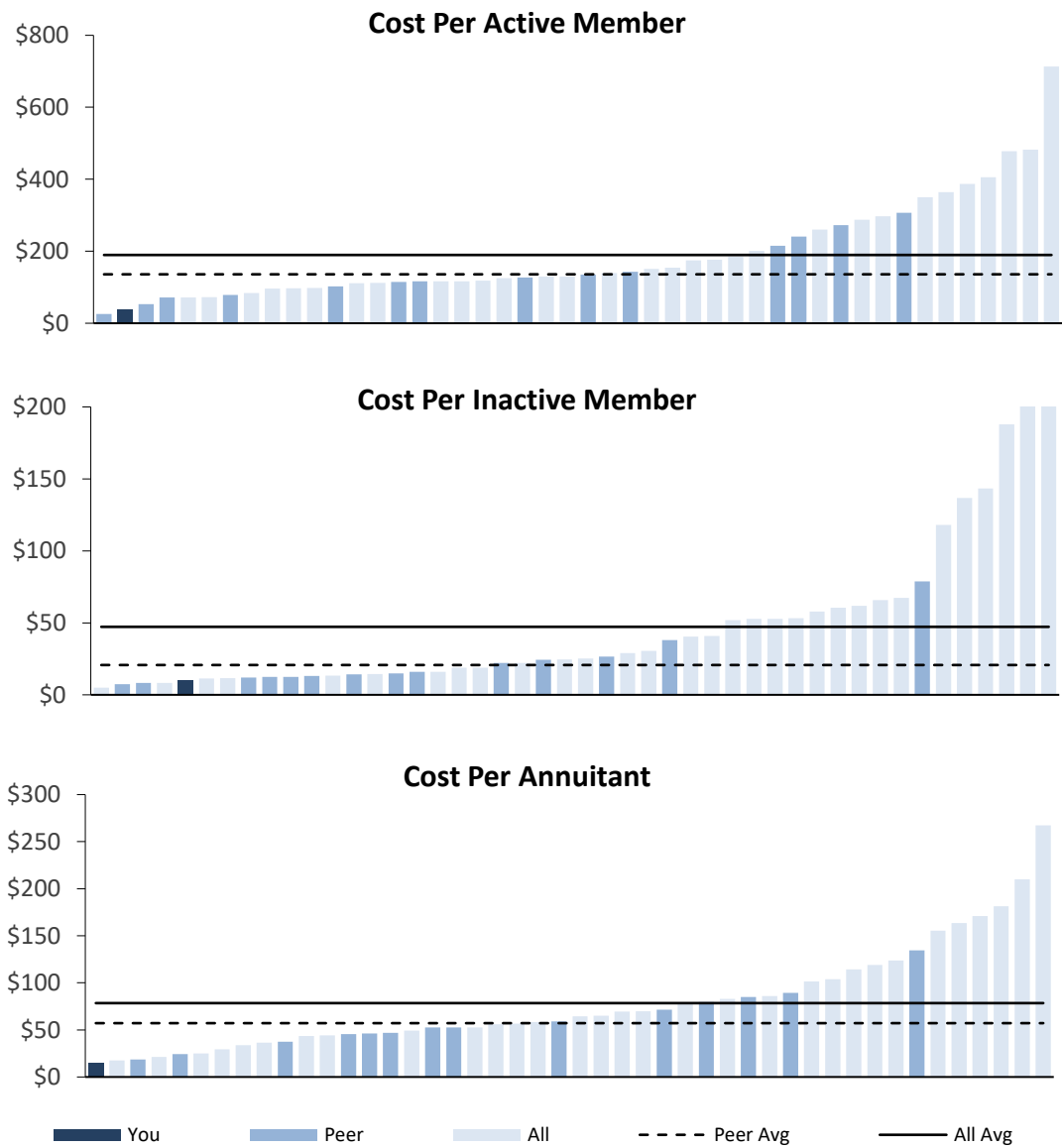
After adjusting your peers' costs for their scale advantage/disadvantage relative to your system, the peer average cost decreased from \$109 per member to \$100 per member.



Cost per member type

An alternative way of analyzing cost performance is by member type. Comparisons of your pension administration cost per active, inactive and annuitant member to your peers and all participants are shown below. The methodology for determining these costs is shown on the following two pages.

Pension Administration Cost per Member by Type									
Member Type	You	Peer				All			
		Average	Max	Median	Min	Average	Max	Median	Min
Active Member	\$38	\$136	\$307	\$116	\$25	\$190	\$713	\$132	\$25
Inactive Member	\$10	\$21	\$79	\$14	\$7	\$47	\$218	\$25	\$5
Annuitant	\$15	\$57	\$135	\$53	\$15	\$78	\$267	\$62	\$15



Calculation of your cost per member type

The table below shows how your activity costs were attributed to each member type. The attribution methodology is described on the following page.

Calculation of Your Cost by Member Type							
Activity	Your Costs in \$000s ¹	\$000s attributed to:			% attributed to:		
		Active	Inactive	Annuitant	Active	Inactive	Annuitant
1. Member Transactions							
a. Pension Payments	669	0.0	0.0	668.6	0.0%	0.0%	100.0%
b. Pension Inceptions and Written Pension Estimates	1,897	1,687.6	153.1	56.0	89.0%	8.1%	3.0%
c. Refunds, Withdrawals, and Transfers-out	1,680	1,111.1	568.7	0.0	66.1%	33.9%	0.0%
d. Purchases and Transfers-in	248	248.4	0.0	0.0	100.0%	0.0%	0.0%
e. Disability	968	968.0	0.0	0.0	100.0%	0.0%	0.0%
2. Member Communication							
a. Contact Center	3,541	1,979.6	70.9	1,490.2	55.9%	2.0%	42.1%
b. Mail Room, Imaging	513	286.7	10.3	215.8	55.9%	2.0%	42.1%
c. 1-on-1 Counseling	290	286.1	3.7	0.6	98.5%	1.3%	0.2%
d. Member Presentations	322	317.0	4.1	0.7	98.5%	1.3%	0.2%
e. Mass Communication	306	258.0	9.2	38.8	84.3%	3.0%	12.7%
3. Collections and Data Maintenance							
a. Data and Money from Employers	996	995.6	0.0	0.0	100.0%	0.0%	0.0%
b. Service to Employers	412	412.0	0.0	0.0	100.0%	0.0%	0.0%
c. Data Not from Employers	249	151.3	31.6	66.5	60.7%	12.7%	26.6%
4. Governance and Financial Control							
a. Financial Administration and Control	2,194	1,579.2	154.6	460.5	72.0%	7.0%	21.0%
b. Board, Strategy, Policy	231	166.4	16.3	48.5	72.0%	7.0%	21.0%
c. Government and Public Relations	262	188.3	18.4	54.9	72.0%	7.0%	21.0%
5. Major Projects							
a. Amortization of non-IT Major Projects	0	0.0	0.0	0.0	72.0%	7.0%	21.0%
b. Non-IT Major Projects (if you don't capitalize)	0	0.0	0.0	0.0	72.0%	7.0%	21.0%
c. Amortization of IT Major Projects	0	0.0	0.0	0.0	72.0%	7.0%	21.0%
d. IT Major Projects (if you don't capitalize)	0	0.0	0.0	0.0	72.0%	7.0%	21.0%
6. Information Technology							
a. IT Strategy, Database, Applications (excl. major projects and IT security)	5,345	3,846.6	376.5	1,121.7	72.0%	7.0%	21.0%
b. IT Desktop, Networks, Telecom (excl. IT security)	1,627	1,171.0	114.6	341.5	72.0%	7.0%	21.0%
c. IT Security	269	193.4	18.9	56.4	72.0%	7.0%	21.0%
7. Support Services and Other							
a. Building and Utilities	305	219.5	21.5	64.0	72.0%	7.0%	21.0%
b. Human Resources	258	185.4	18.1	54.1	72.0%	7.0%	21.0%
c. Actuarial	448	322.4	31.6	94.0	72.0%	7.0%	21.0%
d. Legal and Rule Interpretation	955	687.5	67.3	200.5	72.0%	7.0%	21.0%
e. Internal and External Audit	483	347.6	34.0	101.4	72.0%	7.0%	21.0%
f. Pay-as-you-go Benefits for Retired Staff	0	0.0	0.0	0.0	72.0%	7.0%	21.0%
g. Other Support Services	344	247.7	24.2	72.2	72.0%	7.0%	21.0%
Total Pension Administration Cost (A)	24,811	17,856	1,748	5,207	72.0%	7.0%	21.0%
# of members by type (B)		473,933	169,808	356,781			
Cost per Member Type (A ÷ B)		\$38	\$10	\$15			

1. The fully-attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from pension administration costs to ensure comparability. Refer to the last page of this section to see how the above costs reconcile to the administration costs provided on your survey.

Methodology for attributing activity costs to each member type

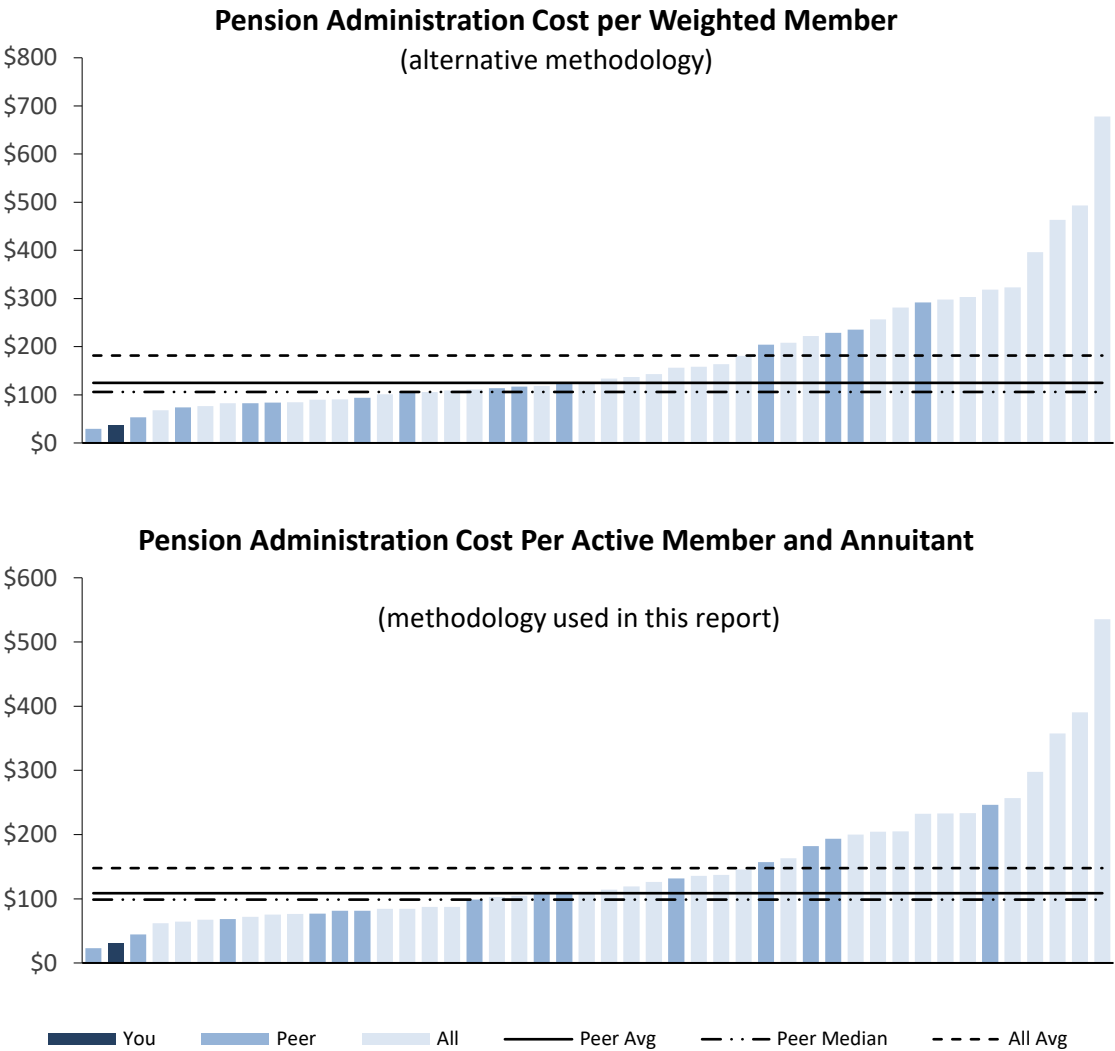
Activity	Attribution Method
1a. Pension Payments	100% annuitants
1b. Pension Inceptions and Written Pension Estimates	Pro rata based on weighted inceptions: <ul style="list-style-type: none"> • service retirements of active members weighted 100% • new inceptions annuitants weighted 50% + changes in gross caused by annuitants circumstances weighted 25% • retirements of inactive members weighted 70%
1c. Refunds, Withdrawals, and Transfers-out	Pro rata based on: <ul style="list-style-type: none"> • active members weighted 70% • inactive members weighted 100%
1d. Purchases and Transfers-in	100% active members
1e. Disability	100% active members
2a. Contact Center	Pro rata based on weighted membership: <ul style="list-style-type: none"> • active members weighted 100% • annuitants weighted 100% • inactive members weighted 10%
2b. Mail Room, Imaging	per 2a above
2c. 1-on-1 Counseling	Pro rata between actives, inactives and annuitants based on: <ul style="list-style-type: none"> • service retirements of active members weighted 100% • retirements of inactive members weighted 10% • survivor inceptions of annuitants weighted 5%
2d. Member Presentations	per 2c above
2e. Mass Communication	Pro rata based on weighted membership: <ul style="list-style-type: none"> • active members weighted 100% • annuitants weighted up to 30% (20% for website, etc + 10% if you send them newsletters) • inactive members weighted up to 30% (10% for website, etc + 10% if you send them member statements annually + 10% if you send them newsletters)
3a. Data and Money from Employers	100% active members
3b. Service to Employers	100% active members
3c. Data Not from Employers	Pro rata based on weighted membership: <ul style="list-style-type: none"> • active members weighted up to 100% (33% because of divorce + 33% if you maintain their addresses + 33% if you collect contributions directly from members) • annuitants weighted up to 58% (25% because of divorce + 33% for maintaining their addresses) • inactive members weighted up to 58% (25% because of divorce + 33% if you maintain their addresses)
4a. Financial Administration and Control	Pro rata based on ratio of the sum of attributions to activities 1 to 3 for actives, annuitants and inactives using rules above.
4b. Board, Strategy, Policy	per 4a above
4c. Government and Public Relations	per 4a above
5a. Amortization of non-IT Major Projects	per 4a above
5b. Non-IT Major Projects (if you don't capitalize)	per 4a above
5c. Amortization of IT Major Projects	per 4a above
5d. IT Major Projects (if you don't capitalize)	per 4a above
6a. IT Strategy, Database and Applications (excl. major projects and IT security)	per 4a above
6b. IT Desktop, Networks, Telecom (excl. IT security)	per 4a above
6c. IT Security	per 4a above
7a. Building and Utilities	per 4a above
7b. Human Resources	per 4a above
7c. Actuarial	per 4a above
7d. Legal and Rule Interpretation	per 4a above
7e. Internal and External Audit	per 4a above
7f. Pay-as-you-go Benefits for Retired Staff	per 4a above
7g. Other Support Services	per 4a above

Cost per weighted member

In this report active members and annuitants is the divisor used when determining cost per member. But as the analysis on the previous three pages demonstrates, active members are more costly to administer than annuitants, and the cost to administer inactive members is greater than zero. Thus, using active members and annuitants as the divisor can bias results. It unfairly makes systems look higher cost if they have substantially higher than average proportions of inactive members and/or substantially lower than average proportions of annuitants.

Another way to compare total costs is on a per 'weighted member' basis where the weightings reflect the fact that costs vary by type of member. Your pension administration cost per weighted member was \$36.65. This was below the peer average of \$124.81. Members are weighted as follows: active members at 100%, inactive members at 25% and annuitants at 45%.

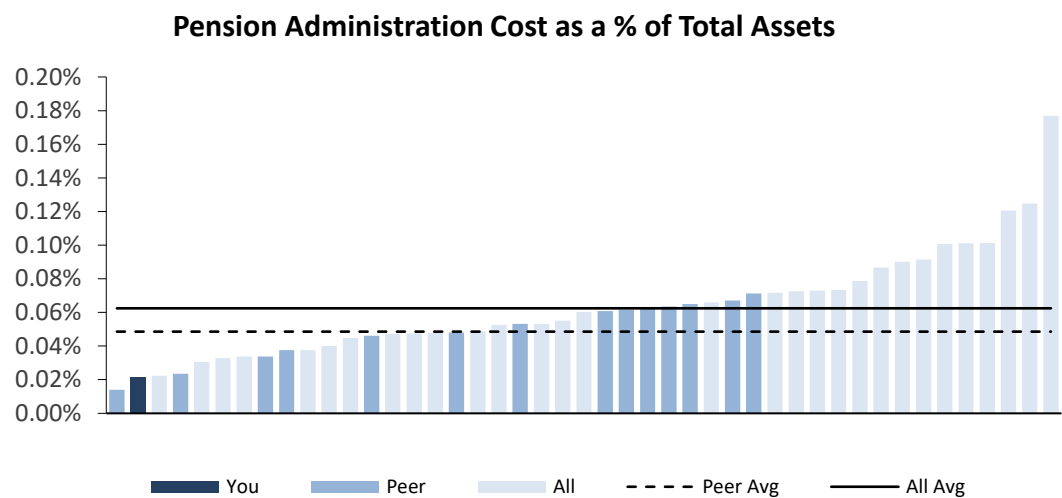
Relative rankings under both methodologies are shown in the graphs below.



Cost as a % of total assets

An alternative way to compare total costs is as a percent of total pension assets. This ratio is particularly useful when trying to understand how pension administration costs compare to investment costs within the same system because investment costs tend to be quoted as a percentage of assets. This ratio is less useful when comparing between systems, as is done in the graph below, because the divisor, total assets, depends on plan rules (more generous plans will have more assets) and funded status.

Your pension's administration costs represented 0.02% of total assets (or 2 basis points). This was below the peer average of 0.05%.



Reconciliation to costs provided on the survey

The fully-attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from pension administration costs to ensure comparability. Your direct costs per the survey for activities 4, 6 and 7 have been reduced by attributions to activities 1F and 1G that add up to \$321 thousand.

Activity	Your Costs in \$000s			Total	\$s per Active Member and Annuitant
	Salaries & Benefits	Third Party & Other	Attributions ¹ to 1f & 1g		
1. Member Transactions					
a. Pension Payments	455	214		669	0.80
b. Pension Inceptions and Written Pension Estimates	1,876	21		1,897	2.28
c. Refunds, Withdrawals, and Transfers-out	1,613	67		1,680	2.02
d. Purchases and Transfers-in	227	21		248	0.30
e. Disability	947	21		968	1.17
f. Healthcare Administration	202	21	264	487	0.59
g. Optional and Third Party Administered Benefits	65	21	57	142	0.17
2. Member Communication					
a. Contact Center	3,520	21		3,541	4.26
b. Mail Room, Imaging	492	21		513	0.62
c. 1-on-1 Counseling	269	21		290	0.35
d. Member Presentations	295	27		322	0.39
e. Mass Communication	284	22		306	0.37
3. Collections and Data Maintenance					
a. Data and Money from Employers	975	21		996	1.20
b. Service to Employers	391	21		412	0.50
c. Data Not from Employers	228	21		249	0.30
4. Governance and Financial Control					
a. Financial Administration and Control	478	1,772	-55	2,194	2.64
b. Board, Strategy, Policy	194	43	-6	231	0.28
c. Government and Public Relations	238	31	-7	262	0.31
5. Major Projects					
a. Amortization of non-IT Major Projects		0	0	0	0.00
b. Non-IT Major Projects (if you don't capitalize)	0	0	0	0	0.00
c. Amortization of IT Major Projects		0	0	0	0.00
d. IT Major Projects (if you don't capitalize)	0	0	0	0	0.00
6. Information Technology					
a. IT Strategy, Database, Applications (excl. major projects and IT security)	397	5,083	-135	5,345	6.43
b. IT Desktop, Networks, Telecom (excl. IT security)	70	1,598	-41	1,627	1.96
c. IT Security	0	276	-7	269	0.32
7. Support Services and Other					
a. Building and Utilities	0	313	-8	305	0.37
b. Human Resources	0	264	-6	258	0.31
c. Actuarial	48	411	-11	448	0.54
d. Legal and Rule Interpretation	173	807	-24	955	1.15
e. Internal and External Audit	60	436	-12	483	0.58
f. Pay-as-you-go Benefits for Retired Staff	0		0	0	0.00
g. Other Support Services	84	269	-9	344	0.41
Total Administration	13,579	11,862	0	25,441	30.62
less:					
f. Healthcare Administration	-202	-21	-264	-487	-0.59
g. Optional and Third Party Administered Benefits	-65	-21	-57	-142	-0.17
Total Pension Administration				24,811	29.87

1. Attributions of 4. Governance, 5. Major Projects, 6. IT, and 7. Support Services and Other are pro rata based on direct FTE.

4

Activity Costs

This section compares:

- Direct costs by activity, before any attributions.
- Factors that impact the direct costs of each activity such as salaries per direct FTE, transaction volumes per direct FTE, economies of scale, membership mix, and additional work per unit of activity volume.
- Fully-attributed costs by activity.

Calculation of your activity costs

Calculation of Your Direct Activity Costs				
Activity ¹	Cost ² in \$000s (A)		Activity Volume (B)	\$s per Unit (A / B)
1. Member Transactions				
a. Pension Payments	669	356,781	annuitants	1.87
b. Pension Inceptions and Written Pension Estimates	1,897	18,196	new payee inceptions	104.24
c. Refunds, Withdrawals, and Transfers-out	1,680	22,701	refunds, withdrawals, and transfers-out	74.00
d. Purchases and Transfers-in	248	1,667	purchases and transfers-in	149.01
e. Disability	968	1,381	disability applications	700.94
2. Member Communication				
a. Contact Center	3,541	447,099	calls and emails	7.92
b. Mail Room, Imaging	513	253,205	incoming mail	2.03
c. 1-on-1 Counseling	290	983	members counseled 1-on-1	295.42
d. Member Presentations	322	174	member presentations	1,849.43
e. Mass Communication	306	830,714	active members and annuitants	0.37
3. Collections and Data Maintenance				
a. Data and Money from Employers	996	473,933	active members	2.10
b. Service to Employers	412	473,933	active members	0.87
c. Data Not from Employers	249	1,000,522	actives, inactives, annuitants	0.25
4. Governance and Financial Control ⁴				
a. Financial Administration and Control	2,194	830,714	active members and annuitants	2.64
b. Board, Strategy, Policy	231	830,714	active members and annuitants	0.28
c. Government and Public Relations	262	830,714	active members and annuitants	0.31
5. Major Projects				
a. Amortization of non-IT Major Projects	0	830,714	active members and annuitants	0.00
b. Non-IT Major Projects (if you don't capitalize)	0	830,714	active members and annuitants	0.00
c. Amortization of IT Major Projects	0	830,714	active members and annuitants	0.00
d. IT Major Projects (if you don't capitalize)	0	830,714	active members and annuitants	0.00
6. Information Technology ⁴				
a. IT Strategy, Database, Applications (excl. major projects and IT security)	5,345	830,714	active members and annuitants	6.43
b. IT Desktop, Networks, Telecom (excl. IT security)	1,627	178	pension admin FTE	9,152.04
c. IT Security	269	830,714	active members and annuitants	0.32
7. Support Services and Other ⁴				
a. Building and Utilities	305	178	pension admin FTE	1,715.63
b. Human Resources	258	178	pension admin FTE	1,448.99
c. Actuarial	448	830,714	active members and annuitants	0.54
d. Legal and Rule Interpretation	955	830,714	active members and annuitants	1.15
e. Internal and External Audit	483	830,714	active members and annuitants	0.58
f. Pay-as-you-go Benefits for Retired Staff	0	178	pension admin FTE	0.00
g. Other Support Services	344	830,714	active members and annuitants	0.41
Total Pension Administration ³	24,811	830,714	active members and annuitants	29.87

1. Refer to Appendix C for activity definitions.

2. Cost is 'direct cost' as per your survey. It is the sum of:

a) Salaries and benefits of all staff that directly perform the activity, plus related support and management staff that are in the same department. For example, the call center includes call and email customer service agents, trainers, analysts and managers.

b) Third-party and other non-staff, non-third-party-fee costs that can be directly attributed to the activities but that are not already included in the other activities listed. These other costs may include office supplies, travel, subscriptions, training, conferences.

3. The fully attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from total pension administration costs to ensure comparability.

4. Your direct costs for activities 4, 6, and 7 have been reduced by attributions to 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits that add up to \$269k. Refer to the last page of this section for details.

Summary comparisons of activity costs by quartile breakdown

Comparisons of Direct Activity Costs ¹														
Activity	Cost per:	Peer							All Participant					
		You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min
1. Member Transactions														
a. Pension Payments	annuitant	1.87	7.58	24.08	8.81	4.91	4.13	1.41	10.71	39.62	14.30	9.42	3.97	1.40
b. Pension Inceptions and Written Pension Estimates	new payee inception	104.24	204.25	583.42	269.14	156.97	105.49	87.47	368.76	1,768.67	497.21	274.46	155.39	64.42
c. Refunds, Withdrawals, and Transfers-out	withdrawal & transfer-out	74.00	139.83	881.42	130.40	74.00	41.62	23.46	1,180.49	38,433.33	399.24	143.94	52.99	11.25
d. Purchases and Transfers-in	purchase & transfer-in	149.01	623.21	1,752.88	1,038.14	442.31	215.32	116.09	5,578.07	206,934.19	957.72	414.97	175.18	7.49
e. Disability	disability application	700.94	2,621.54	7,683.70	3,126.50	1,809.59	903.35	300.98	3,746.04	25,084.29	4,033.44	1,983.13	961.86	85.39
2. Member Communication														
a. Contact Center	call & email	7.92	15.84	48.19	17.54	13.98	9.33	4.62	12.69	48.19	15.33	9.56	6.12	0.00
b. Mail Room, Imaging	incoming mail	2.03	7.53	19.16	10.80	5.66	3.36	2.03	12.36	76.59	14.56	7.06	3.81	0.00
c. 1-on-1 Counseling	member counseled 1-on-1	295.42	150.21	379.00	182.03	127.00	91.07	42.35	134.76	642.24	174.05	104.87	47.19	0.00
d. Member Presentations	member presentation	1,849.43	2,128.00	5,115.49	3,731.08	1,362.93	970.04	0.00	2,881.21	27,879.98	3,369.78	1,301.14	736.58	0.00
e. Mass Communication	active member & annuitant	0.37	3.59	6.51	4.84	3.78	2.24	0.37	4.32	16.83	5.86	3.69	2.18	0.37
3. Collections and Data Maintenance														
a. Data and Money from Employers	active member	2.10	7.65	31.26	7.93	3.84	2.29	1.04	10.08	85.30	11.95	5.08	2.97	1.04
b. Service to Employers	active member	0.87	5.12	14.18	6.97	3.46	1.95	0.85	3.88	14.18	5.14	2.91	1.60	0.44
c. Data Not from Employers	active, inactive & annuitant	0.25	0.77	2.07	1.09	0.57	0.33	0.15	1.42	8.16	1.69	0.81	0.37	0.00
4. Governance and Financial Control														
a. Financial Administration and Control	active member & annuitant	2.64	3.83	10.15	4.47	3.14	2.09	0.64	6.04	33.64	7.72	4.20	2.94	0.33
b. Board, Strategy, Policy	active member & annuitant	0.28	2.45	6.72	3.70	1.87	1.08	0.14	6.06	41.28	8.15	4.28	1.82	0.14
c. Government and Public Relations	active member & annuitant	0.31	0.91	3.20	1.44	0.58	0.17	0.09	1.66	10.33	2.17	1.06	0.32	0.00
5. Major Projects														
a. Amortization of non-IT Major Projects	active member & annuitant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	4.63	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	3.58	32.18	1.36	0.00	0.00	0.00	2.47	32.18	1.71	0.00	0.00	0.00
c. Amortization of IT Major Projects	active member & annuitant	0.00	1.53	13.26	1.00	0.00	0.00	0.00	2.54	14.53	4.38	0.00	0.00	0.00
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	4.80	22.68	8.61	1.25	0.03	0.00	9.05	82.27	6.95	1.49	0.00	0.00
6. Information Technology														
a. IT Strategy, Database Management and Applications (excl. major projects and IT security)	active member & annuitant	6.43	19.98	44.74	29.41	17.95	8.55	2.93	22.18	79.17	29.35	20.73	9.25	2.93
b. IT Desktop, Networks, Telecom (excl. IT security)	pension admin FTE	9,152	15,754	30,337	19,882	14,720	10,376	6,119	13,352	30,337	18,075	12,061	7,524	2,491
c. IT Security	active member & annuitant	0.32	2.75	6.58	4.35	1.93	0.79	0.00	2.68	13.83	4.05	1.99	0.52	0.00
7. Support Services and Other														
a. Building and Utilities	pension admin FTE	1,716	9,425	19,025	11,719	8,815	7,243	1,716	9,949	28,228	11,548	8,943	6,884	959
b. Human Resources	pension admin FTE	1,449	3,859	8,303	5,084	3,439	2,112	1,252	5,326	18,299	7,765	4,194	2,597	182
c. Actuarial	active member & annuitant	0.54	1.81	6.53	2.20	1.50	0.74	0.45	2.60	16.90	2.94	1.76	1.04	0.00
d. Legal and Rule Interpretation	active member & annuitant	1.15	3.72	8.79	6.18	2.78	1.34	0.77	6.09	43.81	6.02	3.63	2.49	0.76
e. Internal and External Audit	active member & annuitant	0.58	1.99	3.86	3.37	1.54	1.02	0.31	3.45	27.90	3.81	2.35	1.24	0.04
f. Pay-as-you-go Benefits for Retired Staff	pension admin FTE	0.00	927.87	10,904.08	278.27	0.00	0.00	0.00	1,245.40	13,059.76	15.28	0.00	0.00	0.00
g. Other Support Services	active member & annuitant	0.41	4.74	17.82	5.69	2.69	0.64	0.00	5.14	28.34	6.68	3.62	1.00	0.00
Total Pension Administration²	active member & annuitant	29.87	108.65	246.33	144.36	98.70	72.61	23.19	147.73	535.38	198.50	112.29	81.36	23.19

1. In this section we compare your costs to the peer median (i.e., the middle value or 50th percentile) because outlier data often skews averages in the direction of outlier values. Maximum and minimum values usually reflect unusual circumstances and are often associated with very low volumes.

2. The fully attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from total pension administration costs to ensure comparability.

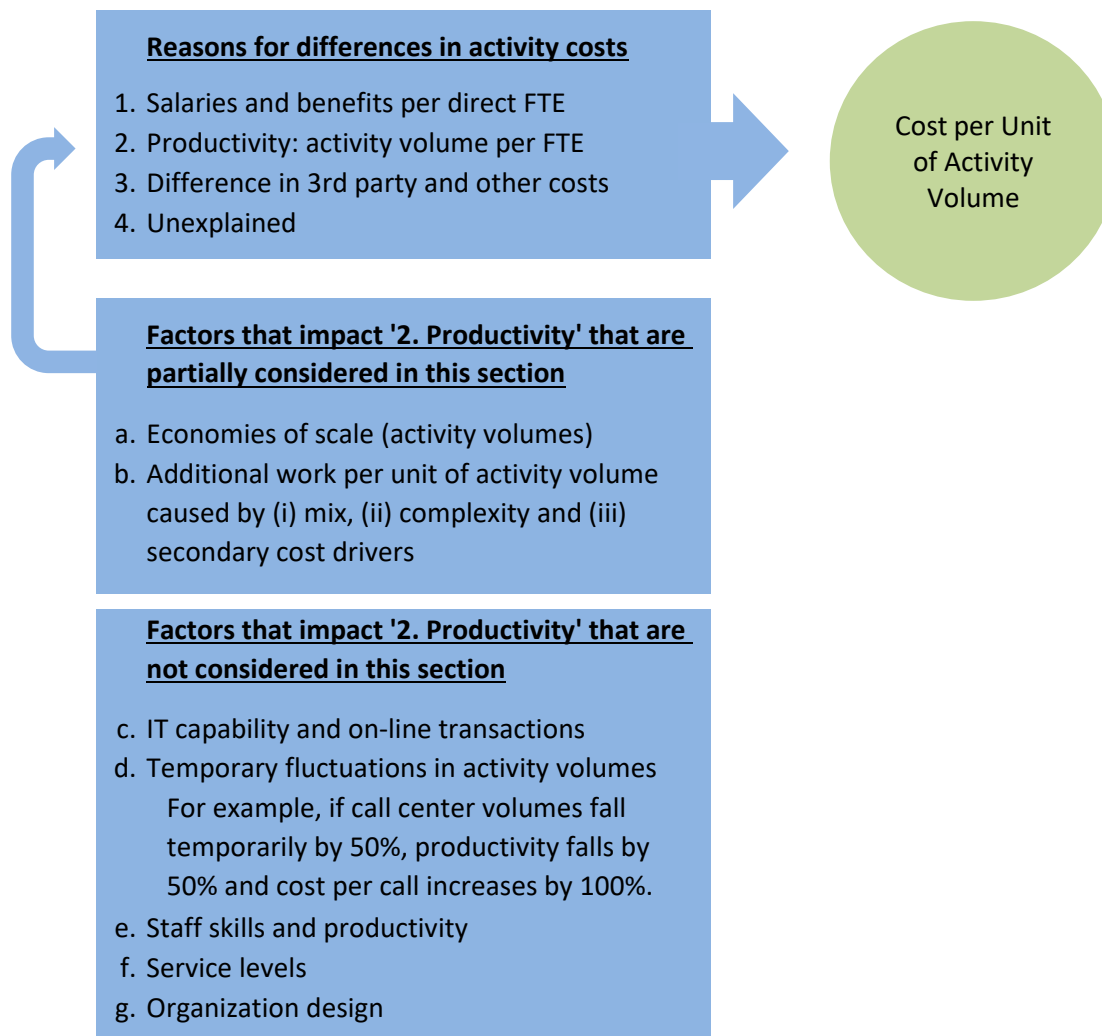
Activity cost history

Comparisons of Direct Activity Costs ¹													
Activity	Cost per:	You				Peer Average				All Participant Average			
		2023	2022	2021	2020	2023	2022	2021	2020	2023	2022	2021	2020
1. Member Transactions													
a. Pension Payments	annuitant	1.87		1.81		6.75	6.64	6.72	6.58	9.91	9.32	9.34	9.43
b. Pension Inceptions and Written Pension Estimates	new payee inception	104.24		103.42		182.77	171.44	164.63	178.28	296.16	282.65	271.88	286.52
c. Refunds, Withdrawals, and Transfers-out	withdrawal & transfer-out	74.00		65.29		87.85	84.28	145.26	78.13	368.61	325.74	379.80	322.37
d. Purchases and Transfers-in	purchase & transfer-in	149.01		76.23		624.92	538.30	482.84	466.74	538.76	423.72	361.73	460.69
e. Disability	disability application	700.94		476.84		2,379.88	2,333.40	2,379.15	2,224.60	3,798.53	2,461.51	2,460.56	2,318.44
2. Member Communication													
a. Contact Center	call & email	7.92		10.88		13.96	12.43	11.71	11.53	12.77	11.56	10.80	11.14
b. Mail Room, Imaging	incoming mail	2.03		1.77		7.08	7.16	6.84	6.22	14.33	13.17	12.26	11.56
c. 1-on-1 Counseling	member counseled 1-on-1	295.42		96.61		119.04	132.74	164.46	113.66	135.38	128.80	165.33	112.70
d. Member Presentations	member presentation	1,849.43		2,636.70		1,902.26	2,010.50	2,523.72	1,678.70	2,588.39	2,242.81	3,549.28	1,980.61
e. Mass Communication	active member & annuitant	0.37		0.32		3.78	3.43	3.54	3.55	4.52	4.17	4.02	4.21
3. Collections and Data Maintenance													
a. Data and Money from Employers	active member	2.10		1.94		6.26	6.30	6.15	6.33	8.45	7.86	7.31	7.81
b. Service to Employers	active member	0.87		0.78		5.36	4.59	4.37	4.53	4.29	3.92	3.56	3.70
c. Data Not from Employers	active, inactive & annuitant	0.25		0.22		0.82	0.83	0.81	0.85	1.54	1.39	1.57	1.52
4. Governance and Financial Control													
a. Financial Administration and Control	active member & annuitant	2.64		2.07		3.58	3.53	3.54	3.55	5.06	4.78	4.74	4.88
b. Board, Strategy, Policy	active member & annuitant	0.28		0.23		2.29	2.28	2.03	2.18	4.21	4.01	4.06	3.82
c. Government and Public Relations	active member & annuitant	0.31		0.24		0.78	0.75	0.87	0.97	1.27	1.20	1.08	1.37
5. Major Projects													
a. Amortization of non-IT Major Projects	active member & annuitant	0.00		0.00		0.00	0.00	0.00	0.00	0.15	0.16	0.15	0.25
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00		0.00		3.18	2.61	3.71	2.59	1.77	1.60	2.56	2.08
c. Amortization of IT Major Projects	active member & annuitant	0.00		0.00		1.79	1.91	2.10	2.29	3.61	2.85	2.73	3.56
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00		0.00		4.72	3.93	2.87	2.97	7.31	6.27	6.67	4.23
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major projects and IT security)	active member & annuitant	6.43		6.73		20.21	18.68	17.29	17.54	25.07	23.00	21.86	21.58
b. IT Desktop, Networks, Telecom (excl. IT security)	pension admin FTE	9,152		4,109		16,547	14,994	19,703	14,730	15,030	13,612	16,912	12,962
c. IT Security	active member & annuitant	0.32		0.00		2.70	2.52	0.00	0.00	2.92	2.34	0.00	0.00
7. Support Services and Other													
a. Building and Utilities	pension admin FTE	1,716		1,072		10,067	9,437	8,806	8,561	10,260	9,713	9,290	9,218
b. Human Resources	pension admin FTE	1,449		1,059		3,703	3,213	2,890	2,755	5,157	4,518	4,102	3,990
c. Actuarial	active member & annuitant	0.54		0.30		1.83	1.95	1.85	1.90	2.77	2.46	2.14	2.28
d. Legal and Rule Interpretation	active member & annuitant	1.15		1.02		3.52	3.30	3.32	3.42	6.55	6.44	5.39	5.61
e. Internal and External Audit	active member & annuitant	0.58		0.57		1.98	1.90	1.84	1.78	3.57	3.11	3.03	3.05
f. Pay-as-you-go Benefits for Retired Staff	pension admin FTE	0.00		0.00		231.85	324.67	360.62	240.74	992.51	1,041.57	848.65	900.71
g. Other Support Services	active member & annuitant	0.41		0.34		4.64	5.53	4.16	4.71	4.87	4.67	3.59	3.72
Total Pension Administration²	active member & annuitant	29.87		26.68		104.12	100.77	97.63	96.57	145.24	134.55	128.38	125.84

1. Trend analysis is based on systems that have participated for 8-consecutive years (13 peers and 31 World systems). This ensures that trends are not caused by changes in the composition of the participants.

2. The fully attributed costs of activities 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits are excluded from total pension administration costs to ensure comparability.

CEM uses the following model to help explain differences in activity costs



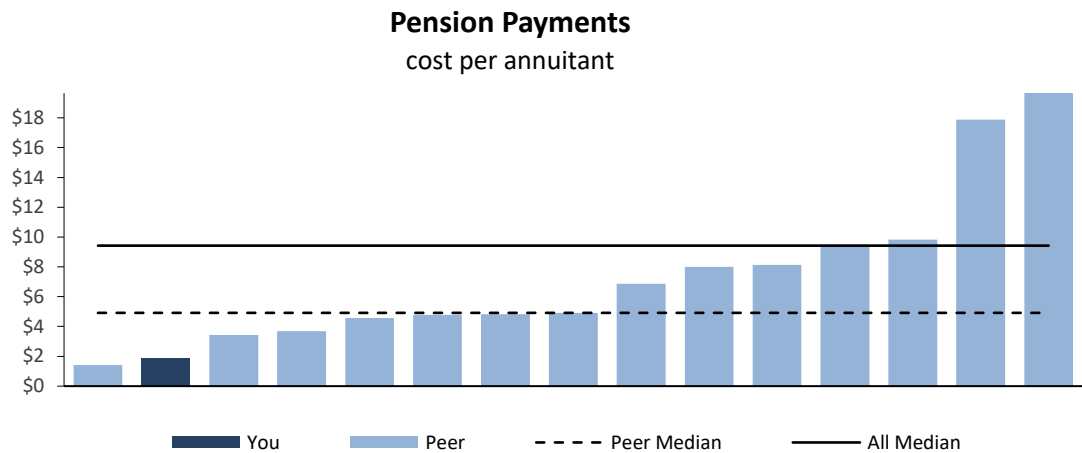
In this section, CEM quantifies the amount by which differences in the four reasons identified in the top box above impact your costs by calculating how your costs would change if you had the peer median salaries/ productivity/ third party and other costs. This methodology results in an unexplained amount, which is sometimes quite large, because:

- Peer salaries, productivity, and third party and other costs are not uniformly distributed. Often there are extreme outliers, especially for systems with relatively low volumes. Thus if you have outlier data for an activity, or several of your peers have extreme data, the unexplained amount may be large.
- Interaction between the three reasons is not quantified. For example, peers with higher productivity may also pay higher salaries. This offsetting impact between higher salaries and higher productivity is not quantified.

All comparisons are to the peer median (i.e., the middle value or 50th percentile). The median is used instead of the average because outlier data often skews averages in the direction of outlier values. Skewing is particularly acute with activity costs because participants with a low volume in an activity sometimes have very high costs per unit.

1A Pension Payments

Your pension payments cost per annuitant was \$1.87. This was \$3.04 below the peer median of \$4.91. The biggest reason why was that you serviced more annuitants per direct FTE (productivity).



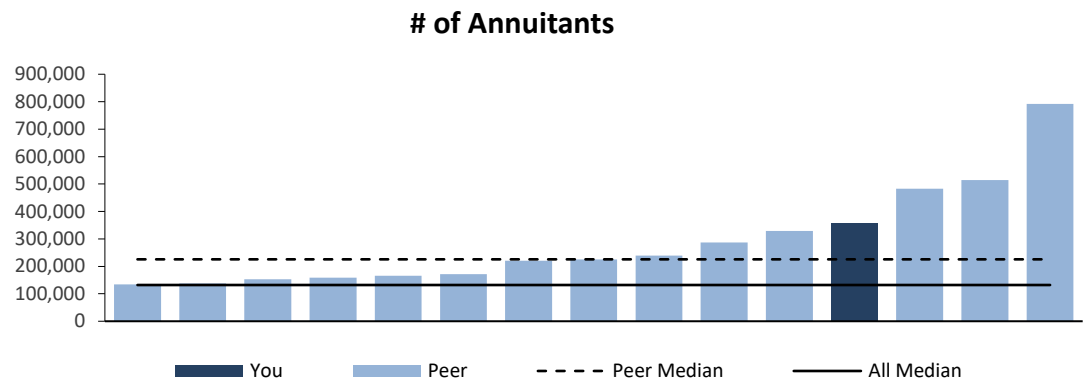
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$71,094	\$107,855	-\$0.66
More annuitants per direct FTE (productivity)	55,747	24,468	-\$1.63
Lower third party costs per annuitant	\$0.60	\$1.34	-\$0.74
Unexplained ¹			-\$0.01
Cost per annuitant	\$1.87	\$4.91	-\$3.04

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1A Pension Payments - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 356,781 annuitants was 58% higher than the peer median of 225,572.

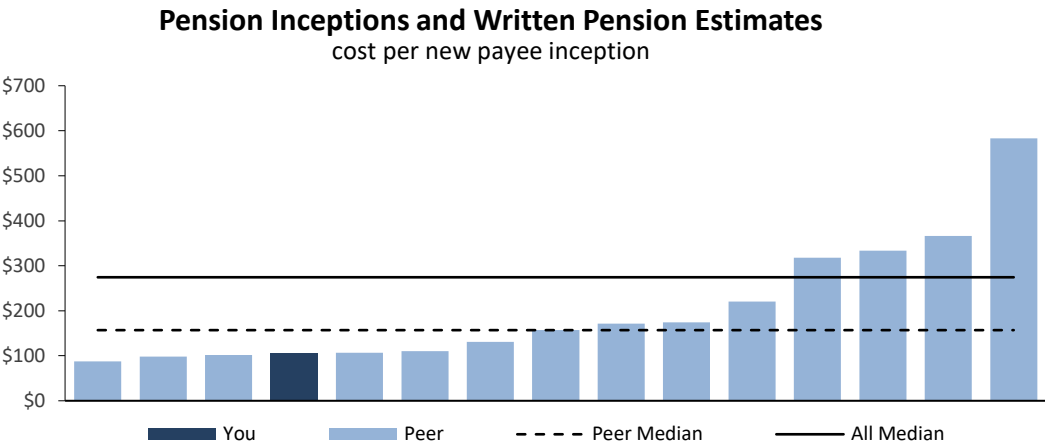


2. Additional pension payments work per annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Percentage of pensioners paid by check (as opposed to Electronic Funds Transfer)	2%	2%	neutral

1B Pension Inceptions and Written Pension Estimates

Your pension inceptions and written pension estimates cost per new payee inception was \$104.24. This was \$52.73 below the peer median of \$156.97. The biggest reason why was that you had lower salaries and benefits per direct FTE.



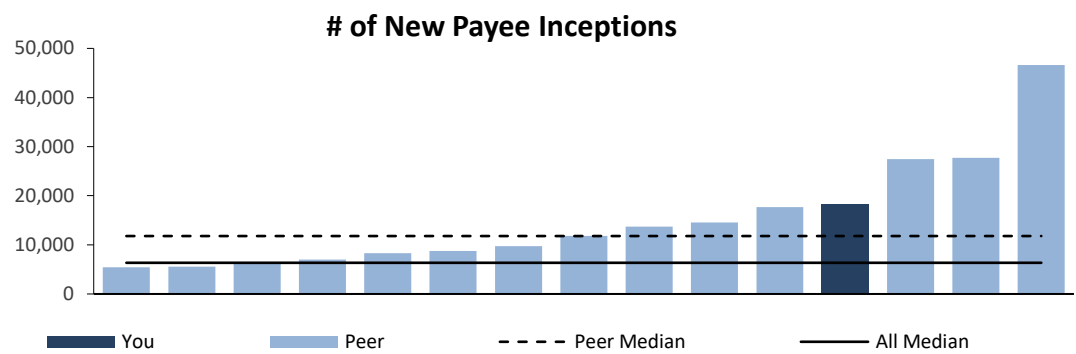
Reasons why your cost was below median	Comparison		Impact ¹ \$s per New Payee
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$71,045	\$101,444	-\$44.10
Equal new payee inceptions per direct FTE (productivity)	689	689	\$0.00
Lower third party costs per new payee inception	\$1.16	\$7.04	-\$5.88
Unexplained ¹			-\$2.75
Cost per new payee inception	\$104.24	\$156.97	-\$52.73

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1B Pension Inceptions and Written Pension Estimates - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 18,196 new payee inceptions was 54% higher than the peer median of 11,790.



2. Mix of activity volume

Inceptions to survivors tend to be less work than inceptions to active members because there are usually no payment option choices for survivors.

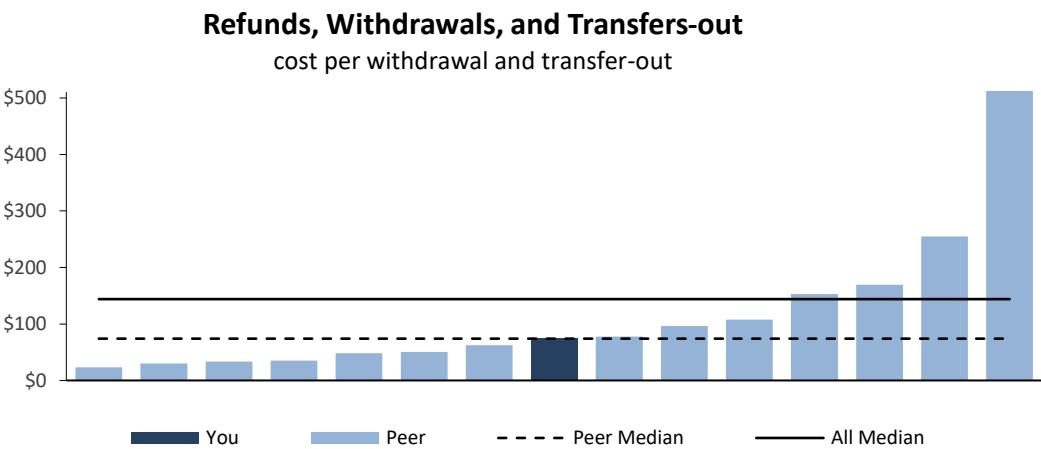
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Annuity inceptions: service retirement (actives)	84%	66%	
Annuity inceptions: service retirement (inactives)	11%	18%	
Annuity inceptions: disability retirement (actives)	2%	2%	
Annuity inceptions: survivor, partner, ex-partner, dependent	4%	14%	increasing
Total new payee inceptions	100%	100%	

3. Additional work per new payee inception

Causes of additional work	You	Peer Avg	Cost Impact
Proportion of inceptions to retiring active members based on estimates	28%	69%	decreasing
Changes in gross amount of annuity pensions paid as a result of changes in an individual annuitant's personal circumstances, as a % of new payee inceptions. (This work is included in the cost of inceptions, but not the volume).	4%	8%	decreasing
Written estimates as a % of new payee inceptions	11%	69%	decreasing
Joint account reciprocity with other systems	No	40%Yes	decreasing
Total complexity score (out of 100)	43	42	increasing

1C Refunds, Withdrawals, and Transfers-out

Your refunds, withdrawals, and transfers-out cost per withdrawal and transfer-out was \$74.00. This was equal to the peer median.



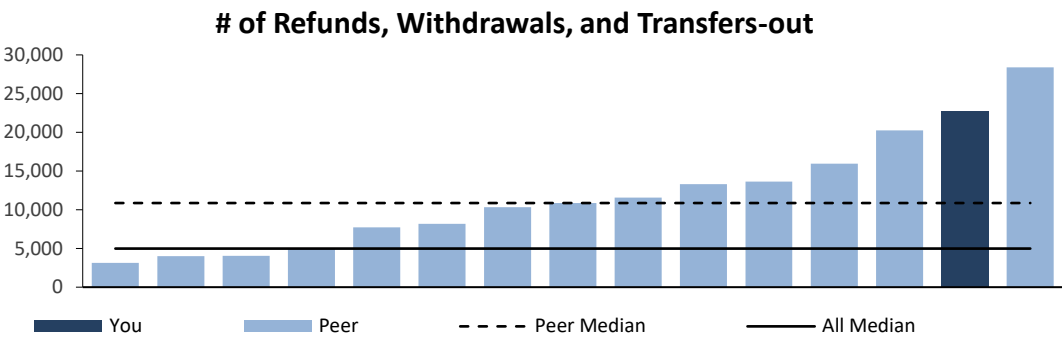
Reasons why your cost was equal to median	Comparison		Impact ¹ \$s per Withdrawal and Transfer-out
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$71,062	\$101,284	-\$30.22
Fewer refunds, withdrawals, and transfers-out per direct FTE	1,000	1,587	\$26.28
Equal third party costs per withdrawal and transfer-out	\$2.94	\$2.94	\$0.00
Unexplained ¹			\$3.94
Cost per withdrawal and transfer-out	\$74.00	\$74.00	\$0.00

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1C Refunds, Withdrawals, and Transfers-out - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 22,701 refunds, withdrawals, and transfers-out was 109% higher than the peer median of 10,868.



2. Mix of activity volume

Transfers-out tend to be more work than a withdrawal because they require co-ordination with another pension system and its rules.

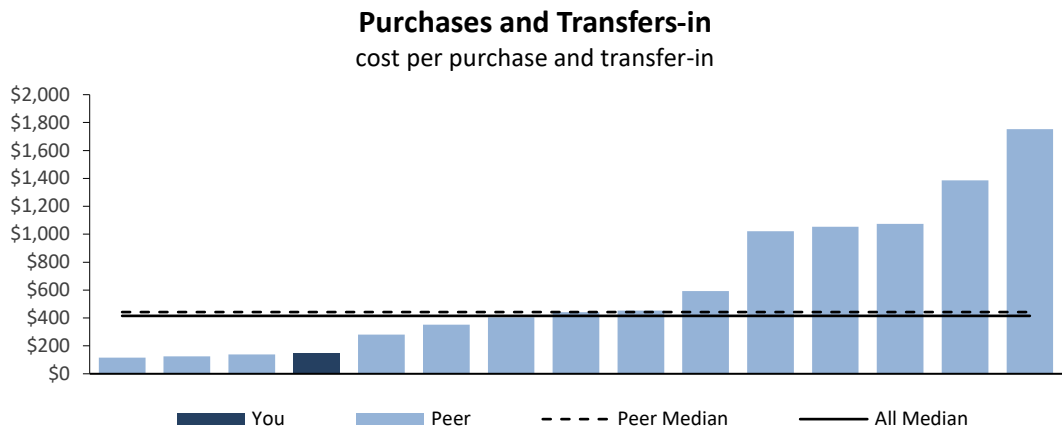
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Full refunds/ withdrawals/ commuted value/ lump sums	91%	98%	
Transfers-out	9%	2%	increasing
Total refunds, withdrawals, and transfers-out	100%	100%	

3. Additional work per withdrawal and transfer-out

Causes of additional work	You	Peer Avg	Cost Impact
Written estimates for refunds, withdrawals, and transfers-out as a % of refunds, withdrawals, and transfers-out	2%	51%	decreasing
Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	Yes	60%Yes	increasing

1D Purchases and Transfers-in

Your purchases and transfers-in cost per purchase and transfer-in was \$149.01. This was \$293.30 below the peer median of \$442.31.



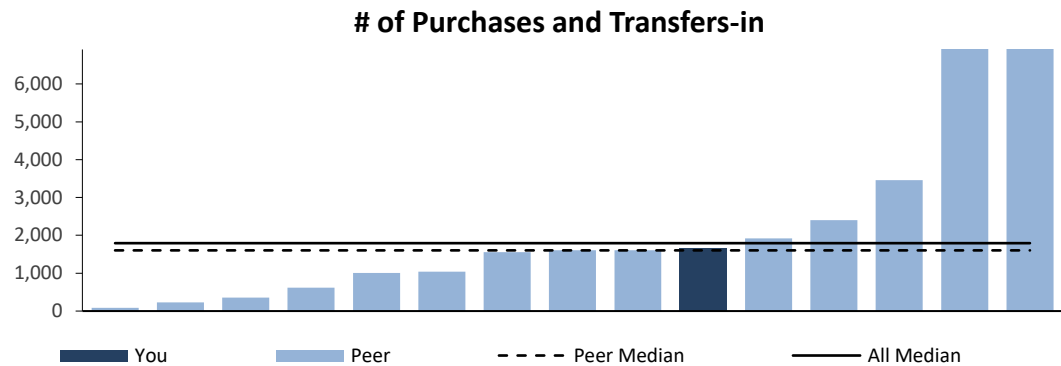
Reasons why your cost was below median	Comparison		Impact ¹
	You	Peer Median	\$s per Purchase and Transfer-in
Lower salaries and benefits per direct FTE	\$73,323	\$101,742	-\$52.85
More purchases and transfers-in per direct FTE (productivity)	538	267	-\$138.09
Equal third party costs per purchase and transfer-in	\$12.66	\$12.66	\$0.00
Unexplained ¹			-\$102.36
Cost per purchase and transfer-in	\$149.01	\$442.31	-\$293.30

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1D Purchases and Transfers-in - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 1,667 purchases and transfers-in was 4% higher than the peer median of 1,603.



2. Mix of activity volume

Individual transfers-in tend to be more work than a service credit purchase because they require co-ordination with another pension system and its rules.

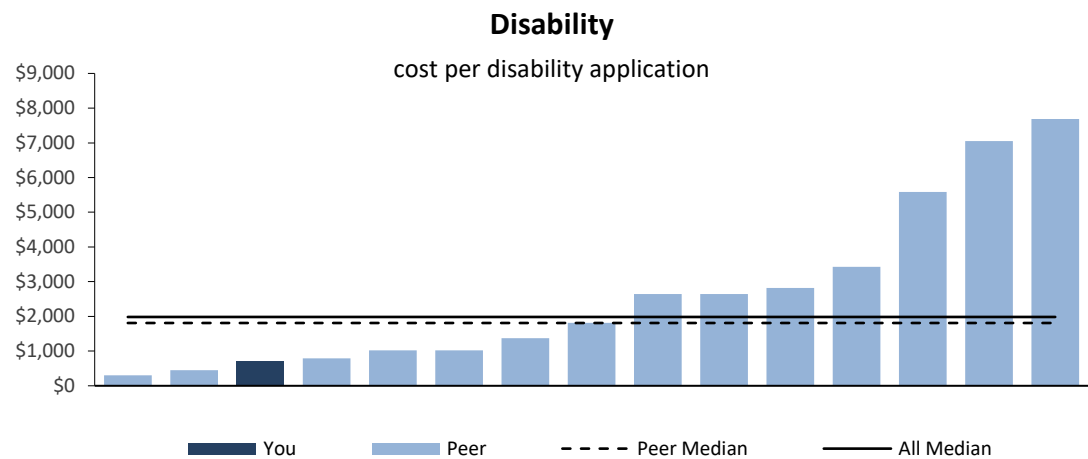
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Prior Service credit purchases	28%	69%	
In-service credit purchases	72%	19%	
Upgrades to improve pensionable salary	0%	1%	
Upgrades to a new retirement formula	0%	2%	
Individual transfers-in from external defined benefit systems	0%	9%	decreasing
Total purchases and transfers-in	100%	100%	

3. Additional work per purchase and transfer-in

Causes of additional work	You	Peer Avg	Cost Impact
Written estimates for purchases and transfers-in as a % of purchases and transfers-in	161%	278%	decreasing
Installment payments permitted	No	80%Yes	decreasing

1E Disability

Your disability cost per disability application was \$700.94. This was \$1,108.65 below the peer median of \$1,809.59. The biggest reason why was that you had lower third party costs per disability application.



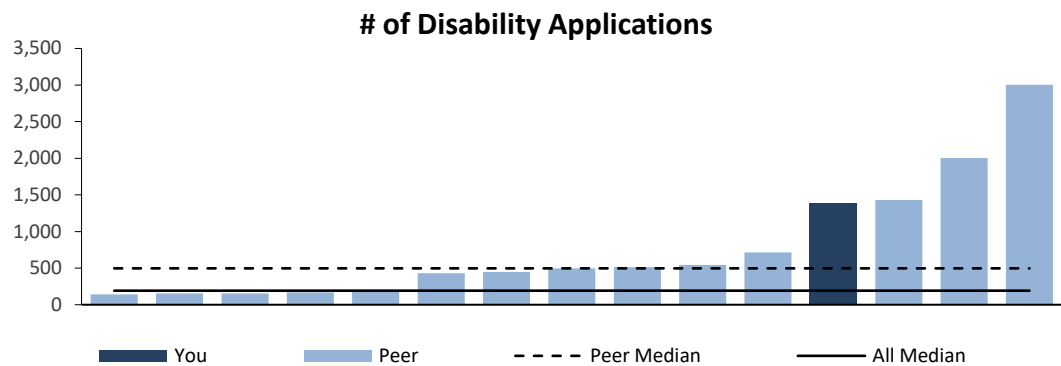
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Disability Application
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$75,151	\$107,390	-\$294.15
More disability applications per direct FTE (productivity)	110	91	-\$137.96
Lower third party costs per disability application	\$15.28	\$694.24	-\$678.96
Unexplained ¹			\$2.42
Cost per disability application	\$700.94	\$1,809.59	-\$1,108.65

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

1E Disability - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 1,381 disability applications was 178% higher than the peer median of 497.



2. Mix of activity volume

Processing long-term disability applications tends to be more work than short-term disability applications.

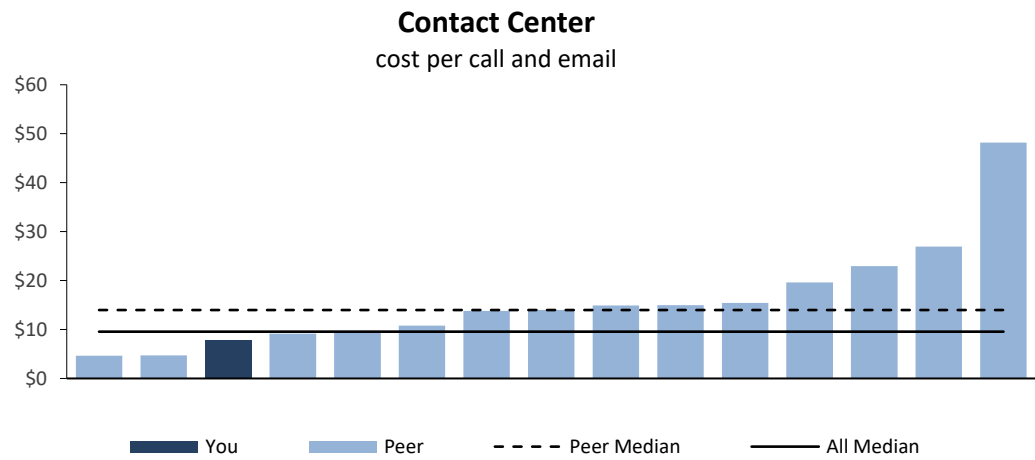
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Applications for short-term disability	0%	6%	
Applications for disability pensions/ long-term disability/ disability lump sums	100%	94%	increasing
Total disability applications	100%	100%	

3. Additional work per disability application

Causes of additional work	You	Peer Avg	Cost Impact
Independent decision process (versus following the ruling of an employer or social security, etc)	Yes	100%Yes	neutral
Recertifications as a % of disability applications	31%	209%	decreasing
Recertifications as a % of disability recipients	6%	16%	decreasing
Medical exams paid for by you as a % of disability applications	0%	29%	decreasing
New member health reviews as a % of disability applications	0%	7%	decreasing
Disability decision appeals as a % of disability applications	0%	8%	decreasing
Occupational disability as a % of disability applications	0%	15%	decreasing
Disability complexity score (out of 100)	71	69	increasing

2A Contact Center

Your contact center cost per call and email was \$7.92. This was \$6.06 below the peer median of \$13.98. The biggest reason why was that you had lower salaries and benefits per direct FTE.



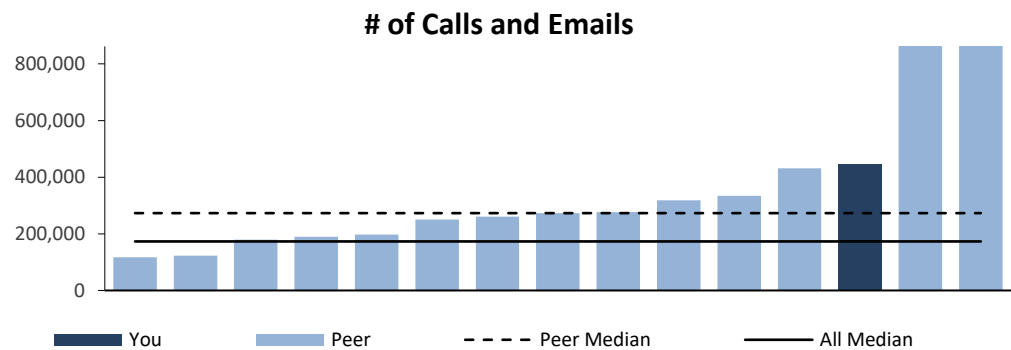
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Call and Email
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$70,817	\$100,254	-\$3.27
More calls and emails per direct FTE (productivity)	8,996	7,227	-\$1.93
Lower third party costs per call and email	\$0.05	\$0.58	-\$0.54
Unexplained ¹			-\$0.32
Cost per call and email	\$7.92	\$13.98	-\$6.06

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2A Contact Center - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 447,099 calls and emails was 64% higher than the peer median of 272,898.

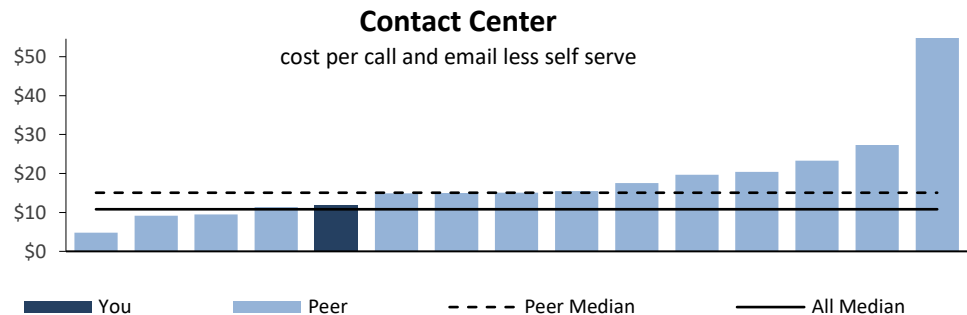


2. Mix of activity volume

Calls satisfied by self-serve options are close to zero cost, thus a lower proportion of self-serve calls result in an increased cost per call.

Activity Volume: % by Type	You	Peer Avg	Cost Impact
Incoming calls that reach service representatives	47%	70%	
Outgoing calls from service representatives	2%	3%	
Calls satisfied by self-serve options	34%	12%	decreasing
Email queries from members	17%	8%	
Member queries via your secure messaging portal	0%	6%	
Total calls and emails	100%	100%	

If self-serve calls were excluded from volumes, your cost per active member and annuitant would have increased to \$11.96. This would have been below the peer median cost of \$15.06.



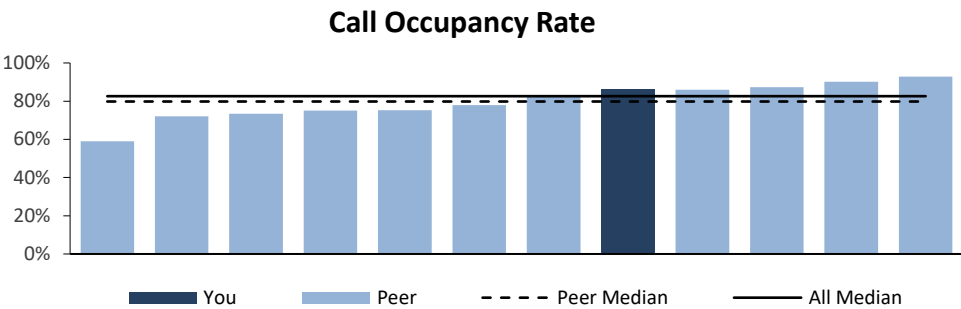
2A Contact Center - Factors that impact productivity

continued

3. Additional work per call and email

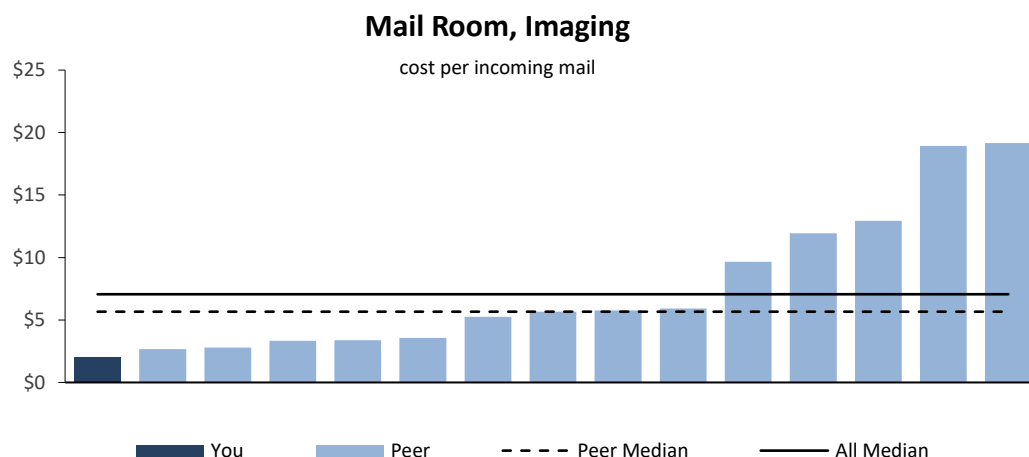
Causes of additional work	You	Peer Avg	Cost Impact
Average talk time of a member call (in seconds)	480	415	increasing
Average after call work time (in seconds)	120	100	increasing
Do you regularly review staff responses to member calls?	Yes	100%Yes	neutral

Occupancy rate is frequently used to measure productivity in a call center. A high occupancy rate implies an efficient use of staff, and low occupancy, the opposite. However, if occupancy is too high, your staff may be overworked, leading to undesired call-handling behavior and high staff turnover rate. Call centers handling larger volumes of calls will also be more efficient than smaller ones because of economies of scale.



