

BenchmarkAdmin

2021 Benchmarking Analysis for Minnesota State Retirement System

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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
- Impact of COVID on key service metrics
- Global trends

Key Takeaways:

Cost

- Before adjusting for economies of scale, your total pension administration cost of \$105 per active member and annuitant was \$27 below the peer average of \$132.
- After adjusting the cost of each peer for its scale advantage/disadvantage, your cost was \$44 below the adjusted peer average of \$149.
- Your pension administration cost of \$105 per active member and annuitant remained the same compared to last year.

Service

- Your total service score was 64. This was below the peer median of 75.
- Your total service score decreased by 2 points compared to 2020, mainly due to the impact of the pandemic on key metrics in your call center, pension inception process and 1-on-1 counseling.

69 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
Michigan ORS
Minnesota State RS
Nevada PERS
NYC TRS
NYSLRS
Ohio PERS
Oregon PERS
Pennsylvania PSERS
PSRS PEERS of Missouri

South Dakota RS
STRS Ohio
Texas County and District RS
TRS Illinois
TRS of Texas
Utah RS
Virginia RS
Washington State DRS

Canada

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

The Netherlands*

ABN Amro PF
ABP
bpfBOUW
Metaal en Techniek
PF PWRI
PF Vervoer
PFZW
Rabobank PF

Denmark

ATP

United Kingdom*

Armed Forces Pension Scheme
BSA NHS Pensions
BT Pension Scheme
Greater Manchester PF
Irish Construction Workers' PS
Local Pensions Partnership
Lothian PF
Merseyside PF
Pension Protection Fund
Principal Civil Service
Railpen Pension Scheme
Rolls Royce Pension Fund
Royal Mail Pensions
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.

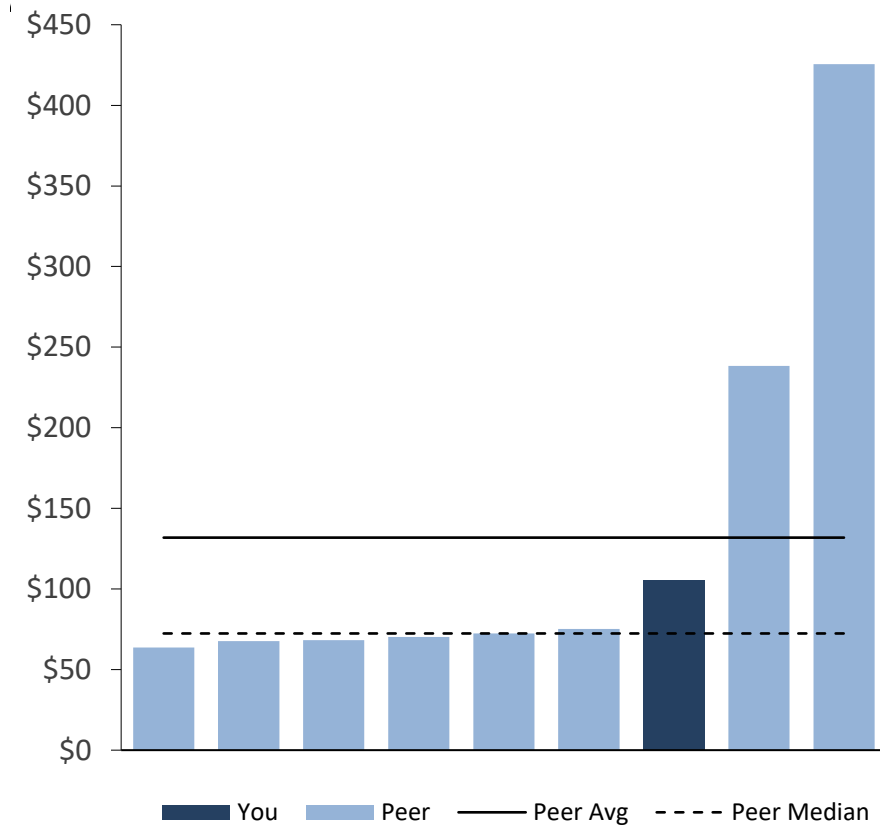
The custom peer group for Minnesota State RS consists of the following 9 peers:

Custom Peer Group for Minnesota State RS			
Peers (sorted by size)	Membership (in 000's)		
	Active Members	Annuitants	Total
PSRS PEERS of Missouri	129	101	229
NYC TRS	125	90	216
Nevada PERS	107	76	183
Utah RS	98	73	171
LACERA	99	71	170
Idaho PERS	74	47	121
Minnesota State RS	57	51	108
Delaware PERS	45	34	80
South Dakota RS	41	31	73
Peer Median	98	71	170
Peer Average	86	64	150

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 \$27 below the peer average of \$132.

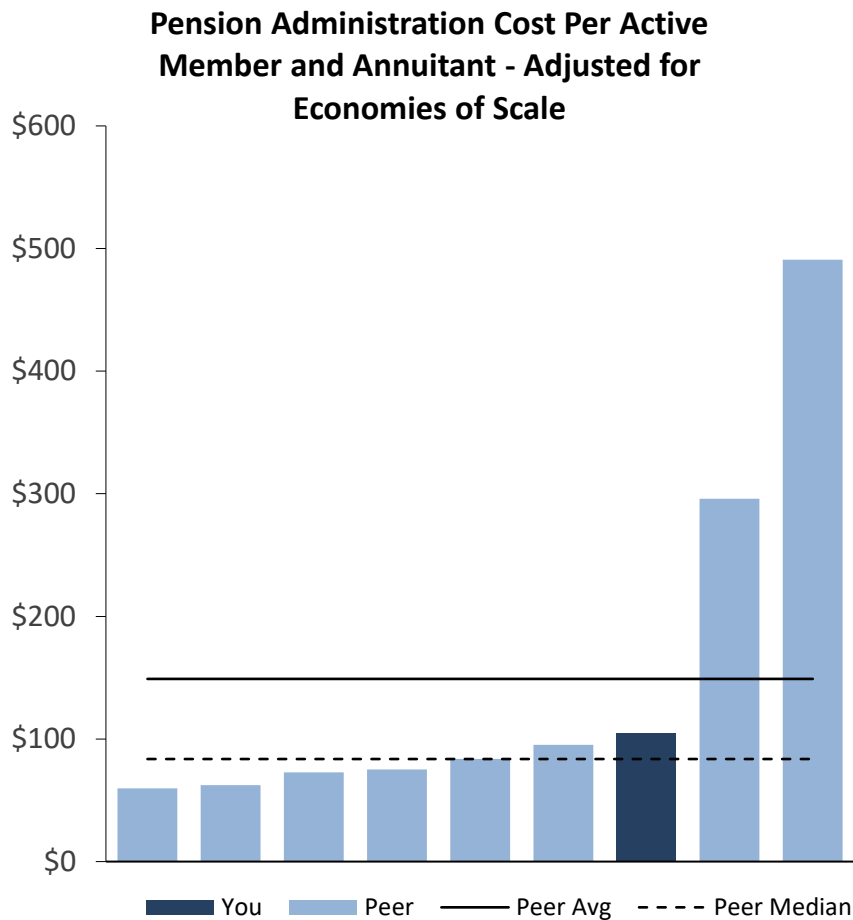
Pension Administration Cost Per Active Member and Annuitant - Unadjusted



Category	\$000s	\$ per Active Member and Annuitant	
		You	Peer Avg
<u>Front office</u>			
Member Transactions	1,633	15	23
Member Communication	4,757	44	26
Collections & Data Maintenance	475	4	6
<u>Governance and support</u>			
Governance and Financial Control	687	6	11
Major Projects	0	0	10
Information Technology	2,454	23	23
Building	71	1	11
HR, Actuarial, Audit, Other	1,211	11	15
Total Pension Administration	11,327	105	132

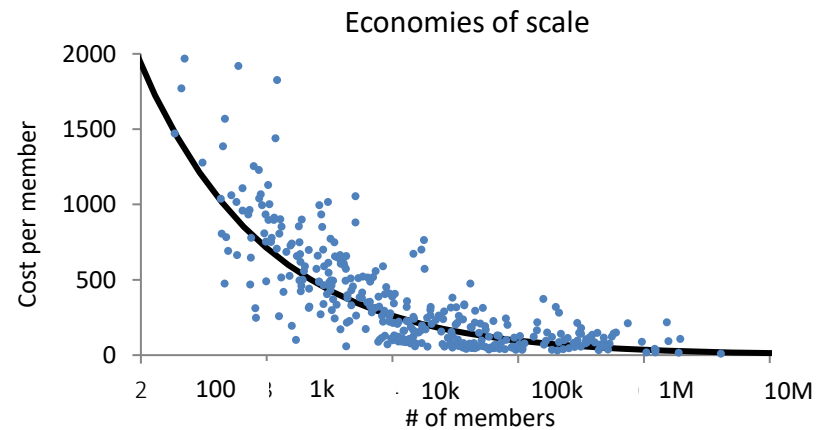
Your total pension administration cost was \$11.3 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$1.0 million.

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 \$44 below the adjusted peer average of \$149.



Your system had 23% 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.

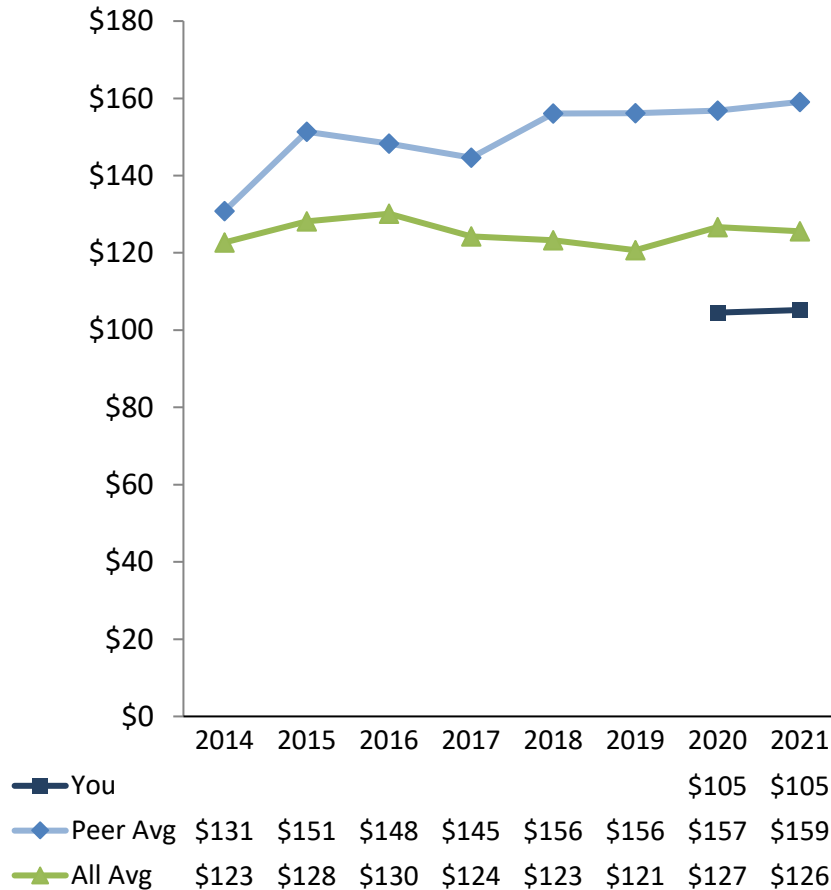
Reasons why your cost per member was \$44 below the adjusted peer average:

Reason	You	Peer Avg	Impact \$ per active member and
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	\$10	\$4
3 Lower costs per FTE			
Salaries and Benefits	\$95,985	\$110,187	
Building and Utilities	\$871	\$15,280	
HR	\$1,936	\$4,412	
IT Desktop, Networks, Telecom	<u>\$10,165</u>	<u>\$11,056</u>	
Total	\$108,957	\$140,935	-\$23
4 Lower support costs per member ¹			
Governance and Financial Control	\$7	\$9	
Major Projects	\$0	\$9	
IT Strategy, Database, Applications	\$17	\$13	
Actuarial, Legal, Audit, Other	<u>\$11</u>	<u>\$16</u>	
Total	\$35	\$47	-\$12
Total unadjusted			-\$27
Adjustment for your scale disadvantage			-\$17
Total after adjusting for economy of scale differences			-\$44

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

Your pension administration cost of \$105 per active member and annuitant remained the same compared to last year.

Trend in Total Pension Administration Costs

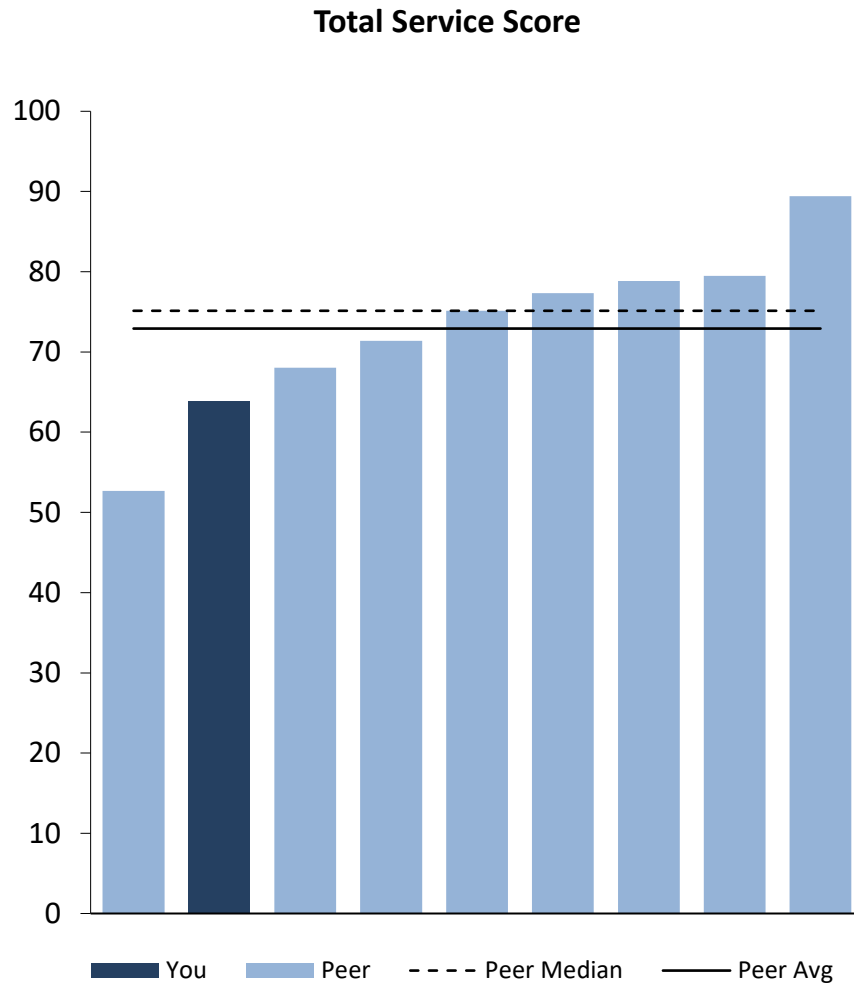


Your total pension administration cost per active member and annuitant trend is not available for the period between 2014 and 2021.

During this period, the average cost of your peers with 8 consecutive years of data increased 2.8% per annum.

Trend analysis is based on systems that have provided 8 consecutive years of data (4 of your 9 peers).

Your total service score was 64. This was below the peer median of 75.



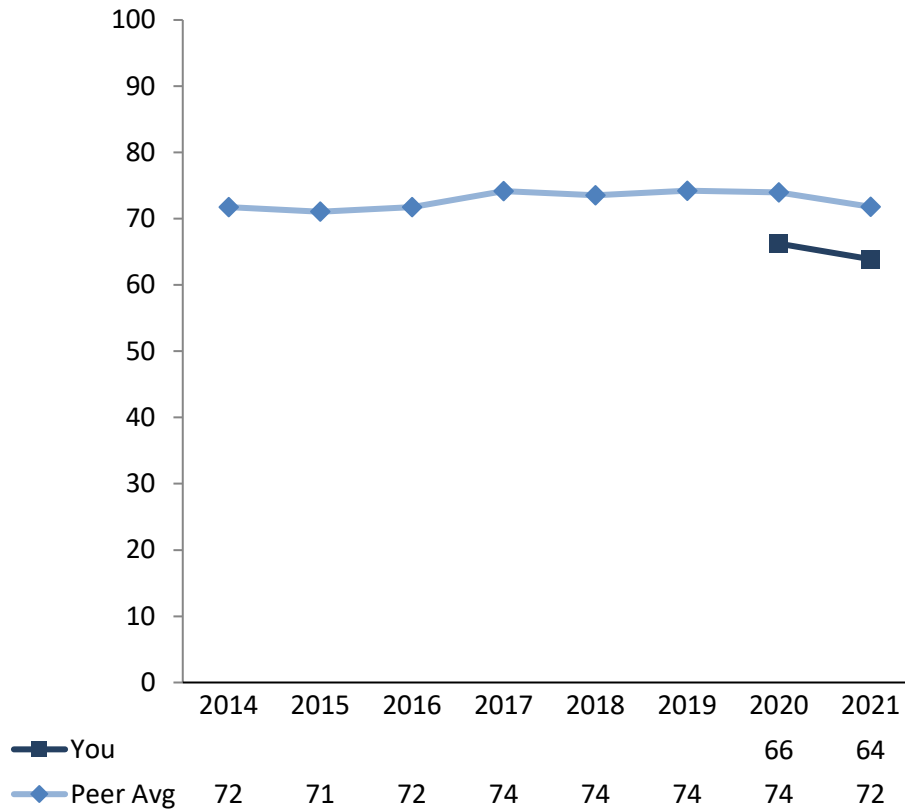
Service Scores by Activity			
Activity	Weight	You	Peer Median
1. Member Transactions			
Pension Payments	10.0%	100	100
Pension Inceptions	7.4%	11	80
Refunds, Withdrawals, and Transfers-out	1.3%	90	87
Purchases and Transfers-in	3.1%	24	90
Disability	3.8%	72	77
2. Member Communication			
Call Center	21.0%	51	70
1-on-1 Counseling	7.4%	64	81
Member Presentations	6.5%	100	100
Written Pension Estimates	4.7%	85	76
Mass Communication			
Website	21.3%	66	76
News and Targeted Communication	2.8%	72	70
Member Statements	4.7%	90	90
3. Other			
Member Experience Surveying	5.0%	27	21
Disaster Recovery	1.0%	90	90
Weighted Total Service Score	100%	64	75

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.

Trends in service

Trends in Total Service Scores



COVID-19 had an impact on you and most of your peers.

- Your total service score decreased by 2 points compared to 2020.
- The total service score peer average remained relatively stable in the past 8 years but saw a 2-point decrease compared to 2020 as well.

Trend analysis is based on systems that have provided 8 consecutive years of data (4 of your 9 peers).

Historic scores have been restated to reflect changes in methodology. Therefore, your historic service scores may differ from previous reports.

Examples of key service measures included in your Service Score:

Select Key Service Metrics	You		Peer Avg
	2020	2021	
<u>Member Contacts</u>			
• % of calls resulting in undesired outcomes (busy signals, messages, hang-ups)	14%	20%	11%
• Average total wait time including time negotiating auto attendants, etc.	330 secs	552 secs	250 secs
<u>Website</u>			
• Can members access their own data in a secure environment?	Yes	Yes	89% Yes
• Do you have an online calculator linked to member data?	Yes	Yes	89% 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	11	12
<u>1-on-1 Counseling and Member Presentations</u>			
• % of your active membership that attended a 1-on-1 counseling session	31.6%	21.0%	6.9%
• % of 1-on-1 counseling sessions at a field location	39.4%	6.2%	50.0%
• % of your active membership that attended a presentation	16.5%	10.2%	11.5%
<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%	8.1%	84.7%
• What % of survivor pension inceptions are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check?	95.0%	42.8%	62.9%
<u>Member Statements</u>			
• How current is an active member's data in the statements that the member receives?	1.0 mos	1.0 mos	2.2 mos
• Do statements provide an estimate of the future pension entitlement?	Yes	Yes	78% Yes

Where can you improve your total service score?

Potential improvements to your total service score	
Factor	Potential Improvement
91.9% 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.	+ 5.3
On average, members calling your call center reach a knowledgeable person in 552 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 60 seconds or less.	+ 3.8
20.4% 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.	+ 3.4

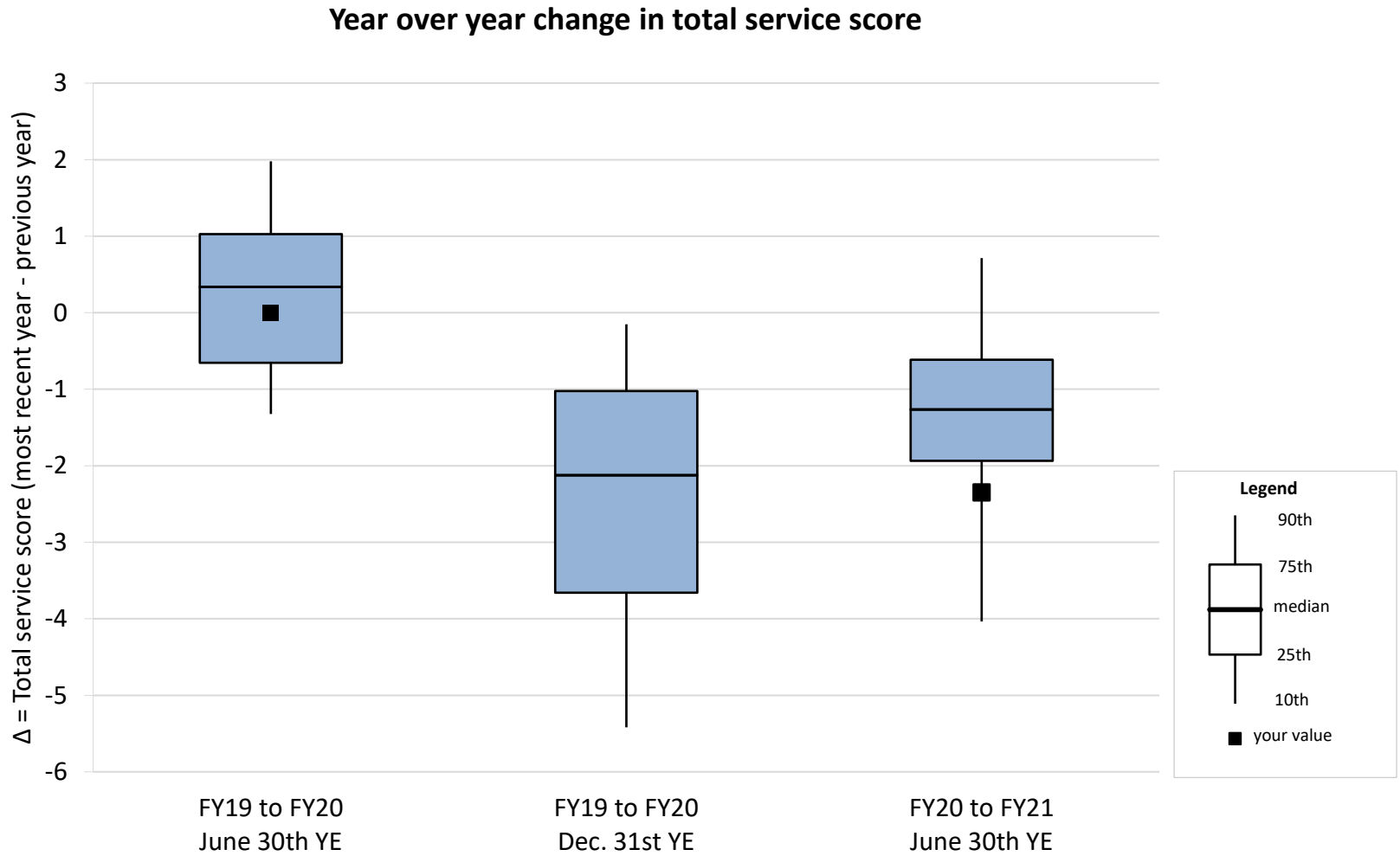
CEM is not recommending these changes. Service improvement should be cost effective and important to your members.

Key service measures affected by the COVID experience:

Select Key Service Metrics	Avg for 12 months ending Jun 30*		
	2020	2021	% Change
<u>Member Contacts</u>			
• % of calls resulting in undesired outcomes ('call another time' message and abandoned calls in a queue or on hold)	12.3%	14.0%	13.6%
• Average total wait time including time negotiating auto attendants, etc.	312 secs	360 secs	15.4%
• Average call duration	323 secs	376 secs	16.4%
<u>1-on-1 Counseling and Member Presentations</u>			
• % of your active membership that attended a 1-on-1 counseling session	9.9%	7.0%	-29.5%
• % of your active membership that attended a presentation	4.6%	3.5%	-23.8%
<u>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?	88.8%	87.7%	-1.2%
• What % of survivor inceptions are paid without an interruption of cash flow greater than 1 month between the pensioner's final pension check and the survivor's first pension check?	78.7%	71.4%	-9.3%
<u>Member Statements</u>			
• How current is an active member's data in the statements that the member receives?	2.8 months	2.7 months	-3.6%
<u>Refunds and Service Credit Purchases</u>			
• How many days does it take on average to issue a refund check?	36.2 days	38.0 days	5.0%
• How many days does it take on average to provide a written service credit purchase cost?	66.1 days	34.4 days	-48.0%

* For the 21 systems that submitted data for the 12 months ending Jun 30, 2020 and 2021.

COVID impact: total service scores fell for almost all systems in the 2nd half of 2020 and 2021.



Global Trends

1. COVID-19 is changing work and disaster plans.
 - Continuing in the future: Work from home, web counseling, web presentations, and requiring members to do more transactions online.
 - Disaster recovery has less need for a second physical location.
2. Pension administration systems are becoming IT organizations.
 - IT & Major projects is now the biggest cost category for most systems.
3. Cyberrisk continues to increase
 - A sample of 12 large plans had an average of 4 internal FTE dedicated to managing cybersecurity.
4. Customer experience focus
 - Organizing communication, service, work and staff by customer journeys. Collecting satisfaction and effort metrics by journey as well as channel.
 - More segmentation, data mining, focus groups, targeted messaging, personas, branding.
5. Improved cost effectiveness
 - Improving processes: e.g. More than half of systems are using tools such as Lean, Six-Sigma, One and Done.
 - Straight through processing.
 - Maximizing online transactions, eliminating paper.
 - Belief that online is the highest service channel if done correctly.
 - Reduced emphasis on counseling and presentations (less true for systems administering healthcare).
6. Managing pension envy, which is often exacerbated by poor funded status

2

Peer Characteristics

This section contains:

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

Your peer group consists of 9 peers.

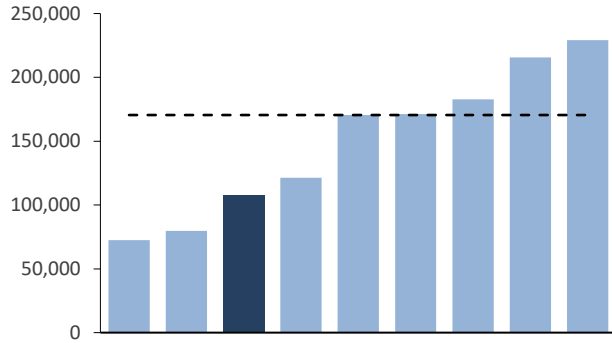
The most relevant comparisons are to systems similar to you in total membership and nationality. Your peer group consists of the following 9 systems:

Custom Peer Group for Minnesota State RS			
	Active		
	Members	Annuitants	Total
PSRS PEERS of Missouri	128,516	100,751	229,267
NYC TRS	125,338	90,247	215,585
Nevada PERS	107,147	75,597	182,744
Utah RS	97,919	73,400	171,319
LACERA	99,118	71,366	170,484
Idaho PERS	73,751	47,483	121,234
Minnesota State RS	56,637	51,030	107,667
Delaware PERS	45,366	34,468	79,834
South Dakota RS	41,305	31,243	72,548
Peer Median	97,919	71,366	170,484
Peer Avg	86,122	63,954	150,076

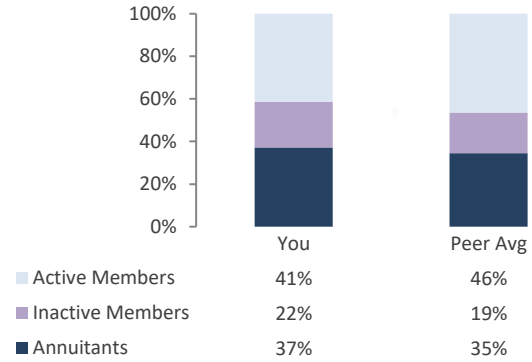
Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded when determining cost per member because they are much less costly to administer than either active members or annuitants.

Graphical summary of peer characteristics

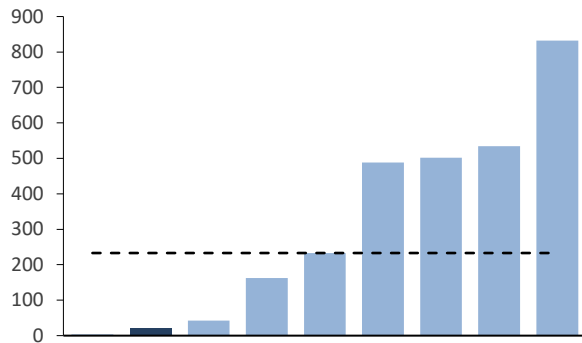
Active Members and Annuitants



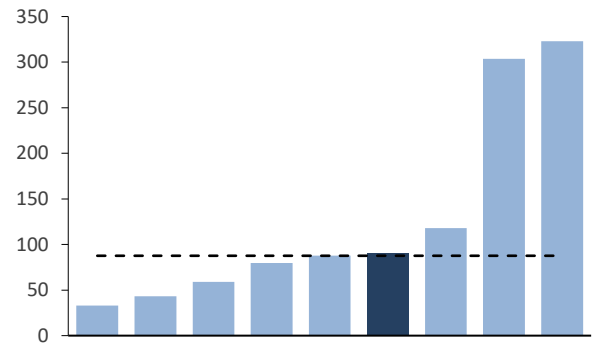
Membership Mix



Number of Employers

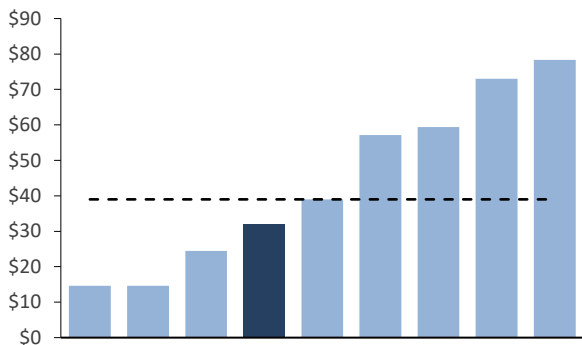


Pension Administration FTE

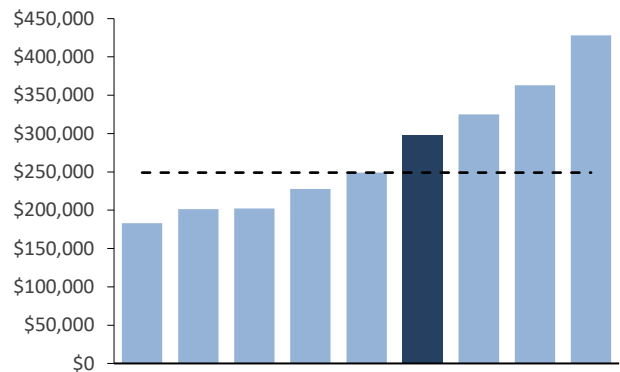


Total Assets

in \$ billions



Total Assets per Active Member and Annuitant



■ You ■ Peer - - - Peer Median

Profiles of the 46 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
Canada																				
APS	215	117	53	X		X	X	X	X				X							
Alberta Teachers	42	31	12			X							X							
BC Pension Corporation	356	215	88	X	X	X	X	X	X	X	X	X	X	X					X	
Canadian Forces Pension Plans	90	118	13							X			X							
FPSP	344	284	42	X									X							
HOOPP	248	114	36	X				X				X	X							
LAPP	164	76	36	X		X	X	X					X							
Municipal Pension Plan of BC	220	112	47	X		X	X	X	X	X	X	X	X	X					X	
Ontario Pension Board	44	40	7	X			X						X							
Ontario Teachers	183	148	65	X	X	X							X							
OPTrust	49	40	9	X								X	X							
RCMP	22	22	1	X			X						X							
SHEPP	37	20	3					X				X	X							
The Netherlands																				
ABP	1,178	943	930									X	X							
PFZW	1,321	518	1,074									X	X							
Denmark																				
ATP	3,341	1,051	963	X																

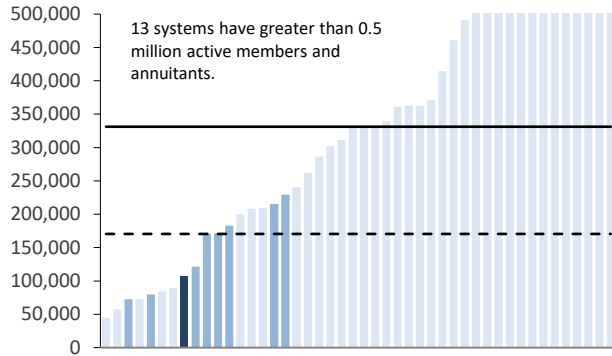
Profiles of the 46 benchmarking participants

continued

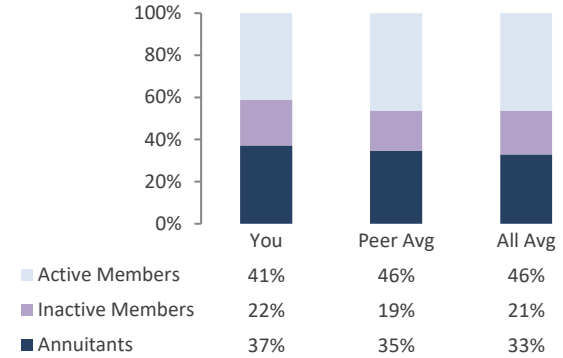
Participant	Members by Type (000s)			Member Groups										Plan Types						
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree Healthcare
United States																				
Arizona SRS	208	163	250	X	X	X		X	X				X	X						X
CalPERS	864	753	465	X		X	X	X	X				X							X
CalSTRS	449	318	214	X	X	X							X		X					
Colorado PERA	234	127	288	X	X	X		X	X				X				X	X		X
Delaware PERS	45	34	18	X	X	X	X	X	X				X							
Florida RS	634	472	117	X	X	X	X	X	X				X			X	X			
Idaho PERS	74	47	53	X	X	X	X	X	X				X						X	
Illinois MRF	171	140	130				X	X	X				X							
Indiana PRS	248	167	2	X	X	X	X	X	X				X			X	X		X	
Iowa PERS	173	129	80	X	X	X	X	X	X				X							
KPERS	154	108	65	X	X	X	X	X	X				X	X		X				
LACERA	99	71	17					X	X	X			X							X
Michigan ORS	178	283	588	X	X	X	X		X				X				X	X		X
Minnesota State RS	57	51	30	X			X		X				X				X			
Nevada PERS	107	76	19	X	X	X	X		X				X							
NYC TRS	125	90	31	X		X	X						X						X	
NYSLRS	502	497	174	X		X	X	X	X				X							
Ohio PERS	289	217	678	X			X		X				X	X					X	X
Oregon PERS	181	159	75	X	X	X	X	X	X						X				X	X
Pennsylvania PSERS	248	243	168	X	X	X							X							X
PERS of Mississippi	153	113	78	X	X	X	X	X	X				X							
PSRS PEERS of Missouri	129	101	60			X	X				X		X							
South Dakota RS	41	31	22	X	X	X	X	X	X				X							
STRS Ohio	203	160	165			X							X				X	X		X
Texas County and District RS	141	68	101					X	X	X					X					
TRS Illinois	159	128	146	X	X								X							
TRS of Texas	919	458	501	X	X	X							X							X
Utah RS	98	73	59	X	X	X	X	X	X				X				X	X		
Virginia RS	345	225	184	X	X	X	X	X	X				X						X	
Washington State DRS	334	209	309	X	X	X	X	X	X				X						X	

Graphical summary of all participant characteristics

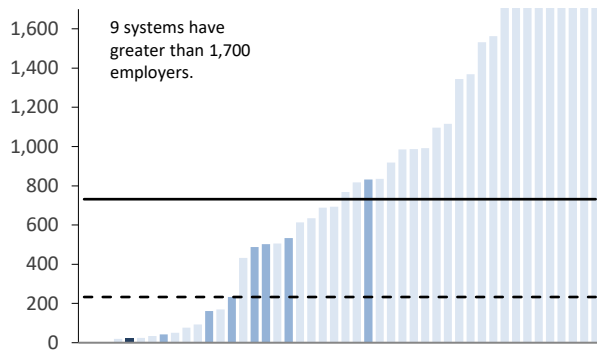
Active Members and Annuitants



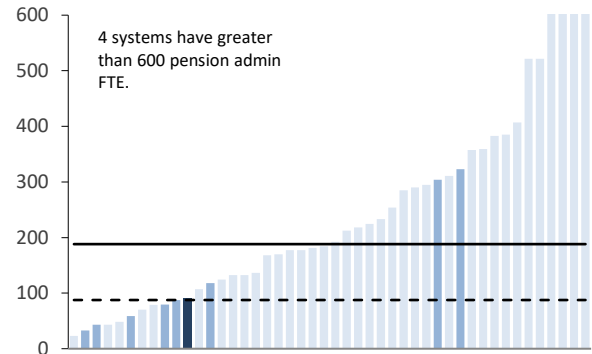
Membership Mix



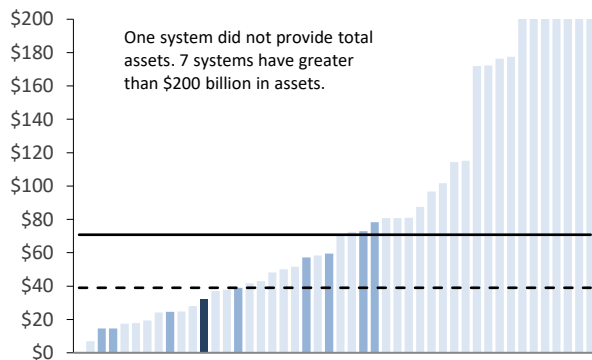
Number of Employers



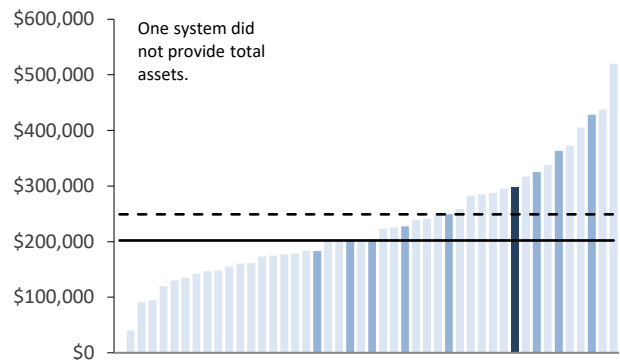
Pension Administration FTE



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 costs.
- Compares your costs per member type.

Your total pension administration cost was \$11.3 million or \$105 per active member and annuitant.

Activity ¹	Cost	\$s per Active Member and			% of Total Pension		
	\$000s You	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions							
a. Pension Payments	797	7.41	4.87	4.64	7.0%	3.7%	3.7%
b. Pension Inceptions	189	1.75	5.24	4.30	1.7%	4.0%	3.5%
c. Refunds, Withdrawals, and Transfers-out	475	4.41	3.39	3.27	4.2%	2.6%	2.6%
d. Purchases and Transfers-in	86	0.80	2.04	2.92	0.8%	1.5%	2.3%
e. Disability	<u>86</u>	<u>0.80</u>	<u>7.36</u>	<u>2.35</u>	<u>0.8%</u>	<u>5.6%</u>	<u>1.9%</u>
	1,633	15.17	22.90	17.49	14.4%	17.4%	14.0%
2. Member Communication							
a. Call Center	1,295	12.03	8.27	6.75	11.4%	6.3%	5.4%
b. Mail Room, Imaging	432	4.01	4.92	2.69	3.8%	3.7%	2.2%
c. 1-on-1 Counseling	1,147	10.66	3.45	2.30	10.1%	2.6%	1.8%
d. Member Presentations	648	6.01	2.56	1.38	5.7%	1.9%	1.1%
e. Written Pension Estimates	1,105	10.27	2.92	1.84	9.8%	2.2%	1.5%
f. Mass Communication	<u>130</u>	<u>1.20</u>	<u>4.38</u>	<u>4.53</u>	<u>1.1%</u>	<u>3.3%</u>	<u>3.6%</u>
	4,757	44.18	26.50	19.50	42.0%	20.1%	15.7%
3. Collections and Data Maintenance							
a. Data and Money from Employers	259	2.41	3.24	4.23	2.3%	2.5%	3.4%
b. Service to Employers	216	2.01	1.56	2.06	1.9%	1.2%	1.7%
c. Data Not from Employers	<u>0</u>	<u>0.00</u>	<u>1.24</u>	<u>1.77</u>	<u>0.0%</u>	<u>0.9%</u>	<u>1.4%</u>
	475	4.41	6.04	8.06	4.2%	4.6%	6.5%
4. Governance and Financial Control							
a. Financial Administration and Control	181	1.68	5.61	4.71	1.6%	4.3%	3.8%
b. Board, Strategy, Policy	324	3.01	3.02	4.17	2.9%	2.3%	3.4%
c. Government and Public Relations	<u>182</u>	<u>1.69</u>	<u>2.07</u>	<u>1.66</u>	<u>1.6%</u>	<u>1.6%</u>	<u>1.3%</u>
	687	6.38	10.70	10.55	6.1%	8.1%	8.5%
5. Major Projects							
a. Amortization of non-IT Major Projects	0	0.00	0.00	0.30	0.0%	0.0%	0.2%
b. Non-IT Major Projects (if you don't capitalize)	0	0.00	0.69	2.89	0.0%	0.5%	2.3%
c. Amortization of IT Major Projects	0	0.00	2.18	2.73	0.0%	1.7%	2.2%
d. IT Major Projects (if you don't capitalize)	<u>0</u>	<u>0.00</u>	<u>7.42</u>	<u>5.36</u>	<u>0.0%</u>	<u>5.6%</u>	<u>4.3%</u>
	0	0.00	10.28	11.29	0.0%	7.8%	9.1%
6. Information Technology							
a. IT Strategy, Database Management and Applications	1,623	15.08	14.60	20.66	14.3%	11.1%	16.6%
b. IT Desktop, Networks, Telecom	<u>831</u>	<u>7.72</u>	<u>8.08</u>	<u>10.48</u>	<u>7.3%</u>	<u>6.1%</u>	<u>8.4%</u>
	2,454	22.79	22.68	31.15	21.7%	17.2%	25.0%
7. Support Services and Other							
a. Building and Utilities	71	0.66	11.17	8.43	0.6%	8.5%	6.8%
b. Human Resources	158	1.47	3.22	3.75	1.4%	2.4%	3.0%
c. Actuarial	225	2.09	2.11	2.17	2.0%	1.6%	1.7%
d. Legal and Rule Interpretation	39	0.37	6.22	4.80	0.3%	4.7%	3.9%
e. Internal and External Audit	20	0.18	5.16	2.80	0.2%	3.9%	2.3%
f. Pay-as-you-go Benefits for Retired Staff	0	0.00	0.42	0.62	0.0%	0.3%	0.5%
g. Other Support Services	<u>807</u>	<u>7.50</u>	<u>4.44</u>	<u>3.94</u>	<u>7.1%</u>	<u>3.4%</u>	<u>3.2%</u>
	1,321	12.27	32.74	26.51	11.7%	24.8%	21.3%
Total Pension Administration ²	11,327	105.21	131.84	124.54	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).

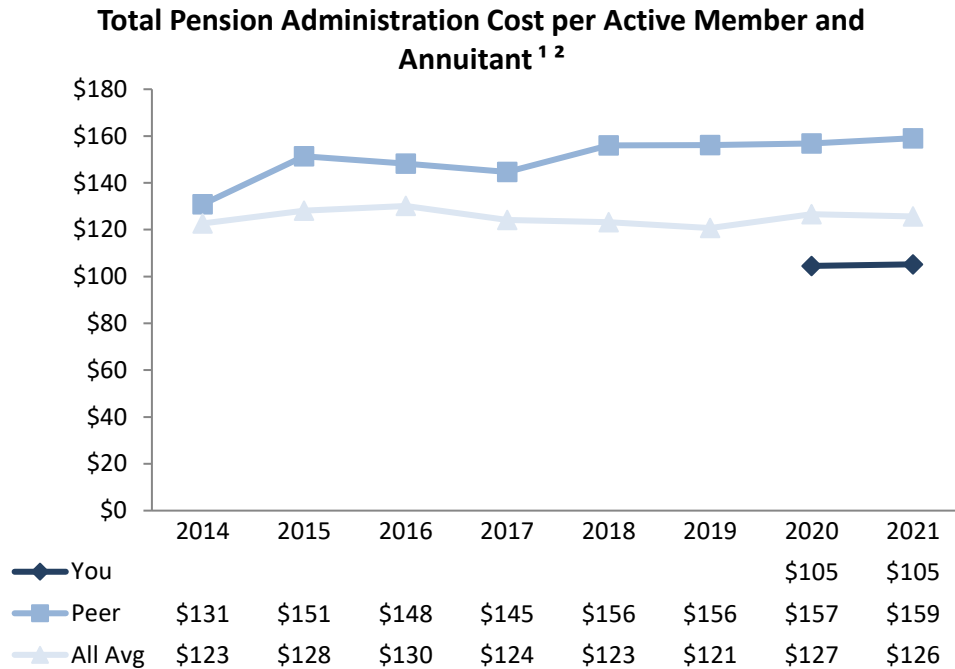
\$ Cost per Active Member and Annuitant													
Activity ¹	Peer							All Participants					
	You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min
1. Member Transactions													
a. Pension Payments	7.41	4.87	12.66	7.41	2.54	2.14	0.51	4.64	31.22	5.77	3.09	1.69	0.09
b. Pension Inceptions	1.75	5.24	12.66	9.93	2.75	2.29	1.75	4.30	12.66	5.55	3.15	2.24	0.20
c. Refunds, Withdrawals, and Transfers-out	4.41	3.39	12.66	4.41	1.50	0.92	0.51	3.27	14.22	4.45	1.95	0.93	0.05
d. Purchases and Transfers-in	0.80	2.04	6.14	2.27	1.27	0.71	0.37	2.92	15.75	3.57	1.39	0.56	0.00
e. Disability	<u>0.80</u>	<u>7.36</u>	58.48	1.85	0.73	0.42	0.04	<u>2.46</u>	58.48	2.19	0.45	0.08	0.00
	15.17	22.90	102.59	15.26	12.80	6.82	5.74	17.49	102.59	21.01	10.67	6.98	0.40
2. Member Communication													
a. Call Center	12.03	8.27	28.09	11.05	5.92	3.12	0.00	6.75	28.09	8.02	5.77	3.92	0.00
b. Mail Room, Imaging	4.01	4.92	26.82	4.01	1.30	0.73	0.48	2.69	26.82	3.18	1.25	0.84	0.03
c. 1-on-1 Counseling	10.66	3.45	10.66	5.36	2.28	1.36	0.17	2.30	10.66	2.71	1.29	0.33	0.00
d. Member Presentations	6.01	2.56	6.74	2.61	1.90	1.29	0.11	1.38	6.80	1.39	0.80	0.41	0.00
e. Written Pension Estimates	10.27	2.92	10.27	2.64	1.81	1.33	0.17	1.84	10.27	2.20	1.21	0.62	0.00
f. Mass Communication	<u>1.20</u>	<u>4.38</u>	15.46	4.90	3.21	1.30	0.86	<u>4.53</u>	31.21	5.00	3.82	2.03	0.24
	44.18	26.50	90.00	23.32	15.72	12.25	9.40	19.50	90.00	23.27	16.13	11.22	0.40
3. Collections and Data Maintenance													
a. Data and Money from Employers	2.41	3.24	7.14	5.21	2.41	1.60	1.49	4.23	16.07	6.08	2.66	1.76	0.41
b. Service to Employers	2.01	1.56	2.47	2.00	1.71	1.22	0.00	2.06	7.99	2.81	1.54	1.12	0.00
c. Data Not from Employers	<u>0.00</u>	<u>1.24</u>	5.42	1.38	0.37	0.06	0.00	<u>1.77</u>	10.28	2.33	1.40	0.37	0.00
	4.41	6.04	11.11	8.56	4.44	3.92	2.66	8.06	20.62	10.74	7.17	4.06	0.50
4. Governance and Financial Control													
a. Financial Administration and Control	1.68	5.61	16.54	7.33	4.39	2.03	0.25	4.71	16.54	5.60	3.79	2.39	0.25
b. Board, Strategy, Policy	3.01	3.02	5.41	3.78	3.01	2.33	0.92	4.17	16.95	5.32	3.00	1.56	0.00
c. Government and Public Relations	<u>1.69</u>	<u>2.07</u>	5.41	2.68	1.63	0.95	0.44	<u>1.66</u>	10.08	1.87	1.15	0.40	0.00
	6.38	10.70	27.36	12.50	9.11	6.38	1.62	10.55	29.49	15.41	9.24	4.87	0.95
5. Major Projects													
a. Amortization of non-IT Major Projects	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	4.73	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	0.00	0.69	4.82	0.00	0.00	0.00	0.00	2.89	46.48	2.01	0.00	0.00	0.00
c. Amortization of IT Major Projects	0.00	2.18	9.37	3.84	0.00	0.00	0.00	2.73	26.48	4.02	0.00	0.00	0.00
d. IT Major Projects (if you don't capitalize)	<u>0.00</u>	<u>7.42</u>	55.31	3.75	0.23	0.00	0.00	<u>5.36</u>	55.31	4.19	1.55	0.00	0.00
	0.00	10.28	60.13	9.37	1.65	0.00	0.00	11.29	60.13	14.24	8.11	1.52	0.00
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major projects)	15.08	14.60	36.48	15.08	11.71	8.97	5.07	20.66	66.47	25.75	15.74	10.68	2.34
b. IT Desktop, Networks, Telecom	<u>7.72</u>	<u>8.08</u>	32.60	7.72	5.03	4.22	0.90	<u>10.48</u>	42.84	12.62	8.53	5.31	0.23
	22.79	22.68	69.07	22.79	15.94	14.64	7.51	31.15	84.14	37.57	27.13	17.98	2.58
7. Support Services and Other													
a. Building and Utilities	0.66	11.17	43.61	6.82	3.17	1.29	0.66	8.43	43.61	10.07	5.34	2.82	0.31
b. Human Resources	1.47	3.22	17.76	2.15	1.47	0.74	0.38	3.75	21.08	4.45	2.38	1.10	0.07
c. Actuarial	2.09	2.11	4.52	2.75	2.35	1.89	0.00	2.17	6.51	2.79	1.88	0.92	0.00
d. Legal and Rule Interpretation	0.37	6.22	33.69	3.79	3.47	2.03	0.37	4.80	33.69	5.80	3.39	2.01	0.12
e. Internal and External Audit	0.18	5.16	24.87	4.44	2.71	1.66	0.18	2.80	24.87	3.08	1.89	1.09	0.09
f. Pay-as-you-go Benefits for Retired Staff	0.00	0.42	3.21	0.00	0.00	0.00	0.00	0.62	9.81	0.00	0.00	0.00	0.00
g. Other Support Services	<u>7.50</u>	<u>4.44</u>	18.46	6.19	1.65	0.01	0.00	<u>3.94</u>	21.40	4.76	2.86	0.53	-0.42
	12.27	32.74	125.59	21.41	13.80	12.27	11.22	26.51	125.59	31.58	20.66	11.88	1.01
Total Pension Administration²	105.21	131.84	425.47	105.21	72.39	68.33	63.68	124.54	425.47	160.23	99.35	71.63	7.55

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

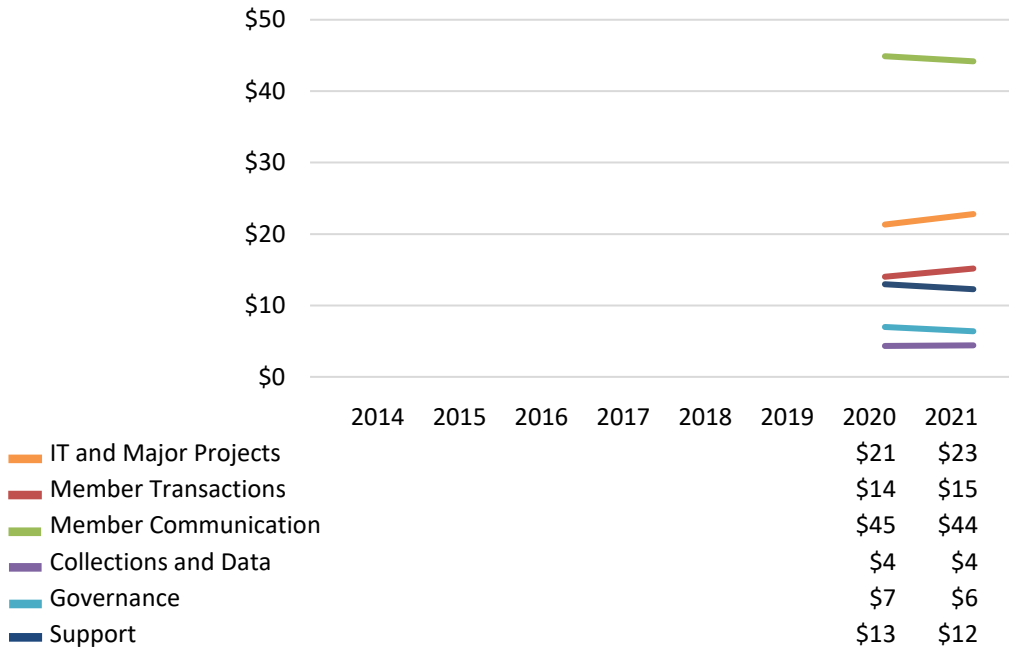
The total pension administration costs of your peers that have participated for 8 consecutive years have grown at a compound annual rate of 2.8% between 2014 and 2021. Your growth rate for the same period is unavailable.



