

## BenchmarkAdmin

### 2020 Benchmarking Analysis for Minnesota State Retirement System

CEM Benchmarking Inc.  
372 Bay Street, Suite 1000, Toronto, ON, M5H 2W9  
Tel: 416-369-0568 Fax: 416-369-0879  
[www.cembenchmarking.com](http://www.cembenchmarking.com)



# Contents

<b>1 Executive Summary</b>	
<b>2 Peer Characteristics</b>	
Custom peer group -----	2-2
Graphical summary of peer characteristics -----	2-3
Participant profiles -----	2-4
Graphical summary of all participant characteristics -----	2-6
<b>3 Total Cost</b>	
Total pension administration cost by activity -----	3-2
Cost trends -----	3-4
Cost category trends -----	3-5
Reasons for differences in total costs -----	3-9
Cost per member type -----	3-14
Cost per weighted member -----	3-17
Cost as a % of total assets -----	3-18
Reconciliation to costs provided on the survey -----	3-19
<b>4 Activity Costs</b>	
Calculation of your activity costs -----	4-2
Summary comparisons of activity costs by quartile breakdown -----	4-4
Fully attributed front-office costs -----	4-47
<b>5 Staff Costs and Productivity</b>	
Total FTE -----	5-2
FTE by activity -----	5-3
Salaries and benefits per FTE by activity -----	5-6
Productivity -----	5-8
<b>6 Transaction Volumes</b>	
Workload: Weighted transaction volume per member -----	6-2
Comparison of transaction volumes by activity -----	6-5
Online transactions -----	6-9
Online trends -----	6-10
Transaction trends -----	6-11
<b>7 Service Levels</b>	
Total service score -----	7-2
Comparisons of activity service scores -----	7-3
Service trends -----	7-5
Biggest potential improvements to your total service score -----	7-7
Graphical comparison of key measures -----	7-9
Service scores by activity -----	7-11
<b>8 Complexity</b>	
Total complexity -----	8-2
Trends in Complexity -----	8-3
<b>9 IT and Major Projects</b>	
IT/IS costs -----	9-2
IT/IS cost trend -----	9-3
Major project costs -----	9-4
Major project cost trend -----	9-6
Key measures of CRM/IT capability -----	9-8
CRM/IT capability score -----	9-9
<b>10 Appendices</b>	
Appendix A - Survey responses -----	10-2
Appendix B - Foreign currency conversion -----	10-51
Appendix C - Activity definitions -----	10-52
Appendix D - Defaults -----	10-60
Appendix E - Service and survey question changes -----	10-61

# 1

## Executive Summary

This section contains:

- A list of CEM's global participants
- Your custom peer group
- Comparisons of your cost to those of your peers
- The impact of cost drivers on your relative cost performance
- Your service levels relative to your peers

## Key Takeaways:

### Cost

- Before adjusting for economies of scale, your total pension administration cost of \$105 per active member and annuitant was \$22 below the peer average of \$127.
- After adjusting the cost of each peer for its scale advantage/disadvantage, your cost was \$39 below the adjusted peer average of \$144.

### Service

- Your total service score was 66. This was below the peer median of 78.
- The activities with the highest impact on your service score were:
  - Pension inceptions: Your % of service inceptions that were incepted within a month, i.e. without a cash-flow interruption for your retiring active member, was 17% versus a peer average of 87%.
  - Call center: Your average total wait time was 330 seconds and the peer average was 190 seconds. Your % of undesired phone calls, i.e. callers hang up in queue or on hold, was 14% versus a peer average of 10%.
  - Purchases: Your turnaround time for a service credit purchase estimate was 34 days versus a peer average of 25 days (and peer median of 5 days).
  - Website: You didn't offer a service credit purchase calculator to your members or offer secure access to both up-to-date salary and service credit data with a complete annual history since employment. 70% of your peers offered a service credit purchase calculator and 70% offered access to pensionable earnings and/ or service to their members.

## 70 leading global pension systems participate in the benchmarking service.

### Participants

#### United States

Arizona SRS  
CalPERS  
CalSTRS  
Colorado PERA  
Delaware PERS  
Florida RS  
Idaho PERS  
Illinois MRF  
Indiana PRS  
Iowa PERS  
KPERs  
LACERA  
Maryland SRPS  
Michigan ORS  
Minnesota State RS  
Nevada PERS  
North Carolina RS  
NYC ERS  
NYC TRS  
NYSLRS  
Ohio PERS  
Oregon PERS  
Pennsylvania PSERS  
PERS of Mississippi

PSRS PEERS of Missouri  
South Carolina RS  
South Dakota RS  
STRS Ohio  
TRS Illinois  
TRS of Texas  
Utah RS  
Virginia RS  
Washington State DRS  
Wisconsin DETF

#### Canada

Alberta TRS  
Alberta PS  
BC Pension Corporation  
Canadian Forces PP  
Federal Public Service PP  
LAPP of Alberta  
OMERS  
Ontario Pension Board  
Ontario Teachers  
OPTrust  
RCMP  
Saskatchewan HEPP

#### The Netherlands\*

ABN Amro PF  
ABP  
bpfBOUW  
BPF Levensmiddelen  
BPL Pensioen  
Metaal en Techniek  
PF PWRI  
PF Vervoer  
PFZW  
Rabobank PF  
Shell PF

#### South Africa

EPPF

#### United Kingdom\*

BSA NHS Pensions  
BT Pension Scheme  
Greater Manchester PF  
Local Pensions Partnership  
Lothian PF  
Merseyside PF  
Pension Protection Fund  
Principal Civil Service  
Royal Mail Pensions  
South Yorkshire PF  
Teachers' Pensions  
Tyne & Wear PF  
Universities Superannuation  
West Midlands Metro  
West Yorkshire PF

\* Systems in the UK and most systems in the Netherlands complete different benchmarking surveys and hence your analysis does not include their results.

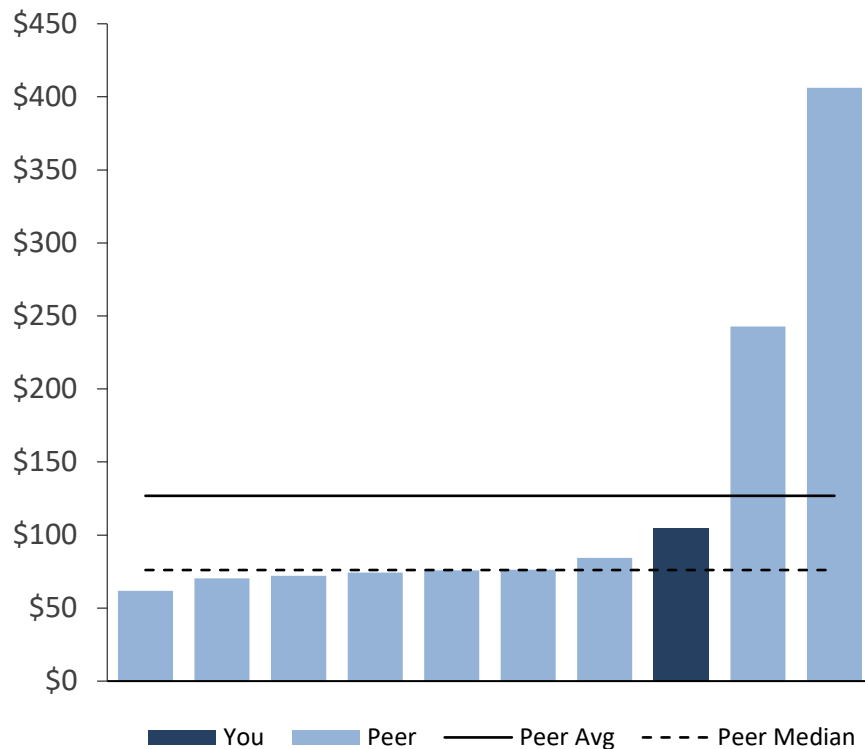
## The custom peer group for Minnesota State RS consists of the following 10 peers:

Custom Peer Group for Minnesota State RS			
Peers (sorted by size)	Membership (in 000's)		
	Active Members	Annuitants	Total
PSRS PEERS of Missouri	129	98	227
NYC TRS	129	93	222
Nevada PERS	109	70	179
TRS Louisiana	92	81	172
LACERA	100	70	170
Utah RS	98	71	168
Idaho PERS	74	50	124
<b>Minnesota State RS</b>	<b>58</b>	<b>49</b>	<b>107</b>
Delaware PERS	46	34	79
South Dakota RS	42	29	71
Peer Median	95	70	169
Peer Average	88	64	152

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 either active members or annuitants.

**Before adjusting for economies of scale, your total pension administration cost of \$105 per active member and annuitant was \$22 below the peer average of \$127.**

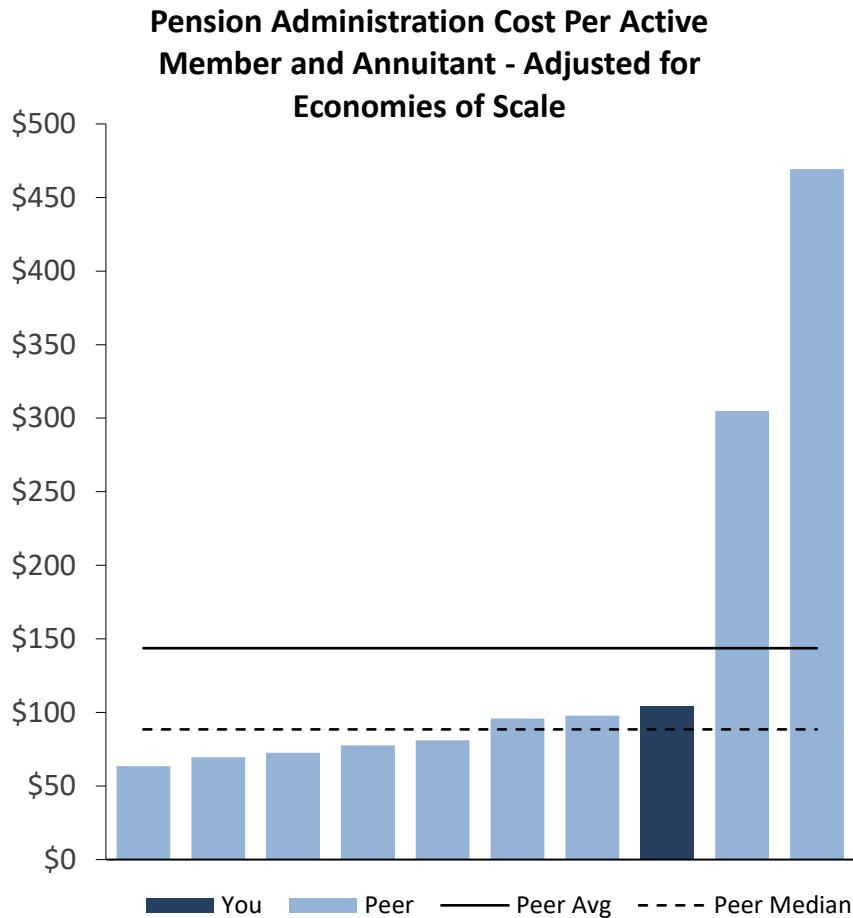
**Pension Administration Cost Per Active Member and Annuitant - Unadjusted**



Category	\$000s	\$ per Active Member and Annuitant	
		You	Peer Avg
<u>Front office</u>			
Member Transactions	1,499	14	23
Member Communication	4,799	45	24
Collections & Data Maintenance	463	4	6
<u>Governance and support</u>			
Governance and Financial Control	747	7	11
Major Projects	0	0	10
Information Technology	2,280	21	22
Building	126	1	8
Legal	39	0	6
HR, Actuarial, Audit, Other	1,222	11	15
<b>Total Pension Administration</b>	<b>11,175</b>	<b>105</b>	<b>127</b>

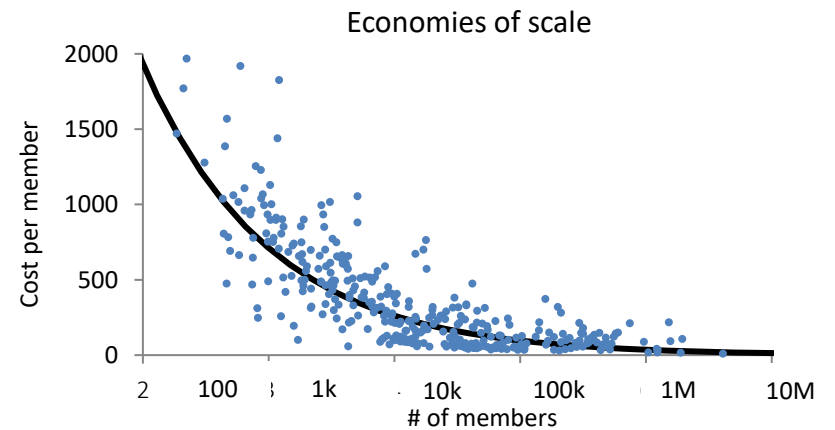
Your total pension administration cost was \$11.2 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$0.8 million.

**Size matters: you had an economies of scale disadvantage relative to the peer average. After adjusting the cost of each peer for its scale advantage/disadvantage, your cost was \$39 below the adjusted peer average of \$144.**



Your system had 25% fewer members than the peer weighted average. Your smaller size means that you had a scale disadvantage of \$17 relative to the peer average.

The scale adjustment is based on regression analysis 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.



Each peer's cost was adjusted for its scale advantage/disadvantage relative to your system.

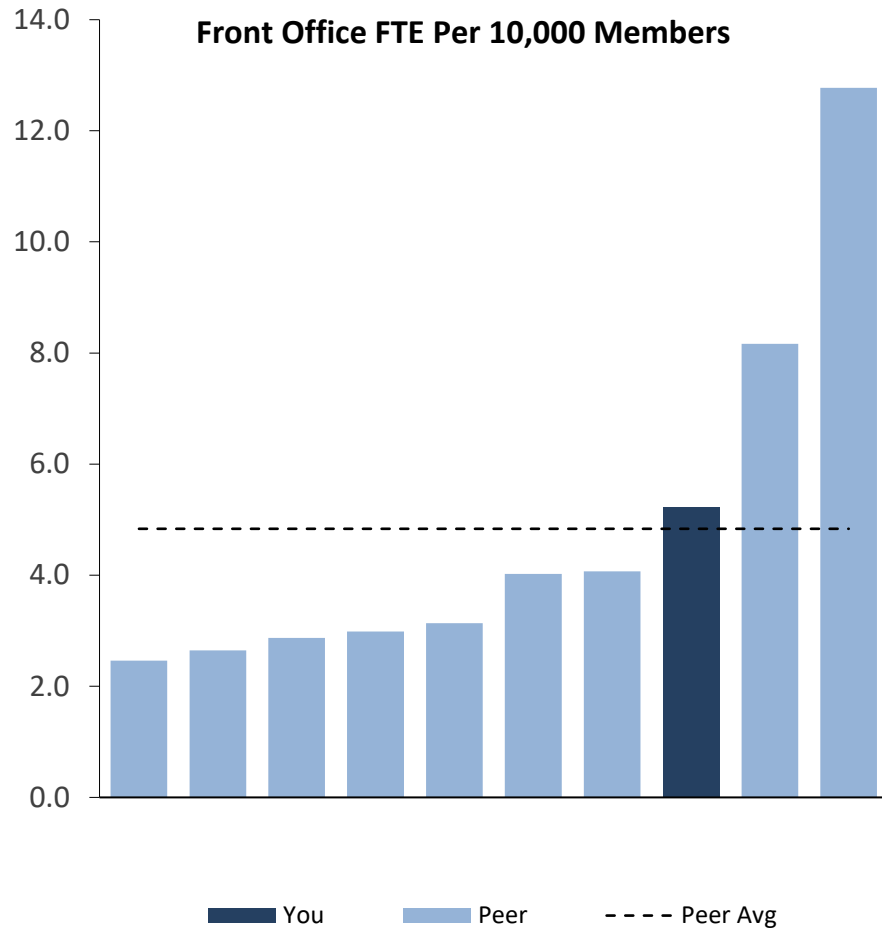


## Reasons why your cost per member was \$39 below the adjusted peer average:

Reason	You	Peer Avg	Impact \$ per active member and annuitant
1 More front-office FTE per 10,000 members	5.2 FTE	4.8 FTE	\$4
2 Higher third party costs per member in the front-office	\$14	\$9	\$5
3 Lower costs per FTE	\$105,543	\$131,992	-\$20
4 Lower support costs per member <sup>1</sup>	\$35	\$47	-\$12
Total unadjusted			-\$22
Adjustment for your scale disadvantage			-\$17
Total after adjusting for economy of scale differences			-\$39

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

## You had 5.2 front office FTE per 10,000 members vs a peer average of 4.8.

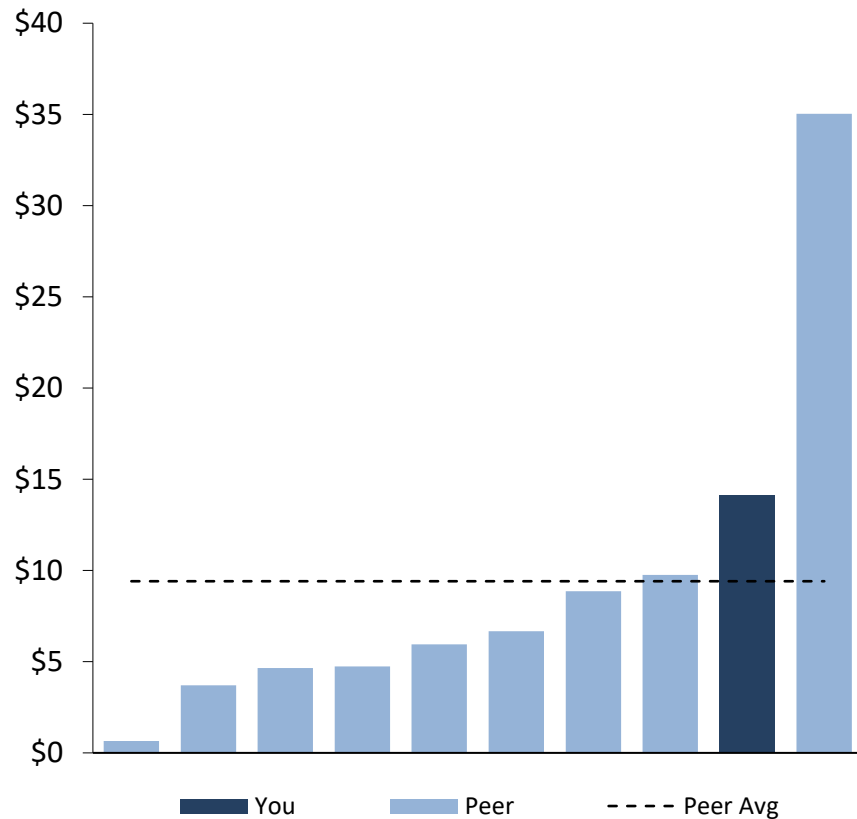


Your front office FTE per 10,000 members was 8% above the peer average.

Your higher front office FTE to member ratio increased your total cost per member by \$4 relative to the peer average.

## You had higher third party and other miscellaneous costs in the front office activities.

**Third Party Costs in Front Office Activities per Active Member and Annuitant**



Your third party in the front office activities were \$14 per member which was 50% above the peer average of \$9.

Your higher third party costs increased your total cost per member by \$5 relative to the peer average.

Front office activities are activities that come in contact with clients or employers, such as paying pensions, member calls and presentations. It excludes back-office activities such as Governance and Financial Control, Major Projects and Support Services.

**You had overall lower costs per FTE for: salaries and benefits, IT desktop, networks and telecom, building and utilities, and human resources.**

	Cost per FTE	
	You	FTE-Wtd Peer Avg
Salaries and Benefits	\$94,141	\$104,264
Benefits for Retired Staff	\$0	\$1,146
Building and Utilities	\$1,533	\$11,333
Human Resources	\$1,246	\$4,138
IT Desktop, Networks, Telecom	\$8,623	\$11,111
<b>Total</b>	<b>\$105,543</b>	<b>\$131,992</b>

Your lower costs per FTE decreased your total cost by \$20 per member relative to the peer average.

## You paid less for Governance and support activities.

Member	Member		
	You	Peer Avg	More/-less
Governance and support Activities			
Governance and Financial Control	\$8	\$10	-\$2
Major Projects	\$0	\$9	-\$9
IT Strategy, Database, Applications	\$16	\$13	\$3
Actuarial, Legal, Audit, Other	\$12	\$16	-\$4
Total	\$35	\$47	-\$12

Your adjusted cost per active member and annuitant of \$35 for back-office activities was below the peer average of \$47.

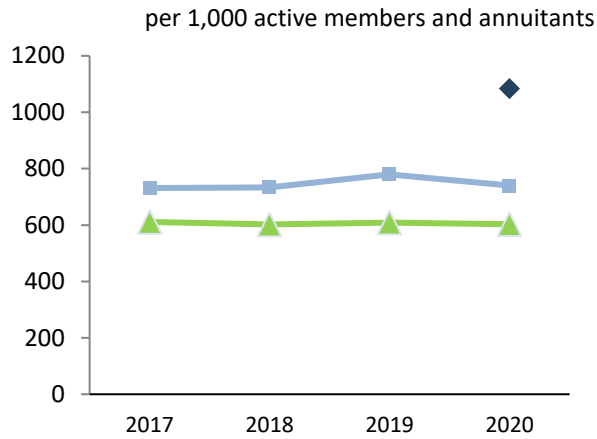
Paying less for back-office activities decreased your total cost per member by \$12 relative to the peer average.

Differences in cost per member for back-office activities reflects differences in:

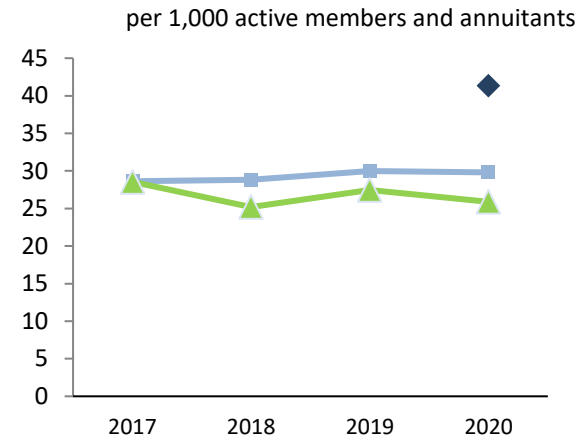
- How much you do. For example, some systems invest more in disaster recovery.
- IT capability
- IT investment cycle
- Plan complexity

# You had higher traditional transaction volumes than your peers and the global universe:

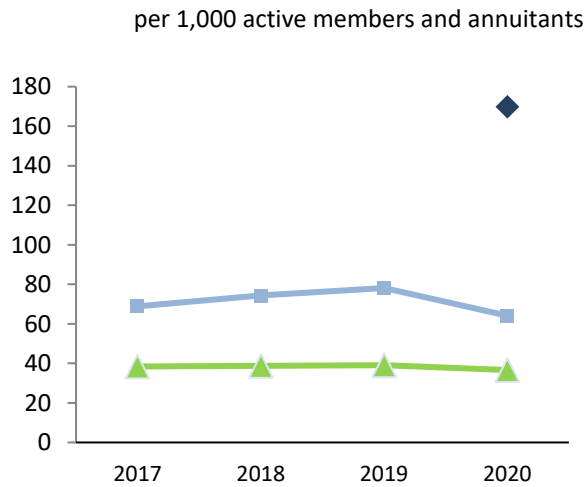
## Incoming Calls and Emails



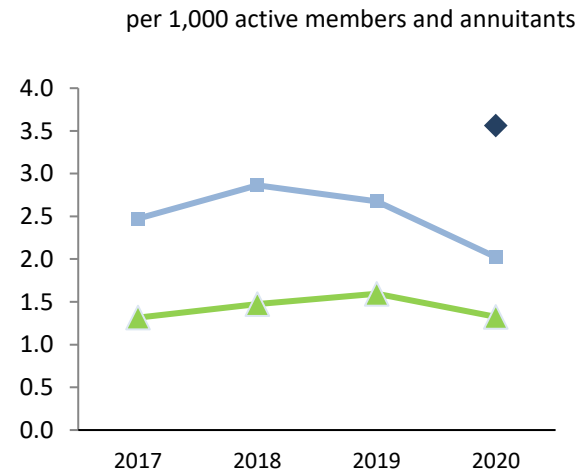
## Written Estimates



## Members Counseled 1-on-1



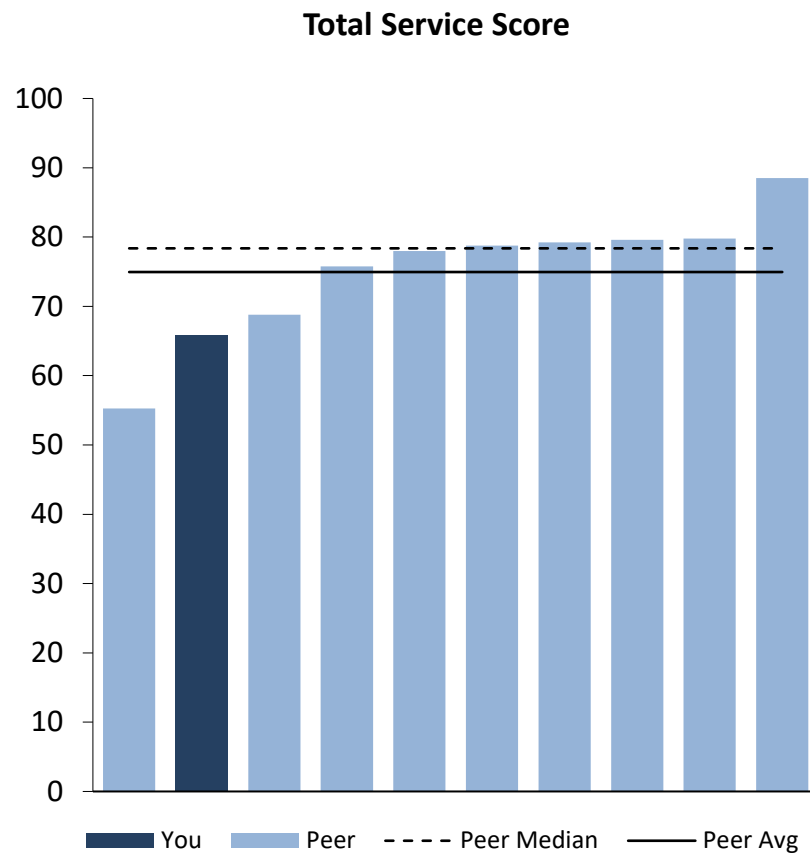
## Member Presentations



◆ You    ■ Peer Avg    ▲ All Avg

Trend analysis is based on 36 systems that have provided 8 consecutive years of data.

## Your total service score was 66. This was below the peer median of 78.



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.

Service Scores by Activity			
Activity	Weight	You	Peer Median
<b>1. Member Transactions</b>			
Pension Payments	10.0%	100	100
Pension Inceptions	7.4%	24	79
Transfers-out	1.3%	90	90
Purchases and Transfers-in	3.1%	24	87
Disability	3.8%	72	81
<b>2. Member Communication</b>			
Call Center	21.0%	52	72
1-on-1 Counseling	7.4%	83	85
Member Presentations	6.5%	100	100
Written Pension Estimates	4.7%	86	84
Mass Communication			
Website	21.3%	62	74
News and Targeted Communicator	2.8%	75	70
Member statements	4.7%	90	88
<b>3. Other</b>			
Member Experience Surveying	5.0%	27	32
Disaster Recovery	1.0%	90	90
<b>Weighted Total Service Score</b>	<b>100%</b>	<b>66</b>	<b>78</b>

## Examples of key service measures included in your Service Score:

Select Key Service Metrics	You	Peer Avg
<u>Member Contacts</u>		
• % of calls resulting in undesired outcomes (busy signals, messages, hang-ups)	14%	10%
• Average total wait time including time negotiating auto attendants, etc.	330 secs	190 secs
<u>Website</u>		
• Can members access their own data in a secure environment?	Yes	90% Yes
• Do you have an online calculator linked to member data?	Yes	90% Yes
• # of other website tools offered such as changing address information, registering for counseling sessions and/or workshops, viewing or printing tax receipts, etc.	9	12
<u>1-on-1 Counseling and Member Presentations</u>		
• % of your active membership that attended a 1-on-1 counseling session	31.6%	12.6%
• % of your active membership that attended a presentation	16.5%	8.3%
<u>Pension Inceptions</u>		
• What % of annuity pension inceptions are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check?	16.8%	87.3%
<u>Member Statements</u>		
• How current is an active member's data in the statements that the member receives?	1.0 mos	2.3 mos
• Do statements provide an estimate of the future pension entitlement?	Yes	90% Yes



## Where can you improve your total service score?

Potential improvements to your total service score	
Factor	Potential Improvement
83.2% of your service pension inceptions experienced a cashflow interruption greater than one month. To achieve a perfect service score 100% of your service pensions must be incepted without a cashflow interruption greater than one month.	+ 4.8
On average, members calling your call center reach a knowledgeable person in 330 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 60 seconds or less.	+ 3.8
14.5% of your incoming calls resulted in undesired outcomes (e.g., busy signals, messages, hang-ups). To achieve a perfect service score, members must experience no undesired call outcomes.	+ 2.4
On average, you provide a service credit purchase in 34 days. To achieve a perfect service score, you must be able to provide a service credit purchase estimate in 1 day or less.	+ 2.0

CEM is not recommending these changes. Service improvement should be cost effective and important to your members.

# 2

## Peer Characteristics

This section contains:

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

## Your peer group consists of 10 peers.

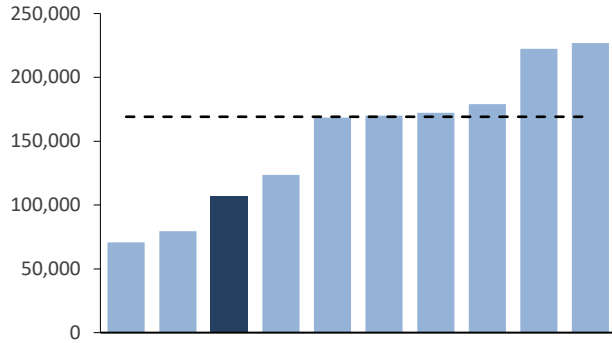
The most relevant comparisons are to systems similar to you in total membership and nationality. Your peer group consists of the following 10 systems:

<b>Custom Peer Group for Minnesota State RS</b>			
	Active		
	Members	Annuitants	Total
PSRS PEERS of Missouri	129,027	97,827	226,854
NYC TRS	129,292	93,082	222,374
Nevada PERS	109,326	69,737	179,063
TRS Louisiana	91,641	80,694	172,335
LACERA	100,115	69,747	169,862
Utah RS	97,672	70,706	168,378
Idaho PERS	73,854	49,827	123,681
Minnesota State RS	57,541	49,362	106,903
Delaware PERS	45,828	33,632	79,460
South Dakota RS	41,500	29,196	70,696
Peer Median	94,657	69,742	169,120
Peer Avg	87,580	64,381	151,961

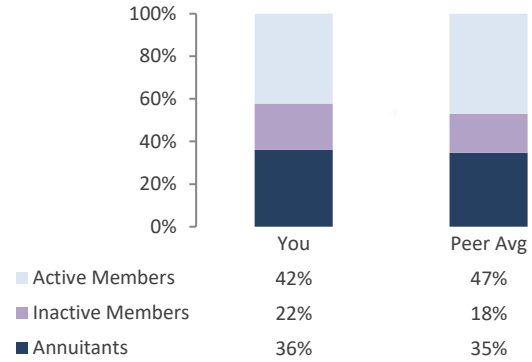
Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded when determining cost per member because they are much less costly to administer than either active members or annuitants.

# Graphical summary of peer characteristics

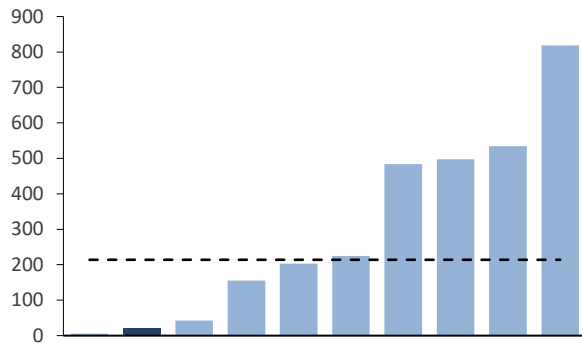
### Active Members and Annuitants



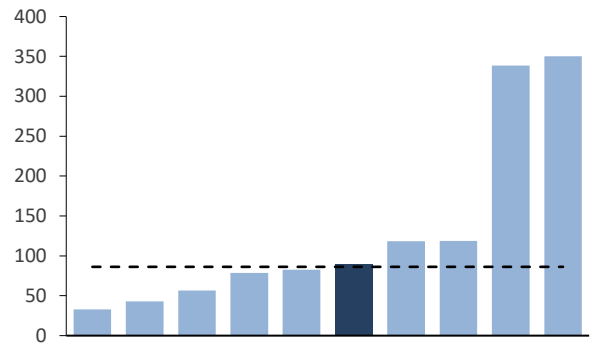
### Membership Mix



### Number of Employers

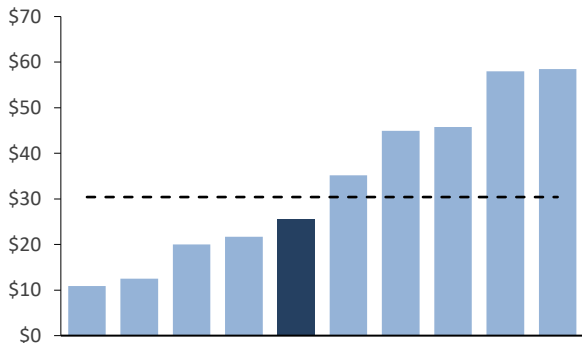


### Pension Administration FTE

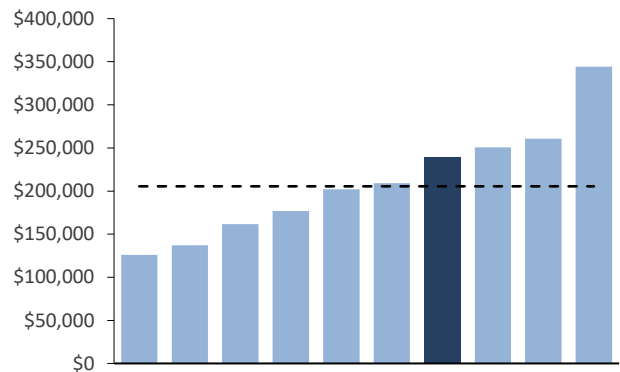


### Total Assets

in \$ billions



### Total Assets per Active Member and Annuitant



■ You    ■ Peer    - - - Peer Median

## Profiles of the 52 benchmarking participants (excluding UK systems)

Participant	Members by Type (000s)			Member Groups										Plan Types						
	Active Members	Annuity	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
<b>Canada</b>																				
Alberta Teachers	42	29	12			X							X							
APS	220	112	52	X	X	X	X	X	X				X							
BC Pension Corporation	347	207	85	X	X	X	X	X	X	X	X	X	X	X	X				X	
Canadian Forces Pension Plans	91	114	8						X				X							
FPSP	332	282	38	X									X							
LAPP	167	72	35	X			X	X	X				X							
OMERS	289	162	45				X	X	X	X	X		X							
Ontario Pension Board	44	39	7	X			X						X							
Ontario Teachers	184	145	64	X	X	X							X							
OPTrust	48	39	9	X								X	X							
RCMP	23	22	1	X			X						X							
SHEPP	37	19	3						X			X	X							
<b>The Netherlands</b>																				
ABP	1,151	911	955									X	X							
PFZW	1,288	487	1,096									X	X							
<b>Scandinavia</b>																				
ATP	3,161	1,060	980	X																
<b>South Africa</b>																				
EPPF	42	33	2								X		X							

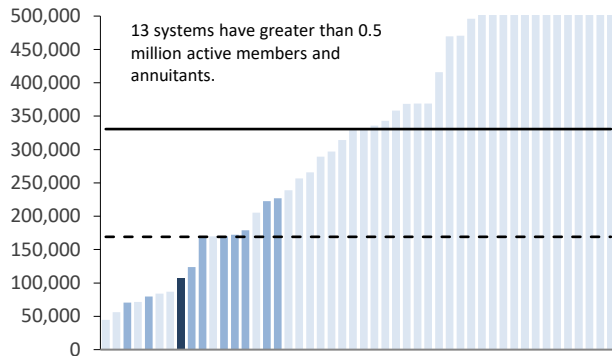
# Profiles of the 52 benchmarking participants

continued

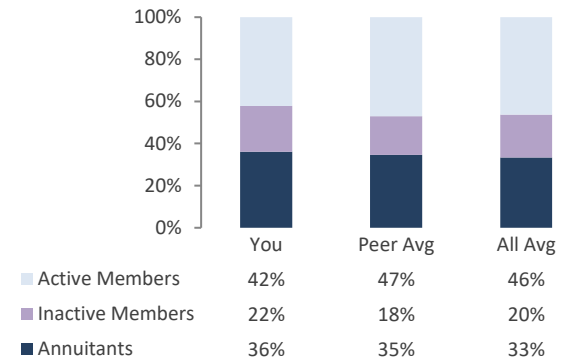
Participant	Members by Type (000s)			Member Groups										Plan Types						
	Active Members	Annuity	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (Judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree Healthcare
<b>United States</b>																				
Arizona SRS	210	159	245	X	X	X		X	X				X	X						X
CalPERS	880	735	441	X		X	X	X	X				X							X
CalSTRS	463	312	202	X	X	X							X		X					
Colorado PERA	245	124	271	X	X	X		X	X				X				X	X		X
Delaware PERS	46	34	18	X	X	X	X	X	X				X							
Florida RS	642	466	117	X	X	X	X	X	X				X			X	X			
Idaho PERS	74	50	50	X	X	X	X	X	X				X						X	
Illinois MRF	178	136	124				X	X	X				X							
Indiana PRS	252	164	2	X	X	X	X	X	X				X			X	X	X		
Iowa PERS	170	127	78	X	X	X	X	X	X				X							
KPERS	154	103	61	X	X	X	X	X	X				X	X		X				
LACERA	100	70	16	X				X	X				X							X
Maryland SRPS	193	165	50	X	X	X	X	X	X				X							
Michigan ORS	190	280	587	X	X	X	X		X				X				X	X		X
Minnesota State RS	58	49	30	X			X		X				X			X				
Nevada PERS	109	70	17	X	X	X	X		X				X							
North Carolina RS	472	322	195	X	X	X	X	X	X				X							
NYCERS	191	152	34	X			X	X	X				X							
NYC TRS	129	93	42	X	X	X							X						X	
NYSLRS	531	487	143	X		X	X	X	X				X							
Ohio PERS	304	215	654	X			X		X				X	X				X	X	
Oregon PERS	181	155	73	X	X	X	X	X	X						X			X	X	
Pennsylvania PSERS	256	240	162	X	X	X							X							X
PERS of Mississippi	153	113	78	X	X	X	X	X	X				X							
PSRS PEERS of Missouri	129	98	57			X	X				X		X							
South Carolina RS	295	176	218	X	X	X	X	X	X				X			X	X			
South Dakota RS	42	29	19	X	X	X	X	X	X				X							
STRS Ohio	209	159	157			X							X				X	X		X
Texas MRS	112	58	42	X				X	X						X					
TRS Illinois	163	126	138	X	X								X							
TRS Louisiana	92	81	28			X	X						X		X	X				
TRS of Texas	915	445	323	X	X	X							X							X
Utah RS	98	71	58	X	X	X	X	X	X				X				X	X		
Virginia RS	348	223	171	X	X	X	X	X	X				X					X		
Washington State DRS	338	201	297	X	X	X	X	X	X				X					X		
Wisconsin DETF	258	209	175	X	X	X	X	X	X				X							X

# Graphical summary of all participant characteristics

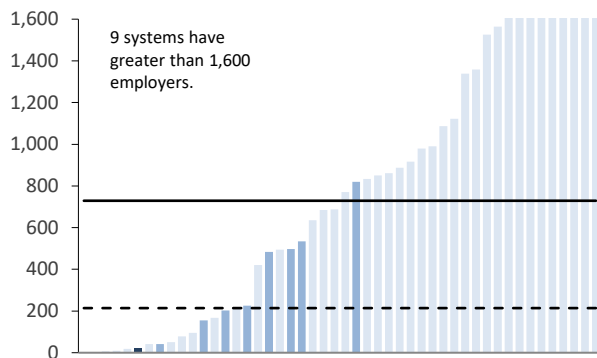
## Active Members and Annuitants



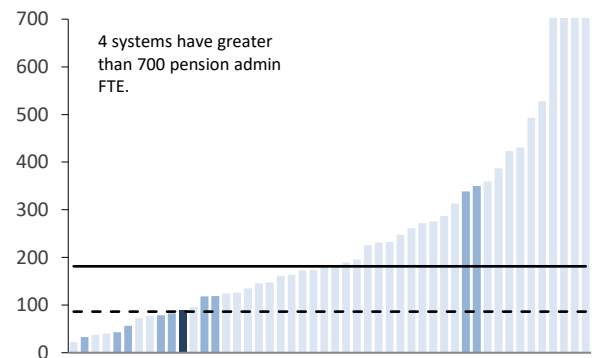
## Membership Mix



## Number of Employers

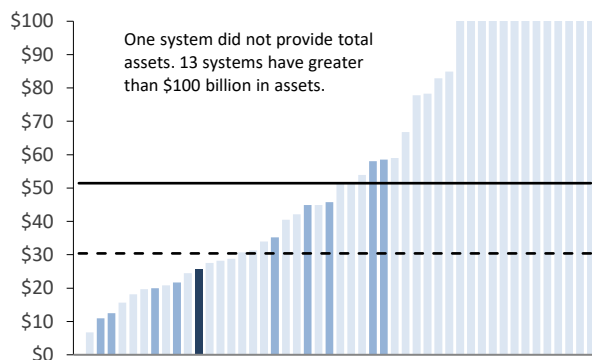


## Pension Administration FTE

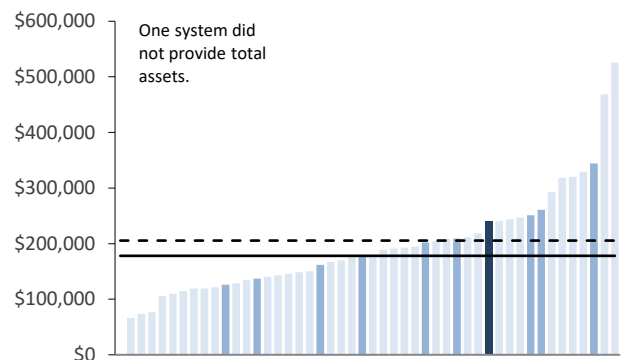


## Total Assets

in \$ billions



## Total Assets per Active Member and Annuitant



■ You    ■ Peer    ■ All

--- Peer Median    — All Median

# 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
- Compares your costs per member type.



## Your total pension administration cost was \$11.2 million or \$105 per active member and annuitant.

Activity <sup>1</sup>	Cost	\$s per Active Member and			% of Total Pension		
	\$000s You	You	Peer Avg	All Avg	You	Peer Avg	All Avg
<b>1. Member Transactions</b>							
a. Pension Payments	783	7.32	4.96	4.03	7.0%	3.9%	3.4%
b. Pension Inceptions	185	1.73	5.55	4.65	1.7%	4.4%	4.0%
c. Refunds, Withdrawals, and Transfers-out	379	3.54	3.15	2.87	3.4%	2.5%	2.4%
d. Purchases and Transfers-in	84	0.79	2.12	2.90	0.8%	1.7%	2.5%
e. Disability	<u>67</u>	<u>0.63</u>	<u>7.05</u>	<u>2.56</u>	<u>0.6%</u>	<u>5.6%</u>	<u>2.2%</u>
	1,499	14.02	22.82	17.01	13.4%	18.0%	14.5%
<b>2. Member Communication</b>							
a. Call Center	1,372	12.84	7.26	6.29	12.3%	5.7%	5.4%
b. Mail Room, Imaging	337	3.15	4.24	2.76	3.0%	3.3%	2.4%
c. 1-on-1 Counseling	800	7.48	3.22	2.50	7.2%	2.5%	2.1%
d. Member Presentations	631	5.91	2.54	1.52	5.7%	2.0%	1.3%
e. Written Pension Estimates	1,027	9.61	2.61	1.68	9.2%	2.1%	1.4%
f. Mass Communication	<u>631</u>	<u>5.91</u>	<u>4.55</u>	<u>3.86</u>	<u>5.7%</u>	<u>3.6%</u>	<u>3.3%</u>
	4,799	44.89	24.42	18.62	42.9%	19.3%	15.9%
<b>3. Collections and Data Maintenance</b>							
a. Data and Money from Employers	84	0.79	2.97	4.17	0.8%	2.3%	3.5%
b. Service to Employers	379	3.54	1.92	1.97	3.4%	1.5%	1.7%
c. Data Not from Employers	<u>0</u>	<u>0.00</u>	<u>1.15</u>	<u>1.53</u>	<u>0.0%</u>	<u>0.9%</u>	<u>1.3%</u>
	463	4.33	6.04	7.66	4.1%	4.8%	6.5%
<b>4. Governance and Financial Control</b>							
a. Financial Administration and Control	181	1.69	5.55	4.80	1.6%	4.4%	4.1%
b. Board, Strategy, Policy	307	2.87	3.44	4.58	2.7%	2.7%	3.9%
c. Government and Public Relations	<u>259</u>	<u>2.43</u>	<u>2.14</u>	<u>1.50</u>	<u>2.3%</u>	<u>1.7%</u>	<u>1.3%</u>
	747	6.99	11.12	10.88	6.7%	8.8%	9.3%
<b>5. Major Projects</b>							
a. Amortization of non-IT Major Projects	0	0.00	0.13	0.19	0.0%	0.1%	0.2%
b. Non-IT Major Projects (if you don't capitalize)	0	0.00	0.98	1.89	0.0%	0.8%	1.6%
c. Amortization of IT Major Projects	0	0.00	2.32	2.82	0.0%	1.8%	2.4%
d. IT Major Projects (if you don't capitalize)	<u>0</u>	<u>0.00</u>	<u>7.03</u>	<u>4.91</u>	<u>0.0%</u>	<u>5.5%</u>	<u>4.2%</u>
	0	0.00	10.46	9.81	0.0%	8.2%	8.4%
<b>6. Information Technology</b>							
a. IT Strategy, Database Management and Applications	1,572	14.71	13.88	19.17	14.1%	10.9%	16.3%
b. IT Desktop, Networks, Telecom	<u>708</u>	<u>6.62</u>	<u>8.21</u>	<u>9.01</u>	<u>6.3%</u>	<u>6.5%</u>	<u>7.7%</u>
	2,280	21.33	22.09	28.17	20.4%	17.4%	24.0%
<b>7. Support Services and Other</b>							
a. Building and Utilities	126	1.18	8.37	8.00	1.1%	6.6%	6.8%
b. Human Resources	102	0.96	3.06	3.59	0.9%	2.4%	3.1%
c. Actuarial	298	2.79	2.00	2.03	2.7%	1.6%	1.7%
d. Legal and Rule Interpretation	39	0.37	6.28	4.96	0.4%	5.0%	4.2%
e. Internal and External Audit	20	0.18	5.23	2.68	0.2%	4.1%	2.3%
f. Pay-as-you-go Benefits for Retired Staff	0	0.00	0.85	0.66	0.0%	0.7%	0.6%
g. Other Support Services	<u>802</u>	<u>7.50</u>	<u>4.12</u>	<u>3.38</u>	<u>7.2%</u>	<u>3.2%</u>	<u>2.9%</u>
	1,387	12.97	29.91	25.30	12.4%	23.6%	21.5%
<b>Total Pension Administration <sup>2</sup></b>	11,175	104.53	126.86	117.47	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).

\$ Cost per Active Member and Annuitant													
Activity <sup>1</sup>	Peer							All Participants					
	You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min
<b>1. Member Transactions</b>													
a. Pension Payments	7.32	4.96	12.51	6.69	3.25	1.88	0.53	4.03	14.19	5.45	2.81	1.71	0.53
b. Pension Inceptions	1.73	5.55	12.51	9.46	2.99	2.38	1.73	4.65	19.68	7.30	3.18	2.22	1.02
c. Refunds, Withdrawals, and Transfers-out	3.54	3.15	12.51	4.18	1.66	1.01	0.50	2.87	16.01	3.85	1.69	1.05	0.20
d. Purchases and Transfers-in	0.79	2.12	6.88	1.98	1.17	0.75	0.40	2.90	17.82	3.62	1.20	0.60	0.00
e. Disability	<u>0.63</u>	<u>7.05</u>	61.05	1.74	0.90	0.53	0.04	<u>2.67</u>	61.05	2.37	0.59	0.23	0.00
	14.02	22.82	104.33	17.88	13.13	7.46	5.80	17.01	104.33	19.09	10.44	7.03	2.81
<b>2. Member Communication</b>													
a. Call Center	12.84	7.26	25.45	9.82	4.32	3.13	0.00	6.29	25.45	7.51	5.39	3.53	0.00
b. Mail Room, Imaging	3.15	4.24	24.10	3.27	1.32	0.64	0.37	2.76	24.10	3.53	1.42	0.81	0.33
c. 1-on-1 Counseling	7.48	3.22	7.48	4.66	2.26	1.47	0.37	2.50	11.36	3.24	1.43	0.58	0.00
d. Member Presentations	5.91	2.54	6.89	2.65	1.78	1.10	0.75	1.52	9.02	1.89	0.92	0.52	0.00
e. Written Pension Estimates	9.61	2.61	9.61	2.02	1.73	1.20	0.25	1.68	9.61	1.93	1.18	0.57	0.00
f. Mass Communication	<u>5.91</u>	<u>4.55</u>	15.13	5.40	3.58	2.19	0.94	<u>3.86</u>	17.84	4.99	2.96	1.97	0.00
	44.89	24.42	84.23	22.19	14.74	11.48	9.38	18.62	84.23	23.02	15.02	10.85	5.24
<b>3. Collections and Data Maintenance</b>													
a. Data and Money from Employers	0.79	2.97	5.39	3.98	2.85	1.66	0.79	4.17	16.50	5.25	2.95	1.62	0.00
b. Service to Employers	3.54	1.92	3.54	2.25	1.93	1.38	0.00	1.97	8.74	2.83	1.41	0.94	0.00
c. Data Not from Employers	<u>0.00</u>	<u>1.15</u>	5.11	1.34	0.60	0.29	0.00	<u>1.53</u>	8.73	2.00	1.17	0.45	0.00
	4.33	6.04	10.22	7.62	5.29	4.04	3.35	7.66	21.21	10.14	6.50	4.10	0.02
<b>4. Governance and Financial Control</b>													
a. Financial Administration and Control	1.69	5.55	16.82	6.87	4.47	2.94	0.56	4.80	16.82	5.72	3.98	2.34	0.48
b. Board, Strategy, Policy	2.87	3.44	6.69	4.26	3.15	2.41	1.40	4.58	19.16	6.09	3.34	1.72	0.15
c. Government and Public Relations	<u>2.43</u>	<u>2.14</u>	5.28	2.51	1.45	1.02	0.82	<u>1.50</u>	7.39	2.31	1.01	0.52	0.06
	6.99	11.12	27.37	11.81	9.50	7.57	3.23	10.88	31.41	17.33	9.35	4.80	0.98
<b>5. Major Projects</b>													
a. Amortization of non-IT Major Projects	0.00	0.13	1.33	0.00	0.00	0.00	0.00	0.19	4.81	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	0.00	0.98	9.80	0.00	0.00	0.00	0.00	1.89	27.45	1.36	0.00	0.00	0.00
c. Amortization of IT Major Projects	0.00	2.32	9.14	4.96	0.00	0.00	0.00	2.82	26.03	4.12	0.00	0.00	0.00
d. IT Major Projects (if you don't capitalize)	<u>0.00</u>	<u>7.03</u>	59.99	2.17	0.05	0.00	0.00	<u>4.91</u>	59.99	6.26	0.82	0.00	0.00
	0.00	10.46	69.79	8.85	1.97	0.00	0.00	9.81	69.79	12.84	6.00	0.40	0.00
<b>6. Information Technology</b>													
a. IT Strategy, Database, Applications (excl. major projects)	14.71	13.88	29.92	14.48	12.50	9.80	4.26	19.17	64.97	25.30	14.24	8.39	3.86
b. IT Desktop, Networks, Telecom	<u>6.62</u>	<u>8.21</u>	36.63	6.44	5.22	4.37	0.78	<u>9.01</u>	36.63	11.33	8.11	4.69	0.29
	21.33	22.09	66.55	20.64	16.68	14.56	6.59	28.17	83.71	36.86	23.08	16.44	5.68
<b>7. Support Services and Other</b>													
a. Building and Utilities	1.18	8.37	33.34	6.81	3.36	1.70	0.62	8.00	33.34	10.64	5.17	2.58	0.25
b. Human Resources	0.96	3.06	17.70	1.84	1.02	0.74	0.29	3.59	23.28	3.85	2.20	0.86	0.13
c. Actuarial	2.79	2.00	5.42	2.68	2.06	1.10	0.00	2.03	8.21	2.45	1.61	0.70	0.00
d. Legal and Rule Interpretation	0.37	6.28	36.95	3.45	3.30	2.31	0.37	4.96	36.95	5.24	3.26	2.03	0.37
e. Internal and External Audit	0.18	5.23	26.82	4.09	2.45	1.72	0.18	2.68	26.82	2.54	1.94	1.31	0.18
f. Pay-as-you-go Benefits for Retired Staff	0.00	0.85	4.21	0.68	0.00	0.00	0.00	0.66	9.62	0.23	0.00	0.00	0.00
g. Other Support Services	<u>7.50</u>	<u>4.12</u>	13.86	6.94	2.75	0.23	0.00	<u>3.38</u>	20.22	4.54	2.24	0.79	0.00
	12.97	29.91	113.60	22.88	17.93	12.79	10.15	25.30	113.60	28.64	20.20	11.17	2.83
<b>Total Pension Administration<sup>2</sup></b>	104.53	126.86	406.30	99.50	76.04	72.61	61.86	117.47	406.30	142.45	92.04	72.42	18.61

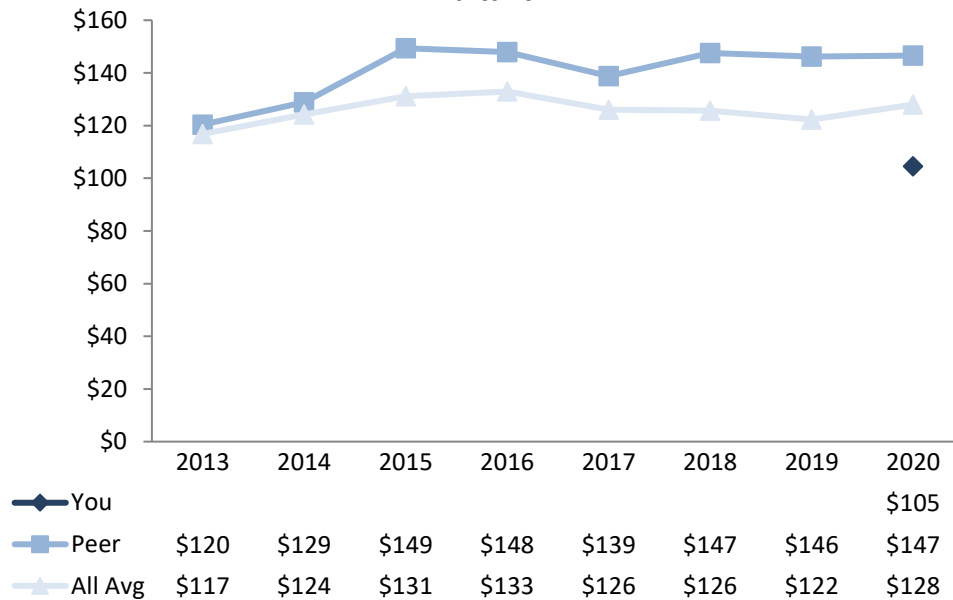
1. Refer to the appendix C for detailed activity definitions.

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 2.9% between 2013 and 2020. Your growth rate for the same period is unavailable.

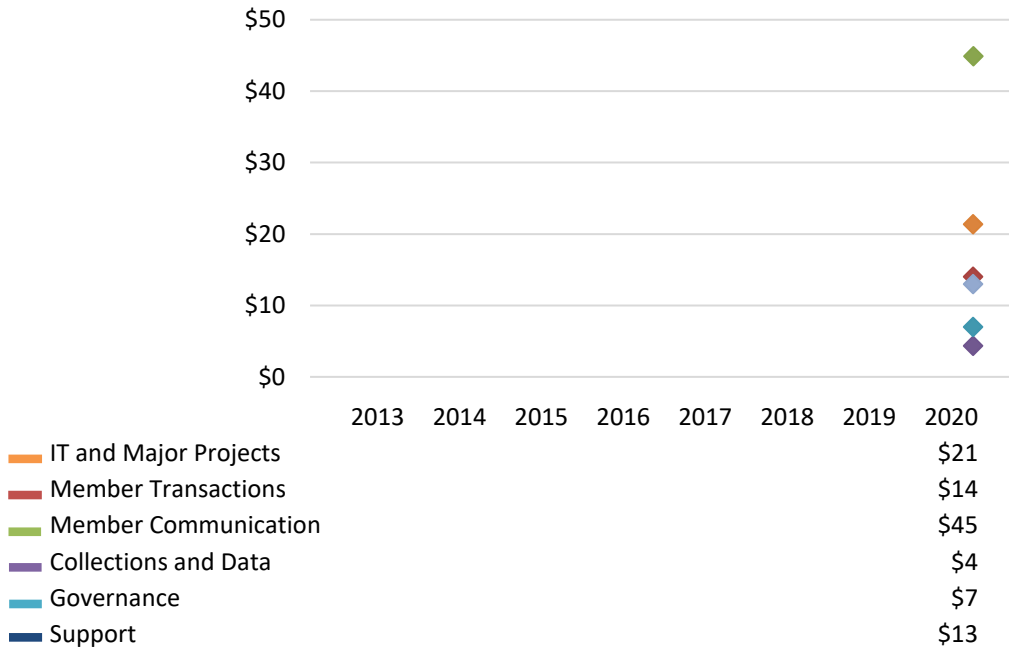
**Total Pension Administration Cost per Active Member and Annuitant<sup>1 2</sup>**



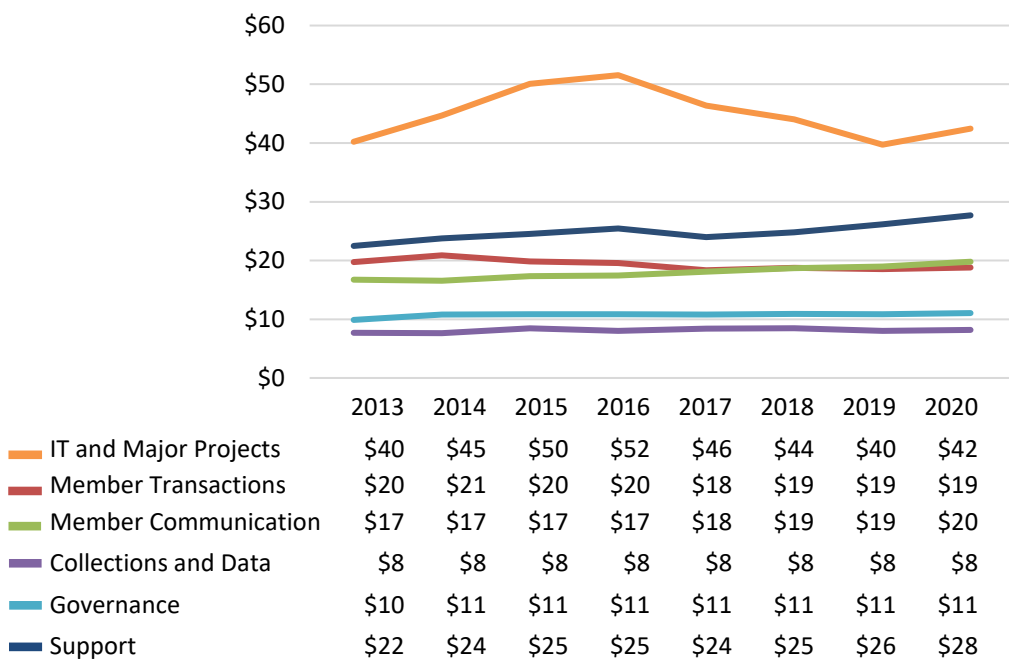
1. Trend analysis is based on systems that have participated for 8-consecutive years (7 peers and 36 World systems). This ensures that trends are not caused by changes in the composition of the participants.
2. All foreign currency amounts have been converted to USDs using Purchasing Power Parity figures 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

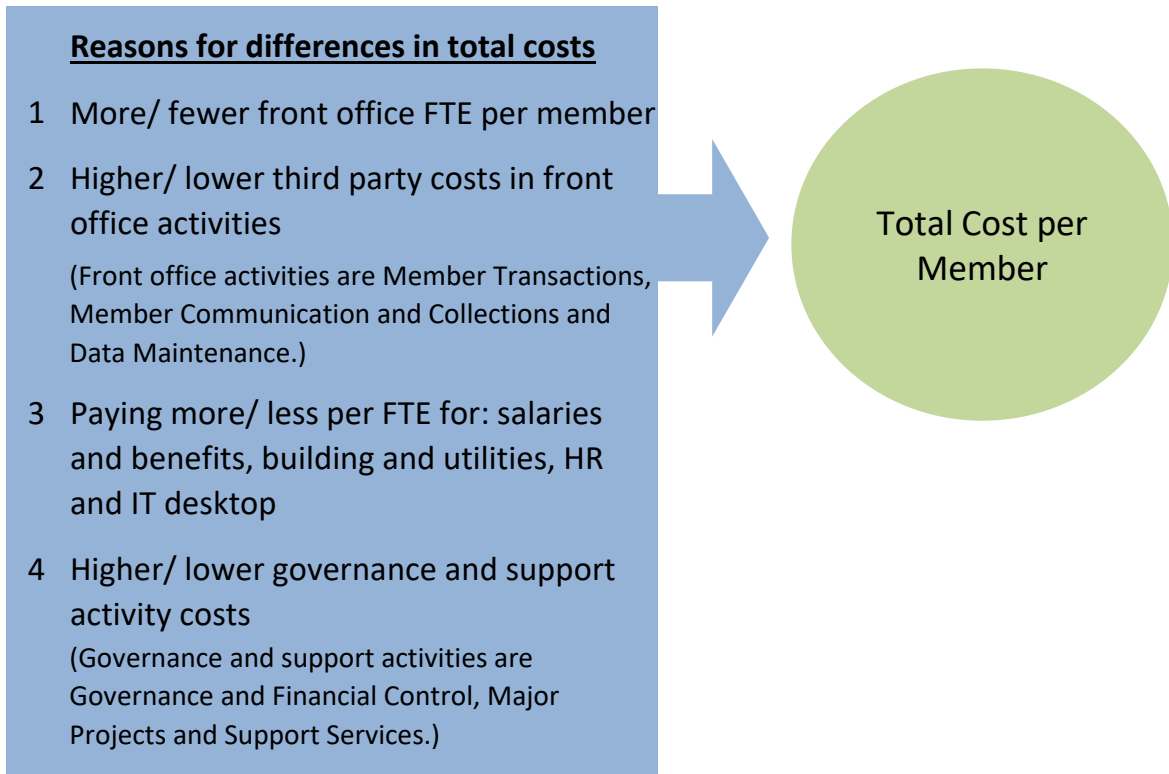


## Cost per Member - All Avg



Trend analysis is based on 36 systems that provided 8 consecutive years of data.

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



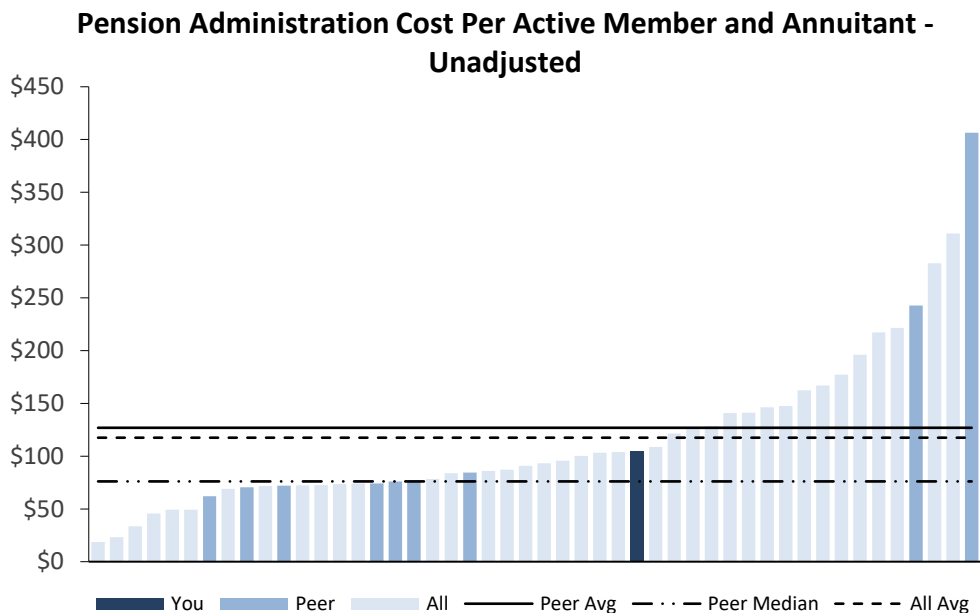
In this section, CEM quantifies the amount by which differences in each of the 4 reasons identified above cause your total pension administration cost to differ from the peer average.

### Average versus Median

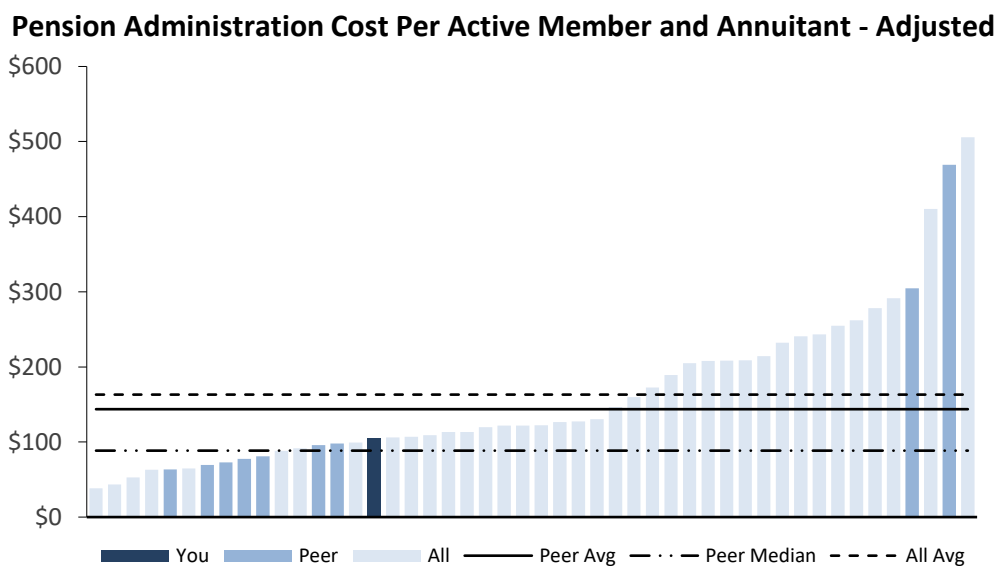
In the other sections of this report, CEM compares your performance to the median (i.e., the middle value or 50th percentile). This is because medians are less sensitive to outlier data than averages. An example of an outlier is a single peer with unusually high costs. In this section, we compare and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

**Before adjusting for economies of scale, your total pension administration cost was \$105 per active member and annuitant. This was \$22 below the peer average of \$127 (and \$29 above the peer median of \$76).**

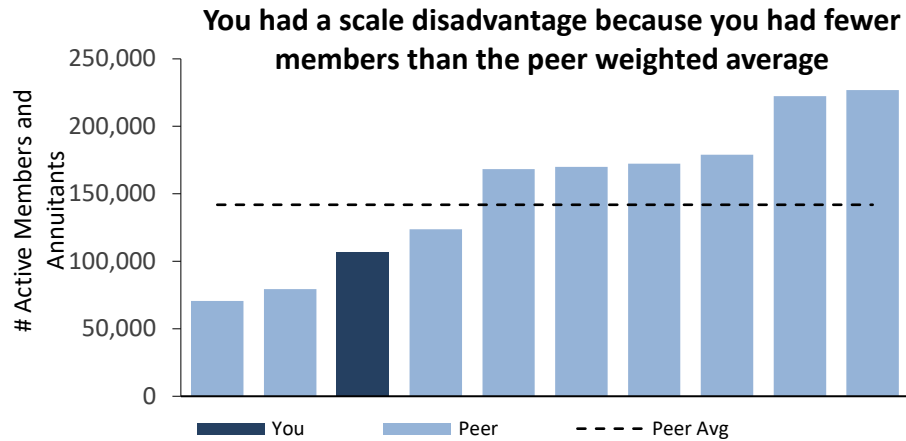


**After adjusting for scale, your cost per member was \$39 below the adjusted peer average of \$144.**



Pension administration cost excludes the fully-attributed costs of activities 1f. Healthcare Administration, and 1g. Optional and Third Party Administered Benefits.

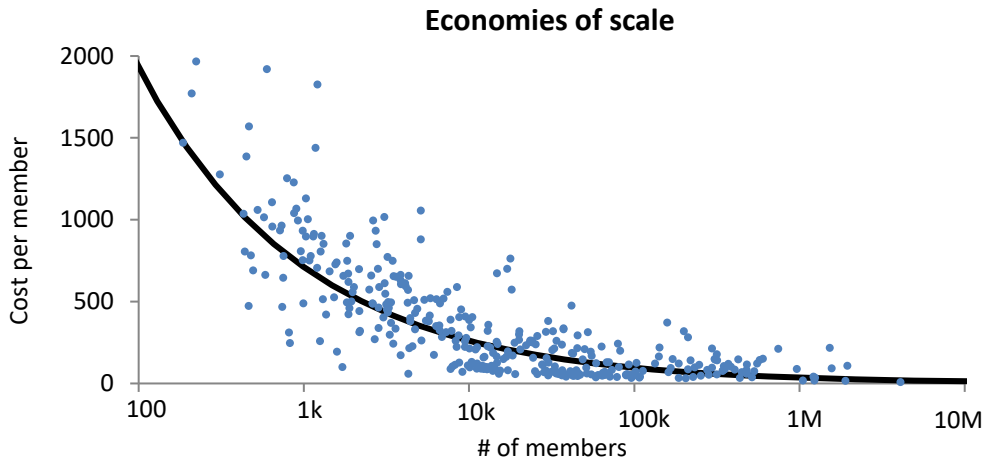
## Size matters: you had an economies of scale disadvantage.



The peer average is weighted with higher weight to smaller systems because the relationship between size and cost is not linear.

Your system had 25% fewer active members and annuitants than the peer weighted average. Your smaller size means that you had a cost disadvantage relative to the average peer of \$17 per member.

The scale adjustment is based on regression analysis 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.



How Changes in Membership Impact Your Cost			
% Change in Members	Implied # of Members	Predicted Cost per Member	Increase/-Decrease
-75%	26,726	\$161	\$56
-50%	53,452	\$130	\$25
-25%	80,177	\$114	\$10
0%	106,903	\$105	\$0
25%	133,629	\$98	-\$7
50%	160,355	\$92	-\$12
75%	187,080	\$88	-\$17

## Reasons why your total cost per member was \$39 below the adjusted peer average.

Reason	You	Peer Avg	Impact \$s per active member and annuitant
1 More front office FTE per 10,000 members	5.2	4.8	\$4
2 Higher third party costs per member in the front office	\$14	\$9	\$5
3 Lower costs per FTE			
Front office Salaries & Benefits	\$94,141	\$90,741	
Governance, support Salaries & Benefits	<u>\$94,141</u>	<u>\$129,867</u>	
Blended Average	\$94,141	\$105,410	
Building and Utilities	\$1,533	\$11,333	
HR	\$1,246	\$4,138	
IT Desktop, Networks, Telecom	<u>\$8,623</u>	<u>\$11,111</u>	
Total	\$105,543	\$131,992	-\$20
4 Lower support costs per member <sup>1</sup>			
Governance & Financial Control	\$8	\$10	
Major Projects	\$0	\$9	
IT Strategy, Database, Applications	\$16	\$13	
Actuarial, Legal, Audit, Other	<u>\$12</u>	<u>\$16</u>	
Total	\$35	\$47	-\$12
Total unadjusted			-\$22
Scale adjustment			-\$17
Total after adjusting for economy of scale differences			-\$39

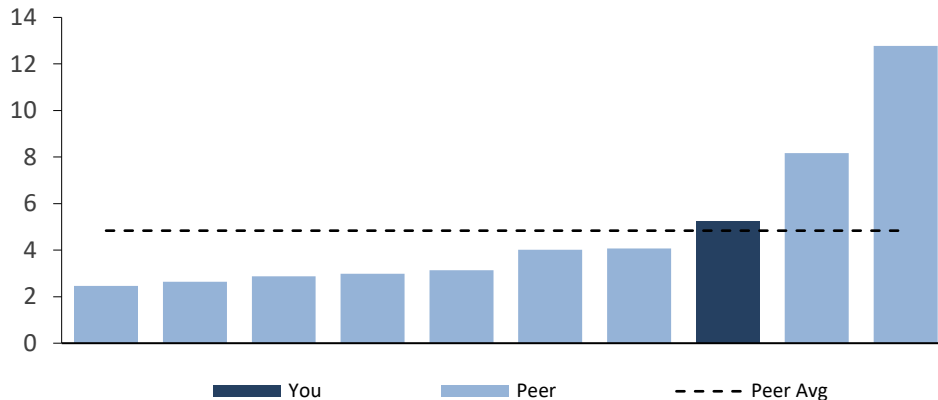
1. To avoid double counting, peers' governance and support costs are adjusted for differences in cost per FTE.



## Reason 1: You had more front office FTE per member.

Your 5.2 front office FTE per 10,000 members was 8% above the peer average of 4.8. 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 higher front office FTE per member increased your total cost per member by \$4 relative to the peer average.