2B Mail Room, Imaging

Your mail room, imaging cost per incoming mail was \$2.03. This was \$3.63 below the peer median of \$5.66. The biggest reason why was that you completed more incoming mail per direct FTE (productivity).



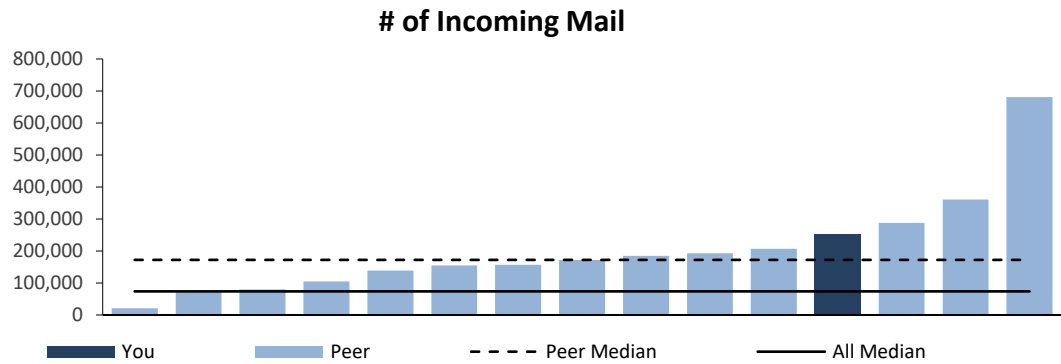
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Incoming Mail
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$70,243	\$83,076	-\$0.35
More incoming mail per direct FTE (productivity)	36,172	20,430	-\$1.50
Lower third party costs per incoming mail	\$0.08	\$0.88	-\$0.80
Unexplained ¹			-\$0.98
Cost per incoming mail	\$2.03	\$5.66	-\$3.63

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2B Mail Room, Imaging - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 253,205 incoming mail was 47% higher than the peer median of 172,195.

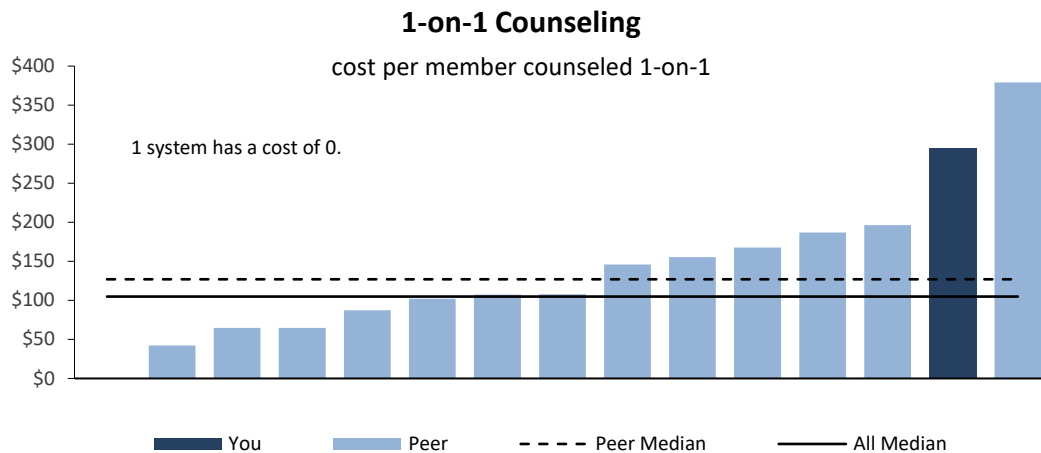


2. Additional work per incoming mail

Causes of additional work	You	Peer Avg	Cost Impact
Outgoing mail as a % of incoming mail (Outgoing mail is not included in activity volume. But it can add work if the mailroom is responsible for outgoing mail).	151%	719%	decreasing

2C 1-on-1 Counseling

Your 1-on-1 counseling cost per member counseled 1-on-1 was \$295.42. This was \$168.42 above the peer median of \$127.00.



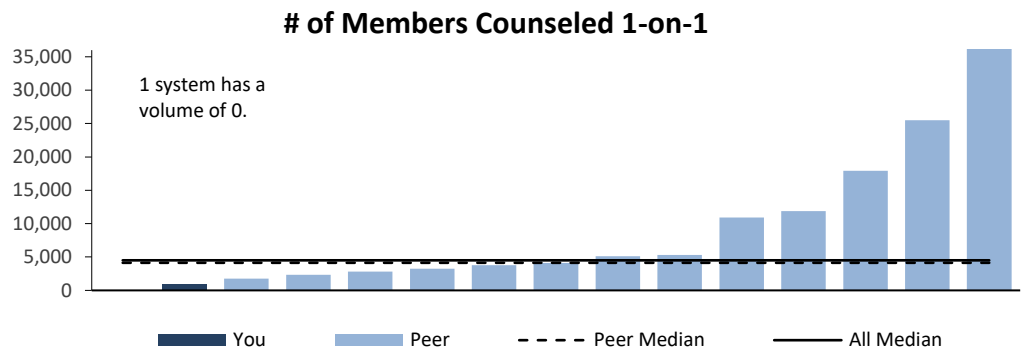
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Member Counseled 1-on-1
Lower salaries and benefits per direct FTE	\$70,868	\$105,765	-\$134.90
Fewer members counseled 1-on-1 per direct FTE (productivity)	259	826	\$188.15
Higher third party costs per member counseled 1-on-1	\$21.46	\$3.19	\$18.28
Unexplained ¹			\$96.89
Cost per member counseled 1-on-1	\$295.42	\$127.00	\$168.42

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2C 1-on-1 Counseling - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 983 members counseled 1-on-1 was 76% lower than the peer median of 4,135.



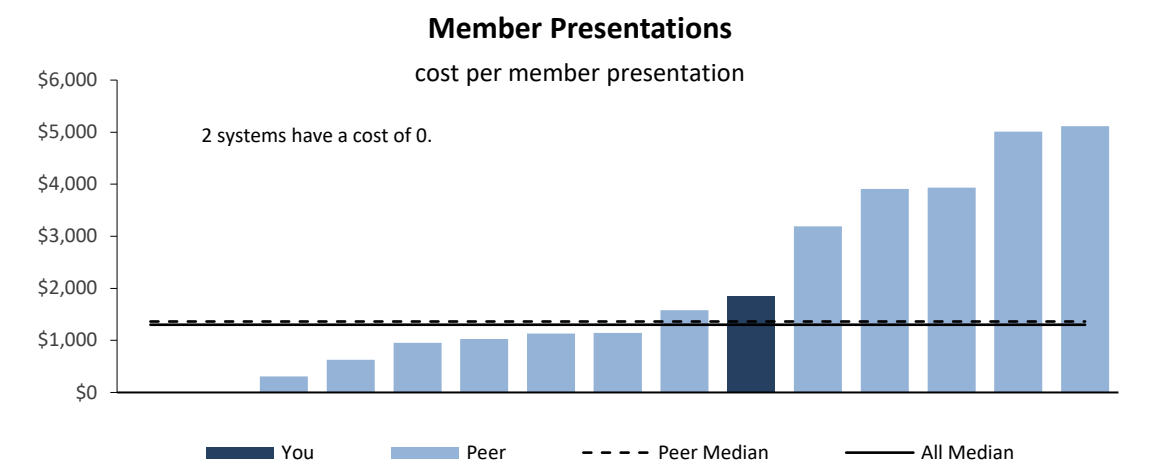
2. Mix of activity volume

Counseling in-house is less expensive than counseling in field locations, but more costly than via tele- or videoconference.

Activity Volume: % by Type	You	Peer Avg	Cost Impact
In-house	1%	30%	decreasing
In the field	0%	17%	decreasing
Via teleconference	40%	25%	increasing
Via videoconference	60%	27%	increasing
Total members counseled 1-on-1	100%	100%	

2D Member Presentations

Your member presentations cost per member presentation was \$1,849.43. This was \$486.50 above the peer median of \$1,362.93.



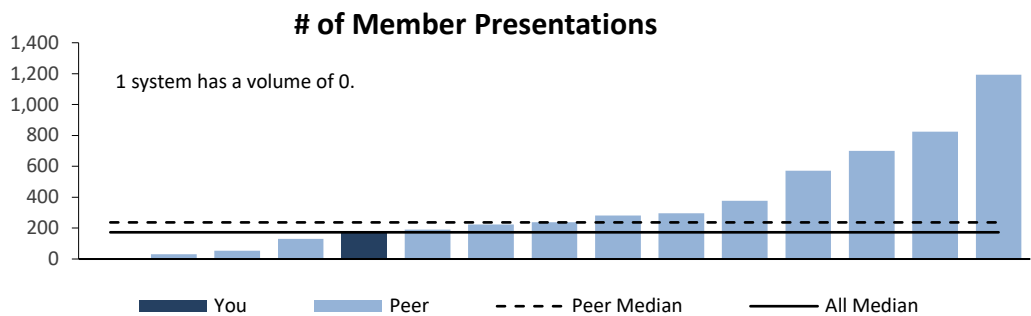
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Member Presentation
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$73,700	\$114,077	-\$928.21
Fewer member presentations per direct FTE (productivity)	44	78	\$753.26
Higher third party costs per member presentation	\$155.17	\$105.58	\$49.59
Unexplained ¹			\$611.85
Cost per member presentation	\$1,849.43	\$1,362.93	\$486.50

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2D Member Presentations - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 174 member presentations was 27% lower than the peer median of 237.



2. Mix of activity volume

Presentations and group counseling in field locations are more costly than in-house.

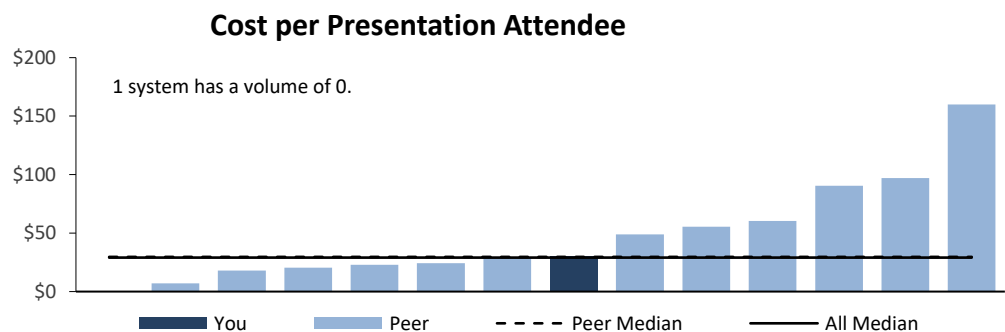
Member Presentations by Location	You	Peer Avg	Cost Impact
In-house and webcast	100%	67%	
In the field	0%	33%	decreasing
Total presentations and group counseling	100%	100%	

3. Additional work per member presentation

If you have more attendees per presentation, then the cost per attendee will be lower and the volume of member presentations per FTE will be higher. You had an average of 60 attendees per presentation, versus a peer average of 48.

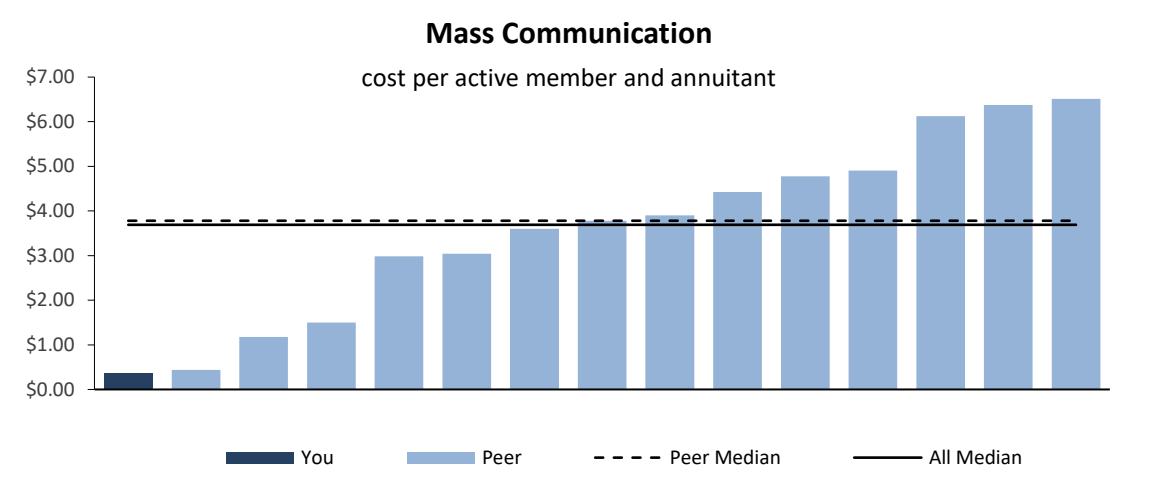
Causes of additional work	You	Peer Avg	Cost Impact
Average attendees per presentation	60	48	decreasing

An alternative way of analyzing this activity's cost is on a 'per attendee' basis. Your cost per presentation attendee was \$31. This was above the peer median cost of \$30.



2E Mass Communication

Your mass communication cost per active member and annuitant was \$0.37. This was \$3.41 below the peer median of \$3.78.



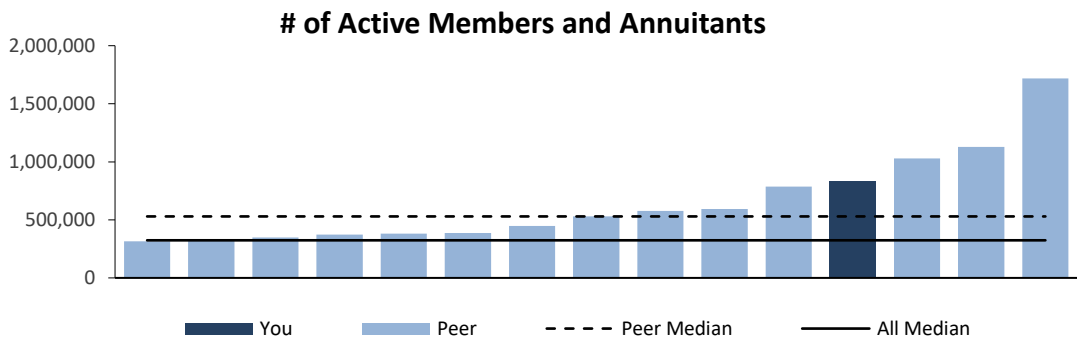
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$81,257	\$114,467	-\$0.14
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.04	0.17	-\$1.07
Lower third party costs per active member and annuitant	\$0.03	\$1.36	-\$1.33
Unexplained ¹			-\$0.87
Cost per active member and annuitant	\$0.37	\$3.78	-\$3.41

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).
2. You had 3.5 mass communication FTE which was 62% less than the peer median of 9.2. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.04 FTE per 10,000 active members and annuitants was 76% less than the peer median of 0.17) because you had an economy of scale advantage.

2E Mass Communication - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 830,714 active members and annuitants was 57% higher than the peer median of 529,329.

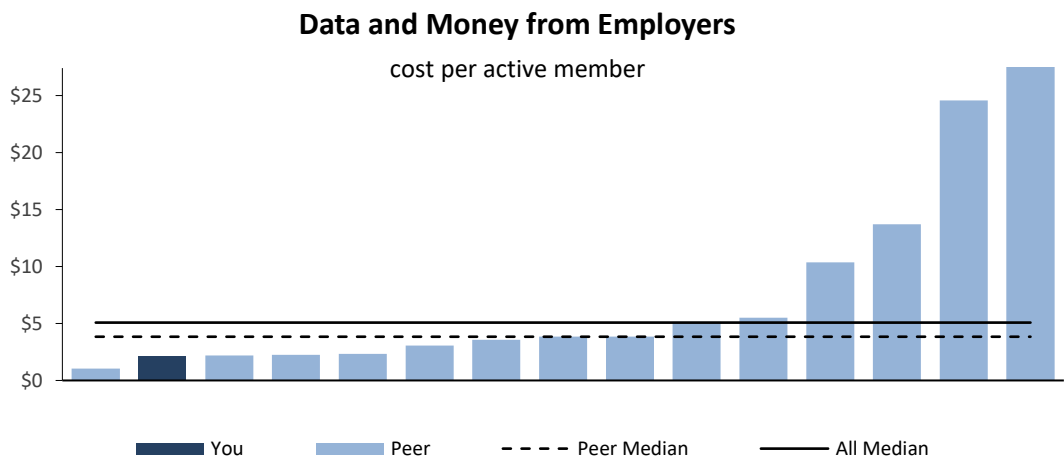


2. Additional mass communication work per active member and annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Website Service Score (out of 100) - Generally, the higher the score, the more time communication staff spends on design and maintenance of the site.	95	87	increasing
Do you automatically send targeted emails or letters to members in the following circumstances:			
<u>Active members</u>			
a1) Approaching eligibility for retirement?	No	60% Yes	
b1) Missing beneficiary information?	No	27% Yes	
c1) Missing email address?	No	7% Yes	
e) New members?	No	87% Yes	
f) Eligibility or likely eligibility, to purchase prior service credit?	No	7% Yes	
g) Members are vested for pension benefits (if not vested immediately)?	No	43% Yes	
h) Eligibility to purchase in-leave service credit?	No	0% Yes	
<u>Inactive members</u>			
a2) Approaching eligibility for retirement?	Yes	67% Yes	
b2) Missing beneficiary information?	No	7% Yes	
c2) Missing email address?	No	0% Yes	
d1) Missing address?	No	0% Yes	
i) Leaving the plan?	Yes	40% Yes	
m) Expiration of disability benefits for inactive members?	Yes	27% Yes	
<u>Annuitants</u>			
b3) Missing beneficiary information?	No	7% Yes	
c3) Missing email address?	No	7% Yes	
d2) Missing address?	No	20% Yes	
j) New retirees?	Yes	60% Yes	
k) Pension amount changes?	Yes	64% Yes	
l) Members are vested for disability benefits (if not vested immediately)?	No	14% Yes	

3A Data and Money from Employers

Your data and money from employers cost per active member was \$2.10. This was \$1.74 below the peer median of \$3.84. The biggest reason why was that you had lower salaries and benefits per direct FTE.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$71,654	\$106,513	-\$1.00
Fewer direct FTE per 10,000 active members (productivity) ²	0.16	0.17	-\$0.06
Lower third party costs per active member	\$0.04	\$0.18	-\$0.14
Unexplained ¹			-\$0.54
Cost per active member	\$2.10	\$3.84	-\$1.74

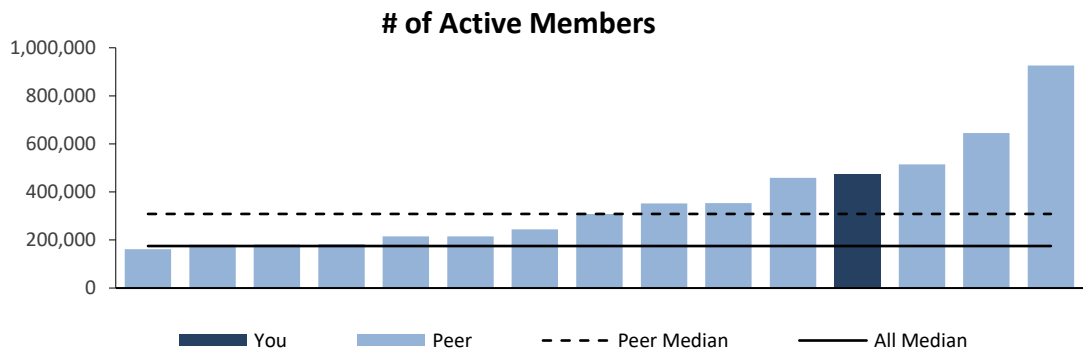
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).
2. You had 13.6 data and money from employers FTE which was 56% more than the peer median of 8.7. The difference changes direction and was more favorable on a 'per active members' basis (your 0.16 data and money from employers FTE per 10,000 active members was 5% less than the peer median of 0.17) because you had an economy of scale advantage.

CEM uses active members as the divisor of this activity's cost. For systems with few employers, active members is the better predictor of cost whereas for systems with numerous employers the number of employers is the better predictor. Therefore, on the following page we show the number of employers as a divisor to provide an alternate cost comparison.

3A Data and Money from Employers - Factors that impact productivity

1. Economies of scale

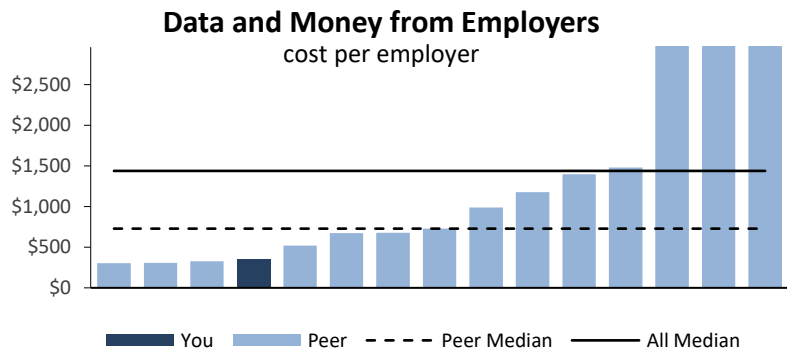
You had an economy of scale advantage. Your 473,933 active members was 54% higher than the peer median of 308,453.



2. Additional data and money from employers work per active member

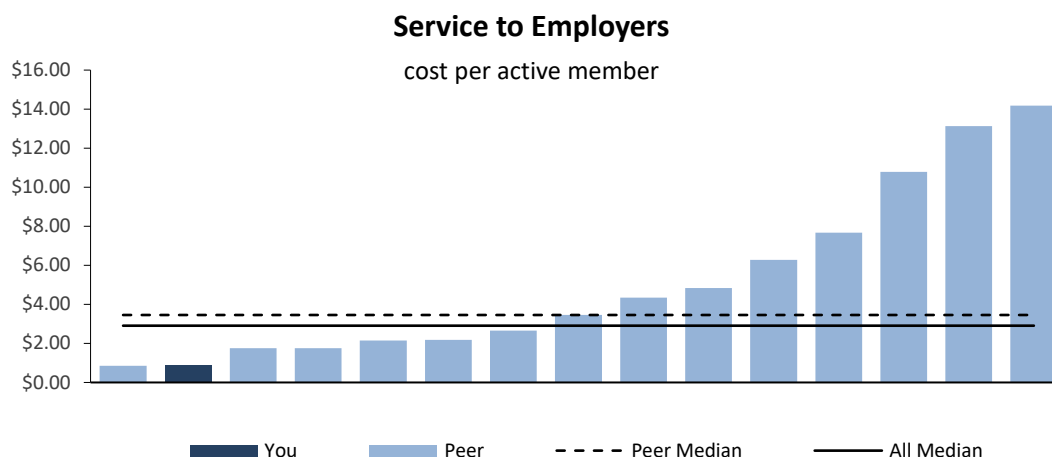
Causes of additional work	You	Peer Avg	Cost Impact
How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:			
• Validating member data? (as a % of active members)	0.6%	0.6%	neutral
• Reconciling money issues? (as a % of active members)	0.6%	0.5%	increasing
Active members whose data is provided in paper format (as a % of active members)	2.3%	11.0%	decreasing
Status changes as a % of active members			
• New active members	14.0%	12.1%	increasing
• Re-hired inactive members	0.5%	2.7%	decreasing
• Re-hired service retirees, if annuity stops	0.0%	0.0%	neutral
• Active members exiting to inactive or withdrawal	7.9%	7.9%	neutral
• Active member service retirements	3.2%	2.7%	increasing

3. Alternate cost drivers: Data and money from employers cost per employer



3B Service to Employers

Your service to employers cost per active member was \$0.87. This was \$2.59 below the peer median of \$3.46.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$75,173	\$110,061	-\$0.38
Fewer direct FTE per 10,000 active members (productivity) ²	0.06	0.14	-\$0.55
Lower third party costs per active member	\$0.04	\$0.14	-\$0.10
Unexplained ¹			-\$1.56
Cost per active member	\$0.87	\$3.46	-\$2.59

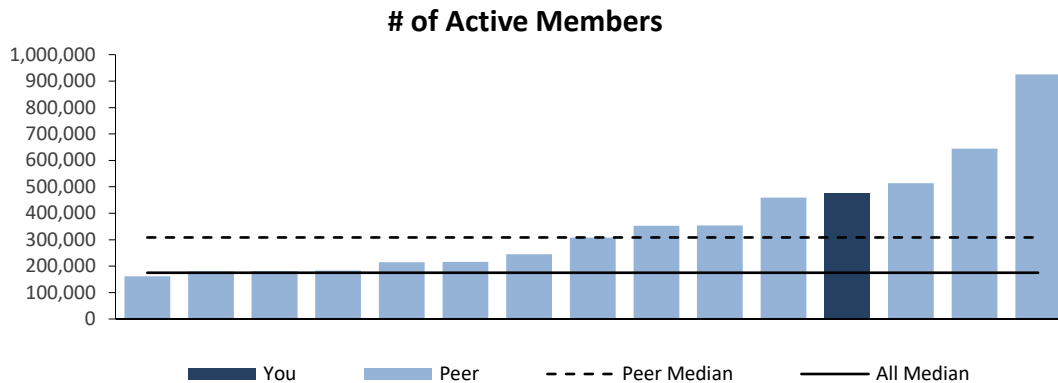
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 5.2 service to employers FTE which was 15% less than the peer median of 6.1. The percentage difference was more favorable on a 'per active members' basis (your 0.06 FTE per 10,000 active members was 54% less than the peer median of 0.14) because you had an economy of scale advantage.

3B Service to Employers - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 473,933 active members was 54% higher than the peer median of 308,453.

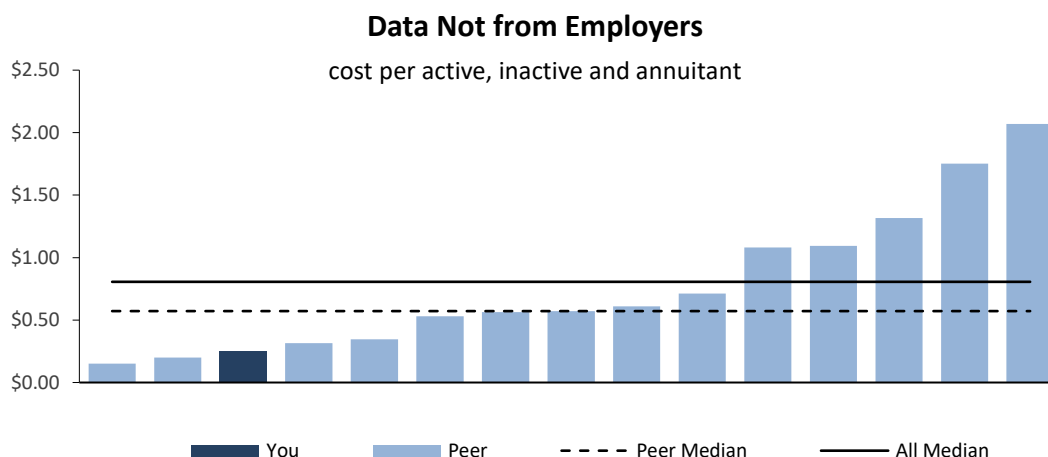


2. Additional service to employers work per active member

Causes of additional work	You	Peer Avg	Cost Impact
How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:			
• Validating member data? (as a % of active members)	0.6%	0.6%	neutral
• Reconciling money issues? (as a % of active members)	0.6%	0.5%	increasing
Service transactions a % of active members:			
a) Incoming calls from employers?	0.8%	5.5%	decreasing
b) Email queries from employers?	5.0%	10.1%	decreasing
c) Conferences for employers?	0.0%	0.0%	neutral
d) Presentations given to employers such as orientation workshops or seminars on benefit changes, etc?	0.0%	0.0%	neutral
e) On-site reviews (or audits or inspections) of your employers? [For example, several systems perform reviews of their employers that have problems providing data and or contributions on a timely basis to ensure that they are correctly fulfilling their obligations to their members.]	0.0%	0.0%	neutral
f) Other site visits to employers [exclude 'd' and 'e' above]?	0.00%	0.00%	neutral

3C Data Not from Employers

Your data not from employers cost per active, inactive and annuitant was \$0.25. This was \$0.32 below the peer median of \$0.57.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active, Inactive and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$69,182	\$107,087	-\$0.13
Fewer direct FTE per 10,000 actives, inactives, annuitants (productivity) ²	0.04	0.08	-\$0.26
Lower third party costs per active, inactive and annuitant	\$0.02	\$0.07	-\$0.05
Unexplained ¹			\$0.12
Cost per active, inactive and annuitant	\$0.25	\$0.57	-\$0.32

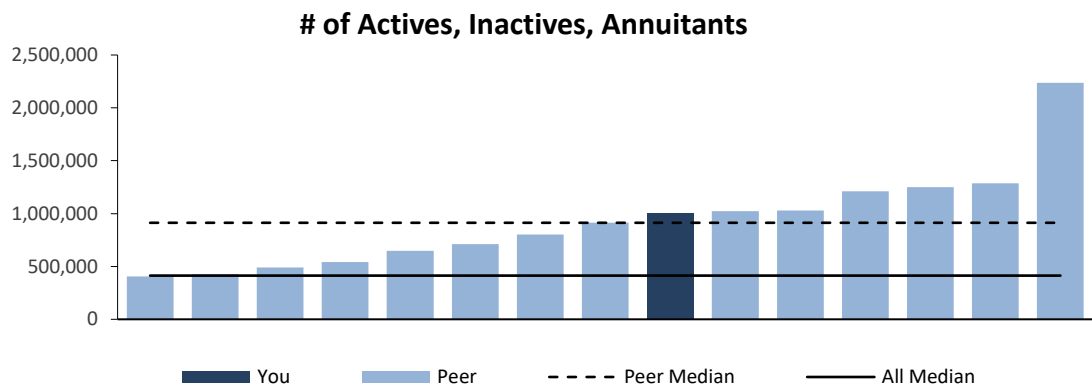
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 3.3 data not from employers FTE which was 28% less than the peer median of 4.6. The percentage difference was more favorable on a 'per actives, inactives, annuitants' basis (your 0.04 FTE per 10,000 actives, inactives, annuitants was 49% less than the peer median of 0.08) because you had an economy of scale advantage.

3C Data Not from Employers - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 1,000,522 actives, inactive, annuitants was 10% higher than the peer median of 912,948.

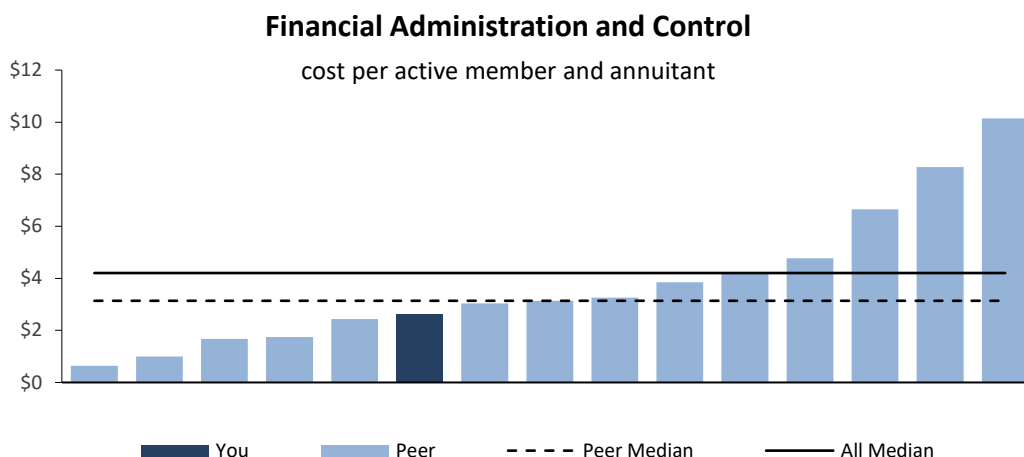


2. Additional data not from employers work per active, inactive and annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Do you actively keep track of the addresses of inactive members?	Yes	87%Yes	increasing
If yes, inactive members as a % of actives, inactive, annuitants	17.0%	31.5%	decreasing
Status changes as a % of actives, inactive, annuitants:			
• Deaths	0.4%	0.3%	increasing

4A Financial Administration and Control

Your financial administration and control cost per active member and annuitant was \$2.64. This was \$0.50 below the peer median of \$3.14.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$88,500	\$126,959	-\$0.25
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.07	0.24	-\$1.50
Higher third party costs per active member and annuitant	\$2.13	\$0.79	\$1.34
Unexplained ¹			-\$0.08
Cost per active member and annuitant	\$2.64	\$3.14	-\$0.50

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

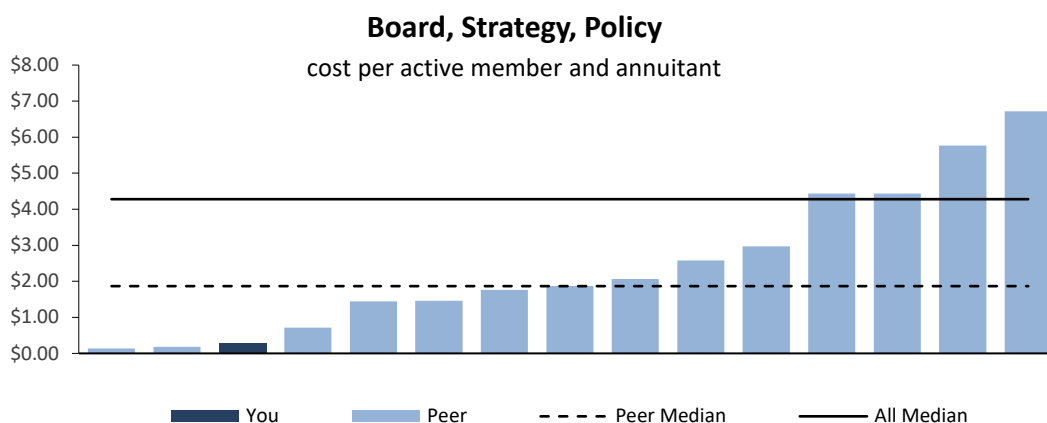
2. You had 5.4 financial administration and control FTE which was 32% less than the peer median of 7.9. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.07 FTE per 10,000 active members and annuitants was 72% less than the peer median of 0.24) because you had an economy of scale advantage.

Usually, the biggest reason for differences in this activity's cost is the number of financial administration and control FTE per 10,000 members. Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale - You had an economy of scale advantage. Your 830,714 active members and annuitants was 57% higher than the peer median of 529,329.
- Doing more/less - For example, some systems have more extensive budgeting than others.

4B Board, Strategy, Policy

Your board, strategy, policy cost per active member and annuitant was \$0.28. This was \$1.59 below the peer median of \$1.87.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$129,333	\$177,686	-\$0.09
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.02	0.10	-\$1.01
Lower third party costs per active member and annuitant	\$0.05	\$0.29	-\$0.23
Unexplained ¹			-\$0.26
Cost per active member and annuitant	\$0.28	\$1.87	-\$1.59

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 1.5 board, strategy, policy FTE which was 71% less than the peer median of 5.1. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.02 FTE per 10,000 active members and annuitants was 81% less than the peer median of 0.10) because you had an economy of scale advantage.

Usually, the biggest reason for differences in this activity's cost is the number of board, strategy, policy FTE per 10,000 members. Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

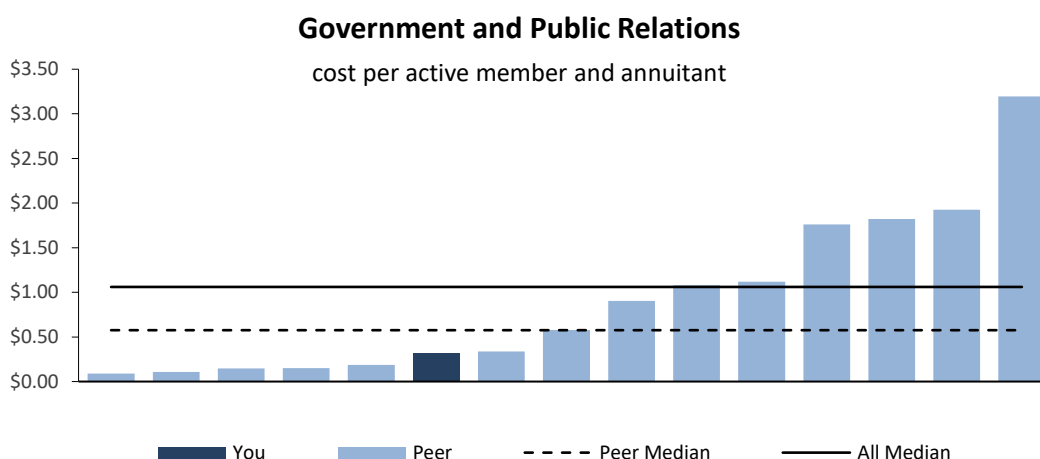
- Economies of scale - You had an economy of scale advantage. Your 830,714 active members and annuitants was 57% higher than the peer median of 529,329.
- Doing more/less - For example, your 7 oversight meetings last year was below the peer median of 21.

# of meetings last year, including sub-committees	You	Peer	Peer Avg
		Median *	
a) Board of Trustees?	4	14	12.7
b) Non-board legislative oversight committee?	2	6	6.5
c) Advisory committee?	1	5	1.9
d) Members' Council?	n/a	n/a	n/a
e) Other?	n/a	4	4.9
Total	7	21	26

* Peer medians will not add to the total. Only averages are additive.

4C Government and Public Relations

Your government and public relations cost per active member and annuitant was \$0.31. This was \$0.27 below the peer median of \$0.58.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$118,850	\$157,522	-\$0.09
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.02	0.05	-\$0.28
Higher third party costs per active member and annuitant	\$0.04	\$0.03	\$0.01
Unexplained ¹			\$0.09
Cost per active member and annuitant	\$0.31	\$0.58	-\$0.27

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

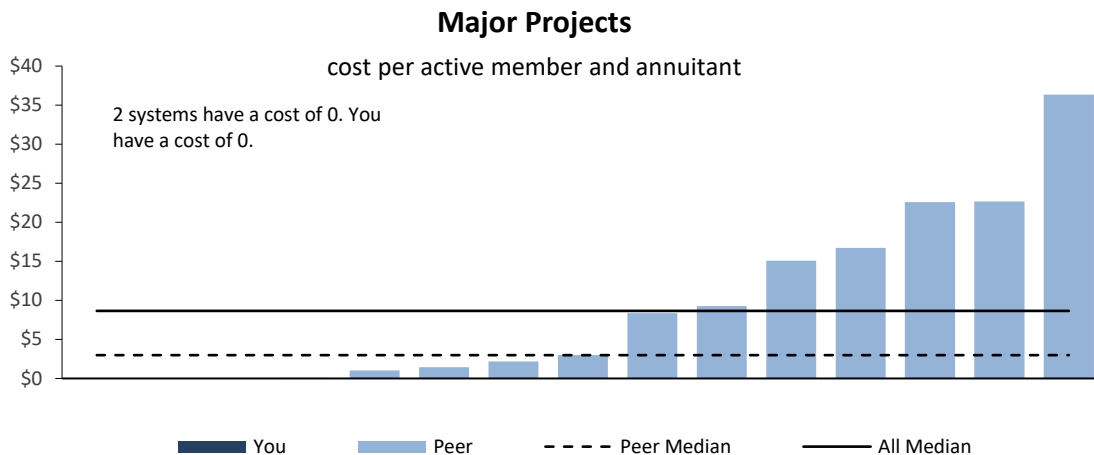
2. You had 2.0 government and public relations FTE which was equal to the peer median of 2.0. The difference changes direction and was more favorable on a 'per active members and annuitants' basis (your 0.02 government and public relations FTE per 10,000 active members and annuitants was 49% less than the peer median of 0.05) because you had an economy of scale advantage.

Usually, the biggest reason for differences in this activity's cost is the number of government and public relations FTE per 10,000 members. Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale - You had an economy of scale advantage. Your 830,714 active members and annuitants was 57% higher than the peer median of 529,329.
- Doing more/less - For example, some systems do not have any government relations staff.

5A-D Major Projects

You have no cost for this activity. The peer median cost was \$2.98. This comparison includes both '5A and 5C Amortized major projects' plus '5B and 5D Major Projects (if you don't capitalize)'.

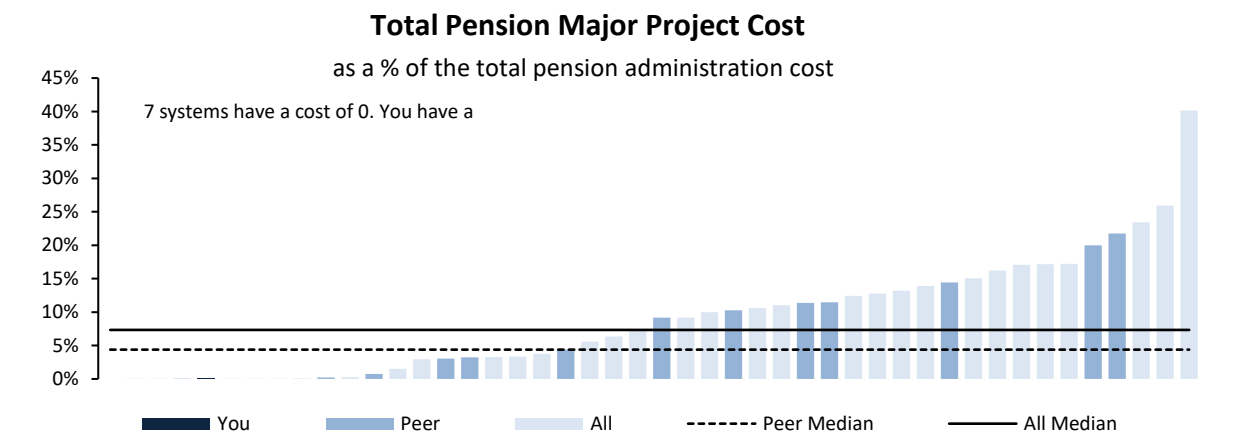


Reasons for differences in the cost for major projects include:

- **Economies of scale** - Scale is particularly important for major projects because of the substantial fixed costs of developing the IT infrastructure necessary for pension systems to operate. You had an economy of scale advantage. Your 830,714 active members and annuitants was 56.9% higher than the peer median of 529,329. Thus you had more members over which to spread major projects costs.
- **Plan complexity** - It is more expensive to develop and maintain IT systems for plans with complex rule sets. Your total plan complexity score was 43 out of 100. This was above the peer median of 41.
- **IT investment cycle** - If you recently upgraded your IT systems, then your amortization costs will be higher than a system that has not upgraded their IT systems since 1990.
- **Capitalization** - Systems that do not capitalize major project costs will have more variable major project costs. Systems that only recently started capitalizing major projects costs will have lower costs than systems that have been capitalizing for a long time.

5A-D Major Projects - as a % of cost

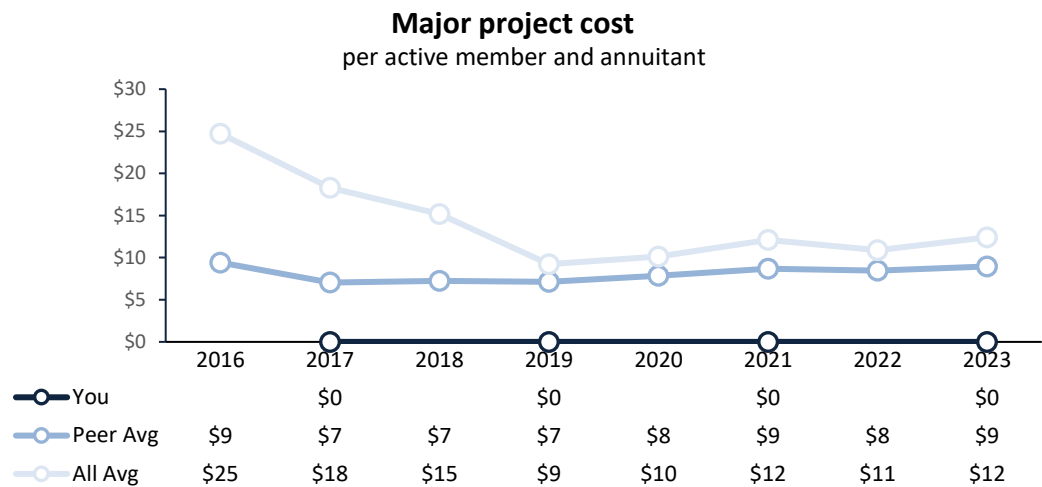
Your major project cost as a percent of total cost was 0%. This was below the peer median of 4%.



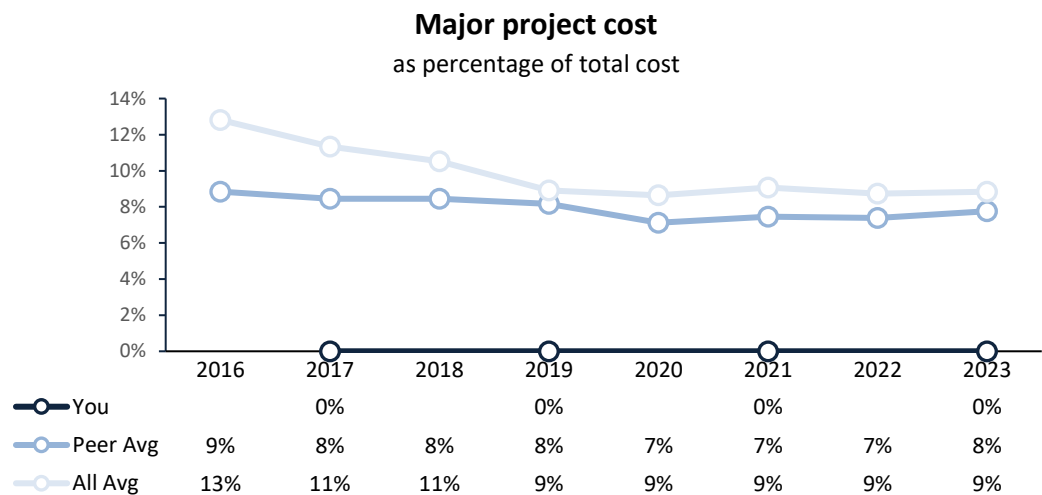
Major Project Cost by Category									
Activity	Cost	Cost per Active Member and					Cost as a % of Total		
	in\$	Annuitant					Major Project Cost		
	000s	Peer		All			Peer	All	
	You	You	Med	Avg	Med	Avg	You	Avg	Avg
5a. Amortization of non-IT Major Projects	0	0.00	0.00	0.00	0.00	0.26	n/a	0%	2%
5b. Non-IT Major Projects (if you don't capitalize)	0	0.00	0.00	3.34	0.00	2.42	n/a	36%	17%
5c. Amortization of IT Major Projects	0	0.00	0.00	1.43	0.00	2.49	n/a	15%	18%
5d. IT Major Projects (if you don't capitalize)	<u>0</u>	<u>0.00</u>	<u>1.02</u>	<u>4.48</u>	<u>1.25</u>	<u>8.86</u>	<u>n/a</u>	<u>48%</u>	<u>63%</u>
Total Pension Major Project cost	0	0.00	2.98	9.25	8.65	14.01	0%	100%	100%

5A-D Major Projects - trends

Major project cost per member for your peers that have participated for 8 consecutive years has grown at a compound annual rate of -0.8% between 2016 and 2023. The all participant average is -9.4%. You did not provide any major project costs over this period.



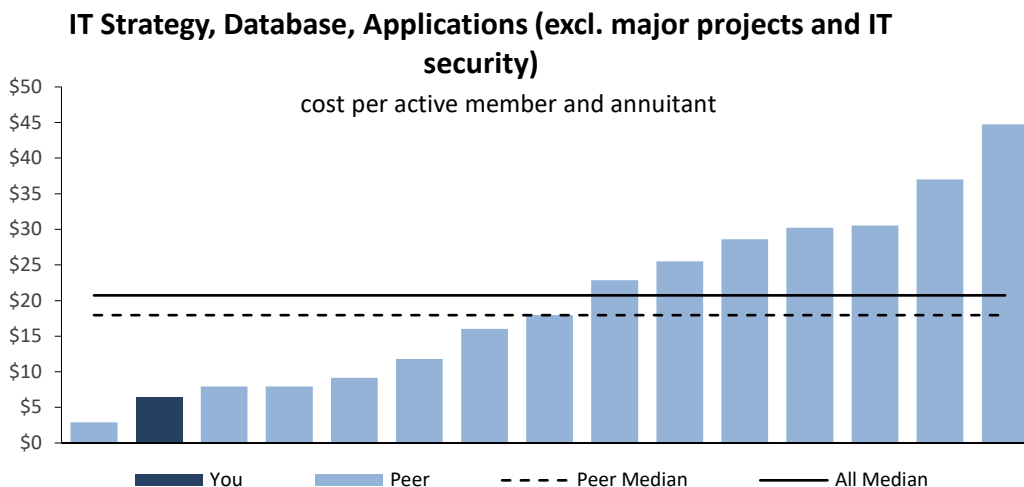
Major project cost as a percentage of total cost of your peers that have participated for 8 consecutive years has grown at a compound annual rate of -1.9% between 2016 and 2023. The all participant average is -5.2%. You did not provide any major project costs over this period.



Trend analysis is based on systems that have provided 8 consecutive years of data (13 of 15 peers and 31 of 46 World systems).

6A IT Strategy, Database Management and Applications (excl. major projects and IT security)

Your IT strategy, database, applications (excl. major projects and IT security) cost per active member and annuitant was \$6.43. This was \$11.52 below the peer median of \$17.95.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$99,250	\$145,826	-\$0.22
Fewer direct FTE per 10,000 active members and annuitants ²	0.05	0.44	-\$3.86
Lower third party costs per active member and annuitant	\$6.12	\$7.72	-\$1.60
Unexplained ¹			-\$5.84
Cost per active member and annuitant	\$6.43	\$17.95	-\$11.52

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

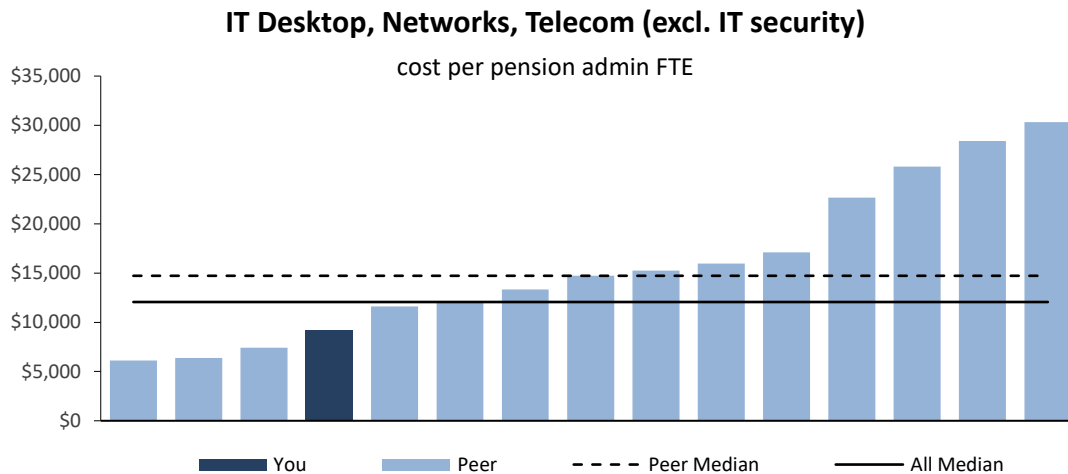
2. You had 4.0 IT strategy, database, applications (excl. major projects and IT security) FTE which was 82% less than the peer median of 22.5. The percentage difference was more favorable on a 'per active member and annuitant' basis (your 0.05 FTE per 10,000 active member and annuitant was 89% less than the peer median of 0.44) because you had an economy of scale advantage.

Three key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale - Scale is particularly important for IT strategy, database, applications (excl. major projects and IT security) because of the substantial fixed costs of maintaining the IT infrastructure necessary for pension systems to operate. You had an economy of scale advantage. Your 830,714 active members and annuitants was 56.9% higher than the peer median of 529,329. Thus you had more members over which to spread IT strategy, database, applications (excl. major projects and IT security) costs.
- Plan complexity - It is more expensive to develop and maintain IT systems for plans with complex rule sets. Your total plan complexity score was 43 out of 100. This was above the peer median of 41.
- IT investment cycle.

6B IT Desktop, Networks, Telecom

Your IT Desktop, Networks, Telecom (excl. IT security) cost per pension admin FTE was \$9,152. This was \$5,568 below the peer median of \$14,720.



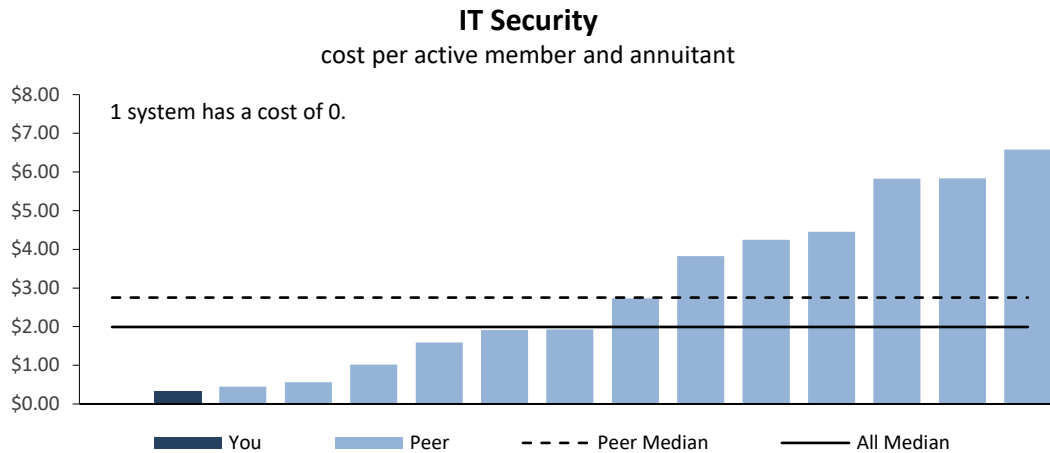
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Pension Admin FTE
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$70,200	\$151,263	-\$456
Fewer direct FTE per 100 pension admin FTE ²	0.56	3.39	-\$1,983
Lower third party costs per pension admin FTE	\$8,988	\$9,334	-\$347
Unexplained ¹			-\$2,782
Cost per pension admin FTE	\$9,152	\$14,720	-\$5,568

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 1.0 IT desktop, networks, telecom (excl. IT security) FTE which was 92% less than the peer median of 12.1. The percentage difference was less favorable on a 'per pension admin FTE' basis (your 0.56 FTE per 100 pension admin FTE was 83% less than the peer median of 3.39) because you had an economy of scale disadvantage.

6C IT Security

Your IT security cost per active member and annuitant was \$0.32. This was \$1.61 below the peer median of \$1.93.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower third party costs per active member and annuitant	\$0.33	\$0.59	-\$0.26
Unexplained ¹			-\$1.35
Cost per active member and annuitant	\$0.32	\$1.93	-\$1.61

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

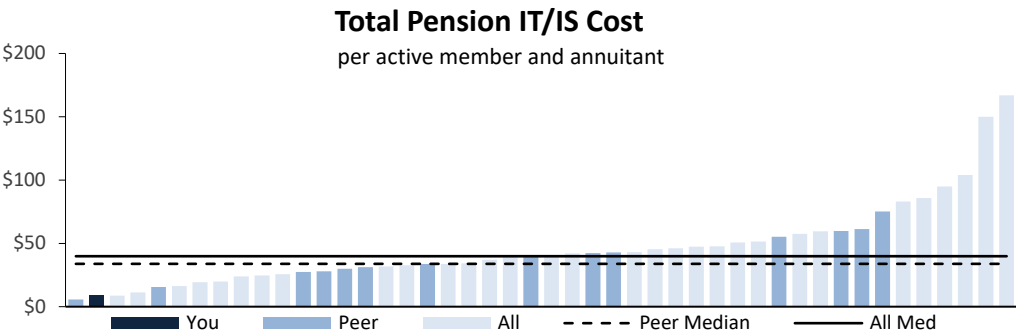
2. You had 0.0 IT security FTE which was 100% less than the peer median of 3.5. The percentage difference was less favorable on a 'per active member and annuitant' basis (your n/a FTE per 10,000 active member and annuitant was n/a the peer median of 0.10) because you had an economy of scale advantage.

Two key reasons for differences in FTE per 10,000 (and/or third party costs) are:

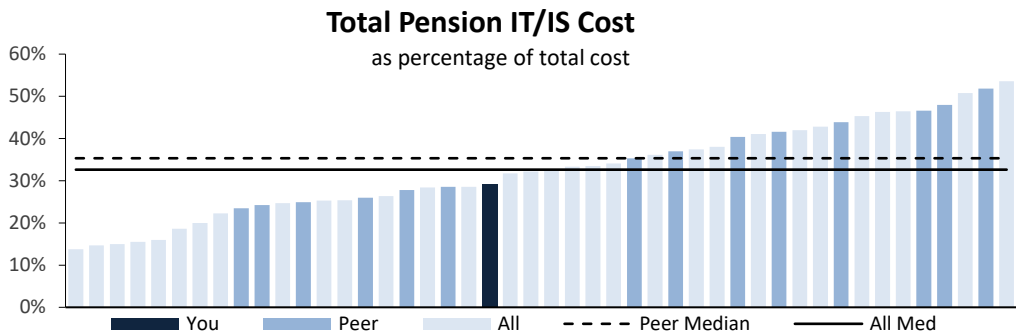
- Economies of scale - Scale is particularly important for IT security because of the substantial fixed costs of maintaining the IT infrastructure necessary for pension systems to operate. You had an economy of scale advantage. Your 830,714 active members and annuitants was 56.9% higher than the peer median of 529,329. Thus you had more members over which to spread IT security costs.
- IT investment cycle.

IT/IS costs (including IT major project costs)

Your IT/IS cost was \$8.72 per active member and annuitant. This was below the peer median of \$33.83.



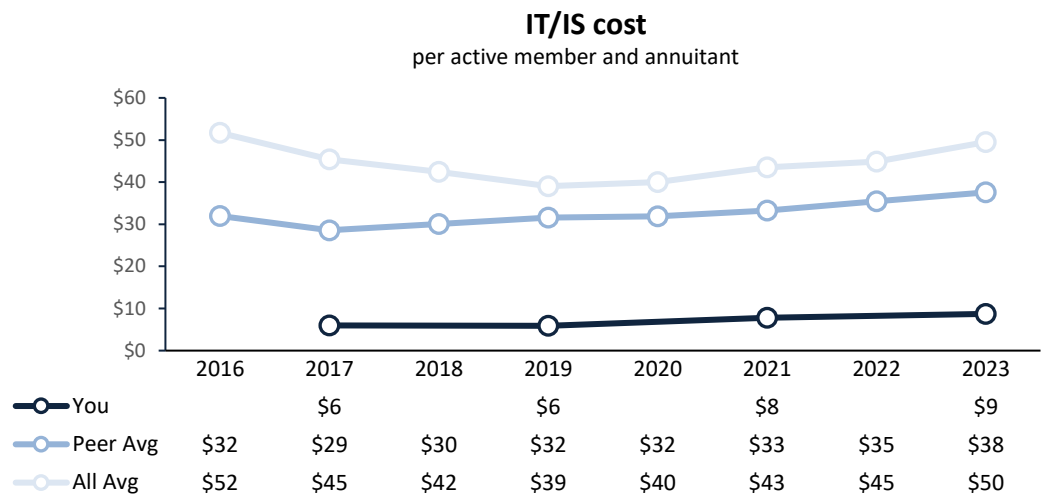
Your IT/IS cost as a percent of total pension administration cost was 29%. This was below the peer median of 35%.



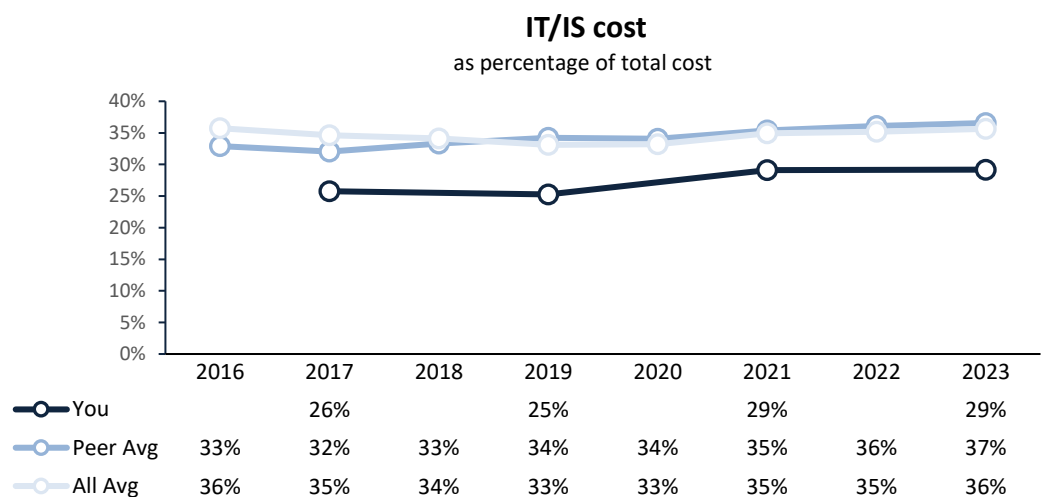
IT/IS Cost by Category									
Activity	Cost in \$000s	Cost per Active Member and Annuitant					Cost as a % of Total IT/IS Cost		
	You	You	Peer		All		Peer		All
			Med	Avg	Med	Avg	You	Avg	
5c. Amortization of IT Major Projects	0	0.00	0.00	1.43	0.00	2.49	0%	4%	5%
5d. IT Major Projects (if you don't capitalize)	0	0.00	1.02	4.48	1.25	8.86	0%	12%	19%
6a. IT Strategy, Database Management and Applications (excl. major projects and IT security)	5,345	6.43	17.95	19.98	20.73	22.18	74%	54%	48%
6b. IT Desktop, Networks, Telecom (excl. IT security)	1,627	1.96	9.53	8.49	8.52	10.10	22%	23%	22%
6c. IT Security	269	0.32	1.93	2.75	1.99	2.68	4%	7%	6%
Total Pension IT/IS cost	7,241	8.72	33.83	37.12	39.86	46.32	100%	100%	100%

IT/IS cost trend

IT/IS cost per member of your peers that have participated for 8 consecutive years has grown at a compound annual rate of 2.3% between 2016 and 2023. The all participant average is -0.6%. Your growth rate over the same period is not available.



IT/IS cost as a percentage of total cost of your peers that have participated for 8 consecutive years has grown at a compound annual rate of 1.5% between 2016 and 2023. The all participant average is 0.0%. Your growth rate over the same period is not available.



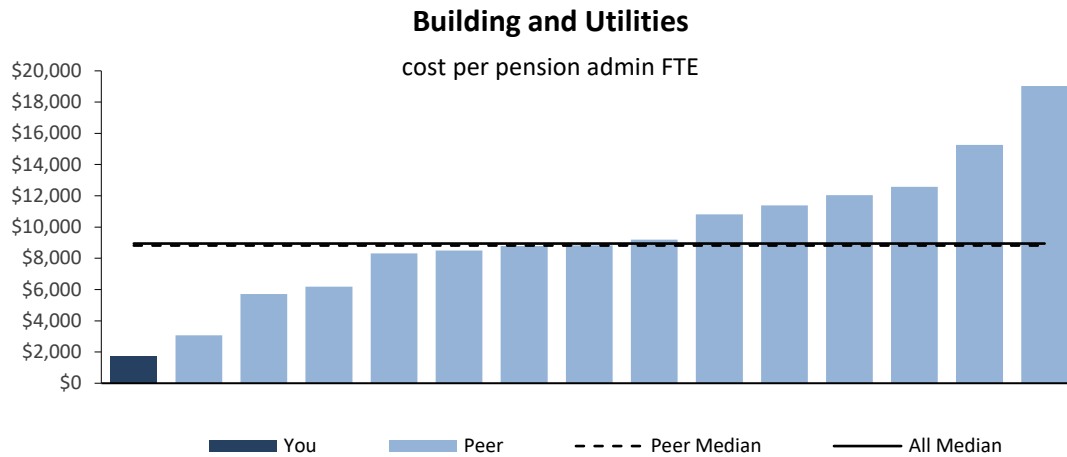
Trend analysis is based on systems that have provided 8 consecutive years of data (13 of 15 peers and 31 of 46 World systems).

IT and major project attributions by activity

Activity	6a. IT Strategy, Database Management and Applications and 6c. IT Security						Total Major Projects (5a. through 5d.)					
	\$s per Active Member and Annuitant			As a % of total			\$s per Active Member and Annuitant			As a % of total		
	You	Peer	All	You	Peer	All	You	Peer	All	You	Peer	All
		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg
1. Member Transactions												
a. Pension Payments	0.29	1.43	1.75	4%	6%	6%	0.00	0.77	1.21	n/a	7%	6%
b. Pension Inceptions and Written Pension Estimates	1.18	2.57	3.55	16%	12%	14%	0.00	1.37	1.97	n/a	12%	13%
c. Refunds, Withdrawals, and Transfers-out	1.02	1.07	1.91	13%	5%	7%	0.00	0.44	1.46	n/a	4%	7%
d. Purchases and Transfers-in	0.14	0.85	1.68	2%	3%	5%	0.00	0.34	1.08	n/a	3%	6%
e. Disability	<u>0.56</u>	<u>0.98</u>	<u>0.73</u>	<u>7%</u>	<u>4%</u>	<u>3%</u>	<u>0.00</u>	<u>0.45</u>	<u>0.35</u>	<u>n/a</u>	<u>4%</u>	<u>3%</u>
	3.19	6.91	9.62	42%	30%	35%	0.00	3.37	6.08	0%	29%	35%
2. Member Communication												
a. Contact Center	2.23	5.22	3.99	29%	25%	17%	0.00	2.30	2.86	n/a	25%	18%
b. Mail Room, Imaging	0.31	1.15	1.15	4%	5%	4%	0.00	0.56	0.64	n/a	5%	4%
c. 1-on-1 Counseling	0.17	1.28	1.23	2%	5%	5%	0.00	0.42	0.58	n/a	4%	5%
d. Member Presentations	0.18	0.62	0.61	2%	3%	3%	0.00	0.25	0.32	n/a	2%	2%
e. Mass Communication	<u>0.16</u>	<u>1.29</u>	<u>1.20</u>	<u>2%</u>	<u>5%</u>	<u>5%</u>	<u>0.00</u>	<u>0.48</u>	<u>0.61</u>	<u>n/a</u>	<u>5%</u>	<u>5%</u>
	3.05	9.56	8.19	40%	42%	34%	0.00	4.01	4.99	0%	41%	34%
3. Collections and Data Maintenance												
a. Data and Money from Employers	0.61	1.92	2.63	8%	8%	9%	0.00	1.30	1.30	n/a	9%	9%
b. Service to Employers	0.23	1.38	1.03	3%	6%	4%	0.00	0.66	0.55	n/a	7%	4%
c. Data Not from Employers	<u>0.15</u>	<u>0.60</u>	<u>0.95</u>	<u>2%</u>	<u>3%</u>	<u>3%</u>	<u>0.00</u>	<u>0.24</u>	<u>0.50</u>	<u>n/a</u>	<u>3%</u>	<u>4%</u>
	0.99	3.89	4.60	13%	17%	17%	0.00	2.20	2.35	0%	18%	17%
4. Governance and Financial Control												
a. Financial Administration and Control	0.24	1.42	1.87	3%	6%	7%	0.00	0.70	1.17	n/a	7%	8%
b. Board, Strategy, Policy	0.07	0.64	1.08	1%	3%	5%	0.00	0.32	1.02	n/a	3%	5%
c. Government and Public Relations	<u>0.09</u>	<u>0.32</u>	<u>0.37</u>	<u>1%</u>	<u>1%</u>	<u>2%</u>	<u>0.00</u>	<u>0.11</u>	<u>0.25</u>	<u>n/a</u>	<u>1%</u>	<u>1%</u>
	0.40	2.37	3.32	5%	10%	14%	0.00	1.13	2.45	0%	11%	14%
Total Pension Administration	7.63	22.73	25.73	100%	100%	100%	n/a	10.72	15.86	n/a	100%	100%

7A Building and Utilities

Your building and utilities cost per pension admin FTE was \$1,716. This was \$7,099 below the peer median of \$8,815.