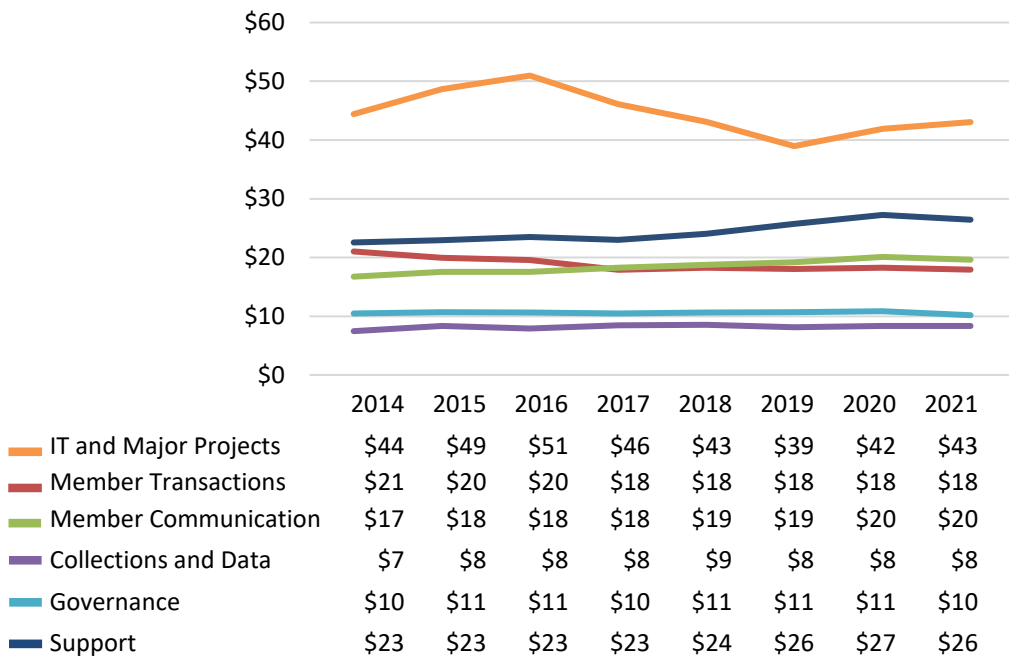
1. Trend analysis is based on systems that have participated for 8-consecutive years (4 peers and 34 World systems). This ensures that trends are not caused by changes in the composition of the participants.
2. All foreign currency amounts have been converted to USDs using Purchasing Power Parity figures 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

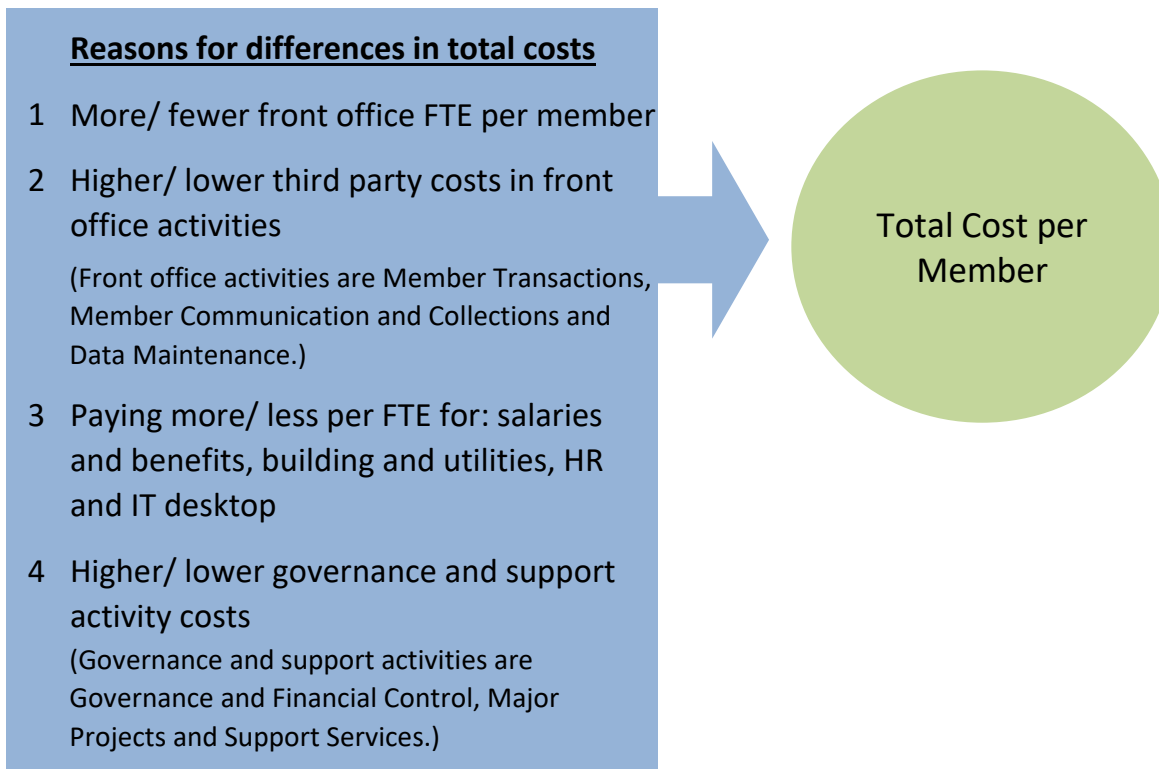


Cost per Member - All Avg



Trend analysis is based on 34 systems that provided 8 consecutive years of data.

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



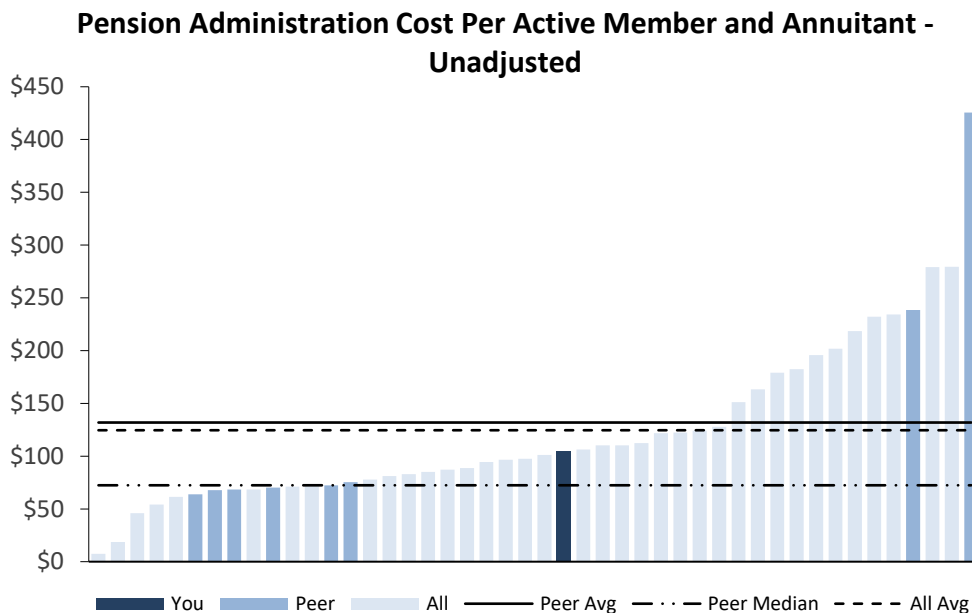
In this section, CEM quantifies the amount by which differences in each of the 4 reasons identified above cause your total pension administration cost to differ from the peer average.

Average versus Median

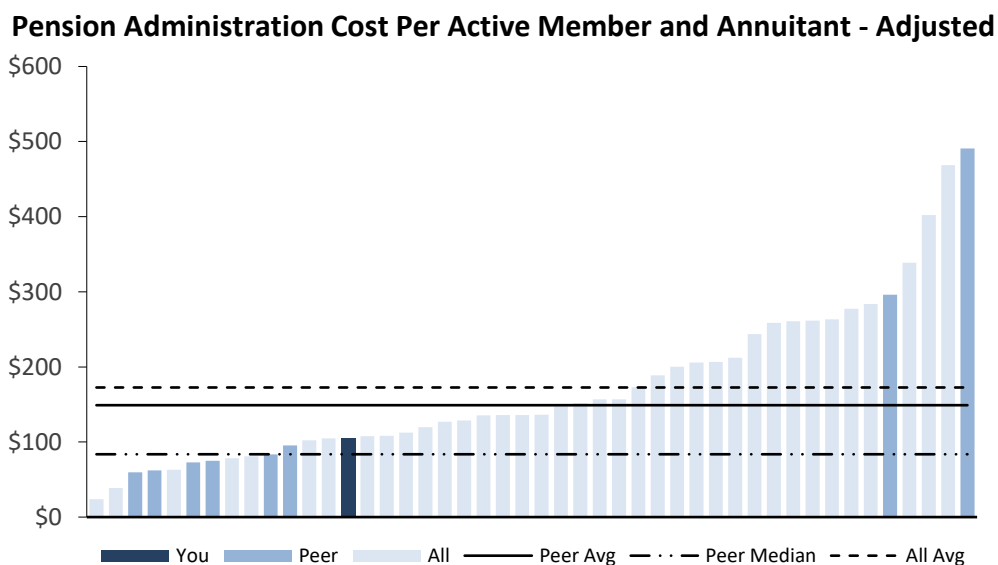
In the other sections of this report, CEM compares your performance to the median (i.e., the middle value or 50th percentile). This is because medians are less sensitive to outlier data than averages. An example of an outlier is a single peer with unusually high costs. In this section, we compare and 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 \$27 below the peer average of \$132 (and \$33 above the peer median of \$72).

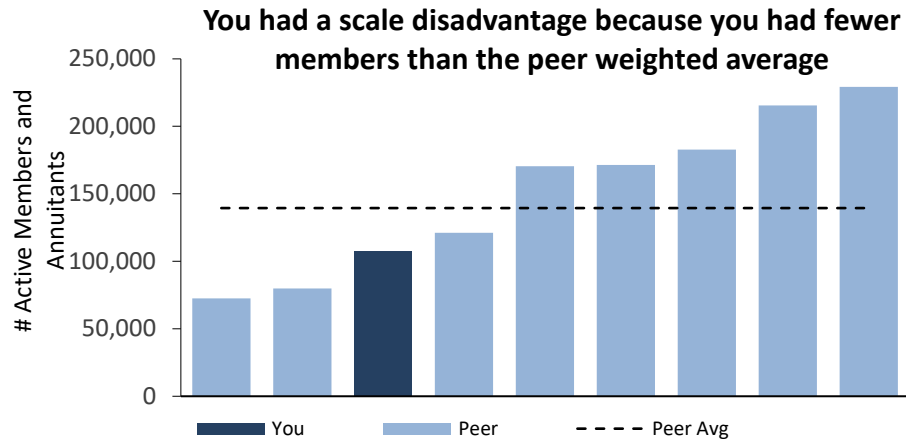


After adjusting for scale, your cost per member was \$44 below the adjusted peer average of \$149.



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

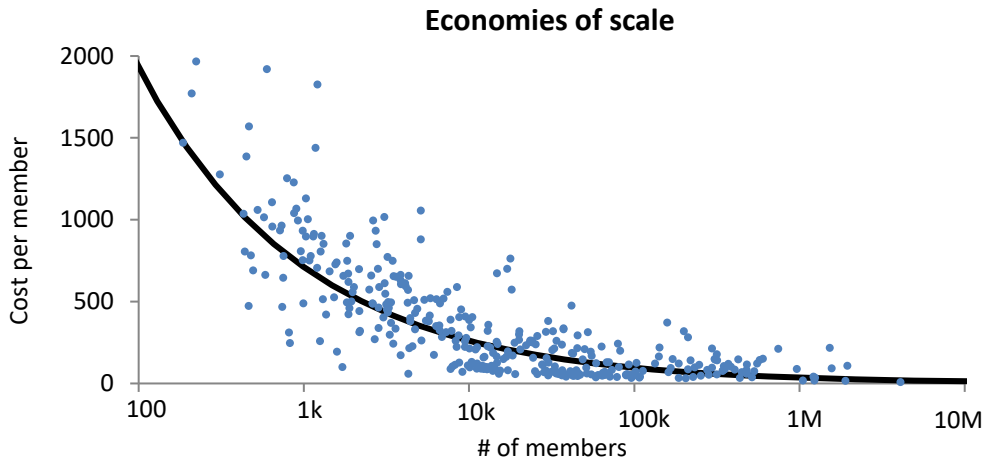
Size matters: you had an economies of scale disadvantage.



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

Your system had 23% 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%	26,917	\$162	\$57
-50%	53,834	\$131	\$25
-25%	80,750	\$115	\$10
0%	107,667	\$105	\$0
25%	134,584	\$98	-\$7
50%	161,501	\$93	-\$12
75%	188,417	\$88	-\$17

Reasons why your total cost per member was \$44 below the adjusted peer average:

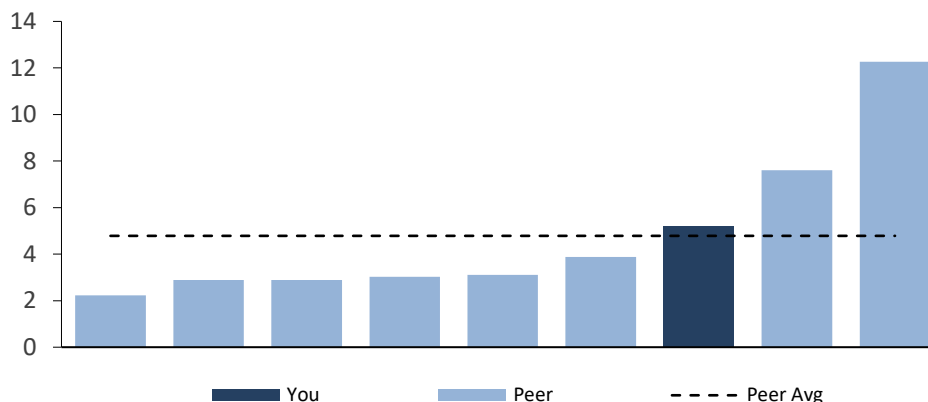
Reason	You	Peer Avg	Impact \$s per active member and annuitant
1 More front office FTE per 10,000 members	5.2	4.8	\$4
2 Higher third party costs per member in the front office	\$14	\$10	\$4
3 Lower costs per FTE			
Front office Salaries & Benefits	\$95,950	\$95,984	
Governance, support Salaries & Benefits	<u>\$96,060</u>	<u>\$135,464</u>	
Blended Average	\$95,985	\$110,187	
Building and Utilities	\$871	\$15,280	
HR	\$1,936	\$4,412	
IT Desktop, Networks, Telecom	<u>\$10,165</u>	<u>\$11,056</u>	
Total	\$108,957	\$140,935	-\$23
4 Lower support costs per member ¹			
Governance & Financial Control	\$7	\$9	
Major Projects	\$0	\$9	
IT Strategy, Database, Applications	\$17	\$13	
Actuarial, Legal, Audit, Other	<u>\$11</u>	<u>\$16</u>	
Total	\$35	\$47	-\$12
Total unadjusted			-\$27
Scale adjustment			-\$17
Total after adjusting for economy of scale differences			-\$44

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 9% 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 Annuitants



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

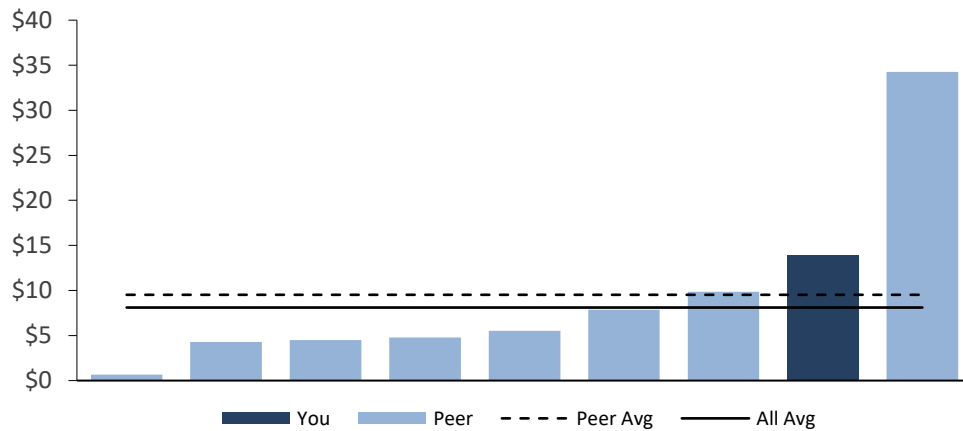
One reason you had more FTE per member is that you had lower transactions per FTE.

Activity	Volume Description	Volume per 1,000 Active Members and Annuitants			Activity Volume per FTE		
		You	Peer Avg	+/-	You	Peer Avg	+/-
Member Transactions							
Pension Payments	Annuitants	474	427	47	7,851	23,529	-15,678
New Payee Inceptions	New Inceptions	29	25	4	2,067	745	1,322
Refunds & Transfers-out	Refunds	25	13	12	689	1,009	-320
Purchases and Transfers-in	Purchases	0.9	71.6	-70.8	131	1,466	-1,334
Disability Applications	Disability Applications	0.9	1.0	-0.1	137	106	31
Member Communication							
Calls and Emails	Calls and Emails	1,113	832	281	11,411	10,359	1,052
Incoming Mail	Incoming Mail	266	329	-63	8,192	11,296	-3,105
Members Counseled 1-on-1	Members Counseled	110	39	71	1,278	1,526	-248
Member Presentations	Member Presentations	0.9	1.4	-0.5	19	98	-78
Written Estimates	Written Estimates	42	43	-1	497	3,172	-2,675
Collections & Data Maintenance							
Data & Money from Employers	Active Members	526	573	-47	26,970	21,983	4,987
Service to Employers	Active Members	526	573	-47	31,465	34,360	-2,895
Data Not from Employers	All Members	1,274	1,245	29	n/a	370,777	n/a
Weighted Total		56.4	60.9	-4.6	108,604	108,649	-45

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 46% above the peer average of \$10. Your higher third party costs increased your total cost per member by \$4 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	\$95,950	\$95,984
Governance and support	<u>\$96,060</u>	<u>\$135,464</u>
Blended Average	\$95,985	\$109,615
Pay-as-you-go Benefits for Retired Staff	\$0	\$572
Building and Utilities	\$871	\$15,280
Human Resources	\$1,936	\$4,412
IT Desktop, Networks, Telecom	\$10,165	\$11,056
Total	\$108,957	\$140,935

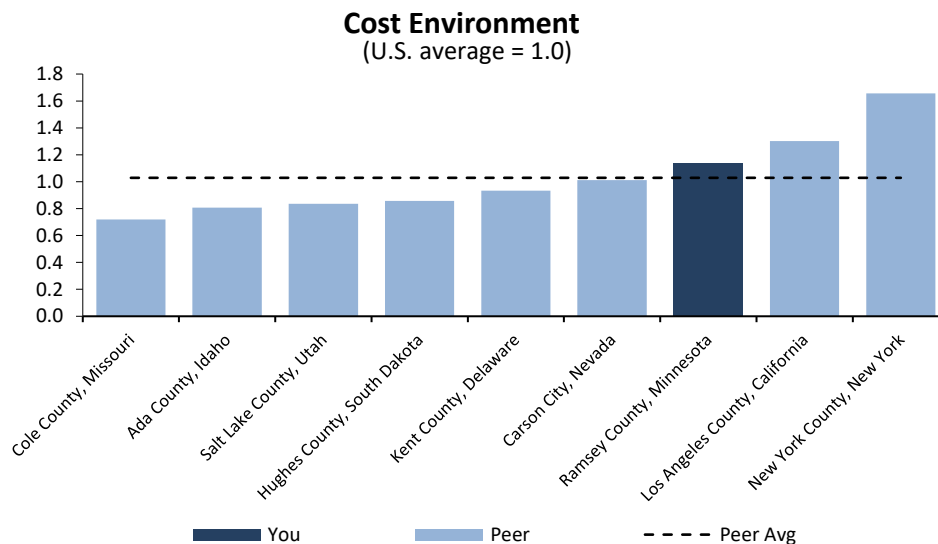
Your cost per FTE for salaries and benefits, building and utilities, human resources and IT desktop of \$108,957 was 23% below the FTE-weighted peer average of \$140,935. Your lower costs per FTE decreased your total cost per member by \$23 relative to the peer average.

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 10% above the peer average.



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

Your adjusted¹ 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 ¹ Cost per Active Member and Annuitant	
	You	Peer Avg	You	Peer Avg
Governance and Financial Control	\$6	\$11	\$7	\$9
Major Projects	\$0	\$10	\$0	\$9
IT Strategy, Database, Applications (excl. major projects)	\$15	\$15	\$17	\$13
Actuarial, Legal, Audit, Other Support Services	\$10	\$18	\$11	\$16
Support Services that Vary per FTE	\$3	\$8		
Total	\$35	\$61	\$35	\$47

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:

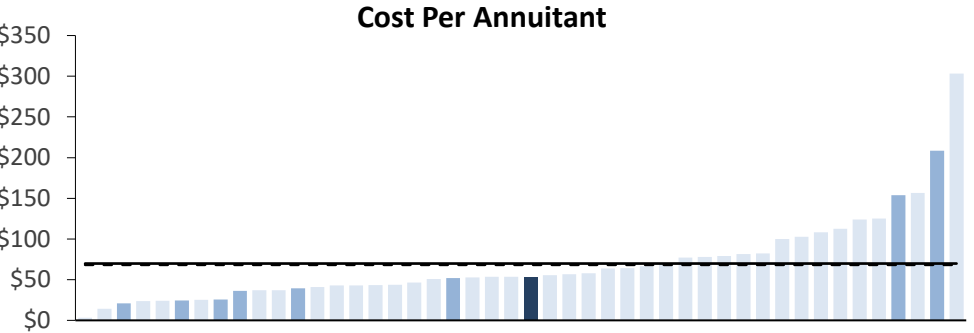
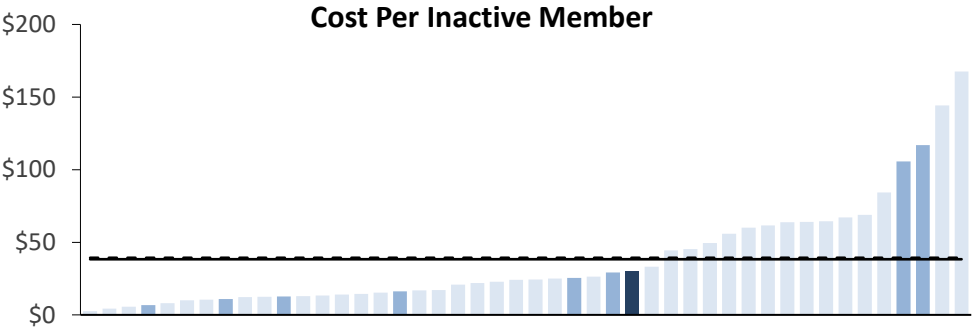
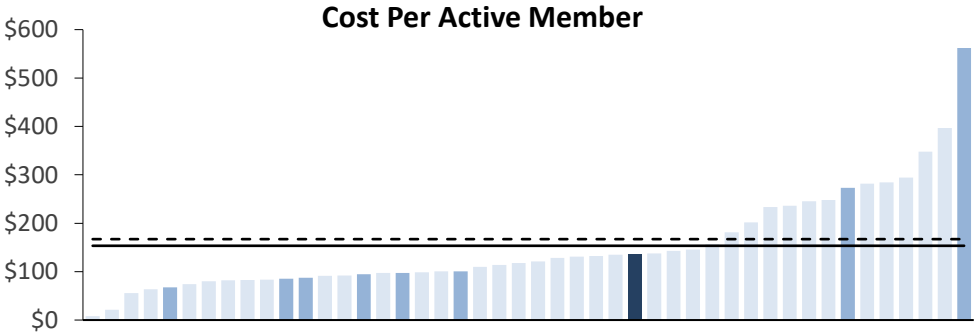
- How much you do. For example, some systems invest more in disaster recovery.
- IT capability
- IT investment cycle
- Plan complexity

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	\$136	\$167	\$562	\$98	\$68	\$153	\$562	\$120	\$8
Inactive Member	\$30	\$39	\$117	\$25	\$7	\$38	\$168	\$24	\$2
Annuitant	\$53	\$68	\$208	\$39	\$21	\$70	\$303	\$53	\$3



Legend: You (dark blue bar), Peer (medium blue bar), All (light blue bar), Peer Avg (dashed line), All Avg (solid line)

Calculation of your cost per member type

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

Calculation of Your Cost by Member Type							
Activity	Your Costs in \$000s ¹	\$000s attributed to:			% attributed to:		
		Active	Inactive	Annuitant	Active	Inactive	Annuitant
1. Member Transactions							
a. Pension Payments	797	0	0	797	0.0%	0.0%	100.0%
b. Pension Inceptions	189	133	35	21	70.4%	18.7%	11.0%
c. Refunds, Withdrawals, and Transfers-out	475	272	203	0	57.3%	42.7%	0.0%
d. Purchases and Transfers-in	86	86	0	0	100.0%	0.0%	0.0%
e. Disability	86	86	0	0	100.0%	0.0%	0.0%
2. Member Communication							
a. Call Center	1,295	663	35	598	51.2%	2.7%	46.1%
b. Mail Room, Imaging	432	221	12	199	51.2%	2.7%	46.1%
c. 1-on-1 Counseling	1,147	1,093	41	13	95.3%	3.6%	1.1%
d. Member Presentations	648	617	23	7	95.3%	3.6%	1.1%
e. Written Pension Estimates	1,105	929	176	0	84.1%	15.9%	0.0%
f. Mass Communication	130	101	11	18	77.9%	8.1%	14.0%
3. Collections and Data Maintenance							
a. Data and Money from Employers	259	259	0	0	100.0%	0.0%	0.0%
b. Service to Employers	216	216	0	0	100.0%	0.0%	0.0%
c. Data Not from Employers	0	0	0	0	44.6%	20.3%	35.1%
4. Governance and Financial Control							
a. Financial Administration and Control	181	123	14	44	68.1%	7.8%	24.1%
b. Board, Strategy, Policy	324	221	25	78	68.1%	7.8%	24.1%
c. Government and Public Relations	182	124	14	44	68.1%	7.8%	24.1%
5. Major Projects							
a. Amortization of non-IT Major Projects	0	0	0	0	68.1%	7.8%	24.1%
b. Non-IT Major Projects (if you don't capitalize)	0	0	0	0	68.1%	7.8%	24.1%
c. Amortization of IT Major Projects	0	0	0	0	68.1%	7.8%	24.1%
d. IT Major Projects (if you don't capitalize)	0	0	0	0	68.1%	7.8%	24.1%
6. Information Technology							
a. IT Strategy, Database, Applications (excl. major projects)	1,623	1,106	127	391	68.1%	7.8%	24.1%
b. IT Desktop, Networks, Telecom	831	566	65	200	68.1%	7.8%	24.1%
7. Support Services and Other							
a. Building and Utilities	71	48	6	17	68.1%	7.8%	24.1%
b. Human Resources	158	108	12	38	68.1%	7.8%	24.1%
c. Actuarial	225	154	18	54	68.1%	7.8%	24.1%
d. Legal and Rule Interpretation	39	27	3	10	68.1%	7.8%	24.1%
e. Internal and External Audit	20	13	2	5	68.1%	7.8%	24.1%
f. Pay-as-you-go Benefits for Retired Staff	0	0	0	0	68.1%	7.8%	24.1%
g. Other Support Services	807	550	63	194	68.1%	7.8%	24.1%
Total Pension Administration Cost (A)	11,327	7,715	884	2,728	68.1%	7.8%	24.1%
# of members by type (B)		56,637	29,526	51,030			
Cost per Member Type (A ÷ B)		\$136	\$30	\$53			

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

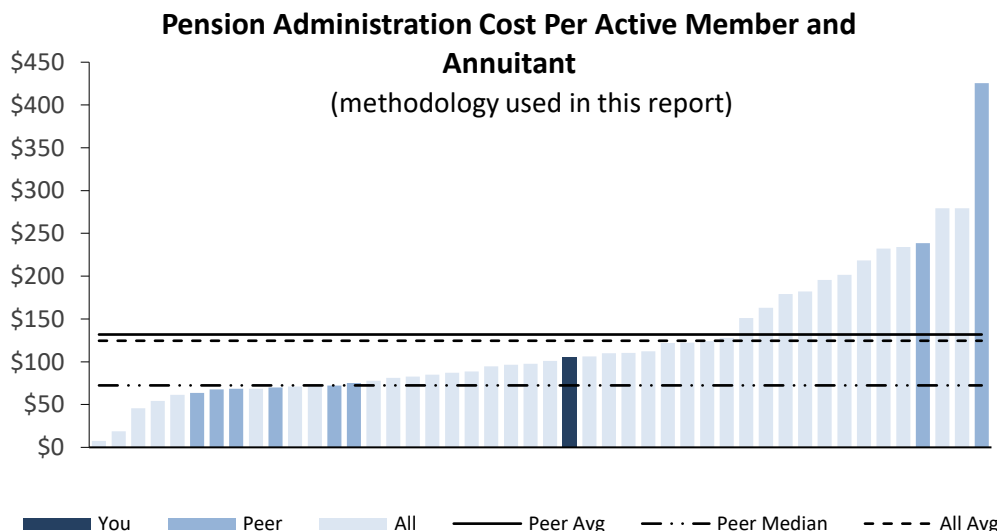
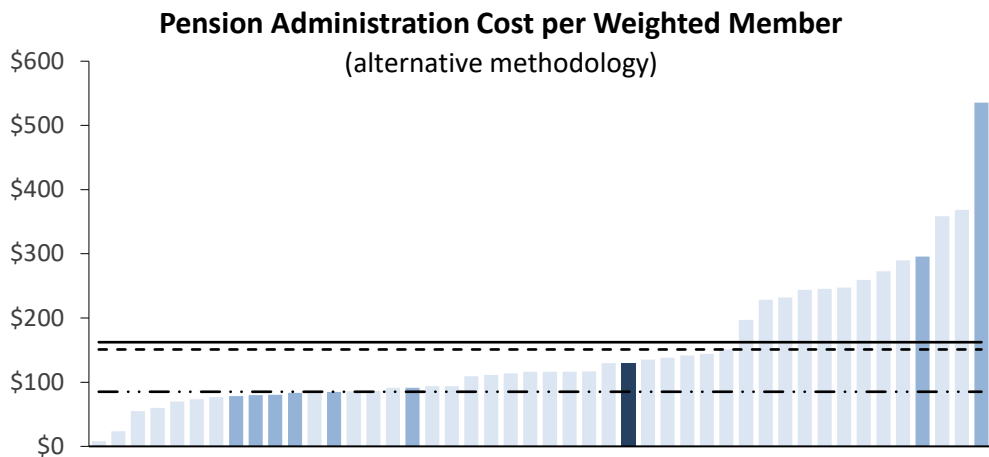
Activity	Attribution Method
1a. Pension Payments	100% annuitants
1b. Pension Inceptions	Pro rata based on weighted inceptions: <ul style="list-style-type: none"> • service retirements of active members weighted 100% • new inceptions annuitants weighted 50% + changes in gross caused by annuitants circumstances weighted 25% • retirements of inactive members weighted 70%
1c. Refunds, Withdrawals, and Transfers-out	Pro rata based on: <ul style="list-style-type: none"> • active members weighted 70% • inactive members weighted 100%
1d. Purchases and Transfers-in	100% active members
1e. Disability	100% active members
2a. Call Center	Pro rata based on weighted membership: <ul style="list-style-type: none"> • active members weighted 100% • annuitants weighted 100% • inactive members weighted 10%
2b. Mail Room, Imaging	per 2a above
2c. 1-on-1 Counseling	Pro rata between actives, inactives and annuitants based on: <ul style="list-style-type: none"> • service retirements of active members weighted 100% • retirements of inactive members weighted 10% • survivor inceptions of annuitants weighted 5%
2d. Member Presentations	per 2c above
2e. Written Pension Estimates	Pro rata between active and inactive members based on: <ul style="list-style-type: none"> • service retirements of active members weighted 100% • retirements of inactive members weighted 50%
2f. Mass Communication	Pro rata based on weighted membership: <ul style="list-style-type: none"> • active members weighted 100% • annuitants weighted up to 30% (20% for website, etc + 10% if you send them newsletters) • inactive members weighted up to 30% (10% for website, etc + 10% if you send them member statements annually + 10% if you send them newsletters)
3a. Data and Money from Employers	100% active members
3b. Service to Employers	100% active members
3c. Data Not from Employers	Pro rata based on weighted membership: <ul style="list-style-type: none"> • active members weighted up to 100% (33% because of divorce + 33% if you maintain their addresses + 33% if you collect contributions directly from members) • annuitants weighted up to 58% (25% because of divorce + 33% for maintaining their addresses) • inactive members weighted up to 58% (25% because of divorce + 33% if you maintain their addresses)
4a. Financial Administration and Control	Pro rata based on ratio of the sum of attributions to activities 1 to 3 for actives, annuitants and inactives using rules above.
4b. Board, Strategy, Policy	per 4a above
4c. Government and Public Relations	per 4a above
5a. Amortization of non-IT Major Projects	per 4a above
5b. Non-IT Major Projects (if you don't capitalize)	per 4a above
5c. Amortization of IT Major Projects	per 4a above
5d. IT Major Projects (if you don't capitalize)	per 4a above
6a. IT Strategy, Database and Applications (excl. major projects)	per 4a above
6b. 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 \$130.23. This was below the peer average of \$162.23. Members are weighted as follows: active members at 100%, inactive members at 25% and annuitants at 45%.

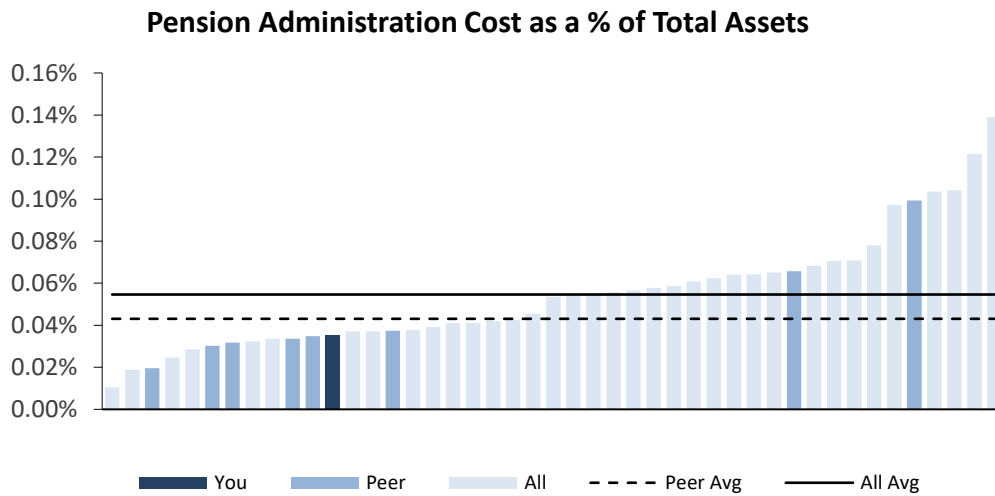
Relative rankings under both methodologies are shown in the graphs below.



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 0.04%.



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 \$407 thousand.

Activity	Your Costs in \$000s			Total	\$s per Active Member and Annuitant
	Salaries & Benefits	Third Party & Other	Attributions ¹ to 1f & 1g		
1. Member Transactions					
a. Pension Payments	623	174		797	7.41
b. Pension Inceptions	147	41		189	1.75
c. Refunds, Withdrawals, and Transfers-out	371	104		475	4.41
d. Purchases and Transfers-in	67	19		86	0.80
e. Disability	68	19		86	0.80
f. Healthcare Administration	493	138	407	1,038	9.64
g. Optional and Third Party Administered Benefits	0	0	0	0	0.00
2. Member Communication					
a. Call Center	1,012	283		1,295	12.03
b. Mail Room, Imaging	337	94		432	4.01
c. 1-on-1 Counseling	896	251		1,147	10.66
d. Member Presentations	506	142		648	6.01
e. Written Pension Estimates	864	242		1,105	10.27
f. Mass Communication	101	28		130	1.20
3. Collections and Data Maintenance					
a. Data and Money from Employers	202	57		259	2.41
b. Service to Employers	169	47		216	2.01
c. Data Not from Employers	0	0		0	0.00
4. Governance and Financial Control					
a. Financial Administration and Control	154	43	-17	181	1.68
b. Board, Strategy, Policy	277	77	-30	324	3.01
c. Government and Public Relations	155	43	-17	182	1.69
5. Major Projects					
a. Amortization of non-IT Major Projects		0	0	0	0.00
b. Non-IT Major Projects (if you don't capitalize)	0	0	0	0	0.00
c. Amortization of IT Major Projects		0	0	0	0.00
d. IT Major Projects (if you don't capitalize)	0	0	0	0	0.00
6. Information Technology					
a. IT Strategy, Database, Applications (excl. major projects)	1,384	387	-148	1,623	15.08
b. IT Desktop, Networks, Telecom	708	198	-76	831	7.72
7. Support Services and Other					
a. Building and Utilities	61	17	-6	71	0.66
b. Human Resources	135	38	-14	158	1.47
c. Actuarial	0	246	-21	225	2.09
d. Legal and Rule Interpretation	34	9	-4	39	0.37
e. Internal and External Audit	17	5	-2	20	0.18
f. Pay-as-you-go Benefits for Retired Staff	0		0	0	0.00
g. Other Support Services	688	193	-74	807	7.50
Total Administration	9,469	2,896	0	12,365	114.84
less:					
f. Healthcare Administration	-493	-138	-407	-1,038	-9.64
g. Optional and Third Party Administered Benefits	0	0	0	0	0.00
Total Pension Administration				11,327	105.21

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

4

Activity Costs

This section compares:

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

Calculation of your activity costs

Calculation of Your Direct Activity Costs				
Activity ¹	Cost ² in \$000s (A)		Activity Volume (B)	\$s per Unit (A / B)
1. Member Transactions				
a. Pension Payments	797	51,030	annuitants	15.63
b. Pension Inceptions	189	3,101	new payee inceptions	60.82
c. Refunds, Withdrawals, and Transfers-out	475	2,687	refunds, withdrawals, and transfers-out	176.78
d. Purchases and Transfers-in	86	92	purchases and transfers-in	931.52
e. Disability	86	96	disability applications	900.00
2. Member Communication				
a. Call Center	1,295	119,814	calls and emails	10.81
b. Mail Room, Imaging	432	28,671	incoming mail	15.06
c. 1-on-1 Counseling	1,147	11,884	members counseled 1-on-1	96.54
d. Member Presentations	648	102	member presentations	6,349.02
e. Written Pension Estimates	1,105	4,477	written estimates	246.91
f. Mass Communication	130	107,667	active members and annuitants	1.20
3. Collections and Data Maintenance				
a. Data and Money from Employers	259	56,637	active members	4.57
b. Service to Employers	216	56,637	active members	3.81
c. Data Not from Employers	0	137,193	actives, inactives, annuitants	0.00
4. Governance and Financial Control ⁴				
a. Financial Administration and Control	181	107,667	active members and annuitants	1.68
b. Board, Strategy, Policy	324	107,667	active members and annuitants	3.01
c. Government and Public Relations	182	107,667	active members and annuitants	1.69
5. Major Projects				
a. Amortization of non-IT Major Projects	0	107,667	active members and annuitants	0.00
b. Non-IT Major Projects (if you don't capitalize)	0	107,667	active members and annuitants	0.00
c. Amortization of IT Major Projects	0	107,667	active members and annuitants	0.00
d. IT Major Projects (if you don't capitalize)	0	107,667	active members and annuitants	0.00
6. Information Technology ⁴				
a. IT Strategy, Database, Applications (excl. major projects)	1,623	107,667	active members and annuitants	15.08
b. IT Desktop, Networks, Telecom	831	90	pension admin FTE	9,195.74
7. Support Services and Other ⁴				
a. Building and Utilities	71	90	pension admin FTE	788.03
b. Human Resources	158	90	pension admin FTE	1,751.52
c. Actuarial	225	107,667	active members and annuitants	2.09
d. Legal and Rule Interpretation	39	107,667	active members and annuitants	0.37
e. Internal and External Audit	20	107,667	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	807	107,667	active members and annuitants	7.50
Total Pension Administration ³	11,327	107,667	active members and annuitants	105.21

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 \$407k. Refer to the last page of this section for details.

Summary comparisons of activity costs by quartile breakdown

		Comparisons of Direct Activity Costs ¹													
Activity	Cost per:	Peer							All Participant						
		You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min	
1. Member Transactions															
a. Pension Payments	annuitant	15.63	11.35	30.24	15.63	5.87	4.86	1.31	11.00	81.73	13.72	7.44	4.07	0.36	
b. Pension Inceptions	new payee inception	60.82	231.76	649.64	385.42	111.11	92.58	60.82	192.25	649.64	273.11	122.17	92.81	26.13	
c. Refunds, Withdrawals, and Transfers-out	withdrawal & transfer-out	176.78	837.82	4,134.18	710.25	123.66	77.24	20.98	387.55	4,134.18	382.55	154.68	52.55	3.22	
d. Purchases and Transfers-in	purchase & transfer-in	931.52	899.71	5,892.86	395.92	171.58	102.10	8.41	582.96	5,892.86	657.71	257.70	149.61	7.90	
e. Disability	disability application	900.00	3,480.46	12,700.82	3,700.00	2,239.68	900.00	298.87	4,803.81	78,002.17	3,828.17	2,417.42	890.81	64.52	
2. Member Communication															
a. Call Center	call & email	10.81	8.85	26.34	10.81	5.97	5.72	0.00	11.94	37.08	14.21	10.35	7.27	0.00	
b. Mail Room, Imaging	incoming mail	15.06	12.82	57.13	12.55	6.80	4.38	1.31	11.08	57.13	12.20	6.85	3.46	1.31	
c. 1-on-1 Counseling	member counseled 1-on-1	96.54	163.28	621.58	194.21	107.73	32.69	16.29	161.80	621.58	193.16	144.54	96.54	10.09	
d. Member Presentations	member presentation	6,349.02	6,027.15	36,770.00	4,455.58	1,851.19	713.79	402.06	3,381.60	36,770.00	3,011.11	2,005.87	1,118.83	0.00	
e. Written Pension Estimates	written estimate	246.91	183.09	888.39	180.86	65.23	37.01	4.52	123.00	888.39	161.38	66.54	47.87	0.00	
f. Mass Communication	active member & annuitant	1.20	4.38	15.46	4.90	3.21	1.30	0.86	4.53	31.21	5.00	3.82	2.03	0.24	
3. Collections and Data Maintenance															
a. Data and Money from Employers	active member	4.57	5.66	12.29	9.12	4.41	2.82	2.45	7.47	30.38	11.03	4.62	2.96	0.54	
b. Service to Employers	active member	3.81	3.09	4.41	3.60	3.19	2.56	1.82	3.63	14.95	4.70	3.07	1.83	0.03	
c. Data Not from Employers	active, inactive & annuitant	0.00	1.06	4.93	1.03	0.31	0.04	0.00	1.45	9.68	1.85	1.01	0.31	0.00	
4. Governance and Financial Control															
a. Financial Administration and Control	active member & annuitant	1.68	5.61	16.54	7.33	4.39	2.03	0.25	4.71	16.54	5.60	3.79	2.39	0.25	
b. Board, Strategy, Policy	active member & annuitant	3.01	3.02	5.41	3.78	3.01	2.33	0.92	4.17	16.95	5.32	3.00	1.56	0.00	
c. Government and Public Relations	active member & annuitant	1.69	2.07	5.41	2.68	1.63	0.95	0.44	1.66	10.08	1.87	1.15	0.40	0.00	
5. Major Projects															
a. Amortization of non-IT Major Projects	active member & annuitant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	4.73	0.00	0.00	0.00	0.00	
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	0.69	4.82	0.00	0.00	0.00	0.00	2.89	46.48	2.01	0.00	0.00	0.00	
c. Amortization of IT Major Projects	active member & annuitant	0.00	2.18	9.37	3.84	0.00	0.00	0.00	2.73	26.48	4.02	0.00	0.00	0.00	
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	7.42	55.31	3.75	0.23	0.00	0.00	5.36	55.31	4.19	1.55	0.00	0.00	
6. Information Technology															
a. IT Strategy, Database Management and Applications (excl. major projects)	active member & annuitant	15.08	14.60	36.48	15.08	11.71	8.97	5.07	20.66	66.47	25.75	15.74	10.68	2.34	
b. IT Desktop, Networks, Telecom	pension admin FTE	9,196	8,913	17,210	10,818	9,196	6,635	1,968	15,893	73,735	19,647	13,002	8,437	1,968	
7. Support Services and Other															
a. Building and Utilities	pension admin FTE	788	9,780	26,335	12,631	6,165	2,763	788	10,575	26,970	12,649	9,164	7,134	788	
b. Human Resources	pension admin FTE	1,752	2,989	9,374	3,321	2,275	1,595	775	4,610	13,340	6,687	3,551	2,374	613	
c. Actuarial	active member & annuitant	2.09	2.11	4.52	2.75	2.35	1.89	0.00	2.17	6.51	2.79	1.88	0.92	0.00	
d. Legal and Rule Interpretation	active member & annuitant	0.37	6.22	33.69	3.79	3.47	2.03	0.37	4.80	33.69	5.80	3.39	2.01	0.12	
e. Internal and External Audit	active member & annuitant	0.18	5.16	24.87	4.44	2.71	1.66	0.18	2.80	24.87	3.08	1.89	1.09	0.09	
f. Pay-as-you-go Benefits for Retired Staff	pension admin FTE	0.00	895.06	6,907.15	0.00	0.00	0.00	0.00	1,049.98	13,265.09	0.00	0.00	0.00	0.00	
g. Other Support Services	active member & annuitant	7.50	4.44	18.46	6.19	1.65	0.01	0.00	3.94	21.40	4.76	2.86	0.53	-0.42	
Total Pension Administration²		105.21	131.84	425.47	105.21	72.39	68.33	63.68	124.54	425.47	160.23	99.35	71.63	7.55	

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

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

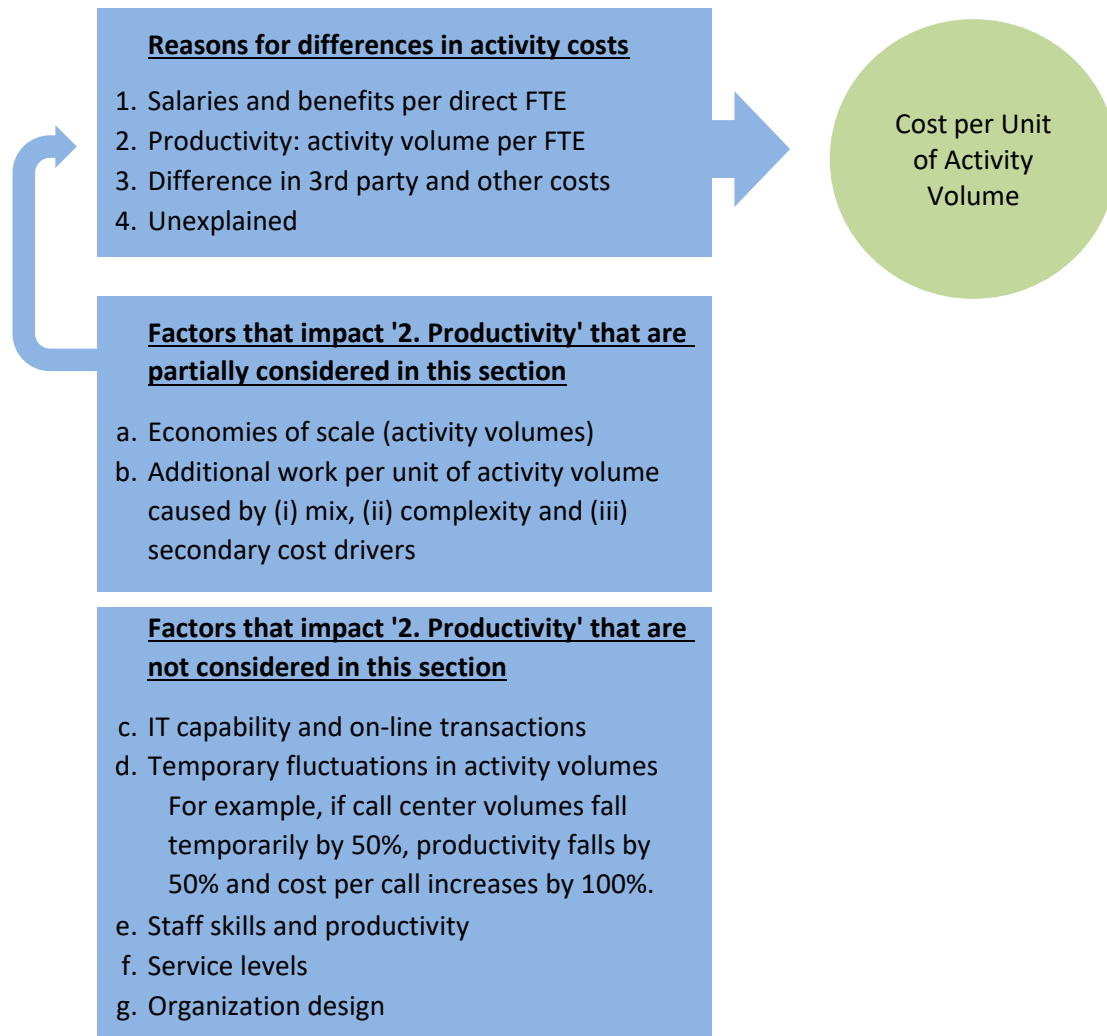
Activity cost history

Comparisons of Direct Activity Costs ¹													
Activity	Cost per:	You				Peer Average				All Participant Average			
		2021	2020	2019	2018	2021	2020	2019	2018	2021	2020	2019	2018
1. Member Transactions													
a. Pension Payments	annuitant	15.63	15.86			10.36	10.20	11.82	11.51	9.52	9.62	9.95	9.68
b. Pension Inceptions	new payee inception	60.82	61.62			273.64	261.78	204.69	224.44	197.54	214.34	199.82	193.21
c. Refunds, Withdrawals, and Transfers-out	withdrawal & transfer-out	176.78	120.59			1,613.23	1,365.13	1,119.53	1,165.01	432.33	371.25	300.76	287.28
d. Purchases and Transfers-in	purchase & transfer-in	931.52	1,754.16			271.70	312.19	350.41	296.25	461.60	510.94	396.37	581.97
e. Disability	disability application	900.00	748.44			5,432.35	5,328.23	5,065.96	5,513.99	2,728.77	2,369.00	2,177.47	2,525.27
2. Member Communication													
a. Call Center	call & email	10.81	11.88			12.79	14.34	11.74	12.24	13.08	12.49	11.67	11.49
b. Mail Room, Imaging	incoming mail	15.06	11.20			17.13	15.07	14.91	15.05	12.54	10.82	10.28	11.43
c. 1-on-1 Counseling	member counseled 1-on-1	96.54	44.04			262.14	57.15	48.48	49.26	186.03	113.74	94.36	94.66
d. Member Presentations	member presentation	6,349.02	1,657.47			10,515.18	3,037.79	1,044.45	1,007.14	3,478.14	1,773.84	1,343.48	1,491.57
e. Written Pension Estimates	written estimate	246.91	232.38			280.40	153.17	58.00	78.42	130.96	113.83	105.45	108.55
f. Mass Communication	active member & annuitant	1.20	5.91			6.04	6.01	5.83	5.34	4.00	4.20	4.03	3.82
3. Collections and Data Maintenance													
a. Data and Money from Employers	active member	4.57	1.46			5.91	6.91	6.74	7.25	7.90	8.15	7.77	8.07
b. Service to Employers	active member	3.81	6.58			2.93	2.91	3.34	3.64	3.68	3.72	3.81	4.23
c. Data Not from Employers	active, inactive & annuitant	0.00	0.00			1.58	1.61	1.80	1.79	1.63	1.49	1.43	1.33
4. Governance and Financial Control													
a. Financial Administration and Control	active member & annuitant	1.68	1.69			7.13	7.34	8.47	8.21	4.71	4.79	4.78	4.61
b. Board, Strategy, Policy	active member & annuitant	3.01	2.87			2.97	3.13	2.90	3.66	4.11	4.51	4.20	4.30
c. Government and Public Relations	active member & annuitant	1.69	2.43			2.45	2.63	2.48	3.00	1.35	1.55	1.68	1.71
5. Major Projects													
a. Amortization of non-IT Major Projects	active member & annuitant	0.00	0.00			0.00	0.00	0.00	0.00	0.21	0.23	0.22	0.15
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	0.00			0.00	0.00	0.79	1.44	3.03	1.98	1.70	1.29
c. Amortization of IT Major Projects	active member & annuitant	0.00	0.00			2.70	2.65	2.93	4.28	3.07	2.97	3.09	9.21
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	0.00			0.43	0.62	1.36	1.06	4.13	4.70	3.96	4.03
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major projects)	active member & annuitant	15.08	14.71			15.89	13.85	13.50	14.95	21.36	21.83	20.61	19.60
b. IT Desktop, Networks, Telecom	pension admin FTE	9,196	7,881			11,052	11,200	10,120	11,326	17,639	14,395	14,342	13,657
7. Support Services and Other													
a. Building and Utilities	pension admin FTE	788	1,401			11,863	10,312	10,689	9,524	10,568	10,755	10,868	10,835
b. Human Resources	pension admin FTE	1,752	1,138			3,162	3,038	3,212	3,042	4,608	4,732	4,674	3,919
c. Actuarial	active member & annuitant	2.09	2.79			1.75	1.56	2.31	2.64	2.03	2.15	2.00	2.01
d. Legal and Rule Interpretation	active member & annuitant	0.37	0.37			11.10	11.97	11.36	9.24	5.34	5.83	5.13	4.70
e. Internal and External Audit	active member & annuitant	0.18	0.18			9.14	10.04	10.53	10.28	2.84	2.99	2.99	2.93
f. Pay-as-you-go Benefits for Retired Staff	pension admin FTE	0.00	0.00			1,726.79	1,577.61	1,758.68	0.00	1,330.22	1,326.27	1,262.27	802.17
g. Other Support Services	active member & annuitant	7.50	7.50			1.83	2.36	2.02	1.78	3.46	3.43	3.15	2.83
Total Pension Administration²	active member & annuitant	105.21	104.53			159.08	156.81	156.16	156.04	125.62	126.66	120.70	123.25

1. Trend analysis is based on systems that have participated for 8-consecutive years (4 peers and 34 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



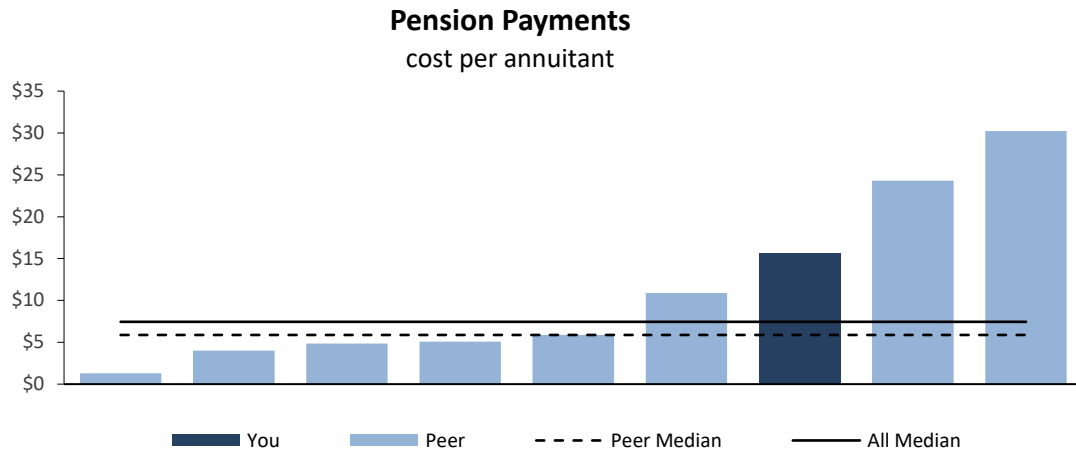
In this section, CEM quantifies the amount by which differences in the four reasons identified in the top box above impact your costs by calculating how your costs would change if you had the peer median salaries/ productivity/ third party and other costs. This methodology results in an unexplained amount, 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 \$15.63. This was \$9.76 above the peer median of \$5.87. The biggest reason why was that you serviced fewer annuitants per direct FTE (productivity).



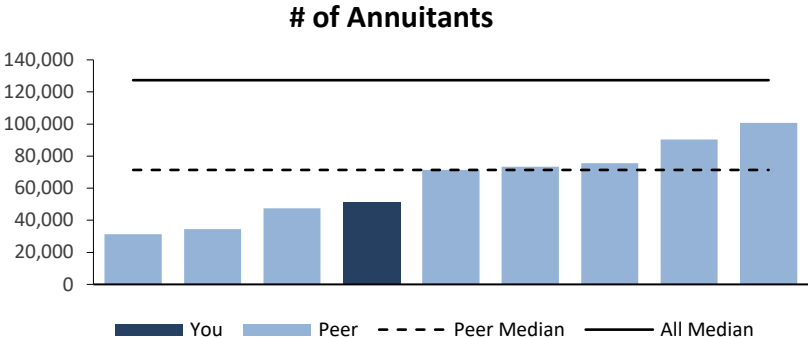
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Annuitant
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$95,846	\$81,675	\$1.81
Fewer annuitants per direct FTE (productivity)	7,851	22,242	\$7.90
Higher third party costs per annuitant	\$3.42	\$1.27	\$2.14
Unexplained ¹			-\$2.09
Cost per annuitant	\$15.63	\$5.87	\$9.76

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 51,030 annuitants was 28% lower than the peer median of 71,366.

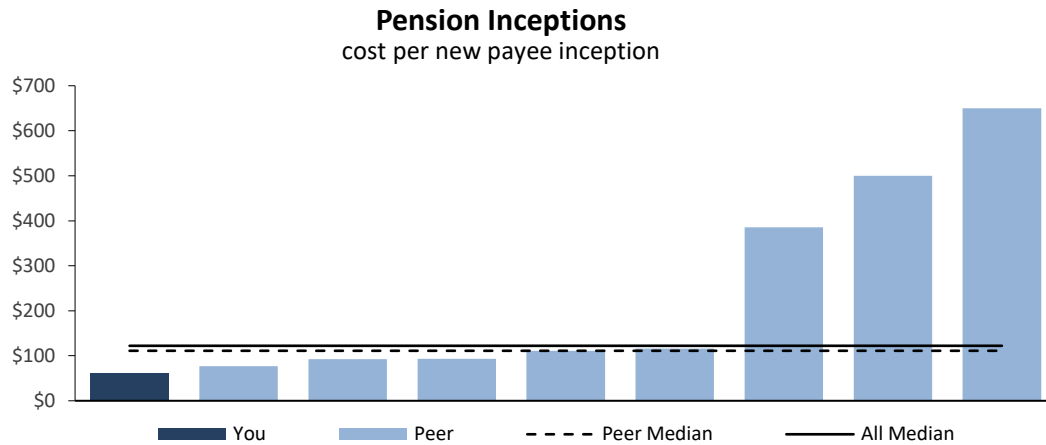


2. Additional pension payments work per annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Percentage of pensioners paid by check (as opposed to Electronic Funds Transfer)	2%	2%	neutral
Number of times per year you sent payment advices with your EFT payments detailing the gross payment and deductions	1.0	7.6	decreasing

1B Pension Inceptions

Your pension inceptions cost per new payee inception was \$60.82. This was \$50.29 below the peer median of \$111.11.