**Front office FTE per 10,000 Active Members and Annuity**



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

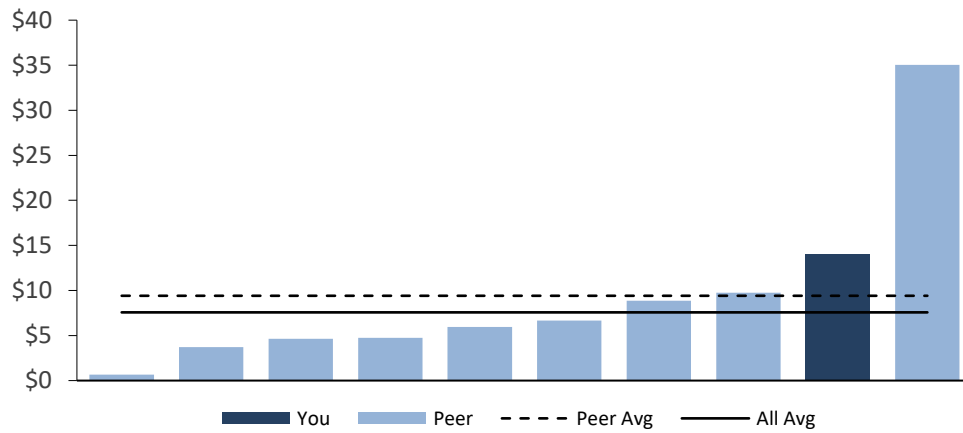
One reason you had more FTE per member is that you had lower transactions per FTE.

Activity	Volume Description	Volume per 1,000 Active Members and Annuity			Activity Volume per FTE		
		You	Peer Avg	+/-	You	Peer Avg	+/-
<b>Member Transactions</b>							
Pension Payments	Annuity	462	424	38	7,637	22,354	-14,717
New Payee Inceptions	New Inceptions	28	25	3	1,966	660	1,306
Refunds & Transfers-out	Refunds	29	20	10	1,005	1,387	-382
Purchases and Transfers-in	Purchases	0.4	60.8	-60.4	69	1,133	-1,064
Disability Applications	Disability Applications	0.8	1.0	-0.2	162	96	66
<b>Member Communication</b>							
Calls and Emails	Calls and Emails	1,084	776	308	10,233	10,724	-491
Incoming Mail	Incoming Mail	308	436	-129	11,827	17,576	-5,749
Members Counseled 1-on-1	Members Counseled	170	72	97	2,751	2,222	529
Member Presentations	Member Presentations	3.6	2.1	1.5	73	130	-57
Written Estimates	Written Estimates	41	41	1	521	2,963	-2,442
<b>Collections &amp; Data Maintenance</b>							
Data & Money from Employers	Active Members	538	576	-38	82,793	25,782	57,011
Service to Employers	Active Members	538	576	-38	18,398	29,238	-10,840
Data Not from Employers	All Members	1,277	1,232	45	n/a	272,660	n/a
<b>Weighted Total</b>		<b>50.8</b>	<b>54.6</b>	<b>-3.8</b>	<b>97,306</b>	<b>99,341</b>	<b>-2,035</b>

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

Your third party costs in the front office activities were \$14 per member which was 50% above the peer average of \$9. Your higher third party costs increased your total cost per member by \$5 relative to peers.

**Third Party Costs in Front Office Activities per Active Member and Annuitant**



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	\$94,141	\$90,741
Governance and support	<u>\$94,141</u>	<u>\$129,867</u>
Blended Average	\$94,141	\$104,264
Pay-as-you-go Benefits for Retired Staff	\$0	\$1,146
Building and Utilities	\$1,533	\$11,333
Human Resources	\$1,246	\$4,138
IT Desktop, Networks, Telecom	\$8,623	\$11,111
<b>Total</b>	<b>\$105,543</b>	<b>\$131,992</b>

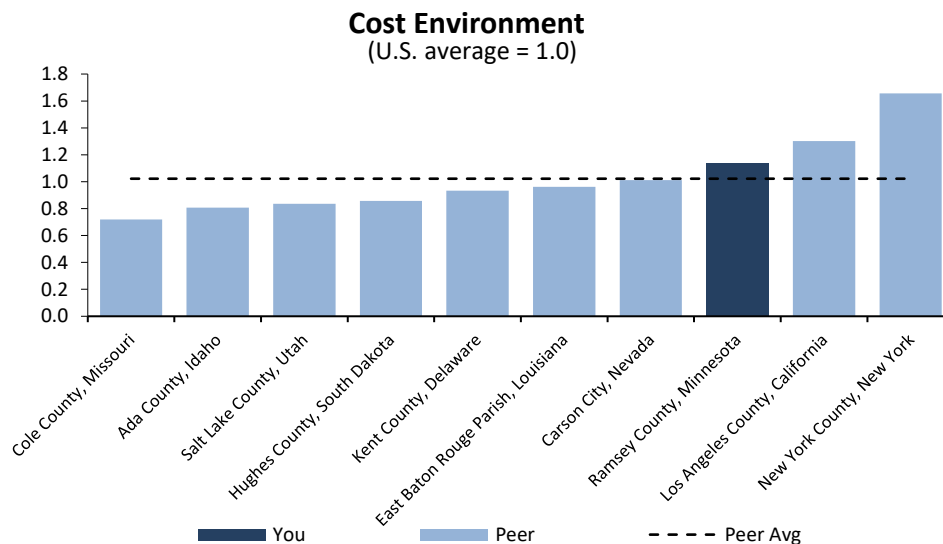
Your cost per FTE for salaries and benefits, building and utilities, human resources and IT desktop of \$105,543 was 20% below the FTE-weighted peer average of \$131,992. Your lower costs per FTE decreased your total cost per member by \$20 relative to the peer average.

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 11% above the peer average.



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

Your adjusted<sup>1</sup> cost per active member and annuitant of \$35 for governance and support activities was below the peer average of \$47. Paying less for Governance and support activities decreased your total cost per member by \$12 relative to the peer average.

Governance and support activities	Cost per Active Member and Annuitant		Adjusted <sup>1</sup> Cost per Active Member and Annuitant	
	You	Peer Avg	You	Peer Avg
Governance and Financial Control	\$7	\$11	\$8	\$10
Major Projects	\$0	\$10	\$0	\$9
IT Strategy, Database, Applications (excl. major)	\$15	\$14	\$16	\$13
Actuarial, Legal, Audit, Other Support Services	\$11	\$18	\$12	\$16
Support Services that Vary per FTE	\$3	\$7		
<b>Total</b>	<b>\$35</b>	<b>\$60</b>	<b>\$35</b>	<b>\$47</b>

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:

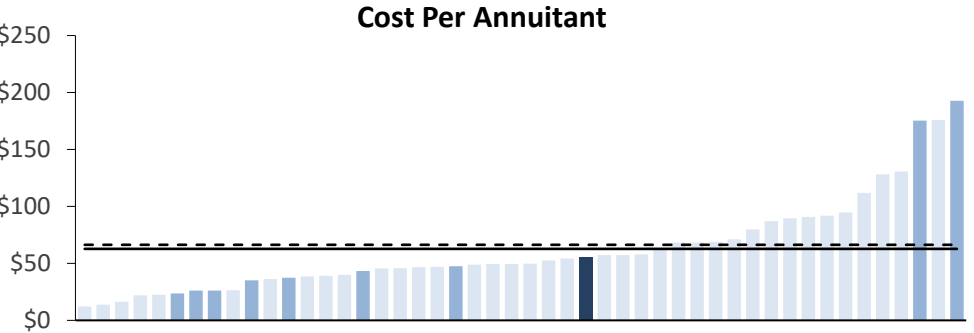
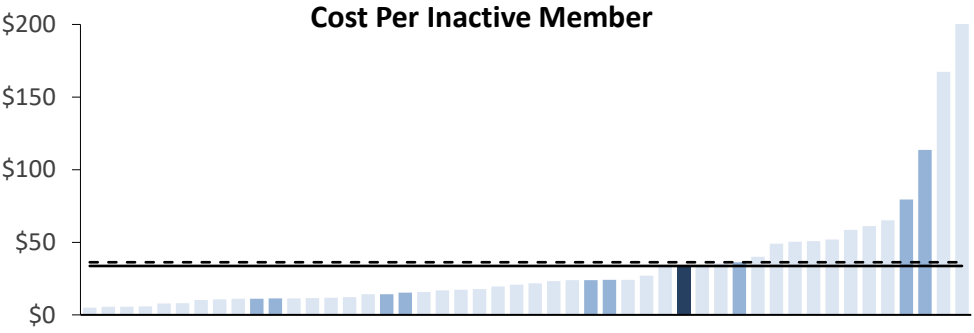
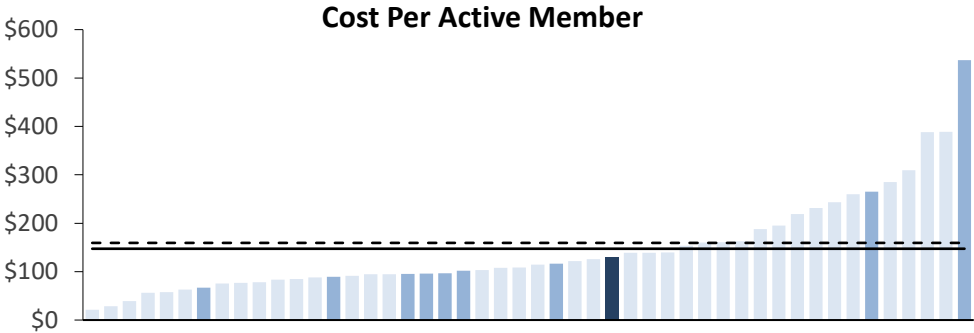
- How much you do. For example, some systems invest more in disaster recovery.
- IT capability
- IT investment cycle
- Plan complexity

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.

# 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	Peer					All			
	You	Average	Max	Median	Min	Average	Max	Median	Min
Active Member	\$129	\$159	\$537	\$99	\$67	\$147	\$537	\$112	\$21
Inactive Member	\$33	\$36	\$114	\$24	\$11	\$34	\$201	\$21	\$5
Annuitant	\$56	\$66	\$193	\$40	\$24	\$63	\$193	\$50	\$12



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

## 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 <sup>1</sup>	\$000s attributed to:			% attributed to:		
		Active	Inactive	Annuitant	Active	Inactive	Annuitant
<b>1. Member Transactions</b>							
a. Pension Payments	783	0	0	783	0.0%	0.0%	100.0%
b. Pension Inceptions	185	122	45	18	65.6%	24.4%	9.9%
c. Refunds, Withdrawals, and Transfers-out	379	218	160	0	57.7%	42.3%	0.0%
d. Purchases and Transfers-in	84	84	0	0	100.0%	0.0%	0.0%
e. Disability	67	67	0	0	100.0%	0.0%	0.0%
<b>2. Member Communication</b>							
a. Call Center	1,372	719	37	617	52.4%	2.7%	44.9%
b. Mail Room, Imaging	337	176	9	151	52.4%	2.7%	44.9%
c. 1-on-1 Counseling	800	752	40	8	94.0%	5.0%	1.1%
d. Member Presentations	631	593	32	7	94.0%	5.0%	1.1%
e. Written Pension Estimates	1,027	811	216	0	79.0%	21.0%	0.0%
f. Mass Communication	631	496	51	85	78.5%	8.1%	13.5%
<b>3. Collections and Data Maintenance</b>							
a. Data and Money from Employers	84	84	0	0	100.0%	0.0%	0.0%
b. Service to Employers	379	379	0	0	100.0%	0.0%	0.0%
c. Data Not from Employers	0	0	0	0	45.4%	20.4%	34.1%
<b>4. Governance and Financial Control</b>							
a. Financial Administration and Control	181	120	16	45	66.6%	8.7%	24.7%
b. Board, Strategy, Policy	307	204	27	76	66.6%	8.7%	24.7%
c. Government and Public Relations	259	173	23	64	66.6%	8.7%	24.7%
<b>5. Major Projects</b>							
a. Amortization of non-IT Major Projects	0	0	0	0	66.6%	8.7%	24.7%
b. Non-IT Major Projects (if you don't capitalize)	0	0	0	0	66.6%	8.7%	24.7%
c. Amortization of IT Major Projects	0	0	0	0	66.6%	8.7%	24.7%
d. IT Major Projects (if you don't capitalize)	0	0	0	0	66.6%	8.7%	24.7%
<b>6. Information Technology</b>							
a. IT Strategy, Database, Applications (excl. major projects)	1,572	1,047	137	388	66.6%	8.7%	24.7%
b. IT Desktop, Networks, Telecom	708	471	62	175	66.6%	8.7%	24.7%
<b>7. Support Services and Other</b>							
a. Building and Utilities	126	84	11	31	66.6%	8.7%	24.7%
b. Human Resources	102	68	9	25	66.6%	8.7%	24.7%
c. Actuarial	298	198	26	74	66.6%	8.7%	24.7%
d. Legal and Rule Interpretation	39	26	3	10	66.6%	8.7%	24.7%
e. Internal and External Audit	20	13	2	5	66.6%	8.7%	24.7%
f. Pay-as-you-go Benefits for Retired Staff	0	0	0	0	66.6%	8.7%	24.7%
g. Other Support Services	802	534	70	198	66.6%	8.7%	24.7%
<b>Total Pension Administration Cost (A)</b>	<b>11,175</b>	<b>7,440</b>	<b>975</b>	<b>2,759</b>	<b>66.6%</b>	<b>8.7%</b>	<b>24.7%</b>
# of members by type (B)		57,541	29,578	49,362			
<b>Cost per Member Type (A ÷ B)</b>		<b>\$129</b>	<b>\$33</b>	<b>\$56</b>			

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

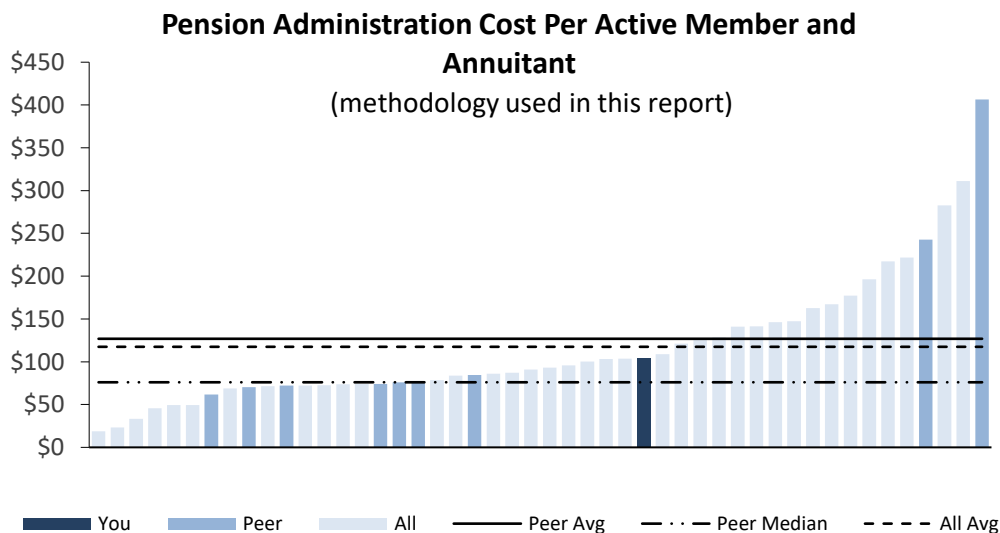
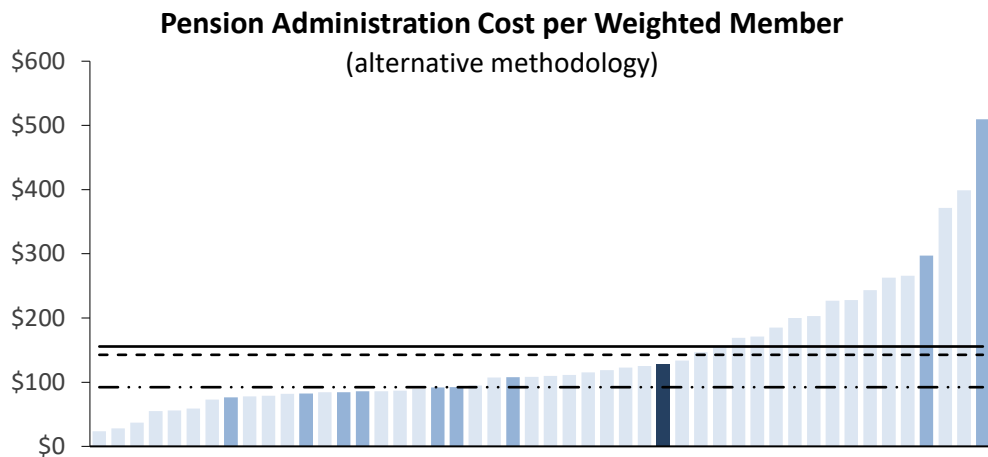
Activity	Attribution Method
1a. Pension Payments	100% annuitants
1b. Pension Inceptions	Pro rata based on weighted inceptions: <ul style="list-style-type: none"> <li>• service retirements of active members weighted 100%</li> <li>• new inceptions annuitants weighted 50% + changes in gross caused by annuitants circumstances weighted 25%</li> <li>• retirements of inactive members weighted 70%</li> </ul>
1c. Refunds, Withdrawals, and Transfers-out	Pro rata based on: <ul style="list-style-type: none"> <li>• active members weighted 70%</li> <li>• inactive members weighted 100%</li> </ul>
1d. Purchases and Transfers-in	100% active members
1e. Disability	100% active members
2a. Call Center	Pro rata based on weighted membership: <ul style="list-style-type: none"> <li>• active members weighted 100%</li> <li>• annuitants weighted 100%</li> <li>• inactive members weighted 10%</li> </ul>
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"> <li>• service retirements of active members weighted 100%</li> <li>• retirements of inactive members weighted 10%</li> <li>• survivor inceptions of annuitants weighted 5%</li> </ul>
2d. Member Presentations	per 2c above
2e. Written Pension Estimates	Pro rata between active and inactive members based on: <ul style="list-style-type: none"> <li>• service retirements of active members weighted 100%</li> <li>• retirements of inactive members weighted 50%</li> </ul>
2f. Mass Communication	Pro rata based on weighted membership: <ul style="list-style-type: none"> <li>• active members weighted 100%</li> <li>• annuitants weighted up to 30% (20% for website, etc + 10% if you send them newsletters)</li> <li>• inactive members weighted up to 30% (10% for website, etc + 10% if you send them member statements annually + 10% if you send them newsletters)</li> </ul>
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"> <li>• active members weighted up to 100% (33% because of divorce + 33% if you maintain their addresses + 33% if you collect contributions directly from members)</li> <li>• annuitants weighted up to 58% (25% because of divorce + 33% for maintaining their addresses)</li> <li>• inactive members weighted up to 58% (25% because of divorce + 33% if you maintain their addresses)</li> </ul>
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	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)	per 4a above
5b. IT Desktop, Networks, Telecom	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 \$128.23. This was below the peer average of \$155.55. 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.

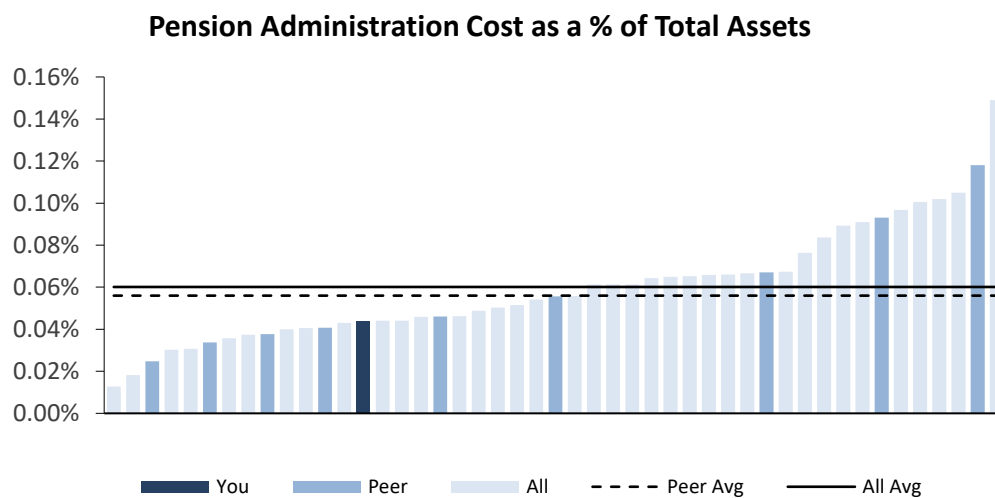




## Cost as a % of total assets

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 0.04% of total assets (or 4 basis points). This was below the peer average of 0.06%.



## 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 activity 1F that add up to \$313 thousand.

Activity	Your Costs in \$000s			Total	\$s per Active Member and Annuitant
	Salaries & Benefits	Third Party & Other	Attributions <sup>1</sup> to 1f & 1g		
<b>1. Member Transactions</b>					
a. Pension Payments	608	175		783	7.32
b. Pension Inceptions	144	41		185	1.73
c. Refunds, Withdrawals, and Transfers-out	294	84		379	3.54
d. Purchases and Transfers-in	65	19		84	0.79
e. Disability	52	15		67	0.63
f. Healthcare Administration	373	107	313	793	7.42
g. Optional and Third Party Administered Benefits	0	0	0	0	0.00
<b>2. Member Communication</b>					
a. Call Center	1,066	306		1,372	12.84
b. Mail Room, Imaging	262	75		337	3.15
c. 1-on-1 Counseling	622	178		800	7.48
d. Member Presentations	491	141		631	5.91
e. Written Pension Estimates	798	229		1,027	9.61
f. Mass Communication	491	141		631	5.91
<b>3. Collections and Data Maintenance</b>					
a. Data and Money from Employers	65	19		84	0.79
b. Service to Employers	294	84		379	3.54
c. Data Not from Employers	0	0		0	0.00
<b>4. Governance and Financial Control</b>					
a. Financial Administration and Control	150	43	-13	181	1.69
b. Board, Strategy, Policy	255	73	-22	307	2.87
c. Government and Public Relations	216	62	-18	259	2.43
<b>5. Major Projects</b>					
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
<b>6. Information Technology</b>					
a. IT Strategy, Database, Applications (excl. major projects)	1,309	375	-112	1,572	14.71
b. IT Desktop, Networks, Telecom	589	169	-50	708	6.62
<b>7. Support Services and Other</b>					
a. Building and Utilities	105	30	-9	126	1.18
b. Human Resources	85	24	-7	102	0.96
c. Actuarial	0	319	-21	298	2.79
d. Legal and Rule Interpretation	33	9	-3	39	0.37
e. Internal and External Audit	16	5	-1	20	0.18
f. Pay-as-you-go Benefits for Retired Staff	0		0	0	0.00
g. Other Support Services	667	191	-57	802	7.50
<b>Total Administration</b>	<b>9,052</b>	<b>2,916</b>	<b>0</b>	<b>11,968</b>	<b>111.95</b>
less:					
f. Healthcare Administration	-373	-107	-313	-793	-7.42
g. Optional and Third Party Administered Benefits	0	0	0	0	0.00
<b>Total Pension Administration</b>				<b>11,175</b>	<b>104.53</b>

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 <sup>1</sup>	Cost <sup>2</sup> in \$000s (A)		Activity Volume (B)	\$s per Unit (A / B)
<b>1. Member Transactions</b>				
a. Pension Payments	783	49,362	annuitants	15.86
b. Pension Inceptions	185	3,006	new payee inceptions	61.62
c. Refunds, Withdrawals, and Transfers-out	379	3,142	refunds, withdrawals, and transfers-out	120.59
d. Purchases and Transfers-in	84	48	purchases and transfers-in	1,754.16
e. Disability	67	90	disability applications	748.44
<b>2. Member Communication</b>				
a. Call Center	1,372	115,927	calls and emails	11.84
b. Mail Room, Imaging	337	32,879	incoming mail	10.24
c. 1-on-1 Counseling	800	18,164	members counseled 1-on-1	44.04
d. Member Presentations	631	381	member presentations	1,657.47
e. Written Pension Estimates	1,027	4,421	written estimates	232.38
f. Mass Communication	631	106,903	active members and annuitants	5.91
<b>3. Collections and Data Maintenance</b>				
a. Data and Money from Employers	84	57,541	active members	1.46
b. Service to Employers	379	57,541	active members	6.58
c. Data Not from Employers	0	136,481	actives, inactives, annuitants	0.00
<b>4. Governance and Financial Control <sup>4</sup></b>				
a. Financial Administration and Control	181	106,903	active members and annuitants	1.69
b. Board, Strategy, Policy	307	106,903	active members and annuitants	2.87
c. Government and Public Relations	259	106,903	active members and annuitants	2.43
<b>5. Major Projects</b>				
a. Amortization of non-IT Major Projects	0	106,903	active members and annuitants	0.00
b. Non-IT Major Projects (if you don't capitalize)	0	106,903	active members and annuitants	0.00
c. Amortization of IT Major Projects	0	106,903	active members and annuitants	0.00
d. IT Major Projects (if you don't capitalize)	0	106,903	active members and annuitants	0.00
<b>6. Information Technology <sup>4</sup></b>				
a. IT Strategy, Database, Applications (excl. major projects)	1,572	106,903	active members and annuitants	14.71
b. IT Desktop, Networks, Telecom	708	90	pension admin FTE	7,881.12
<b>7. Support Services and Other <sup>4</sup></b>				
a. Building and Utilities	126	90	pension admin FTE	1,401.09
b. Human Resources	102	90	pension admin FTE	1,138.38
c. Actuarial	298	106,903	active members and annuitants	2.79
d. Legal and Rule Interpretation	39	106,903	active members and annuitants	0.37
e. Internal and External Audit	20	106,903	active members and annuitants	0.18
f. Pay-as-you-go Benefits for Retired Staff	0	90	pension admin FTE	0.00
g. Other Support Services	802	106,903	active members and annuitants	7.50
<b>Total Pension Administration <sup>3</sup></b>	<b>11,175</b>	<b>106,903</b>	<b>active members and annuitants</b>	<b>104.53</b>

1. Refer to Appendix C for activity definitions.

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

- 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.
- 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 that add up to \$313k. Refer to the last page of this section for details.

## Summary comparisons of activity costs by quartile breakdown

		Comparisons of Direct Activity Costs <sup>1</sup>													
Activity	Cost per:	Peer							All Participant						
		You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min	
<b>1. Member Transactions</b>															
a. Pension Payments	annuitant	15.86	11.71	30.46	14.98	7.26	4.46	1.32	9.47	31.57	12.45	6.57	4.14	1.15	
b. Pension Inceptions	new payee inception	61.62	239.15	586.09	361.02	111.35	96.27	61.62	221.39	1,098.03	283.52	139.35	96.32	41.46	
c. Refunds, Withdrawals, and Transfers-out	withdrawal & transfer-out	120.59	617.21	2,991.96	389.07	98.91	48.68	20.86	296.46	2,991.96	293.09	109.08	39.11	9.83	
d. Purchases and Transfers-in	purchase & transfer-in	1,754.16	2,255.06	18,875.00	508.34	317.76	109.05	12.72	864.13	18,875.00	506.19	257.92	118.95	0.00	
e. Disability	disability application	748.44	3,115.05	15,953.62	2,455.76	1,681.59	908.30	427.32	2,195.95	15,953.62	2,584.42	1,627.96	744.98	360.13	
<b>2. Member Communication</b>															
a. Call Center	call & email	11.84	8.91	31.21	10.57	6.25	4.39	0.00	10.72	32.55	12.80	9.81	6.09	0.00	
b. Mail Room, Imaging	incoming mail	10.24	9.81	48.25	9.70	5.07	2.02	0.83	10.11	57.66	12.78	5.95	3.07	0.83	
c. 1-on-1 Counseling	member counseled 1-on-1	44.04	55.08	113.80	66.19	46.06	30.63	20.30	101.22	508.57	116.56	64.72	47.86	1.67	
d. Member Presentations	member presentation	1,657.47	2,078.77	7,941.43	1,805.26	1,561.74	862.59	154.09	1,601.18	7,941.43	1,964.67	1,349.15	767.54	0.00	
e. Written Pension Estimates	written estimate	232.38	131.90	365.00	212.43	89.25	37.07	4.25	99.71	449.53	131.39	53.22	30.89	0.00	
f. Mass Communication	active member & annuitant	5.91	4.55	15.13	5.40	3.58	2.19	0.94	3.86	17.84	4.99	2.96	1.97	0.00	
<b>3. Collections and Data Maintenance</b>															
a. Data and Money from Employers	active member	1.46	5.16	9.29	7.21	4.95	2.77	1.46	7.51	32.46	9.46	5.88	2.81	0.92	
b. Service to Employers	active member	6.58	3.77	6.58	3.90	3.79	2.36	2.08	3.54	16.04	4.96	2.74	1.90	0.03	
c. Data Not from Employers	active, inactive & annuitant	0.00	0.98	4.67	1.01	0.51	0.24	0.00	1.26	8.38	1.59	0.84	0.30	0.00	
<b>4. Governance and Financial Control</b>															
a. Financial Administration and Control	active member & annuitant	1.69	5.55	16.82	6.87	4.47	2.94	0.56	4.80	16.82	5.72	3.98	2.34	0.48	
b. Board, Strategy, Policy	active member & annuitant	2.87	3.44	6.69	4.26	3.15	2.41	1.40	4.58	19.16	6.09	3.34	1.72	0.15	
c. Government and Public Relations	active member & annuitant	2.43	2.14	5.28	2.51	1.45	1.02	0.82	1.50	7.39	2.31	1.01	0.52	0.06	
<b>5. Major Projects</b>															
a. Amortization of non-IT Major Projects	active member & annuitant	0.00	0.13	1.33	0.00	0.00	0.00	0.00	0.19	4.81	0.00	0.00	0.00	0.00	
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	0.98	9.80	0.00	0.00	0.00	0.00	1.89	27.45	1.36	0.00	0.00	0.00	
c. Amortization of IT Major Projects	active member & annuitant	0.00	2.32	9.14	4.96	0.00	0.00	0.00	2.82	26.03	4.12	0.00	0.00	0.00	
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	7.03	59.99	2.17	0.05	0.00	0.00	4.91	59.99	6.26	0.82	0.00	0.00	
<b>6. Information Technology</b>															
a. IT Strategy, Database Management and Applications (excl. major projects)	active member & annuitant	14.71	13.88	29.92	14.48	12.50	9.80	4.26	19.17	64.97	25.30	14.24	8.39	3.86	
b. IT Desktop, Networks, Telecom	pension admin FTE	7,881	8,820	18,376	10,131	8,437	7,001	1,660	12,863	33,893	15,992	12,140	8,510	1,357	
<b>7. Support Services and Other</b>															
a. Building and Utilities	pension admin FTE	1,401	8,010	21,177	12,516	5,505	3,574	1,333	10,582	24,865	14,217	9,891	6,543	1,079	
b. Human Resources	pension admin FTE	1,138	2,650	8,879	2,941	1,997	1,242	637	4,395	14,964	5,662	3,121	1,717	637	
c. Actuarial	active member & annuitant	2.79	2.00	5.42	2.68	2.06	1.10	0.00	2.03	8.21	2.45	1.61	0.70	0.00	
d. Legal and Rule Interpretation	active member & annuitant	0.37	6.28	36.95	3.45	3.30	2.31	0.37	4.96	36.95	5.24	3.26	2.03	0.37	
e. Internal and External Audit	active member & annuitant	0.18	5.23	26.82	4.09	2.45	1.72	0.18	2.68	26.82	2.54	1.94	1.31	0.18	
f. Pay-as-you-go Benefits for Retired Staff	pension admin FTE	0.00	1,509.80	6,310.43	1,335.40	0.00	0.00	0.00	1,059.63	11,486.31	481.50	0.00	0.00	0.00	
g. Other Support Services	active member & annuitant	7.50	4.12	13.86	6.94	2.75	0.23	0.00	3.38	20.22	4.54	2.24	0.79	0.00	
<b>Total Pension Administration<sup>2</sup></b>	active member & annuitant	104.53	126.86	406.30	99.50	76.04	72.61	61.86	117.47	406.30	142.45	92.04	72.42	18.61	

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.

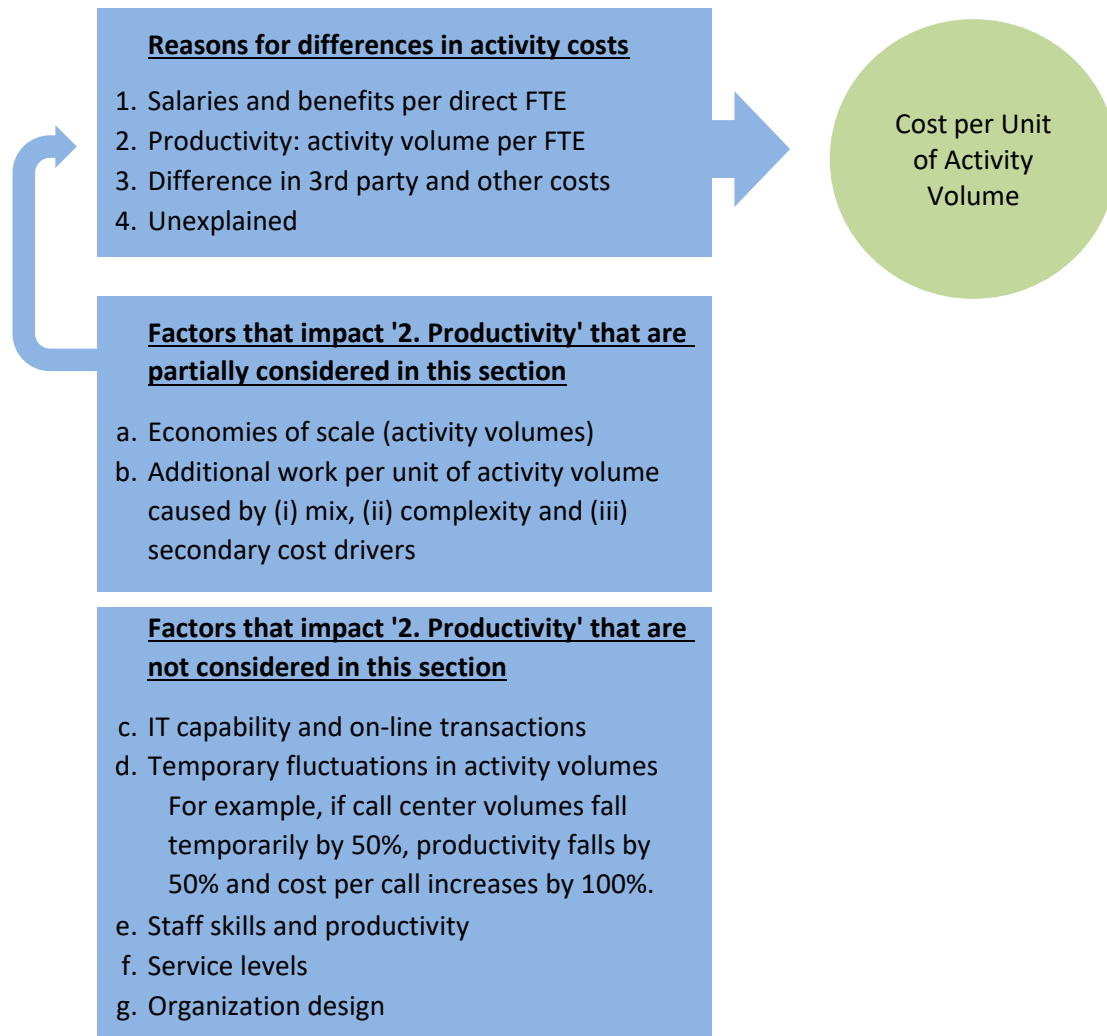
# Activity cost history

Comparisons of Direct Activity Costs <sup>1</sup>													
Activity	Cost per:	You				Peer Average				All Participant Average			
		2020	2019	2018	2017	2020	2019	2018	2017	2020	2019	2018	2017
<b>1. Member Transactions</b>													
a. Pension Payments	annuitant	15.86				12.16	13.09	13.11	10.52	10.22	10.41	10.32	10.22
b. Pension Inceptions	new payee inception	61.62				305.38	272.75	279.94	320.83	227.04	213.84	206.92	206.44
c. Refunds, Withdrawals, and Transfers-out	withdrawal & transfer-out	120.59				853.47	713.12	729.42	683.68	358.98	295.64	279.63	283.95
d. Purchases and Transfers-in	purchase & transfer-in	1,754.16				2,951.86	2,973.70	1,087.73	735.40	1,018.16	925.08	728.46	644.63
e. Disability	disability application	748.44				3,975.42	3,825.55	4,171.79	3,683.25	2,526.30	2,355.43	2,753.49	2,354.88
<b>2. Member Communication</b>													
a. Call Center	call & email	11.84				9.68	8.21	8.64	7.85	11.81	11.07	10.95	10.28
b. Mail Room, Imaging	incoming mail	10.24				10.89	10.87	10.72	9.12	10.53	10.06	11.02	10.08
c. 1-on-1 Counseling	member counseled 1-on-1	44.04				54.78	49.32	49.52	62.43	113.75	93.47	93.58	98.87
d. Member Presentations	member presentation	1,657.47				2,373.67	1,234.61	1,184.20	1,407.72	1,698.37	1,337.32	1,453.18	1,552.82
e. Written Pension Estimates	written estimate	232.38				147.05	92.67	114.74	89.25	118.53	110.93	115.86	102.55
f. Mass Communication	active member & annuitant	5.91				4.86	4.75	4.66	4.22	4.18	4.03	3.87	3.64
<b>3. Collections and Data Maintenance</b>													
a. Data and Money from Employers	active member	1.46				6.20	6.10	6.82	7.05	7.87	7.51	8.01	8.70
b. Service to Employers	active member	6.58				3.53	3.74	3.55	3.05	3.78	3.89	4.19	3.76
c. Data Not from Employers	active, inactive & annuitant	0.00				1.31	1.42	1.38	1.19	1.45	1.40	1.31	1.16
<b>4. Governance and Financial Control</b>													
a. Financial Administration and Control	active member & annuitant	1.69				6.70	7.34	7.16	6.84	4.88	4.87	4.79	4.97
b. Board, Strategy, Policy	active member & annuitant	2.87				3.69	3.56	4.12	4.16	4.53	4.22	4.38	4.22
c. Government and Public Relations	active member & annuitant	2.43				2.45	2.37	2.44	2.13	1.63	1.75	1.74	1.62
<b>5. Major Projects</b>													
a. Amortization of non-IT Major Projects	active member & annuitant	0.00				0.00	0.00	0.00	0.00	0.21	0.21	0.15	0.06
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00				1.40	1.85	3.35	1.19	2.11	1.81	1.70	1.32
c. Amortization of IT Major Projects	active member & annuitant	0.00				1.51	1.67	2.45	1.63	2.93	2.90	8.68	8.76
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00				8.93	9.34	9.71	12.21	5.49	5.03	5.37	8.39
<b>6. Information Technology</b>													
a. IT Strategy, Database, Applications (excl. major projects)	active member & annuitant	14.71				14.70	14.49	14.84	13.30	21.78	20.63	19.56	19.59
b. IT Desktop, Networks, Telecom	pension admin FTE	7,881				8,821	8,204	8,542	7,984	13,897	13,696	12,987	12,023
<b>7. Support Services and Other</b>													
a. Building and Utilities	pension admin FTE	1,401				10,079	10,294	9,234	9,197	11,114	10,849	10,716	10,457
b. Human Resources	pension admin FTE	1,138				2,868	2,968	2,848	2,947	4,582	4,497	3,796	3,617
c. Actuarial	active member & annuitant	2.79				1.81	2.24	2.49	2.41	2.04	1.98	2.05	2.09
d. Legal and Rule Interpretation	active member & annuitant	0.37				8.28	7.93	6.83	6.48	5.64	5.04	4.66	4.70
e. Internal and External Audit	active member & annuitant	0.18				7.01	7.29	7.20	5.91	3.01	3.01	2.96	2.59
f. Pay-as-you-go Benefits for Retired Staff	pension admin FTE	0.00				1,775.93	1,879.40	808.86	726.67	755.27	734.16	554.14	553.97
g. Other Support Services	active member & annuitant	7.50				4.69	4.50	4.85	3.48	3.85	3.45	3.36	3.22
<b>Total Pension Administration<sup>2</sup></b>	active member & annuitant	104.53				146.63	146.26	147.49	138.78	127.95	122.23	125.64	126.00

1. Trend analysis is based on systems that have participated for 8-consecutive years (7 peers and 36 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



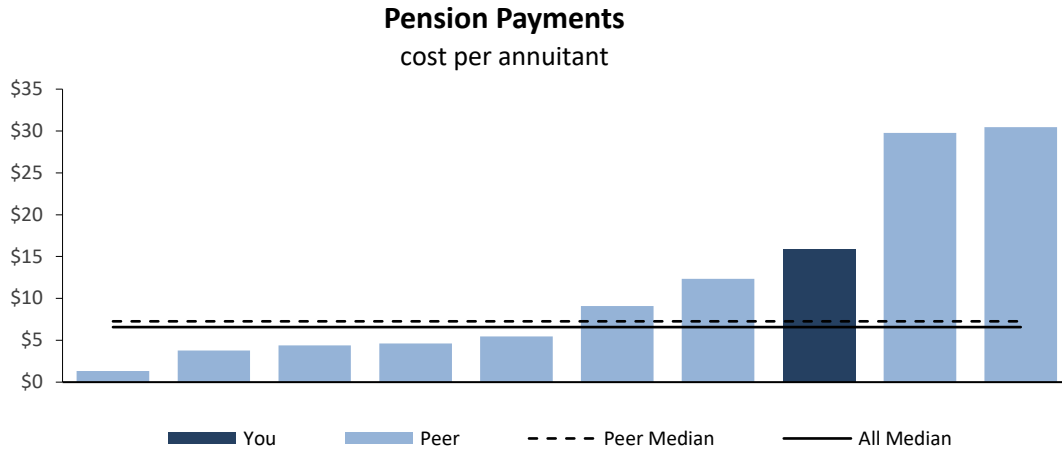
In this section, CEM quantifies the amount by which differences in the four reasons identified in the top box above impact your costs by calculating how your costs would change if you had the peer median salaries/ productivity/ third party and other costs. This methodology results in an unexplained amount, 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 \$15.86. This was \$8.60 above the peer median of \$7.26. The biggest reason why was that you serviced fewer annuitants per direct FTE (productivity).



Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Annuitant
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$94,141	\$83,328	\$1.42
Fewer annuitants per direct FTE (productivity)	7,637	20,725	\$7.78
Higher third party costs per annuitant	\$3.54	\$1.44	\$2.10
Unexplained <sup>1</sup>			-\$2.70
<b>Cost per annuitant</b>	<b>\$15.86</b>	<b>\$7.26</b>	<b>\$8.60</b>

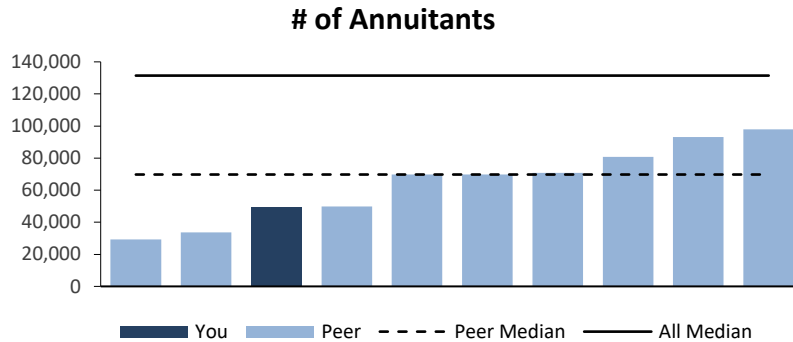
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).



# 1A Pension Payments - Factors that impact productivity

## 1. Economies of scale

You had an economy of scale disadvantage. Your 49,362 annuitants was 29% lower than the peer median of 69,742.

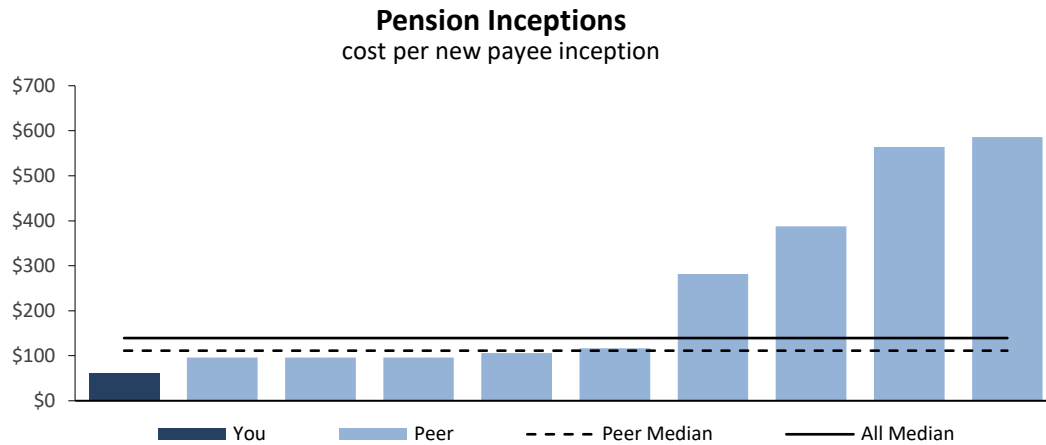


## 2. Additional pension payments work per annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Percentage of pensioners paid by check (as opposed to Electronic Funds Transfer)	3%	3%	neutral
Number of times per year you sent payment advices with your EFT payments detailing the gross payment and deductions	1.0	7.2	decreasing

## 1B Pension Inceptions

Your pension inceptions cost per new payee inception was \$61.62. This was \$49.73 below the peer median of \$111.35.



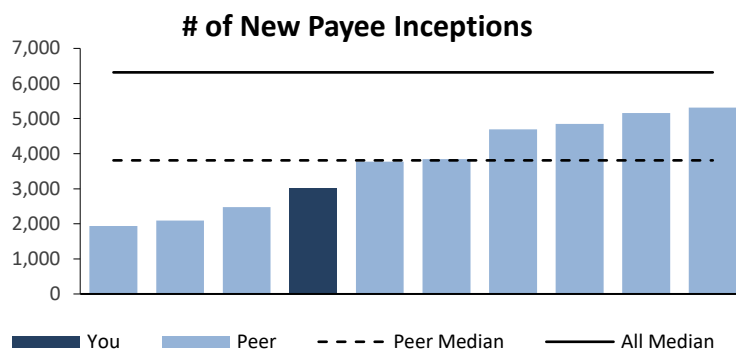
Reasons why your cost was below median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per New Payee Inception
Higher salaries and benefits per direct FTE	\$94,141	\$75,177	\$9.65
More new payee inceptions per direct FTE (productivity)	1,966	647	-\$97.60
Lower third party costs per new payee inception	\$13.74	\$15.84	-\$2.10
Unexplained <sup>1</sup>			\$40.33
<b>Cost per new payee inception</b>	<b>\$61.62</b>	<b>\$111.35</b>	<b>-\$49.73</b>

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 - Factors that impact productivity

## 1. Economies of scale

You had an economy of scale disadvantage. Your 3,006 new payee inceptions was 21% lower than the peer median of 3,808.



## 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.

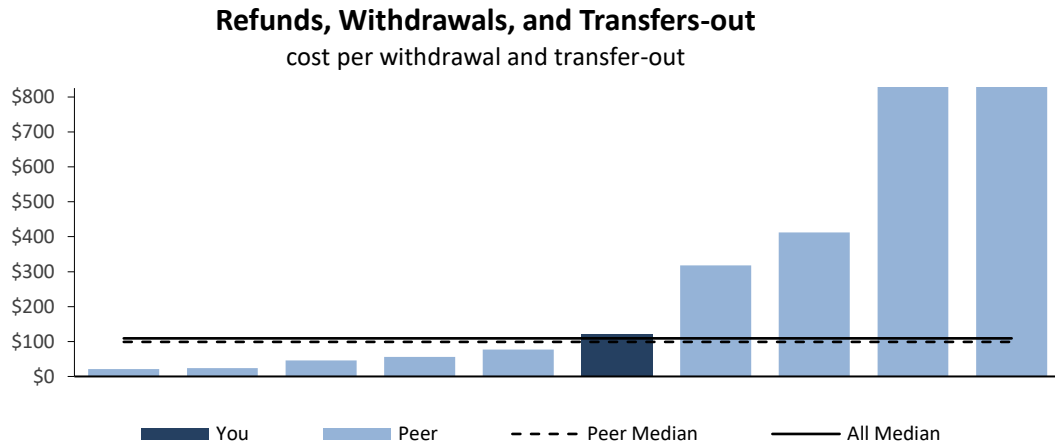
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Annuity inceptions: service retirement (actives)	56%	66%	
Annuity inceptions: service retirement (inactives)	30%	18%	
Annuity inceptions: disability retirement (actives)	2%	2%	
Annuity inceptions: survivor, partner, ex-partner, dependent	13%	13%	neutral
<b>Total new payee inceptions</b>	<b>100%</b>	<b>100%</b>	

## 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	0%	37%	decreasing
Formal appeals (non-disability) of inceptions as a % of new payee inceptions	0.03%	0.36%	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).	9%	9%	neutral
Joint account reciprocity with other systems	Yes	40%Yes	increasing
Total complexity score (out of 100)	27	36	decreasing

## 1C Refunds, Withdrawals, and Transfers-out

Your refunds, withdrawals, and transfers-out cost per withdrawal and transfer-out was \$120.59. This was \$21.68 above the peer median of \$98.91.



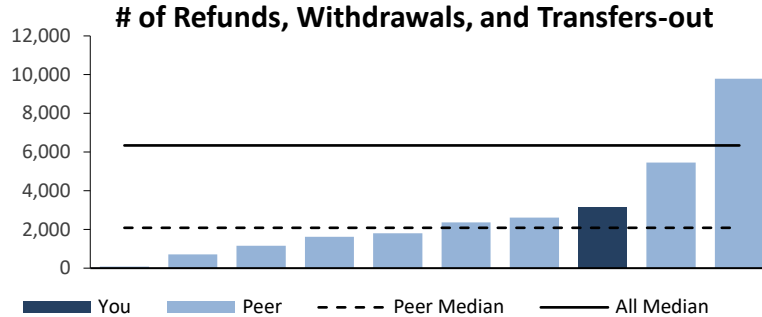
Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Withdrawal and Transfer-out
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$94,141	\$84,182	\$9.91
Fewer refunds, withdrawals, and transfers-out per direct FTE	1,005	1,195	\$14.92
Higher third party costs per withdrawal and transfer-out	\$26.88	\$17.30	\$9.58
Unexplained <sup>1</sup>			-\$12.74
<b>Cost per withdrawal and transfer-out</b>	<b>\$120.59</b>	<b>\$98.91</b>	<b>\$21.68</b>

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 3,142 refunds, withdrawals, and transfers-out was 51% higher than the peer median of 2,085.



## 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.

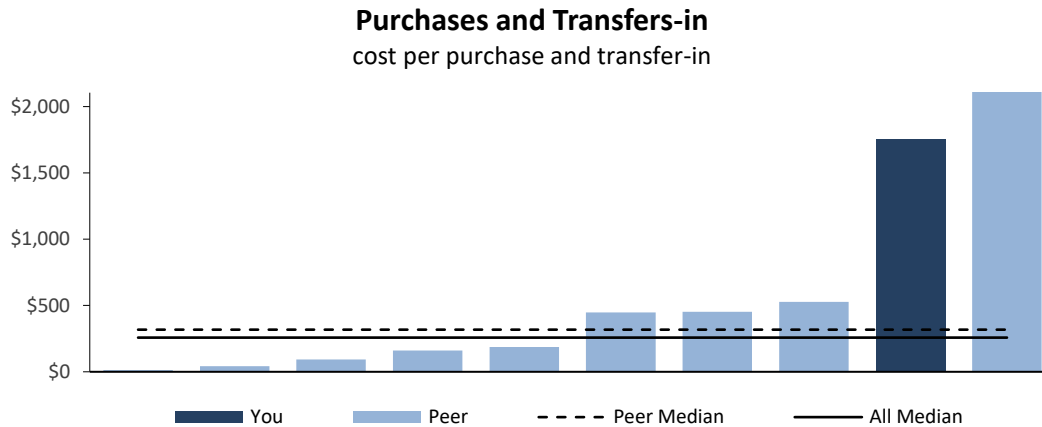
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Full refunds/ withdrawals/ commuted value/ lump sums	100%	98%	
Transfers-out	0%	2%	decreasing
Total refunds, withdrawals, and transfers-out	100%	100%	

## 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	63%	1398%	decreasing
Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	No	60%Yes	decreasing

## 1D Purchases and Transfers-in

Your purchases and transfers-in cost per purchase and transfer-in was \$1,754.16. This was \$1,436.40 above the peer median of \$317.76.



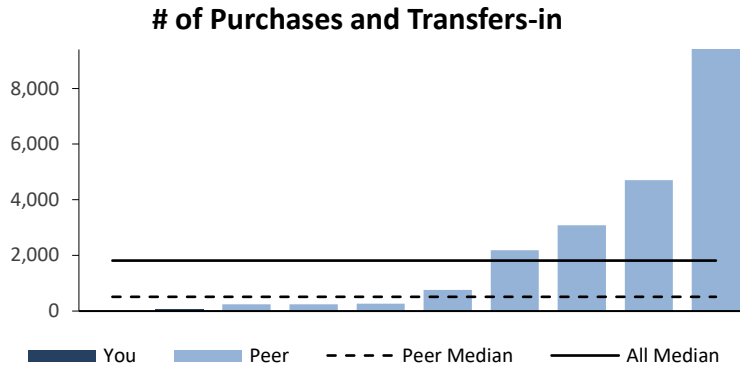
Reasons why your cost was above median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Purchase and Transfer-in
Higher salaries and benefits per direct FTE	\$94,141	\$82,918	\$162.51
Fewer purchases and transfers-in per direct FTE (productivity)	69	345	\$1,090.56
Higher third party costs per purchase and transfer-in	\$391.07	\$29.94	\$361.13
Unexplained <sup>1</sup>			-\$177.80
<b>Cost per purchase and transfer-in</b>	<b>\$1,754.16</b>	<b>\$317.76</b>	<b>\$1,436.40</b>

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 disadvantage. Your 48 purchases and transfers-in was 91% lower than the peer median of 512.



## 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.

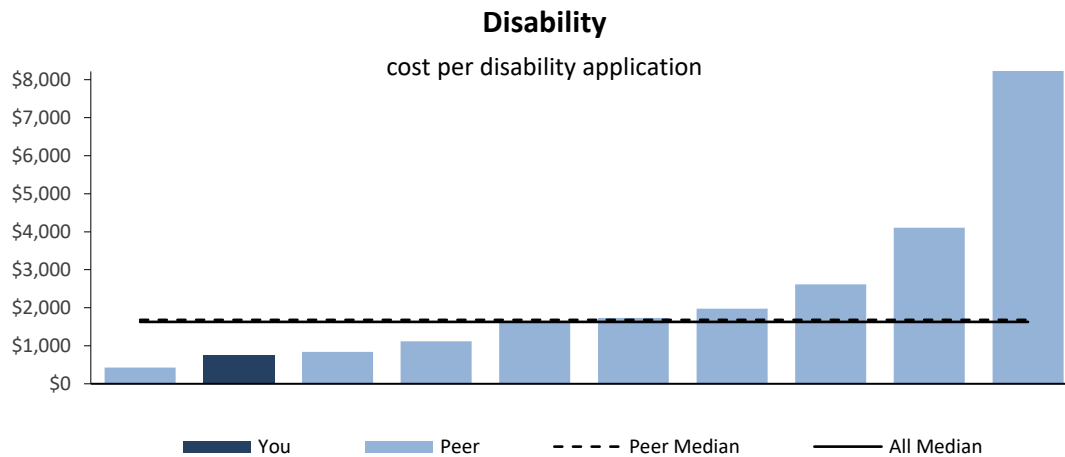
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Service credit purchases	100%	95%	
Upgrades to improve pensionable salary	0%	0%	
Upgrades to a new retirement formula	0%	1%	
Individual transfers-in from external defined benefit systems	0%	4%	decreasing
<b>Total purchases and transfers-in</b>	<b>100%</b>	<b>100%</b>	

## 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	217%	331%	decreasing
Installment payments permitted	Yes	90%Yes	increasing

## 1E Disability

Your disability cost per disability application was \$748.44. This was \$933.15 below the peer median of \$1,681.59.



Reasons why your cost was below median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Disability Application
Higher salaries and benefits per direct FTE	\$94,141	\$79,108	\$92.87
More disability applications per direct FTE (productivity)	162	59	-\$1,005.07
Lower third party costs per disability application	\$166.86	\$527.10	-\$360.24
Unexplained <sup>1</sup>			\$339.29
<b>Cost per disability application</b>	<b>\$748.44</b>	<b>\$1,681.59</b>	<b>-\$933.15</b>

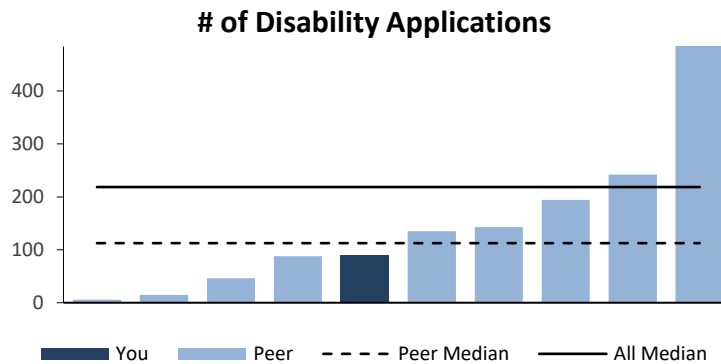
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).



# 1E Disability - Factors that impact productivity

## 1. Economies of scale

You had an economy of scale disadvantage. Your 90 disability applications was 20% lower than the peer median of 113.



## 2. Mix of activity volume

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

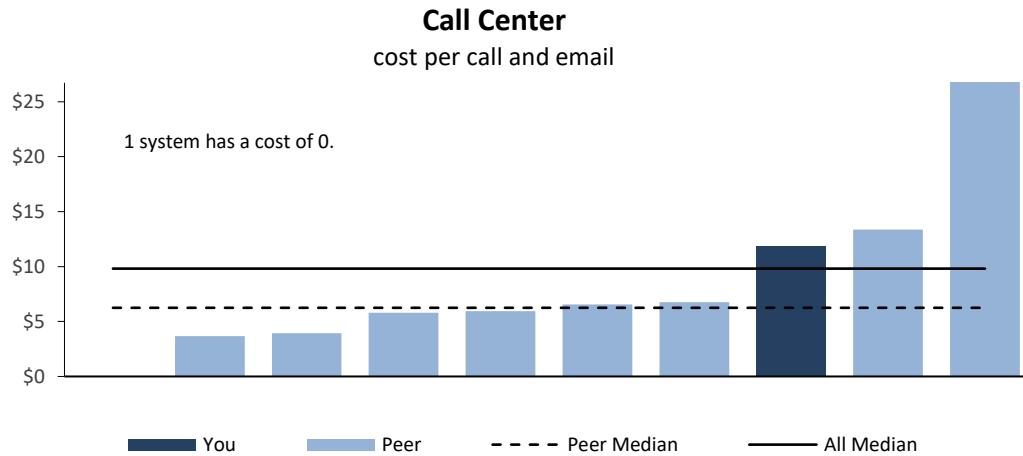
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Applications for short-term disability	0%	0%	
Applications for disability pensions/ long-term disability/ disability lump sums	100%	100%	neutral
Total disability applications	100%	100%	

## 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	82%	457%	decreasing
Recertifications as a % of disability recipients	3%	37%	decreasing
Medical exams paid for by you as a % of disability applications	18%	50%	decreasing
New member health reviews as a % of disability applications	112%	21%	increasing
Disability decision appeals as a % of disability applications	13%	3%	increasing
Occupational disability as a % of disability applications	4%	22%	decreasing
Disability complexity score (out of 100)	77	65	increasing

## 2A Call Center

Your call center cost per call and email was \$11.84. This was \$5.59 above the peer median of \$6.25.



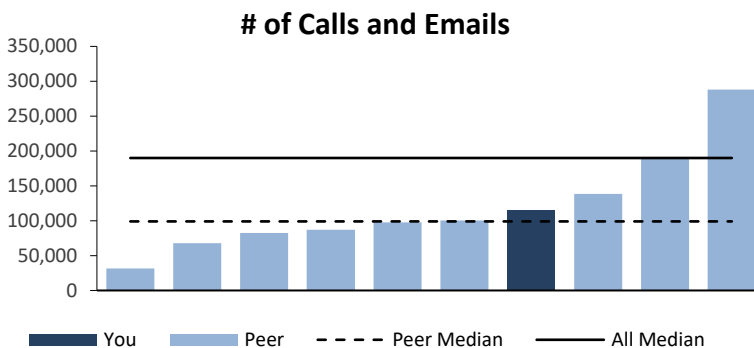
Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Call and Email
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$94,141	\$62,467	\$3.10
Fewer calls and emails per direct FTE (productivity)	10,233	10,848	\$0.52
Higher third party costs per call and email	\$2.64	\$0.26	\$2.38
Unexplained <sup>1</sup>			-\$0.40
<b>Cost per call and email</b>	<b>\$11.84</b>	<b>\$6.25</b>	<b>\$5.59</b>

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 Call Center - Factors that impact productivity

### 1. Economies of scale

You had an economy of scale advantage. Your 115,927 calls and emails was 17% higher than the peer median of 99,028.

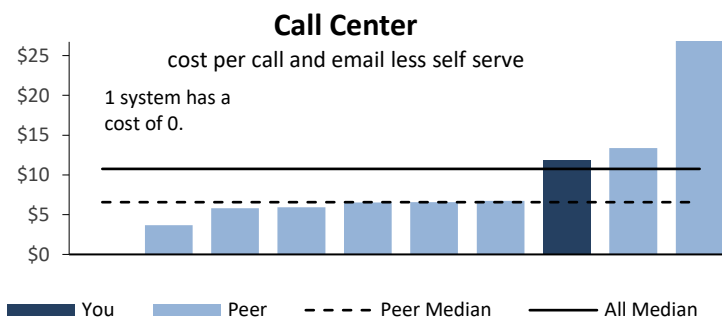


### 2. Mix of activity volume

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	87%	77%	
Outgoing calls from service representatives	6%	10%	
Calls satisfied by self-serve options	0%	5%	increasing
Email queries from members	8%	8%	
<b>Total calls and emails</b>	<b>100%</b>	<b>100%</b>	

If self-serve calls were excluded from volumes, your cost per active member and annuitant would have remained at \$11.84. This would have been above the peer median cost of \$6.57.



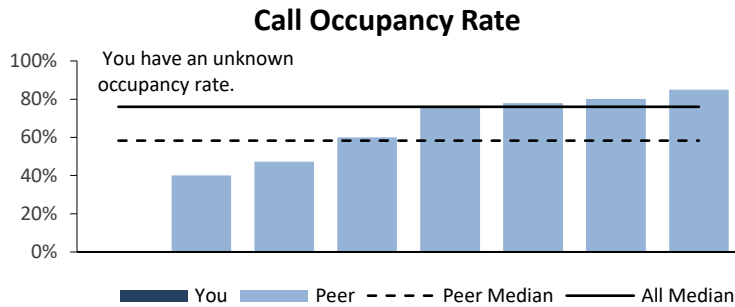
## 2A Call Center - Factors that impact productivity

### continued

#### 3. Additional work per call and email

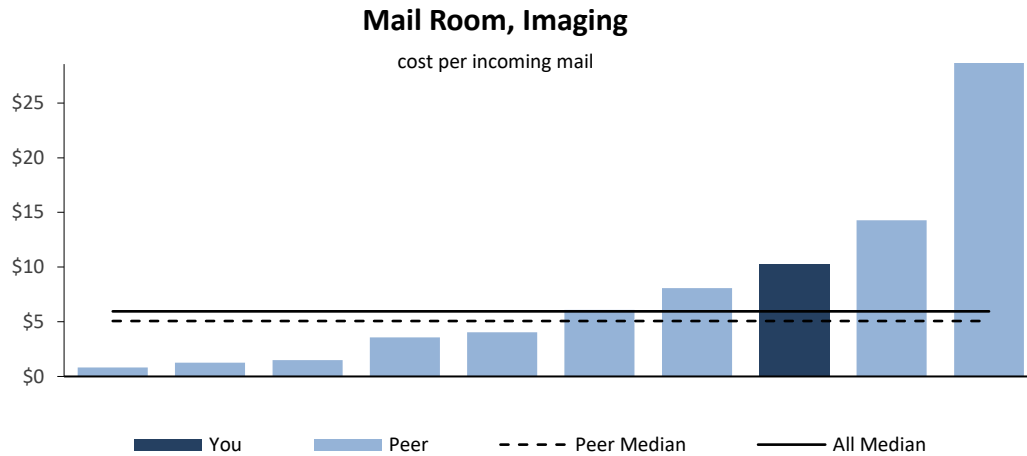
Causes of additional work	You	Peer Avg	Cost Impact
Average talk time of a member call (in seconds)	311	316	decreasing
Average after call work time (in seconds)	Unknown	70	n/a
Do you regularly review staff responses to member calls?	Yes	70%Yes	increasing

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 \$10.24. This was \$5.17 above the peer median of \$5.07. The biggest reason why was that you had higher salaries and benefits per direct FTE.



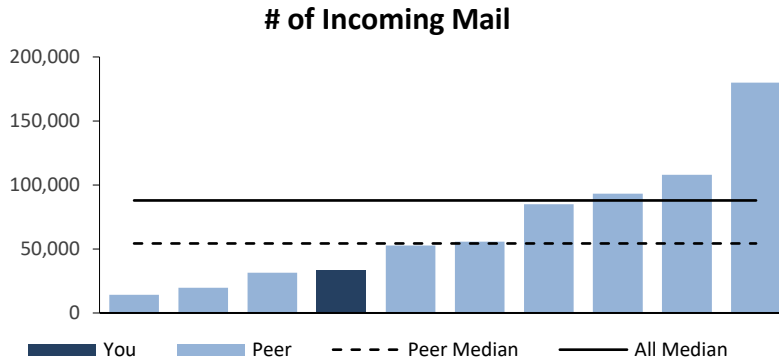
Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Incoming Mail
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$94,141	\$60,850	\$2.81
Equal incoming mail per direct FTE (productivity)	11,827	11,827	\$0.00
Higher third party costs per incoming mail	\$2.28	\$0.57	\$1.71
Unexplained <sup>1</sup>			\$0.64
<b>Cost per incoming mail</b>	<b>\$10.24</b>	<b>\$5.07</b>	<b>\$5.17</b>

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 disadvantage. Your 32,879 incoming mail was 39% lower than the peer median of 54,321.

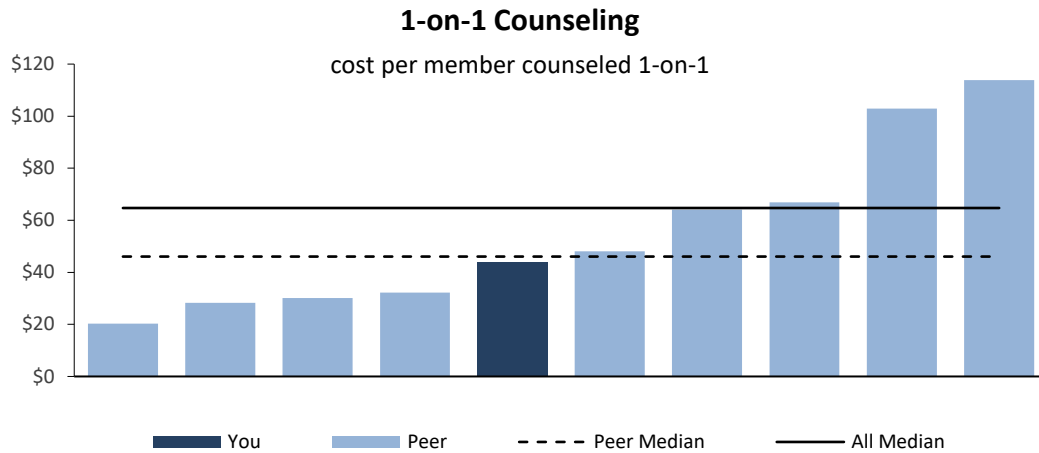


### 2. Additional work per incoming mail

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).	914%	747%	increasing
Do you use imaging technology?	Yes	100%Yes	neutral
If yes:			
a) Do you keep images of ALL incoming member correspondence and submitted forms?	Yes	100%Yes	neutral

## 2C 1-on-1 Counseling

Your 1-on-1 counseling cost per member counseled 1-on-1 was \$44.04. This was \$2.02 below the peer median of \$46.06.



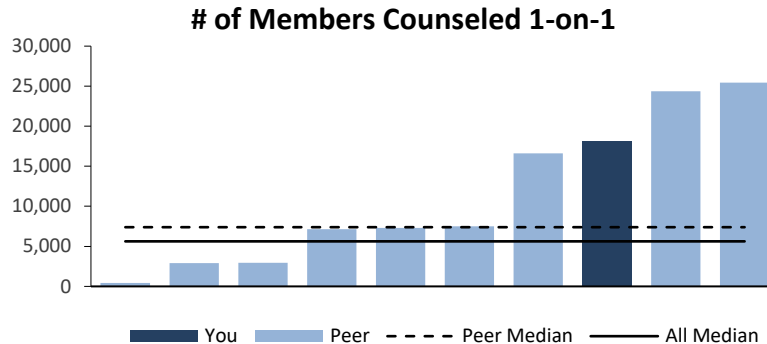
Reasons why your cost was below median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Member Counseled 1-on-1
Higher salaries and benefits per direct FTE	\$94,141	\$76,520	\$6.41
More members counseled 1-on-1 per direct FTE (productivity)	2,751	2,676	-\$0.96
Higher third party costs per member counseled 1-on-1	\$9.82	\$1.29	\$8.53
Unexplained <sup>1</sup>			-\$16.00
<b>Cost per member counseled 1-on-1</b>	<b>\$44.04</b>	<b>\$46.06</b>	<b>-\$2.02</b>

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 advantage. Your 18,164 members counseled 1-on-1 was 146% higher than the peer median of 7,393.



### 2. Mix of activity volume

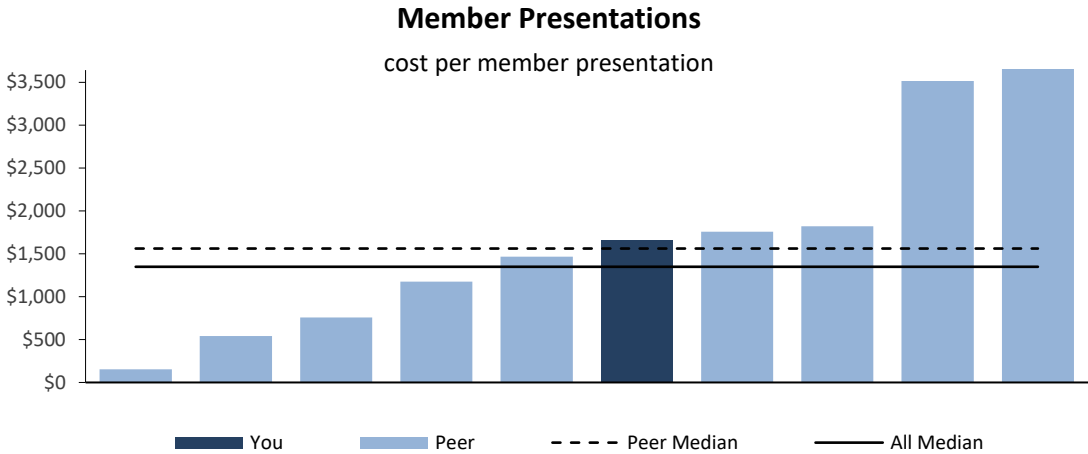
Counseling in field locations is more costly than counseling in-house.

Activity Volume: % by Type	You	Peer Avg	Cost Impact
In-house	41%	60%	decreasing
In the field	39%	30%	increasing
Via teleconference	19%	6%	increasing
Via videoconference	0%	5%	decreasing
<b>Total members counseled 1-on-1</b>	<b>100%</b>	<b>100%</b>	



## 2D Member Presentations

Your member presentations cost per member presentation was \$1,657.47. This was \$95.73 above the peer median of \$1,561.74.



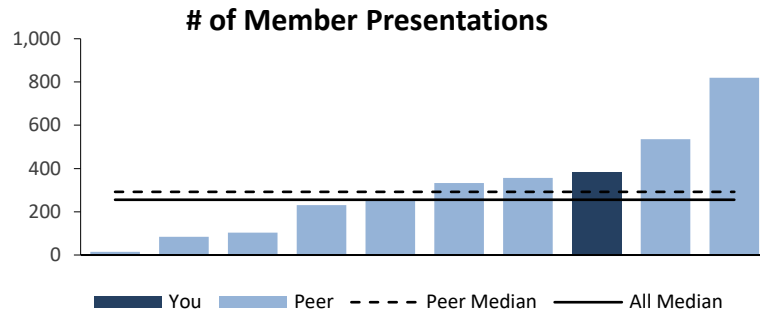
Reasons why your cost was above median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Member Presentation
Higher salaries and benefits per direct FTE	\$94,141	\$82,582	\$158.15
More member presentations per direct FTE (productivity)	73	69	-\$81.68
Higher third party costs per member presentation	\$369.51	\$89.24	\$280.27
Unexplained <sup>1</sup>			-\$261.00
<b>Cost per member presentation</b>	<b>\$1,657.47</b>	<b>\$1,561.74</b>	<b>\$95.73</b>

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 advantage. Your 381 member presentations was 30% higher than the peer median of 292.



### 2. Mix of activity volume

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

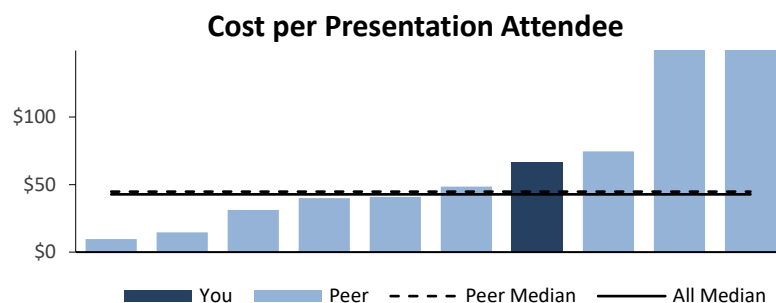
Member Presentations by Location	You	Peer Avg	Cost Impact
In-house and webcast	5%	28%	
In the field	72%	57%	increasing
Benefit fairs	23%	14%	
Total presentations and group counseling	100%	100%	

### 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 25 attendees per presentation, versus a peer average of 28.

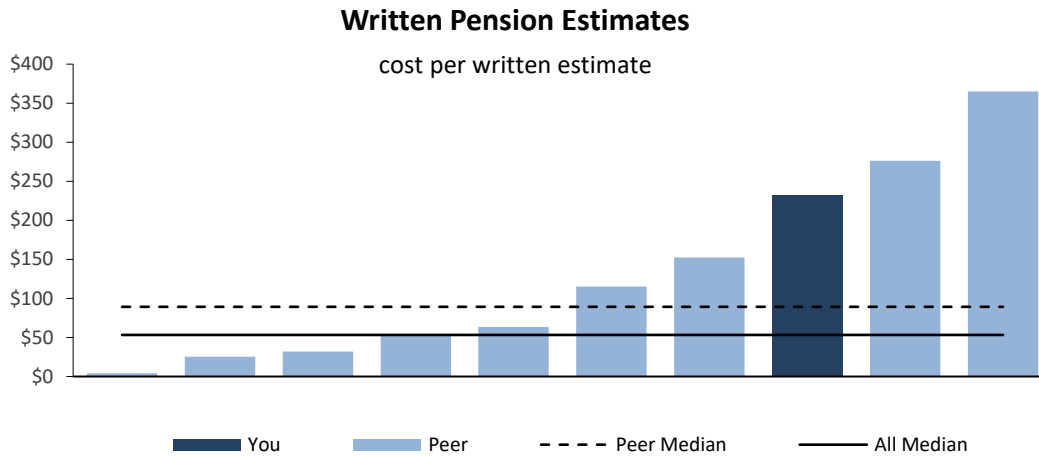
Causes of additional work	You	Peer Avg	Cost Impact
Average attendees per presentation	25	28	increasing

An alternative way of analyzing this activity's cost is on a 'per attendee' basis. Your cost per presentation attendee was \$67. This was above the peer median cost of \$45.