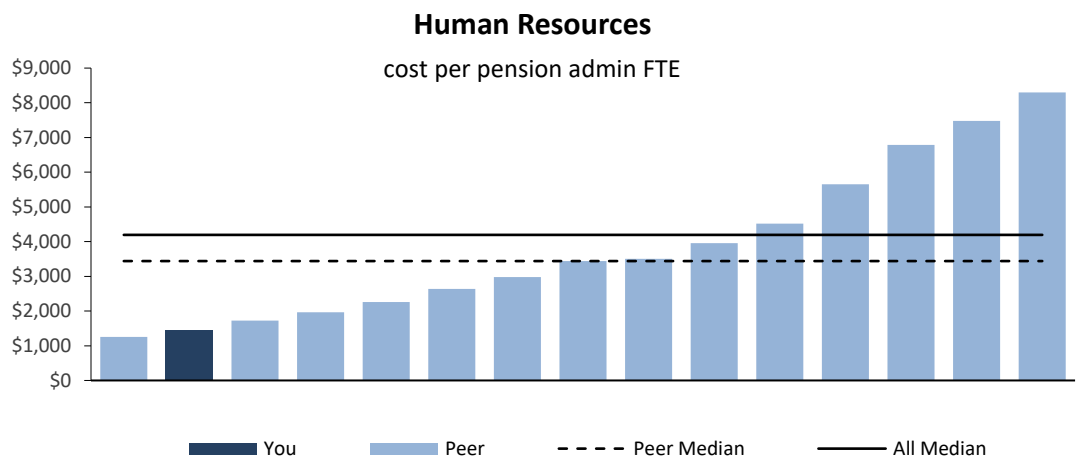


The biggest reason for differences in building cost is usually differences in third party and other costs (i.e., rent, lease, building and office depreciation, utilities). Reasons why these costs differ include:

- Quality of the building
- Non-market pricing on property provided by the government
- Cost environment
- Square feet of workspace per FTE

7B Human Resources

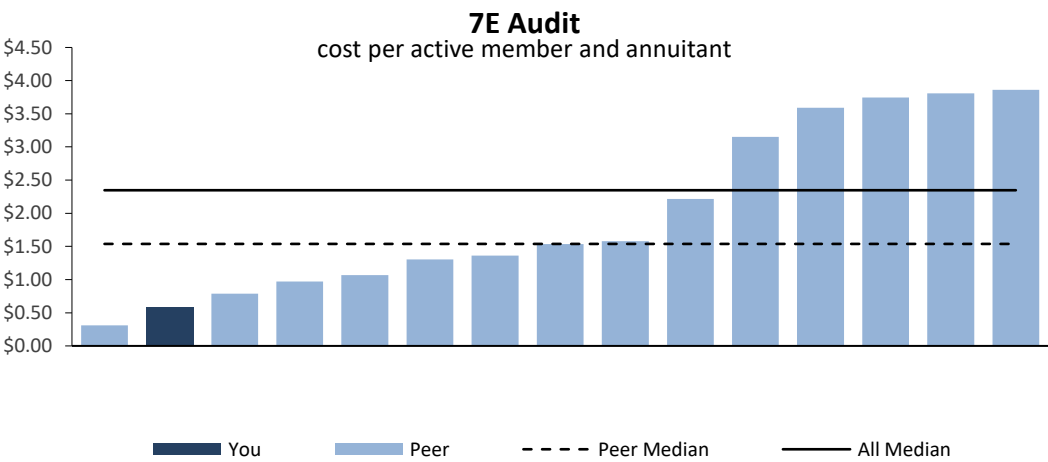
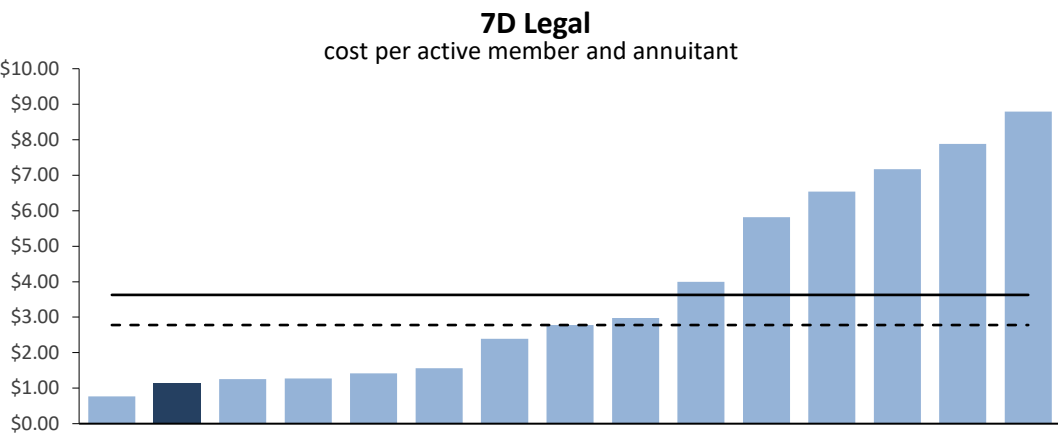
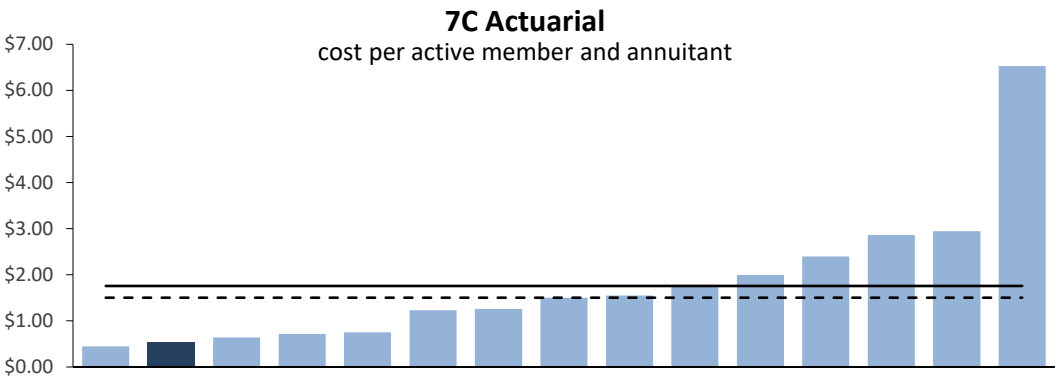
Your human resources cost per pension admin FTE was \$1,449. This was \$1,990 below the peer median of \$3,439.



7C-E Professional Costs

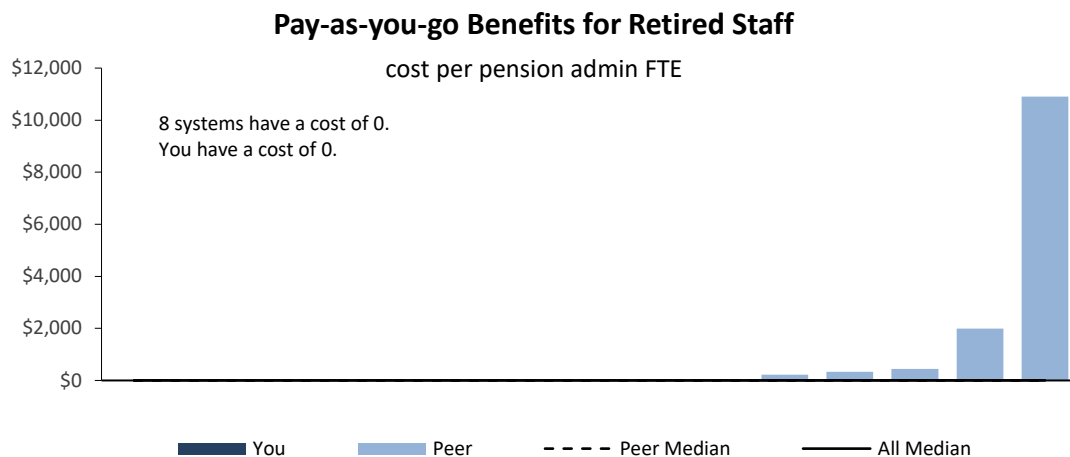
Your cost for activity:

- Your actuarial cost per active member and annuitant was \$0.54. This was \$0.96 below the peer median of \$1.50.
- Your legal cost per active member and annuitant was \$1.15. This was \$1.63 below the peer median of \$2.78.
- Your audit cost per active member and annuitant was \$0.58. This was \$0.96 below the peer median of \$1.54.



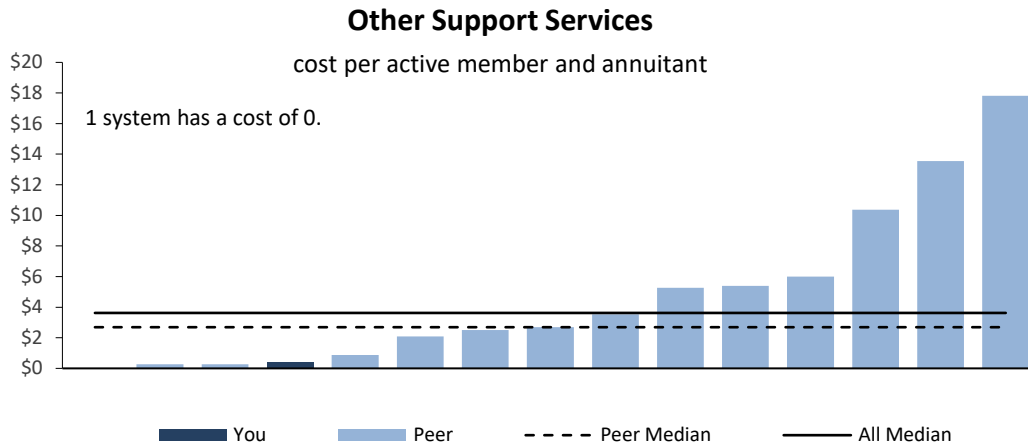
7F Pay-as-you-go Benefits for Retired Staff

You have no cost for this activity. The peer median cost was \$0.00.



7G Other Support Services

Your other support services cost per active member and annuitant was \$0.41. This was \$2.28 below the peer median of \$2.69. The biggest reason why was that you had fewer direct FTE per 10,000 active members and annuitants².



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$93,222	\$122,313	-\$0.03
Fewer direct FTE per 10,000 active members and annuitants ²	0.0	0.2	-\$1.39
Lower third party costs per active member and annuitant	\$0.32	\$0.78	-\$0.46
Unexplained ¹			-\$0.39
Cost per active member and annuitant	\$0.41	\$2.69	-\$2.28

1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 0.9 other support services FTE which was 83% less than the peer median of 5.3. The percentage difference was more favorable on a 'per active member and annuitant' basis (your 0.01 FTE per 10,000 active member and annuitant was 93% less than the peer median of 0.16) because you had an economy of scale advantage.

Three key reasons for differences in FTE per 10,000 (and/or third party costs) are:

- Economies of scale - Scale is particularly important for other support services because of the substantial fixed costs of maintaining the IT infrastructure necessary for pension systems to operate. You had an economy of scale advantage. Your 830,714 active members and annuitants was 56.9% higher than the peer median of 529,329. Thus you had more members over which to spread other support services costs.
- Plan complexity - It is more expensive to develop and maintain IT systems for plans with complex rule sets. Your total plan complexity score was 43 out of 100. This was above the peer median of 41.
- IT investment cycle.

Alternative comparison: Fully-attributed front office activity costs

An alternative way of analyzing and comparing activity costs is by attributing 100% of governance and support costs (i.e., governance and financial control, major projects, IT, and support services and other) to the front office activities. Front office activities are the activities that come in contact with clients or employers, such as paying pensions, pension inception, and member calls. The methodology used to calculate fully-attributed costs is shown on the following page.

In 2010, CEM shifted the focus of its analysis from fully-attributed activity costs to direct activity costs because:

- Front-office managers did not recognize or trust the fully attributed costs.
- It is impossible to ensure consistency in attribution methodology for IT and major project costs. Therefore, differences in fully-attributed costs often reflected differences in attribution methodology.
- Reasons for differences in fully-attributed costs were often hidden and repetitive. For example, unusually high building and utilities costs could become a recurring reason for differences in all fully-attributed costs.

Fully-Attributed Activity Costs (\$s per unit of activity volume)																
Activity	Cost per:	You	Peer							All						
			Avg	Max	Q3	Med	Q1	Min	#	Avg	Max	Q3	Med	Q1	Min	#
1. Member Transactions																
a. Pension Payments	annuitant	3	18	52	21	14	9	3	15	28	128	32	19	11	3	46
b. Pension Inceptions and Written Pension Estimates	new payee inception	133	279	794	315	192	162	115	15	560	1,769	744	472	254	94	46
c. Refunds, Withdrawals, and Transfers-out	withdrawal and transfer-out	153	384	2,274	327	195	119	88	15	3,102	94,188	1,443	291	168	54	46
d. Purchases and Transfers-in	purchase and transfer-in	296	1,541	4,047	2,175	1,191	662	296	15	8,436	206,934	2,326	1,407	476	28	46
e. Disability	disability application	1,423	6,276	19,747	7,732	3,166	2,010	802	15	10,240	96,628	10,969	3,970	1,908	0	41
2. Member Communication																
a. Contact Center	call and email	17	49	134	64	42	26	12	15	40	168	59	30	18	0	46
b. Mail Room, Imaging	incoming mail	4	21	59	33	18	7	4	15	36	263	39	24	10	0	46
c. 1-on-1 Counseling	member counseled 1-on-1	602	429	923	504	416	292	79	14	380	1,827	517	333	105	0	44
d. Member Presentations	member presentation	3,670	5,316	12,354	9,011	3,741	2,169	0	14	7,748	86,105	7,302	3,814	1,935	0	44
e. Mass Communication	active member and annuitant	1	8	14	11	10	4	1	15	9	31	13	9	3	1	46
3. Collections and Data Maintenance																
a. Data and Money from Employers	active member	4	21	79	24	9	8	2	15	30	277	29	14	9	0	46
b. Service to Employers	active member	2	14	43	17	8	6	2	15	11	43	14	8	4	0	46
c. Data Not from Employers	active, inactive and annuitant	1	2	6	3	2	1	0	15	5	30	5	2	1	0	46
Total Pension Administration	active member and annuitant	30	109	246	144	99	73	23	15	148	535	198	112	81	23	46
Non-Pension																
1f. Healthcare Administration	annuitant	1	14	63	14	4	0	0	15	11	241	1	0	0	0	46
1g. Optional and Third Party Administered Benefits	active member	0	11	61	13	6	0	0	15	5	61	7	0	0	0	46

Calculation of fully-attributed front office costs

(Fully-attributed costs are compared in the alternative comparison on the previous page)

Activity	Attributions ¹						Fully-Attributed		
	Direct		5. Major Projects	6b + 7a - g		4. Governance & Financial Control	Cost per unit ³	Cost per Active Member and Annuitant	
	Direct Staff (# FTE)	Costs (Salaries + Third Party)		6a IT Strategy + 6c. IT Security	Support Services and Other				
1. Member Transactions									
a. Pension Payments	6.4	669	0	212	167	128	1,175	3	1.41
b. Pension Inceptions and Written Pension Estimates	26.4	1,897	0	875	689	526	3,987	219	4.80
c. Refunds, Withdrawals, and Transfers-out	22.7	1,680	0	753	593	452	3,477	153	4.19
d. Purchases and Transfers-in	3.1	248	0	103	81	62	494	296	0.59
e. Disability	12.6	968	0	418	329	251	1,966	1,423	2.37
f. Healthcare Administration	2.8	223	0	93	73	56	445	1	0.54
g. Optional and Third Party Administered Benefits	0.6	86	0	20	16	12	133	0	0.16
2. Member Communication									
a. Contact Center	49.7	3,541	0	1,648	1,297	990	7,476	17	9.00
b. Mail Room, Imaging	7.0	513	0	232	183	139	1,067	4	1.28
c. 1-on-1 Counseling	3.8	290	0	126	99	76	591	602	0.71
d. Member Presentations	4.0	322	0	133	104	80	639	3,670	0.77
e. Mass Communication	3.5	306	0	116	91	70	583	1	0.70
3. Collections and Data Maintenance									
a. Data and Money from Employers	13.6	996	0	451	355	271	2,072	4	2.49
b. Service to Employers	5.2	412	0	172	136	104	824	2	0.99
c. Data Not from Employers	3.3	249	0	109	86	66	511	1	0.61
4. Governance and Financial Control									
a. Financial Administration and Control	5.4	2,250	0	179	141	-2,569	0		
b. Board, Strategy, Policy	1.5	237	0	50	39	-326	0		
c. Government and Public Relations	2.0	268	0	66	52	-387	0		
5. Major Projects									
a. Amortization of non-IT Major Projects	n/a	0	0				0		
b. Non-IT Major Projects (if you don't capitalize)	0.0	0	0				0		
c. Amortization of IT Major Projects	n/a	0	0				0		
d. IT Major Projects (if you don't capitalize)	0.0	0	0				0		
6. Information Technology									
a. IT Strategy, Database, Applications (excl. major projects and IT security)	4.0	5,480		-5,480			0		
b. IT Desktop, Networks, Telecom (excl. IT security)	1.0	1,668			-1,668		0		
c. IT Security	0.0	276		-276			0		
7. Support Services and Other									
a. Building and Utilities	0.0	313			-313		0		
b. Human Resources	0.0	264			-264		0		
c. Actuarial	0.3	459			-459		0		
d. Legal and Rule Interpretation	1.2	979			-979		0		
e. Internal and External Audit	0.6	495			-495		0		
f. Pay-as-you-go Benefits for Retired Staff	n/a	0			0		0		
g. Other Support Services	0.9	353			-353		0		
Total Administration	181.6	25,441	0	0	0	0	25,441		30.62
less: ²									
1f. Healthcare Administration							-445		-0.54
1g. Optional and Third Party Administered Benefits							-133		-0.16
Total Pension Administration							24,862		29.93

1. Attributions of activities 4, 5, 6, and 7 are pro rata based on direct FTE, unless you provided the attributions yourself.

2. The fully-attributed costs of activities 1f and 1g are excluded from pension administration costs to ensure comparability.

3. Units vary by activity. Units are described in the second column on the previous page.

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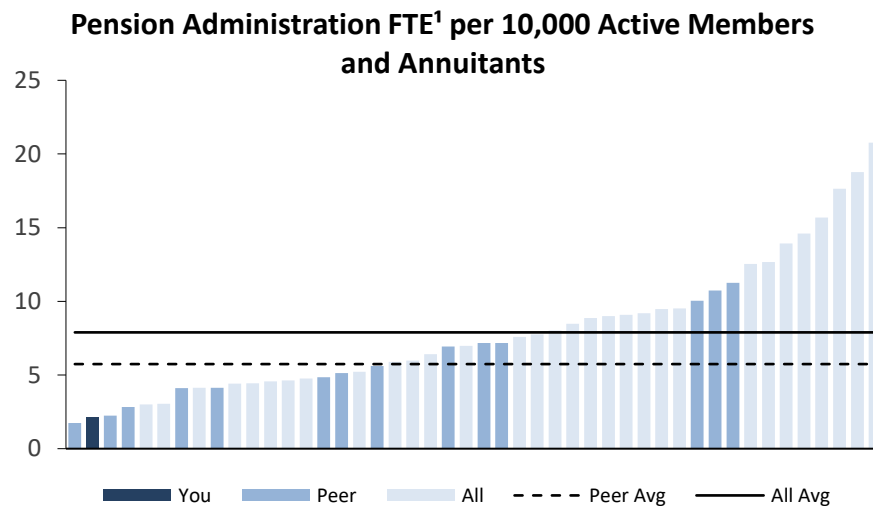
Staff Costs and Productivity

This section includes comparisons to your peers, in aggregate and by activity, of:

- Full-time-equivalent staff (FTE) per member
- Salary and benefits per FTE
- Productivity (transaction volumes per FTE)

Total FTE

Differences in the number of full-time-equivalent staff (FTE) used to serve members is a key reason for differences in costs between similarly organized systems. Generally the more FTE you use to serve members, the higher your costs. You had 2.15 pension administration FTE¹ per 10,000 members. This was below the peer average of 5.74.



1. Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits.

Reasons for differences in total FTEs used to serve members include differences in:

- Outsourcing. For example, if you outsource legal or actuarial work, you will have fewer FTE than systems that do this work using internal staff.
- Transactions volumes, which in turn are caused by differences in:
 - Services provided, for example, some plans do not offer financial planning
 - Member mix and demographics, for example, active members generate more transactions than inactive members
- Productivity (i.e., transaction volumes per FTE) which in turn is caused by differences in:
 - Service levels, for example, shorter wait times may require more staff
 - Staff skills and productivity
 - Organizational effectiveness
 - Economies of scale
 - Plan rule complexity
 - IT capability

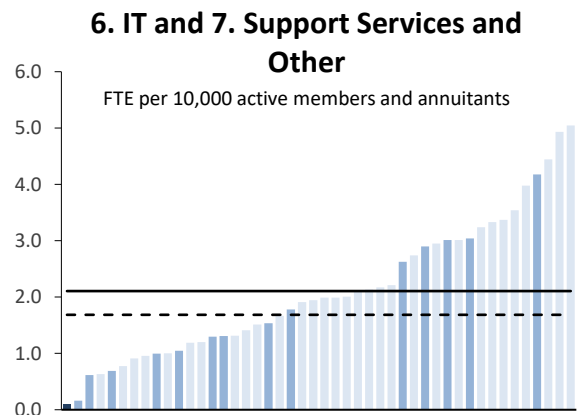
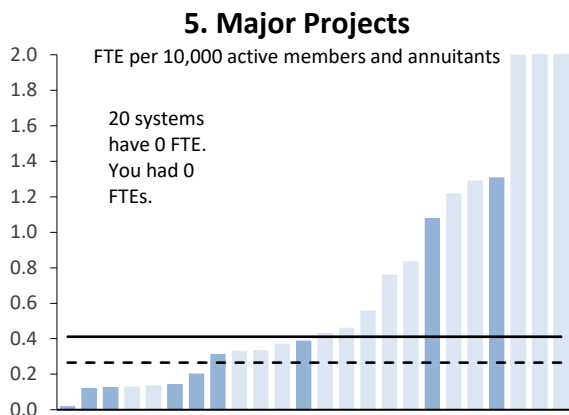
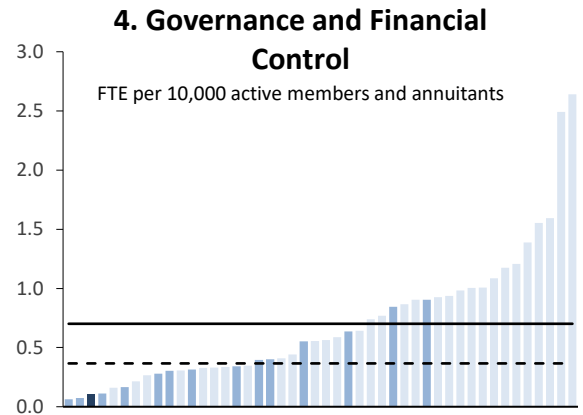
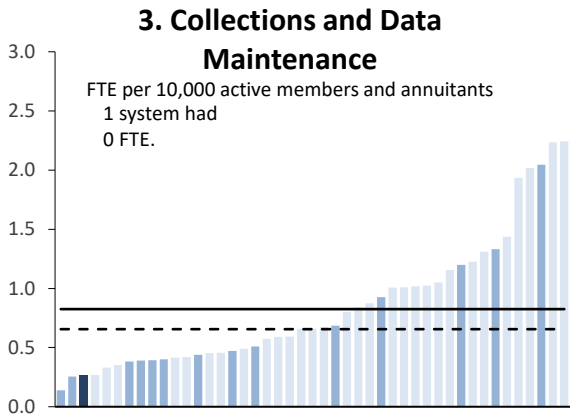
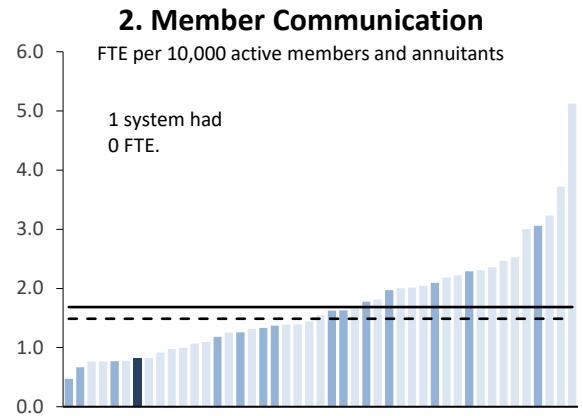
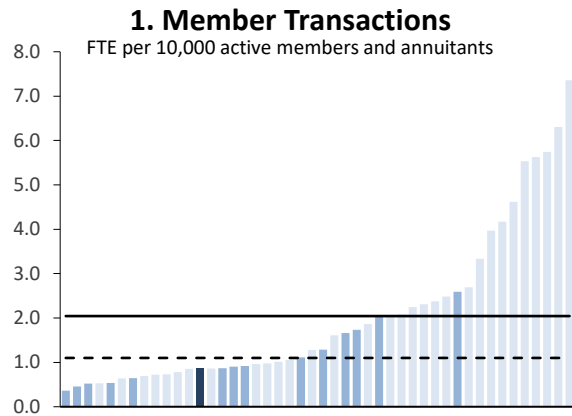
FTE by activity

Activity	# of Direct ¹ FTE			# of FTE per 10,000 Active Members and Annuitants		
	You	Peer	All Avg	You	Peer	All Avg
1. Member Transactions						
a. Pension Payments	6.4	16.6	11.3	0.08	0.23	0.35
b. Pension Inceptions and Written Pension Estimates	26.4	30.5	26.2	0.32	0.41	0.76
c. Refunds, Withdrawals, and Transfers-out	22.7	11.0	12.2	0.27	0.18	0.40
d. Purchases and Transfers-in	3.1	9.9	12.1	0.04	0.12	0.35
e. Disability	<u>12.6</u>	<u>12.5</u>	<u>6.5</u>	<u>0.15</u>	<u>0.16</u>	<u>0.18</u>
Total Member Transactions	71.2	80.5	68.2	0.86	1.10	2.04
2. Member Communication						
a. Contact Center	49.7	55.8	32.1	0.60	0.82	0.81
b. Mail Room, Imaging	7.0	11.8	8.2	0.08	0.19	0.25
c. 1-on-1 Counseling	3.8	14.2	9.9	0.05	0.18	0.28
d. Member Presentations	4.0	6.9	4.2	0.05	0.11	0.14
e. Mass Communication	<u>3.5</u>	<u>11.4</u>	<u>7.5</u>	<u>0.04</u>	<u>0.19</u>	<u>0.22</u>
Total Member Communication	68.0	100.1	62.0	0.82	1.49	1.68
3. Collections and Data Maintenance						
a. Data and Money from Employers	13.6	23.4	16.4	0.16	0.34	0.46
b. Service to Employers	5.2	16.6	8.2	0.06	0.23	0.18
c. Data Not from Employers	<u>3.3</u>	<u>4.6</u>	<u>5.2</u>	<u>0.04</u>	<u>0.09</u>	<u>0.19</u>
Total Collections and Data Maintenance	22.1	44.6	29.8	0.27	0.66	0.82
4. Governance and Financial Control						
a. Financial Administration and Control	5.4	16.9	12.0	0.07	0.23	0.39
b. Board, Strategy, Policy	1.5	7.4	7.2	0.02	0.11	0.25
c. Government and Public Relations	<u>2.0</u>	<u>3.6</u>	<u>2.6</u>	<u>0.02</u>	<u>0.05</u>	<u>0.08</u>
Total Governance and Financial Control	8.9	27.9	21.8	0.11	0.39	0.73
5. Major Projects						
a. Amortization of non-IT Major Projects ²	n/a	n/a	n/a	n/a	n/a	n/a
b. Non-IT Major Projects (if you don't capitalize)	0.0	5.8	4.4	n/a	0.13	0.11
c. Amortization of IT Major Projects ²	n/a	n/a	n/a	n/a	n/a	n/a
d. IT Major Projects (if you don't capitalize)	<u>0.0</u>	<u>12.6</u>	<u>9.1</u>	<u>n/a</u>	<u>0.15</u>	<u>0.31</u>
Total Major Projects	0.0	18.4	13.4	0.00	0.27	0.42
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects and IT	4.0	52.6	31.4	0.05	0.73	0.77
b. IT Desktop, Networks, Telecom (excl. IT security)	1.0	13.9	9.0	0.01	0.23	0.27
c. IT Security	<u>0.0</u>	<u>6.3</u>	<u>3.7</u>	<u>n/a</u>	<u>0.11</u>	<u>0.10</u>
Total Information Technology	5.0	72.8	44.1	0.06	1.07	1.14
7. Support Services and Other						
a. Building and Utilities	0.0	5.4	3.2	n/a	0.11	0.09
b. Human Resources	0.0	13.3	9.2	n/a	0.16	0.25
c. Actuarial	0.3	5.0	2.5	0.00	0.05	0.06
d. Legal and Rule Interpretation	1.2	11.7	8.6	0.01	0.17	0.28
e. Internal and External Audit	0.6	5.3	4.5	0.01	0.10	0.16
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	n/a	n/a
g. Other Support Services	<u>0.9</u>	<u>14.5</u>	<u>9.1</u>	<u>0.01</u>	<u>0.18</u>	<u>0.23</u>
Total Support Services and Other	3.0	55.1	37.0	0.04	0.76	1.05
Total Pension Admin FTE (excludes below)	178.2	399.3	276.5	2.15	5.74	7.89
FTE whose salaries are being capitalized	0.0	7.9	5.5	n/a	0.14	0.09
1f. Healthcare Administration	2.8	4.7	2.6	0.03	0.11	0.11
1g. Optional and Third Party Administered Benefits	0.6	6.4	2.9	0.01	0.12	0.07
Total Administration FTE	181.6	418.2	287.4	2.19	6.12	8.16

1. Direct staff includes staff directly performing the activity, plus related support and management staff that are in the same department and directly support the activity.

2. We are unable to identify the historic FTE embedded in activities 5a. and 5c. amortization of major projects.

FTE per 10,000 members by activity aggregates

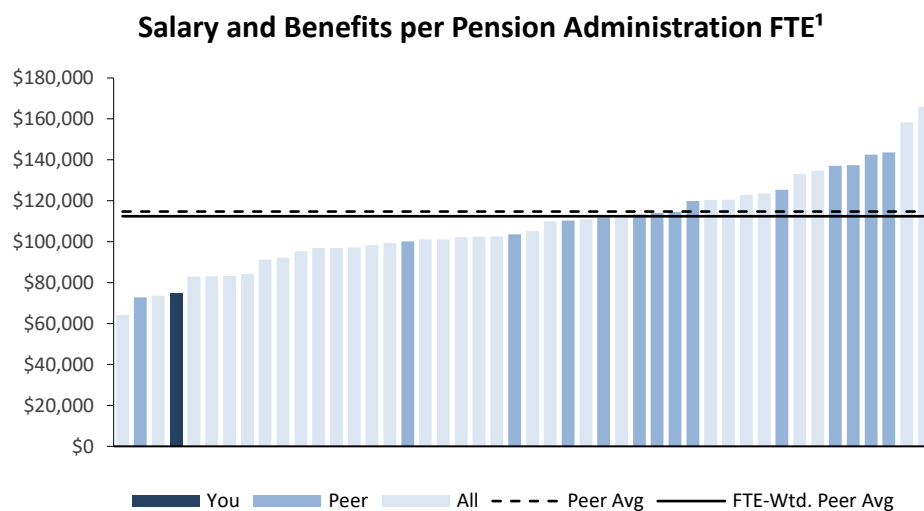


■ You ■ Peer ■ All - - - Peer Avg — All Avg

Salaries and benefits

Your salaries and benefits per pension administration FTE¹ was \$74,661. This was 35% below the peer average of \$114,728.

If you want to understand how salaries and benefits impact relative cost performance, the more relevant average is the FTE-weighted peer average because salary differences matter more for peers with more FTEs. Your salaries and benefits per pension administration FTE of \$74,661 was below the FTE-weighted peer average of \$112,419.



1. Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits. In order to avoid double counting when explaining why your total administration costs differ from the peer average, it also excludes the salaries and FTE of activity 6b. IT Desktop, Networks, Telecom (excl. IT security), 7a. Building and Utilities, 7b. Human Resources, and, 7f. Pay-as-you-go Benefits for Retired Staff.

Salaries and benefits include compensation (salary, wages, overtime, bonuses), benefits (pensions, healthcare), related payroll taxes, and charges paid by the employer (as opposed to the employee). Salary and benefits per FTE may differ because of:

- Cost environment
- Staff with different skills and experience. Different activities require different skills sets. Therefore, salaries and benefits are compared by activity on page 7 of this section.
- Outsourcing. For example, if you outsource higher paying jobs by using consultants (i.e., legal, actuarial) your average salary might be lower.

Other costs that tend to vary per FTE include activities: 6b. IT Desktop, Networks, Telecom (excl. IT security), 7a. Building and Utilities, 7b. Human Resources, and, 7f. Pay-as-you-go Benefits for Retired Staff. These costs are compared in Section 4 - Activity Costs.

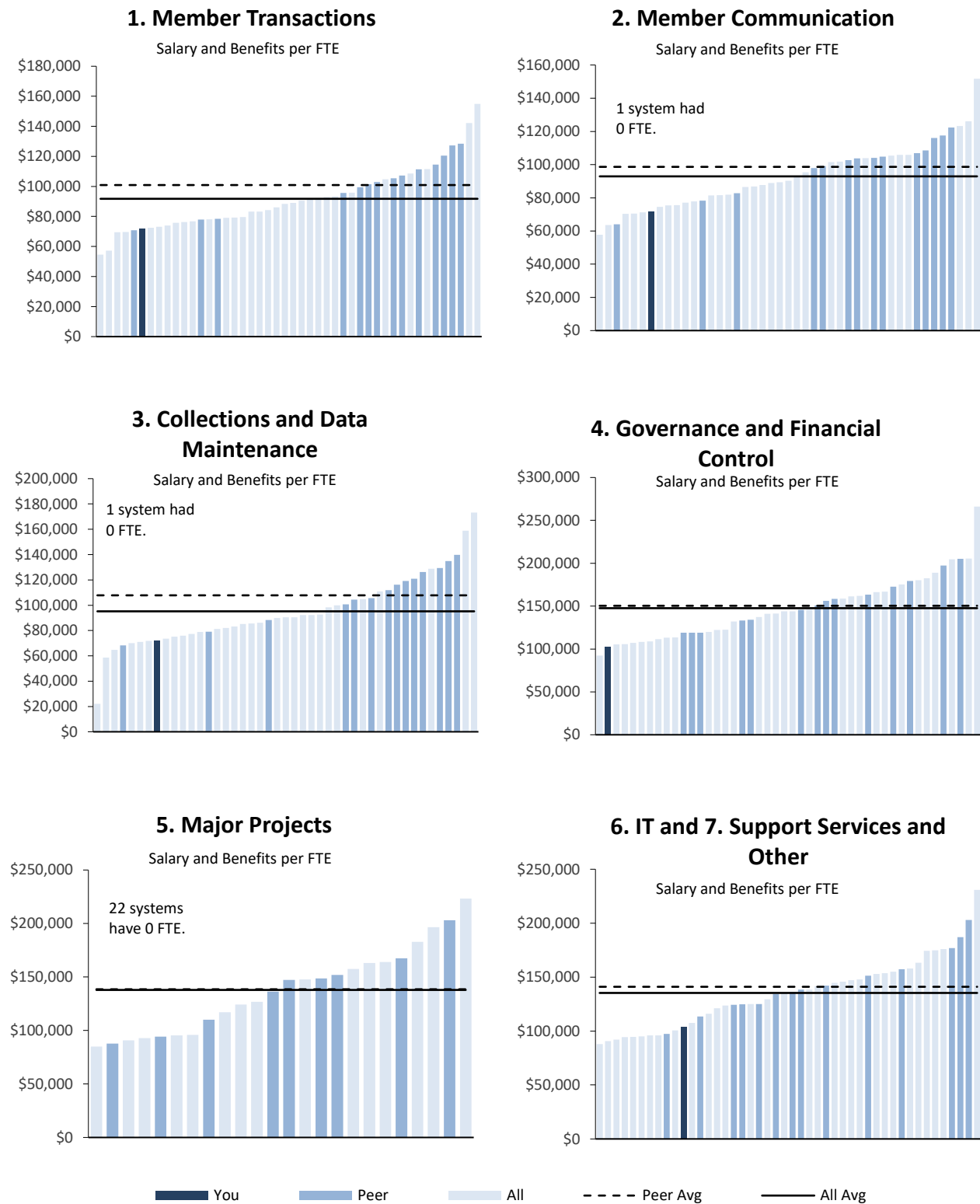
Salaries and benefits per FTE by activity

Activity	Salaries and Benefits per FTE			Salaries and Benefits as a % of Direct Activity Cost		
	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions						
a. Pension Payments	\$71,094	\$104,433	\$94,337	68%	73%	70%
b. Pension Inceptions and Written Pension Estimates	\$71,045	\$99,386	\$90,609	99%	93%	89%
c. Refunds, Withdrawals, and Transfers-out	\$71,062	\$99,462	\$89,942	96%	92%	89%
d. Purchases and Transfers-in	\$73,323	\$101,798	\$101,782	92%	89%	88%
e. Disability	<u>\$75,151</u>	<u>\$104,809</u>	<u>\$94,866</u>	98%	71%	74%
	\$71,881	\$100,896	\$91,755			
2. Member Communication						
a. Contact Center	\$70,817	\$94,824	\$88,192	99%	94%	90%
b. Mail Room, Imaging	\$70,243	\$87,646	\$78,261	96%	76%	76%
c. 1-on-1 Counseling	\$70,868	\$100,374	\$95,605	93%	94%	89%
d. Member Presentations	\$73,700	\$110,476	\$104,429	92%	88%	91%
e. Mass Communication	<u>\$81,257</u>	<u>\$123,409</u>	<u>\$114,204</u>	93%	65%	59%
	\$71,468	\$98,653	\$92,914			
3. Collections and Data Maintenance						
a. Data and Money from Employers	\$71,654	\$107,718	\$96,322	98%	93%	93%
b. Service to Employers	\$75,173	\$110,717	\$97,165	95%	94%	91%
c. Data Not from Employers	<u>\$69,182</u>	<u>\$104,748</u>	<u>\$92,357</u>	92%	87%	87%
	\$72,113	\$107,819	\$95,164			
4. Governance and Financial Control						
a. Financial Administration and Control	\$88,500	\$133,502	\$128,813	21%	76%	81%
b. Board, Strategy, Policy	\$129,333	\$185,304	\$185,284	82%	83%	77%
c. Government and Public Relations	<u>\$118,850</u>	<u>\$164,046</u>	<u>\$166,470</u>	89%	88%	84%
	\$102,202	\$150,413	\$147,616			
5. Major Projects						
a. Amortization of non-IT Major Projects	n/a	n/a	n/a	n/a	n/a	n/a
b. Non-IT Major Projects (if you don't capitalize)	n/a	\$120,701	\$134,435	n/a	50%	56%
c. Amortization of IT Major Projects	n/a	n/a	n/a	n/a	n/a	n/a
d. IT Major Projects (if you don't capitalize)	<u>n/a</u>	<u>\$145,159</u>	<u>\$134,572</u>	n/a	47%	48%
	n/a	\$138,531	\$137,905			
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects and IT security)	\$99,250	\$147,993	\$134,566	7%	47%	48%
b. IT Desktop, Networks, Telecom (excl. IT security)	\$70,200	\$141,859	\$139,557	4%	34%	37%
c. IT Security	<u>n/a</u>	<u>\$160,132</u>	<u>\$137,528</u>	0%	56%	56%
	\$93,440	\$145,829	\$132,392			
7. Support Services and Other						
a. Building and Utilities	n/a	\$114,254	\$102,900	0%	14%	11%
b. Human Resources	n/a	\$132,208	\$134,611	0%	75%	76%
c. Actuarial	\$160,000	\$180,144	\$179,879	10%	34%	32%
d. Legal and Rule Interpretation	\$143,750	\$145,849	\$147,637	18%	61%	69%
e. Internal and External Audit	\$99,167	\$138,657	\$139,142	12%	63%	60%
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	n/a	n/a
g. Other Support Services	<u>\$93,222</u>	<u>\$117,769</u>	<u>\$111,144</u>	24%	56%	56%
	\$121,300	\$136,255	\$140,563			
Total Pension Administration ¹	\$64,087	\$108,572	\$102,196	46%	57%	55%
Total Pension Admin excluding activities 6b, 7a, 7b, and 7f ²	\$74,661	\$114,728	\$108,392	50%	61%	60%

1. Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits.

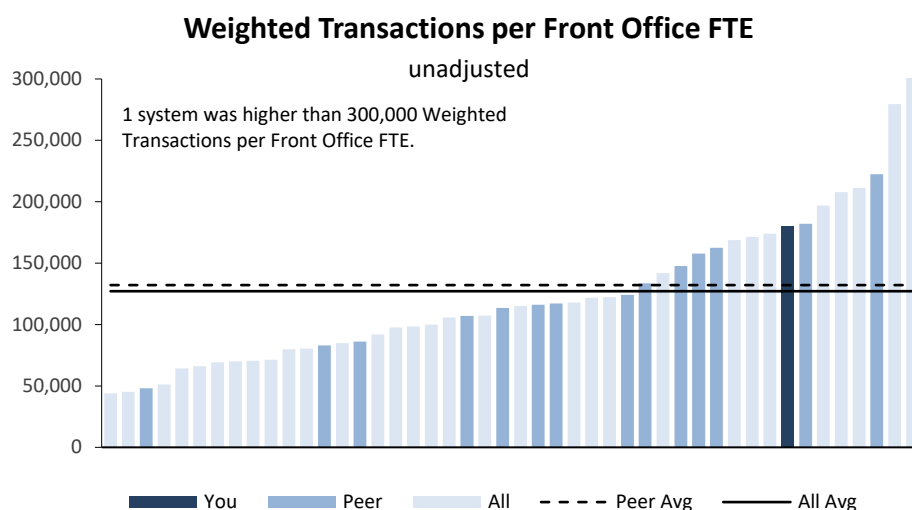
2. Section 3 'Total Costs' and the Executive Summary use the FTE-weighted peer average of \$112,419 to explain cost differences. It is used to explain cost differences because salary differences matter more for peers with more FTEs. To avoid double counting items quantified separately in the cost model, the FTE-weighted average also: (i) excludes activities 6b, 7a, 7b and 7f, and, (ii) weights front and governance and support salaries per your ratio of front to governance and support FTE.

Salaries and benefits per FTE by activity aggregates



Productivity

Total productivity is defined as the number of weighted transactions per front office, full-time-equivalent staff (FTE). Your productivity was 180,420 per front office FTE. This was above the in-house peer average of 132,132.



Weighted transaction volumes equal the cost-weighted average of front office activity volumes. It is a measure of work. Details of the calculation are shown in Section 6 Transaction Volumes. Front office activities are the activities that come in contact with clients or employers, such as paying pensions, pension inception and member calls. It excludes support activities such as Governance and Financial Control, Major Projects and Support Services.

Differences in productivity are caused by differences in:

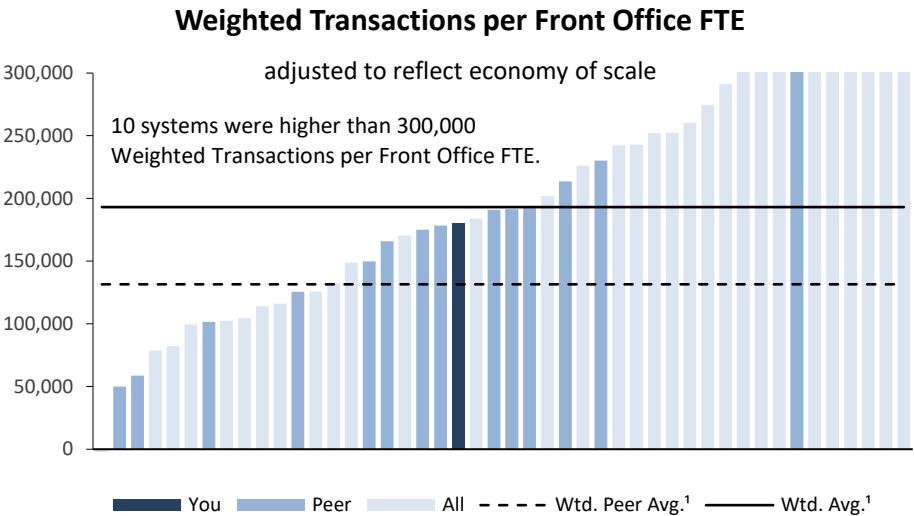
- Economies of scale (see next page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization design

It is important to emphasize that total productivity is not a measure of staff productivity; staff productivity is however a component of total productivity.

Productivity - adjusted for economies of scale

Productivity is impacted by economies of scale. CEM research shows that, on average, smaller systems have lower productivity than larger systems. Thus we need to adjust the productivity of your peers for economies of scale in order to produce an accurate comparison.

After adjusting for economies of scale, your productivity (weighted transaction volumes per FTE) was 37% above the weighted peer average.



1. The peer and all averages are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

Productivity by activity

Productivity by activity must be interpreted cautiously because annual fluctuations in activity volumes can cause large swings in productivity. Unusually high volumes in a given year will make you look more productive than normal. Unusually low volumes will make you look less productive.

Productivity by Front Office Activity		Activity Volume per FTE		
Front-Office Activities	Activity Volume Description	You	Peer Avg	All Avg
1. Member Transactions				
a. Pension Payments	Annuitants	55,747	30,912	26,940
b. Pension Inceptions and Written Pension Estimates	New Payee Inceptions	689	669	459
c. Refunds, Withdrawals, and Transfers-out	Refunds, Withdrawals, and Transfers-out	1,000	1,750	1,326
d. Purchases and Transfers-in	Purchases and Transfers-in	538	339	774
e. Disability	Disability Applications	110	135	133
2. Member Communication				
a. Contact Center	Calls and Emails	8,996	9,342	13,901
b. Mail Room, Imaging	Incoming Mail	36,172	28,470	24,381
c. 1-on-1 Counseling	Members Counseled 1-on-1	259	955	1,293
d. Member Presentations	Member Presentations	44	96	115
e. Mass Communication	Active Members and Annuitants	237,347	122,523	83,281
3. Collections and Data Maintenance				
a. Data and Money from Employers	Active Members	34,848	31,988	23,255
b. Service to Employers	Active Members	91,141	42,376	48,362
c. Data Not from Employers	Actives, Inactives, Annuitants	303,188	257,511	191,577
Weighted Transactions per Front Office FTE		180,420	132,132	127,149
adjusted for Economies of Scale ^{1, 2}		180,420	131,543	193,104

1. Productivity is impacted by economies of scale. CEM research shows that, on average, smaller systems have lower productivity than larger systems. Thus we need to adjust the productivity of your peers for economies of scale in order to produce an accurate comparison.

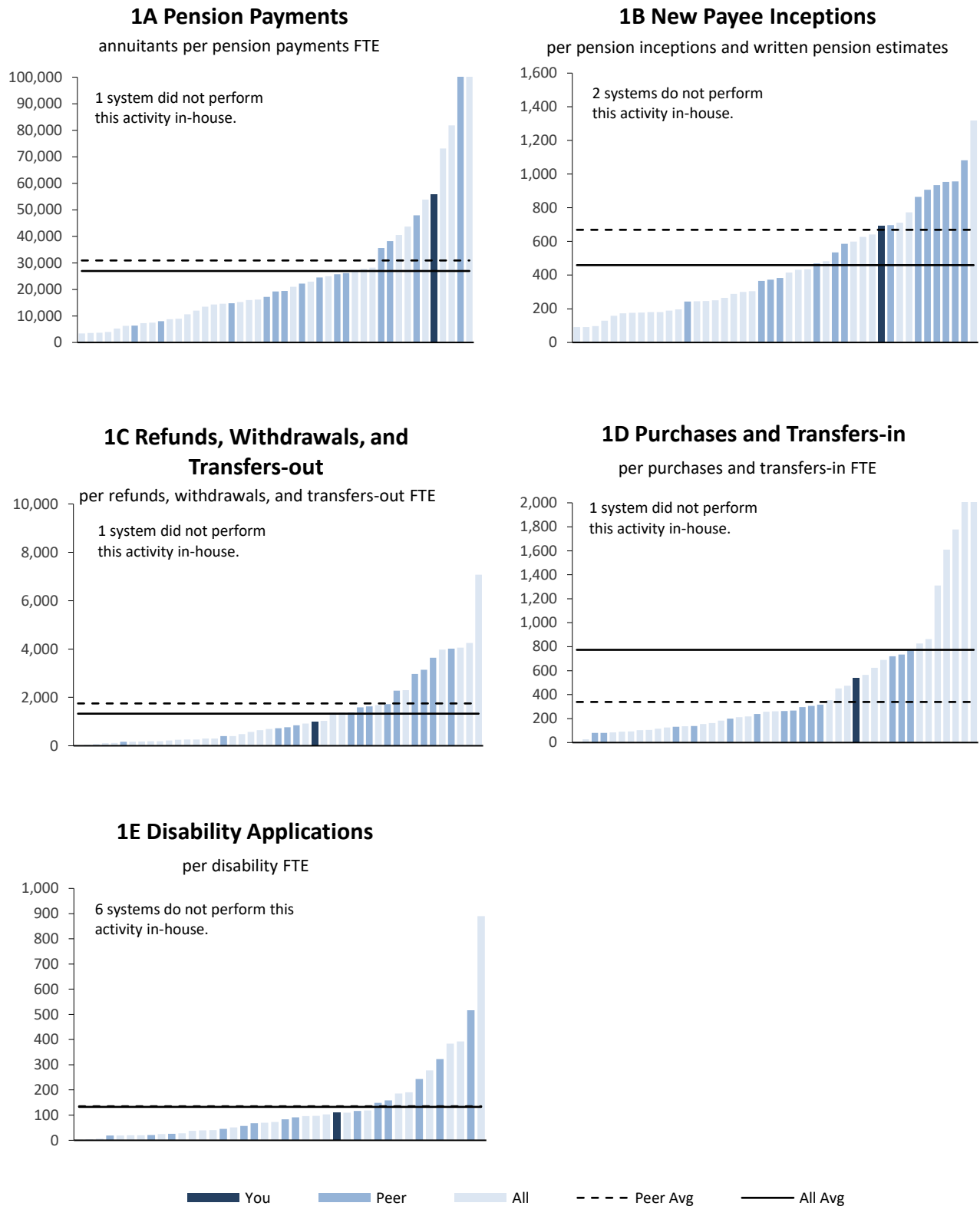
2. The peer and all averages, for this value only, are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

Differences in productivity are caused by differences in:

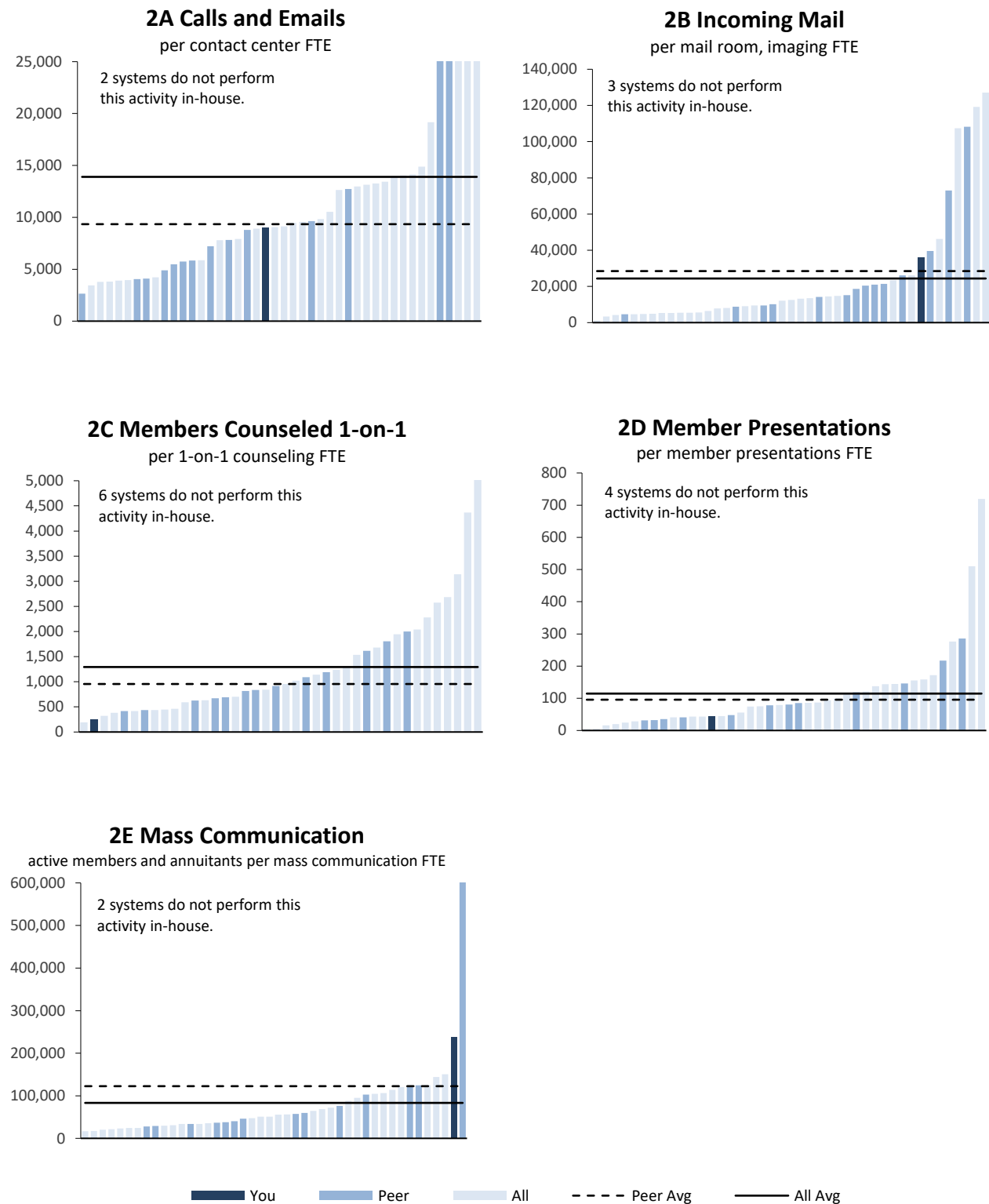
- Economies of scale (see previous page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization design

It is important to emphasize that total productivity is not a measure of staff productivity; staff productivity is however a component of total productivity.

Productivity by activity - member transactions

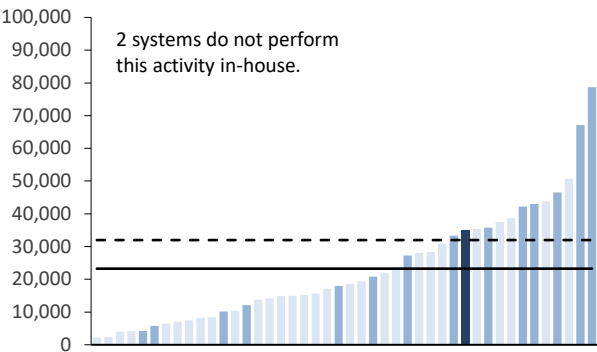


Productivity by activity - member communication

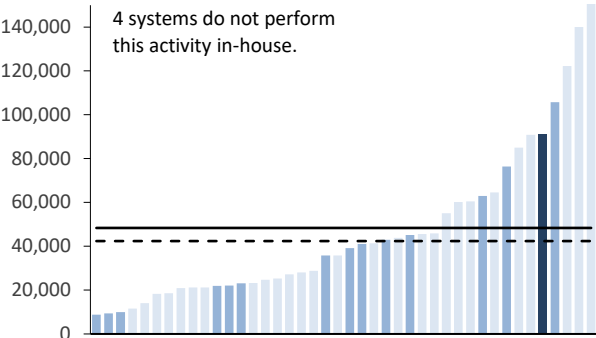


Productivity by activity - collections and data maintenance

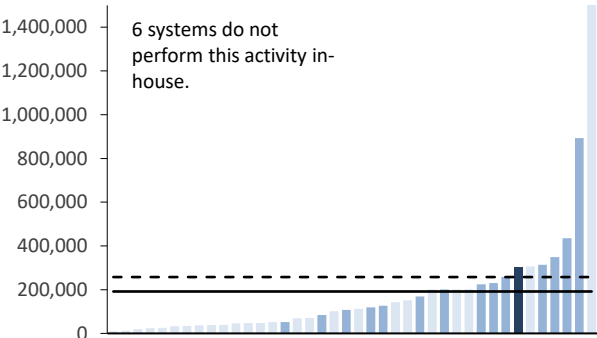
3A Data and Money from
active members per data and money from employers



3B Service to Employers
active members per service to employers FTE



3C Data Not from Employers
actives, inactives, annuitants per data not from employers FTE



You **Peer** **All** **Peer Avg** **All Avg**

6

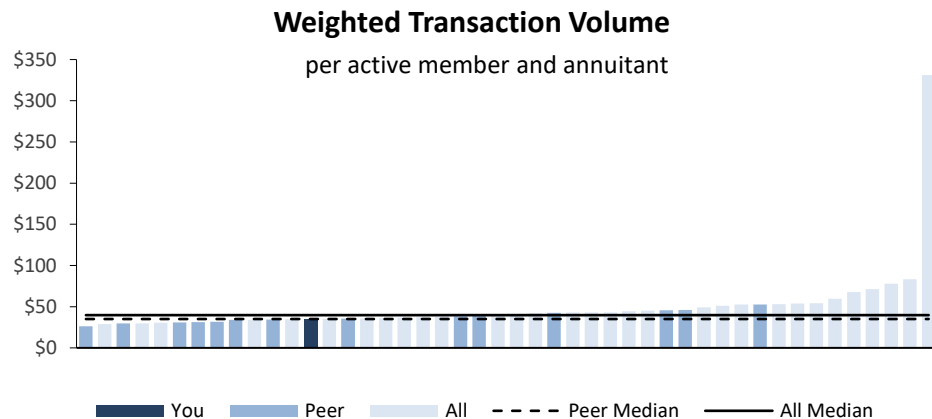
Transaction Volumes

This section contains:

- Comparisons of the most important pension administration transaction volumes for each front office activity. Transactions are a major driver of costs. It is higher cost to have more transactions per member.
- Comparisons of total workloads - your weighted transaction volumes per member. This shows whether your transaction volumes are more or less costly in aggregate.
- Comparisons of transaction trends.

Workload: Weighted transaction volume per member

Your weighted transaction volume was \$35.03 per active member and annuitant. This was equal to the peer median of \$35.03.



Your weighted transaction volume per member indicates whether you are doing more or less administration work per member in aggregate than your peers. This could be due to reasons that are beyond your control, or because you are voluntarily doing more work for your members. Differences in work reflect differences in:

- Activities that you administer. For example, some systems do not administer disability.
- Service levels
- Membership mix
- Member demographics

The calculation of your weighted transaction volume is shown on the following page.

Interpreting your weighted transaction volumes

Transaction volumes are an important driver of costs. As shown in 'section 3 - Total Cost', your below average weighted transaction volumes decreased your total cost by an estimated \$0.84 per member relative to the peer average.

Mindful that transaction volumes are a significant driver of cost, this is one area to focus attention on in terms of potentially saving money. You may look at where you process more work than your peers with a view to reducing that volume (provided you have control over the volume).

Calculation of your weighted transaction volume

Your weighted transaction volume equals the cost weighted average of the 13 'front office' pension administration transaction volumes shown in the table below.

Calculation of Your Weighted Transactions per Member			
Transaction (or Cost Driver) by Front Office Activity	Your Volume (A)	Weight = All Median Cost per Transaction (B)	Weighted Volume (A x B)
1. Member Transactions			
a. Pension Payments (Annuitants)	356,781	\$9.42	3,362,258
b. New Payee Inceptions	18,196	\$274.46	4,993,997
c. Refunds, Withdrawals, and Transfers-out	22,701	\$143.94	3,267,618
d. Purchases and Transfers-in	1,667	\$414.97	691,749
e. Disability Applications	1,381	\$1,983.13	2,738,702
2. Member Communication			
a. Calls and Emails	447,099	\$9.56	4,273,671
b. Incoming Mail	253,205	\$7.06	1,787,846
c. Members Counseled 1-on-1	983	\$104.87	103,089
d. Member Presentations	174	\$1,301.14	226,398
e. Mass Communication (Active Members and Annuitants)	830,714	\$3.69	3,065,281
3. Collections and Data Maintenance			
a. Data and Money from Employers (Active Members)	473,933	\$5.08	2,406,704
b. Service to Employers (Active Members)	473,933	\$2.91	1,378,101
c. Data Not from Employers (Actives, Inactives, Annuitants)	1,000,522	\$0.81	806,305
Total			29,101,720
Total per active member and annuitant			\$35.03

Methodology notes

- **Weights** - The weights used for all activities are the all median cost per transaction. This enables us to normalize for the substantial differences in time and effort expended on each type of task. For example, a 1-on-1 counseling session is more costly and time consuming than answering a telephone call. This difference is reflected in the weights where the cost per 1-on-1 counseling session of \$104.87 is approximately 11 times higher than the cost per call of \$9.56.
- **Back Office Activities** (e.g., Governance and Financial Control, Major Projects and Support Services) - The work of back office activities is excluded from the weighted transaction volume score. This is because most work of back office activities cannot be analyzed in terms of transaction volumes. For example, it would be nearly impossible to consider the role of a CEO in terms of the number of transactions that he or she processes.
- **Web** - Transaction volumes are weighted the same regardless of channel. Online transactions typically cost less, but if we applied a lower weight, then a system that has achieved a high level of online functionality would be unfairly penalized.
- **Secondary versus primary cost drivers** - The activity volumes used to determine your weighted transaction volume score are the primary cost drivers for each activity. Secondary cost drivers are ignored in this section because they are usually relatively immaterial.
- **Using members as a proxy** - For some activities, we have used members (or member subsets such as annuitants) as a proxy for the activity's transactions. For example, active members are used as a proxy for the transactions of the Collections and Data Maintenance activity. The implicit assumption is that data maintenance transactions, such as address changes, will occur at similar ratios of members for all systems.

Comparison of transaction volumes by activity

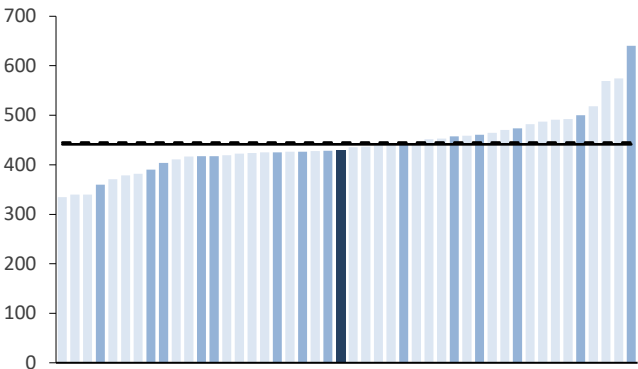
The table below shows whether you are doing more or fewer transactions per member than your peers by front office activity. All volumes in the table are compared 'per 1,000 active members and annuitants' even if all member types do not always cause the volume. This is because active members and annuitants is the divisor when comparing total cost per member. Therefore, to know how volumes impact your relative total cost performance, they need to be compared on the same basis.