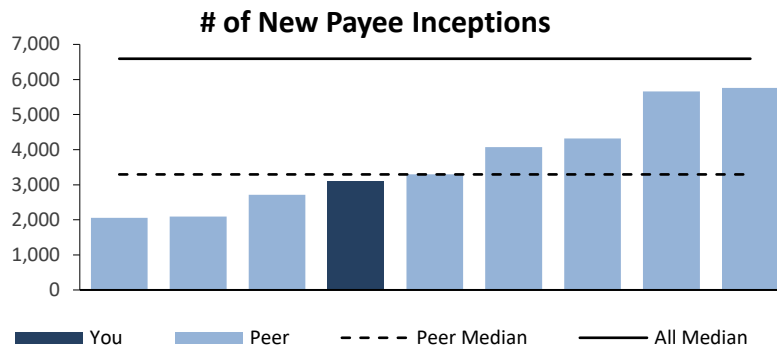
Reasons why your cost was below median	Comparison		Impact ¹ \$s per New Payee
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$98,267	\$71,551	\$12.92
More new payee inceptions per direct FTE (productivity)	2,067	755	-\$82.69
Equal third party costs per new payee inception	\$13.29	\$13.29	\$0.00
Unexplained ¹			\$19.47
Cost per new payee inception	\$60.82	\$111.11	-\$50.29

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 3,101 new payee inceptions was 6% lower than the peer median of 3,294.



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.

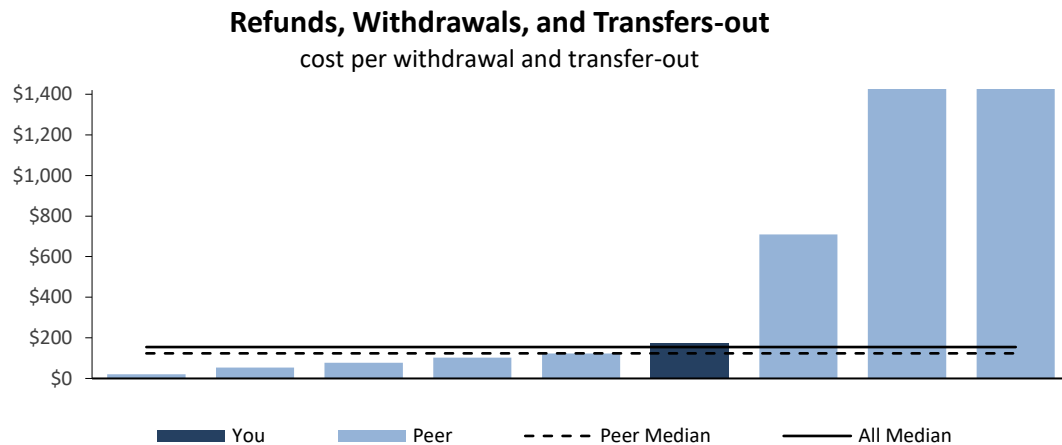
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Annuity inceptions: service retirement (actives)	61%	68%	
Annuity inceptions: service retirement (inactives)	23%	18%	
Annuity inceptions: disability retirement (actives)	1%	2%	
Annuity inceptions: survivor, partner, ex-partner, dependent	14%	13%	decreasing
Total new payee inceptions	100%	100%	

3. Additional work per new payee inception

Causes of additional work	You	Peer Avg	Cost Impact
Proportion of inceptions to retiring active members based on estimates	0%	39%	decreasing
Formal appeals (non-disability) of inceptions as a % of new payee inceptions	0.13%	0.34%	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%	7%	increasing
Joint account reciprocity with other systems	Yes	44%Yes	increasing
Total complexity score (out of 100)	27	35	decreasing

1C Refunds, Withdrawals, and Transfers-out

Your refunds, withdrawals, and transfers-out cost per withdrawal and transfer-out was \$176.78. This was \$53.12 above the peer median of \$123.66.



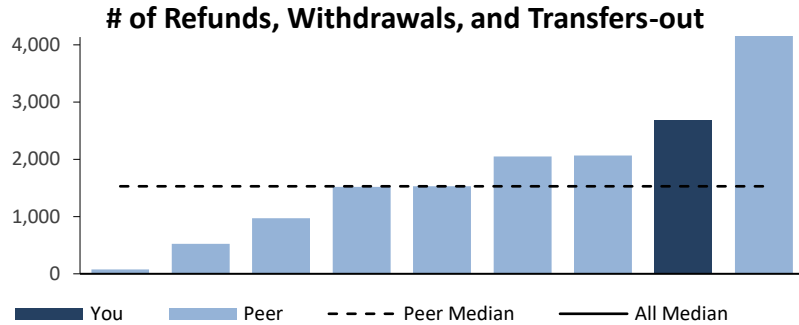
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Withdrawal and Transfer-out
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$95,154	\$88,284	\$9.97
Fewer refunds, withdrawals, and transfers-out per direct FTE	689	899	\$32.31
Higher third party costs per withdrawal and transfer-out	\$38.67	\$30.82	\$7.84
Unexplained ¹			\$2.99
Cost per withdrawal and transfer-out	\$176.78	\$123.66	\$53.12

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 2,687 refunds, withdrawals, and transfers-out was 76% higher than the peer median of 1,529.



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.

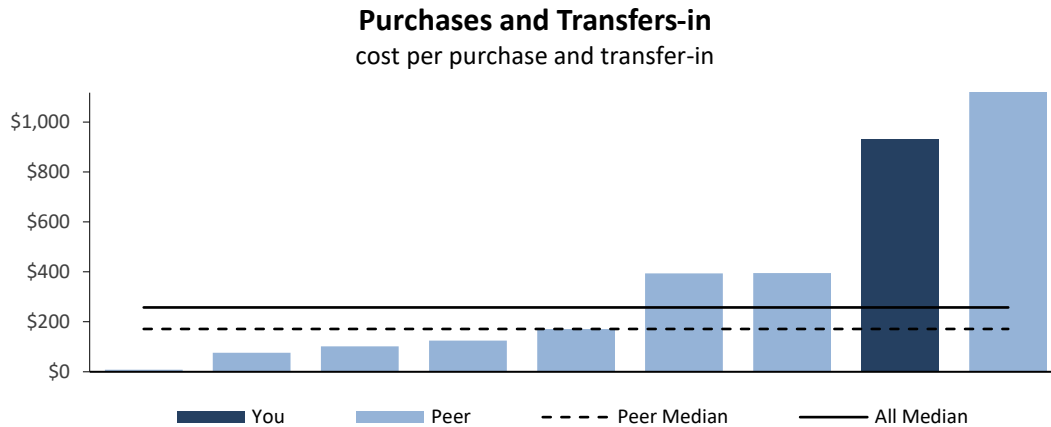
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Full refunds/ withdrawals/ commuted value/ lump sums	100%	94%	
Transfers-out	0%	6%	decreasing
Total refunds, withdrawals, and transfers-out	100%	100%	

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	78%	1855%	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	67%Yes	decreasing

1D Purchases and Transfers-in

Your purchases and transfers-in cost per purchase and transfer-in was \$931.52. This was \$759.94 above the peer median of \$171.58.



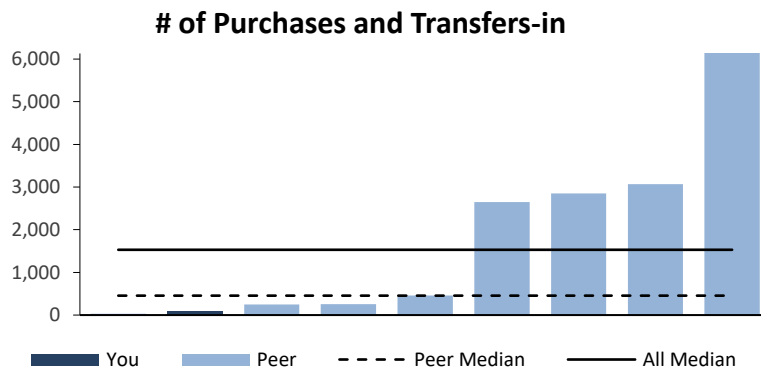
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Purchase and Transfer-in
Higher salaries and benefits per direct FTE	\$95,714	\$75,778	\$151.69
Fewer purchases and transfers-in per direct FTE (productivity)	131	375	\$473.27
Higher third party costs per purchase and transfer-in	\$203.26	\$34.73	\$168.54
Unexplained ¹			-\$33.56
Cost per purchase and transfer-in	\$931.52	\$171.58	\$759.94

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 92 purchases and transfers-in was 80% lower than the peer median of 455.



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.

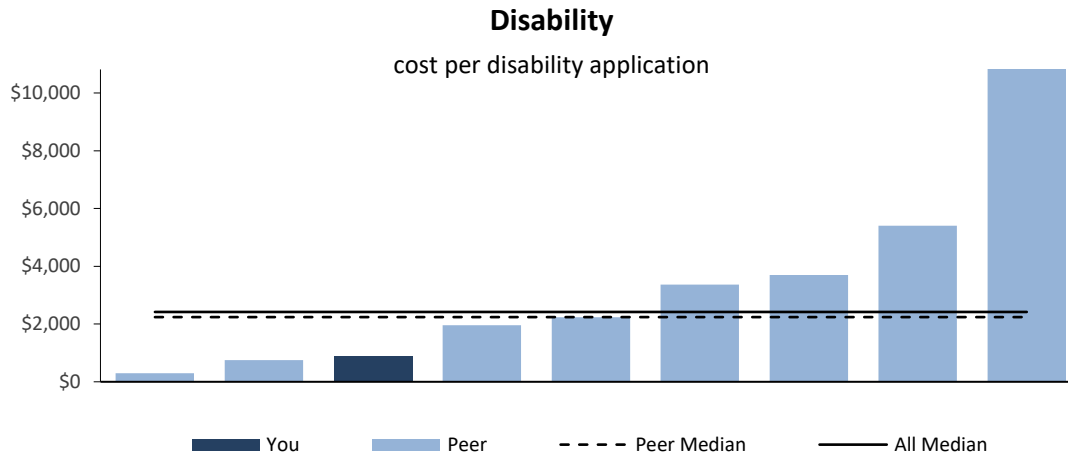
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Service credit purchases	100%	98%	
Upgrades to improve pensionable salary	0%	0%	
Upgrades to a new retirement formula	0%	0%	
Individual transfers-in from external defined benefit systems	0%	2%	decreasing
Total purchases and transfers-in	100%	100%	

3. Additional work per purchase and transfer-in

Causes of additional work	You	Peer Avg	Cost Impact
Written estimates for purchases and transfers-in as a % of purchases and transfers-in	228%	356%	decreasing
Installment payments permitted	Yes	89%Yes	increasing

1E Disability

Your disability cost per disability application was \$900.00. This was \$1,339.68 below the peer median of \$2,239.68.



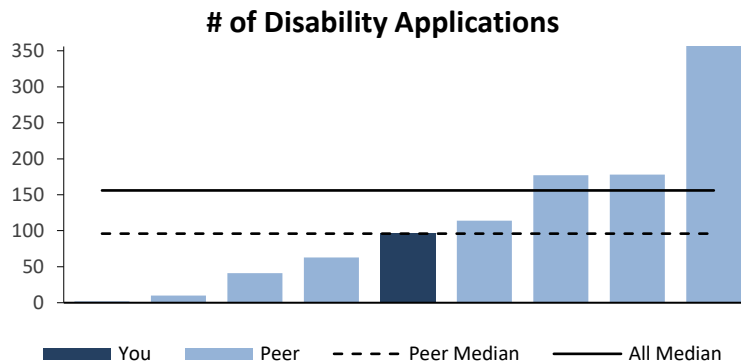
Reasons why your cost was below median	Comparison		Impact ¹
	You	Peer Median	\$s per Disability Application
Higher salaries and benefits per direct FTE	\$96,429	\$76,364	\$146.31
More disability applications per direct FTE (productivity)	137	42	-\$1,592.79
Lower third party costs per disability application	\$196.88	\$700.00	-\$503.13
Unexplained ¹			\$609.93
Cost per disability application	\$900.00	\$2,239.68	-\$1,339.68

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

Your 96 disability applications was the peer median. Thus the impact of economies of scale was minimized.



2. Mix of activity volume

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

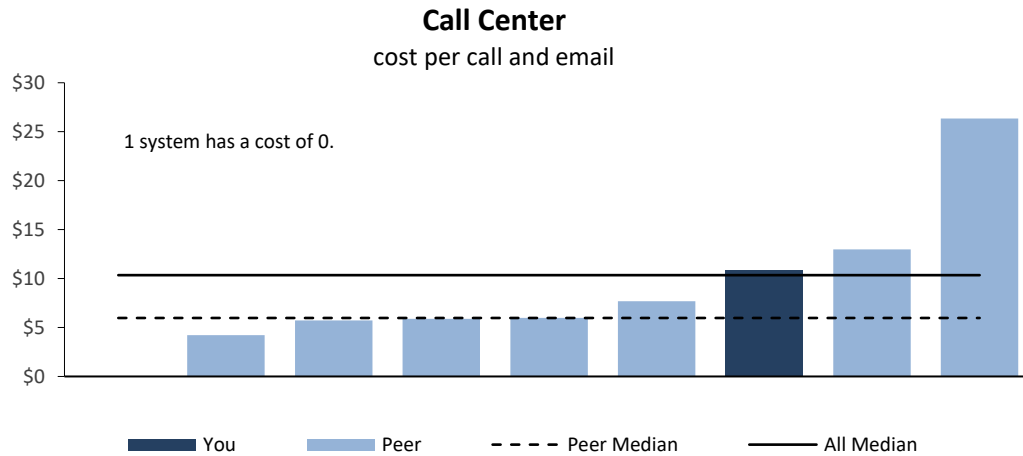
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Applications for short-term disability	0%	0%	
Applications for disability pensions/ long-term disability/ disability lump sums	100%	100%	neutral
Total disability applications	100%	100%	

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	125%	674%	decreasing
Recertifications as a % of disability recipients	5%	27%	decreasing
Medical exams paid for by you as a % of disability applications	16%	61%	decreasing
New member health reviews as a % of disability applications	71%	19%	increasing
Disability decision appeals as a % of disability applications	10%	4%	increasing
Occupational disability as a % of disability applications	11%	33%	decreasing
Disability complexity score (out of 100)	77	65	increasing

2A Call Center

Your call center cost per call and email was \$10.81. This was \$4.84 above the peer median of \$5.97.



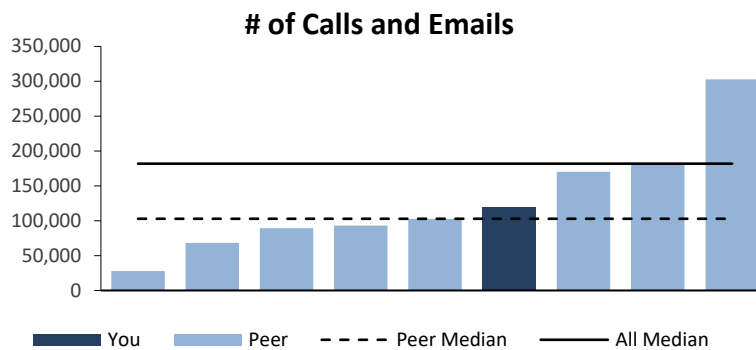
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Call and Email
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$96,381	\$69,508	\$2.36
More calls and emails per direct FTE (productivity)	11,411	10,594	-\$0.65
Higher third party costs per call and email	\$2.36	\$0.42	\$1.95
Unexplained ¹			\$1.19
Cost per call and email	\$10.81	\$5.97	\$4.84

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 119,814 calls and emails was 17% higher than the peer median of 102,826.

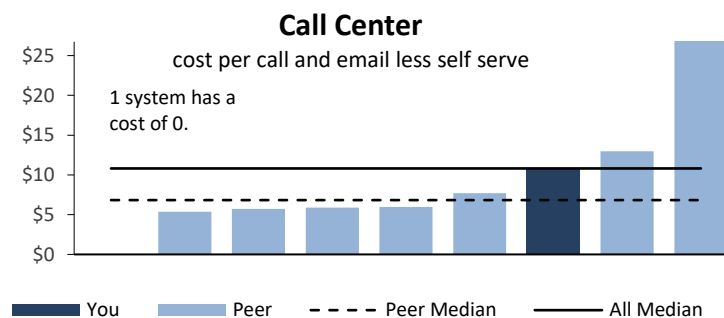


2. Mix of activity volume

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	84%	78%	
Outgoing calls from service representatives	7%	11%	
Calls satisfied by self-serve options	0%	3%	increasing
Email queries from members	9%	9%	
Total calls and emails	100%	100%	

If self-serve calls were excluded from volumes, your cost per active member and annuitant would have remained at \$10.81. This would have been above the peer median cost of \$6.83.



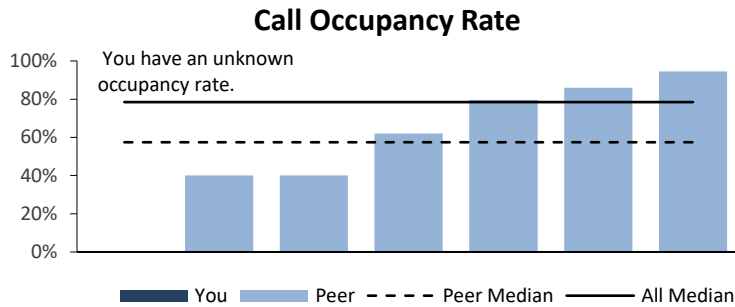
2A Call Center - Factors that impact productivity

continued

3. Additional work per call and email

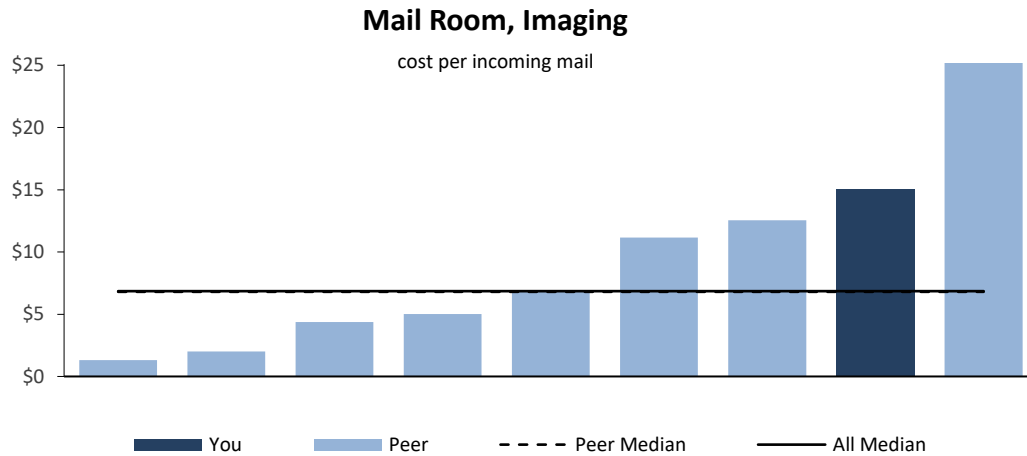
Causes of additional work	You	Peer Avg	Cost Impact
Average talk time of a member call (in seconds)	371	364	increasing
Average after call work time (in seconds)	Unknown	87	n/a
Do you regularly review staff responses to member calls?	Yes	67%Yes	increasing

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 \$15.06. This was \$8.26 above the peer median of \$6.80. The biggest reason why was that you had higher salaries and benefits per direct FTE.



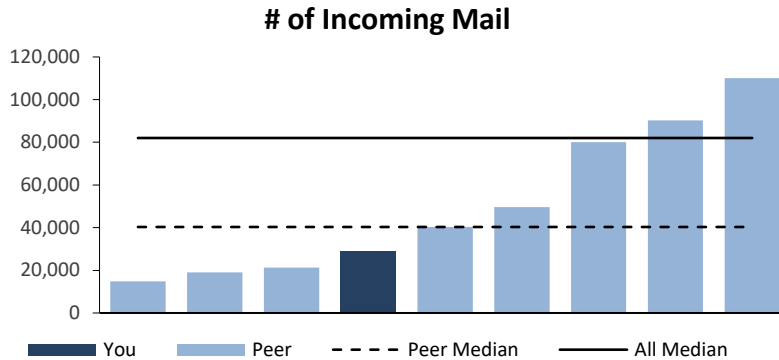
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Incoming Mail
Higher salaries and benefits per direct FTE	\$96,371	\$61,761	\$4.23
Fewer incoming mail per direct FTE (productivity)	8,192	9,738	\$1.87
Higher third party costs per incoming mail	\$3.29	\$0.73	\$2.57
Unexplained ¹			-\$0.40
Cost per incoming mail	\$15.06	\$6.80	\$8.26

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 28,671 incoming mail was 29% lower than the peer median of 40,315.

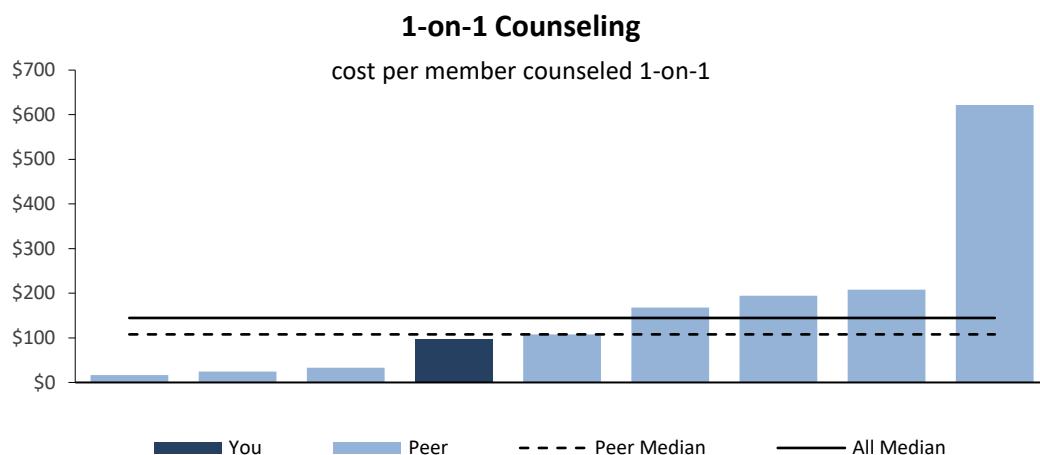


2. Additional work per incoming mail

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).	2309%	878%	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 \$96.54. This was \$11.19 below the peer median of \$107.73.



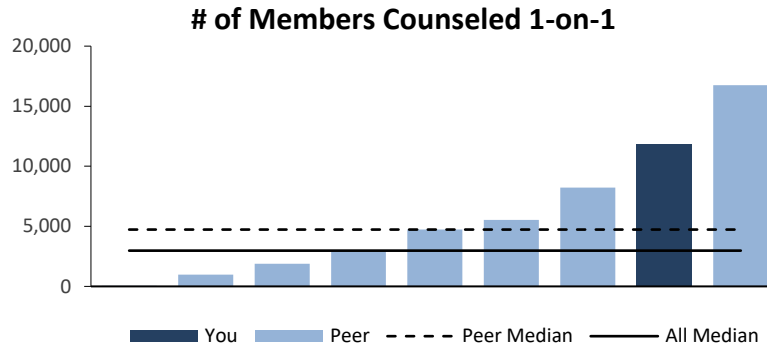
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Member Counseled 1-on-1
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$96,387	\$78,733	\$13.82
More members counseled 1-on-1 per direct FTE (productivity)	1,278	721	-\$58.26
Higher third party costs per member counseled 1-on-1	\$21.11	\$3.49	\$17.62
Unexplained ¹			\$15.63
Cost per member counseled 1-on-1	\$96.54	\$107.73	-\$11.19

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 11,884 members counseled 1-on-1 was 151% higher than the peer median of 4,730.



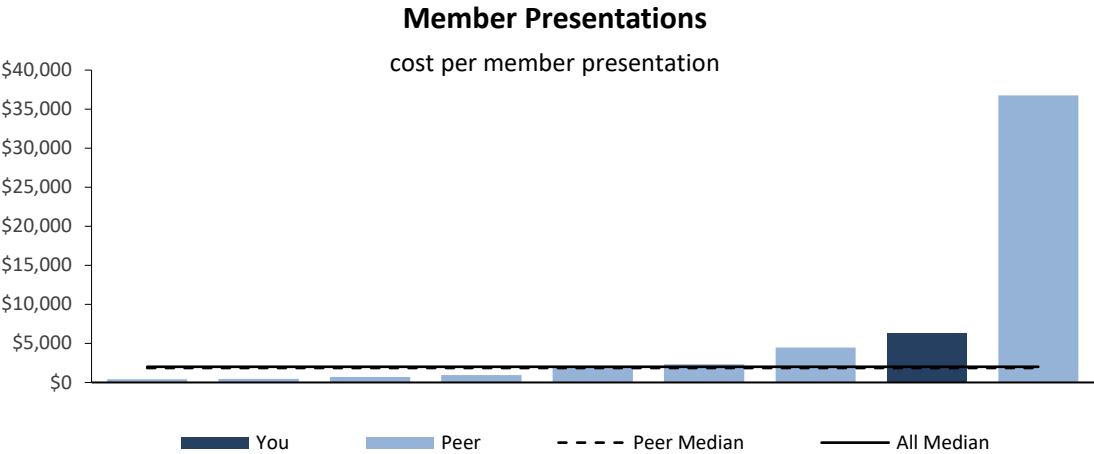
2. Mix of activity volume

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

Activity Volume: % by Type	You	Peer Avg	Cost Impact
In-house	0%	31%	decreasing
In the field	0%	7%	decreasing
Via teleconference	94%	19%	increasing
Via videoconference	6%	43%	decreasing
Total members counseled 1-on-1	100%	100%	

2D Member Presentations

Your member presentations cost per member presentation was \$6,349.02. This was \$4,497.83 above the peer median of \$1,851.19.



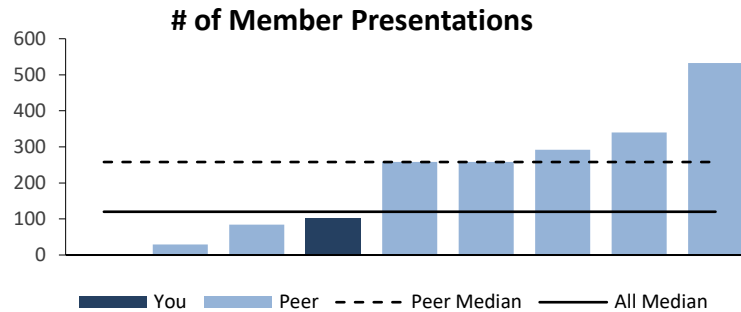
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Member Presentation
Equal salaries and benefits per direct FTE	\$95,472	\$95,472	\$0.00
Fewer member presentations per direct FTE (productivity)	19	62	\$3,426.42
Higher third party costs per member presentation	\$1,388.24	\$46.12	\$1,342.11
Unexplained ¹			-\$270.70
Cost per member presentation	\$6,349.02	\$1,851.19	\$4,497.83

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

2D Member Presentations - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 102 member presentations was 60% lower than the peer median of 258.



2. Mix of activity volume

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

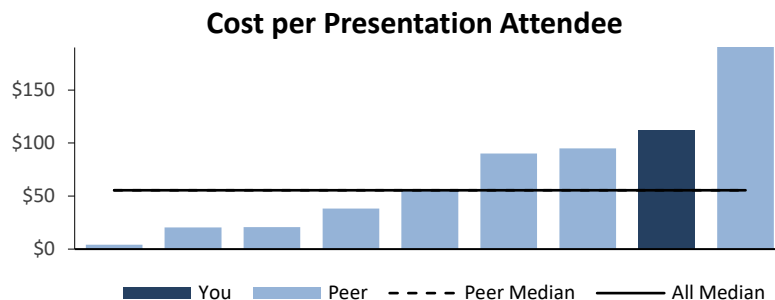
Member Presentations by Location	You	Peer Avg	Cost Impact
In-house and webcast	98%	83%	
In the field	0%	15%	decreasing
Benefit fairs	2%	1%	
Total presentations and group counseling	100%	100%	

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 57 attendees per presentation, versus a peer average of 55.

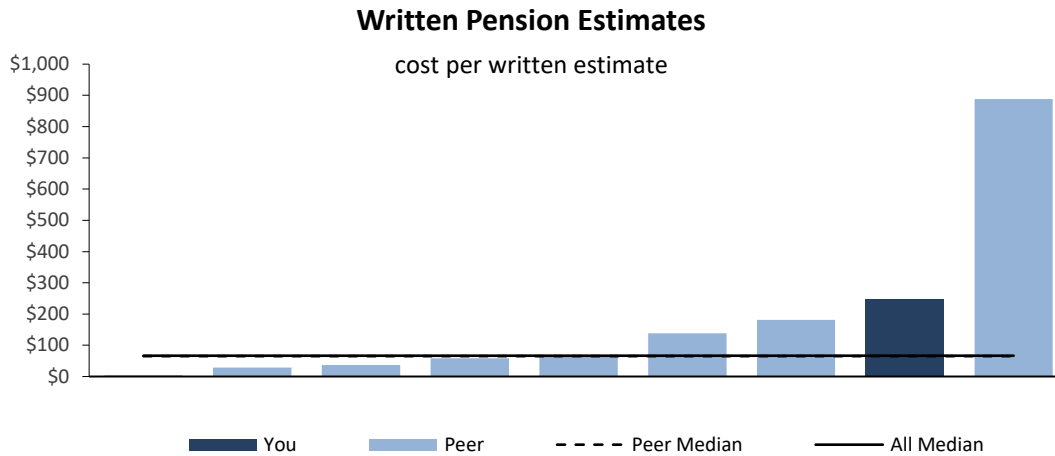
Causes of additional work	You	Peer Avg	Cost Impact
Average attendees per presentation	57	55	decreasing

An alternative way of analyzing this activity's cost is on a 'per attendee' basis. Your cost per presentation attendee was \$112. This was above the peer median cost of \$56.



2E Written Pension Estimates

Your written pension estimates cost per written estimate was \$246.91. This was \$181.68 above the peer median of \$65.23.



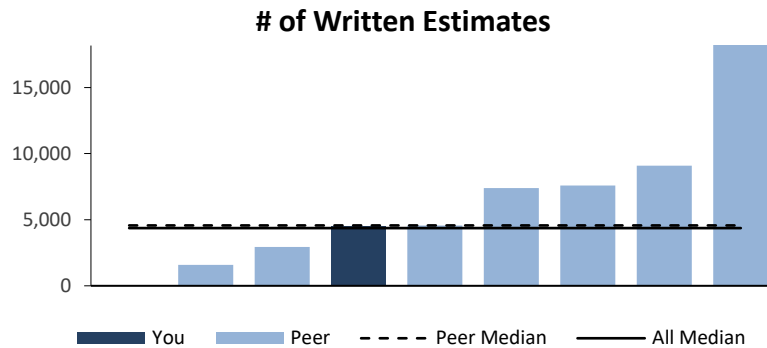
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Written Estimate
Higher salaries and benefits per direct FTE	\$95,956	\$80,441	\$31.19
Fewer written estimates per direct FTE (productivity)	497	972	\$94.24
Higher third party costs per written estimate	\$53.99	\$3.42	\$50.58
Unexplained ¹			\$5.67
Cost per written estimate	\$246.91	\$65.23	\$181.68

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

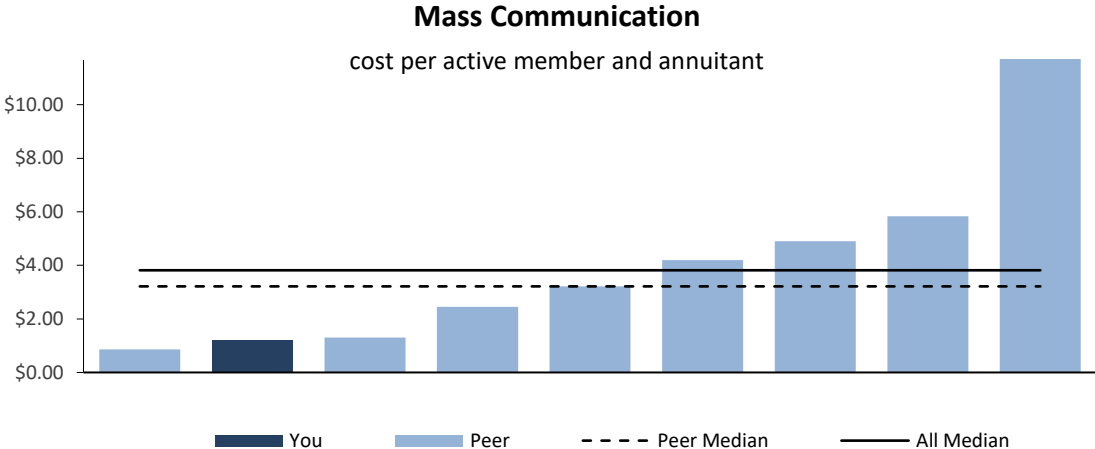
You had an economy of scale disadvantage. Your 4,477¹ written estimates was 2% lower than the peer median of 4,569.



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 8,953 by your average number of scenarios per request of 2.0.

2F Mass Communication

Your mass communication cost per active member and annuitant was \$1.20. This was \$2.01 below the peer median of \$3.21.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Equal salaries and benefits per direct FTE	\$92,000	\$92,000	\$0.00
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.10	0.12	-\$0.18
Lower third party costs per active member and annuitant	\$0.26	\$0.73	-\$0.46
Unexplained ¹			-\$1.37
Cost per active member and annuitant	\$1.20	\$3.21	-\$2.01

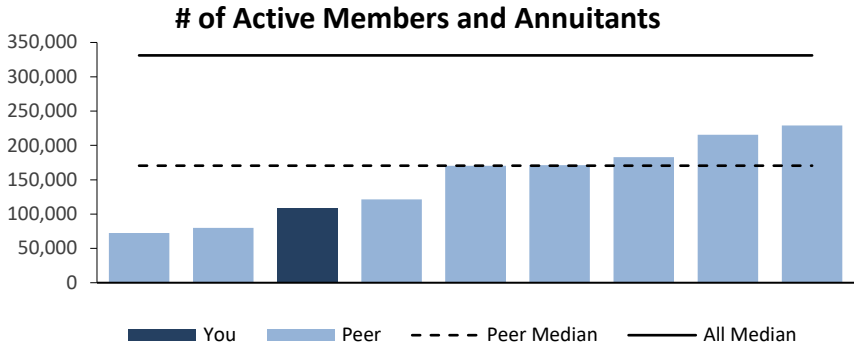
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 1.1 mass communication FTE which was 27% less than the peer median of 1.5. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.10 FTE per 10,000 active members and annuitants was 16% less than the peer median of 0.12) 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 107,667 active members and annuitants was 37% lower than the peer median of 170,484.

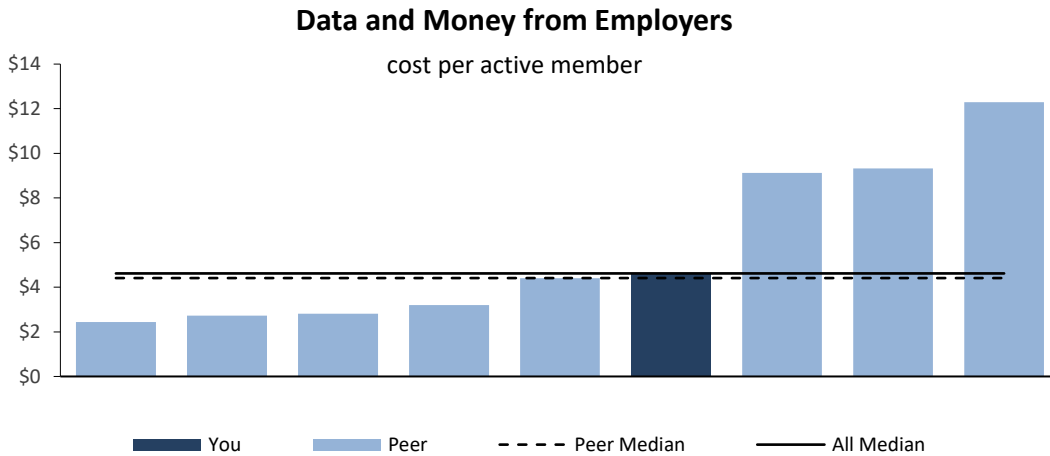


2. Additional mass communication work per active member and annuitant

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.	66	70	decreasing
Times per year you send newsletters to:			
a) All members (active, inactive and annuitants)?	2.0	2.0	neutral
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	1.4	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	1.0	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	1.3	decreasing
b) Inactive members?	1.0	1.0	neutral
% of member statements mailed to active members' homes	100%	60%	increasing
Do you send:			
a) Welcome kits to new members?	Yes	78%Yes	increasing
b) Brochure summarizing benefits to active members every year?	No	33%Yes	decreasing

3A Data and Money from Employers

Your data and money from employers cost per active member was \$4.57. This was \$0.16 above the peer median of \$4.41.



Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Active Member
Higher salaries and benefits per direct FTE	\$96,381	\$74,748	\$0.80
Fewer direct FTE per 10,000 active members (productivity) ²	0.20	0.28	-\$0.83
Higher third party costs per active member	\$1.00	\$0.25	\$0.75
Unexplained ¹			-\$0.56
Cost per active member	\$4.57	\$4.41	\$0.16

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).

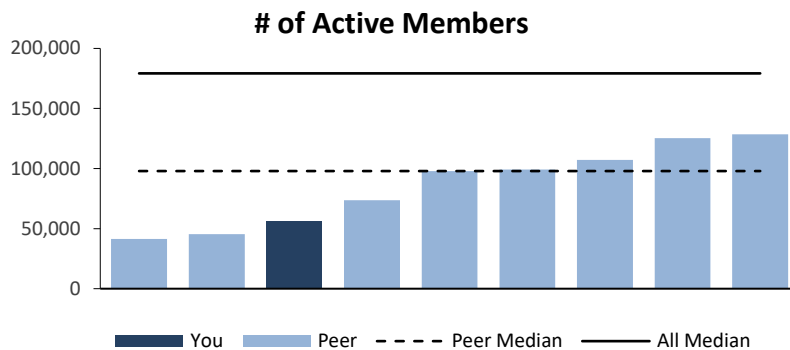
2. You had 2.1 data and money from employers FTE which was 59% less than the peer median of 5.1. The percentage difference was less favorable on a 'per active members' basis (your 0.20 FTE per 10,000 active members was 31% less than the peer median of 0.28) because you had an economy of scale disadvantage.

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

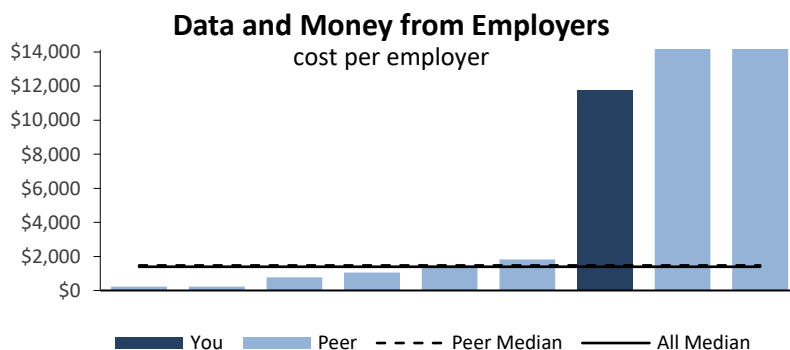
You had an economy of scale disadvantage. Your 56,637 active members was 42% lower than the peer median of 97,919.



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

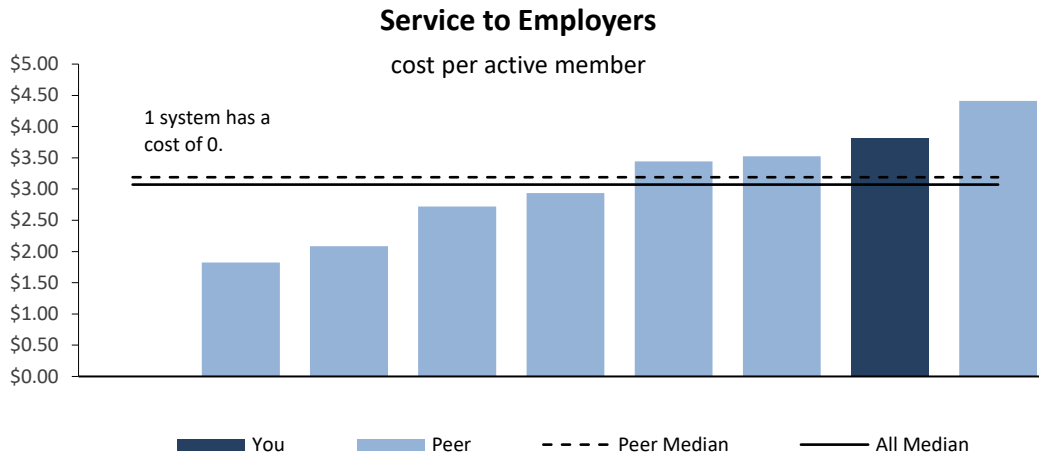
Causes of additional work	You	Peer Avg	Cost Impact
How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:			
• Validating member data? (as a % of active members)	0.0%	0.6%	decreasing
• Reconciling money issues? (as a % of active members)	0.0%	0.5%	decreasing
Active members whose data is provided in paper format (as a % of active members)	0.0%	0.0%	neutral
Status changes as a % of active members			
• New active members	7.3%	7.4%	decreasing
• Re-hired inactive members	0.8%	0.7%	increasing
• Re-hired service retirees, if annuity stops	0.0%	0.0%	neutral
• Active members exiting to inactive or withdrawal	4.8%	6.3%	decreasing
• Active member service retirements	3.3%	2.9%	increasing

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



3B Service to Employers

Your service to employers cost per active member was \$3.81. This was \$0.62 above the peer median of \$3.19.



Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Active Member
Higher salaries and benefits per direct FTE	\$93,722	\$82,085	\$0.37
Equal direct FTE per 10,000 active members (productivity) ²	0.17	0.17	-\$0.04
Higher third party costs per active member	\$0.83	\$0.13	\$0.70
Unexplained ¹			-\$0.41
Cost per active member	\$3.81	\$3.19	\$0.62

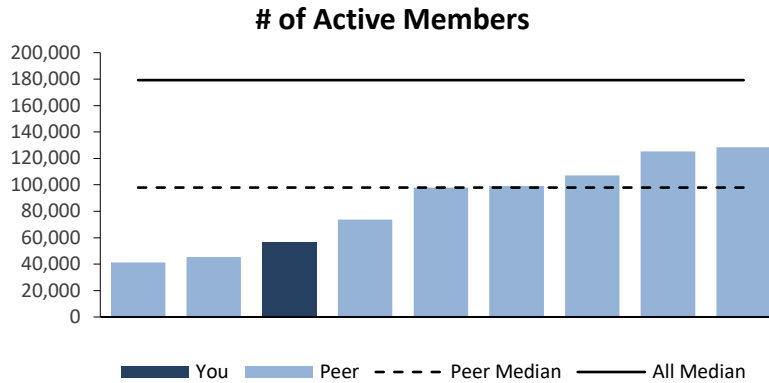
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 1.8 service to employers FTE which was 15% less than the peer median of 2.1. The difference changes direction and was less favorable on a 'per active members' basis (your 0.17 service to employers FTE per 10,000 active members was equal to the peer median of 0.17) 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 56,637 active members was 42% lower than the peer median of 97,919.

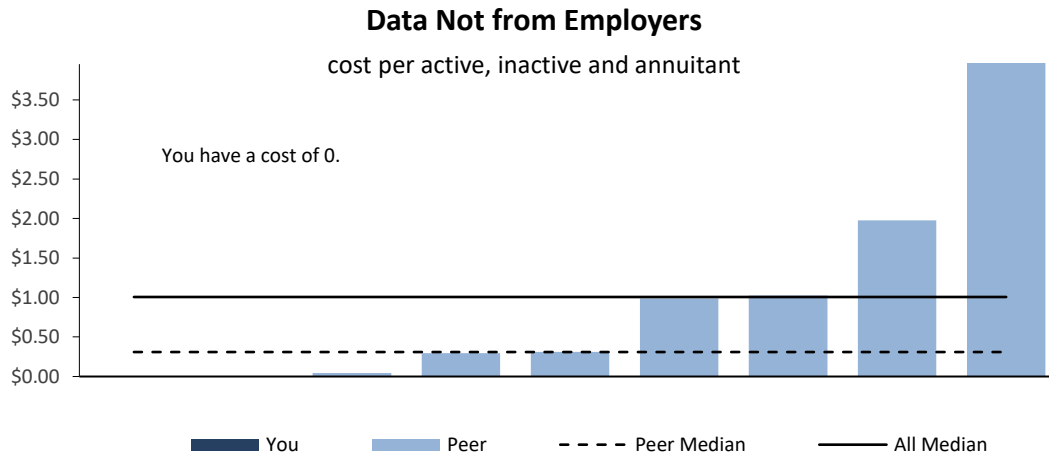


2. Additional service to employers work per active member

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%	0.6%	decreasing
• Reconciling money issues? (as a % of active members)	0.0%	0.5%	decreasing
Service transactions a % of active members:			
a) Incoming calls from employers?	4.0%	4.9%	decreasing
b) Email queries from employers?	38.9%	18.0%	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]?	0.00%	0.01%	neutral

3C Data Not from Employers

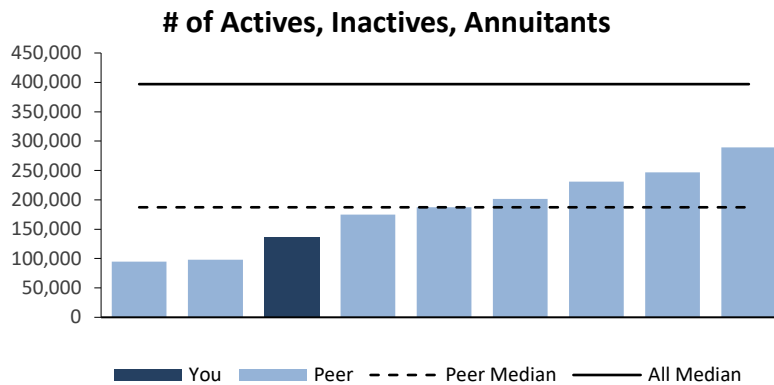
You have no cost for this activity. The peer median cost was \$0.31.



3C Data Not from Employers - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 137,193 actives, inactive, annuitants was 27% lower than the peer median of 187,325.

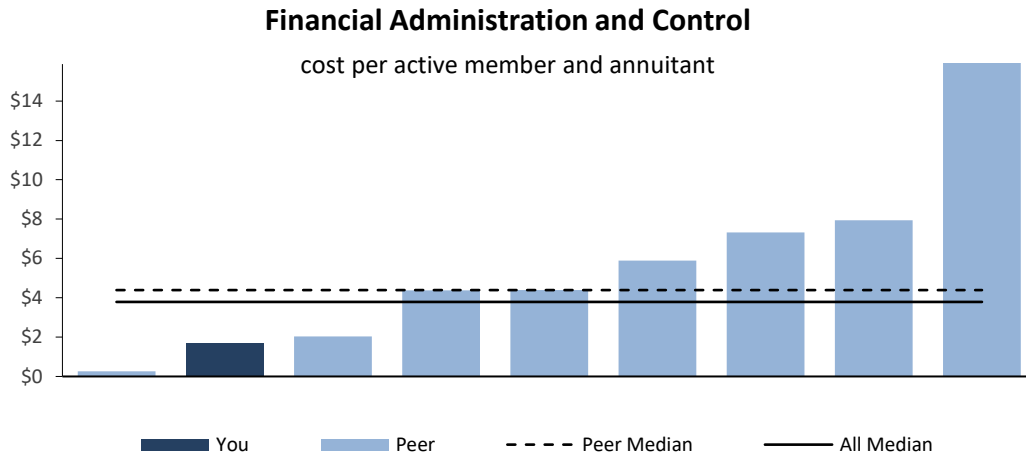


2. Additional data not from employers work per active, inactive and annuitant

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	21.5%	19.1%	increasing
Status changes as a % of actives, inactive, annuitants:			
• Deaths	0.1%	0.2%	decreasing

4A Financial Administration and Control

Your financial administration and control cost per active member and annuitant was \$1.68. This was \$2.71 below the peer median of \$4.39.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$96,375	\$107,789	-\$0.17
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.15	0.37	-\$2.14
Equal third party costs per active member and annuitant	\$0.40	\$0.40	\$0.00
Unexplained ¹			-\$0.40
Cost per active member and annuitant	\$1.68	\$4.39	-\$2.71

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).

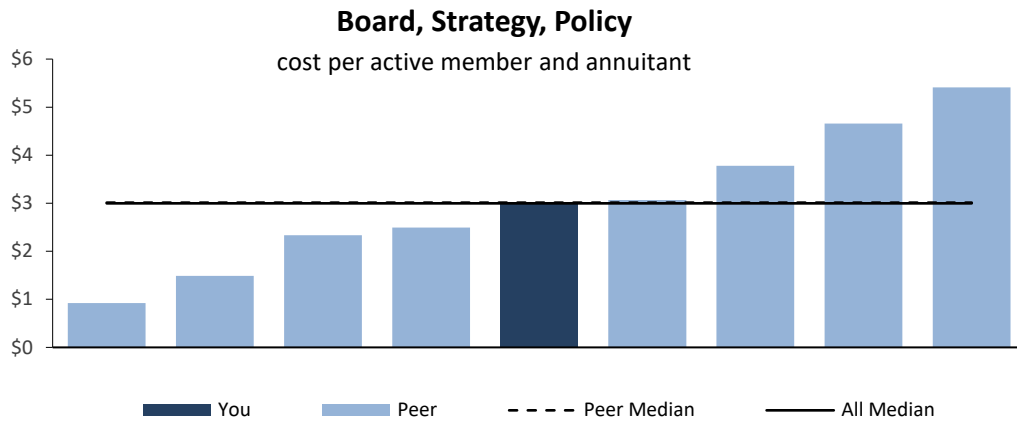
2. You had 1.6 financial administration and control FTE which was 59% less than the peer median of 3.9. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.15 financial administration and control FTE per 10,000 active members and annuitants was 60% less than the peer median of 0.37).

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 107,667 active members and annuitants was 37% lower than the peer median of 170,484.
- 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 \$3.01. This was equal to the peer median.



Reasons why your cost was equal to median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$95,379	\$163,600	-\$1.84
More direct FTE per 10,000 active members and annuitants (productivity) ²	0.27	0.13	\$1.34
Higher third party costs per active member and annuitant	\$0.72	\$0.71	\$0.01
Unexplained ¹			\$0.48
Cost per active member and annuitant	\$3.01	\$3.01	\$0.00

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

2. You had 2.9 board, strategy, policy FTE which was 32% more than the peer median of 2.2. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.27 FTE per 10,000 active members and annuitants was 110% more than the peer median of 0.13) 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:

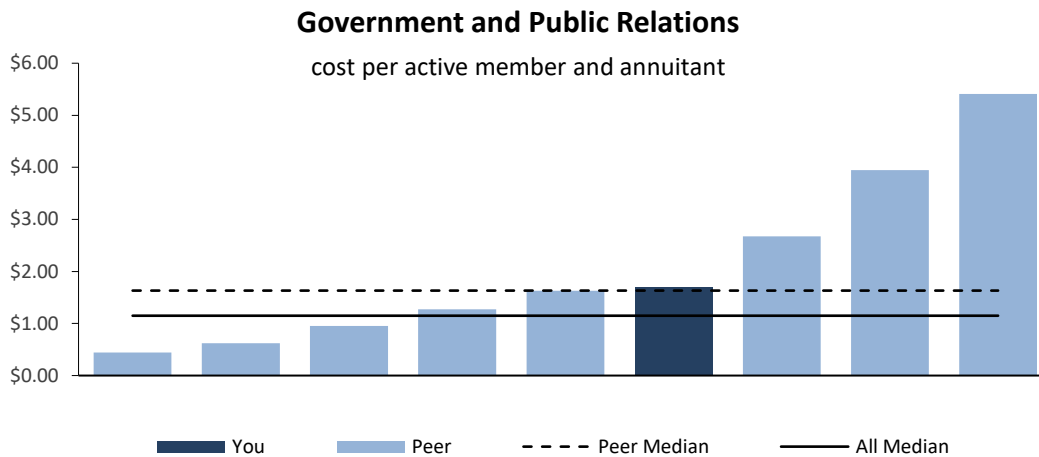
- Economies of scale - You had an economy of scale disadvantage. Your 107,667 active members and annuitants was 37% lower than the peer median of 170,484.
- Doing more/less - For example, your 17 oversight meetings last year was above the peer median of 16.

# of meetings last year, including sub-committees	You	Peer	
		Median *	Peer Avg
a) Board of Trustees?	7	11	18.2
b) Non-board legislative oversight committee?	6	5	1.6
c) Advisory committee?	n/a	n/a	n/a
d) Members' Council?	n/a	7	0.8
e) Other?	4	4	3.1
Total	17	16	24

* 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 \$1.69. This was \$0.06 above the peer median of \$1.63.



Reasons why your cost was above median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$97,000	\$123,962	-\$0.40
More direct FTE per 10,000 active members and annuitants (productivity) ²	0.15	0.09	\$0.59
Higher third party costs per active member and annuitant	\$0.40	\$0.23	\$0.17
Unexplained ¹			-\$0.30
Cost per active member and annuitant	\$1.69	\$1.63	\$0.06

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

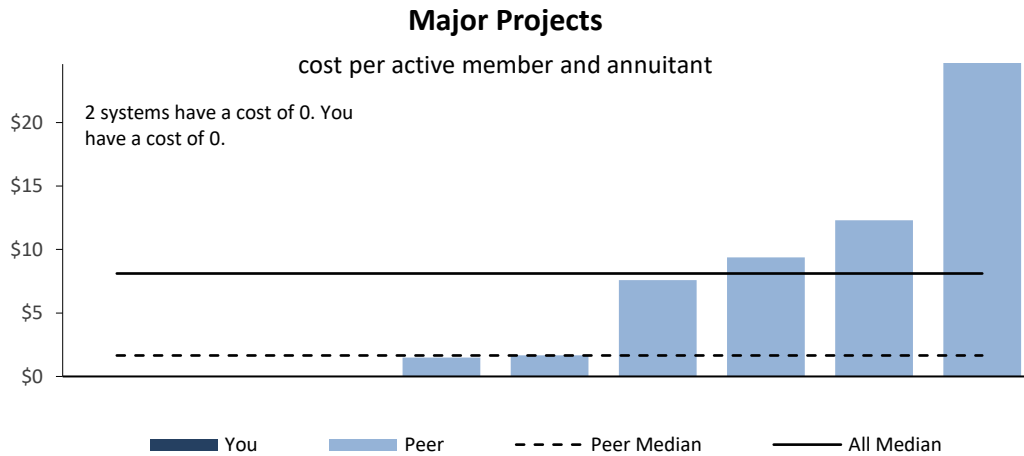
2. You had 1.6 government and public relations FTE which was 7% more than the peer median of 1.5. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.15 FTE per 10,000 active members and annuitants was 70% more than the peer median of 0.09) because you 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 107,667 active members and annuitants was 37% lower than the peer median of 170,484.
- 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 \$1.65. This comparison includes both '5A and 5C Amortized major projects' plus '5B and 5D Major Projects (if you don't capitalize)'.