## 2E Written Pension Estimates

Your written pension estimates cost per written estimate was \$232.38. This was \$143.13 above the peer median of \$89.25.



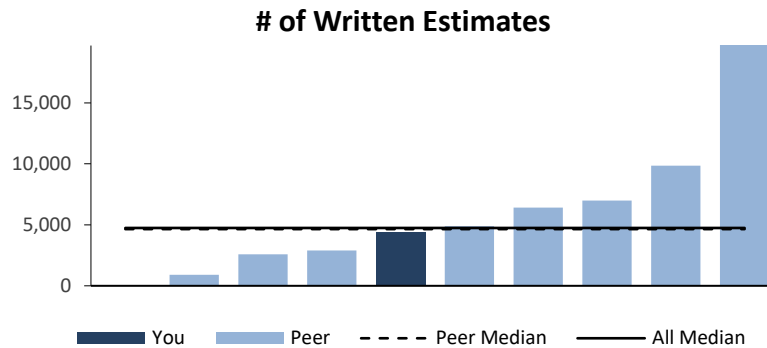
Reasons why your cost was above median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Written Estimate
Higher salaries and benefits per direct FTE	\$94,141	\$76,850	\$33.17
Fewer written estimates per direct FTE (productivity)	521	947	\$81.15
Higher third party costs per written estimate	\$51.81	\$4.71	\$47.09
Unexplained <sup>1</sup>			-\$18.28
<b>Cost per written estimate</b>	<b>\$232.38</b>	<b>\$89.25</b>	<b>\$143.13</b>

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).

## 2E Written Pension Estimates - Factors that impact productivity

### 1. Economies of scale

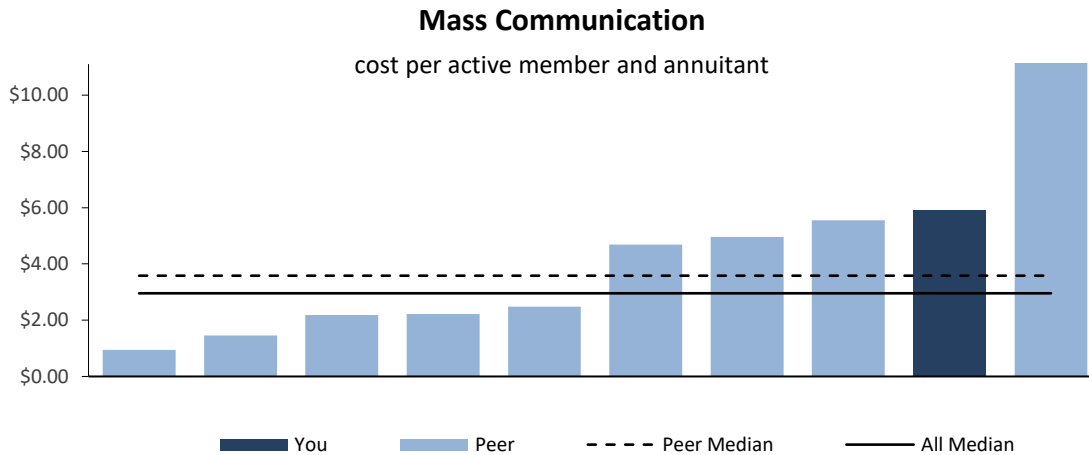
You had an economy of scale disadvantage. Your 4,421<sup>1</sup> written estimates was 5% lower than the peer median of 4,651.



1. Your number of estimates was adjusted because systems count estimates two different ways. When a member requests multiple different estimate scenarios, you count each scenario as an estimate whereas other systems count the 'multiple request' as a single estimate. Therefore, for comparability, we divided your total estimates of 8,841 by your average number of scenarios per request of 2.0.

## 2F Mass Communication

Your mass communication cost per active member and annuitant was \$5.91. This was \$2.33 above the peer median of \$3.58.



Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$94,141	\$95,340	-\$0.06
More direct FTE per 10,000 active members and annuitants (productivity) <sup>2</sup>	0.49	0.18	\$2.88
Higher third party costs per active member and annuitant	\$1.32	\$1.02	\$0.30
Unexplained <sup>1</sup>			-\$0.79
<b>Cost per active member and annuitant</b>	<b>\$5.91</b>	<b>\$3.58</b>	<b>\$2.33</b>

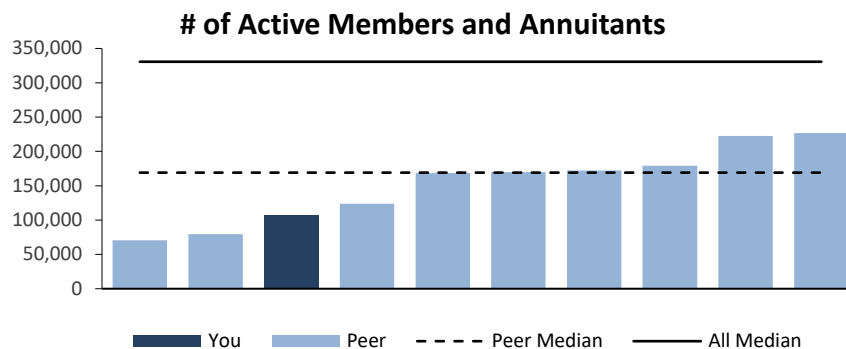
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 5.2 mass communication FTE which was 137% more than the peer median of 2.2. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.49 FTE per 10,000 active members and annuitants was 169% more than the peer median of 0.18) because you had an economy of scale disadvantage.

## 2F Mass Communication - Factors that impact productivity

### 1. Economies of scale

You had an economy of scale disadvantage. Your 106,903 active members and annuitants was 37% lower than the peer median of 169,120.

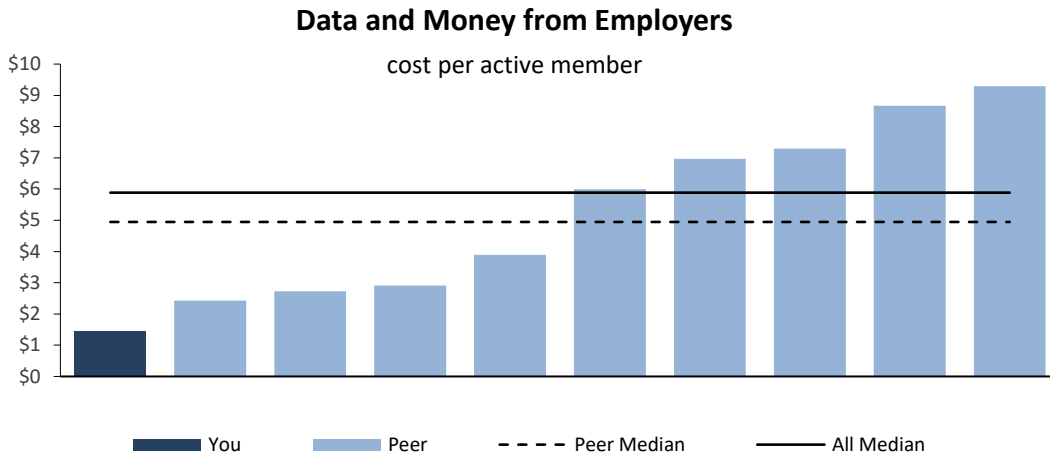


### 2. Additional mass communication work per active member and annuitant

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.	62	69	decreasing
Times per year you send newsletters to:			
a) All members (active, inactive and annuitants)?	2.0	1.3	increasing
b) Active and inactive members?	0.0	0.3	decreasing
c) Active members and annuitants?	0.0	n/a	
d) Active members only?	1.0	1.6	decreasing
e) Inactive members only?	0.0	n/a	
f) Annuitants only?	0.0	1.7	decreasing
g) Age segments (i.e., under 35, 35-50, 50 plus)?	0.0	0.1	decreasing
h) Women only or men only?	0.0	n/a	
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	0.0	0.8	decreasing
j) Other? (describe your other newsletter segments below)	0.0	n/a	
Times per year you send member statements to:			
a) Active members?	1.0	1.4	decreasing
b) Inactive members?	1.0	1.0	neutral
% of member statements mailed to active members' homes	100%	59%	increasing
Do you send:			
a) Welcome kits to new members?	Yes	80%Yes	increasing
b) Brochure summarizing benefits to active members every year?	No	30%Yes	decreasing

### 3A Data and Money from Employers

Your data and money from employers cost per active member was \$1.46. This was \$3.49 below the peer median of \$4.95.



Reasons why your cost was below median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Active Member
Higher salaries and benefits per direct FTE	\$94,141	\$79,695	\$0.17
Fewer direct FTE per 10,000 active members (productivity) <sup>2</sup>	0.07	0.32	-\$2.37
Higher third party costs per active member	\$0.33	\$0.30	\$0.02
Unexplained <sup>1</sup>			-\$1.32
<b>Cost per active member</b>	<b>\$1.46</b>	<b>\$4.95</b>	<b>-\$3.49</b>

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).

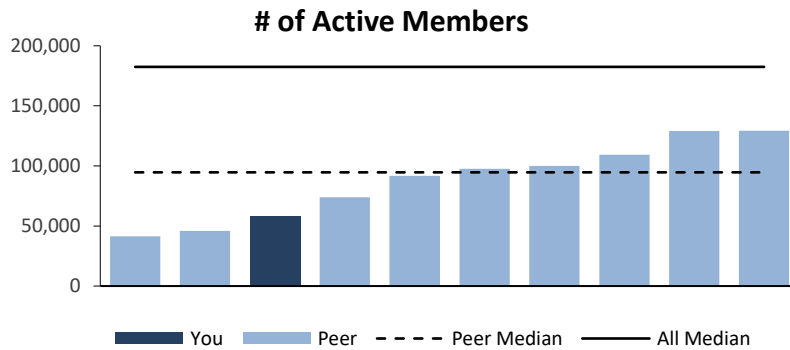
2. You had 0.7 data and money from employers FTE which was 87% less than the peer median of 5.2. The percentage difference was less favorable on a 'per active members' basis (your 0.07 FTE per 10,000 active members was 79% less than the peer median of 0.32) because you had an economy of scale disadvantage.

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

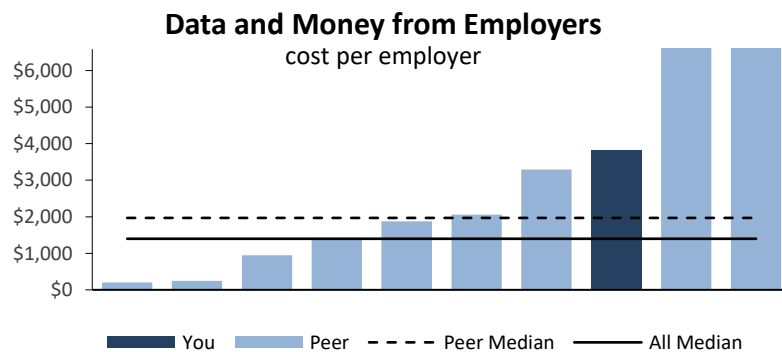
You had an economy of scale disadvantage. Your 57,541 active members was 39% lower than the peer median of 94,657.



### 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)	0.0%	0.5%	decreasing
• Reconciling money issues? (as a % of active members)	0.0%	0.4%	decreasing
Active members whose data is provided in paper format (as a % of active members)	0.0%	0.2%	decreasing
Status changes as a % of active members			
• New active members	10.1%	8.2%	increasing
• Re-hired inactive members	0.6%	0.6%	neutral
• Re-hired service retirees, if annuity stops	0.0%	0.0%	neutral
• Active members exiting to inactive or withdrawal	6.5%	5.1%	increasing
• Active member service retirements	2.9%	2.9%	neutral

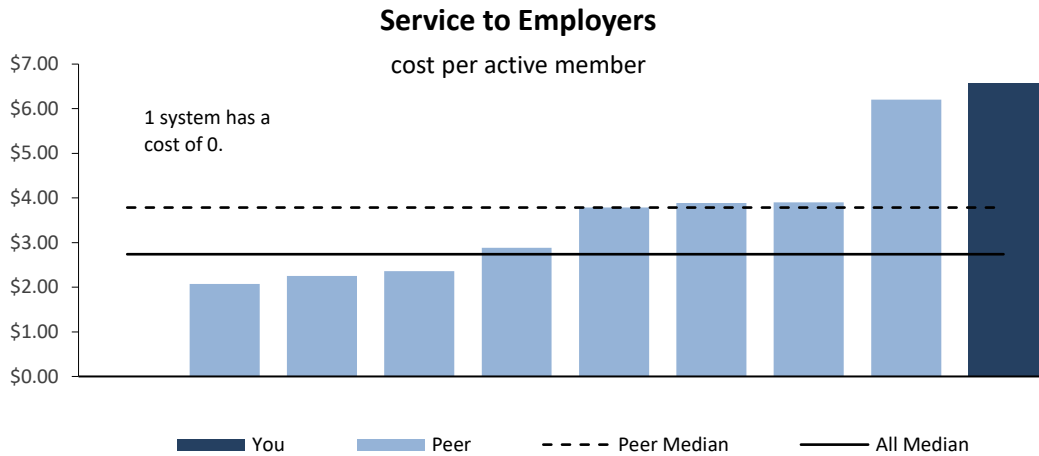
### 3. Alternate cost drivers: Data and money from employers cost per employer





## 3B Service to Employers

Your service to employers cost per active member was \$6.58. This was \$2.79 above the peer median of \$3.79.



Reasons why your cost was above median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Active Member
Higher salaries and benefits per direct FTE	\$94,141	\$81,133	\$0.71
More direct FTE per 10,000 active members (productivity) <sup>2</sup>	0.29	0.21	\$0.74
Higher third party costs per active member	\$1.47	\$0.36	\$1.10
Unexplained <sup>1</sup>			\$0.24
<b>Cost per active member</b>	<b>\$6.58</b>	<b>\$3.79</b>	<b>\$2.79</b>

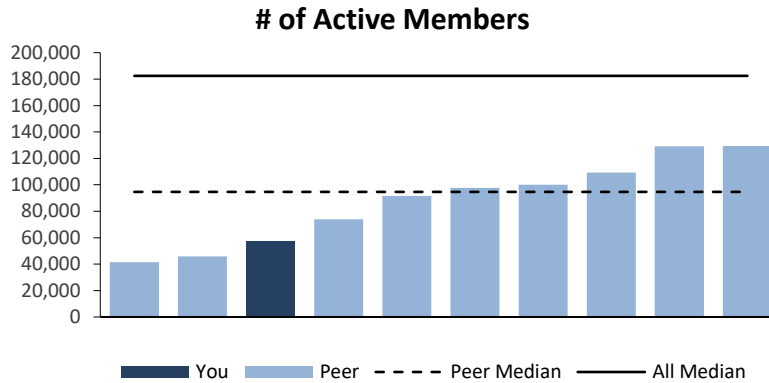
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 3.1 service to employers FTE which was equal to the peer median of 3.1. The difference changes direction and was less favorable on a 'per active members' basis (your 0.29 service to employers FTE per 10,000 active members was 37% more than the peer median of 0.21) because you had an economy of scale disadvantage.

## 3B Service to Employers - Factors that impact productivity

### 1. Economies of scale

You had an economy of scale disadvantage. Your 57,541 active members was 39% lower than the peer median of 94,657.

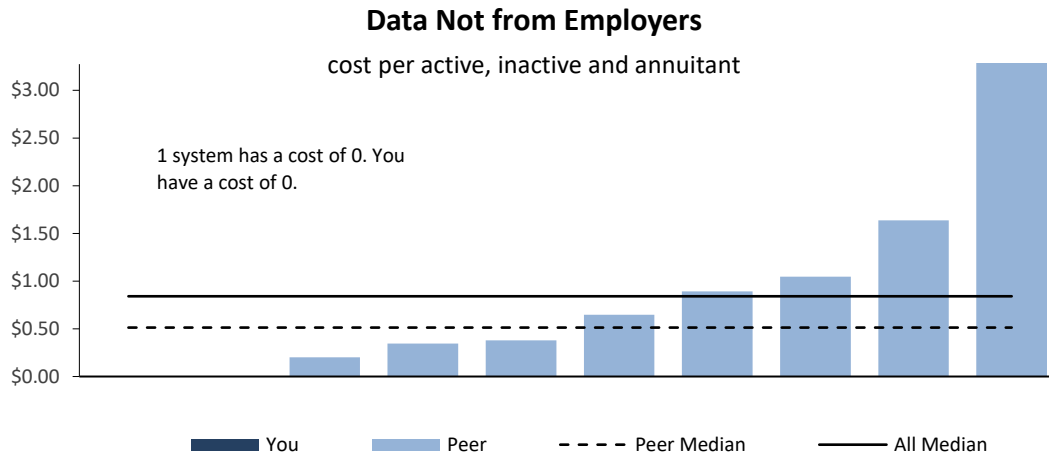


### 2. Additional service to employers work per active member

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)	0.0%	0.5%	decreasing
• Reconciling money issues? (as a % of active members)	0.0%	0.4%	decreasing
Service transactions a % of active members:			
a) Incoming calls from employers?	6.5%	5.5%	increasing
b) Email queries from employers?	38.5%	14.4%	increasing
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]?	0.0%	0.0%	neutral

### 3C Data Not from Employers

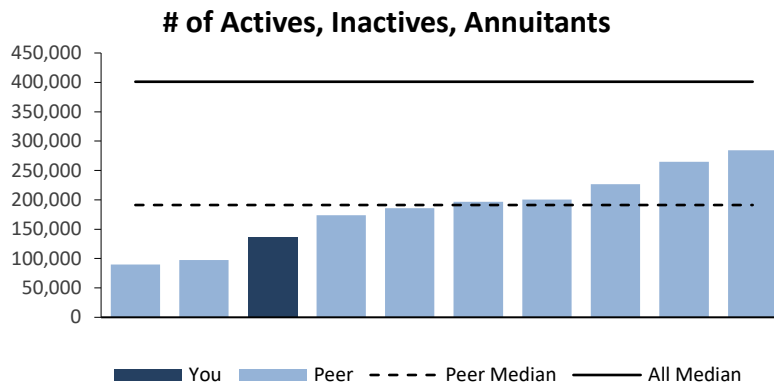
You have no cost for this activity. The peer median cost was \$0.51.



### 3C Data Not from Employers - Factors that impact productivity

#### 1. Economies of scale

You had an economy of scale disadvantage. Your 136,481 actives, inactive, annuitants was 29% lower than the peer median of 191,178.

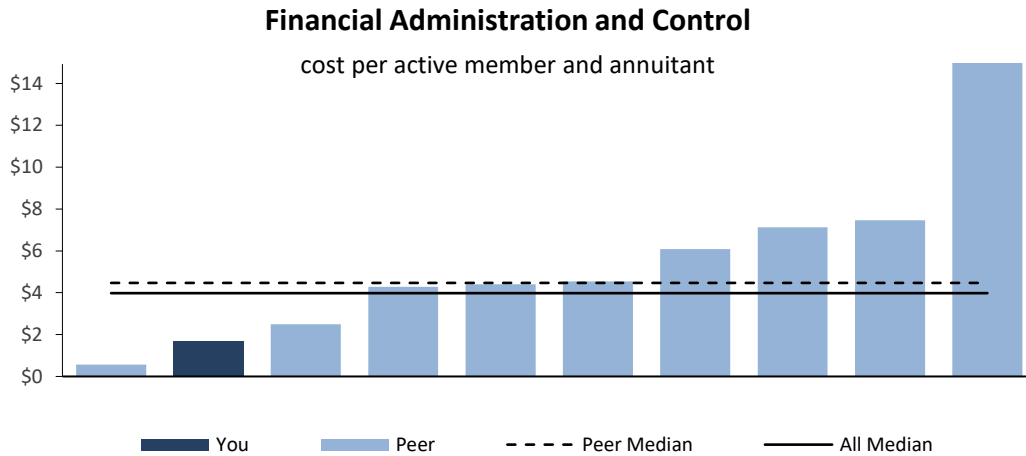


#### 2. Additional data not from employers work per active, inactive and annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Do you actively keep track of the addresses of inactive members?	Yes	100%Yes	neutral
If yes, inactive members as a % of actives, inactive, annuitants	21.7%	18.3%	increasing
Status changes as a % of actives, inactive, annuitants:			
• Deaths	0.1%	0.1%	neutral

## 4A Financial Administration and Control

Your financial administration and control cost per active member and annuitant was \$1.69. This was \$2.78 below the peer median of \$4.47.



Reasons why your cost was below median	Comparison		Impact <sup>1</sup> \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$94,141	\$105,126	-\$0.16
Fewer direct FTE per 10,000 active members and annuitants (productivity) <sup>2</sup>	0.15	0.38	-\$2.13
Lower third party costs per active member and annuitant	\$0.40	\$0.46	-\$0.06
Unexplained <sup>1</sup>			-\$0.43
<b>Cost per active member and annuitant</b>	<b>\$1.69</b>	<b>\$4.47</b>	<b>-\$2.78</b>

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).

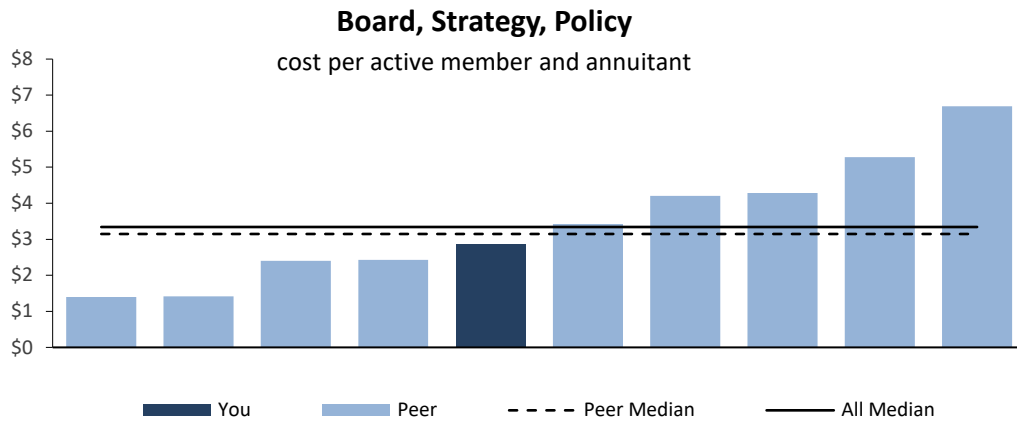
2. You had 1.6 financial administration and control FTE which was 69% less than the peer median of 5.2. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.15 FTE per 10,000 active members and annuitants was 60% less than the peer median of 0.38) because you had an economy of scale disadvantage.

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 disadvantage. Your 106,903 active members and annuitants was 37% lower than the peer median of 169,120.
- 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 \$2.87. This was \$0.28 below the peer median of \$3.15.



Reasons why your cost was below median	Comparison		Impact <sup>1</sup> \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$94,141	\$148,968	-\$1.39
More direct FTE per 10,000 active members and annuitants (productivity) <sup>2</sup>	0.25	0.14	\$1.04
Lower third party costs per active member and annuitant	\$0.68	\$0.73	-\$0.05
Unexplained <sup>1</sup>			\$0.12
<b>Cost per active member and annuitant</b>	<b>\$2.87</b>	<b>\$3.15</b>	<b>-\$0.28</b>

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 2.7 board, strategy, policy FTE which was 15% more than the peer median of 2.4. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.25 FTE per 10,000 active members and annuitants was 77% more than the peer median of 0.14) because you had an economy of scale disadvantage.

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:

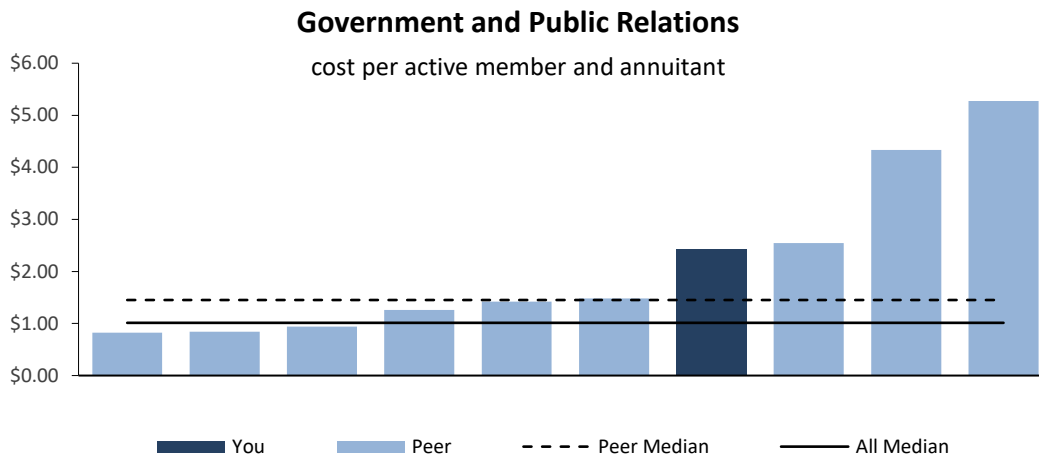
- Economies of scale - You had an economy of scale disadvantage. Your 106,903 active members and annuitants was 37% lower than the peer median of 169,120.
- Doing more/less - For example, your 15 oversight meetings last year was equal to the peer median of 15.

# of meetings last year, including sub-committees	You	Peer	
		Median *	Peer Avg
a) Board of Trustees?	5	13	18.2
b) Non-board legislative oversight committee?	5	8	2.8
c) Advisory committee?	n/a	n/a	n/a
d) Members' Council?	n/a	18	1.8
e) Other?	5	5	2.4
<b>Total</b>	<b>15</b>	<b>15</b>	<b>25</b>

\* 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 \$2.43. This was \$0.98 above the peer median of \$1.45.



Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$94,141	\$140,250	-\$0.99
More direct FTE per 10,000 active members and annuitants (productivity) <sup>2</sup>	0.21	0.09	\$1.13
Higher third party costs per active member and annuitant	\$0.58	\$0.24	\$0.34
Unexplained <sup>1</sup>			\$0.50
<b>Cost per active member and annuitant</b>	<b>\$2.43</b>	<b>\$1.45</b>	<b>\$0.98</b>

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).

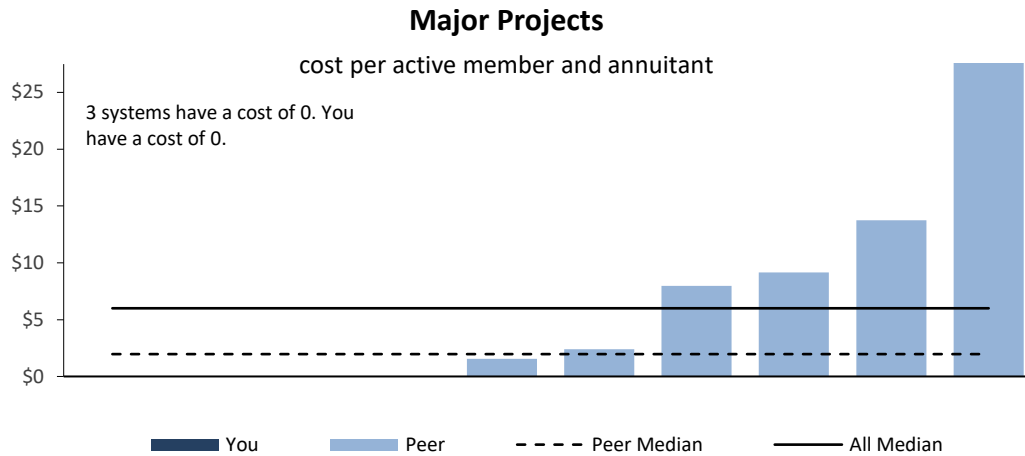
2. You had 2.3 government and public relations FTE which was 80% more than the peer median of 1.3. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.21 FTE per 10,000 active members and annuitants was 127% more than the peer median of 0.09) because you had an economy of scale disadvantage.

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 disadvantage. Your 106,903 active members and annuitants was 37% lower than the peer median of 169,120.
- 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 \$1.97. This comparison includes both '5A and 5C Amortized major projects' plus '5B and 5D Major Projects (if you don't capitalize)'.



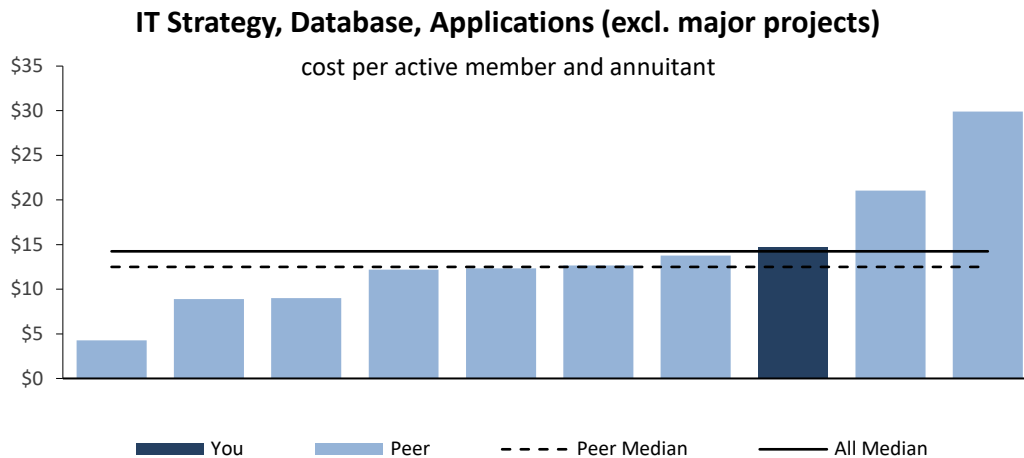
Reasons for differences in the cost for major projects include:

- 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 disadvantage. Your 106,903 active members and annuitants was 36.8% lower than the peer median of 169,120. Thus you had fewer 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 27 out of 100. This was below the peer median of 33.
- 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.



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

Your IT strategy, database, applications (excl. major projects) cost per active member and annuitant was \$14.71. This was \$2.21 above the peer median of \$12.50. The biggest reason why was that you had more direct FTE per 10,000 active members and annuitants<sup>2</sup>.



Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$94,141	\$109,120	-\$1.95
More direct FTE per 10,000 active members and annuitants <sup>2</sup>	1.30	0.65	\$6.12
Lower third party costs per active member and annuitant	\$3.51	\$4.17	-\$0.66
Unexplained <sup>1</sup>			-\$1.30
<b>Cost per active member and annuitant</b>	<b>\$14.71</b>	<b>\$12.50</b>	<b>\$2.21</b>

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).

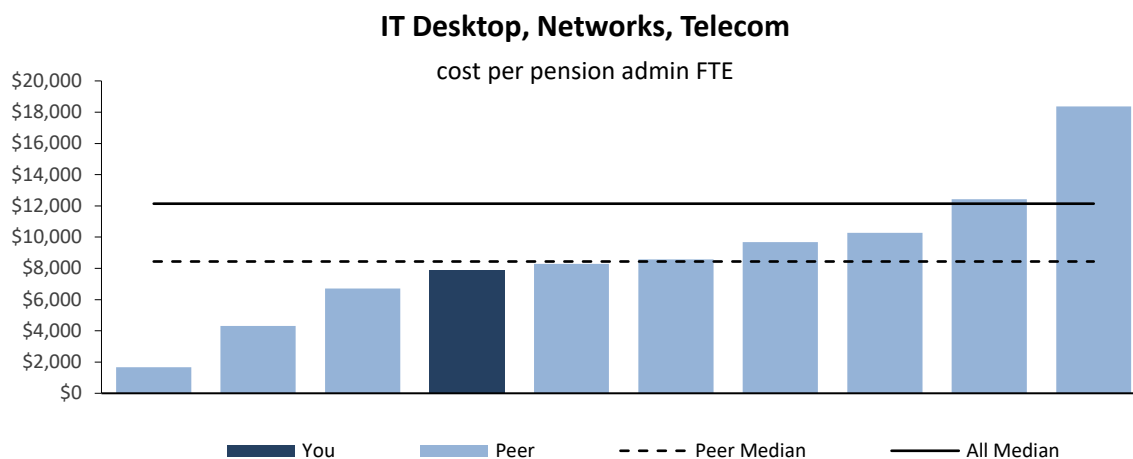
2. You had 13.9 IT strategy, database, applications (excl. major projects) FTE which was 14% more than the peer median of 12.2. The percentage difference was less favorable on a 'per active member and annuitant' basis (your 1.30 FTE per 10,000 active member and annuitant was 100% more than the peer median of 0.65) because you had an economy of scale disadvantage.

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) because of the substantial fixed costs of maintaining the IT infrastructure necessary for pension systems to operate. You had an economy of scale disadvantage. Your 106,903 active members and annuitants was 36.8% lower than the peer median of 169,120. Thus you had fewer members over which to spread IT strategy, database, applications (excl. 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 27 out of 100. This was below the peer median of 33.
- IT investment cycle

## 6B IT Desktop, Networks, Telecom

Your it desktop, networks, telecom cost per pension admin FTE was \$7,881. This was \$556 below the peer median of \$8,437.



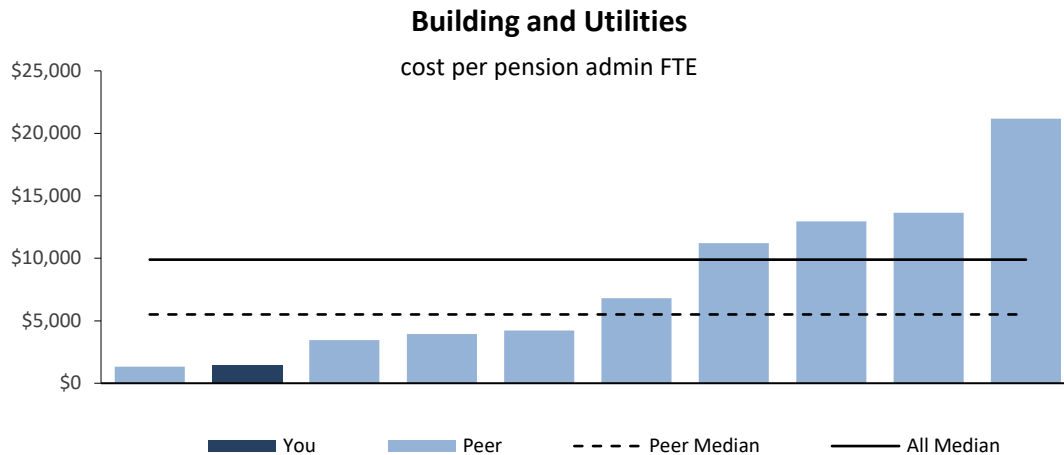
Reasons why your cost was below median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Pension Admin FTE
Lower salaries and benefits per direct FTE	\$94,141	\$97,282	-\$219
More direct FTE per 100 pension admin FTE <sup>2</sup>	6.97	5.09	\$1,769
Lower third party costs per pension admin FTE	\$1,882	\$3,178	-\$1,296
Unexplained <sup>1</sup>			-\$810
<b>Cost per pension admin FTE</b>	<b>\$7,881</b>	<b>\$8,437</b>	<b>-\$556</b>

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 6.3 IT desktop, networks, telecom FTE which was 16% more than the peer median of 5.4. The percentage difference was less favorable on a 'per pension admin FTE' basis (your 6.97 IT desktop, networks, telecom FTE per 100 pension admin FTE was 37% more than the peer median of 5.09).

## 7A Building and Utilities

Your building and utilities cost per pension admin FTE was \$1,401. This was \$4,104 below the peer median of \$5,505.



Reasons why your cost was below median	Comparison		Impact <sup>1</sup> \$s per Pension Admin FTE
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$94,141	\$88,515	\$70
More direct FTE per 100 pension admin FTE <sup>2</sup>	1.24	0.15	\$1,029
Lower third party costs per pension admin FTE	\$335	\$5,315	-\$4,980
Unexplained <sup>1</sup>			-\$223
<b>Cost per pension admin FTE</b>	<b>\$1,401</b>	<b>\$5,505</b>	<b>-\$4,104</b>

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).

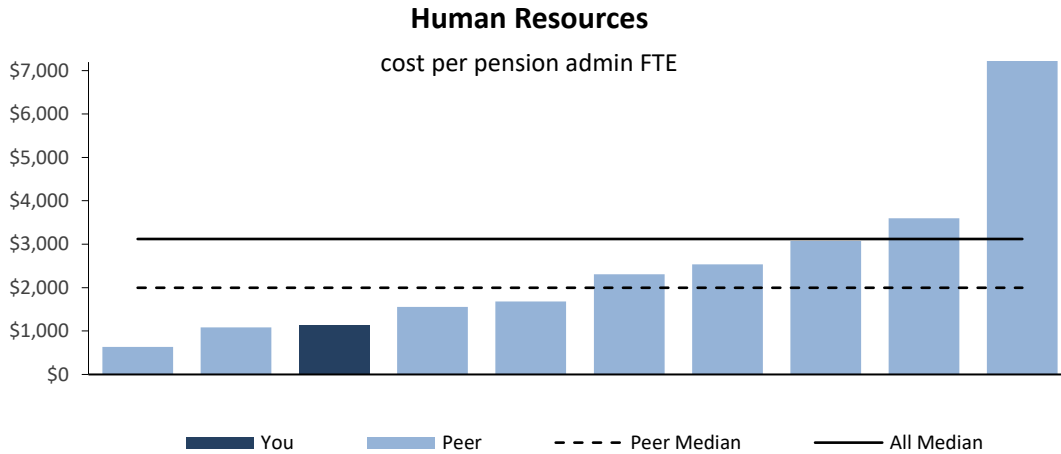
2. You had 1.1 building and utilities FTE which was 641% more than the peer median of 0.2. The percentage difference was less favorable on a 'per pension admin FTE' basis (your 1.24 building and utilities FTE per 100 pension admin FTE was 754% more than the peer median of 0.15).

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 \$1,138. This was \$859 below the peer median of \$1,997.



Reasons why your cost was below median	Comparison		Impact <sup>1</sup>
	You	Peer Median	\$s per Pension Admin FTE
Lower salaries and benefits per direct FTE	\$94,141	\$94,716	-\$6
Fewer direct FTE per 100 pension admin FTE <sup>2</sup>	1.01	1.68	-\$637
Higher third party costs per pension admin FTE	\$272	\$207	\$65
Unexplained <sup>1</sup>			-\$281
<b>Cost per pension admin FTE</b>	<b>\$1,138</b>	<b>\$1,997</b>	<b>-\$859</b>

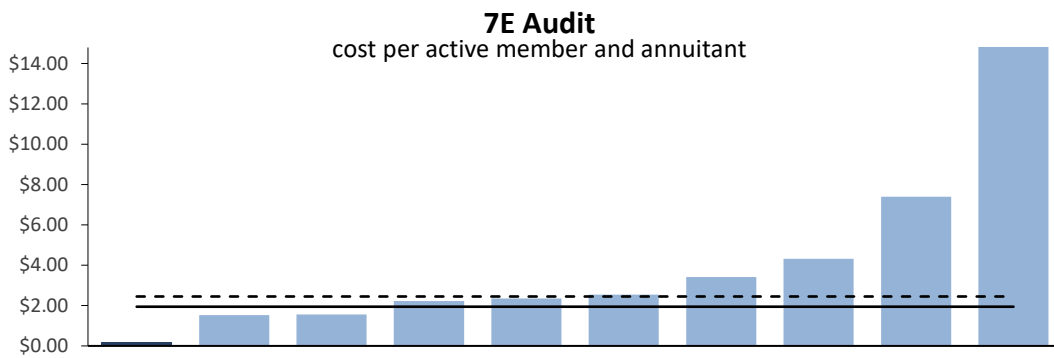
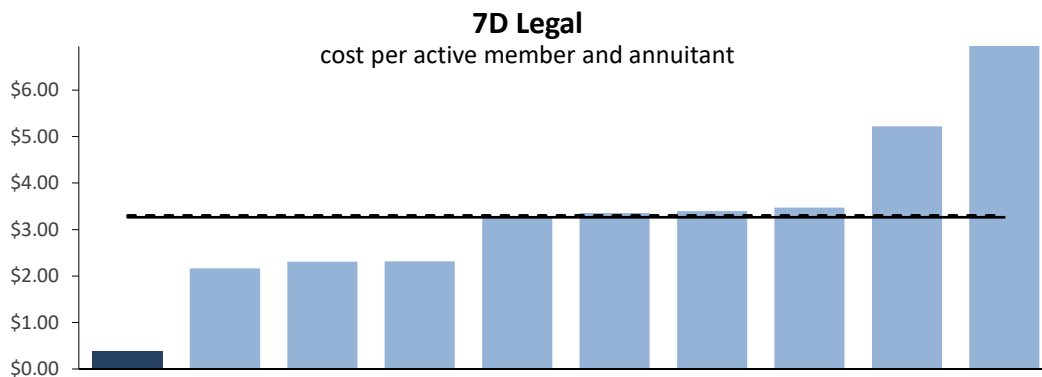
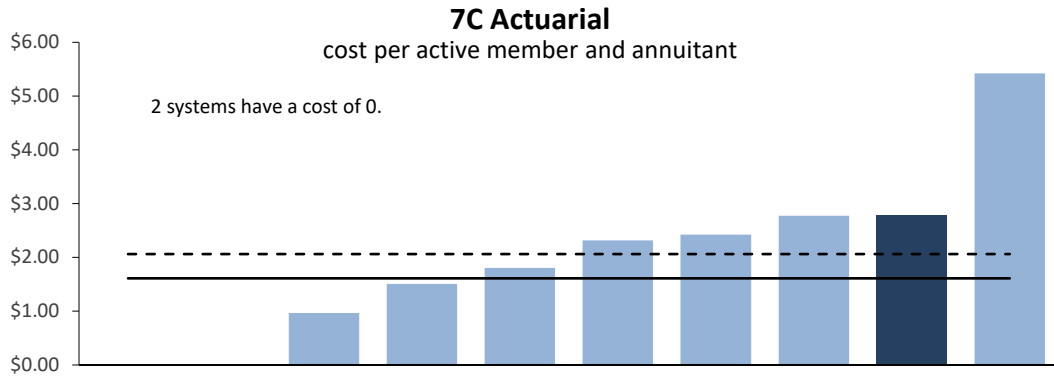
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 0.9 human resources FTE which was 25% less than the peer median of 1.2. The percentage difference was more favorable on a 'per pension admin FTE' basis (your 1.01 FTE per 100 pension admin FTE was 40% less than the peer median of 1.68) because you had an economy of scale advantage.

## 7C-E Professional Costs

Your cost for activity:

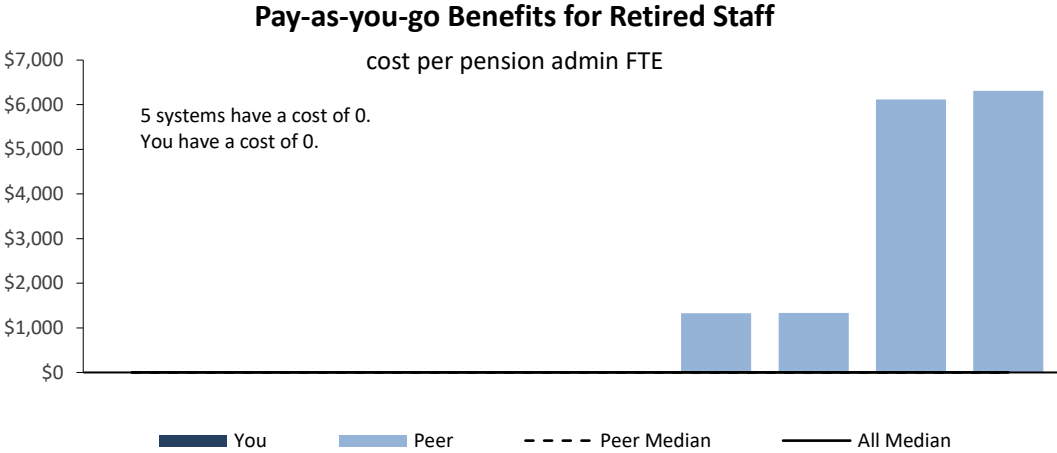
- Your actuarial cost per active member and annuitant was \$2.79. This was \$0.73 above the peer median of \$2.06.
- Your legal cost per active member and annuitant was \$0.37. This was \$2.93 below the peer median of \$3.30.
- Your audit cost per active member and annuitant was \$0.18. This was \$2.27 below the peer median of \$2.45.



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

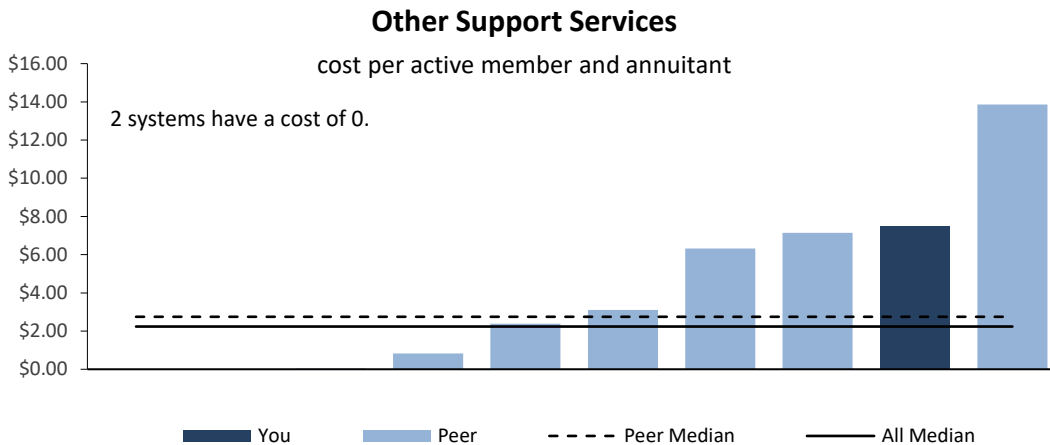
# 7F Pay-as-you-go Benefits for Retired Staff

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 \$7.50. This was \$4.75 above the peer median of \$2.75. The biggest reason why was that you had more direct FTE per 10,000 active members and annuitants<sup>2</sup>.



Reasons why your cost was above median	Comparison		Impact <sup>1</sup> \$s per Active Member and Annuitant
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$94,141	\$85,237	\$0.59
More direct FTE per 10,000 active members and annuitants <sup>2</sup>	0.7	0.3	\$3.76
Higher third party costs per active member and annuitant	\$1.79	\$1.30	\$0.49
Unexplained <sup>1</sup>			-\$0.10
<b>Cost per active member and annuitant</b>	<b>\$7.50</b>	<b>\$2.75</b>	<b>\$4.75</b>

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 7.1 other support services FTE which was 406% more than the peer median of 1.4. The percentage difference was more favorable on a 'per active member and annuitant' basis (your 0.66 other support services FTE per 10,000 active member and annuitant was 152% more than the peer median of 0.26).

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 disadvantage. Your 106,903 active members and annuitants was 36.8% lower than the peer median of 169,120. Thus you had less 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 27 out of 100. This was below the peer median of 33.
- 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 inceptions, 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:	Peer								All						
		You	Avg	Max	Q3	Med	Q1	Min	#	Avg	Max	Q3	Med	Q1	Min	#
<b>1. Member Transactions</b>																
a. Pension Payments	annuitant	26	28	108	24	15	10	4	10	23	108	25	17	11	3	48
b. Pension Inceptions	new payee inception	102	621	1,764	815	411	280	102	10	624	2,498	737	495	296	82	48
c. Refunds, Withdrawals, and Transfers-out	withdrawal and transfer-out	199	1,400	6,713	1,091	196	153	52	10	802	6,713	741	258	115	43	48
d. Purchases and Transfers-in	purchase and transfer-in	2,899	6,420	56,622	1,115	851	279	97	10	2,603	56,622	1,368	686	309	0	47
e. Disability	disability application	1,237	6,538	27,699	4,662	3,660	1,955	1,233	10	5,199	27,699	5,692	3,468	1,640	0	40
<b>2. Member Communication</b>																
a. Call Center	call and email	20	23	81	26	18	14	0	10	34	111	47	27	18	0	48
b. Mail Room, Imaging	incoming mail	17	22	85	23	15	6	1	10	28	154	36	20	10	1	48
c. 1-on-1 Counseling	member counseled 1-on-1	73	144	340	168	107	78	55	10	309	1,512	388	169	109	6	48
d. Member Presentations	member presentation	2,739	5,013	17,516	5,553	3,725	2,109	359	10	4,130	17,516	4,965	3,414	1,710	0	47
e. Written Pension Estimates	written estimate	384	333	979	376	260	103	14	10	327	1,762	449	160	78	0	48
f. Mass Communication	active member and annuitant	10	9	26	9	6	4	2	10	8	35	11	6	3	0	48
<b>3. Collections and Data Maintenance</b>																
a. Data and Money from Employers	active member	2	13	22	19	12	9	2	10	23	165	23	16	8	2	48
b. Service to Employers	active member	11	8	13	12	8	6	0	10	10	54	12	8	5	0	48
c. Data Not from Employers	active, inactive and annuitant	0	2	11	3	1	0	0	10	3	17	5	3	1	0	48
<b>Total Pension Administration</b>	active member and annuitant	105	127	406	100	76	73	62	10	117	406	142	92	72	19	48
<b>Non-Pension</b>																
1f. Healthcare Administration	annuitant	16	18	147	9	0	0	0	10	8	147	1	0	0	0	46
1g. Optional and Third Party Administered Benefits	active member	0	2	10	2	0	0	0	10	4	54	6	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	Direct Staff (# FTE)	Direct Costs (Salaries + Third Party)	5. Major Projects	Attributions <sup>1</sup>			Fully-Attributed		
				6a IT Strategy, DB Mgmt, Appli-cations	6b + 7a - g Support Services and Other	4. Governance & Financial Control	Cost per unit <sup>3</sup>	Cost per Member and Annuitant	
<b>1. Member Transactions</b>									
a. Pension Payments	6.5	783	0	164	218	129	1,294	26	12.11
b. Pension Inceptions	1.5	185	0	39	52	30	306	102	2.86
c. Refunds, Withdrawals, and Transfers-out	3.1	379	0	79	106	62	626	199	5.86
d. Purchases and Transfers-in	0.7	84	0	18	23	14	139	2,899	1.30
e. Disability	0.6	67	0	14	19	11	111	1,237	1.04
f. Healthcare Administration	4.0	480	0	101	134	79	793	16	7.42
g. Optional and Third Party Administered Benefits	0.0	0	0	0	0	0	0	0	0.00
<b>2. Member Communication</b>									
a. Call Center	11.3	1,372	0	287	383	226	2,268	20	21.22
b. Mail Room, Imaging	2.8	337	0	71	94	55	557	17	5.21
c. 1-on-1 Counseling	6.6	800	0	168	223	132	1,322	73	12.37
d. Member Presentations	5.2	631	0	132	176	104	1,044	2,739	9.76
e. Written Pension Estimates	8.5	1,027	0	215	287	169	1,698	384	15.88
f. Mass Communication	5.2	631	0	132	176	104	1,044	10	9.76
<b>3. Collections and Data Maintenance</b>									
a. Data and Money from Employers	0.7	84	0	18	23	14	139	2	1.30
b. Service to Employers	3.1	379	0	79	106	62	626	11	5.86
c. Data Not from Employers	0.0	0	0	0	0	0	0	0	0.00
<b>4. Governance and Financial Control</b>									
a. Financial Administration and Control	1.6	194	0	41	54	-288	0		
b. Board, Strategy, Policy	2.7	328	0	69	92	-489	0		
c. Government and Public Relations	2.3	278	0	58	78	-414	0		
<b>5. Major Projects</b>									
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		
<b>6. Information Technology</b>									
a. IT Strategy, Database, Applications (excl. major projects)	13.9	1,684		-1,684			0		
b. IT Desktop, Networks, Telecom	6.3	758			-758		0		
<b>7. Support Services and Other</b>									
a. Building and Utilities	1.1	135			-135		0		
b. Human Resources	0.9	109			-109		0		
c. Actuarial	0.0	319			-319		0		
d. Legal and Rule Interpretation	0.3	42			-42		0		
e. Internal and External Audit	0.2	21			-21		0		
f. Pay-as-you-go Benefits for Retired Staff	n/a	0			0		0		
g. Other Support Services	7.1	859			-859		0		
<b>Total Administration</b>	<b>96.2</b>	<b>11,968</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11,968</b>		<b>111.95</b>
less: <sup>2</sup>									
1f. Healthcare Administration							-793		-7.42
1g. Optional and Third Party Administered Benefits							0		0.00
<b>Total Pension Administration</b>							<b>11,175</b>		<b>104.53</b>

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.

# 5

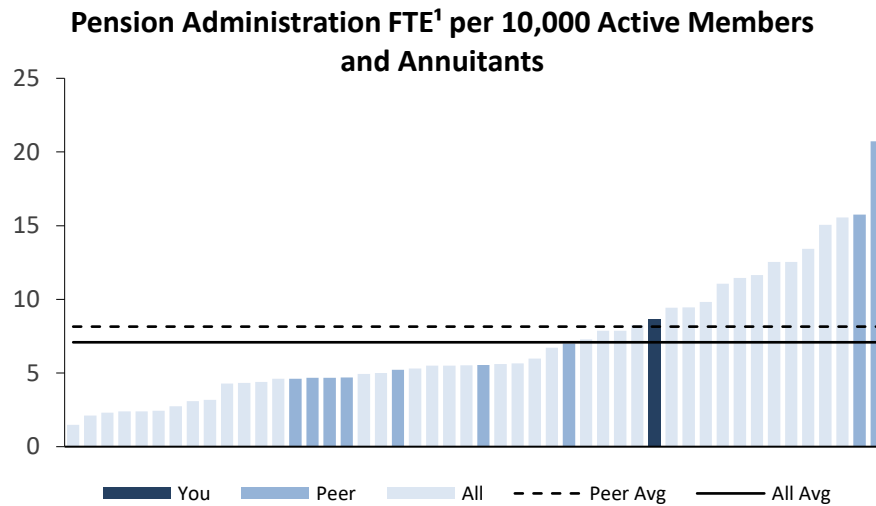
## Staff Costs and Productivity

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 8.62 pension administration FTE<sup>1</sup> per 10,000 members. This was above the peer average of 8.15.



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

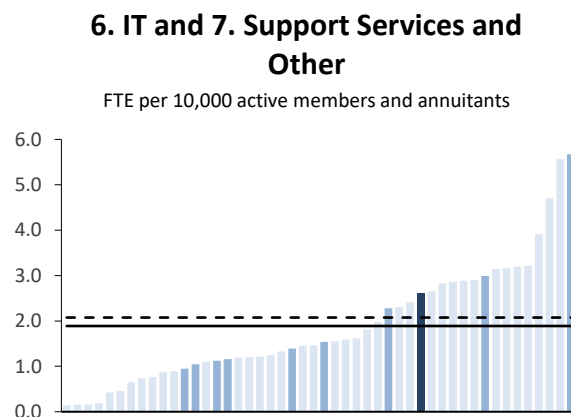
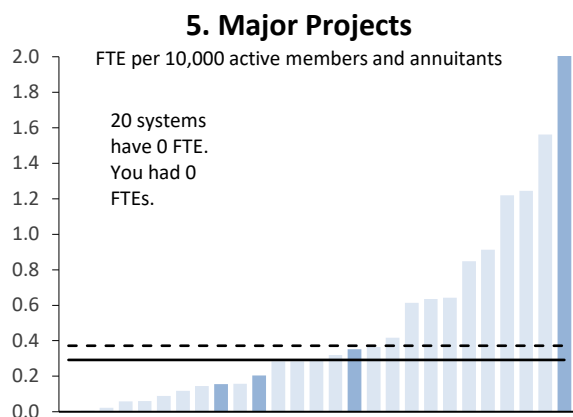
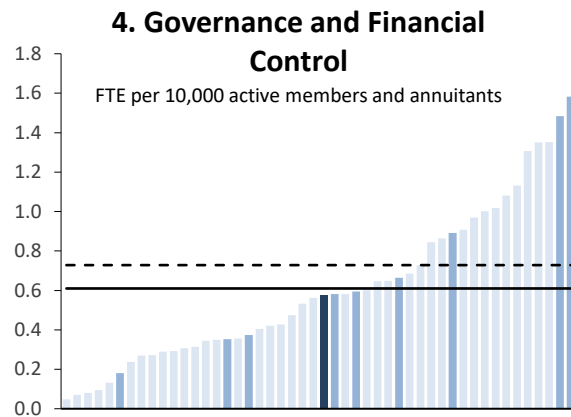
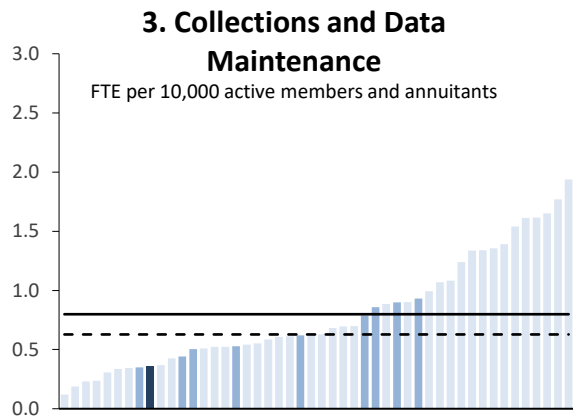
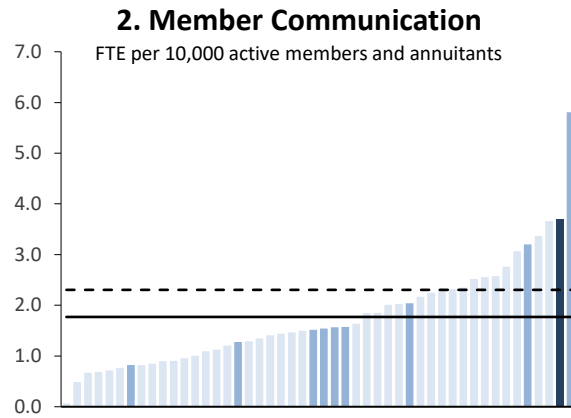
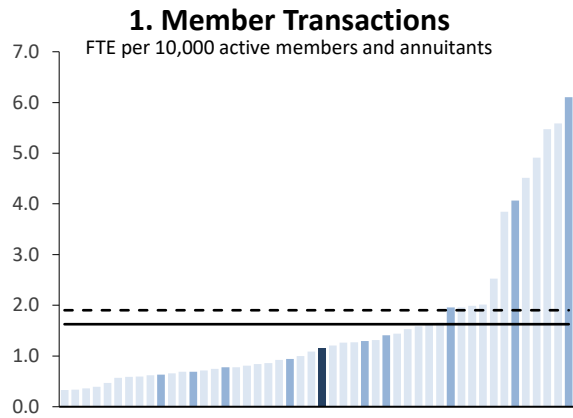
## FTE by activity

Activity	# of Direct <sup>1</sup> FTE			# of FTE per 10,000 Active Members and Annuitants		
	You	Peer	All Avg	You	Peer	All Avg
<b>1. Member Transactions</b>						
a. Pension Payments	6.5	7.5	11.1	0.60	0.43	0.33
b. Pension Inceptions	1.5	10.0	21.1	0.14	0.61	0.51
c. Refunds, Withdrawals, and Transfers-out	3.1	4.3	9.4	0.29	0.28	0.31
d. Purchases and Transfers-in	0.7	3.8	10.7	0.07	0.22	0.31
e. Disability	<u>0.6</u>	<u>5.8</u>	<u>6.9</u>	<u>0.05</u>	<u>0.36</u>	<u>0.17</u>
Total Member Transactions	12.4	31.4	59.2	1.16	1.90	1.63
<b>2. Member Communication</b>						
a. Call Center	11.3	13.1	32.0	1.06	0.86	0.74
b. Mail Room, Imaging	2.8	6.3	9.9	0.26	0.35	0.26
c. 1-on-1 Counseling	6.6	4.9	10.1	0.62	0.32	0.24
d. Member Presentations	5.2	3.6	4.6	0.49	0.24	0.13
e. Written Pension Estimates	8.5	3.8	6.0	0.79	0.26	0.18
f. Mass Communication	<u>5.2</u>	<u>4.4</u>	<u>7.4</u>	<u>0.49</u>	<u>0.27</u>	<u>0.22</u>
Total Member Communication	39.6	36.2	70.1	3.71	2.30	1.77
<b>3. Collections and Data Maintenance</b>						
a. Data and Money from Employers	0.7	5.3	17.7	0.07	0.32	0.45
b. Service to Employers	3.1	3.1	9.3	0.29	0.20	0.19
c. Data Not from Employers	<u>0.0</u>	<u>1.8</u>	<u>5.6</u>	<u>n/a</u>	<u>0.11</u>	<u>0.16</u>
Total Collections and Data Maintenance	3.8	10.2	32.6	0.36	0.63	0.80
<b>4. Governance and Financial Control</b>						
a. Financial Administration and Control	1.6	7.3	14.5	0.15	0.45	0.37
b. Board, Strategy, Policy	2.7	2.9	9.5	0.25	0.17	0.18
c. Government and Public Relations	<u>2.3</u>	<u>2.2</u>	<u>2.9</u>	<u>0.21</u>	<u>0.14</u>	<u>0.08</u>
Total Governance and Financial Control	6.6	12.4	26.8	0.62	0.76	0.63
<b>5. Major Projects</b>						
a. Amortization of non-IT Major Projects <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a
b. Non-IT Major Projects (if you don't capitalize)	0.0	1.5	3.5	n/a	0.07	0.11
c. Amortization of IT Major Projects <sup>2</sup>	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>6.5</u>	<u>6.7</u>	<u>n/a</u>	<u>0.31</u>	<u>0.20</u>
Total Major Projects	0.0	7.9	10.3	0.00	0.37	0.30
<b>6. Information Technology</b>						
a. IT Strategy, Database, Applications (excl. major)	13.9	12.2	29.9	1.30	0.73	0.75
b. IT Desktop, Networks, Telecom	<u>6.3</u>	<u>6.9</u>	<u>9.8</u>	<u>0.59</u>	<u>0.42</u>	<u>0.29</u>
Total Information Technology	20.2	19.0	39.7	1.89	1.15	1.04
<b>7. Support Services and Other</b>						
a. Building and Utilities	1.1	0.7	2.7	0.10	0.04	0.07
b. Human Resources	0.9	3.5	7.7	0.08	0.20	0.20
c. Actuarial	0.0	0.2	2.3	n/a	0.02	0.05
d. Legal and Rule Interpretation	0.3	4.2	8.7	0.03	0.26	0.25
e. Internal and External Audit	0.2	4.8	4.9	0.02	0.30	0.15
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>7.1</u>	<u>2.5</u>	<u>8.6</u>	<u>0.66</u>	<u>0.21</u>	<u>0.20</u>
Total Support Services and Other	9.6	15.8	35.0	0.90	1.03	0.92
<b>Total Pension Admin FTE (excludes below)</b>	92.2	132.9	273.7	8.62	8.15	7.09
FTE whose salaries are being capitalized	0.0	0.4	6.5	n/a	0.02	0.09
1f. Healthcare Administration	4.0	3.0	2.5	0.37	0.21	0.09
1g. Optional and Third Party Administered Benefits	0.0	0.5	2.8	n/a	0.04	0.06
<b>Total Administration FTE</b>	96.2	136.9	285.5	8.99	8.42	7.32

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

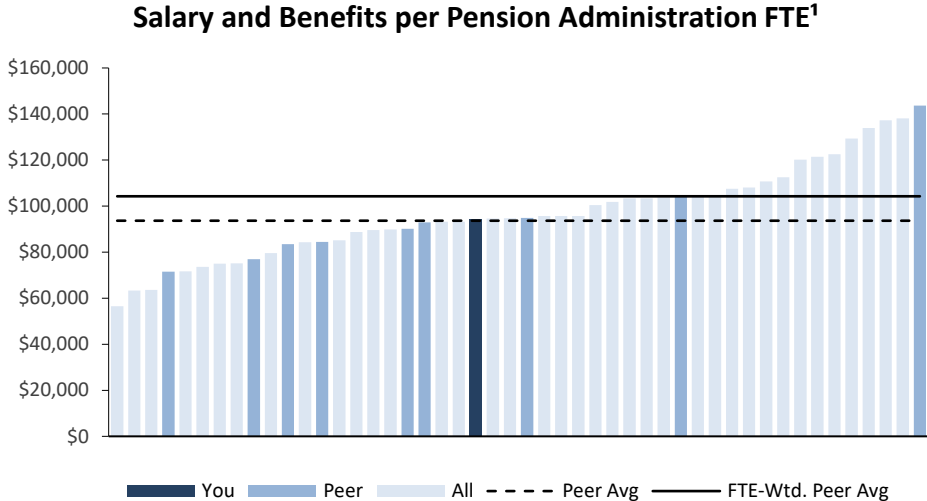


You
  Peer
  All
  Peer Avg
  All Avg

# Salaries and benefits

Your salaries and benefits per pension administration FTE<sup>1</sup> was \$94,141. This was 1% above the peer average of \$93,652.

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 \$94,141 was below the FTE-weighted peer average of \$104,264. The FTE-weighted average of \$104,264 is substantially higher than the simple average of \$93,652 because your peers with the highest salaries also had the most FTEs.



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, 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, 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

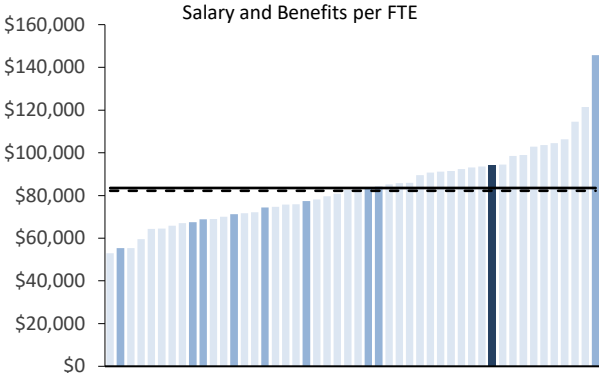
Activity	Salaries and Benefits per FTE			Salaries and Benefits as a % of Direct Activity Cost		
	You	Peer Avg	All Avg	You	Peer Avg	All Avg
<b>1. Member Transactions</b>						
a. Pension Payments	\$94,141	\$88,800	\$88,517	78%	74%	71%
b. Pension Inceptions	\$94,141	\$77,426	\$82,937	78%	87%	92%
c. Refunds, Withdrawals, and Transfers-out	\$94,141	\$84,375	\$83,015	78%	85%	90%
d. Purchases and Transfers-in	\$94,141	\$82,550	\$84,791	78%	86%	90%
e. Disability	<u>\$94,141</u>	<u>\$83,402</u>	<u>\$84,699</u>	78%	71%	72%
	\$94,141	\$82,202	\$83,504			
<b>2. Member Communication</b>						
a. Call Center	\$94,141	\$70,488	\$77,334	78%	91%	91%
b. Mail Room, Imaging	\$94,141	\$67,124	\$68,466	78%	75%	73%
c. 1-on-1 Counseling	\$94,141	\$82,838	\$87,071	78%	89%	90%
d. Member Presentations	\$94,141	\$87,386	\$97,893	78%	89%	85%
e. Written Pension Estimates	\$94,141	\$78,131	\$80,100	78%	88%	90%
f. Mass Communication	<u>\$94,141</u>	<u>\$96,560</u>	<u>\$97,637</u>	78%	62%	58%
	\$94,141	\$76,850	\$80,801			
<b>3. Collections and Data Maintenance</b>						
a. Data and Money from Employers	\$94,141	\$78,675	\$83,417	78%	85%	92%
b. Service to Employers	\$94,141	\$81,526	\$89,401	78%	86%	88%
c. Data Not from Employers	n/a	<u>\$117,408</u>	<u>\$87,904</u>	n/a	88%	84%
	\$94,141	\$81,848	\$84,203			
<b>4. Governance and Financial Control</b>						
a. Financial Administration and Control	\$94,141	\$108,767	\$117,255	78%	84%	82%
b. Board, Strategy, Policy	\$94,141	\$165,778	\$176,472	78%	74%	72%
c. Government and Public Relations	<u>\$94,141</u>	<u>\$145,403</u>	<u>\$155,159</u>	78%	84%	81%
	\$94,141	\$125,425	\$137,760			
<b>5. Major Projects</b>						
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	\$147,801	\$121,359	n/a	99%	64%
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>\$121,363</u>	<u>\$135,552</u>	n/a	65%	56%
	n/a	\$120,402	\$128,438			
<b>6. Information Technology</b>						
a. IT Strategy, Database, Applications (excl. major projects)	\$94,141	\$111,266	\$122,152	78%	63%	49%
b. IT Desktop, Networks, Telecom	<u>\$94,141</u>	<u>\$105,991</u>	<u>\$109,829</u>	78%	58%	37%
	\$94,141	\$109,498	\$116,871			
<b>7. Support Services and Other</b>						
a. Building and Utilities	\$94,141	\$94,713	\$96,415	78%	14%	10%
b. Human Resources	\$94,141	\$95,920	\$117,337	78%	81%	72%
c. Actuarial	n/a	\$152,888	\$158,942	0%	13%	30%
d. Legal and Rule Interpretation	\$94,141	\$144,840	\$138,100	78%	71%	69%
e. Internal and External Audit	\$94,141	\$105,380	\$114,418	78%	64%	61%
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	100%	100%
g. Other Support Services	<u>\$94,141</u>	<u>\$82,852</u>	<u>\$88,477</u>	78%	55%	62%
	\$94,141	\$124,748	\$122,938			
Total Pension Administration <sup>1</sup>	\$94,141	\$95,810	\$99,085	76%	65%	59%
Total Pension Admin excluding activities 6b, 7a, 7b, and 7f <sup>2</sup>	\$94,141	\$93,652	\$97,055	75%	68%	65%

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

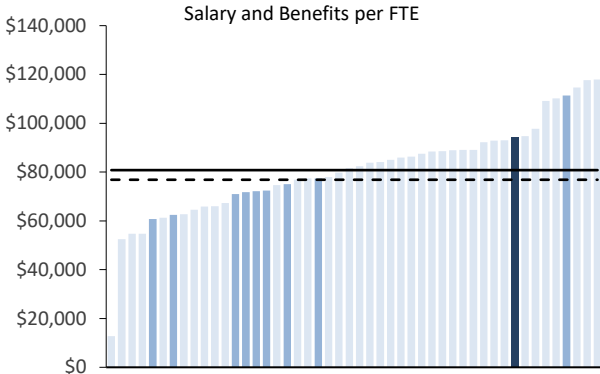
2. Section 3 'Total Costs' and the Executive Summary use the FTE-weighted peer average of \$104,264 to explain cost differences. It is substantially higher than the simple average of \$93,652 because your peers with the highest salaries also had the most FTEs. It is used to explain cost differences because 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

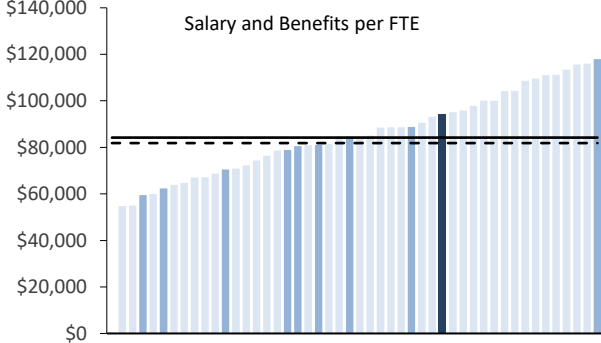
## 1. Member Transactions



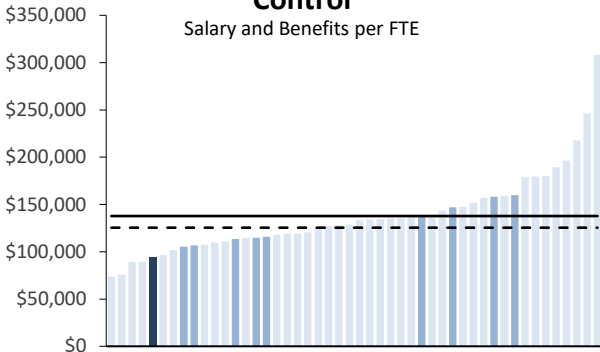
## 2. Member Communication



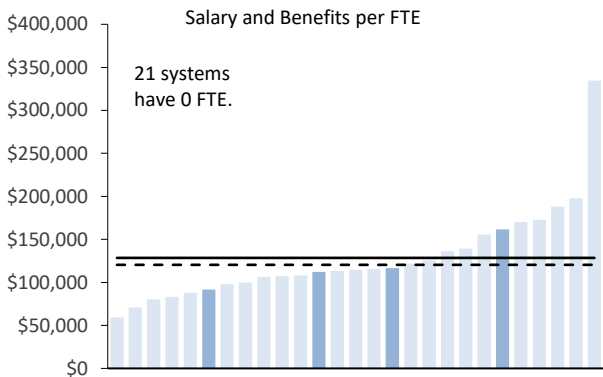
## 3. Collections and Data Maintenance



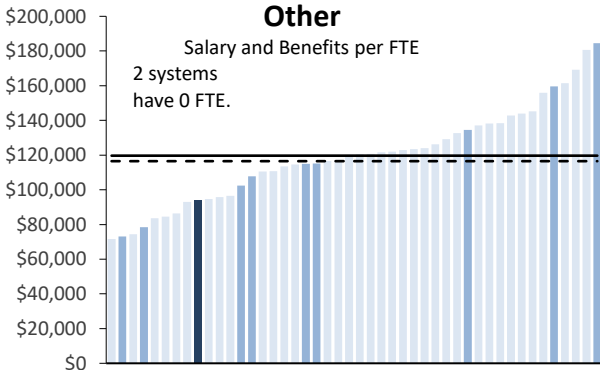
## 4. Governance and Financial Control



## 5. Major Projects



## 6. IT and 7. Support Services and Other

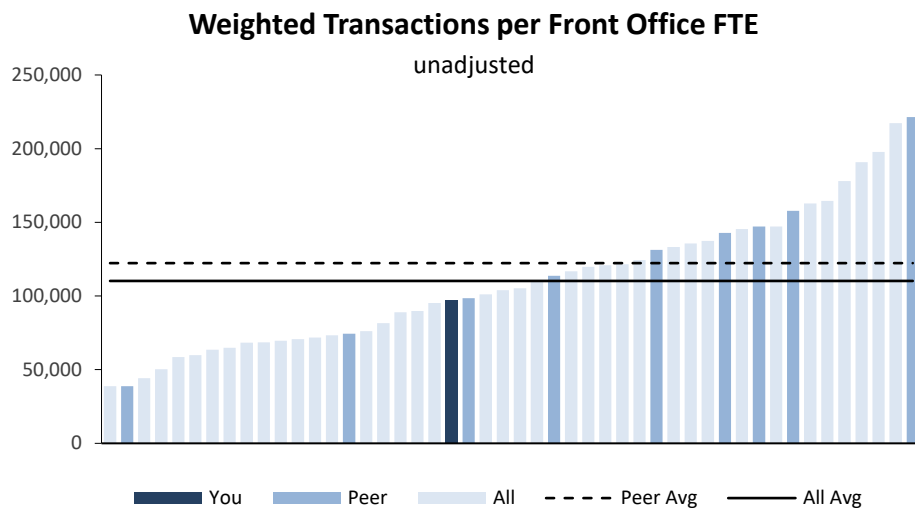


You
  Peer
  All
  Peer Avg
  All Avg



## Productivity

Total productivity is defined as the number of weighted transactions per front office, full-time-equivalent staff (FTE). Your productivity was 97,306 per front-office FTE. This was below the in-house peer average of 122,312.