Comparisons of Transaction Volumes by Activity				
Transaction (or Cost Driver) by Front Office Activity	Your Volume	Volume per 1,000 Active Members and Annuitants		
		You	Peer Avg	All Avg
1. Member Transactions				
a. Pension Payments (Annuitants)	356,781	429	445	441
b. New Payee Inceptions	18,196	22	23	23
c. Refunds, Withdrawals, and Transfers-out	22,701	27	21	21
d. Purchases and Transfers-in	1,667	2	3	27
e. Disability Applications	1,381	2	1	1
2. Member Communication				
a. Calls and Emails	447,099	538	595	714
b. Incoming Mail	253,205	305	321	266
c. Members Counseled 1-on-1	983	1	14	36
d. Member Presentations	174	0	1	1
e. Mass Communication (Active Members and Annuitants)	830,714	1,000	1,000	1,000
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active Members)	473,933	571	555	559
b. Service to Employers (Active Members)	473,933	571	555	559
c. Data Not from Employers (Actives, Inactives, Annuitants)	1,000,522	1,204	1,514	1,317
Weighted Total		35,032	36,838	49,440

Member transactions per 1,000 members: Graphical comparisons

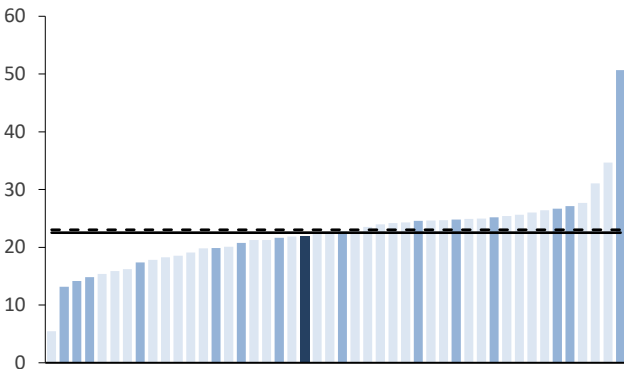
1A Pension Payments (Annuitants)

per 1,000 active members and annuitants



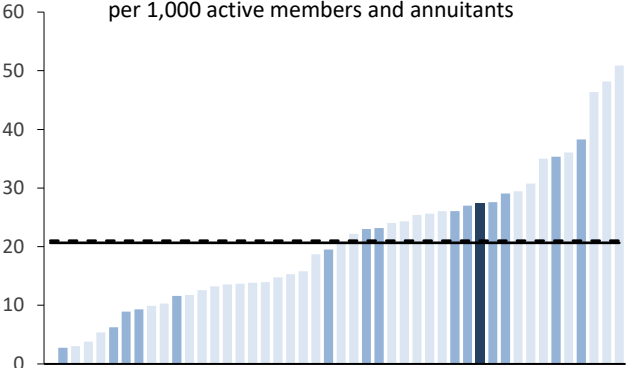
1B New Payee Inceptions

per 1,000 active members and annuitants



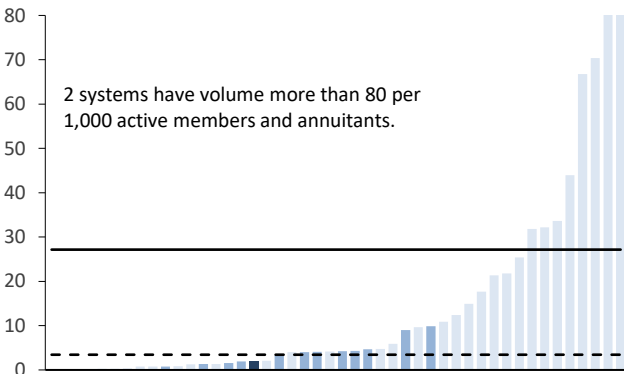
1C Refunds, Withdrawals, and Transfers-out

per 1,000 active members and annuitants



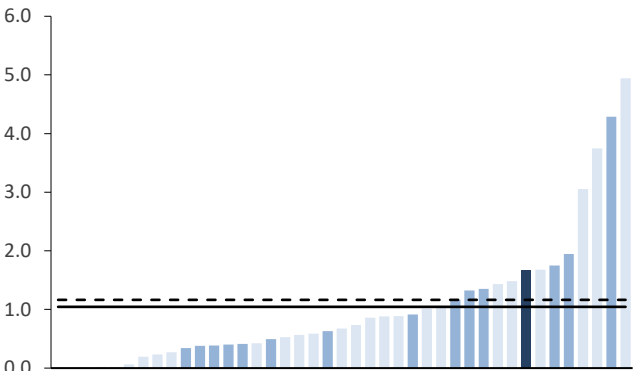
1D Purchases and Transfers-in

per 1,000 active members and annuitants



1E Disability Applications

per 1,000 active members and annuitants



■ You

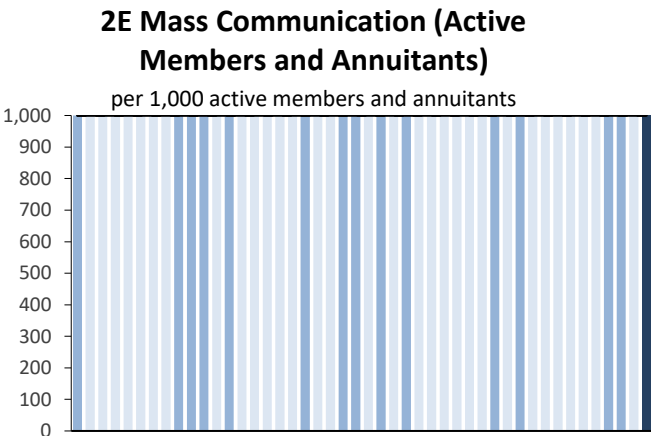
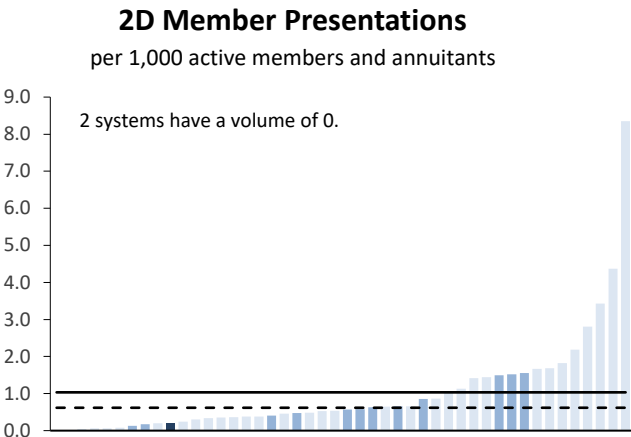
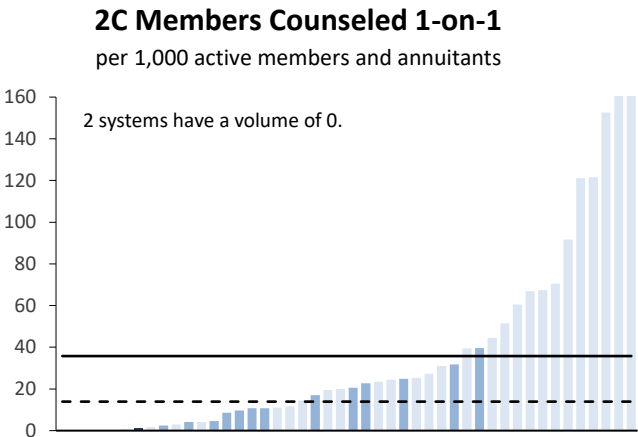
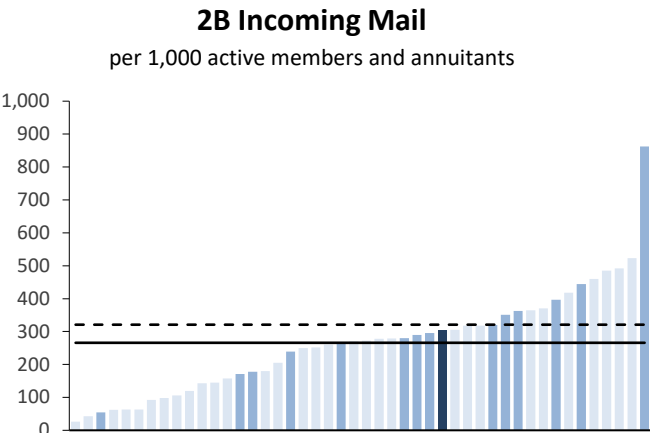
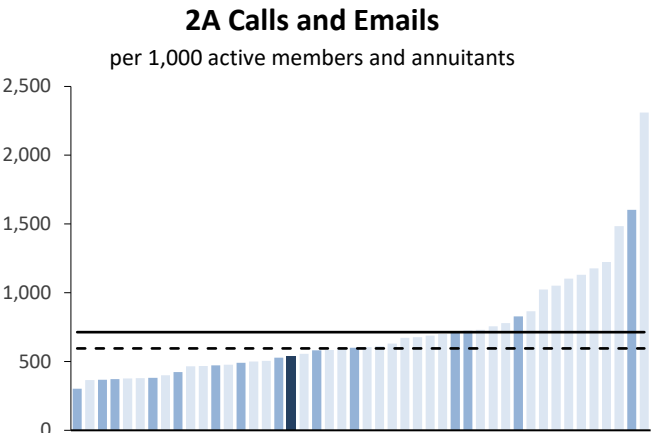
■ Peer

■ All

- - - Peer Avg

— All Avg

Communications transactions per 1,000 members: Graphical comparisons

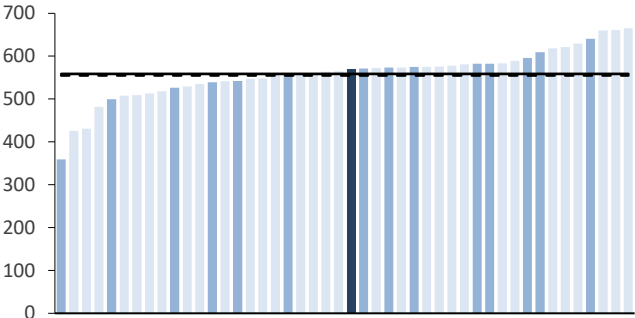


You **Peer** **All** - - - Peer Avg — All Avg

Collections and data transactions per 1,000 members: Graphical comparisons

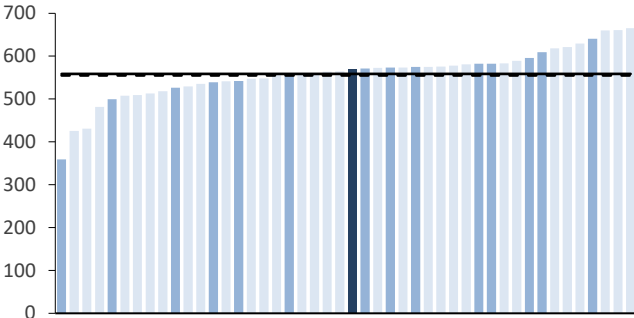
3A Data and Money from Employers
(Active Members)

per 1,000 active members and annuitants



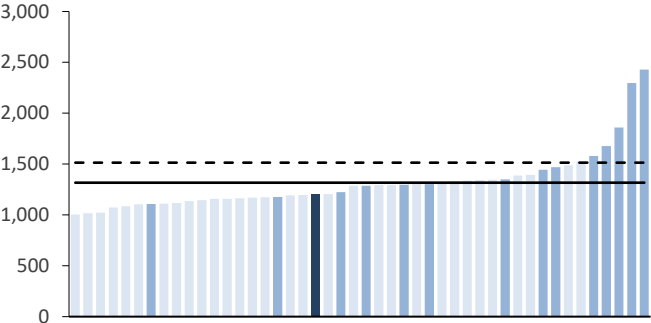
3B Service to Employers (Active Members)

per 1,000 active members and annuitants



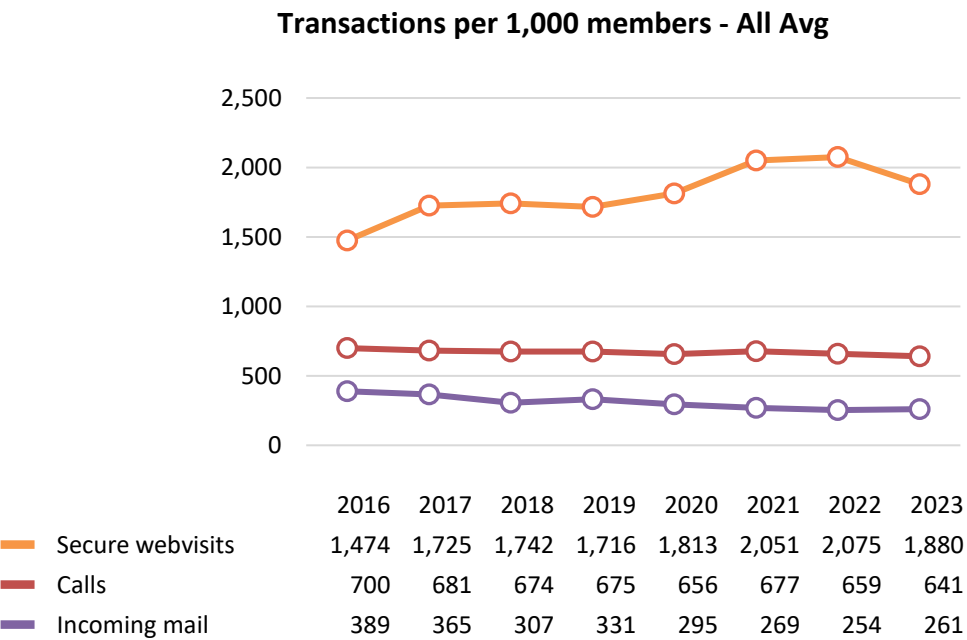
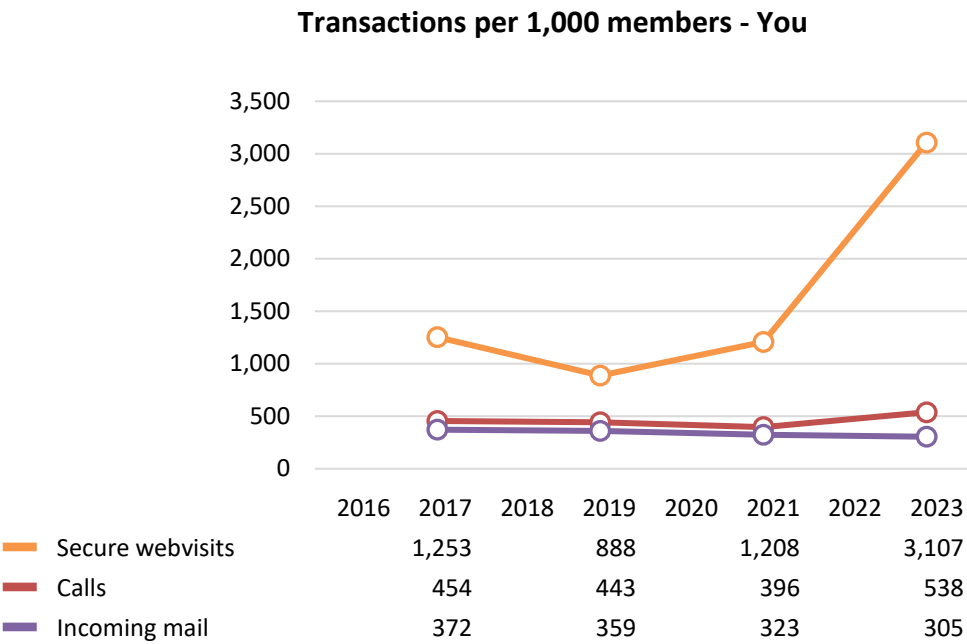
3C Data Not from Employers (Actives, Inactives, Annuitants)

per 1,000 active members and annuitants



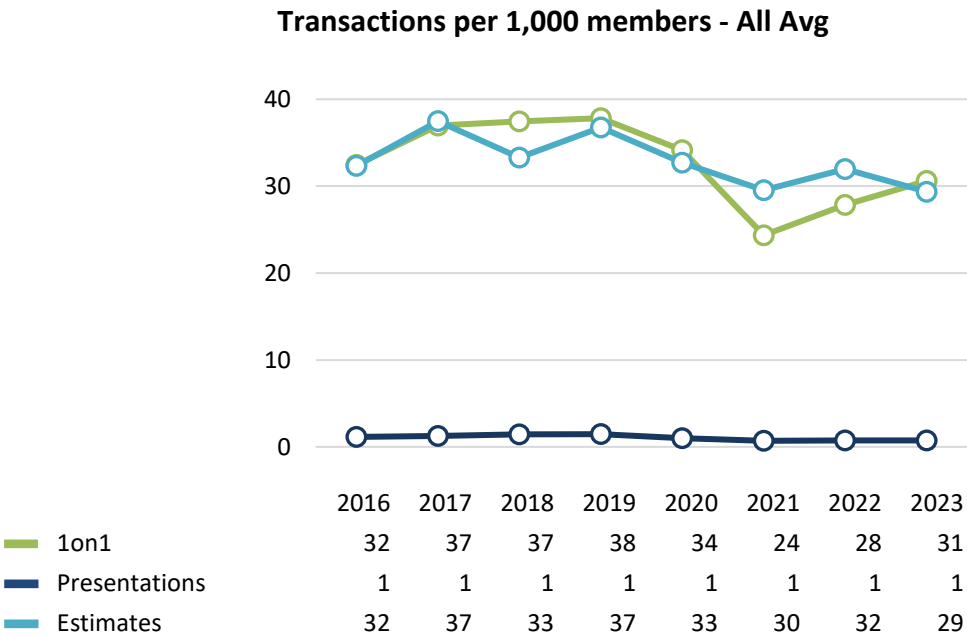
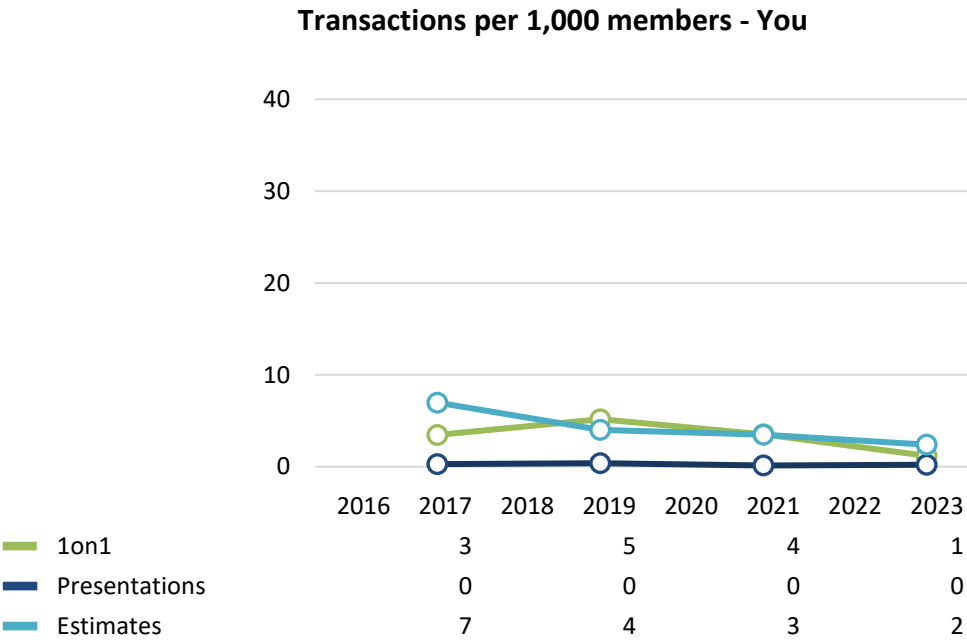
■ You ■ Peer ■ All - - - Peer Avg — All Avg

Transaction trends



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

Transaction trends



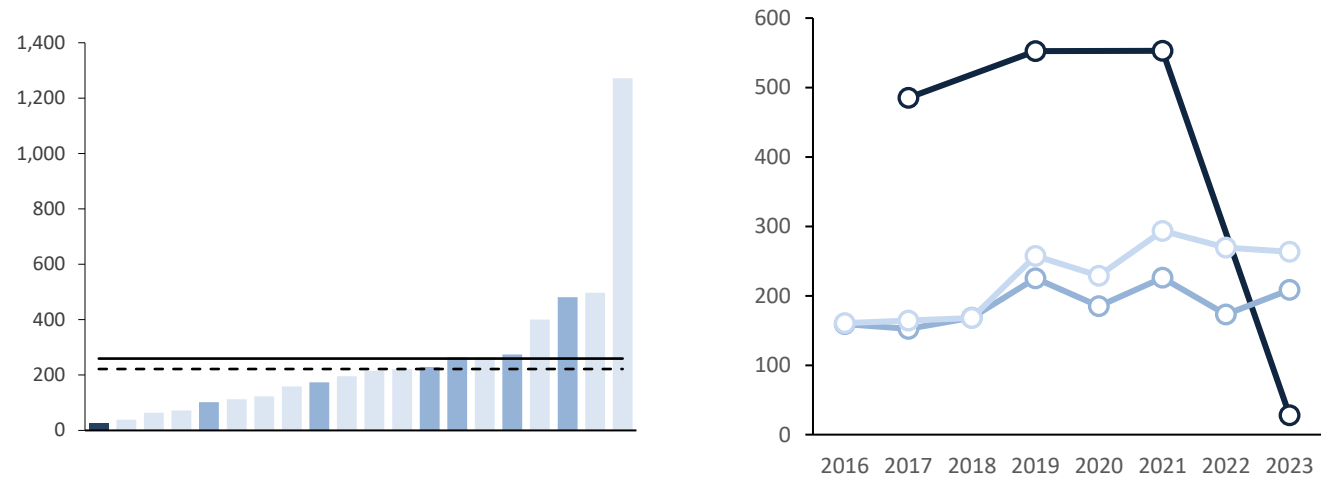
Trend analysis is based on 31 systems that provided 8 consecutive years of data.

Online transactions

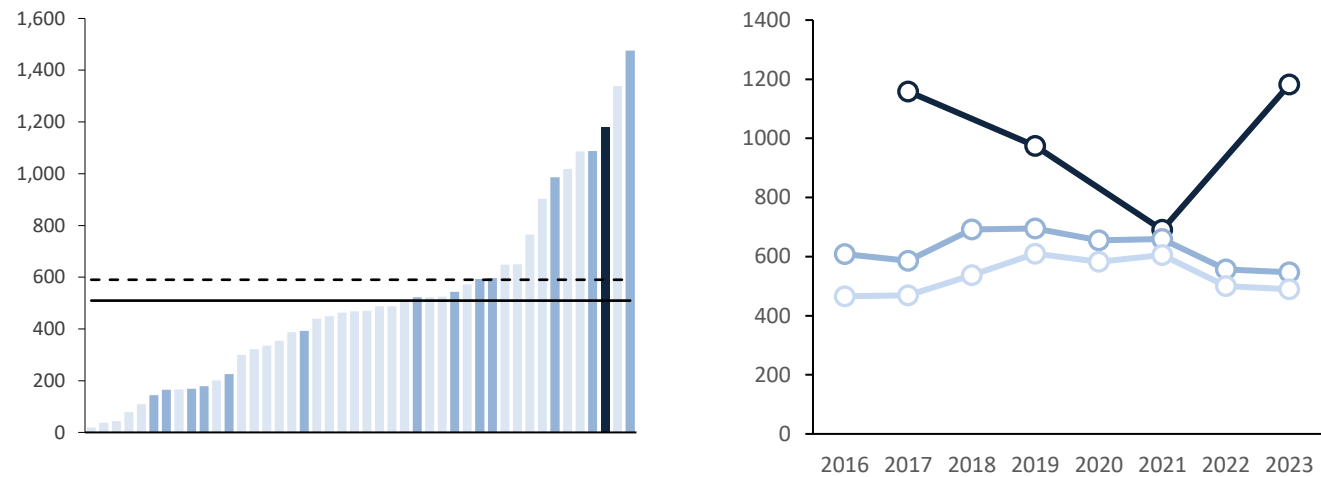
Online Tool	% offering tool		
	You	Peer	All
Benefit calculators:			
In non-secure area	Yes	47% Yes	44% Yes
In secure area linked to member's salary and service data	Yes	93% Yes	96% Yes
Member can:			
Model different retirement start dates	Yes	93% Yes	95% Yes
Model salary changes	Yes	100% Yes	93% Yes
Model different working percentages (e.g., part-time or early termination)	No	79% Yes	71% Yes
Model alternative payment options	Yes	93% Yes	86% Yes
Model gross and net retirement income	Gross	57% Both	76% Both
Model monthly and annual retirement income	monthly	58% Both	53% Both
View retirement incomes in one-page summary for comparative purposes	Yes	50% Yes	45% Yes
Capabilities on your website:			
Submit a retirement application online	Yes	86% Yes	64% Yes
Member provided with an estimate, final gross (or net) amount, or neither	Estimate	0% Final	7% Final
Percent of online applications require follow-up	100%	51%	47%
Member view the status of online retirement application	Yes	92% Yes	69% Yes
Prior service credit purchase calculator	Yes	93% Yes	79% Yes
Prior service credit estimate is final	No	30% Yes	30% Yes
In-service credit purchase calculator	Yes	57% Yes	45% Yes
In-service credit estimate is final	No	56% Yes	42% Yes
Apply for a prior service credit purchase	No	47% Yes	31% Yes
Apply for an in-service credit purchase	No	36% Yes	25% Yes
Apply for a transfer-in	No	27% Yes	20% Yes
Apply for transfer-out	Yes	80% Yes	45% Yes
Change address	Yes	100% Yes	98% Yes
Change beneficiary	Yes	93% Yes	78% Yes
Change email address	Yes	100% Yes	98% Yes
Change banking information for direct deposit	Yes	87% Yes	70% Yes
Change tax withholding amount	Yes	87% Yes	67% Yes
View or download duplicate tax receipts [i.e., 1099s in the U.S.]	Yes	93% Yes	93% Yes
View pension payment details [i.e., gross amounts, deductions]	Yes	100% Yes	93% Yes
Secure portal that includes a member's history of recent correspondence	No	73% Yes	70% Yes
View most recent member statement	Yes	100% Yes	100% Yes
Upload documents	Yes	73% Yes	67% Yes
View pensionable earnings and/or service without downloading	Yes	93% Yes	89% Yes
If yes:			
Both salary and service data are available	Yes	100% Yes	100% Yes
Is online data up-to-date to the most recent pay period	Yes	93% Yes	83% Yes
Is a complete annual history from the beginning of employment provided	Yes	79% Yes	56% Yes

Online transaction trends

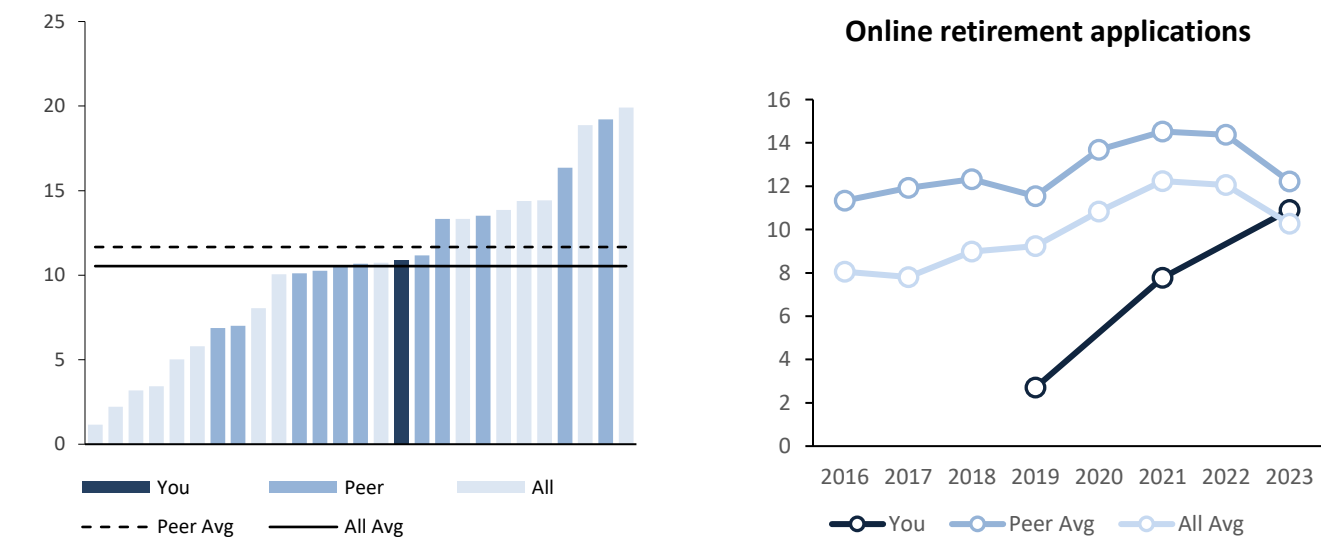
Public-website benefit calculator volumes per 1,000 active members and annuitants



Secure area benefit calculator volumes per 1,000 active members and annuitants



Online retirement applications per 1,000 active members and annuitants



7

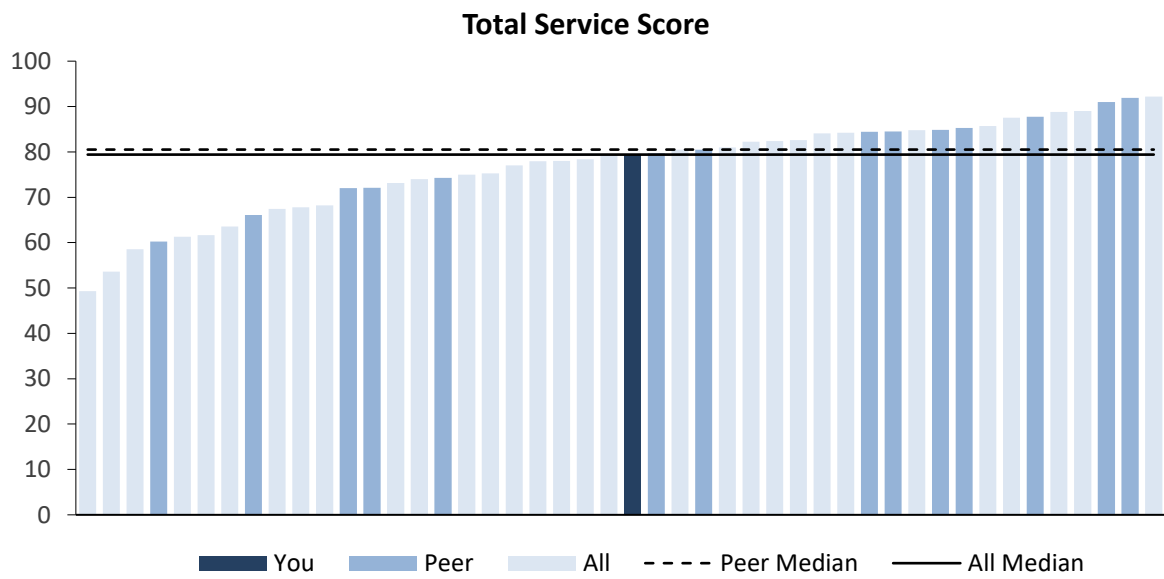
Service Levels

This section:

- Total service score
- Service score by member journey
- Changes in service score
- Service score methodology

Total service score

Your total service score was 80 out of 100. This was below the peer median of 81.



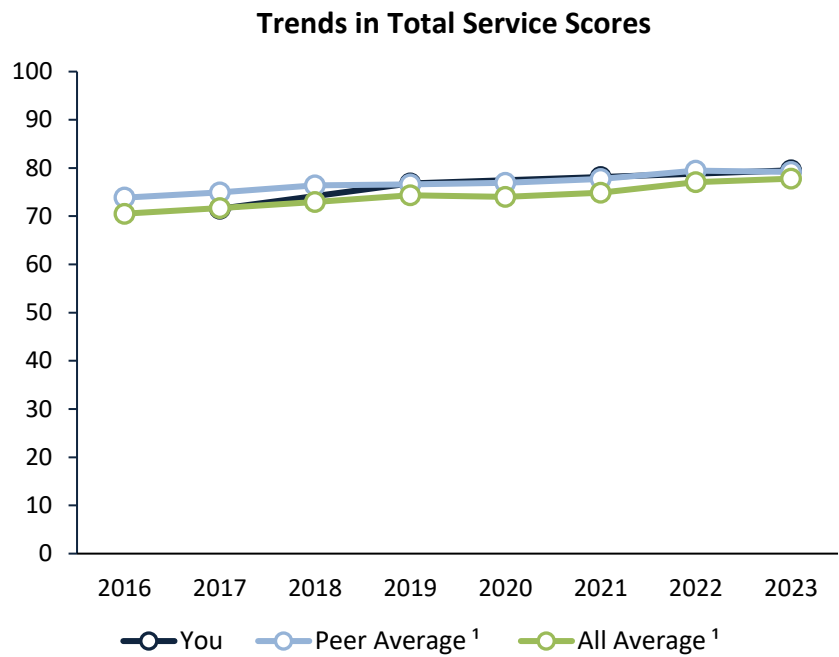
Your total service score is the weighted average of the service scores for each of the four member journeys below.

Member 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
Weighted total service score	100%	80	81

- High service may not always be cost-effective or optimal. For example, it is higher service for your members to have a contact center open 24 hours a day but few systems would be able to justify the cost.
- The service measures are most useful for identifying what you do differently than your peers. Understanding these differences gives you ideas on how you may want to improve or reduce the service you provide to your members.
- Our 'weights' are an approximation of the importance of an individual service element. The weights will not always reflect the relative importance that you or your members attach to an individual service element.

Service trends

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



Total Service Score Trends								
	2016	2017	2018	2019	2020	2021	2022	2023
You		72		77		78		80
Peer Average ¹	74	75	76	77	77	78	79	79
All Average ¹	71	72	73	74	74	75	77	78

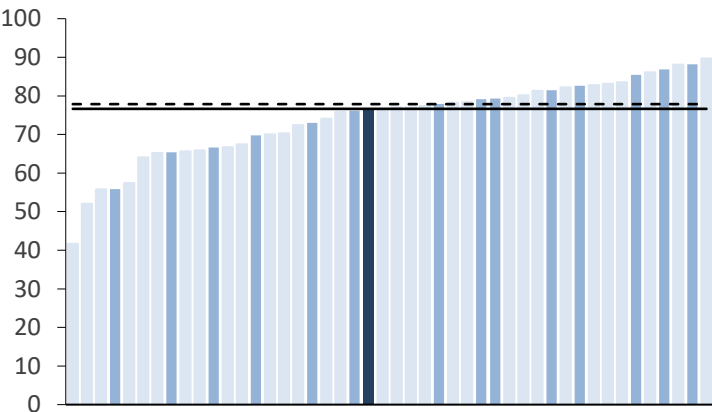
1. Trend analysis is based on systems that have participated for 8 consecutive years (13 peers and 31 World systems). This ensures that trends are not caused by changes in the composition of the participants.

Historic scores have been restated to reflect changes in methodology. If any service question was not asked in a prior year, we used your response this year as a default. Defaults are applied historically to ensure year-on-year consistency.

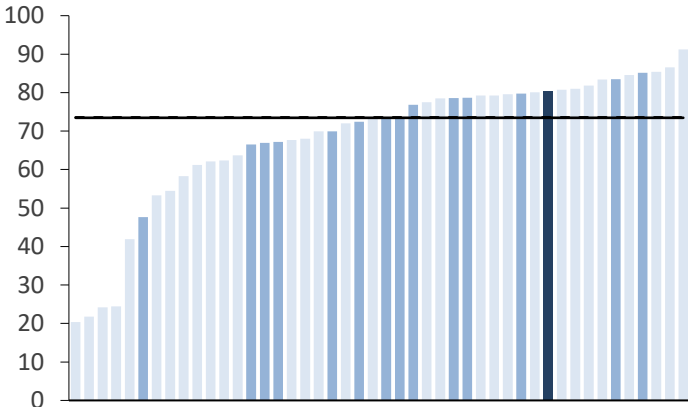
Service score by member journey

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

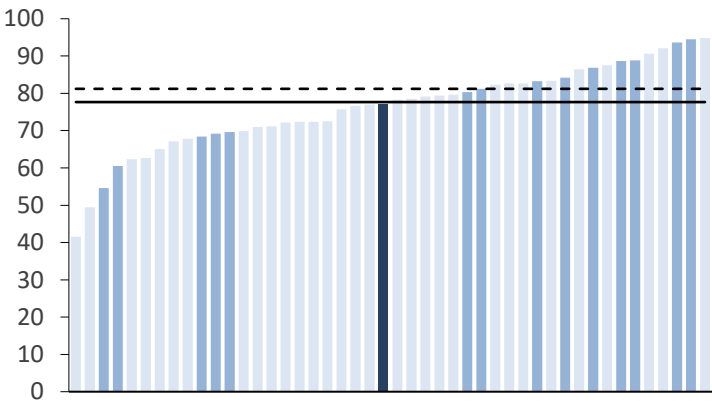
Active Member Experience Service Score



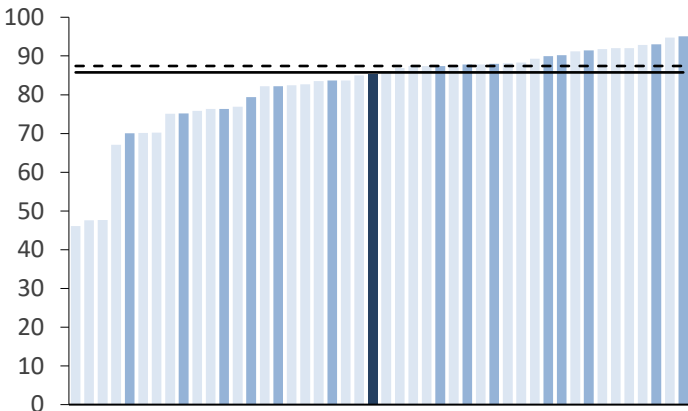
Inactive Member Experience Service Score



Retiring Experience Service Score



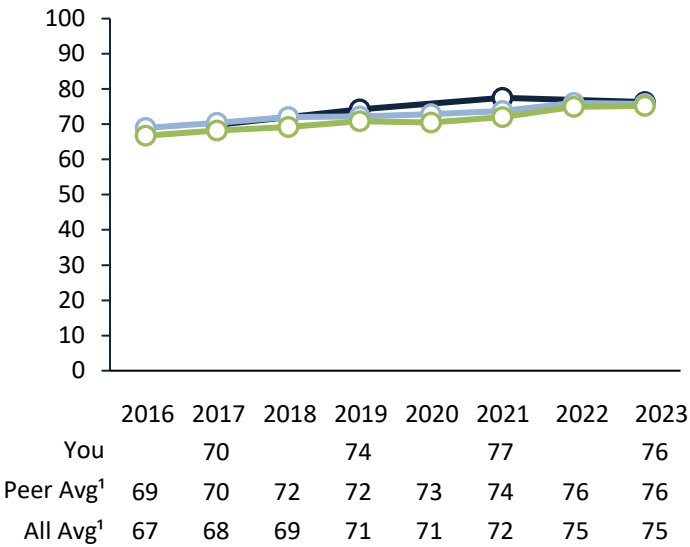
Annuitant Experience Service Score



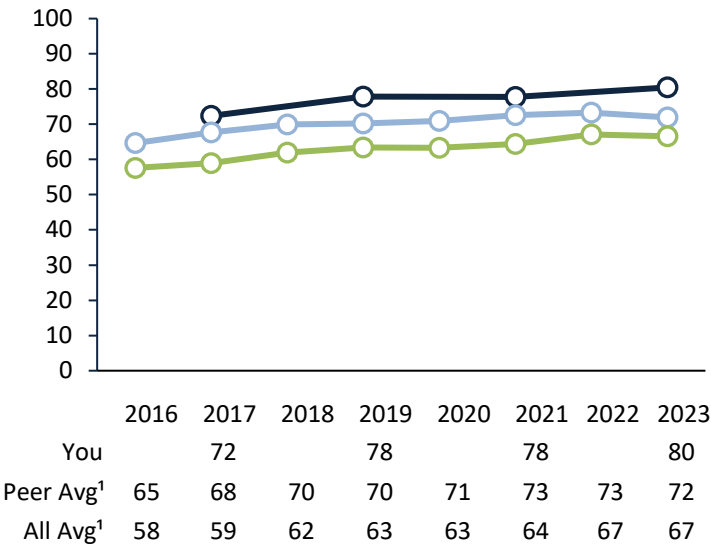
■ You ■ Peer ■ All - - - Peer Median — All Median

Service trends by member journey

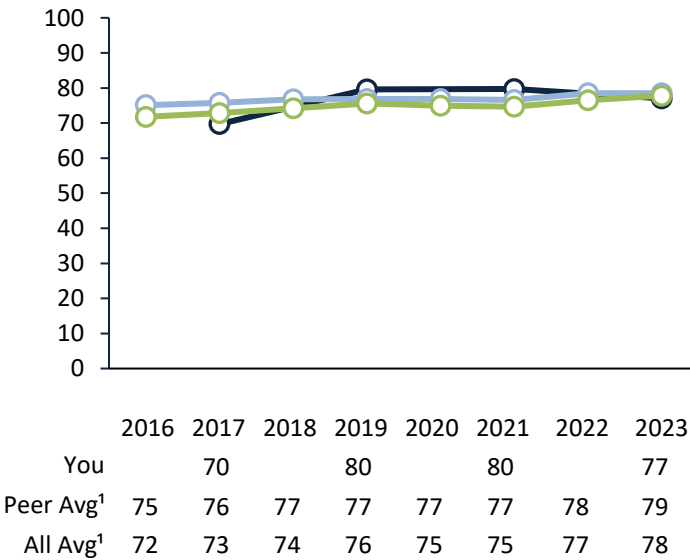
Active Member Experience Service Score



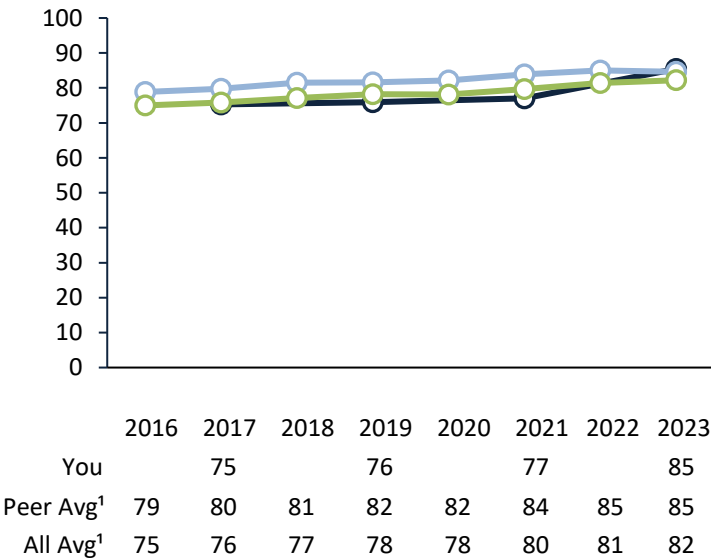
Inactive Member Experience Service Score



Retiring Experience Service Score



Annuitant Experience Service Score

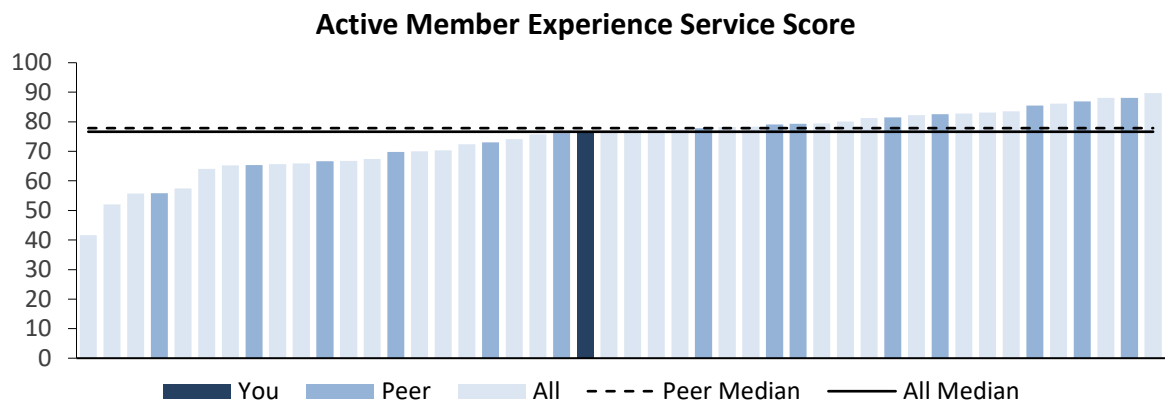


● You ● Peer Avg¹ ● All Avg¹

1. Trend analysis is based on systems that have participated for 8 consecutive years (13 peers and 31 World systems). This ensures that trends are not caused by changes in the composition of the participants.

Total service score for active members

Your service score for active member experience was 76 out of 100. This was below the peer median of 78.



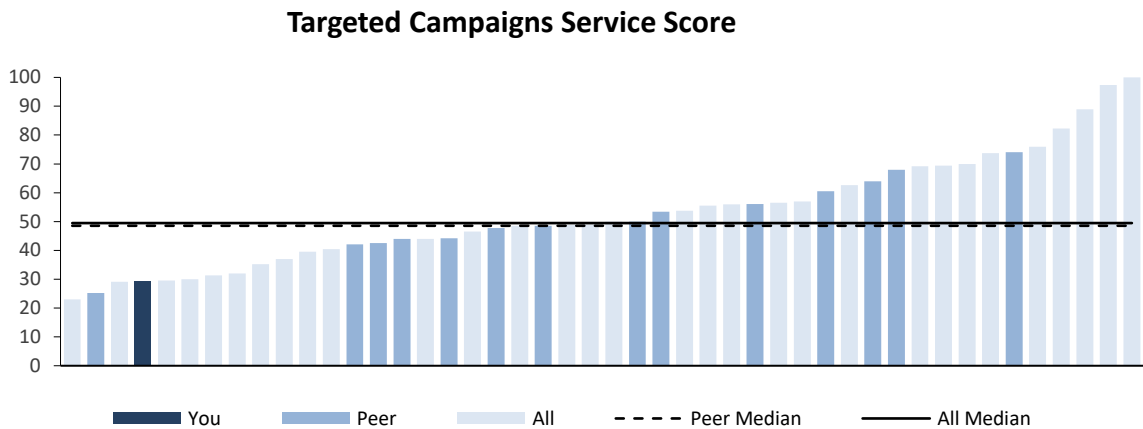
Your total service score for active members is the weighted average of the activity service scores below:

Activity	Weight	You	Peer Median	Higher/Lower
Targeted campaigns	7.5%	29	49	-19
Purchases and Transfers-in	10.0%	78	62	16
Member statements	12.5%	65	75	-10
Personal information	5.0%	80	90	-10
Salary and service credit information	5.0%	100	100	0
Secure website accessibility	30.0%	100	98	2
Contact center: accessibility	7.5%	28	45	-17
Contact center: capability	5.0%	78	85	-7
Contact center: call quality	5.0%	80	85	-5
1-on-1 counseling	5.0%	55	94	-39
Member presentations	2.5%	100	100	0
Feedback	5.0%	80	80	0
Active member experience	100.0%	76	78	-2

Targeted campaigns

Active member experience

Your service score for targeted campaigns was 29 out of 100. This was below the peer median of 49.

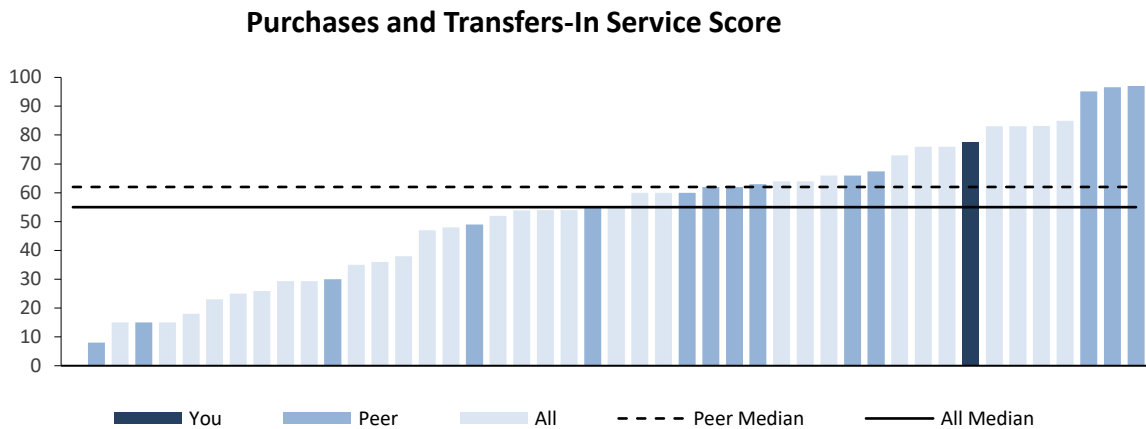


Scoring method		Your Data	Peer Average	Your Score
Email addresses				
+30	If you have email addresses for 90% or more of your active members, otherwise 33.3 X % of active members you have email addresses for	73.7%	75.1%	24.3
Targeted campaigns				
If you send targeted communication to active members for the following:				
+10	new member enrollment	No	86.7% Yes	0.0
+10	(likely) eligibility to purchase prior service credit	No	6.7% Yes	0.0
+10	vested for pension benefits	No	42.9% Yes	0.0
+10	eligibility to purchase credit for in-service-leave	No	0.0% Yes	0.0
+10	missing beneficiary	No	26.7% Yes	0.0
+10	missing email address	No	6.7% Yes	0.0
Newsletters				
+2	If you send active members a newsletter	Yes	100.0% Yes	2.0
+3	If active members receive a different newsletter from inactive members or annuitants	Yes	85.7% Yes	3.0
Presentations				
+3	If you have presentations targeted specifically to mid-career members	No	80.0% Yes	0.0
+2	If you have presentations targeted specifically to new members	No	80.0% Yes	0.0
Total score				29.3

Purchases and Transfers-in

Active member experience

Your service score for purchases and transfers-in was 78 out of 100. This was above the peer median of 62.

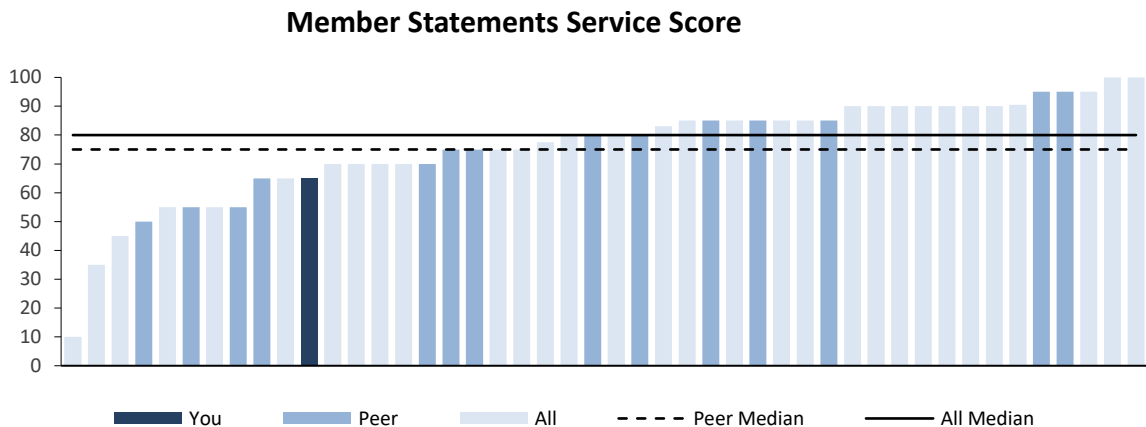


Scoring method		Your Data	Peer Average	Your Score
Service credit purchase calculator				
If you have an online calculator for:				
+15	prior service credit purchases	Yes	92.9% Yes	15.0
+15	in-service-leave credit purchases (e.g., maternity, parental, sabbatical, educational, illness leave)	Yes	57.1% Yes	15.0
+15	If you can provide an estimate of the cost to purchase service credit on a real-time basis over the phone	No	60.0% Yes	0.0
Service credit purchase estimates				
+55	if you can provide a written estimate in 1 day or less, otherwise 55 - 5 per day over 1 day	3.5 days	34.8 days	47.5
Transfers-in				
n/a	If a member can apply for a transfer-in online	n/a	33.3% Yes	n/a
n/a	If a member's transfer-in application is processed within 1 month, otherwise 10 - 1 per month over 1 month	n/a	1.7 months	n/a
Total score				77.5

Member statements

Active member experience

Your service score for member statements was 65 out of 100. This was below the peer median of 75.

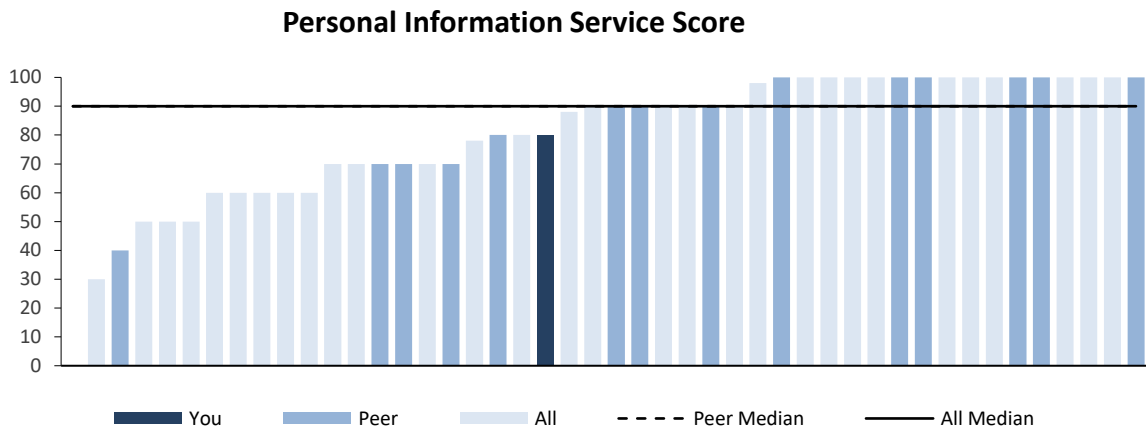


Scoring method		Your Data	Peer Average	Your Score
Availability				
+10	If the most recent member statement is available online	Yes	100.0% Yes	10.0
+10	If you send an email notice to all active members (that have opted not to receive mail) in the last year that member statements are available online	Yes	54.5% Yes	10.0
+10	If you send paper member statements to all active members (that have opted to receive mail) in the last year	No	53.3% Yes	0.0
Timeliness				
+30	If data is current to 1 month, otherwise 30 - 5 for each month in excess of 1 month out of date	5.0 months	0.5 months	10.0
Content				
If your member statement:				
+10	summarizes service credit	Yes	100.0% Yes	10.0
+10	provides pensionable earnings	Yes	73.3% Yes	10.0
+5	provides a historical summary of salary and service credit earned each year	No	40.0% Yes	0.0
+15	shows an estimate of future pension entitlement	Yes	80.0% Yes	15.0
Total score				65.0

Personal information

Active member experience

Your service score for personal information was 80 out of 100. This was below the peer median of 90.

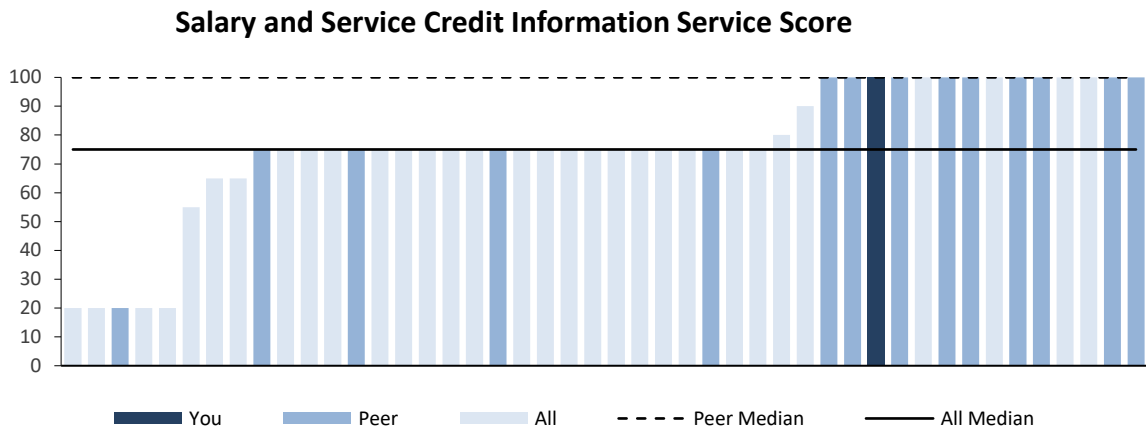


Scoring method		Your Data	Peer Average	Your Score
Self-service				
If members can do the following online:				
+15	change address	Yes	100.0% Yes	15.0
+15	change email address	Yes	100.0% Yes	15.0
+10	change communication preferences	Yes	66.7% Yes	10.0
+10	change beneficiary	Yes	93.3% Yes	10.0
Secure messaging				
If you have a secure portal for members:				
+10	that includes a history of recent correspondence	No	73.3% Yes	0.0
+20	where members can upload documents	Yes	73.3% Yes	20.0
Assisted service				
If members can do the following over the phone:				
+10	change address	No	80.0% Yes	0.0
+10	change email address	Yes	93.3% Yes	10.0
Total score				80.0

Salary and service credit information

Active member experience

Your service score for salary and service credit information was 100 out of 100. This was equal to the peer median.

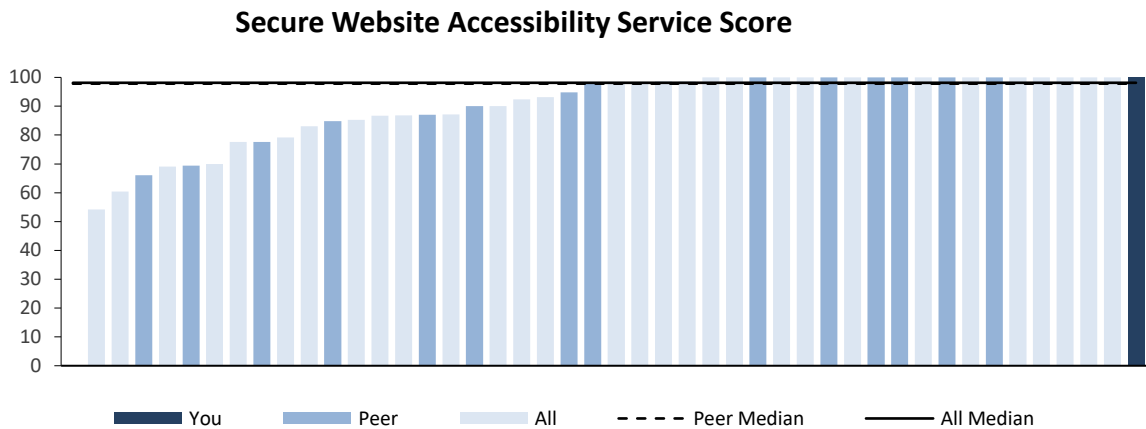


Scoring method		Your Data	Peer Average	Your Score
Self-service				
+30	If you offer secure access to both salary and service credit data	Yes	93.3% Yes	30.0
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	86.7% Yes	25.0
+25	If a complete annual history since employment began of salary and service credit data is available online	Yes	73.3% Yes	25.0
Assisted service				
If you can provide the following on a real-time basis over the phone:				
+10	pensionable salary	Yes	100.0% Yes	10.0
+10	service credit history including gaps	Yes	100.0% Yes	10.0
Total score				100.0

Secure website accessibility

Active member experience

Your service score for secure website accessibility was 100 out of 100. This was above the peer median of 98.

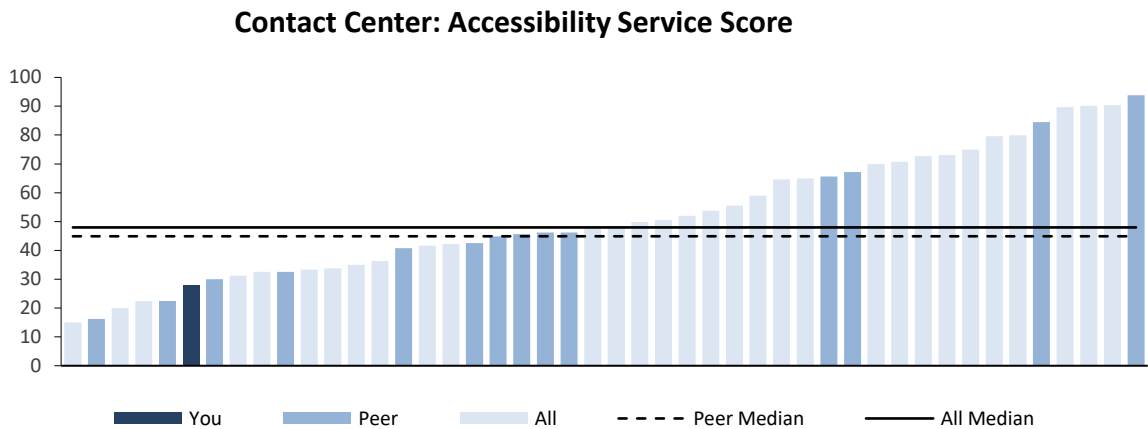


Scoring method		Your Data	Peer Average	Your Score
Access				
+10	If you have a secure website accessible for active members	Yes	100.0% Yes	10.0
+20	If the secure member area is customized to only show options relevant to active members (e.g., active members see different options than annuitants)	Yes	100.0% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	100.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	20.0% Yes	0.0
Secure website use				
Number of active members that accessed the secure area in the year (A)		553,364		
Number of active members (B)		473,933		
+60	If 40% or more of your active members accessed the secure area at least once in the past year, otherwise 150 X % of active members that accessed the secure area = (A) / (B)			
	Score of 20 if total unique visit is unknown	116.8%	50.9%	60.0
Total score				100.0

Contact center: accessibility

Active member experience

Your service score for contact center: accessibility was 28 out of 100. This was below the peer median of 45.



Scoring method		Your Data	Peer Average	Your Score
Access				
+5	If you have a toll-free phone number	Yes	100.0% Yes	5.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each hour less than 50 hours per week	35 h	44.0 h	2.5
Phone menu layers and wait times				
-10	If a receptionist is the first point of contact	No	0.0% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4 plus layers	4 layers	2.1 layers	0.0
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	30 s		
	Average time waiting in queue for a service agent (C)	175 s		
	Total wait time	205 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per second to reach a knowledgeable person = (A) + (B) + (C)	205 s	538 s	13.0

Contact center: accessibility (continued)

Active member experience

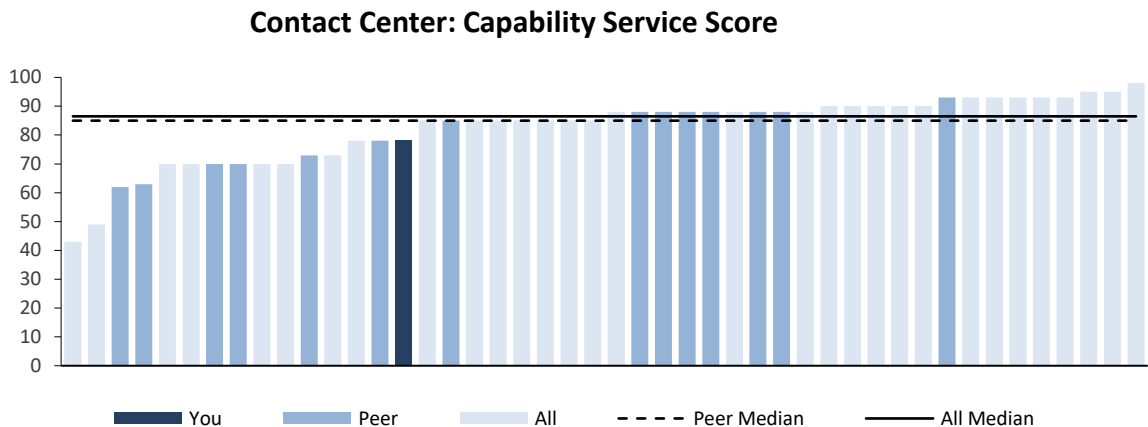
Scoring method		Your Data	Peer Average	Your Score
Undesired call outcomes				
<u>Desired call outcomes</u>				
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?		211,090		
c) Incoming calls satisfied by self-serve options, if any?		<u>151,099</u>		
Total desired call outcomes (A)		362,189		
<u>Undesired call outcomes during business hours</u>				
a) Busy signal, never enters the system?		n/a		
b) Caller gets pre-recorded 'call another time' message during business hours?		n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?		15,217		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?		33,887		
e) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?		n/a		
f) Call rings unanswered during business hours?		n/a		
# Receptionists takes a message		n/a		
If you have a callback feature, # of callback requests that were not completed		<u>1,520*</u>		
Total undesired call outcomes during business hours (B)		50,624		
Total incoming calls (C = A + B)		411,293		
Undesired outcomes as a percentage of total incoming calls (B / C)		12.3%	21.5%	
+20	If undesired outcomes were 0%, otherwise 20 - percentage of undesired outcomes X 200 (Minimum of 0)	12.3%	21.5%	0.0
Email turnaround times				
+15	If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	1.2 days	7.5
Total score				28.0

* Your response was 'unknown'. A default was applied. See 'Appendix D' for details.

Contact center: capability

Active member experience

Your service score for contact center: capability was 78 out of 100. This was below the peer median of 85.

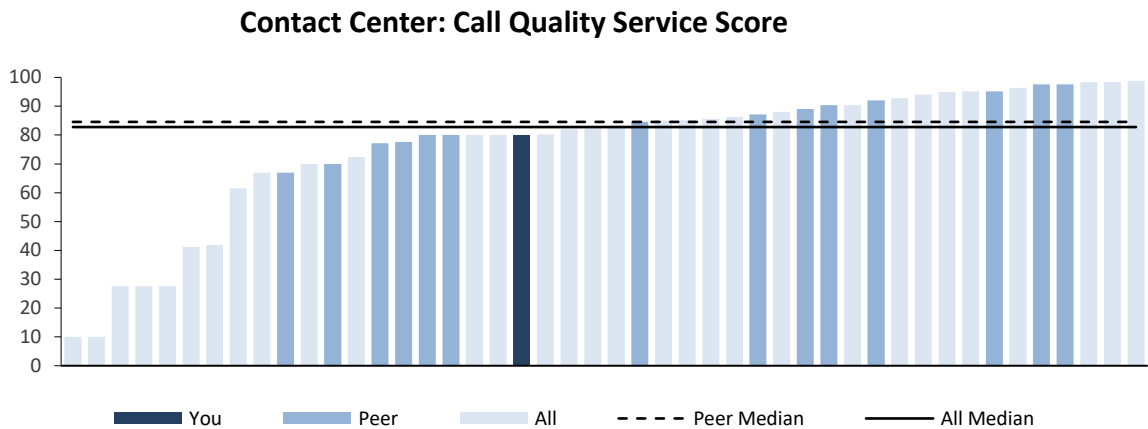


Scoring method		Your Data	Peer Average	Your Score
Workflow system				
If you have a workflow system that provides service agents with real time information about each member's:				
+15	previous calls or emails to the system	Yes	86.7% Yes	15.0
+15	recent online correspondence	Yes	100.0% Yes	15.0
+15	real-time status of open items	Yes	100.0% Yes	15.0
+15	member's use of digital tools	No	53.3% Yes	0.0
+15	most recent member statement	Yes	100.0% Yes	15.0
+10	beneficiary information	Yes	100.0% Yes	10.0
Other capabilities				
If you offer the following tools to help serve members better:				
+5	co-browsing	No	20.0% Yes	0.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if online	Both	13.3% Both	5.0
+3	live web chat	Yes	6.7% Yes	3.0
+2	chatbot	No	6.7% Yes	0.0
Total score				78.0

Contact center: call quality

Active member experience

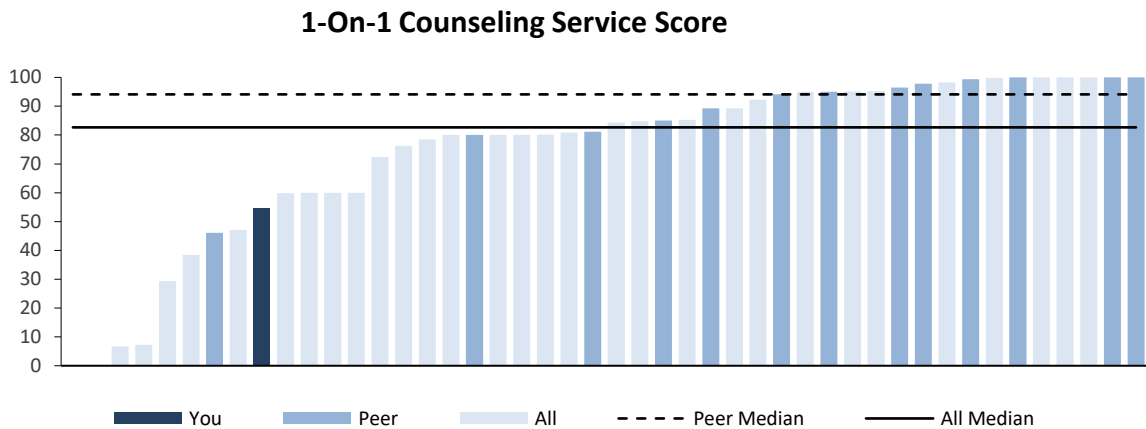
Your service score for contact center: call quality was 80 out of 100. This was below the peer median of 85.



Scoring method		Your Data	Peer Average	Your Score
First Contact Resolution				
+30	If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	88.9%	10.0
Call quality monitoring				
+55	If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	4 times	7.1 times	55.0
+15	If the review is based on listening in on a recording (versus a live call)	Recording	60% Recording	15.0
Total score				80.0

1-on-1 counseling
Active member experience

Your service score for 1-on-1 counseling was 55 out of 100. This was below the peer median of 94.



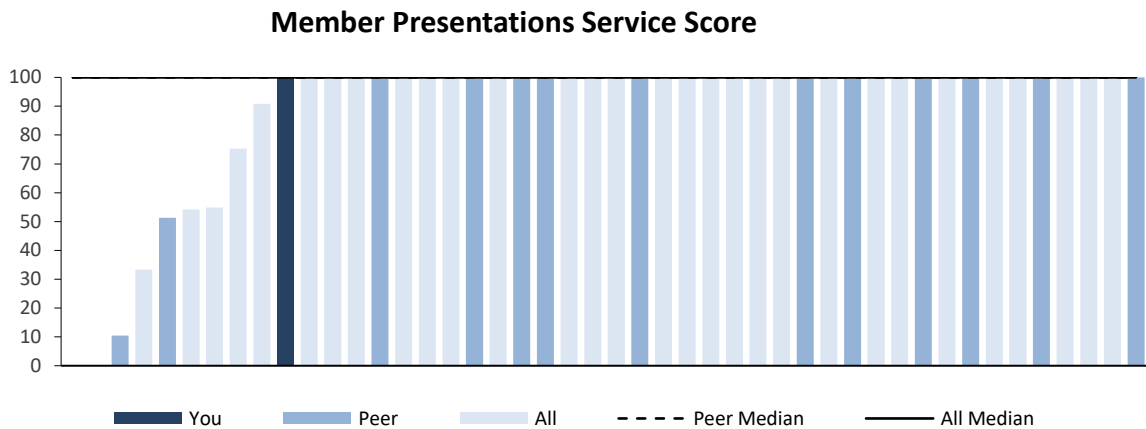
Scoring method		Your Data	Peer Average	Your Score
Availability				
Number of members you counseled:				
In-house		6	2,312	
In the field (C)		0	2,205	
At the employer		0	129	
Via teleconference		390	3,848	
Online, via videoconference (D)		587	2,579	
Total number of 1-on-1 counseling sessions (A)		983	11,074	
Total active members (B)		473,933	360,853	
+60	If the number of members counseled 1-on-1 was 0.50% ¹ or more of active members, otherwise 11,949 ¹ X # of members you met individually as a % of active members = (A) / (B)	0.2%	2.5%	24.8
+20	If the percentage of sessions in the field, separate from the member's place of employment and/or video conference, was 50% or more, otherwise 40 X percentage of sessions in the field separate from the employer = (C + D) / (A)	59.7%	38.3%	20.0
Capability				
+10	If you provide counseling to all members who walk-in to your office	No	80.0% Yes	0.0
+5	If you have real-time access to the member's data	Yes	86.7% Yes	5.0
+5	If all in-person counseling takes place in a private office with a door	Yes	86.7% Yes	5.0
Total score				54.8

¹Better website content and functionality reduces the number of members that attend 1-on-1 sessions. Using your percentage of pensions inceptioned online as a proxy for the strength of your website, we reduce the 1.0% attendee cutoff rate for a perfect availability score to a minimum of 0.15% (i.e. if 49.79% of your pension inceptions occur online, you need attendees equal to 0.50% of your active member population to achieve a perfect score of 60; we use a multiplication factor of 11,949 because 60 / 0.50% = 11,949).

Member presentations

Active member experience

Your service score for member presentations was 100 out of 100. This was equal to the peer median.