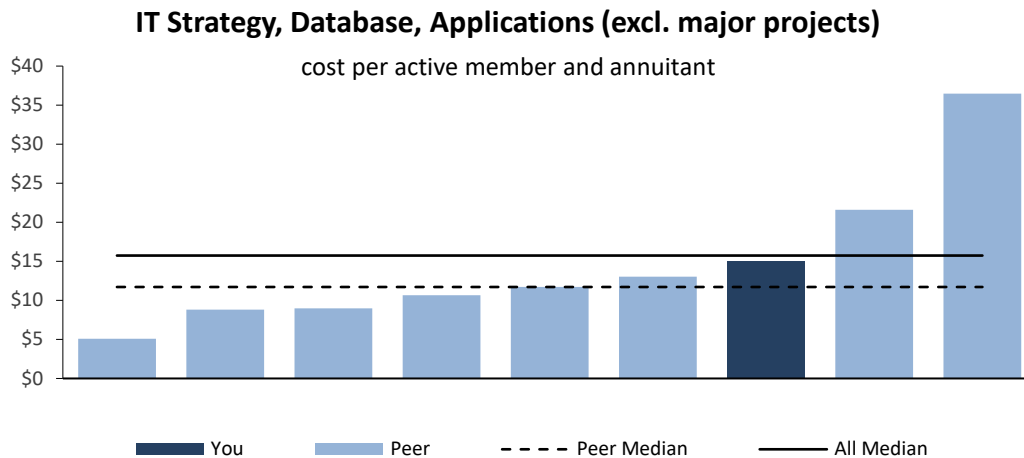


Reasons for differences in the cost for major projects include:

- 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 107,667 active members and annuitants was 36.8% lower than the peer median of 170,484. 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 30.
- 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 \$15.08. This was \$3.37 above the peer median of \$11.71. The biggest reason why was that you had more direct FTE per 10,000 active members and annuitants².



Reasons why your cost was above median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$96,118	\$113,176	-\$2.28
More direct FTE per 10,000 active members and annuitants ²	1.34	0.65	\$6.63
Lower third party costs per active member and annuitant	\$3.60	\$4.16	-\$0.56
Unexplained ¹			-\$0.41
Cost per active member and annuitant	\$15.08	\$11.71	\$3.37

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).

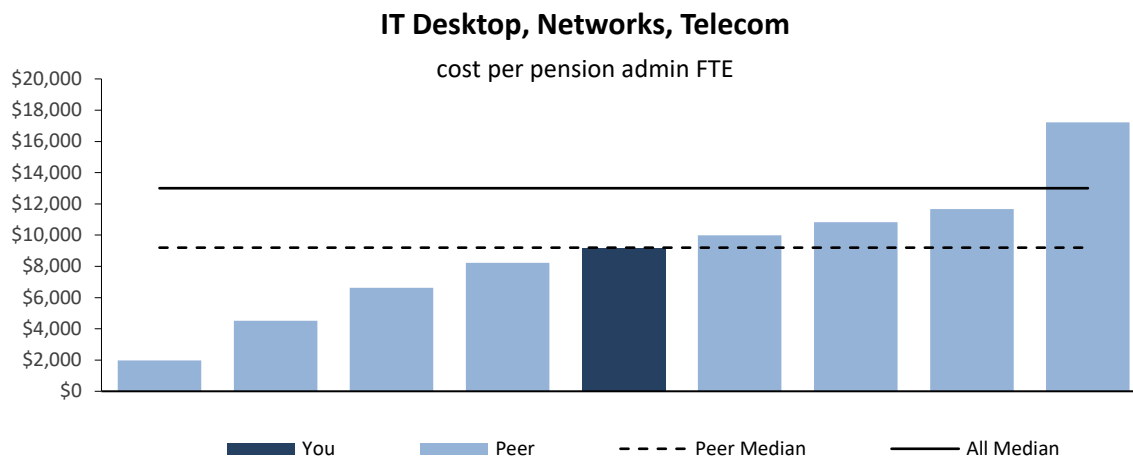
2. You had 14.4 IT strategy, database, applications (excl. major projects) FTE which was 30% more than the peer median of 11.1. The percentage difference was less favorable on a 'per active member and annuitant' basis (your 1.34 FTE per 10,000 active member and annuitant was 106% more than the peer median 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 107,667 active members and annuitants was 36.8% lower than the peer median of 170,484. 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 30.
- IT investment cycle

6B IT Desktop, Networks, Telecom

Your IT Desktop, Networks, Telecom cost per pension admin FTE was \$9,196. This was equal to the peer median.



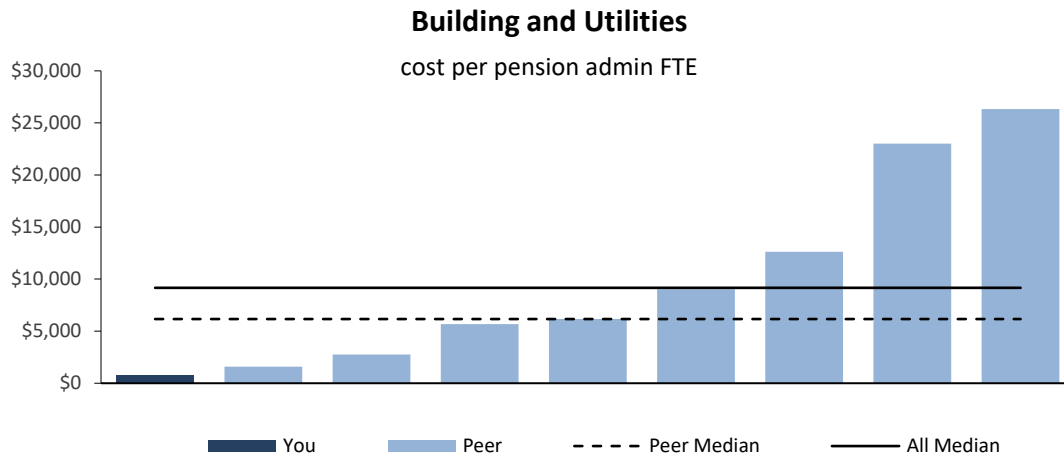
Reasons why your cost was equal to median	Comparison		Impact ¹
	You	Peer Median	\$s per Pension Admin FTE
Lower salaries and benefits per direct FTE	\$95,730	\$101,413	-\$465
More direct FTE per 100 pension admin FTE ²	8.19	5.02	\$3,036
Lower third party costs per pension admin FTE	\$2,195	\$2,918	-\$723
Unexplained ¹			-\$1,847
Cost per pension admin FTE	\$9,196	\$9,196	\$0

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 7.4 IT desktop, networks, telecom FTE which was 35% more than the peer median of 5.5. The percentage difference was less favorable on a 'per pension admin FTE' basis (your 8.19 IT desktop, networks, telecom FTE per 100 pension admin FTE was 63% more than the peer median of 5.02).

7A Building and Utilities

Your building and utilities cost per pension admin FTE was \$788. This was \$5,377 below the peer median of \$6,165.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Pension Admin FTE
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$101,167	\$82,808	\$122
More direct FTE per 100 pension admin FTE ²	0.66	0.13	\$539
Lower third party costs per pension admin FTE	\$188	\$5,634	-\$5,445
Unexplained ¹			-\$592
Cost per pension admin FTE	\$788	\$6,165	-\$5,377

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).

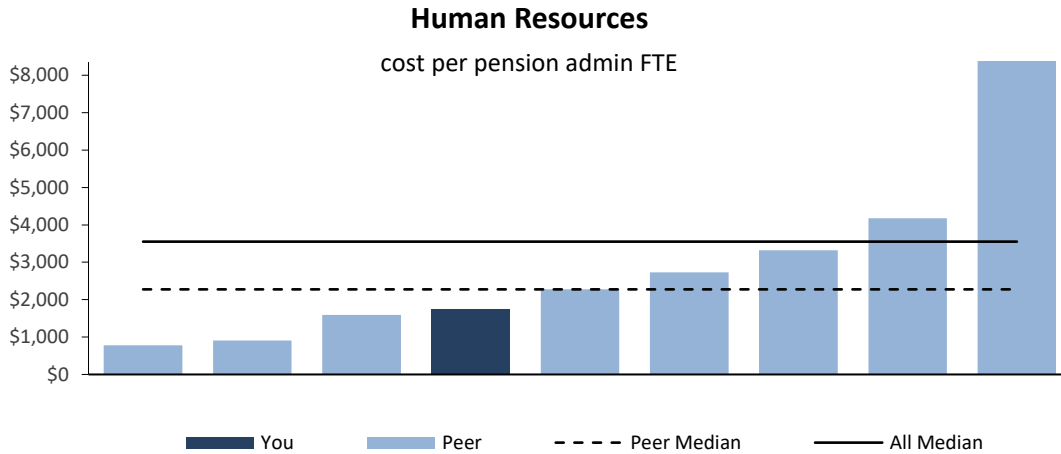
2. You had 0.6 building and utilities FTE which was 445% more than the peer median of 0.1. The percentage difference was more favorable on a 'per pension admin FTE' basis (your 0.66 FTE per 100 pension admin FTE was 404% more than the peer median of 0.13) because you had an economy of scale advantage.

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 \$1,752. This was \$523 below the peer median of \$2,275.



Reasons why your cost was below median	Comparison		Impact ¹
	You	Peer Median	\$s per Pension Admin FTE
Lower salaries and benefits per direct FTE	\$96,357	\$97,917	-\$24
Fewer direct FTE per 100 pension admin FTE ²	1.55	1.79	-\$227
Equal third party costs per pension admin FTE	\$418	\$418	\$0
Unexplained ¹			-\$272
Cost per pension admin FTE	\$1,752	\$2,275	-\$523

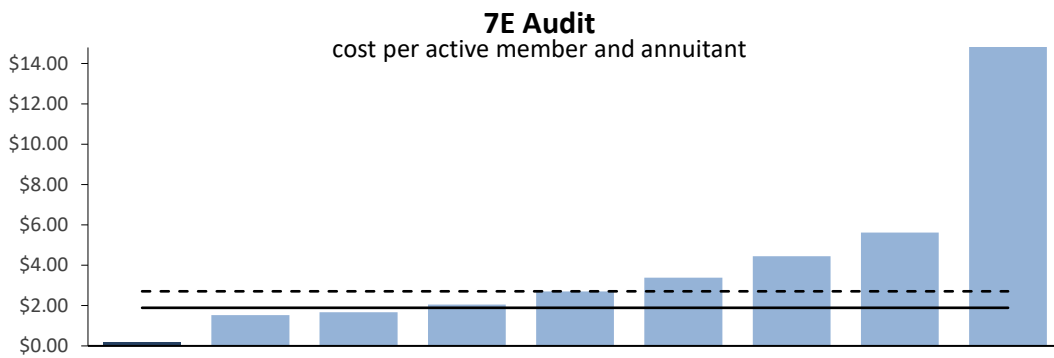
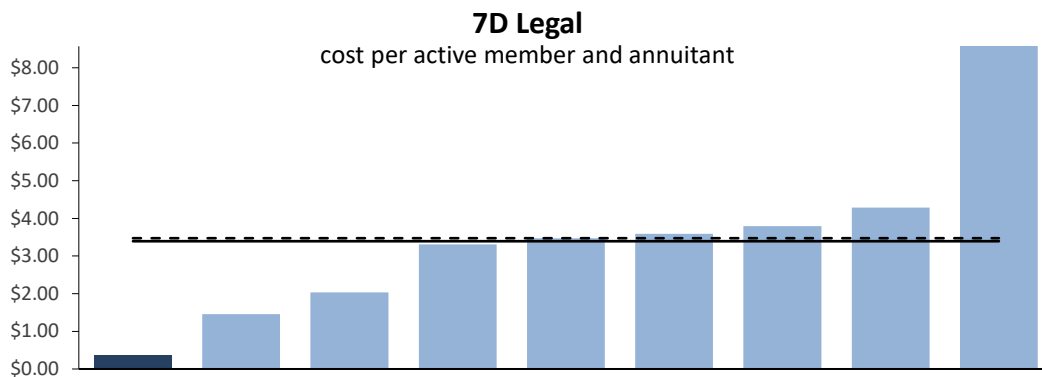
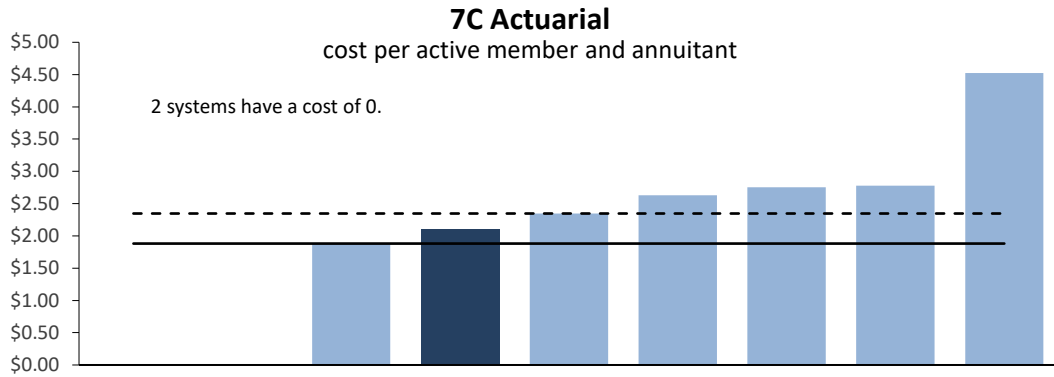
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 1.4 human resources FTE which was equal to the peer median of 1.4. The difference changes direction and was more favorable on a 'per pension admin FTE' basis (your 1.55 human resources FTE per 100 pension admin FTE was 13% less than the peer median of 1.79) because you had an economy of scale advantage.

7C-E Professional Costs

Your cost for activity:

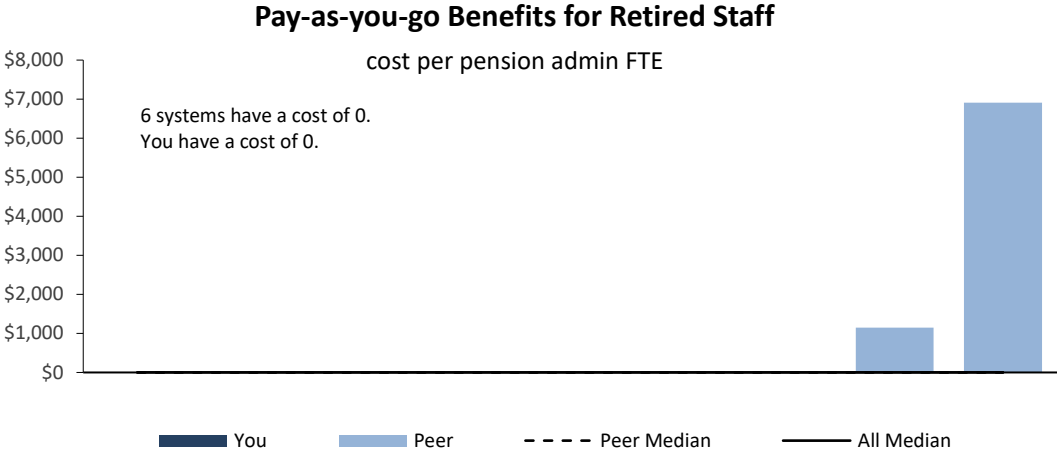
- Your actuarial cost per active member and annuitant was \$2.09. This was \$0.26 below the peer median of \$2.35.
- Your legal cost per active member and annuitant was \$0.37. This was \$3.10 below the peer median of \$3.47.
- Your audit cost per active member and annuitant was \$0.18. This was \$2.53 below the peer median of \$2.71.



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

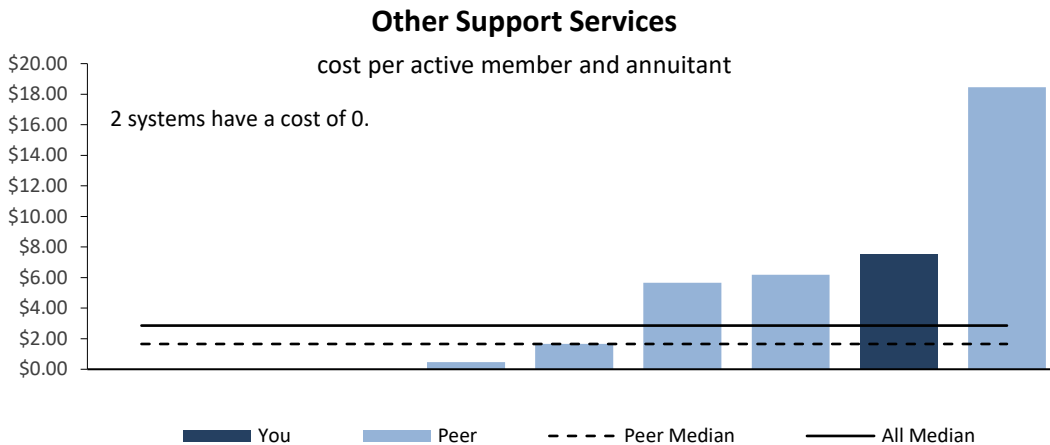
7F Pay-as-you-go Benefits for Retired Staff

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 \$5.85 above the peer median of \$1.65. The biggest reason why was that you had more direct FTE per 10,000 active members and annuitants².



Reasons why your cost was above median	Comparison		Impact ¹ \$s per Active Member and Annuitant
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$96,930	\$90,667	\$0.41
More direct FTE per 10,000 active members and annuitants ²	0.7	0.2	\$4.12
Equal third party costs per active member and annuitant	\$1.79	\$1.79	\$0.00
Unexplained ¹			\$1.32
Cost per active member and annuitant	\$7.50	\$1.65	\$5.85

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 2,267% more than the peer median of 0.3. 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 181% more than the peer median of 0.23).

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 107,667 active members and annuitants was 36.8% lower than the peer median of 170,484. 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 30.
- 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:	You	Peer							All						
			Avg	Max	Q3	Med	Q1	Min	#	Avg	Max	Q3	Med	Q1	Min	#
1. Member Transactions																
a. Pension Payments	annuitant	26	25	69	26	12	10	4	9	28	257	25	18	11	1	46
b. Pension Inceptions	new payee inception	99	574	1,707	708	330	295	99	9	562	1,707	705	459	305	78	46
c. Refunds, Withdrawals, and Transfers-out	withdrawal and transfer-out	293	1,989	9,408	1,918	223	211	67	9	1,070	9,408	1,330	372	135	15	45
d. Purchases and Transfers-in	purchase and transfer-in	1,539	2,292	15,731	1,004	636	221	32	9	1,667	15,731	1,830	875	441	25	44
e. Disability	disability application	1,482	7,678	23,083	10,476	5,976	1,535	695	9	12,856	230,113	12,286	4,199	1,792	0	37
2. Member Communication																
a. Call Center	call and email	18	23	68	24	21	15	0	9	38	115	47	31	21	0	46
b. Mail Room, Imaging	incoming mail	25	28	99	31	22	13	1	9	32	200	35	24	12	1	46
c. 1-on-1 Counseling	member counseled 1-on-1	159	372	1,266	447	343	103	43	9	501	1,859	532	434	218	43	45
d. Member Presentations	member presentation	10,497	12,653	74,834	10,142	4,803	1,591	880	9	8,867	74,834	8,623	5,688	3,205	0	45
e. Written Pension Estimates	written estimate	407	394	1,783	407	248	88	14	9	389	1,783	435	240	111	0	46
f. Mass Communication	active member and annuitant	2	8	28	9	5	3	2	9	9	38	12	8	4	0	46
3. Collections and Data Maintenance																
a. Data and Money from Employers	active member	8	19	74	23	10	8	5	9	25	155	34	14	9	2	46
b. Service to Employers	active member	6	10	39	8	6	6	0	9	11	49	13	8	6	0	46
c. Data Not from Employers	active, inactive and annuitant	0	4	22	3	1	0	0	9	4	22	5	3	1	0	46
Total Pension Administration	active member and annuitant	105	132	425	105	72	68	64	9	125	425	160	99	72	8	46
Non-Pension																
1f. Healthcare Administration	annuitant	20	22	165	16	0	0	0	9	9	165	2	0	0	0	44
1g. Optional and Third Party Administered Benefits	active member	0	1	10	0	0	0	0	9	5	56	6	0	0	0	44

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 ¹			Fully-Attributed		
				6a IT Strategy, DB Mgmt, Appli-cations	6b + 7a - g Support Services and Other	4. Governance & Financial Control	Cost per unit ³	Member and Annuitant	Cost per Active Member and Annuitant
1. Member Transactions									
a. Pension Payments	6.5	797	0	172	228	120	1,316	26	12.23
b. Pension Inceptions	1.5	189	0	40	53	28	308	99	2.86
c. Refunds, Withdrawals, and Transfers-out	3.9	475	0	103	137	72	786	293	7.30
d. Purchases and Transfers-in	0.7	86	0	18	25	13	142	1,539	1.32
e. Disability	0.7	86	0	18	25	13	142	1,482	1.32
f. Healthcare Administration	5.1	630	0	135	179	94	1,038	20	9.64
g. Optional and Third Party Administered Benefits	0.0	0	0	0	0	0	0	0	0.00
2. Member Communication									
a. Call Center	10.5	1,295	0	277	368	194	2,134	18	19.82
b. Mail Room, Imaging	3.5	432	0	92	123	65	711	25	6.60
c. 1-on-1 Counseling	9.3	1,147	0	245	326	171	1,890	159	17.55
d. Member Presentations	5.3	648	0	140	186	98	1,071	10,497	9.94
e. Written Pension Estimates	9.0	1,105	0	238	315	166	1,824	407	16.94
f. Mass Communication	1.1	130	0	29	39	20	217	2	2.02
3. Collections and Data Maintenance									
a. Data and Money from Employers	2.1	259	0	55	74	39	427	8	3.96
b. Service to Employers	1.8	216	0	48	63	33	360	6	3.34
c. Data Not from Employers	0.0	0	0	0	0	0	0	0	0.00
4. Governance and Financial Control									
a. Financial Administration and Control	1.6	197	0	42	56	-296	0		
b. Board, Strategy, Policy	2.9	354	0	77	102	-532	0		
c. Government and Public Relations	1.6	199	0	42	56	-297	0		
5. Major Projects									
a. Amortization of non-IT Major Projects	n/a	0	0				0		
b. Non-IT Major Projects (if you don't capitalize)	0.0	0	0				0		
c. Amortization of IT Major Projects	n/a	0	0				0		
d. IT Major Projects (if you don't capitalize)	0.0	0	0				0		
6. Information Technology									
a. IT Strategy, Database, Applications (excl. major projects)	14.4	1,771		-1,771			0		
b. IT Desktop, Networks, Telecom	7.4	907			-907		0		
7. Support Services and Other									
a. Building and Utilities	0.6	78			-78		0		
b. Human Resources	1.4	173			-173		0		
c. Actuarial	0.0	246			-246		0		
d. Legal and Rule Interpretation	0.4	43			-43		0		
e. Internal and External Audit	0.2	22			-22		0		
f. Pay-as-you-go Benefits for Retired Staff	n/a	0			0		0		
g. Other Support Services	7.1	881			-881		0		
Total Administration	98.6	12,365	0	0	0	0	12,365		114.84
less: ²									
1f. Healthcare Administration							-1,038		-9.64
1g. Optional and Third Party Administered Benefits							0		0.00
Total Pension Administration							11,327		105.21

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

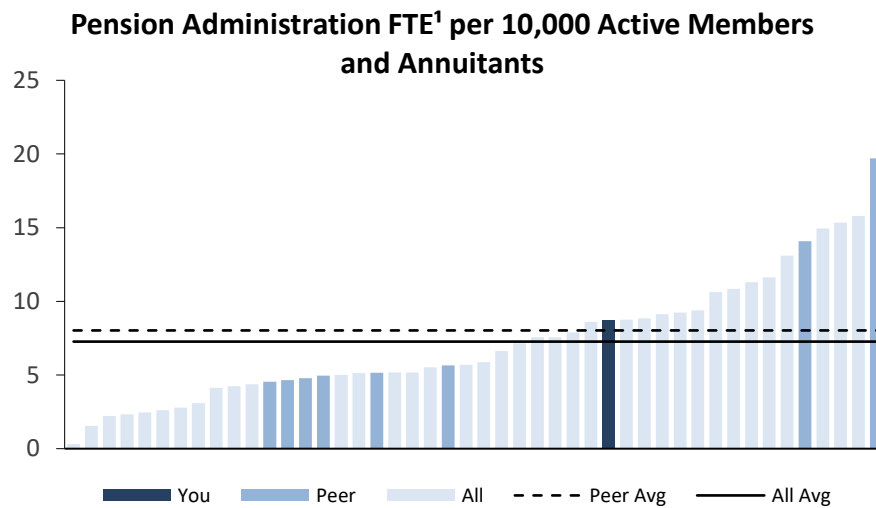
Staff Costs and Productivity

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 8.68 pension administration FTE¹ per 10,000 members. This was above the peer average of 8.03.



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

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

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

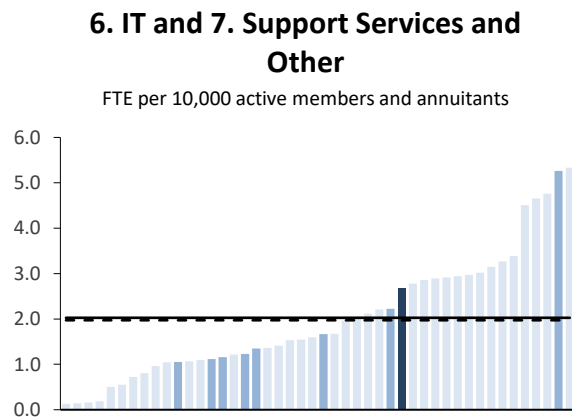
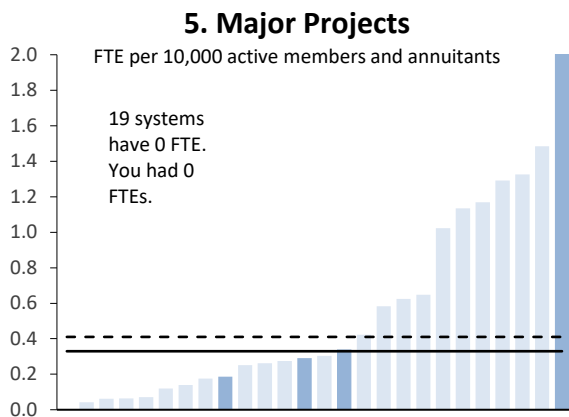
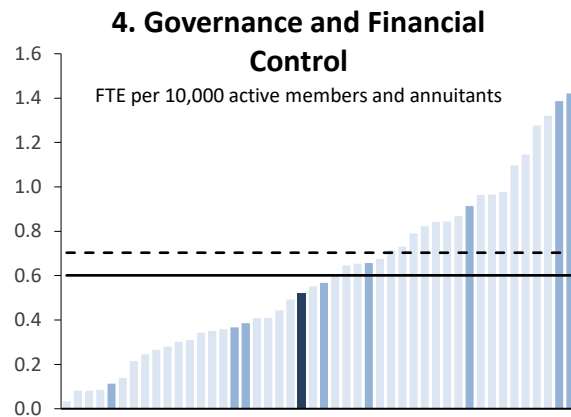
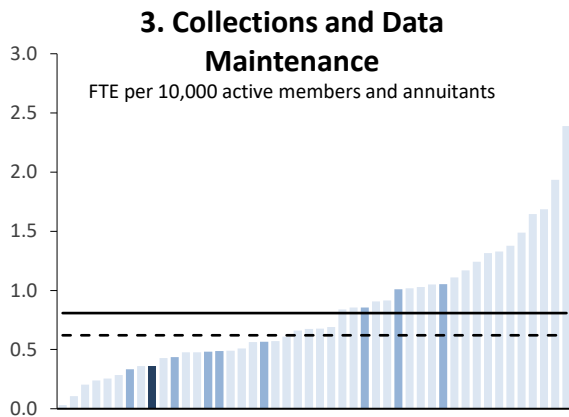
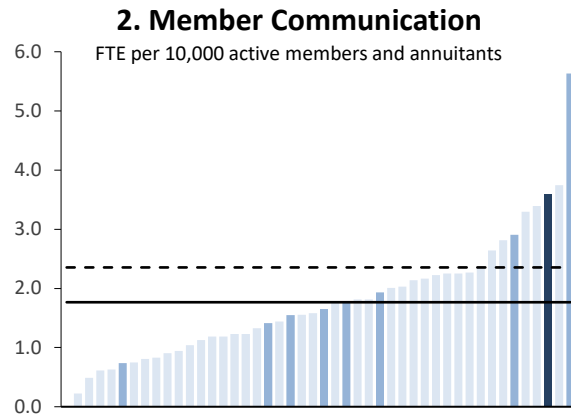
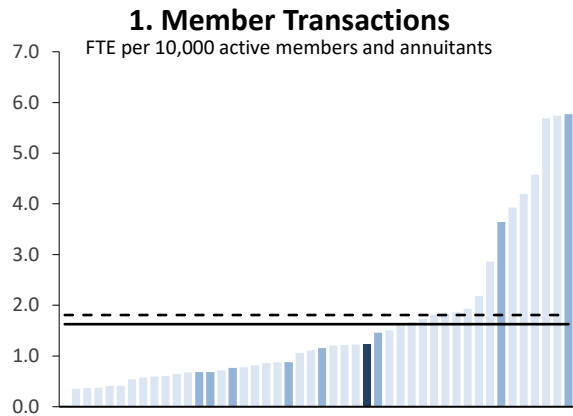
FTE by activity

Activity	# of Direct ¹ FTE			# of FTE per 10,000 Active Members and Annuitants		
	You	Peer	All Avg	You	Peer	All Avg
1. Member Transactions						
a. Pension Payments	6.5	6.7	11.6	0.60	0.40	0.35
b. Pension Inceptions	1.5	8.3	19.6	0.14	0.54	0.46
c. Refunds, Withdrawals, and Transfers-out	3.9	4.9	10.4	0.36	0.30	0.36
d. Purchases and Transfers-in	0.7	3.6	11.4	0.07	0.21	0.32
e. Disability	<u>0.7</u>	<u>5.8</u>	<u>5.6</u>	<u>0.07</u>	<u>0.37</u>	<u>0.14</u>
Total Member Transactions	13.3	29.3	58.7	1.24	1.81	1.63
2. Member Communication						
a. Call Center	10.5	13.9	33.4	0.98	0.92	0.76
b. Mail Room, Imaging	3.5	6.5	9.0	0.33	0.36	0.24
c. 1-on-1 Counseling	9.3	4.6	9.2	0.86	0.32	0.22
d. Member Presentations	5.3	3.4	4.5	0.49	0.23	0.12
e. Written Pension Estimates	9.0	4.0	6.7	0.84	0.28	0.19
f. Mass Communication	<u>1.1</u>	<u>4.2</u>	<u>8.2</u>	<u>0.10</u>	<u>0.25</u>	<u>0.23</u>
Total Member Communication	38.7	36.6	71.0	3.59	2.35	1.77
3. Collections and Data Maintenance						
a. Data and Money from Employers	2.1	6.0	16.9	0.20	0.35	0.44
b. Service to Employers	1.8	2.5	9.4	0.17	0.16	0.19
c. Data Not from Employers	<u>0.0</u>	<u>1.8</u>	<u>7.8</u>	<u>n/a</u>	<u>0.11</u>	<u>0.18</u>
Total Collections and Data Maintenance	3.9	10.2	34.0	0.36	0.62	0.81
4. Governance and Financial Control						
a. Financial Administration and Control	1.6	7.3	13.8	0.15	0.45	0.35
b. Board, Strategy, Policy	2.9	2.4	9.8	0.27	0.15	0.18
c. Government and Public Relations	<u>1.6</u>	<u>2.1</u>	<u>3.2</u>	<u>0.15</u>	<u>0.13</u>	<u>0.09</u>
Total Governance and Financial Control	6.1	11.9	26.8	0.57	0.73	0.62
5. Major Projects						
a. Amortization of non-IT Major Projects ²	n/a	n/a	n/a	n/a	n/a	n/a
b. Non-IT Major Projects (if you don't capitalize)	0.0	0.9	4.2	n/a	0.04	0.13
c. Amortization of IT Major Projects ²	n/a	n/a	n/a	n/a	n/a	n/a
d. IT Major Projects (if you don't capitalize)	<u>0.0</u>	<u>7.7</u>	<u>7.1</u>	<u>n/a</u>	<u>0.37</u>	<u>0.21</u>
Total Major Projects	0.0	8.5	11.3	0.00	0.41	0.34
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	14.4	11.2	32.7	1.34	0.70	0.81
b. IT Desktop, Networks, Telecom	<u>7.4</u>	<u>5.9</u>	<u>10.1</u>	<u>0.69</u>	<u>0.37</u>	<u>0.29</u>
Total Information Technology	21.8	17.1	42.8	2.02	1.07	1.10
7. Support Services and Other						
a. Building and Utilities	0.6	0.7	3.2	0.06	0.04	0.07
b. Human Resources	1.4	3.2	8.6	0.13	0.19	0.23
c. Actuarial	0.0	0.2	2.8	n/a	0.03	0.06
d. Legal and Rule Interpretation	0.4	4.1	9.6	0.04	0.27	0.27
e. Internal and External Audit	0.2	4.6	5.2	0.02	0.30	0.16
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	n/a	n/a
g. Other Support Services	<u>7.1</u>	<u>2.0</u>	<u>8.7</u>	<u>0.66</u>	<u>0.20</u>	<u>0.22</u>
Total Support Services and Other	9.7	14.9	38.1	0.90	1.02	1.01
Total Pension Admin FTE (excludes below)	93.5	128.5	282.6	8.68	8.03	7.27
FTE whose salaries are being capitalized	0.0	0.4	8.6	n/a	0.02	0.13
1f. Healthcare Administration	5.1	3.7	2.7	0.47	0.27	0.10
1g. Optional and Third Party Administered Benefits	0.0	0.3	2.8	n/a	0.03	0.06
Total Administration FTE	98.6	132.9	296.7	9.16	8.34	7.55

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

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

FTE per 10,000 members by activity aggregates

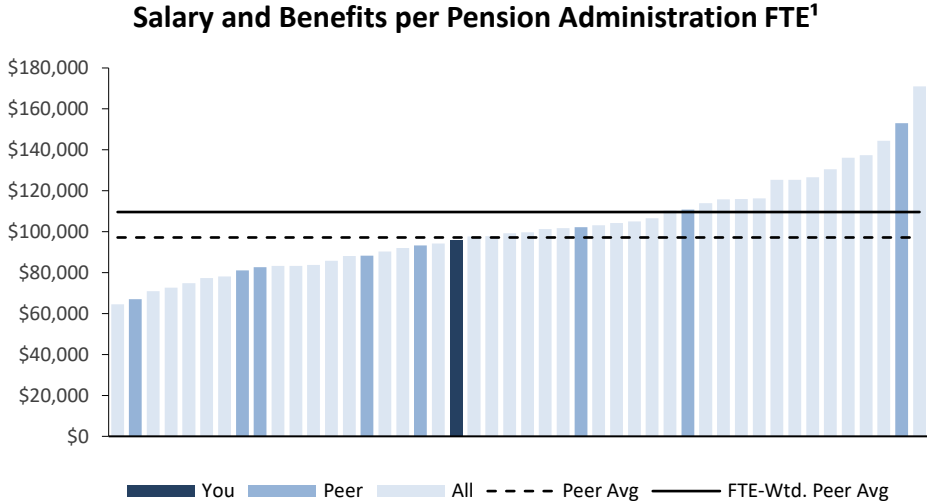


You
 Peer
 All
 Peer Avg
 All Avg

Salaries and benefits

Your salaries and benefits per pension administration FTE¹ was \$95,985. This was 1% below the peer average of \$97,166.

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 \$95,985 was below the FTE-weighted peer average of \$109,615. The FTE-weighted average of \$109,615 is substantially higher than the simple average of \$97,166 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

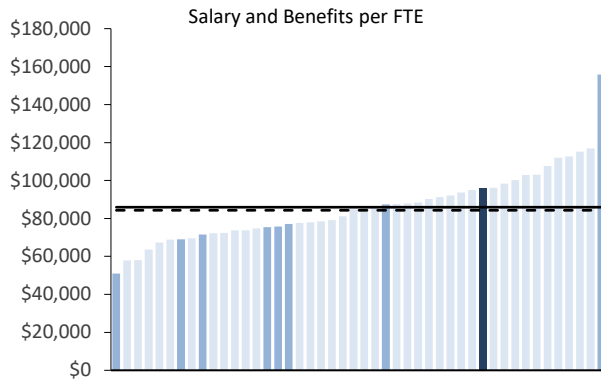
Activity	Salaries and Benefits per FTE			Salaries and Benefits as a % of Direct Activity Cost		
	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions						
a. Pension Payments	\$95,846	\$89,637	\$91,382	78%	73%	69%
b. Pension Inceptions	\$98,267	\$81,000	\$85,130	78%	87%	91%
c. Refunds, Withdrawals, and Transfers-out	\$95,154	\$86,770	\$85,693	78%	86%	90%
d. Purchases and Transfers-in	\$95,714	\$80,358	\$86,943	78%	85%	89%
e. Disability	<u>\$96,429</u>	<u>\$87,264</u>	<u>\$86,179</u>	78%	72%	73%
	\$95,940	\$84,293	\$85,927			
2. Member Communication						
a. Call Center	\$96,381	\$75,451	\$80,430	78%	92%	90%
b. Mail Room, Imaging	\$96,371	\$70,244	\$74,757	78%	74%	76%
c. 1-on-1 Counseling	\$96,387	\$85,542	\$88,014	78%	89%	91%
d. Member Presentations	\$95,472	\$94,729	\$96,180	78%	92%	88%
e. Written Pension Estimates	\$95,956	\$83,038	\$87,593	78%	88%	89%
f. Mass Communication	<u>\$92,000</u>	<u>\$97,285</u>	<u>\$108,636</u>	78%	62%	59%
	\$96,034	\$81,046	\$87,877			
3. Collections and Data Maintenance						
a. Data and Money from Employers	\$96,381	\$80,541	\$89,019	78%	86%	92%
b. Service to Employers	\$93,722	\$85,894	\$95,855	78%	88%	89%
c. Data Not from Employers	n/a	<u>\$85,263</u>	<u>\$92,284</u>	n/a	75%	84%
	\$95,154	\$83,197	\$90,197			
4. Governance and Financial Control						
a. Financial Administration and Control	\$96,375	\$102,502	\$115,938	78%	85%	83%
b. Board, Strategy, Policy	\$95,379	\$166,926	\$186,076	78%	77%	77%
c. Government and Public Relations	<u>\$97,000</u>	<u>\$141,956</u>	<u>\$153,667</u>	78%	84%	81%
	\$96,066	\$120,750	\$139,580			
5. Major Projects						
a. Amortization of non-IT Major Projects	n/a	n/a	n/a	n/a	n/a	n/a
b. Non-IT Major Projects (if you don't capitalize)	n/a	\$130,228	\$121,953	n/a	50%	57%
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>\$119,634</u>	<u>\$123,760</u>	n/a	67%	55%
	n/a	\$118,689	\$119,028			
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	\$96,118	\$120,371	\$127,874	78%	61%	48%
b. IT Desktop, Networks, Telecom	<u>\$95,730</u>	<u>\$113,097</u>	<u>\$121,328</u>	78%	56%	35%
	\$95,986	\$118,081	\$126,467			
7. Support Services and Other						
a. Building and Utilities	\$101,167	\$92,150	\$93,373	78%	13%	13%
b. Human Resources	\$96,357	\$102,221	\$117,912	78%	78%	75%
c. Actuarial	n/a	\$153,750	\$156,450	0%	15%	36%
d. Legal and Rule Interpretation	\$84,250	\$152,594	\$135,347	78%	71%	74%
e. Internal and External Audit	\$84,500	\$105,614	\$124,519	78%	65%	67%
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	100%	100%
g. Other Support Services	<u>\$96,930</u>	<u>\$87,111</u>	<u>\$115,934</u>	78%	40%	59%
	\$96,330	\$129,954	\$125,212			
Total Pension Administration ¹	\$96,002	\$98,929	\$104,334	77%	65%	60%
Total Pension Admin excluding activities 6b, 7a, 7b, and 7f ²	\$95,985	\$97,166	\$102,155	76%	69%	65%

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

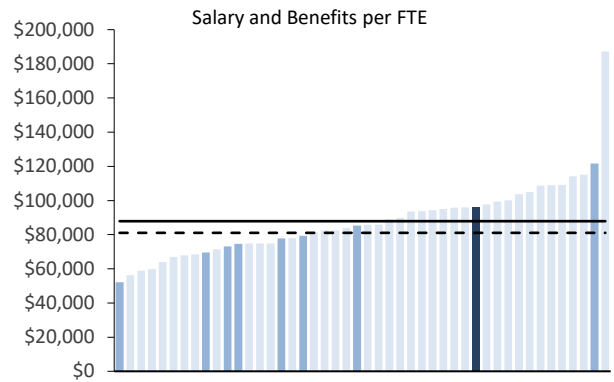
2. Section 3 'Total Costs' and the Executive Summary use the FTE-weighted peer average of \$109,615 to explain cost differences. It is substantially higher than the simple average of \$97,166 because your peers with the highest salaries also had the most FTEs. It is used to explain cost differences because 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

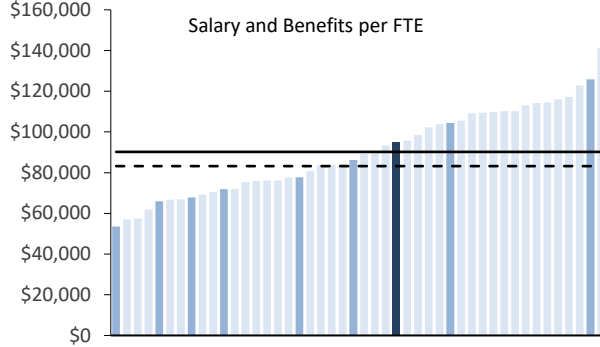
1. Member Transactions



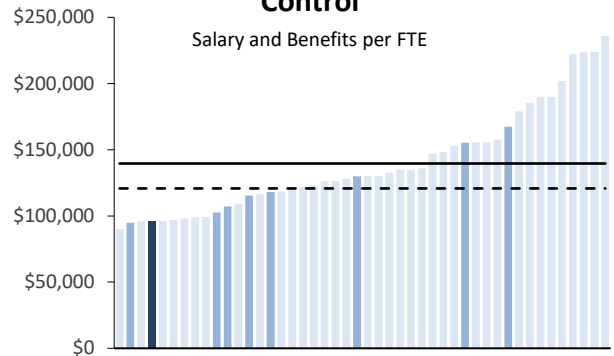
2. Member Communication



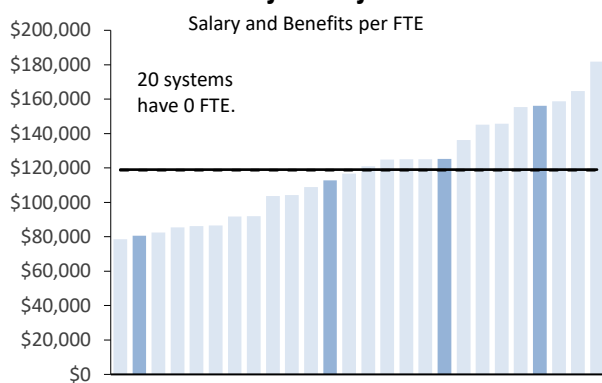
3. Collections and Data Maintenance



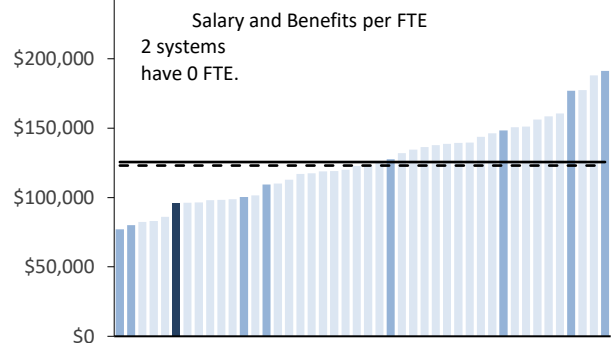
4. Governance and Financial Control



5. Major Projects



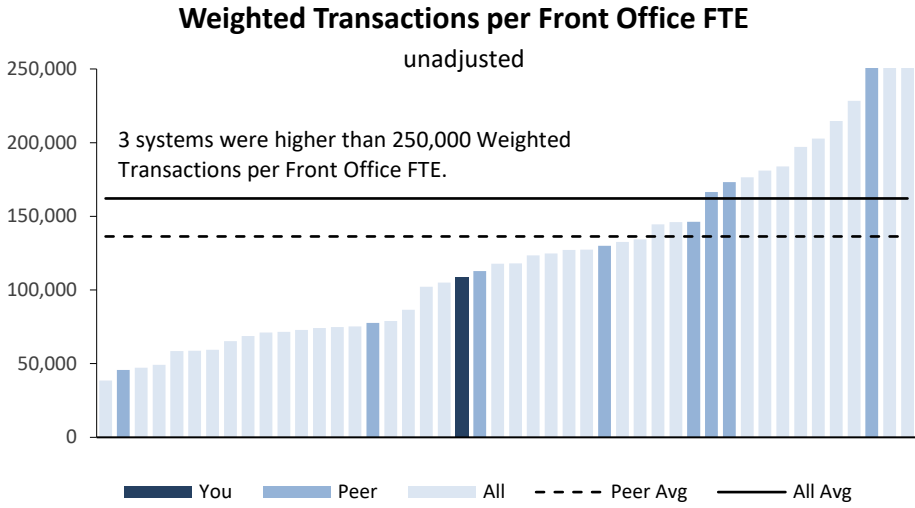
6. IT and 7. Support Services and Other



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 108,604 per front office FTE. This was below the in-house peer average of 136,332.



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:

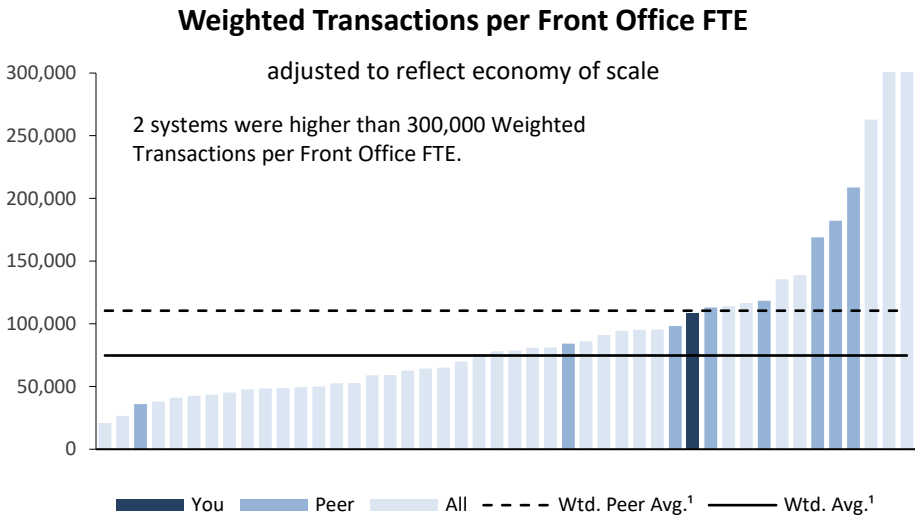
- Economies of scale (see next page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization 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 2% 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
1. Member Transactions				
a. Pension Payments	Annuitants	7,851	23,529	42,075
b. Pension Inceptions	New Payee Inceptions	2,067	745	817
c. Refunds, Withdrawals, and Transfers-out	Refunds, Withdrawals, and Transfers-out	689	1,009	2,360
d. Purchases and Transfers-in	Purchases and Transfers-in	131	1,466	1,222
e. Disability	Disability Applications	137	106	126
2. Member Communication				
a. Call Center	Calls and Emails	11,411	10,359	9,713
b. Mail Room, Imaging	Incoming Mail	8,192	11,296	20,679
c. 1-on-1 Counseling	Members Counseled 1-on-1	1,278	1,526	1,028
d. Member Presentations	Member Presentations	19	98	70
e. Written Pension Estimates	Written Estimates	497	3,172	2,478
f. Mass Communication	Active Members and Annuitants	97,879	69,737	129,219
3. Collections and Data Maintenance				
a. Data and Money from Employers	Active Members	26,970	21,983	30,198
b. Service to Employers	Active Members	31,465	34,360	128,795
c. Data Not from Employers	Actives, Inactives, Annuitants	n/a	370,777	377,100
Weighted Transactions per Front Office FTE		108,604	136,332	162,111
adjusted for Economies of Scale ^{1, 2}		108,604	110,485	74,751

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.

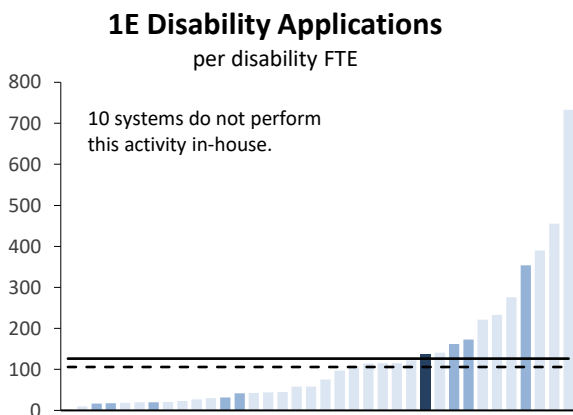
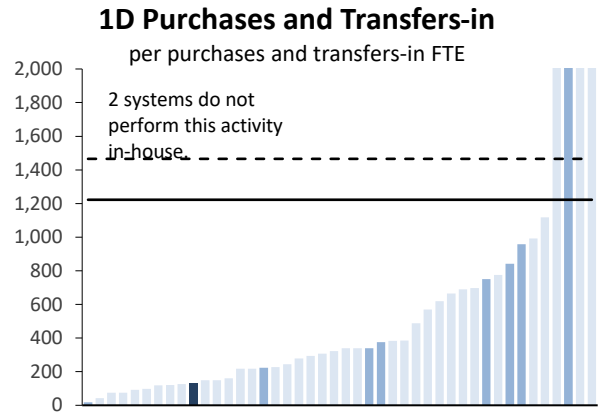
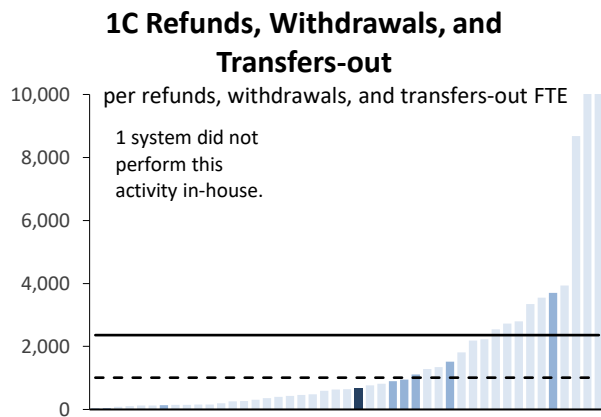
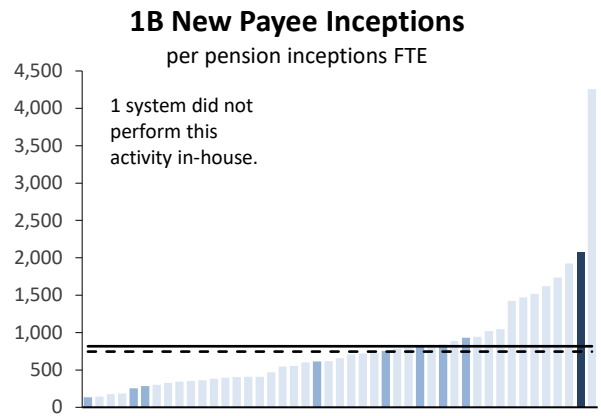
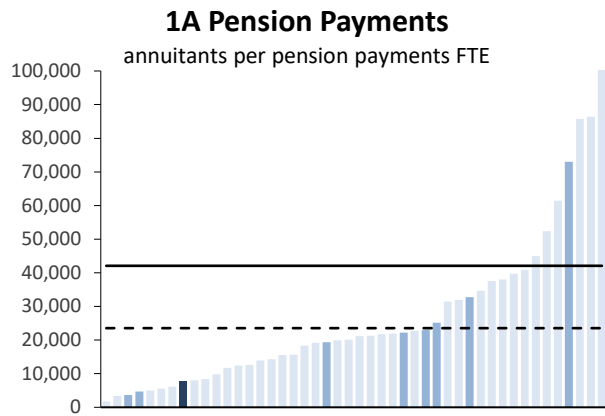
2. The peer and all averages, for this value only, are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

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

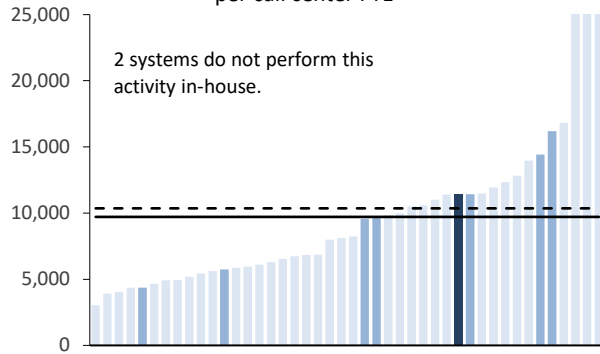


You
 Peer
 All
 Peer Avg
 All Avg

Productivity by activity - member communication

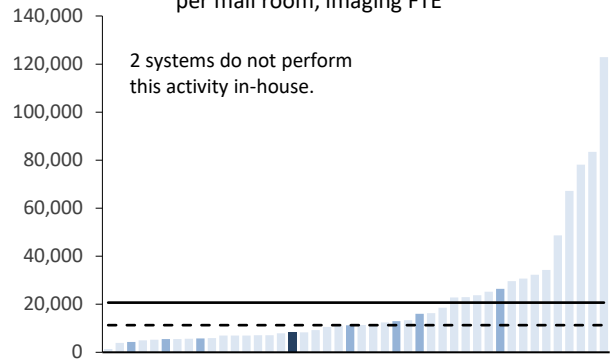
2A Calls and Emails

per call center FTE



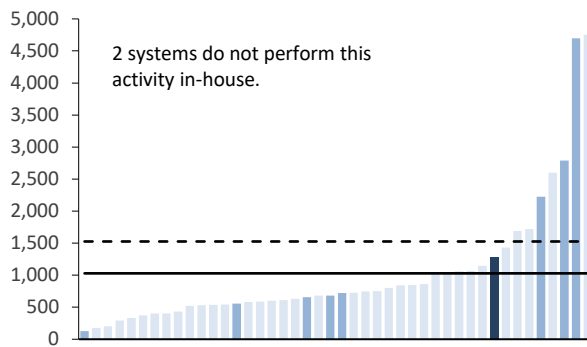
2B Incoming Mail

per mail room, imaging FTE



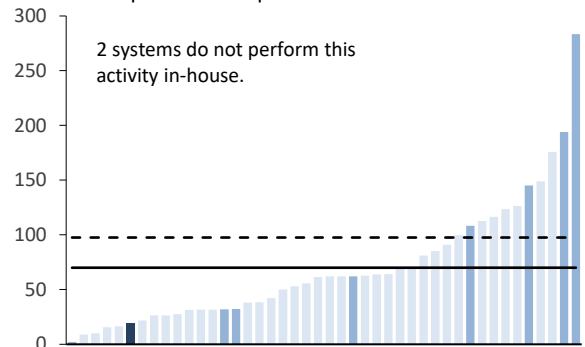
2C Members Counseled 1-on-1

per 1-on-1 counseling FTE



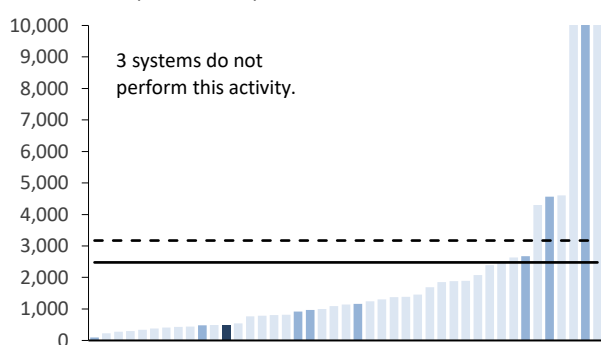
2D Member Presentations

per member presentations FTE



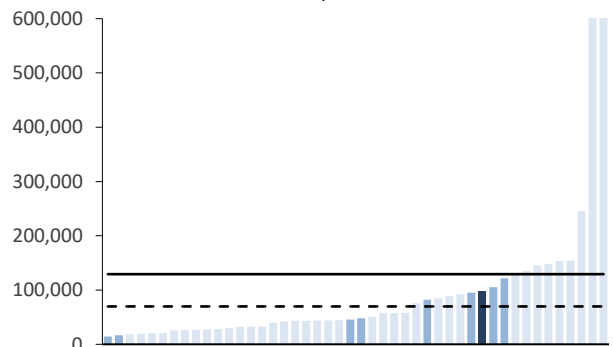
2E Written Estimates

per written pension estimates FTE



2F Mass Communication

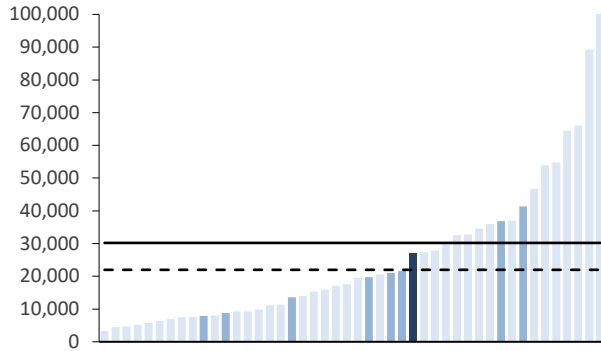
active members and annuitants per mass communication FTE



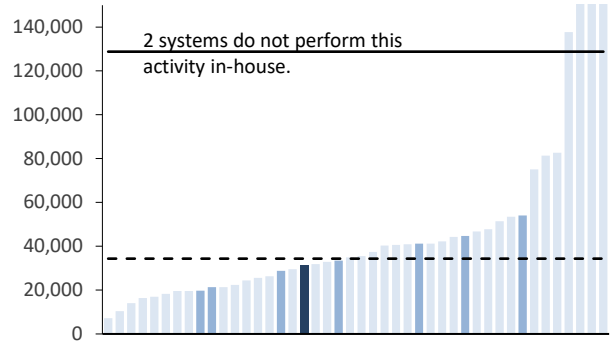
You
 Peer
 All
 - - - Peer Avg
— All Avg

Productivity by activity - collections and data maintenance

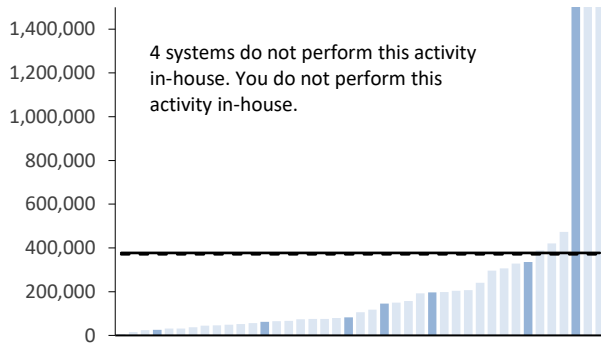
3A Data and Money from
active members per data and money from employers



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



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



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

6

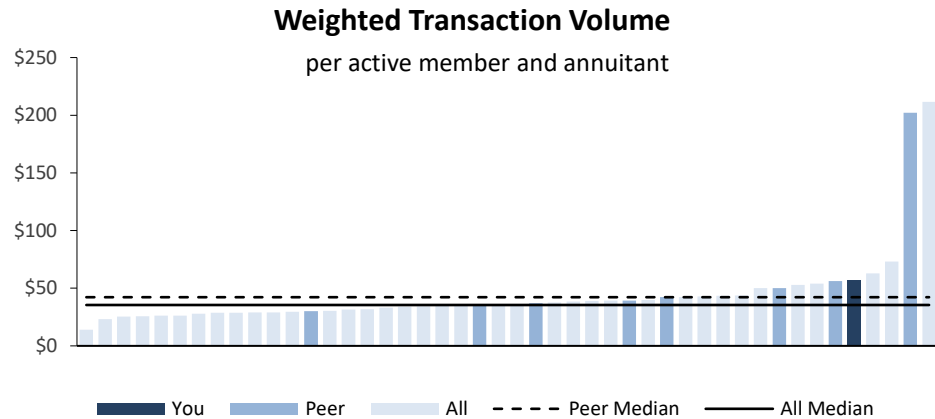
Transaction Volumes

This section contains:

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

Workload: Weighted transaction volume per member

Your weighted transaction volume was \$56.39 per active member and annuitant. This was above the peer median of \$42.20.