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 inceptions 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:

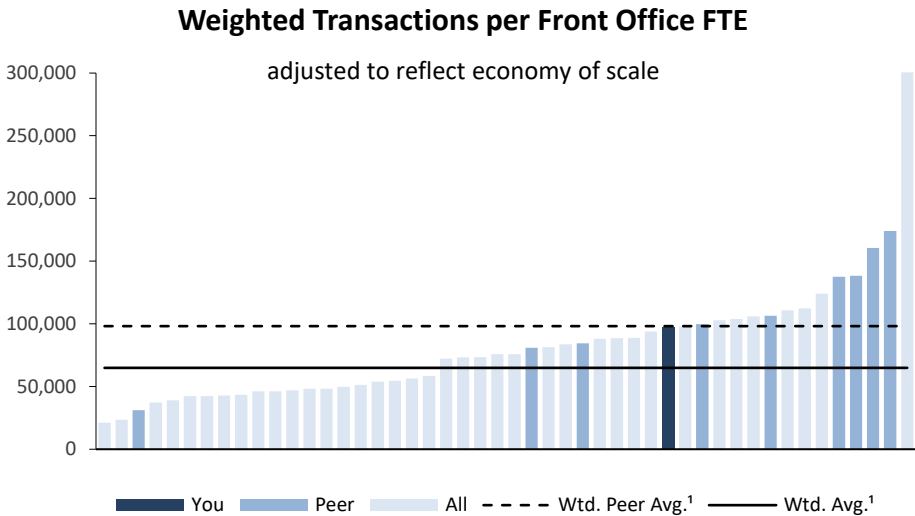
- Economies of scale (see next page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization 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 1% below 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
<b>1. Member Transactions</b>				
a. Pension Payments	Annuitants	7,637	22,354	24,820
b. Pension Inceptions	New Payee Inceptions	1,966	660	665
c. Refunds, Withdrawals, and Transfers-out	Refunds, Withdrawals, and Transfers-out	1,005	1,387	1,591
d. Purchases and Transfers-in	Purchases and Transfers-in	69	1,133	795
e. Disability	Disability Applications	162	96	145
<b>2. Member Communication</b>				
a. Call Center	Calls and Emails	10,233	10,724	9,706
b. Mail Room, Imaging	Incoming Mail	11,827	17,576	34,654
c. 1-on-1 Counseling	Members Counseled 1-on-1	2,751	2,222	2,561
d. Member Presentations	Member Presentations	73	130	117
e. Written Pension Estimates	Written Estimates	521	2,963	4,308
f. Mass Communication	Active Members and Annuitants	20,509	60,206	90,503
<b>3. Collections and Data Maintenance</b>				
a. Data and Money from Employers	Active Members	82,793	25,782	24,176
b. Service to Employers	Active Members	18,398	29,238	50,786
c. Data Not from Employers	Actives, Inactives, Annuitants	n/a	272,660	283,964
Weighted Transactions per Front Office FTE		97,306	122,312	110,223
adjusted for Economies of Scale <sup>1, 2</sup>		97,306	98,173	64,887

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.

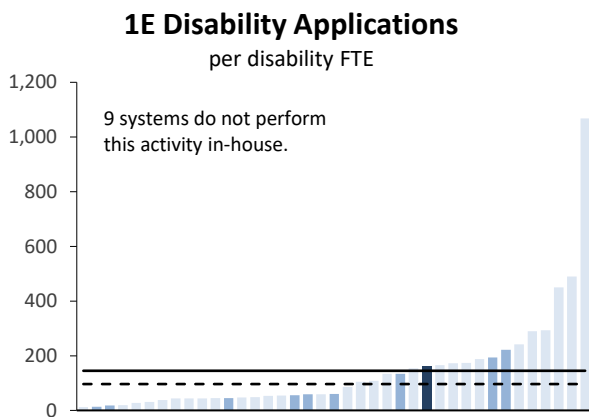
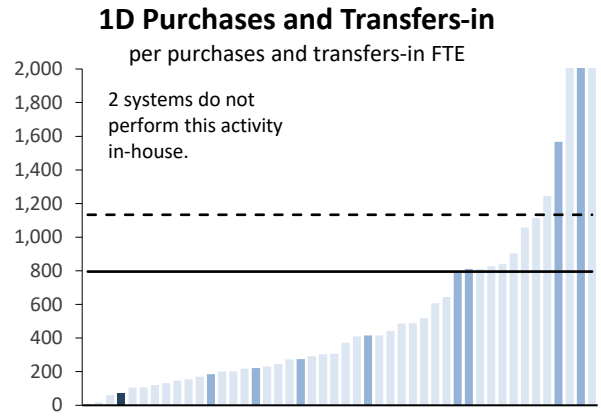
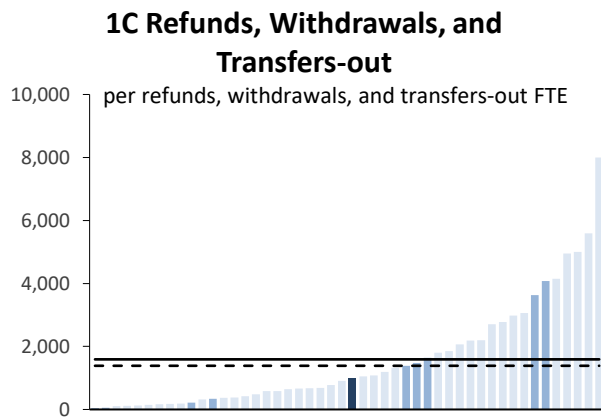
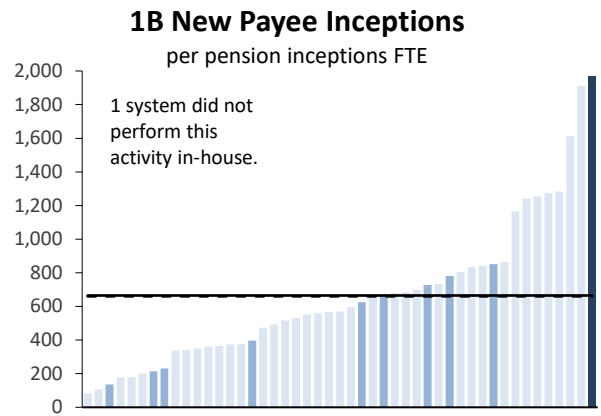
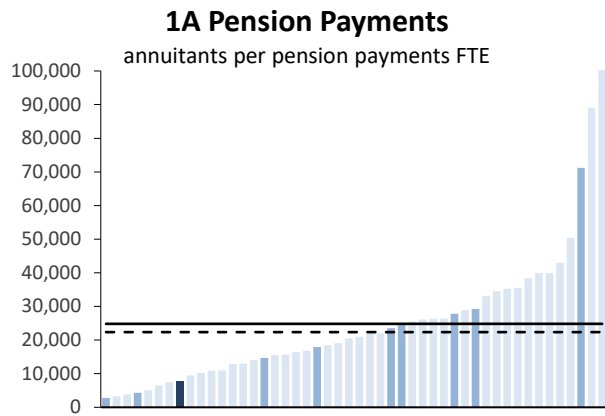
2. The peer and all averages, for this value only, are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

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

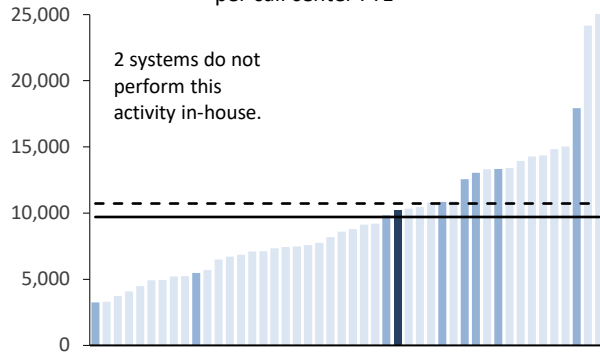


You
  Peer
  All
  Peer Avg
  All Avg

# Productivity by activity - member communication

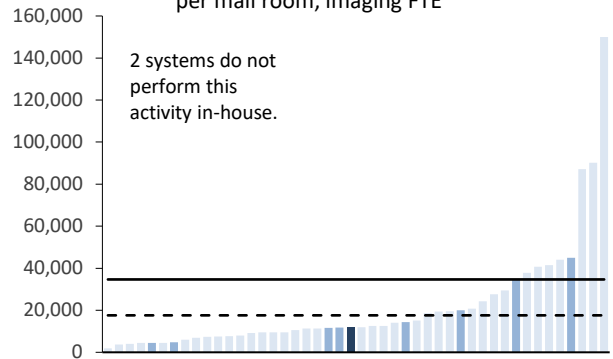
## 2A Calls and Emails

per call center FTE



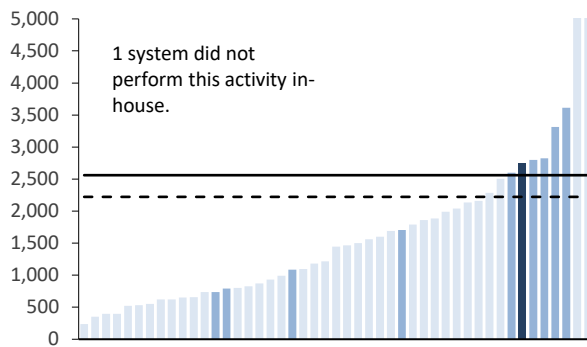
## 2B Incoming Mail

per mail room, imaging FTE



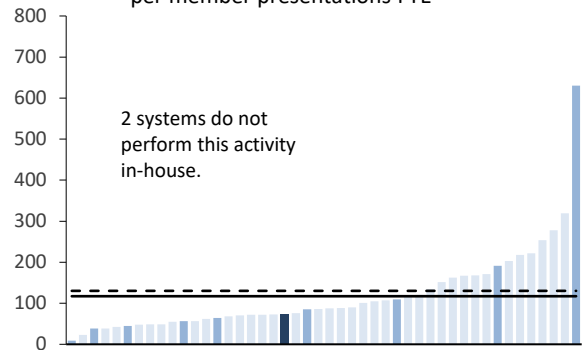
## 2C Members Counseled 1-on-1

per 1-on-1 counseling FTE



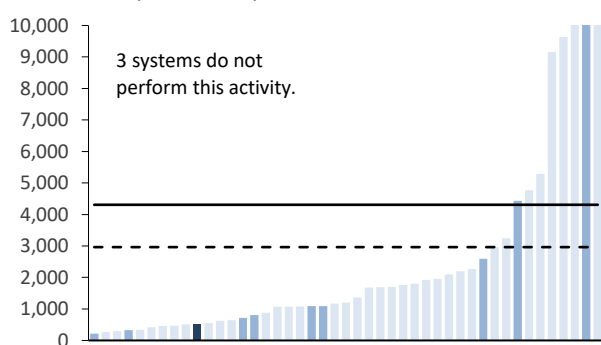
## 2D Member Presentations

per member presentations FTE



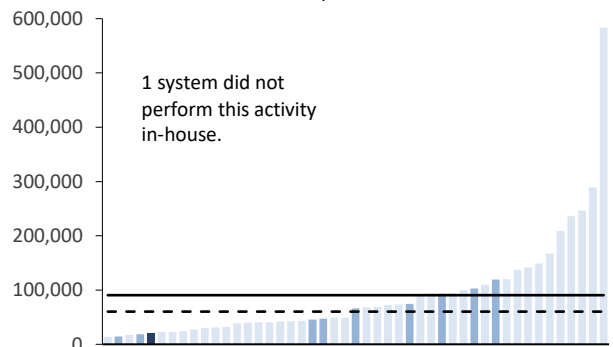
## 2E Written Estimates

per written pension estimates FTE



## 2F Mass Communication

active members and annuitants per mass communication FTE

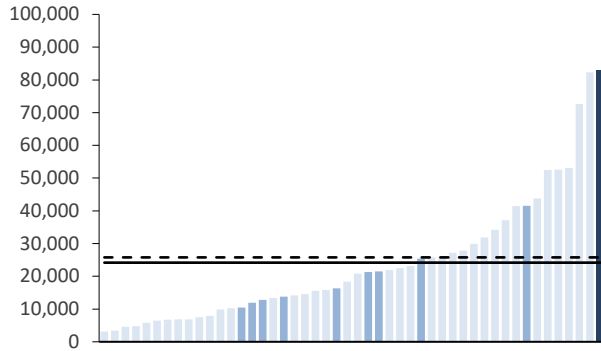


You
  Peer
  All
  Peer Avg
  All Avg

# Productivity by activity - collections and data maintenance

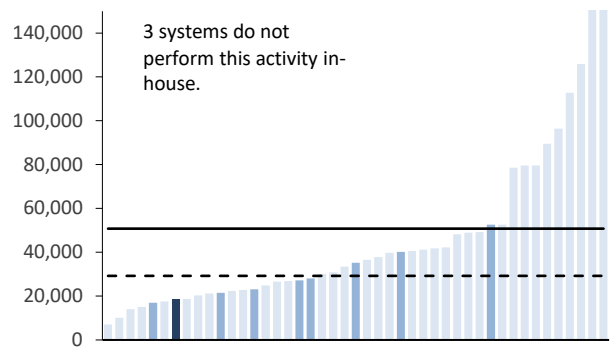
## 3A Data and Money from

active members per data and money from employers FTE



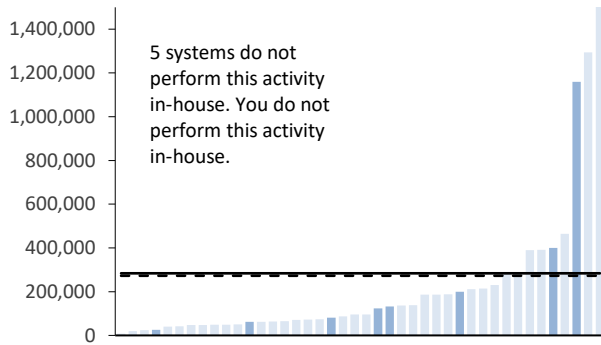
## 3B Service to Employers

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

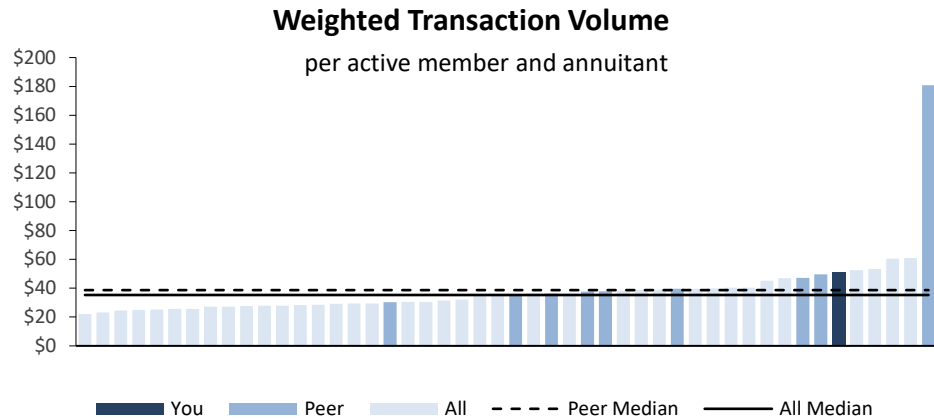
## Transaction Volumes

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.

## Workload: Weighted transaction volume per member

Your weighted transaction volume was \$50.80 per active member and annuitant. This was above the peer median of \$38.68.



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 \$4.08 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 14 '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)
<b>1. Member Transactions</b>			
a. Pension Payments (Annuitants)	49,362	\$6.57	324,529
b. New Payee Inceptions	3,006	\$139.35	418,879
c. Refunds, Withdrawals, and Transfers-out	3,142	\$109.08	342,727
d. Purchases and Transfers-in	48	\$257.92	12,380
e. Disability Applications	90	\$1,627.96	146,516
<b>2. Member Communication</b>			
a. Calls and Emails	115,927	\$9.81	1,137,814
b. Incoming Mail	32,879*	\$5.95	n/a
c. Members Counseled 1-on-1	18,164	\$64.72	1,175,500
d. Member Presentations	381	\$1,349.15	514,027
e. Written Estimates	4,421	\$53.22	235,264
f. Mass Communication (Active Members and Annuitants)	106,903	\$2.96	316,087
<b>3. Collections and Data Maintenance</b>			
a. Data and Money from Employers (Active Members)	57,541	\$5.88	338,596
b. Service to Employers (Active Members)	57,541	\$2.74	157,634
c. Data Not from Employers (Actives, Inactives, Annuitants)	136,481	\$0.84	114,783
<b>Total</b>			<b>5,430,487</b>
<b>Total per active member and annuitant</b>			<b>\$50.80</b>

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

## 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 \$64.72 is approximately 7 times higher than the cost per call of \$9.81.
- **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

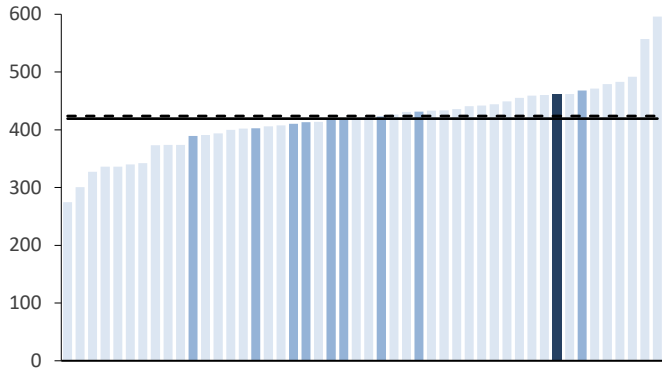
The table below shows whether you are doing more or fewer transactions per member than your peers by front office activity. All volumes in the table are compared 'per 1,000 active members and annuitants' even if all member types do not always cause the volume. This is because active members and annuitants 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
<b>1. Member Transactions</b>				
a. Pension Payments (Annuitants)	49,362	462	424	419
b. New Payee Inceptions	3,006	28	25	23
c. Refunds, Withdrawals, and Transfers-out	3,142	29	20	20
d. Purchases and Transfers-in	48	0	61	24
e. Disability Applications	90	1	1	1
<b>2. Member Communication</b>				
a. Calls and Emails	115,927	1,084	776	619
b. Incoming Mail	32,879*	308	436	324
c. Members Counseled 1-on-1	18,164	170	72	39
d. Member Presentations	381	4	2	1
e. Written Estimates	4,421	41	41	32
f. Mass Communication (Active Members and Annuitants)	106,903	1,000	1,000	1,000
<b>3. Collections and Data Maintenance</b>				
a. Data and Money from Employers (Active Members)	57,541	538	576	581
b. Service to Employers (Active Members)	57,541	538	576	581
c. Data Not from Employers (Actives, Inactives, Annuitants)	136,481	1,277	1,232	1,296
<b>Weighted Total</b>		<b>50,798</b>	<b>54,560</b>	<b>38,792</b>

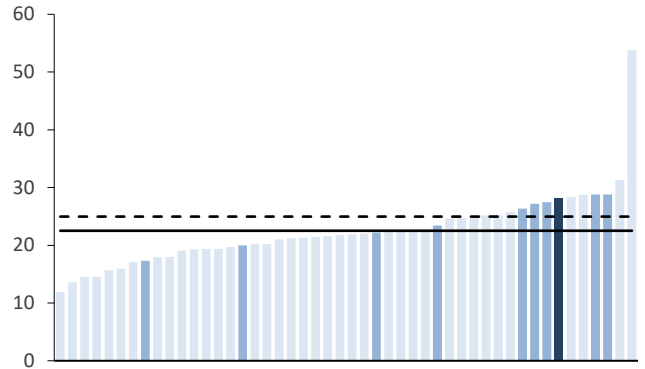
\* Your response was 'unknown'. A default was applied. See 'Appendix D' for details.

# Member transactions per 1,000 members: Graphical comparisons

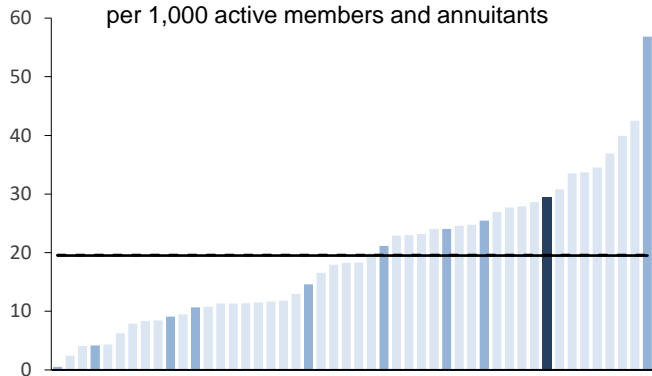
**1A Pension Payments (Annuitants)**  
per 1,000 active members and annuitants



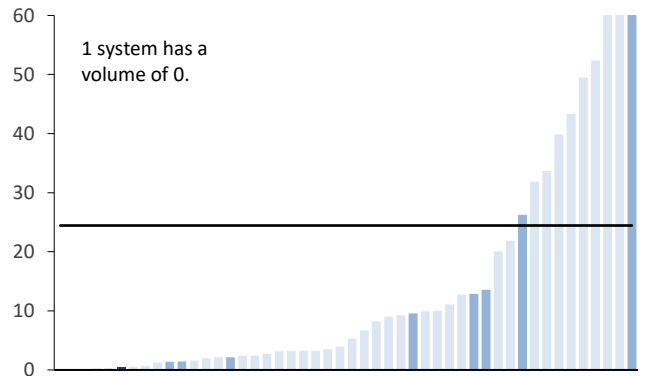
**1B New Payee Inceptions**  
per 1,000 active members and annuitants



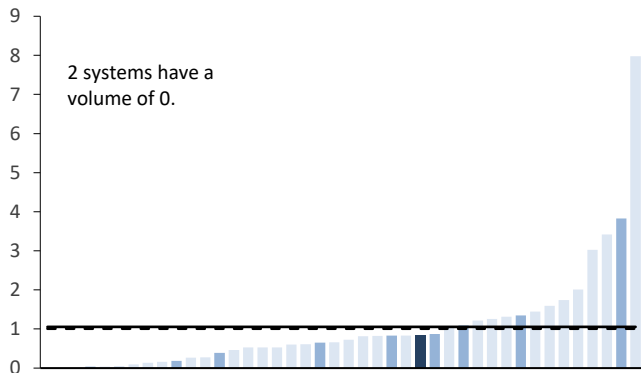
**1C Refunds, Withdrawals, and Transfers-out**  
per 1,000 active members and annuitants



**1D Purchases and Transfers-in**  
per 1,000 active members and annuitants



**1E Disability Applications**  
per 1,000 active members and annuitants

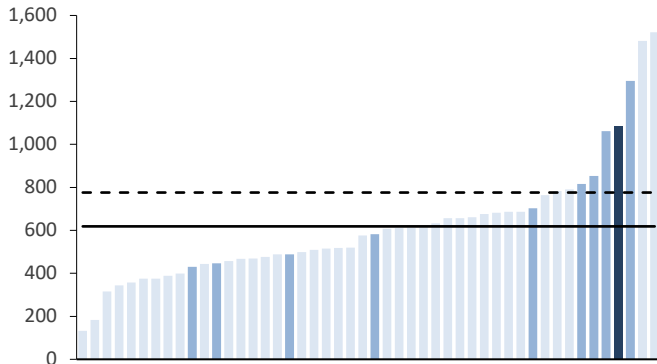


You
  Peer
  All
  Peer Avg
  All Avg

# Communications transactions per 1,000 members: Graphical comparisons

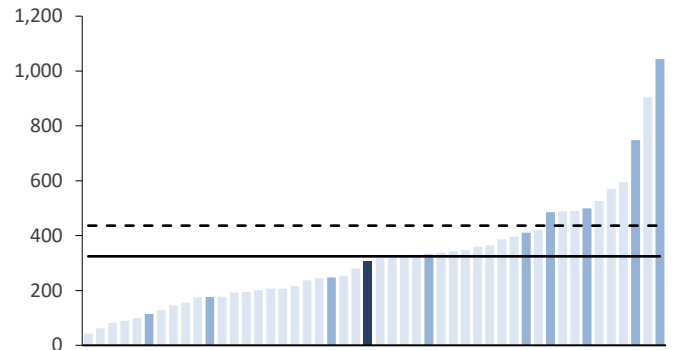
## 2A Calls and Emails

per 1,000 active members and annuitants



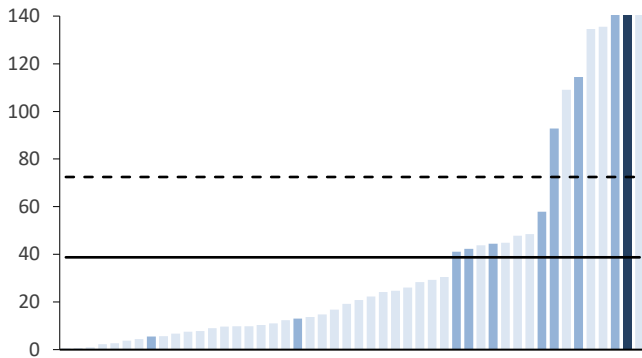
## 2B Incoming Mail

per 1,000 active members and annuitants



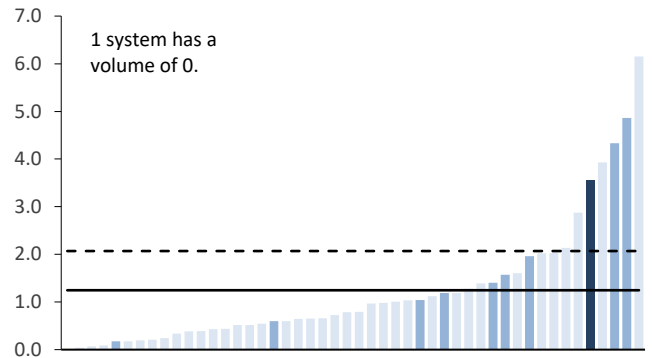
## 2C Members Counseled 1-on-1

per 1,000 active members and annuitants



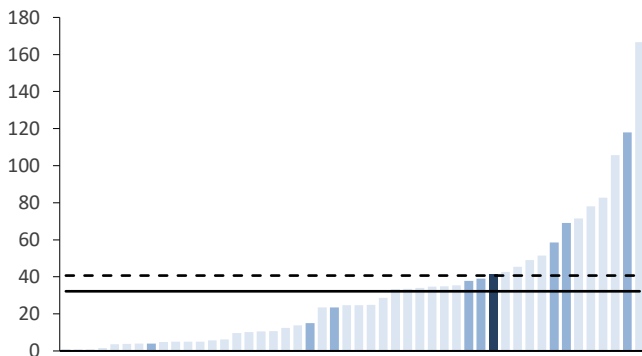
## 2D Member Presentations

per 1,000 active members and annuitants



## 2E Written Estimates

per 1,000 active members and annuitants



## 2F Mass Communication (Active Members and Annuitants)

per 1,000 active members and annuitants

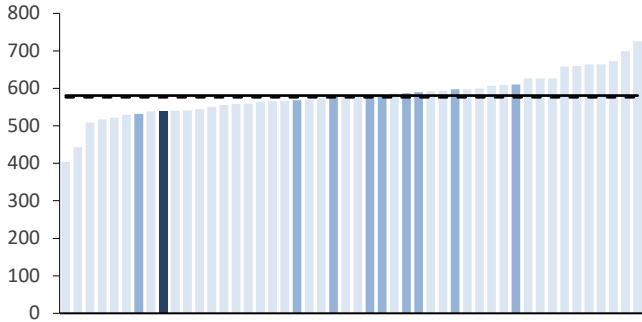


You
  Peer
  All
 - - - Peer Avg
— All Avg

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

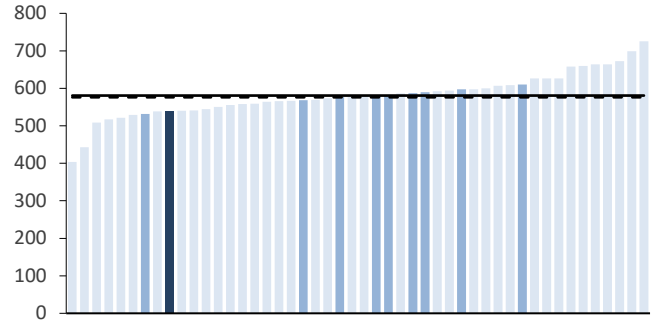
### 3A Data and Money from Employers (Active Members)

per 1,000 active members and annuitants



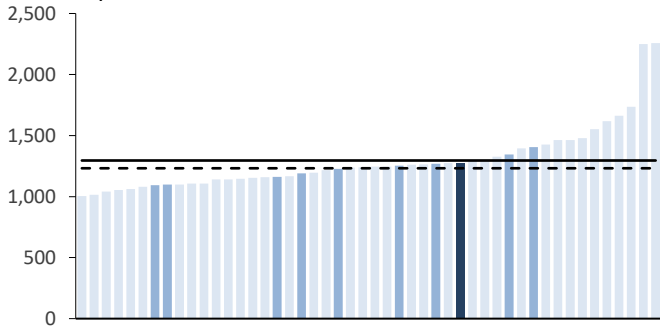
### 3B Service to Employers (Active Members)

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

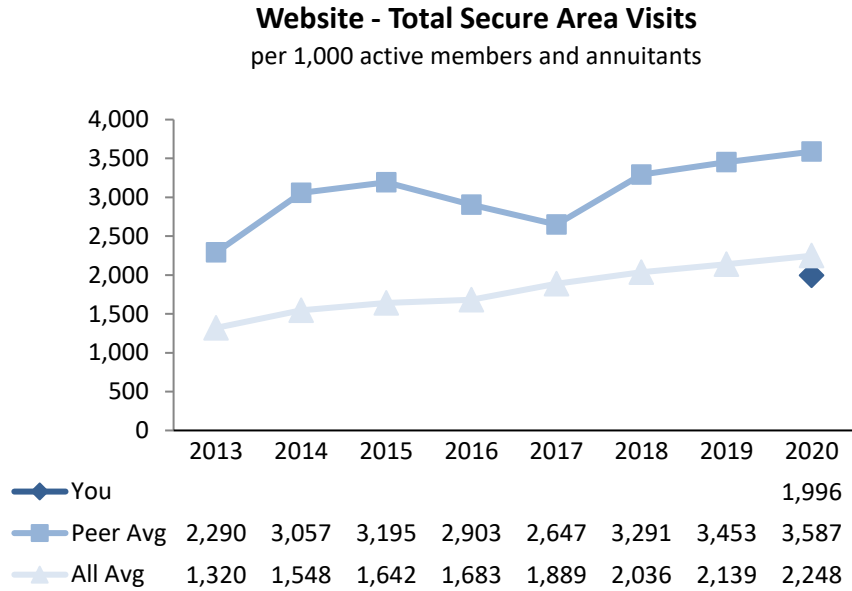
## Online transactions

Online Tool	% offering tool			If offered: Volume per 1,000 active members and annuitants		
	You	Peer	All	You	Peer Median	All Median
Benefit calculators						
In non-secure area	No	60% Yes	46% Yes	n/a	227	238
In secure area not linked to member data	No	30% Yes	17% Yes	n/a	13	13
In secure area linked to member's salary and service data	Yes	90% Yes	90% Yes	937	577	537
Service credit purchase calculator	No	70% Yes	74% Yes	n/a	49	46
Register for counseling sessions	Yes	40% Yes	42% Yes	12	22	14
Real-time access to available dates and times	No	75% Yes	84% Yes			
Financial planning tool	No	0% Yes	13% Yes			
Linked to member-specific data	n/a	n/a Yes	33% Yes			
Linked to data from third parties	n/a	n/a Yes	67% Yes			
Register for counseling presentations	Yes	90% Yes	74% Yes	6	9	11
Live chat	No	0% Yes	9% Yes	n/a	n/a	6
Chatbot	No	0% Yes	0% Yes			
Change address	Yes	90% Yes	93% Yes	13	17	36
Change beneficiary	No	50% Yes	67% Yes	n/a	62	43
Change email address	Yes	90% Yes	94% Yes	12	13	23
Reset password	Yes	90% Yes	91% Yes	351	131	84
Tools for annuitants						
Change banking information for direct deposit	No	50% Yes	54% Yes	n/a	5	7
Change tax withholding amount	Yes	80% Yes	72% Yes	26	18	21
Download or print duplicate tax receipts	Yes	70% Yes	83% Yes	67	67	80
View annuity payment details	Yes	100% Yes	88% Yes	271	148	159
Submit a retirement application	No	22% Yes	53% Yes	n/a	4	8
View status of online retirement application	No	13% Yes	45% Yes	n/a	23	25
Apply for a refund or a transfer-out	No	0% Yes	35% Yes	n/a	n/a	11
Digital file of recent correspondence and member documents	No	30% Yes	52% Yes	n/a	501	407
Download member statement	Yes	100% Yes	88% Yes	346	141	247
Upload documents	No	40% Yes	50% Yes	n/a	24	20
View pensionable earnings and/or service without downloading	No	70% Yes	83% Yes	n/a	1,160	753
If yes:						
Are both salary and service data available?	n/a	100% Yes	98% Yes			
Is online data up-to-date to the most recent pay period?	n/a	100% Yes	83% Yes			
Is a complete annual history from the beginning of employment provided?	n/a	57% Yes	60% Yes			
If you administer a core DC or hybrid DB/ DC plan:						
Switch between investment options	No	75% Yes	71% Yes	n/a	21	6
Change deferral percentage selections for regular contributions	No	50% Yes	38% Yes	n/a	285	8
Initiate withdrawals	No	50% Yes	54% Yes	n/a	71	13
View current valuation of their account	No	75% Yes	85% Yes	n/a	2,871	647

Offering online transactions as an option is higher service. Online transactions can also reduce costs provided sufficient volumes are achieved.

## Online trends

Total secure website visits per 1,000 active members and annuitants for your peers that have participated for 8 consecutive years has grown at a compound annual rate of 6.6% between 2013 and 2020. The all participant average is 7.9%. Your growth rate over the same period is unavailable per annum.

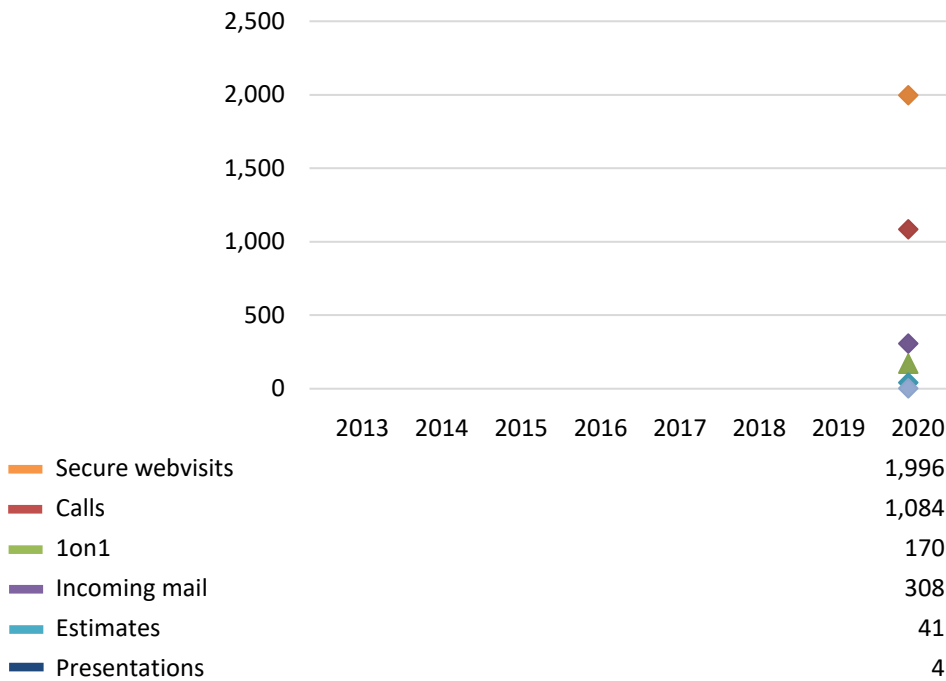


Trend analysis is based on systems that have provided 8 consecutive years of data.

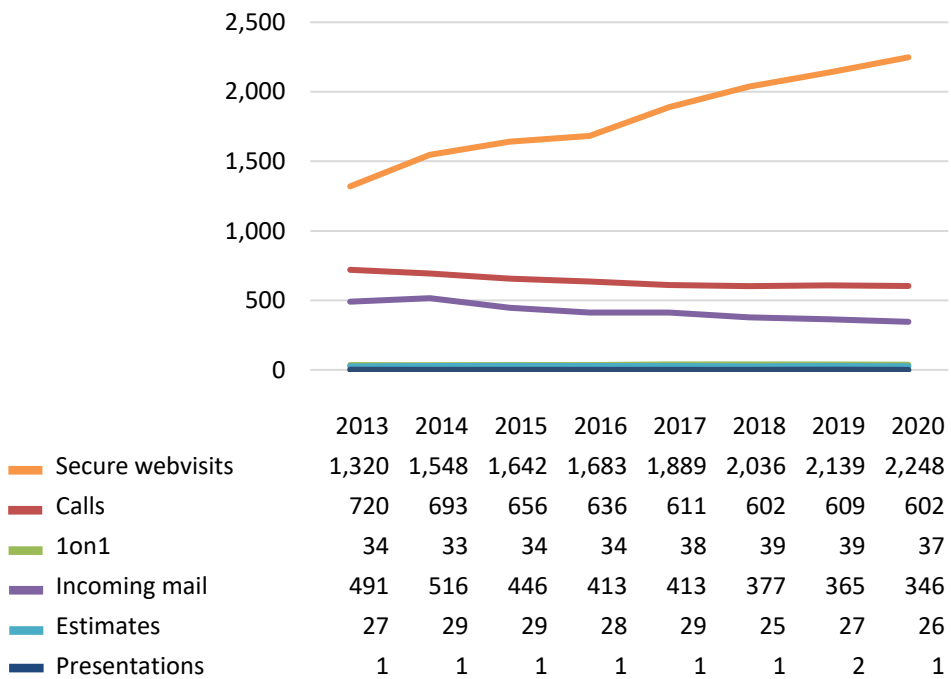


## Transaction trends

### Transactions per 1,000 members - You



### Transactions per 1,000 members - All Avg



Trend analysis is based on 36 systems that provided 8 consecutive years of data.

# 7

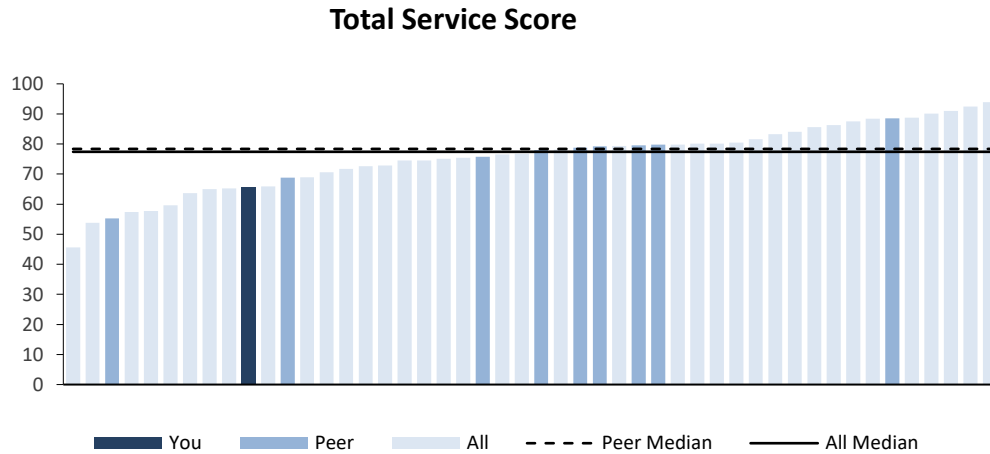
## Service Levels

This section:

- Analyzes your current service levels relative to your peers, and other retirement systems in the U.S., Canada, Denmark, Sweden and the Netherlands to identify what you do and how it compares to others.
- Identifies areas where you may be able to improve or reduce your service levels.
- Provides details of the methodology and criteria we used to evaluate your service levels.

## Total service score

Your total service score was 66 out of 100. This was below the peer median of 78.



Your total service score is the weighted average of your service scores for the activities shown on the next page.

### Interpreting your service score

A higher service score is not necessarily better. This is because:

- High service may not always be cost effective or optimal. For example, it is clearly 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.
- 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.

The service measures are most useful for identifying what you are doing differently than your peers. Understanding these differences can give you ideas on how you may want to improve or reduce the service you provide to your members.

### Service score methodology changes

CEM's changed satisfaction surveying to customer experience surveying. Refer to Appendix E for further details.

## Comparisons of activity service scores

Your total service score is the weighted average of your service scores for each of the activities shown in the table below. The rationale for the weighting scheme is discussed on the following page.

Service Scores by Activity													
Activity	Weight <sup>1</sup>	You <sup>2,3</sup>				Peer 2020			All 2020				
		2020	2019	2018	2017	Avg	Max	Med	Min	Avg	Max	Med	Min
<b>1. Member Transactions</b>													
Pension Payments	10.0%	100				100	100	100	100	100	100	100	95
Pension Inceptions	7.4%	24				77	98	79	24	83	100	88	9
Refunds, Withdrawals, and Transfers-out	1.3%	90				76	95	90	29	68	100	81	5
Purchases and Transfers-in	3.1%	24				68	96	87	12	69	100	80	0
Disability	3.8%	72				79	100	81	64	82	100	82	10
<b>2. Member Communication</b>													
Call Center	21.0%	52				67	86	72	41	66	95	71	34
1-on-1 Counseling	7.4%	83				84	100	85	56	79	100	83	36
Member Presentations	6.5%	100				92	100	100	38	90	100	100	0
Written Pension Estimates	4.7%	86				82	100	84	61	81	100	86	25
<b>Mass Communication</b>													
Website <sup>2</sup>	21.3%	62				69	85	74	26	74	96	77	5
News and Targeted Communication	2.8%	75				69	96	70	53	70	99	75	8
Member statements	4.7%	90				86	94	88	71	77	97	82	15
<b>3. Quality Indicators</b>													
Member Experience Surveying	5.0%	27				32	50	32	9	35	93	34	0
Disaster Recovery	1.0%	90				90	100	90	76	90	100	94	55
<b>Total Service Score</b>	<b>100%</b>	<b>66</b>				<b>75</b>	<b>89</b>	<b>78</b>	<b>55</b>	<b>75</b>	<b>94</b>	<b>77</b>	<b>46</b>

1. The rationale for the weighting scheme is shown on the next page. Other systems may have slightly different activity weights than you. Their weights reflect the member transactions that they administer. For example, you do not administer disability whereas some of your peers do. Therefore, the average total service score will not match the activity weight multiplied by the average activity service score.

2. Website capabilities are also incorporated in the service scores for other activities. Those activities and the contribution of the website-related part of the score are: 1a Pension Payments, 0.5%, 2c 1-on-1 Counseling, 1.3%, 2d Member Presentations, 4.5% and 2e Written Pension Estimates, 2.1%, for a total of 8.4%

3. Historic scores have been restated to reflect changes in methodology.

## Rationale for the weighting scheme

CEM considered the following 7 criteria to determine the weights used to calculate your total service score:

1. **Feedback from Participants**

The weights reflect feedback from participants solicited at on-site meetings, symposiums and peer conferences.

2. **Relative Cost of Each Activity**

As shown in section 3, the average participant spends 5.4% of its annual budget on member calls versus 2.1% for 1-on-1 counseling. Thus, based solely on relative cost, member calls are 2.5 times more important than 1-on-1 counseling.

3. **Relative Volume of Each Activity** (i.e., how many times does the service 'touch' a member?)

The average system does 23 pension inception and receives 619 member calls for every 1,000 active members and annuitants. Thus, based solely on relative volume, calls are 27.5 times more important than pension inceptions.

4. **Expectations Based on External Experience**

Members have external comparisons for receiving payments, telephone calls, and annual statements (for example, they can compare some of your services with the services provided by their bank). However, it is unlikely that they can compare a pension inception. It is important to recognize that members can compare some processes externally.

5. **Personalized Human Contact**

Research shows that human contact provides the greatest opportunity for generating customer satisfaction. Thus, based solely on personalized human contact, counseling and calls are more important than 'no contact' activities such as the website or paying pensions.

6. **About Members' Money**

Nothing gets a member's attention faster than their own money. Based on this criterion, things like benefit calculators linked to member data, benefit statements and paying pensions are much more important than newsletters or brochures.

7. **Mission Critical**

Paying pensions is mission critical. Producing newsletters is not.

## Service Trends

Service Score Trends by Activity												
Activity	You				Peer Average <sup>1</sup>				All Average <sup>1</sup>			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
<b>1. Member Transactions</b>												
Pension Payments				100	100	100	100	100	100	100	100	100
Pension Inceptions				24	81	82	81	81	84	86	86	86
Refunds, Withdrawals, and Transfers-out				90	72	71	70	70	70	68	69	67
Purchases and Transfers-in				24	65	67	67	66	72	71	72	67
Disability				72	77	77	79	79	83	82	83	83
<b>2. Member Communication</b>												
Call Center				52	72	70	66	66	70	69	68	69
1-on-1 Counseling				83	81	81	83	84	80	79	80	81
Member Presentations				100	98	98	99	90	91	94	93	88
Written Pension Estimates				86	78	78	78	78	83	83	83	83
<b>Mass Communication</b>												
Website				62	67	66	67	67	74	76	77	76
News and Targeted Communication				75	67	67	67	67	75	75	74	72
Member statements				90	85	85	85	85	79	79	78	78
<b>3. Quality Indicators</b>												
Member Experience Surveying				27	23	24	27	29	35	36	37	39
Disaster Recovery				90	88	88	88	88	90	91	91	92
<b>Total Service Score</b>				66	76	75	75	75	77	78	78	78

1. Trend analysis is based on systems that have participated for 8-consecutive years (7 peers and 36 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 from the year when the question was first asked as a default.

## Where can you potentially improve your score?

Potential Improvement in Total Service Score by Activity			
Activity	Weight	Your Service Score	Potential improvement in your total service score if you scored 100 for the activity <sup>1</sup>
<b>1. Member Transactions</b>			
Pension Payments	10.0%	100.0	0.0 points
Pension Inceptions	7.4%	23.6	5.7 points
Refunds, Withdrawals, and Transfers-out	1.3%	90.0	0.1 points
Purchases and Transfers-in	3.1%	24.0	2.4 points
Disability	3.8%	72.0	1.1 points
<b>2. Member Communication</b>			
Call Center	21.0%	52.4	10.0 points
1-on-1 Counseling	7.4%	82.6	1.3 points
Member Presentations	6.5%	100.0	0.0 points
Written Pension Estimates	4.7%	85.6	0.7 points
Mass Communication			
Website	21.3%	62.0	8.1 points
News and Targeted Communication	2.8%	74.5	0.7 points
Member statements	4.7%	90.0	0.5 points
<b>3. Quality Indicators</b>			
Member Experience Surveying	5.0%	27.4	3.6 points
Disaster Recovery	1.0%	90.0	0.1 points
<b>Total</b>	<b>100%</b>	<b>65.8</b>	<b>34.2 points</b>

1. Each listed potential improvement to total service score equals 100 minus your 2020 score multiplied by the weight used to determine the total service score.

## Biggest potential improvements to your total service score

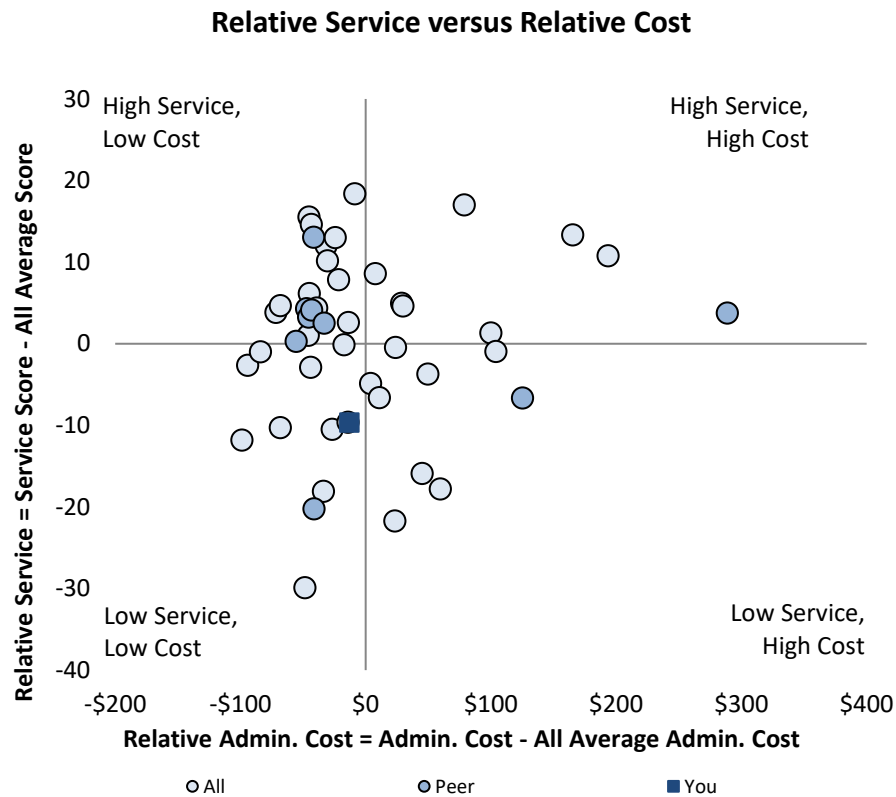
CEM is not recommending these changes. Higher service is not necessarily optimal or cost effective. We include this summary analysis because many participants want to know what they would have to do to achieve a higher score. For a complete list of all improvements required to achieve a perfect service score, please refer to the last pages of this section.

The table below lists five key areas where the biggest potential improvements to your total service score can be made.

Biggest potential improvements to your total service score		
Rank	Factor	Potential Improvement
# 1	83.2% of your service pension inceptions experienced a cashflow interruption greater than one month. To achieve a perfect service score 100% of your service pensions must be incepted without a cashflow interruption greater than one month.	+ 4.80
# 2	On average, members calling your call center reach a knowledgeable person in 330 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 60 seconds or less.	+ 3.78
# 3	14.5% of your incoming calls resulted in undesired outcomes (e.g., busy signals, messages, hang-ups). To achieve a perfect service score, members must experience no undesired call outcomes.	+ 2.43
# 4	On average, you provide a service credit purchase in 34 days. To achieve a perfect service score, you must be able to provide a service credit purchase estimate in 1 day or less.	+ 2.05
# 5	You have 2 menu layers on your telephone tree. To achieve a perfect service score you must have one or fewer menu layers.	+ 0.84



## Relationship between service and pension administration cost



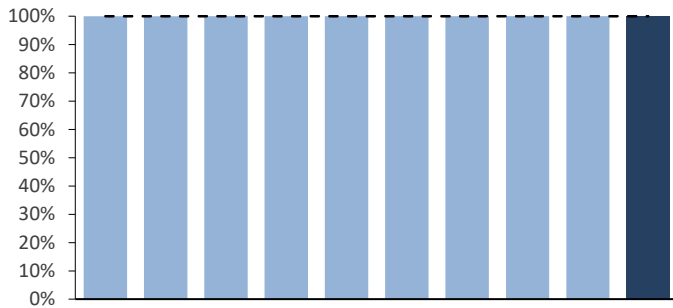
Service scores are not good predictors of costs because:

- 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.

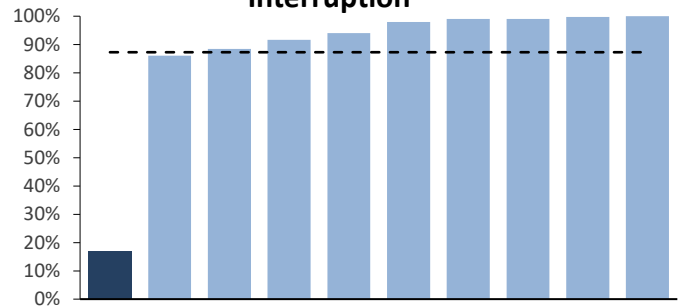
# Graphical comparison of key measures

This page shows key service metrics that are especially important from a member's perspective.

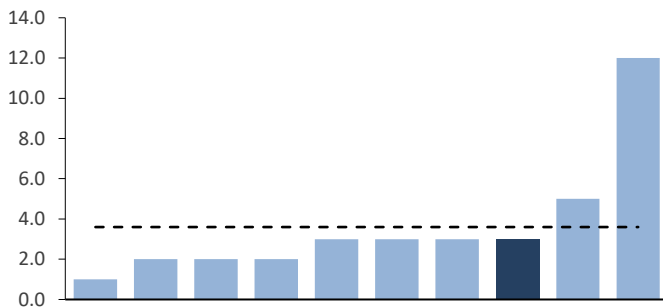
### % Payroll on Time



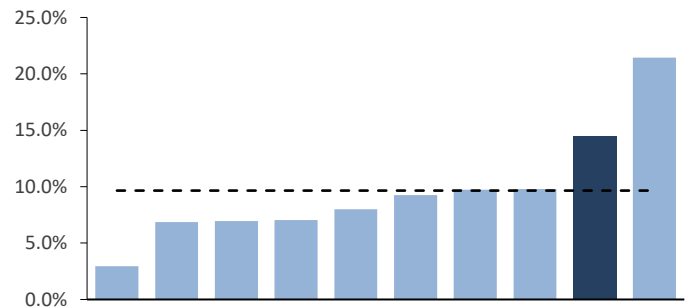
### % Inceptions Without a Cash Flow Interruption



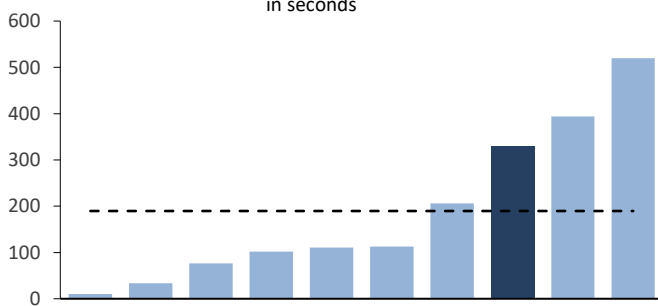
### Disability Turnaround Time in months



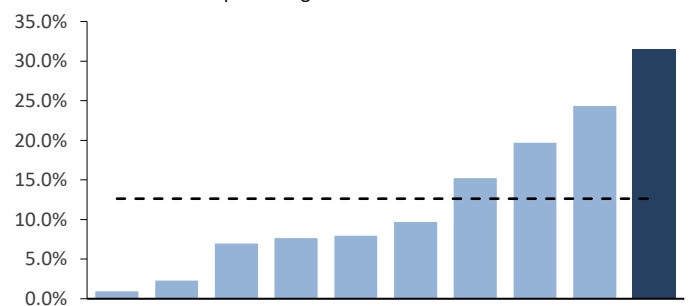
### Undesired Call Outcomes as a % of incoming calls



### Call Wait plus Menu/Receptionist Time in seconds



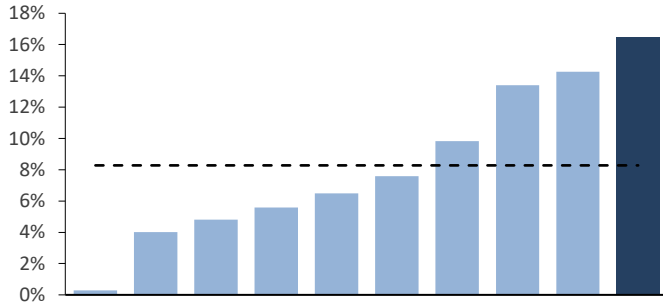
### Members Counseled 1-on-1 as a percentage of active members



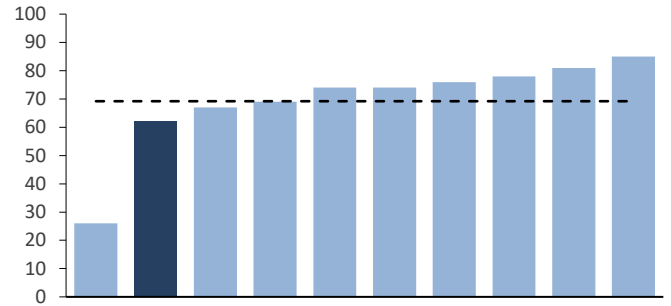
You
  Peer
  Peer Avg

# Graphical comparison of key measures

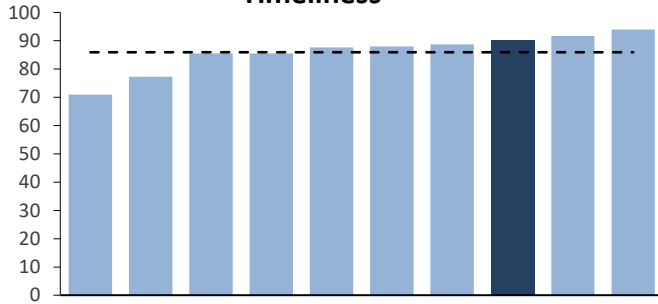
**Members Attending Presentations**  
as a percentage of active members



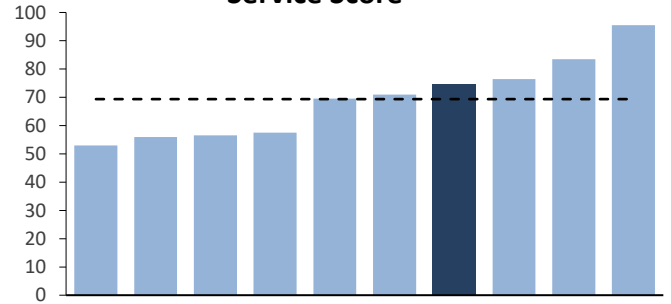
**Website Capability**



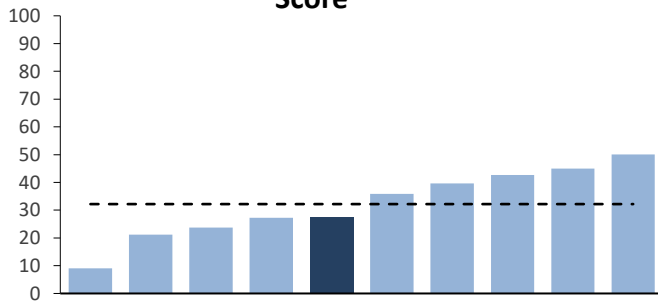
**Member Statement Content and Timeliness**



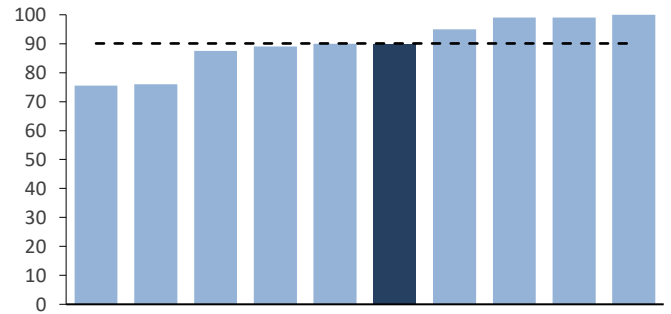
**News and Targeted Communication Service Score**



**Member Experience Surveying Service Score**



**Disaster Recovery Service Score**

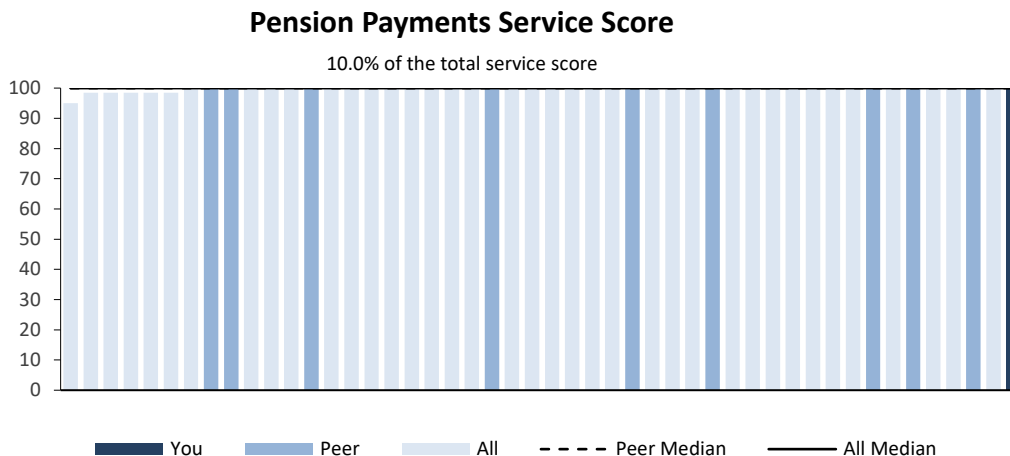


**You** **Peer**

**Peer Avg**

## 1A Pension Payments

Your service score for paying pensions was 100 out of 100. This was equal to the peer median.

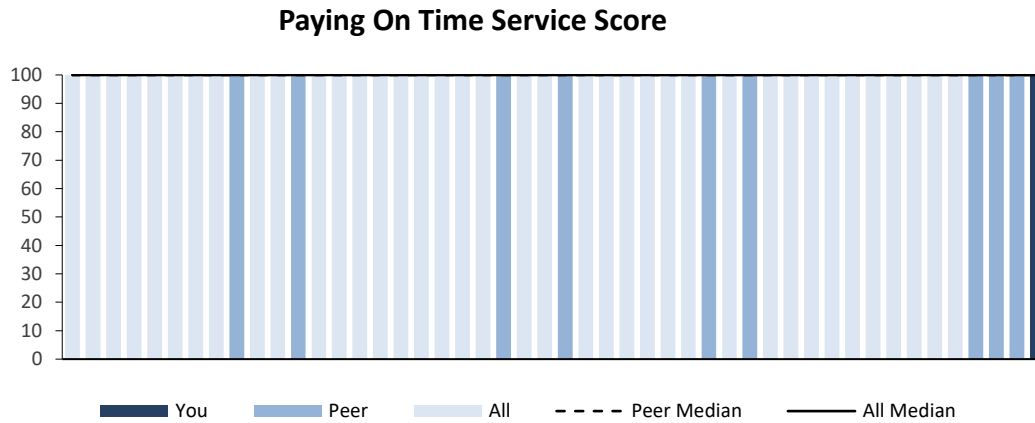


Your service score for 1a pension payments is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

<b>Pension Payments Service Score Components</b>		
	Weight	Your Score
Paying on time	95%	100.0
Payment advices	5%	100.0
Weighted Total	100%	100.0

## Paying on time

Your service score for paying on time was 100 out of 100. This was equal to the peer median.



1. Scoring method	Your Data	Your Score
+ 100 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)	n/a	100
Total score		100

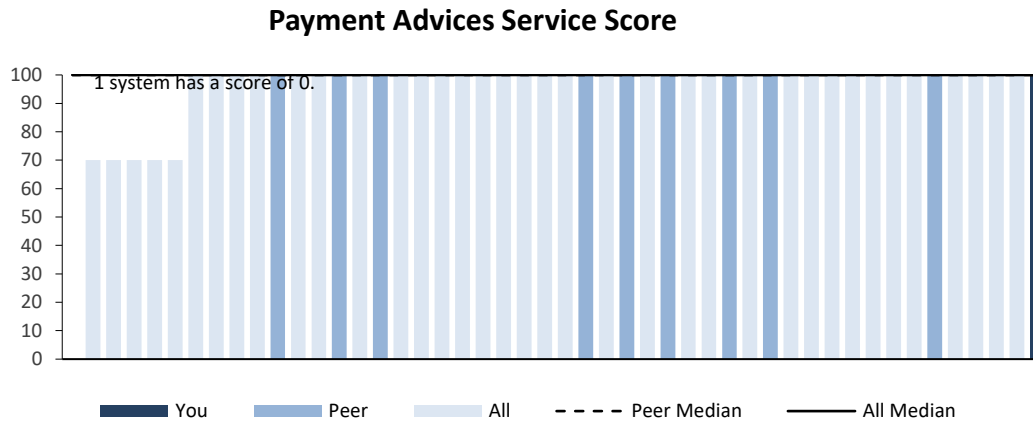
**2. Rationale for the scoring method**

Paying pensions on time is a critical component for all retirement systems. A perfect score requires that all regular payments are paid on time to the correct annuitants.

3. Survey questions used	You	Peer Avg
Q11    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, etc.]	No	0% Yes
a) How many payrolls were late?	n/a	n/a
b) On average, how many days late were they?	n/a	n/a

## Payment advices

Your service score for payment advices was 100 out of 100. This was equal to the peer median.



1. Scoring method	Your Data	Your Score
+ 100 if payment advices can be viewed online	Yes	100.0
<u>Or if you send payment advices by paper:</u>		
+ 80 if you send payment advices detailing the gross payment and deductions with every payment, 70 if every time amount changes, 50 if payment advices are sent quarterly, otherwise 0	Annually	n/a
+ 20 if you can comply with a request not to send a payment advice	No	n/a
<b>Total score</b>		<b>100.0</b>

**2. Rationale for the scoring method**

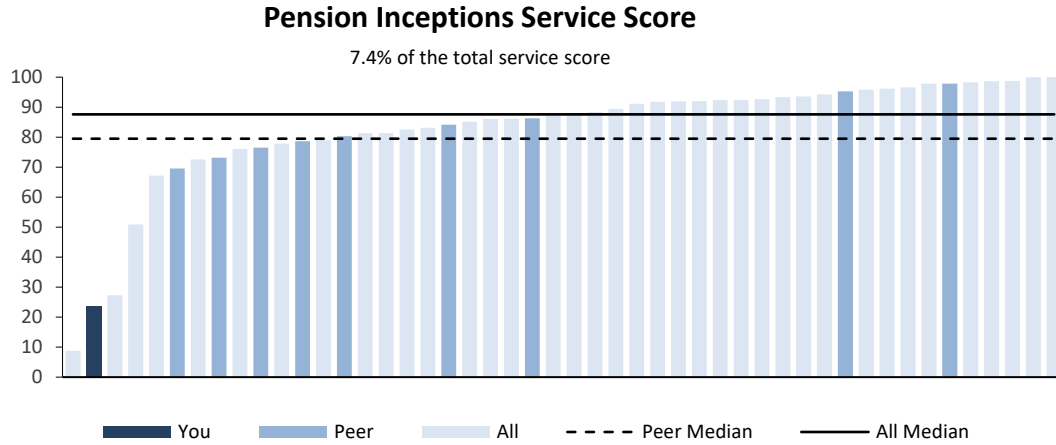
Paperless is most cost-effective. Therefore, systems that provide payment advices online get full points. Alternatively, systems that still send paper and can comply with a members request not to send payment advices, also receive the highest score.

# Payment advices

3. Survey questions used		You	Peer Avg
Q13	Do you send out payment advices (i.e., gross/ net specifications) in paper format to members receiving EFT payments?	Yes	90% Yes
	a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions?	Annually	7 times
	b) Can you comply with a member's request not to send them payment advices?	No	33% Yes
Q77	Indicate whether the following capabilities are available on your website and provide volumes:		
	q) View pension payment details? [i.e., gross amounts, deductions]	Yes	100% Yes

# 1B Pension Inceptions

Your service score for pension inceptions was 24 out of 100. This was below the peer median of 79.



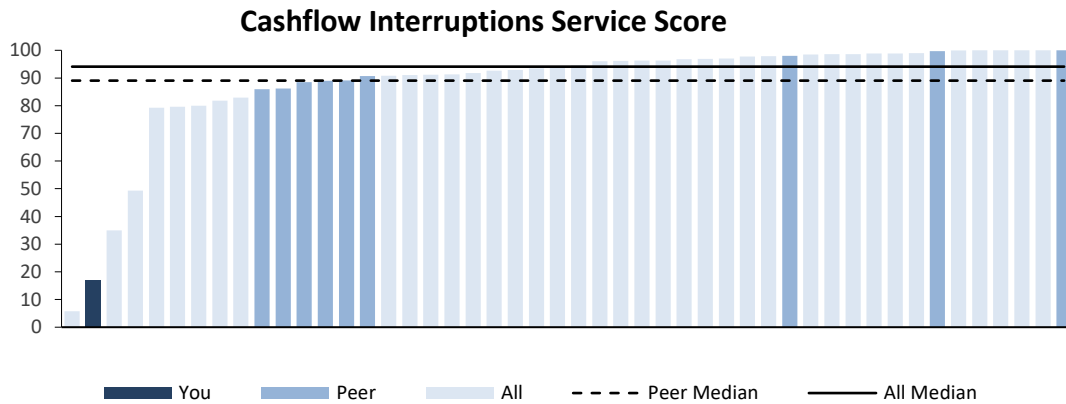
Your service score for 1b pension inceptions is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Pension Inceptions Service Score Components		
	Weight	Your Score
Cashflow interruptions	78%	16.8
Survivor pensions	11%	95.0
Red tape	11%	0.0
<b>Weighted Total</b>	<b>100%</b>	<b>23.6</b>



## Cashflow interruptions

Your service score for cashflow interruptions was 17 out of 100. This was below the peer median of 89.



1. Scoring method	Your Data	Your Score
+ 100 if 100% of your service pensions were incepted without a cashflow interruption greater than 1 month, otherwise 100 X percent of inceptions that occur within 1 month of final paycheck	16.8%	16.8
If a service retirement is based on estimates, less: - 10 10 X percent of service retirements based on estimates X average number of months to finalize / 3 [Subject to a maximum deduction of 10 and a minimum score of 0]	No n/a n/a	0.0
<b>Total score</b>		<b>16.8</b>

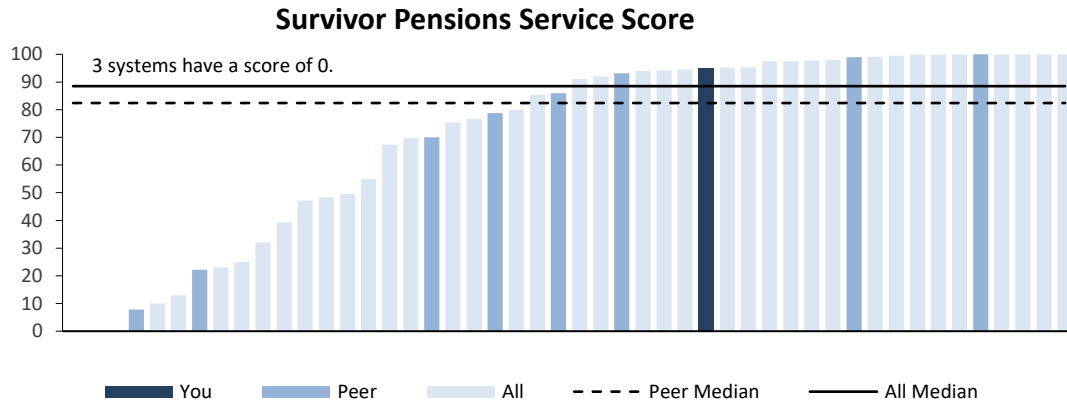
2. Rationale for the scoring method
<p>Retiring members should not experience a cash flow interruption between their final pay check and their first pension check. A cash flow interruption could cause financial hardship.</p> <p>When pension payments are based on estimates, the sooner the amount is finalized, the better because estimates can cause financial uncertainty.</p>

## Cashflow interruptions

3. Survey questions used		You	Peer Avg
Q16	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?	16.8%	87.3%
Q17	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 a) If yes, what proportion of your service retirement inceptions to retiring active members was based on existing data or estimates? b) On average, how long did it take to finalize service retirement inceptions based on estimates? (in months)	No n/a n/a	70% Yes 53.3% 2.3 months

## Survivor pensions

Your service score for survivor pensions was 95 out of 100. This was above the peer median of 82.



1. Scoring method		Your Data	Your Score
+ 100	if all of your survivor pensions were inceptioned without a cashflow interruption greater than 1 month, otherwise: 100 x percent of pensions paid without interruption to survivors	95.0%	95.0
Total score			95.0

2. Rationale for the scoring method	
An interruption in a pension benefit at the death of the primary annuitant creates potential hardship for the survivor at a difficult time. A perfect score requires that all survivor pensions are paid without interruption.	

3. Survey questions used		You	Peer Avg
Q16	What percentage of annuity inceptiones for: b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	95.0%	65.2%

## Red tape

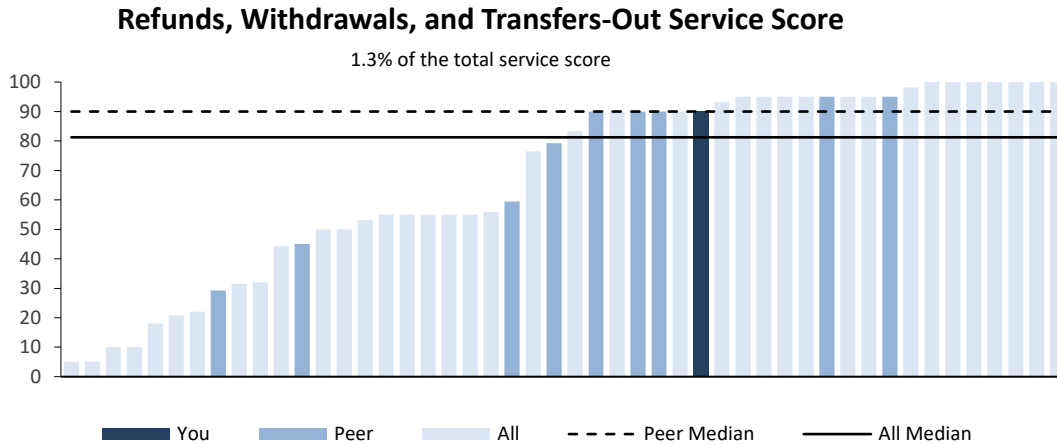
1. Scoring method		Your Data	Your Score
+ 80	if you do not require notarization of retirement applications, or + 40 if you require notarization of some retirement applications	required	0.0
+ 20	if you do not require birth/marriage certificates before incepting a pension	required	0.0
Total score			0.0

2. Rationale for the scoring method
Extra red tape creates work for members and may not provide additional protection for the system. For example, notarizations can be fraudulent. Many systems have decided that the potential risk reduction does not justify the inconvenience caused to members.