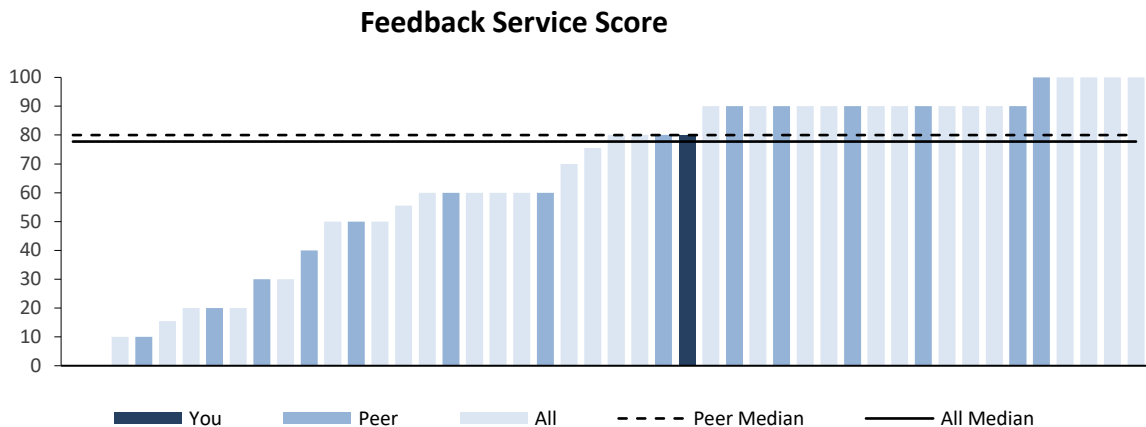
Scoring method	Your Data	Peer Average	Your Score
Availability			
Number of presentations:			
- In-house	0	13	
- In the field	0	101	
- Live webinars	174	255	
Total presentations	174	369	
Total number of presentation attendees (A)	10,523	15,988	
Total active members (B)	473,933	360,853	
+100 If the total number of attendees was 1.3% ¹ or more of active members, otherwise 7,966 ¹ X attendees as percent of active members (including those attending webinars) = (A) / (B)	2.2%	4.8%	100.0
Total score			100.0

¹Better website content and functionality reduces the number of members that attend presentations. Using your percentage of pensions inceptioned online as a proxy for the strength of your website, we reduce the 2.5% attendee cutoff rate for a perfect availability score to a minimum of 0.4% (i.e. if 49.79% of your pension inceptions occur online, you need attendees equal to 1.26% of your active member population to achieve a perfect score of 100; we use a multiplication factor of 7,966 because 100 / 1.26% = 7,966).

Feedback

Active member experience

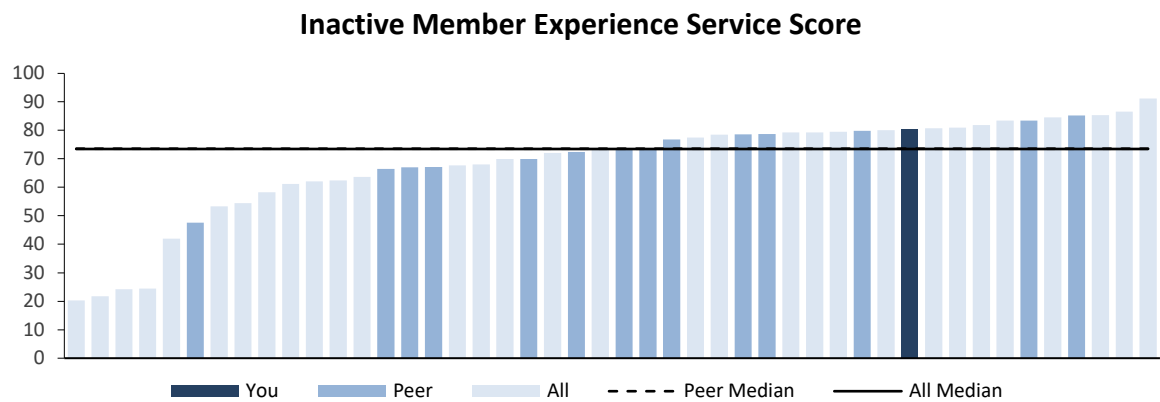
Your service score for feedback was 80 out of 100. This was equal to the peer median.



Scoring method		Your Data	Peer Average	Your Score
Member experience surveying				
If you survey member satisfaction, NPS or effort exclusively for each of the following:				
+10	active members	No	86.7% Yes	0.0
+10	new members	No	6.7% Yes	0.0
+20	secure website	Yes	46.7% Yes	20.0
+20	telephone calls	Yes	80.0% Yes	20.0
+5	1-on-1 counseling	Yes	73.3% Yes	5.0
+5	member presentations	Yes	86.7% Yes	5.0
Methodology				
If you survey members within two days or less of using the following:				
+10	secure website	Yes	53.3% Yes	10.0
+10	telephone calls	Yes	80.0% Yes	10.0
+5	1-on-1 counseling	Yes	73.3% Yes	5.0
+5	member presentations	Yes	86.7% Yes	5.0
Total score				80.0

Total service score for inactive members

Your service score for inactive member experience was 80 out of 100. This was above the peer median of 74.



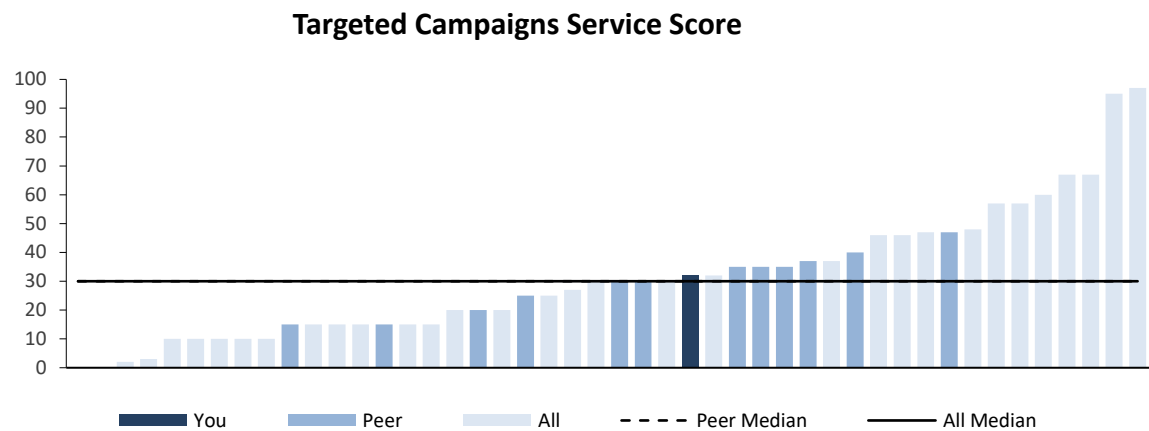
Your total service score for pre-retirement inactive members is the weighted average of the activity service scores below:

Activity	Weight	You	Peer Median	Higher/Lower
Targeted campaigns	10.0%	32	30	2
Tracking inactive members	10.0%	70	67	3
Transfers-out	5.0%	100	93	7
Personal information	7.5%	80	90	-10
Salary and service credit information	5.0%	100	100	0
Secure website accessibility	40.0%	100	89	11
Contact center: accessibility	7.5%	28	45	-17
Contact center: capability	5.0%	78	85	-7
Contact center: call quality	5.0%	80	85	-5
Feedback	5.0%	85	85	0
Weighted total service score	100.0%	80	74	7

Targeted campaigns

Inactive member experience

Your service score for targeted campaigns was 32 out of 100. This was above the peer median of 30.

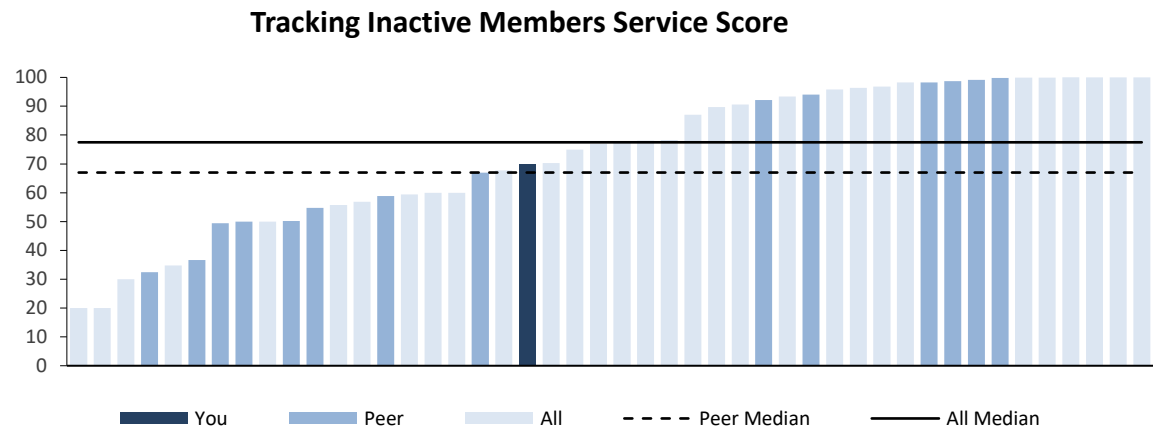


Scoring method		Your Data	Peer Average	Your Score
Targeted campaigns				
If you send targeted communication to inactive members for the following:				
+10	leaving the plan	Yes	40.0% Yes	10.0
+20	eligibility for retirement	Yes	66.7% Yes	20.0
+10	missing beneficiary	No	6.7% Yes	0.0
+20	missing email address	No	0.0% Yes	0.0
+20	missing address	No	0.0% Yes	0.0
Member statements				
+15	If you send paper member statements to inactive members annually	No	46.7% Yes	0.0
Newsletters				
+2	If you send inactive members a newsletter	Yes	40.0% Yes	2.0
+3	If inactive members receive a different newsletter from active members or annuitants	No	33.3% Yes	0.0
Total score				32.0

Tracking inactive members

Inactive member experience

Your service score for tracking inactive members was 70 out of 100. This was above the peer median of 67.

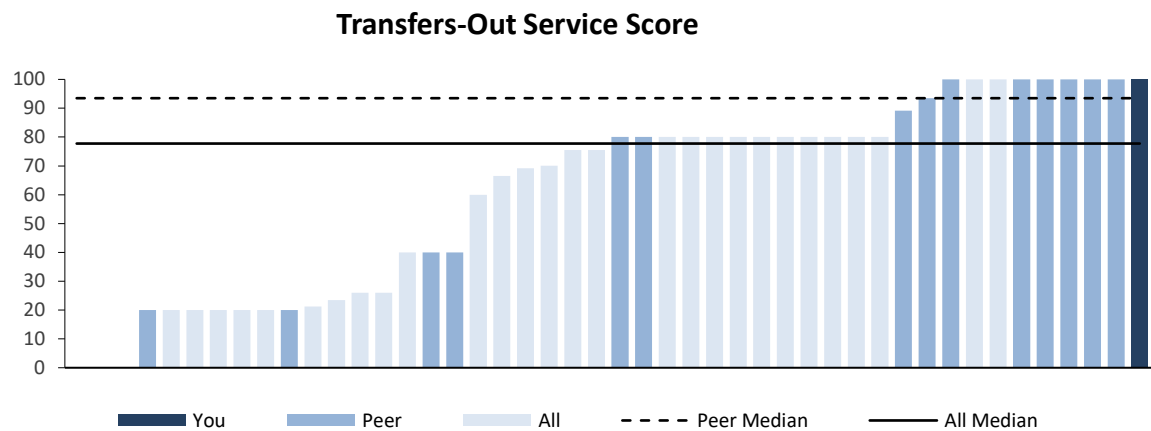


Scoring method		Your Data	Peer Average	Your Score
+10	If you actively keep track of the addresses of inactive members	Yes	86.7% Yes	10.0
+30	If you have email addresses for 50% or more of your vested inactive members, otherwise 60 X % of vested inactive members you have email addresses for	Unknown	47.9%	n/a
+60	60 - 60 X % of inactive members that reached their normal retirement age in the year that have not received any benefits yet because mail has been returned and the member has been recorded as 'gone away'. Your score will be 20 if unknown.	0.1%	3.2%	59.9
Total score				69.9

Transfers-out

Inactive member experience

Your service score for transfers-out was 100 out of 100. This was above the peer median of 93.



Scoring method		Your Data	Peer Average	Your Score
Self-service				
+20	If a member can apply for a transfer-out application online	Yes	80.0% Yes	20.0
Assisted service				
+20	If you can provide a member leaving the plan with their transfer value on a real-time basis over the phone	Yes	93.3% Yes	20.0
Timeliness				
+60	If transfers-out are completed in 30 days or less, otherwise 45 - 0.9 for each day over 30 days	14.0 days	45.6 days	60.0
Total score				100.0

Inactive member experience

Personal Information Service Score

This bar chart displays the Personal Information Service Score for three groups: You (dark blue), Peer (medium blue), and All (light blue). The Y-axis represents the score from 0 to 100. The X-axis lists 30 items. A dashed line indicates the Peer Median score (approximately 88), and a solid line indicates the All Median score (approximately 88).

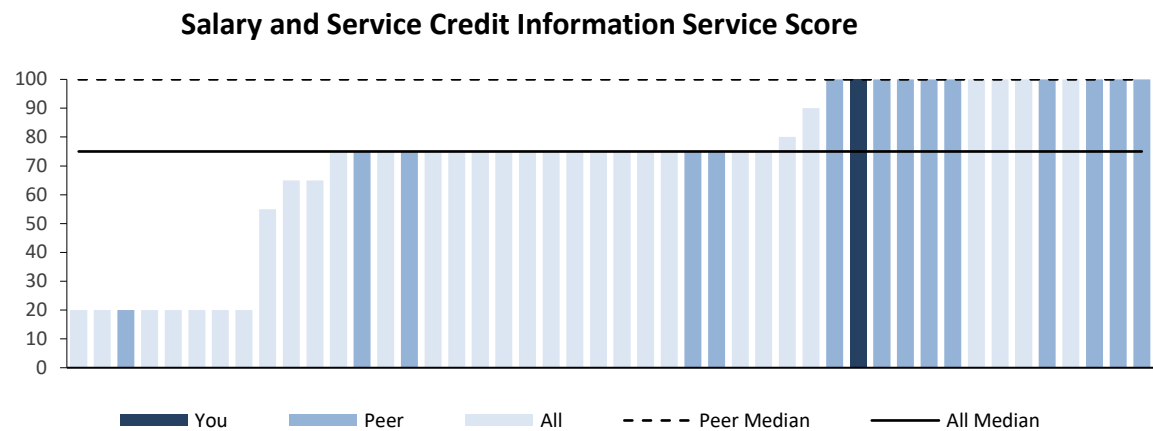
Item	You	Peer	All
1			20
2			20
3			20
4			20
5			30
6		40	
7			50
8			50
9			50
10			60
11			60
12			60
13			60
14		70	
15		70	
16		70	
17			80
18			80
19			80
20	80		
21		90	
22		90	
23		90	
24		90	
25		90	
26		90	
27		90	
28		90	
29		90	
30		90	

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Salary and service credit information

Inactive member experience

Your service score for salary and service credit information was 100 out of 100. This was equal to the peer median.

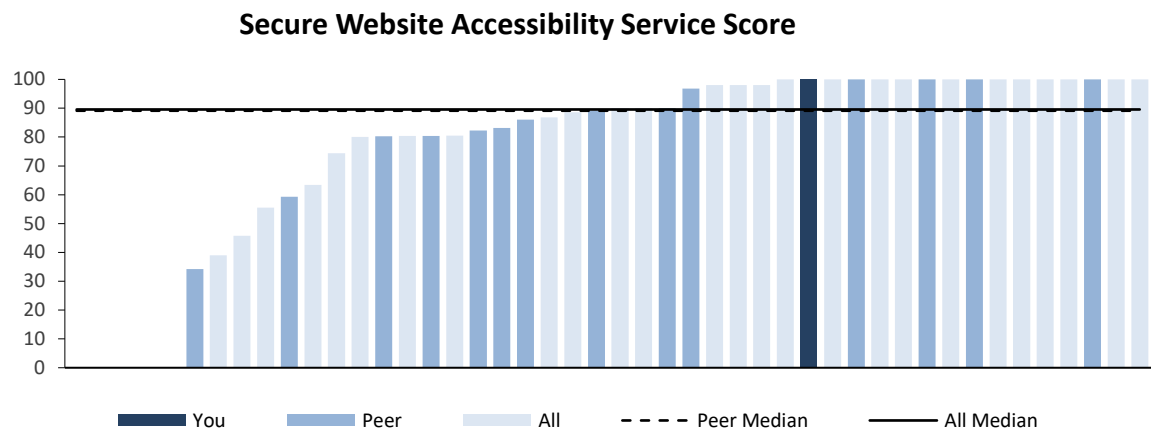


Scoring method		Your Data	Peer Average	Your Score
Self-service				
+30	If you offer secure access to both salary and service credit data	Yes	93.3% Yes	30.0
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	86.7% Yes	25.0
+25	If a complete annual history since employment began of salary and service credit data is available online	Yes	73.3% Yes	25.0
Assisted service				
If you can provide the following on a real-time basis over the phone:				
+10	pensionable salary	Yes	100.0% Yes	10.0
+10	service credit history including gaps	Yes	100.0% Yes	10.0
Total score				100.0

Secure website accessibility

Inactive member experience

Your service score for secure website accessibility was 100 out of 100. This was above the peer median of 89.

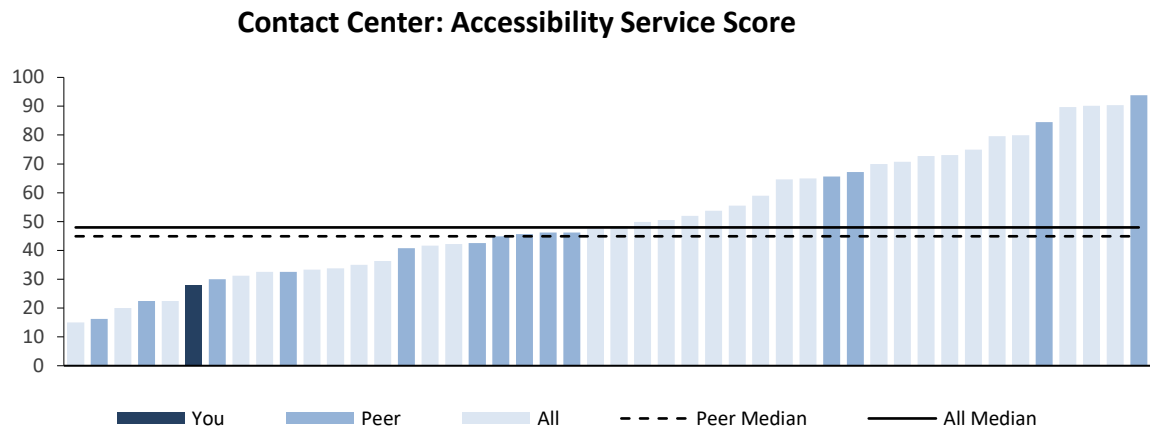


Scoring method		Your Data	Peer Average	Your Score
Access				
+10	If you have a secure website accessible for inactive members	Yes	100.0% Yes	10.0
+20	If the secure member area is customized to only show options relevant to inactive members (e.g., inactive members see different options than annuitants)	Yes	100.0% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	100.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	20.0% Yes	0.0
Secure website use				
Number of inactive members that accessed the secure area in the year (A)		184,455		
Number of inactive members (B)		169,808		
+60	If 15% or more of your inactive members accessed the secure area in the past year, otherwise 400 X % of inactive members that accessed the secure area = (A) / (B)			
	Score of 20 if total unique visit is unknown	108.6%	25.1%	60.0
Total score				100.0

Contact center: accessibility

Inactive member experience

Your service score for contact center: accessibility was 28 out of 100. This was below the peer median of 45.



Scoring method		Your Data	Peer Average	Your Score
Access				
+5	If you have a toll-free phone number	Yes	100.0% Yes	5.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each hour less than 50 hours per week	35 h	44.0 h	2.5
Phone menu layers and wait times				
-10	If a receptionist is the first point of contact	No	0.0% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4 plus layers	4 layers	2.1 layers	0.0
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	30 s		
	Average time waiting in queue for a service agent (C)	175 s		
	Total wait time	205 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per second to reach a knowledgeable person = (A) + (B) + (C)	205 s	538 s	13.0

Contact center: accessibility (continued)

Inactive member experience

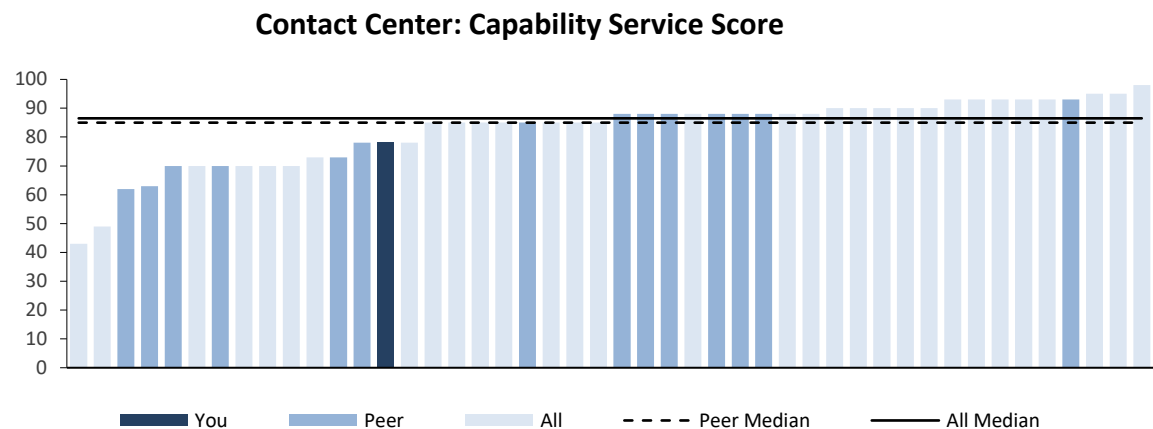
Scoring method		Your Data	Peer Average	Your Score
Undesired call outcomes				
<u>Desired call outcomes</u>				
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?		211,090		
c) Incoming calls satisfied by self-serve options, if any?		<u>151,099</u>		
Total desired call outcomes (A)		362,189		
<u>Undesired call outcomes during business hours</u>				
a) Busy signal, never enters the system?		n/a		
b) Caller gets pre-recorded 'call another time' message during business hours?		n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?		15,217		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?		33,887		
e) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?		n/a		
f) Call rings unanswered during business hours?		n/a		
# Receptionists takes a message		n/a		
If you have a callback feature, # of callback requests that were not completed		<u>1,520*</u>		
Total undesired call outcomes during business hours (B)		50,624		
Total incoming calls (C = A + B)		411,293		
Undesired outcomes as a percentage of total incoming calls (B / C)		12.3%	21.5%	
+20	If undesired outcomes were 0%, otherwise 20 - percentage of undesired outcomes X 200 (Minimum of 0)	12.3%	21.5%	0.0
Email turnaround times				
+15	If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	1.2 days	7.5
Total score				28.0

* Your response was 'unknown'. A default was applied. See 'Appendix D' for details.

Contact center: capability

Inactive member experience

Your service score for contact center: capability was 78 out of 100. This was below the peer median of 85.

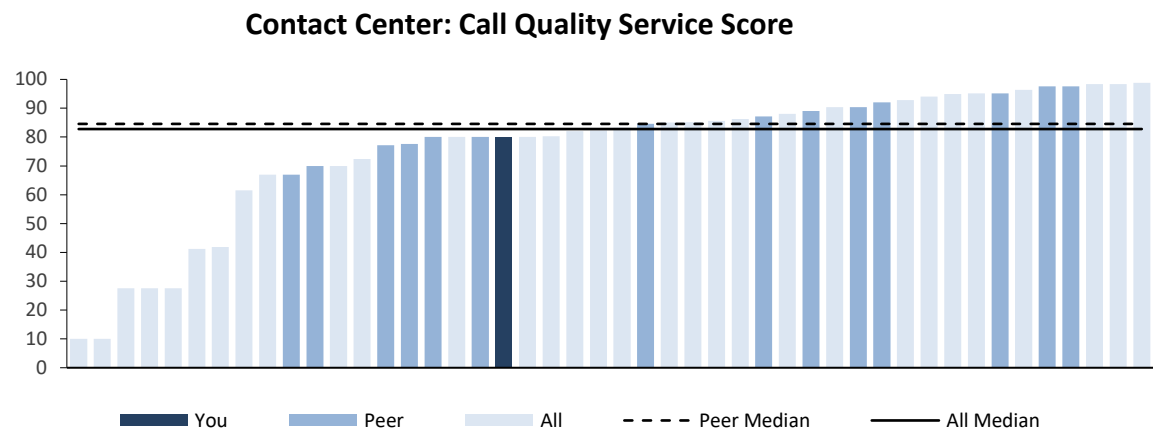


Scoring method		Your Data	Peer Average	Your Score
Workflow system				
If you have a workflow system that provides service agents with real time information about each member's:				
+15	previous calls or emails to the system	Yes	86.7% Yes	15.0
+15	recent online correspondence	Yes	100.0% Yes	15.0
+15	real-time status of open items	Yes	100.0% Yes	15.0
+15	member's use of digital tools	No	53.3% Yes	0.0
+15	most recent member statement	Yes	100.0% Yes	15.0
+10	beneficiary information	Yes	100.0% Yes	10.0
Other capabilities				
If you offer the following tools to help serve members better:				
+5	co-browsing	No	20.0% Yes	0.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if online	Both	13.3% Both	5.0
+3	live web chat	Yes	6.7% Yes	3.0
+2	chatbot	No	6.7% Yes	0.0
Total score				78.0

Contact center: call quality

Inactive member experience

Your service score for contact center: call quality was 80 out of 100. This was below the peer median of 85.

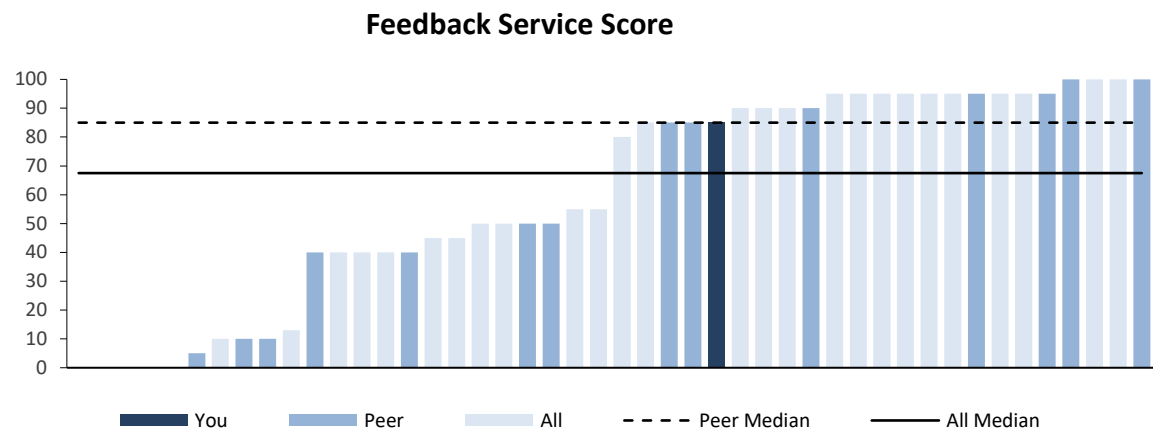


Scoring method		Your Data	Peer Average	Your Score
First Contact Resolution				
+30	If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	88.9%	10.0
Call quality monitoring				
+55	If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls.	4 times	7.1 times	55.0
+15	If the review is based on listening in on a recording (versus a live call)	Recording	60% Recording	15.0
Total score				80.0

Feedback

Inactive member experience

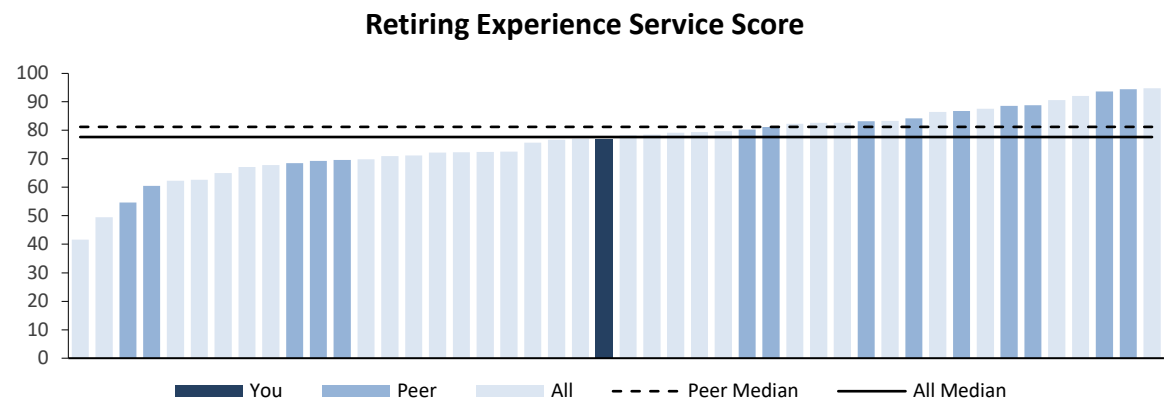
Your service score for feedback was 85 out of 100. This was equal to the peer median.



Scoring method		Your Data	Peer Average	Your Score
Member experience surveying				
If you survey member satisfaction, NPS or effort exclusively for each of the following:				
+10	inactive members	No	53.3% Yes	0.0
+5	member leaving the plan	No	26.7% Yes	0.0
+25	secure website	Yes	46.7% Yes	25.0
+20	telephone calls	Yes	80.0% Yes	20.0
Methodology				
If you survey members within two days or less of using the following:				
+20	secure website	Yes	53.3% Yes	20.0
+20	telephone calls	Yes	80.0% Yes	20.0
Total score				85.0

Total service score for retiring members

Your service score for retiring experience was 77 out of 100. This was below the peer median of 81.



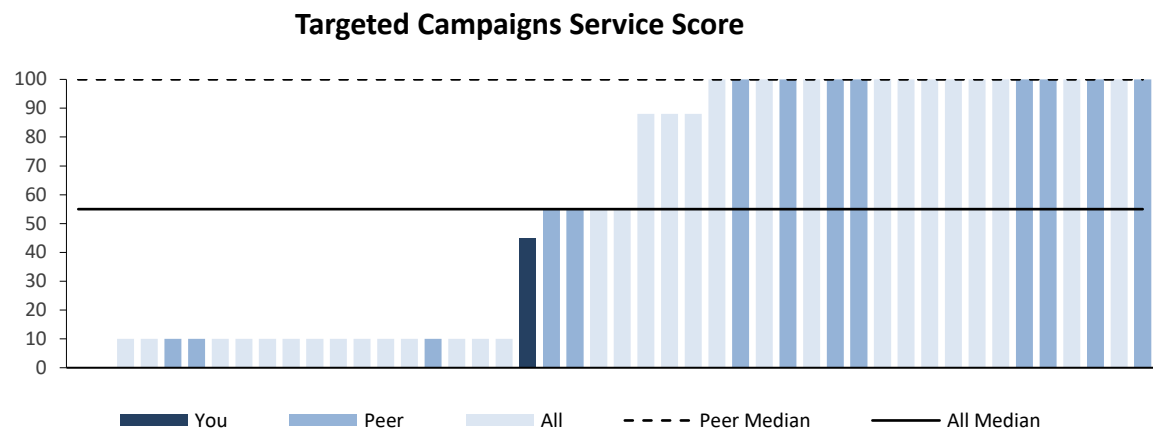
Your total service score for retiring members is the weighted average of the activity service scores below:

Activity	Weight	Service score	Peer Median	Higher/Lower
Targeted campaigns	7.5%	45	100	-55
Pension estimates: self-service	7.5%	83	79	4
Pension estimates: assisted service	2.5%	65	86	-21
Retirement applications	7.5%	80	75	5
Pension inception	10.0%	70	90	-20
Disability inception	5.0%	90	80	10
Personal information	2.5%	80	90	-10
Salary and service credit information	2.5%	100	100	0
Secure website accessibility	20.0%	100	100	0
Contact center: accessibility	7.5%	28	45	-17
Contact center: capability	5.0%	78	85	-7
Contact center: call quality	5.0%	80	85	-5
1-on-1 counseling	7.5%	55	94	-39
Member presentations	5.0%	100	100	0
Feedback	5.0%	95	80	15
Weighted total service score	100.0%	77	81	-4

Targeted campaigns

Retiring member experience

Your service score for targeted campaigns was 45 out of 100. This was below the peer median of 100.

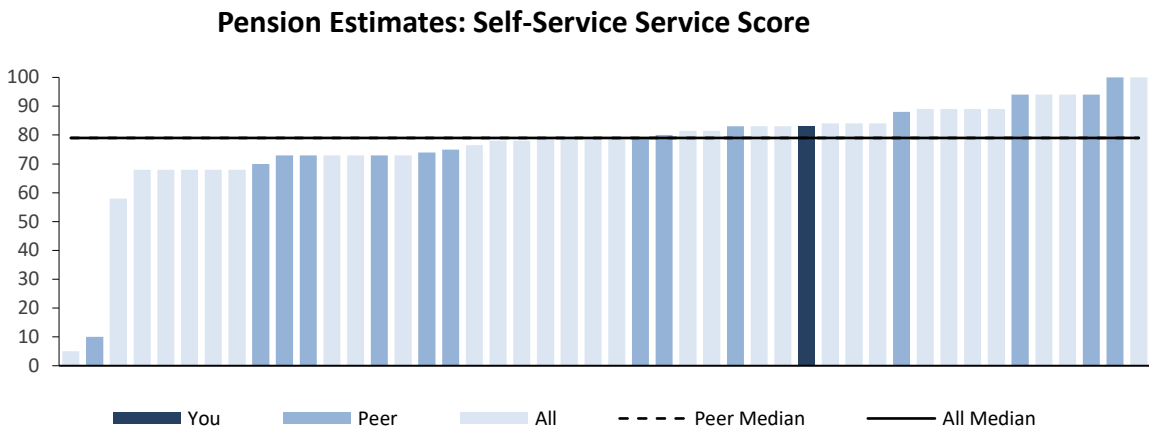


Scoring method		Your Data	Peer Average	Your Score
Targeted campaigns				
If you send targeted communication to the following member segments who are eligible or approaching eligibility for retirement:				
+45	active members	No	60.0% Yes	0.0
+45	inactive members	Yes	66.7% Yes	45.0
Presentations				
+10	If you have presentations targeted specifically to members approaching retirement or ready to retire	No	92.9% Yes	0.0
Total score				45.0

Pension estimates: self-service

Retiring member experience

Your service score for pension estimates: self-service was 83 out of 100. This was above the peer median of 79.

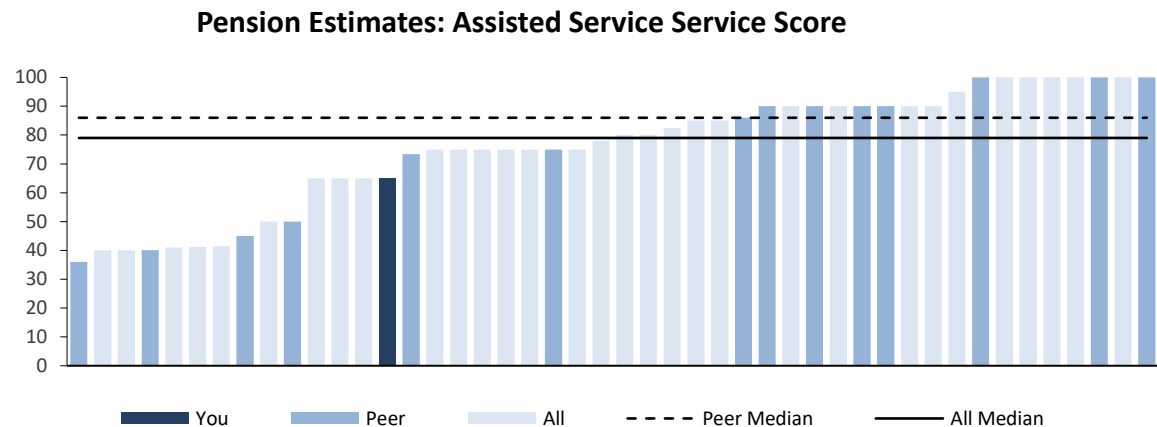


Scoring method		Your Data	Peer Average	Your Score
Online pension estimate calculator				
+10	If you have an interactive calculator on your website	Yes	100.0% Yes	10.0
+40	If the calculator is linked to member salary and service credit data	Yes	93.3% Yes	40.0
-5	If you force members to acknowledge a disclaimer every time they use the calculator	No	26.7% Yes	0.0
Calculator capabilities				
If your pension estimate calculator allows members to model:				
+5	different retirement start dates	Yes	86.7% Yes	5.0
+5	salary changes	Yes	93.3% Yes	5.0
+5	different working percentages (e.g., part-time or early termination)	No	73.3% Yes	0.0
+5	alternative payment options	Yes	86.7% Yes	5.0
If the calculator provides an estimate of retirement income showing:				
+10	both gross and net, 4 if gross or net, 0 otherwise	Gross	14.3% Both, 57.1% Gross/Net, 28.6% Neither	4.0
+10	both monthly and annual, 4 if monthly or annual, 0 otherwise	Monthly	35.7% Both, 57.1% Monthly/Annual, 7.1% Neither	4.0
+10	multiple estimates on one page for comparative purposes	Yes	46.7% Yes	10.0
Total score				83.0

Pension estimates: assisted service

Retiring member experience

Your service score for pension estimates: assisted service was 65 out of 100. This was below the peer median of 86.

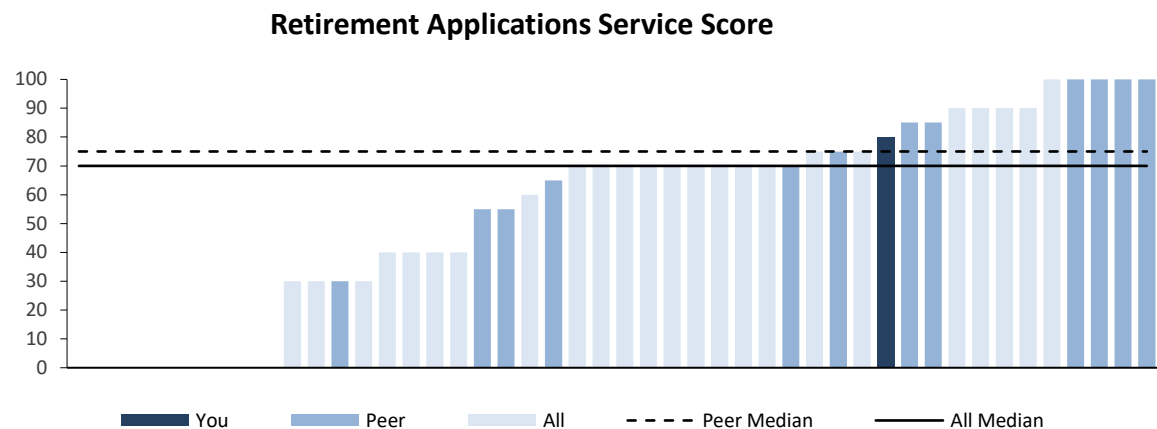


Scoring method	Your Data	Peer Average	Your Score
Written pension estimates			
+25 If the average turnaround time for providing written estimates was 10 business days, or less, otherwise 25 - for each day beyond 10 days	2.5 days	11.7 days	25.0
+10 If you clearly address if and how the pension benefit is inflation protected	Yes	53.3% Yes	10.0
+5 If you discuss the effects of social security	Yes	33.3% Yes	5.0
+5 If you discuss alternative scenarios that could improve the pension	Yes	93.3% Yes	5.0
+10 If you model alternative pension payment options	Yes	93.3% Yes	10.0
Call center			
If you can provide the following on a real-time basis over the phone:			
+10 member's pension estimate	No	66.7% Yes	0.0
+15 an estimate linked to the member's actual account data	n/a	66.7% Yes	0.0
+10 alternate annuity payment scenarios	n/a	66.7% Yes	0.0
1-on-1 counseling			
+10 If you can provide a pension estimate for a member during a counseling session	Yes	73.3% Yes	10.0
Total score			65.0

Retirement applications

Retiring member experience

Your service score for retirement applications was 80 out of 100. This was above the peer median of 75.

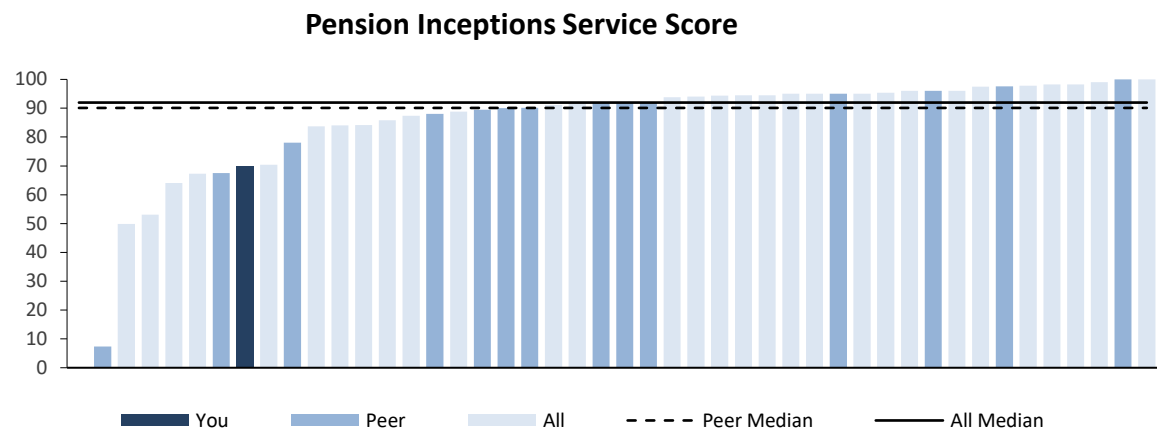


Scoring method		Your Data	Peer Average	Your Score
+40	If a member can submit a retirement application online	Yes	85.7% Yes	40.0
+20	If more than 50% of your online applications can be completed without signed documents needing to be uploaded or mailed in	0.0%	51.2%	0.0
+30	If you do not require notarization for most retirement applications, or + 15 if you require notarization of some retirement applications	Not required	86.3% not required	30.0
+10	If you do not require the member’s birth certificate before incepting a pension	Not required	53.3% not required	10.0
Total score				80.0

Pension inceptions

Retiring member experience

Your service score for pension inceptions was 70 out of 100. This was below the peer median of 90.

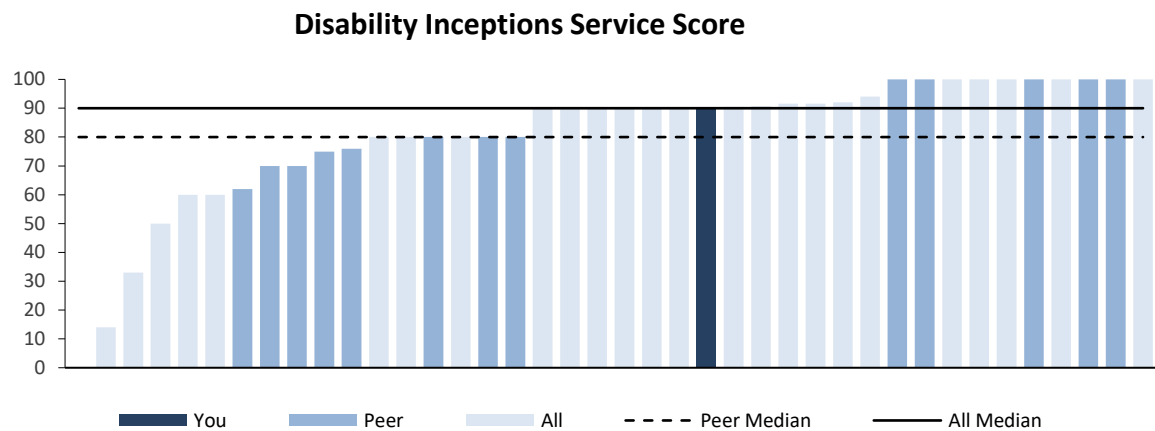


Scoring method		Your Data	Peer Average	Your Score
+90	If 100% of your service pensions were incepted without a cashflow interruption greater than 1 month, otherwise 90 X percent of inceptions that occur within 1 month of the member's final paycheck	76.7%	87.9%	69.0
-5	5 X percent of service retirements based on estimates [Subject to a maximum deduction of 5)	27.5%	73.9%	-1.4
+10	If all of your survivor pensions were incepted without a cashflow interruption greater than 1 month, otherwise 100 x percent of pensions paid without interruption to survivors	20.6%	73.5%	2.1
Total score				69.7

Disability inception

Retiring member experience

Your service score for disability inceptions was 90 out of 100. This was above the peer median of 80.

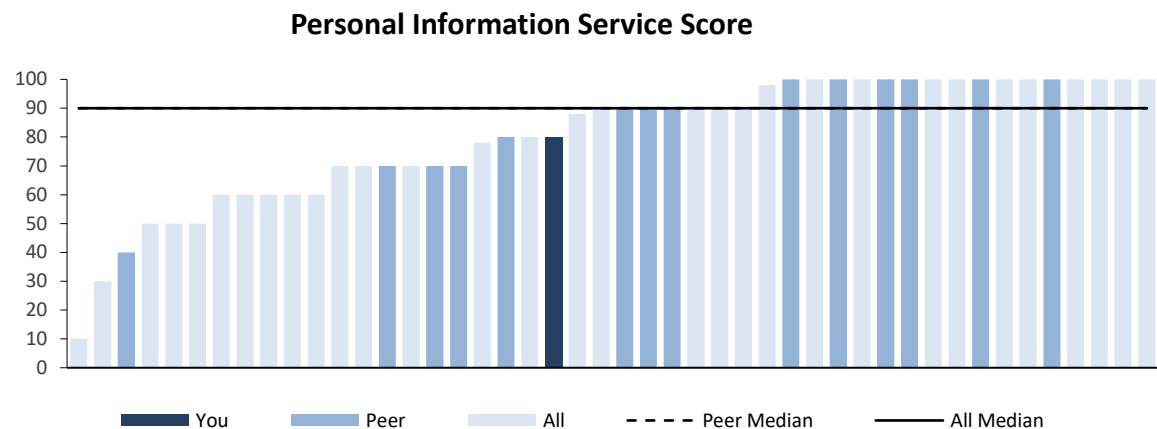


Scoring method	Your Data	Peer Average	Your Score
+100 If you return a decision on a disability application in 1 month or less, otherwise 100 - 10 for each month over 1 month [Subject to a minimum score of 0]	2.0 months	3.6 months	90.0
Total score			90.0

Personal information

Retiring member experience

Your service score for personal information was 80 out of 100. This was below the peer median of 90.

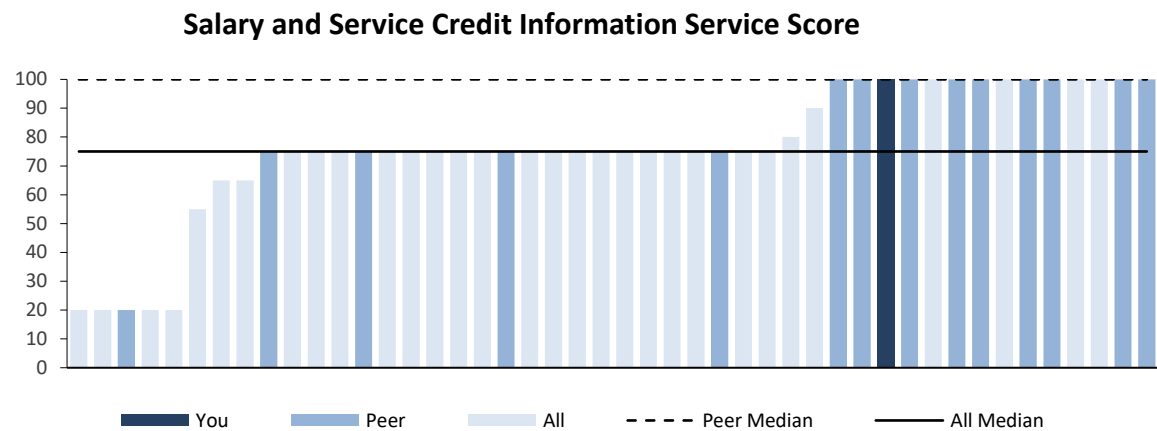


Scoring method		Your Data	Peer Average	Your Score
Self-service				
If members can do the following online:				
+15	change address	Yes	100.0% Yes	15.0
+15	change email address	Yes	100.0% Yes	15.0
+10	change communication preferences	Yes	66.7% Yes	10.0
+10	change beneficiary	Yes	93.3% Yes	10.0
Secure messaging				
If you have a secure portal for members:				
+10	that includes a history of recent correspondence	No	73.3% Yes	0.0
+20	where members can upload documents	Yes	73.3% Yes	20.0
Assisted service				
If members can do the following over the phone:				
+10	change address	No	80.0% Yes	0.0
+10	change email address	Yes	93.3% Yes	10.0
Total score				80.0

Salary and service credit information

Retiring member experience

Your service score for salary and service credit information was 100 out of 100. This was equal to the peer median.

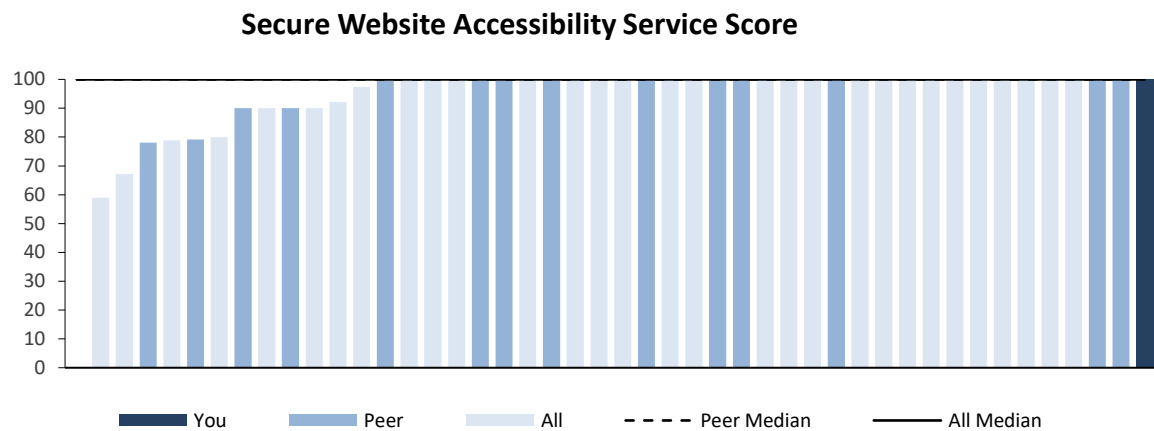


Scoring method		Your Data	Peer Average	Your Score
Self-service				
+30	If you offer secure access to both salary and service credit data	Yes	93.3% Yes	30.0
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	86.7% Yes	25.0
+25	If a complete annual history since employment began of salary and service credit data is available online	Yes	73.3% Yes	25.0
Assisted service				
If you can provide the following on a real-time basis over the phone:				
+10	pensionable salary	Yes	100.0% Yes	10.0
+10	service credit history including gaps	Yes	100.0% Yes	10.0
Total score				100.0

Secure website accessibility

Retiring member experience

Your service score for secure website accessibility was 100 out of 100. This was equal to the peer median.

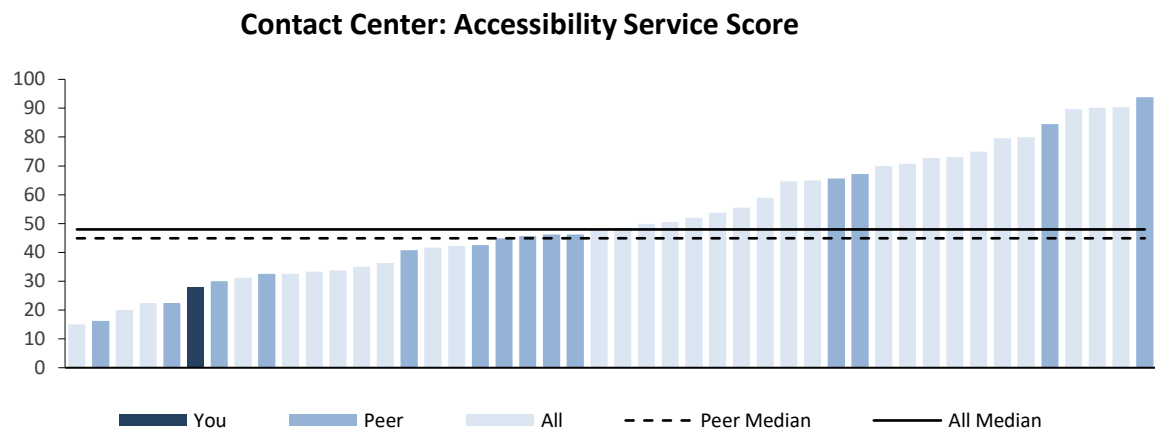


Scoring method		Your Data	Peer Average	Your Score
Access				
+10	If you have a secure website accessible for active members	Yes	100.0% Yes	10.0
+20	If the secure member area is customized to only show options relevant to active members (e.g., active members see different options than annuitants)	Yes	100.0% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	100.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	20.0% Yes	0.0
Secure website use				
Number of active members that accessed the secure area in the year (A)		553,364		
Number of active members (B)		473,933		
+60	If 30% or more of your active members accessed the secure area in the past year, otherwise 200 X % of active members that accessed the secure area = (A) / (B)			
	Score of 20 if total unique visit is unknown	116.8%	50.9%	60.0
Total score				100.0

Contact center: accessibility

Retiring member experience

Your service score for contact center: accessibility was 28 out of 100. This was below the peer median of 45.



Scoring method		Your Data	Peer Average	Your Score
Access				
+5	If you have a toll-free phone number	Yes	100.0% Yes	5.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each hour less than 50 hours per week	35 h	44.0 h	2.5
Phone menu layers and wait times				
-10	If a receptionist is the first point of contact	No	0.0% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4 plus layers	4 layers	2.1 layers	0.0
+20	If undesired outcomes were 0%, otherwise 20 - percentage of undesired outcomes X 200 (Minimum of 0)	12.3%	21.5%	0.0
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	30 s		
	Average time waiting in queue for a service agent (C)	175 s		
	Total wait time	205 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per second to reach a knowledgeable person = (A) + (B) + (C)	205 s	538 s	13.0

Contact center: accessibility (continued)

Retiring member experience

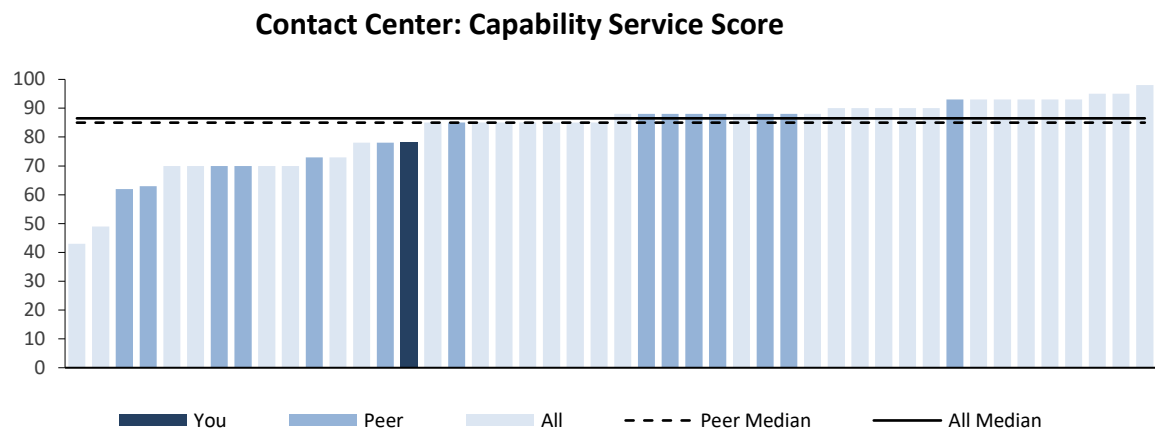
Scoring method		Your Data	Peer Average	Your Score
Undesired call outcomes				
<u>Desired call outcomes</u>				
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?		211,090		
c) Incoming calls satisfied by self-serve options, if any?		<u>151,099</u>		
Total desired call outcomes (A)		362,189		
<u>Undesired call outcomes during business hours</u>				
a) Busy signal, never enters the system?		n/a		
b) Caller gets pre-recorded 'call another time' message during business hours?		n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?		15,217		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?		33,887		
e) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?		n/a		
f) Call rings unanswered during business hours?		n/a		
# Receptionists takes a message		n/a		
If you have a callback feature, # of callback requests that were not completed		<u>1,520*</u>		
Total undesired call outcomes during business hours (B)		50,624		
Total incoming calls (C = A + B)		411,293		
Undesired outcomes as a percentage of total incoming calls (B / C)		12.3%	21.5%	
+20	If the undesired outcomes rate was 0%, otherwise 20 - undesired outcomes rate X 200 (Minimum of 0)	12.3%	21.5%	0.0
Email turnaround times				
+15	If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	1.2 days	7.5
Total score				28.0

* Your response was 'unknown'. A default was applied. See 'Appendix D' for details.

Contact center: capability

Retiring member experience

Your service score for contact center: capability was 78 out of 100. This was below the peer median of 85.

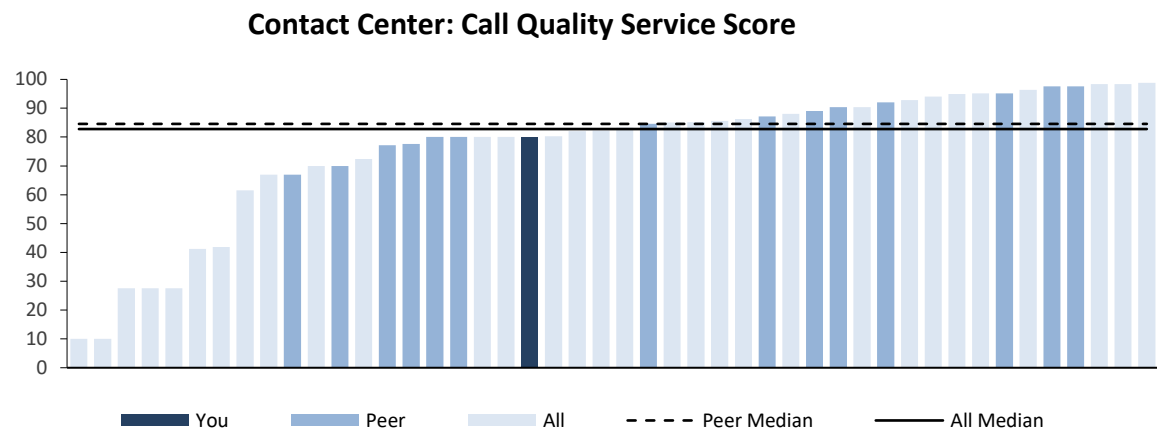


Scoring method		Your Data	Peer Average	Your Score
Workflow system				
If you have a workflow system that provides service agents with real time information about each member's:				
+15	previous calls or emails to the system	Yes	86.7% Yes	15.0
+15	recent online correspondence	Yes	100.0% Yes	15.0
+15	real-time status of open items	Yes	100.0% Yes	15.0
+15	member's use of digital tools	No	53.3% Yes	0.0
+15	most recent member statement	Yes	100.0% Yes	15.0
+10	beneficiary information	Yes	100.0% Yes	10.0
Other capabilities				
If you offer the following tools to help serve members better:				
+5	co-browsing	No	20.0% Yes	0.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if online	Both	13.3% Both	5.0
+3	live web chat	Yes	6.7% Yes	3.0
+2	chatbot	No	6.7% Yes	0.0
Total score				78.0

Contact center: call quality

Retiring member experience

Your service score for contact center: call quality was 80 out of 100. This was below the peer median of 85.

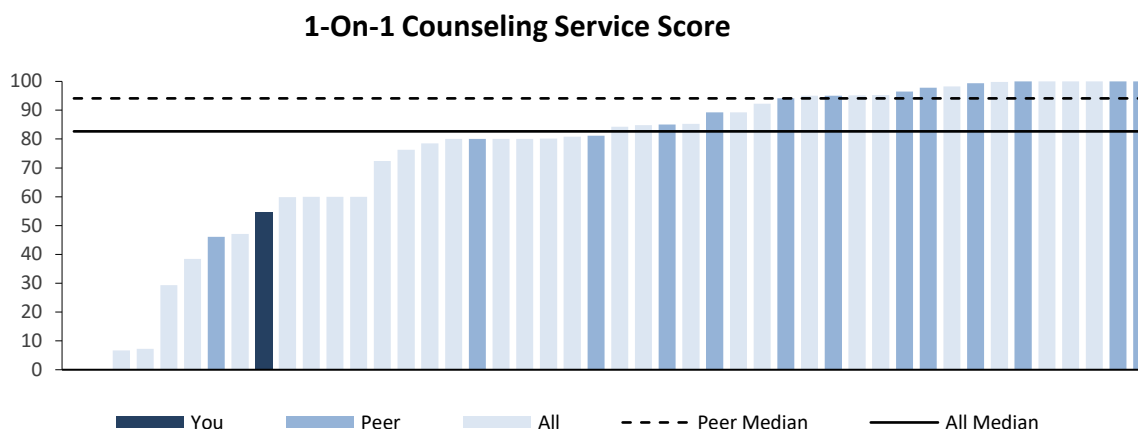


Scoring method		Your Data	Peer Average	Your Score
First Contact Resolution				
+30	If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	88.9%	10.0
Call quality monitoring				
+55	If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	4 times	7.1 times	55.0
+15	If the review is based on listening in on a recording (versus a live call)	Recording	60% Recording	15.0
Total score				80.0

1-on-1 counseling

Retiring member experience

Your service score for 1-on-1 counseling was 55 out of 100. This was below the peer median of 94.



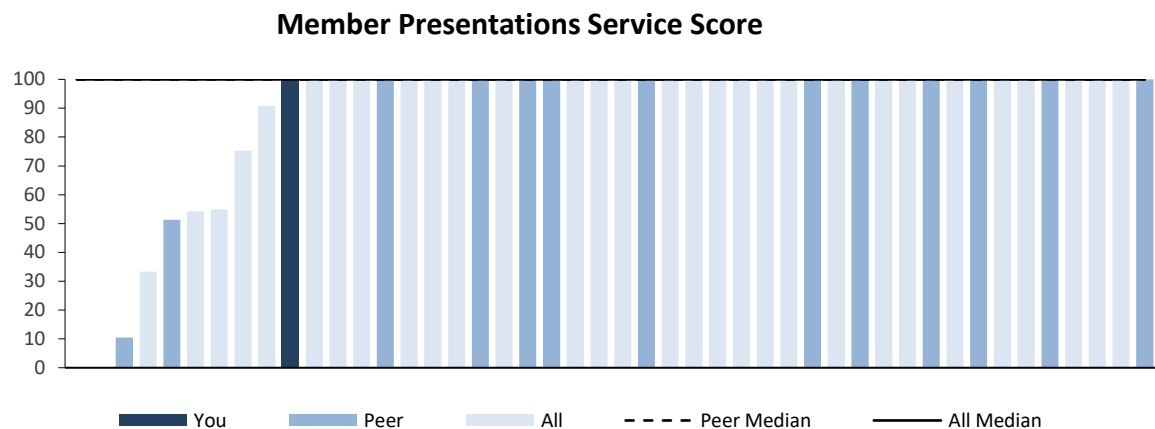
Scoring method		Your Data	Peer Average	Your Score
Availability				
Number of members you counseled:				
In-house		6	2,312	
In the field (C)		0	2,205	
At the employer		0	129	
Via teleconference		390	3,848	
Online, via videoconference (D)		<u>587</u>	<u>2,579</u>	
Total number of 1-on-1 counseling sessions (A)		983	11,074	
Total active members (B)		473,933	360,853	
+60	If the number of members counseled 1-on-1 was 0.50% ¹ or more of active members, otherwise 11,949 ¹ X # of members you met individually as a % of active members = (A) / (B)	0.2%	2.5%	24.8
+20	If the percentage of sessions in the field, separate from the member's place of employment and/or video conference, was 50% or more, otherwise 40 X percentage of sessions in the field separate from the employer = (C + D) / (A)	59.7%	38.3%	20.0
Capability				
+10	If you provide counseling to all members who walk-in to your office	No	80.0% Yes	0.0
+5	If you have real-time access to the member's data	Yes	86.7% Yes	5.0
+5	If all in-person counseling takes place in a private office with a door	Yes	86.7% Yes	5.0
Total score				54.8

¹Better website content and functionality reduces the number of members that attend 1-on-1 sessions. Using your percentage of pensions inceptioned online as a proxy for the strength of your website, we reduce the 1.0% attendee cutoff rate for a perfect availability score to a minimum of 0.15% (i.e. if 49.79% of your pension inceptions occur online, you need attendees equal to 0.50% of your active member population to achieve a perfect score of 60; we use a multiplication factor of 11,949 because 60 / 0.50% = 11,949).

Member presentations

Retiring member experience

Your service score for member presentations was 100 out of 100. This was equal to the peer median.



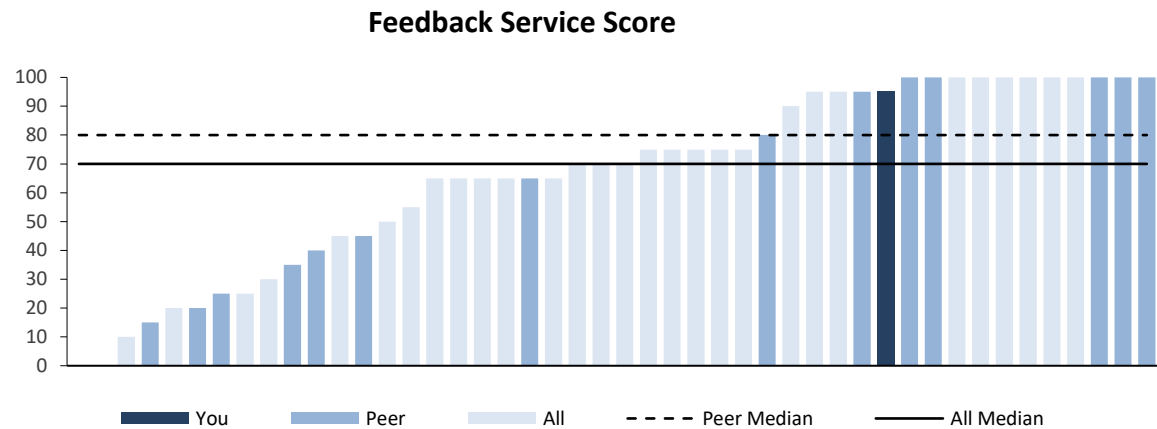
Scoring method	Your Data	Peer Average	Your Score
Availability			
Number of presentations:			
- In-house	0	13	
- In the field	0	101	
- Live webinars	174	255	
Total presentations	174	369	
Total number of presentation attendees (A)	10,523	15,988	
Total active members (B)	473,933	360,853	
+100 If the total number of attendees was 1.3% ¹ or more of active members, otherwise 7,966 ¹ X attendees as percent of active members (including those attending webinars) = (A) / (B)	2.2%	4.8%	100.0
Total score			100.0

¹Better website content and functionality reduces the number of members that attend presentations. Using your percentage of pensions inceptioned online as a proxy for the strength of your website, we reduce the 2.5% attendee cutoff rate for a perfect availability score to a minimum of 0.4% (i.e. if 49.79% of your pension inceptions occur online, you need attendees equal to 1.26% of your active member population to achieve a perfect score of 100; we use a multiplication factor of 7,966 because 100 / 1.26% = 7,966).