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 \$4.57 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)
1. Member Transactions			
a. Pension Payments (Annuitants)	51,030	\$7.44	379,887
b. New Payee Inceptions	3,101	\$122.17	378,859
c. Refunds, Withdrawals, and Transfers-out	2,687	\$154.68	415,638
d. Purchases and Transfers-in	92	\$257.70	23,708
e. Disability Applications	96	\$2,417.42	232,073
2. Member Communication			
a. Calls and Emails	119,814	\$10.35	1,239,761
b. Incoming Mail	28,671*	\$6.85	n/a
c. Members Counseled 1-on-1	11,884	\$144.54	1,717,660
d. Member Presentations	102	\$2,005.87	204,599
e. Written Estimates	4,477	\$66.54	297,876
f. Mass Communication (Active Members and Annuitants)	107,667	\$3.82	410,873
3. Collections and Data Maintenance			
a. Data and Money from Employers (Active Members)	56,637	\$4.62	261,573
b. Service to Employers (Active Members)	56,637	\$3.07	173,934
c. Data Not from Employers (Actives, Inactives, Annuitants)	137,193	\$1.01	138,042
Total			6,070,978
Total per active member and annuitant			\$56.39

* 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 \$144.54 is approximately 14 times higher than the cost per call of \$10.35.
- **Back Office Activities** (e.g., Governance and Financial Control, Major Projects and Support Services) - The work of back office activities is excluded from the weighted transaction volume score. This is because most work of back office activities cannot be analyzed in terms of transaction volumes. For example, it would be nearly impossible to consider the role of a CEO in terms of the number of transactions that he or she processes.
- **Web** - Transaction volumes are weighted the same regardless of channel. Online transactions typically cost less, but if we applied a lower weight, then a system that has achieved a high level of online functionality would be unfairly penalized.
- **Secondary versus primary cost drivers** - The activity volumes used to determine your weighted transaction volume score are the primary cost drivers for each activity. Secondary cost drivers are ignored in this section because they are usually relatively immaterial.
- **Using members as a proxy** - For some activities, we have used members (or member subsets such as annuitants) as a proxy for the activity's transactions. For example, active members are used as a proxy for the transactions of the Collections and Data Maintenance activity. The implicit assumption is that data maintenance transactions, such as address changes, will occur at similar ratios of members for all systems.

Comparison of transaction volumes by activity

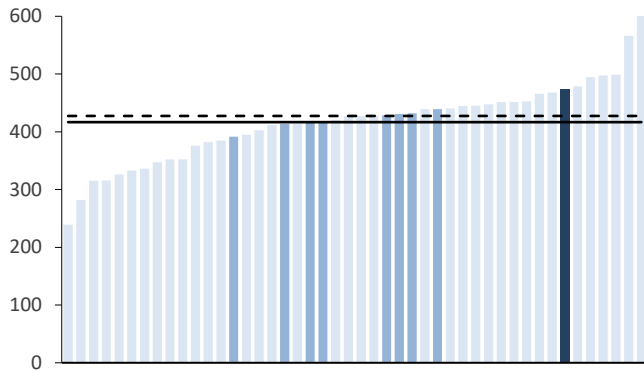
The table below shows whether you are doing more or fewer transactions per member than your peers by front office activity. All volumes in the table are compared 'per 1,000 active members and annuitants' even if all member types do not always cause the volume. This is because active members and annuitants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

Comparisons of Transaction Volumes by Activity				
Transaction (or Cost Driver) by Front Office Activity	Your Volume	Volume per 1,000 Active Members and Annuitants		
		You	Peer Avg	All Avg
1. Member Transactions				
a. Pension Payments (Annuitants)	51,030	474	427	417
b. New Payee Inceptions	3,101	29	25	24
c. Refunds, Withdrawals, and Transfers-out	2,687	25	13	18
d. Purchases and Transfers-in	92	1	72	39
e. Disability Applications	96	1	1	1
2. Member Communication				
a. Calls and Emails	119,814	1,113	832	592
b. Incoming Mail	28,671*	266	329	288
c. Members Counseled 1-on-1	11,884	110	39	24
d. Member Presentations	102	1	1	1
e. Written Estimates	4,477	42	43	30
f. Mass Communication (Active Members and Annuitants)	107,667	1,000	1,000	1,000
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active Members)	56,637	526	573	583
b. Service to Employers (Active Members)	56,637	526	573	583
c. Data Not from Employers (Actives, Inactives, Annuitants)	137,193	1,274	1,245	1,307
Weighted Total		56,387	60,945	44,950

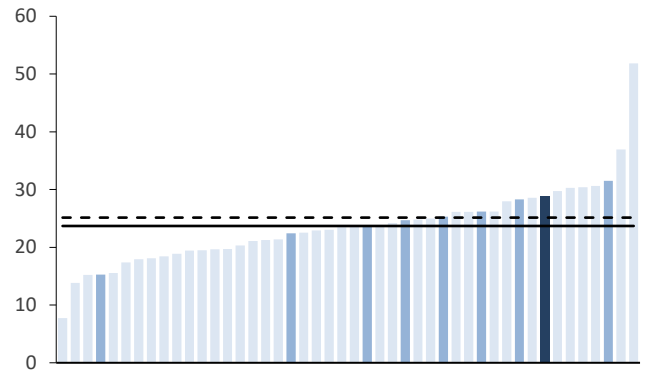
* Your response was 'unknown'. A default was applied. See 'Appendix D' for details.

Member transactions per 1,000 members: Graphical comparisons

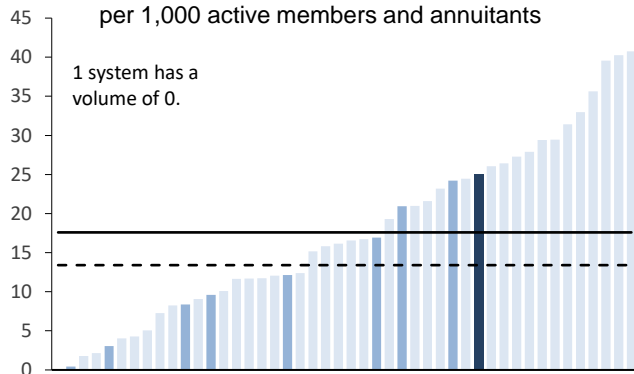
1A Pension Payments (Annuitants)
per 1,000 active members and annuitants



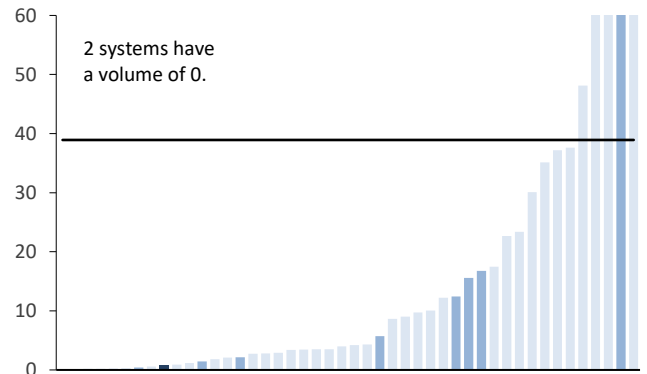
1B New Payee Inceptions
per 1,000 active members and annuitants



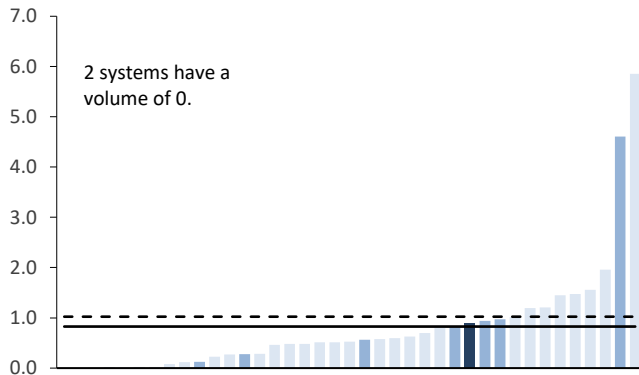
1C Refunds, Withdrawals, and Transfers-out
per 1,000 active members and annuitants



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



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

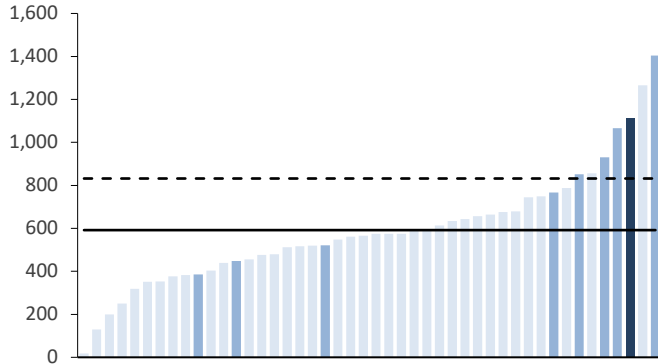


You
 Peer
 All
 - - - Peer Avg
— All Avg

Communications transactions per 1,000 members: Graphical comparisons

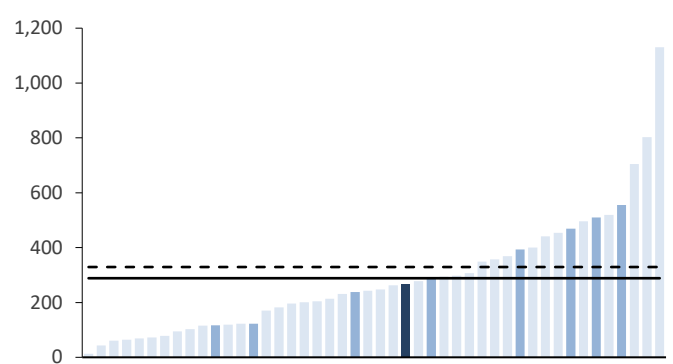
2A Calls and Emails

per 1,000 active members and annuitants



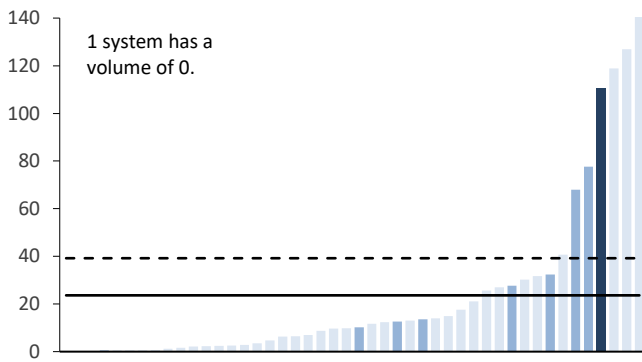
2B Incoming Mail

per 1,000 active members and annuitants



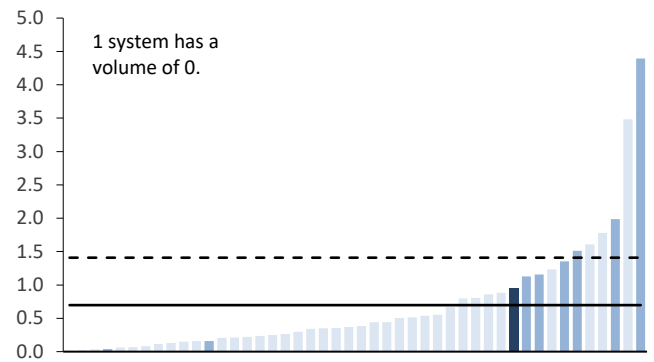
2C Members Counseled 1-on-1

per 1,000 active members and annuitants



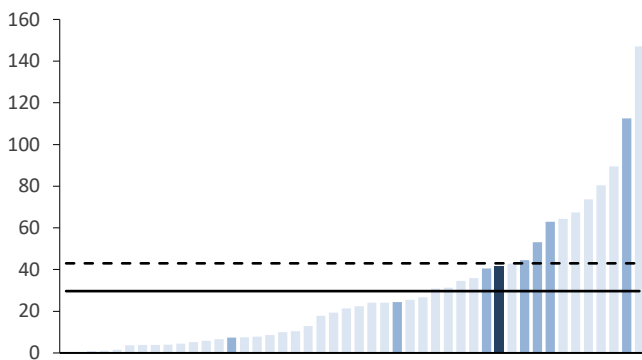
2D Member Presentations

per 1,000 active members and annuitants



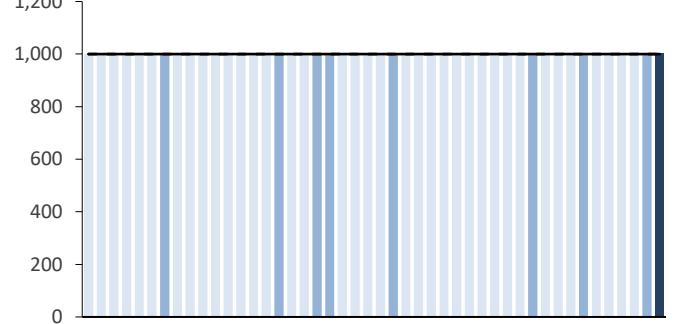
2E Written Estimates

per 1,000 active members and annuitants



2F Mass Communication (Active Members and Annuitants)

per 1,000 active members and annuitants

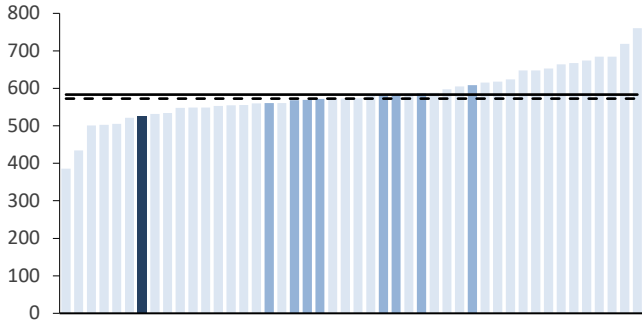


You
 Peer
 All
 - - - Peer Avg
— All Avg

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

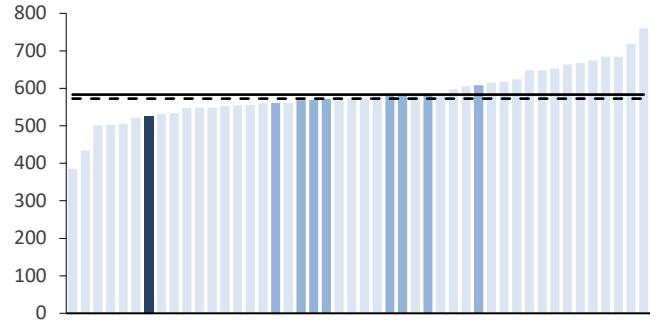
3A Data and Money from Employers (Active Members)

per 1,000 active members and annuitants



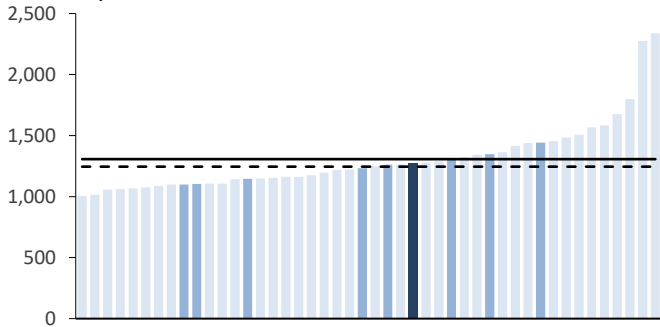
3B Service to Employers (Active Members)

per 1,000 active members and annuitants



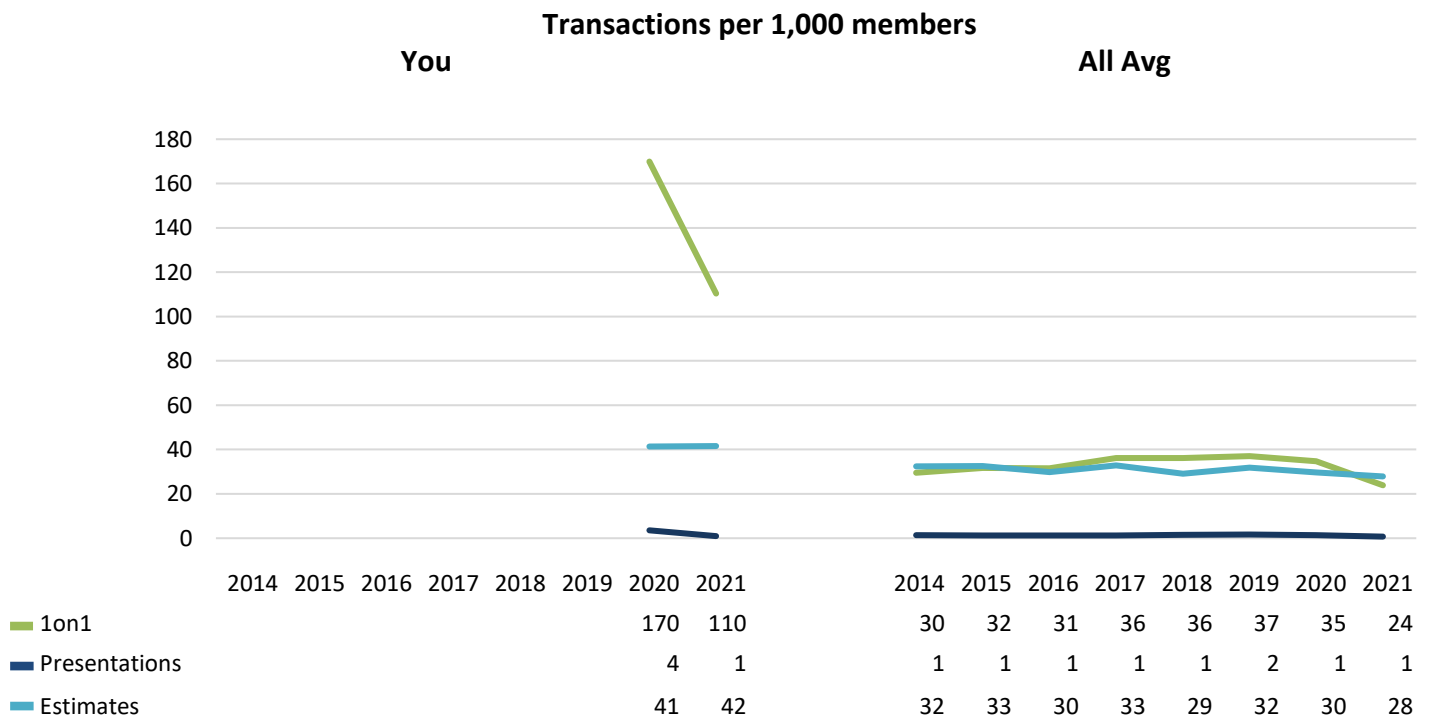
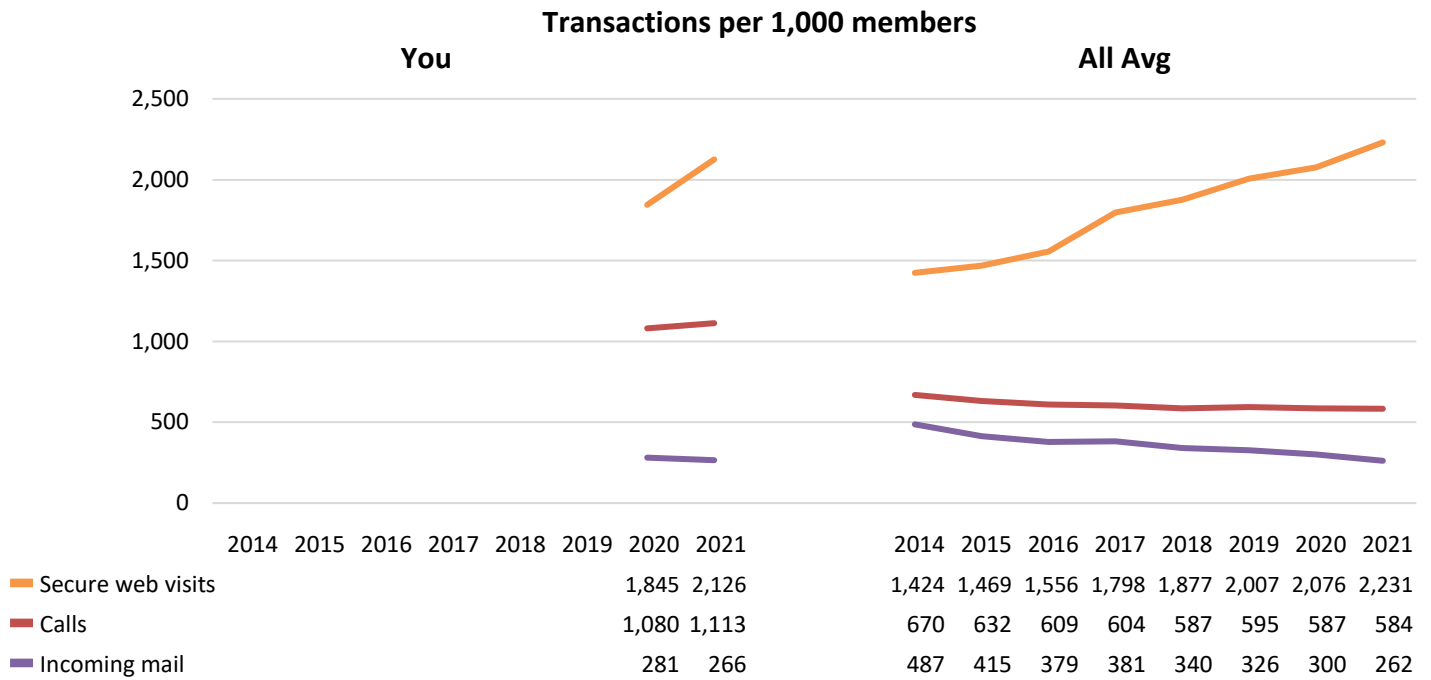
3C Data Not from Employers (Actives, Inactives, Annuitants)

per 1,000 active members and annuitants



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

Transaction trends



Trend analysis is based on systems that have provided 8 consecutive years of data (4 of your 9 peers and 34 of the 46 systems in the universe).

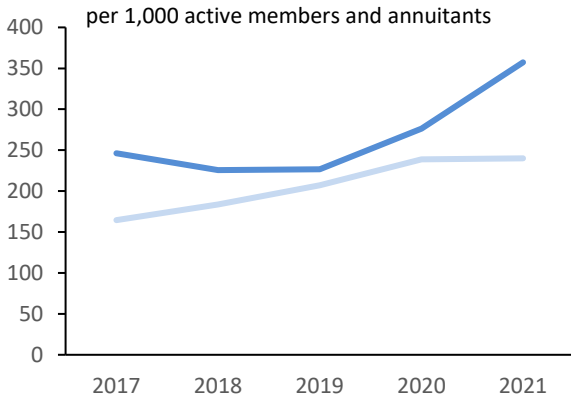
Online transactions

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	67% Yes	46% Yes	n/a	271	230
In secure area not linked to member data	No	11% Yes	11% Yes	n/a	29	29
In secure area linked to member's salary and service data	Yes	89% Yes	96% Yes	1,005	535	555
Service credit purchase calculator	No	78% Yes	75% Yes	n/a	53	46
Register for counseling sessions	Yes	44% Yes	50% Yes	8	18	12
Real-time access to available dates and times	No	75% Yes	95% Yes			
Register for presentations	Yes	78% Yes	66% Yes	15	35	15
Financial planning tool	Yes	22% Yes	26% Yes			
Linked to member-specific data	Yes	50% Yes	50% Yes			
Live chat	No	11% Yes	13% Yes	n/a	30	30
Chatbot	No	0% Yes	4% Yes			
Change address	Yes	78% Yes	91% Yes	15	21	46
Change beneficiary	No	56% Yes	77% Yes	n/a	83	40
Change email address	Yes	78% Yes	96% Yes	16	26	42
Reset password	Yes	89% Yes	91% Yes	299	191	111
Tools for annuitants						
Change banking information for direct deposit	No	56% Yes	63% Yes	n/a	5	7
Change tax withholding amount	Yes	78% Yes	70% Yes	22	21	21
Download or print duplicate tax receipts	Yes	67% Yes	82% Yes	72	86	98
View annuity payment details	Yes	100% Yes	91% Yes	216	309	211
Submit a retirement application	No	25% Yes	65% Yes	n/a	15	13
View status of online retirement application	No	14% Yes	52% Yes	n/a	34	27
Apply for a refund or a transfer-out	No	0% Yes	43% Yes	n/a	n/a	11
Digital file of recent correspondence and member documents	Yes	56% Yes	65% Yes	Unknown	474	304
Download member statement	Yes	100% Yes	89% Yes	161	161	285
Upload documents	No	56% Yes	62% Yes	n/a	26	22
View pensionable earnings and/or service without downloading	No	67% Yes	85% Yes	n/a	1,608	840
If yes:						
Are both salary and service data available?	n/a	100% Yes	97% Yes			
Is online data up-to-date to the most recent pay period?	n/a	100% Yes	79% Yes			
Is a complete annual history from the beginning of employment provided?	n/a	50% Yes	64% Yes			
If you administer a core DC or hybrid DB/ DC plan:						
Switch between investment options	No	75% Yes	71% Yes	n/a	26	7
Change deferral percentage selections for regular contributions	No	50% Yes	38% Yes	n/a	243	6
Initiate withdrawals	No	50% Yes	54% Yes	n/a	75	15
View current valuation of their account	No	75% Yes	85% Yes	n/a	7,496	720

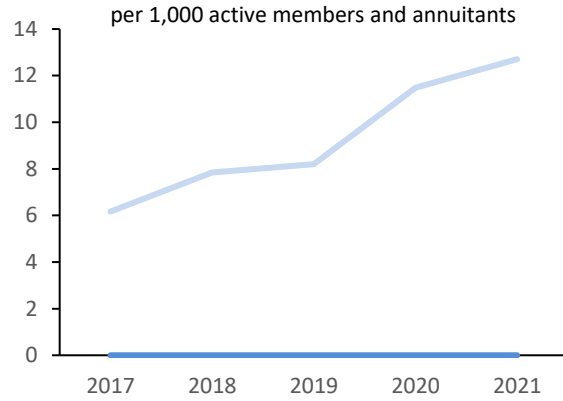
Offering online transactions as an option is higher service. Online transactions can also reduce costs provided sufficient volumes are achieved.

Online transaction trends

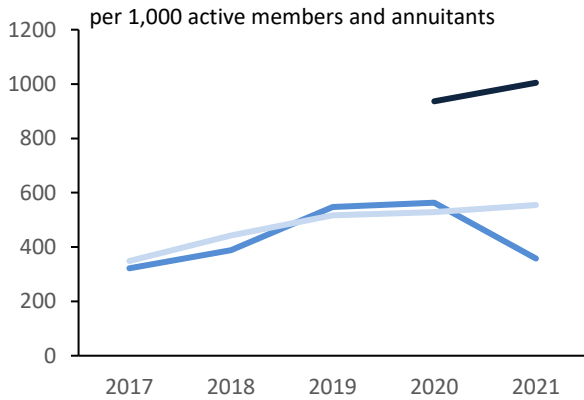
Public-website benefit calculator volumes



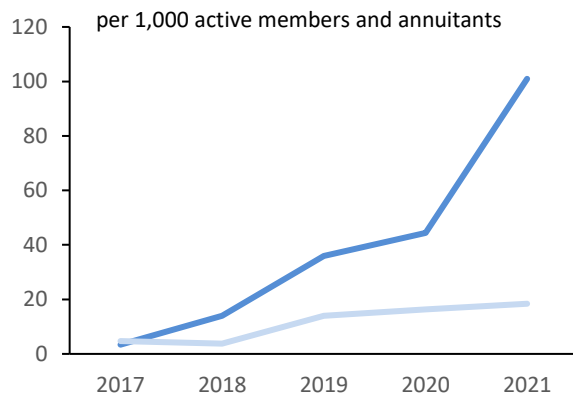
Online retirement applications



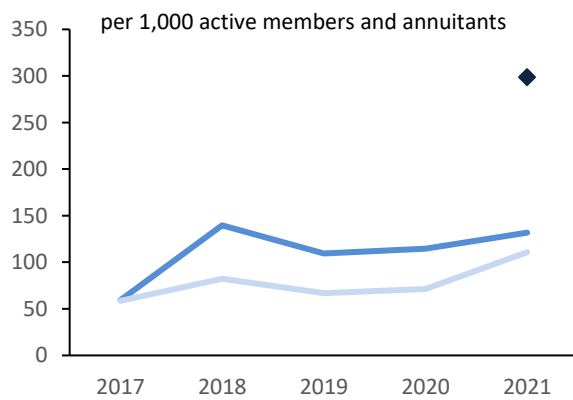
Secure area benefit calculator volumes



Documents uploaded in the secure area



Passwords reset



— You — Peer Median — All Median

7

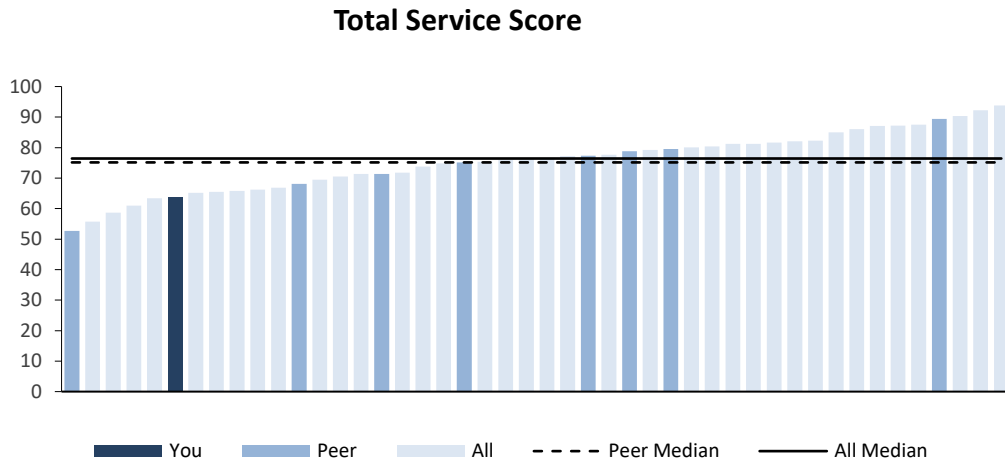
Service Levels

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 64 out of 100. This was below the peer median of 75.



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.

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 ¹	You ^{2,3}				Peer 2021				All 2021			
		2021	2020	2019	2018	Avg	Max	Med	Min	Avg	Max	Med	Min
1. Member Transactions													
Pension Payments	10.0%	100	100			100	100	100	100	100	100	100	99
Pension Inceptions	7.4%	11	24			75	94	80	11	83	100	89	9
Refunds, Withdrawals, and Transfers-out	1.3%	90	90			76	95	87	45	71	100	88	0
Purchases and Transfers-in	3.1%	24	24			74	96	90	16	69	100	82	10
Disability	3.8%	72	72			80	100	77	64	82	100	82	10
2. Member Communication													
Call Center	21.0%	51	52			65	84	70	45	66	94	67	36
1-on-1 Counseling	7.4%	64	83			75	94	81	25	70	100	75	11
Member Presentations	6.5%	100	100			85	100	100	31	84	100	100	0
Written Pension Estimates	4.7%	85	86			79	100	76	61	84	100	87	44
Mass Communication													
Website ²	21.3%	66	64			70	87	76	26	78	96	80	26
News and Targeted Communication	2.8%	72	75			64	96	70	11	70	100	75	11
Member Statements	4.7%	90	90			83	95	90	42	77	98	81	15
3. Quality Indicators													
Member Experience Surveying	5.0%	27	27			23	57	21	0	38	97	33	0
Disaster Recovery	1.0%	90	90			91	100	90	76	92	100	99	60
Total Service Score	100%	64	66			73	89	75	53	75	94	76	53

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 1.8% for 1-on-1 counseling. Thus, based solely on relative cost, member calls are 2.9 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 24 pension inception and receives 592 member calls for every 1,000 active members and annuitants. Thus, based solely on relative volume, calls are 25.0 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 ¹				All Average ¹			
	2018	2019	2020	2021	2018	2019	2020	2021	2018	2019	2020	2021
1. Member Transactions												
Pension Payments			100	100	100	100	100	100	100	100	100	100
Pension Inceptions			24	11	83	84	83	81	86	86	87	85
Refunds, Withdrawals, and Transfers-out			90	90	81	81	81	70	68	70	67	69
Purchases and Transfers-in			24	24	70	71	69	69	71	72	69	70
Disability			72	72	79	79	79	79	83	84	83	82
2. Member Communication												
Call Center			52	51	70	68	68	66	70	69	70	67
1-on-1 Counseling			83	64	75	79	80	69	79	80	80	70
Member Presentations			100	100	97	98	83	81	94	92	90	85
Written Pension Estimates			86	85	70	69	69	71	82	82	82	84
Mass Communication												
Website			64	66	64	65	65	66	76	77	77	78
News and Targeted Communication			75	72	65	68	68	68	75	75	73	72
Member Statements			90	90	83	83	85	88	78	77	77	77
3. Quality Indicators												
Member Experience Surveying			27	27	20	24	29	21	39	41	45	43
Disaster Recovery			90	90	89	89	89	89	91	91	92	92
Total Service Score			66	64	74	74	74	72	78	78	78	77

1. Trend analysis is based on systems that have participated for 8-consecutive years (4 peers and 34 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 ¹
1. Member Transactions			
Pension Payments	10.0%	100.0	0.0 points
Pension Inceptions	7.4%	11.0	6.6 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
2. Member Communication			
Call Center	21.0%	50.6	10.4 points
1-on-1 Counseling	7.4%	63.7	2.7 points
Member Presentations	6.5%	100.0	0.0 points
Written Pension Estimates	4.7%	85.4	0.7 points
Mass Communication			
Website	21.3%	66.0	7.2 points
News and Targeted Communication	2.8%	72.0	0.8 points
Member Statements	4.7%	90.0	0.5 points
3. Quality Indicators			
Member Experience Surveying	5.0%	27.4	3.6 points
Disaster Recovery	1.0%	90.0	0.1 points
Total	100%	63.9	36.1 points

1. Each listed potential improvement to total service score equals 100 minus your 2021 score multiplied by the weight used to determine the total service score.

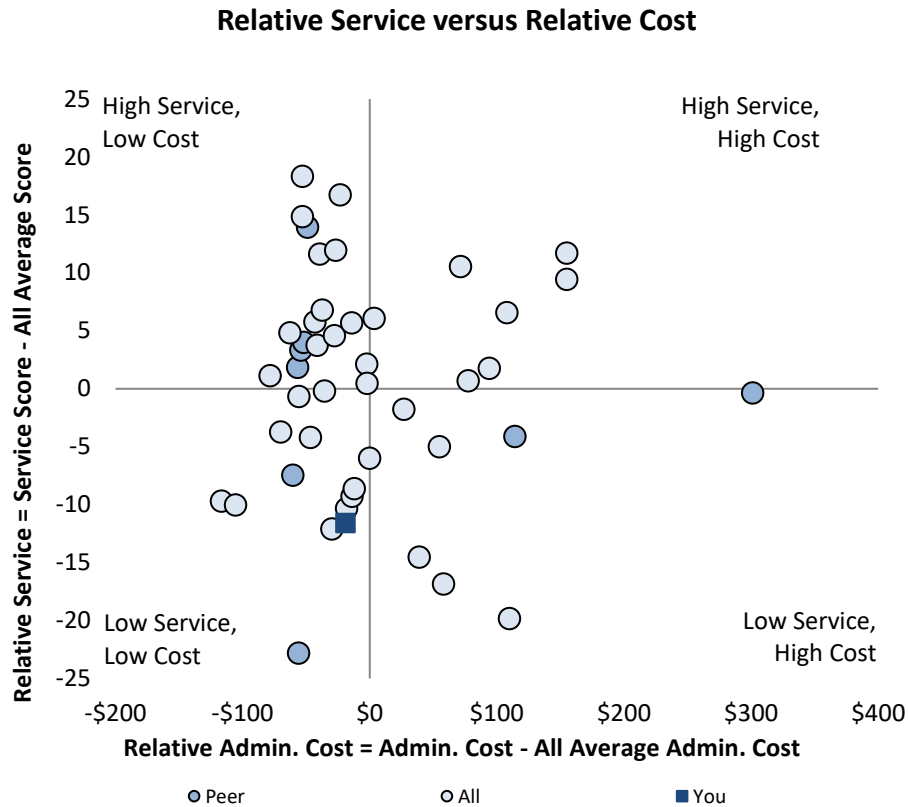
Biggest potential improvements to your total service score

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	91.9% of your service pension inception experiences 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.	+ 5.30
# 2	On average, members calling your call center reach a knowledgeable person in 552 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 60 seconds or less.	+ 3.78
# 3	20.4% 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.	+ 3.43
# 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



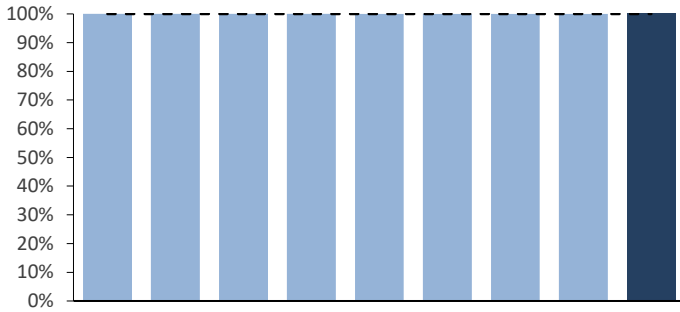
Service scores are not good predictors of costs because:

- 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.

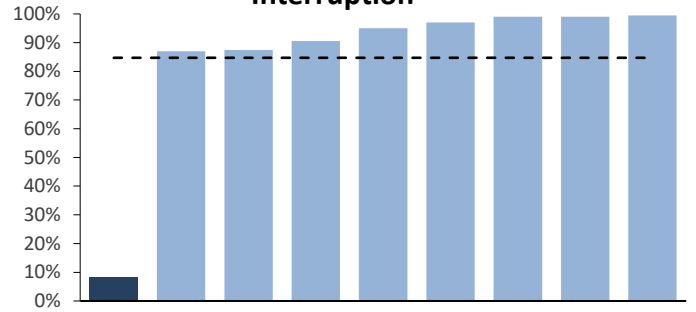
Graphical comparison of key measures

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

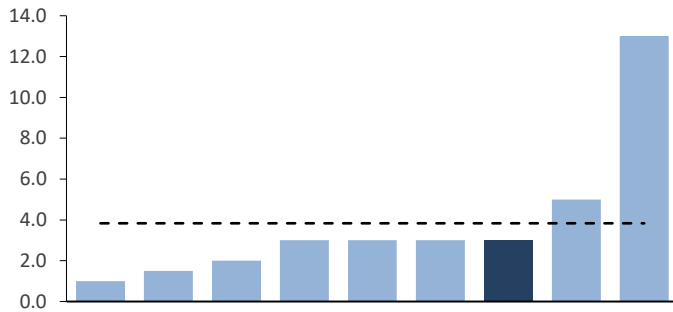
% Payroll on Time



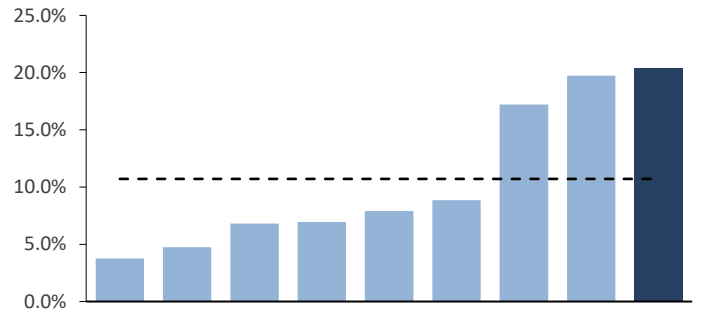
% Inceptions Without a Cash Flow Interruption



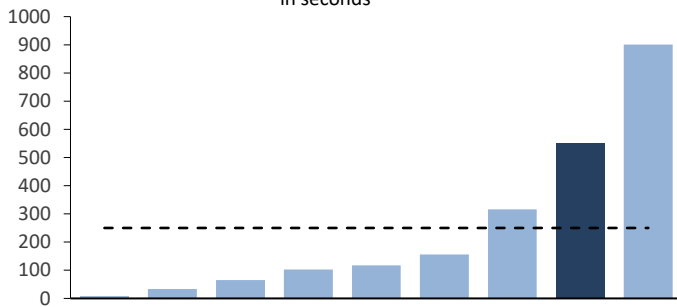
Disability Turnaround Time in months



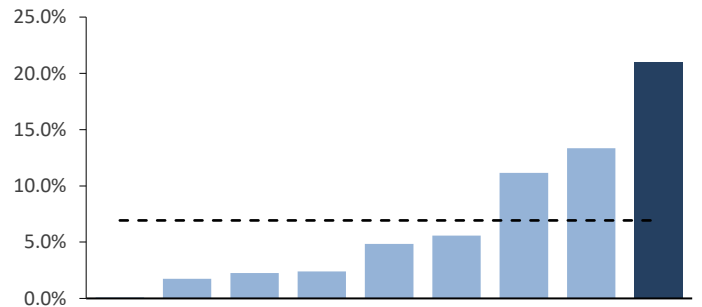
Undesired Call Outcomes as a % of incoming calls



Call Wait plus Menu/Receptionist Time in seconds



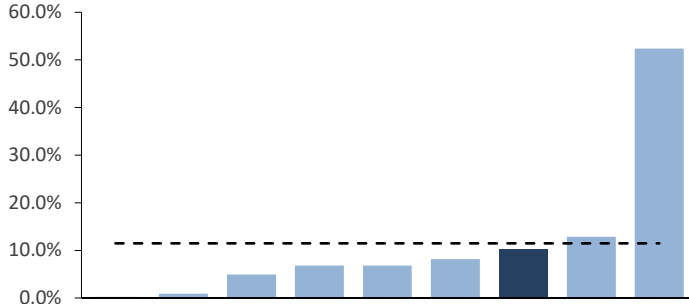
Members Counselled 1-on-1 as a percentage of active members



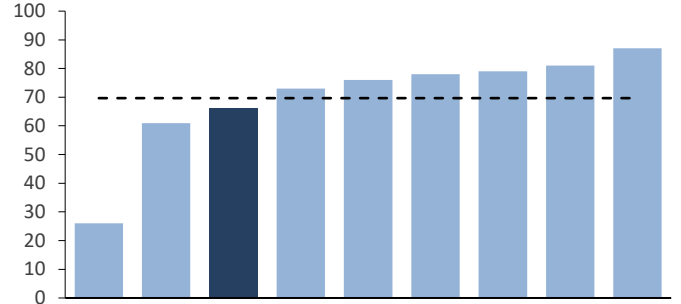
You
 Peer
 Peer Avg

Graphical comparison of key measures

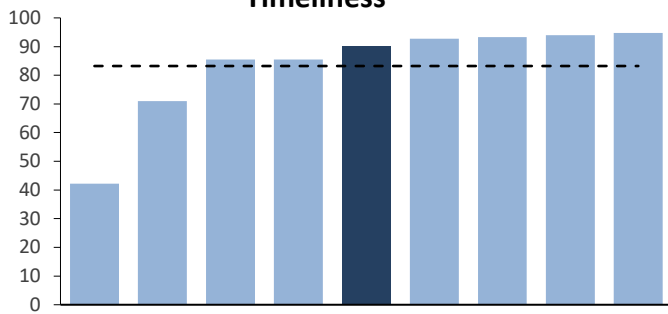
Members Attending Presentations
as a percentage of active members



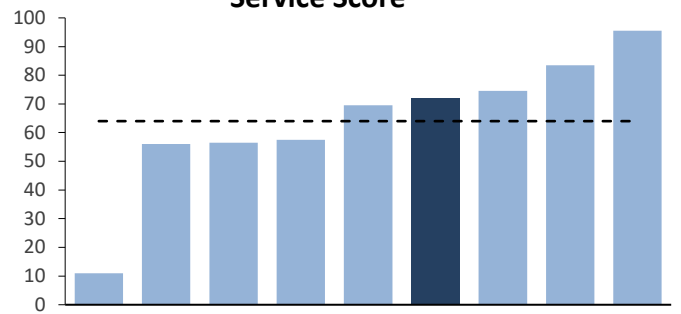
Website Capability



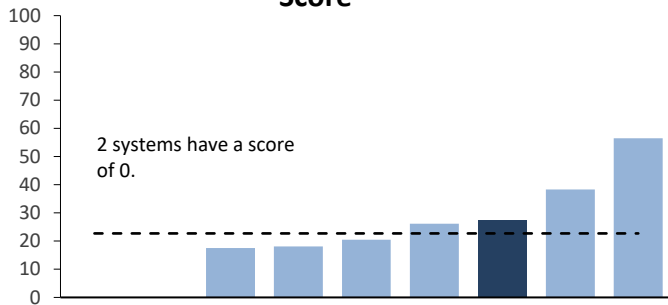
Member Statement Content and Timeliness



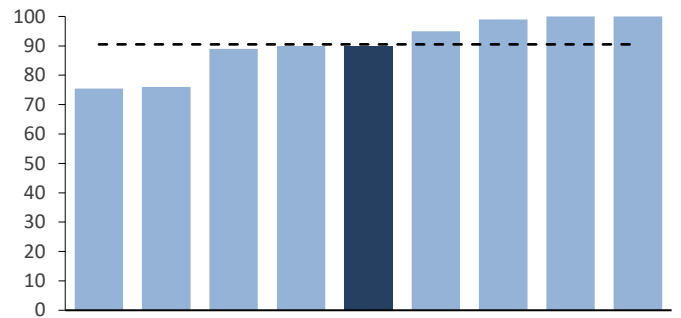
News and Targeted Communication Service Score



Member Experience Surveying Service Score



Disaster Recovery Service Score

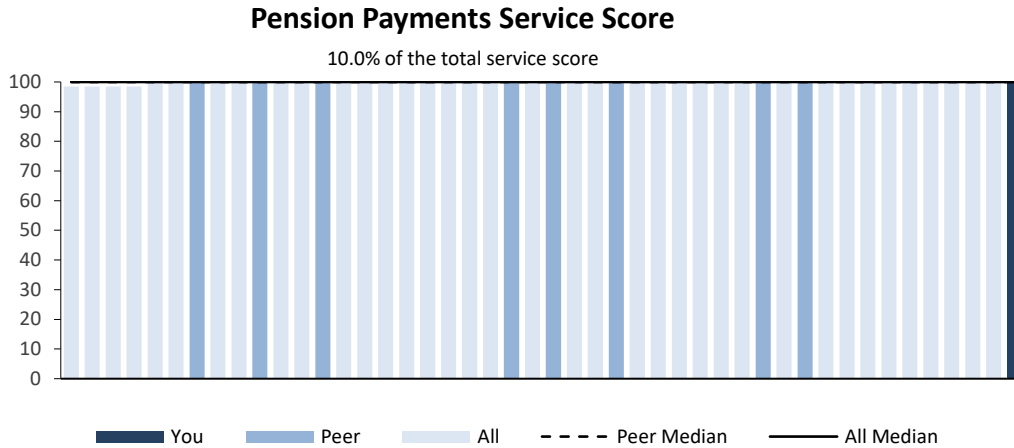


■ You ■ Peer

- - - Peer Avg

1A Pension Payments

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

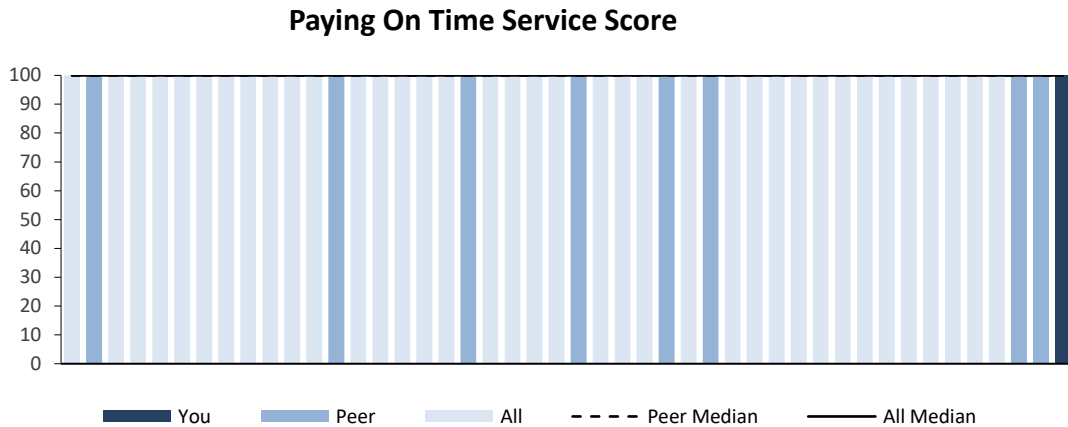


Your service score for 1a pension payments is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Pension Payments Service Score Components		
	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

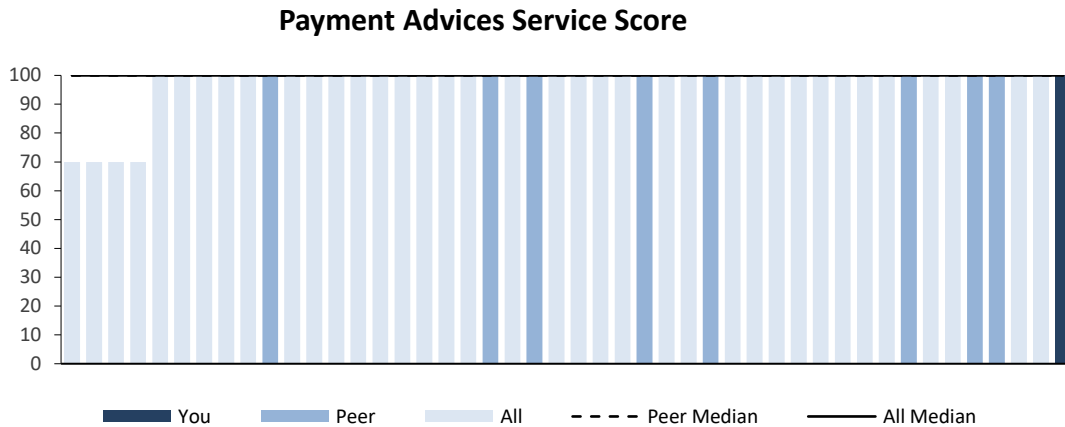
2. Rationale for the scoring method

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.]	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
Total score			100.0

2. Rationale for the scoring method

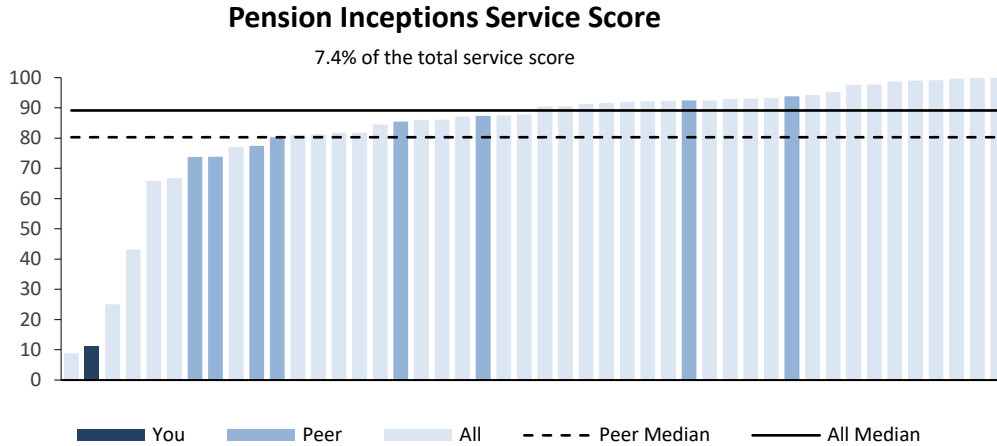
Paperless is most cost-effective. Therefore, systems that provide payment advices online get full points. Alternatively, systems that still send paper and can comply with a members request not to send payment advices, also receive the highest score.

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	78% Yes
	a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions?	Annually	8 times
	b) Can you comply with a member's request not to send them payment advices?	No	57% 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 11 out of 100. This was below the peer median of 80.

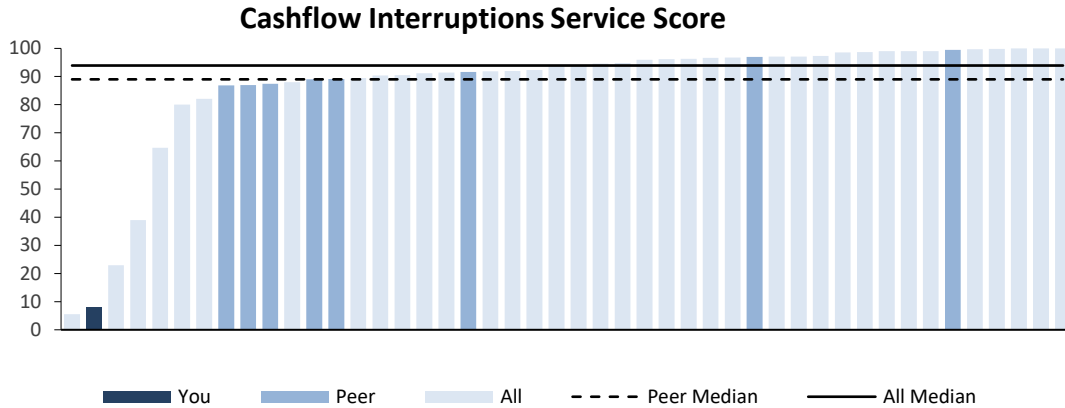


Your service score for 1b pension inceptions is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Pension Inceptions Service Score Components		
	Weight	Your Score
Cashflow interruptions	78%	8.1
Survivor pensions	11%	42.8
Red tape	11%	0.0
Weighted Total	100%	11.0

Cashflow interruptions

Your service score for cashflow interruptions was 8 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	8.1%	8.1
- 10	If a service retirement is based on estimates, less: 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
Total score			8.1

2. Rationale for the scoring method

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.