3. Survey questions used		You	Peer Avg
Q18	Do you require birth certificates and/or marriage certificates before incepting a pension?	Yes	100% Yes
Q19	Do you require notarization of normal or early retirement applications?	Yes	60% Yes

# 1C Refunds, Withdrawals, and Transfers-out

Your service score for refunds, transfers-out and withdrawals was 90 out of 100. This was equal to the peer median.



1. Scoring method	Your Data	Your Score
<p><u>Withdrawal timeliness</u></p> <p>+ 45 if withdrawals are completed in 30 days or less, otherwise 45 - 1.8 for each day over 30 days [Subject to a minimum score of 0]</p>	13	45.0
<p><u>Transfers-out timeliness</u></p> <p>+ 45 if transfers-out are completed in 30 days or less, otherwise 45 - 0.9 for each day over 30 days [Subject to a minimum score of 0]</p>	13	45.0
<p><u>No red tape</u></p> <p>+ 10 if you do not require notarization for refund or transfer-out applications, 5 if some applications require notarization, 0 if notarization is required</p>	required	0.0
<b>Total score</b>		<b>90.0</b>

**2. Rationale for the scoring method**

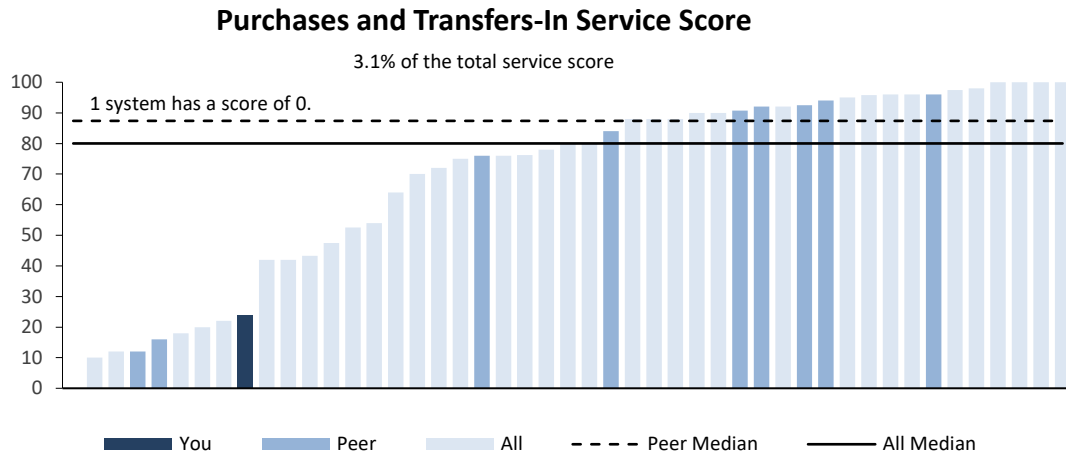
Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external parties.

## 1C Refunds, Withdrawals, and Transfers-out

3. Survey questions used		You	Peer Avg
Q21	How long does it take on average for you to issue a refund check, including any required wait period, beginning from the time of the initial request by the member (in days)?	13	33 days
	a) Are you legislated to have a wait period before you can effect a refund?	No	30% Yes
	b) How long is the wait period? (in days)	n/a	60 days
	c) Can the wait period be waived?	n/a	0% Yes
Q22	How long does it take on average for you to complete an individual transfer-out to an external system, including delays caused by external parties, beginning from the time of initial request by the member (in business days)?	13	47 days
Q23	Do you require notarization of refund or transfer-out applications?	Yes	60% Yes

## 1D Purchases and Transfers-in

Your service score for purchases and transfers-in was 24 out of 100. This was below the peer median of 87.



1. Scoring method	Your Data	Your Score
<p><u>Service credit purchase estimates</u></p> <p>+ 80 if you can provide an estimate in 1 day or less, otherwise 80 - 2 per day over 1 day [Subject to a minimum score of 0]</p>	34 days	14.0
<p><u>Transfers-in</u></p> <p>+ 20 if a member's transfer-in application is processed within 1 month, otherwise 20 - 2 per month over 1 month [Subject to a minimum score of 0]</p>	6*	10.0
<b>Total score</b>		<b>24.0</b>

### 2. Rationale for the scoring method

From a member perspective, faster is higher service.

The score for transfers-in is mostly based on your own timeliness. A small part of the score is based on the total time it takes to complete transfers-in (i.e., including delays caused by third parties). Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external parties.

## 1D Purchases and Transfers-in

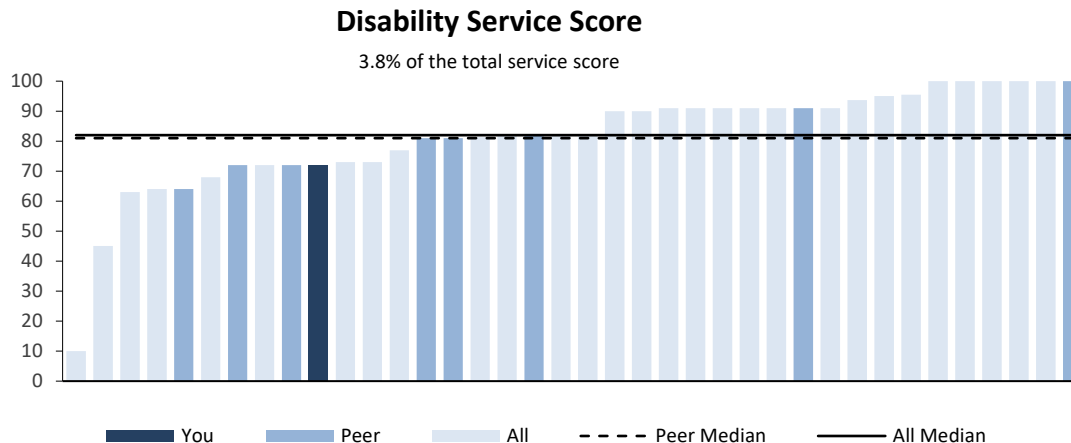
3. Survey questions used		You	Peer Avg
Q26	On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	34	25 days
Q27	How long does it take on average for you to complete an individual transfer-in, including delays caused by external parties (in months)?	6*	3 months

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



# 1E Disability

Your service score for disability was 72 out of 100. This was below the peer median of 81.



1. Scoring method	Your Data	Your Score
+ 90 if you return a decision on a disability application in 1 month or less, otherwise 90 - 9 for each month over 1 month [Subject to a minimum score of 0]	3.0 months	72
+ 10 if you do not require notarization of disability applications, 5 if some applications require notarization, 0 if notarization is required	required	0
<b>Total score</b>		<b>72</b>

**2. Rationale for the scoring method**

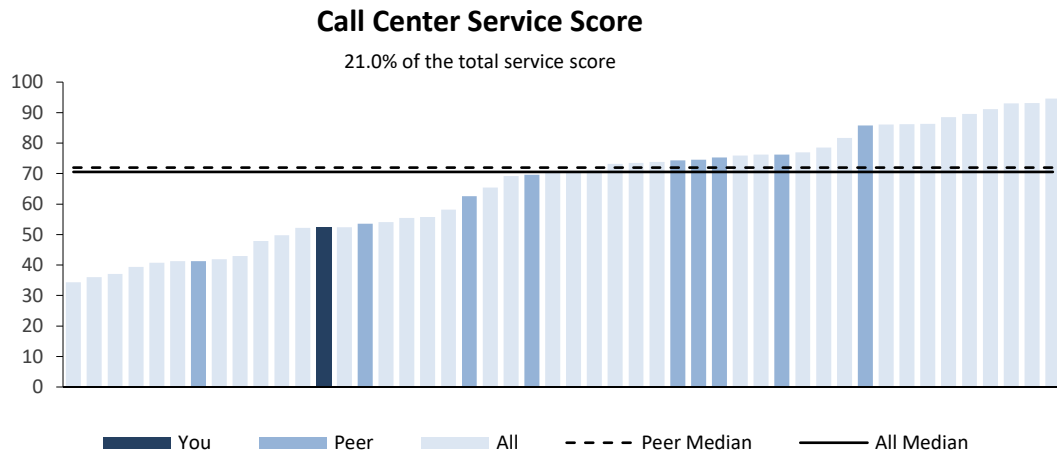
Taking more than 1 month to return a decision in a disability application can cause financial insecurity for members. Faster turnaround times are higher service from the member's perspective.

Requiring notarization causes delays and inconvenience from the member's perspective.

3. Survey questions used	You	Peer Avg
Q31 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?	3.0	4 months
Q32 Do you require notarization of disability applications?	Yes	50% Yes

## 2A Call Center

Your call center service score was 52 out of 100. This was below the peer median of 72.

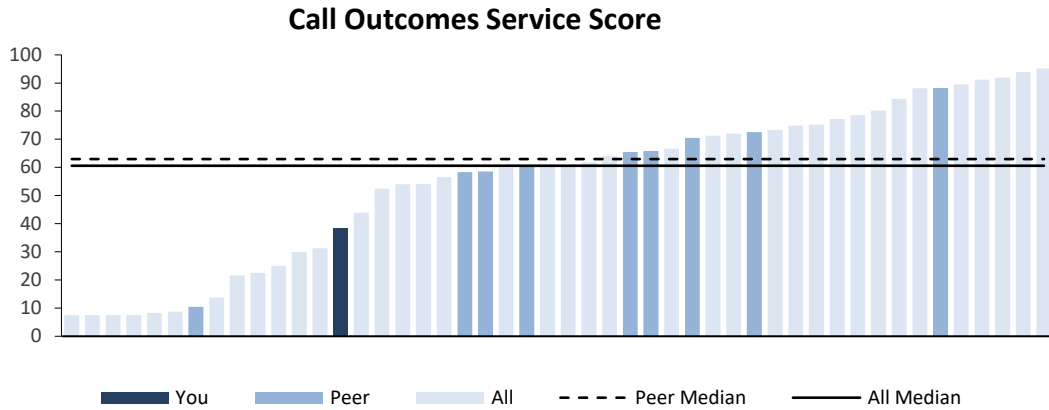


Your service score for 2a call center is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Call Center Service Score Components		
	Weight	Your Score
Call outcomes	20%	38.3
Wait time	20%	6.0
Menu layers	10%	60.0
CRM and other capability	35%	72.0
Call quality	15%	82.0
Weighted Total	100%	52.4

# Call outcomes

Your service score for call outcomes was 38 out of 100. This was below the peer median of 63.



1. Scoring method		Your Data	Your Score
+ 90	if members experience no undesired call outcomes		90.0
	- % of calls resulting in other undesired outcomes X 400 [Subject to a minimum score of 0]	14.5%	<u>-58.0</u>
			32.0
+ 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 [Subject to a minimum score of 0]	42.5	6.3
Total score			38.3

**2. Rationale for the scoring method**

A perfect score requires that all calls either get through to a knowledgeable person or are satisfied by self-serve options.

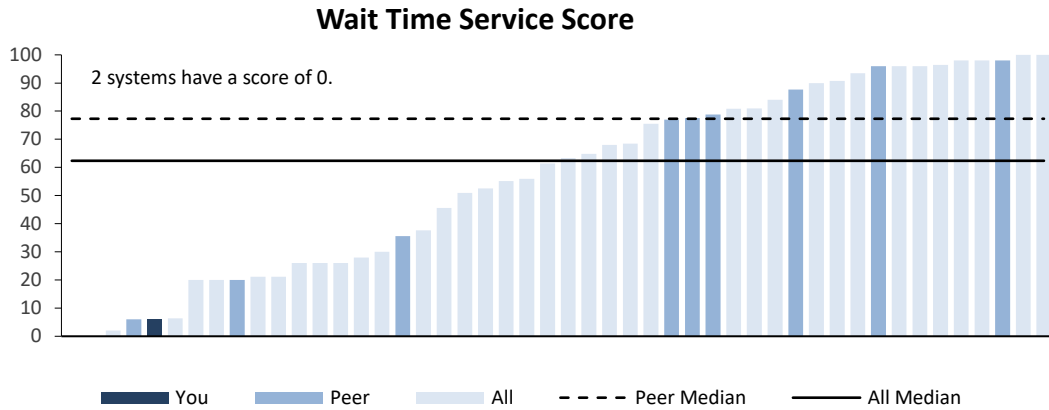
Shorter business hours are treated as an undesired outcome because after-hour callers do not reach a knowledgeable person.

## Call outcomes

3. Survey questions used		You	Peer Avg
	<u>Desired call outcomes</u>		
Q33	a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?	100,338	
	c) Incoming calls satisfied by self-serve options, if any?	0	
	Total desired call outcomes (A)	100,338	
	<u>Undesired call outcomes during business hours</u>		
Q34	a) # Busy signal, never enters the system?	n/a	
	b) # Caller gets pre-recorded 'call another time' message during business hours?	n/a	
	c) # Voice mail takes a message during business hours?	n/a	
	d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	n/a	
	e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	17,008	
	f) # System hangs up on caller (or sends the caller back to the main menu) after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	n/a	
	g) # System sends the caller back to the main menu after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	n/a	
	h) # Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	n/a	
	i) # Call rings unanswered during business hours?	n/a	
	# Receptionists takes a message	n/a	
Q39	If you have a callback feature, # of callback requests that were not completed	n/a	
	Total undesired call outcomes during business hours (B)	17,008	
	Total incoming calls (C = A + B)	117,346	
	Undesired outcomes as a percentage of total incoming calls (B / C)	14.5%	9.7%
	<u>Undesired outcomes after business hours</u>		
Q48	How many hours per week is your 'call center' operational?	42.5h	45.3h

# Wait time

Your service score for call wait time was 6 out of 100. This was below the peer median of 77.



1. Scoring method		Your Data	Your Score
<u>Calls</u>			
+ 90	if members reach a knowledgeable person in 60 seconds or less, otherwise 120 - 0.5 per second to reach a knowledgeable person [Subject to a minimum score of 0]	330 seconds	0
+ 2 to 20	If a member is notified of expected wait times: + 2 if wait time is 60 seconds or less, + 20 if wait time is more than 240 seconds [and you scored 0 for call wait time above], otherwise 2 + 0.1 per second over 60 seconds	No	0
<u>Emails</u>			
+ 8	if wait time is 0.5 days or less, otherwise 8 - 4 for each day over 0.5 days [Subject to a minimum score of 0]	1.0 day	6.0
<b>Total score</b>			<b>6.0</b>

**2. Rationale for the scoring method**

Faster is best. The value of knowing the expected wait time increases with the length of the wait.

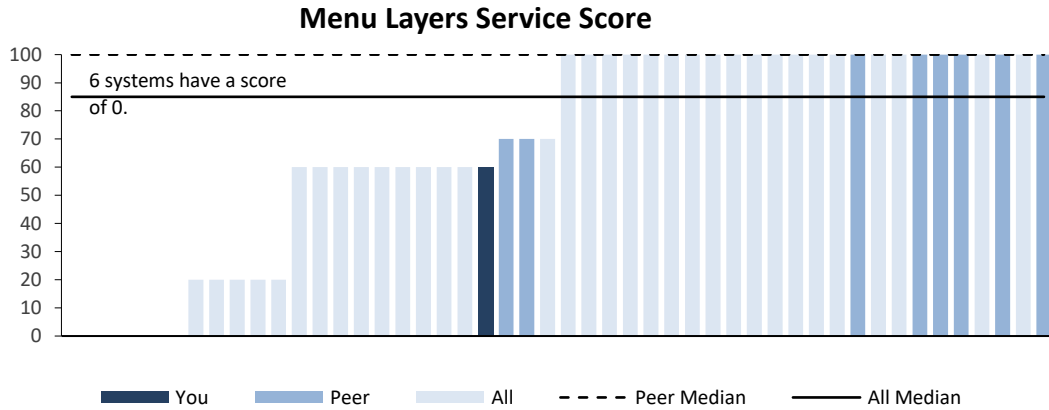
## Wait time

3. Survey questions used		You	Peer Avg
	Average total time in seconds for a caller to reach a knowledgeable person. This is the sum of the time to:	330	190
	<u>(1) Navigate menus</u>		
Q35	If you have a menu:	Yes	80% Yes
	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)? (A)	70	42
	c1) If yes, what percentage of calls is the menu system by-passed? (B)	<u>n/a</u>	<u>n/a</u>
	Adjusted time to navigate the menu = (A) X [1 - (B)]	70	42
	<u>(2) Navigate receptionists</u>		
Q36	If a receptionist usually responds first to member calls:	No	20% Yes
	Do you have a queue for the receptionist(s)?	n/a	50% Yes
	a1) If yes, what is the average wait time in seconds in the queue for the receptionist(s)? (A)	n/a	20
	If no, average time to get through to the receptionist (i.e., time on hold etc.) is assumed to be 10 seconds	n/a	10
	b) Average time in seconds for a caller to explain his needs to a receptionist (assumed to be 25 seconds). (B)	n/a	25
	b1) Satisfied by the receptionist without forwarding? (C)	<u>n/a</u>	<u>0.05</u>
	Adjusted time to navigate receptionists = (A) + (B) X [1 - (C)]	n/a	39
	<u>(3) Wait in queue</u>		
Q37	If you have a queue for a pool of knowledgeable staff:	Yes	100% Yes
	a) Average wait time in seconds in queue for a service representative?	260	149
	b) % of calls forwarded by a receptionist, if applicable, to the queue.	<u>n/a</u>	<u>0.45</u>
	Adjusted wait in the queue = (A) X (B), if applicable	260	148
Q38	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?	No	40% Yes
Q49	Can members communicate questions using email?	Yes	90% Yes
	a) What is the average time (in business days) to respond to an email query? Do not include auto-responses or confirmation of email receipt.	1.0	0.9 days

The sum of the peer average time to navigate menus, receptionists and wait in queue will add to more than the whole because non-applicable responses are not included in the averages.

# Menu layers

Your service score for menu layers was 60 out of 100. This was below the peer median of 100.



1. Scoring method		Your Data	Your Score
+ 100	if one or fewer menu layers, 60 if 2 menu layers, 20 if 3 menu layers, 0 if 4 or more menu layers	2	60.0
- 30	if a receptionist is the first point of contact.	No	0.0
Total score			60.0

## Menu layers

### 2. Rationale for the scoring method

Members prefer to get through to a knowledgeable person who can answer their questions immediately. Irritation increases rapidly with the number of menu layers.

Receptionists are often more irritating than a menu layer because of the need to explain your needs twice, incorrect redirection, etc.

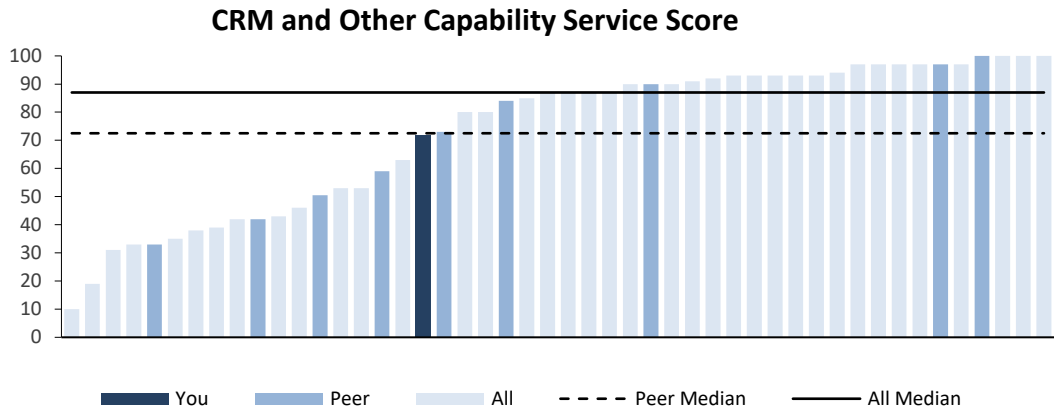
### 3. Survey questions used

		You	Peer Avg
Q35	Do you have a menu system that callers negotiate before speaking to someone? a) If yes, what is the average number of menu layers that must be navigated before a caller can speak to a live person?	Yes  2	80% Yes  2
Q36	When a member calls in, is the first point of human contact usually a receptionist(s) who transfers a high proportion of calls elsewhere in the organization? (indicate no if most calls go directly to a call center)	No	20% Yes



# CRM and other capability

Your service score for CRM and other capability was 72 out of 100. This was below the peer median of 73.



## CRM and other capability

1. Scoring method		Your Data	Your Score
<u>If you are able to provide the following information on an immediate real-time basis or conduct the following transactions over the phone:</u>			
+ 10	estimate of the member's pension at retirement	Yes	9.0
+ 13	estimate is linked to the member's actual account data	Yes	11.5
+ 7	model alternate annuity payment scenarios	Yes	6.0
+ 7	provide refund or transfer value if member exited employment at time of call	Yes	6.0
+ 4	provide pensionable salary	Yes	3.0
+ 4	provide service credit history including gaps	Yes	3.0
+ 7	estimate cost to purchase service credit	Yes	6.0
+ 7	change address	Yes	6.0
+ 7	change banking information	No	0.0
+ 7	add or change email address	No	0.0
<u>If you offer the following tools to help serve callers better:</u>			
+ 3	record of the member's previous calls to the system	No	0.0
+ 3	copies of recent correspondence online	Some	0.0
+ 3	knowledge based online help system available for use by the service representative	No	0.0
+ 3	most recent member statement	Yes	2.5
+ 3	beneficiary information	Yes	2.5
+ 3	toll free number	Yes	2.5
+ 3	workflow system with the real-time status of open items	Yes	2.5
+ 3	member's use of digital tools	No	0.0
+ 3	call volume projections	Yes	2.5
Total score			72.0

## 2. Rationale for the scoring method

You can serve your members better if you have real time access to all of their records, have tools that enable you to provide immediate, informed and accurate answers to their questions, and can conduct transactions over the phone.

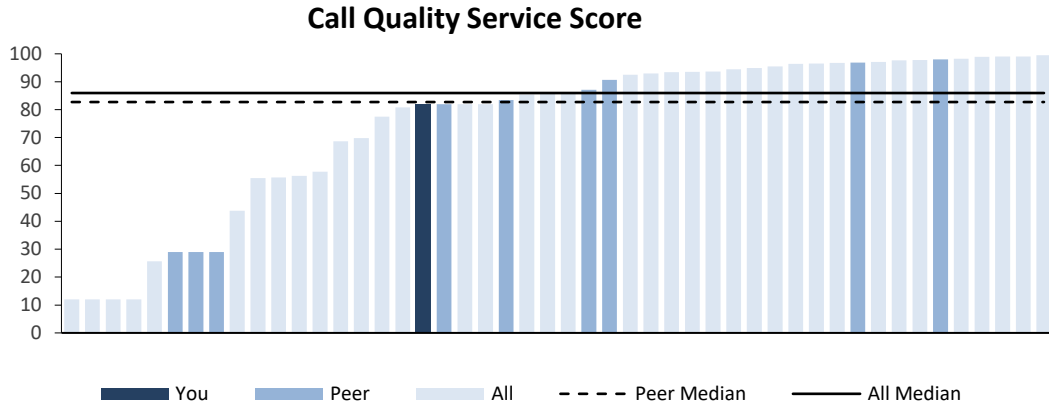
Your ability to serve members is greatly reduced if your capabilities or policies prevent you from answering questions over the phone.

## CRM and other capability

3. Survey questions used		You	Peer Avg
Q42	When a member calls in, do you have immediate computer access to the following member data:		
	a) Copies of recent correspondence online?	Some	80% Yes
	b) Knowledge based on-line help system available for use by the service representative?	No	70% Yes
	c) Most recent member statement?	Yes	100% Yes
	d) Beneficiary information?	Yes	100% Yes
Q43	Do you provide the following information on an immediate real-time basis to members over the phone?		
	a) Estimates of the member's pension at retirement?	Yes	60% Yes
	a1) Can you easily model and provide alternate annuity payment scenarios? [i.e., joint and 50% survivor, joint and 70% survivor, etc.]	Yes	67% Yes
	a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	Yes	67% Yes
	b) Refund or transfer value assuming the member exited employment at the time of the call?	Yes	100% Yes
	c) Pensionable salary?	Yes	100% Yes
	d) Service credit history including gaps?	Yes	80% Yes
	e) Cost to purchase service credit?	Yes	90% Yes
	f) If you administer a DC plan:		
	f1) Current value of the DC account?	Yes	100% Yes
	f2) Estimate of the value of the DC account at retirement?	No	60% Yes
Q44	Can members calling in perform the following transactions over the phone:		
	a) Change address?	Yes	60% Yes
	b) Add or change email address?	No	70% Yes
	c) Change payment instructions? [i.e., bank account]	No	20% Yes
	d) If you administer a DC plan, switches to investment options?	Yes	50% Yes
Q46	Do you have and use tools to help you project call volumes?	Yes	90% Yes
Q47	Do you have a toll free number (or a number where members are only charged the cost of a local call no matter where they are located) that members can call to get a real person (not just an info line)?	Yes	100% Yes
Q121	Do you have a workflow system that provides service agents with real time information about each member's:		
	a) Status of open items?	Yes	100% Yes
	b) Interactions via calls and email?	No	50% Yes
	c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No	40% Yes

# Call quality

Your service score for call quality monitoring was 82 out of 100. This was below the peer median of 83.



1. Scoring method		Your Data	Your Score
<u>Call quality monitoring</u>			
+ 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	5	55.0
+ 15	if the review is based on listening in on a recording (versus a live call)	Recording	15.0
<u>First contact resolution</u>			
+ 30	if 100% of calls are satisfied by their first contact, 0 if 50% or fewer calls are satisfied by the first contact, otherwise 30 - 50 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 12 if not measured]	untracked	12.0
Total score			82.0

# Call quality

## 2. Rationale for the scoring method

Regularly monitoring and coaching your staff responses to member calls will improve quality and service. Monitoring recordings is superior to listening in live because it allows more time for review and it allows staff to listen to themselves.

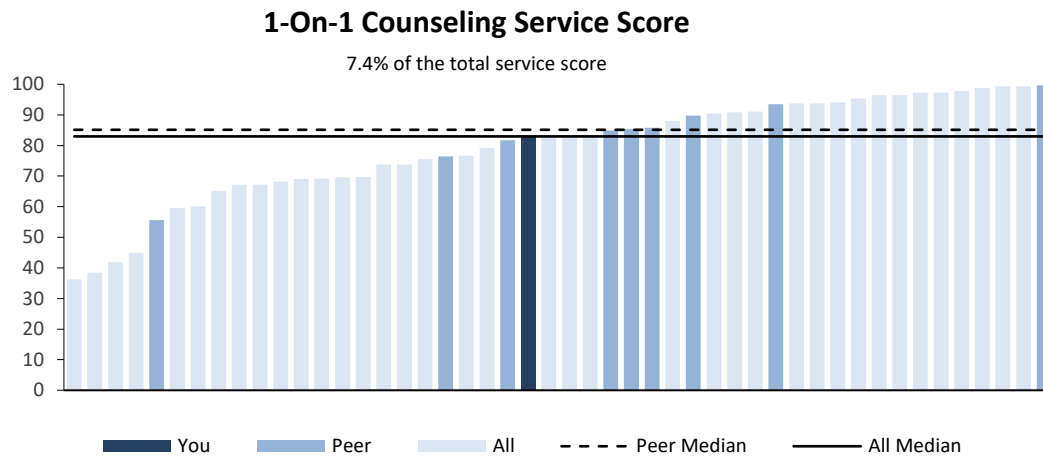
It is higher service if a caller's questions are immediately satisfied by the first contact without being transferred.

## 3. Survey questions used

		You	Peer Avg
Q40	c) % of calls satisfied by the first contact?	untracked	92.1%
Q45	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.]	Yes	70% Yes
	a) How many calls per agent per month (on average) do you monitor?	5	8
	b) Are you listening in on a live call or a recording?	Recording	57% Recording

## 2C 1-on-1 Counseling

Your service score for 1-on-1 counseling was 83 out of 100. This was below the peer median of 85.

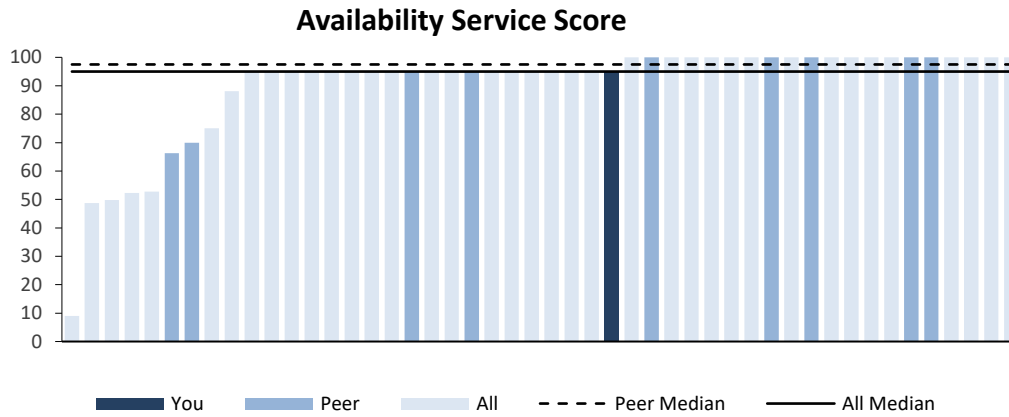


Your service score for 2c 1-on-1 counseling is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

1-on-1 Counseling Service Score Components		
	Weight	Your Score
Availability	50%	95.0
Field locations	20%	70.0
Wait times	20%	68.8
Capability	10%	73.3
<b>Weighted Total</b>	<b>100%</b>	<b>82.6</b>

# Availability

Your service score for availability was 95 out of 100. This was below the peer median of 98.



1. Scoring method	Your Data	Your Score
+ 70 if members counseled 1-on-1 as a % of your active members is 1.0% <sup>1</sup> or more, otherwise 7,000 <sup>1</sup> X number of members counseled 1-on-1 as a % of active members	31.6%	70.0
+ 25 if 1-on-1 counseling is freely available, without limitations	Yes	25.0
+ 5 if 1-on-1 counseling is available outside of normal working hours, otherwise 0	No	0.0
<b>Total score</b>		<b>95.0</b>

<sup>1</sup>Better 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 none of your pension inceptions occur online, you need attendees equal to 1.00% of your active member population to achieve a perfect score of 70; we use a multiplication factor of 7,000 because  $70 / 1.00\% = 7,000$ ).

**2. Rationale for the scoring method**

Higher volumes relative to the number of pension inceptions occurring offline imply greater availability and value.

Members prefer freely available access to counseling with no time period limits, no limits on the number of sessions, etc.

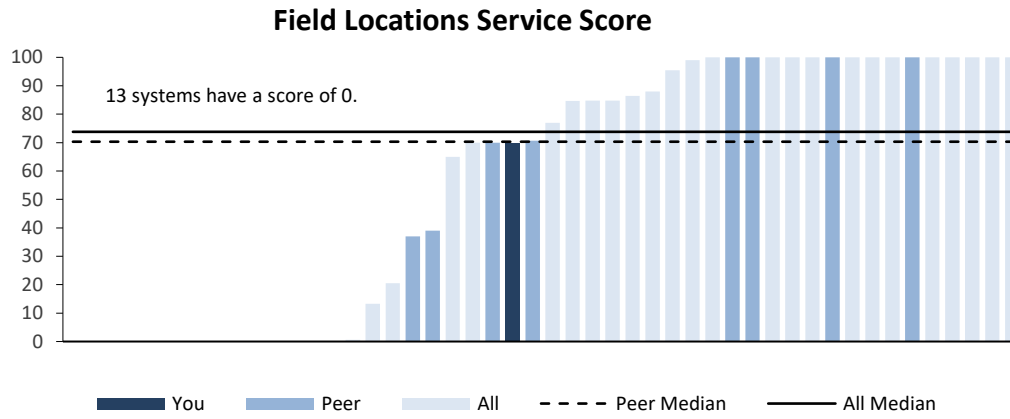
## Availability

3. Survey questions used		You	Peer Avg
Q53	Total number of members counseled 1-on-1 (A)	18,164	11,281
Q5	Active Members (B)	57,541	87,580
	Members counseled 1-on-1 as a percentage of active members (A / B)	31.6%	12.6%
Q54	Is 1-on-1 retirement counseling a freely available option for most members? [If the only 1-on-1 counseling you do is for VIPs, disability, exceptions and emergencies then your answer should be no.]	Yes	100% Yes
Q55	Do you limit 1-on-1 counseling by:		
	a) Requiring that members be within a certain time period of earliest possible retirement?	No	20% Yes
	b) Placing a limit on the number of counseling sessions a member can request?	No	10% Yes
	c) Indicating that members should contact their employers or unions first for counseling?	No	0% Yes
	d) Other (describe)?	No	0% Yes
Q58	Do you offer 1-on-1 counseling sessions after normal working hours, such as evenings and/or weekends?	No	50% Yes



## Field locations

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



1. Scoring method		Your Data	Your Score
+ 70	if the number of 1-on-1 sessions located in the field or via video conference as % of total sessions is 25% or more, otherwise 280 X % of total sessions located in the	39.4%	70.0
+ 30	if 75% or more of your 1-on-1 field sessions are held at locations separate from the employer, otherwise 40 X % of field sessions separate from the employer	0%	0.0
Total score			70.0

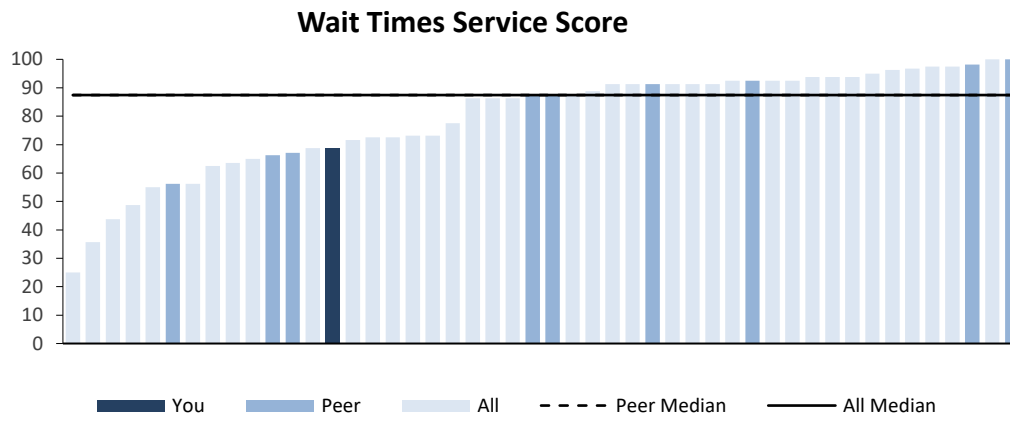
2. Rationale for the scoring method
A combination of in-house and in-the-field locations provides the best access for members to meet with you.
Field locations separate from the employer are preferred because they help preserve confidentiality and privacy.

## Field locations

3. Survey questions used		You	Peer Avg
Q53	Provide the number of members counseled 1-on-1 that were:		
	b) In the field at locations separate from the member's place of employment? (A)	n/a	2,788
	c) At the member's place of employment?	7,158	1,429
	e) Via videoconference?	<u>0</u>	<u>565</u>
	Total number of members counseled 1-on-1 in the field (B)	7,158	4,556
	% of 1-on-1 field sessions separate from employer (A / B)	0%	48%
	Total number of members counseled 1-on-1 (C)	18,164	11,281
	% of members counseled at 1-on-1 sessions held in the field (B / C)	39.4%	34.7%

## Wait times

Your service score for wait times was 69 out of 100. This was below the peer median of 87.



1. Scoring method	Your Data	Your Score
+ 25 if you offer pre-scheduled counseling	Yes	25.0
+ 25 If there is no wait time for pre-scheduled in-house counseling sessions, otherwise 25 - 1.25 X average number of days of wait time [Subject to a minimum score of 0]	5.0 days	18.8
+ 25 If there is no wait time for walk-in counseling, otherwise 25 - 1.25 X average number of minutes of wait time [Subject to a minimum score of 0]	15 min.	6.3
+ 25 if 0% of walk-ins requesting a counseling session were turned away because the wait was too long, otherwise 25 - 125 X % of walk-ins turned away [Subject to a minimum score of 0]	5.0%	18.8
<b>Total score</b>		<b>68.8</b>

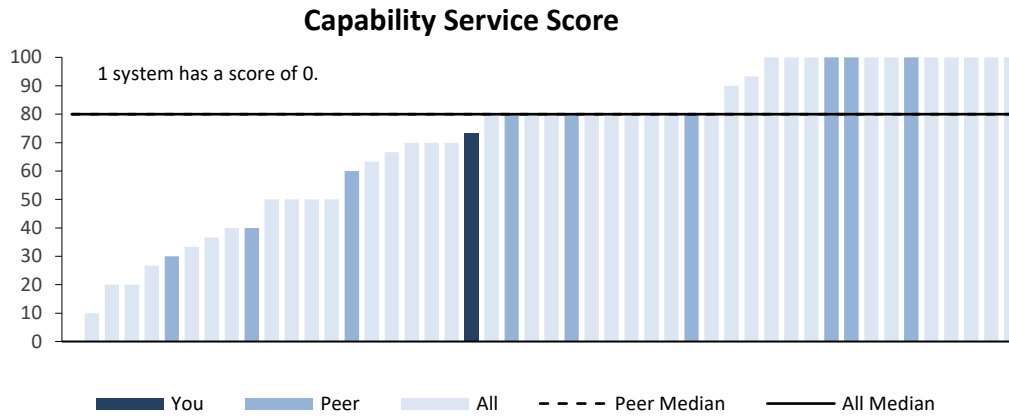
2. Rationale for the scoring method
<p>The shorter the wait times, the better.</p> <p>Some people like to be able to schedule an appointment. Also, a pre-scheduled session gives you the opportunity to prepare in advance.</p>

## Wait times

3. Survey questions used		You	Peer Avg
Q56	Do you provide counseling for walk-in traffic?	Yes	100% Yes
	a) On average, how long does a walk-in member that requests a counseling session typically have to wait till they can meet with a counselor? (minutes)	15	9 min
	b) Approximately what percentage of walk-in members requesting a counseling session are turned away, or scheduled for another time, or leave with their needs unsatisfied because they decide the wait was too long?	5.0%	0.6%
Q57	Do you offer prescheduled 1-on-1 counseling?	Yes	90% Yes
	a) If yes, how long does a member that requests a pre-scheduled counseling session typically have to wait, in business days, before he can meet with a counselor for an in-house 1-on-1 counseling session?	5.0	4.9 days

# Capability

Your service score for capability was 73 out of 100. This was below the peer median of 80.



1. Scoring method		Your Data	Your Score
<u>Sessions</u>			
+ 50	if you can provide a new written estimate during each of walk-in, pre-scheduled in-house and in-the-field sessions, otherwise 16.7 for walk-in, 16.7 for pre-scheduled in-house and 16.7 for in-the-field	3 Yes	50.0
+ 10	if you can provide accurate service credit purchase cost estimates during each of walk-in, pre-scheduled in-house and in-the-field sessions, otherwise 3.3 for walk-in, 3.3 for pre-scheduled in-house and 3.3 for in-the-field	3 Yes	10.0
+ 20	if counseling takes place in a private office with a door during each of walk-in, pre-scheduled in-house and in-the-field sessions, otherwise 6.7 for walk-in, 6.7 for pre-scheduled in-house and 6.7 for in-the-field	2 Yes	13.3
<u>Coaching</u>			
+ 20	if you regularly review counselors for coaching purposes	No	0.0
Total score			73.3

## Capability

### 2. Rationale for the scoring method

Members needs are best met when you can have a complete discussion about their retirement options. This includes being able to provide alternative scenarios to answer 'what-if' questions as they arise during 1-on-1 counseling sessions.

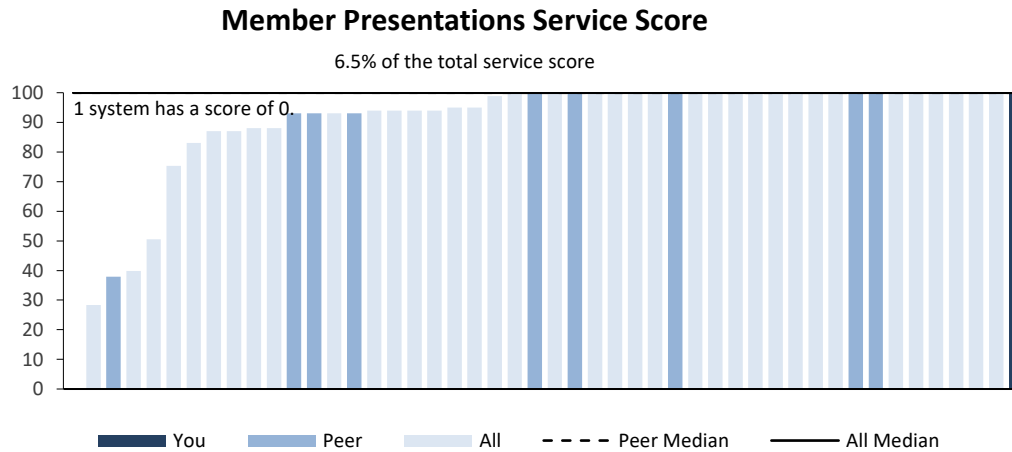
Members feel more comfortable if they can discuss their retirement income in an office with a door. If you review sessions for coaching purposes, this suggests that you monitor quality.

### 3. Survey questions used

		You	Peer Avg
Q59	a) Do almost all sessions take place in a private office with a door (versus a cubicle, etc.)?		
	a1) Walk-in traffic in-house?	Yes	90% Yes
	a2) Pre-scheduled in-house?	Yes	100% Yes
	a3) In-the-field?	No	88% Yes
	c) Do you provide new written estimates on a real-time basis for anybody that wants one?		
	c1) Walk-in traffic in-house?	Yes	90% Yes
	c2) Pre-scheduled in-house?	Yes	100% Yes
	c3) In-the-field?	Yes	88% Yes
	d) Do you provide an accurate cost to purchase service credit on a real-time basis for anybody that wants one?		
	d1) Walk-in Traffic In-house?	Yes	90% Yes
	d2) pre-scheduled In-house?	Yes	100% Yes
	d3) In-the-field?	Yes	88% Yes
Q60	Do you review 1-on-1 counseling sessions for coaching purposes on a regular basis? [As opposed to intermittent or only while training new counselors, etc.]	No	40% Yes

## 2D Member Presentations

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



1. Scoring method		Your Data	Your Score
<u>Availability</u>			
+ 70	if attendees as a percent of active members is 2.5% <sup>1</sup> or more, otherwise 2,800 <sup>1</sup> X attendees as percent of active members	16.5%	70.0
+ 5	if you offer presentations outside of normal working hours	Yes	5.0
<u>Types</u>			
+ 18	if you have 3 or more different targeted types of presentations (excluding healthcare and benefit changes), otherwise 6 X the number of types of presentations	3	18.0
<u>Coaching</u>			
+ 7	if you regularly review presenters for coaching purposes	Yes	7.0
<b>Total score</b>			<b>100.0</b>

<sup>1</sup>Better website content and functionality reduces the number of members that attend presentations. Using your percentage of pensions accepted 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 none of your pension inceptions occur online, you need attendees equal to 2.50% of your active member population to achieve a perfect score of 70; we use a multiplication factor of 2,800 because  $70 / 2.50\% = 2,800$ ).

## 2D Member Presentations

### 2. Rationale for the scoring method

Higher volumes relative to the number of pension inceptions occurring offline imply greater availability and value.

More choices of times provide easier access and convenience.

Presentations for different target audiences are higher service.

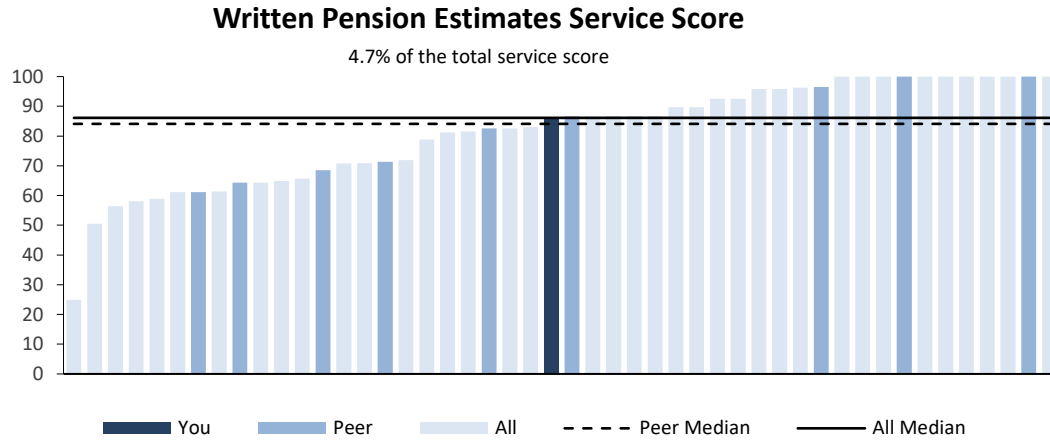
### 3. Survey questions used

		You	Peer Avg
	<u>Availability</u>		
Q64	What was the total number of attendees at all of the presentations? [Exclude benefit fair attendees] (A)	9,485	7,456
Q5	Active Members (B)	57,541	87,580
	Attendees as a percent of active members (A / B)	16.5%	8.3%
Q66	Do you offer presentations and/or webinars after normal working hours such as evenings and/or weekends?	Yes	100% Yes
	<u>Types</u>		
Q65	Did you do specific presentations for members, in the past fiscal year, targeted solely for:		
	a) New members?	Yes	100% Yes
	b) Members in mid career?	Yes	100% Yes
	c) Members approaching retirement or ready to retire?	Yes	100% Yes
	f) Other? (Please describe)	<u>No</u>	<u>40% Yes</u>
	Total presentation types	3	3
	<u>Coaching</u>		
Q67	Do you review presenters for coaching purposes on a regular and recurring basis? [As opposed to intermittent or only while training new presenters, etc.]	Yes	70% Yes



## 2E Written Pension Estimates

Your service score for written pension estimates was 86 out of 100. This was above the peer median of 84.

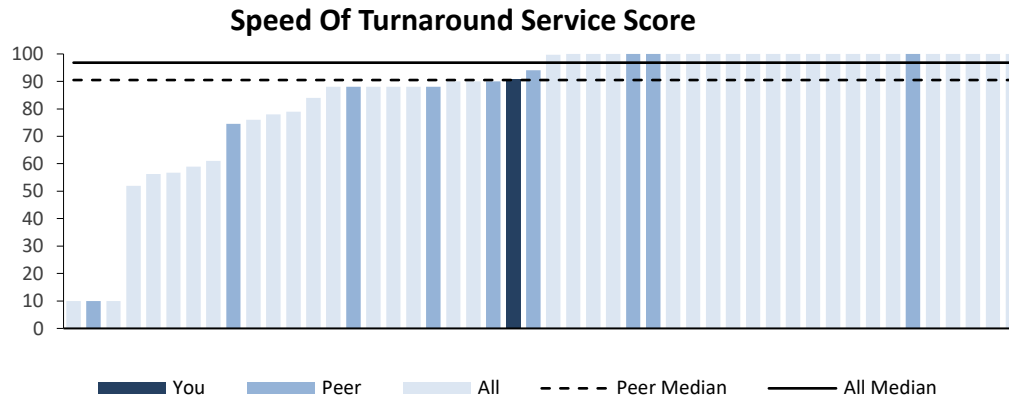


Your service score for 2e written pension estimates is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Written Pension Estimates Service Score Components		
	Weight	Your Score
Speed of turnaround	35%	91.0
Content	25%	55.0
Alternative channels	40%	100.0
<b>Weighted Total</b>	<b>100%</b>	<b>85.6</b>

## Speed of turnaround

Your service score for speed of turnaround was 91 out of 100. This was equal to the peer median.



1. Scoring method	Your Data	Your Score
+ 90 if the weighted average turnaround time for providing written pension estimates and online pension estimates* is less than 1 day, otherwise 90 - 3 for each day beyond 1 required to send estimates	4 days	81.0
+ 10 if you regularly measure the time to provide an estimate	Regular	10.0
Total score [Subject to a minimum score of 0]		91.0

\* online pension estimates are only included in the average if they can be used to retire

### 2. Rationale for the scoring method

A perfect score requires that you can turn around an estimate the same day as the request. From a member's perspective, receiving a requested estimate quickly is higher service.

We assume that it is higher service if you regularly measure turnaround times because we believe that what gets measured, gets managed.

## Speed of turnaround

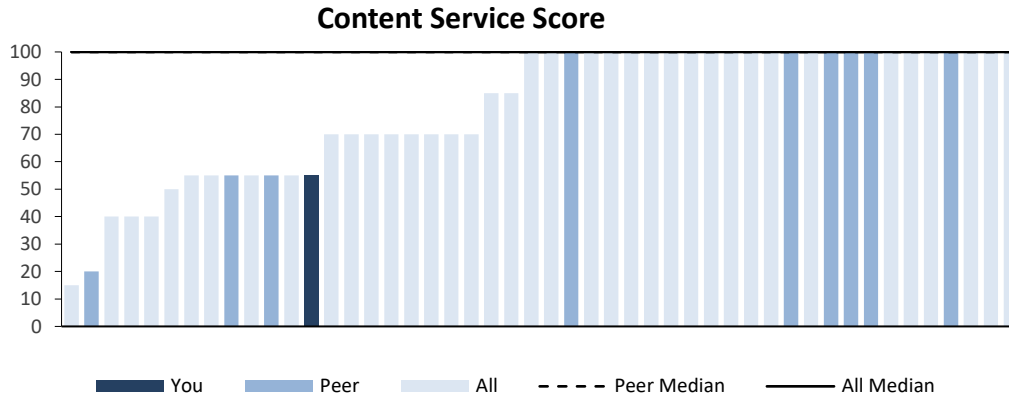
3. Survey questions used		You	Peer Avg
Q69	How many written pension estimates did you mail out pursuant to individual member requests? [Exclude estimates prepared during counseling sessions and not mailed in advance.]	8,841	11,113
Q71	On average, how many business days does it take to provide a written pension estimate from the time of initial request from a member? [Exclude time in the mail.] (B)	4 days	10 days
	a) Is this a number you regularly measure and track (versus an estimate)?	Regular	90% Yes
Q77	Indicate whether the following capabilities are available on your website and provide volumes:		
	c) Benefit calculator in secure area linked to member's salary and service data?	Yes	90% Yes
	If yes, volume? (C)	100,117	80,242
	r) Submit a retirement application online?	No	22% Yes
	Weighted average estimate turnaround time <sup>1</sup> (A x B) / (A + C)	4 days <sup>2</sup>	8.9 days

1. The weighted average estimate turnaround time assumes that: (i) online estimates are processed instantaneously; (ii) the volume of online estimates (C) is counted as zero if members cannot apply for retirement online.

2. Were members able to apply for retirement online, your weighted average estimate turnaround time would have been reduced to 0.3 days, because the volume of online estimates would have then been included in the calculation.

# Content

Your service score for content was 55 out of 100. This was below the peer median of 100.



1. Scoring method		Your Data	Your Score
+ 30	if you clearly address if and how the pension benefit is inflation protected	No	0.0
+ 15	if you discuss the effects of social security	No	0.0
+ 15	if you discuss alternative scenarios that could improve the pension	Yes	15.0
+ 40	if you model alternative pension payment options	Yes	40.0
Total score			55.0

## Content

### 2. Rationale for the scoring method

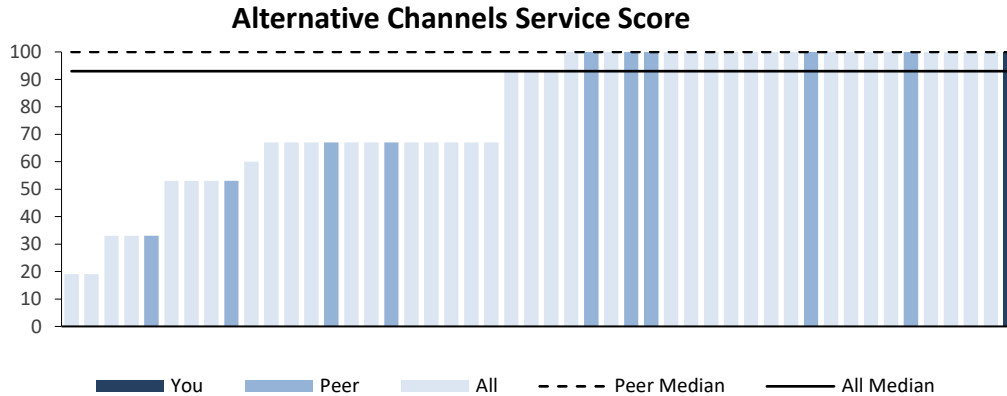
The more members understand about how their pension is affected by inflation, social security, etc. the better they can plan for retirement. A perfect score requires that you provide all this information in a written pension estimate.

### 3. Survey questions used

		You	Peer Avg
Q74	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)?	No	60% Yes
	b) If your pension is coordinated with or reduced by social security (or CPP in Canada) is the impact explained?	No	57% Yes
	c) Discuss alternative scenarios that could improve the pension such as purchasing service credit or working longer?	Yes	100% Yes
	d) Model alternative retirement payment options?	Yes	90% Yes

## Alternative channels

Your service score for alternative channels was 100 out of 100. This was equal to the peer median.



1. Scoring method	Your Data	Your Score
+ 100 if you offer pension estimates by member statement, the website and call center, otherwise 67 if you offer 2 options, 33 if you offer 1, 0 if you offer none	3 options	100.0
- 7 if you limit the timeframe when members can request pension estimates	No	0.0
- 7 if you place a limit on the number of written pension estimates a member can request	No	0.0
<b>Total score</b>		<b>100.0</b>

### 2. Rationale for the scoring method

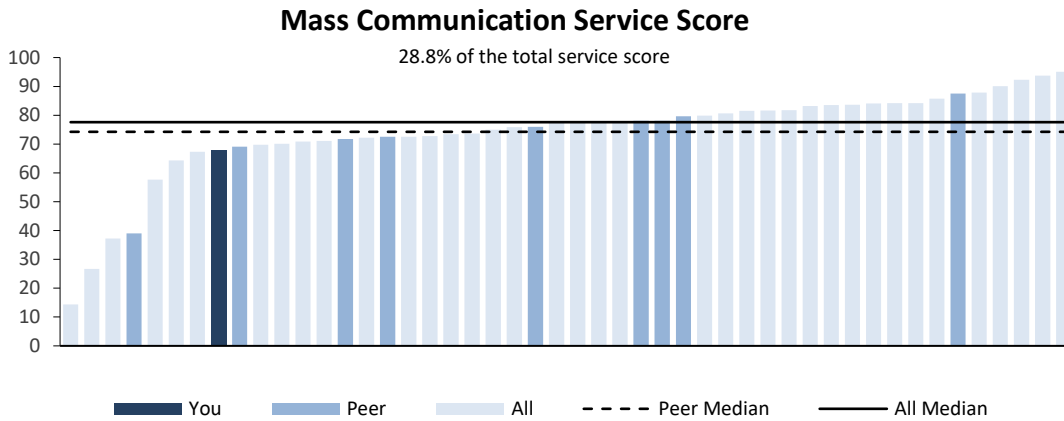
More choices in obtaining a pension estimate provides greater access and convenience for your members.

## Alternative channels

3. Survey questions used		You	Peer Avg
Q43	Do you provide the following information on an immediate 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?	Yes	60% Yes
Q72	Can members request and obtain a written pension estimate at any time during their career? [As opposed to, for example, requiring that the member be within a certain time period of earliest potential retirement before they can request a pension estimate.]	Yes	90% Yes
Q73	Do you place a limit on the number of written pension estimates that a member can request?	No	10% Yes
Q77	Indicate whether the following capabilities are available on your website and provide volumes: a) Benefit calculator in non-secure area? b) Benefit calculator in secure area not linked to member data? c) Benefit calculator in secure area linked to member's salary and service data?	No No Yes	60% Yes 30% Yes 90% Yes
Q89	Do your statements for active members include: e) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement?	Yes	90% Yes

## 2F Mass Communication

Your service score for mass communication was 68 out of 100. This was below the peer median of 74.



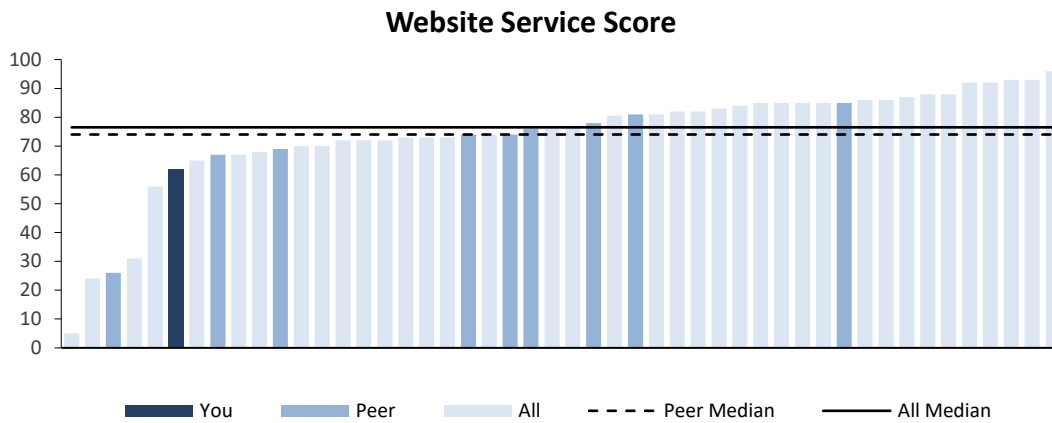
Your service score for 2f mass communication is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

<b>Mass Communication Service Score Components</b>		
	Weight	Your Score
Website	74%	62.0
News and Targeted Communication	10%	74.5
Member statements	16%	90.0
Weighted Total	100%	67.8



# Website

Your service score for the website was 62 out of 100. This was below the peer median of 74.



## Website

1. Scoring method		Your Data	Your Score
<u>Calculators</u>			
+ 10	if you have an interactive calculator on your website	Yes	10.0
+ 20	if the calculator is linked to member data	Yes	20.0
+ 2	if the financial planning tool linked to member-specific data?	n/a	0.0
+ 2	if you can calculate the cost of purchasing service credit	No	0.0
<u>Salary and service credit</u>			
+ 3	if you offer secure access to both salary and service credit data	n/a	0.0
+ 3	if salary and service credit data is up-to-date to the most recent pay period	n/a	0.0
+ 2	if a complete annual history since employment began of salary and service credit data is available	n/a	0.0
<u>Secure access design</u>			
+ 4	if members can get online immediately upon registering	Yes	4.0
+ 2	if you greet members by name upon log-in	Yes	2.0
- 4	if you force members to acknowledge a disclaimer every time they log-in or use the calculator	No	0.0
+ 1	if inactive members have access to the secure member area	Yes	1.0
+ 2	if you offer a digital file which includes a history of recent correspondence and member documents	No	0.0
<u>Forms</u>			
+ 8	if all forms are available for download (or the transaction or forms can be completed online), 6 if most, 2 if some	Most	6.0
<u>Other tools and transactions</u>			
+ 1	register for counseling sessions in real-time	No	0.0
+ 1	register for presentations	Yes	1.0
+ 2	if you offer live chat	No	0.0
+ 3	change address	Yes	3.0
+ 2	change beneficiary	No	0.0
+ 3	add or change email address	Yes	3.0
+ 1	reset password	Yes	1.0
+ 2	change annuity deposit banking information	No	0.0
+ 2	change tax withholding amount	Yes	2.0
+ 3	download or print tax receipts	Yes	3.0
+ 3	view pension payment gross amounts and deductions (payment stubs)	Yes	3.0
+ 3	submit a retirement application online	No	0.0
+ 2	if less than 50% of pensions initiated online require follow-up documents or signatures to be mailed in	n/a	0.0
+ 1	check status of retirement application	No	0.0
+ 3	apply for a transfer-out or refund	No	0.0
+ 2	download member statement	Yes	2.0
+ 3	upload documents in lieu of mailing hardcopies	No	0.0
+ 3	view pensionable earnings and/or service without downloading	No	0.0
+ 1	access videos online	Yes	1.0
Total score			62.0

## Website

### 2. Rationale for the scoring method

Members visit your website looking for information. The more you can provide, the more tailored and customized to the member, and the easier it is to get online, the better.

### 3. Survey questions used

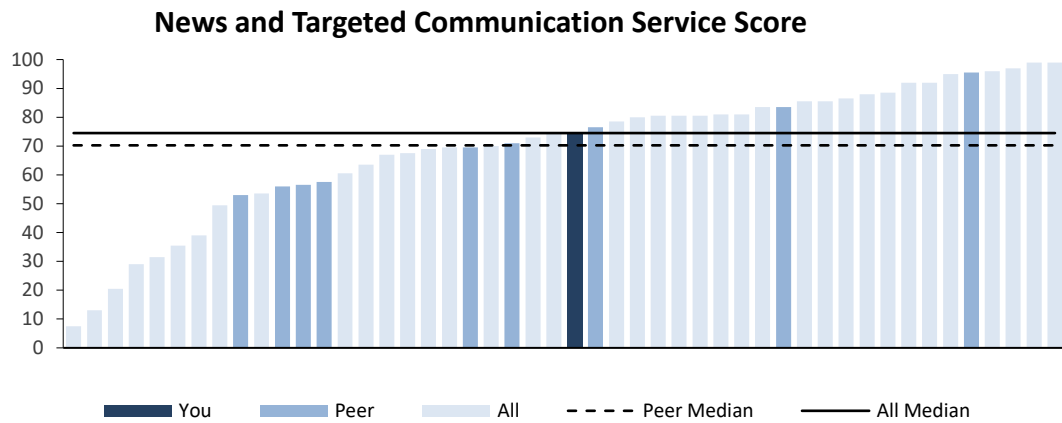
		You	Peer Avg
	<u>Calculators</u>		
Q77	Indicate whether the following capabilities are available on your website and provide volumes:		
	a) Benefit calculator in non-secure area?	No	60% Yes
	b) Benefit calculator in secure area not linked to member data?	No	30% Yes
	c) Benefit calculator in secure area linked to member's salary and service data?	Yes	90% Yes
	d) Service credit purchase calculator?	No	70% Yes
	e) Financial planning tool?	No	0% Yes
	A financial planning tool considers a member's retirement goals, and helps calculate the required total income and expenses at retirement. It provides a complete picture of member's financial health by incorporating a range of inputs into the planner, including: current expenses, projected salary, expected retirement age, expected retirement lifestyle, taxes, credit, insurance, relationship status, beneficiaries and children, mortgage, assets outside of a pension, etc., and projects scenarios under which a member can retire. The planner will also include tips on how a member can achieve their retirement goals.		
	e1) Is the financial planning tool linked to member-specific data?	n/a	n/a Yes
	e2) Is the financial planning tool linked to data from third parties (e.g., tax agencies, other pension agencies, etc.)?	n/a	n/a Yes
	<u>Salary and service credit</u>		
	x) View pensionable earnings and/or service without downloading?	No	70% Yes
	x1) Are both salary and service data available?	n/a	100% Yes
	x2) Is online data up-to-date to the most recent pay period?	n/a	100% Yes
	x3) Is a complete annual history from the beginning of employment provided?	n/a	57% Yes

## Website

3. Survey questions used		You	Peer Avg
	<u>Secure access design</u>		
Q76	Does your website have a secure member area where members can access their own data?	Yes	90% Yes
	c) If a member wants to register for the first time, does he/she have to wait for a password in the mail?	No	11% Yes
	d) Do you welcome the member by name on the home page of the secure member area?	Yes	100% Yes
	e) Are users required to acknowledge a disclaimer every time they log in?	No	11% Yes
	f) Are users required to acknowledge a disclaimer every time they generate a pension estimate?	No	44% Yes
	g) Do inactive members have access to the secure member area?	Yes	100% Yes
Q77	u) Secure mailbox or digital file including history of recent correspondence and member documents?	No	30% Yes
	<u>Forms</u>		
Q75	Are all, most or some of your forms available online for either completion or downloading?	Most	31% All
	<u>Other tools and transactions</u>		
Q77	Indicate whether the following capabilities are available on your website and provide volumes:		
	f) Register for 1-on-1 counseling sessions?	Yes	40% Yes
	f1) If yes, does the member have real-time access to available dates and times?	No	75% Yes
	g) Register for presentations?	Yes	90% Yes
	h) Live chat?	No	0% Yes
	j) Change address?	Yes	90% Yes
	k) Change beneficiary?	No	50% Yes
	l) Change email address?	Yes	90% Yes
	m) Reset password?	Yes	90% Yes
	n) Change banking information for direct deposit?	No	50% Yes
	o) Change tax withholding amount?	Yes	80% Yes
	p) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes	70% Yes
	q) View pension payment details? [i.e., gross amounts, deductions]	Yes	100% Yes
	r) Submit a retirement application online?	No	22% Yes
	If yes:		
	r1) Does the online application provide an estimate, final value or neither of the annuity payment the member will receive?	n/a	0% Final
	r2) Approximately what % of retirements submitted online require follow-up documents or signatures to be mailed in?	n/a	65.6%
	s) View status of online retirement application?	No	13% Yes
	t) Apply for a refund or transfer-out?	No	0% Yes
	v) View or download member statement?	Yes	100% Yes
	w) Upload documents (such as birth certificates)?	No	40% Yes
Q78	Do you have videos that members can access online?	Yes	90% Yes

## News and Targeted Communication

Your service score for newsletters was 75 out of 100. This was above the peer median of 70.



## News and Targeted Communication

1. Scoring method		Your Data	Your Score
<u>Newsletters</u>			
+ 20	if active members receive a newsletter 2 or more times per year, 14 if 1 time, otherwise 0	3 times	20.0
+ 20	if annuitants receive a newsletter 2 or more times per year. 14 if 1 time, otherwise 0	2 times	20.0
+ 2	if inactive members receive a newsletter at least annually	2 times	2.0
+ 25	if you have different newsletters for 3 or more of the following segments: all members or actives and annuitants, actives or actives and inactive, inactive, annuitants, age based, gender based, employer/employment category, other. 14 if 2 segments, otherwise 0	2	14.0
<u>Other communication</u>			
+ 11	if you issue a 'welcome' kit to new members	Yes	11.0
if you send out personalized letters to members:			
+ 2	that are new (this letter could be part of a welcome kit)	Yes	2.0
+ 7.5	approaching eligibility, or becoming eligible, for retirement	No	0.0
+ 2	about to become vested in pension benefits	No	0.0
+ 2	eligible, or likely eligible, to purchase service credit	Yes	2.0
+ 2	with no beneficiary on file	No	0.0
+ 1	about to become vested for disability benefits	No	0.0
+ 1	whose disability benefits are able to expire (i.e. after exiting employment)	Yes	1.0
+ 1	with no email address on file	No	0.0
+ 1	who have never visited the secure member area	No	0.0
+ 2.5	if you solicit member feedback on your publications through focus groups, or surveys	Yes	2.5
Total score			74.5

## News and Targeted Communication

### 2. Rationale for the scoring method

Targeted milestone events, such as joining the system, are good opportunities to communicate the value of the benefit.

Communicating more frequently by newsletter, and delivering personalized, and customized messages for different target audiences is higher service. Actively soliciting feedback on your communication materials should lead to better materials.

### 3. Survey questions used

		You	Peer Avg
Q80	Indicate whether you sent newsletters or news magazines (in either electronic or paper format) last year to any of the following member segments, and if yes, the number of times it was sent:	#	#
	a) All members (active, inactive and annuitants)? or c) Active members and annuitants?	Yes 2	40% Yes 3
	b) Active and inactive members? or d) Active members only?	Yes 1	60% Yes 3
	c) Active members and annuitants?	No n/a	0% Yes n/a
	d) Active members only?	Yes 1	60% Yes 3
	e) Inactive members only?	No n/a	0% Yes n/a
	f) Annuitants only?	No n/a	70% Yes 2
	g) Age segments (i.e., under 35, 35-50, 50 plus)?	No n/a	10% Yes 1
	h) Women only or men only?	No n/a	0% Yes n/a
	i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	No n/a	10% Yes 8
	j) Other? (describe your other newsletter segments below)	<u>No</u> n/a	<u>0% Yes</u> n/a
	n/a		
	Total Segments	2	2.1
Q81	Are new members issued a 'welcome' kit describing their benefits?	Yes	80% Yes
	If yes:		
	a) If yes, does it include a personalized letter addressing the new member by name?	Yes	63% Yes

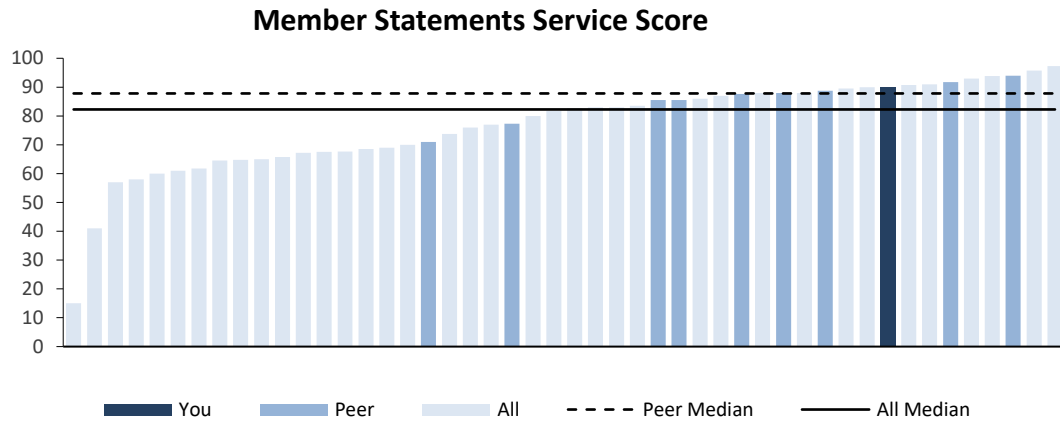
## News and Targeted Communication

3. Survey questions used		You	Peer Avg
Q83	Do you automatically send targeted letters or emails addressed to members by name triggered by the following milestones:		
	a) Vested for pension benefits (if member is not vested immediately)?	No	40% Yes
	b) Vested for disability benefits (if member is not vested immediately)?	No	20% Yes
	c) Expiration of disability benefits for inactive members or members that have	Yes	25% Yes
	d) Approaching eligibility, or becoming eligible, for retirement?	No	10% Yes
	e) Eligibility or likely eligibility, to purchase service credit?	Yes	30% Yes
	f) Missing beneficiary?	No	30% Yes
	g) Missing email address?	No	20% Yes
	h) Never visited the secure member area?	No	22% Yes
	i) Other milestone communication? (describe below)	No	60% Yes
Q84	Do you actively solicit member feedback on your publications through:		
	a) Focus groups?	No	0% Yes
	b) Tear out surveys or feedback cards in the publications themselves?	No	0% Yes
	c) Surveys sent to members who request a publication?	No	0% Yes
	d) Other (describe)?	Yes	60% Yes



## Member statements

Your service score for member statements was 90 out of 100. This was above the peer median of 88.



1. Scoring method	Your Data	Your Score
<u>Accuracy and timeliness</u>		
+ 10 if no complaints about data errors, otherwise 10 x (1 - 25 X percent of members that complain about data errors) [Subject to a minimum score of 0]	0.0%	10.0
+ 15 if data is current to 1 month, otherwise 15 - 2 for each month in excess of 1 month out of date [Subject to a minimum score of 0]	1.0 month	15.0
+ 5 if paper member statements mailed directly to the member's home	Yes	5.0
+ 5 if email or other electronic notice to members that the statement is available in the secure member area	No	0.0
+ 5 if sent to inactive members annually or more frequently, otherwise 5 X times per year on average	1 time	5.0
<u>Content</u>		
+ 10 if summarizes service credit	Yes	10.0
+ 10 if provides pensionable earnings	Yes	10.0
+ 5 if provides a historical summary of salary and service credit earned each year	No	0.0
+ 10 if shows refund value if you left at the statement date	Yes	10.0
+ 25 if shows estimate of future pension entitlement	Yes	25.0
<b>Total score</b>		<b>90.0</b>

## Member statements

### 2. Rationale for the scoring method

Up-to-date, accurate member statements provide one of your best opportunities to communicate the value of the benefit to members.

Showing an estimate of the future pension entitlement is more important than showing the refund value because the pension entitlement is potentially much more valuable.

Sending member statements directly to active members' homes, via email or other electronic notice, rather than through employers is higher service because the statements are less likely to get lost, and it is more confidential.