Feedback

Retiring member experience

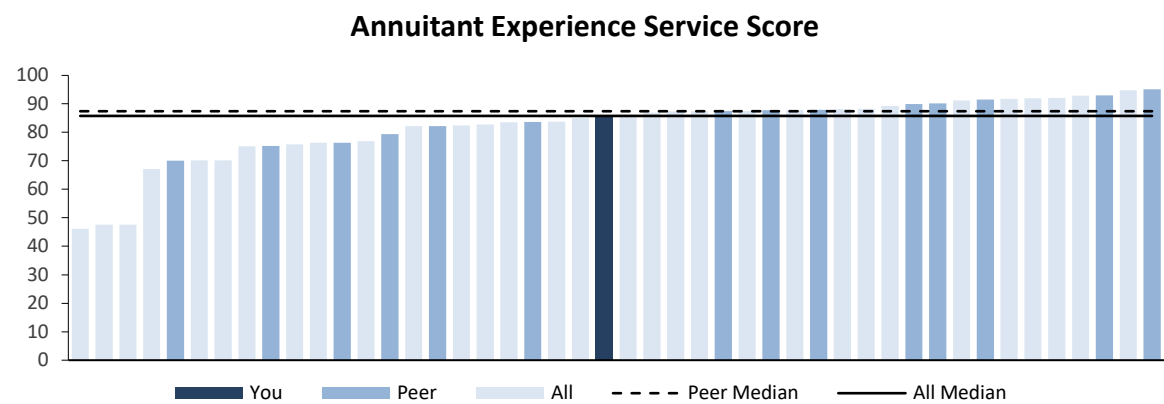
Your service score for feedback was 95 out of 100. This was above the peer median of 80.



Scoring method		Your Data	Peer Average	Your Score
Member experience surveying				
If you survey member satisfaction, NPS or effort exclusively for each of the following:				
+20	retirement experience	Yes	66.7% Yes	20.0
+5	disability retirement experience	No	46.7% Yes	0.0
+20	secure website	Yes	46.7% Yes	20.0
+15	telephone calls	Yes	80.0% Yes	15.0
+5	1-on-1 counseling	Yes	73.3% Yes	5.0
+5	member presentations	Yes	86.7% Yes	5.0
Methodology				
If you survey members within two days or less of using the following:				
+10	secure website	Yes	53.3% Yes	10.0
+10	telephone calls	Yes	80.0% Yes	10.0
+5	1-on-1 counseling	Yes	73.3% Yes	5.0
+5	member presentations	Yes	86.7% Yes	5.0
Total score				95.0

Total service score for annuitants

Your service score for annuitant experience was 85 out of 100. This was below the peer median of 87.



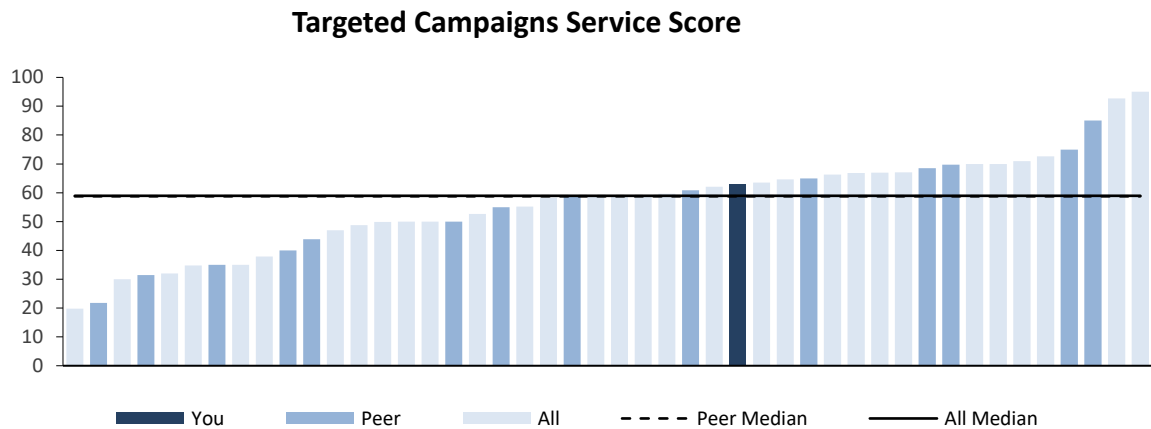
Your total service score for annuitants is the weighted average of the activity service scores below:

Activity	Weight	Service score	Peer Median	Higher/Lower
Targeted campaigns	10.0%	63	59	4
Pension payments	30.0%	98	98	0
Personal information	5.0%	80	90	-10
Secure website accessibility	32.5%	100	100	0
Contact center: accessibility	7.5%	28	45	-17
Contact center: capability	5.0%	73	85	-12
Contact center: call quality	5.0%	80	85	-5
Feedback	5.0%	70	70	0
Weighted total service score	100%	85	87	-2

Targeted campaigns

Annuitant experience

Your service score for targeted campaigns was 63 out of 100. This was above the peer median of 59.

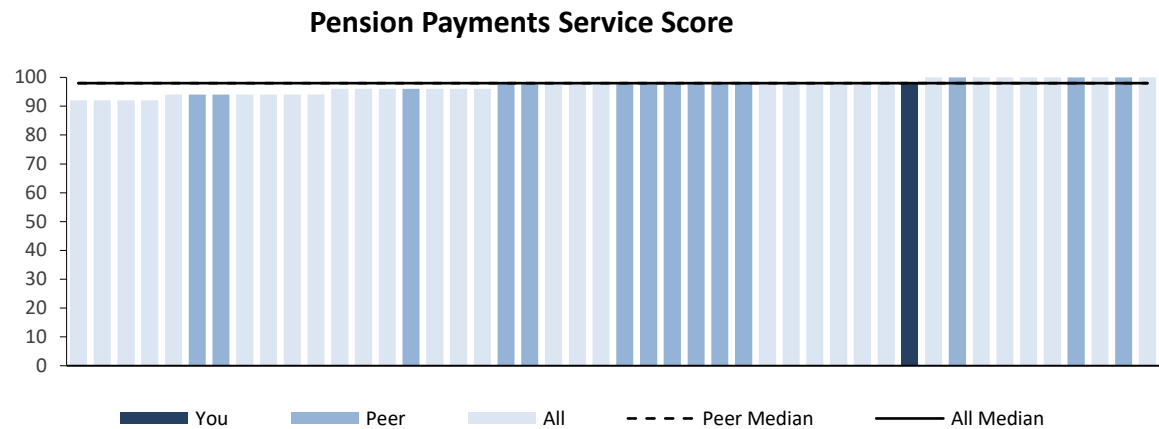


Scoring method		Your Data	Peer Average	Your Score
Email addresses				
+30	If you have email addresses for 80% or more of your annuitants, otherwise 37.5 X % of annuitants you have email addresses for	74.6%	74.6% Yes	28.0
Targeted campaigns				
If you send targeted communication to annuitants for the following:				
+15	pension amount change	Yes	64.3% Yes	15.0
+15	new to retirement	Yes	60.0% Yes	15.0
+10	missing beneficiary	No	6.7% Yes	0.0
+10	missing address	No	20.0% Yes	0.0
+10	missing email address	No	6.7% Yes	0.0
Newsletters				
+2	If you send annuitants a newsletter	Yes	100.0% Yes	2.0
+3	If annuitants receive a different newsletter from active or inactive members	Yes	92.9% Yes	3.0
Presentations				
+5	If you have presentations targeted specifically to changes to benefits	No	42.9% Yes	0.0
Total score				63.0

Pension payments

Annuitant experience

Your service score for pension payments was 98 out of 100. This was equal to the peer median.

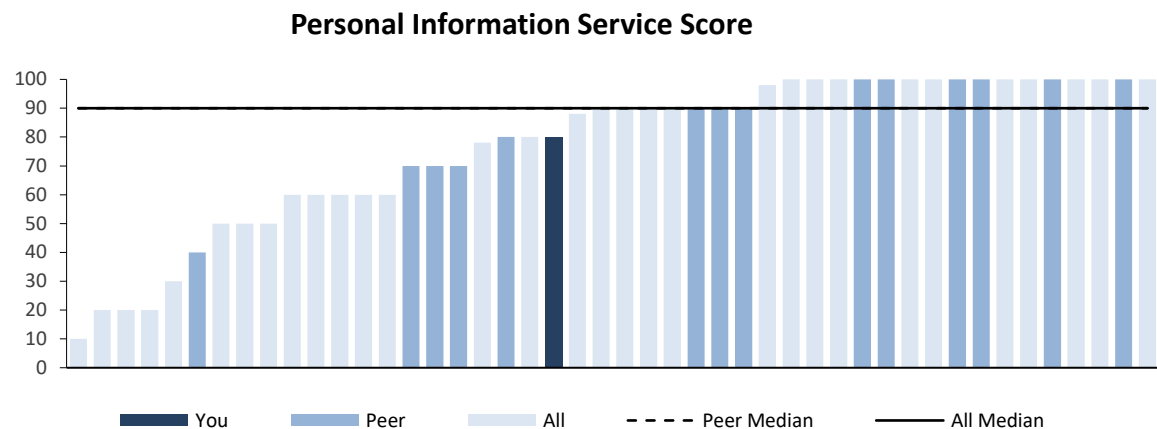


Scoring method		Your Data	Peer Average	Your Score
Timeliness				
+90	If none of your pension payrolls were late vis-à-vis your normal payment cycle, otherwise 100 - (10 X number of late payrolls X average days late)	None	None	90.0
Self-service				
If members can do the following online:				
+2	change banking information	Yes	86.7% Yes	2.0
+2	view pension payment gross amounts and deductions	Yes	100.0% Yes	2.0
+2	change tax withholding amount	Yes	86.7% Yes	2.0
+2	download tax receipts	Yes	93.3% Yes	2.0
Assisted service				
If members can do the following over the phone:				
+2	change banking information	No	20.0% Yes	0.0
Total score				98.0

Personal information

Annuitant experience

Your service score for personal information was 80 out of 100. This was below the peer median of 90.

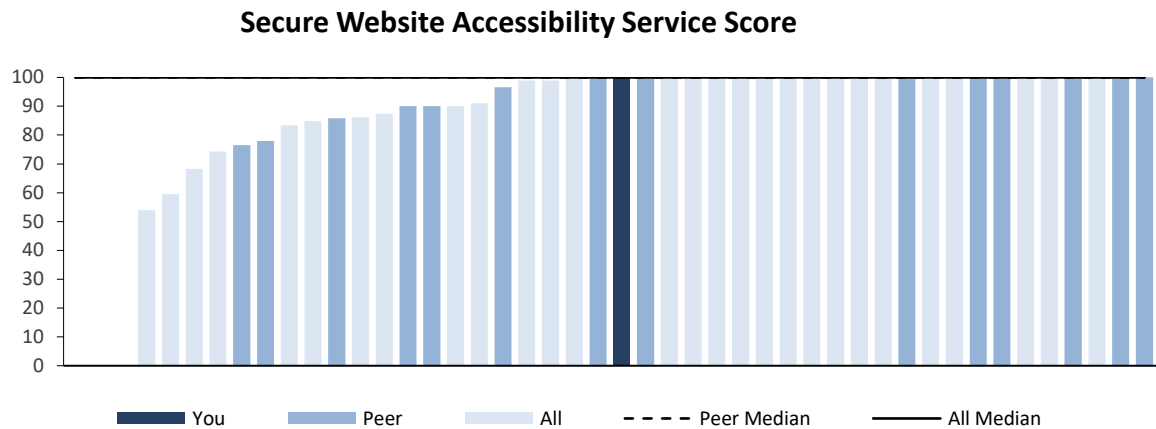


Scoring method		Your Data	Peer Average	Your Score
Self-service				
If members can do the following online:				
+15	change address	Yes	100.0% Yes	15.0
+15	change email address	Yes	100.0% Yes	15.0
+10	change communication preferences	Yes	66.7% Yes	10.0
+10	change beneficiary	Yes	93.3% Yes	10.0
Secure messaging				
If you have a secure portal for members:				
+10	that includes a history of recent correspondence	No	73.3% Yes	0.0
+20	where members can upload documents	Yes	73.3% Yes	20.0
Assisted service				
If members can do the following over the phone:				
+10	change address	No	80.0% Yes	0.0
+10	change email address	Yes	93.3% Yes	10.0
Total score				80.0

Secure website accessibility

Annuitant experience

Your service score for secure website accessibility was 100 out of 100. This was equal to the peer median.

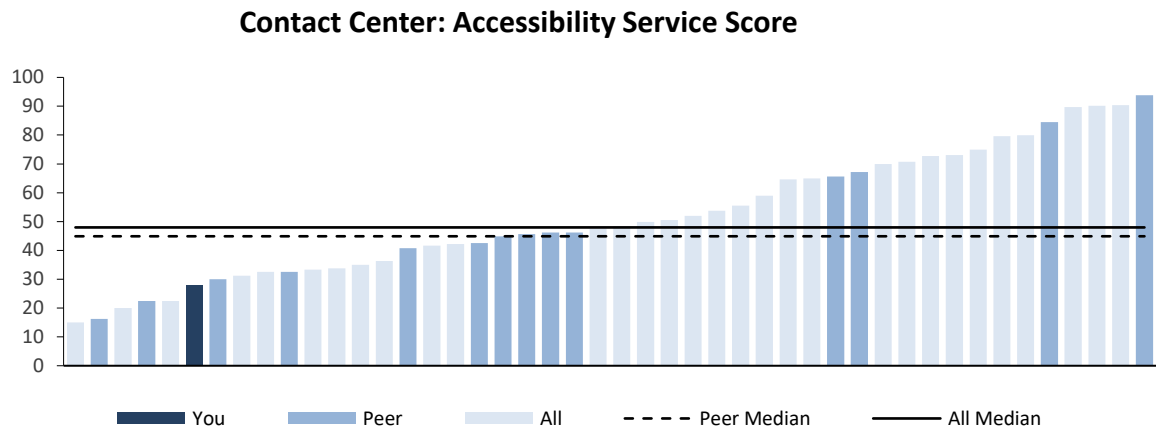


Scoring method		Your Data	Peer Average	Your Score
Access				
+10	If you have a secure website accessible for annuitants	Yes	100.0% Yes	10.0
+20	If the secure member area is customized to only show options relevant to annuitants (e.g., annuitants see different options than active members)	Yes	100.0% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	100.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	20.0% Yes	0.0
Secure website use				
Number of annuitants that accessed the secure area in the year (A)		176,718		
Number of annuitants (B)		356,781		
+60	If 30% or more of your annuitants accessed the secure area in the past year, otherwise 200 X % of annuitants that accessed the secure area (A) / (B) Score of 20 if total unique visit is unknown	49.5%	40.8%	60.0
Total score				100.0

Contact center: accessibility

Annuitant experience

Your service score for contact center: accessibility was 28 out of 100. This was below the peer median of 45.



Scoring method		Your Data	Peer Average	Your Score
Access				
+5	If you have a toll-free phone number	Yes	100.0% Yes	5.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each hour less than 50 hours per week	35 h	44.0 h	2.5
Phone menu layers and wait times				
-10	If a receptionist is the first point of contact	No	0.0% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4 plus layers	4 layers	2.1 layers	0.0
+20	If undesired outcomes were 0%, otherwise 20 - percentage of undesired outcomes X 200 (Minimum of 0)	12.3%	21.5%	0.0
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	30 s		
	Average time waiting in queue for a service agent (C)	175 s		
	Total wait time	205 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per second to reach a knowledgeable person = (A) + (B) + (C)	205 s	538 s	13.0

Contact center: accessibility (continued)

Annuitant experience

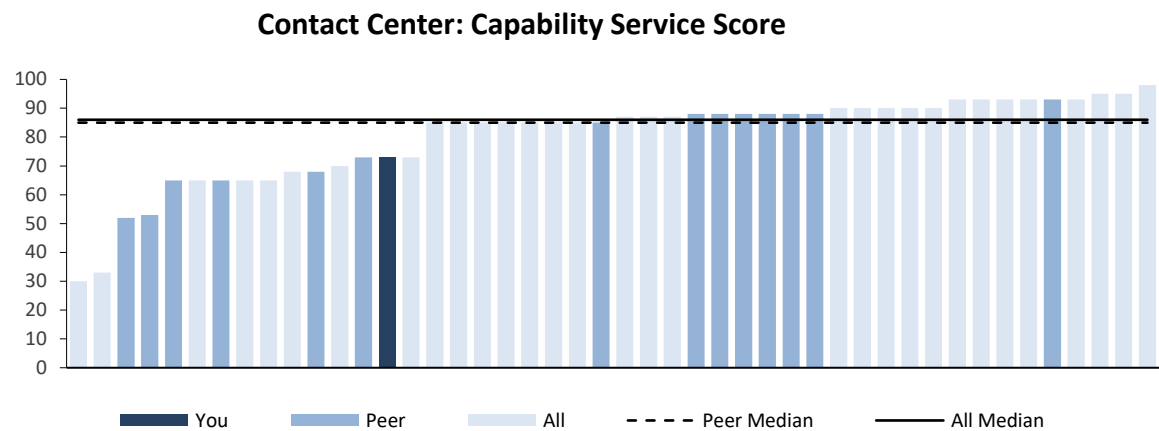
Scoring method		Your Data	Peer Average	Your Score
Undesired call outcomes				
<u>Desired call outcomes</u>				
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?		211,090		
c) Incoming calls satisfied by self-serve options, if any?		<u>151,099</u>		
Total desired call outcomes (A)		362,189		
<u>Undesired call outcomes during business hours</u>				
a) Busy signal, never enters the system?		n/a		
b) Caller gets pre-recorded 'call another time' message during business hours?		n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?		15,217		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?		33,887		
e) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?		n/a		
f) Call rings unanswered during business hours?		n/a		
# Receptionists takes a message		n/a		
If you have a callback feature, # of callback requests that were not completed		<u>1,520*</u>		
Total undesired call outcomes during business hours (B)		50,624		
Total incoming calls (C = A + B)		411,293		
Undesired outcomes as a percentage of total incoming calls (B / C)		12.3%	21.5%	
+20	If the undesired outcomes rate was 0%, otherwise 20 - undesired outcomes rate X 200 (Minimum of 0)	12.3%	21.5%	0.0
Email turnaround times				
+15	If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	1.2 days	7.5
Total score				28.0

* Your response was 'unknown'. A default was applied. See 'Appendix D' for details.

Contact center: capability

Annuitant experience

Your service score for contact center: capability was 73 out of 100. This was below the peer median of 85.

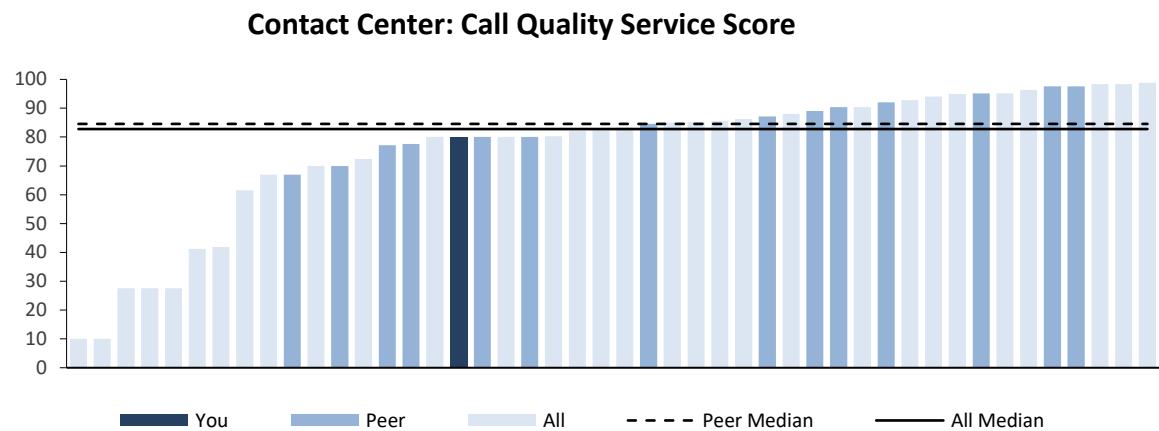


Scoring method		Your Data	Peer Average	Your Score
Workflow system				
If you have a workflow system that provides service agents with real time information about each member's:				
+20	previous calls or emails to the system	Yes	86.7% Yes	20.0
+15	recent online correspondence	Yes	100.0% Yes	15.0
+15	real-time status of open items	Yes	100.0% Yes	15.0
+20	member's use of digital tools	No	53.3% Yes	0.0
+15	beneficiary information	Yes	100.0% Yes	15.0
Other capabilities				
If you offer the following tools to help serve members better:				
+5	co-browsing	No	20.0% Yes	0.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if online	Both	13.3% Both	5.0
+3	live web chat	Yes	6.7% Yes	3.0
+2	chatbot	No	6.7% Yes	0.0
Total score				73.0

Contact center: call quality

Annuitant experience

Your service score for contact center: call quality was 80 out of 100. This was below the peer median of 85.

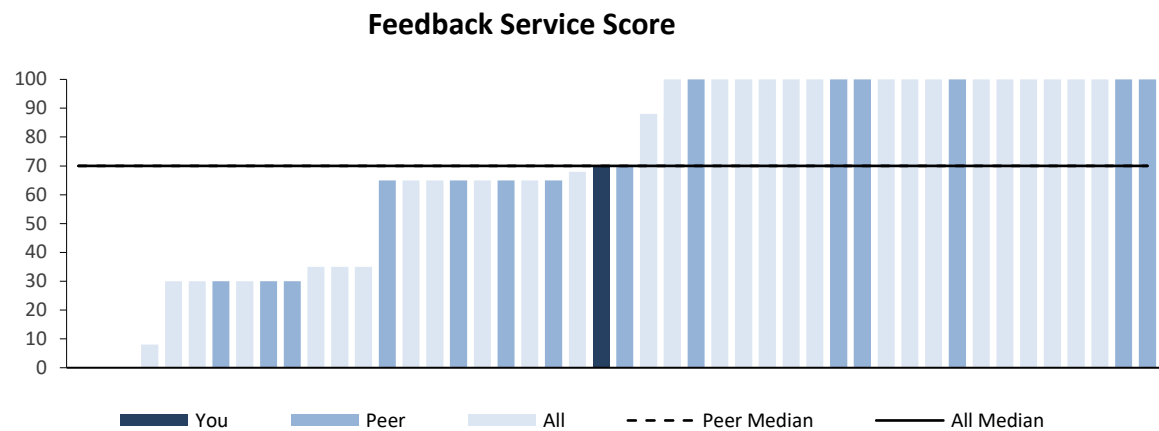


Scoring method		Your Data	Peer Average	Your Score
First Contact Resolution				
+30	If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	88.9%	10.0
Call quality monitoring				
+55	If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	4 times	7.1 times	55.0
+15	If the review is based on listening in on a recording (versus a live call)	Recording	60% Recording	15.0
Total score				80.0

Feedback

Annuitant experience

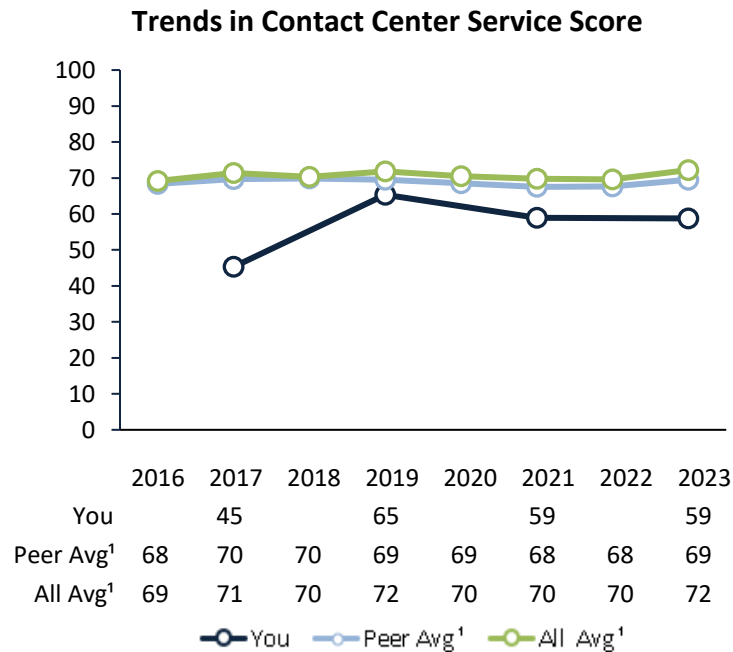
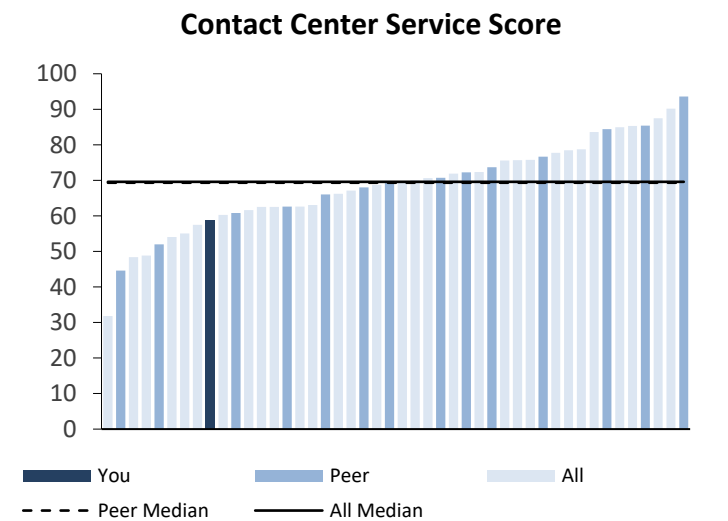
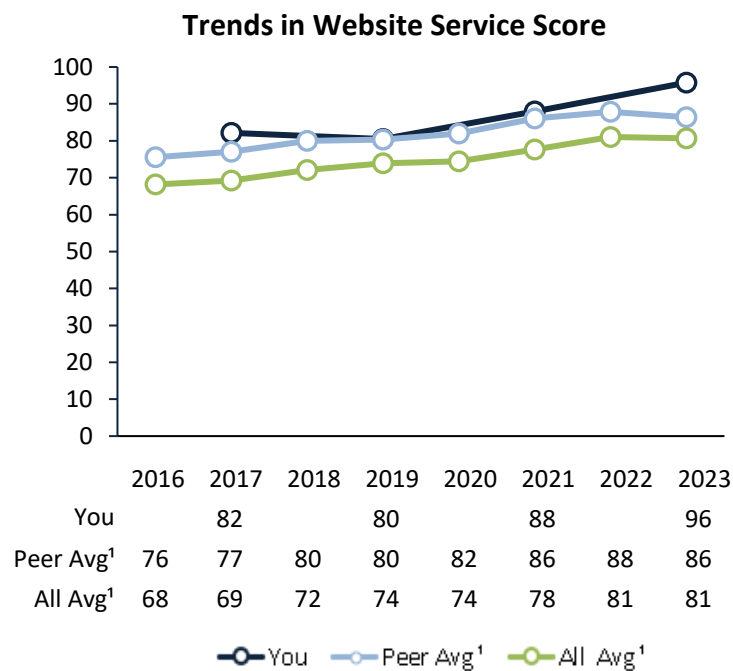
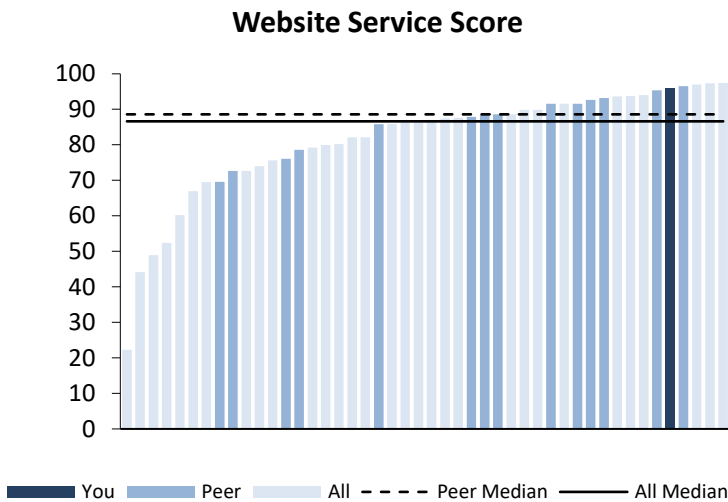
Your service score for feedback was 70 out of 100. This was equal to the peer median.



Scoring method		Your Data	Peer Average	Your Score
Member experience surveying				
If you survey member satisfaction, NPS or effort exclusively for each of the following:				
+30	annuitants	No	86.7% Yes	0.0
+20	secure website	Yes	46.7% Yes	20.0
+20	telephone calls	Yes	80.0% Yes	20.0
Methodology				
If you survey members within two days or less of using the following:				
+15	secure website	Yes	53.3% Yes	15.0
+15	telephone calls	Yes	80.0% Yes	15.0
Total score				70.0

Service score by channel

Member journeys are omni-channel. The channel service scores below extract all relevant metrics from the four member journeys above to calculate a service score out of 100.



1. Trend analysis is based on systems that have participated for 8 consecutive years (13 peers and 31 World systems). This ensures that trends are not caused by changes in the composition of the participants.

Website service score

Your website service score is based on the combined website metrics and weights of the four member journeys. Your adjusted service score was 96 out of 100. This was above the peer average of 87.

Scoring Method		Your Data	Peer Average	Your Score	Your Adjusted Score ¹
Access					
If the member's name is prominent on the home page for					
+10	active members	Yes	100.0% Yes	10.0	4.7
+10	inactive members	Yes	100.0% Yes	10.0	0.5
+10	annuitants	Yes	100.0% Yes	10.0	2.4
If you have a secure website accessible for:					
+10	active members	Yes	100.0% Yes	10.0	4.7
+10	inactive members	Yes	100.0% Yes	10.0	0.5
+10	annuitants	Yes	100.0% Yes	10.0	2.4
If the secure member area is customized to only show options relevant to:					
+20	active members	Yes	100.0% Yes	20.0	9.4
+20	inactive members	Yes	100.0% Yes	20.0	1.0
+20	annuitants	Yes	100.0% Yes	20.0	4.7
+60	If 40% or more of your active members accessed the secure area at least once in the past year, otherwise 150 X % of active members that accessed the secure area	116.8%	50.9%	60.0	13.0
+60	If 15% or more of your inactive members accessed the secure area in the past year, otherwise 400 X % of inactive members that accessed the secure area	108.6%	25.1%	60.0	0.0
+60	If 30% or more of your annuitants accessed the secure area in the past year, otherwise 200 X % of annuitants that accessed the secure area	49.5%	40.8%	60.0	14.1
-5	If you force members to acknowledge a disclaimer every time they use the calculator	No	26.7% Yes	0.0	0.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	20.0% Yes	0.0	0.0

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Website service score

continued

Scoring Method		Your Data	Peer Average	Your Score	Your Adjusted Score ¹
Pension estimate calculator					
+10	If you have an interactive calculator on your website	Yes	100.0% Yes	10.0	0.6
+40	If the calculator is linked to member salary and service credit data	Yes	93.3% Yes	40.0	2.5
If your pension estimate calculator allows members to model:					
+5	different retirement start dates	Yes	86.7% Yes	5.0	0.3
+5	salary changes	Yes	93.3% Yes	5.0	0.3
+5	different working percentages (e.g., part-time or early termination)	No	73.3% Yes	0.0	0.0
+5	alternative payment options	Yes	86.7% Yes	5.0	0.3
If the calculator provides an estimate showing:					
+10	both gross and net, 4 if gross or net, 0 otherwise	Gross	14.3% Both	4.0	0.3
+10	both monthly and annual, 4 if monthly or annual, 0 otherwise	Monthly	35.7% Both	4.0	0.3
+10	multiple estimates on one page for comparative purposes	Yes	46.7% Yes	10.0	0.6
Self-service					
+40	If a member can submit a retirement application online	Yes	80.0% Yes	40.0	2.5
+20	If most online applications can be completed without signed documents needing to be uploaded or mailed in	100.0%	37.5% Yes	0.0	0.0
n/a	If a member can apply for a transfer-in application online	n/a	26.7% Yes	0.0	0.0
+20	If a member can apply for a transfer-out application online	Yes	80.0% Yes	20.0	0.1
If members can do the following online:					
+15	change address (Actives, Inactive, Annuitant)	Yes	100.0% Yes	15.0	1.8
+15	change email address (Actives, Inactive, Annuitant)	Yes	100.0% Yes	15.0	1.8
+10	change communication preferences (Actives, Inactive, Annuitant)	Yes	66.7% Yes	10.0	1.2
+10	change beneficiary (Actives, Inactive, Annuitant)	Yes	93.3% Yes	10.0	1.2
+20	If you have a secure portal for members where members can upload documents (Actives, Inactive, Annuitant)	Yes	73.3% Yes	20.0	2.4

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Website service score

continued

Scoring Method		Your Data	Peer Average	Your Score	Your Adjusted Score ¹
Self-service continued					
If members can do the following online:					
+2	change banking information	Yes	86.7% Yes	2.0	0.4
+2	view pension payment gross amounts and deductions	Yes	100.0% Yes	2.0	0.4
+2	change tax withholding amount	Yes	86.7% Yes	2.0	0.4
+2	download tax receipts	Yes	93.3% Yes	2.0	0.4
Availability					
+30	If you offer secure access to both salary and service credit data	Yes	93.3% Yes	30.0	2.5
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	86.7% Yes	25.0	2.1
+25	If a complete annual history of salary and service credit data since employment began is available	Yes	73.3% Yes	25.0	2.1
+10	If the most recent member statement is available	Yes	100.0% Yes	10.0	0.9
+10	If you have a secure portal for members that includes a history of recent correspondence	No	73.3% Yes	0.0	0.0
Feedback					
+20	If you survey satisfaction or NPS regarding your website	Yes	46.7% Yes	20.0	2.4
+10	If you survey website within 2 days of visit/usage	Yes	53.3% Yes	10.0	1.2
Website service score					95.8

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Contact Center service score

Your contact center service score is based on the combined contact center metrics and weights of the four member journeys. Your adjusted service score was 59. This was below the peer average of 69.

Scoring Method		Your Data	Peer Average	Your Score	Your Adjusted Score ¹
Access					
+5	If you have a toll-free phone number	Yes	100.0% Yes	5.0	1.7
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each hour less than 50 hours per week	35 h	44.0 h	2.5	0.9
Phone menu layers and wait times					
	If a receptionist is the first point of contact	No	0.0% Yes	0.0	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4 plus layers	4 layers	2.1 layers	0.0	0.0
+20	If the abandonment rate in queue was 0%, otherwise 20 - abandonment rate X 200 (Minimum of 0)	12.3%	21.5%	0.0	0.0
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per second to reach a knowledgeable person	205 s	538 s	13.0	4.5
Workflow system					
	If you have a workflow system that provides service agents with real time information about each member's:				
+15	previous calls to the system	Yes	86.7% Yes	15.0	3.5
+15	recent online correspondence or emails	Yes	100.0% Yes	15.0	3.5
+15	real-time status of open items	Yes	100.0% Yes	15.0	3.5
+15	member's use of digital tools	No	53.3% Yes	0.0	0.0
+15	most recent member statement	Yes	100.0% Yes	15.0	2.4
+10	beneficiary information	Yes	100.0% Yes	10.0	2.3
Call center capabilities					
	If you can provide the following on a real-time basis over the phone:				
+10	member's pension estimate	No	66.7% Yes	0.0	0.0
+15	an estimate linked to the member's actual account data	n/a	66.7% Yes	0.0	0.0
+10	alternate annuity payment scenarios	n/a	66.7% Yes	0.0	0.0
+15	an estimate of the cost to purchase service credit	No	60.0% Yes	0.0	0.0

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Contact Center

continued

Scoring Method		Your Data	Peer Average	Your Score	Your Adjusted Score ¹
Assisted service for all members					
If members can do the following over the phone:					
+10	change address	No	80.0% Yes	0.0	0.0
+10	change email address	Yes	93.3% Yes	10.0	2.3
Assisted service for all members except annuitants					
If you can provide the following on a real-time basis over the phone:					
+10	pensionable salary	Yes	100.0% Yes	10.0	1.6
+10	service credit history including gaps	Yes	100.0% Yes	10.0	1.6
Assisted service for inactive member					
+20	If you can provide a member leaving the plan with their transfer value on a real-time basis over the phone	Yes	93.3% Yes	20.0	0.2
Assisted service for annuitants					
If members can do the following over the phone:					
+2	change banking information	No	20.0% Yes	0.0	0.0
Other capabilities					
If you offer the following tools to help serve members better:					
+5	co-browsing	No	20.0% Yes	0.0	0.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if online	Both	13.3% both	5.0	1.2
+3	live web chat	Yes	6.7% Yes	3.0	0.7
+2	chatbot	No	6.7% Yes	0.0	0.0
First Contact Resolution					
+30	If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	88.9% Yes	10.0	2.3

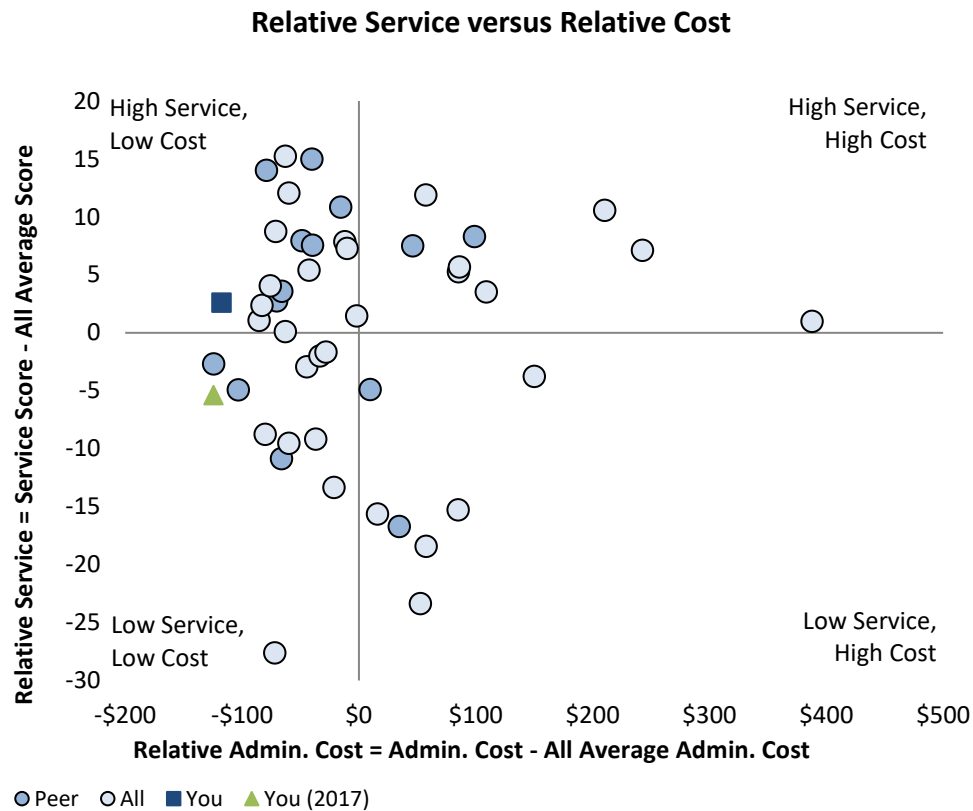
¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Contact Center
continued

Scoring Method		Your Data	Peer Average	Your Score	Your Adjusted Score ¹
Call quality monitoring					
+55	If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	4 times	7.1 times	55.0	12.8
+15	If the review is based on listening in on a recording (versus a live call)	Recording	Recording	15.0	3.5
Feedback					
+20	If you survey satisfaction or NPS regarding telephone calls	Yes	80.0% Yes	20.0	4.7
+10	If you survey within 2 days of the call	Yes	100.0% Yes	10.0	2.3
Email turnaround times					
+15	If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2 days	1.2 days	7.5	2.6
Contact center service score					58.4

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Relationship between service and pension administration cost



Service scores are not good predictors of costs because:

- Costs are driven much more by the volume of service transactions (e.g., the number of calls, 1-on-1 sessions, presentations, etc.) than they are by their timeliness, availability, or quality.
- Service is partly a function of historic investment in information technology. These historic costs are not always reflected in current administration costs.

Rationale for the weighting scheme

The scoring methodology used to calculate the service scores for each of the four member journeys (shown in detail in this section of the report) is based on many years of discussion between CEM and participating pension systems. We actively seek the input of participants at meetings, workshops and peer conferences. We also complete regular research on topics of interest – and that research helps us refresh the model and reflect new working practices.

The following list reflects the thinking that drives the scoring methodology and the weights:

1 Different member groups have different needs

The services you provide for retiring members are clearly different to the services you provide for inactive members. The scoring reflects the best practices for servicing each of these member groups.

2 Relative volume of each activity

The average system does 25 pension inceptions and receives 617 member calls for every 1,000 active members and annuitants. So, based solely on relative volume, calls are 24.8 times more important than pension inceptions.

3 Expectations based on external experience

Members have various external points of reference to compare some activities, e.g., experience on the telephone where they can compare with their bank, utility providers etc. They rarely have any experience of having a pension set-up though.

4 About the members' money

Nothing gets a member's attention faster than their own money so things like benefit calculators linked to member data and paying pensions are much more important than your booklet.

5 Mission critical

Paying pensions is mission critical. Producing newsletters is not.

6 Volume is a good indicator of quality

If you do a lot of something then you are more likely to be good at it. For example, the more members you meet, the more likely you are to invest in making the experience as complete as possible.

7 Focus on what is material

We could ask a thousand questions about service – but we really want to produce a good indicator of overall service levels without getting too detailed (and without involving your team in a substantial amount of work). We try to get the balance right and focus on what is material.

8 What gets measured gets managed

... and what doesn't get measured doesn't get managed. So measure what matters. We penalize plans in the scoring system for failing to measure some things we think are important to members.

8

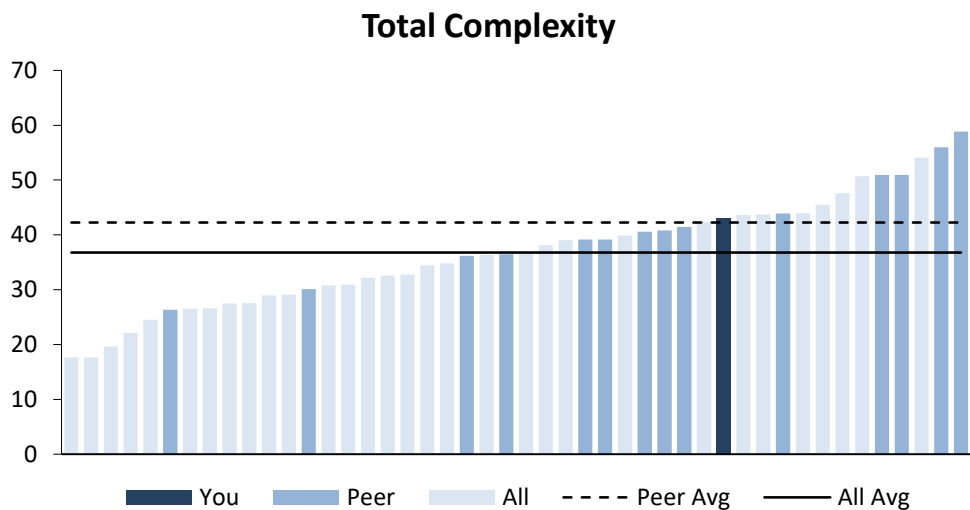
Plan Complexity

This section:

- Identifies causes of retirement system complexity
- Compares your system's complexity to your peers and other retirement systems

Your complexity score was above the peer average.

Your total complexity score was 43. This was above the peer median of 41.



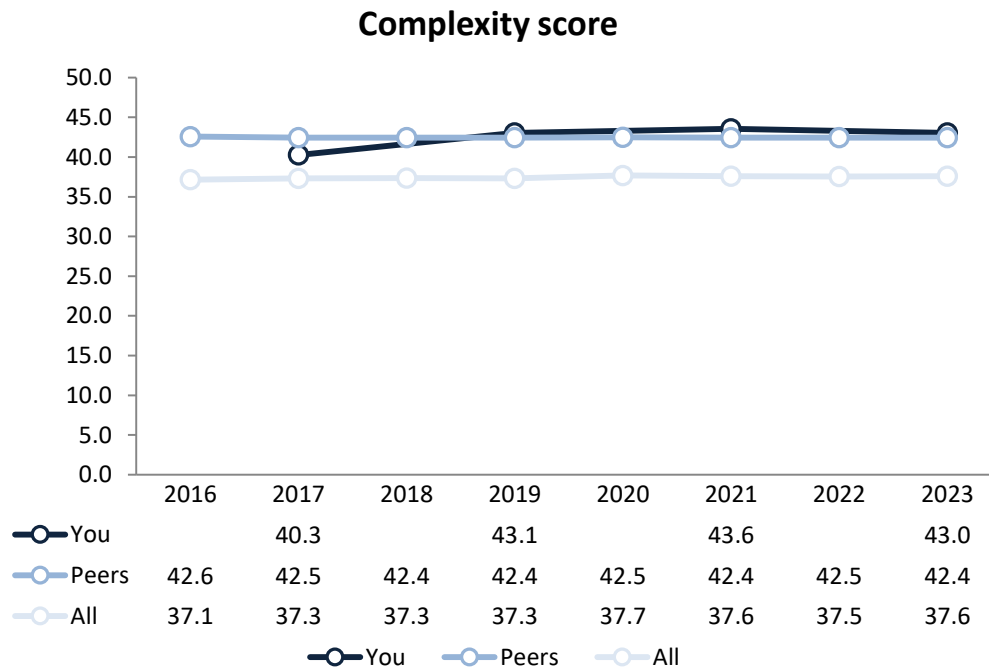
Your total complexity score is the weighted average of your complexity scores by the cause. The causes of complexity are summarized in the table below:

Complexity Scores by Cause				
Cause	Weight	Complexity Score		
		You	Peer Avg	All Avg*
A Pension Payment Options	15.0%	41	39	37
B Customization Choices	20.0%	34	19	14
C Multiple Plan Types and Overlays	13.0%	15	31	25
D Multiple Benefit Formula	16.0%	64	57	48
E External Reciprocity	3.0%	0	20	23
F COLA Rules	4.0%	4	28	29
G Contribution Rates	3.0%	45	43	35
H Variable Compensation	4.0%	85	85	76
I Service Credit Rules	3.0%	40	46	38
J Divorce Rules	3.0%	55	73	67
K Purchase Rules	6.0%	49	60	57
L Refund Rules	4.0%	73	45	40
M Disability Rules	6.0%	71	69	57
Weighted Average	100.0%	43	42	37

* This section excludes the Dutch funds as they complete a different benchmarking survey.

Trends in complexity

The total complexity score of your peers that participated for 8 consecutive years have grown at a compound annual rate of 0.0% between 2020 and 2023. Your growth rate for the same period is unavailable.



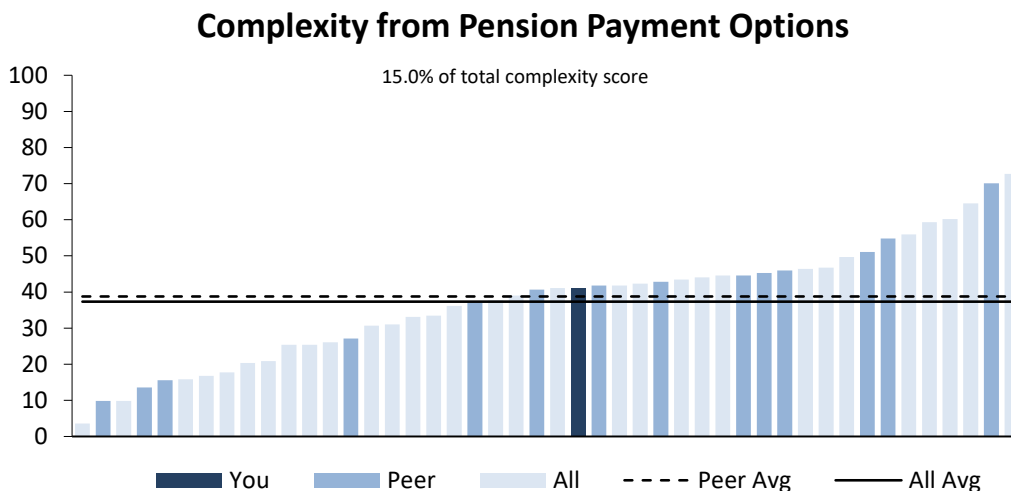
1. Trend analysis is based on systems that have participated for 8-consecutive years (13 peers and 31 World systems). This ensures that trends are not caused by changes in the composition of the participants.

Complexity scoring methodology

CEM's complexity scoring methodology changed in 2018, from a relative measure to absolute. The benefit of using an absolute measure is that your score is only impacted by changes in your plan rules.

Several of the formulas used to calculate complexity use the function $\ln(\# \text{ of rule sets})$. Using $\ln(\# \text{ of rule sets})$ means that every doubling in the number of rule sets results in the same increment in complexity. For example, increasing the number of rules sets for qualifying for retirement from 1 to 2 is assumed to cause the same increment in complexity as increasing from 2 to 4, or from 4 to 8, and so on.

A. Pension Payment Options Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q105 Do you have a designer option where members can design virtually any actuarially sound cash flow they choose? [Designer options need to be custom priced by an actuary.]</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	7% Yes 7	9% Yes 9
30%	<p>Q100 Do you offer "joint and survivor" options that are:</p> <p>a) Reduced to Beneficiary Only? [For example, If the beneficiary dies first, then the retiree's pension continues at the same level. However if the retiree dies first then the beneficiary receives a reduced pension (such as 70% for spouse).]</p> <p>b) Reduced to Last Survivor? [For example, if either the retiree or beneficiary dies the survivor receives a reduced pension (such as 70%).]</p> <p>c) "Reversion" or "Pop-up"? [For example, if the beneficiary dies first, the retiree's pension increases to an unmodified level. However, if the retiree dies first the pension does not increase for the surviving beneficiary (and it may decrease).]</p> <p><i>Complexity: 100 if all 3 types (yes to a, b and c), 85 if both reduced to spouse and reduced to last (yes to a and b), 75 if reversion and either reduced to spouse or reduced to last (yes to c and either a or b), otherwise 0.</i></p>	Yes No Yes	73% Yes 27% Yes 87% Yes	76% Yes 30% Yes 61% Yes
10%	<p>Q101 Do you limit the number of Joint and Beneficiary or Survivor percentages (i.e., 100% Survivor, 50% Survivor, etc.)? If you permit an unlimited number of percentages, then your response should be no.</p> <p>a) How many percentages do you permit?</p> <p><i>Complexity: 100 if unlimited, 0 if none, otherwise $12.7 + 18.3 \times \ln(\text{number of percentages you permit})$ subject to a maximum of 100. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc. ¹</i></p>	Yes 2 25	1 13 64	1 10 60

¹ The logarithmic (ln) function is used extensively in this section to calculate complexity because complexity is not linear. Increasing from 100 to 101 rule sets is a much smaller jump in complexity than increasing from 1 to 2. In effect, the (ln) function says that every doubling in the number of rule sets results in the same increase in complexity. The constant and the coefficient were selected for each rule type such that the maximum number of rule sets reported in 2018 resulted in a complexity score of approximately 95.

A. Pension Payment Options Complexity

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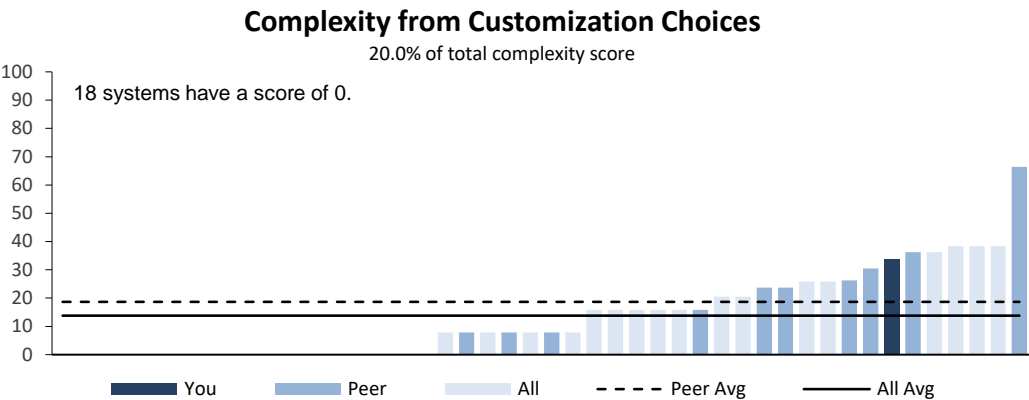
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	Q110 How many mortality tables do you keep track of for determining joint and survivor or beneficiary options? <i>Complexity: 0 if none, otherwise $10.5 + 15.1 \times \ln(\text{number of mortality tables})$. i.e., 1 = 10.5, 2 = 20.9, 4 = 31.4, 8 = 41.8, etc.</i>	1	26	11
		10	27	23
10%	Q102 Do any of your retirement formula for members explicitly subtract estimated Social Security (or CPP in Canada) when determining the benefit? a) If yes, is this true for all of your members or are some pensions reduced to reflect Social Security and others not? b) If yes, do you have a "Level Income" option for early retirees that pays a higher benefit to members prior to age 65 and then reduces the benefit at age 65 when social security (or CPP in Canada) starts to be paid? <i>Complexity: 50 if you adjust for social security + 25 if you adjust for some members but not all + 25 if you have a level income for early retirees.</i>	Yes	27% Yes	50% Yes
		Some	0% All	17% All
		Yes	75% Yes	91% Yes
		100	25	47
5%	Q103 Do you have "High/ Low" or "Low/High" options that are not tied to social security? [For example, a retiree might want higher payments for 10 years until a mortgage obligation is repaid, followed by lower payments.] <i>Complexity: 100 if yes, otherwise 0.</i>	No	13% Yes	11% Yes
		0	13	11
5%	Q104 Do you offer "Annuity Certain" options? [For example, Annuity Certain options provide the annuitant with a monthly benefit for life. If the annuitant dies before a set guarantee period, monthly benefits continue to be paid to a beneficiary for the balance of the guarantee period.] <i>Complexity: 100 if yes, otherwise 0.</i>	No	47% Yes	54% Yes
		0	47	54
5%	Q106 Can a member choose between a COLA protected and a non-COLA pension? [The only example we have seen provides a much higher FAS salary base for the non-COLA pension.] <i>Complexity: 100 if yes, otherwise 0.</i>	Yes	7% Yes	7% Yes
		100	7	7

A. Pension Payment Options Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
5%	<p>Q107 Do you have a Deferred Retirement Option Plan ("DROP")? [This option allows eligible employees to receive payment of retirement benefits while continuing to work. These payments are usually deposited into a separate account, and the total accumulated value of this account is paid via lump sum to the employee on actual retirement.]</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	20% Yes 20	17% Yes 17
5%	<p>Q108 At retirement, can a member convert:</p> <p>a) Part of his benefit into a partial lump sum payment?</p> <p>b) All of his benefit into a lump sum or commuted value payment? [That can be rolled over to another fund, or investment account, etc.]</p> <p><i>Complexity: 100 if yes to a or b, 0 if no.</i></p>	No 0	53% Yes 67	46% Yes 59
5%	<p>Q109 Are members permitted to retire mid-month (in which case they receive a partial pension payment for the remainder of the month) or are they always assumed to retire on a set day (usually the first or the last day) of the month?</p> <p><i>Complexity: 100 if any day, otherwise 0.</i></p>	Set Day 0	27% Any 27	43% Any 43
100%	Weighted Average	41	39	37

B. Customization Choices Complexity



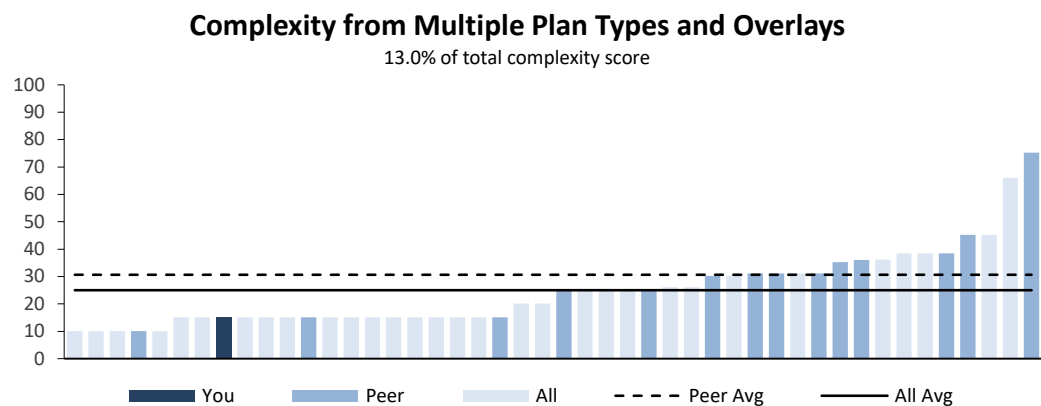
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q141	Can either existing employers, or a new employer joining your system, choose:			
	a) Whether they offer early retirement, or a window of early retirement?	Yes	33% Yes	26% Yes
	b) Whether or not part-time employees are eligible?	No	13% Yes	11% Yes
	c) Whether employee contributions are paid pre or post tax?	Yes	53% Yes	24% Yes
	d) Whether they pay for employee contributions themselves, or not?	No	47% Yes	28% Yes
	e) Position coverage based on predetermined rule sets? [For example, employers can choose from a list of pre-determined rules sets such as 1.5% X FAS for General and 2.5% X FAS for Law Enforcement. Employers may have flexibility to determine eligibility for each group.]	No	27% Yes	13% Yes
	f) Contribution levels and/ or match rates? [For example, at Texas MRS, employers can choose employee deposit rates of 5%, 6% or 7% and employer match rates of 1 to 1, 1.5 to 1 or 2 to 1. We think this only applies to money match and DC plans because for DB plans the promised benefit determines the contribution.]	No	20% Yes	9% Yes
	g) To pay for one-time improvements in retiree or member benefits? [For example, one fund's employers can elect to pay to improve the money purchase entitlement of their members.]	No	13% Yes	11% Yes

B. Customization Choices Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q142 When new employers join your system, do they have the flexibility to customize any of the following items: If yes, indicate the number of standard choices for that item.			
	a) Benefit program multipliers? [i.e., 2% per year of service, 2.5% per year of service, etc.]	n/a	5	4
	b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc]	n/a	2	2
	c) Retirement eligibility rules? [i.e., age and/or years of service required to retire]	n/a	n/a	2
	d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	n/a	4	3
	e) Vesting period?	n/a	n/a	n/a
	f) Service credit purchase categories?	n/a	6	6
	g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000]	2	4	4
	h) Disability coverage rules?	n/a	4	3
	i) Choice as to whether and how contributions and benefits are coordinated with social security?	n/a	2	2
	j) Other (describe)?	n/a	30	7
	Total Customization Choices [Sum of 1 for each yes in Q141 + sum of # of choices in Q142]	4	7	3
90%	Complexity: 0 if none, otherwise $8.8 + 12.7 \times \ln(\text{number of customization choices})$. i.e., 1 = 8.8, 2 = 17.6, 4 = 26.4, 8 = 35.1, etc.	26	18	13
	Q143 Can an existing employer change any of the choices (per question 177 above), effectively creating a new or altered rule set, at any time?	Yes	27% Yes	22% Yes
10%	Complexity: 100 if yes, otherwise 0.	100	27	22
100%	Weighted Average	34	19	14

C. Multiple Plan Types and Overlays Complexity



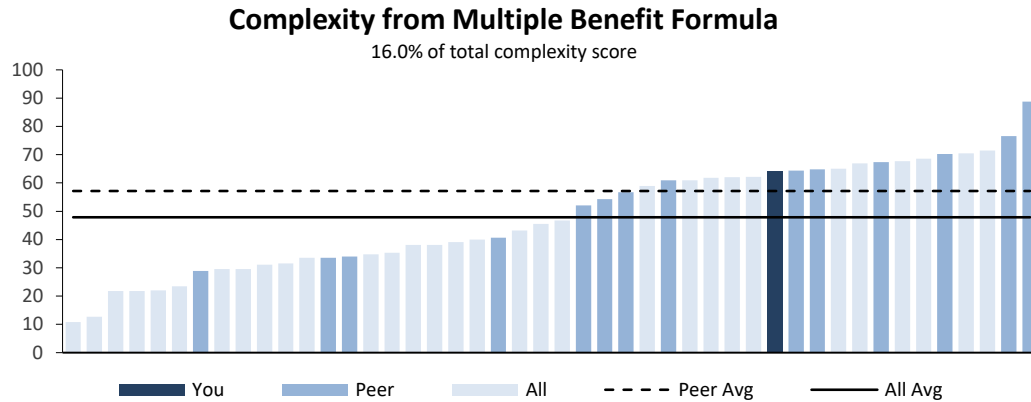
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
45%	Q90 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups:			
	a) Traditional Defined Benefit ("DB")?	Yes	93% Yes	96% Yes
	b) DB Cash Balance (aka Money Purchase)?	No	13% Yes	7% Yes
	c) Hybrid DB/ DC Cash Balance?	No	7% Yes	9% Yes
	d) Hybrid DB/ Money Match?	No	7% Yes	2% Yes
	e) DROP savings?	No	7% Yes	9% Yes
	f) Defined Contribution ("DC")?	No	33% Yes	24% Yes
	g) Hybrid DB/ DC?	No	47% Yes	30% Yes
	h) Other (describe)?	No	0% Yes	4% Yes
	Total number of different plan types. Hybrid plans count as 2 types.	1.0	2.7	2.2
	Complexity: 0 if none, otherwise $22.4 + 32.4 \times \ln(\text{number of non-optional benefit plans})$. i.e., 1 = 22.4, 2 = 44.8, 4 = 67.3, 8 = 89.7, etc.	22	49	42

C. Multiple Plan Types and Overlays Complexity

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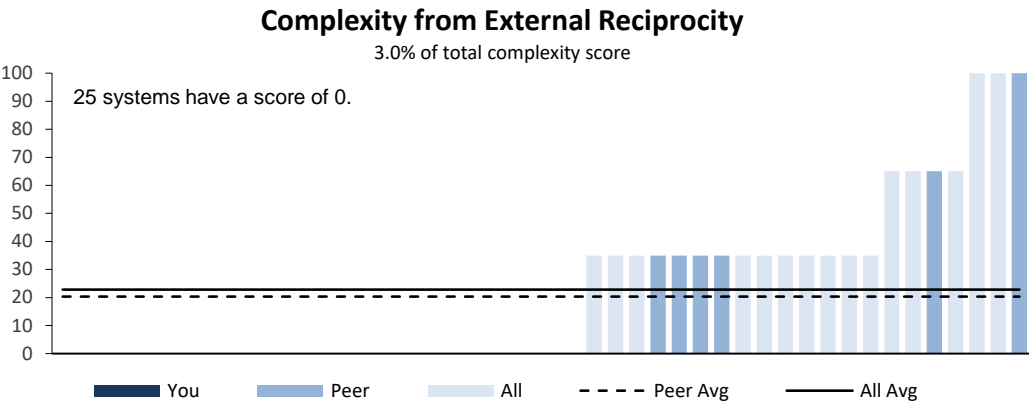
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	<p>Q91 Do members in any of your defined benefit plan(s) have the option of electing: [These questions are not applicable for DC plans or the DC portion of hybrid DB/DC]</p> <p>a) A 'variable investment option' that can increase or decrease the value of a member's future DB pension depending on the investment performance of a 'variable fund'?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	7% Yes 7	4% Yes 4
10%	<p>b) A 'pension savings overlay'? [Some Dutch systems have this option. The additional contributions are converted into an annuity at retirement. Interest is based on a fixed percentage or on the performance of the pension fund.]</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	20% Yes 20	9% Yes 9
10%	<p>c) To change their contribution rate in order to get either more money at retirement or earlier eligibility to retire?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	7% Yes 7	7% Yes 7
5%	<p>Q92 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	Yes 100	80% Yes 80	70% Yes 70
100%	Weighted Average	15	31	25

D. Multiple Benefit Formula Complexity



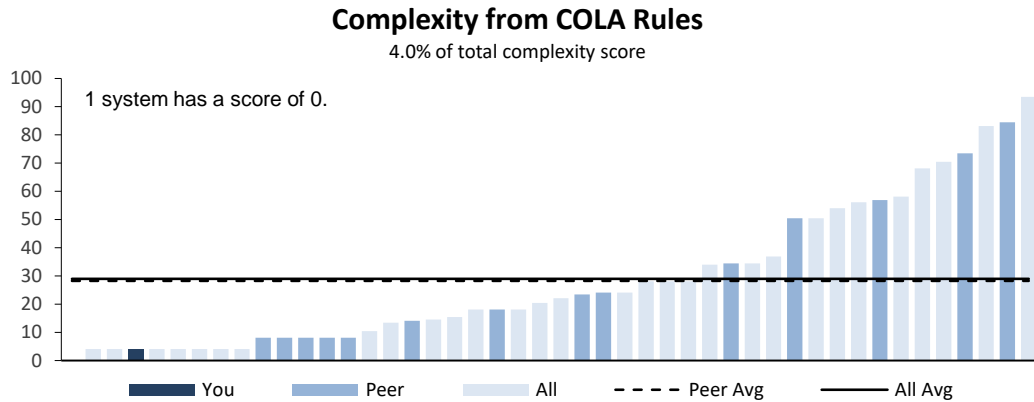
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	Q114 How many different rule sets do you have that apply to member groups or subsets of a member group for qualifying for an unreduced retirement formula? <i>Complexity: 0 if none, otherwise $12.7 + 18.3 \times \ln(\text{number of rule sets})$. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc.</i>	9	14	10
		53	52	45
5%	Q115 Can members retire earlier than the age required for an unreduced retirement formula? <i>Complexity: 100 if yes, 0 if no</i>	Yes 100	100% Yes 100	96% Yes 96
20%	Q116 How many different salary definitions could apply in retirement formula <i>Complexity: 0 if none, otherwise $19.4 + 27.9 \times \ln(\text{number of salary definitions})$. i.e., 1 = 19.4, 2 = 38.7, 4 = 58.1, 8 = 77.4, etc.</i>	5	6	4
		64	61	51
25%	Q117 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas? <i>Complexity: 0 if none, otherwise $12.7 + 18.3 \times \ln(\text{number of 'formula percentage' rule sets})$. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc.</i>	5	12	8
		42	45	39
20%	Q118 Do you have different employers with different benefit formula? If yes, which of the following happens when a member moves from one employer that you administer to another with a different benefit formula? [For example, moves from PERS to Law Enforcement.]	Yes	73% Yes	57% Yes
	a) Each system uses its own formula and salary data to determine the benefit.	Yes	45% Yes	58% Yes
	b) Each system applies its own formula but uses either the salary earned in the last system, or the highest salary (or salaries) in either system.	Yes	45% Yes	42% Yes
	c) The highest formula will apply.	No	9% Yes	12% Yes
	d) The formula of the plan where the member works last will apply.	Yes	36% Yes	35% Yes
	e) Other (describe).	No	9% Yes	24% Yes
	<i>Complexity: 100 if b or c apply, 80 if d or e, 60 if a, otherwise 0.</i>	100	65	49
100%	Weighted Average	64	57	48

E. External Reciprocity Complexity



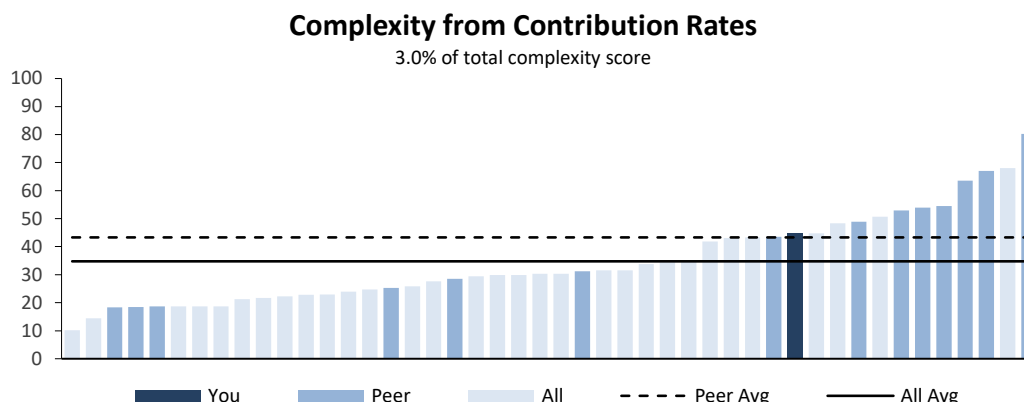
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
35%	<div>Q119 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system pays the "dual" member a pension benefit based on its own rules for determining the benefit. Neither credit nor money are transferred between systems.]</div> <div>Complexity: 100 if yes, otherwise 0.</div>	<div>No</div> <div>0</div>	<div>33% Yes</div> <div>33</div>	<div>37% Yes</div> <div>37</div>
65%	<div>Q120 Do you have agreements with external Systems where the member may combine internal and external credit to form one joint account?</div> <div>Complexity: 100 if yes, otherwise 0.</div>	<div>No</div> <div>0</div>	<div>13% Yes</div> <div>13</div>	<div>15% Yes</div> <div>15</div>
100%	Weighted Average	0	20	23