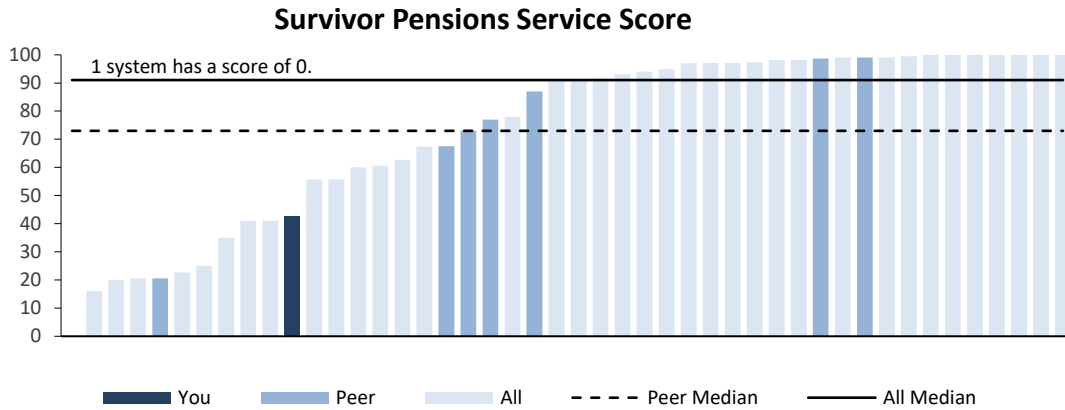
When pension payments are based on estimates, the sooner the amount is finalized, the better because estimates can cause financial uncertainty.

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?	8.1%	84.7%
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 data? 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	67% Yes 58.5% 2.3 months

Survivor pensions

Your service score for survivor pensions was 43 out of 100. This was below the peer median of 73.



1. Scoring method		Your Data	Your Score
+ 100	if all of your survivor pensions were incepted without a cashflow interruption greater than 1 month, otherwise: 100 x percent of pensions paid without interruption to survivors	42.8%	42.8
Total score			42.8

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 inceptions 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?	42.8%	62.9%

Red tape

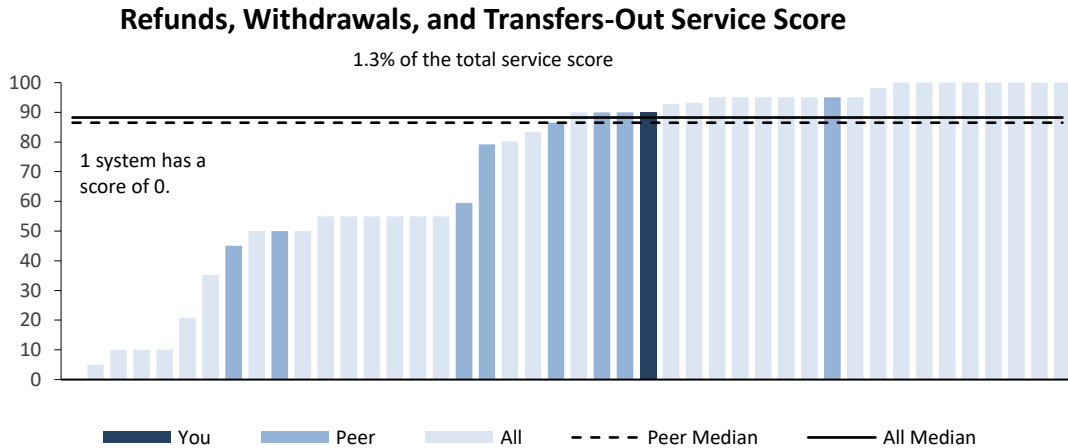
1. Scoring method		Your Data	Your Score
+ 80	if you do not require notarization of retirement applications, or + 40 if you require notarization of some retirement applications	required	0.0
+ 20	if you do not require birth/marriage certificates before incepting a pension	required	0.0
Total score			0.0

2. Rationale for the scoring method	
<p>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.</p>	

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	44% Yes

1C Refunds, Withdrawals, and Transfers-out

Your service score for refunds, transfers-out and withdrawals was 90 out of 100. This was above the peer median of 87.



1. Scoring method		Your Data	Your Score
<u>Withdrawal timeliness</u>			
+ 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]	17	45.0
<u>Transfers-out timeliness</u>			
+ 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]	17	45.0
<u>No red tape</u>			
+ 10	if you do not require notarization for refund or transfer-out applications, 5 if some applications require notarization, 0 if notarization is required	required	0.0
Total score			90.0

2. Rationale for the scoring method

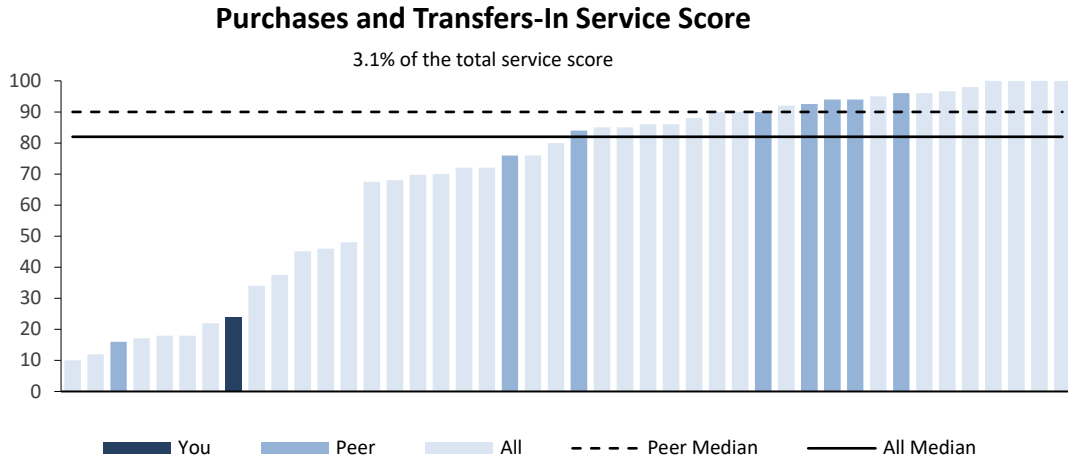
Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external parties.

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)?	17	30 days
	a) Are you legislated to have a wait period before you can effect a refund?	No	22% Yes
	b) How long is the wait period? (in days)	n/a	45 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)?	17	48 days
Q23	Do you require notarization of refund or transfer-out applications?	Yes	56% 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 90.



1. Scoring method		Your Data	Your Score
<u>Service credit purchase estimates</u>			
+ 80	if you can provide a written estimate in 1 day or less, otherwise 80 - 2 per day over 1 day [Subject to a minimum score of 0]	34 days	14.0
<u>Transfers-in</u>			
+ 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]	6*	10.0
Total score			24.0

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.

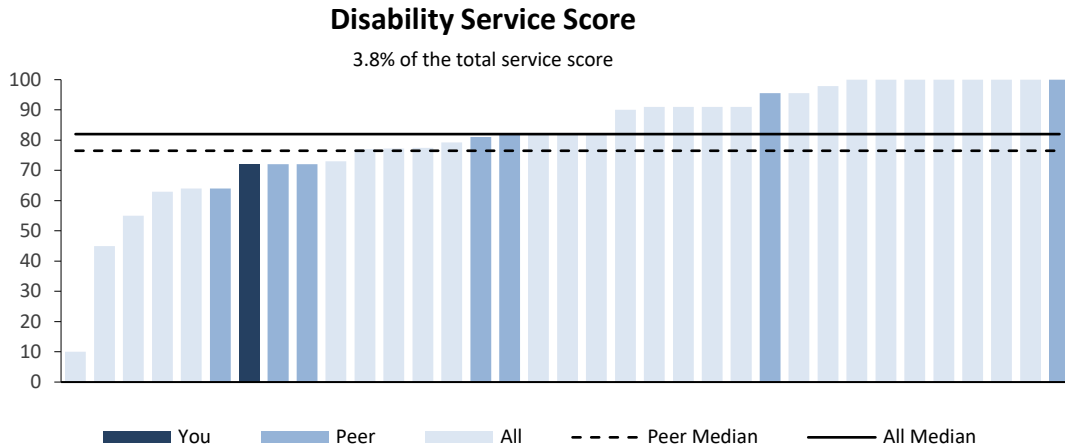
1D Purchases and Transfers-in

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	13 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 77.



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	72.0
+ 10 if you do not require notarization of disability applications, 5 if some applications require notarization, 0 if notarization is required	required	0.0
Total score		72.0

2. Rationale for the scoring method

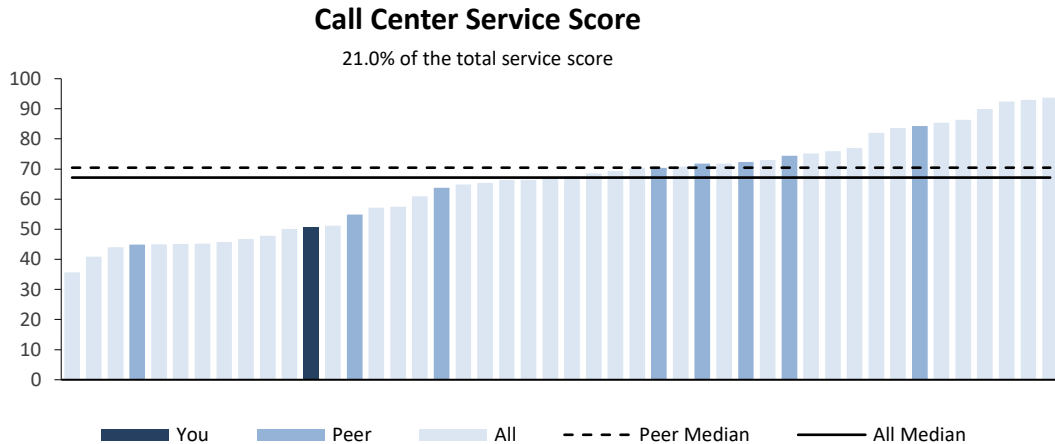
Taking more than 1 month to return a decision in a disability application can cause financial insecurity for members. Faster turnaround times are higher service from the member's perspective.

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	44% Yes

2A Call Center

Your call center service score was 51 out of 100. This was below the peer median of 70.

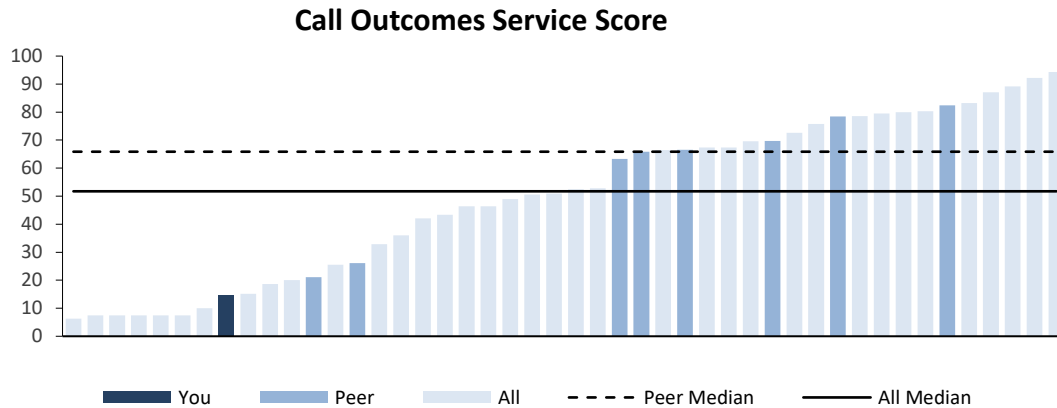


Your service score for 2a call center is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Call Center Service Score Components		
	Weight	Your Score
Call outcomes	20%	14.6
Wait time	20%	6.0
Menu layers	10%	60.0
CRM and other capabilities	35%	80.5
Call quality	15%	82.0
Weighted Total	100%	50.6

Call outcomes

Your service score for call outcomes was 15 out of 100. This was below the peer median of 66.



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	20.4%	81.7
	[Subject to a minimum score of 0]		8.3
+ 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			14.6

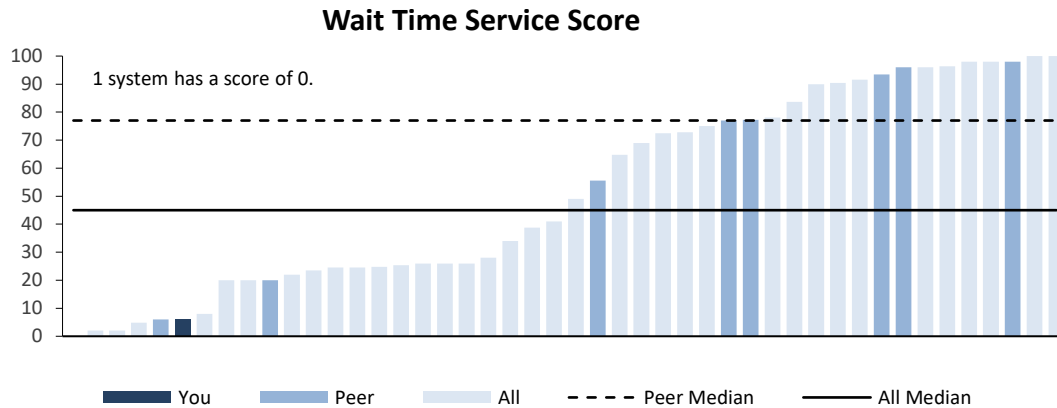
2. Rationale for the scoring method
<p>A perfect score requires that all calls either get through to a knowledgeable person or are satisfied by self-serve options.</p> <p>Shorter business hours are treated as an undesired outcome because after-hour callers do not reach a knowledgeable person.</p>

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.)?	100,638	
	c) Incoming calls satisfied by self-serve options, if any?	0	
	Total desired call outcomes (A)	100,638	
	<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)?	25,830	
	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)	25,830	
	Total incoming calls (C = A + B)	126,468	
	Undesired outcomes as a percentage of total incoming calls (B / C)	20.4%	10.7%
	<u>Undesired outcomes after business hours</u>		
Q48	How many hours per week is your 'call center' operational?	42.5h	44.4h

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]	552 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
Total score			6.0

2. Rationale for the scoring method
Faster is best. The value of knowing the expected wait time increases with the length of the wait.

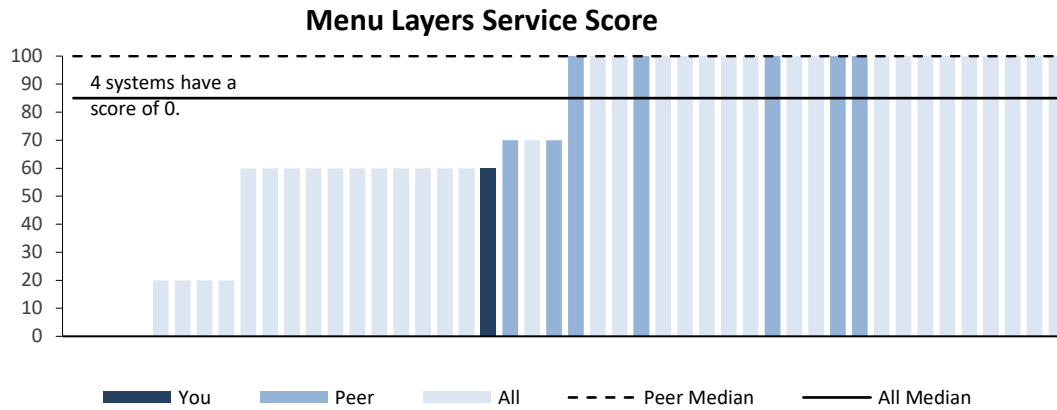
Wait time

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:	552	250
	<u>(1) Navigate menus</u>		
Q35	If you have a menu:	Yes	78% 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)	90	45
	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)]	90	45
	<u>(2) Navigate receptionists</u>		
Q36	If a receptionist usually responds first to member calls:	No	22% 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>0.125</u>
	Adjusted time to navigate receptionists = (A) + (B) X [1 - (C)]	n/a	37
	<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?	462	209
	b) % of calls forwarded by a receptionist, if applicable, to the queue.	<u>n/a</u>	<u>0.255</u>
	Adjusted wait in the queue = (A) X (B), if applicable	462	207
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	33% Yes
Q49	Can members communicate questions using email?	Yes	100% 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	1.6 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.

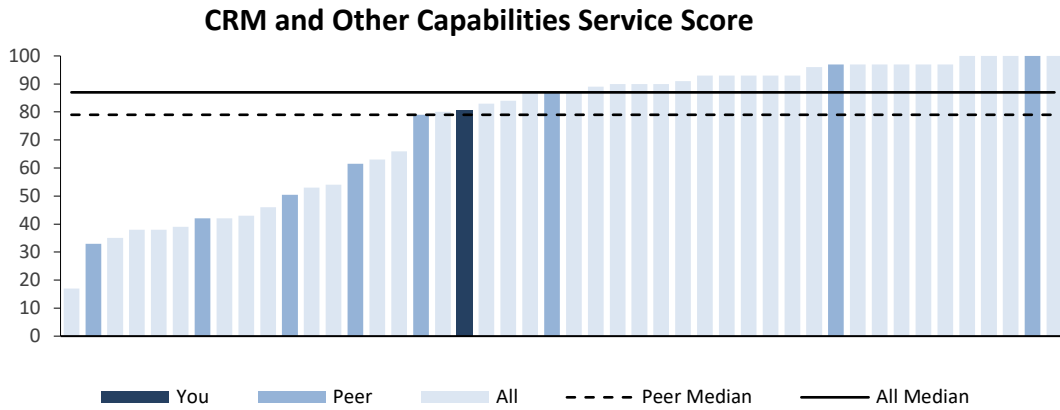
Receptionists are often more irritating than a menu layer because of the need to explain your needs twice, incorrect redirection, etc.

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	78% 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	22% Yes

CRM and other capabilities

Your service score for CRM and other capability was 81 out of 100. This was above the peer median of 79.



CRM and other capabilities

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>			
+ 9	estimate of the member's pension at retirement	Yes	9.0
+ 11.5	estimate is linked to the member's actual account data	Yes	11.5
+ 6	model alternate annuity payment scenarios	Yes	6.0
+ 6	provide refund or transfer value if member exited employment at time of call	Yes	6.0
+ 3	provide pensionable salary	Yes	3.0
+ 3	provide service credit history including gaps	Yes	3.0
+ 6	estimate cost to purchase service credit	Yes	6.0
+ 6	change address	Yes	6.0
+ 6	change banking information	No	0.0
+ 6	add or change email address	No	0.0
<u>if you administer a DC plan:</u>			
+ 3	provide current value of the DC account	Yes	3.0
+ 6	estimate of the value of the DC account at retirement	Yes	6.0
+ 6	switch investment options	Yes	6.0
<u>If you offer the following tools to help serve callers better:</u>			
+ 2.5	record of the member's previous calls to the system	No	0.0
+ 2.5	copies of recent correspondence online	Some	0.0
+ 2.5	knowledge based online help system available for use by the service representative	Yes	2.5
+ 2.5	most recent member statement	Yes	2.5
+ 2.5	beneficiary information	Yes	2.5
+ 2.5	toll free number	Yes	2.5
+ 2.5	workflow system with the real-time status of open items	Yes	2.5
+ 2.5	member's use of digital tools	No	0.0
+ 2.5	call volume projections	Yes	2.5
Total score			80.5

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.

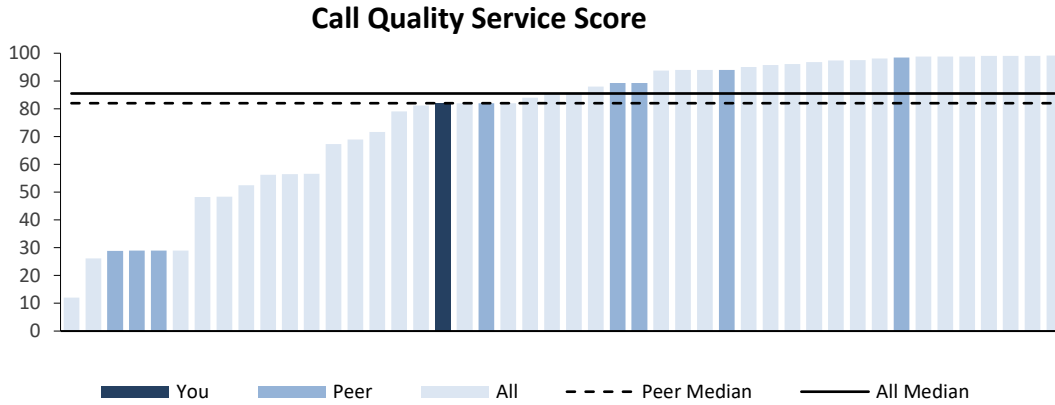
Your ability to serve members is greatly reduced if your capabilities or policies prevent you from answering questions over the phone.

CRM and other capabilities

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	78% Yes
	b) Knowledge based on-line help system available for use by the service representative?	Yes	78% 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	56% Yes
	a1) Can you easily model and provide alternate annuity payment scenarios? [i.e., joint and 50% survivor, joint and 70% survivor, etc.]	Yes	56% Yes
	a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	Yes	56% 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	78% Yes
	e) Cost to purchase service credit?	Yes	89% 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?	Yes	75% Yes
Q44	Can members calling in perform the following transactions over the phone:		
	a) Change address?	Yes	56% Yes
	b) Add or change email address?	No	67% Yes
	c) Change payment instructions? [i.e., bank account]	No	22% 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	89% 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	56% Yes
	c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No	56% Yes

Call quality

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



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.

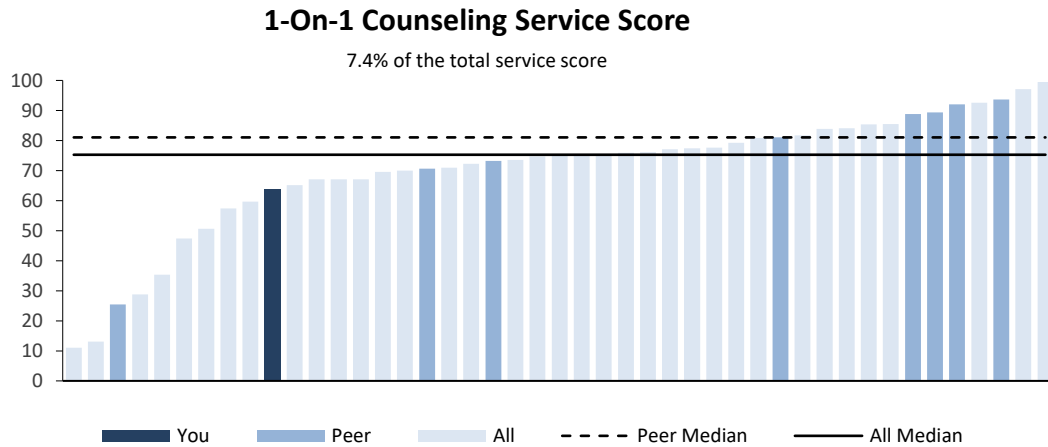
It is higher service if a caller's questions are immediately satisfied by the first contact without being transferred.

3. Survey questions used

		You	Peer Avg
Q40	c) % of calls satisfied by the first contact?	untracked	90.9%
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	67% 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	67% Recording

2C 1-on-1 Counseling

Your service score for 1-on-1 counseling was 64 out of 100. This was below the peer median of 81.

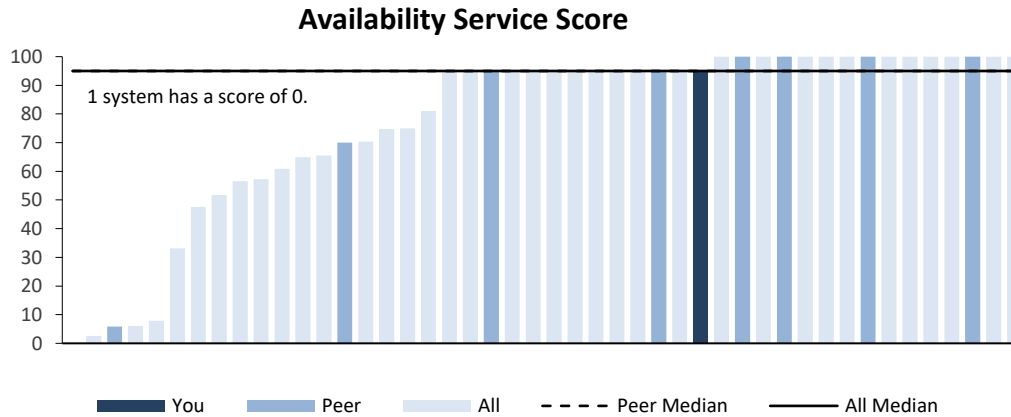


Your service score for 2c 1-on-1 counseling is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

1-on-1 Counseling Service Score Components		
	Weight	Your Score
Availability	50%	95.0
Field locations	20%	17.4
Wait times	20%	43.8
Capability	10%	40.0
Weighted Total	100%	63.7

Availability

Your service score for availability was 95 out of 100. This was equal to the peer median.



1. Scoring method	Your Data	Your Score
+ 70 if members counseled 1-on-1 as a % of your active members is 1.0% ¹ or more, otherwise 7,000 ¹ X number of members counseled 1-on-1 as a % of active members	21.0%	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
Total score		95.0

¹Better website content and functionality reduces the number of members that attend 1-on-1 sessions. Using your percentage of pensions inceptioned online as a proxy for the strength of your website, we reduce the 1.0% attendee cutoff rate for a perfect availability score to a minimum of 0.15% (i.e. if 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 $70 / 1.00\% = 7,000$).

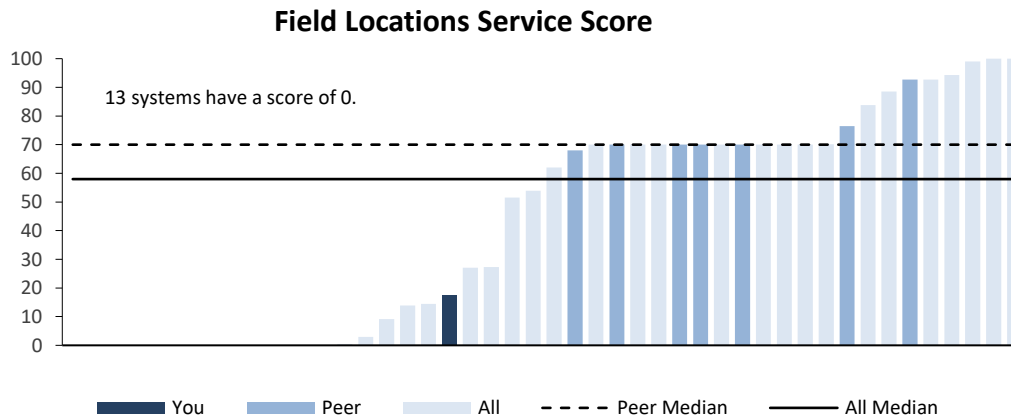
2. Rationale for the scoring method
Higher volumes relative to the number of pension inceptions occurring offline imply greater availability and value.
Members prefer freely available access to counseling with no time period limits, no limits on the number of sessions, etc.

Availability

3. Survey questions used		You	Peer Avg
Q53	Total number of members counseled 1-on-1 (A)	11,884	5,878
Q5	Active Members (B)	56,637	86,122
	Members counseled 1-on-1 as a percentage of active members (A / B)	21.0%	6.9%
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	22% Yes
	b) Placing a limit on the number of counseling sessions a member can request?	No	11% 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	44% Yes

Field locations

Your service score for field locations was 17 out of 100. This was below the peer median of 70.



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	6.2%	17.4
+ 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%	0.0
Total score			17.4

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.

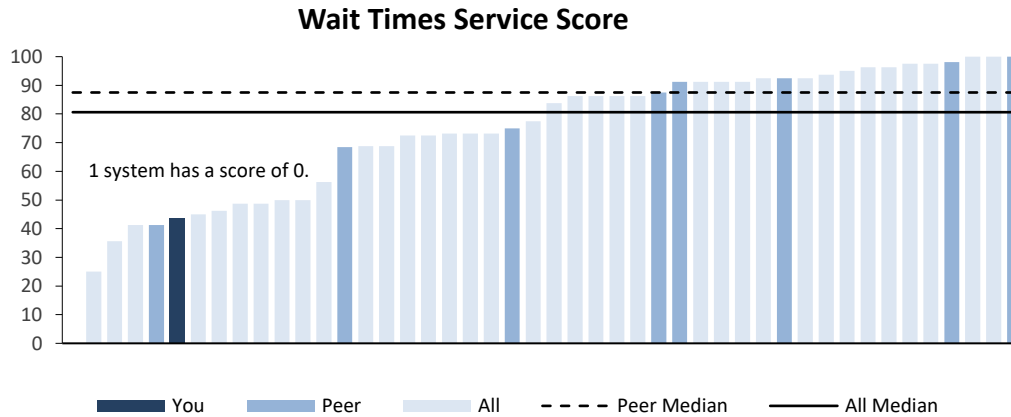
Field locations separate from the employer are preferred because they help preserve confidentiality and privacy.

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)	0	1,062
	c) At the member's place of employment?	0	2
	e) Via videoconference?	<u>737</u>	<u>2,174</u>
	Total number of members counseled 1-on-1 in the field (B)	737	3,238
	% of 1-on-1 field sessions separate from employer (A / B)	0.0%	8.1%
	Total number of members counseled 1-on-1 (C)	11,884	5,878
	% of members counseled at 1-on-1 sessions held in the field (B / C)	6.2%	50.0%

Wait times

Your service score for wait times was 44 out of 100. This was below the peer median of 88.



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]	n/a	0.0
+ 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]	n/a	0.0
Total score		43.8

2. Rationale for the scoring method

The shorter the wait times, the better.

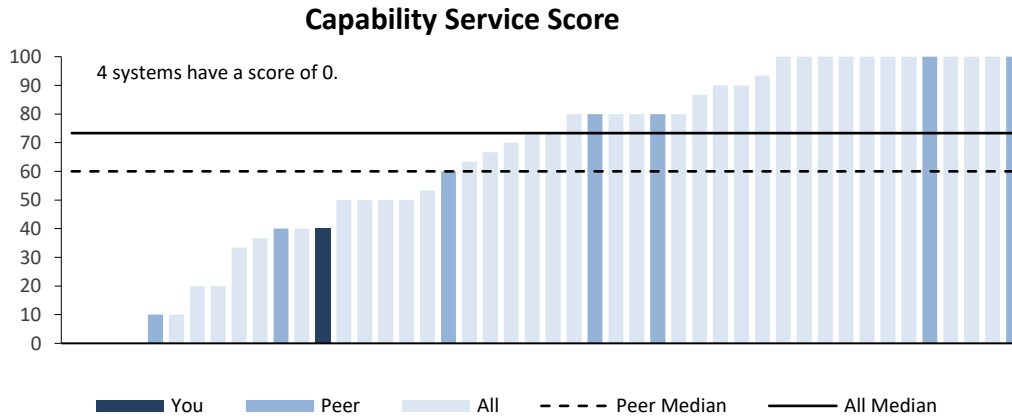
Some people like to be able to schedule an appointment. Also, a pre-scheduled session gives you the opportunity to prepare in advance.

Wait times

3. Survey questions used		You	Peer Avg
Q56	Do you provide counseling for walk-in traffic?	No	78% 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)	n/a	3 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?	n/a	0.0%
Q57	Do you offer prescheduled 1-on-1 counseling?	Yes	89% 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	7.6 days

Capability

Your service score for capability was 40 out of 100. This was below the peer median of 60.



1. Scoring method		Your Data	Your Score
+ 50	if you can provide a new written estimate during each of walk-in and pre-schedule in-house, otherwise 25 for walk-in and 25 for pre-scheduled in-house	1 Yes	25.0
+ 10	if you can provide accurate service credit purchase cost estimates during each of walk-in and pre-schedule in-house, otherwise 5 for walk-in and 5 for pre-scheduled in-house	1 Yes	5.0
+ 20	if counseling takes place in a private office with a door during each of walk-in and pre-schedule in-house, otherwise 10 for walk-in and 10 for pre-scheduled in-house	1 Yes	10.0
	<u>Coaching</u>		
+ 20	if you regularly review counselors for coaching purposes	No	0.0
Total score			40.0

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.

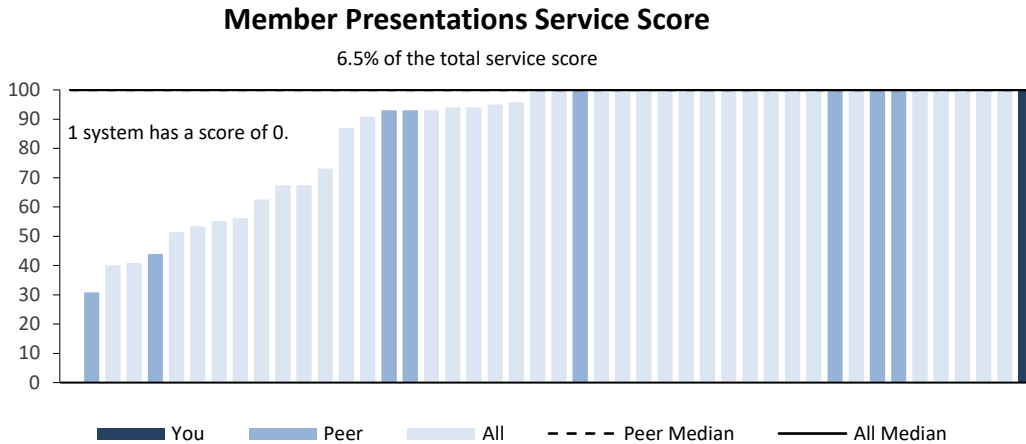
Members feel more comfortable if they can discuss their retirement income in an office with a door. If you review sessions for coaching purposes, this suggests that you monitor quality.

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?	n/a	86% Yes
	a2) Pre-scheduled in-house?	Yes	100% Yes
	a3) In-the-field?	n/a	100% Yes
	c) Do you provide new written estimates on a real-time basis for anybody that wants one?		
	c1) Walk-in traffic in-house?	n/a	71% Yes
	c2) Pre-scheduled in-house?	Yes	86% Yes
	c3) In-the-field?	n/a	80% 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?	n/a	71% Yes
	d2) pre-scheduled In-house?	Yes	86% Yes
	d3) In-the-field?	n/a	80% 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	33% 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% ¹ or more, otherwise 2,800 ¹ X attendees as percent of active members	10.2%	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
Total score			100.0

¹Better website content and functionality reduces the number of members that attend presentations. Using your percentage of pensions inceptioned online as a proxy for the strength of your website, we reduce the 2.5% attendee cutoff rate for a perfect availability score to a minimum of 0.4% (i.e. if 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.

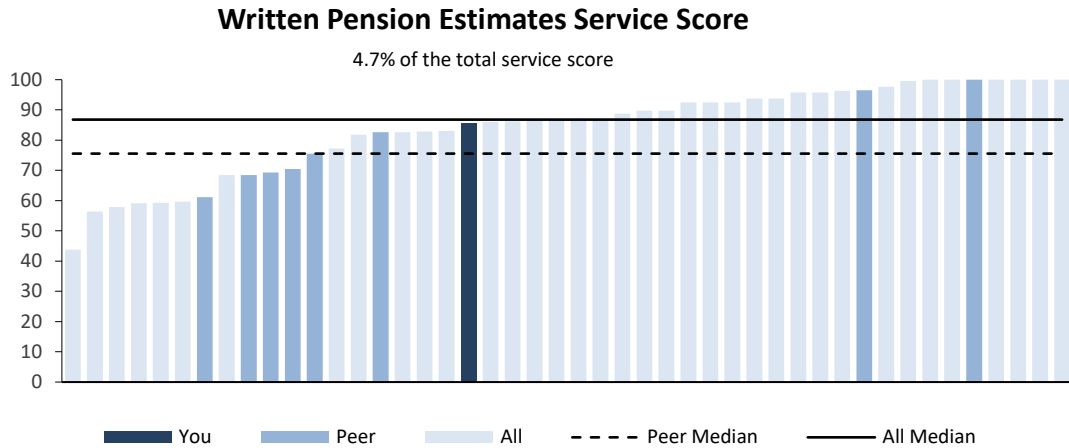
Presentations for different target audiences are higher service.

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)	5,790	11,897
Q5	Active Members (B)	56,637	86,122
	Attendees as a percent of active members (A / B)	10.2%	11.5%
Q66	Do you offer presentations and/or webinars after normal working hours such as evenings and/or weekends?	Yes	89% 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	89% Yes
	c) Members approaching retirement or ready to retire?	Yes	100% Yes
	f) Other? (Please describe)	<u>No</u>	<u>22% 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	67% Yes

2E Written Pension Estimates

Your service score for written pension estimates was 85 out of 100. This was above the peer median of 76.

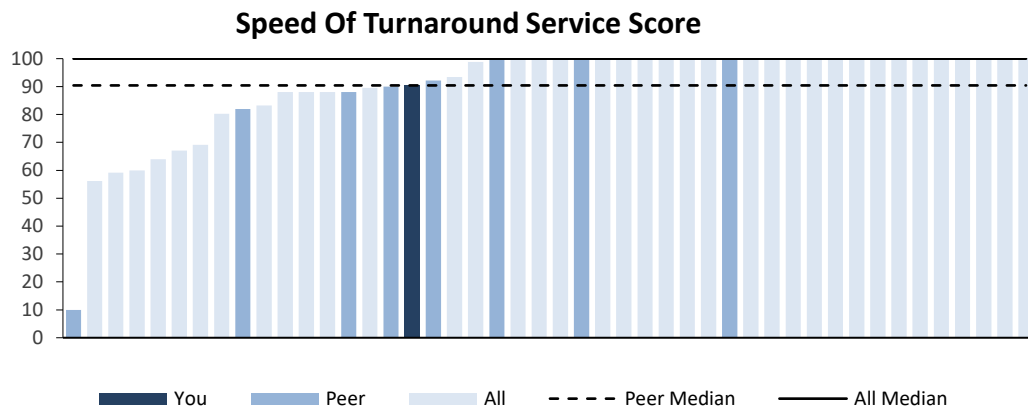


Your service score for 2e written pension estimates is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Written Pension Estimates Service Score Components		
	Weight	Your Score
Speed of turnaround	35%	90.4
Content	25%	55.0
Alternative channels	40%	100.0
Weighted Total	100%	85.4

Speed of turnaround

Your service score for speed of turnaround was 90 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	4.2 days	80.4
+ 10 if you regularly measure the time to provide an estimate	Regular	10.0
Total score [Subject to a minimum score of 0]		90.4

* 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

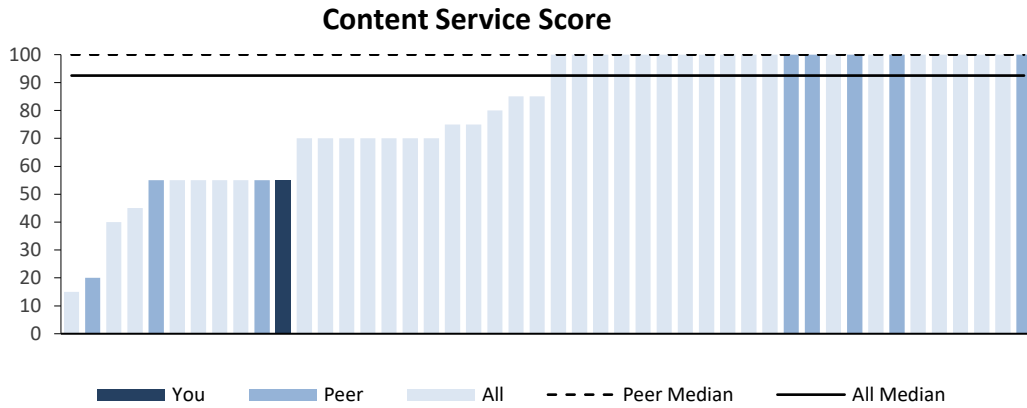
3. Survey questions used		You	Peer Avg
Q69	How many written pension estimates did you mail out pursuant to individual member requests? [Exclude estimates prepared during counseling sessions and not mailed in advance.] (A)	8,953	11,756
Q71	On average, how many business days does it take to provide a written pension estimate from the time of initial request from a member? [Exclude time in the mail.] (B) a) Is this a number you regularly measure and track (versus an estimate)?	4.2 days Regular	7 days 89% 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? If yes, volume? (C) r) Submit a retirement application online? Weighted average estimate turnaround time ¹ (A x B) / (A + C)	Yes 108,167 No 4.2 days ²	89% Yes 90,385 25% Yes 6.2 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

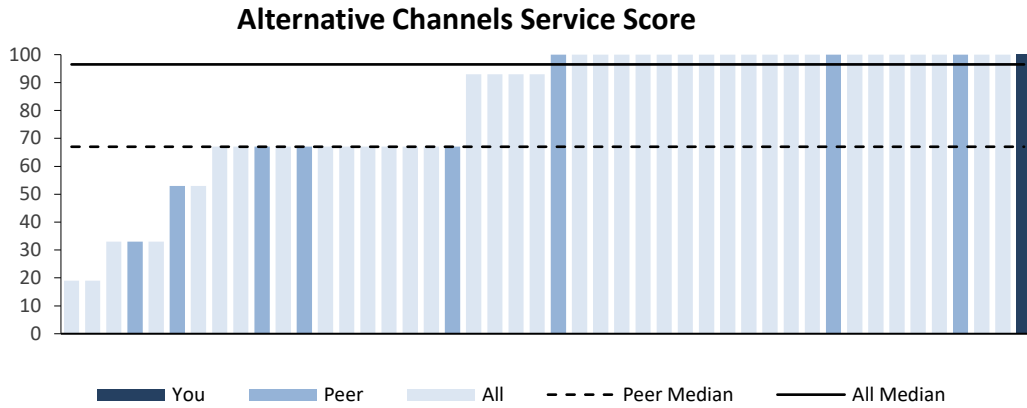
The more members understand about how their pension is affected by inflation, social security, etc. the better they can plan for retirement. A perfect score requires that you provide all this information in a written pension estimate.

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	56% 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	89% Yes

Alternative channels

Your service score for alternative channels was 100 out of 100. This was above the peer median of 67.



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
Total score			100.0

2. Rationale for the scoring method

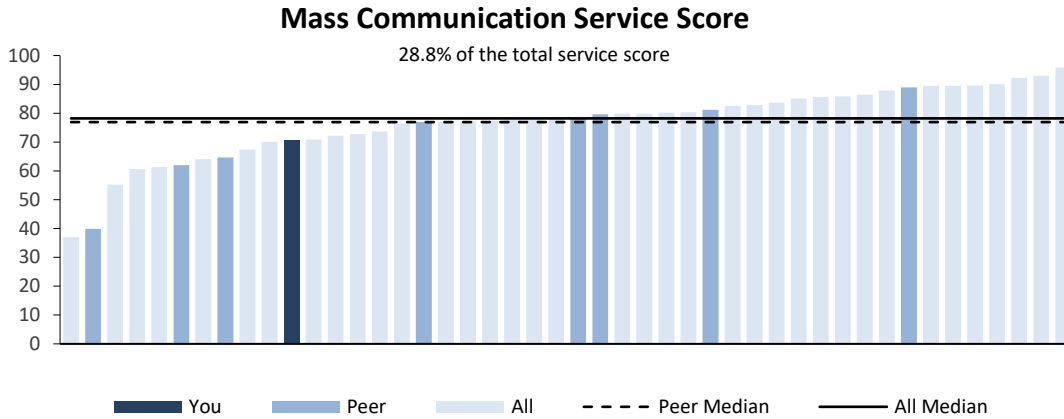
More choices in obtaining a pension estimate provides greater access and convenience for your members.

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	56% 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	89% Yes
Q73	Do you place a limit on the number of written pension estimates that a member can request?	No	11% 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	67% Yes 11% Yes 89% 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	78% Yes

2F Mass Communication

Your service score for mass communication was 70 out of 100. This was below the peer median of 77.

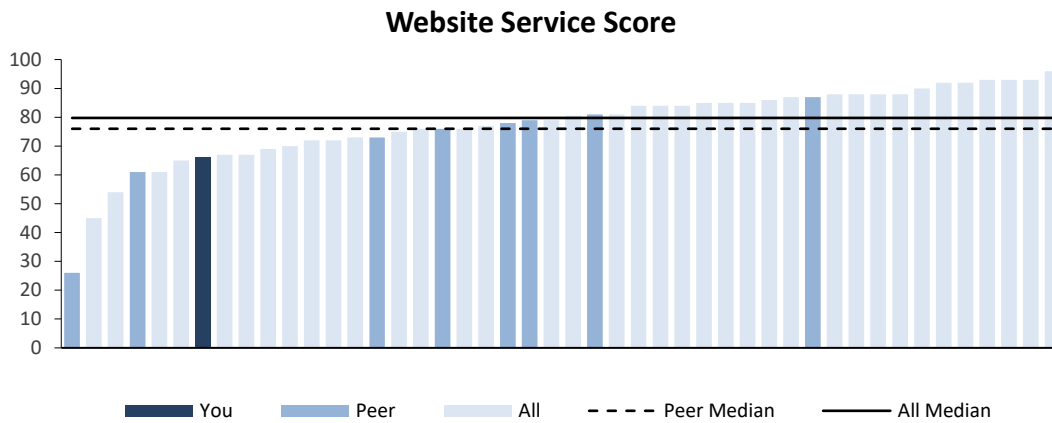


Your service score for 2f mass communication is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Mass Communication Service Score Components		
	Weight	Your Score
Website	74%	66.0
News and Targeted Communication	10%	72.0
Member Statements	16%	90.0
Weighted Total	100%	70.5

Website

Your service score for the website was 66 out of 100. This was below the peer median of 76.



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?	Yes	2.0
+ 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	Yes	2.0
<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			66.0

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

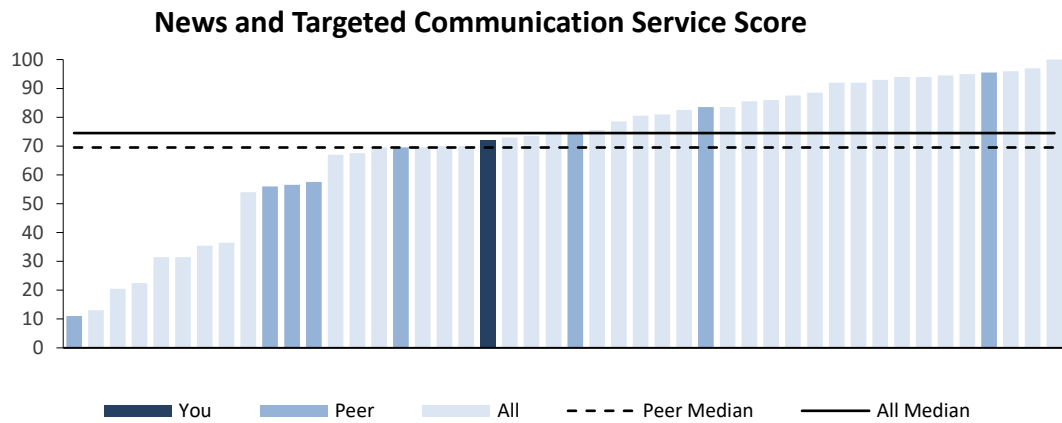
		You	Peer Avg
	<u>Calculators</u>		
Q77	Indicate whether the following capabilities are available on your website and provide volumes:		
	a) Benefit calculator in non-secure area?	No	67% Yes
	b) Benefit calculator in secure area not linked to member data?	No	11% Yes
	c) Benefit calculator in secure area linked to member's salary and service data?	Yes	89% Yes
	d) Service credit purchase calculator?	No	78% Yes
	e) Financial planning tool?	Yes	22% 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?	Yes	50% Yes
	<u>Salary and service credit</u>		
	x) View pensionable earnings and/or service without downloading?	No	67% 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	50% 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	89% Yes
	c) If a member wants to register for the first time, do they have to wait for a password in the mail?	No	13% 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	13% Yes
	f) Are users required to acknowledge a disclaimer every time they generate a pension estimate?	No	38% 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?	Yes	56% Yes
	<u>Forms</u>		
Q75	Are all, most or some of your forms available online for either completion or downloading?	Most	23% 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	44% Yes
	f1) If yes, does the member have real-time access to available dates and times?	No	75% Yes
	g) Register for presentations?	Yes	78% Yes
	h) Live chat?	No	11% Yes
	j) Change address?	Yes	78% Yes
	k) Change beneficiary?	No	56% Yes
	l) Change email address?	Yes	78% Yes
	m) Reset password?	Yes	89% Yes
	n) Change banking information for direct deposit?	No	56% Yes
	o) Change tax withholding amount?	Yes	78% Yes
	p) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes	67% Yes
	q) View pension payment details? [i.e., gross amounts, deductions]	Yes	100% Yes
	r) Submit a retirement application online?	No	25% 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	25.6%
	s) View status of online retirement application?	No	14% 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	56% Yes
Q78	Do you have videos that members can access online?	Yes	89% Yes

News and Targeted Communication

Your service score for newsletters was 72 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
+ 8.5	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
n/a	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	No	0.0
Total score			72.0

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

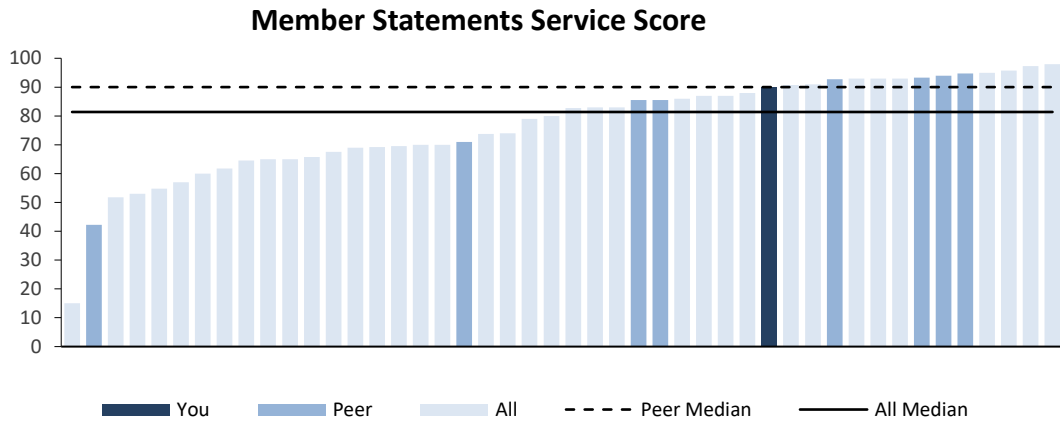
		You	Peer Avg
Q80	Indicate whether you sent newsletters or news magazines (in either electronic or paper format) last year to any of the following member segments, and if yes, the number of times it was sent:	#	#
	a) All members (active, inactive and annuitants)? or c) Active members and annuitants?	Yes 2	33% Yes 6
	b) Active and inactive members? or d) Active members only?	Yes 1	56% Yes 3
	c) Active members and annuitants?	No n/a	0% Yes n/a
	d) Active members only?	Yes 1	56% Yes 3
	e) Inactive members only?	No n/a	0% Yes n/a
	f) Annuitants only?	No n/a	67% Yes 3
	g) Age segments (i.e., under 35, 35-50, 50 plus)?	No n/a	11% 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	22% Yes 5
	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	78% Yes
	If yes:		
	a) If yes, does it include a personalized letter addressing the new member by name?	Yes	86% 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	22% Yes
	b) Vested for disability benefits (if member is not vested immediately)?	No	0% 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	11% Yes
	e) Eligibility or likely eligibility, to purchase service credit?	Yes	33% Yes
	f) Missing beneficiary?	No	22% Yes
	g) Missing email address?	No	11% Yes
	h) Never visited the secure member area?	No	13% Yes
	i) Other milestone communication? (describe below)	No	56% 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)?	No	56% Yes

Member Statements

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



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
Total score			90.0

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

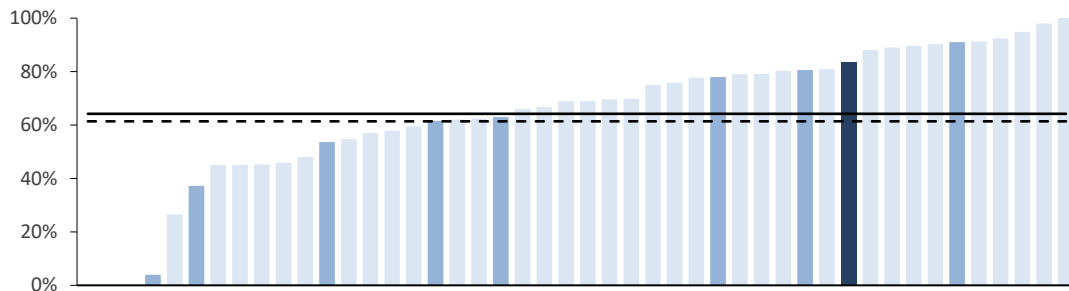
		You	Peer Avg
Q85	How many times per year (annually = 1, every 2nd year = 0.5, every 3 years = 0.33, every 5 years = 0.2) do you send member statements to:		
	a) Active members?	1 time	1.3 times
	b) Inactive members?	1 time	1.0 time
Q86	Approximately what % of members complain about the accuracy of data 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%	11.1%
	b) Mailed directly to members' homes?	100.0%	59.5%
	c) Email or text message to members that the statement is available in the secure member area?	0.0%	32.7%
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	22% Yes
	d) The refund value if you left at the statement date?	Yes	89% 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	78% Yes

Digital delivery

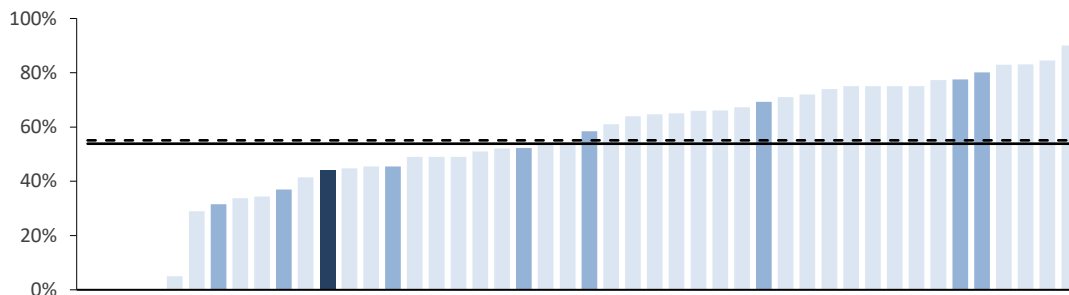
Systems are increasingly looking at cost effective and timely solutions for communicating with members. In particular, more systems are using email and other digital delivery options to deliver newsletters, member statements and other forms of traditional, paper mass communications. CEM's service model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

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

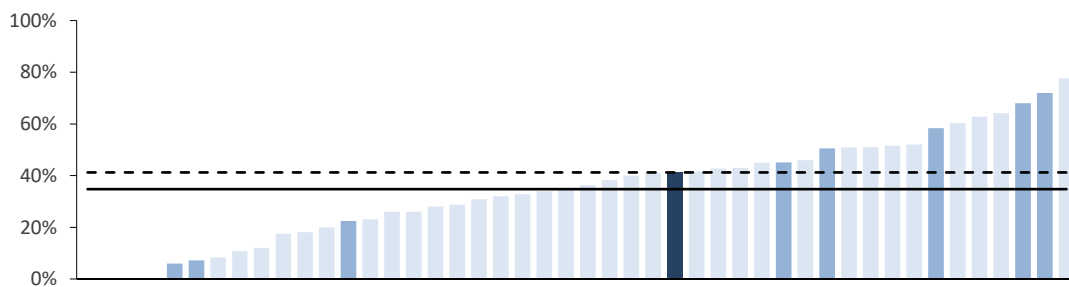
% Email addresses for active members



% Email addresses for annuitants



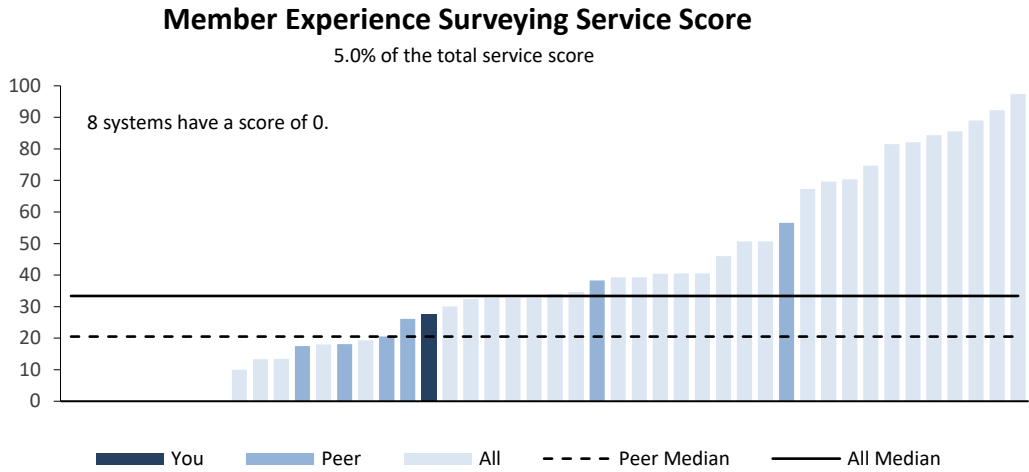
% Email addresses for inactive members



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

Member Experience Surveying

Your service score for member experience surveying was 27 out of 100. This was above the peer median of 21.