### 3. Survey questions used

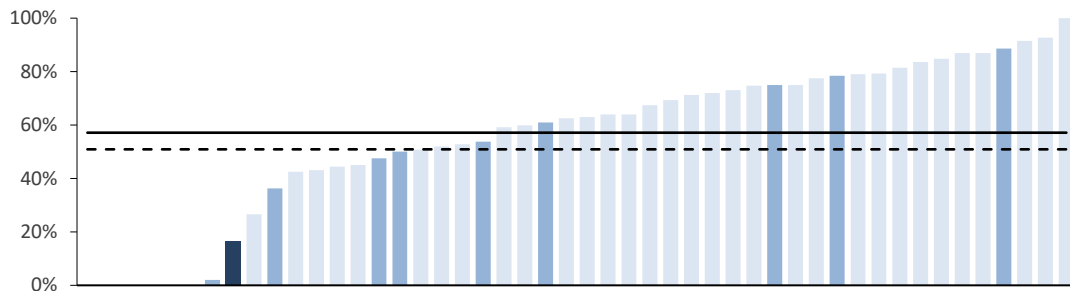
		You	Peer Avg
Q85	How many times per year (annually = 1, every 2nd year = 0.5, every 3 years = 0.33, every 5 years = 0.2) do you send member statements to:		
	a) Active members?	1 time	1.4 times
	b) Inactive members?	1 time	1.0 time
Q86	Approximately what % of members complain about the accuracy of data in their member statements?	0.0%	0.4%
Q87	Indicate the approximate percentage breakdown of how you send member statements to active members:		
	a) Directed through the employer?	0.0%	10.0%
	b) Mailed directly to members' homes?	100.0%	58.6%
	c) Email or text message to members that the statement is available in the secure member area?	0.0%	25.0%
Q88	On average, how current is an active member's data in the statements that the member receives (in months)?	1.0	2 months
Q89	Do your statements for active members include:		
	a) Total accumulated service credit?	Yes	100% Yes
	b) Pensionable earnings?	Yes	100% Yes
	c) A historical summary of salary and service credit earned each year?	No	20% Yes
	d) The refund value if you left at the statement date?	Yes	100% Yes
	e) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement?	Yes	90% Yes

## Digital delivery

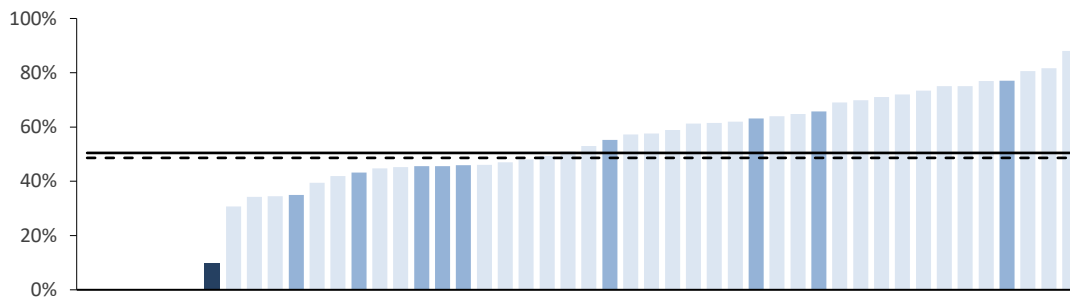
Systems are increasingly looking at cost effective and timely solutions for communicating with members. In particular, more systems are using email and other digital delivery options to deliver newsletters, member statements and other forms of traditional, paper mass communications. CEM's service model captures this change.

The below graphs are indicators of how successful systems have been in gathering member email addresses:

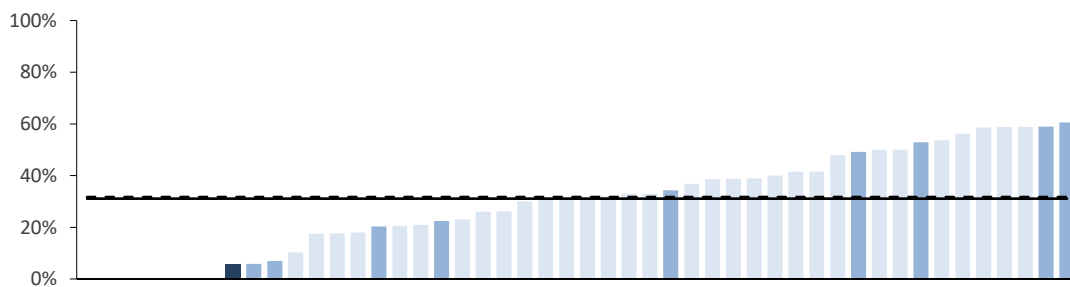
### % Email addresses for active members



### % Email addresses for annuitants



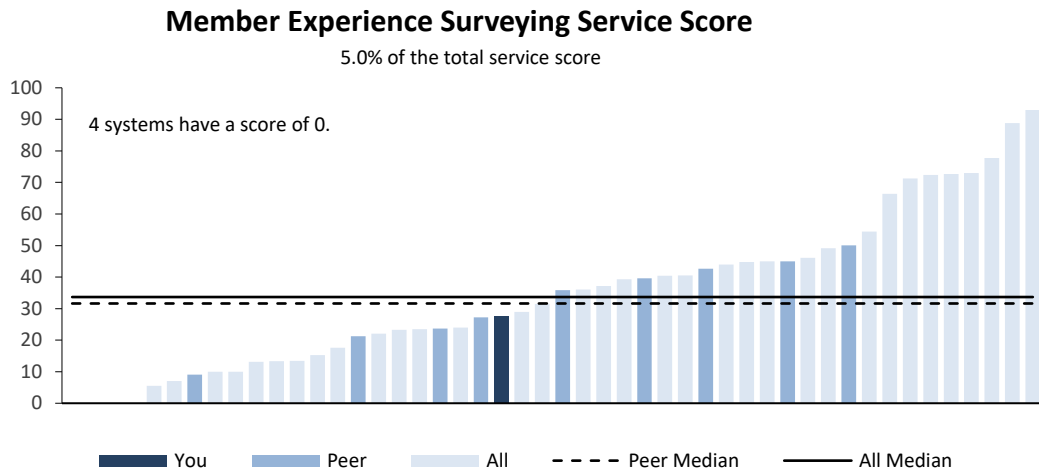
### % Email addresses for inactive members



You
  Peer
  All Avg
  All
  Peer Avg

## Member Experience Surveying

Your service score for member experience surveying was 27 out of 100. This was below the peer median of 32.



Your service score for member experience surveying is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Member Experience Surveying Service Score Components			
	Weight <sup>1</sup>	Do you survey?	Your Score
a. Satisfaction or member experience surveys for:			
Active members	5%	No	0.0
Annuitants	5%	Yes	100.0
b. Single-channel touchpoints			
1-on-1 counseling	7%	n/a	0.0
Member presentations	7%	Yes	95.0
Member telephone calls	16%	n/a	0.0
Website - secure member area	16%	n/a	0.0
Website - public area	8%	n/a	0.0
c. Member Journeys			
Disability	5%	n/a	0.0
Planning for retirement	21%	Yes	75.0
Other member journeys <sup>2</sup>	10%	No	0.0
<b>Weighted Total</b>	<b>100%</b>		<b>27.4</b>

<sup>1</sup> Other systems may have slightly different activity weights than you. Their weights are reflective of the activities that they do.

<sup>2</sup> The 6 other journeys are: New to the pension plan, leaving the pension plan, leave of absence, divorce and separation, planning for loved ones, retired life.

## Member Experience Surveying - Satisfaction or member experience

A number of plans have told CEM that measuring and managing the member experience has become a key strategic priority. Feedback is collected from members so the plan can make better and more cost-effective decisions on what services to improve and replace.

Plans don't just measure member satisfaction. Plans also survey other aspects of the customer experience such as a Net Promoter Score (NPS), member effort and member engagement.

1. Scoring method for satisfaction or member experience	Your Data	Your Score
Active members + 100 Did you survey a sample of active members.	No	0
Annuitants + 100 Did you survey a sample of annuitants.	Yes	100

## Member Experience Surveying - Single Channel Touchpoint

	Your Data	Your Score
<b>1. Scoring method for single-channel touchpoints</b>		
<b>1-on-1 counseling</b>		
+ 50 if you survey satisfaction or NPS exclusively for 1-on-1 counseling.	n/a	0.0
+ 20 if the greatest length of time between the survey and the 1-on-1 counseling session is 1 day.	n/a	0.0
+ 15 if you can summarize results by service representative.	n/a	0.0
+ 10 if you can summarize results by topic covered.	n/a	0.0
+ 5 if you survey how easy it was for the member to accomplish what they wanted.	n/a	<u>0.0</u>
Total		0.0
<b>Member presentations</b>		
+ 55 if you survey satisfaction or NPS exclusively for member presentations.	Yes	55.0
+ 30 if the greatest length of time between the survey and the member presentations session is 1 day.	0 days	30.0
+ 10 if you can summarize results by service representative.	Yes	10.0
+ 5 if you survey how easy it was for the member to accomplish what they wanted.	n/a	<u>0.0</u>
Total		95.0
<b>Member telephone calls</b>		
+ 35 if you survey satisfaction or NPS exclusively for member telephone calls.	n/a	0.0
+ 25 if the greatest length of time between the survey and the member telephone calls session is 1 day.	n/a	0.0
+ 20 if you survey how easy it was for the member to accomplish what they wanted.	n/a	0.0
+ 10 if you can summarize results by service representative.	n/a	0.0
+ 10 if you can summarize results by topic covered.	n/a	<u>0.0</u>
Total		0.0
<b>Website - secure member area</b>		
+ 20 if you survey satisfaction or NPS exclusively for website - secure member area.	n/a	0.0
+ 35 if you survey how easy it was for the member to accomplish what they wanted.	n/a	0.0
+ 30 if you can summarize results by topic(s) browsed.	n/a	0.0
+ 15 if the greatest length of time between the survey and the website - secure member area session is 1 day.	n/a	<u>0.0</u>
Total		0.0
<b>Website - public area</b>		
+ 20 if you survey satisfaction or NPS exclusively for website - public area.	n/a	0.0
+ 35 if you survey how easy it was for the member to accomplish what they wanted.	n/a	0.0
+ 30 if you can summarize results by topic(s) browsed.	n/a	0.0
+ 15 if the greatest length of time between the survey and the website - public area session is 1 day.	n/a	<u>0.0</u>
Total		0.0

## Member Experience Surveying - Member Journey

A member journey reflects a life event that may result in a single or multiple interactions with the pension plan. For example, the retirement process can result in multiple interactions: A retiring member may visit the website, attend presentations or counseling sessions, request a written estimate and call the pension plan. A survey focused exclusively on the retirement journey asks how members rate the retirement process as a whole.

	Your Data	Your Score
<b>1. Scoring method for member journeys</b>		
<b>Disability</b>		
+ 40 if you survey member satisfaction or NPS exclusively for the disability process.	n/a	0.0
+ 35 if you survey whether the disability process was easy.	n/a	0.0
+ 25 if the greatest length of time between the survey and the end of the disability process is 30 days or less.	n/a	<u>0.0</u>
Total		0.0
<b>Planning for retirement</b>		
+ 40 if you survey member satisfaction or NPS exclusively for the planning for retirement process.	Yes	40.0
+ 35 if you survey whether the planning for retirement process was easy.	Yes	35.0
+ 25 if the greatest length of time between the survey and the end of the planning for retirement process is 30 days or less.	42 days	<u>0.0</u>
Total		75.0
<b>Other member journeys</b>		
+ 40 Divorce and separation: If you survey satisfaction/NPS and effort, 50% of the score if you survey only satisfaction/NPS, or only effort	None	0.0
+ 40 Planning for loved ones: If you survey satisfaction/NPS and effort, 50% of the score if you survey only satisfaction/NPS, or only effort	None	0.0
+ 5 New to the pension plan: If you survey satisfaction/NPS and effort, 50% of the score if you survey only satisfaction/NPS, or only effort	None	0.0
+ 5 Leaving the pension plan: If you survey satisfaction/NPS and effort, 50% of the score if you survey only satisfaction/NPS, or only effort	None	0.0
+ 5 Retired life: If you survey satisfaction/NPS and effort, 50% of the score if you survey only satisfaction/NPS, or only effort	None	0.0
+ 5 Takes a leave of absence: If you survey satisfaction/NPS and effort, 50% of the score if you survey only satisfaction/NPS, or only effort	None	<u>0.0</u>
Total		0.0

## Member Experience Surveying

### 2. Rationale for the scoring method

#### Best practice surveying:

- Focuses on a single customer journey, such as the retirement process, or a single service transaction, such as calls.
- Occurs shortly after the transaction or journey is completed. Immediately after a transaction is optimal for getting the member's impression of the service agent. Any longer and research shows that the member starts to confuse service received from the agent with other interactions that occur in the members daily life (e.g., with airlines, banks, retailers, family, etc.). A day or more after a call or the completion of a journey is better for determining whether the member accomplished what they intended, and were happy with the entire process.
- Measures member satisfaction and effort.
- Delivers feedback on the person that provides the service, and the purpose of the call or visit, specifically surveying activities such as calls, 1on1 counseling and presentations.
- Is performed on a frequent random-sample basis and results are communicated widely.



# Member Experience Surveying

## 3. Survey questions used

Q113	Did you survey satisfaction or NPS for this activity in your most recently ended fiscal year?	Did you survey member effort?	If yes, for each activity surveyed:		
			What was the longest possible time in days between the activity or journey and the survey?	Can you break down the survey results by service agent?	Can you break down the survey results by topic covered?

### Your Responses

a. Member satisfaction or experience					
Active members	No				
Annuitants	Yes				
b. Single-channel touchpoints					
1-on-1 counseling	n/a	n/a	n/a	n/a	n/a
Member presentations	Yes	n/a	0	Yes	
Member telephone calls	n/a	n/a	n/a	n/a	n/a
Website - secure member area	n/a	n/a	n/a		n/a
Website - public area	n/a	n/a	n/a		n/a
c. Member Journeys					
Disability	n/a	n/a	n/a		
Retirement	Yes	Yes	42		
Other member journeys					
New Job	n/a	n/a	n/a		
Exit Job	n/a	n/a	n/a		
Leave of Absence	n/a	n/a	n/a		
Retired life	n/a	n/a	n/a		
Divorce	n/a	n/a	n/a		
Death	n/a	n/a			

### Peer Responses

a. Member satisfaction or experience					
Active members	25% Yes				
Annuitants	50% Yes				
b. Single-channel touchpoints					
1-on-1 counseling	100% Yes	0% Yes	3	83% Yes	83% Yes
Member presentations	100% Yes	25% Yes	4	100% Yes	
Member telephone calls	75% Yes	0% Yes	75	75% Yes	75% Yes
Website - secure member area	50% Yes	0% Yes	1		50% Yes
Website - public area	100% Yes	n/a	365		n/a
c. Member Journeys					
Disability	100% Yes	50% Yes	54		
Retirement	100% Yes	80% Yes	22		
Other member journeys					
New Job	50% Yes	0% Yes	n/a		
Exit Job	50% Yes	100% Yes	n/a		
Leave of Absence	0% Yes	0% Yes	n/a		
Retired life	100% Yes	100% Yes	1		
Divorce	0% Yes	0% Yes	n/a		
Death	50% Yes	0% Yes	0.0		

## Member feedback measurement and management

page 1 of 2

Member feedback questions	You	Peer Avg	All Avg
Q114 Indicate whether you have targets for any of the following member experience metrics:			
a) Member satisfaction or Net Promoter Scores?	Yes	75% yes	82% yes
b) Member effort?	No	25% yes	39% yes
c) Other?	No	0% yes	30% yes
d) If yes to any of the above, are the targets approved by the Board?	No	50% yes	63% yes
Q115 Do all, most, some or none of your member experience surveys include open-ended questions that allow members to provide qualitative feedback?	All	86% yes	60% yes
If all or most:			
a) Do you summarize feedback from members who rate their experience as:			
a1) Negative?	Yes	86% yes	83% yes
a2) Positive or neutral?	Yes	86% yes	80% yes
b) Do you have a process to contact members who participated in your survey to resolve issues or clarify feedback?	Yes	86% yes	70% yes
c) Is there an option in your surveys for members to request a call to discuss their feedback?	Yes	71% yes	50% yes
Q116 In your most recent fiscal year, did you solicit qualitative feedback from members via:			
a) In-depth, 1-on-1 interviews?	No	0% yes	33% yes
b) Notes from front-line employees on their interactions with members?	No	20% yes	33% yes
c) Focus groups, or customer arenas?	No	40% yes	36% yes
d) Usability tests?	No	0% yes	25% yes
e) Other methods?	No	0% yes	19% yes
Q117 Do you compile member feedback reports with quantitative and/or qualitative feedback on a regular basis for:			
Quantitative scores:			
a) Front-office employees that interact with members?	No	0% yes	50% yes
b) Back-office employees that support front-office employees?	No	0% yes	33% yes
d) The Board?	No	0% yes	42% yes
Qualitative scores:			
a) Front-office employees that interact with members?	No	0% yes	44% yes
b) Back-office employees that support front-office employees?	No	0% yes	25% yes
d) The Board?	No	0% yes	25% yes

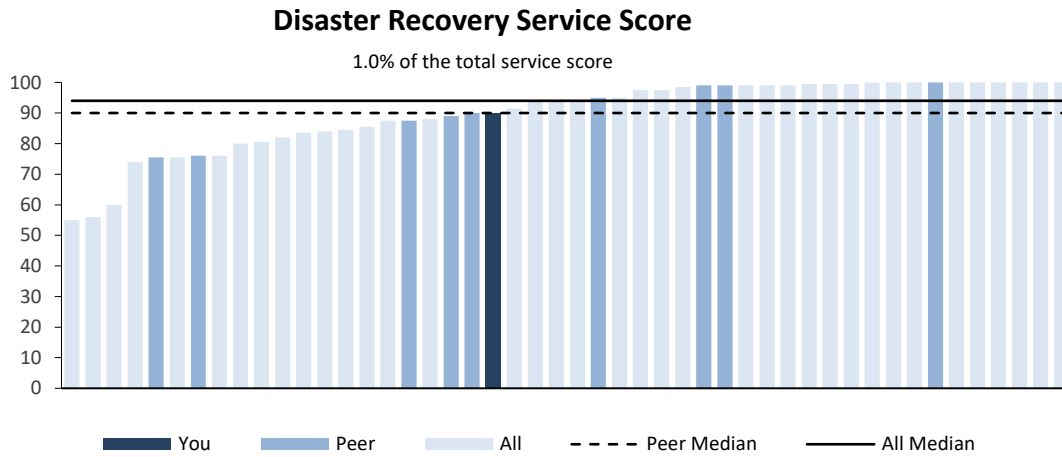
## Member feedback management

page 2 of 2

Member feedback questions	You	Peer Avg	All Avg
Q118 Do you use a statistical 'driver model' to help prioritize service	No	25% yes	31% yes
Q119 Do you track the number of interactions for each individual member via:			
a) Calls?	No	40% yes	58% yes
b) Emails?	No	40% yes	61% yes
d) 1-on-1 counseling?	Yes	80% yes	68% yes
e) If yes, for any of the above, can the interactions be easily summarized by life-event journey (e.g., retirement, disability, divorce, etc.) for each individual member ?	No	25% yes	50% yes
Q120 Do you track the use of digital tools (e.g., secure website pension calculator, etc.) by individual member?	No	60% yes	53% yes
Q121 Do you have a workflow system that provides service agents with real time information about each member's:			
a) Status of open items?	Yes	100% yes	94% yes
b) Interactions via calls and email?	No	50% yes	70% yes
c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No	40% yes	44% yes
Q122 Do you have cross-functional teams focused on improving member experience for a single member journey?	No	25% yes	49% yes
Q123 In your most recent fiscal year, did you inform members about improvements that were made based on their feedback via:			
a) Annual report?	No	0% yes	39% yes
b) Newsletters or magazines?	No	20% yes	53% yes
c) 1-on-1 calls?	No	0% yes	28% yes
d) Other?	No	20% yes	31% yes

# Disaster Recovery

Your service score for disaster recovery was 90 out of 100. This was equal to the peer median.



1. Scoring method		Your Data	Your Score
+ 20	if you have back-up equipment and premises arranged.	Yes	20.0
+ 35	if you can continue paying annuities in 2 days or less, otherwise 37.5 - 2.5 X days [Subject to a minimum score of 0]	1	35.0
+ 15	if you can return to normal inception volumes in 2 days or less, otherwise 16 - days / 2 [Subject to a minimum score of 0]	1	15.0
+ 10	if you can collect data and money from employers in 2 days or less, otherwise 11 - days / 2 [Subject to a minimum score of 0]	1	10.0
+ 10	if call center at current service levels in 2 days or less, otherwise 11 - days / 2 [Subject to a minimum score of 0]	1	10.0
+ 10	if you have an independent auditor that reviews and tests the disaster recovery	No	0.0
<b>Total score</b>			<b>90.0</b>

## Disaster Recovery

### 2. Rationale for the scoring method

Good service includes planning and preparing for unexpected events and disasters.

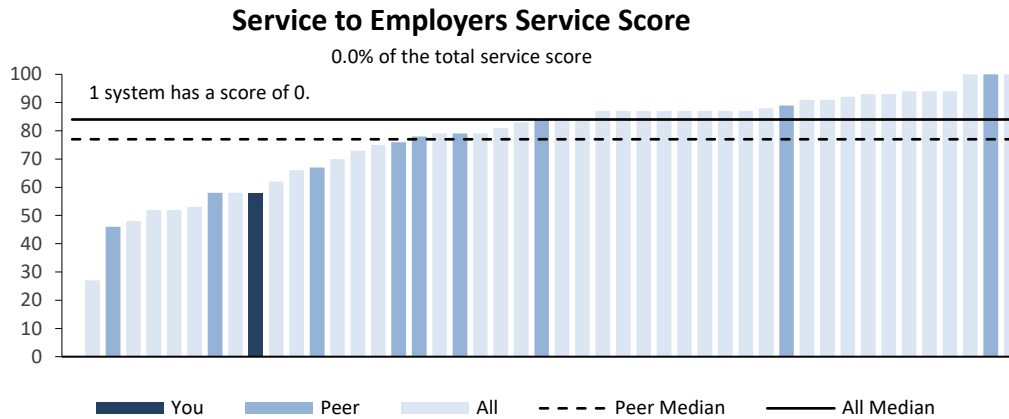
### 3. Survey questions used

		You	Peer Avg
Q109	Do you have back-up equipment and premises arranged for your operations if substantial damage occurs at your principal location?	Yes	100% Yes
Q110	Do you have an independent auditor that reviews and tests the disaster recovery plan?	No	60% Yes
Q111	If your principal location became inoperable due to some disaster (such as fire, tornado, etc), how long would it take, in business days, for you to:		
	a) Continue paying pension payments to retirees?	1	2 days
	b) Begin doing new pension inceptions at normal volumes?	1	6 days
	c) Collect data and money from employers?	1	2 days
	d) Respond to member calls at close to current service levels?	1	6 days

## Employer Service Score

The employer service score is no longer included in the total service score. It was removed because (i) many systems could not provide the necessary data, and, (ii) employer service needs vary widely depending on the number and type of employers. CEM continues with research to provide a better, more meaningful employer service score. The employer service score had only an approximate 4.0% weight in the total service score so the impact of this change on your total service score was small.

Your service score for service to employers was 58 out of 100. This was below the peer median of 77.



1. Scoring method		Your Data	Your Score
<u>Communication</u>			
+ 17	if you have an employer targeted section on your website	Yes	17.0
+ 12	if you have 3 or more different targeted types of presentations for employers, otherwise 4 X number of types	0	0.0
+ 12	if you send newsletters for employers 4 or more times per year, otherwise 3 X newsletter frequency	12	12.0
<u>Satisfaction and service agreements</u>			
+ 7	if you survey employer satisfaction, NPS or engagement	0	0.0
+ 6	if you have service level agreements with your employers	No	0.0
<u>Reporting software</u>			
+ 17	if you maintain either general or customized reporting software	Yes	17.0
+ 12	if the reporting software is web-based	Yes	12.0
+ 8	if the software integrates collections and billing	No	0.0
+ 9	if the software provides real time error checking and feedback	No	0.0
<b>Total score</b>			<b>58.0</b>

## Employer Service Score

### 2. Rationale for the scoring method

Having staff dedicated to servicing employers, providing generalized and/or customized collections reporting software, an up-to-date employer handbook, website, newsletter and training will help to reduce data errors and misinformation. Ultimately, this improves service to members.

### 3. Survey questions used

		You	Peer Avg
Q101	Do you have an employer targeted section on your website or a separate website for your employers? [Do not include PDF documents.]	Yes	100% Yes
Q103	How many different types of presentations did you give to employers?	0	5
Q104	Do you have a newsletter dedicated to employers that is different from the newsletter for members? a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	Yes 12	80% Yes 7
Q105	Do you have Service Level agreements with your employers that clarifies both your and the employer's service responsibilities and includes measurement and reporting vis-à-vis your responsibilities?	No	20% Yes
Q106	Do you offer and maintain generalized reporting software for your employer collection points? a) Is the application web-based? [i.e., you connect to it through a web browser] b) Can the software integrate both data collection and billing? c) Can it provide real-time error checking and feedback versus data previously submitted by the employer? [For example, can it identify an unusual increase in an employee's salary?]	Yes Yes No No	100% Yes 90% Yes 40% Yes 60% Yes
Q107	Do you maintain customized reporting software for any of your employer collection points? [For example, you may maintain customized reporting software for your largest employer.]	Yes	30% Yes
Q113	Did you send any satisfaction or member experience surveys in your most recent fiscal year?	n/a	100% Yes

## What would you have to do to achieve a perfect service score?

CEM is not recommending these changes. Higher service is not necessarily optimal or cost effective. We include this complete accounting of all changes required to have a perfect service score because many participants want to know what they would have to do to achieve a higher score. Given this context, you could add as much as 34.2 points (from 65.8 to 100) to your Total Service Score if you enhanced service in each activity as follows:

Service Activity	Potential Improvement
<b><u>1B Pension Inceptions (5.66 potential improvement to your total service score)</u></b>	
<ul style="list-style-type: none"> <li>83.2% of your service pension inceptions experienced a cashflow interruption greater than one month. To achieve a perfect service score 100% of your service pensions must be incepted without a cashflow interruption greater than one month.</li> </ul>	+ 4.80
<ul style="list-style-type: none"> <li>5.0% of your survivor pension inceptions experienced a cashflow interruption greater than one month. To achieve a perfect service score, 100% of your survivor pensions must be incepted without a cashflow interruption greater than one month.</li> </ul>	+ 0.04
<ul style="list-style-type: none"> <li>You require notarization of retirement applications when incepting a pension. To achieve a perfect service score you must not require notarization of retirement applications when incepting a pension.</li> </ul>	+ 0.65
<ul style="list-style-type: none"> <li>You require a birth/marriage certificate prior to incepting a pension. To achieve a perfect service score you must not require birth certificates and/or marriage certificates before incepting a pension.</li> </ul>	+ 0.16
<b><u>1C Refunds, Withdrawals, and Transfers-out (0.13 potential improvement to your total service score)</u></b>	
<ul style="list-style-type: none"> <li>You require notarization for transfer-out applications. To achieve a perfect service score, you must not require notarization of transfer-out applications.</li> </ul>	+ 0.13
<b><u>1D Purchases and Transfers-in (2.36 potential improvement to your total service score)</u></b>	
<ul style="list-style-type: none"> <li>On average, you provide a service credit purchase in 34 days. To achieve a perfect service score, you must be able to provide a service credit purchase estimate in 1 day or less.</li> </ul>	+ 2.05
<ul style="list-style-type: none"> <li>On average, you process member's transfer-in applications in 6 months. To achieve a perfect service score, a member's transfer-in application is processed in 1 month or less.</li> </ul>	+ 0.31
<b><u>1E Disability (1.06 potential improvement to your total service score)</u></b>	
<ul style="list-style-type: none"> <li>On average, you return a decision on a disability application in 3.0 months. To achieve a perfect service score, you must return a decision on a disability application in 1 month or less.</li> </ul>	+ 0.68
<ul style="list-style-type: none"> <li>You require notarization of disability applications. To achieve a perfect service score, you must not require notarization of disability applications.</li> </ul>	+ 0.38
<b><u>2A Call Center (10.00 potential improvement to your total service score)</u></b>	
<ul style="list-style-type: none"> <li>14.5% of your incoming calls resulted in undesired outcomes (e.g., busy signals, messages, hang-ups). To achieve a perfect service score, members must experience no undesired call outcomes.</li> </ul>	+ 2.43
<ul style="list-style-type: none"> <li>Your call center is open 42.5 hours per week. To achieve a perfect service score, your call center must be open 50 or more hours a week.</li> </ul>	+ 0.16
<ul style="list-style-type: none"> <li>On average, members calling your call center reach a knowledgeable person in 330 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 60 seconds or less.</li> </ul>	+ 3.78
<ul style="list-style-type: none"> <li>You do not notify members of expected wait time, or their place in the queue, when the expected</li> </ul>	+ 0.08



wait exceeds a certain threshold.

- On average, your response time to member emails is 1.0 day. To achieve a perfect service score, members' emails must be responded to in 0.5 days or less. + 0.08
- You have 2 menu layers on your telephone tree. To achieve a perfect service score you must have one or fewer menu layers. + 0.84
- You are unable to provide an estimate of the member's pension at retirement on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide an estimate of the member's pension at retirement over the phone. + 0.07
- You are unable to provide an estimate that is linked to the member's actual account data on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide an estimate that is linked to the member's actual account data over the phone. + 0.04
- You are unable to model alternate annuity payment scenarios on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to model alternate annuity payment scenarios over the phone. + 0.07
- You are unable to provide a refund or transfer value if the member exited employment at time of call on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide a refund or transfer value if the member exited employment at time of call over the phone. + 0.07
- You are unable to provide a pensionable salary on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide a pensionable salary over the phone. + 0.07
- You are unable to provide service credit history including gaps on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide service credit history including gaps over the phone. + 0.07
- You are unable to estimate the cost to purchase service credit on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to estimate the cost to purchase service credit over the phone. + 0.07
- You are unable to change an address over the phone. To achieve a perfect service score, you must be able to change an address over the phone. + 0.07
- You are unable to change banking information over the phone. To achieve a perfect service score, you must be able to change banking information over the phone. + 0.51
- You are unable to add or change an email address over the phone. To achieve a perfect service score, you must be able to add or change an email address over the phone. + 0.51
- You cannot provide a record of the member's previous calls to the system. To achieve a perfect service score, you must be able to provide a record of the member's previous calls to the system. + 0.26
- You cannot provide copies of recent member correspondence online. To achieve a perfect service score, you must be able to provide copies of recent member correspondence online. + 0.26
- You do not have a knowledge based online help system available for use by the service representative. To achieve a perfect service score, you must have a knowledge based online help system available for use by the service representative. + 0.26
- You cannot provide the most recent member statement over the phone. To achieve a perfect service score, you must be able to provide the most recent member statement over the phone. + 0.07
- You cannot provide beneficiary information over the phone. To achieve a perfect service score, you must be able to provide beneficiary information over the phone. + 0.07
- You do not have a toll free number. To achieve a perfect service score, you must have a toll free number. + 0.07
- You do not have a workflow system with the real-time status of open items. To achieve a perfect service score, you must have a workflow system with the real-time status of open items. + 0.07
- You cannot track call volume projections. To achieve a perfect service score, you must be able to track call volume projections. + 0.07
- An unknown percentage of your calls are satisfied by their first contact. To achieve a perfect service score, you must have a known percentage of calls satisfied by their first contact. + 0.57

score, 100% of calls must be satisfied by their first contact.

**2C 1-on-1 Counseling (1.29 potential improvement to your total service score)**

- You do not provide 1-on-1 counseling outside of normal working hours. To achieve a perfect service score, 1-on-1 counseling must be available outside of normal working hours. + 0.19
- 0.0% of your 1-on-1 field sessions are held at locations separate from the employer. To achieve a perfect service score, 75% or more of your 1-on-1 field sessions must be held at locations separate from employer. + 0.44
- Your wait time for pre-scheduled in-house counseling sessions was 5 days. To achieve a perfect service score there must be no wait time for pre-scheduled in-house counseling sessions. + 0.09
- Your average wait time for walk-in counseling was 15 minutes. To achieve a perfect service score there must be no wait time for walk-in counseling. + 0.28
- 5.0% of your walk-ins requesting a counseling session were turned away due to long wait times. To achieve a perfect service score, no walk-ins requesting a counseling session can be turned away because the wait was too long. + 0.09
- You do not provide closed door, private office counseling during all of your 1-on-1 counseling sessions. To achieve a perfect service score you must provide closed door, private office 1-on-1 counseling during each of walk-in, pre-scheduled in-house and in-the-field session. + 0.05
- You do not regularly review counselors for coaching purposes. To achieve a perfect service score you must regularly review counselors for coaching purposes. + 0.15

**2E Written Pension Estimates (0.68 potential improvement to your total service score)**

- You provide estimates on average in 4.0 days. To achieve a perfect service score, the weighted average time required to provide written and online estimates must be same day or less. + 0.15
- You do not clearly address how the pension benefit is inflation protected. To achieve a perfect service score you must clearly address if and how the pension benefit is inflation protected. + 0.35
- You do not discuss the effects of social security. To achieve a perfect service score you must discuss the effects of social security. + 0.18

**2F Mass Communication - Website (8.09 potential improvement to your total service score)**

- You do not offer a tool to calculate the cost of purchasing credit on your website. In order to achieve a perfect score, you must offer a tool to calculate the cost of purchasing credit on your website. + 0.43
- You do not offer secure access to both salary and service credit data. To achieve a perfect service score you must offer secure access to both salary and service credit data. + 0.64
- Online salary and service credit data is not up-to-date to the most recent pay period. To achieve a perfect service score this data must be up-to-date to the most recent pay period. + 0.64
- You do not provide a complete annual history of salary and service credit data on your website. To achieve a perfect service a complete annual history of salary and service credit data must be available to members. + 0.43
- You do not offer a digital file which includes a history of recent correspondence and member documents on your website. To achieve a perfect score you must offer a digital file which includes a history of recent correspondence and member documents on your website. + 0.43
- You do not make all forms available online. To achieve a perfect service score all forms must be available to the member online. + 0.43
- Members cannot register for 1-on-1 counseling sessions in real-time online. To achieve a perfect score members must be able to register for 1-on-1 counseling sessions in real-time online. + 0.21
- You do not offer live chat on your website. To achieve a perfect score you must offer live chat on your website. + 0.43
- Members cannot change beneficiaries online. To achieve a perfect score members must be able to + 0.43

change beneficiaries online.

- Members cannot change their annuity deposit banking information online. To achieve a perfect score members must be able to change their annuity deposit banking information online. + 0.43
- Members cannot apply for retirement online. To achieve a perfect score members must be able to apply for retirement online. + 0.64
- To achieve a perfect score pensions initiated online requiring follow-up documents must be less than 50%. + 0.43
- Members cannot check the status of their retirement application online. To achieve a perfect score members must be able to check the status of their retirement application online. + 0.21
- Members cannot apply for a transfer-out or refund online. To achieve a perfect score members must be able to apply for a transfer-out or refund online. + 0.64
- Members cannot upload documents online in lieu of mailing hardcopies. To achieve a perfect score members must be able to upload documents online in lieu of mailing hardcopies. + 0.64
- Members cannot view pensionable earnings and/or service online without downloading. To achieve a perfect score members must be able to view pensionable earnings and/or service online without downloading. + 0.64
- Members cannot access videos online. To achieve a perfect score members must be able to access videos online. + 0.43

**2F Mass Communication - Newsletters (0.71 potential improvement to your total service score)**

- You have different newsletters for 2 segments. To achieve a perfect service score you must send different newsletters to 3 or more segments. + 0.31
- You do not send out personalized letters to members approaching eligibility, or becoming eligible, for retirement. To achieve a perfect service score you must send out personalized letters to members approaching eligibility, or becoming eligible, for retirement. + 0.21
- You do not send out personalized letters to members about to become vested in pension benefits. To achieve a perfect service score you must send out personalized letters to members about to become vested in pension benefits. + 0.06
- You do not send out personalized letters to members with no beneficiary on file. To achieve a perfect service score you must send out personalized letters to members with no beneficiary on file. + 0.06
- You do not send out personalized letters to members about to become vested for disability benefits. To achieve a perfect service score you must send out personalized letters to members about to become vested for disability benefits. + 0.03
- You do not send out personalized letters to members with no email address on file. To achieve a perfect service score you must send out personalized letters to members with no email address on file. + 0.03
- You do not send out personalized letters to members who have never visited the secure member area. To achieve a perfect service score you must send out personalized letters to members who have never visited the secure member area. + 0.03

**2F Mass Communication - Member Statements (0.47 potential improvement to your total service score)**

- You do not email notices to members that their member statements are available in the secure member area. To achieve a perfect service score you must make member statements available in the secure member area and email notices to members indicating that they are available. + 0.23
- Your member statements do not contain a summary of salary and service credit earned each year. To achieve a perfect service score member statements must contain a summary of salary and service credit earned each year. + 0.23

**Member Experience Surveying (3.63 potential improvement to your total service score)**

<u>Active members (0.25 potential improvement to your total service score)</u>	
• You did not survey active members about their experience participating in the plan during the fiscal year covered in this benchmarking report.	+ 0.25
<u>1-on-1 counseling (0.35 potential improvement to your total service score)</u>	
• You did not survey members who had 1-on-1 counselling about their experience during the fiscal year covered in this benchmarking report.	+ 0.35
<u>Member presentations (0.02 potential improvement to your total service score)</u>	
• You only surveyed satisfaction/NPS, but not customer effort, for members who attended group presentations about their experience during the fiscal year covered in this benchmarking report.	+ 0.02
<u>Member telephone calls (0.80 potential improvement to your total service score)</u>	
• You did not survey members who contacted the call center about their experience during the fiscal year covered in this benchmarking report.	+ 0.80
<u>Website - secure member area (0.80 potential improvement to your total service score)</u>	
• You did not survey members who visited their secure member web area about their experience during the fiscal year covered in this benchmarking report.	+ 0.80
<u>Website - public area (0.40 potential improvement to your total service score)</u>	
• You did not survey members who visited the public area in the web site inabout their experience during the fiscal year covered in this benchmarking report.	+ 0.40
<u>Disability (0.25 potential improvement to your total service score)</u>	
• You did not survey disability applicants about their disability-retirement process experience during the fiscal year covered in this benchmarking report.	+ 0.25
<u>Retirement (0.26 potential improvement to your total service score)</u>	
• The greatest length of time between a retirement and your customer experience survey for the retirements was 42 days. To achieve a perfect service score the greatest length of time between the survey and the retirements must be 30 days or less.	+ 0.26
<u>Other member journeys (0.50 potential improvement to your total service score)</u>	
• You did not do customer experience surveying for life event: divorces during the fiscal year covered in this benchmarking report. To achieve a perfect service score you must follow best practice customer experience surveying which is: (i) satisfaction or Net Promoter Score (NPS) and (ii) effort.	+ 0.20
• You did not do customer experience surveying for life event: death and implications for survivors during the fiscal year covered in this benchmarking report. To achieve a perfect service score you must follow best practice customer experience surveying which is: (i) satisfaction or Net Promoter Score (NPS) and (ii) effort.	+ 0.20
• You did not do customer experience surveying for member journey: starts a new job during the fiscal year covered in this benchmarking report. To achieve a perfect service score you must follow best practice customer experience surveying which is: (i) satisfaction or Net Promoter Score (NPS) and (ii) effort.	+ 0.03
• You did not do customer experience surveying for member journey: exits their job during the fiscal year covered in this benchmarking report. To achieve a perfect service score you must follow best practice customer experience surveying which is: (i) satisfaction or Net Promoter Score (NPS) and (ii) effort.	+ 0.03
• You did not do customer experience surveying for life event: retired life during the fiscal year covered in this benchmarking report. To achieve a perfect service score you must follow best practice customer experience surveying which is: (i) satisfaction or Net Promoter Score (NPS) and (ii) effort.	+ 0.03
• You did not do customer experience surveying for member journey: takes a leave of absence during	+ 0.03

the fiscal year covered in this benchmarking report. To achieve a perfect service score you must follow best practice customer experience surveying which is: (i) satisfaction or Net Promoter Score (NPS) and (ii) effort.

**Disaster Recovery (0.10 potential improvement to your total service score)**

- You do not have an independent auditor that reviews and tests the disaster recovery plan. To achieve a perfect service score an independent auditor must review and test your disaster recovery + 0.10

# 8

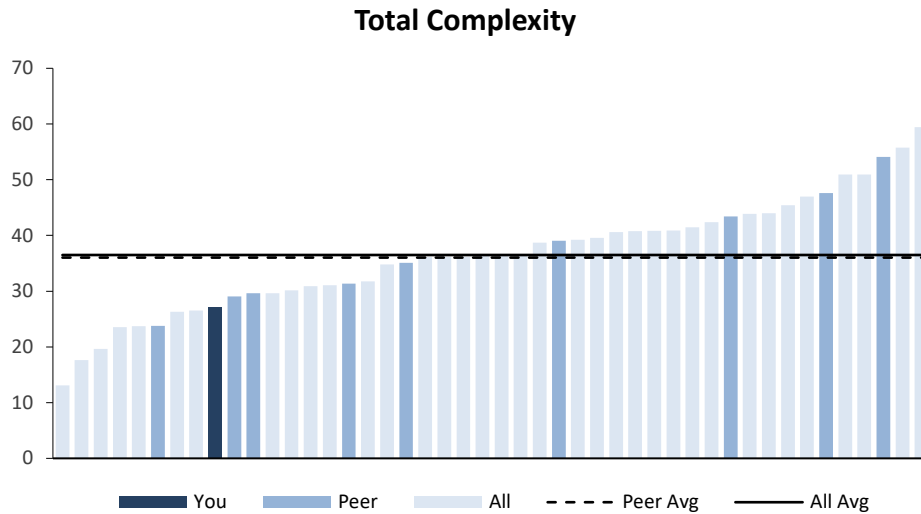
## Plan Complexity

This section:

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

## Your complexity score was below the peer average.

Your total complexity score was 27. This was below the peer median of 33.



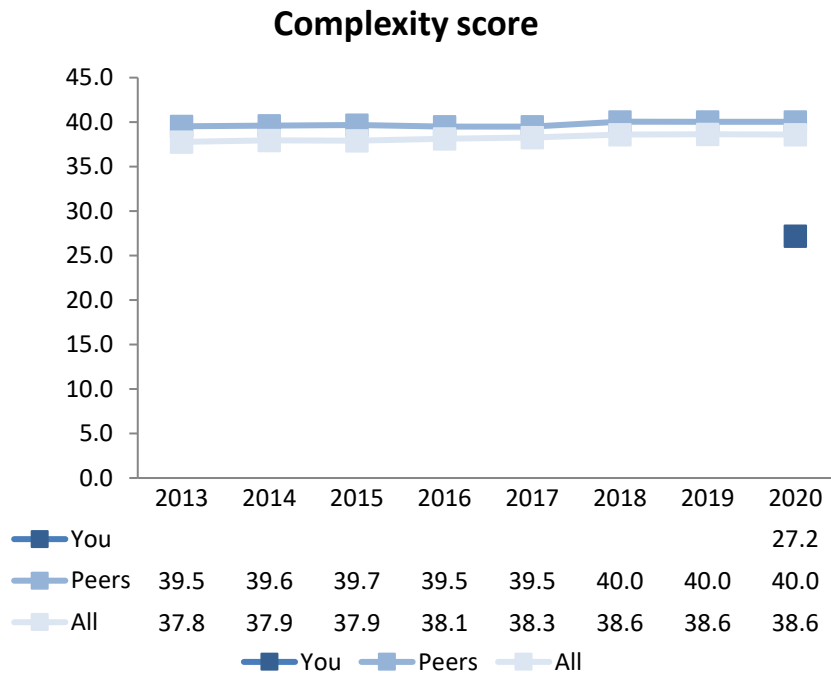
Your total complexity score is the weighted average of your complexity scores by the cause. The causes of complexity are summarized in the table below:

Complexity Scores by Cause				
Cause	Weight	Complexity Score		
		You	Peer Avg	All Avg*
A Pension Payment Options	15.0%	21	36	36
B Customization Choices	20.0%	8	10	14
C Multiple Plan Types and Overlays	13.0%	20	24	24
D Multiple Benefit Formula	16.0%	39	49	49
E External Reciprocity	3.0%	35	24	21
F COLA Rules	4.0%	4	38	26
G Contribution Rates	3.0%	26	34	35
H Variable Compensation	4.0%	20	73	75
I Service Credit Rules	3.0%	44	38	41
J Divorce Rules	3.0%	55	54	62
K Purchase Rules	6.0%	43	56	58
L Refund Rules	4.0%	16	36	43
M Disability Rules	6.0%	77	65	55
Weighted Average	100.0%	27	36	36

\* 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 4 consecutive years have grown at a compound annual rate of 0.5% between 2017 and 2020. Your growth rate for the same period is



1. Trend analysis is based on systems that have participated for 8-consecutive years (7 peers and 34 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.

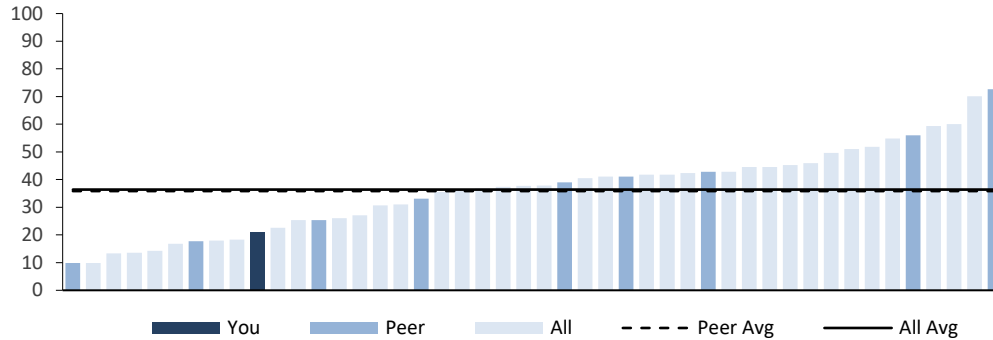
Several of the formulas used to calculate complexity use the function  $\ln(\# \text{ of rule sets})$ . Using  $\ln(\# \text{ of rule sets})$  means that every doubling in the number of rule sets results in the same increment in complexity. For example, increasing the number of rules sets for qualifying 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

## Complexity from Pension Payment Options

15.0% of total complexity score



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q140 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	20% Yes 20	9% Yes 9
30%	<p>Q135 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%, etc.).]</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>	No No Yes 0	70% Yes 20% Yes 70% Yes	76% Yes 22% Yes 67% Yes
10%	<p>Q136 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 <math>12.7 + 18.3 \times \ln(\text{number of percentages you permit})</math> subject to a maximum of 100. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc. <sup>1</sup></i></p>	Yes 3 33	1 3 59	1 7 56

<sup>1</sup>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

page 2 of 3

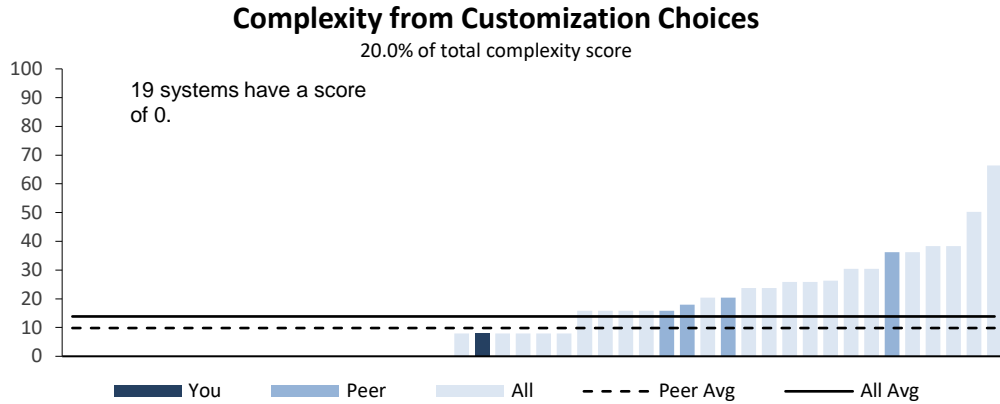
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	Q145 How many mortality tables do you keep track of for determining joint and survivor or beneficiary options? <i>Complexity: 0 if none, otherwise <math>10.5 + 15.1 \times \ln(\text{number of mortality tables})</math>. i.e., 1 = 10.5, 2 = 20.9, 4 = 31.4, 8 = 41.8, etc.</i>	3	3	10
		27	22	24
10%	Q137 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>	No	50% Yes	50% Yes
		n/a	0% All	30% All
		n/a	100% Yes	91% Yes
			0	50
5%	Q138 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>	Yes 100	10% Yes 10	9% Yes 9
5%	Q139 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>	Yes 100	30% Yes 30	54% Yes 54
5%	Q141 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>	No 0	10% Yes 10	7% Yes 7

## A. Pension Payment Options Complexity

page 3 of 3

Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
5%	<p>Q142 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	10% Yes 10	22% Yes 22
5%	<p>Q143 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	30% Yes 50	43% Yes 59
5%	<p>Q144 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>	Any Day 100	60% Any 60	39% Any 39
100%	Weighted Average	21	36	36

## B. Customization Choices Complexity



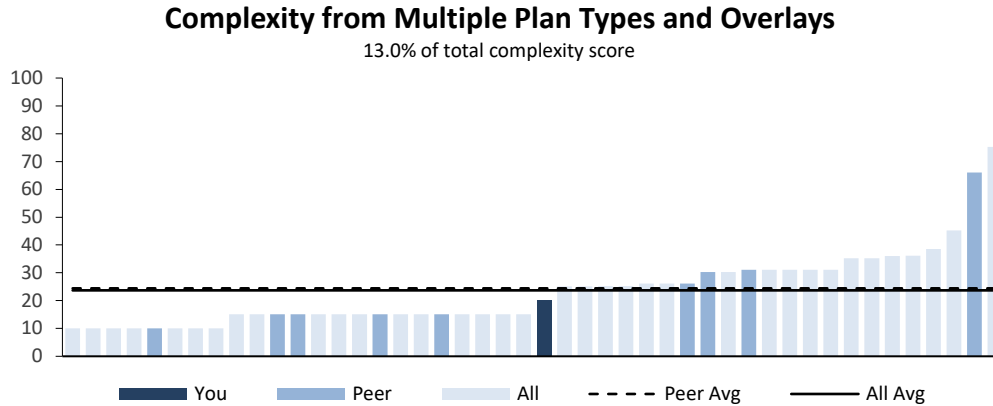
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q176 Can either existing employers, or a new employer joining your system, choose:			
	a) Whether they offer early retirement, or a window of early retirement?	No 20%	Yes 17%	Yes 17%
	b) Whether or not part-time employees are eligible?	No 0%	Yes 9%	Yes 9%
	c) Whether employee contributions are paid pre or post tax?	No 0%	Yes 22%	Yes 22%
	d) Whether they pay for employee contributions themselves, or not?	No 30%	Yes 26%	Yes 26%
	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.]	Yes 10%	Yes 11%	Yes 11%
	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 10%	Yes 13%	Yes 13%
	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 10%	Yes 11%	Yes 11%

## B. Customization Choices Complexity

page 2 of 2

Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q177 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	n/a	5
	b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc]	n/a	n/a	2
	c) Retirement eligibility rules? [i.e., age and/or years of service required to retire]	n/a	n/a	n/a
	d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	n/a	2	4
	e) Vesting period?	n/a	n/a	n/a
	f) Service credit purchase categories?	n/a	n/a	5
	g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000]	n/a	n/a	3
	h) Disability coverage rules?	n/a	n/a	3
	i) Choice as to whether and how contributions and benefits are coordinated with social security?	n/a	1	2
	j) Other (describe)?	n/a	1	6
	Total Customization Choices [Sum of 1 for each yes in Q176 + sum of # of choices in Q177]	1	1	3
90%	<i>Complexity: 0 if none, otherwise <math>8.8 + 12.7 \times \ln(\text{number of customization choices})</math>. i.e., 1 = 8.8, 2 = 17.6, 4 = 26.4, 8 = 35.1, etc.</i>	9	9	13
	Q178 Can an existing employer change any of the choices (per question 177 above), effectively creating a new or altered rule set, at any time?	No	22% Yes	24% Yes
10%	<i>Complexity: 100 if yes, otherwise 0.</i>	0	20	24
100%	Weighted Average	8	10	14

## C. Multiple Plan Types and Overlays Complexity



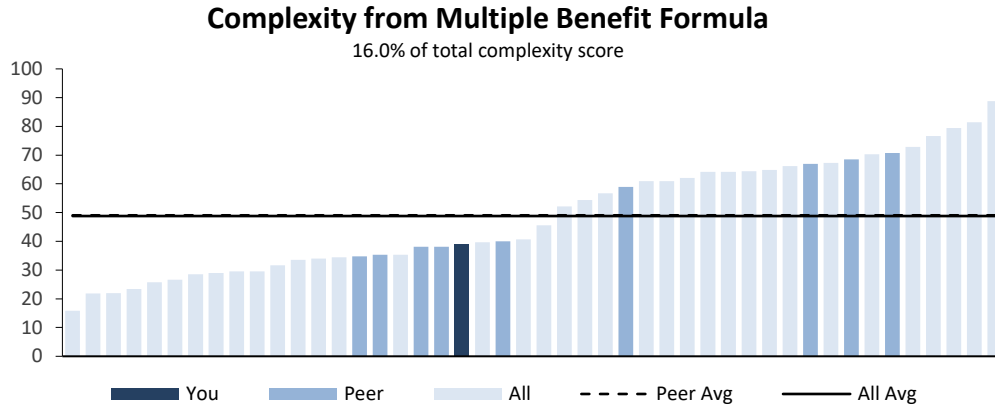
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
45%	Q125 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups:			
	a) Traditional Defined Benefit ("DB")?	Yes	100% Yes	96% Yes
	b) DB Cash Balance (aka Money Purchase)?	No	0% Yes	6% Yes
	c) Hybrid DB/ DC Cash Balance?	No	0% Yes	4% Yes
	d) Hybrid DB/ Money Match?	No	0% Yes	4% Yes
	e) DROP savings?	No	10% Yes	11% Yes
	f) Defined Contribution ("DC")?	Yes	30% Yes	19% Yes
	g) Hybrid DB/ DC?	No	30% Yes	25% Yes
	h) Other (describe)?	<u>No</u>	<u>0% Yes</u>	<u>6% Yes</u>
	Total number of different plan types. Hybrid plans count as 2 types.	2.0	2.0	2.1
<i>Complexity: 0 if none, otherwise <math>22.4 + 32.4 \times \ln(\text{number of non-optional benefit plans})</math>. i.e., 1 = 22.4, 2 = 44.8, 4 = 67.3, 8 = 89.7, etc.</i>	45	40	40	

## C. Multiple Plan Types and Overlays Complexity

page 2 of 2

Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	<p>Q126 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]</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	10% Yes 10	4% Yes 4
30%				
	<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	0% Yes 0	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	10% Yes 10	4% Yes 4
10%				
	<p>Q127 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable earnings?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	50% Yes 50	63% Yes 63
5%				
100%	Weighted Average	20	24	24

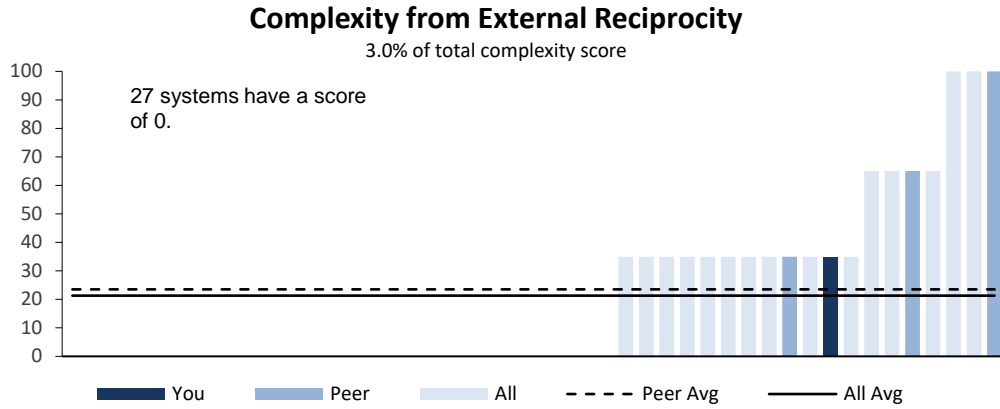
## D. Multiple Benefit Formula Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	<p>Q149 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 <math>12.7 + 18.3 \times \ln(\text{number of rule sets})</math>. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc.</i></p>	4 38	9 47	10 46
5%	<p>Q150 Can members retire earlier than the age required for an unreduced retirement formula? <i>Complexity: 100 if yes, 0 if no</i></p>	Yes 100	100% Yes 100	98% Yes 98
20%	<p>Q151 How many different salary definitions could apply in retirement formula calculations? <i>Complexity: 0 if none, otherwise <math>19.4 + 27.9 \times \ln(\text{number of salary definitions})</math>. i.e., 1 = 19.4, 2 = 38.7, 4 = 58.1, 8 = 77.4, etc.</i></p>	3 50	4 54	5 54
25%	<p>Q152 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas? <i>Complexity: 0 if none, otherwise <math>12.7 + 18.3 \times \ln(\text{number of 'formula percentage' rule sets})</math>. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc.</i></p>	8 51	7 45	9 39
20%	<p>Q153 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.]</p> <p>a) Each system uses its own formula and salary data to determine the benefit. 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. c) The highest formula will apply. d) The formula of the plan where the member works last will apply. e) Other (describe).</p> <p><i>Complexity: 100 if b or c apply, 80 if d or e, 60 if a, otherwise 0.</i></p>	No n/a n/a n/a n/a 0	50% Yes 60% Yes 40% Yes 0% Yes 20% Yes 40% Yes	54% Yes 52% Yes 44% Yes 8% Yes 36% Yes 20% Yes
100%	Weighted Average	39	49	49

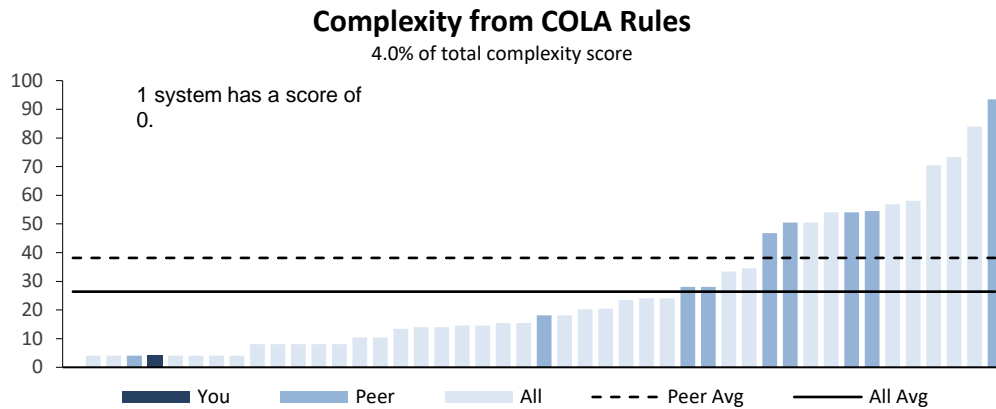


## E. External Reciprocity Complexity



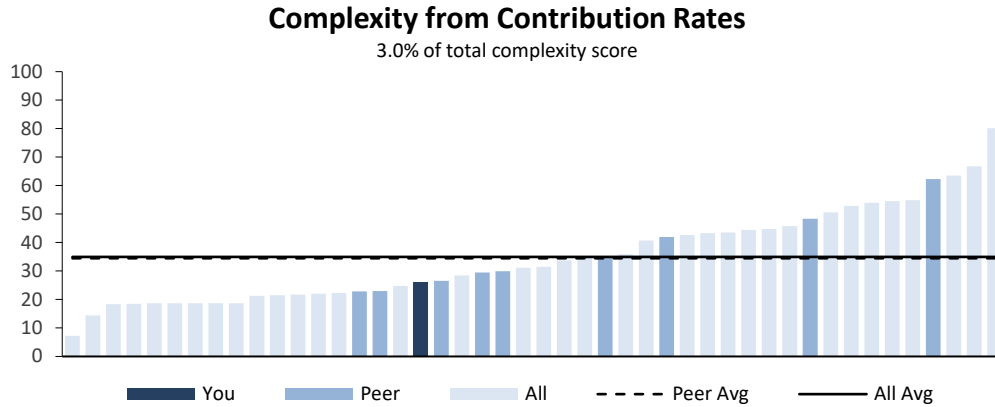
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
35%	<p>Q154 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system pays the "dual" member a pension benefit based on its own rules for determining the benefit. Neither credit nor money are transferred between systems.]</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	Yes 100	30% Yes 30	33% Yes 33
65%	<p>Q155 Do you have agreements with external Systems where the member may combine internal and external credit to form one joint account?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	20% Yes 20	15% Yes 15
100%	Weighted Average	35	24	21

## F. COLA Rules Complexity



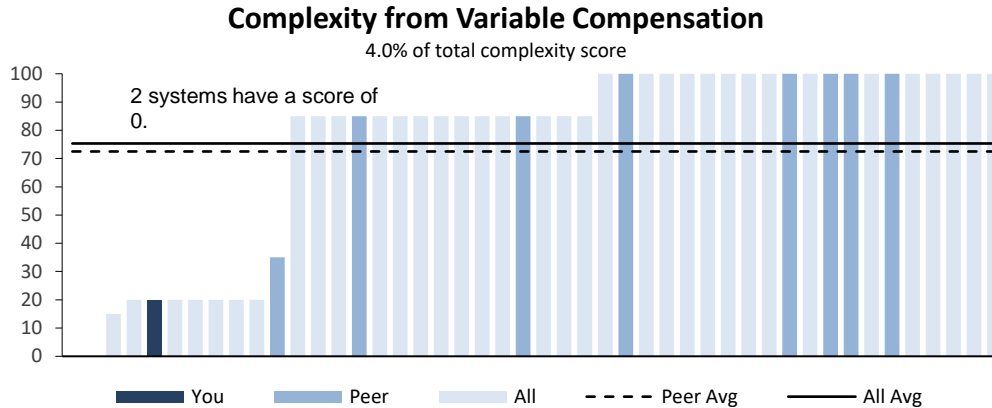
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	<p>Q146 How many different cost of living adjustment ("COLA") rule sets do you have for retired, and if applicable, inactive members? (These rule sets may be either contractual or legislated.)</p> <p><i>Complexity: 0 if none, otherwise <math>20.2 + 29.2 \times \ln(\text{number of COLA rule sets})</math>. i.e., 1 = 20.2, 2 = 40.4, 4 = 60.6, 8 = 80.8, etc.</i></p>	1	3	3
		20	46	46
40%	<p>Q147 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	40% Yes 40	24% Yes 24
10%	<p>b) Conditional COLA based on the level of funding?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	40% Yes 40	26% Yes 26
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	30% Yes 30	15% Yes 15
5%	<p>Q148 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	30% Yes 30	22% Yes 22
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	100% Yes 30	80% Yes 17
100%	Weighted Average	4	38	26

## G. Contribution Rates Complexity



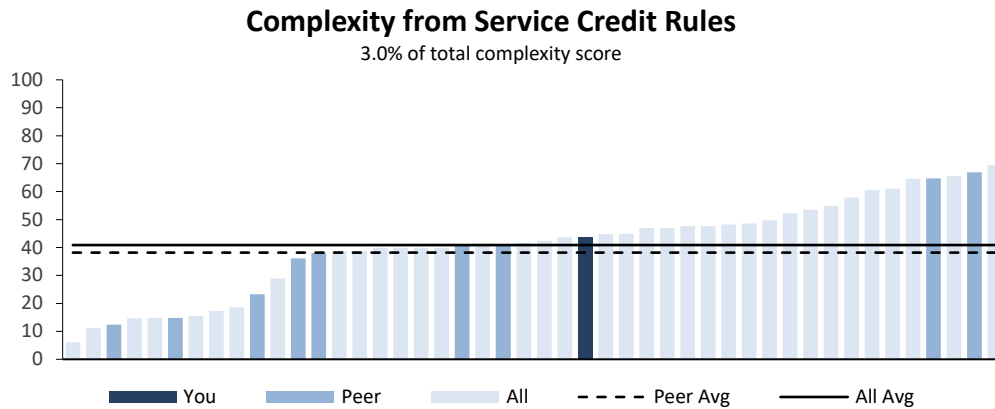
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
40%	<p>Q179 How many different contribution percentages do you collect from:</p> <p>a) Employers? [For example, single member group systems may have only one contribution percentage whereas some multi-plan systems may collect numerous different contribution rates from various participating employers.] <i>Complexity: 0 if none, otherwise <math>7.3 + 10.5 \times \ln(\text{number of contribution percentages collected from employers})</math>. i.e., 1 = 7.3, 2 = 14.6, 4 = 21.9, 8 = 29.2, etc.</i></p>	4	9	278
40%	<p>b) Members? <i>Complexity: 0 if none, otherwise <math>10.8 + 15.5 \times \ln(\text{number of contribution percentages collected from members})</math>. i.e., 1 = 10.8, 2 = 21.5, 4 = 32.3, 8 = 43.0, etc.</i></p>	5	27	11
17%	<p>Q180 Which of the following payment methods for employee contributions occur in the plans that you administer:</p> <p>a) No employee contributions? No</p> <p>b) Employer pays his part and also the employee contributions? No</p> <p>c) Employer withholds employee contributions pre-tax from his salary? Yes</p> <p>d) Employer withholds employee contributions post-tax from his salary? No</p> <p><i>Complexity: 100 if all 4 methods are possible, 66 if 3 methods, 33 if 2 methods, 0 if 1 method.</i></p>	0	40	38
3%	<p>Q181 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></p>	100	50	52
100%	Weighted Average	26	34	35

## H. Variable Compensation Complexity



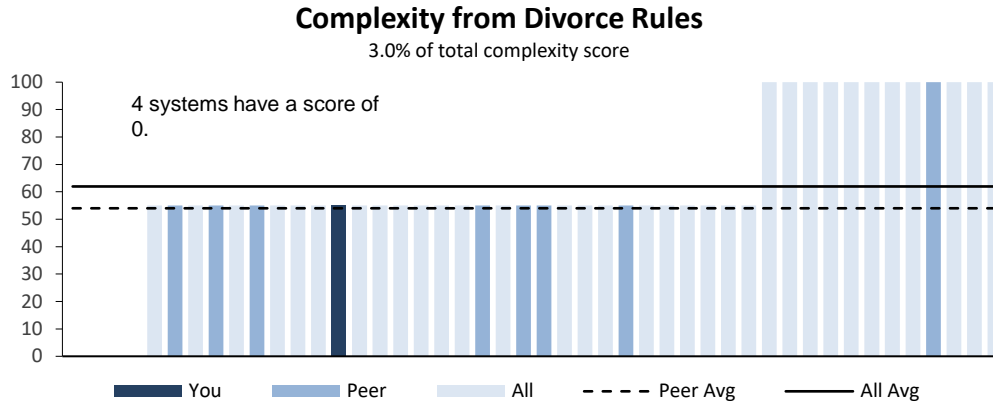
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	<p>Q174 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings.</p> <p>a) Bonuses? No 70% Yes 78% Yes</p> <p>b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? Yes 70% Yes 83% Yes</p> <p>c) Overtime pay? Yes 80% Yes 85% Yes</p> <p>d) Commissions or similar payments such as fees paid to sheriffs for process serving? No 50% Yes 39% Yes</p> <p><i>Complexity: 100 if variable compensation is paid in your system, otherwise 0.</i></p>	100	90	93
65%	<p>If yes, is all, some or none of it included in pensionable earnings?</p> <p>a) Bonuses? n/a 29% All 15% All</p> <p>b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? All 43% All 19% All</p> <p>c) Overtime pay? All 63% All 54% All</p> <p>d) Commissions or similar payments such as fees paid to sheriffs for process serving? n/a 41% All 39% All</p> <p><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'), otherwise 0.</i></p>	0	70	76
15%	<p>Q175 When determining a member's pensionable earnings does a cap on salary increases apply? No 60% Yes 48% Yes</p> <p><i>Complexity: 100 if yes, 0 if no</i></p>	0	60	48
100%	Weighted Average	20	73	75

# I. Service Credit Rules Complexity



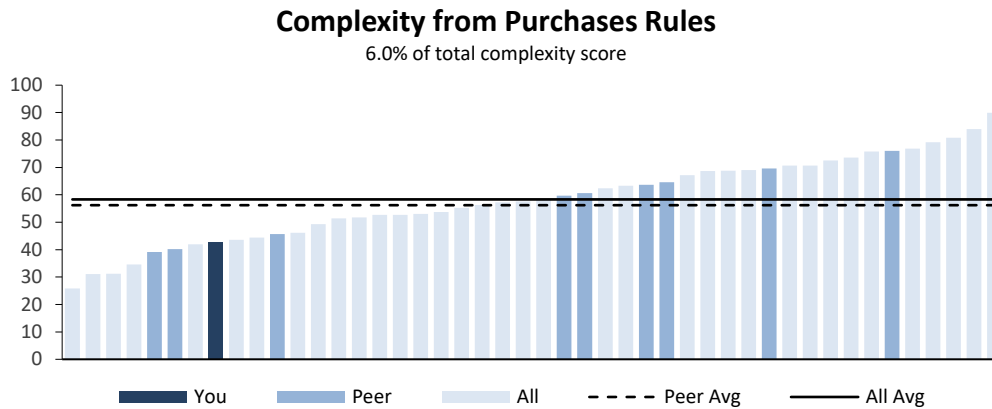
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	Q156 How many different definitions do you have for a "full year" of service credit? <i>Complexity: 0 if none, otherwise <math>12.4 + 17.9 \times \ln(\text{number of 'full year' service credit definitions})</math>. i.e., 1 = 12.4, 2 = 24.9, 4 = 37.3, 8 = 49.7, etc.</i>	1 12	14 37	7 31
30%	Q157 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 <math>16.1 + 23.2 \times \ln(\text{number of payroll years})</math>. i.e., 1 = 16.1, 2 = 32.2, 4 = 48.2, 8 = 64.3, etc.</i>	No n/a 0	40% Yes 4 18	33% Yes 6 15
5%	Q158 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 <math>23.8 + 34.3 \times \ln(\text{number of vesting periods})</math>. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i>	9 99	3 50	3 47
30%	Q159 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>	Yes 100	50% Yes 50	67% Yes 67
5%	Q160 Are you sometimes asked by employers to determine the eligibility of members? <i>Complexity: 100 if yes, otherwise 0.</i>	Yes 100	80% Yes 80	91% Yes 91
100%	Weighted Average	44	38	41

## J. Divorce Rules Complexity



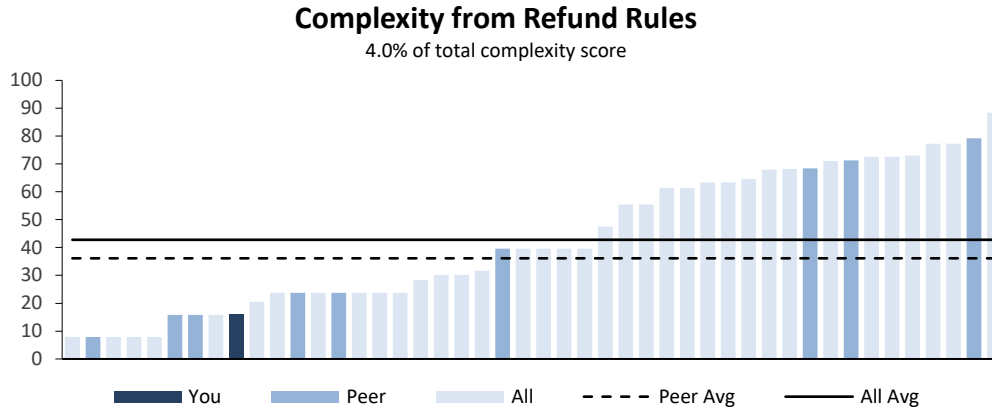
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	<p>Q187 Choose the statement that best describes how divorce settlements for active members (or divorce decrees or QDROS, or QILDROS, or Division of Benefit Orders, etc.) impact your system. If you have different rules for different 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%	<i>Complexity: 100 if yes to d, 55 if yes to c or e, 5 if yes to b, otherwise 0.</i>	No Yes	10% Yes 80% Yes	11% Yes 57% Yes
100%	Weighted Average	55	54	62

## K. Purchase Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
25%	<p>Q161 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>Yes</p> <p>No</p> <p>60</p>	<p>100% Yes</p> <p>100% Yes</p> <p>67% Yes</p> <p>50% Yes</p> <p>64</p>	<p>100% Yes</p> <p>98% Yes</p> <p>65% Yes</p> <p>55% Yes</p> <p>69</p>
25%	<p>Q162 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 <math>14.1 + 20.3 \times \ln(\text{number of service credit purchase categories})</math>. i.e., 1 = 14.1, 2 = 28.1, 4 = 42.2, 8 = 56.3, etc.</i></p>	<p>4</p> <p>42</p>	<p>10</p> <p>57</p>	<p>13</p> <p>62</p>
25%	<p>Q163 How many different service credit purchase calculation formula or methodologies do you have?</p> <p><i>Complexity: 0 if none, otherwise <math>18.1 + 26.1 \times \ln(\text{number of service credit purchase formulas})</math>. i.e., 1 = 18.1, 2 = 36.2, 4 = 54.3, 8 = 72.4, etc.</i></p>	<p>7</p> <p>69</p>	<p>6</p> <p>64</p>	<p>6</p> <p>61</p>
25%	<p>Q164 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>Yes</p> <p>No</p> <p>No</p> <p>0</p>	<p>60% Yes</p> <p>40% Yes</p> <p>20% Yes</p> <p>40</p>	<p>40% Yes</p> <p>48% Yes</p> <p>18% Yes</p> <p>41</p>
100%	Weighted Average	43	56	58

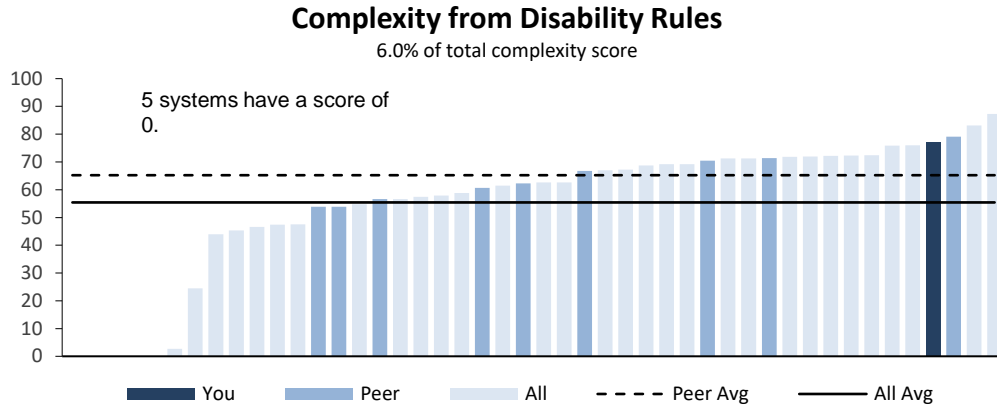
## L. Refund Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q165 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	No	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.]	n/a	4	4
67%	<i>Complexity: 0 if none, otherwise <math>23.8 + 34.3 \times \ln(\text{number of one-time death payment rule sets})</math>. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i>	0	36	40
	Q166 How many different refund formulas do you have?	2	2	3
33%	<i>Complexity: 0 if none, otherwise <math>23.8 + 34.3 \times \ln(\text{number of refund formulas})</math>. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i>	48	36	49
100%	Weighted Average	16	36	43



## M. Disability Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	<p>Q28 Do you administer: a) Long-term disability/ disability pensions? <i>Complexity: 100 if you administer, otherwise 0.</i></p>	Yes 100	100% Yes 100	87% Yes 87
10%	<p>Q172 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 x ln(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></p>	4 40	5 36	7 33
	<p>Q28 Do you administer: b) Short-term disability?</p>	No	0% Yes	7% Yes
5%	<p>Q172 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 x ln(number of short-term disability rule sets). i.e., 1 = 19.8, 2 = 39.5, 4 = 59.3, 8 = 79.0, etc.</i></p>	n/a 0	n/a 0	1 3
10%	<p>Q30 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></p>	Yes Yes 100	100% Yes 60% Yes 60	100% Yes 55% Yes 48

## M. Disability Rules Complexity

page 2 of 3

Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q134 b) Check income of disabled members after they have started receiving disability payments? <i>Complexity: 100 if yes, otherwise 0.</i></p>	Yes 100	80% Yes 80	70% Yes 65
10%	<p>Q168 Will you pay a disabled member that returns to work at a salary lower than he previously earned: a) The difference between his old salary (or his old disability benefit) and his new lower salary? b) An amount that is potentially greater than the difference between his old salary and his new lower salary? <i>Complexity: 100 if yes to b, 80 if yes to a, otherwise 0.</i></p>	Yes  No 80	20% Yes  10% Yes 26	23% Yes  5% Yes 18
15%	<p>Q169 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	95% Yes 85
10%	<p>Q170 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  n/a  n/a Yes	80% Yes  0% Yes  33% Yes 20% Yes	66% Yes  15% Yes  26% Yes 16% Yes
		90	82	69

## M. Disability Rules Complexity

page 3 of 3

Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	<p>Q171 If you administer short-term disability:</p> <p>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]</p> <p>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.]</p> <p>c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?</p>	n/a	n/a	67% Yes
		n/a	n/a	33% Yes
		n/a	n/a	33% Yes
5%	<p><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></p>	0	0	4
	<p>Q173 Do you reduce payments if the member qualifies or receives:</p> <p>a) Disability social security?</p> <p>b) Worker's compensation?</p> <p>c) Other public funds (i.e., federal military disability)?</p> <p>d) Income protection plans/other disability insurance?</p> <p>e) Employer sick leave and annual leave pay?</p> <p>f) Unemployment compensation?</p> <p>g) Income from other employment?</p> <p>h) Other (describe)?</p> <p>Total yes responses for disability coordination</p>	No	20% Yes	29% Yes
		No	50% Yes	45% Yes
		No	0% Yes	10% Yes
		No	0% Yes	8% Yes
		No	10% Yes	18% Yes
		No	10% Yes	13% Yes
		Yes	60% Yes	53% Yes
		<u>n/a</u>	<u>0% Yes</u>	<u>21% Yes</u>
		1	2	2
5%	<p><i>Complexity: 0 if none, otherwise <math>25.0 + 36.1 \times \ln(\text{number of disability coordination categories})</math>. i.e., 1 = 25.0, 2 = 50.0, 4 = 75.0, 8 = 100.0, etc.</i></p>	25	36	33
100%	Weighted Average	77	65	55

# 9

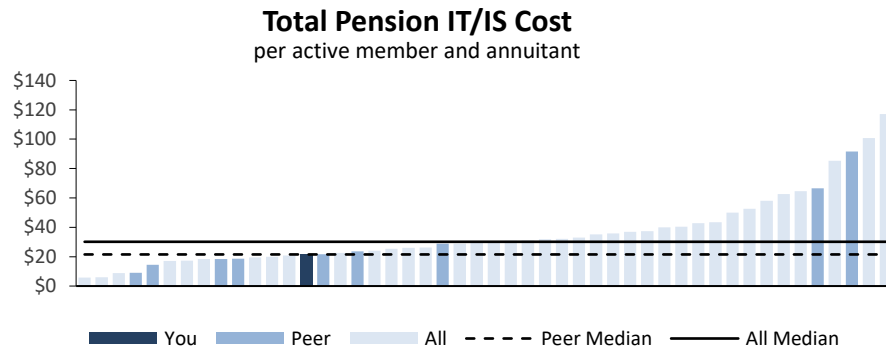
## IT and Major Projects

This section contains comparisons to your peers and all participants of:

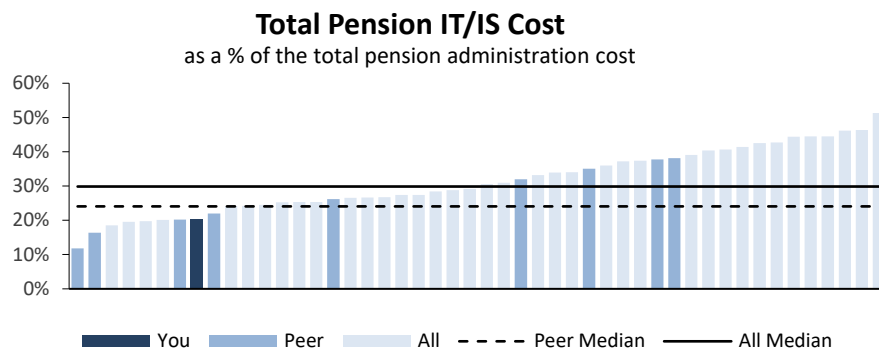
- Total IT/IS costs and trends
- Total major project costs and trends
- Indicators of CRM (Customer Relationship Management) capability
- Attributions of IT/IS and Major Projects to the other administration activities

## IT/IS costs

Your IT/IS cost was \$21.33 per active member and annuitant. This was below the peer median of \$21.52.