F. COLA Rules Complexity



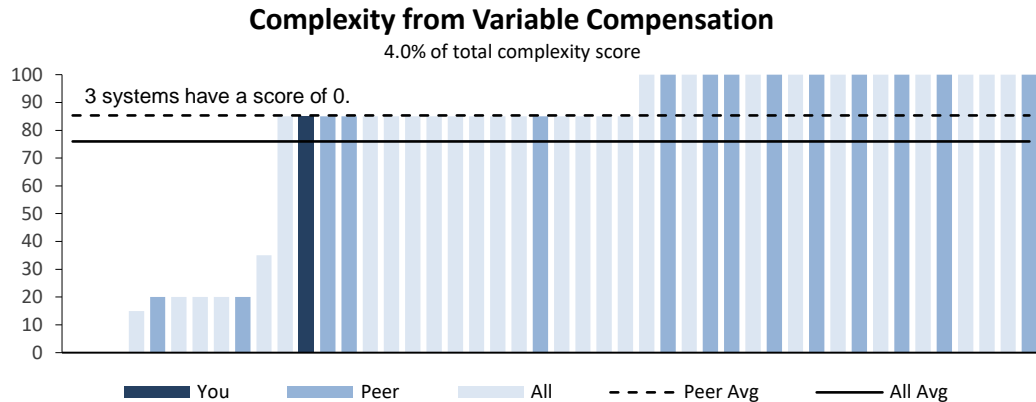
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	<p>Q111 How many different cost of living adjustment ("COLA") rule sets do you have for retired, and if applicable, inactive members? (These rule sets may be either contractual or legislated.)</p> <p><i>Complexity: 0 if none, otherwise $20.2 + 29.2 \times \ln(\text{number of COLA rule sets})$. i.e., 1 = 20.2, 2 = 40.4, 4 = 60.6, 8 = 80.8, etc.</i></p>	1 20	4 50	3 44
40%	<p>Q112 Do you have:</p> <p>a) Cost of living adjustment ("COLA") clauses that carry forward inflation that exceeds a cap (versus no cap or no carry forward or no COLA etc.)?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	27% Yes 27	26% Yes 26
10%	<p>b) Conditional COLA based on the level of funding?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	27% Yes 27	37% Yes 37
20%	<p>c) Umbrella legislation that guarantees the purchasing power of an annuitants' pension will not fall below a certain level? [An example of such legislated protection is the PPPA in California.]</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	20% Yes 20	17% Yes 17
5%	<p>Q113 Do you have COLA clauses that increase the base pensionable earnings of inactive members?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	13% Yes 13	28% Yes 28
5%	<p>a) If yes, are these COLA increases the same as they are for annuitants?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	n/a 0	50% Yes 7	77% Yes 22
100%	Weighted Average	4	28	29

G. Contribution Rates Complexity



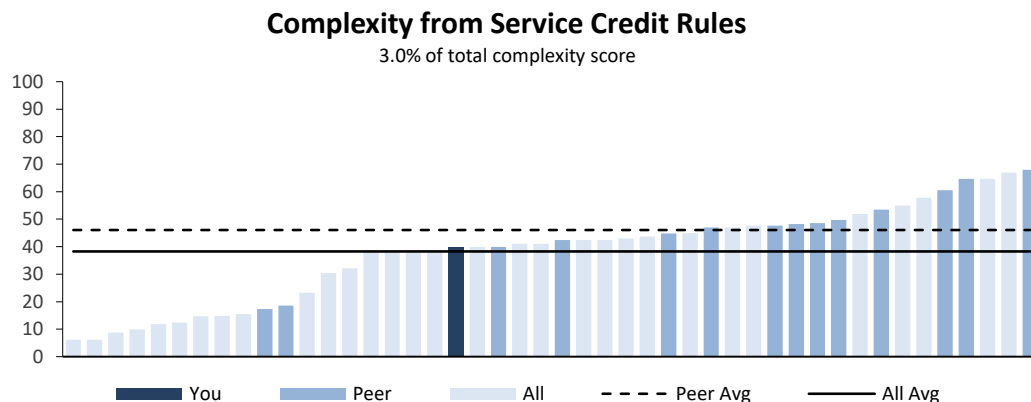
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
40%	Q144 How many different contribution percentages do you collect from: a) Employers? [For example, single member group systems may have only one contribution percentage whereas some multi-plan systems may collect numerous different contribution rates from various participating employers.] <i>Complexity: 0 if none, otherwise $7.3 + 10.5 \times \ln(\text{number of contribution percentages collected from employers})$. i.e., 1 = 7.3, 2 = 14.6, 4 = 21.9, 8 = 29.2, etc.</i>	89	716	242
		55	47	32
	b) Members? <i>Complexity: 0 if none, otherwise $10.8 + 15.5 \times \ln(\text{number of contribution percentages collected from members})$. i.e., 1 = 10.8, 2 = 21.5, 4 = 32.3, 8 = 43.0, etc.</i>	2	8	11
40%		22	34	35
	Q145 Which of the following payment methods for employee contributions occur in the plans that you administer: a) No employee contributions? b) Employer pays their part and also the employee contributions? c) Employer withholds employee contributions pre-tax from their salary? d) Employer withholds employee contributions post-tax from their salary? <i>Complexity: 100 if all 4 methods are possible, 66 if 3 methods, 33 if 2 methods, 0 if 1 method.</i>	Yes No Yes Yes	40% Yes 60% Yes 100% Yes 73% Yes	30% Yes 48% Yes 96% Yes 41% Yes
		66	57	38
3%	Q146 Do you have any other contributions in addition to the regular employee and employer contributions? [For example, Ohio SERS collects a surcharge for members who earn less than a minimum compensation amount.] <i>Complexity: 100 if yes, otherwise 0.</i>	Yes 100	47% Yes 47	59% Yes 59
100%	Weighted Average	45	43	35

H. Variable Compensation Complexity



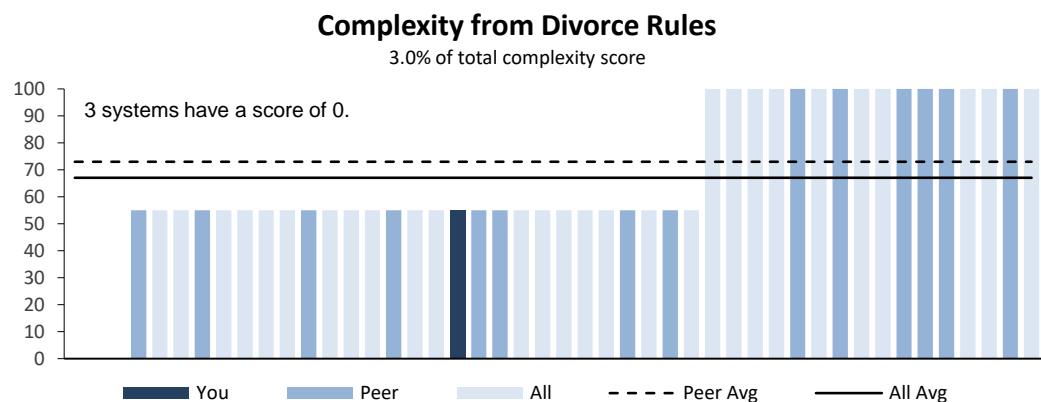
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	Q139 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings.			
	a) Bonuses?	Yes	80% Yes	76% Yes
	b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	Yes	87% Yes	76% Yes
	c) Overtime pay?	Yes	93% Yes	83% Yes
	d) Commissions or similar payments such as fees paid to sheriffs for process serving? <i>Complexity: 100 if variable compensation is paid in your system, otherwise 0.</i>	No 100	33% Yes 100	35% Yes 91
65%	If yes, is all, some or none of it included in pensionable earnings?			
	a) Bonuses?	Some	9% All	12% All
	b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	Some	8% All	12% All
	c) Overtime pay?	All	72% All	53% All
	d) Commissions or similar payments such as fees paid to sheriffs for process serving? <i>Complexity: 100 if some types of variable compensation paid are included and some are not (i.e., either any of the above is 'some' or there is a mix of 'all' and 'none'),</i>	n/a 100	41% All 87	32% All 78
15%	Q140 When determining a member's pensionable earnings does a cap on salary increases apply? <i>Complexity: 100 if yes, 0 if no</i>	No 0	60% Yes 60	46% Yes 46
100%	Weighted Average	85	85	76

I. Service Credit Rules Complexity



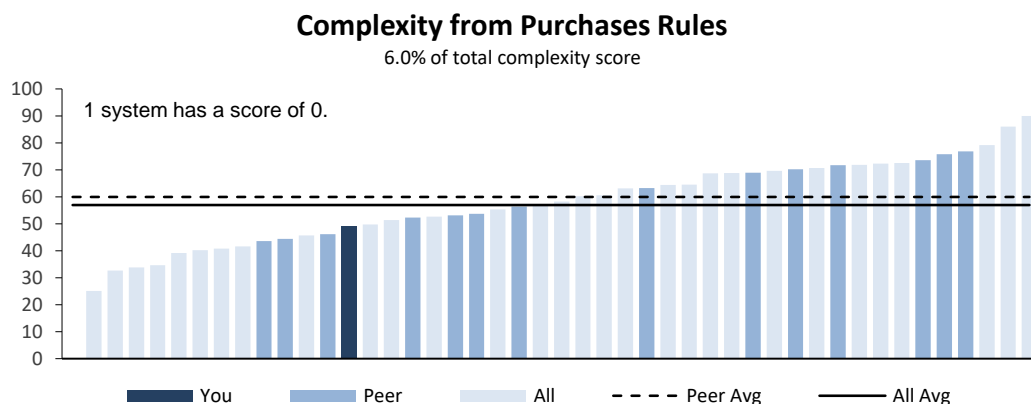
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	Q121 How many different definitions do you have for a "full year" of service credit? <i>Complexity: 0 if none, otherwise $12.4 + 17.9 \times \ln(\text{number of 'full year' service credit definitions})$. i.e., 1 = 12.4, 2 = 24.9, 4 = 37.3, 8 = 49.7, etc.</i>	5	4	5
		41	35	28
30%	Q122 Does your system have more than one payroll year for determining service credit? a) If yes, how many different payroll years exist in your system? <i>Complexity: 0 if none, otherwise $16.1 + 23.2 \times \ln(\text{number of payroll years})$. i.e., 1 = 16.1, 2 = 32.2, 4 = 48.2, 8 = 64.3, etc.</i>	Yes 9	27% Yes 7	30% Yes 6
		67	14	14
5%	Q123 How many different vesting periods do you have that apply to active members? [Your answer should be 0 if you have immediate vesting. Most North American systems have only one.] <i>Complexity: 0 if none, otherwise $23.8 + 34.3 \times \ln(\text{number of vesting periods})$. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i>	2	3	2
		48	50	42
30%	Q124 b) Casual/ temporary/ intermittent/ seasonal employees to be members? [An example of a "temporary" employee is an infrequent substitute teacher.] <i>Complexity: 100 if yes, otherwise 0.</i>	No 0	80% Yes 80	63% Yes 63
5%	Q125 Are you sometimes asked by employers to determine the eligibility of members? <i>Complexity: 100 if yes, otherwise 0.</i>	Yes 100	93% Yes 93	91% Yes 91
100%	Weighted Average	40	46	38

J. Divorce Rules Complexity



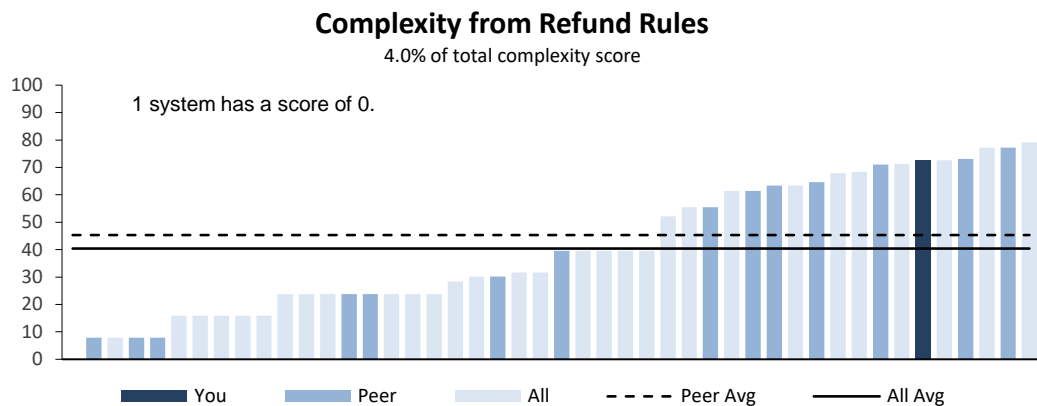
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	<p>Q152 Choose the statement that best describes how divorce settlements for active members (or divorce decrees or QDROS, or QILDROS, or Division of Benefit Orders, etc.) impact your system. If you have different rules for different plans, choose the statement that applies to the largest number of cases.</p> <p>a) Minimal impact. Law prevents you from paying the pension to anybody except the member and the member's specified beneficiaries.</p> <p>b) Minimal impact unless children are involved. With children you may be required to redirect payment.</p> <p>c) A portion of the pension is paid to the ex-spouse, but ONLY when the member begins receiving benefits.</p> <p>d) A portion of the pension is paid to the ex-spouse. The ex-spouse can initiate the pension at a time different than the member provided that eligibility conditions are met.</p> <p>e) Other (describe)</p>			
100%	<p>Complexity: 100 if yes to d, 55 if yes to c or e, 5 if yes to b, otherwise 0.</p>	No 55	0% Yes 73	9% Yes 67
100%	Weighted Average	55	73	67

K. Purchase Rules Complexity



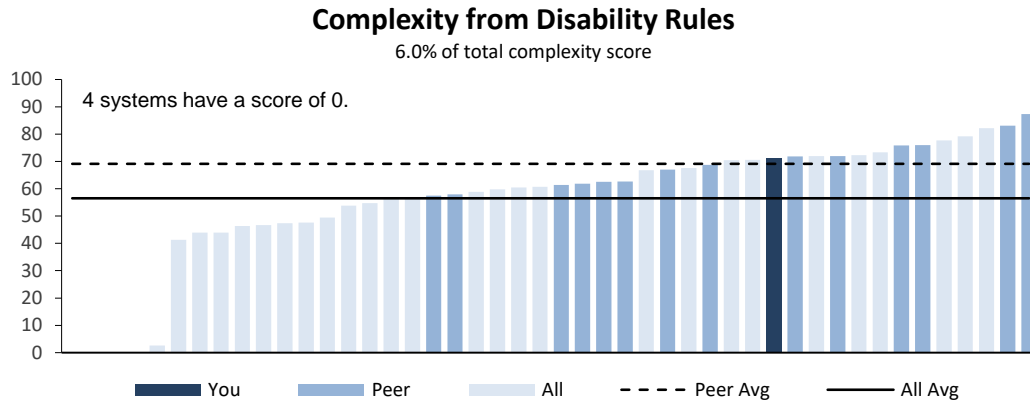
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
25%	<p>Q126 Indicate each of the payment methods you permit for service credit purchases and upgrades:</p> <p>a) Rollover from tax qualified plans such as 401(a) or 401(k) or Conduit IRA or KEOGH in the US; or RRSP plans in Canada?</p> <p>b) Lump sum payments from members?</p> <p>c) Installment payments direct from members?</p> <p>d) Installment payments via payroll deduction through employers?</p> <p><i>Complexity: 10 if rollover + 10 if lump sum direct from member + 40 if installment direct from member + 40 if installment through payroll deduction.</i></p>	<p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>20</p>	<p>100% Yes</p> <p>100% Yes</p> <p>53% Yes</p> <p>60% Yes</p> <p>65</p>	<p>98% Yes</p> <p>98% Yes</p> <p>67% Yes</p> <p>52% Yes</p> <p>67</p>
25%	<p>Q127 How many different service credit purchase categories do you have with different definitions and/or eligibility requirements?</p> <p><i>Complexity: 0 if none, otherwise 14.1 + 20.3 x ln(number of service credit purchase categories). i.e., 1 = 14.1, 2 = 28.1, 4 = 42.2, 8 = 56.3, etc.</i></p>	<p>18</p> <p>73</p>	<p>17</p> <p>67</p>	<p>13</p> <p>61</p>
25%	<p>Q128 How many different service credit purchase calculation formula or methodologies do you have?</p> <p><i>Complexity: 0 if none, otherwise 18.1 + 26.1 x ln(number of service credit purchase formulas). i.e., 1 = 18.1, 2 = 36.2, 4 = 54.3, 8 = 72.4, etc.</i></p>	<p>4</p> <p>54</p>	<p>7</p> <p>64</p>	<p>6</p> <p>60</p>
25%	<p>Q129 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies):</p> <p>a) Essentially identical for all your members?</p> <p>b) Similar for all member groups, albeit with some differences?</p> <p>c) Very different for different member groups?</p> <p><i>Complexity: 100 if very different for all member groups, 50 if some differences between member groups, otherwise 0.</i></p>	<p>No</p> <p>Yes</p> <p>No</p> <p>50</p>	<p>21% Yes</p> <p>73% Yes</p> <p>7% Yes</p> <p>43</p>	<p>36% Yes</p> <p>56% Yes</p> <p>14% Yes</p> <p>40</p>
100%	Weighted Average	49	60	57

L. Refund Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q130 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	Yes	60% Yes	61% Yes
	a) If yes, how many different one-time death payment rule sets do you have? [i.e., \$5,000, \$2,000 etc.]	6	4	4
67%	Complexity: 0 if none, otherwise $23.8 + 34.3 \times \ln(\text{number of one-time death payment rule sets})$. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.	85	42	37
	Q131 How many different refund formulas do you have?	2	3	3
33%	Complexity: 0 if none, otherwise $23.8 + 34.3 \times \ln(\text{number of refund formulas})$. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.	48	53	47
100%	Weighted Average	73	45	40

M. Disability Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	Q32 Do you administer: a) Long-term disability/ disability pensions? <i>Complexity: 100 if you administer, otherwise 0.</i>	Yes 100	100% Yes 100	89% Yes 89
10%	Q137 How many different rule sets with different definitions or benefits do you have that apply to member groups or subsets of a member group for: a) Long-term disability/ disability pensions? <i>Complexity: 0 if none, otherwise $13.3 + 19.2 \times \ln(\text{number of long-term disability/disability pension rule sets})$. i.e., 1 = 13.3, 2 = 26.6, 4 = 39.9, 8 = 53.1, etc.</i>	7 51	11 43	6 32
	Q32 Do you administer: b) Short-term disability?	No	13% Yes	9% Yes
5%	Q137 How many different rule sets with different definitions or benefits do you have that apply to member groups or subsets of a member group for: b) Short-term disability (if you administer it yourself)? <i>Complexity: 0 if none, otherwise $19.8 + 28.5 \times \ln(\text{number of short-term disability rule sets})$. i.e., 1 = 19.8, 2 = 39.5, 4 = 59.3, 8 = 79.0, etc.</i>	n/a 0	2 4	1 3
10%	Q34 Do you cover non-occupational disability? [Some systems only cover disabilities that happen at work.] a) If yes, does either the amount paid or the taxation of the disability benefit vary depending on whether the disability is occupational versus non-occupational? <i>Complexity: 100 if you have to determine whether or not the disability occurred at work and you have an independent decision process, otherwise 0.</i>	Yes No 0	100% Yes 60% Yes 60	100% Yes 49% Yes 43

M. Disability Rules Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q99 b) Check income of disabled members after they have started receiving disability payments? <i>Complexity: 100 if yes, otherwise 0.</i></p>	Yes 100	93% Yes 93	68% Yes 65
10%	<p>Q133 Will you pay a disabled member that returns to work at a salary lower than they previously earned: a) The difference between his old salary (or their old disability benefit) and their new lower salary? b) An amount that is potentially greater than the difference between their old salary and their new lower salary? <i>Complexity: 100 if yes to b, 80 if yes to a, otherwise 0.</i></p>	Yes No 80	33% Yes 7% Yes 28	26% Yes 8% Yes 20
15%	<p>Q134 How do you determine whether a member qualifies for long-term disability/ disability pension: c) Process independent of social security, worker's compensation and employer decisions? [For example, many systems use independent internal processes or medical review boards or medical consultants.] <i>Complexity: 100 if yes, otherwise 0.</i></p>	Yes 100	100% Yes 100	98% Yes 89
10%	<p>Q135 Which of the following descriptions best describes the MINIMUM level of disability necessary to be eligible for a long-term disability/ disability pension: [If you have different plans with different definitions, choose the definition that applies to the largest number of cases.] a) Disabling injury or illness that prevents you from performing your current job duties (even though you might be able to perform other jobs) and expected to be permanent (or for some systems - persist longer than 6 or 12 months)? b) Disabling injury or illness that prevents the member from performing current and 'other' jobs that he/she is qualified for and/or can become qualified to do in a reasonable period of time and expected to be permanent (or for some systems - persist longer than 6 or 12 months)? [Sometimes but not always the 'other job' is defined as not able to earn a certain level (i.e., 75%) of pre-disability earnings.] c) Totally and permanently incapacitated and member is not reasonably expected to recover from disabling medical condition or not expected to ever work again? d) Other (describe)? <i>Complexity: If your decision process is independent (i.e., yes to c), then 100 if yes to b, 90 if yes to a, 50 if yes to c, 25 if yes to d, otherwise 0.</i></p>	Yes No No No 90	53% Yes 20% Yes 27% Yes 7% Yes 81	59% Yes 22% Yes 33% Yes 17% Yes 71

M. Disability Rules Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q136 If you administer short-term disability:			
	a) Are the short-term and long-term disability/ disability pension processes closely entwined? [i.e., difficult to distinguish between costs of long-term/disability pensions and short term disability, same staff do both, similar approval processes.]	n/a	67% Yes	56% Yes
	b) Are the disability definitions, other than the expected duration of disability, the same for both long-term and short-term disability? [For example, the only difference between the definition of long-term/ disability pensions and short-term disability at some systems is the disabling injury or illness is expected to last longer than 12 months for long-term.]	n/a	0% Yes	22% Yes
	c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?	n/a	67% Yes	22% Yes
5%	<i>Complexity: 100 if different definitions and approval processes (i.e., no to b and yes to c), 75 if approval processes or definitions are very different (either no to b or yes to c), otherwise 0.</i>	0	13	6
	Q138 Do you reduce payments if the member qualifies or receives:			
	a) Disability social security?	Yes	53% Yes	32% Yes
	b) Worker's compensation?	Yes	67% Yes	45% Yes
	c) Other public funds (i.e., federal military disability)?	Yes	27% Yes	10% Yes
	d) Income protection plans/other disability insurance?	No	20% Yes	10% Yes
	e) Employer sick leave and annual leave pay?	Yes	33% Yes	23% Yes
	f) Unemployment compensation?	No	27% Yes	15% Yes
	g) Income from other employment?	Yes	67% Yes	55% Yes
	h) Other (describe)?	<u>No</u>	<u>21% Yes</u>	<u>14% Yes</u>
	Total yes responses for disability coordination	5	3	2
5%	<i>Complexity: 0 if none, otherwise $25.0 + 36.1 \times \ln(\text{number of disability coordination categories})$. i.e., 1 = 25.0, 2 = 50.0, 4 = 75.0, 8 = 100.0, etc.</i>	83	55	34
100%	Weighted Average	71	69	57

9

Appendices

Appendix A - Survey responses

- Member status changes
- Costs and FTE by activity
- Service and plan design

Appendix B - Foreign currency conversion

Appendix C - Activity definitions

Appendix D - Defaults

Appendix A - Survey responses: Member status changes

North Carolina RS

5. Complete the 'non-blank' boxes in the table below. Enter all values as positive numbers. Enter 0 if not applicable.

Changes in Member Status						
	2023			2021		
	Active Members	Inactive Members	Annuitants (Service, Disabled, Survivor)	Active Members	Inactive Members	Annuitants (Service, Disabled, Survivor)
Total members						
a. Members at end of fiscal year 2022	467,700	175,784	347,562	472,031	188,702	331,153
b. Members at end of fiscal year 2023	473,933	169,808	356,781	465,107	181,779	338,846
Increase/-decrease to be explained	6,233	-5,976	9,219	-6,924	-6,923	7,693
Decreases						
c. Full withdrawals/refunds/commuted value payments	0	20,700		0	15,678	
d. Transfers-out to external pension systems	0	2,001		0	2,045	
e. Annuity inception: service retirement	15,212	1,971		14,624	1,923	
f. Annuity inception: disability retirement	348	0		421	0	
g. Active members leaving to inactive status	37,450			32,810		
h. Re-hired inactives and annuitants (if annuity stops)		2,360	235		1,346	94
i. Deaths	1,109	2,916	9,551	1,143	2,488	10,564
j. Non-death stops of pensions (i.e., dependent no longer eligible)			0			0
k. Other decreases.	0	0	0	0	0	0
Increases						
l. New active members	66,323			44,577		
m. Annuity inception: survivor, partner, ex-partner,			665			638
n. Annuity inception: service retirement			17,183			16,547
o. Annuity inception: disability retirement			348			421
p. Active members leaving to inactive status		37,450			32,810	
q. Re-hired inactives and annuitants (if annuity stops)	2,595			1,440		
r. Other increases.	0	0	0	0	0	0
Explained increases/-decreases	14,799	7,502	8,410	-2,981	9,330	6,948
Unexplained increases/-decreases	-8,566	-13,478	809	-3,943	-16,253	745

Appendix A - Survey responses: Cost by activity

North Carolina RS

	Your Response		
	2023	2021	
6. Complete the table below:			
a. Total administrative expenses per your financial statements (ACFR in the U.S.)	25,440.5	21,926.5	(\$000s)
Less (if included in administrative expenses):			
b. Investment administration costs	0.0	0.0	(\$000s)
c. Accrued, non-cash, pension and OPEB expense (per GASB 68 & 75)	0.0	0.0	(\$000s)
Plus, if not included in administrative expenses:			
d. Cash contributions for pension and OPEB, for active staff	0.0	0.0	(\$000s)
e. Pay-as-you-go benefits for retired staff	0.0	0.0	(\$000s)
f. Amortization and depreciation of administrative assets	0.0	0.0	(\$000s)
g. Actuarial fees and costs	0.0	0.0	(\$000s)
h. Other costs and professional fees relating to pension administration	0.0	0.0	(\$000s)
i. Total benefit administration costs	25,440.5	21,926.5	(\$000s)

Appendix A - Survey responses: Cost and FTE by activity - 2023

North Carolina RS

7. Complete the table below. Instructions and definitions are provided on the pages below the table.

Activity	Direct full time equivalents (# FTE)	Direct Costs		
		Salaries and Benefits (\$000s)	Third Party and Other Direct (\$000s)	Total (\$000s)
1. Member Transactions				
a. Pension Payments	6.4	455.0	213.6	668.6
b. Pension Inceptions and Written Pension Estimates	26.4	1,875.6	21.1	1,896.7
c. Refunds, Withdrawals, and Transfers-out	22.7	1,613.1	66.7	1,679.8
d. Purchases and Transfers-in	3.1	227.3	21.1	248.4
e. Disability	12.6	946.9	21.1	968.0
f. Healthcare Administration	2.8	202.1	21.1	223.2
g. Optional and Third Party Administered Benefits	0.6	64.6	21.1	85.7
2. Member Communication				
a. Contact Center	49.7	3,519.6	21.1	3,540.7
b. Mail Room, Imaging	7.0	491.7	21.1	512.8
c. 1-on-1 Counseling	3.8	269.3	21.1	290.4
d. Member Presentations	4.0	294.8	27.0	321.8
e. Mass Communication	3.5	284.4	21.7	306.1
3. Collections and Data Maintenance				
a. Data and Money from Employers	13.6	974.5	21.1	995.6
b. Service to Employers	5.2	390.9	21.1	412.0
c. Data Not from Employers	3.3	228.3	21.1	249.4
4. Governance and Financial Control				
a. Financial Administration and Control	5.4	477.9	1,771.6	2,249.5
b. Board, Strategy, Policy	1.5	194.0	43.1	237.1
c. Government and Public Relations	2.0	237.7	30.5	268.2
5. Major Projects				
a. Amortization of non-IT Major Projects	n/a	n/a	0.0	0.0
b. Non-IT Major Projects (if you don't capitalize)	0.0	0.0	0.0	0.0
c. Amortization of IT Major Projects	n/a	n/a	0.0	0.0
d. IT Major Projects (if you don't capitalize)	0.0	0.0	0.0	0.0
6. Information Technology				
a. IT Strategy, Database Management and Applications (excl. major projects and IT security)	4.0	397.0	5,082.5	5,479.5
b. IT Desktop, Networks, Telecom (excl. IT security)	1.0	70.2	1,597.9	1,668.1
c. IT Security	0.0	0.0	275.5	275.5
7. Support Services and Other				
a. Building and Utilities	0.0	0.0	312.7	312.7
b. Human Resources	0.0	0.0	264.1	264.1
c. Actuarial	0.3	48.0	411.3	459.3
d. Legal and Rule Interpretation	1.2	172.5	806.8	979.3
e. Internal and External Audit	0.6	59.5	435.7	495.2
f. Pay-as-you-go Benefits for Retired Staff	n/a	0.0	n/a	0.0
g. Other Support Services	0.9	83.9	268.9	352.8
Total Administration (includes 1f, 1g)	181.6	13,578.8	11,861.7	25,440.5
FTE relating to major projects capitalized, if any, during this fiscal year.	0.0			
Total Administration FTE	181.6			

Appendix A - Survey responses: Service and plan design

North Carolina RS

Survey Question		Your Response			Peers 2023					All Participants 2023						
		2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
Start																
1	North Carolina Retirement Systems															
2	Main survey contact: Cristin Conner Statistician cristin.conner@nctreasurer.com 9198144022															
3	What is the month of your fiscal year-end? [All questions in this survey are for your most recently completed fiscal year.]	June		June												
4	What was the end of fiscal year value of your pension fund assets (in billions)?	\$115.1		\$121.4												
8	What percentage of your total salary and benefits costs relates to benefits?	30.7%		28.9%	46.2%	30.7%	24.3%	32.1%	15	56.4%	27.1%	12.0%	27.8%	44		
9	Can you provide the following information on your core pension administration system: a. What is the current age of your existing system? b. Was it built in-house or by a third party? b1. If third party, what % of customization was required? No service provider. We own the source code and maintain it in house. c. In how many years do you think you will need to replace your existing system? d. If you are in the process of replacing your existing system now: d1. How many years are you in to the project? d2. In how many years do you plan to "go live"? n/a	18.0 Thirdparty 100.0%		n/a n/a n/a	41.0 47% In-House / 33% Third Party / 20% Both / 0% n/a 100.0%	17.5 33% Third Party / 20% Both / 0% n/a 50.0%	3.0 20% Both / 0% n/a 1.0%	18.5 0% n/a 60.1%	14 15 7	41.0 33% In-House / 41% Third Party / 17% Both / 9% n/a 100.0%	14.0 41% Third Party / 17% Both / 9% n/a 40.0%	3.0 17% Both / 9% n/a 1.0%	16.8 58.2%	41 42 24		
		5.0		n/a	15.0	4.0	0.0	4.8	9	15.0	5.0	0.0	5.5	29		
		n/a		n/a	8.5	2.7	1.2	3.9	6	9.0	2.0	0.1	2.8	19		
		n/a		n/a	8.0	2.2	0.3	3.0	6	8.0	4.0	0.3	3.8	18		
Service																
11	What best describes your member service strategy? Digital-only: members are forced to use self-service channels. Assisted service channels are hidden or closed. Digital-first: members are nudged to self-service channels, where appropriate. Assisted service channels remain open. Traditional: members can choose between assisted and self-service channels. There is no strategy to nudge members to digital channels.	Digitalfirst		n/a	7% DigitalOnly / 33% DigitalFirst / 60% Traditional / 0% n/a					15	2% DigitalOnly / 28% DigitalFirst / 63% Traditional / 7% n/a					43

Survey Question		Your Response			Peers 2023					All Participants 2023				
		2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
	If digital-first: do you encourage 1-on-1 counseling as an assisted service option?	Yes		n/a	33% Yes / 7% No / 60% n/a				6	30% Yes / 2% No / 67% n/a				15
	Pension Payments													
12	Do you administer annuity pensions?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	100% Yes / 0% No / 0% n/a				46
13	Were any of your pension payrolls late vis-à-vis your normal payment cycle? [For example, a payroll might be late because of IT system problems.]	No		No	0% Yes / 100% No / 0% n/a				15	0% Yes / 100% No / 0% n/a				46
	If yes:													
	a) How many payrolls were late?	n/a		n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
	b) On average, how many days late were they?	n/a		n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
14	What percentage of pensions are paid by check? [as opposed to Electronic Funds Transfer ("EFT")]	2.0%		2.0%	5.0%	1.3%	0.0%	1.9%	15	8.6%	0.9%	0.0%	1.5%	46
	Pension Inceptions and Written Estimates													
15	How many changes in gross amount of annuity pensions paid occurred as a result of changes in an individual annuitant's personal circumstances?	690		813	2,223	690	0	928	15	30,586	614	0	1,878	46
	For example:													
	• When the spouse of an annuitant dies "last survivor" options result in decreases, and "pop-up" or "reversion" options result in increases. [Exclude annuitant deaths that result in new pensions paid to spouses.]													
	• When an annuitant or their beneficiary becomes eligible for social security, it often results in a reduction of the gross pension paid.													
	• Redesign of the payment option, appeal decisions, high low options shifting to low.													
16	What percentage of annuity inceptions for:													
	a) Retiring active members are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check?	76.7%		81.3%	100.0%	95.4%	4.9%	87.9%	15	100.0%	97.2%	0.0%	88.7%	46
	b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	20.6%		34.2%	100.0%	88.0%	20.0%	73.5%	15	100.0%	80.5%	0.0%	66.7%	46
17	Will you initiate a service retirement pension based on existing data or estimates, recognizing that you will have to finalize the payments later after you get final data?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	78% Yes / 22% No / 0% n/a				46
	a) If yes, what proportion of your service retirement inceptions to retiring active members was based on existing data or estimates?	27.5%		38.3%	100.0%	82.0%	0.1%	73.9%	14	100.0%	64.0%	0.0%	53.7%	35
	b) On average, how long did it take to finalize service retirement inceptions based on estimates? (in months)	6.0		6.0	24.0	1.4	0.0	3.8	14	24.0	1.3	0.0	3.1	36
18	Do you require birth certificates and/or marriage certificates before incepting a pension?	No		No	47% Yes / 53% No / 0% n/a				15	72% Yes / 28% No / 0% n/a				46

Survey Question	Your Response			Peers 2023					All Participants 2023					
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
19 Do you require notarization of normal or early retirement applications? If some, describe those that require versus those that do not: n/a	No		No	13% Yes / 47% No / 40% Some / 0% n/a					15	22% Yes / 61% No / 17% Some / 0% n/a				46
20 What % of vested inactive members that reached their normal retirement age in the year have not received any benefits yet because mail has been returned and the member is unreachable? Pension Estimates	0.1%		n/a	17.0%	1.3%	0.1%	3.2%	8	24.1%	1.0%	0.0%	4.0%	28	
21 Do you offer written pension estimates to members? If no, go directly to question 26.	Yes		Yes	100% Yes / 0% No / 0% n/a					15	100% Yes / 0% No / 0% n/a				46
22 How many written pension estimates did you mail out pursuant to individual member requests? [Exclude estimates prepared during counseling sessions and not mailed in advance.]	1,995		2,804	210,595	7,980	59	28,271	15	210,595	6,929	59	17,387	46	
23 When a member requests multiple different estimate scenarios, do you count each scenario as an 'estimate' or do you count the 'multiple request' as a single estimate? a) If you count each scenario, what is the approximate average number of scenarios per request by a member?	Single Estimate		Single Estimate	60% Each Scenario / 40% Single Estimate					15	65% Each Scenario / 35% Single Estimate				46
	n/a		n/a	22	3	1	5	9	22	2	1	3	29	
24 On average, how many business days does it take to provide a written pension estimate from the time of initial request from a member? [Exclude time in the mail.]	2.5		2.7	60.0	5.6	0.0	11.7	15	60.0	5.0	0.0	9.8	46	
25 Do your written pension estimates (including cover letters, etc. sent with the estimate): a) Clearly address if and how the pension is inflation protected (or not protected)? b) If your pension is coordinated with or reduced by social security (or CPP in Canada) is the impact explained? c) Discuss alternative scenarios that could improve the pension such as purchasing service credit or working longer? d) Model alternative retirement payment options? Refunds, Transfers-out, Withdrawals	Yes		Yes	53% Yes / 47% No / 0% n/a					15	59% Yes / 41% No / 0% n/a				46
	Yes		Yes	33% Yes / 7% No / 60% n/a					6	48% Yes / 15% No / 37% n/a				29
	Yes		Yes	93% Yes / 7% No / 0% n/a					15	78% Yes / 22% No / 0% n/a				46
	Yes		Yes	93% Yes / 7% No / 0% n/a					15	96% Yes / 4% No / 0% n/a				46
26 How many written estimates for refunds/ terminations/ transfer-outs did you prepare in response to member requests? [Include all estimates whether they result in a refund or not.]	379		309	42,783	5,589	0	9,564	12	42,783	3,666	0	7,433	39	
27 How long does it take on average, in business days, for you to complete an individual transfer-out to a member's new pension plan, including delays caused by external parties, beginning from the time of initial request by the member? Purchases and Transfers-in	14		9	285	21	2	46	13	660	30	2	75	41	

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
28 Number of actual:													
a) Prior service credit purchases? [e.g., for prior refunded service, military service, etc.]	460		1,641	8,360	529	78	1,724	15	144,777	524	4	5,232	42
b) In-service credit purchases? [e.g., maternity, parental, sabbatical, educational, illness leaves.]	1,207		n/a	1,695	31	0	401	11	48,028	274	0	2,921	31
c) Upgrades or 'Top-ups' where members can improve their pensionable salary (but not service credit)?	n/a		n/a	34	0	0	2	15	4,990	0	0	114	44
d) Upgrades where members can pay to upgrade from an older retirement formula to a new retirement formula?	n/a		n/a	888	0	0	61	15	2,290	0	0	79	43
e) Individual transfers-in from member's previous pension plan? [For example, many systems have reciprocal agreements with 'sister' plans that permit members to transfer-in credit from their previous employer's pension plan to their new plan and vice versa? Do not include collective transfers-in.]	n/a		n/a	1,085	0	0	170	15	1,963	0	0	242	45
29 How many written purchase, upgrade, or transfer-in estimates did you prepare in response to member requests? [Include all estimates whether these result in a purchase or not.]	2,676		3,545	12,353	2,866	0	4,200	15	37,446	2,946	0	6,114	44
30 On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	4		2	400	5	2	35	14	400	5	0	37	44
31 How long does it take on average, in months, for you to complete an individual transfer-in, including delays caused by external parties?	n/a		n/a	4	2	0	2	12	15	2	0	3	35
Disability													
32 Do you administer:													
a) Long-term disability/ disability pensions?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				46
b) Short-term disability?	No		No	13% Yes / 87% No / 0% n/a				15	9% Yes / 91% No / 0% n/a				46
If you do not administer either short-term or long-term disability, or disability pensions skip to question 36.													
33 Number of:													
a) Applications for disability pensions/ long-term disability?	1,381		1,887	3,005	446	39	693	15	3,005	155	0	341	46
b) Members receiving long-term disability or a disability pension?	7,267		8,575	68,630	7,267	85	12,838	15	68,630	1,892	21	6,190	41
c) Applications for short-term disability (if you administer)?	n/a		n/a	1,394	0	0	93	15	1,394	0	0	38	44
d) Members receiving short-term disability (if you administer)?	n/a		n/a	1,181	0	0	394	3	1,181	0	0	224	7
e) Independent medical examinations for disability application assessment or reassessment paid for by you, if any?	0		0	975	10	0	178	15	1,348	7	0	113	46
f) New members that you reviewed the health status of? [For example, ESSS conducts Medical Classification Reviews on their new members. A Medical classification may reduce a member's entitlement to disability and/or death benefits.]	n/a		n/a	512	0	0	34	15	1,490	0	0	77	44
g) Formal appeals of disability decisions?	0		0	257	17	0	49	15	257	2	0	19	46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
h) Recertifications of disabled members? [For example, Arizona SRS requires an annual opinion from a physician to continue on disability.]	434		258	2,496	434	0	740	13	3,479	111	0	474	33
34 Do you cover non-occupational disability? [Some systems only cover disabilities that happen at work.]	Yes		Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 0% No / 11% n/a				41
a) If yes, does either the amount paid or the taxation of the disability benefit vary depending on whether the disability is occupational versus non-occupational?	No		No	60% Yes / 40% No / 0% n/a				15	43% Yes / 46% No / 11% n/a				41
b) If yes to 'a' immediately above: Number of occupational disability applications?	n/a		n/a	1,957	49	7	376	9	1,957	67	0	267	20
35 How many months, on average, does it take to return a decision on a disability application from:													
a) Date of initial request from a member?	2.0		2.0	20.0	3.0	0.0	3.6	15	20.0	2.0	0.0	3.4	41
b) Date of receipt of all necessary documentation to complete an application?	1.0		1.0	8.0	1.0	0.0	2.1	15	8.0	1.0	0.0	1.7	40
Contact Center													
Volumes													
36 What were your volumes of:													
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?	211,090		222,079	788,606	199,174	78,864	243,614	15	788,606	121,152	18,103	163,680	46
b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up on previous calls?	8,072		Unknown	37,431	5,631	0	8,745	15	43,685	7,919	0	10,041	46
c) Incoming calls satisfied by self-serve options, if any?	151,099		Unknown	1,204,237	4,948	0	126,264	15	1,204,237	0	0	48,878	46
d) Email queries from members?	76,838		61,167	77,217	27,469	0	32,399	15	86,621	13,856	0	23,269	46
e) Member queries via your secure messaging portal?	Unknown		n/a	124,895	17,568	0	27,378	11	124,895	14,057	0	20,764	35
f) Incoming mail?	253,205		259,525	680,851	172,195	20,920	204,788	15	680,851	73,765	5,414	108,616	46
g) Outgoing mail?	381,658		358,139	2,932,042	994,575	139,603	1,215,556	15	2,932,042	392,339	1,315	661,180	46
Before Reaching a Service Rep													
37 What number of member phone calls did not connect to a person during business hours because:													
a) Busy signal, never enters the system?	n/a		n/a	0	0	0	0	4	0	0	0	0	10
b) Caller gets pre-recorded 'call another time' message during business hours?	n/a		Unknown	120,046	27,076	0	42,085	7	120,046	7,363	0	26,282	14
c) Abandoned calls (i.e., caller hangs-up while in a menu)?	15,217		Unknown	141,711	9,582	639	29,591	12	143,125	8,450	0	20,056	33
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	33,887		32,144	262,837	32,027	607	50,226	15	262,837	8,450	363	25,969	45
e) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	n/a		n/a	341,629	170,815	0	170,815	2	341,629	0	0	68,956	5
f) Call rings unanswered during business hours?	n/a		n/a	322	161	0	161	2	1,076	292	0	352	8
38 Do you have a menu system that callers negotiate before speaking to someone?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	85% Yes / 15% No / 0% n/a				46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
If yes: a) What is the average number of menu layers that must be navigated before a caller can speak to a live person? [Count each and every time a caller must select a menu option by pressing a button on the phone as a menu layer. Use the volume-weighted average number of menu layers if callers must negotiate different numbers of menu layers to reach a service representative on some menu-tree branches than on others.]	4		4	4	2	1	2	14	4	1	1	2	39
b) What is the average time in seconds that it would take a caller to negotiate the menu and listen to menu options before the caller is forwarded to a live person (or queue for a live person)?	30		30	209	60	15	71	14	209	60	5	65	39
c) Is the menu system by-passed if a service representative is available?	No		No	0% Yes / 93% No / 7% n/a				14	0% Yes / 85% No / 15% n/a				39
c1) If yes, for what percentage of calls is the menu system by-passed?	n/a		n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
39 Is a receptionist the first point of human contact when a member calls?	No		No	0% Yes / 100% No / 0% n/a				15	4% Yes / 96% No / 0% n/a				46
40 Do you have a queue for service representatives? [The entry to the queue could be a recorded message, a menu system or a receptionist.]	Yes		Yes	100% Yes / 0% No / 0% n/a				15	98% Yes / 2% No / 0% n/a				46
If yes: a) What is the average wait time in seconds in queue for a service representative?	175		175	2,714	278	4	472	15	2,714	151	4	355	45
41 Does your system notify the caller of the expected wait time, or their place in the queue, for reaching a knowledgeable service representative if the expected wait exceeds a certain threshold?	Yes		Yes	73% Yes / 27% No / 0% n/a				15	52% Yes / 48% No / 0% n/a				46
42 Do you have a callback feature on your phone system? [i.e., the caller's telephone number is placed in a queue for callback when their turn comes up]	Yes		Yes	80% Yes / 20% No / 0% n/a				15	57% Yes / 43% No / 0% n/a				46
If yes: a) Can a member request a callback via the website?	Yes		n/a	13% Yes / 67% No / 20% n/a				12	11% Yes / 43% No / 46% n/a				25
b) What was the total volume of callbacks?	32,692		3,714	254,808	36,209	1,005	56,130	12	254,808	24,071	581	37,961	26
c) What is the callback completion rate (i.e., what percentage of callers that chose to be called back, were actually reached)?	Unknown		81.5%	100.0%	95.4%	88.7%	94.5%	12	100.0%	96.4%	88.7%	96.2%	26
After Reaching a Service Rep													
43 What was the:													
a) Average talk time? [Do not include: hold or queuing time prior to a member reaching a knowledgeable person, or hold time after a member has reached a knowledgeable person.]	480		430	539	415	250	415	15	637	394	164	379	45
b) Average after call work time when service representative is unavailable to take another call?	120		121	314	73	8	100	14	328	64	0	98	39
c) Average occupancy %? [time spent handling calls, including after call work, as a percentage of total available time to answer calls.]	85.9%		85.9%	92.8%	80.5%	59.0%	79.8%	12	96.2%	82.6%	37.0%	77.4%	37
d) % of calls satisfied by the first contact?	Unknown		Unknown	98.6%	91.5%	63.4%	88.9%	12	100.0%	92.0%	61.2%	89.8%	39

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
44 When a member calls in, do your service representatives have real-time access to the following member data:													
a) Interactions via calls and email?	Yes		Yes	87% Yes / 13% No / 0% n/a				15	83% Yes / 17% No / 0% n/a				46
b) Copies of recent online correspondence?	Yes		Yes	100% Yes / 0% No / 0% Some				15	96% Yes / 2% No / 2% Some				46
c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No		No	53% Yes / 47% No / 0% n/a				15	78% Yes / 22% No / 0% n/a				46
d) Most recent member statement?	Yes		Yes	100% Yes / 0% No				15	100% Yes / 0% No				46
e) Beneficiary information?	Yes		Yes	100% Yes / 0% No				15	100% Yes / 0% No				46
45 Do your service representatives have real-time access to a workflow system that lets them know the status of open items?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	98% Yes / 2% No / 0% n/a				46
46 Do you provide the following information on real-time basis to members over the phone? [If you do not have real-time access to the information or if your policy is not to give the information over the phone because of security or other concerns then your answer should be 'no'.]													
a) Estimates of the member's pension at retirement?	No		No	67% Yes / 33% No				15	72% Yes / 28% No				46
If yes:													
a1) Can you provide alternate annuity payment options? [i.e., joint and 50% survivor, joint and 70% survivor, etc.]	n/a		n/a	67% Yes / 33% No				15	70% Yes / 26% No				44
a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	n/a		n/a	67% Yes / 33% No				15	65% Yes / 30% No				44
b) Transfer value assuming the member exited employment at the time of the call?	Yes		Yes	93% Yes / 7% No				15	80% Yes / 20% No				46
c) Pensionable salary?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 4% No / 2% n/a				45
d) Service credit history including gaps?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	91% Yes / 7% No / 2% n/a				45
e) Cost to purchase service credit?	No		No	60% Yes / 40% No / 0% n/a				15	65% Yes / 26% No / 9% n/a				42
47 Can members calling in perform the following transactions over the phone:													
a) Change address?	No		No	80% Yes / 20% No / 0% n/a				15	72% Yes / 28% No / 0% n/a				46
b) Change email address?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	78% Yes / 22% No / 0% n/a				46
c) Change payment instructions? [i.e., bank account]	No		No	20% Yes / 80% No / 0% n/a				15	33% Yes / 67% No / 0% n/a				46
48 Do you have the following call center support technology:													
a) Live chat?	Yes		No	7% Yes / 93% No / 0% n/a				15	9% Yes / 91% No / 0% n/a				46
b) Chatbot (or virtual service agent)?	No		No	7% Yes / 93% No / 0% n/a				15	11% Yes / 87% No / 2% n/a				45
c) Co-browsing? [Co-browsing enables joint navigation through the secure member area by the customer service representative and member.]	No		n/a	20% Yes / 80% No / 0% n/a				15	30% Yes / 65% No / 4% n/a				44
Quality and Other													

Survey Question	Your Response			Peers 2023						All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#		Max	Med	Min	Avg	#
49 Do you review your staff's responses to member calls for coaching purposes on a regular basis? [As opposed to intermittent or only while training new service representatives, etc.] If yes: a) How many calls per agent per month (on average) do you monitor? b) Are you listening in on a live call or a recording?	Yes		Yes	100% Yes / 0% No / 0% n/a				15		89% Yes / 11% No / 0% n/a				46
	4		4	15	7	3	7	15		700	5	3	23	41
	Recording		Recording	60% Recording / 7% Live / 33% Both / 0% n/a				15		33% Recording / 15% Live / 41% Both / 11% n/a				41
50 Do you have a toll free number that members can call to speak with a service representative? [Or a number where members are only charged the cost of a local call no matter where they are located.]	Yes		Yes	100% Yes / 0% No / 0% n/a				15		100% Yes / 0% No / 0% n/a				46
51 How many hours per week is your 'call center' operational?	35.0		40.0	50.0	45.0	35.0	44.0	15		62.5	45.0	35.0	45.1	46
52 What is the average time (in business days) to respond to a member query via email or the secure messaging portal? Do not include auto-responses or confirmation of email receipt. 1-on-1 Counseling	2.0		2.0	3.0	1.0	0.2	1.2	15		8.5	1.1	0.2	2.2	46
53 Do you provide 1-on-1 counseling? If you do not offer 1-on-1 counseling skip to question 57.	Yes		Yes	93% Yes / 7% No / 0% n/a				15		96% Yes / 4% No / 0% n/a				46
54 Provide the number of members counseled 1-on-1 that were: a) Pre-scheduled and/or walk-in counseled in-house? [Include only if the member actually sees a counselor. Exclude 'walk-through' traffic (i.e., picking up brochures or forms) where needs can be met by the receptionist.] b) In the field at locations separate from the member's place of employment? c) At the member's place of employment? d) Via teleconference? [These are actual sessions with counselors, and will also include pre-scheduled counseling session covering materials sent to the member in advance.] e) Online, via videoconference	6		n/a	9,535	1,381	0	2,312	14		12,980	1,751	0	2,466	40
	0		n/a	26,670	0	0	2,205	15		26,670	0	0	1,150	45
	0		n/a	1,263	0	0	129	15		4,165	0	0	232	45
	390		1,660	24,409	791	0	3,848	15		113,297	798	0	5,322	45
	587		1,170	12,438	709	0	2,579	15		12,438	520	0	1,669	46
55 Do you provide counseling for walk-in traffic?	No		No	80% Yes / 13% No / 7% n/a				14		72% Yes / 24% No / 4% n/a				44
56 For in-person 1-on-1 counseling sessions: a) Do almost all sessions take place in a private office with a door (versus a cubicle, etc.)? b) Do you have real-time access to the member's data (i.e., salary, service credit, refund value and beneficiaries.)? c) Do you provide new written estimates on a real-time basis for anybody that wants one?	Yes		Yes	87% Yes / 7% No / 7% n/a				14		76% Yes / 7% No / 17% n/a				38
	Yes		Yes	87% Yes / 0% No / 13% n/a				13		83% Yes / 0% No / 17% n/a				38
	Yes		n/a	73% Yes / 7% No / 20% n/a				12		67% Yes / 11% No / 22% n/a				36

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Member Presentations													
57 Do you offer member presentations (including group counseling)? If you do not offer member presentations skip to question 61.	Yes		Yes	93% Yes / 7% No				15	96% Yes / 4% No				46
58 How many presentations (including group counseling sessions) for members or annuitants [exclude presentations to employers] did you do that took place:													
a) In-house?	0		0	134	0	0	13	15	291	0	0	13	46
b) In the field?	0		0	313	88	0	101	15	741	36	0	102	46
c) Online, via a live webinar? [i.e., a real-time, online presentation that allows two-way communication between the presenter and audience]	174		108	955	161	27	255	14	955	93	6	173	44
59 What was the total number of attendees at all of the presentations per the question 58 above?	10,523		7,543	40,269	12,078	1,681	15,988	14	62,638	8,010	508	11,408	44
60 Did you do specific presentations for members, in the past fiscal year, targeted solely for:													
a) New members?	No		Yes	80% Yes / 13% No / 7% n/a				14	83% Yes / 13% No / 4% n/a				44
b) Members in mid career?	No		Yes	80% Yes / 13% No / 7% n/a				14	85% Yes / 11% No / 4% n/a				44
c) Members approaching retirement or ready to retire?	No		Yes	87% Yes / 7% No / 7% n/a				14	93% Yes / 2% No / 4% n/a				44
d) Healthcare?	No		Yes	53% Yes / 40% No / 7% n/a				14	41% Yes / 54% No / 4% n/a				44
e) Changes to benefits?	No		No	40% Yes / 53% No / 7% n/a				14	41% Yes / 54% No / 4% n/a				44
f) Other? (Please describe)	No		No	67% Yes / 27% No / 7% n/a				14	46% Yes / 50% No / 4% n/a				44
n/a													
Website													
61 Does your website have a secure member area where:													
a) Active members can access their own data?	Yes		n/a	100% Yes / 0% No / 0% n/a				15	93% Yes / 2% No / 4% n/a				44
b) Inactive members can access their own data?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				46
c) Annuitants can access their own data?	Yes		n/a	100% Yes / 0% No / 0% n/a				15	89% Yes / 7% No / 4% n/a				44
d) Is the member's name prominently displayed on the home page in their secure member area?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	100% Yes / 0% No / 0% n/a				46
62 Is the secure member area customized to only show options relevant to each member group? [e.g., active members see different options than annuitants]													
a) Active members?	Yes		n/a	100% Yes / 0% No / 0% n/a				15	93% Yes / 0% No / 7% n/a				43
b) Inactive members?	Yes		n/a	100% Yes / 0% No / 0% n/a				15	80% Yes / 7% No / 13% n/a				40
c) Annuitants?	Yes		n/a	100% Yes / 0% No / 0% n/a				15	89% Yes / 0% No / 11% n/a				41
63 How many unique members accessed the secure area in the year (count a member only once even if they visited multiple times)?													

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Active members?	553,364		n/a	557,445	114,296	35,981	199,824	15	557,445	74,050	4,558	108,746	46
b) Inactive members?	184,455		n/a	234,109	29,474	6,123	53,180	15	234,109	11,118	173	23,757	46
c) Annuitants?	176,718		n/a	387,404	66,745	31,335	128,993	15	387,404	45,381	3,194	66,374	46
d) Total (please provide - even if you can't split between members)	1,013,332		552,965	1,013,332	216,423	65,841	383,063	15	1,013,332	133,928	5,772	199,350	46
64 Provide the total number of visits to the secure area of the website [i.e., if one member logs in 3 times then the answer is 3]	2,581,160		971,338	3,947,897	1,227,614	158,197	1,636,382	15	3,947,897	633,996	18,885	935,830	46
65 Do you have pension estimate calculator:													
a) In the non-secure area?	Yes		Yes	47% Yes / 53% No / 0% n/a				15	43% Yes / 54% No / 2% n/a				45
ai) Volume in the non-secure area?	23,356		444,452	378,610	162,505	23,356	163,119	7	378,610	60,770	5,480	95,487	20
b) In the secure area, linked to a member's salary and service data?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	96% Yes / 4% No / 0% n/a				46
bi) Volume in the secure area, linked to a member's salary and service data?	981,880		554,924	981,880	284,908	58,868	345,185	14	981,880	115,951	1,420	193,219	44
If yes, can the member:													
b1) Model different retirement start dates?	Yes		n/a	87% Yes / 7% No / 7% n/a				14	87% Yes / 4% No / 9% n/a				42
b2) Model salary changes?	Yes		n/a	93% Yes / 0% No / 7% n/a				14	85% Yes / 7% No / 9% n/a				42
b3) Model different working percentages (e.g., part-time or early termination)?	No		n/a	73% Yes / 20% No / 7% n/a				14	65% Yes / 26% No / 9% n/a				42
b4) Model alternative payment options?	Yes		n/a	87% Yes / 7% No / 7% n/a				14	78% Yes / 13% No / 9% n/a				42
b5) Do you have a pension estimate calculator that provides estimates of:													
b5i) Gross and net retirement income?	Gross		n/a	53% Gross / 0% Net / 14% Both / 27% Neither / 7% n/a				14	70% Gross / 9% Net / 13% Both / 0% Neither / 9% n/a				42
b5ii) Monthly and annual retirement income?	Monthly		n/a	53% Monthly / 0% Annual / 33% Both / 7% Neither / 7% n/a				14	48% Monthly / 6% Annual / 37% Both / 0% Neither / 9% n/a				42
b5iii) Are various estimates run consolidated in a one-page summary for comparative purposes?	Yes		n/a	47% Yes / 47% No / 7% n/a				14	41% Yes / 50% No / 9% n/a				42
66 Are users required to acknowledge a disclaimer every time they:													
a) Log in?	No		No	20% Yes / 80% No				15	11% Yes / 89% No				46
b) Calculate a pension estimate?	No		No	27% Yes / 73% No / 0% n/a				15	41% Yes / 57% No / 2% n/a				45
67 Indicate whether the following capabilities are available on your website:													
a) Submit a retirement application online?	Yes		Yes	80% Yes / 13% No / 7% n/a				14	63% Yes / 35% No / 2% n/a				45
ai) Volume of retirement application online?	9,059		6,246	18,143	6,492	3,380	7,395	12	18,143	4,860	106	5,179	27
If yes:													
a1) Is the member provided with an estimate, final gross (or net) amount, or neither?	Estimate		Estimate	0% Final / 47% Neither / 33% Estimate / 20% n/a				12	4% Final / 30% Neither / 28% Estimate / 37% n/a				29
a2) What percent of online applications require follow-up?	100.0%		100.0%	100.0%	40.9%	1.0%	51.2%	11	100.0%	25.0%	0.0%	46.8%	23
a3) Can the member view the status of online retirement application?	Yes		Yes	73% Yes / 7% No / 20% n/a				12	48% Yes / 22% No / 30% n/a				32
b) Prior service credit purchase calculator?	Yes		Yes	87% Yes / 7% No / 7% n/a				14	72% Yes / 20% No / 9% n/a				42

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b1) Is the purchase estimate final? i.e., it won't change if the member chooses to purchase within a set time period?	No		n/a	20% Yes / 47% No / 33% n/a				10	17% Yes / 41% No / 41% n/a				27
c) In-service credit purchase calculator? [e.g., maternity, parental, sabbatical, educational, illness leave.]	Yes		n/a	53% Yes / 40% No / 7% n/a				14	37% Yes / 46% No / 17% n/a				38
c1) Is the purchase estimate final? i.e., it won't change if the member chooses to purchase within a set time period?	No		n/a	33% Yes / 27% No / 40% n/a				9	17% Yes / 24% No / 59% n/a				19
d) Apply for a prior service credit purchase?	No		n/a	47% Yes / 53% No / 0% n/a				15	28% Yes / 63% No / 9% n/a				42
e) Apply for an in-service credit purchase?	No		n/a	33% Yes / 60% No / 7% n/a				14	22% Yes / 65% No / 13% n/a				40
f) Apply for a transfer-in?	No		n/a	27% Yes / 73% No / 0% n/a				15	17% Yes / 70% No / 13% n/a				40
g) Apply for transfer-out?	Yes		No	80% Yes / 20% No / 0% n/a				15	43% Yes / 52% No / 4% n/a				44
h) Change address?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	98% Yes / 2% No / 0% n/a				46
i) Change beneficiary?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	78% Yes / 22% No / 0% n/a				46
j) Change email address?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	98% Yes / 2% No / 0% n/a				46
k) Change banking information for direct deposit?	Yes		Yes	87% Yes / 13% No / 0% n/a				15	70% Yes / 30% No / 0% n/a				46
l) Change tax withholding amount?	Yes		Yes	87% Yes / 13% No / 0% n/a				15	67% Yes / 33% No / 0% n/a				46
m) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes		Yes	93% Yes / 7% No / 0% n/a				15	93% Yes / 7% No / 0% n/a				46
n) View pension payment details? [i.e., gross amounts, deductions]	Yes		Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 7% No / 0% n/a				46
o) Secure portal that includes a member's history of recent correspondence?	No		No	73% Yes / 27% No / 0% n/a				15	70% Yes / 30% No / 0% n/a				46
p) Upload documents?	Yes		No	73% Yes / 27% No / 0% n/a				15	67% Yes / 33% No / 0% n/a				46
q) Is the most recent member statement available online?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	100% Yes / 0% No / 0% n/a				46
r) View pensionable earnings and/or service without downloading?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				46
If yes:													
r1) Is salary and service data available?	Yes		Yes	93% Yes / 0% No / 7% n/a				14	89% Yes / 0% No / 11% n/a				41
r2) Is online data up-to-date to the most recent pay period?	Yes		Yes	87% Yes / 7% No / 7% n/a				14	74% Yes / 15% No / 11% n/a				41
r3) Is a complete annual history from the beginning of employment provided?	Yes		Yes	73% Yes / 20% No / 7% n/a				14	50% Yes / 39% No / 11% n/a				41
68 Can members change their communication preferences in the secure member area?	Yes		n/a	67% Yes / 33% No / 0% n/a				15	72% Yes / 24% No / 4% n/a				44
Targeted Campaigns													
69 What % of email addresses do you have for the following member groups:													
a) Active members?	73.7%		65.1%	98.6%	73.7%	46.0%	75.1%	15	99.0%	76.9%	9.0%	73.9%	45
b) Vested Inactive members?	Unknown		Unknown	77.0%	46.1%	12.0%	47.9%	14	95.5%	49.1%	0.0%	49.3%	43
c) Annuitants?	74.6%		56.1%	93.0%	76.0%	50.3%	74.6%	15	99.7%	69.6%	0.0%	66.6%	44

Survey Question	Your Response			Peers 2023					All Participants 2023					
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
70 Do you automatically send targeted emails, letters or, other correspondence (e.g., social media or text messages) to members in the following circumstances:														
a1) Approaching eligibility for retirement? (Active members)	No		n/a	60% Yes / 40% No / 0% n/a					15	46% Yes / 48% No / 7% n/a				
a2) Approaching eligibility for retirement? (Inactive members)	Yes		n/a	67% Yes / 33% No / 0% n/a					15	48% Yes / 48% No / 4% n/a				
b1) Missing beneficiary information? (Active members)	No		n/a	27% Yes / 73% No / 0% n/a					15	28% Yes / 65% No / 7% n/a				
b2) Missing beneficiary information? (Inactive members)	No		n/a	7% Yes / 93% No / 0% n/a					15	17% Yes / 78% No / 4% n/a				
b3) Missing beneficiary information? (Annuitants)	No		n/a	7% Yes / 93% No / 0% n/a					15	17% Yes / 74% No / 9% n/a				
c1) Missing email address? (Active members)	No		No	7% Yes / 93% No / 0% n/a					15	11% Yes / 87% No / 2% n/a				
c2) Missing email address? (Inactive members)	No		n/a	0% Yes / 100% No / 0% n/a					15	7% Yes / 89% No / 4% n/a				
c3) Missing email address? (Annuitants)	No		n/a	7% Yes / 93% No / 0% n/a					15	7% Yes / 89% No / 4% n/a				
d1) Missing address? (Inactive members)	No		n/a	0% Yes / 100% No / 0% n/a					15	7% Yes / 89% No / 4% n/a				
d2) Missing address? (Annuitants)	No		n/a	20% Yes / 80% No / 0% n/a					15	13% Yes / 83% No / 4% n/a				
e) New members?	No		No	87% Yes / 13% No / 0% n/a					15	87% Yes / 13% No / 0% n/a				
f) Eligibility or likely eligibility, to purchase prior service credit?	No		No	7% Yes / 93% No / 0% n/a					15	26% Yes / 72% No / 2% n/a				
g) Members are vested for pension benefits (if not vested immediately)?	No		No	40% Yes / 53% No / 7% n/a					14	26% Yes / 57% No / 17% n/a				
h) Eligibility to purchase in-leave service credit?	No		n/a	0% Yes / 93% No / 7% n/a					14	17% Yes / 65% No / 17% n/a				
i) Leaving the plan?	Yes		n/a	40% Yes / 60% No / 0% n/a					15	52% Yes / 43% No / 4% n/a				
j) New retirees?	Yes		n/a	60% Yes / 40% No / 0% n/a					15	70% Yes / 26% No / 4% n/a				
k) Pension amount changes?	Yes		n/a	60% Yes / 33% No / 7% n/a					14	74% Yes / 17% No / 9% n/a				
l) Members are vested for disability benefits (if not vested immediately)?	No		No	13% Yes / 80% No / 7% n/a					14	11% Yes / 70% No / 20% n/a				
m) Expiration of disability benefits for inactive members?	Yes		Yes	27% Yes / 73% No / 0% n/a					15	24% Yes / 59% No / 17% n/a				
n) Other milestone communication? (describe below) n/a	No		No	47% Yes / 53% No / 0% n/a					15	61% Yes / 39% No / 0% n/a				
71 How many times did you send newsletter to the following member segments in the past year:														
a) Active members?	1		11	13	3	1	4	15	35	2	0	4	43	
b) Inactive members?	1		n/a	12	1	0	2	11	12	2	0	2	34	
c) Annuitants?	2		5	12	3	2	4	15	12	2	0	3	43	
72 Do the following member segments receive a different newsletter from the other member groups?														
a) Active members?	Yes		n/a	80% Yes / 13% No / 7% n/a					14	67% Yes / 17% No / 15% n/a				
b) Inactive members?	No		n/a	20% Yes / 40% No / 40% n/a					9	24% Yes / 41% No / 35% n/a				
c) Annuitants?	Yes		n/a	87% Yes / 7% No / 7% n/a					14	72% Yes / 13% No / 15% n/a				
Member Statement														

Survey Question	Your Response			Peers 2023					All Participants 2023						
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
73 Do you send member statements to: a) Active members, either all members or all members that have opted in to receiving mail? b) Active members who have not accessed the secure member portal in the last year? c) Inactive members, either all members or all members that have opted in to receiving mail? d) Do you send an email notice or text message to members (that have opted out of receiving mail) annually that the member statement is available online?	No No No Yes		n/a n/a n/a n/a	53% Yes / 47% No / 0% n/a 47% Yes / 53% No / 0% n/a 47% Yes / 53% No / 0% n/a 40% Yes / 33% No / 27% n/a					15 15 15 11	67% Yes / 28% No / 4% n/a 54% Yes / 33% No / 13% n/a 52% Yes / 43% No / 4% n/a 57% Yes / 26% No / 17% n/a					44 40 44 38
74 On average, how current is an active member's data in the statements that the member receives (in months)? [For example, if statements with data current to December 31st are mailed in a staggered mailing beginning May 1st and finishing June 30th, then the members are receiving data that is between 4 and 6 months old, or 5 months old on average.]	5		5	5	2	0	2	15	6	2	0	3	43		
75 Do your paper or online statements for active members include: a) Total accumulated service credit? b) Pensionable earnings? c) A historical summary of salary and service credit earned each year? d) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement? Collections and Data Maintenance	Yes Yes No Yes		Yes Yes No Yes	100% Yes / 0% No / 0% n/a 73% Yes / 27% No / 0% n/a 40% Yes / 60% No / 0% n/a 80% Yes / 20% No / 0% n/a					15 15 15 15	98% Yes / 0% No / 2% n/a 87% Yes / 11% No / 2% n/a 33% Yes / 65% No / 2% n/a 83% Yes / 15% No / 2% n/a					45 45 45 45
76 Number of: a) Employers at the end of your fiscal year? b) Employers that joined your system during the fiscal year? c) Employers that exited your system during the fiscal year?	2,808 5 14		2,784 4 8	3,908 18 14	1,385 6 4	638 1 0	1,731 7 4	15 15 15	3,908 26 16	587 3 1	1 0 0	863 5 3	46 46 46		
77 How many 'collection points' (i.e., employers, state agencies, departments and/or service providers etc) do you deal with for collecting: a) Member payroll data? b) Money (i.e., contributions)? [Your number of 'collection points' could be less than your number of employers if, for example, some of your payroll data comes from a central agency that processes payroll data from numerous employers and then provides it to you in a consolidated, integrated format.]	2,808 2,808		2,784 2,784	3,600 3,097	1,132 1,132	93 93	1,552 1,500	15 15	3,600 3,097	525 525	1 1	799 781	46 46		