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 ¹	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 ²	10%	No	0.0
Weighted Total	100%		27.4

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

² 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
1. Scoring method for single-channel touchpoints		
1-on-1 counseling		
+ 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
Member presentations		
+ 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
Member telephone calls		
+ 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
Website - secure member area		
+ 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
Website - public area		
+ 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
1. Scoring method for member journeys		
Disability		
+ 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
Planning for retirement		
+ 40 if you survey member satisfaction or NPS exclusively for the planning for retirement process.	Yes	40.0
+ 25 if you survey whether the planning for retirement process was easy.	Yes	35.0
+ 35 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
Other member journeys		
+ 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						
			If yes, for each activity surveyed:			
		Did you survey satisfaction or NPS for this activity in your most recently ended fiscal year?	Did you survey member effort?	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?
Q113						
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		57% Yes				
Annuitants		71% Yes				
b. Single-channel touchpoints						
1-on-1 counseling		100% Yes	100% Yes	4	100% Yes	100% Yes
Member presentations		100% Yes	100% Yes	1	100% Yes	
Member telephone calls		100% Yes	100% Yes	3	100% Yes	100% Yes
Website - secure member area		100% Yes	n/a	1		n/a
Website - public area		100% Yes	n/a	4		n/a
c. Member Journeys						
Disability		100% Yes	100% Yes	30		
Retirement		100% Yes	100% Yes	22		
Other member journeys						
New Job		n/a	n/a	n/a		
Exit Job		100% Yes	100% Yes	n/a		
Leave of Absence		n/a	n/a	n/a		
Retired life		n/a	100% Yes	n/a		
Divorce		n/a	n/a	n/a		
Death		n/a	n/a	n/a		

Member feedback measurement and management

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Member feedback questions	You	Peer Avg	All Avg
<p>Q114 Indicate whether you have targets for any of the following member experience metrics:</p> <p>a) Member satisfaction or Net Promoter Scores?</p> <p>b) Member effort?</p> <p>c) Other?</p> <p>d) If yes to any of the above, are the targets approved by the Board?</p>	<p>Yes</p> <p>No</p> <p>No</p> <p>No</p>	<p>57% yes</p> <p>29% yes</p> <p>17% yes</p> <p>50% yes</p>	<p>84% yes</p> <p>51% yes</p> <p>33% yes</p> <p>56% yes</p>
<p>Q115 Do all, most, some or none of your member experience surveys include open-ended questions that allow members to provide qualitative feedback?</p> <p>If all or most:</p> <p>a) Do you summarize feedback from members who rate their experience as:</p> <p>a1) Negative?</p> <p>a2) Positive or neutral?</p> <p>b) Do you have a process to contact members who participated in your survey to resolve issues or clarify feedback?</p> <p>c) Is there an option in your surveys for members to request a call to discuss their feedback?</p>	<p>All</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>72% yes</p> <p>86% yes</p> <p>86% yes</p> <p>100% yes</p> <p>71% yes</p>	<p>60% yes</p> <p>85% yes</p> <p>85% yes</p> <p>76% yes</p> <p>42% yes</p>
<p>Q116 In your most recent fiscal year, did you solicit qualitative feedback from members via:</p> <p>a) In-depth, 1-on-1 interviews?</p> <p>b) Notes from front-line employees on their interactions with members?</p> <p>c) Focus groups, or customer arenas?</p> <p>d) Usability tests?</p> <p>e) Other methods?</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>0% yes</p> <p>22% yes</p> <p>11% yes</p> <p>0% yes</p> <p>22% yes</p>	<p>23% yes</p> <p>34% yes</p> <p>27% yes</p> <p>23% yes</p> <p>25% yes</p>
<p>Q117 Do you compile member feedback reports with quantitative and/or qualitative feedback on a regular basis for:</p> <p>Quantitative scores:</p> <p>a) Front-office employees that interact with members?</p> <p>b) Back-office employees that support front-office employees?</p> <p>d) The Board?</p> <p>Qualitative scores:</p> <p>a) Front-office employees that interact with members?</p> <p>b) Back-office employees that support front-office employees?</p> <p>d) The Board?</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>0% yes</p> <p>0% yes</p> <p>11% yes</p> <p>13% yes</p> <p>0% yes</p> <p>13% yes</p>	<p>52% yes</p> <p>34% yes</p> <p>45% yes</p> <p>47% yes</p> <p>26% yes</p> <p>33% yes</p>

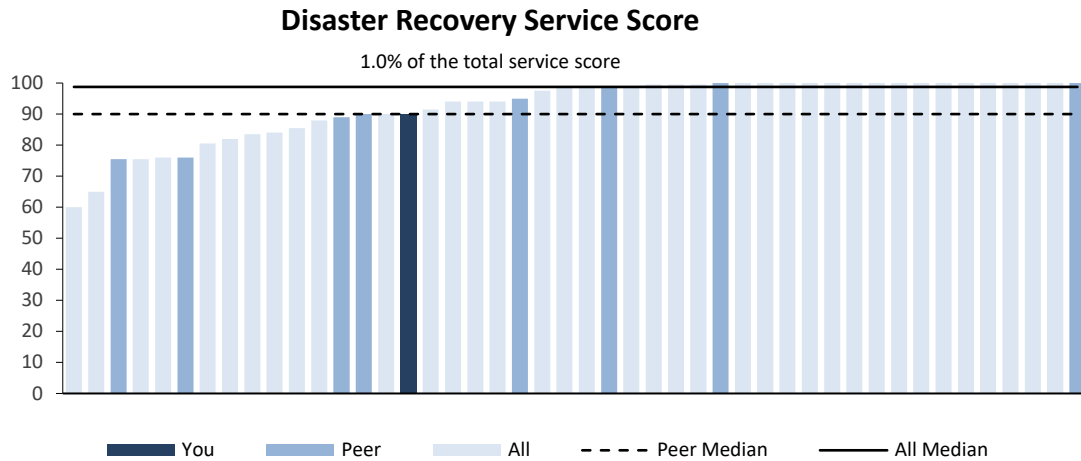
Member feedback management

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Member feedback questions		You	Peer Avg	All Avg
Q118	Do you use a statistical 'driver model' to help prioritize service	No	44% yes	30% yes
Q119	Do you track the number of interactions for each individual member via:			
	a) Calls?	No	44% yes	55% yes
	b) Emails?	No	33% yes	50% yes
	d) 1-on-1 counseling?	Yes	63% yes	64% 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	43% yes	47% yes
Q120	Do you track the use of digital tools (e.g., secure website pension calculator, etc.) by individual member?	No	56% yes	61% 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	100% yes
	b) Interactions via calls and email?	No	56% yes	77% yes
	c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No	56% yes	59% yes
Q122	Do you have cross-functional teams focused on improving member experience for a single member journey?	No	22% yes	50% 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	11% yes	37% yes
	b) Newsletters or magazines?	No	11% yes	47% yes
	c) 1-on-1 calls?	No	11% yes	18% yes
	d) Other?	Yes	33% yes	32% 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 plan	No	0.0
Total score			90.0

Disaster Recovery

2. Rationale for the scoring method

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

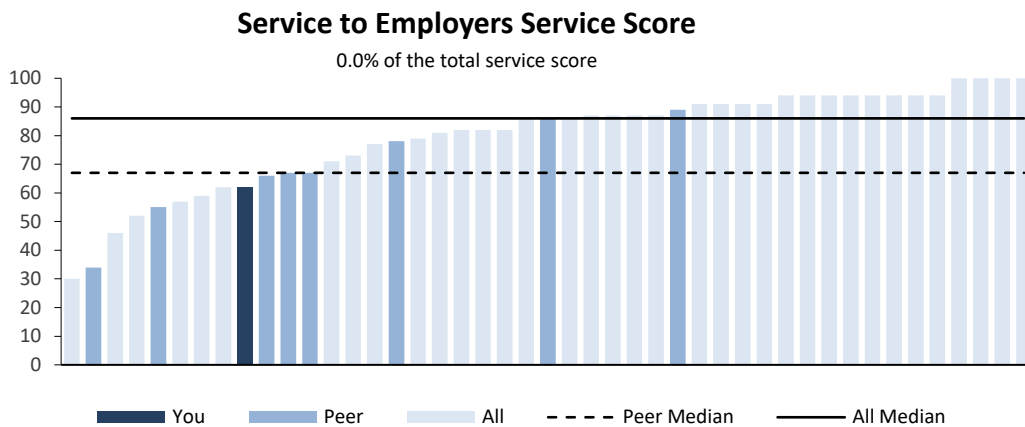
3. Survey questions used

		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	67% 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	5 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 62 out of 100. This was below the peer median of 67.



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	1	4.0
+ 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 send any satisfaction or member experience surveys to employers	No	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
Total score			62.0

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?	1	3
Q104	Do you have a newsletter dedicated to employers that is different from the newsletter for members?	Yes	78% Yes
	a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	12	5
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	11% Yes
Q106	Do you offer and maintain generalized reporting software for your employer collection points?	Yes	100% Yes
	a) Is the application web-based? [i.e., you connect to it through a web browser]	Yes	89% Yes
	b) Can the software integrate both data collection and billing?	No	33% Yes
	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?]	No	56% 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	22% Yes
Q113	a4) Did you send any satisfaction or member experience surveys to employers?	No	14% 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 36.1 points (from 63.9 to 100) to your Total Service Score if you enhanced service in each activity as follows:

Service Activity	Potential Improvement
<u>1B Pension Inceptions (6.58 potential improvement to your total service score)</u>	
<ul style="list-style-type: none"> 91.9% 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. 	+ 5.30
<ul style="list-style-type: none"> 57.2% 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. 	+ 0.47
<ul style="list-style-type: none"> 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. 	+ 0.65
<ul style="list-style-type: none"> 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. 	+ 0.16
<u>1C Refunds, Withdrawals, and Transfers-out (0.13 potential improvement to your total service score)</u>	
<ul style="list-style-type: none"> You require notarization for transfer-out applications. To achieve a perfect service score, you must not require notarization of transfer-out applications. 	+ 0.13
<u>1D Purchases and Transfers-in (2.36 potential improvement to your total service score)</u>	
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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. 	+ 0.31
<u>1E Disability (1.06 potential improvement to your total service score)</u>	
<ul style="list-style-type: none"> 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. 	+ 0.68
<ul style="list-style-type: none"> You require notarization of disability applications. To achieve a perfect service score, you must not require notarization of disability applications. 	+ 0.38
<u>2A Call Center (10.38 potential improvement to your total service score)</u>	
<ul style="list-style-type: none"> 20.4% 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. 	+ 3.43
<ul style="list-style-type: none"> 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. 	+ 0.16
<ul style="list-style-type: none"> On average, members calling your call center reach a knowledgeable person in 552 seconds. To 	+ 3.78

achieve a perfect service score, members must reach a knowledgeable person on the phone in 60 seconds or less.

- You do not notify members of expected wait time, or their place in the queue, when the expected wait exceeds a certain threshold. + 0.08
- 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 change banking information over the phone. To achieve a perfect service score, you must be able to change banking information over the phone. + 0.44
- 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. + 0.44
- 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. + 0.18
- 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. + 0.18
- You do not have access to a workflow system regarding member's use of digital tools. To achieve a + 0.18
- An unknown percentage of your calls are satisfied by their first contact. To achieve a perfect service score, 100% of calls must be satisfied by their first contact. + 0.57

2C 1-on-1 Counseling (2.68 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
- 6.2% of your total 1-on-1 sessions were located in the field. To achieve a perfect service score, the number of 1-on-1 sessions located in the field must be 25% or more. + 0.78
- 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 n/a minutes. To achieve a perfect service score there must be no wait time for walk-in counseling. + 0.37
- n/a 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. + 0.37
- You do not provide new written estimates during all of 1-on-1 counseling sessions. To achieve a perfect service score, you must be able to provide a new written estimate during each of walk-in, pre-schedule in-house and in-the-field sessions. + 0.19
- You do not provide accurate service credit purchase cost estimates during all of your 1-on-1 counseling sessions. To achieve a perfect service score, you must be able to provide accurate service credit purchase cost estimates during each of walk-in, pre-schedule in-house and in-the-field sessions. + 0.04
- 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. + 0.07
- You do not regularly review counselors for coaching purposes. To achieve a perfect service score you + 0.15

must regularly review counselors for coaching purposes.

2E Written Pension Estimates (0.69 potential improvement to your total service score)

- You provide estimates on average in 4.2 days. To achieve a perfect service score, the weighted average time required to provide written and online estimates must be same day or less. + 0.16
- 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 (7.24 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 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 change beneficiaries online. + 0.43
- 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

2F Mass Communication - Newsletters (0.78 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
- You do not solicit member feedback on your publications through focus groups or surveys. To achieve a perfect service score you must solicit member feedback on your publications through focus groups or surveys. + 0.07

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)

Active members (0.25 potential improvement to your total service score)

- You did not survey active members about their experience participating in the plan during the fiscal year covered in this benchmarking report. + 0.25

1-on-1 counseling (0.35 potential improvement to your total service score)

- 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

Member presentations (0.02 potential improvement to your total service score)

- 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

Member telephone calls (0.80 potential improvement to your total service score)

- You did not survey members who contacted the call center about their experience during the fiscal year covered in this benchmarking report. + 0.80

Website - secure member area (0.80 potential improvement to your total service score)

- 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

Website - public area (0.40 potential improvement to your total service score)

- You did not survey members who visited the public area in the web site about their experience during the fiscal year covered in this benchmarking report. + 0.40

Disability (0.25 potential improvement to your total service score)

- You did not survey disability applicants about their disability-retirement process experience during the fiscal year covered in this benchmarking report. + 0.25

Retirement (0.26 potential improvement to your total service score)

- 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

Other member journeys (0.50 potential improvement to your total service score)

- 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: new to their pension plan 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: leaving their pension plan 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 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

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 plan. + 0.10

8

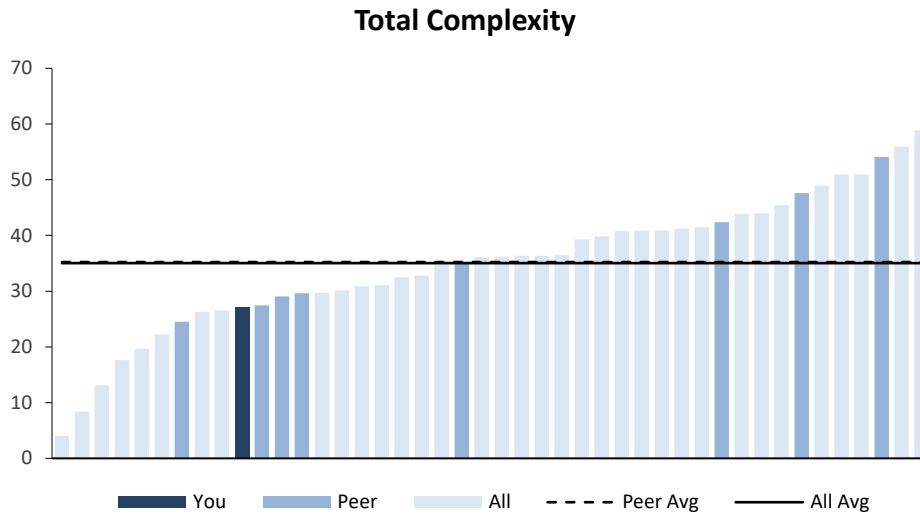
Plan Complexity

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 30.



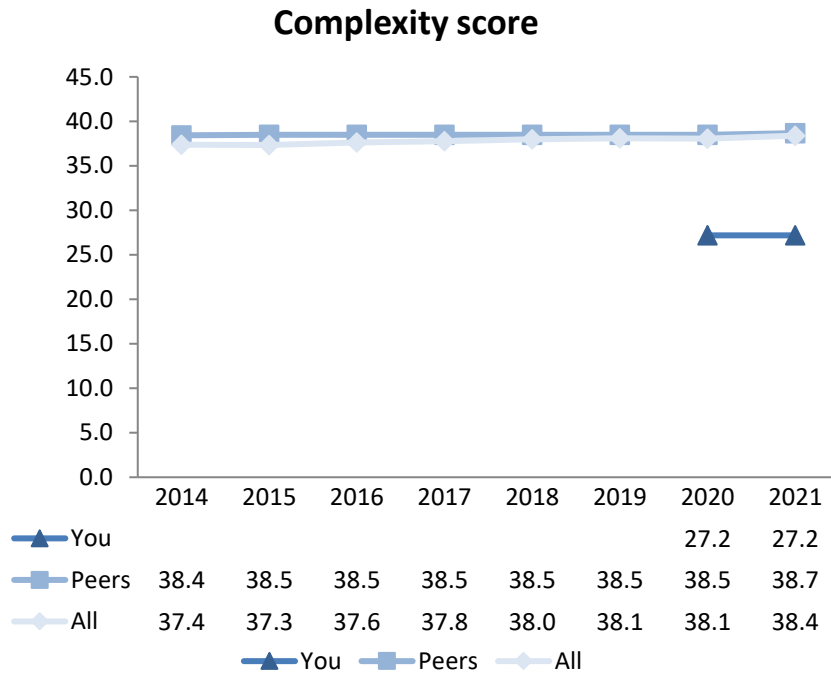
Your total complexity score is the weighted average of your complexity scores by the cause. The causes of complexity are summarized in the table below:

Complexity Scores by Cause				
Cause	Weight	Complexity Score		
		You	Peer Avg	All Avg*
A Pension Payment Options	15.0%	21	34	34
B Customization Choices	20.0%	8	8	14
C Multiple Plan Types and Overlays	13.0%	20	24	24
D Multiple Benefit Formula	16.0%	39	47	44
E External Reciprocity	3.0%	35	26	24
F COLA Rules	4.0%	4	39	28
G Contribution Rates	3.0%	26	36	34
H Variable Compensation	4.0%	20	71	72
I Service Credit Rules	3.0%	44	32	39
J Divorce Rules	3.0%	55	54	63
K Purchase Rules	6.0%	43	57	57
L Refund Rules	4.0%	16	39	40
M Disability Rules	6.0%	77	65	51
Weighted Average	100.0%	27	35	35

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

Trends in Complexity

The total complexity score of your peers that participated for 8 consecutive years have grown at a compound annual rate of 0.2% between 2018 and 2021. Your growth rate for the same period is unavailable.



1. Trend analysis is based on systems that have participated for 8-consecutive years (4 peers and 32 World systems). This ensures that trends are not caused by changes in the composition of the participants.

Complexity scoring methodology

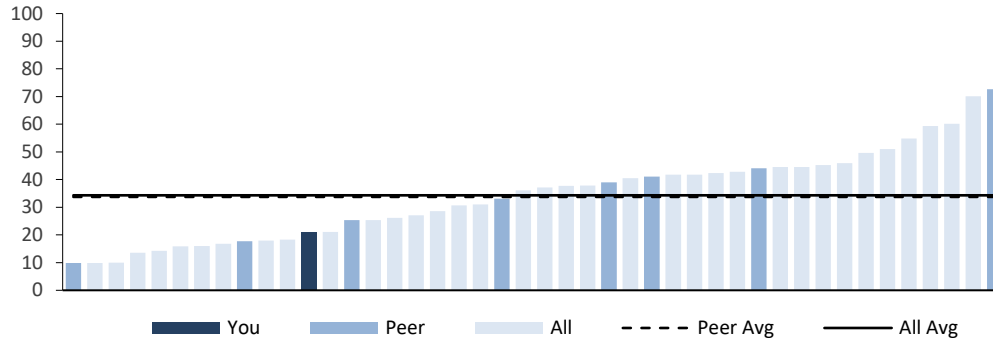
CEM's complexity scoring methodology changed in 2018, from a relative measure to absolute. The benefit of using an absolute measure is that your score is only impacted by changes in your plan rules.

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	22% Yes 22	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%).]</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	67% Yes 22% Yes 67% Yes 37	72% Yes 23% Yes 58% Yes 39
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 $12.7 + 18.3 \times \ln(\text{number of percentages you permit})$ subject to a maximum of 100. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc. ¹</i></p>	Yes 3 33	1 3 55	1 8 61

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

A. Pension Payment Options Complexity

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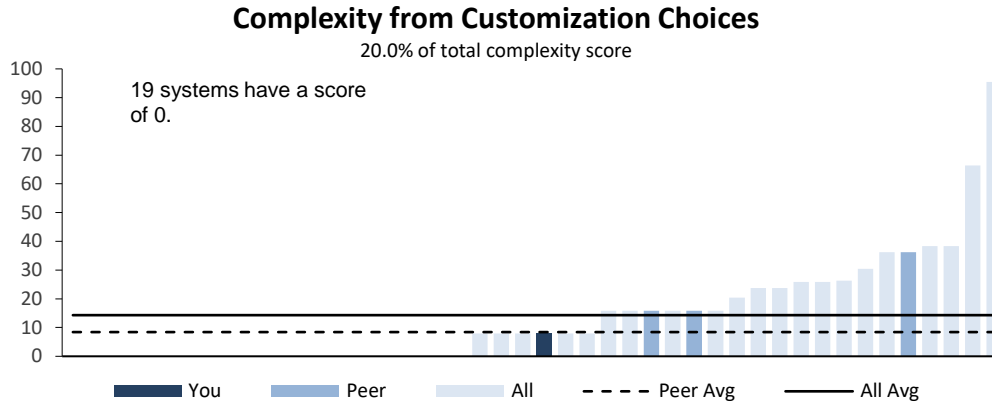
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	Q145 How many mortality tables do you keep track of for determining joint and survivor or beneficiary options? <i>Complexity: 0 if none, otherwise $10.5 + 15.1 \times \ln(\text{number of mortality tables})$. i.e., 1 = 10.5, 2 = 20.9, 4 = 31.4, 8 = 41.8, etc.</i>	3	2	11
		27	20	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	56% Yes	49% Yes
		n/a	0% All	33% All
		n/a	100% Yes	90% Yes
			0	56
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	11% Yes 11	12% Yes 11
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	33% Yes 33	56% Yes 55
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	0% Yes 0	2% Yes 2

A. Pension Payment Options Complexity

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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	0% Yes 0	19% Yes 18
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	22% Yes 44	44% Yes 57
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	56% Any 56	40% Any 39
100%	Weighted Average	21	34	34

B. Customization Choices Complexity



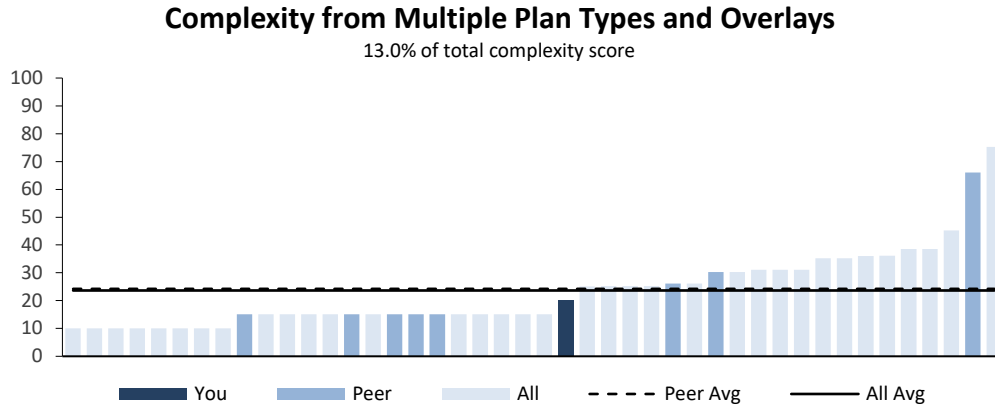
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q176 Can either existing employers, or a new employer joining your system, choose:			
	a) Whether they offer early retirement, or a window of early retirement?	No 22%	Yes 23%	
	b) Whether or not part-time employees are eligible?	No 0%	Yes 12%	
	c) Whether employee contributions are paid pre or post tax?	No 0%	Yes 19%	
	d) Whether they pay for employee contributions themselves, or not?	No 33%	Yes 28%	
	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 11%	Yes 12%	
	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 0%	Yes 12%	
	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 11%	Yes 14%	

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	441
	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	12
	d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	n/a	2	3
	e) Vesting period?	n/a	n/a	3
	f) Service credit purchase categories?	n/a	n/a	4
	g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000]	n/a	n/a	5
	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	n/a	6
	Total Customization Choices [Sum of 1 for each yes in Q176 + sum of # of choices in Q177]	1	1	23
90%	<i>Complexity: 0 if none, otherwise $8.8 + 12.7 \times \ln(\text{number of customization choices})$. i.e., 1 = 8.8, 2 = 17.6, 4 = 26.4, 8 = 35.1, etc.</i>	9	8	14
	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	13% Yes	21% Yes
10%	<i>Complexity: 100 if yes, otherwise 0.</i>	0	11	20
100%	Weighted Average	8	8	14

C. Multiple Plan Types and Overlays Complexity



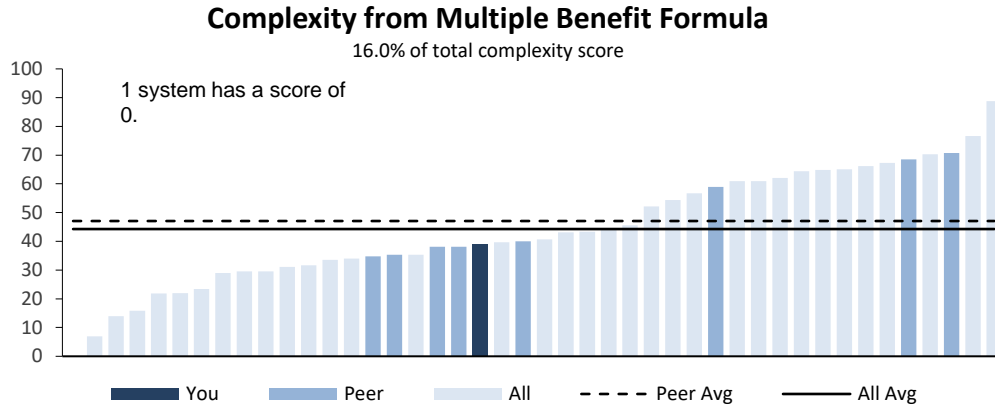
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
45%	Q125 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups:			
	a) Traditional Defined Benefit ("DB")?	Yes	100% Yes	93% Yes
	b) DB Cash Balance (aka Money Purchase)?	No	0% Yes	7% Yes
	c) Hybrid DB/ DC Cash Balance?	No	0% Yes	9% Yes
	d) Hybrid DB/ Money Match?	No	0% Yes	2% Yes
	e) DROP savings?	No	0% Yes	7% Yes
	f) Defined Contribution ("DC")?	Yes	22% Yes	15% Yes
	g) Hybrid DB/ DC?	No	33% Yes	28% Yes
	h) Other (describe)?	<u>No</u>	<u>0% Yes</u>	<u>7% Yes</u>
	Total number of different plan types. Hybrid plans count as 2 types.	2.0	1.9	2.1
<i>Complexity: 0 if none, otherwise $22.4 + 32.4 \times \ln(\text{number of non-optional benefit plans})$. i.e., 1 = 22.4, 2 = 44.8, 4 = 67.3, 8 = 89.7, etc.</i>	45	38	40	

C. Multiple Plan Types and Overlays Complexity

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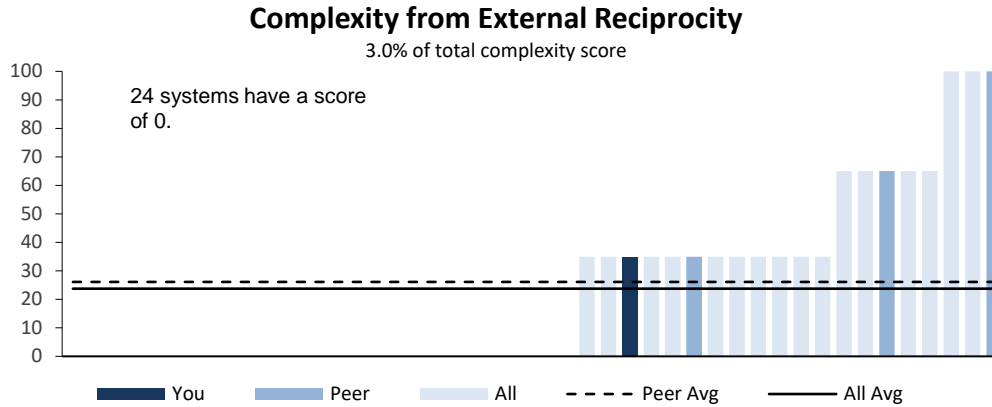
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	<p>Q126 Do members in any of your defined benefit plan(s) have the option of electing: [These questions are not applicable for DC plans or the DC portion of hybrid DB/DC plans]</p> <p>a) A 'variable investment option' that can increase 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	11% Yes 11	5% Yes 5
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	7% Yes 7
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	11% Yes 11	5% Yes 5
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	56% Yes 56	65% Yes 64
5%				
100%	Weighted Average	20	24	24

D. Multiple Benefit Formula Complexity



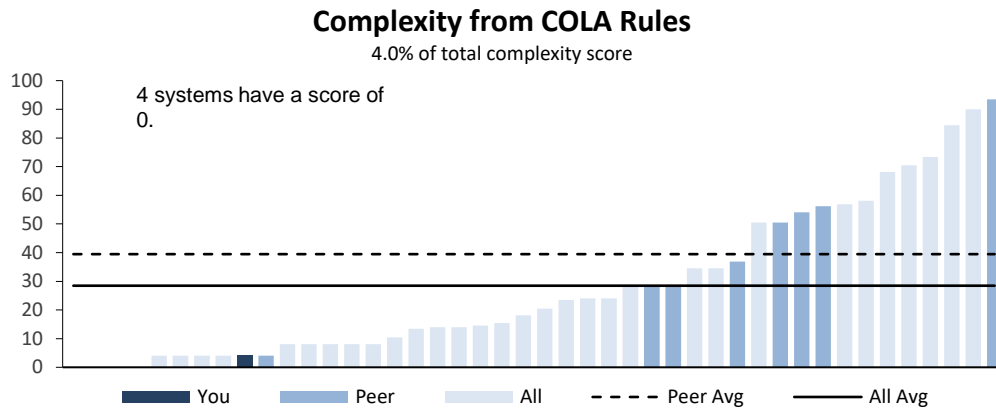
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	<p>Q149 How many different rule sets do you have that apply to member groups or subsets of a member group for qualifying for an unreduced retirement formula? <i>Complexity: 0 if none, otherwise $12.7 + 18.3 \times \ln(\text{number of rule sets})$. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc.</i></p>	4 38	9 47	9 44
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	95% Yes 93
20%	<p>Q151 How many different salary definitions could apply in retirement formula calculations? <i>Complexity: 0 if none, otherwise $19.4 + 27.9 \times \ln(\text{number of salary definitions})$. i.e., 1 = 19.4, 2 = 38.7, 4 = 58.1, 8 = 77.4, etc.</i></p>	3 50	4 51	4 49
25%	<p>Q152 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas? <i>Complexity: 0 if none, otherwise $12.7 + 18.3 \times \ln(\text{number of 'formula percentage' rule sets})$. i.e., 1 = 12.7, 2 = 25.3, 4 = 38.0, 8 = 50.6, etc.</i></p>	8 51	7 45	7 36
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	44% Yes 75% Yes 25% Yes 0% Yes 25% Yes 25% Yes 33	51% Yes 59% Yes 32% Yes 9% Yes 32% Yes 19% Yes 42
100%	Weighted Average	39	47	44

E. External Reciprocity Complexity



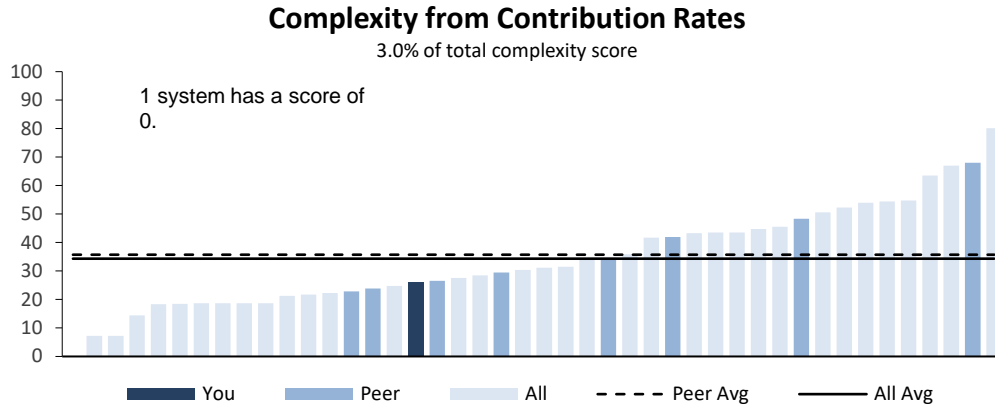
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
35%	<p>Q154 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system 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	33% Yes 33	35% Yes 34
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	22% Yes 22	19% Yes 18
100%	Weighted Average	35	26	24

F. COLA Rules Complexity



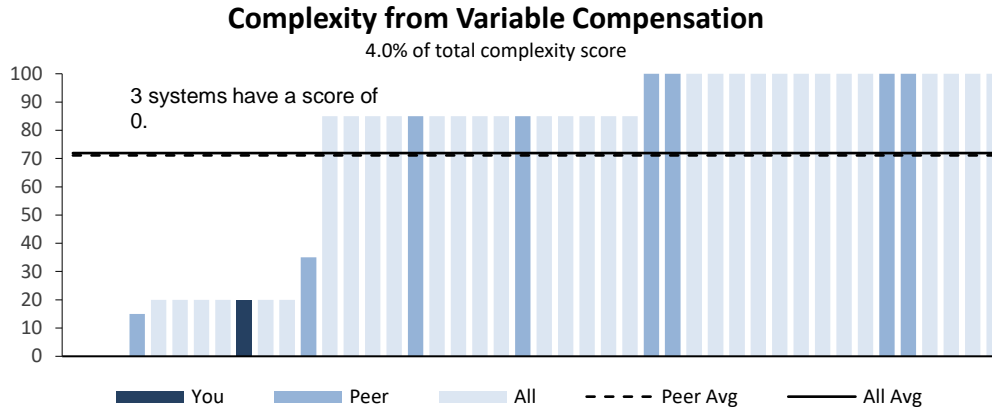
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	<p>Q146 How many different cost of living adjustment ("COLA") rule sets do you have for retired, and if applicable, inactive members? (These rule sets may be either contractual or legislated.)</p> <p><i>Complexity: 0 if none, otherwise $20.2 + 29.2 \times \ln(\text{number of COLA rule sets})$. i.e., 1 = 20.2, 2 = 40.4, 4 = 60.6, 8 = 80.8, etc.</i></p>	1	4	6
		20	47	44
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	44% Yes 44	28% Yes 27
10%	<p>b) Conditional COLA based on the level of funding?</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	44% Yes 44	33% Yes 32
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	22% Yes 22	16% Yes 16
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	33% Yes 33	28% Yes 27
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 33	83% Yes 23
100%	Weighted Average	4	39	28

G. Contribution Rates Complexity



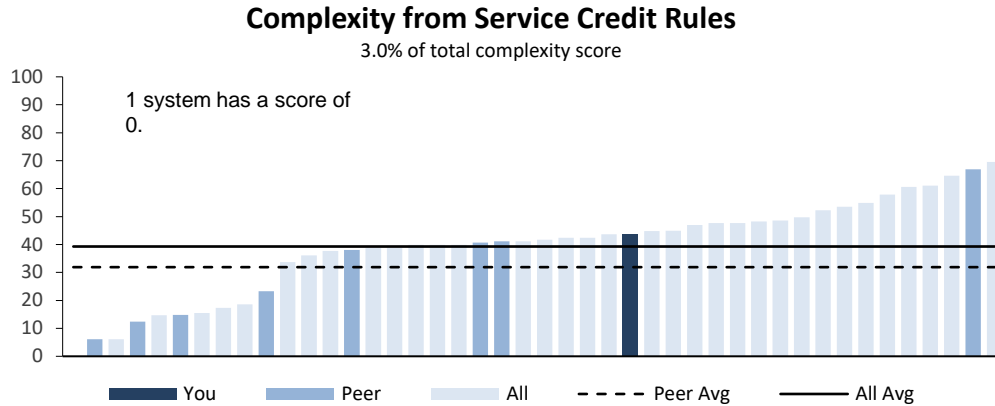
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
40%	<p>Q179 How many different contribution percentages do you collect from:</p> <p>a) Employers? [For example, single member group systems may have only one contribution percentage whereas some multi-plan systems may collect numerous different contribution rates from various participating employers.] <i>Complexity: 0 if none, otherwise $7.3 + 10.5 \times \ln(\text{number of contribution percentages collected from employers})$. i.e., 1 = 7.3, 2 = 14.6, 4 = 21.9, 8 = 29.2, etc.</i></p>	4	10	313
40%	<p>b) Members? <i>Complexity: 0 if none, otherwise $10.8 + 15.5 \times \ln(\text{number of contribution percentages collected from members})$. i.e., 1 = 10.8, 2 = 21.5, 4 = 32.3, 8 = 43.0, etc.</i></p>	5	29	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 their part and also the employee contributions? No</p> <p>c) Employer withholds employee contributions pre-tax from their salary? Yes</p> <p>d) Employer withholds employee contributions post-tax from their 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	34
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	56	55
100%	Weighted Average	26	36	34

H. Variable Compensation Complexity



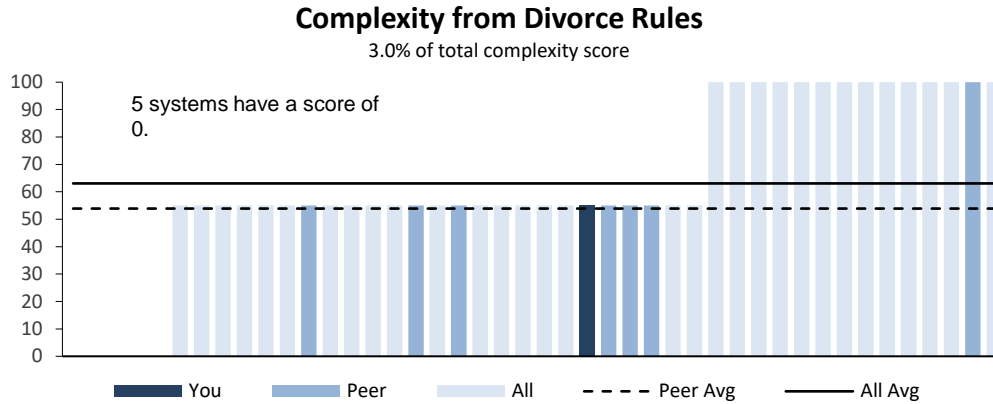
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	<p>Q174 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings.</p> <p>a) Bonuses? No 67% Yes 77% Yes</p> <p>b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? Yes 67% Yes 84% Yes</p> <p>c) Overtime pay? Yes 78% Yes 81% Yes</p> <p>d) Commissions or similar payments such as fees paid to sheriffs for process serving? No 56% Yes 40% Yes</p> <p><i>Complexity: 100 if variable compensation is paid in your system, otherwise 0.</i></p>	100	89	91
65%	<p>If yes, is all, some or none of it included in pensionable earnings?</p> <p>a) Bonuses? n/a 18% All 13% All</p> <p>b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? All 51% All 20% All</p> <p>c) Overtime pay? All 58% All 52% All</p> <p>d) Commissions or similar payments such as fees paid to sheriffs for process serving? n/a 41% All 36% 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	67	73
15%	<p>Q175 When determining a member's pensionable earnings does a cap on salary increases apply?</p> <p><i>Complexity: 100 if yes, 0 if no</i></p>	0	67	43
100%	Weighted Average	20	71	72

I. Service Credit Rules Complexity



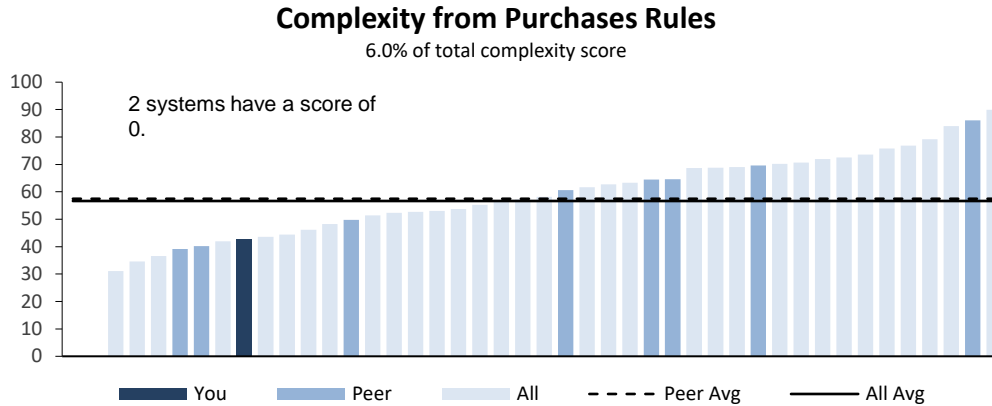
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	<p>Q156 How many different definitions do you have for a "full year" of service credit? <i>Complexity: 0 if none, otherwise $12.4 + 17.9 \times \ln(\text{number of 'full year' service credit definitions})$. i.e., 1 = 12.4, 2 = 24.9, 4 = 37.3, 8 = 49.7, etc.</i></p>	1 12	4 31	4 28
30%	<p>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 $16.1 + 23.2 \times \ln(\text{number of payroll years})$. i.e., 1 = 16.1, 2 = 32.2, 4 = 48.2, 8 = 64.3, etc.</i></p>	No n/a 0	44% Yes 4 21	28% Yes 6 12
5%	<p>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 $23.8 + 34.3 \times \ln(\text{number of vesting periods})$. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i></p>	9 99	3 53	2 44
30%	<p>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></p>	Yes 100	33% Yes 33	72% Yes 70
5%	<p>Q160 Are you sometimes asked by employers to determine the eligibility of members? <i>Complexity: 100 if yes, otherwise 0.</i></p>	Yes 100	78% Yes 78	84% Yes 82
100%	Weighted Average	44	32	39

J. Divorce Rules Complexity



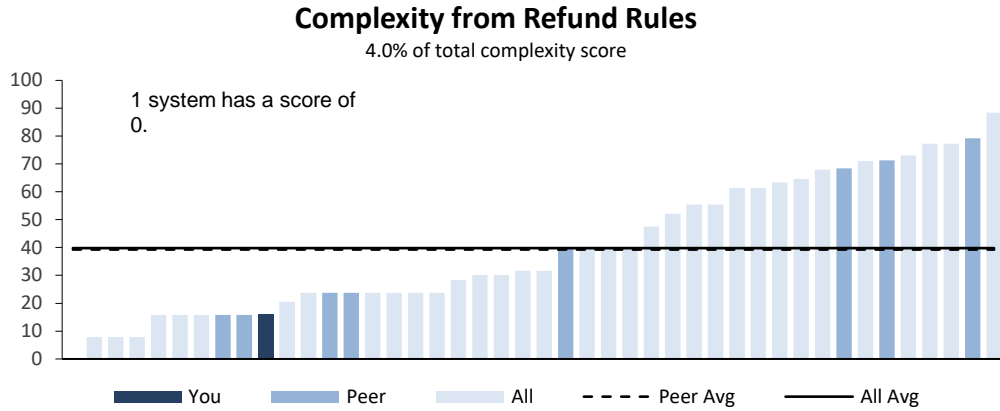
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	<p>Q187 Choose the statement that best describes how divorce settlements for active members (or divorce decrees or QDROS, or QILDROS, or Division of Benefit Orders, etc.) impact your system. If you have different rules for different 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 55	11% Yes 54	12% Yes 63
100%	Weighted Average	55	54	63

K. Purchase Rules Complexity



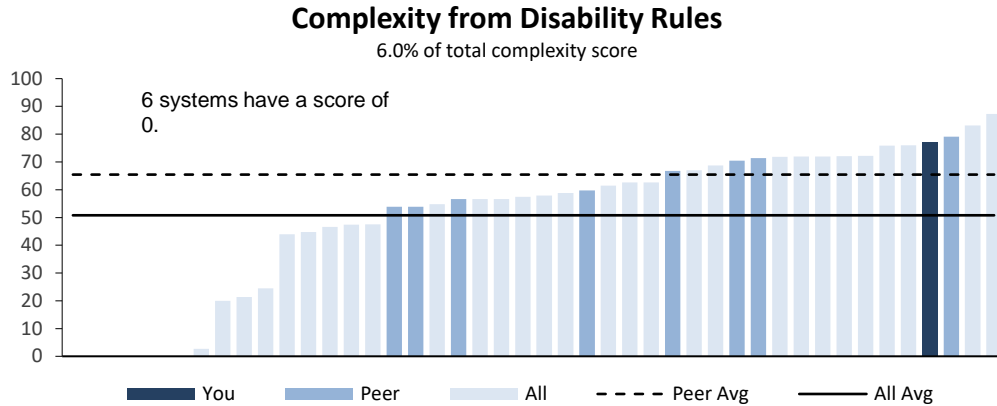
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
25%	<p>Q161 Indicate each of the payment methods you permit for service credit purchases and upgrades:</p> <p>a) Rollover from tax qualified plans such as 401(a) or 401(k) or Conduit IRA or KEOGH in the US; or RRSP plans in Canada?</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>44% Yes</p> <p>64</p>	<p>98% Yes</p> <p>100% Yes</p> <p>74% Yes</p> <p>57% 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 $14.1 + 20.3 \times \ln(\text{number of service credit purchase categories})$. i.e., 1 = 14.1, 2 = 28.1, 4 = 42.2, 8 = 56.3, etc.</i></p>	<p>4</p> <p>42</p>	<p>9</p> <p>56</p>	<p>13</p> <p>59</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 $18.1 + 26.1 \times \ln(\text{number of service credit purchase formulas})$. 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>65</p>	<p>6</p> <p>59</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>56% Yes</p> <p>44% Yes</p> <p>22% Yes</p> <p>44</p>	<p>37% Yes</p> <p>56% Yes</p> <p>15% Yes</p> <p>40</p>
100%	Weighted Average	43	57	57

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	67% Yes	60% 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 $23.8 + 34.3 \times \ln(\text{number of one-time death payment rule sets})$. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i>	0	40	35
	Q166 How many different refund formulas do you have?	2	2	3
33%	<i>Complexity: 0 if none, otherwise $23.8 + 34.3 \times \ln(\text{number of refund formulas})$. i.e., 1 = 23.8, 2 = 47.5, 4 = 71.3, 8 = 95.0, etc.</i>	48	37	48
100%	Weighted Average	16	39	40

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	84% Yes 84
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 $13.3 + 19.2 \times \ln(\text{number of long-term disability/disability pension rule sets})$. i.e., 1 = 13.3, 2 = 26.6, 4 = 39.9, 8 = 53.1, etc.</i></p>	4 40	5 36	7 30
	<p>Q28 Do you administer: b) Short-term disability?</p>	No	0% Yes	9% 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 $19.8 + 28.5 \times \ln(\text{number of short-term disability rule sets})$. i.e., 1 = 19.8, 2 = 39.5, 4 = 59.3, 8 = 79.0, etc.</i></p>	n/a 0	n/a 0	2 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 67% Yes 67	100% Yes 51% Yes 43

M. Disability Rules Complexity

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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	78% Yes 78	64% Yes 57
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	22% Yes 11% Yes 29	20% Yes 6% Yes 15
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	92% Yes 77
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	78% Yes 0% Yes 38% Yes 25% Yes	57% Yes 19% Yes 30% Yes 15% Yes
		90	81	61

M. Disability Rules Complexity

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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	5
	<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	11% Yes	27% Yes
		No	44% Yes	42% Yes
		No	0% Yes	8% Yes
		No	0% Yes	11% Yes
		No	11% Yes	22% Yes
		No	0% Yes	14% Yes
		Yes	44% Yes	47% Yes
		<u>n/a</u>	<u>0% Yes</u>	<u>15% Yes</u>
		1	1	2
5%	<p><i>Complexity: 0 if none, otherwise $25.0 + 36.1 \times \ln(\text{number of disability coordination categories})$. i.e., 1 = 25.0, 2 = 50.0, 4 = 75.0, 8 = 100.0, etc.</i></p>	25	28	28
100%	Weighted Average	77	65	51

9

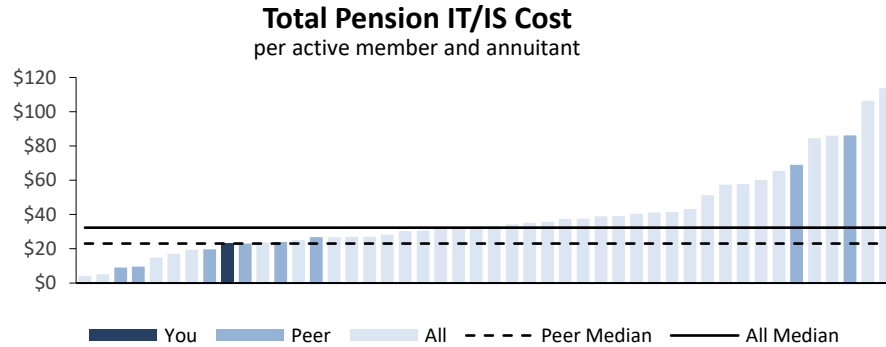
IT and Major Projects

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

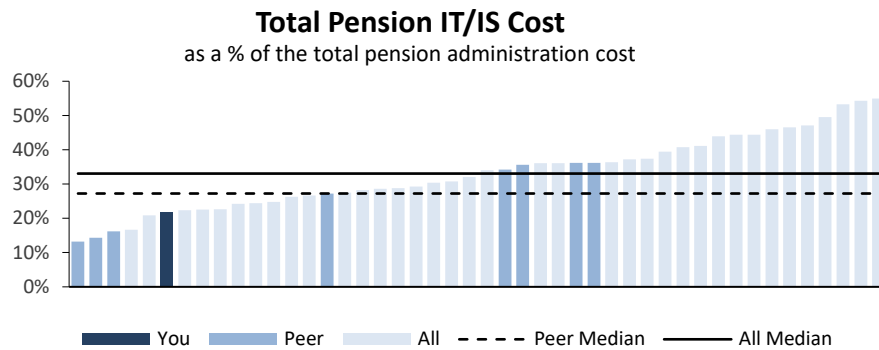
- Total IT/IS costs and trends
- Total major project costs and trends
- Indicators of CRM (Customer Relationship Management) capability
- Attributions of IT/IS and Major Projects to the other administration activities

IT/IS costs

Your IT/IS cost was \$22.79 per active member and annuitant. This was below the peer median of \$23.05.



Your IT/IS cost as a percent of total pension administration cost was 22%. This was below the peer median of 27%.

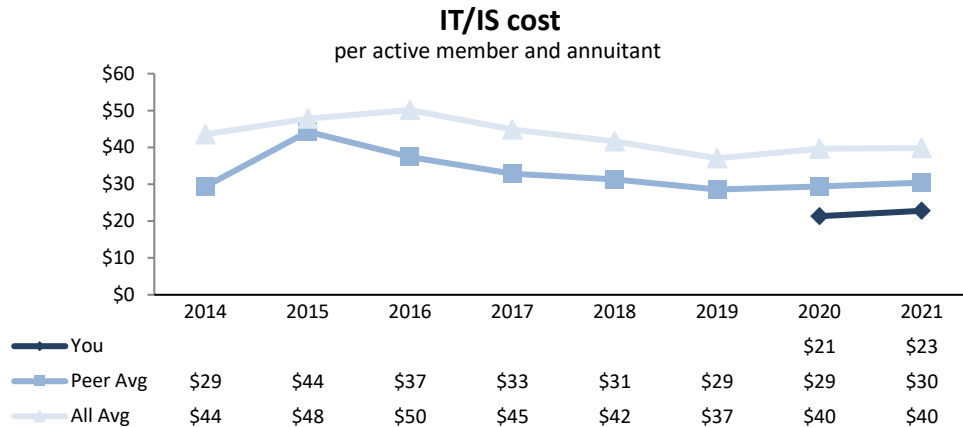


Activity	IT/IS Cost by Category						Cost as a % of Total IT/IS Cost			
	Cost in \$000s	Cost per Active Member and Annuitant					You	Peer Avg	All Avg	
	You	Peer Median	Peer Avg	All Median	All Avg					
5c. Amortization of IT Major Projects	0	0.00	0.00	2.18	0.00	2.73	0%	6%	7%	
5d. IT Major Projects (if you don't capitalize)	0	0.00	0.23	7.42	1.55	5.36	0%	22%	13%	
6a. IT Strategy, Database Management and Applications (excl. major projects)	1,623	15.08	11.71	14.60	15.74	20.66	61%	43%	51%	
6b. IT Desktop, Networks, Telecom	831	7.72	5.03	8.08	8.53	10.48	31%	24%	26%	
Total Pension IT/IS cost (excludes below)	2,454	22.79	23.05	32.27	32.33	39.24	92%	96%	97%	
IT/IS Attributions to: ¹										
1f. Healthcare Administration	224	2.08	0.00	1.25	0.00	0.75	8%	4%	2%	
1g. Optional and Third Party Administered Benefits	0	0.00	0.00	0.17	0.00	0.59	0%	0%	1%	
Total Administration IT/IS cost	2,678	24.87	24.87	33.68	34.50	40.57	100%	100%	100%	

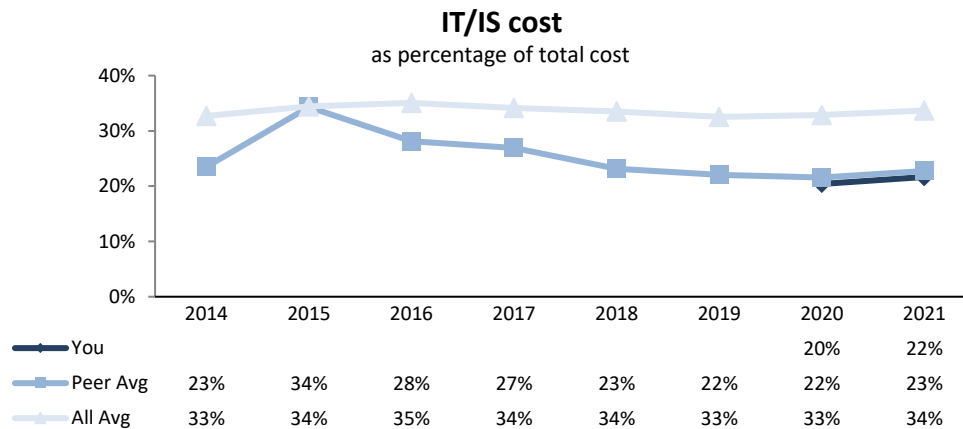
1. Attributions of total administration IT/IS to non-pension activities 1f and 1g includes: (i) pro-rata share of Major Project attribution (5a - 5d) weighted by activity 5c and 5d's contribution to total Major Project cost; (ii) total attribution of activity 6a to 1f and 1g; (iii) pro-rata share of 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 0.5% between 2014 and 2021. The all participant average is -1.3%. Your growth rate over the same period is unavailable per annum.