Your IT/IS cost as a percent of total pension administration cost was 20%. This was below the peer median of 24%.

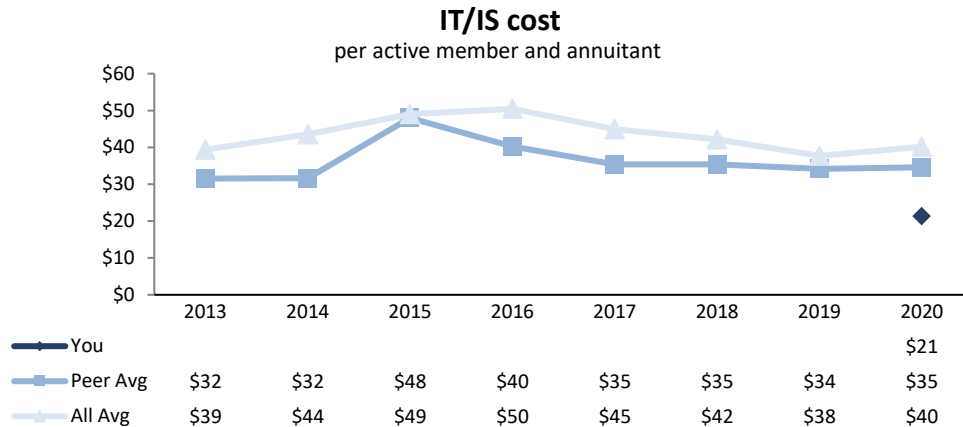


Activity	IT/IS Cost by Category						Cost as a % of Total IT/IS Cost			
	Cost in \$000s	Cost per Active Member and Annuitant								
	You	Peer Median	Peer Avg	All Median	All Avg	You	Peer Avg	All Avg		
5c. Amortization of IT Major Projects	0	0.00	0.00	2.32	0.00	2.82	0%	7%	8%	
5d. IT Major Projects (if you don't capitalize)	0	0.00	0.05	7.03	0.82	4.91	0%	22%	13%	
6a. IT Strategy, Database Management and Applications (excl. major projects)	1,572	14.71	12.50	13.88	14.24	19.17	64%	43%	52%	
6b. IT Desktop, Networks, Telecom	708	6.62	5.22	8.21	8.11	9.01	29%	25%	24%	
<b>Total Pension IT/IS cost (excludes below)</b>	2,280	21.33	21.52	31.43	30.15	35.90	93%	96%	97%	
IT/IS Attributions to: <sup>1</sup>										
1f. Healthcare Administration	162	1.51	0.00	0.96	0.00	0.64	7%	3%	2%	
1g. Optional and Third Party Administered Benefits	0	0.00	0.00	0.23	0.00	0.51	0%	1%	1%	
<b>Total Administration IT/IS cost</b>	2,442	22.84	22.28	32.62	30.45	37.06	100%	100%	100%	

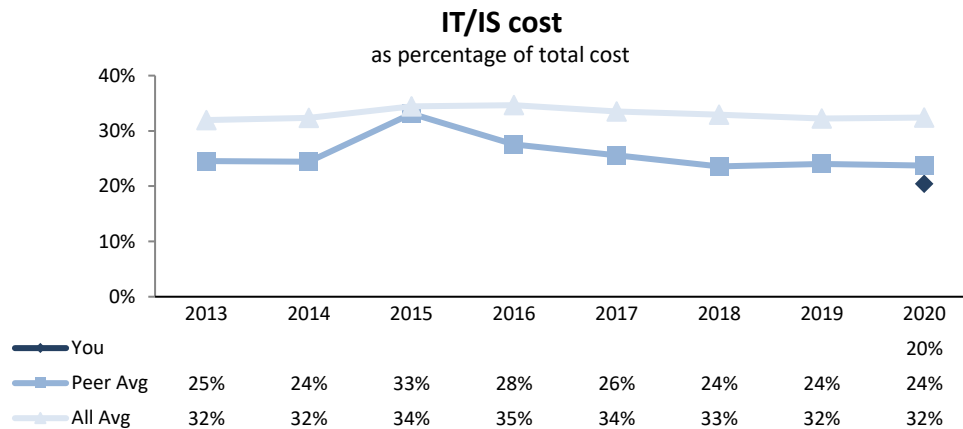
1. Attributions of total administration IT/IS to non-pension activities 1f and 1g includes: (i) pro-rata share of Major Project attribution (5a - 5d) weighted by activity 5c and 5d's contribution to total Major Project cost; (ii) total attribution of activity 6a to 1f and 1g; (iii) pro-rata share of optional attribution (6b, 7a - 7f) to activities 1f and 1g weighted by activity 6b's contribution to total attribution. See section 4 - 'Activity Costs' for details.

## 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 1.3% between 2013 and 2020. The all participant average is 0.3%. Your growth rate over the same period is unavailable per annum.



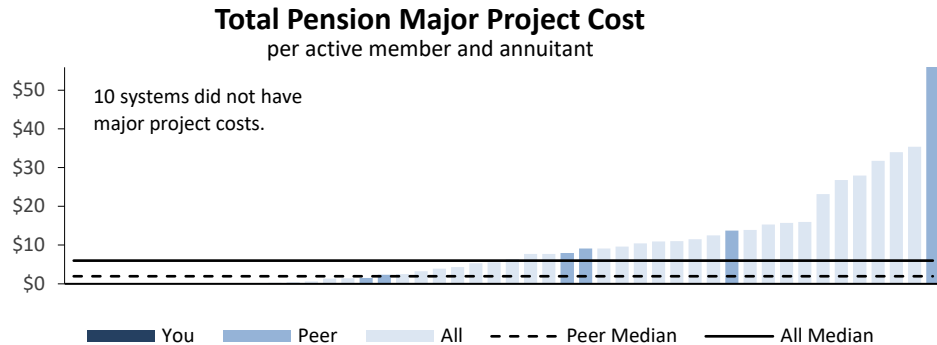
IT/IS cost as a percentage of total cost of your peers that have participated for 8 consecutive years has grown at a compound annual rate of -0.5% between 2013 and 2020. The all participant average is 0.2%. Your growth rate over the same period is unavailable per annum.



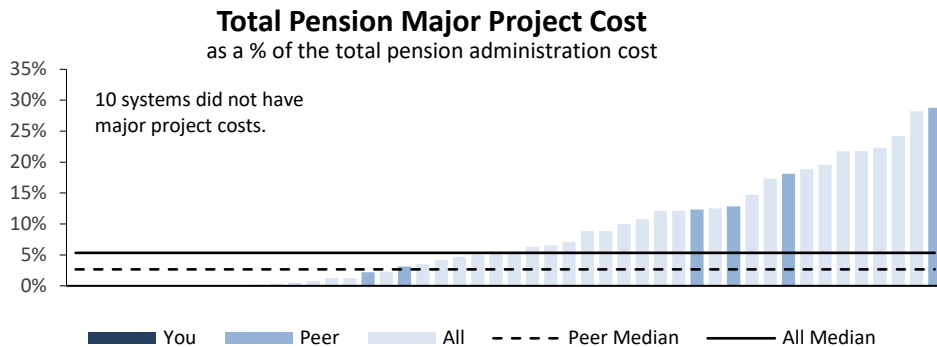
Trend analysis is based on systems that have provided 8 consecutive years of data.

## Major project costs

Your major project cost was \$0.00 per active member and annuitant. This was below the peer median of \$1.97.



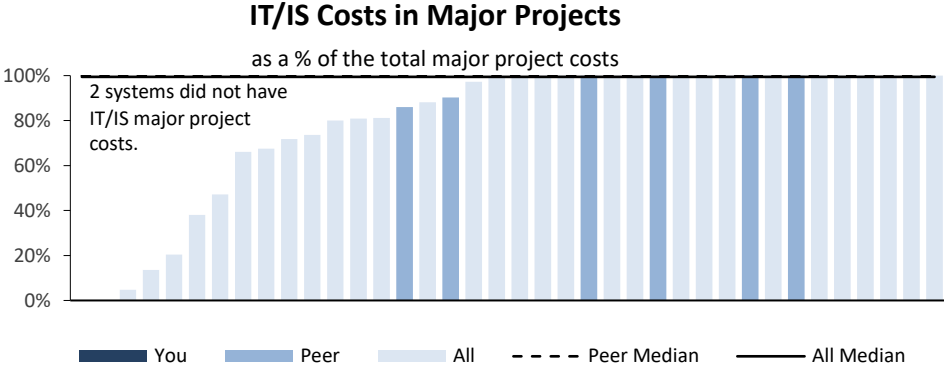
Your major project cost as a percent of total cost was 0%. This was below the peer median of 3%.



Activity	Major Project Cost by Category								
	You	Cost in \$000s		Cost per Active Member and Annuitant			Cost as a % of Total Major Project Cost		
		You	Peer Median	Peer Avg	All Median	All Avg	You	Peer Avg	All Avg
5a. Amortization of non-IT Major Projects	0	0.00	0.00	0.13	0.00	0.19	n/a	1%	2%
5b. Non-IT Major Projects (if you don't capitalize)	0	0.00	0.00	0.98	0.00	1.89	n/a	9%	19%
5c. Amortization of IT Major Projects	0	0.00	0.00	2.32	0.00	2.82	n/a	22%	28%
5d. IT Major Projects (if you don't capitalize)	0	0.00	0.05	7.03	0.82	4.91	n/a	67%	49%
<b>Total Pension Major Project cost (excludes below)</b>	0	0.00	1.97	10.46	6.00	9.81	0%	99%	97%
Major Project Attributions to:									
1f. Healthcare Administration	0	0.00	0.00	0.02	0.00	0.08	n/a	0%	1%
1g. Optional and Third Party Administered Benefits	0	0.00	0.00	0.06	0.00	0.18	n/a	1%	2%
<b>Total Administration Major Project cost</b>	0	0.00	2.08	10.53	6.23	10.07	0%	100%	100%

# IT/IS cost included in major project costs

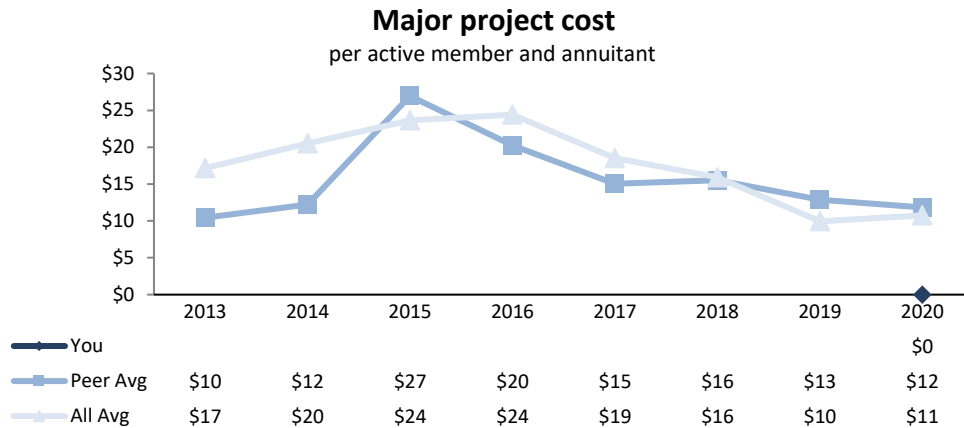
Your total major project costs were 0. The peer median for IT/IS major project costs as a percent of total major project costs was 100%.



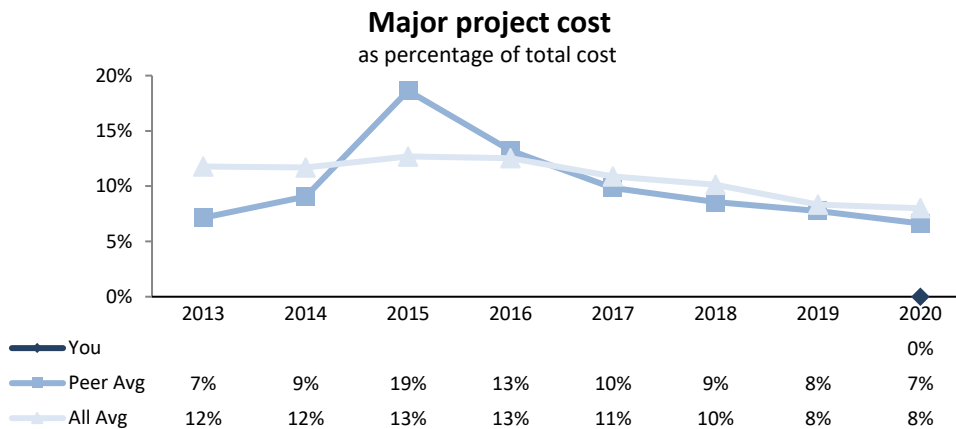


## Major project cost trend

Major project cost per member for your peers that have participated for 8 consecutive years has grown at a compound annual rate of 1.8% between 2013 and 2020. The all participant average is -6.5%. Your growth rate over the same period is unavailable per annum.



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 -1.1% between 2013 and 2020. The all participant average is -5.4%. Your growth rate over the same period is unavailable per annum.



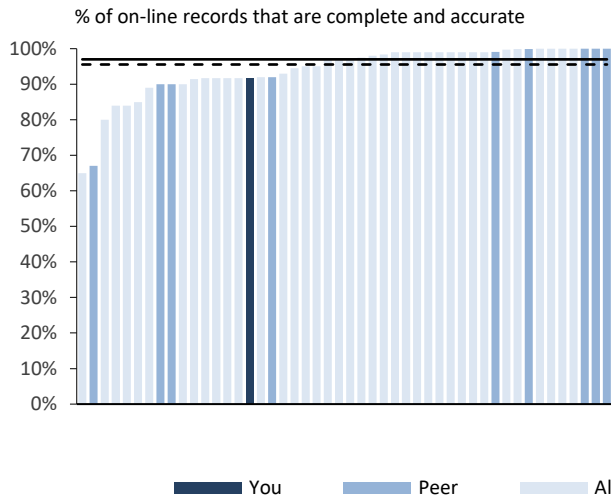
Trend analysis is based on systems that have provided 8 consecutive years of data.

## IT and major project attributions by activity

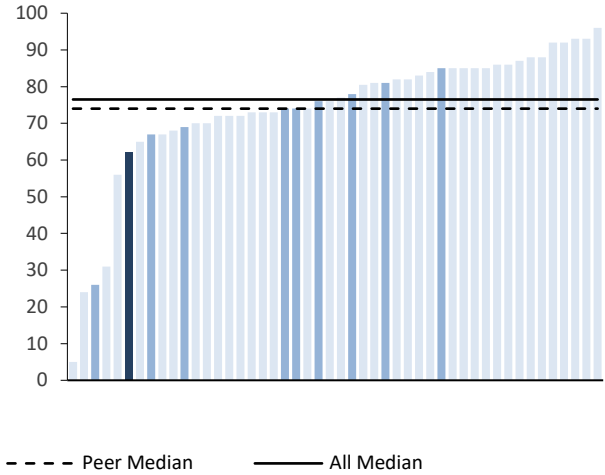
Activity	6a. IT Strategy, Database Management and Applications (excl. major projects)						Total Major Projects (5a. through 5d.)					
	\$s per Active Member and Annuitant			As a % of total			\$s per Active Member and Annuitant			As a % of total		
	Peer	All		Peer	All		Peer	All		Peer	All	
	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg
1. Member Transactions												
a. Pension Payments	1.53	1.04	1.23	10%	7%	6%	0.00	1.21	0.71	n/a	6%	6%
b. Pension Inceptions	0.36	1.42	1.95	2%	11%	11%	0.00	0.93	0.96	n/a	11%	10%
c. Refunds, Withdrawals, and Transfers-out	0.74	0.62	1.24	5%	4%	6%	0.00	0.39	0.64	n/a	4%	6%
d. Purchases and Transfers-in	0.16	0.93	1.35	1%	6%	5%	0.00	1.94	0.86	n/a	7%	6%
e. Disability	<u>0.13</u>	<u>0.87</u>	<u>0.52</u>	<u>1%</u>	<u>4%</u>	<u>3%</u>	<u>0.00</u>	<u>0.09</u>	<u>0.19</u>	<u>n/a</u>	<u>1%</u>	<u>2%</u>
	2.94	4.88	6.29	20%	32%	31%	0.00	4.56	3.36	0%	29%	30%
2. Member Communication												
a. Call Center	2.69	1.78	2.99	18%	15%	17%	0.00	0.90	1.47	n/a	17%	17%
b. Mail Room, Imaging	0.66	0.74	0.93	4%	5%	5%	0.00	0.62	0.48	n/a	5%	5%
c. 1-on-1 Counseling	1.57	0.86	0.88	11%	6%	5%	0.00	0.44	0.41	n/a	7%	5%
d. Member Presentations	1.24	0.64	0.48	8%	5%	3%	0.00	0.35	0.24	n/a	5%	3%
e. Written Pension Estimates	2.01	0.71	0.64	14%	5%	4%	0.00	0.27	0.36	n/a	5%	4%
f. Mass Communication	<u>1.24</u>	<u>0.68</u>	<u>0.94</u>	<u>8%</u>	<u>5%</u>	<u>5%</u>	<u>0.00</u>	<u>0.47</u>	<u>0.44</u>	<u>n/a</u>	<u>4%</u>	<u>4%</u>
	9.40	5.42	6.86	63%	40%	38%	0.00	3.06	3.39	0%	41%	37%
3. Collections and Data Maintenance												
a. Data and Money from Employers	0.16	0.82	1.93	1%	7%	10%	0.00	0.51	0.94	n/a	8%	10%
b. Service to Employers	0.74	0.53	0.86	5%	5%	5%	0.00	0.37	0.43	n/a	5%	5%
c. Data Not from Employers	<u>0.00</u>	<u>0.28</u>	<u>0.67</u>	<u>0%</u>	<u>2%</u>	<u>3%</u>	<u>0.00</u>	<u>0.18</u>	<u>0.29</u>	<u>n/a</u>	<u>2%</u>	<u>3%</u>
	0.91	1.63	3.46	6%	13%	18%	0.00	1.06	1.66	0%	15%	19%
4. Governance and Financial Control												
a. Financial Administration and Control	0.38	1.21	1.52	3%	9%	8%	0.00	0.93	0.76	n/a	8%	8%
b. Board, Strategy, Policy	0.64	0.48	0.79	4%	3%	4%	0.00	0.53	0.50	n/a	4%	4%
c. Government and Public Relations	<u>0.54</u>	<u>0.33</u>	<u>0.31</u>	<u>4%</u>	<u>2%</u>	<u>2%</u>	<u>0.00</u>	<u>0.35</u>	<u>0.18</u>	<u>n/a</u>	<u>3%</u>	<u>2%</u>
	1.57	2.02	2.62	11%	14%	14%	0.00	1.80	1.43	0%	14%	14%
Total Pension Administration	14.81	13.94	19.23	100%	100%	100%	n/a	10.47	9.84	n/a	100%	100%

# Key measures of CRM/IT capability

## On-Line Records

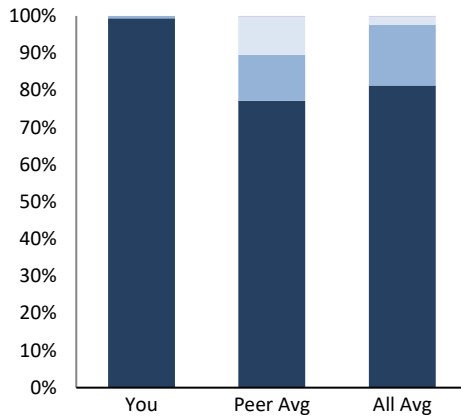


## Member Website Capability Score



## Active Member Data

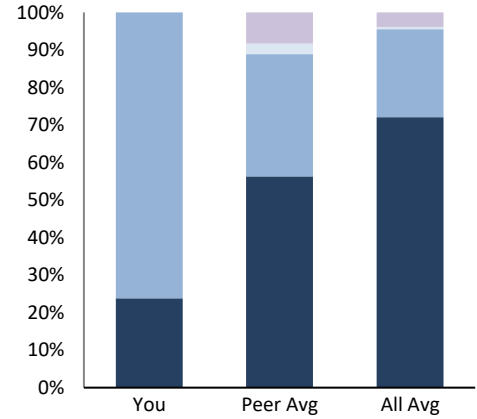
% by data format



Paper	0%	0%	0%
Computer-readable	0%	10%	2%
Mostly electronic	1%	12%	16%
100% electronic	99%	77%	81%

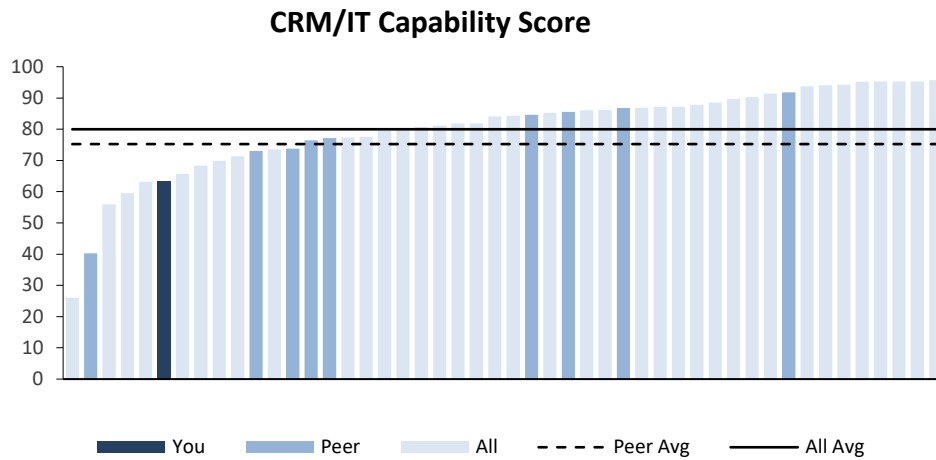
## Collection Points

% by data format



Paper	0%	8%	4%
Computer-readable	0%	3%	1%
Mostly electronic	76%	33%	23%
100% electronic	24%	56%	72%

Your CRM/IT Capability score was 63 out of 100. This was below the peer average of 75.



### Calculation of your CRM/IT capability score

Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
	<u>CRM/ Call Capability</u>			
	Q42 When a member calls in, do you have immediate computer access to the following member data:			
	a) Copies of recent correspondence online?	Some	80% Yes	94% Yes
	b) Knowledge based on-line help system available for use by the service representative?	No	70% Yes	85% Yes
	Q121 Do you have a workflow system that provides service agents with real time information about each member's:			
	b) Interactions via calls and email?	No	50% Yes	70% Yes
15%	Score: 100 if all available, otherwise 33.3 for each yes	0	67	83
	Q42 When a member calls in, do you have immediate computer access to the following member data:			
	c) Most recent member statement?	Yes	100% Yes	98% Yes
	d) Beneficiary information?	Yes	100% Yes	98% Yes
4%	Score: 100 if all available, otherwise 50 for each yes	100	100	98

## CRM/IT capability score

page 2 of 3

Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q43 Do you provide the following information on an immediate 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'.]</p> <p>a) Estimates of the member's pension at retirement?</p> <p>a1) Can you easily model and provide alternate annuity payment scenarios? [i.e., joint and 50% survivor, joint and 70% survivor]</p> <p>a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?</p> <p><i>Score: 20 if yes to a1, 80 if yes to a2, otherwise 0</i></p>	Yes	60% Yes	65% Yes
		Yes	67% Yes	69% Yes
		Yes	67% Yes	69% Yes
		100	60	65
6%	<p>Q43 b) Refund or transfer value assuming the member exited</p> <p>c) Pensionable salary?</p> <p>d) Service credit history including gaps?</p> <p><i>Score: 100 if all available, otherwise 33.3 for each yes</i></p>	Yes	100% Yes	83% Yes
		Yes	100% Yes	92% Yes
		Yes	80% Yes	90% Yes
		100	93	88
5%	<p>Q46 Do you have and use tools to help you project call volumes?</p> <p><i>Score: 100 if yes, otherwise 0</i></p>	Yes	90% Yes	88% Yes
		100	90	88
5%	<p>Q33 c) Incoming calls satisfied by self-serve options, if any?</p> <p><i>Score: 100 if yes, otherwise 0</i></p> <p><u>Document Imaging</u></p> <p>Q51 Do you use imaging technology?</p> <p>a) Do you keep images of ALL incoming member correspondence and submitted forms?</p> <p>c) Have all historical documents also been imaged?</p> <p><i>Score: 60 if you use imaging, 20 if you keep images of all incoming correspondence and forms, 20 if all historical</i></p>	No	30% Yes	46% Yes
		0	30	46
		Yes	100% Yes	100% Yes
		Yes	100% Yes	98% Yes
		Yes	90% Yes	79% Yes
		100	98	95
	<p><u>Data Collection</u></p> <p>Q94 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?</p> <p>a) 100% electronic</p> <p>b) Mostly electronic</p> <p>c) Computer-readable</p> <p>d) Paper</p> <p><i>Score: 100 X % of data collected 100% electronically, + 90 X % of data collected mostly electronically, + 80 X % of data collected via computer readable, otherwise 0</i></p>			
		99%	77%	81%
		1%	12%	16%
		0%	10%	2%
		0%	0%	0%
5%		100	97	98

## CRM/IT capability score

page 3 of 3

Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
	<u>Online Data Quality</u>			
5%	Q96 What % of your active and inactive member on-line records are complete and accurate? <i>Score: 100 X % of online records that are complete and accurate</i>	Unknown 92	93% 93	94% 94
	<u>Diagnostic Software</u>			
5%	Q98 Do you have a diagnostic software system for detecting and correcting contribution errors? <i>Score: 100 if yes, otherwise 0</i>	No 0	80% Yes 80	83% Yes 83
	<u>Integration</u>			
5%	Q99 When you get an address change, how many systems do you need to update? <i>Score: 100 if 1, otherwise 0</i>	1 100	1 90	1 92
	<u>Website</u>			
30%	Member website capability score [Refer to section 7 Service Levels: Mass communication - website for details.]	62	69	74
100%	Total CRM/ IT Capability Score - Average	63	75	80
	Total CRM/ IT Capability Score- Median	63	77	84

# 10

## 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 E - Service model changes

## Appendix A - Survey responses: Member status changes

Minnesota State 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					
	2020			2019		
	Active Members	Inactive Members	Annuitants (Service, Disabled, Survivor)	Active Members	Inactive Members	Annuitants (Service, Disabled, Survivor)
<b>Total members</b>						
a. Members at end of fiscal year 2019	57,854	28,739	47,632			
b. Members at end of fiscal year 2020	57,541	29,578	49,362			
Increase/-decrease to be explained	-313	839	1,730			
<b>Decreases</b>						
c. Full withdrawals/refunds/commuted value payments	904	2,238				
d. Transfers-out to external pension systems	0	0				
e. Annuity inceptions: service retirement	1,683	895				
f. Annuity inceptions: disability retirement	51	0				
g. Active members leaving to inactive status	3,762					
h. Re-hired inactives and annuitants (if annuity stops)		362	0			
i. Deaths	62	54	1,392			
j. Non-death stops of pensions (i.e., dependent no longer eligible)			0			
k. Other decreases.	14	1	27			
<b>Increases</b>						
l. New active members	5,801					
m. Annuity inceptions: survivor, partner, ex-partner,			377			
n. Annuity inceptions: service retirement			2,578			
o. Annuity inceptions: disability retirement			51			
p. Active members leaving to inactive status		3,762				
q. Re-hired inactives and annuitants (if annuity stops)	362					
r. Other increases.	0	627	143			
Explained increases/-decreases	-313	839	1,730			
Unexplained increases/-decreases	0	0	0			



## Appendix A - Survey responses: Cost by activity

Minnesota State RS

	Your Response	
	2020	2019
6. Complete the table below:		
a. Total administrative expenses per your financial statements (CAFR in the U.S.)	11,968.0	(\$000s)
Less (if included in administrative expenses):		
b. Investment administration costs	0.0	(\$000s)
Plus, if not included in administrative expenses:		
c. Amortization and depreciation of administrative assets	0.0	(\$000s)
d. Actuarial fees and costs	0.0	(\$000s)
e. Other costs and professional fees relating to pension administration	0.0	(\$000s)
f. Total benefit administration costs	11,968.0	(\$000s)

## Appendix A - Survey responses: Cost and FTE by activity - 2020

Minnesota State 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)
<b>1. Member Transactions</b>				
a. Pension Payments	6.5	608.5	174.6	783.1
b. Pension Inceptions	1.5	143.9	41.3	185.2
c. Refunds, Withdrawals, and Transfers-out	3.1	294.4	84.5	378.9
d. Purchases and Transfers-in	0.7	65.4	18.8	84.2
e. Disability	0.6	52.3	15.0	67.4
f. Healthcare Administration	4.0	372.9	107.0	479.9
g. Optional and Third Party Administered Benefits	0.0	0.0	0.0	0.0
<b>2. Member Communication</b>				
a. Call Center	11.3	1,066.5	306.0	1,372.5
b. Mail Room, Imaging	2.8	261.7	75.1	336.8
c. 1-on-1 Counseling	6.6	621.6	178.3	799.9
d. Member Presentations	5.2	490.7	140.8	631.5
e. Written Pension Estimates	8.5	798.2	229.0	1,027.2
f. Mass Communication	5.2	490.7	140.8	631.5
<b>3. Collections and Data Maintenance</b>				
a. Data and Money from Employers	0.7	65.4	18.8	84.2
b. Service to Employers	3.1	294.4	84.5	378.9
c. Data Not from Employers	0.0	0.0	0.0	0.0
<b>4. Governance and Financial Control</b>				
a. Financial Administration and Control	1.6	150.5	43.2	193.7
b. Board, Strategy, Policy	2.7	255.2	73.2	328.4
c. Government and Public Relations	2.3	215.9	61.9	277.9
<b>5. Major Projects</b>				
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
<b>6. Information Technology</b>				
a. IT Strategy, Database Management and Applications (excl. major projects)	13.9	1,308.6	375.4	1,684.0
b. IT Desktop, Networks, Telecom	6.3	588.9	168.9	757.8
<b>7. Support Services and Other</b>				
a. Building and Utilities	1.1	104.7	30.0	134.7
b. Human Resources	0.9	85.1	24.4	109.5
c. Actuarial	0.0	0.0	319.0	319.0
d. Legal and Rule Interpretation	0.3	32.7	9.4	42.1
e. Internal and External Audit	0.2	16.4	4.7	21.0
f. Pay-as-you-go Benefits for Retired Staff	n/a	0.0	n/a	0.0
g. Other Support Services	7.1	667.4	191.5	858.8
<b>Total Administration (includes 1f, 1g)</b>	<b>96.2</b>	<b>9,052.0</b>	<b>2,916.0</b>	<b>11,968.0</b>
FTE relating to major projects capitalized, if any, during this fiscal year.	0.0			
<b>Total Administration FTE</b>	<b>96.2</b>			

## Appendix A - Survey responses: Service and plan design

### Minnesota State RS

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<b>Start</b>													
1 Minnesota State Retirement System													
2 Main survey contact: Joy Sperger Project Manager joy.sperger@mrs.us 651-284-7840													
3 What is the month of your fiscal year-end? [All questions in this survey are for your most recently completed fiscal year.]	June												
4 What was the end of fiscal year value of your pension fund assets (in billions)?	\$25.6												
8 What percentage of your total salary and benefits costs relates to benefits?	26.4%			52.8%	28.2%	21.1%	30.4%	10	52.8%	26.8%	15.8%	28.5%	46
<b>Service</b>													
<b>Activity 1a - Pension Payments</b>													
10 Do you administer annuity pensions? If no, skip to question 20	Yes			100% Yes / 0% No / 0% n/a				10	100% Yes / 0% No / 0% n/a				48
11 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, etc.] If yes: a) How many payrolls were late? b) On average, how many days late were they?	No n/a n/a			0% Yes / 100% No / 0% n/a				10	0% Yes / 100% No / 0% n/a				48 0 0
12 What percentage of pensioners are paid by check [as opposed to Electronic Funds Transfer ("EFT")]?	2.6%			7.8%	2.8%	0.0%	2.6%	10	15.0%	1.1%	0.0%	2.2%	46
13 Do you send out payment advices (i.e., gross/ net specifications) in paper format to members receiving EFT payments? If yes:	Yes			90% Yes / 10% No / 0% n/a				10	88% Yes / 13% No / 0% n/a				48

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions?	Annually			12	6	1	7	9	12	6	1	6	42
b) Can you comply with a member's request not to send them payment advices?	No			30% Yes / 60% No / 10% n/a				9	35% Yes / 52% No / 13% n/a				42
<b>Activity 1b - Pension Inceptions</b>													
14 How many changes in gross amount of annuity pensions paid occurred as a result of changes in an individual annuitant's personal circumstances? 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, etc.	264			1,201	332	0	400	10	108,758	544	0	6,238	48
15 How many formal appeals (non-disability) of pension inceptions did you have?	1			129	1	0	14	10	238	1	0	17	48
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?	16.8%			100.0%	96.0%	16.8%	87.3%	10	100.0%	97.0%	5.8%	90.5%	48
b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	95.0%			100.0%	82.4%	0.0%	65.2%	10	100.0%	88.5%	0.0%	70.7%	48
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?	No			70% Yes / 30% No / 0% n/a				10	75% Yes / 25% No / 0% n/a				48
a) If yes, what proportion of your service retirement inceptions to retiring active members was based on existing data or estimates?	n/a			100.0%	44.2%	0.0%	53.3%	7	100.0%	55.4%	0.0%	51.3%	36
b) On average, how long did it take to finalize service retirement inceptions based on estimates? (in months)	n/a			6.0	2.0	1.0	2.3	7	18.0	1.3	0.0	3.1	35
18 Do you require birth certificates and/or marriage certificates before incepting a pension?	Yes			100% Yes / 0% No / 0% n/a				10	71% Yes / 25% No / 4% n/a				46
19 Do you require notarization of normal or early retirement applications?  If some, describe those that require versus those that do not:	Yes			60% Yes / 40% No / 0% Some / 0% n/a				10	27% Yes / 56% No / 17% Some / 0% n/a				48

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
n/a <b>Activity 1c - Refunds, Transfers-out, Withdrawals</b>													
20 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.]	1,992			17,219	1,992	164	5,913	9	40,132	4,454	0	7,358	42
21 How long does it take on average for you to issue a refund check, including any required wait period, beginning from the time of the initial request by the member (in days)?	13			99	26	10	33	10	133	29	2	33	46
a) Are you legislated to have a wait period before you can effect a refund? If yes:	No			30% Yes / 70% No / 0% n/a				10	40% Yes / 56% No / 4% n/a				46
b) How long is the wait period? (in days)	n/a			90	60	30	60	3	120	45	10	54	19
c) Can the wait period be waived?	n/a			0% Yes / 30% No / 70% n/a				3	10% Yes / 29% No / 60% n/a				19
22 How long does it take on average for you to complete an individual transfer-out to an external system, including delays caused by external parties, beginning from the time of initial request by the member (in business days)?	13			180	30	2	47	9	372	36	1	60	40
23 Do you require notarization of refund or transfer-out applications? (yes, some, no)	Yes			60% Yes / 10% No / 30% Some				10	23% Yes / 46% No / 31% Some				48
a) If some, describe those that require versus those that do not: n/a <b>Activity 1d - Purchases and Transfers-in</b>													
24 Number of actual:													
a) Service credit purchases such as for prior refunded service, military service, etc.?	48			119,248	512	8	13,011	10	119,248	1,320	8	6,303	46
b) Upgrades or 'Top-ups' where members can improve their pensionable salary (but not service credit)?	n/a			5	0	0	1	8	201	0	0	6	42
c) Upgrades where members can pay to upgrade from an older retirement formula to a new retirement formula?	n/a			201	0	0	29	7	2,301	0	0	105	42
d) Individual transfers-in from external defined benefit systems? [For example, many systems have reciprocal agreements with 'sister' systems that permit members to transfer-in credit from the external System when they join their System and vice versa? Do not include collective transfers-in.]	n/a			968	0	0	160	9	38,800	9	0	1,048	45
25 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.]	104			8,838	2,029	32	3,047	10	32,780	3,020	0	6,004	48

Survey Question	Your Response					Peers 2020				All Participants 2020			
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
26 On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	34			90	5	3	25	10	520	10	1	39	45
27 How long does it take on average for you to complete an individual transfer-in, including delays caused by external parties (in months)? <b>Activity 1e - Disability</b>	Unknown			6	2	1	3	8	13	2	1	3	33
28 Do you administer: a) Long-term disability/ disability pensions? b) Short-term disability?  If you do not administer either short-term or long-term disability, or disability pensions skip to question 33.	Yes No			100% Yes / 0% No / 0% n/a 0% Yes / 100% No / 0% n/a				10 10	83% Yes / 13% No / 4% n/a 6% Yes / 90% No / 4% n/a				46 46
29 Number of: a) Applications for disability pensions/ long-term disability? b) Members receiving long-term disability or a disability pension? c) Applications for short-term disability (if you administer)? d) Members receiving short-term disability (if you administer)? e) Independent medical examinations for disability application assessment or reassessment paid for by you, if any? 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.] g) Formal appeals of disability decisions? h) Recertifications of disabled members? [For example, Arizona SRS requires an annual opinion from a physician to continue on disability.]	90 2,280 n/a n/a 16 101 12 74			650 10,105 0 n/a 681 101 41 3,625	113 1,951 0 n/a 12 0 74	6 53 0 n/a 0 0 0	161 2,552 0 n/a 90 19 7 450	10 10 6 0 10 9	2,571 55,409 2,422 2,457 1,188 1,091 268 3,625	163 3,178 0 199 11 0 1 94	0 34 0 0 0 0 0 0	374 6,544 69 714 127 44 21 596	46 41 38 4 46 40 47 33
30 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? b) If yes to 'a' immediately above: Number of occupational disability applications?	Yes Yes 4			100% Yes / 0% No / 0% n/a 60% Yes / 40% No / 0% n/a				10 10	83% Yes / 0% No / 17% n/a 46% Yes / 38% No / 17% n/a				40 40
31 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? b) date of receipt of all necessary documentation to complete an application?	3.0 2.2			12.0 3.0	3.0 1.0	1.0 0.0	3.6 1.5	10 10	15.0 8.0	2.0 1.0	0.0 0.0	3.0 1.5	40 40
32 Do you require notarization of disability applications? a) If some, describe those that require versus those that do not:	Yes			50% Yes / 50% No / 0% Some / 0% n/a				10	21% Yes / 56% No / 6% Some / 17% n/a				40

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
n/a													
<b>Activity 2a - Call Center</b>													
Volumes													
33 What were your volumes of:													
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?	100,338			170,333	78,690	20,521	91,455	10	692,280	141,461	14,009	178,862	48
b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up on previous calls?	Unknown			19,875	6,003	2,868	8,741	10	30,643	7,565	0	9,705	48
c) Incoming calls satisfied by self-serve options, if any?	n/a			114,612	0	0	15,388	8	894,496	0	0	43,235	45
d) Email queries from members?	8,778			15,425	5,972	2,969	8,239	9	86,330	15,244	2,100	24,059	47
Before Reaching a Service Rep													
34 In the table below, indicate whether or not each described outcome can occur when a member calls into your system seeking a knowledgeable person during business hours, and if yes, indicate the volume of occurrences.													
a) Busy signal, never enters the system?	No			10% Yes / 90% No / 0% n/a				10	19% Yes / 81% No / 0% n/a				48
b) Caller gets pre-recorded 'call another time' message during business hours?	No			20% Yes / 80% No / 0% n/a				10	33% Yes / 67% No / 0% n/a				48
c) Voice mail takes a message during business hours?	No			60% Yes / 40% No / 0% n/a				10	33% Yes / 67% No / 0% n/a				48
d) Abandoned calls in a menu (i.e., caller hangs-up before reaching the end of a self-serve menu branch that can answer his/her question or before reaching a queue)?	No			60% Yes / 40% No / 0% n/a				10	65% Yes / 35% No / 0% n/a				48
e) Abandoned calls in a queue or on hold (i.e., caller hangs-up)?	Yes			100% Yes / 0% No / 0% n/a				10	98% Yes / 2% No / 0% n/a				48
f) System hangs up on caller after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	No			0% Yes / 100% No / 0% n/a				10	2% Yes / 98% No / 0% n/a				48
g) System sends the caller back to the main menu after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	No			0% Yes / 100% No / 0% n/a				10	0% Yes / 100% No / 0% n/a				48
h) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	No			0% Yes / 100% No / 0% n/a				10	4% Yes / 96% No / 0% n/a				48
i) Call rings unanswered during business hours?	No			0% Yes / 100% No / 0% n/a				10	2% Yes / 98% No / 0% n/a				48
If yes: volume													
a) # Busy signal, never enters the system?	n/a			549	549	549	549	1	2,111	549	0	787	9
b) # Caller gets pre-recorded 'call another time' message during business hours?	n/a			38,810	19,448	85	19,448	2	137,752	3,866	0	22,156	16
c) # Voice mail takes a message during business hours?	n/a			6,385	1,217	49	1,804	6	6,385	840	36	1,772	16
d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	n/a			2,500	1,350	506	1,348	6	149,661	2,854	350	13,436	31

Survey Question	Your Response			Peers 2020				All Participants 2020						
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	17,008			30,770	6,614	226	8,524	10	180,846	6,644	86	20,673	47	
f) # System hangs up on caller (or sends the caller back to the main menu) after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	n/a			n/a	n/a	n/a	n/a	0	4	4	4	4	1	
g) # System sends the caller back to the main menu after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0	
h) # Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	n/a			n/a	n/a	n/a	n/a	0	723,221	367,228	11,234	367,228	2	
i) # Call rings unanswered during business hours?	n/a			n/a	n/a	n/a	n/a	0	236	236	236	236	1	
If volume is unknown, estimate the % of total calls that this outcome represents														
a) % Busy signal, never enters the system?	n/a			n/a	n/a	n/a	n/a	0	1.0%	1.0%	1.0%	1.0%	3	
b) % Caller gets pre-recorded 'call another time' message during business hours?	n/a			0.1%	0.1%	0.1%	0.1%	1	3.0%	2.0%	0.0%	1.7%	6	
c) % Voice mail takes a message during business hours?	n/a			n/a	n/a	n/a	n/a	0	3.0%	2.0%	1.0%	2.0%	2	
d) % Abandoned calls (i.e., caller hangs-up while in a menu)?	n/a			3.0%	0.9%	0.4%	1.4%	3	5.0%	1.0%	0.4%	2.0%	9	
e) % Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	n/a			2.0%	1.5%	1.0%	1.5%	2	14.9%	2.4%	1.0%	5.2%	4	
f) % System hangs up on caller (or sends the caller back to the main menu) after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0	
g) % System sends the caller back to the main menu after he/she has waited in the queue longer than a pre-set time or if the queue becomes full?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0	
h) % Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0	
i) % Call rings unanswered during business hours?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0	
35 Do you have a menu system that callers negotiate before speaking to someone? If yes:	Yes			80% Yes / 20% No / 0% n/a				10	83% Yes / 17% No / 0% n/a					48
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.]	2			5	1	1	2	8	5	2	1	2	40	



Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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)?	70			108	31	6	42	8	152	55	5	50	40
c) Is the menu system by-passed if a service representative is available?	No			0% Yes / 80% No / 20% n/a				8	0% Yes / 83% No / 17% n/a				40
c1) If yes, what percentage of calls is the menu system by-passed?	n/a			n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
36 When a member calls in, is the first point of human contact usually a receptionist(s) who transfers a high proportion of calls elsewhere in the organization? (indicate no if most calls go directly to a call center)	No			20% Yes / 80% No / 0% n/a				10	6% Yes / 94% No / 0% n/a				48
If yes:													
a) Do you have a queue for the receptionist(s)?	n/a			10% Yes / 10% No / 80% n/a				2	4% Yes / 2% No / 94% n/a				3
a1) If yes, what is the average wait time in seconds in the queue for the receptionist(s)?	n/a			20	20	20	20	1	20	20	20	20	1
b) Approximately what percentage of callers are:													
b1) Satisfied by the receptionist without forwarding?	n/a			5.0%	5.0%	5.0%	5.0%	2	5.0%	5.0%	5.0%	5.0%	2
b2) Forwarded by the receptionist to a queue for service representatives?	n/a			90.0%	45.0%	0.0%	45.0%	2	90.0%	45.0%	0.0%	45.0%	2
b3) Forwarded by the receptionist to specific people or departments?	n/a			93.0%	49.0%	5.0%	49.0%	2	93.0%	49.0%	5.0%	49.0%	2
b4) Receptionist takes a message?	n/a			2.0%	1.0%	0.0%	1.0%	2	2.0%	1.0%	0.0%	1.0%	2
37 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			100% Yes / 0% No / 0% n/a				10	98% Yes / 2% No / 0% n/a				48
If yes:													
a) Average wait time in seconds in queue for a service representative?	260			447	93	10	149	10	1,030	90	1	188	47
b) Are calls automatically sent to voice mail when the queue exceeds a set wait time (i.e., callers are not given the option to wait)?	No			20% Yes / 80% No / 0% n/a				10	10% Yes / 88% No / 2% n/a				47
38 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?	No			40% Yes / 60% No / 0% n/a				10	52% Yes / 48% No / 0% n/a				48
39 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]	No			30% Yes / 70% No / 0% n/a				10	42% Yes / 58% No / 0% n/a				48
If yes:													
a) What was the total volume of callbacks?	n/a			29,890	5,138	3,454	12,827	3	216,046	14,949	1,732	47,983	20
b) What is the callback completion rate (i.e., what percentage of callers that chose to be called back, were actually reached)?	n/a			91.4%	91.4%	85.0%	89.3%	3	98.5%	92.6%	54.3%	90.7%	20
After Reaching a Service Rep													
40 What was the:													

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) % of callers transferred after first contact? (exclude receptionists)	Unknown			18.4%	1.0%	0.0%	4.4%	9	30.0%	3.6%	0.0%	5.6%	40
b) % of callers you called back because their needs were not fully satisfied at first contact?	Unknown			7.3%	1.5%	1.0%	3.0%	8	22.0%	2.0%	0.1%	4.0%	35
c) % of calls satisfied by the first contact?	Unknown			98.0%	96.5%	74.3%	92.1%	8	99.7%	93.4%	69.0%	90.5%	40
41 If available, 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.]	311			450	313	145	316	10	510	311	145	316	45
b) Average after call work time when service representative is unavailable to take another call?	Unknown			205	60	0	70	8	240	68	0	92	39
c) Average occupancy %? [time spent handling calls, including after call work, as a percentage of total available time to answer calls.]	Unknown			85.0%	68.0%	0.0%	58.3%	8	97.5%	76.0%	0.0%	71.5%	39
42 When a member calls in, do you have immediate computer access to the following member data:													
a) Copies of recent correspondence online?	Some			80% Yes / 10% No / 10% Some				10	94% Yes / 4% No / 2% Some				48
b) Knowledge based on-line help system available for use by the service representative?	No			70% Yes / 30% No				10	85% Yes / 15% No				48
c) Most recent member statement?	Yes			100% Yes / 0% No				10	98% Yes / 2% No				48
d) Beneficiary information?	Yes			100% Yes / 0% No				10	98% Yes / 2% No				48
43 Do you provide the following information on an immediate 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?	Yes			60% Yes / 40% No				10	65% Yes / 35% No				48
If yes:													
a1) Can you easily model and provide alternate annuity payment scenarios? [i.e., joint and 50% survivor, joint and 70% survivor, etc.]	Yes			60% Yes / 30% No				9	65% Yes / 29% No				45
a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	Yes			60% Yes / 30% No				9	65% Yes / 29% No				45
b) Refund or transfer value assuming the member exited employment at the time of the call?	Yes			100% Yes / 0% No				10	83% Yes / 17% No				48
c) Pensionable salary?	Yes			100% Yes / 0% No / 0% n/a				10	92% Yes / 8% No / 0% n/a				48
d) Service credit history including gaps?	Yes			80% Yes / 20% No / 0% n/a				10	90% Yes / 10% No / 0% n/a				48
e) Cost to purchase service credit?	Yes			90% Yes / 10% No / 0% n/a				10	71% Yes / 27% No / 2% n/a				47
f) If you administer a DC plan:													

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
f1) Current value of the DC account?	Yes			50% Yes / 0% No / 50% n/a				5	25% Yes / 0% No / 75% n/a				12
f2) Estimate of the value of the DC account at retirement?	No			30% Yes / 20% No / 50% n/a				5	15% Yes / 10% No / 75% n/a				12
f3) History of account transactions?	Yes			50% Yes / 0% No / 50% n/a				5	23% Yes / 2% No / 75% n/a				12
44 Can members calling in perform the following transactions over the phone:													
a) Change address?	Yes			60% Yes / 40% No / 0% n/a				10	69% Yes / 27% No / 4% n/a				46
b) Add or change email address?	No			70% Yes / 30% No / 0% n/a				10	85% Yes / 15% No / 0% n/a				48
c) Change payment instructions? [i.e., bank account]	No			20% Yes / 80% No / 0% n/a				10	29% Yes / 67% No / 4% n/a				46
d) If you administer a DC plan, switches to investment options?	Yes			20% Yes / 20% No / 60% n/a				4	13% Yes / 10% No / 77% n/a				11
Quality and Other													
45 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.]	Yes			70% Yes / 30% No / 0% n/a				10	83% Yes / 17% No / 0% n/a				48
If yes:													
a) How many calls per agent per month (on average) do you monitor?	5			20	5	4	8	7	30	4	1	7	40
b) Are you listening in on a live call or a recording?	Recording			40% Recording / 10% Live / 20% Both / 30% n/a				7	29% Recording / 13% Live / 42% Both / 17% n/a				40
46 Do you have and use tools to help you project call volumes?	Yes			90% Yes / 10% No				10	88% Yes / 13% No				48
47 Do you have a toll free number (or a number where members are only charged the cost of a local call no matter where they are located) that members can call to get a real person (not just an info line)?	Yes			100% Yes / 0% No / 0% n/a				10	94% Yes / 6% No / 0% n/a				48
48 How many hours per week is your 'call center' operational?	42.5			52.5	45.0	37.5	45.3	10	62.5	45.0	36.5	46.2	48
49 Can members communicate questions using email?	Yes			90% Yes / 10% No / 0% n/a				10	96% Yes / 4% No / 0% n/a				48
a) If yes, what is the average time (in business days) to respond to an email query? Do not include auto-responses or confirmation of email receipt.	1.0			2.0	1.0	0.5	0.9	9	5.0	1.0	0.4	1.6	46
<b>Activity 2b - Mail Room, Imaging</b>													
50 What were your volumes of:													
a) Incoming mail?	Unknown			179,982	54,321	14,120	67,263	10	809,605	87,907	5,007	145,106	48
b) Outgoing mail?	300,376			947,559	328,990	24,968	409,662	10	6,167,836	328,990	12,040	746,024	48
51 Do you use imaging technology?	Yes			100% Yes / 0% No / 0% n/a				10	100% Yes / 0% No / 0% n/a				48
If yes:													
a) Do you keep images of ALL incoming member correspondence and submitted forms?	Yes			100% Yes / 0% No / 0% n/a				10	98% Yes / 2% No / 0% n/a				48

Survey Question	Your Response				Peers 2020				All Participants 2020					
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
b) If not all, describe the member documents you do keep images of below: n/a														
c) Have all historical documents also been imaged?	Yes							90% Yes / 10% No / 0% n/a	10				79% Yes / 21% No / 0% n/a	48
<b>Activity 2c - 1-on-1 Member Counseling</b>														
52 Do you provide 1-on-1 counseling? If you do not offer 1-on-1 counseling skip to question 61.	Yes							100% Yes / 0% No / 0% n/a	10				100% Yes / 0% No / 0% n/a	48
53 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.]	7,488			16,269	5,038	434	6,137	10	37,345	2,737	0	4,746	47	
b) In the field at locations separate from the member's place of employment?	n/a			11,756	131	0	2,788	10	43,409	216	0	2,953	47	
c) At the member's place of employment?	7,158			7,158	17	0	1,429	10	8,262	0	0	806	47	
d) Via teleconference? [These are pre-scheduled counseling sessions that cover materials sent to the member in advance of the session.]	3,518			3,518	0	0	589	10	114,301	1	0	3,944	48	
e) Via videoconference?	0			3,219	0	0	565	6	3,219	0	0	162	40	
(Total counseled 1-on-1)	18,164			25,448	7,393	434	11,281	10	114,301	5,624	328	12,406	48	
54 Is 1-on-1 retirement counseling a freely available option for most members? [If the only 1-on-1 counseling you do is for VIPs, disability, exceptions and emergencies then your answer should be no.]	Yes							100% Yes / 0% No / 0% n/a	10				98% Yes / 2% No / 0% n/a	48
55 Do you limit 1-on-1 counseling by:														
a) Requiring that members be within a certain time period of earliest possible retirement?	No							20% Yes / 80% No / 0% n/a	10				8% Yes / 92% No / 0% n/a	48
b) Placing a limit on the number of counseling sessions a member can request?	No							10% Yes / 90% No / 0% n/a	10				4% Yes / 96% No / 0% n/a	48
c) Indicating that members should contact their employers or unions first for counseling?	No							0% Yes / 100% No / 0% n/a	10				2% Yes / 98% No / 0% n/a	48
d) Other (describe)? n/a	No							0% Yes / 100% No / 0% n/a	10				2% Yes / 98% No / 0% n/a	48
56 Do you provide counseling for walk-in traffic? If yes:	Yes							100% Yes / 0% No / 0% n/a	10				94% Yes / 6% No / 0% n/a	48

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) On average, how long does a walk-in member that requests a counseling session typically have to wait till they can meet with a counselor? (minutes)	15			36	6	0	9	10	36	5	0	8	45
b) Approximately what percentage of walk-in members requesting a counseling session are turned away, or scheduled for another time, or leave with their needs unsatisfied because they decide the wait was too long?	5.0%			5.0%	0.0%	0.0%	0.6%	10	99.0%	0.0%	0.0%	2.7%	45
57 Do you offer prescheduled 1-on-1 counseling?	Yes			90% Yes / 10% No / 0% n/a				10	88% Yes / 13% No / 0% n/a				48
a) If yes, how long does a member that requests a pre-scheduled counseling session typically have to wait, in business days, before he can meet with a counselor for an in-house 1-on-1 counseling session?	5			25	1	0	5	9	25	1	0	4	42
58 Do you offer 1-on-1 counseling sessions after normal working hours, such as evenings and/or weekends?	No			50% Yes / 50% No / 0% n/a				10	46% Yes / 54% No / 0% n/a				48
59 For 1-on-1 counseling sessions that are walk-ins, prescheduled in-house and in the field:													
a) Do almost all sessions take place in a private office with a door (versus a cubicle, etc.)?													
a1) Walk-in traffic in-house?	Yes			90% Yes / 10% No / 0% n/a				10	73% Yes / 21% No / 6% n/a				45
a2) Pre-scheduled in-house?	Yes			80% Yes / 0% No / 20% n/a				8	77% Yes / 8% No / 15% n/a				41
a3) In-the-field?	No			70% Yes / 10% No / 20% n/a				8	50% Yes / 19% No / 31% n/a				33
b) Do you have real-time access to the member's data (i.e., salary, service credit, refund value, beneficiaries, etc.)?													
b1) Walk-in traffic in-house?	Yes			100% Yes / 0% No / 0% n/a				10	92% Yes / 2% No / 6% n/a				45
b2) Pre-scheduled in-house?	Yes			80% Yes / 0% No / 20% n/a				8	81% Yes / 4% No / 15% n/a				41
b3) In-the-field?	Yes			80% Yes / 0% No / 20% n/a				8	63% Yes / 6% No / 31% n/a				33
c) Do you provide new written estimates on a real-time basis for anybody that wants one?													
c1) Walk-in traffic in-house?	Yes			90% Yes / 10% No / 0% n/a				10	79% Yes / 15% No / 6% n/a				45
c2) Pre-scheduled in-house?	Yes			80% Yes / 0% No / 20% n/a				8	73% Yes / 13% No / 15% n/a				41
c3) In-the-field?	Yes			70% Yes / 10% No / 20% n/a				8	58% Yes / 10% No / 31% n/a				33
d) Do you provide an accurate cost to purchase service credit on a real-time basis for anybody that wants one?													
d1) Walk-in Traffic In-house?	Yes			90% Yes / 10% No / 0% n/a				10	69% Yes / 23% No / 8% n/a				44
d2) pre-scheduled In-house?	Yes			80% Yes / 0% No / 20% n/a				8	60% Yes / 23% No / 17% n/a				40

Survey Question	Your Response			Peers 2020					All Participants 2020						
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
d3) In-the-field?	Yes			70% Yes / 10% No / 20% n/a					8	46% Yes / 21% No / 33% n/a					32
e) If you administer a DC plan, can you provide future retirement income and/ or account balance projections based on the member's account information and various market scenarios?															
e1) Walk-in Traffic In-house?	No			10% Yes / 30% No / 60% n/a					4	13% Yes / 13% No / 75% n/a					12
e2) pre-scheduled In-house?	No			10% Yes / 20% No / 70% n/a					3	13% Yes / 13% No / 75% n/a					12
e3) In-the-field?	No			10% Yes / 20% No / 70% n/a					3	8% Yes / 10% No / 81% n/a					9
60 Do you review 1-on-1 counseling sessions for coaching purposes on a regular basis? [As opposed to intermittent or only while training new counselors, etc.]	No			40% Yes / 60% No / 0% n/a					10	58% Yes / 42% No / 0% n/a					48
<b>Activity 2d - Member Presentations and Group Retirement Counseling</b>															
61 Do you offer member presentations (including group counseling)? If you do not offer member presentations skip to question 68.	Yes			100% Yes / 0% No					10	98% Yes / 2% No					48
62 How many benefit fairs did you host or participate in?	88			153	33	0	52	10	534	18	0	47	46		
63 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			96	18	0	32	10	215	3	0	26	48		
b) In the field?	273			633	139	0	198	10	2,736	156	0	326	48		
c) Via live webinar? [i.e., a real-time, online presentation that allows two-way communication between the presenter and audience]	20			165	6	0	29	10	472	13	0	40	47		
(Total Presentations)	293			666	218	14	259	10	2,957	201	0	391	48		
64 What was the total number of attendees at all of the presentations per question 63 above? [Exclude benefit fair attendees per question 62]	9,485			18,454	6,687	130	7,456	10	34,497	7,500	130	10,400	47		
65 Did you do specific presentations for members, in the past fiscal year, targeted solely for:															
a) New members?	Yes			100% Yes / 0% No / 0% n/a					10	77% Yes / 21% No / 2% n/a					47
b) Members in mid career?	Yes			100% Yes / 0% No / 0% n/a					10	81% Yes / 17% No / 2% n/a					47
c) Members approaching retirement or ready to retire?	Yes			100% Yes / 0% No / 0% n/a					10	96% Yes / 2% No / 2% n/a					47
d) Healthcare?	Yes			20% Yes / 80% No / 0% n/a					10	33% Yes / 63% No / 4% n/a					46
e) Changes to benefits?	No			20% Yes / 80% No / 0% n/a					10	35% Yes / 63% No / 2% n/a					47
f) Other? (Please describe)	No			40% Yes / 60% No / 0% n/a					10	40% Yes / 56% No / 4% n/a					46

Survey Question	Your Response				Peers 2020				All Participants 2020					
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
n/a														
66 Do you offer presentations and/or webinars after normal working hours such as evenings and/or weekends?	Yes				100% Yes / 0% No / 0% n/a				10	90% Yes / 8% No / 2% n/a				47
67 Do you review presenters for coaching purposes on a regular and recurring basis? [As opposed to intermittent or only while training new presenters, etc.] <b>Activity 2e - Written Pension Estimates</b>	Yes				70% Yes / 30% No / 0% n/a				10	81% Yes / 17% No / 2% n/a				47
68 Do you offer written pension estimates to members? If no, go directly to question 75.	Yes				100% Yes / 0% No / 0% n/a				10	100% Yes / 0% No / 0% n/a				48
69 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.]	8,841				53,490	7,847	108	11,113	10	259,262	9,027	108	20,127	48
70 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?	Each Scenario  2				70% Each Scenario / 30% Single Estimate				10	58% Each Scenario / 42% Single Estimate				48
71 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.] a) Is this a number you regularly measure and track (versus an estimate)?	4.0  Regular				60.0	4.5	1.0	9.7	10	60.0	5.0	0.0	9.6	48
72 Can members request and obtain a written pension estimate at any time during their career? [As opposed to, for example, requiring that the member be within a certain time period of earliest potential retirement before they can request a pension estimate.] a) If no: describe the time constraint? n/a	Yes				90% Yes / 10% No / 0% n/a				10	83% Yes / 17% No / 0% n/a				48
73 Do you place a limit on the number of written pension estimates that a member can request? a) If yes, describe the limit? n/a	No				10% Yes / 90% No / 0% n/a				10	17% Yes / 83% No / 0% n/a				48
74 Do your written pension estimates (including cover letters, etc. sent with the estimate):														

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Clearly address if and how the pension is inflation protected (or not protected)?	No			60% Yes / 40% No / 0% n/a				10	56% Yes / 44% No / 0% n/a				48
b) If your pension is coordinated with or reduced by social security (or CPP in Canada) is the impact explained?	No			40% Yes / 30% No / 30% n/a				7	44% Yes / 19% No / 38% n/a				30
c) Discuss alternative scenarios that could improve the pension such as purchasing service credit or working longer?	Yes			100% Yes / 0% No / 0% n/a				10	83% Yes / 17% No / 0% n/a				48
d) Model alternative retirement payment options?	Yes			90% Yes / 10% No / 0% n/a				10	96% Yes / 4% No / 0% n/a				48
<b>Activity 2f Mass Communication: (i) Website</b>													
75 Are all, most or some of your forms available online for either completion or downloading?	Most			30% All / 0% Some / 70% Most				10	42% All / 4% Some / 54% Most				48
76 Does your website have a secure member area where members can access their own data? If yes:	Yes			90% Yes / 10% No				10	94% Yes / 6% No				48
a) How many unique members accessed the secure member area? [Count a member only once even if he visited multiple times.]	42,142			220,701	43,095	10,296	75,178	9	1,103,170	120,567	5,333	209,267	45
b) How many total visits were there by members to the secure member area? [Count each visit even if the same member visits multiple times.]	Unknown			1,769,278	285,889	97,988	552,647	9	4,800,749	529,467	26,992	985,006	45
c) If a member wants to register for the first time, does he/she have to wait for a password in the mail?	No			10% Yes / 80% No / 10% n/a				9	6% Yes / 88% No / 6% n/a				45
d) Do you welcome the member by name on the home page of the secure member area?	Yes			90% Yes / 0% No / 10% n/a				9	90% Yes / 4% No / 6% n/a				45
e) Are users required to acknowledge a disclaimer every time they log in?	No			10% Yes / 80% No / 10% n/a				9	10% Yes / 83% No / 6% n/a				45
f) Are users required to acknowledge a disclaimer every time they generate a pension estimate?	No			40% Yes / 50% No / 10% n/a				9	31% Yes / 63% No / 6% n/a				45
g) Do inactive members have access to the secure member area?	Yes			90% Yes / 0% No / 10% n/a				9	83% Yes / 10% No / 6% n/a				45
77 Indicate whether the following capabilities are available on your website and provide volumes:													
a) Benefit calculator in non-secure area?	No			60% Yes / 40% No / 0% n/a				10	46% Yes / 54% No / 0% n/a				48
b) Benefit calculator in secure area not linked to member data?	No			30% Yes / 70% No / 0% n/a				10	17% Yes / 83% No / 0% n/a				48
c) Benefit calculator in secure area linked to member's salary and service data?	Yes			90% Yes / 10% No / 0% n/a				10	90% Yes / 10% No / 0% n/a				48
d) Service credit purchase calculator?	No			70% Yes / 30% No / 0% n/a				10	71% Yes / 25% No / 4% n/a				46
e) Financial planning tool?	No			0% Yes / 50% No / 50% n/a				5	6% Yes / 44% No / 50% n/a				24



Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
A financial planning tool considers a member's retirement goals, and helps calculate the required total income and expenses at retirement. It provides a complete picture of member's financial health by incorporating a range of inputs into the planner, including: current expenses, projected salary, expected retirement age, expected retirement lifestyle, taxes, credit, insurance, relationship status, beneficiaries and children, mortgage, assets outside of a pension, etc., and projects scenarios under which a member can retire. The planner will also include tips on how a member can achieve their retirement goals.													
e1) Is the financial planning tool linked to member-specific data?	n/a							0				2% Yes / 4% No / 94% n/a	3
e2) Is the financial planning tool linked to data from third parties (e.g., tax agencies, other pension agencies, etc.)?	n/a							0				4% Yes / 2% No / 94% n/a	3
f) Register for 1-on-1 counseling sessions?	Yes							10				42% Yes / 58% No / 0% n/a	48
f1) If yes, does the member have real-time access to available dates and times?	No							4				33% Yes / 6% No / 60% n/a	19
g) Register for presentations?	Yes							10				71% Yes / 25% No / 4% n/a	46
h) Live chat?	No							9				8% Yes / 90% No / 2% n/a	47
i) Chatbot (or virtual service agent)?	No							5				0% Yes / 50% No / 50% n/a	24
j) Change address?	Yes							10				90% Yes / 6% No / 4% n/a	46
k) Change beneficiary?	No							10				65% Yes / 31% No / 4% n/a	46
l) Change email address?	Yes							10				94% Yes / 6% No / 0% n/a	48
m) Reset password?	Yes							10				85% Yes / 8% No / 6% n/a	45
n) Change banking information for direct deposit?	No							10				52% Yes / 44% No / 4% n/a	46
o) Change tax withholding amount?	Yes							10				69% Yes / 27% No / 4% n/a	46
p) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes							10				83% Yes / 17% No / 0% n/a	48
q) View pension payment details? [i.e., gross amounts, deductions]	Yes							10				88% Yes / 13% No / 0% n/a	48
r) Submit a retirement application online?	No							9				52% Yes / 46% No / 2% n/a	47
If yes:													
r1) Does the online application provide an estimate, final value or neither of the annuity payment the member will receive?	n/a							2				6% Final / 25% Neither / 21% Estimate / 48% n/a	25
r2) Approximately what % of retirements submitted online require follow-up documents or signatures to be mailed in?	n/a							2				100.0% 30.6% 0.0% 48.7%	22
s) View status of online retirement application?	No							8				42% Yes / 50% No / 8% n/a	44
t) Apply for a refund or transfer-out?	No							10				35% Yes / 65% No / 0% n/a	48
u) Secure mailbox or digital file including history of recent correspondence and member documents?	No							10				52% Yes / 48% No / 0% n/a	48

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
v) View or download member statement?	Yes			100% Yes / 0% No / 0% n/a				10	88% Yes / 13% No / 0% n/a				48
w) Upload documents (such as birth certificates)?	No			40% Yes / 60% No / 0% n/a				10	50% Yes / 50% No / 0% n/a				48
x) View pensionable earnings and/or service without downloading? If yes:	No			70% Yes / 30% No / 0% n/a				10	83% Yes / 17% No / 0% n/a				48
x1) Are both salary and service data available?	n/a			70% Yes / 0% No / 30% n/a				7	81% Yes / 2% No / 17% n/a				40
x2) Is online data up-to-date to the most recent pay period?	n/a			70% Yes / 0% No / 30% n/a				7	69% Yes / 15% No / 17% n/a				40
x3) Is a complete annual history from the beginning of employment provided?	n/a			40% Yes / 30% No / 30% n/a				7	50% Yes / 33% No / 17% n/a				40
y) If you administer a core DC or hybrid DB/ DC plan: y1) Switch between investment options?	No			30% Yes / 10% No / 60% n/a				4	21% Yes / 8% No / 71% n/a				14
y2) Change deferral percentage selections for regular contributions?	No			20% Yes / 20% No / 60% n/a				4	10% Yes / 17% No / 73% n/a				13
y3) Initiate withdrawals?	No			20% Yes / 20% No / 60% n/a				4	15% Yes / 13% No / 73% n/a				13
y4) View current valuation of their account? If yes, volume?	No			30% Yes / 10% No / 60% n/a				4	23% Yes / 4% No / 73% n/a				13
a) Benefit calculator in non-secure area?	n/a			64,606	40,618	11,358	39,922	6	438,815	84,610	11,358	115,069	22
b) Benefit calculator in secure area not linked to member data?	n/a			2,455	2,193	853	1,834	3	14,434	2,828	853	4,766	8
c) Benefit calculator in secure area linked to member's salary and service data?	100,117			140,642	90,940	6,346	80,242	9	2,242,684	133,488	6,346	274,618	43
d) Service credit purchase calculator?	n/a			17,676	3,896	914	7,790	7	115,421	14,014	656	22,207	34
f) Register for 1-on-1 counseling sessions?	1,261			6,207	3,393	558	3,388	4	30,922	2,986	393	6,024	18
g) Register for presentations?	610			4,824	1,606	610	2,231	9	24,709	3,100	151	5,247	25
h) Live chat?	n/a			n/a	n/a	n/a	n/a	0	10,762	2,697	672	4,710	3
j) Change address?	1,437			18,907	2,494	949	6,494	9	258,963	12,183	949	22,028	43
k) Change beneficiary?	n/a			61,540	10,616	599	20,868	5	504,878	12,014	599	40,252	31
l) Change email address?	1,284			25,268	1,748	749	5,675	8	176,948	5,708	79	27,876	32
m) Reset password?	37,511			52,906	26,340	14	24,790	8	311,681	24,465	14	54,701	35
n) Change banking information for direct deposit?	n/a			1,147	765	301	731	5	309,033	2,960	301	21,828	25
o) Change tax withholding amount?	2,813			4,471	2,806	1,694	3,073	8	128,945	6,496	1,026	15,267	33
p) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	7,159			49,714	10,416	7,159	16,893	7	433,463	27,605	307	53,264	40
q) View pension payment details? [i.e., gross amounts, deductions]	28,921			228,741	25,386	1,240	47,026	10	2,977,002	41,690	118	197,585	37
r) Submit a retirement application?	n/a			1,399	921	443	921	2	36,000	2,913	97	6,420	24
s) View status of online retirement application?	n/a			5,249	5,249	5,249	5,249	1	169,590	17,867	150	38,161	15
t) Apply for a refund or transfer-out?	n/a			n/a	n/a	n/a	n/a	0	39,038	7,424	105	8,898	16