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
78 How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when: a) Validating member data? b) Reconciling money issues (i.e., contributions)? [For most systems, the number of 'reconciliation points' will be the same as the number of 'collection points' per question immediately above. But they could be different. For example, MOSERS has 1 primary collection point - the Office of Administration. The Office of Administration does not check to see if employers have sent the correct amount. MOSERS has to go back to the individual payroll offices at each employer to reconcile money problems and validate data.]	2,808 2,808		2,784 2,784	3,600 3,600	1,385 1,301	566 93	1,713 1,586	15 15	3,600 3,600	630 523	1 1	880 817	46 46
79 What is the breakdown of 'collection points' providing you with payroll data between the following formats and what is the total number of active members covered by each format? a) 100% electronic? [No manual steps required unless there are errors.] b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.] c) Computer readable? [i.e., via computer tape or disk] d) Paper? Total # of active members a) 100% electronic? [No manual steps required unless there are errors.] b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.] c) Computer readable? [i.e., via computer tape or disk] d) Paper?	1,692 0 0 1,116 462.9K 0.0K 0.0K 11.0K		1,163 0 0 1,621 447.0K 0.0K 0.0K 18.0K	3,600 361 0 1,116 924.1k 622.0k 0.0k 498.0k	1,132 0 0 0 214.9k 0.0k 0.0k 0.0k	93 0 0 0 7.3k 0.0k 0.0k 0.0k	1,446 46 0 82 333.8k 89.9k 0.0k 46.5k	15 15 15 15 15 12 11 11	3,600 1,549 2 1,116 83,018.0k 54,805.0k 4.0k 498.0k	472 0 0 0 163.0k 0.0k 0.0k 0.0k	0 0 0 0 0.0k 0.0k 0.0k 0.0k	709 69 0 27 2,044.4k 1,682.2k 0.1k 15.1k	46 46 46 46 45 37 34 34
80 How many warrants of execution or court orders did you obtain against delinquent employers?	0		0	1	0	0	0	15	1	0	0	0	46
81 What % of your active and inactive member on-line records are complete and accurate? [For example, you don't have to double check paper records or check non-recent data with employers prior to incepting a pension. On-line data may be inaccurate because of poor collection processes, or poor transfer of paper records in the past, or merging in new employers with bad data, etc.]	99.0%		99.0%	100.0%	99.0%	74.0%	95.2%	15	100.0%	95.7%	68.0%	94.6%	46
82 Do you actively keep track of the addresses of inactive members?	Yes		Yes	87% Yes / 13% No				15	78% Yes / 22% No				46
83 Do you have a diagnostic software system for detecting and correcting contribution errors?	Yes		Yes	100% Yes / 0% No				15	83% Yes / 17% No				46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
84 When you get an address change, how many systems do you need to update? Service to Employers	1		1	2	1	1	1	15	2	1	1	1	46
85 Number of:													
a) Incoming calls from employers?	3,711		2,498	112,057	11,810	1,423	19,774	15	112,057	6,277	48	9,880	46
b) Email queries from employers?	Unknown		Unknown	132,741	19,358	3,682	26,136	15	213,367	18,220	302	23,866	46
c) Conferences for employers (conferences must span more than half a day and typically involve multiple presentations)? [For example, some administrators with multiple employers host an annual conference to update the employers on trends, regulation, legislation, and new services that might affect their pension plan].	0		0	8	0	0	1	15	30	0	0	2	46
d) Presentations given to employers such as orientation workshops or seminars on benefit changes, etc. (do not include presentations given at conferences)?	0		20	328	35	0	56	15	398	17	0	46	46
e) On-site reviews (or audits or inspections) of your employers? [For example, several systems perform reviews of their employers that have problems providing data and or contributions on a timely basis to ensure that they are correctly fulfilling their obligations to their members.]	0		0	344	67	0	70	15	344	0	0	43	46
f) Other site visits to employers (exclude 'd' and 'e' above)?	0		0	9	0	0	1	15	262	0	0	8	46
Governance and Financial Control													
86 Indicate the oversight bodies that you reported to last year, and the number of meetings, excluding investment related meetings, that you participated in:													
a) Board of Trustees?	Yes		Yes	80% Yes / 20% No / 0% n/a				15	85% Yes / 15% No / 0% n/a				46
b) Non-board legislative oversight committee?	Yes		Yes	60% Yes / 40% No				15	48% Yes / 52% No				46
c) Advisory committee?	Yes		Yes	47% Yes / 53% No				15	37% Yes / 63% No				46
d) Members' Council?	No		No	0% Yes / 100% No				15	4% Yes / 96% No				46
e) Other (describe below)?	No		No	47% Yes / 53% No				15	43% Yes / 57% No				46
n/a													
# of meetings, including sub-committees, last year													
a) Board of Trustees?	4		4	30	14	4	16	12	125	20	4	24	39
b) Non-board legislative oversight committee?	2		2	44	6	2	11	9	44	6	1	11	22
c) Advisory committee?	1		1	8	5	1	4	7	8	3	0	3	17
d) Members' Council?	n/a		n/a	n/a	n/a	n/a	n/a	0	8	5	1	5	2
e) Other (describe below)?	n/a		n/a	48	4	1	11	7	79	4	1	13	20

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
87 Did you have any material legislative changes or other unusual events that materially affected your costs and/ or service in the most recent fiscal year? a) If yes, describe: - Larger than normal number of retirements (possibly post-pandemic factors). - IRS change to tax withholding requirements / forms effective January 2023. Required change in withholding processes and member concerns. - One-time supplemental payment to State retirees/beneficiaries enacted for October 2022 (equal to 4% of annual pension). Member Experience	Yes		Yes	53% Yes / 47% No				15	35% Yes / 65% No				46
88 Did you send any satisfaction or member experience surveys in your most recent fiscal year?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 7% No / 0% n/a				46
a. Did you survey a sample of the following customer groups:													
a1. Active members	No		No	87% Yes / 13% No / 0% n/a				15	78% Yes / 15% No / 7% n/a				43
a2. Annuitants	No		No	87% Yes / 13% No / 0% n/a				15	80% Yes / 11% No / 9% n/a				42
a3. Inactive members	No		No	53% Yes / 47% No / 0% n/a				15	57% Yes / 37% No / 7% n/a				43
b. Did you send a survey focused on a sample of members that recently engaged with your plan?	Yes		Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 2% No / 4% n/a				44
b1. Calls													
b1a. Satisfaction / Net Promoter Score (NPS)	Yes		Yes	80% Yes / 20% No / 0% n/a				15	76% Yes / 17% No / 7% n/a				43
b1b. Effort	n/a		n/a	40% Yes / 0% No / 60% n/a				6	43% Yes / 0% No / 57% n/a				20
b1c. Was the time between the interaction and the survey less than 2 days?	Yes		n/a	80% Yes / 0% No / 20% n/a				12	76% Yes / 0% No / 24% n/a				35
b2. Self-service website													
b2a. Satisfaction / Net Promoter Score (NPS)	Yes		Yes	47% Yes / 53% No / 0% n/a				15	52% Yes / 41% No / 7% n/a				43
b2b. Effort	n/a		n/a	40% Yes / 0% No / 60% n/a				6	37% Yes / 0% No / 63% n/a				17
b2c. Was the time between the interaction and the survey less than 2 days?	Yes		n/a	53% Yes / 0% No / 47% n/a				8	54% Yes / 0% No / 46% n/a				25
b3. 1-on-1 counseling													
b3a. Satisfaction / Net Promoter Score (NPS)	Yes		Yes	73% Yes / 27% No / 0% n/a				15	80% Yes / 13% No / 7% n/a				43
b3b. Effort	n/a		n/a	20% Yes / 0% No / 80% n/a				3	41% Yes / 0% No / 59% n/a				19
b3c. Was the time between the interaction and the survey less than 2 days?	Yes		n/a	73% Yes / 0% No / 27% n/a				11	80% Yes / 0% No / 20% n/a				37
b4. Member presentations													
b4a. Satisfaction / Net Promoter Score (NPS)	Yes		Yes	87% Yes / 13% No / 0% n/a				15	80% Yes / 13% No / 7% n/a				43

Survey Question	Your Response			Peers 2023					All Participants 2023						
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
b4b. Effort	n/a		n/a	27% Yes / 0% No / 73% n/a					4	35% Yes / 0% No / 65% n/a					16
b4c. Was the time between the interaction and the survey less than 2 days?	Yes		n/a	87% Yes / 0% No / 13% n/a					13	80% Yes / 0% No / 20% n/a					37
b5. New member enrollment															
b5a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	7% Yes / 93% No / 0% n/a					15	15% Yes / 85% No / 0% n/a					46
b5b. Effort	n/a		n/a	7% Yes / 0% No / 93% n/a					1	15% Yes / 0% No / 85% n/a					7
b6. Leaving the pension plan															
b6a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	27% Yes / 0% No / 73% n/a					4	22% Yes / 0% No / 78% n/a					10
b6b. Effort	n/a		n/a	20% Yes / 0% No / 80% n/a					3	17% Yes / 0% No / 83% n/a					8
b7. Leave of absence															
b7a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	0% Yes / 0% No / 100% n/a					0	9% Yes / 0% No / 91% n/a					4
b7b. Effort	n/a		n/a	0% Yes / 0% No / 100% n/a					0	9% Yes / 0% No / 91% n/a					4
b8. Divorce															
b8a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	13% Yes / 0% No / 87% n/a					2	11% Yes / 0% No / 89% n/a					5
b8b. Effort	n/a		n/a	7% Yes / 0% No / 93% n/a					1	9% Yes / 0% No / 91% n/a					4
b9. Disability															
b9a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	47% Yes / 53% No / 0% n/a					15	39% Yes / 52% No / 9% n/a					42
b9b. Effort	n/a		n/a	27% Yes / 0% No / 73% n/a					4	22% Yes / 0% No / 78% n/a					10
b10. Retirement experience															
b10a. Satisfaction / Net Promoter Score (NPS)	Yes		Yes	67% Yes / 33% No / 0% n/a					15	61% Yes / 30% No / 9% n/a					42
b10b. Effort	n/a		n/a	33% Yes / 0% No / 67% n/a					5	33% Yes / 0% No / 67% n/a					15
Plan Design															
Plan Characteristics															
89 Indicate 'yes' if your employers/ member groups can be described as the following (indicate all that apply):															
a) Is your membership limited to a city or county?	No		No	0% Yes / 100% No					15	7% Yes / 93% No					46
b) Participating Local Employers (i.e., municipalities have a choice in participating in your plan)?	Yes		Yes	73% Yes / 27% No					15	52% Yes / 48% No					46
c) State, Province, Country?	Yes		Yes	87% Yes / 13% No					15	76% Yes / 24% No					46
d) Teachers?	Yes		Yes	73% Yes / 27% No					15	63% Yes / 37% No					46
e) School Employees (Custodians, Admin. Staff)?	Yes		Yes	87% Yes / 13% No					15	70% Yes / 30% No					46
f) Safety (Police, Fire, Sheriff's Dept, etc) ?	Yes		Yes	80% Yes / 20% No					15	70% Yes / 30% No					46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
g) Other (Judges, Legislators, etc)?	Yes		Yes	80% Yes / 20% No				15	63% Yes / 37% No				46
h) Corporate?	No		No	0% Yes / 100% No				15	7% Yes / 93% No				46
i) Industry?	No		No	0% Yes / 100% No				15	15% Yes / 85% No				46
i1) If Industry, describe the industry: n/a													
90 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups: A plan is non-optional if members must participate in it, or choose between it and alternatives. Do not include membership in benefit plans that are supplemental and optional such as deferred compensation 457, 403B or 401(k) plans. Do not include plans administered by a 3rd party.													
a) Traditional Defined Benefit ("DB")?	Yes		Yes	93% Yes / 7% No				15	96% Yes / 4% No				46
b) DB Cash Balance (aka Money Purchase)?	No		No	13% Yes / 87% No				15	7% Yes / 93% No				46
c) Hybrid DB/ DC Cash Balance?	No		No	7% Yes / 93% No				15	9% Yes / 91% No				46
d) Hybrid DB/ Money Match?	No		No	7% Yes / 93% No				15	2% Yes / 98% No				46
e) DROP savings?	No		No	7% Yes / 93% No				15	9% Yes / 91% No				46
f) Defined Contribution ("DC")?	No		No	33% Yes / 67% No				15	24% Yes / 76% No				46
g) Hybrid DB/ DC?	No		No	47% Yes / 53% No				15	30% Yes / 70% No				46
h) Other (describe)? n/a	No		No	0% Yes / 100% No				15	4% Yes / 96% No				46
91 Do members in any of your defined benefit plan(s) have the option of electing: [These questions are not applicable for DC plans or the DC portion of hybrid DB/DC plans]													
a) A 'variable investment option' that can increase or decrease the value of a member's future DB pension depending on the investment performance of a 'variable fund'?	No		No	7% Yes / 93% No				15	4% Yes / 96% No				46
b) A 'pension savings overlay'? [Some Dutch systems have this option. The additional contributions are converted into an annuity at retirement. Interest is based on a fixed percentage or on the performance of the pension fund.]	No		No	20% Yes / 80% No				15	9% Yes / 91% No				46
c) To change their contribution rate in order to get either more money at retirement or earlier eligibility to retire?	No		No	7% Yes / 93% No				15	7% Yes / 93% No				46
92 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable earnings?	Yes		Yes	80% Yes / 20% No				15	70% Yes / 30% No				46
93 Are any of the following activities administered by a third party:													

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) DB administration?	No		No	0% Yes / 100% No				15	9% Yes / 91% No				46
b) DC administration?	Yes		Yes	73% Yes / 13% No / 13% n/a				13	41% Yes / 33% No / 26% n/a				34
c) Pensioner data maintenance?	No		No	0% Yes / 100% No				15	11% Yes / 89% No				46
d) Active member data maintenance?	No		No	0% Yes / 100% No				15	9% Yes / 91% No				46
e) Contribution collection?	No		No	0% Yes / 100% No				15	11% Yes / 89% No				46
f) Disability decisions?	No		No	40% Yes / 60% No				15	39% Yes / 61% No				46
94 Which of the following programs do you offer to members AND administer yourself? [i.e., design, enrolment, premium collection]													
a) Pre-retirement health?	No		No	13% Yes / 87% No				15	7% Yes / 93% No				46
b) Post-retirement health?	No		No	47% Yes / 53% No				15	24% Yes / 76% No				46
c) Pre-retirement dental and vision?	No		No	7% Yes / 93% No				15	2% Yes / 98% No				46
d) Post-retirement dental and vision?	No		No	40% Yes / 60% No				15	20% Yes / 80% No				46
e) Long-term care insurance?	No		No	13% Yes / 87% No				15	7% Yes / 93% No				46
f) Loans to members?	No		No	7% Yes / 93% No				15	9% Yes / 91% No				46
g) Optional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.]	Yes		Yes	40% Yes / 60% No				15	26% Yes / 74% No				46
h) Optional insurance? [i.e., life and/or auto and/or home]	Yes		Yes	20% Yes / 80% No				15	15% Yes / 85% No				46
i) Other (describe)?	No		No	20% Yes / 80% No				15	17% Yes / 80% No				45
n/a													
n/a													
n/a													
95 Is your organization directly responsible for both investments and pension administration?	No		No	67% Yes / 33% No				15	59% Yes / 41% No				46
96 Does your board have an organization separate from the plan administrator that supports the Board and helps oversee the administrator? [This separate organization may also be responsible for public relations and select administrative duties and projects such as designing communication materials.]	No		No	0% Yes / 100% No				15	17% Yes / 83% No				46
97 Does your board have the power on its own to approve your operating budget? [i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister and General Assembly, etc.]	No		No	33% Yes / 60% No				14	48% Yes / 48% No				44
Paying Pension Rules													
98 Do you make payments to annuitants that are accounted for separately from the normal pension?	Yes		Yes	67% Yes / 33% No				15	43% Yes / 57% No				46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<p>[For example :</p> <ul style="list-style-type: none"> • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These contributions are often reimbursed to the pensioner. The accounting and the member's payment advice shows 2 different payments (the pension + the reimbursement) and 1 collection (the required contribution).] 													
99 Do you:													
a) Check income of non-disabled pensioners? [For most systems this does not apply. At a few systems, if a pensioner's income from other sources exceeds a certain amount, his/her pension could be stopped or reduced.]	Yes		Yes	47% Yes / 53% No				15	37% Yes / 63% No				46
b) Check income of disabled members after they have started receiving disability payments?	Yes		Yes	93% Yes / 7% No / 0% n/a				15	65% Yes / 30% No / 4% n/a				44
c) Check school status? [For example, some systems will check that a dependent beneficiary is still eligible to receive a survivor pension benefit.]	No		No	33% Yes / 67% No				15	54% Yes / 46% No				46
d) Do proof-of-life checks that require individual annuitants to provide affidavits or notarization or similar proof of life?	Yes		Yes	93% Yes / 7% No				15	85% Yes / 15% No				46
e) Provide written confirmations of pensioner income or member account balances to third-parties? [For example, provide confirmation of income or account value for loans or for social security or subsidized housing, etc.]	Yes		Yes	100% Yes / 0% No				15	91% Yes / 9% No				46
Payment Options													
100 Do you offer "joint and survivor" options that are:													
a) Reduced to Beneficiary Only? [For example, If the beneficiary dies first, then the retiree's pension continues at the same level. However if the retiree dies first then the beneficiary receives a reduced pension (such as 70% for spouse).]	Yes		Yes	73% Yes / 27% No				15	76% Yes / 24% No				46
b) Reduced to Last Survivor? [For example, if either the retiree or beneficiary dies the survivor receives a reduced pension (such as 70%).]	No		No	27% Yes / 73% No				15	30% Yes / 70% No				46
c) "Reversion" or "Pop-up"? [For example, if the beneficiary dies first, the retiree's pension increases to an unmodified level. However, if the retiree dies first the pension does not increase for the surviving beneficiary (and it may decrease).]	Yes		Yes	87% Yes / 13% No				15	61% Yes / 39% No				46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
101 Do you limit the number of Joint and Beneficiary or Survivor percentages (i.e., 100% Survivor, 50% Survivor, etc.)? If you permit an unlimited number of percentages, then your response should be no. a) How many percentages do you permit?	Yes 2		Yes 2	60% Yes / 40% No 91	3	2	13	15 9	67% Yes / 30% No 91	3	2	10	45 31
102 Do any of your retirement formula for members explicitly subtract estimated Social Security (or CPP in Canada) when determining the benefit? a) If yes, is this true for all of your members or are some pensions reduced to reflect Social Security and others not? b) If yes, do you have a "Level Income" option for early retirees that pays a higher benefit to members prior to age 65 and then reduces the benefit at age 65 when social security (or CPP in Canada) starts to be paid?	Yes Some Yes		Yes Some Yes	27% Yes / 73% No 0% All / 27% Some / 73% n/a 20% Yes / 7% No				15 4 4	50% Yes / 50% No 9% All / 41% Some / 50% n/a 46% Yes / 4% No				46 23 23
103 Do you have "High/ Low" or "Low/High" options that are not tied to social security? [For example, a retiree might want higher payments for 10 years until a mortgage obligation is repaid, followed by lower payments.]	No		No	13% Yes / 87% No				15	11% Yes / 89% No				46
104 Do you offer "Annuity Certain" options? [For example, Annuity Certain options provide the annuitant with a monthly benefit for life. If the annuitant dies before a set guarantee period, monthly benefits continue to be paid to a beneficiary for the balance of the guarantee period.]	No		No	47% Yes / 53% No				15	54% Yes / 46% No				46
105 Do you have a designer option where members can design virtually any actuarially sound cash flow they choose? [Designer options need to be custom priced by an actuary.]	No		No	7% Yes / 93% No				15	9% Yes / 91% No				46
106 Can a member choose between a COLA protected and a non-COLA pension? [The only example we have seen provides a much higher FAS salary base for the non-COLA pension.]	Yes		Yes	7% Yes / 93% No				15	7% Yes / 93% No				46
107 Do you have a Deferred Retirement Option Plan ("DROP")? [This option allows eligible employees to receive payment of retirement benefits while continuing to work. These payments are usually deposited into a separate account, and the total accumulated value of this account is paid via lump sum to the employee on actual retirement.]	No		No	20% Yes / 80% No				15	17% Yes / 83% No				46
108 At retirement, can a member convert: a) Part of his benefit into a partial lump sum payment? b) All of his benefit into a lump sum or commuted value payment? [That can be rolled over to another fund, or investment account, etc.]	No No		No No	53% Yes / 47% No 27% Yes / 73% No				15 15	46% Yes / 54% No 24% Yes / 76% No				46 46

Survey Question	Your Response			Peers 2023					All Participants 2023					
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
109 Are members permitted to retire mid-month (in which case they receive a partial pension payment for the remainder of the month) or are they always assumed to retire on a set day (usually the first or the last day) of the month?	Set Day		Set Day	27% Any Day / 73% Set Day / 0% n/a					15	43% Any Day / 57% Set Day / 0% n/a				46
110 How many mortality tables do you keep track of for determining joint and survivor or beneficiary options? [Most systems track only one table. But some systems calculate joint and survivor pensions using the mortality table that was in effect when the retiring member joined the system. Since mortality tables change from time to time, the result is that these systems are required to track numerous mortality tables.] Cost of Living Adjustments	1		1	348	2	1	26	15	348	2	0	11	46	
111 How many different cost of living adjustment ("COLA") rule sets do you have for retired, and if applicable, inactive members? (These rule sets may be either contractual or legislated.) [Most systems have only one or none. Examples of different COLA rule sets that could apply to various member groups or grandfathered subsets of member groups include: 1. CPI uncapped 2. CPI capped at 2% without a carry forward; 3. CPI capped at 2% with a carry forward]	1		1	14	2	1	4	15	14	2	0	3	46	
112 Do you have: a) Cost of living adjustment ("COLA") clauses that carry forward inflation that exceeds a cap (versus no cap or no carry forward or no COLA etc.)? b) Conditional COLA based on the level of funding? c) Umbrella legislation that guarantees the purchasing power of an annuitants' pension will not fall below a certain level? [An example of such legislated protection is the PPPA in California.]	No No No		No No No	27% Yes / 73% No 27% Yes / 73% No 20% Yes / 80% No					15 15 15	26% Yes / 74% No 37% Yes / 63% No 17% Yes / 83% No				46 46 46
113 Do you have COLA clauses that increase the base pensionable earnings of inactive members? a) If yes, are these COLA increases the same as they are for annuitants? Benefit Formulas	No n/a		No n/a	13% Yes / 87% No 7% Yes / 7% No					15 2	28% Yes / 72% No 22% Yes / 7% No				46 13
114 How many different rule sets do you have that apply to member groups or subsets of a member group for qualifying for an unreduced retirement formula? [For example, one system has the following 3 rule sets that apply to its member groups and special subsets of its member groups.	9		9	91	9	2	14	15	91	5	1	10	46	

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<p>1. All public employees can get an unreduced retirement at 65 with 5 years of service, or at 60 with 20 years of service. (Even though there are two qualifying rules, it only counts as 1 rule set because the rules apply equally to all members.)</p> <p>2. Pre-1995 public employees can get an unreduced retirement at age 55 with 20 years of service.</p> <p>3. Teachers can get an unreduced retirement when age plus years of service equals 75.]</p>													
<p>115 Can members retire earlier than the age required for an unreduced retirement formula?</p> <p>[For example, at one system an unreduced formula of 1.5% per year of service is available beginning at age 60. Members can retire earlier but the pension is reduced by 5% for each year earlier than age 60.]</p>	Yes		Yes	100% Yes / 0% No				15	96% Yes / 4% No				46
<p>116 How many different salary definitions could apply in retirement formula calculations?</p> <p>[Examples of different salary definitions include:</p> <ul style="list-style-type: none"> • Average of 3 final years' salary subject to raises not in excess of 10%; • Average of 3 best consecutive years' salary with no cap on raises; • Final 12 months salary.] 	5		5	15	3	2	6	15	15	3	1	4	46
<p>117 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas?</p> <p>[For example, one system has the following three different 'formula percentage' rule sets:</p> <ol style="list-style-type: none"> 1. Fire and Police get 2.5% per year of service; 2. Public Employees get 1.75% per year of service; 3. Teachers get 1.8% for the first 5 years of service, 2.0% for the next 5 years of service and 2.3% per year of service thereafter.] 	5		5	91	4	2	12	15	91	5	0	8	46
<p>118 Do you have different employers with different benefit formula?</p> <p>If yes, which of the following happens when a member moves from one employer that you administer to another with a different benefit formula? [For example, moves from PERS to Law Enforcement.]</p> <p>a) Each system uses its own formula and salary data to determine the benefit.</p> <p>b) Each system applies its own formula but uses either the salary earned in the last system, or the highest salary (or salaries) in either system.</p> <p>c) The highest formula will apply.</p> <p>d) The formula of the plan where the member works last will apply.</p> <p>e) Other (describe).</p> <p>n/a</p>	Yes		Yes	73% Yes / 27% No				15	57% Yes / 43% No				46
	Yes		Yes	33% Yes / 40% No				11	33% Yes / 24% No				26
	Yes		Yes	33% Yes / 40% No				11	24% Yes / 33% No				26
	No		No	7% Yes / 67% No				11	7% Yes / 50% No				26
	Yes		Yes	27% Yes / 47% No				11	20% Yes / 37% No				26
	No		No	7% Yes / 67% No				11	13% Yes / 41% No				25

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
External Reciprocity													
119 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system pays the "dual" member a pension benefit based on its own rules for determining the benefit. Neither credit nor money are transferred between systems.]	No		No	33% Yes / 67% No				15	37% Yes / 63% No				46
120 Do you have agreements with external Systems where the member may combine internal and external credit to form one joint account? [The accounts remain separate until the member applies for a benefit, at which time either: • The System with the most service credit for that person is responsible for the combined account, or • The System where the member worked last is responsible.]	No		No	13% Yes / 87% No				15	15% Yes / 85% No				46
Service Credit Rules													
121 How many different definitions do you have for a "full year" of service credit? [For example, a system could have: • One definition such as "more than 120 days = a year". • Or the following three definitions: 9 months = a year for state colleges, 10 months = a year for teachers and 12 months = a year for public employees. • Or the following three definitions: 182 days in school district A or B, 179 days in school district C and 180 days in all other school districts. • Or the following two definitions for hourly employees: 48 weeks of 40 hours per week versus 48 weeks of 36 hours per week.]	5		5	10	4	1	4	15	100	2	0	5	46
122 Does your system have more than one payroll year for determining service credit? [For example, the teachers' year could be July - June with their service credit determined based on the time worked July - June and the public employees' year could be January to December with their service credit determined based on time worked January to December.]	Yes		Yes	27% Yes / 73% No				15	30% Yes / 70% No				46
a) If yes, how many different payroll years exist in your system?	9		9	12	6	2	7	4	30	3	2	6	14
123 How many different vesting periods do you have that apply to active members? [Your answer should be 0 if you have immediate vesting. Most North American systems have only one.]	2		2	8	2	0	3	15	10	2	0	2	46
124 Do you permit:													

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Permanent part-time employees to be members? [An example of a permanent part-time employee is someone contracted to work 3 days a week.]	Yes		Yes	93% Yes / 7% No				15	96% Yes / 4% No				46
b) Casual/ temporary/ intermittent/ seasonal employees to be members? [An example of a 'temporary' employee is an infrequent substitute teacher.]	No		No	80% Yes / 20% No				15	63% Yes / 37% No				46
125 Are you sometimes asked by employers to determine the eligibility of members? [This can occur when a member works for multiple employers in your system or when there is unclear eligibility legislation. For example, a school bus driver may drive buses for multiple districts or counties at the same time. Based on time spent within each district the driver would be ineligible. However, based on the combined employment the driver may be eligible.] Service Credit Purchases	Yes		Yes	93% Yes / 7% No				15	91% Yes / 9% No				46
126 Indicate each of the payment methods you permit for service credit purchases and upgrades: a) Rollover from tax qualified plans such as 401(a) or 401(k) or Conduit IRA or KEOGH in the US; or RRSP plans in Canada? b) Lump sum payments from members? c) Installment payments direct from members? d) Installment payments via payroll deduction through employers?	Yes Yes No No		Yes Yes No No	100% Yes / 0% No 100% Yes / 0% No 53% Yes / 47% No 60% Yes / 40% No				15 15 15 15	96% Yes / 2% No 98% Yes / 2% No 67% Yes / 33% No 52% Yes / 48% No				45 46 46 46
127 How many different service credit purchase categories do you have with different definitions and/or eligibility requirements? [For example, some systems have multiple different categories with different definitions such as 'refunded prior service', 'sick leave', 'military service', etc. Other systems have a single category such as 'any previous work, any time, anywhere'.]	18		18	54	14	4	17	15	54	12	1	13	45
128 How many different service credit purchase calculation formula or methodologies do you have? [For example, one system has the following 4 different cost calculation formula: • Previously refunded contributions X the actuarial earnings rate. • Salary X Contribution Rate (no interest) for active duty military service. • Salary X Contribution Rate X 5% per annum for out-of-state government, or private school teaching service • Actuarial Cost for up to 5 years of any non-government, non-teaching work done outside of the pension system.]	4		4	16	5	3	7	15	19	5	1	6	45

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
129 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies):													
a) Essentially identical for all your members?	No		No	20% Yes / 73% No				14	35% Yes / 61% No				44
b) Similar for all member groups, albeit with some differences?	Yes		Yes	73% Yes / 27% No				15	54% Yes / 43% No				45
c) Very different for different member groups?	No		No	7% Yes / 87% No				14	13% Yes / 83% No				44
Refunds, Transfers-out and Terminating Payments													
130 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	Yes		Yes	60% Yes / 40% No				15	61% Yes / 39% No				46
a) If yes, how many different one-time death payment rule sets do you have? [i.e., \$5,000, \$2,000 etc.]	6		6	6	4	2	4	9	8	3	1	4	28
131 How many different refund formulas do you have? [For example, a few systems have different formulas for vested and non-vested members, or for different member groups.]	2		2	7	3	1	3	15	8	2	0	3	45
Disability													
132 What happens to disabled members' benefits when they reach regular retirement age:													
a) No change (disabled member continues to receive the same disability payments. There are no new potential pension obligations.)?	No		Yes	80% Yes / 20% No				15	74% Yes / 17% No				42
b) Disabled members receive the greater of their current disability benefit or service retirement based on their service credit earned to the date of disability? [i.e., time on disability does not count as service credit]	No		No	27% Yes / 73% No				15	13% Yes / 76% No				41
c) Disabled members receive service retirement (time on disability counts as eligible service credit)?	Yes		Yes	27% Yes / 73% No				15	33% Yes / 59% No				42
d) Other (describe)?	No		No	40% Yes / 60% No				15	22% Yes / 61% No				38
n/a													
133 Will you pay a disabled member that returns to work at a salary lower than they previously earned:													
a) The difference between his old salary (or their old disability benefit) and their new lower salary?	Yes		Yes	33% Yes / 67% No				15	22% Yes / 63% No				39
b) An amount that is potentially greater than the difference between their old salary and their new lower salary?	No		No	7% Yes / 93% No				15	7% Yes / 78% No				39
134 How do you determine whether a member qualifies for long-term disability/ disability pension:													
a) Follow the ruling of a government agency such as social security or worker's compensation?	No		No	13% Yes / 87% No				15	13% Yes / 74% No				40
b) Employer decides?	No		No	0% Yes / 93% No / 7% Some / 0% n/a				15	2% Yes / 80% No / 9% Some / 9% n/a				42

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) Process independent of social security, worker's compensation and employer decisions? [For example, many systems use independent internal processes or medical review boards or medical consultants.]	Yes		Yes	100% Yes / 0% No				15	89% Yes / 2% No				42
d) Other (describe)?	No		No	13% Yes / 80% No				14	20% Yes / 65% No				39
n/a													
135 Which of the following descriptions best describes the MINIMUM level of disability necessary to be eligible for a long-term disability/ disability pension: [If you have different plans with different definitions, choose the definition that applies to the largest number of cases.]													
a) Disabling injury or illness that prevents you from performing your current job duties (even though you might be able to perform other jobs) and expected to be permanent (or for some systems - persist longer than 6 or 12 months)?	Yes		Yes	53% Yes / 47% No				15	52% Yes / 37% No				41
b) Disabling injury or illness that prevents the member from performing current and 'other' jobs that he/she is qualified for and/or can become qualified to do in a reasonable period of time and expected to be permanent (or for some systems - persist longer than 6 or 12 months)? [Sometimes but not always the 'other job' is defined as not able to earn a certain level (i.e., 75%) of pre-disability earnings.]	No		No	20% Yes / 80% No				15	20% Yes / 70% No				41
c) Totally and permanently incapacitated and member is not reasonably expected to recover from disabling medical condition or not expected to ever work again?	No		No	27% Yes / 73% No				15	28% Yes / 59% No				40
d) Other (describe)?	No		No	7% Yes / 87% No				14	13% Yes / 65% No				36
n/a													
136 If you administer short-term disability:													
a) Are the short-term and long-term disability/ disability pension processes closely entwined? [i.e., difficult to distinguish between costs of long-term/disability pensions and short term disability, same staff do both, similar approval processes.]	n/a		n/a	13% Yes / 7% No				3	11% Yes / 9% No				9
b) Are the disability definitions, other than the expected duration of disability, the same for both long-term and short-term disability? [For example, the only difference between the definition of long-term/ disability pensions and short-term disability at some systems is the disabling injury or illness is expected to last longer than 12 months for long-term.]	n/a		n/a	0% Yes / 20% No				3	4% Yes / 15% No				9
c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?	n/a		n/a	13% Yes / 7% No				3	4% Yes / 15% No				9

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
137 How many different rule sets with different definitions or benefits do you have that apply to member groups or subsets of a member group for: a) Long-term disability/ disability pensions? b) Short-term disability (if you administer it yourself)? [For example, some systems have different disability definitions or benefits for police and fire than they do for other public employees. Other systems have grandfathered disability rule sets that only apply to members hired prior to a certain date.]	7 n/a		7 n/a	100 2	3 2	2 1	11 2	15 2	100 2	3 1	1 0	6 1	41 7
138 Do you reduce payments if the member qualifies or receives: a) Disability social security? b) Worker's compensation? c) Other public funds (i.e., federal military disability)? d) Income protection plans/other disability insurance? e) Employer sick leave and annual leave pay? f) Unemployment compensation? g) Income from other employment? h) Other (describe)? n/a Pensionable Earnings	Yes Yes Yes No Yes No Yes No		Yes Yes Yes No Yes No Yes No	53% Yes / 47% No 67% Yes / 33% No 27% Yes / 73% No 20% Yes / 80% No 33% Yes / 67% No 27% Yes / 73% No 67% Yes / 33% No 20% Yes / 73% No				15 15 15 15 15 15 15 14	28% Yes / 61% No 39% Yes / 48% No 9% Yes / 78% No 9% Yes / 78% No 20% Yes / 67% No 13% Yes / 74% No 48% Yes / 39% No 11% Yes / 65% No				41 40 40 40 40 40 40 35
139 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings. a) Bonuses? b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? c) Overtime pay? d) Commissions or similar payments such as fees paid to sheriffs for process serving? If yes, is all, some or none of it included in pensionable earnings? a) Bonuses? b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? c) Overtime pay? d) Commissions or similar payments such as fees paid to sheriffs for process serving?	Yes Yes Yes No Some Some All n/a		Yes Yes Yes No Some Some All n/a	80% Yes / 20% No 87% Yes / 13% No 93% Yes / 7% No 33% Yes / 67% No 7% All / 7% None / 67% Some / 20% n/a 7% All / 13% None / 67% Some / 13% n/a 67% All / 0% None / 27% Some / 7% n/a 13% All / 0% None / 20% Some / 67% n/a				15 15 15 15 12 13 14 5	76% Yes / 24% No 76% Yes / 24% No 83% Yes / 17% No 35% Yes / 65% No 9% All / 13% None / 54% Some / 24% n/a 9% All / 11% None / 57% Some / 24% n/a 43% All / 13% None / 26% Some / 17% n/a 11% All / 9% None / 15% Some / 65% n/a				46 46 46 46 35 35 38 16

Survey Question	Your Response			Peers 2023						All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#		Max	Med	Min	Avg	#
140 When determining a member's pensionable earnings does a cap on salary increases apply? Customization Options	No		No	60% Yes / 40% No				15		46% Yes / 54% No				46
141 Can either existing employers, or a new employer joining your system, choose: a) Whether they offer early retirement, or a window of early retirement? b) Whether or not part-time employees are eligible? c) Whether employee contributions are paid pre or post tax? d) Whether they pay for employee contributions themselves, or not? e) Position coverage based on predetermined rule sets? [For example, employers can choose from a list of pre-determined rules sets such as 1.5% X FAS for General and 2.5% X FAS for Law Enforcement. Employers may have flexibility to determine eligibility for each group.] f) Contribution levels and/ or match rates? [For example, at Texas MRS, employers can choose employee deposit rates of 5%, 6% or 7% and employer match rates of 1 to 1, 1.5 to 1 or 2 to 1. We think this only applies to money match and DC plans because for DB plans the promised benefit determines the contribution.] g) To pay for one-time improvements in retiree or member benefits? [For example, one fund's employers can elect to pay to improve the money purchase entitlement of their members.]	Yes No Yes No No No No		Yes No Yes Yes No No No	33% Yes / 67% No 13% Yes / 87% No 53% Yes / 47% No 47% Yes / 53% No 27% Yes / 73% No 20% Yes / 80% No 13% Yes / 87% No				15 15 15 15 15 15 15		26% Yes / 74% No 11% Yes / 89% No 24% Yes / 76% No 28% Yes / 72% No 13% Yes / 87% No 9% Yes / 91% No 11% Yes / 89% No				46 46 46 46 46 46 46
142 When new employers join your system, do they have the flexibility to customize any of the following items: If yes, indicate the number of standard choices for that item. a) Benefit program multipliers? [i.e., 2% per year of service, 2.5% per year of service, etc.] b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc.] c) Retirement eligibility rules? [i.e., age and/or years of service required to retire] d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc] e) Vesting period? f) Service credit purchase categories? g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000] h) Disability coverage rules?	No No No No No No Yes No		No No No No No No Yes No	7% Yes / 93% No 13% Yes / 87% No 0% Yes / 100% No 7% Yes / 93% No 0% Yes / 100% No 13% Yes / 87% No 13% Yes / 87% No 7% Yes / 93% No				15 15 15 15 15 15 15 15		4% Yes / 93% No 4% Yes / 93% No 2% Yes / 98% No 4% Yes / 96% No 0% Yes / 100% No 4% Yes / 96% No 4% Yes / 96% No 9% Yes / 91% No				45 45 46 46 46 46 46 46

Survey Question	Your Response			Peers 2023						All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#		Max	Med	Min	Avg	#
i) Choice as to whether and how contributions and benefits are coordinated with social security?	No		No	7% Yes / 93% No				15		4% Yes / 96% No				46
j) Other (describe)?	No		No	7% Yes / 93% No				15		13% Yes / 87% No				46
n/a														
If yes: # of standard options														
a) Benefit program multipliers? [i.e., 2% per year of service, 2.5% per year of service, etc.]	n/a		n/a	5	5	5	5	1	5	4	2	4	2	
b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc]	n/a		n/a	2	2	2	2	2	2	2	2	2	2	2
c) Retirement eligibility rules? [i.e., age and/or years of service required to retire]	n/a		n/a	n/a	n/a	n/a	n/a	0	2	2	2	2	1	
d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	n/a		n/a	4	4	4	4	1	4	3	2	3	2	
e) Vesting period?	n/a		n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0	
f) Service credit purchase categories?	n/a		n/a	10	6	2	6	2	10	6	2	6	2	
g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000	2		2	6	4	2	4	2	6	4	2	4	2	
h) Disability coverage rules?	n/a		n/a	4	4	4	4	1	4	2	2	3	4	
i) Choice as to whether and how contributions and benefits are coordinated with social security?	n/a		n/a	2	2	2	2	1	2	2	1	2	2	
j) Other (describe)?	n/a		n/a	30	30	30	30	1	30	2	1	7	6	
143 Can an existing employer change any of the choices (per question 177 above), effectively creating a new or altered rule set, at any time?	Yes		Yes	27% Yes / 73% No				15		22% Yes / 76% No				45
Collections and Data Maintenance														
144 How many different contribution percentages do you collect from:														
a) Employers? [For example, single member group systems may have only one contribution percentage whereas some multi-plan systems may collect numerous different contribution rates from various participating employers.]	89		107	4,331	14	1	716	15	4,331	6	0	242	46	
b) Members?	2		2	44	3	1	8	15	228	4	1	11	46	
145 Which of the following payment methods for employee contributions occur in the plans that you administer:														
a) No employee contributions?	Yes		Yes	40% Yes / 60% No				15		30% Yes / 70% No				46
b) Employer pays their part and also the employee contributions?	No		No	60% Yes / 40% No				15		48% Yes / 52% No				46
c) Employer withholds employee contributions pre-tax from their salary?	Yes		Yes	100% Yes / 0% No				15		96% Yes / 4% No				46
d) Employer withholds employee contributions post-tax from their salary?	Yes		Yes	73% Yes / 27% No				15		41% Yes / 59% No				46

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
146 Do you have any other contributions in addition to the regular employee and employer contributions? [For example, Ohio SERS collects a surcharge for members who earn less than a minimum compensation amount.] a) If yes, describe: We Collect % of payroll for Disability, Retiree Insurance, and Death Benefit. % set each year by General Assembly. We also collect contributions made toward satisfying anti-pension-spiking liabilities incurred by an employer.	Yes		Yes	47% Yes / 53% No				15	59% Yes / 41% No				46
147 Do you collect pension contributions from any members directly? [For example, Nurses in the Netherlands can continue to contribute to their pension even if they are inactive. Do not include optional contributions such as to 401k savings plans]	Yes		Yes	27% Yes / 73% No				15	30% Yes / 70% No				46
148 Do members deal with you directly when selecting or changing DB plan options such as options to switch from core DB to DC or DROP plans, option to participate in variable investment option overlays, option to change their contribution rate, option to repair pension gaps, pre-retirement election options, etc.?	Yes		Yes	40% Yes / 53% No				14	50% Yes / 37% No				40
149 Are you required, by policy or by law, to actively seek out and initiate either a benefit or a refund for inactive vested members or inactive unvested members? Billing and Inspection	Yes		Yes	93% Yes / 7% No				15	89% Yes / 11% No				46
150 Do you: a) Send a written advice to employers that inform them of their required contribution rates and then rely on each employer to pay the correct contributions? b) Invoice employers in arrears based on actual member service and salary data? c) Invoice employers in advance based on estimated member service and salary data, and then adjust based on actual experience?	Yes Yes No		Yes No No	73% Yes / 27% No / 0% n/a				15	72% Yes / 22% No / 7% n/a				43
				80% Yes / 20% No / 0% n/a				15	67% Yes / 26% No / 7% n/a				43
				27% Yes / 73% No / 0% n/a				15	17% Yes / 76% No / 7% n/a				43
151 How many times per year do you send invoices or 'advices' to each employer? Divorce	1		1	26	7	0	8	14	4,940	1	0	129	41
152 Choose the statement that best describes how divorce settlements for active members (or divorce decrees or QDROS, or QILDROS, or Division of Benefit Orders, etc.) impact your system. If you have different rules for different plans, choose the statement that applies to the largest number of cases.													

Survey Question	Your Response			Peers 2023					All Participants 2023				
	2023	2022	2021	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Minimal impact. Law prevents you from paying the pension to anybody except the member and the member's specified beneficiaries.	No		No	0% Yes / 100% No				15	9% Yes / 91% No				46
b) Minimal impact unless children are involved. With children you may be required to redirect payment.	No		No	0% Yes / 100% No				15	0% Yes / 100% No				46
c) A portion of the pension is paid to the ex-spouse, but ONLY when the member begins receiving benefits.	Yes		Yes	67% Yes / 33% No				15	59% Yes / 41% No				46
d) A portion of the pension is paid to the ex-spouse. The ex-spouse can initiate the pension at a time different than the member provided that eligibility conditions are met.	No		No	40% Yes / 60% No				15	35% Yes / 65% No				46
e) Other (describe)	No		No	13% Yes / 87% No				15	15% Yes / 85% No				46
n/a													

Appendix B - Foreign currency conversion

All currency amounts have been converted to USD using Purchasing Power Parity figures per the OECD. The table below shows the foreign exchange rates for the past 4 years.

Currency	Purchasing Power Parity ¹			
	2023	2022	2021	2020
United States Dollars - USD	1.000	1.000	1.000	1.000
Canada Dollars - CAD	0.859	0.798	0.777	0.835
Euro - EUR	1.460	1.462	1.449	1.406
Denmark Kroner - DKK	0.163	0.158	0.155	0.150
Sweden Kronor - SEK	0.120	0.115	0.115	0.112
United Kingdom Pounds - GBP	1.535	1.507	1.497	1.396
Australia Dollars - AUD	0.729	0.729	0.706	0.699

^{1.} 2022 Purchasing power parity values have been updated on April, 2023.

Appendix C - Activity definitions

1. Member Transactions	
1a. Pension Payments	<p>1. Paying (but not incepting) annuity pensions for disability, early and normal retirees and their survivors, including:</p> <ul style="list-style-type: none"> • EFT processing. • Check processing and postage. • Resolving failed, misdirected and lost payments. • Paying, but not calculating, adjustments to pensions. For example, many systems pay retroactive adjustments to pensions initiated based on incomplete data. • Collecting overpayments. • The processing of return payments from annuitants. • Stopping pension payments upon the death of an annuitant. <p>2. Processing deductions from the gross pension payment. For example:</p> <ul style="list-style-type: none"> • Processing and paying taxes and other governmental deductions, such as social security. • Processing legally required deductions such as liens on wages ordered by a judge. • Processing and effecting payment of optional deductions that the member can request, such as for health care or optional life insurance or union dues. • Processing and mailing of check stubs or EFT payment advices. • Processing and mailing of annual tax receipts to annuitants. • Keeping track of the rules and regulations for deductions. <p>3. Confirming payment eligibility. This includes:</p> <ul style="list-style-type: none"> • Cross referencing pension payrolls with death records. • Obtaining proof that someone is alive. • Checking eligibility. <p>If a sister organization performs any of the above tasks, then the costs incurred by the sister organization should be included here and in your Total Costs.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Maintaining banking, address and beneficiary data for retirees. These belong in 3c Data Not from Employers. • The work of inflation adjustments. It belongs in 1b Pension Inceptions.
1b. Pension Inceptions and Written Pension	<p>1. New annuitants: calculating, finalizing and arranging annuity pensions to new payees including:</p> <ul style="list-style-type: none"> • Early, normal service retirements and survivor pensions and marriage-breakdown. • Exclude disability inceptions (except Dutch schemes). Disability belongs in 1e Disability. <p>2. Changes to gross amount of pensions (excluding disability pensions) including:</p> <ul style="list-style-type: none"> • Adjusting pensions that were initiated based on incomplete or estimated data. • Reductions to the annuity payment when pensioner begins receiving social security (NL: AOW, Canada: CPP). • Cost of living adjustments for pensioners. • Last survivor options that reduce the amount paid to the pensioner when a spouse dies. <p>3. Time spent by the pension inception team on appeals about annuity pension inceptions. Exclude time and cost of legal staff or external legal counsel. Legal costs belong in 7d Legal and Rule Interpretation.</p> <p>4. Preparing and sending, by mail or email, customized written estimates in response to requests from individual members regarding:</p> <ul style="list-style-type: none"> • Annuity pensions including early and service retirement. • Giving customized written insight into pension consequences of divorce, death, layoffs, taxes, gaps in pension coverage, etc. • Lump sum or commuted value payouts.

Appendix C - Activity definitions

1c. Withdrawals, Refunds, Transfers-out	<p>Payments that terminate your relationship with a member including:</p> <ul style="list-style-type: none"> • Withdrawals and Refunds of contributions. • Lump sum and commuted value payments. • Pre-retirement death that results in a final payment (refund, commuted value, death payment). • One time death payments that are supplemental to the annuity payments. Do not include the cost of paying or stopping the final pension payment which belong in 1a Pension Payments. • Hardship withdrawals (including partials). • Excess contribution refunds (For example, 50% Rule Refunds in Canada). • Individual rollovers of DB monies to internal DC accounts which effectively terminate the DB pension entitlement. • Individual transfers-out of monies to authorized external systems. • Collective transfers-out when an employer exits your system. <p>The activity also includes:</p> <ul style="list-style-type: none"> • Providing written estimates of refunds and transfers-out (do not include estimates for Lump Sums and Commuted Value Payments which belong in 1b Pension Inceptions and Written Pension Estimates). • Calculating, arranging and making estimated and final payments. • Related tax deductions, filings and reporting sent to members and tax authorities. • Reminders to speed up processing by external parties. • Collecting overpayments of lump sums or other terminating payments.
1d. Purchases and Transfers-in	<ul style="list-style-type: none"> • Service credit purchases for refunded past service, military service, etc. • Purchases that provide members with additional pensionable salary. • Individual transfers-in/ rollover of monies from external retirement systems. • Collective transfers-in such as when a new employer is merged into your system. <p>The activity also includes:</p> <ul style="list-style-type: none"> • Providing formal written estimates of purchases and transfers-in/ rollovers. • Posting purchases and applying payments. • Receiving purchase payments. • Related tax reporting sent to members and tax authorities. • Purchases applicant dealing directly with the Purchase division, subsequent to an initial request for a purchase.
1e. Disability	<p>Include only if you are responsible for the administration of non-optional long term disability, and/ or short term disability. Includes:</p> <ul style="list-style-type: none"> • Written disability estimates. • Disability approval process. • Applications and inceptions. • Disability appeals and complaints, provided that they are not handled by your legal staff or external legal counsel. Legal costs belong in 7d Legal Rule Interpretation. • Monitoring and reviewing disabled pensioners and/ or temporarily disabled members for continuing entitlement, including checks on income and medical reviews. • Checks on eligibility of disability payments. • Rehabilitation of disability recipients (very few systems perform this activity). • Medical assessment reviews of new hires for eligibility for death and disability benefits. <p>Do not include if disability is an optional benefit for members. Instead include in 1g Optional and Third Party Administered Benefits.</p> <p>Do not include insurance costs. If an insurance company administers the disability program on your behalf, and you cannot clearly separate the administration cost from the insurance cost, then treat disability as a third party administered benefit.</p> <p>Do not include paying disability pensions. This belongs in 1a Pension Payments.</p>

Appendix C - Activity definitions

1f. Healthcare Administration	<p>This activity only applies to the subset of U.S. systems that administer healthcare. Include only the costs of the healthcare department and any healthcare activities that are not closely integrated with pension administration activities (i.e., If the healthcare call center is separate from the pension administration call center, include its costs and volumes here. But if healthcare calls are integrated with the pension call center, include the costs and volumes in the Call Center activity.). The healthcare department will usually, at a minimum, be responsible for design, vendor management and enrolment.</p> <p>Do NOT include any activities that are integrated with pension administration and not done by the healthcare department. For example:</p> <ul style="list-style-type: none"> • Communication activities such as call center calls and presentations are often integrated with pension administration. In these cases the cost and volumes belong in the pension administration activity. • Similarly, the legal and actuarial departments often handle both healthcare and pension issues. If this is the case, these costs belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.
1g. Optional and Third Party Administered Benefits	<p>Examples of optional and third party administered benefits are:</p> <ul style="list-style-type: none"> • Benefits that are supplemental to the members' primary pension benefit at retirement. Examples include tax deferred savings plans (i.e., 403B, 457, 401k and 401a), insurance (dental, vision, long-term care) and loans to members. • Third party administered benefits. For example, the defined contribution portion of hybrid DB/DC plans are often outsourced. <p>Include the costs of:</p> <ul style="list-style-type: none"> • Specialists responsible for optional and third party benefits, including design, vendor management and enrolment. • Fees paid to third parties to administer outsourced benefits. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Communication activities such as call center calls, presentations and brochures. These belong in the communication activities. For example, the cost and volumes of call center calls about supplemental benefits belong in 2a Call Center. • Actuarial and legal costs. These belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.
2. Member Communication	
2a. Call Center	<p>The 'first-line' communication work for active, inactive and annuitant member inquiries.</p> <p>First-line communication includes responding to general questions, initial requests for activity specific work to be performed (such as a request for a written estimate or a refund of contributions, death reporting, change of address or direct deposit or beneficiary), questions about account status or annual statements, advice given over the phone, etc. This activity includes member inquiries by:</p> <ul style="list-style-type: none"> • Telephone: waiting for calls, talking to members on the phone, redirecting calls, training Contact Center staff, auditing calls, call satisfaction surveying and long distance charges. • Automated information or self-serve lines (i.e., telephone lines where the member never needs to speak to a service representative and can navigate menu options where they request forms and publications, etc.). But do NOT include the cost of responding to requests for forms and publications. This belongs in Activity 2e Mass Communication. • Email: reading, responding to simple requests, redirecting activity specific requests. • Written correspondence: reading, responding to simple requests, redirecting activity specific requests. <p>Includes contact center hardware and software.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Work performed after the call for activities where costs are collected separately. For example, if a member requests a written pension or benefit estimate, then the cost of preparing it belongs in 1b Pension Inceptions and Written Pension Estimates and not here, even if the work is done in the Contact Center. • Subsequent follow-up activity specific communication. For example, a disability applicant dealing directly with the disability division belongs in 1e Disability.

Appendix C - Activity definitions

2b. Mail Room, Imaging	<ul style="list-style-type: none"> • Managing incoming and outgoing mail. • Incoming written correspondence: sorting, redirecting activity specific requests. • Scanning and imaging of incoming documents and forms to start a workflow process. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Postage. This belongs in the activities where they were incurred. For example, the mailing of pension checks, check stubs, EFT advices or annual tax receipts belong in 1a Pension Payments.
2c. 1-on-1 Counseling	<ul style="list-style-type: none"> • Walk-in traffic that meets with counselors. • Pre-scheduled 1-on-1 retirement and other counseling. Include pre-scheduled counseling sessions that are conducted via teleconference or over the phone that cover materials sent to the member in advance of the session. • If written pension estimates are prepared during a counseling session the cost belongs in 2c. counseling and not in 1b. Pension inceptions and written pension estimates.
2d. Presentations and Group	<ul style="list-style-type: none"> • All presentations to members and retirees. • Group retirement counseling. • Webinars.
2e. Mass Communication	<p>Any benefit related communication that is sent to all members or groups of members. The cost should include design, printing and mailing costs. Examples include:</p> <ul style="list-style-type: none"> • Member statements. • Brochures and publications. • Newsletters and information letters. • Videos, CD-ROMS. • Website pension content targeted at members and annuitants. Includes design, development and maintenance of the member content, as well as its pro rata share of the website infrastructure. • Annual reports and popular annual report summaries, but do not include the accounting and auditing costs incurred to prepare the annual report. Accounting costs belong in 4a Financial Administration and Control and auditing costs belong in 7e Audit. • Welcome kits. • Letters informing members when they reach or approach certain milestones such as becoming vested, eligible for disability, eligibility for retirement, etc. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Pre-scheduled retirement counseling done in group sessions or 1-on-1 or member presentations. These belong in 2c 1-on-1 Counseling and 2d Presentations and Group Counseling. • 1-on-1 correspondence. These costs belong in the activity to which the correspondence pertains. For example, correspondence re: pension estimates belongs in 1b. Pension Inceptions and Written Pension Estimates. • Payment advices, check stubs, letters informing of changes in gross amount, and annual tax receipts prepared for retirees. These belong in 1a Pension Payments. • Employer targeted communication such as the employer portions of the website and employer newsletters. These belong in 3b Service to Employers.

Appendix C - Activity definitions

3. Collections and Data Maintenance	
3a. Data and Money from Employers	<ul style="list-style-type: none"> • Collection and cashing of member and employer contributions from employers. • Collection of member data (service credit, salary, personal information, employer, etc) from employers. • Reconciliation of required versus remitted money. • Analysis, correction and confirmation with employer of member data. • Setting up the data and money collection process for new employers. • Improving the data collection process for existing employers (i.e., converting paper systems to electronic, etc). • Registering member choices and instructions that are received through the employer. For example: <ul style="list-style-type: none"> ▫ Some hybrid DB/ DC systems require that a member's DC instructions come through the employer. ▫ Members at some Dutch systems can choose to contribute more to get early retirement. This choice is registered via the employer. <p>(The activities below used to be in a separate activity 'Billing and Inspection' and are now merged into 3a Data and Money from Employers)</p> <ul style="list-style-type: none"> • Advising employers of the required contribution rate (but excluding the actuarial cost of determining the rates which belongs in 7c Actuarial). • Billing employers for regular contributions, special contributions to cover funding shortfalls, additional payments to retirees funded by the employer, etc. • Collecting bad debts. But do not include legal costs. These belong in 7d Legal and Rules Interpretation. • Employer reviews or audits. For example, several systems perform on-site reviews of employers that have problems providing data and or contributions on a timely basis. They want to ensure that the employers are correctly fulfilling their obligations to their members. • Inspection and enforcement of obligation to participate in the System (i.e., participation in some Dutch industry funds is mandatory if the employer has certain characteristics).
3b. Service to Employers	<ul style="list-style-type: none"> • Training employers. • Helping new employers. • Maintaining employer relationships. • Presentations, counseling, workshops for employers. • Publications and newsletters for employers (as opposed to materials sent to members through employers). • Employer helpdesk/ Employer Call Center. • Employer website including the design, development and maintenance. as well as the pro rata share of the website infrastructure. • Advice, account management, HRM support re: pensions. <p>Do NOT include marketing to employers. Marketing costs belong in 4c Government and Public Relations.</p>
3c. Data Not From Employers	<p>Gathering and maintaining member data that is not provided by employers including:</p> <ul style="list-style-type: none"> • Retiree and Inactive data maintenance such as change of address, change of beneficiary, change in marital status, death, registering changes in payments, etc. • Tracking 'lost' inactive members. • If applicable, registering cost of living adjustments to the salary base of inactive members (a few systems do) • Registering the impact of divorce on the future rights of members. But do not include the work of estimating the impact of divorce which belongs in either 2c 1-on-1 Counseling and or 2a Call Center. Also do not include the cost of changing or initiating pensions as a result of divorce. This belongs in 1b Pension Inceptions and Written Pension Estimates. • Billing and collecting contributions directly from inactive members. For example, nurses in the Netherlands can continue to contribute to their pension even if they are inactive. • Registering member choices and instructions that are received directly from the member. For example: <ul style="list-style-type: none"> ▫ Defined Contribution instructions obtained directly from active, inactive or retired members, such as changes in asset allocation. <p>Do NOT include the cost of incepting new pensions or determining changes to the gross amount of the pension paid to retirees. This belongs in 1b Pension Inceptions and Written Pension Estimates.</p>

Appendix C - Activity definitions

4. Governance and Financial Control	
4a. Financial Administration and Control	<ul style="list-style-type: none"> • Budgeting and forecasting. • Financial reporting including preparing the annual report. • The chief financial officer's office including assistants. Exclude time spent on investments. • Compliance unless it is done by the legal department. If this is the case compliance costs belong in 7d Legal and Rules Interpretation. • Risk. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Internal auditing of activity processes, or auditing of financial statements. These belong in 7e Auditing. • Actuarial work. This belongs in 7c Actuarial. • Printing and mailing, including postage, of annual reports to members. This goes in 2e Mass Communication. • Administration work that pertains to the Investment division, such as investment accounting.
4b. Board, Strategy, Policy	<ul style="list-style-type: none"> • Board of Trustees: elections, fees, expenses, etc. • The CEO's office including assistants. Exclude time spent on investments (when in doubt we suggest 50% administration, 50% investments). • Benchmarking studies, strategic planning, fiduciary audits, asset liability studies. But exclude portions attributed to investments. • New and existing plan/ product development. • Strategic market research. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Actuarial or legal advisors to the Board. These costs belong in 7c Actuarial and 7d Legal, respectively.
4c. Government and Public Relations	<ul style="list-style-type: none"> • Maintaining relationships with government, unions and employer organizations. • Anticipating, influencing and initiating plan rule changes by government, by unions, by employers, and by employer organizations. • Costs of coordination with organizations of employers and employees. • Formulating a Governmental Policy document. • Media relations. • Marketing costs to attract new employers, or new members, or to support the position of the pension fund within the industry or other interest groups. • General communication/ marketing to support the position of the pension system in the community or in the industry. • Memberships in Councils of Industry Funds, Company Funds or International Organizations.

Appendix C - Activity definitions

5. Major Projects	
	<p>Major Projects are long lived assets that could be (or are) capitalized and expensed over their useful life if you follow GAAP (Generally Accepted Accounting Principles). Examples of Major Projects include:</p> <ul style="list-style-type: none"> • Acquisitions of long lived assets such as computer hardware or a new building. • Major software development projects that will have an extended life. <p>If you do not capitalize Major Projects, provide the actual costs expensed during the year. If you do capitalize Major Projects, include the depreciation or amortization costs of all past and current Major projects. But do not include the current year's cash investment in Major Projects that are being capitalized.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Major Projects that pertain to non-pension or optional benefits such as a new IT system for health care. These costs should be excluded from Total Pension Administration Costs per question 1f and /or 1g. Non-Pension and Optional Benefits are defined in the comment field in 1f/1g.
5a. Amortization of non-IT major projects	<p>Current year amortization of the non-IT portion of capitalized major projects.</p> <p>Major Projects are long lived assets that are capitalized (under GAAP or GASB 51) and expensed over their useful life, which is greater than one reporting period. Examples of non-IT major projects could include if the costs were capitalized: i) a large, one-time historic data cleaning project, or, ii) imaging all historic records.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Amortization of the IT portion major projects. This belong in activity 5c Amortization of IT major projects. • Amortization of leaseholds or office furniture. This belongs in activity 7a Building and Utilities.
5b. Non-IT major projects (if you don't capitalize)	<p>If you do not capitalize major projects, then include the current year cost of the non-IT portion of major projects that could be capitalized under GASB 51 or GAAP.</p> <p>Do NOT include the IT portion of major projects. This belong in activity 5d IT Major Projects (if you don't capitalize).</p>
5c. Amortization of IT major projects	<p>Current year amortization of the IT portion of capitalized major projects.</p> <p>Major Projects are long lived assets that are capitalized (under GAAP or GASB 51) and expensed over their useful life, which is greater than one reporting period. An example of an IT major project could be a major software development project in the application stage of development, i.e., design, software configuration, software interfacing, coding, installing hardware and testing.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Amortization of the non-IT portion major projects. This belongs in activity 5a Amortization of non-IT major projects. • Amortization/depreciation of IT infrastructure such as mainframes and servers. This belongs in 6a IT Strategy, Database Management and Applications (excl. major projects). • Amortization/depreciation of desktop hardware and software, or telecommunications equipment. This belongs in activity 6b. IT Desktop, Network, and Telecommunication. • Amortization of projects that relate to investment management.
5d. IT major projects (if you don't capitalize)	<p>If you do not capitalize major projects, then include the current year cost of the IT portion of major projects that could be capitalized under GASB 51 or GAAP.</p> <p>Do NOT include the non-IT portion of major projects. This belong in activity 5b Non-IT major projects (if you don't capitalize).</p>

Appendix C - Activity definitions

6. Information Technology	
6a. IT Strategy, Database Management and Applications (excl. major projects and IT security)	<ul style="list-style-type: none"> • IT management and strategy. • IT architecture. • Data center i.e., current year cost (whether cash or amortization) of mainframe, servers, data center hosting. • Training. • Head of the IT department's office. • Database management including: building databases, testing databases for data integrity, maintaining databases, ensuring operation of databases. • Application maintenance, enhancement and development that is not capitalized. • Project management that is not included in Major Projects. <p>Do NOT include the portion of the above that relates to investment management.</p>
6b. IT Desktop, Network, and Telecommunications (excl. IT security)	<ul style="list-style-type: none"> • User services including application licenses, personal computer hardware and software, help desk. • Network (i.e., LAN and WAN). • Telecommunications including call center equipment and mobile devices. If any of the above costs are capitalized, include current year amortization. <p>Do NOT include the portion of the above that relates to investment management.</p>
6c. IT Security	<ul style="list-style-type: none"> • IT security management and strategy. • Compliance with relevant rules and regulations about data privacy and security. • Protecting data and information, and the systems used to process records and data, from unauthorized access • Testing security strategies and defenses. • Maintaining, updating and developing new defensive systems and protocols. • Detecting security incidents. • Cyber insurance. • Includes network, application, endpoint, data, IT infrastructure, cloud, identity management and database <p>Dedicated to protecting the information and systems used to process records and data.</p>

Appendix C - Activity definitions

7. Support Services	
7a. Building and Utilities	<ul style="list-style-type: none"> • Building occupancy costs including rent, lease, amortization of leaseholds and building and office furniture depreciation. • Building depreciation if you own the building. • Building insurance. • Building maintenance services such as custodial, maintenance, security services etc. • Utilities. <p>Do NOT include the portion of the above that relates to investment management.</p>
7b. Human Resources	<ul style="list-style-type: none"> • Human resources staff and human resources consulting, including recruitment, training, career development, induction, disciplinary action etc. • Include time spent in the development of the HR framework, including policies and procedures. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Time spent by non HR staff interviewing or training. For example the training of a call center agent belongs in activity 2a Call Center. • The portion of the above that relates to investment management. • Recruitment fees - these should be added to the staff costs of the people to which they relate in the different business units. <p>Do NOT include separation or severance costs here. These belong in the 'Third Party and Other Costs' of the activities that the terminated FTE performed.</p>
7c. Actuarial	<p>All internal actuarial department costs, external actuarial fees and sister-entity cross charges for actuarial work including:</p> <ul style="list-style-type: none"> • Actuarial work for financial and government reporting. • Actuarial work to determine funding policy, contribution rates or billing rates. • Quantifying the impact of changes in the plan. • Advice on plan design / redesign, funding and contributions, the employer's covenant, mergers and acquisitions etc. • Inception, disability and healthcare calculations that require actuarial input. • Formulating an Actuarial Policy document.
7d. Legal and Rule Interpretation	<ul style="list-style-type: none"> • All external legal fees. • Internal legal department (including legal fees charged by sister organizations or the corporate parent). • Appeals concerning pension inceptions (as well as any other appeals) if they are handled by the legal department or by external legal counsel. • Plan contract amendments. Adding new participating employers. • Interpretation of existing rule sets and laws. • Developing rules that simplify the interpretation of the plan contract and related legislation on behalf of staff, employers or members. • Support to the communications department in writing brochures and other communication material. <p>Do NOT include the portion of the above that relates to investment management.</p>
7e. Internal and External Audit	<ul style="list-style-type: none"> • Fees paid to the external auditor, particularly for the audit opinion on the accounts. • The external auditor may be the public audit office or an independent audit firm - in either case these fees or charges belong in the '3rd Party Fees' column. • The costs of internal audit and / or quality assurance departments.
7f. Benefits Paid for Retired Staff	<p>Healthcare and other benefit costs for retired or inactive staff that are paid by the employer (and not via member contributions) on a 'pay-as-you-go' basis.</p> <p>Do NOT include accrued costs for existing staff such as contributions to their pension. These belong in each activity's cost as part of salary and benefits.</p>
7g. Other Support Services	<p>All other pension administration costs that have not been included elsewhere.</p>

Appendix D - Defaults

Page Communication

Question 39. If you have a callback feature, what is the callback completion rate?

Default Your response was unknown. As a default (95.35%) we used 25th percentile response of other participants to this question.

Page Communication

Question 85. Number of:

b) Email queries from employers?

Default Your response was unknown. As a default (23,866.14) we used average response of other participants to this question.