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
u) Secure mailbox or digital file including history of recent correspondence and member documents?	n/a			118,121	84,611	51,100	84,611	2	2,014,098	126,623	3,622	340,737	18
v) View or download member statement?	36,979			517,111	27,354	9,022	74,589	10	640,299	85,569	6,279	124,061	42
w) Upload documents (such as birth certificates)?	n/a			14,575	5,352	275	6,388	4	46,808	7,546	3	13,052	21
x) View pensionable earnings and/or service without downloading?	n/a			1,769,278	143,477	5,962	378,436	7	4,096,981	288,082	5,962	584,967	40
y) If you administer a core DC or hybrid DB/ DC plan:													
y1) Switch between investment options?	n/a			6,459	4,048	1,636	4,048	2	13,269	1,636	1,200	4,150	7
y2) Change deferral percentage selections for regular contributions?	n/a			63,406	63,406	63,406	63,406	1	63,406	4,052	850	22,769	3
y3) Initiate withdrawals?	n/a			18,815	12,957	7,099	12,957	2	18,815	4,473	941	6,555	6
y4) View current valuation of their account?	n/a			1,241,968	630,683	19,397	630,683	2	1,241,968	305,021	19,397	474,171	6
Mass Communication: (ii) News and Targeted Communication													
78 Do you have videos that members can access online?	Yes			90% Yes / 10% No / 0% n/a				10	96% Yes / 4% No / 0% n/a				48
<b>Activity 2f Mass Communication: (ii) News and Targeted Communication</b>													
79 What % of email addresses do you have in your system for the following groups:													
a) Active members?	16.4%			88.6%	51.9%	2.0%	50.9%	10	100.0%	63.0%	0.0%	57.1%	47
b) Inactive members?	5.6%			60.6%	28.4%	5.6%	31.7%	10	60.6%	31.9%	0.0%	31.1%	46
c) Annuitants?	9.6%			77.1%	45.8%	9.6%	48.6%	10	88.0%	53.0%	0.0%	50.4%	47
80 Indicate whether you sent newsletters or news magazines (in either electronic or paper format) last year to any of the following member segments, and if yes, the number of times it was sent and the approximate % sent electronically. Only indicate 'yes' if the newsletter was customized for and only sent to members in the segment:													
Target segment													
a) All members (active, inactive and annuitants)?	Yes			40% Yes / 60% No / 0% n/a				10	29% Yes / 71% No / 0% n/a				48
b) Active and inactive members?	No			20% Yes / 80% No / 0% n/a				10	25% Yes / 75% No / 0% n/a				48
c) Active members and annuitants?	No			0% Yes / 100% No / 0% n/a				10	2% Yes / 98% No / 0% n/a				48
d) Active members only?	Yes			60% Yes / 40% No / 0% n/a				10	54% Yes / 46% No / 0% n/a				48
e) Inactive members only?	No			0% Yes / 100% No / 0% n/a				10	8% Yes / 92% No / 0% n/a				48
f) Annuitants only?	No			70% Yes / 30% No / 0% n/a				10	79% Yes / 21% No / 0% n/a				48
g) Age segments (i.e., under 35, 35-50, 50 plus)?	No			10% Yes / 90% No / 0% n/a				10	15% Yes / 85% No / 0% n/a				48
h) Women only or men only?	No			0% Yes / 100% No / 0% n/a				10	2% Yes / 98% No / 0% n/a				48

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	No			10% Yes / 90% No / 0% n/a				10	13% Yes / 88% No / 0% n/a				48
j) Other? (describe your other newsletter segments below) n/a	No			0% Yes / 100% No / 0% n/a				10	15% Yes / 85% No / 0% n/a				48
If yes: # of times you sent last year?													
a) All members (active, inactive and annuitants)?	2			8	2	1	3	4	9	3	1	3	14
b) Active and inactive members?	n/a			2	2	1	2	2	18	3	1	4	12
c) Active members and annuitants?	n/a			n/a	n/a	n/a	n/a	0	4	4	4	4	1
d) Active members only?	1			4	3	1	3	6	13	2	1	3	26
e) Inactive members only?	n/a			n/a	n/a	n/a	n/a	0	1	1	1	1	4
f) Annuitants only?	n/a			4	2	1	2	7	15	2	1	3	38
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a			1	1	1	1	1	31	8	1	11	7
h) Women only or men only?	n/a			n/a	n/a	n/a	n/a	0	1	1	1	1	1
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a			8	8	8	8	1	12	9	2	7	6
j) Other? (describe your other newsletter segments below)	n/a			n/a	n/a	n/a	n/a	0	12	6	3	7	7
Approx. % sent by email													
a) All members (active, inactive and annuitants)?	0.0%			45.9%	15.0%	0.0%	19.0%	4	100.0%	32.0%	0.0%	35.0%	13
b) Active and inactive members?	n/a			25.7%	12.9%	0.0%	12.9%	2	100.0%	49.6%	0.0%	57.2%	12
c) Active members and annuitants?	n/a			n/a	n/a	n/a	n/a	0	100.0%	100.0%	100.0%	100.0%	1
d) Active members only?	92.2%			100.0%	79.6%	0.0%	59.9%	6	100.0%	92.2%	0.0%	65.2%	25
e) Inactive members only?	n/a			n/a	n/a	n/a	n/a	0	45.4%	0.0%	0.0%	15.1%	3
f) Annuitants only?	n/a			26.8%	0.0%	0.0%	3.8%	7	100.0%	18.6%	0.0%	31.9%	37
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a			0.0%	0.0%	0.0%	0.0%	1	100.0%	64.5%	0.0%	54.8%	6
h) Women only or men only?	n/a			n/a	n/a	n/a	n/a	0	100.0%	100.0%	100.0%	100.0%	1
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a			26.1%	26.1%	26.1%	26.1%	1	100.0%	90.9%	0.0%	68.0%	6
j) Other? (describe your other newsletter segments below)	n/a			n/a	n/a	n/a	n/a	0	100.0%	100.0%	75.0%	96.4%	7
81 Are new members issued a 'welcome' kit describing their benefits?	Yes			80% Yes / 20% No / 0% n/a				10	81% Yes / 19% No / 0% n/a				48
a) If yes, does it include a personalized letter addressing the new member by name?	Yes			50% Yes / 30% No / 20% n/a				8	67% Yes / 15% No / 19% n/a				39
82 Do you send your members a general brochure with a summary of the benefits every year in either paper or email format?	No			30% Yes / 70% No / 0% n/a				10	35% Yes / 65% No / 0% n/a				48

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
83 Do you automatically send targeted letters or emails addressed to members by name triggered by the following milestones:													
a) Vested for pension benefits (if member is not vested immediately)?	No				40% Yes / 60% No / 0% n/a			10		31% Yes / 54% No / 15% n/a			41
b) Vested for disability benefits (if member is not vested immediately)?	No				20% Yes / 80% No / 0% n/a			10		8% Yes / 71% No / 21% n/a			38
c) Expiration of disability benefits for inactive members or members that have exited employment?	Yes				20% Yes / 60% No / 20% n/a			8		21% Yes / 58% No / 21% n/a			38
d) Approaching eligibility, or becoming eligible, for retirement?	No				10% Yes / 90% No / 0% n/a			10		52% Yes / 48% No / 0% n/a			48
e) Eligibility or likely eligibility, to purchase service credit?	Yes				30% Yes / 70% No / 0% n/a			10		29% Yes / 67% No / 4% n/a			46
f) Missing beneficiary?	No				30% Yes / 70% No / 0% n/a			10		38% Yes / 58% No / 4% n/a			46
g) Missing email address?	No				20% Yes / 80% No / 0% n/a			10		19% Yes / 81% No / 0% n/a			48
h) Never visited the secure member area?	No				20% Yes / 70% No / 10% n/a			9		10% Yes / 88% No / 2% n/a			47
i) Other milestone communication? (describe below) n/a	No				60% Yes / 40% No / 0% n/a			10		65% Yes / 35% No / 0% n/a			48
84 Do you actively solicit member feedback on your publications through:													
a) Focus groups?	No				0% Yes / 100% No / 0% n/a			10		27% Yes / 73% No / 0% n/a			48
b) Tear out surveys or feedback cards in the publications themselves?	No				0% Yes / 100% No / 0% n/a			10		4% Yes / 96% No / 0% n/a			48
c) Surveys sent to members who request a publication?	No				0% Yes / 100% No / 0% n/a			10		8% Yes / 92% No / 0% n/a			48
d) Other (describe)? Consultant assisted with member survey of preferred communication method and feedback on our publications	Yes				60% Yes / 40% No / 0% n/a			10		54% Yes / 46% No / 0% n/a			48
<b>Activity 2f Mass Communication: (iii) Member Statement</b>													
85 How many times per year (annually = 1, every 2nd year = 0.5, every 3 years = 0.33, every 5 years = 0.2) do you send member statements to:													
a) Active members?	1			5	1	1	1	10	5	1	0	1	48
b) Inactive members?	1			1	1	1	1	10	5	1	0	1	48
86 Approximately what % of members complain about the accuracy of data in their member statements?	0.0%			1.0%	0.3%	0.0%	0.4%	10	8.6%	0.1%	0.0%	0.7%	48
87 Indicate the approximate percentage breakdown of how you send member statements to active members:													
a) Directed through the employer?	0.0%			100.0%	0.0%	0.0%	10.0%	10	100.0%	0.0%	0.0%	7.7%	46
b) Mailed directly to members' homes?	100.0%			100.0%	82.1%	0.0%	58.6%	10	100.0%	47.0%	0.0%	47.1%	47
c) Email or text message to members that the statement is available in the secure member area?	0.0%			100.0%	4.3%	0.0%	25.0%	10	100.0%	27.0%	0.0%	43.4%	47

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
88 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.]	1			4	2	1	2	10	7	3	0	3	47
89 Do your statements for active members include:													
a) Total accumulated service credit?	Yes			100% Yes / 0% No / 0% n/a				10	94% Yes / 4% No / 2% n/a				47
b) Pensionable earnings?	Yes			100% Yes / 0% No / 0% n/a				10	83% Yes / 15% No / 2% n/a				47
c) A historical summary of salary and service credit earned each year?	No			20% Yes / 80% No / 0% n/a				10	27% Yes / 71% No / 2% n/a				47
d) The refund value if you left at the statement date?	Yes			100% Yes / 0% No / 0% n/a				10	75% Yes / 23% No / 2% n/a				47
e) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement?	Yes			90% Yes / 10% No / 0% n/a				10	81% Yes / 17% No / 2% n/a				47
90 Do you have a mobile app(s)?	No			0% Yes / 100% No / 0% n/a				10	10% Yes / 90% No / 0% n/a				48
<b>Activity 3 Collections and Data Maintenance</b>													
91 Number of:													
a) Employers at the end of your fiscal year?	22			819	214	5	299	10	25,375	729	1	1,425	48
b) Employers that joined your system during the fiscal year?	0			12	2	0	4	10	2,372	2	0	56	48
c) Employers that exited your system during the fiscal year?	0			6	0	0	1	10	1,694	2	0	41	48
92 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?	21			819	179	4	283	10	4,784	632	1	906	48
b) Money (i.e., contributions)?	21			724	215	4	281	10	25,375	632	1	1,370	48
[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.]													
93 How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:													
a) Validating member data?	21			988	422	4	412	10	6,695	632	1	984	48
b) Reconciling money issues (i.e., contributions)?	21			819	286	4	316	10	25,375	632	1	1,401	48

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
[For most systems, the number of 'reconciliation points' will be the same as the number of 'collection points' per question 101 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.]													
94 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.]	5			819	75	0	223	10	4,784	496	0	761	48
b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	16			484	4	0	72	10	1,521	0	0	104	48
c) Computer readable? [i.e., via computer tape or disk]	0			1	0	0	0	9	2	0	0	0	47
d) Paper?	0			3	0	0	1	9	1,674	0	0	46	47
Total # of active members													
a) 100% electronic? [No manual steps required unless there are errors.]	58.4k			129.0k	69.0k	0.0k	65.9k	10	1,287.6k	165.1k	0.0k	241.6k	48
b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	0.4k			97.7k	0.7k	0.0k	14.0k	8	45,092.0k	0.0k	0.0k	1,155.8k	40
c) Computer readable? [i.e., via computer tape or disk]	0.0k			100.1k	0.0k	0.0k	13.0k	8	100.1k	0.0k	0.0k	2.7k	39
d) Paper?	0.0k			2.0k	0.0k	0.0k	0.3k	8	18.0k	0.0k	0.0k	0.7k	40
95 How many warrants of execution or court orders did you obtain against delinquent employers?	0			0	0	0	0	10	3,226	0	0	69	47
96 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.]	Unknown			100.0%	95.6%	67.0%	93.0%	10	100.0%	97.0%	65.0%	94.0%	48
97 Do you actively keep track of the addresses of inactive members?	Yes			100% Yes / 0% No / 0% n/a				10	73% Yes / 27% No / 0% n/a				48

Survey Question	Your Response						Peers 2020				All Participants 2020																																	
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#																															
98 Do you have a diagnostic software system for detecting and correcting contribution errors?	No						80% Yes / 20% No / 0% n/a				10				83% Yes / 17% No / 0% n/a				48																									
99 When you get an address change, how many systems do you need to update? <b>Activity 3b - Service to Employers</b>	1						2				1				1				10				3				1				1				1				48					
100 Number of:																																												
a) Incoming calls from employers?	Unknown						9,475				4,384				0				4,743				10				116,655				8,195				0				15,279				48	
b) Email queries from employers?	Unknown						22,178				7,552				0				9,925				10				267,408				13,076				0				22,178				48	
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						8				0				0				1				10				68				0				0				2				48	
d) Presentations given to employers such as orientation workshops or seminars on benefit changes, etc. (do not include presentations given at conferences)?	0						85				26				0				28				10				610				26				0				53				48	
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						122				2				0				20				10				861				1				0				56				48	
f) Other site visits to employers (exclude 'd' and 'e' above)?	0						47				3				0				8				10				3,440				1				0				122				48	
101 Do you have an employer targeted section on your website or a separate website for your employers? [Do not include PDF documents.]	Yes						100% Yes / 0% No / 0% n/a				10				96% Yes / 4% No / 0% n/a				48																									
102 Do you have online videos targeted for employers?	Yes						50% Yes / 50% No / 0% n/a				10				71% Yes / 29% No / 0% n/a				48																									
103 How many different types of presentations did you give to employers?	0						11				5				0				5				10				43				5				0				6				48	
104 Do you have a newsletter dedicated to employers that is different from the newsletter for members?	Yes						80% Yes / 20% No / 0% n/a				10				81% Yes / 19% No / 0% n/a				48																									
a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	12						14				5				3				7				8				60				9				0				12				39	
105 Do you have Service Level agreements with your employers that clarifies both your and the employer's service responsibilities and includes measurement and reporting vis-à-vis your responsibilities?	No						20% Yes / 80% No / 0% n/a				10				29% Yes / 71% No / 0% n/a				48																									



Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
106 Do you offer and maintain generalized reporting software for your employer collection points? If yes: a) Is the application web-based? [i.e., you connect to it through a web browser] b) Can the software integrate both data collection and billing? c) Can it provide real-time error checking and feedback versus data previously submitted by the employer? [For example, can it identify an unusual increase in an employee's salary?]	Yes			100% Yes / 0% No / 0% n/a				10	94% Yes / 6% No / 0% n/a				48
	Yes			90% Yes / 10% No / 0% n/a				10	90% Yes / 4% No / 6% n/a				45
	No			40% Yes / 60% No / 0% n/a				10	58% Yes / 35% No / 6% n/a				45
	No			60% Yes / 40% No / 0% n/a				10	67% Yes / 27% No / 6% n/a				45
107 Do you maintain customized reporting software for any of your employer collection points? [For example, you may maintain customized reporting software for your largest employer.]  <b>Activity 4 - Governance and Financial Control</b>	Yes			30% Yes / 70% No / 0% n/a				10	25% Yes / 75% No / 0% n/a				48
108 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? b) Non-board legislative oversight committee? c) Advisory committee? d) Members' Council? e) Other (describe below)? Audit Committee & Facilities Management Committee  # of meetings, including sub-committees, last year a) Board of Trustees? b) Non-board legislative oversight committee? c) Advisory committee? d) Members' Council? e) Other (describe below)?	Yes			100% Yes / 0% No / 0% n/a				10	88% Yes / 13% No / 0% n/a				48
	Yes			40% Yes / 60% No / 0% n/a				10	52% Yes / 48% No / 0% n/a				48
	No			0% Yes / 100% No / 0% n/a				10	44% Yes / 56% No / 0% n/a				48
	No			10% Yes / 90% No / 0% n/a				10	2% Yes / 98% No / 0% n/a				48
	Yes			40% Yes / 60% No / 0% n/a				10	42% Yes / 58% No / 0% n/a				48
	5			68	13	5	18	10	138	16	4	24	42
	5			10	8	3	7	4	35	5	0	8	24
	n/a			n/a	n/a	n/a	n/a	0	14	2	1	4	21
	n/a			18	18	18	18	1	18	18	18	18	1
	5			11	5	4	6	4	49	5	1	9	20
109 Do you have back-up equipment and premises arranged for your operations if substantial damage occurs at your principal location?	Yes			100% Yes / 0% No / 0% n/a				10	98% Yes / 2% No / 0% n/a				48
110 Do you have an independent auditor that reviews and tests the disaster recovery plan?	No			60% Yes / 40% No / 0% n/a				10	69% Yes / 31% No / 0% n/a				48
111 If your principal location became inoperable due to some disaster (such as fire, tornado, etc), how long would it take, in business days, for you to:													

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Continue paying pension payments to retirees?	1			5	1	0	2	10	5	1	0	1	48
b) Begin doing new pension inceptions at normal volumes?	1			30	3	1	6	10	75	3	0	8	48
c) Collect data and money from employers?	1			5	1	0	2	10	75	1	0	5	48
d) Respond to member calls at close to current service levels?	1			30	3	1	6	10	75	3	0	7	48
112 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: As the result of COVID-19, majority of staff began working remotely starting March 2020. <b>Member Experience</b>	Yes			30% Yes / 70% No				10	31% Yes / 69% No				48
113 a. General survey to customers, regardless of whether they interacted with the pension plan or not?	Yes			50% Yes / 50% No / 0% n/a				10	71% Yes / 23% No / 6% n/a				45
a1. Active members	No			10% Yes / 30% No / 60% n/a				4	48% Yes / 15% No / 38% n/a				30
a2. Annuitant	Yes			20% Yes / 20% No / 60% n/a				4	38% Yes / 19% No / 44% n/a				27
a3. Inactive members	No			0% Yes / 40% No / 60% n/a				4	6% Yes / 40% No / 54% n/a				22
a4. Employers	No			10% Yes / 30% No / 60% n/a				4	29% Yes / 17% No / 54% n/a				22
b. Did you send a survey focused exclusively on a sample of customers that had used a single communication-channel touchpoint?[A touchpoint is a single interaction between a customer and the pension plan, such as a call to the contact center.]	Yes			30% Yes / 10% No / 60% n/a				4	38% Yes / 8% No / 54% n/a				22
b1. Telephone call													
b1a. Satisfaction / Net Promoter Score (NPS)	n/a			60% Yes / 20% No / 20% n/a				8	63% Yes / 6% No / 31% n/a				33
b1b. Effort	n/a			0% Yes / 40% No / 60% n/a				4	25% Yes / 10% No / 65% n/a				17
b1c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			365	1	0	75	5	365	1	0	18	31
b1d. Can you break down results by service agent?	n/a			30% Yes / 10% No / 60% n/a				4	50% Yes / 4% No / 46% n/a				26
b1e. Can you break down the survey results by topic or journey covered?	n/a			30% Yes / 10% No / 60% n/a				4	44% Yes / 4% No / 52% n/a				23
b2. Website visit - secure member area													
b2a. Satisfaction / Net Promoter Score (NPS)	n/a			20% Yes / 20% No / 60% n/a				4	40% Yes / 6% No / 54% n/a				22
b2b. Effort	n/a			0% Yes / 40% No / 60% n/a				4	21% Yes / 8% No / 71% n/a				14
b2c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			1	1	0	1	2	90	3	0	13	21

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b2e. Can you break down the survey results by topic or journey covered?	n/a							2					15
b3. Website - public area													
b3a. Satisfaction / Net Promoter Score (NPS)	n/a							1					9
b3b. Effort	n/a							0					5
b3c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			365	365	365	365	1	365	1	0	91	9
b3e. Can you break down the survey results by topic or journey covered?	n/a							0					5
b4. 4-on-4 counseling													
b4a. Satisfaction / Net Promoter Score (NPS)	n/a							8					30
b4b. Effort	n/a							4					14
b4c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			7	1	0	3	7	30	1	0	5	30
b4d. Can you break down results by service agent?	n/a							6					25
b4e. Can you break down the survey results by topic or journey covered?	n/a							6					22
b5. Presentation or group counseling session													
b5a. Satisfaction / Net Promoter Score (NPS)	Yes							8					33
b5b. Effort	n/a							4					14
b5c. What was the longest possible time in days between the activity/ journey end and the survey?	0			30	1	0	4	8	30	1	0	3	35
b5d. Can you break down results by service agent?	Yes							7					34
b6. Email													
b6a. Satisfaction / Net Promoter Score (NPS)	n/a							0					2
b6b. Effort	n/a							0					1
b7. Live chat													
b7a. Satisfaction / Net Promoter Score (NPS)	n/a							0					0
b7b. Effort	n/a							0					0
b8. Social media													
b8a. Satisfaction / Net Promoter Score (NPS)	n/a							0					0
b8b. Effort	n/a							0					0
b9. Member statements													
b9a. Satisfaction / Net Promoter Score (NPS)	n/a							0					2

Survey Question	Your Response			Peers 2020						All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
b9b. Effort	n/a			0% Yes / 0% No / 100% n/a				0	0% Yes / 0% No / 100% n/a				0	
b10. Targeted communication (letters, newsletters, etc.)														
b10a. Satisfaction / Net Promoter Score (NPS)	n/a			10% Yes / 0% No / 90% n/a				1	6% Yes / 0% No / 94% n/a				3	
b10b. Effort	n/a			0% Yes / 0% No / 100% n/a				0	0% Yes / 0% No / 100% n/a				0	
Did you send a survey focused exclusively on a single life event or journey? [Journeys revolve around life events that may result in a single or multiple interactions with the pension plan. For example, when a new member joins the plan, the plan may proactively welcome the member who, in turn, may visit the website, call a service agent and sign up to the secure member area, etc.]	Yes			70% Yes / 10% No / 20% n/a				8	56% Yes / 25% No / 19% n/a				39	
Member Journeys														
c1. New to the pension plan														
c1a. Satisfaction / Net Promoter Score (NPS)	n/a			30% Yes / 30% No / 40% n/a				6	21% Yes / 10% No / 69% n/a				15	
c1b. Effort	n/a			0% Yes / 30% No / 70% n/a				3	8% Yes / 6% No / 85% n/a				7	
c1c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			n/a	n/a	n/a	n/a	0	90	22	5	35	4	
c2. Leaving the pension plan														
c2a. Satisfaction / Net Promoter Score (NPS)	n/a			20% Yes / 20% No / 60% n/a				4	15% Yes / 10% No / 75% n/a				12	
c2b. Effort	n/a			10% Yes / 0% No / 90% n/a				1	13% Yes / 15% No / 73% n/a				13	
c2c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			1	1	1	1	1	60	7	1	19	9	
c3. Leave of absence														
c3a. Satisfaction / Net Promoter Score (NPS)	n/a			0% Yes / 20% No / 80% n/a				2	8% Yes / 10% No / 81% n/a				9	
c3b. Effort	n/a			0% Yes / 20% No / 80% n/a				2	8% Yes / 19% No / 73% n/a				13	
c3c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			n/a	n/a	n/a	n/a	0	56	19	5	25	4	
c4. Divorce and separation														
c4a. Satisfaction / Net Promoter Score (NPS)	n/a			0% Yes / 20% No / 80% n/a				2	4% Yes / 13% No / 83% n/a				8	
c4b. Effort	n/a			0% Yes / 20% No / 80% n/a				2	6% Yes / 21% No / 73% n/a				13	
c4c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			n/a	n/a	n/a	n/a	0	30	22	7	20	4	
c5. Disability														
c5a. Satisfaction / Net Promoter Score (NPS)	n/a			50% Yes / 0% No / 50% n/a				5	33% Yes / 8% No / 58% n/a				20	
c5b. Effort	n/a			20% Yes / 20% No / 60% n/a				4	19% Yes / 15% No / 67% n/a				16	

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c5c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			180	30	0	54	5	365	30	0	61	15
c6. Planning for retirement													
c6a. Satisfaction / Net Promoter Score (NPS)	Yes			70% Yes / 0% No / 30% n/a				7	44% Yes / 0% No / 56% n/a				21
c6b. Effort	Yes			40% Yes / 10% No / 50% n/a				5	31% Yes / 10% No / 58% n/a				20
c6c. What was the longest possible time in days between the activity/ journey end and the survey?	42			42	30	0	22	6	90	30	0	25	22
c7. Planning for loved ones													
c7a. Satisfaction / Net Promoter Score (NPS)	n/a			10% Yes / 10% No / 80% n/a				2	17% Yes / 8% No / 75% n/a				12
c7b. Effort	n/a			0% Yes / 20% No / 80% n/a				2	15% Yes / 17% No / 69% n/a				15
c7c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			0	0	0	0	1	84	15	0	27	7
c8. Retired life													
c8a. Satisfaction / Net Promoter Score (NPS)	n/a			20% Yes / 0% No / 80% n/a				2	19% Yes / 4% No / 77% n/a				11
c8b. Effort	n/a			10% Yes / 0% No / 90% n/a				1	6% Yes / 17% No / 77% n/a				11
c8c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			1	1	1	1	1	30	7	0	14	7
c9. Other (describe): n/a													
Employer journeys:													
d1. New to the pension plan													
d1a. Satisfaction / Net Promoter Score (NPS)	n/a			10% Yes / 0% No / 90% n/a				1	2% Yes / 0% No / 98% n/a				1
d1b. Effort	n/a			0% Yes / 20% No / 80% n/a				2	2% Yes / 4% No / 94% n/a				3
d1c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a			n/a	n/a	n/a	n/a	0	7	7	7	7	1
d2. Other (describe): n/a													
<b>Feedback measurement</b>													
114 Indicate whether you have targets for any of the following member experience metrics:													
a) Member satisfaction or Net Promoter Scores?	Yes			30% Yes / 10% No / 60% n/a				4	56% Yes / 13% No / 31% n/a				33

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Measures member satisfaction, e.g.: "How would you rate your satisfaction with the [service you received/pension plan]?" or "How likely is it that you would recommend [the service] to a friend or colleague?"													
b) Member effort?	No				10% Yes / 30% No / 60% n/a			4	25% Yes / 40% No / 35% n/a				31
Measures how much effort members must exert to complete a task, e.g.: "How easy was it for you to complete [the task]?"													
c) Other?	No				0% Yes / 40% No / 60% n/a			4	21% Yes / 48% No / 31% n/a				33
n/a													
d) If yes to any of the above, are the targets approved by the Board?	No				20% Yes / 20% No / 60% n/a			4	40% Yes / 23% No / 38% n/a				30
115 Do all, most, some or none of your member experience surveys include open-ended questions that allow members to provide qualitative feedback?	All				60% All / 0% None / 10% Some / 30% n/a			7	46% All / 14% None / 17% Some / 23% n/a				37
If all or most:													
a) Do you summarize feedback from members who rate their experience as:													
a1) Negative?	Yes				60% Yes / 10% No / 30% n/a			7	52% Yes / 10% No / 38% n/a				30
a2) Positive or neutral?	Yes				60% Yes / 10% No / 30% n/a			7	50% Yes / 13% No / 38% n/a				30
b) Do you have a process to contact members who participated in your survey to resolve issues or clarify feedback?	Yes				60% Yes / 10% No / 30% n/a			7	44% Yes / 19% No / 38% n/a				30
c) Is there an option in your surveys for members to request a call to discuss their feedback?	Yes				50% Yes / 20% No / 30% n/a			7	31% Yes / 31% No / 38% n/a				30
In your most recent fiscal year, did you solicit qualitative feedback from members via:													
a) In-depth, 1-on-1 interviews?	No				0% Yes / 50% No / 50% n/a			5	25% Yes / 50% No / 25% n/a				36
b) Notes from front-line employees on their interactions with members?	No				10% Yes / 40% No / 50% n/a			5	25% Yes / 50% No / 25% n/a				36
c) Focus groups, or customer arenas?	No				20% Yes / 30% No / 50% n/a			5	27% Yes / 48% No / 25% n/a				36
Customer arenas are similar to focus groups. Both involve a group of members who jointly provide feedback. The difference is that in customer arenas your front-line employees also attend the feedback session.													
d) Usability tests?	No				0% Yes / 50% No / 50% n/a			5	19% Yes / 56% No / 25% n/a				36
Usability tests are a method of soliciting feedback on the functionality of digital tools (e.g., website, calculator, web chat, mobile app, etc.) by asking members to complete tasks.													
e) Other methods?	No				0% Yes / 50% No / 50% n/a			5	15% Yes / 60% No / 25% n/a				36

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
n/a													
<b>Feedback management</b>													
117 Do you compile member feedback reports with quantitative and/or qualitative feedback on a regular basis for: Only answer 'yes' to the questions below if the answer is 'yes' for the majority of each employee group. Quantitative scores (yes, no) a) Front-office employees that interact with members? b) Back-office employees that support front-office employees? c) Executives and senior management? d) The Board? Qualitative feedback (yes, no) a) Front-office employees that interact with members? b) Back-office employees that support front-office employees? c) Executives and senior management? d) The Board?	No No No No No No No No			0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a 0% Yes / 50% No / 50% n/a				5 5 5 5 5 5 5 5	38% Yes / 38% No / 25% n/a 25% Yes / 50% No / 25% n/a 31% Yes / 44% No / 25% n/a 31% Yes / 44% No / 25% n/a 33% Yes / 42% No / 25% n/a 19% Yes / 56% No / 25% n/a 27% Yes / 48% No / 25% n/a 19% Yes / 56% No / 25% n/a				36 36 36 36 36 36 36 36
118 Do you use a statistical 'driver model' to help prioritize service improvements? A driver model uses statistics to analyze member feedback to quantify what service factors drive excellent and poor member experience.	No			20% Yes / 60% No / 20% n/a				8	25% Yes / 56% No / 19% n/a				39
119 Do you track the number of interactions for each individual member via: a) Calls? b) Emails? c) Live chat? d) 1-on-1 counseling? e) If yes, for any of the above, can the interactions be easily summarized by life-event journey (e.g., retirement, disability, divorce, etc.) for each individual member ?	No No No Yes No			20% Yes / 30% No / 50% n/a 20% Yes / 30% No / 50% n/a 0% Yes / 20% No / 80% n/a 40% Yes / 10% No / 50% n/a 10% Yes / 30% No / 60% n/a				5 5 2 5 4	44% Yes / 31% No / 25% n/a 46% Yes / 29% No / 25% n/a 8% Yes / 21% No / 71% n/a 48% Yes / 23% No / 29% n/a 29% Yes / 29% No / 42% n/a				36 36 14 34 28
120 Do you track the use of digital tools (e.g., secure website pension calculator, etc.) by individual member?	No			30% Yes / 20% No / 50% n/a				5	40% Yes / 35% No / 25% n/a				36
121 Do you have a workflow system that provides service agents with real time information about each member's:													

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Status of open items?	Yes			100% Yes / 0% No / 0% n/a				10	92% Yes / 6% No / 2% n/a				47
b) Interactions via calls and email?	No			50% Yes / 50% No / 0% n/a				10	69% Yes / 29% No / 2% n/a				47
c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No			20% Yes / 30% No / 50% n/a				5	33% Yes / 42% No / 25% n/a				36
122 Do you have cross-functional teams focused on improving member experience for a single member journey? A cross-functional team is a team of employees from various front-office and back-office departments tasked to improve a single member journey, such as the retirement or disability process. <b>Member experience reporting</b>	No			20% Yes / 60% No / 20% n/a				8	40% Yes / 42% No / 19% n/a				39
123 In your most recent fiscal year, did you inform members about improvements that were made based on their feedback via: a) Annual report? b) Newsletters or magazines? c) 1-on-1 calls? d) Other? Public website <b>Plan Design</b> Plan Characteristics	No No No No			0% Yes / 50% No / 50% n/a 10% Yes / 40% No / 50% n/a 0% Yes / 50% No / 50% n/a 10% Yes / 40% No / 50% n/a				5 5 5 5	29% Yes / 46% No / 25% n/a 40% Yes / 35% No / 25% n/a 21% Yes / 54% No / 25% n/a 23% Yes / 52% No / 25% n/a				36 36 36 36
124 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? b) Participating Local Employers (i.e., municipalities have a choice in participating in your plan)? c) State, Province, Country? d) Teachers? e) School Employees (Custodians, Admin. Staff)? f) Safety (Police, Fire, Sheriff's Dept, etc) ? g) Other (Judges, Legislators, etc)? h) Corporate? i) Industry? i1) If Industry, describe the industry: n/a	No No Yes No No Yes Yes No No			20% Yes / 80% No / 0% n/a 40% Yes / 60% No / 0% n/a 60% Yes / 40% No / 0% n/a 80% Yes / 20% No / 0% n/a 80% Yes / 20% No / 0% n/a 70% Yes / 30% No / 0% n/a 70% Yes / 30% No / 0% n/a 0% Yes / 100% No / 0% n/a 10% Yes / 90% No / 0% n/a				10 10 10 10 10 10 10 10 10	8% Yes / 88% No / 4% n/a 52% Yes / 44% No / 4% n/a 73% Yes / 23% No / 4% n/a 63% Yes / 33% No / 4% n/a 69% Yes / 27% No / 4% n/a 63% Yes / 33% No / 4% n/a 58% Yes / 38% No / 4% n/a 2% Yes / 94% No / 4% n/a 13% Yes / 88% No / 0% n/a				46 46 46 46 46 46 46 46 46



Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
125 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				100% Yes / 0% No / 0% n/a			10	96% Yes / 4% No / 0% n/a				48
b) DB Cash Balance (aka Money Purchase)?	No				0% Yes / 100% No / 0% n/a			10	6% Yes / 94% No / 0% n/a				48
c) Hybrid DB/ DC Cash Balance?	No				0% Yes / 100% No / 0% n/a			10	4% Yes / 96% No / 0% n/a				48
d) Hybrid DB/ Money Match?	No				0% Yes / 100% No / 0% n/a			10	4% Yes / 92% No / 4% n/a				46
e) DROP savings?	No				10% Yes / 90% No / 0% n/a			10	10% Yes / 85% No / 4% n/a				46
f) Defined Contribution ("DC")?	Yes				30% Yes / 70% No / 0% n/a			10	19% Yes / 81% No / 0% n/a				48
g) Hybrid DB/ DC?	No				30% Yes / 70% No / 0% n/a			10	25% Yes / 75% No / 0% n/a				48
h) Other (describe)? n/a	No				0% Yes / 100% No / 0% n/a			10	6% Yes / 94% No / 0% n/a				48
126 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				10% Yes / 90% No / 0% n/a			10	4% Yes / 92% No / 4% n/a				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				0% Yes / 100% No / 0% n/a			10	8% Yes / 88% No / 4% n/a				46
c) To change their contribution rate in order to get either more money at retirement or earlier eligibility to retire?	No				10% Yes / 90% No / 0% n/a			10	4% Yes / 92% No / 4% n/a				46
127 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable earnings?	No				50% Yes / 50% No / 0% n/a			10	60% Yes / 35% No / 4% n/a				46
128 Are any of the following activities administered by a third party:													
a) DB administration?	No				0% Yes / 100% No / 0% n/a			10	10% Yes / 90% No / 0% n/a				48

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) DC administration?	No			30% Yes / 60% No / 10% n/a				9	38% Yes / 31% No / 31% n/a				33
c) Pensioner data maintenance?	No			0% Yes / 100% No / 0% n/a				10	13% Yes / 88% No / 0% n/a				48
d) Active member data maintenance?	No			0% Yes / 100% No / 0% n/a				10	10% Yes / 90% No / 0% n/a				48
e) Contribution collection?	No			10% Yes / 90% No / 0% n/a				10	10% Yes / 90% No / 0% n/a				48
f) Disability decisions?	Yes			50% Yes / 50% No / 0% n/a				10	40% Yes / 58% No / 2% n/a				47
129 Which of the following programs do you offer to members AND administer yourself? [i.e., design, enrolment, premium collection]													
a) Pre-retirement health?	No			0% Yes / 100% No / 0% n/a				10	6% Yes / 90% No / 4% n/a				46
b) Post-retirement health?	No			10% Yes / 90% No / 0% n/a				10	21% Yes / 75% No / 4% n/a				46
c) Pre-retirement dental and vision?	No			0% Yes / 100% No / 0% n/a				10	2% Yes / 94% No / 4% n/a				46
d) Post-retirement dental and vision?	No			10% Yes / 90% No / 0% n/a				10	15% Yes / 81% No / 4% n/a				46
e) Long-term care insurance?	No			0% Yes / 100% No / 0% n/a				10	6% Yes / 90% No / 4% n/a				46
f) Loans to members?	No			10% Yes / 90% No / 0% n/a				10	10% Yes / 85% No / 4% n/a				46
g) Optional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.]	Yes			40% Yes / 60% No / 0% n/a				10	21% Yes / 75% No / 4% n/a				46
h) Optional insurance? [i.e., life and/or auto and/or home]	No			0% Yes / 100% No / 0% n/a				10	10% Yes / 85% No / 4% n/a				46
i) Other (describe)?	Yes			30% Yes / 70% No / 0% n/a				10	21% Yes / 75% No / 4% n/a				46
Medical savings plan used for reimbursement of post-retirement eligible medical expenses. Employee participation is mandatory if adopted by employer or union.													
n/a													
n/a													
130 Is your organization directly responsible for both investments and pension administration?	No			60% Yes / 40% No / 0% n/a				10	65% Yes / 35% No / 0% n/a				48
131 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			0% Yes / 100% No / 0% n/a				10	17% Yes / 83% No / 0% n/a				48
132 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, General Assembly, etc.]	Yes			50% Yes / 50% No / 0% n/a				10	44% Yes / 50% No / 6% n/a				45
Paying Pension Rules													
133 Do you make payments to annuitants that are accounted for separately from the normal pension?	No			20% Yes / 80% No / 0% n/a				10	38% Yes / 58% No / 4% n/a				46

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<p>[For example :</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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).]</li> </ul>													
<p>134 Do you:</p> <p>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.]</p> <p>b) Check income of disabled members after they have started receiving disability payments?</p> <p>c) Check school status? [For example, some systems will check that a dependent beneficiary is still eligible to receive a survivor pension benefit.]</p> <p>d) Do proof-of-life checks that require individual annuitants to provide affidavits or notarization or similar proof of life?</p> <p>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.]</p> <p>Payment Options</p>	Yes				40% Yes / 60% No / 0% n/a			10	44% Yes / 52% No / 4% n/a				46
	Yes				80% Yes / 20% No / 0% n/a			10	63% Yes / 27% No / 10% n/a				43
	Yes				80% Yes / 20% No / 0% n/a			10	52% Yes / 44% No / 4% n/a				46
	No				70% Yes / 30% No / 0% n/a			10	85% Yes / 10% No / 4% n/a				46
	Yes				90% Yes / 10% No / 0% n/a			10	92% Yes / 4% No / 4% n/a				46
<p>135 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%, etc.).]</p>	No				70% Yes / 30% No / 0% n/a			10	73% Yes / 23% No / 4% n/a				46
	No				20% Yes / 80% No / 0% n/a			10	21% Yes / 75% No / 4% n/a				46

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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							10					46
136 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 3			6	3	1	3	10 6					46 33
137 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?	No n/a n/a							10 5 5					46 23 23
138 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.]	Yes							10					46
139 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.]	Yes							10					46
140 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							10					46
141 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.]	No							10					46

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
142 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							10					46
143 At retirement, can a member convert:													
a) Part of his benefit into a partial lump sum payment?	No							10					46
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							10					46
144 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?	Any Day							10					46
145 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	3			7	3	1	3	10	310	2	0	10	46
146 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			9	2	1	3	10	16	2	0	3	46
147 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.)?	No							10					46

Survey Question	Your Response			Peers 2020					All Participants 2020						
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
b) Conditional COLA based on the level of funding?	No			40% Yes / 60% No / 0% n/a					10	25% Yes / 71% No / 4% n/a					46
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			30% Yes / 70% No / 0% n/a					10	15% Yes / 81% No / 4% n/a					46
148 Do you have COLA clauses that increase the base pensionable earnings of inactive members?	No			30% Yes / 70% No / 0% n/a					10	21% Yes / 75% No / 4% n/a					46
a) If yes, are these COLA increases the same as they are for annuitants?	n/a			30% Yes / 0% No / 70% n/a					3	17% Yes / 4% No / 79% n/a					10
Benefit Formulas															
149 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. 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.)  2. Pre-1995 public employees can get an unreduced retirement at age 55 with 20 years of service. 3. Teachers can get an unreduced retirement when age plus years of service equals 75.]	4			21	7	2	9	10	91	6	1	10	46		
150 Can members retire earlier than the age required for an unreduced retirement formula? [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.]	Yes			100% Yes / 0% No / 0% n/a					10	94% Yes / 2% No / 4% n/a					46
151 How many different salary definitions could apply in retirement formula calculations? [Examples of different salary definitions include: • 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.]	3			12	3	1	4	10	22	3	1	5	46		
152 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas?	8			17	6	2	7	10	91	4	1	9	46		

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
[For example, one system has the following three different 'formula percentage' rule sets: 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.]													
153 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.]	No							10					46
a) Each system uses its own formula and salary data to determine the benefit.	n/a							5					25
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.	n/a							5					25
c) The highest formula will apply.	n/a							5					25
d) The formula of the plan where the member works last will apply.	n/a							5					25
e) Other (describe).	n/a							5					25
n/a													
External Reciprocity													
154 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.]	Yes							10					46
155 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							10					46
Service Credit Rules													

Survey Question	Your Response					Peers 2020				All Participants 2020			
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<p>156 How many different definitions do you have for a "full year" of service credit?</p> <p>[For example, a system could have:</p> <ul style="list-style-type: none"> <li>• One definition such as "more than 120 days = a year".</li> <li>• 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.</li> <li>• 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.</li> <li>• Or the following two definitions for hourly employees: 48 weeks of 40 hours per week versus 48 weeks of 36 hours per week.]</li> </ul>	1			100	3	1	14	10	100	3	1	7	46
<p>157 Does your system have more than one payroll year for determining service credit?</p> <p>[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.]</p> <p>a) If yes, how many different payroll years exist in your system?</p>	No			40% Yes / 60% No / 0% n/a				10	31% Yes / 65% No / 4% n/a				46
	n/a			6	4	2	4	4	30	3	1	6	15
<p>158 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.]</p>	9			9	2	1	3	10	9	2	0	3	46
<p>159 Do you permit:</p> <p>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.]</p> <p>b) Casual/ temporary/ intermittent/ seasonal employees to be members? [An example of a "temporary" employee is an infrequent substitute teacher.]</p>	Yes			100% Yes / 0% No / 0% n/a				10	92% Yes / 4% No / 4% n/a				46
	Yes			50% Yes / 50% No / 0% n/a				10	65% Yes / 31% No / 4% n/a				46
<p>160 Are you sometimes asked by employers to determine the eligibility of members?</p> <p>[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.]</p>	Yes			80% Yes / 20% No / 0% n/a				10	88% Yes / 8% No / 4% n/a				46



Survey Question	Your Response				Peers 2020				All Participants 2020					
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
Service Credit Purchases														
161 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?	Yes				100% Yes / 0% No / 0% n/a				10	96% Yes / 0% No / 4% n/a				46
b) Lump sum payments from members?	Yes				100% Yes / 0% No / 0% n/a				10	96% Yes / 2% No / 2% n/a				47
c) Installment payments direct from members?	Yes				60% Yes / 30% No / 10% n/a				9	63% Yes / 33% No / 4% n/a				46
d) Installment payments via payroll deduction through employers?	No				50% Yes / 50% No / 0% n/a				10	54% Yes / 44% No / 2% n/a				47
162 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'.]	4			21	9	4	10	10	54	12	2	13	46	
163 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.]	7			10	6	3	6	10	19	5	1	6	46	
164 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies):														
a) Essentially identical for all your members?	Yes				60% Yes / 40% No / 0% n/a				10	38% Yes / 56% No / 6% n/a				45
b) Similar for all member groups, albeit with some differences?	No				40% Yes / 60% No / 0% n/a				10	46% Yes / 50% No / 4% n/a				46
c) Very different for different member groups?	No				20% Yes / 80% No / 0% n/a				10	17% Yes / 77% No / 6% n/a				45
Refunds, Transfers-out and Terminating Payments														
165 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	No				60% Yes / 40% No / 0% n/a				10	58% Yes / 38% No / 4% n/a				46
a) If yes, how many different one-time death payment rule sets do you have? [i.e., \$5,000, \$2,000 etc.]	n/a			8	4	1	4	6	8	4	1	4	28	

Survey Question	Your Response			Peers 2020					All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
166 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.] Disability	2			2	2	1	2	10	8	2	1	3	46
167 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.)? 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] c) Disabled members receive service retirement (time on disability counts as eligible service credit)? d) Other (describe)? n/a	Yes			70% Yes / 30% No / 0% n/a				10	73% Yes / 15% No / 13% n/a				42
	No			20% Yes / 80% No / 0% n/a				10	15% Yes / 75% No / 10% n/a				43
	No			40% Yes / 60% No / 0% n/a				10	35% Yes / 54% No / 10% n/a				43
	No			10% Yes / 90% No / 0% n/a				10	19% Yes / 65% No / 17% n/a				40
168 Will you pay a disabled member that returns to work at a salary lower than he previously earned: a) The difference between his old salary (or his old disability benefit) and his new lower salary? b) An amount that is potentially greater than the difference between his old salary and his new lower salary?	Yes			20% Yes / 80% No / 0% n/a				10	19% Yes / 63% No / 19% n/a				39
	No			10% Yes / 90% No / 0% n/a				10	4% Yes / 77% No / 19% n/a				39
169 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? b) Employer decides? 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.] d) Other (describe)? Total and permanent disability is defined as inability to engage in any substantial or gainful employment for a period of one year or longer.	No			10% Yes / 90% No / 0% n/a				10	13% Yes / 73% No / 15% n/a				41
	No			0% Yes / 100% No / 0% Some / 0% n/a				10	2% Yes / 81% No / 4% Some / 13% n/a				42
	Yes			100% Yes / 0% No / 0% n/a				10	81% Yes / 4% No / 15% n/a				41
	Yes			10% Yes / 90% No / 0% n/a				10	15% Yes / 69% No / 17% n/a				40

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
170 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				80% Yes / 20% No / 0% n/a			10		56% Yes / 29% No / 15% n/a			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.]	n/a				0% Yes / 90% No / 10% n/a			9		13% Yes / 71% No / 17% n/a			40
c) Totally and permanently incapacitated and member is not reasonably expected to recover from disabling medical condition or not expected to ever work again?	n/a				30% Yes / 60% No / 10% n/a			9		21% Yes / 58% No / 21% n/a			38
d) Other (describe)?	Yes				20% Yes / 80% No / 0% n/a			10		13% Yes / 67% No / 21% n/a			38
n/a													
171 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				0% Yes / 0% No / 100% n/a			0		8% Yes / 4% No / 88% n/a			6
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 / 0% No / 100% n/a			0		4% Yes / 8% No / 88% n/a			6
c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?	n/a				0% Yes / 0% No / 100% n/a			0		4% Yes / 8% No / 88% n/a			6

Survey Question	Your Response				Peers 2020				All Participants 2020				
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
172 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.]	4			12	4	1	5	10	96	3	1	7	41
	n/a			n/a	n/a	n/a	n/a	0	2	1	0	1	6
173 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	No			20% Yes / 80% No / 0% n/a				10	25% Yes / 60% No / 15% n/a				41
	No			50% Yes / 50% No / 0% n/a				10	38% Yes / 46% No / 17% n/a				40
	No			0% Yes / 100% No / 0% n/a				10	8% Yes / 75% No / 17% n/a				40
	No			0% Yes / 100% No / 0% n/a				10	6% Yes / 77% No / 17% n/a				40
	No			10% Yes / 90% No / 0% n/a				10	15% Yes / 69% No / 17% n/a				40
	No			10% Yes / 90% No / 0% n/a				10	10% Yes / 73% No / 17% n/a				40
	Yes			60% Yes / 40% No / 0% n/a				10	44% Yes / 40% No / 17% n/a				40
	n/a			0% Yes / 90% No / 10% n/a				9	17% Yes / 65% No / 19% n/a				39
174 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?	No			70% Yes / 30% No / 0% n/a				10	75% Yes / 21% No / 4% n/a				46
	Yes			70% Yes / 30% No / 0% n/a				10	79% Yes / 17% No / 4% n/a				46
	Yes			80% Yes / 20% No / 0% n/a				10	81% Yes / 15% No / 4% n/a				46
	No			50% Yes / 50% No / 0% n/a				10	38% Yes / 58% No / 4% n/a				46
	n/a			20% All / 0% None / 50% Some / 30% n/a				7	10% All / 15% None / 50% Some / 25% n/a				36
	All			30% All / 0% None / 40% Some / 30% n/a				7	15% All / 15% None / 50% Some / 21% n/a				38

Survey Question	Your Response			Peers 2020					All Participants 2020						
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
c) Overtime pay?	All			50% All / 0% None / 30% Some / 20% n/a					8	44% All / 10% None / 27% Some / 19% n/a					39
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	n/a			20% All / 0% None / 30% Some / 50% n/a					5	15% All / 4% None / 19% Some / 63% n/a					18
175 When determining a member's pensionable earnings does a cap on salary increases apply? Customization Options	No			60% Yes / 40% No / 0% n/a					10	46% Yes / 50% No / 4% n/a					46
176 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.]	No			20% Yes / 80% No / 0% n/a					10	17% Yes / 79% No / 4% n/a					46
	No			0% Yes / 100% No / 0% n/a					10	8% Yes / 88% No / 4% n/a					46
	No			0% Yes / 100% No / 0% n/a					10	21% Yes / 75% No / 4% n/a					46
	No			30% Yes / 70% No / 0% n/a					10	25% Yes / 71% No / 4% n/a					46
	Yes			10% Yes / 90% No / 0% n/a					10	10% Yes / 85% No / 4% n/a					46
	No			10% Yes / 90% No / 0% n/a					10	13% Yes / 83% No / 4% n/a					46
	No			10% Yes / 90% No / 0% n/a					10	10% Yes / 85% No / 4% n/a					46
177 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?	No			0% Yes / 100% No / 0% n/a					10	2% Yes / 94% No / 4% n/a					46
	No			0% Yes / 100% No / 0% n/a					10	4% Yes / 92% No / 4% n/a					46
	No			0% Yes / 100% No / 0% n/a					10	0% Yes / 96% No / 4% n/a					46
	No			10% Yes / 90% No / 0% n/a					10	6% Yes / 90% No / 4% n/a					46
	No			0% Yes / 100% No / 0% n/a					10	0% Yes / 96% No / 4% n/a					46

Survey Question	Your Response			Peers 2020				All Participants 2020						
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
f) Service credit purchase categories?	No			0% Yes / 100% No / 0% n/a				10	6% Yes / 90% No / 4% n/a					46
g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000]	No			0% Yes / 100% No / 0% n/a				10	8% Yes / 88% No / 4% n/a					46
h) Disability coverage rules?	No			0% Yes / 100% No / 0% n/a				10	8% Yes / 88% No / 4% n/a					46
i) Choice as to whether and how contributions and benefits are coordinated with social security?	No			10% Yes / 90% No / 0% n/a				10	4% Yes / 92% No / 4% n/a					46
j) Other (describe)? n/a	No			10% Yes / 90% No / 0% n/a				10	15% Yes / 81% No / 4% n/a					46
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	n/a	n/a	n/a	0	5	5	5	5	1	
b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc]	n/a			n/a	n/a	n/a	n/a	0	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	0	n/a	n/a	n/a	n/a	0	
d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	n/a			2	2	2	2	1	6	4	2	4	3	
e) Vesting period?	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	n/a	n/a	n/a	0	10	2	2	5	3	
g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000]	n/a			n/a	n/a	n/a	n/a	0	6	2	2	3	4	
h) Disability coverage rules?	n/a			n/a	n/a	n/a	n/a	0	4	2	2	3	4	
i) Choice as to whether and how contributions and benefits are coordinated with social security?	n/a			1	1	1	1	1	2	2	1	2	2	
j) Other (describe)?	n/a			1	1	1	1	1	30	3	1	6	7	
178 Can an existing employer change any of the choices (per question 177 above), effectively creating a new or altered rule set, at any time?	No			20% Yes / 70% No / 10% n/a				9	23% Yes / 71% No / 6% n/a					45
179 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.]	4			42	6	3	9	10	4,331	6	0	278	46	
b) Members?	5			228	5	2	27	10	228	4	1	11	46	
180 Which of the following payment methods for employee contributions occur in the plans that you administer:														

Survey Question	Your Response			Peers 2020					All Participants 2020						
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
a) No employee contributions?	No			50% Yes / 50% No / 0% n/a					10	31% Yes / 65% No / 4% n/a					46
b) Employer pays his part and also the employee contributions?	No			50% Yes / 50% No / 0% n/a					10	42% Yes / 54% No / 4% n/a					46
c) Employer withholds employee contributions pre-tax from his salary?	Yes			80% Yes / 20% No / 0% n/a					10	92% Yes / 4% No / 4% n/a					46
d) Employer withholds employee contributions post-tax from his salary?	No			40% Yes / 60% No / 0% n/a					10	42% Yes / 54% No / 4% n/a					46
181 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: 1. Judges & State Patrol Plan: Lump sum appropriations 2. Correctional & State Patrol Plan: Employer supplemental payment as a % of pay	Yes			50% Yes / 50% No / 0% n/a					10	50% Yes / 46% No / 4% n/a					46
182 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]	No			10% Yes / 90% No / 0% n/a					10	27% Yes / 69% No / 4% n/a					46
183 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			50% Yes / 50% No / 0% n/a					10	44% Yes / 44% No / 13% n/a					42
184 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	No			90% Yes / 10% No / 0% n/a					10	88% Yes / 8% No / 4% n/a					46
185 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?	No			70% Yes / 30% No / 0% n/a					10	65% Yes / 27% No / 8% n/a					44
	No			50% Yes / 50% No / 0% n/a					10	50% Yes / 42% No / 8% n/a					44
	No			10% Yes / 90% No / 0% n/a					10	15% Yes / 77% No / 8% n/a					44

Survey Question	Your Response					Peers 2020				All Participants 2020			
	2020	2019	2018	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
186 How many times per year do you send invoices or 'advices' to each employer? Divorce	0			47	1	0	7	9	47	2	0	9	44
187 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.													
a) Minimal impact. Law prevents you from paying the pension to anybody except the member and the member's specified beneficiaries.	No				10% Yes / 90% No / 0% n/a			10	10% Yes / 85% No / 4% n/a			46	
b) Minimal impact unless children are involved. With children you may be required to redirect payment.	No				0% Yes / 100% No / 0% n/a			10	0% Yes / 96% No / 4% n/a			46	
c) A portion of the pension is paid to the ex-spouse, but ONLY when the member begins receiving benefits.	Yes				80% Yes / 20% No / 0% n/a			10	54% Yes / 42% No / 4% n/a			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				10% Yes / 90% No / 0% n/a			10	25% Yes / 71% No / 4% n/a			46	
e) Other (describe) n/a	No				0% Yes / 100% No / 0% n/a			10	17% Yes / 79% No / 4% n/a			46	



## 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 <sup>1</sup>			
	2020	2019	2018	2017
United States Dollars - USD	1.000	1.000	1.000	1.000
Canada Dollars - CAD	0.832	0.832	0.801	0.794
Euro - EUR	1.400	1.400	1.427	1.338
Denmark Kroner - DKK	0.148	0.148	0.147	0.136
Sweden Kronor - SEK	0.112	0.112	0.113	0.110
United Kingdom Pounds - GBP	1.451	1.451	1.452	1.422
Australia Dollars - AUD	0.680	0.680	0.697	0.660

1. Source OECD Website, March 2021.

## Appendix C - Activity definitions

1. Member Transactions	
<p>1a. Pension Payments</p>	<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"> <li>• EFT processing.</li> <li>• Check processing and postage.</li> <li>• Resolving failed, misdirected and lost payments.</li> <li>• Paying, but not calculating, adjustments to pensions. For example, many systems pay retroactive adjustments to pensions initiated based on incomplete data.</li> <li>• Collecting overpayments.</li> <li>• The processing of return payments from annuitants.</li> <li>• Stopping pension payments upon the death of an annuitant.</li> </ul> <p>2. Processing deductions from the gross pension payment. For example:</p> <ul style="list-style-type: none"> <li>• Processing and paying taxes and other governmental deductions, such as social security.</li> <li>• Processing legally required deductions such as liens on wages ordered by a judge.</li> <li>• Processing and effecting payment of optional deductions that the member can request, such as for health care or optional life insurance or union dues.</li> <li>• Processing and mailing of check stubs or EFT payment advices.</li> <li>• Processing and mailing of annual tax receipts to annuitants.</li> <li>• Keeping track of the rules and regulations for deductions.</li> </ul> <p>3. Confirming payment eligibility. This includes:</p> <ul style="list-style-type: none"> <li>• Cross referencing pension payrolls with death records.</li> <li>• Obtaining proof that someone is alive.</li> <li>• Checking eligibility.</li> </ul> <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"> <li>• Maintaining banking, address and beneficiary data for retirees. These belong in 3c Data Not from Employers.</li> <li>• The work of inflation adjustments. It belongs in 1b Pension Inceptions.</li> </ul>
<p>1b. Pension Inceptions</p>	<p>1. New annuitants: calculating, finalizing and arranging annuity pensions to new payees (i.e., early and normal service retirements, death in-service or on-pension resulting in annuity payments to spouse or dependents, divorce that results in new annuity pension streams). Exclude disability inceptions (except Dutch systems). Disability belongs in 1e Disability.</p> <p>2. Changes to gross amount of pensions (excluding disability pensions) including:</p> <ul style="list-style-type: none"> <li>• Adjusting pensions that were initiated based on incomplete or estimated data.</li> <li>• Reducing the annuity payment when pensioner begins receiving social security (NL: AOW, Canada: CPP).</li> <li>• Cost of living adjustments for pensioners.</li> <li>• Last survivor options that reduce the amount paid to the pensioner when a spouse dies.</li> <li>• High/Low construction: Reducing the gross annuity paid from the "High" amount to the "Low" amount.</li> <li>• Pop-up options that increase the amount paid to the pensioner if spouse dies first.</li> <li>• Redesign of the payment option (such as changing from 0% survivor to 50% survivor) at request of the annuitant.</li> </ul> <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>

## Appendix C - Activity definitions

<p>1c. Withdrawals, Refunds, Transfers-out</p>	<p>Payments that terminate your relationship with a member including:</p> <ul style="list-style-type: none"> <li>• Withdrawals and Refunds of contributions.</li> <li>• Lump sum and commuted value payments.</li> <li>• Pre-retirement death that results in a final payment (refund, commuted value, death payment).</li> <li>• 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.</li> <li>• Hardship withdrawals (including partials).</li> <li>• Excess contribution refunds (For example, 50% Rule Refunds in Canada).</li> <li>• Individual rollovers of DB monies to internal DC accounts which effectively terminate the DB pension entitlement.</li> </ul> <ul style="list-style-type: none"> <li>• Individual transfers-out of monies to authorized external systems.</li> <li>• Collective transfers-out when an employer exits your system.</li> </ul> <p>The activity also includes:</p> <ul style="list-style-type: none"> <li>• Providing written estimates of refunds and transfers-out (do not include estimates for Lump Sums and Commuted Value Payments which belong in 2e Written Pension Estimates).</li> <li>• Calculating, arranging and making estimated and final payments.</li> <li>• Related tax deductions, filings and reporting sent to members and tax authorities.</li> <li>• Reminders to speed up processing by external parties.</li> <li>• Collecting overpayments of lump sums or other terminating payments.</li> </ul>
<p>1d. Purchases and Transfers-in</p>	<ul style="list-style-type: none"> <li>• Service credit purchases for refunded past service, military service, etc.</li> <li>• Purchases that provide members with additional pensionable salary.</li> <li>• Individual transfers-in/ rollover of monies from external retirement systems.</li> <li>• Collective transfers-in such as when a new employer is merged into your system.</li> </ul> <p>The activity also includes:</p> <ul style="list-style-type: none"> <li>• Providing formal written estimates of purchases and transfers-in/ rollovers.</li> <li>• Posting purchases and applying payments.</li> <li>• Receiving purchase payments.</li> <li>• Related tax reporting sent to members and tax authorities.</li> <li>• Purchases applicant dealing directly with the Purchase division, subsequent to an initial request for a purchase.</li> </ul>
<p>1e. Disability</p>	<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"> <li>• Written disability estimates.</li> <li>• Disability approval process.</li> <li>• Applications and inceptions.</li> <li>• 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.</li> <li>• Monitoring and reviewing disabled pensioners and/ or temporarily disabled members for continuing entitlement, including checks on income and medical reviews.</li> <li>• Checks on eligibility of disability payments.</li> <li>• Rehabilitation of disability recipients (very few systems perform this activity).</li> <li>• Medical assessment reviews of new hires for eligibility for death and disability benefits.</li> </ul> <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"> <li>• 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.</li> <li>• 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.</li> </ul>
1g. Optional and Third Party Administered Benefits	<p>Examples of optional and third party administered benefits are:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Third party administered benefits. For example, the defined contribution portion of hybrid DB/DC plans are often outsourced.</li> </ul> <p>Include the costs of:</p> <ul style="list-style-type: none"> <li>• Specialists responsible for optional and third party benefits, including design, vendor management and enrolment.</li> <li>• Fees paid to third parties to administer outsourced benefits.</li> </ul> <p>Do NOT include:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Actuarial and legal costs. These belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.</li> </ul>
<b>2. Member Communication</b>	
2a. Call Center	<p>The 'first-line' communication work for active, inactive and annuitant member inquiries. 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"> <li>• 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.</li> <li>• 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 2f Mass</li> <li>• Email: reading, responding to simple requests, redirecting activity specific requests.</li> <li>• Written correspondence: reading, responding to simple requests, redirecting activity specific requests.</li> </ul> <p>Includes contact center hardware and software.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> <li>• 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 2e Written Pension Estimates and not here, even if the work is done in the Contact Center.</li> <li>• Subsequent follow-up activity specific communication. For example, a disability applicant dealing directly with the disability division belongs in 1e Disability.</li> </ul>

## Appendix C - Activity definitions

2b. Mail Room, Imaging	<ul style="list-style-type: none"> <li>• Managing incoming and outgoing mail.</li> <li>• Incoming written correspondence: sorting, redirecting activity specific requests.</li> <li>• Scanning and imaging of incoming documents and forms to start a workflow process.</li> </ul> <p>Do NOT include:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>
2c. 1-on-1 Counseling	<ul style="list-style-type: none"> <li>• Walk-in traffic that meets with counselors.</li> <li>• 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</li> <li>• If written pension estimates are prepared during a counseling session the cost belongs in counseling and not in written estimates.</li> </ul>
2d. Presentations and Group Counseling	<ul style="list-style-type: none"> <li>• All presentations to members and retirees.</li> <li>• Group retirement counseling.</li> <li>• Webinars.</li> </ul>
2e. Written Pension Estimates	<p>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"> <li>• Annuity pensions including early and service retirement.</li> <li>• Giving customized written insight into pension consequences of divorce, death, layoffs, taxes, gaps in pension coverage, etc.</li> <li>• Lump sum or commuted value payouts.</li> </ul> <p>Do NOT include:</p> <ul style="list-style-type: none"> <li>• Estimates for transfers, purchases or refunds of contributions. These belong in 1c Withdrawals, Refunds, Transfers-out and 1d Purchases and Transfers-in.</li> <li>• Estimates that the member did not request, such as estimates that are automatically sent out when the member is eligible to retire or estimates on member statements. These belong in 2f Mass Communication.</li> <li>• Non-written estimates such as verbal estimates provided over the phone or obtained by the member from the website.</li> <li>• Time spent during a counseling session preparing written estimates. This belongs in 2c 1-on-1 Counseling.</li> </ul>
2f. 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"> <li>• Member statements.</li> <li>• Brochures and publications.</li> <li>• Newsletters and information letters.</li> <li>• Videos, CD-ROMS.</li> <li>• 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.</li> <li>• 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.</li> <li>• Welcome kits.</li> <li>• Letters informing members when they reach or approach certain milestones such as becoming vested, eligible for disability, eligibility for retirement, etc.</li> </ul> <p>Do NOT include:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 1-on-1 correspondence. These costs belong in the activity to which the correspondence pertains. For example, correspondence re: pension estimates belongs in 2e Written Pension Estimates.</li> <li>• Payment advices, check stubs, letters informing of changes in gross amount, and annual tax receipts prepared for retirees. These belong in 1a Pension Payments.</li> <li>• Employer targeted communication such as the employer portions of the website and employer newsletters. These belong in 3b Service to Employers.</li> </ul>

## Appendix C - Activity definitions

3. Collections and Data Maintenance	
<p>3a. Data and Money from Employers</p>	<ul style="list-style-type: none"> <li>• Collection and cashing of member and employer contributions from employers.</li> <li>• Collection of member data (service credit, salary, personal information, employer, etc) from employers.</li> <li>• Reconciliation of required versus remitted money.</li> <li>• Analysis, correction and confirmation with employer of member data.</li> <li>• Setting up the data and money collection process for new employers.</li> <li>• Improving the data collection process for existing employers (i.e., converting paper systems to electronic, etc).</li> <li>• Registering member choices and instructions that are received through the employer. For example:               <ul style="list-style-type: none"> <li>▫ Some hybrid DB/ DC systems require that a member's DC instructions come through the employer.</li> <li>▫ Members at some Dutch systems can choose to contribute more to get early retirement. This choice is registered via the employer.</li> </ul> </li> </ul> <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"> <li>• Advising employers of the required contribution rate (but excluding the actuarial cost of determining the rates which belongs in 7c Actuarial).</li> <li>• Billing employers for regular contributions, special contributions to cover funding shortfalls, additional payments to retirees funded by the employer, etc.</li> <li>• Collecting bad debts. But do not include legal costs. These belong in 7d Legal and Rules Interpretation.</li> <li>• 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.</li> <li>• 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).</li> </ul>
<p>3b. Service to Employers</p>	<ul style="list-style-type: none"> <li>• Training employers.</li> <li>• Helping new employers.</li> <li>• Maintaining employer relationships.</li> <li>• Presentations, counseling, workshops for employers.</li> <li>• Publications and newsletters for employers (as opposed to materials sent to members through employers).</li> <li>• Employer helpdesk/ Employer Call Center.</li> <li>• Employer website including the design, development and maintenance. as well as the pro rata share of the website infrastructure.</li> <li>• Advice, account management, HRM support re: pensions.</li> </ul> <p>Do NOT include marketing to employers. Marketing costs belong in 4c Government and Public Relations.</p>
<p>3c. Data Not From Employers</p>	<p>Gathering and maintaining member data that is not provided by employers including:</p> <ul style="list-style-type: none"> <li>• Retiree and Inactive data maintenance such as change of address, change of beneficiary, change in marital status, death, registering changes in payments, etc.</li> <li>• Tracking 'lost' inactive members.</li> <li>• If applicable, registering cost of living adjustments to the salary base of inactive members (a few systems do)</li> <li>• 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 2e Written Pension Estimates, 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.</li> <li>• 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.</li> <li>• Registering member choices and instructions that are received directly from the member. For example:               <ul style="list-style-type: none"> <li>▫ Defined Contribution instructions obtained directly from active, inactive or retired members, such as changes in asset allocation.</li> </ul> </li> </ul> <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.</p>

## Appendix C - Activity definitions

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

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"> <li>Acquisitions of long lived assets such as computer hardware or a new building.</li> <li>Major software development projects that will have an extended life.</li> </ul> <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"> <li>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 7.1 Non-Pension and Optional Benefits are defined in the comment field in question 7.1.</li> </ul>

## Appendix C - Activity definitions

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"> <li>• Amortization of the IT portion major projects. This belong in activity 5c Amortization of IT major projects.</li> <li>• Amortization of leaseholds or office furniture. This belongs in activity 7a Building and Utilities.</li> </ul>
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"> <li>• Amortization of the non-IT portion major projects. This belongs in activity 5a Amortization of non-IT major projects.</li> <li>• Amortization/depreciation of IT infrastructure such as mainframes and servers. This belongs in 6a IT Strategy, Database Management and Applications (excl. major projects).</li> <li>• Amortization/depreciation of desktop hardware and software, or telecommunications equipment. This belongs in activity 6b. IT Desktop, Network, and Telecommunication.</li> <li>• Amortization of projects that relate to investment management.</li> </ul>
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>

### 6. Information Technology

6a. IT Strategy, Database Management and Applications (excl. major projects)	<ul style="list-style-type: none"> <li>• IT management and strategy.</li> <li>• IT architecture.</li> <li>• Data center i.e., current year cost (whether cash or amortization) of mainframe, servers, data center hosting.</li> <li>• Training.</li> <li>• Head of the IT department's office.</li> <li>• Database management including: building databases, testing databases for data integrity, maintaining databases, ensuring operation of databases.</li> <li>• Application maintenance, enhancement and development that is not capitalized.</li> <li>• Project management that is not included in Major Projects.</li> </ul> <p>Do NOT include the portion of the above that relates to investment management.</p>
6b. IT Desktop, Network, and Telecommunications	<ul style="list-style-type: none"> <li>• User services including application licenses, personal computer hardware and software, help desk.</li> <li>• Network (i.e., LAN/ WAN, network security).</li> <li>• Telecommunications including call center equipment and mobile devices. If any of the above costs are capitalized, include current year amortization.</li> </ul> <p>Do NOT include the portion of the above that relates to investment management.</p>



## Appendix C - Activity definitions

7. Support Services	
7a. Building and Utilities	<ul style="list-style-type: none"> <li>• Building occupancy costs including rent, lease, amortization of leaseholds and building and office furniture depreciation.</li> <li>• Building depreciation if you own the building.</li> <li>• Building insurance.</li> <li>• Building maintenance services such as custodial, maintenance, security services etc.</li> <li>• Utilities.</li> </ul> <p>Do NOT include the portion of the above that relates to investment management.</p>
7b. Human Resources	<ul style="list-style-type: none"> <li>• Human resources staff and human resources consulting, including recruitment, training, career development, induction, disciplinary action etc.</li> <li>• Include time spent in the development of the HR framework, including policies and procedures.</li> </ul> <p>Do NOT include:</p> <ul style="list-style-type: none"> <li>• Time spent by non HR staff interviewing or training. For example the training of a call center agent belongs in activity 2a Call Center.</li> <li>• The portion of the above that relates to investment management.</li> <li>• Recruitment fees - these should be added to the staff costs of the people to which they relate in the different business units.</li> </ul> <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"> <li>• Actuarial work for financial and government reporting.</li> <li>• Actuarial work to determine funding policy, contribution rates or billing rates.</li> <li>• Quantifying the impact of changes in the plan.</li> <li>• Advice on plan design / redesign, funding and contributions, the employer's covenant, mergers and acquisitions etc.</li> <li>• Inception, disability and healthcare calculations that require actuarial input.</li> <li>• Formulating an Actuarial Policy document.</li> </ul>
7d. Legal and Rule Interpretation	<ul style="list-style-type: none"> <li>• All external legal fees.</li> <li>• Internal legal department (including legal fees charged by sister organizations or the corporate parent).</li> <li>• Appeals concerning pension inceptions (as well as any other appeals) if they are handled by the legal department or by external legal counsel.</li> <li>• Plan contract amendments. Adding new participating employers.</li> <li>• Interpretation of existing rule sets and laws.</li> <li>• Developing rules that simplify the interpretation of the plan contract and related legislation on behalf of staff, employers or members.</li> <li>• Support to the communications department in writing brochures and other communication material.</li> </ul> <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"> <li>• Fees paid to the external auditor, particularly for the audit opinion on the accounts.</li> <li>• 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.</li> <li>• The costs of internal audit and / or quality assurance departments.</li> </ul>
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 Transactions

Question 27. How long does it take on average for you to do individual transfers-in?

Default Your response was unknown. As a default we used value of 6.

Page Communication

Question 33. What were your volumes of:

b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up previous calls?

Default Your response was unknown. As a default (6,811.33) we used a value that ensures that ratio of this value to calls and emails is equal to participant average ratio.

Page Communication

Question 50. What were your volumes of:

a) Incoming mail?

Default Your response was unknown. As a default (32,879.22) we used a value that ensures that ratio of this value to active members is equal to participant average ratio.

Page Communication

Question 76. Does your website have a secure member area where members can access their own data?

b) How many total visits were there by members to the secure member area?

Default Your response was unknown. As a default (213,389.96) we used a value that ensures that ratio of this value to active members is equal to participant average ratio.

Page Communication

Question 96. What % of your active and inactive member on-line records are complete and accurate?

Default Your response was unknown. As a default (0.92) we used 25th percentile response of other participants to this question.

Page Communication

Question 100. Number of:

a) Incoming calls from employers?

Default Your response was unknown. As a default (3,767.09) we used a value that ensures that ratio of this value to active members is equal to participant average ratio.

Page Communication

Question 100. Number of:

b) Email queries from employers?

Default Your response was unknown. As a default (22,178.22) we used average response of other participants to this question.

## Appendix E - Service and survey question changes

### Service

Service weight changes in the Customer experience activities:

- 1 Removed the touchpoints a) Estimates and b) Refunds and Purchases from Customer experience surveying
- 2 a) Weight for surveying secure member area website visits increased from 15% to 16%.  
b) Weight for surveying other member journeys (new to the pension plan, leaving the pension plan, leave of absence, divorce and separation, planning for loved ones, retired life) increased from 5% to 10%.  
c) Weight for surveying the retirement process increased from 16% to 21%.

### Survey questions

CEM added the following questions:

- 1 Website capability
  - a) Financial planning tools
  - b) Chatbot or (virtual service agent)
- 2 Customer Experience
  - a) Merged surveying satisfaction and measuring the net promoter score into one measure.
  - b) Added feedback management and feedback measurement questions.

CEM removed the following questions:

- 1 Access to online videos and associated questions
- 2 Social media questions
- 3 Mobile version of your website

CEM moved the following questions to Customer Experience - Feedback Management:

- 1 Q121: Do you have a workflow system that provides service agents with real time information about each member's:
  - a. Interactions via calls and email?
  - b. Status of open items?
  - Added c. Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?