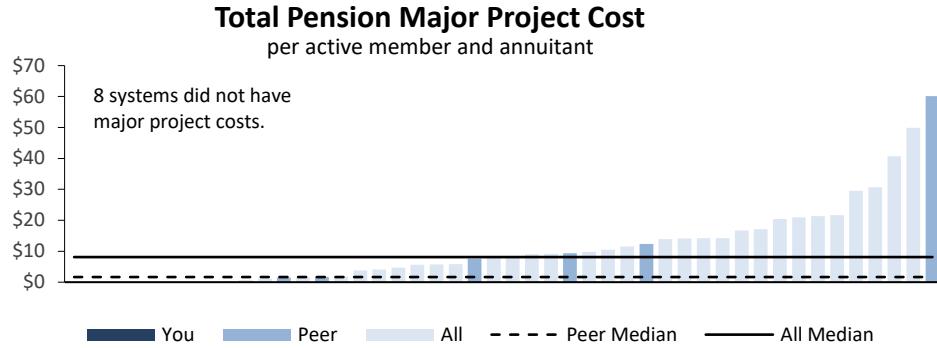
IT/IS cost as a percentage of total cost of your peers that have participated for 8 consecutive years has grown at a compound annual rate of -0.5% between 2014 and 2021. The all participant average is 0.4%. Your growth rate over the same period is unavailable per annum.



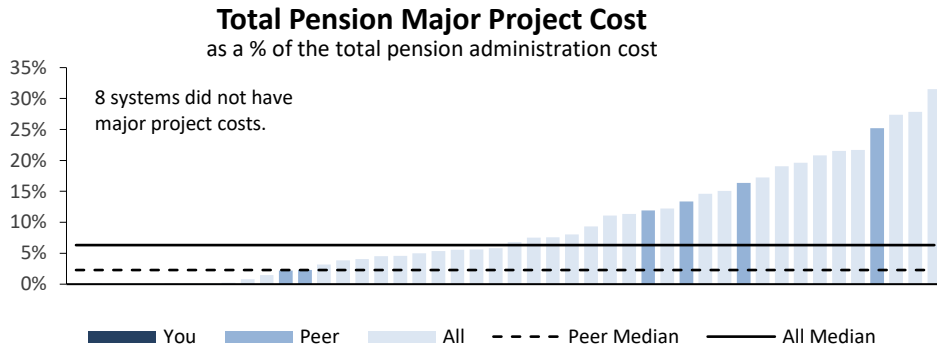
Trend analysis is based on systems that have provided 8 consecutive years of data. (4 of 9 peers)

Major project costs

Your major project cost was \$0.00 per active member and annuitant. This was below the peer median of \$1.65.



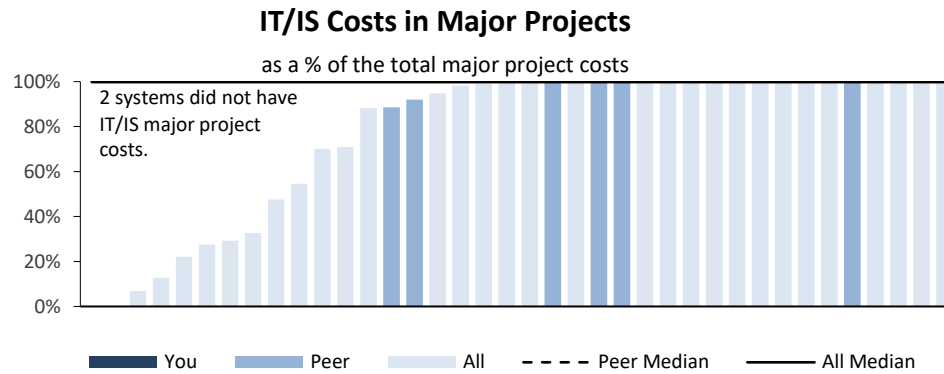
Your major project cost as a percent of total cost was 0%. This was below the peer median of 2%.



Major Project Cost by Category									
Activity	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	0.00	0.00	0.30	n/a	0%	3%
5b. Non-IT Major Projects (if you don't capitalize)	0	0.00	0.00	0.69	0.00	2.89	n/a	7%	25%
5c. Amortization of IT Major Projects	0	0.00	0.00	2.18	0.00	2.73	n/a	21%	24%
5d. IT Major Projects (if you don't capitalize)	0	<u>0.00</u>	<u>0.23</u>	<u>7.42</u>	<u>1.55</u>	<u>5.36</u>	<u>n/a</u>	<u>72%</u>	<u>46%</u>
Total Pension Major Project cost (excludes below)	0	0.00	1.65	10.28	8.11	11.29	0%	99%	97%
Major Project Attributions to:									
1f. Healthcare Administration	0	0.00	0.00	0.02	0.00	0.09	n/a	0%	1%
1g. Optional and Third Party Administered Benefits	0	0.00	0.00	0.06	0.00	0.21	n/a	1%	2%
Total Administration Major Project cost	0	0.00	1.73	10.36	8.22	11.59	0%	100%	100%

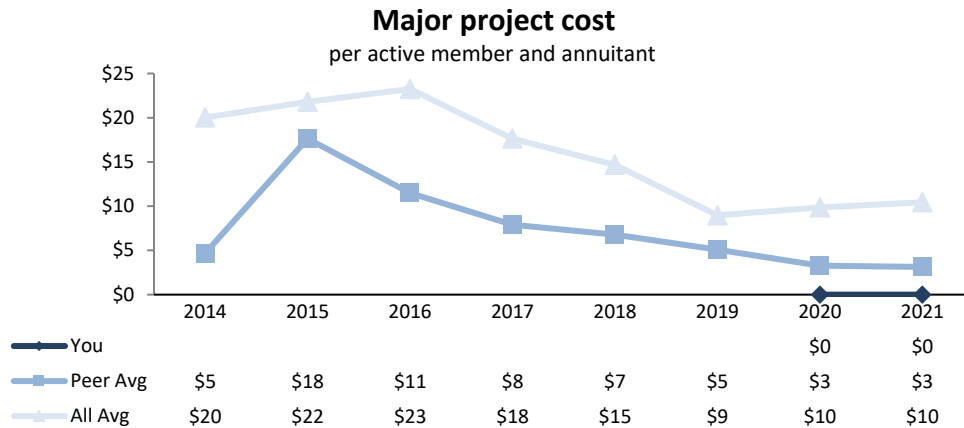
IT/IS cost included in major project costs

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%.

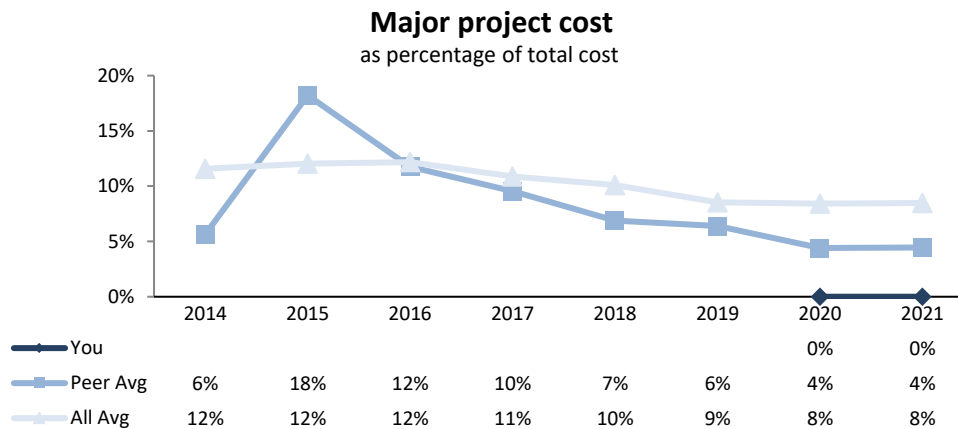


Major project cost trend

Major project cost per member for your peers that have participated for 8 consecutive years has grown at a compound annual rate of -5.6% between 2014 and 2021. The all participant average is -8.9%. 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 -3.3% between 2014 and 2021. The all participant average is -4.3%. Your growth rate over the same period is unavailable per annum.



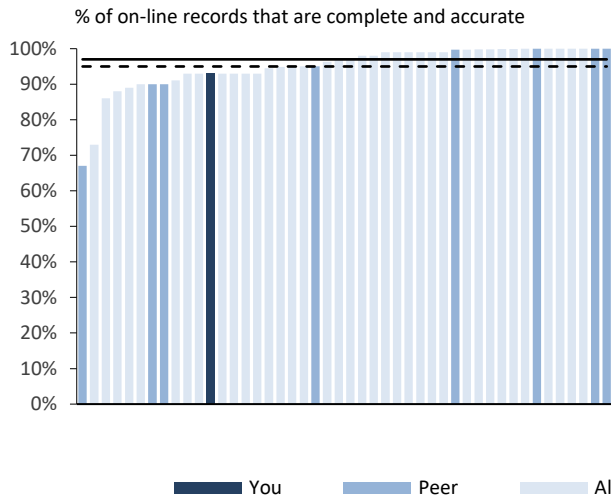
Trend analysis is based on systems that have provided 8 consecutive years of data. (4 of 9 peers)

IT and major project attributions by activity

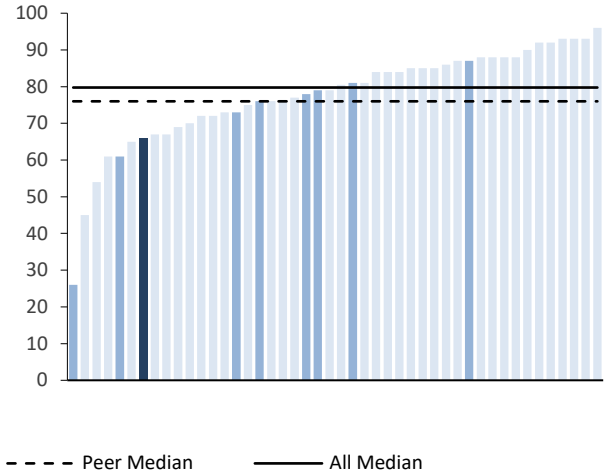
Activity	6a. IT Strategy, Database Management and Applications (excl. major projects)						Total Major Projects (5a. through 5d.)					
	\$\$s per Active Member and Annuitant			As a % of total			\$\$s per Active Member and Annuitant			As a % of total		
	Peer	All		Peer	All		Peer	All		Peer	All	
	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg
1. Member Transactions												
a. Pension Payments	1.59	0.93	1.67	10%	6%	6%	0.00	0.66	0.67	n/a	5%	7%
b. Pension Inceptions	0.37	1.20	1.92	2%	10%	10%	0.00	0.85	1.01	n/a	12%	10%
c. Refunds, Withdrawals, and Transfers-out	0.96	0.71	1.52	6%	4%	6%	0.00	0.47	0.88	n/a	3%	7%
d. Purchases and Transfers-in	0.17	0.58	1.31	1%	4%	5%	0.00	0.63	0.70	n/a	4%	5%
e. Disability	<u>0.17</u>	<u>0.99</u>	<u>0.50</u>	<u>1%</u>	<u>4%</u>	<u>2%</u>	<u>0.00</u>	<u>0.07</u>	<u>0.15</u>	<u>n/a</u>	<u>1%</u>	<u>2%</u>
	3.26	4.40	6.91	21%	28%	30%	0.00	2.67	3.40	0%	25%	30%
2. Member Communication												
a. Call Center	2.57	2.15	3.18	17%	16%	17%	0.00	0.93	1.67	n/a	19%	18%
b. Mail Room, Imaging	0.86	0.83	0.93	6%	5%	4%	0.00	0.49	0.50	n/a	5%	4%
c. 1-on-1 Counseling	2.28	0.87	0.82	15%	6%	4%	0.00	0.29	0.38	n/a	5%	4%
d. Member Presentations	1.30	0.62	0.45	9%	5%	3%	0.00	0.27	0.22	n/a	4%	2%
e. Written Pension Estimates	2.21	0.75	0.68	15%	5%	4%	0.00	0.25	0.45	n/a	4%	4%
f. Mass Communication	<u>0.27</u>	<u>0.58</u>	<u>1.04</u>	<u>2%</u>	<u>4%</u>	<u>5%</u>	<u>0.00</u>	<u>0.38</u>	<u>0.55</u>	<u>n/a</u>	<u>3%</u>	<u>5%</u>
	9.49	5.79	7.10	62%	41%	38%	0.00	2.60	3.77	0%	40%	36%
3. Collections and Data Maintenance												
a. Data and Money from Employers	0.51	1.31	2.12	3%	9%	10%	0.00	1.71	1.37	n/a	11%	11%
b. Service to Employers	0.44	0.73	0.96	3%	5%	5%	0.00	1.10	0.67	n/a	7%	5%
c. Data Not from Employers	<u>0.00</u>	<u>0.58</u>	<u>0.85</u>	<u>0%</u>	<u>3%</u>	<u>4%</u>	<u>0.00</u>	<u>0.95</u>	<u>0.61</u>	<u>n/a</u>	<u>4%</u>	<u>4%</u>
	0.96	2.62	3.92	6%	17%	19%	0.00	3.76	2.64	0%	22%	20%
4. Governance and Financial Control												
a. Financial Administration and Control	0.39	1.16	1.58	3%	8%	8%	0.00	0.72	0.79	n/a	8%	8%
b. Board, Strategy, Policy	0.71	0.42	0.82	5%	3%	4%	0.00	0.31	0.51	n/a	3%	4%
c. Government and Public Relations	<u>0.39</u>	<u>0.29</u>	<u>0.40</u>	<u>3%</u>	<u>2%</u>	<u>2%</u>	<u>0.00</u>	<u>0.23</u>	<u>0.20</u>	<u>n/a</u>	<u>2%</u>	<u>2%</u>
	1.50	1.87	2.80	10%	13%	14%	0.00	1.27	1.51	0%	13%	14%
Total Pension Administration	15.20	14.68	20.73	100%	100%	100%	n/a	10.30	11.32	n/a	100%	100%

Key measures of CRM/IT capability

On-Line Records

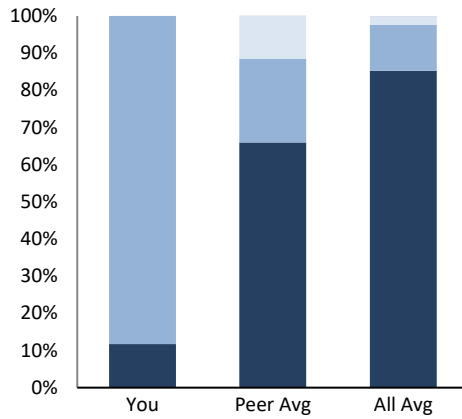


Member Website Capability Score



Active Member Data

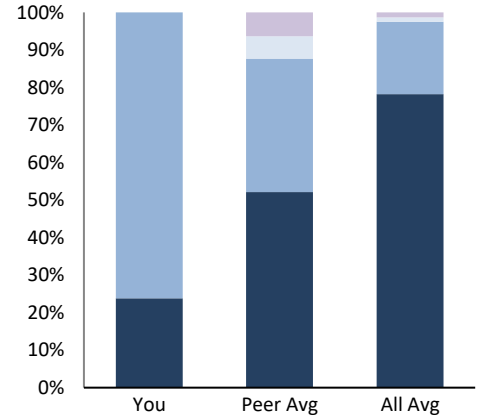
% by data format



Paper	0%	0%	0%
Computer-readable	0%	11%	2%
Mostly electronic	88%	23%	12%
100% electronic	12%	66%	85%

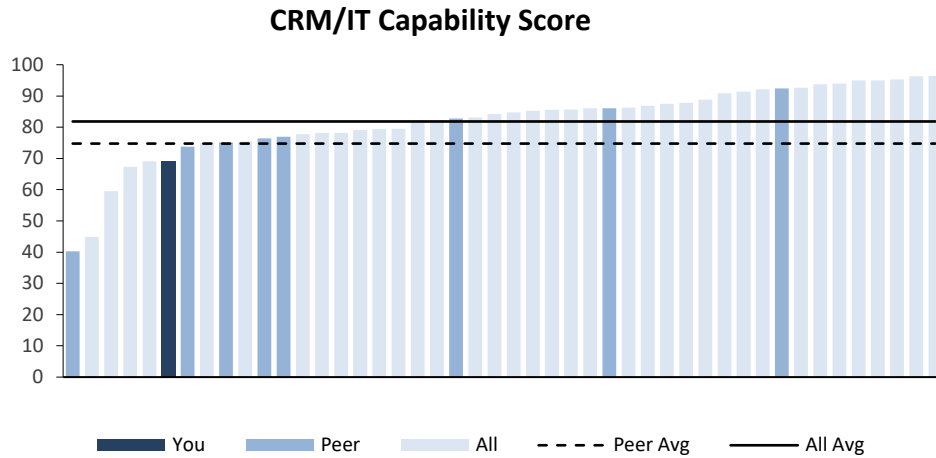
Collection Points

% by data format



Paper	0%	6%	1%
Computer-readable	0%	6%	1%
Mostly electronic	76%	36%	19%
100% electronic	24%	52%	78%

Your CRM/IT Capability score was 69 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	78% Yes	94% Yes
	b) Knowledge based on-line help system available for use by the service representative?	Yes	78% Yes	91% 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	56% Yes	77% Yes
15%	Score: 100 if all available, otherwise 33.3 for each yes	34	70	86
	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

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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	56% Yes	70% Yes
		100	56	68
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
		100	93	90
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	89% Yes	89% Yes
		100	89	89
5%	<p>Q33 c) Incoming calls satisfied by self-serve options, if any?</p> <p><i>Score: 100 if yes, otherwise 0</i></p>	No	22% Yes	41% Yes
		0	22	41
	<u>Document Imaging</u>			
5%	<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>	Yes	100% Yes	100% Yes
		100	98	96
	<u>Data Collection</u>			
5%	<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>	12%	66%	85%
		88%	23%	12%
		0%	11%	2%
		0%	0%	0%
		91	95	98

CRM/IT capability score

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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 93	93% 93	95% 95
	<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	78% Yes 78	80% Yes 80
	<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 89	1 91
	<u>Website</u>			
30%	Member website capability score [Refer to section 7 Service Levels: Mass communication - website for details.]	66	70	78
100%	Total CRM/ IT Capability Score - Average	69	75	82
	Total CRM/ IT Capability Score- Median	69	76	84

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Appendices

Appendix A - Survey responses

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

Appendix B - Foreign currency conversion

Appendix C - Activity definitions

Appendix D - Defaults

Appendix A - Survey responses: Member status changes

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					
	2021			2020		
	Active Members	Inactive Members	Annuitants (Service, Disabled, Survivor)	Active Members	Inactive Members	Annuitants (Service, Disabled, Survivor)
Total members						
a. Members at end of fiscal year 2021	57,541	29,578	49,362	57,854	28,739	47,632
b. Members at end of fiscal year 2022	56,637	29,526	51,030	57,541	29,578	49,362
Increase/-decrease to be explained	-904	-52	1,668	-313	839	1,730
Decreases						
c. Full withdrawals/refunds/commuted value payments	707	1,980		904	2,238	
d. Transfers-out to external pension systems	0	0		0	0	
e. Annuity inceptions: service retirement	1,892	718		1,683	895	
f. Annuity inceptions: disability retirement	42	0		51	0	
g. Active members leaving to inactive status	2,744			3,762		
h. Re-hired inactives and annuitants (if annuity stops)		447	0		362	0
i. Deaths	81	51	1,585	62	54	1,392
j. Non-death stops of pensions (i.e., dependent no longer eligible)			0			0
k. Other decreases.	0	1	25	14	1	27
Increases						
l. New active members	4,115			5,801		
m. Annuity inceptions: survivor, partner, ex-partner,			449			377
n. Annuity inceptions: service retirement			2,610			2,578
o. Annuity inceptions: disability retirement			42			51
p. Active members leaving to inactive status		2,744			3,762	
q. Re-hired inactives and annuitants (if annuity stops)	447			362		
r. Other increases.	0	394	71	0	627	143
Explained increases/-decreases	-904	-59	1,562	-313	839	1,730
Unexplained increases/-decreases	0	7	106	0	0	0

Appendix A - Survey responses: Cost by activity

Minnesota State RS

	Your Response		
	2021	2020	
6. Complete the table below:			
a. Total administrative expenses per your financial statements (CAFR in the U.S.)	12,365.0	11,968.0	(\$000s)
Less (if included in administrative expenses):			
b. Investment administration costs	0.0	0.0	(\$000s)
c. Accrued, non-cash, pension and OPEB expense (per GASB 68 & 75)	0.0	n/a	(\$000s)
Plus, if not included in administrative expenses:			
d. Cash contributions for pension and OPEB, for active staff	0.0	n/a	(\$000s)
e. Pay-as-you-go benefits for retired staff	0.0	n/a	(\$000s)
f. Amortization and depreciation of administrative assets	0.0	0.0	(\$000s)
g. Actuarial fees and costs	0.0	0.0	(\$000s)
h. Other costs and professional fees relating to pension administration	0.0	0.0	(\$000s)
f. Total benefit administration costs	12,365.0	11,968.0	(\$000s)

Appendix A - Survey responses: Cost and FTE by activity - 2021

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)
1. Member Transactions				
a. Pension Payments	6.5	623.0	174.4	797.4
b. Pension Inceptions	1.5	147.4	41.2	188.6
c. Refunds, Withdrawals, and Transfers-out	3.9	371.1	103.9	475.0
d. Purchases and Transfers-in	0.7	67.0	18.7	85.7
e. Disability	0.7	67.5	18.9	86.4
f. Healthcare Administration	5.1	492.5	137.9	630.4
g. Optional and Third Party Administered Benefits	0.0	0.0	0.0	0.0
2. Member Communication				
a. Call Center	10.5	1,012.0	283.3	1,295.3
b. Mail Room, Imaging	3.5	337.3	94.4	431.7
c. 1-on-1 Counseling	9.3	896.4	250.9	1,147.3
d. Member Presentations	5.3	506.0	141.6	647.6
e. Written Pension Estimates	9.0	863.6	241.7	1,105.3
f. Mass Communication	1.1	101.2	28.3	129.5
3. Collections and Data Maintenance				
a. Data and Money from Employers	2.1	202.4	56.7	259.1
b. Service to Employers	1.8	168.7	47.2	215.9
c. Data Not from Employers	0.0	0.0	0.0	0.0
4. Governance and Financial Control				
a. Financial Administration and Control	1.6	154.2	43.2	197.4
b. Board, Strategy, Policy	2.9	276.6	77.4	354.0
c. Government and Public Relations	1.6	155.2	43.4	198.6
5. Major Projects				
a. Amortization of non-IT Major Projects	n/a	n/a	0.0	0.0
b. Non-IT Major Projects (if you don't capitalize)	0.0	0.0	0.0	0.0
c. Amortization of IT Major Projects	n/a	n/a	0.0	0.0
d. IT Major Projects (if you don't capitalize)	0.0	0.0	0.0	0.0
6. Information Technology				
a. IT Strategy, Database Management and Applications (excl. major projects)	14.4	1,384.1	387.1	1,771.2
b. IT Desktop, Networks, Telecom	7.4	708.4	198.3	906.7
7. Support Services and Other				
a. Building and Utilities	0.6	60.7	17.0	77.7
b. Human Resources	1.4	134.9	37.8	172.7
c. Actuarial	0.0	0.0	246.0	246.0
d. Legal and Rule Interpretation	0.4	33.7	9.4	43.1
e. Internal and External Audit	0.2	16.9	4.7	21.6
f. Pay-as-you-go Benefits for Retired Staff	n/a	0.0	n/a	0.0
g. Other Support Services	7.1	688.2	192.6	880.8
Total Administration (includes 1f, 1g)	98.6	9,469.0	2,896.0	12,365.0
FTE relating to major projects capitalized, if any, during this fiscal year.	0.0			
Total Administration FTE	98.6			

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)
1. Member Transactions				
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
2. Member Communication				
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
3. Collections and Data Maintenance				
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
4. Governance and Financial Control				
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
5. Major Projects				
a. Amortization of non-IT Major Projects	n/a	n/a	0.0	0.0
b. Non-IT Major Projects (if you don't capitalize)	0.0	0.0	0.0	0.0
c. Amortization of IT Major Projects	n/a	n/a	0.0	0.0
d. IT Major Projects (if you don't capitalize)	0.0	0.0	0.0	0.0
6. Information Technology				
a. IT Strategy, Database Management and Applications (excl. major projects)	13.9	1,308.6	375.4	1,684.0
b. IT Desktop, Networks, Telecom	6.3	588.9	168.9	757.8
7. Support Services and Other				
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
Total Administration (includes 1f, 1g)	96.2	9,052.0	2,916.0	11,968.0
FTE relating to major projects capitalized, if any, during this fiscal year.	0.0			
Total Administration FTE	96.2			

Appendix A - Survey responses: Service and plan design

Minnesota State RS

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Start													
1 Minnesota State Retirement System													
2 Main survey contact: Joy Sperger Project Manager joy.sperger@mrsr.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	June											
4 What was the end of fiscal year value of your pension fund assets (in billions)?	\$32.1	\$25.6											
8 What percentage of your total salary and benefits costs relates to benefits?	26.3%	26.4%		54.3%	29.2%	23.5%	31.2%	9	54.3%	27.0%	5.0%	27.6%	44
Service													
Activity 1a - Pension Payments													
10 Do you administer annuity pensions? If no, skip to question 20	Yes	Yes		100% Yes / 0% No / 0% n/a				9	100% Yes / 0% No / 0% n/a				46
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.] If yes: a) How many payrolls were late? b) On average, how many days late were they?	No	No		0% Yes / 100% No / 0% n/a				9	0% Yes / 100% No / 0% n/a				46
	n/a	n/a		n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
	n/a	n/a		n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
12 What percentage of pensions are paid by check? [as opposed to Electronic Funds Transfer ("EFT")]	2.4%	2.6%		5.7%	2.4%	0.0%	2.1%	9	7.0%	1.0%	0.0%	1.6%	43
13 Do you send out payment advices (i.e., gross/ net specifications) in paper format to members receiving EFT payments? If yes: a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions?	Yes	Yes		78% Yes / 22% No / 0% n/a				9	76% Yes / 24% No / 0% n/a				46
	Annually	Annually		12	6	1	8	7	12	6	1	6	35

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
b) Can you comply with a member's request not to send them payment advices? Activity 1b - Pension Inceptions	No	No		44% Yes / 33% No / 22% n/a					7	35% Yes / 41% No / 24% n/a					35
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.	281	264		1,246	227	0	321	9	68,278	505	0	3,822	46		
15 How many formal appeals (non-disability) of pension inceptions did you have?	4	1		90	1	0	11	9	304	3	0	21	46		
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? b) Survivors are paid without an interruption of cash flow between the pensioner's final pension check and the survivor's first pension check?	8.1%	16.8%		99.5%	95.0%	8.1%	84.7%	9	100.0%	97.0%	5.6%	89.0%	46		
	42.8%	95.0%		99.0%	73.0%	0.0%	62.9%	9	100.0%	91.1%	0.0%	73.2%	46		
17 Will you initiate a service retirement pension based on existing data or estimates, recognizing that you will have to finalize the payments later after you get final data? 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	No		67% Yes / 33% No / 0% n/a					9	76% Yes / 24% No / 0% n/a					46
	n/a	n/a		100.0%	74.9%	0.0%	58.5%	6	100.0%	54.8%	0.0%	50.9%	35		
	n/a	n/a		6.0	1.5	1.0	2.3	6	18.0	1.1	0.0	2.6	34		
18 Do you require birth certificates and/or marriage certificates before incepting a pension?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	67% Yes / 28% No / 4% n/a					44
19 Do you require notarization of normal or early retirement applications? If some, describe those that require versus those that do not: n/a Activity 1c - Refunds, Transfers-out, Withdrawals	Yes	Yes		44% Yes / 44% No / 11% Some / 0% n/a					9	20% Yes / 61% No / 20% Some / 0% n/a					46

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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.]	2,092	1,992		19,738	5,472	99	7,657	8	52,495	6,864	0	10,033	39
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)?	17	13		61	21	10	30	9	130	21	2	32	43
a) Are you legislated to have a wait period before you can effect a refund?	No	No		22% Yes / 78% No / 0% n/a				9	33% Yes / 63% No / 4% n/a				44
If yes:													
b) How long is the wait period? (in days)	n/a	n/a		60	45	30	45	2	120	31	10	50	15
c) Can the wait period be waived?	n/a	n/a		0% Yes / 22% No / 78% n/a				2	7% Yes / 26% No / 67% n/a				15
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)?	17	13		180	33	10	48	8	262	30	1	59	37
23 Do you require notarization of refund or transfer-out applications? (yes, some, no)	Yes	Yes		56% Yes / 22% No / 22% Some				9	13% Yes / 57% No / 28% Some				45
a) If some, describe those that require versus those that do not:													
n/a													
Activity 1d - Purchases and Transfers-in													
24 Number of actual:													
a) Service credit purchases such as for prior refunded service, military service, etc.?	92	48		126,187	455	28	15,039	9	242,182	1,444	28	12,094	43
b) Upgrades or 'Top-ups' where members can improve their pensionable salary (but not service credit)?	n/a	n/a		5	0	0	1	9	2,974	0	0	69	44
c) Upgrades where members can pay to upgrade from an older retirement formula to a new retirement formula?	n/a	n/a		80	0	0	9	9	2,067	0	0	65	44
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	n/a		841	0	0	139	9	64,600	2	0	1,579	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.]	210	104		10,558	1,590	53	3,494	9	34,509	2,283	0	5,119	45
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	34		45	5	3	13	9	400	10	1	36	41

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
27 How long does it take on average for you to complete an individual transfer-in, including delays caused by external parties (in months)? Activity 1e - Disability	Unknown	Unknown		6	1	1	3	7	13	2	0	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	Yes		100% Yes / 0% No / 0% n/a				9	80% Yes / 15% No / 4% n/a				44
	No	No		0% Yes / 100% No / 0% n/a				9	9% Yes / 87% No / 4% n/a				44
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.]	96	90		785	96	2	163	9	2,389	105	0	266	44
	2,253	2,280		10,317	1,936	49	2,812	9	67,223	2,253	0	6,690	37
	n/a	n/a		0	0	0	0	9	1,766	0	0	44	44
	n/a	n/a		0	0	0	0	1	1,572	0	0	314	6
	15	16		647	3	0	81	9	850	2	0	102	44
	68	101		68	0	0	9	9	1,396	0	0	44	44
	10	12		29	2	0	5	9	277	2	0	19	46
	120	74		3,571	40	0	483	8	3,571	88	0	509	32
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		100% Yes / 0% No / 0% n/a				9	80% Yes / 0% No / 20% n/a				37
	Yes	Yes		67% Yes / 33% No / 0% n/a				9	41% Yes / 39% No / 20% n/a				37
	11	4		730	8	0	136	6	1,608	48	0	205	19
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	3.0		13.0	3.0	1.0	3.8	9	16.0	3.0	0.0	3.2	37
	2.0	2.2		3.0	2.0	0.0	1.7	9	8.0	1.0	0.0	1.8	37
32 Do you require notarization of disability applications? a) If some, describe those that require versus those that do not: n/a Activity 2a - Call Center	Yes	Yes		44% Yes / 56% No / 0% Some / 0% n/a				9	15% Yes / 65% No / 2% Some / 17% n/a				38

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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.)?	100,638	100,338		193,798	82,794	20,546	98,146	9	690,227	132,805	15,306	163,514	46
b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up on previous calls?	Unknown	Unknown		28,460	8,489	2,225	11,562	9	50,855	8,895	0	11,676	46
c) Incoming calls satisfied by self-serve options, if any?	n/a	n/a		63,953	0	0	8,130	9	709,370	0	0	33,560	46
d) Email queries from members?	11,279	8,778		17,817	11,279	2,818	10,540	9	109,138	23,768	2,818	31,122	46
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	No		11% Yes / 89% No / 0% n/a				9	17% Yes / 83% No / 0% n/a				46
b) Caller gets pre-recorded 'call another time' message during business hours?	No	No		0% Yes / 100% No / 0% n/a				9	28% Yes / 72% No / 0% n/a				46
c) Voice mail takes a message during business hours?	No	No		56% Yes / 44% No / 0% n/a				9	30% Yes / 70% No / 0% n/a				46
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	No		44% Yes / 56% No / 0% n/a				9	65% Yes / 35% No / 0% n/a				46
e) Abandoned calls in a queue or on hold (i.e., caller hangs-up)?	Yes	Yes		100% Yes / 0% No / 0% n/a				9	100% Yes / 0% No / 0% n/a				46
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	No		0% Yes / 100% No / 0% n/a				9	2% Yes / 98% No / 0% n/a				46
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	No		0% Yes / 100% No / 0% n/a				9	0% Yes / 100% No / 0% n/a				46
h) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	No	No		0% Yes / 100% No / 0% n/a				9	4% Yes / 96% No / 0% n/a				46
i) Call rings unanswered during business hours?	No	No		0% Yes / 100% No / 0% n/a				9	2% Yes / 98% No / 0% n/a				46
If yes: volume													
a) # Busy signal, never enters the system?	n/a	n/a		391	391	391	391	1	1,508	155	0	352	8
b) # Caller gets pre-recorded 'call another time' message during business hours?	n/a	n/a		n/a	n/a	n/a	n/a	0	207,919	7,673	0	34,067	13
c) # Voice mail takes a message during business hours?	n/a	n/a		1,873	1,201	31	1,173	5	9,266	1,432	31	2,385	14
d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	n/a	n/a		2,500	807	0	1,029	4	135,482	2,641	0	12,319	30
e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	25,830	17,008		45,967	5,740	223	14,320	9	194,493	6,551	92	22,352	46

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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	n/a	0	27,085	27,085	27,085	27,085	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	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	n/a	0	86,067	49,434	12,800	49,434	2
i) # Call rings unanswered during business hours?	n/a	n/a		n/a	n/a	n/a	n/a	0	816	816	816	816	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	n/a	0	1.0%	1.0%	1.0%	1.0%	1
b) % Caller gets pre-recorded 'call another time' message during business hours?	n/a	n/a		n/a	n/a	n/a	n/a	0	3.0%	1.5%	0.0%	1.5%	4
c) % Voice mail takes a message during business hours?	n/a	n/a		n/a	n/a	n/a	n/a	0	3.0%	3.0%	3.0%	3.0%	1
d) % Abandoned calls (i.e., caller hangs-up while in a menu)?	n/a	n/a		2.5%	2.5%	2.5%	2.5%	1	10.0%	1.0%	0.7%	2.7%	6
e) % Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	n/a	n/a		2.0%	1.5%	1.0%	1.5%	2	2.0%	1.0%	0.9%	1.2%	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	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	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	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	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?	Yes	Yes		78% Yes / 22% No / 0% n/a				9	87% Yes / 13% No / 0% n/a				46
If yes:													
a) What is the average number of menu layers that must be navigated before a caller can speak to a live person? [Count each and every time a caller must select a menu option by pressing a button on the phone as a menu layer. Use the volume-weighted average number of menu layers if callers must negotiate different numbers of menu layers to reach a service representative on some menu-tree branches than on others.]	2	2		5	1	1	2	7	5	2	0	2	40
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)?	90	70		108	18	6	45	7	152	60	5	54	40

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) Is the menu system by-passed if a service representative is available?	No	No		0% Yes / 78% No / 22% n/a				7	0% Yes / 87% No / 13% 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	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	No		22% Yes / 78% No / 0% n/a				9	7% Yes / 93% No / 0% n/a				46
If yes:													
a) Do you have a queue for the receptionist(s)?	n/a	n/a		11% Yes / 11% No / 78% n/a				2	4% Yes / 2% No / 93% n/a				3
a1) If yes, what is the average wait time in seconds in the queue for the receptionist(s)?	n/a	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	n/a		20.0%	12.5%	5.0%	12.5%	2	20.0%	12.5%	5.0%	12.5%	2
b2) Forwarded by the receptionist to a queue for service representatives?	n/a	n/a		51.0%	25.5%	0.0%	25.5%	2	51.0%	25.5%	0.0%	25.5%	2
b3) Forwarded by the receptionist to specific people or departments?	n/a	n/a		93.0%	61.0%	29.0%	61.0%	2	93.0%	61.0%	29.0%	61.0%	2
b4) Receptionist takes a message?	n/a	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	Yes		100% Yes / 0% No / 0% n/a				9	98% Yes / 2% No / 0% n/a				46
If yes:													
a) Average wait time in seconds in queue for a service representative?	462	260		828	111	8	209	9	969	111	1	240	45
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	No		22% Yes / 78% No / 0% n/a				9	9% Yes / 89% No / 2% n/a				45
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	No		33% Yes / 67% No / 0% n/a				9	52% Yes / 46% No / 2% n/a				45
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	No		22% Yes / 78% No / 0% n/a				9	46% Yes / 54% No / 0% n/a				46
If yes:													
a) What was the total volume of callbacks?	n/a	n/a		28,460	17,432	6,404	17,432	2	168,858	21,737	1,501	43,769	21
b) What is the callback completion rate (i.e., what percentage of callers that chose to be called back, were actually reached)?	n/a	n/a		89.6%	87.3%	85.0%	87.3%	2	98.9%	90.0%	36.8%	89.5%	21
After Reaching a Service Rep													
40 What was the:													
a) % of callers transferred after first contact? (exclude receptionists)	Unknown	Unknown		18.7%	1.1%	0.0%	4.7%	8	28.7%	2.0%	0.0%	4.8%	40
b) % of callers you called back because their needs were not fully satisfied at first contact?	Unknown	Unknown		12.0%	1.0%	1.0%	3.8%	7	15.0%	2.2%	0.1%	3.7%	34
c) % of calls satisfied by the first contact?	Unknown	Unknown		98.0%	97.0%	78.6%	90.9%	7	99.0%	93.5%	70.4%	91.7%	41

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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.]	371	311		572	371	182	364	9	572	384	168	373	42
b) Average after call work time when service representative is unavailable to take another call?	Unknown	Unknown		285	60	0	87	7	305	76	0	103	38
c) Average occupancy %? [time spent handling calls, including after call work, as a percentage of total available time to answer calls.]	Unknown	Unknown		94.4%	62.0%	0.0%	57.4%	7	96.4%	78.5%	0.0%	72.4%	36
42 When a member calls in, do you have immediate computer access to the following member data:													
a) Copies of recent correspondence online?	Some	Some		78% Yes / 11% No / 11% Some				9	93% Yes / 4% No / 2% Some				46
b) Knowledge based on-line help system available for use by the service representative?	Yes	No		78% Yes / 22% No				9	91% Yes / 9% No				46
c) Most recent member statement?	Yes	Yes		100% Yes / 0% No				9	98% Yes / 2% No				46
d) Beneficiary information?	Yes	Yes		100% Yes / 0% No				9	98% Yes / 2% No				46
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	Yes		56% Yes / 44% No				9	70% Yes / 30% No				46
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	Yes		56% Yes / 44% No				9	70% Yes / 30% No				46
a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	Yes	Yes		56% Yes / 44% No				9	67% Yes / 33% No				46
b) Refund or transfer value assuming the member exited employment at the time of the call?	Yes	Yes		100% Yes / 0% No				9	83% Yes / 17% No				46
c) Pensionable salary?	Yes	Yes		100% Yes / 0% No / 0% n/a				9	96% Yes / 2% No / 2% n/a				45
d) Service credit history including gaps?	Yes	Yes		78% Yes / 22% No / 0% n/a				9	91% Yes / 7% No / 2% n/a				45
e) Cost to purchase service credit?	Yes	Yes		89% Yes / 11% No / 0% n/a				9	72% Yes / 24% No / 4% n/a				44
f) If you administer a DC plan:													
f1) Current value of the DC account?	Yes	Yes		44% Yes / 0% No / 56% n/a				4	24% Yes / 0% No / 76% n/a				11
f2) Estimate of the value of the DC account at retirement?	Yes	No		33% Yes / 11% No / 56% n/a				4	15% Yes / 9% No / 76% n/a				11
f3) History of account transactions?	Yes	Yes		44% Yes / 0% No / 56% n/a				4	22% Yes / 2% No / 76% n/a				11

Survey Question	Your Response			Peers 2021					All Participants 2021					
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
44 Can members calling in perform the following transactions over the phone:														
a) Change address?	Yes	Yes		56% Yes / 44% No / 0% n/a					9	74% Yes / 22% No / 4% n/a				44
b) Add or change email address?	No	No		67% Yes / 33% No / 0% n/a					9	80% Yes / 20% No / 0% n/a				46
c) Change payment instructions? [i.e., bank account]	No	No		22% Yes / 78% No / 0% n/a					9	30% Yes / 65% No / 4% n/a				44
d) If you administer a DC plan, switches to investment options?	Yes	Yes		22% Yes / 22% No / 56% n/a					4	13% Yes / 13% No / 74% n/a				12
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	Yes		67% Yes / 33% No / 0% n/a					9	87% Yes / 13% No / 0% n/a				46
If yes:														
a) How many calls per agent per month (on average) do you monitor?	5	5		20	5	4	8	6	20	4	1	6	40	
b) Are you listening in on a live call or a recording?	Recording	Recording		44% Recording / 0% Live / 22% Both / 33% n/a					6	30% Recording / 15% Live / 41% Both / 13% n/a				40
46 Do you have and use tools to help you project call volumes?	Yes	Yes		89% Yes / 11% No					9	89% Yes / 11% No				46
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	Yes		100% Yes / 0% No / 0% n/a					9	91% Yes / 9% No / 0% n/a				46
48 How many hours per week is your 'call center' operational?	42.5	42.5		52.1	45.0	37.5	44.4	9	90.0	45.0	36.5	46.6	46	
49 Can members communicate questions using email?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	100% Yes / 0% No / 0% n/a				46
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	1.0		7.0	1.0	0.5	1.6	9	7.0	1.0	0.2	1.8	46	
Activity 2b - Mail Room, Imaging														
50 What were your volumes of:														
a) Incoming mail?	Unknown	Unknown		110,000	40,315	14,887	50,461	9	712,695	82,022	5,885	116,719	46	
b) Outgoing mail?	661,888	300,376		950,000	296,352	26,718	402,538	9	3,565,864	359,344	13,794	703,976	46	
51 Do you use imaging technology?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	100% Yes / 0% No / 0% n/a				46
If yes:														
a) Do you keep images of ALL incoming member correspondence and submitted forms?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	98% Yes / 2% No / 0% n/a				46
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	Yes		89% Yes / 11% No / 0% n/a					9	80% Yes / 20% No / 0% n/a				46

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
Activity 2c - 1-on-1 Member Counseling															
52 Do you provide 1-on-1 counseling? If you do not offer 1-on-1 counseling skip to question 61.	Yes	Yes		100% Yes / 0% No / 0% n/a					9	98% Yes / 2% No / 0% n/a					46
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.]	0	7,488		6,234	565	0	1,202	8	6,234	135	0	675	42		
b) In the field at locations separate from the member's place of employment?	0	n/a		8,976	0	0	1,062	9	8,976	0	0	380	46		
c) At the member's place of employment?	0	7,158		14	0	0	2	9	1,084	0	0	60	46		
d) Via teleconference? [These are pre-scheduled counseling sessions that cover materials sent to the member in advance of the session.]	11,147	3,518		11,147	0	0	1,572	9	97,212	91	0	6,025	46		
e) Via videoconference?	737	0		6,867	1,554	0	2,174	9	6,867	87	0	800	46		
(Total counseled 1-on-1)	11,884	18,164		16,741	4,730	38	5,878	9	97,212	2,977	0	7,882	46		
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	Yes		100% Yes / 0% No / 0% n/a					9	96% Yes / 2% No / 2% n/a					45
55 Do you limit 1-on-1 counseling by:															
a) Requiring that members be within a certain time period of earliest possible retirement?	No	No		22% Yes / 78% No / 0% n/a					9	11% Yes / 87% No / 2% n/a					45
b) Placing a limit on the number of counseling sessions a member can request?	No	No		11% Yes / 89% No / 0% n/a					9	4% Yes / 93% No / 2% n/a					45
c) Indicating that members should contact their employers or unions first for counseling?	No	No		0% Yes / 100% No / 0% n/a					9	0% Yes / 98% No / 2% n/a					45
d) Other (describe)? n/a	No	No		0% Yes / 100% No / 0% n/a					9	2% Yes / 96% No / 2% n/a					45
56 Do you provide counseling for walk-in traffic? If 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)	No	Yes		78% Yes / 22% No / 0% n/a					9	76% Yes / 22% No / 2% n/a					45
	n/a	15		5	5	0	3	7	42	5	0	7	35		

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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?	n/a	5.0%		0.3%	0.0%	0.0%	0.0%	7	99.0%	0.0%	0.0%	3.1%	35
57 Do you offer prescheduled 1-on-1 counseling? 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?	Yes 5	Yes 5		89% Yes / 11% No / 0% n/a				9	85% Yes / 13% No / 2% n/a				45
58 Do you offer 1-on-1 counseling sessions after normal working hours, such as evenings and/or weekends?	No	No		44% Yes / 56% No / 0% n/a				9	46% Yes / 52% No / 2% n/a				45
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? a2) Pre-scheduled in-house? a3) In-the-field? b) Do you have real-time access to the member's data (i.e., salary, service credit, refund value and beneficiaries.)? b1) Walk-in traffic in-house? b2) Pre-scheduled in-house? b3) In-the-field? c) Do you provide new written estimates on a real-time basis for anybody that wants one? c1) Walk-in traffic in-house? c2) Pre-scheduled in-house? c3) In-the-field? 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? d2) pre-scheduled In-house? d3) In-the-field?	n/a Yes n/a	Yes Yes No		67% Yes / 11% No / 22% n/a				7	61% Yes / 17% No / 22% n/a				36
	Yes	Yes		78% Yes / 0% No / 22% n/a				7	70% Yes / 11% No / 20% n/a				37
	n/a	No		56% Yes / 0% No / 44% n/a				5	46% Yes / 17% No / 37% n/a				29
	n/a	Yes		78% Yes / 0% No / 22% n/a				7	76% Yes / 0% No / 24% n/a				35
	Yes	Yes		78% Yes / 0% No / 22% n/a				7	80% Yes / 2% No / 17% n/a				38
	n/a	Yes		56% Yes / 0% No / 44% n/a				5	59% Yes / 7% No / 35% n/a				30
	n/a	Yes		56% Yes / 22% No / 22% n/a				7	65% Yes / 11% No / 24% n/a				35
	Yes	Yes		67% Yes / 11% No / 22% n/a				7	72% Yes / 11% No / 17% n/a				38
	n/a	Yes		44% Yes / 11% No / 44% n/a				5	52% Yes / 11% No / 37% n/a				29
	n/a	Yes		56% Yes / 22% No / 22% n/a				7	54% Yes / 22% No / 24% n/a				35
	Yes	Yes		67% Yes / 11% No / 22% n/a				7	57% Yes / 24% No / 20% n/a				37
	n/a	Yes		44% Yes / 11% No / 44% n/a				5	37% Yes / 24% No / 39% n/a				28

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
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?	n/a	Yes		11% Yes / 22% No / 67% n/a					3	11% Yes / 9% No / 80% n/a					9
e2) pre-scheduled In-house?	Yes	Yes		22% Yes / 11% No / 67% n/a					3	15% Yes / 9% No / 76% n/a					11
e3) In-the-field?	n/a	Yes		11% Yes / 11% No / 78% n/a					2	7% Yes / 9% No / 85% n/a					7
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	No		33% Yes / 67% No / 0% n/a					9	61% Yes / 37% No / 2% n/a					45
Activity 2d - Member Presentations and Group Retirement Counseling															
61 Do you offer member presentations (including group counseling)? If you do not offer member presentations skip to question 68.	Yes	Yes		100% Yes / 0% No					9	98% Yes / 2% No					46
62 How many benefit fairs did you host or participate in?	2	88		16	2	0	4	9	296	1	0	12	44		
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	0		8	0	0	1	9	37	0	0	2	46		
b) In the field?	0	273		415	3	0	64	9	415	0	0	48	46		
c) Via live webinar? [i.e., a real-time, online presentation that allows two-way communication between the presenter and audience]	100	20		248	118	3	143	9	789	106	0	173	45		
(Total Presentations)	100	293		533	249	3	207	9	962	118	0	219	46		
64 What was the total number of attendees at all of the presentations per question 63 above? [Exclude benefit fair attendees per question 62]	5,790	9,485		65,681	6,021	110	11,897	9	67,897	5,389	110	9,200	45		
65 Did you do specific presentations for members, in the past fiscal year, targeted solely for:															
a) New members?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	78% Yes / 20% No / 2% n/a					45
b) Members in mid career?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	74% Yes / 24% No / 2% n/a					45
c) Members approaching retirement or ready to retire?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	96% Yes / 2% No / 2% n/a					45
d) Healthcare?	Yes	Yes		22% Yes / 78% No / 0% n/a					9	39% Yes / 54% No / 7% n/a					43
e) Changes to benefits?	No	No		56% Yes / 44% No / 0% n/a					9	41% Yes / 57% No / 2% n/a					45
f) Other? (Please describe)	No	No		22% Yes / 78% No / 0% n/a					9	48% Yes / 50% No / 2% n/a					45
n/a															

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
66 Do you offer presentations and/or webinars after normal working hours such as evenings and/or weekends?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	91% Yes / 7% No / 2% n/a					45
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.] Activity 2e - Written Pension Estimates	Yes	Yes		67% Yes / 33% No / 0% n/a					9	83% Yes / 15% No / 2% n/a					45
68 Do you offer written pension estimates to members? If no, go directly to question 75.	Yes	Yes		100% Yes / 0% No / 0% n/a					9	100% Yes / 0% No / 0% n/a					46
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.]	8,953	8,841		51,573	8,852	31	11,756	9	244,221	8,048	31	20,210	46		
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	Each Scenario		67% Each Scenario / 33% Single Estimate					9	57% Each Scenario / 43% Single Estimate					46
	2	2		3	2	2	2	6	23	2	1	3	26		
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)?	4.2	4.0		33.6	4.2	1.0	7.0	9	61.5	5.9	0.0	10.5	46		
	Regular	Regular		89% Regular / 11% Estimate					9	98% Regular / 2% Estimate					46
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?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	87% Yes / 13% No / 0% n/a					46
	n/a														
73 Do you place a limit on the number of written pension estimates that a member can request? a) If yes, describe the limit?	No	No		11% Yes / 89% No / 0% n/a					9	13% Yes / 87% No / 0% n/a					46
	n/a														
74 Do your written pension estimates (including cover letters, etc. sent with the estimate):															

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
a) Clearly address if and how the pension is inflation protected (or not protected)?	No	No		56% Yes / 44% No / 0% n/a					9	63% Yes / 37% No / 0% n/a					46
b) If your pension is coordinated with or reduced by social security (or CPP in Canada) is the impact explained?	No	No		44% Yes / 33% No / 22% n/a					7	43% Yes / 20% No / 37% n/a					29
c) Discuss alternative scenarios that could improve the pension such as purchasing service credit or working longer?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	89% Yes / 11% No / 0% n/a					46
d) Model alternative retirement payment options?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	93% Yes / 7% No / 0% n/a					46
Activity 2f Mass Communication: (i) Website															
75 Are all, most or some of your forms available online for either completion or downloading?	Most	Most		22% All / 0% Some / 78% Most					9	43% All / 2% Some / 54% Most					46
76 Does your website have a secure member area where members can access their own data? If yes:	Yes	Yes		89% Yes / 11% No					9	98% Yes / 2% No					46
a) How many unique members accessed the secure member area? [Count a member only once even if he visited multiple times.]	46,083	42,142		146,026	61,773	11,924	67,771	8	1,007,316	114,797	4,515	195,056	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	Unknown		2,756,487	409,884	127,737	789,994	8	3,997,358	522,922	17,773	1,020,317	45		
c) If a member wants to register for the first time, do they have to wait for a password in the mail?	No	No		11% Yes / 78% No / 11% n/a					8	4% Yes / 93% No / 2% n/a					45
d) Do you welcome the member by name on the home page of the secure member area?	Yes	Yes		89% Yes / 0% No / 11% n/a					8	91% Yes / 7% No / 2% n/a					45
e) Are users required to acknowledge a disclaimer every time they log in?	No	No		11% Yes / 78% No / 11% n/a					8	13% Yes / 85% No / 2% n/a					45
f) Are users required to acknowledge a disclaimer every time they generate a pension estimate?	No	No		33% Yes / 56% No / 11% n/a					8	30% Yes / 67% No / 2% n/a					45
g) Do inactive members have access to the secure member area?	Yes	Yes		89% Yes / 0% No / 11% n/a					8	85% Yes / 13% No / 2% 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	No		67% Yes / 33% No / 0% n/a					9	46% Yes / 54% No / 0% n/a					46
b) Benefit calculator in secure area not linked to member data?	No	No		11% Yes / 89% No / 0% n/a					9	11% Yes / 89% No / 0% n/a					46
c) Benefit calculator in secure area linked to member's salary and service data?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	96% Yes / 4% No / 0% n/a					46
d) Service credit purchase calculator?	No	No		78% Yes / 22% No / 0% n/a					9	72% Yes / 24% No / 4% n/a					44
e) Financial planning tool?	Yes	No		22% Yes / 78% No / 0% n/a					9	26% Yes / 74% No / 0% n/a					46

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	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?	Yes	n/a		11% Yes / 11% No / 78% n/a					2	13% Yes / 13% No / 74% n/a					12
f) Register for 1-on-1 counseling sessions?	Yes	Yes		44% Yes / 56% No / 0% n/a					9	48% Yes / 48% No / 4% n/a					44
f1) If yes, does the member have real-time access to available dates and times?	No	No		33% Yes / 11% No / 56% n/a					4	43% Yes / 2% No / 54% n/a					21
g) Register for presentations?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	63% Yes / 33% No / 4% n/a					44
h) Live chat?	No	No		11% Yes / 89% No / 0% n/a					9	13% Yes / 87% No / 0% n/a					46
i) Chatbot (or virtual service agent)?	No	No		0% Yes / 100% No / 0% n/a					9	4% Yes / 96% No / 0% n/a					46
j) Change address?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	87% Yes / 9% No / 4% n/a					44
k) Change beneficiary?	No	No		56% Yes / 44% No / 0% n/a					9	72% Yes / 22% No / 7% n/a					43
l) Change email address?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	96% Yes / 4% No / 0% n/a					46
m) Reset password?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	89% Yes / 9% No / 2% n/a					45
n) Change banking information for direct deposit?	No	No		56% Yes / 44% No / 0% n/a					9	59% Yes / 35% No / 7% n/a					43
o) Change tax withholding amount?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	65% Yes / 28% No / 7% n/a					43
p) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	Yes	Yes		67% Yes / 33% No / 0% n/a					9	80% Yes / 17% No / 2% n/a					45
q) View pension payment details? [i.e., gross amounts, deductions]	Yes	Yes		100% Yes / 0% No / 0% n/a					9	91% Yes / 9% No / 0% n/a					46
r) Submit a retirement application online?	No	No		22% Yes / 67% No / 11% n/a					8	61% Yes / 33% No / 7% n/a					43
If yes:															
r1) Does the online application provide an estimate, final value or neither of the annuity payment the member will receive?	n/a	n/a		0% Final / 0% Neither / 22% Estimate / 78% n/a					2	9% Final / 30% Neither / 22% Estimate / 39% n/a					28
r2) Approximately what % of retirements submitted online require follow-up documents or signatures to be mailed in?	n/a	n/a		26.2%	25.6%	25.0%	25.6%	2	100.0%	25.6%	0.0%	43.4%	22		
s) View status of online retirement application?	No	No		11% Yes / 67% No / 22% n/a					7	48% Yes / 43% No / 9% n/a					42
t) Apply for a refund or transfer-out?	No	No		0% Yes / 100% No / 0% n/a					9	41% Yes / 54% No / 4% n/a					44
u) Secure mailbox or digital file including history of recent correspondence and member documents?	Yes	No		56% Yes / 44% No / 0% n/a					9	65% Yes / 35% No / 0% n/a					46
v) View or download member statement?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	89% Yes / 11% No / 0% n/a					46
w) Upload documents (such as birth certificates)?	No	No		56% Yes / 44% No / 0% n/a					9	61% Yes / 37% No / 2% n/a					45

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
x) View pensionable earnings and/or service without downloading? If yes:	No	No		67% Yes / 33% No / 0% n/a					9	85% Yes / 15% No / 0% n/a					46
x1) Are both salary and service data available?	n/a	n/a		67% Yes / 0% No / 33% n/a					6	83% Yes / 2% No / 15% n/a					39
x2) Is online data up-to-date to the most recent pay period?	n/a	n/a		67% Yes / 0% No / 33% n/a					6	67% Yes / 17% No / 15% n/a					39
x3) Is a complete annual history from the beginning of employment provided?	n/a	n/a		33% Yes / 33% No / 33% n/a					6	54% Yes / 30% No / 15% n/a					39
y) If you administer a core DC or hybrid DB/ DC plan:															
y1) Switch between investment options?	No	No		33% Yes / 11% No / 56% n/a					4	22% Yes / 9% No / 70% n/a					14
y2) Change deferral percentage selections for regular contributions?	No	No		22% Yes / 22% No / 56% n/a					4	11% Yes / 17% No / 72% n/a					13
y3) Initiate withdrawals?	No	No		22% Yes / 22% No / 56% n/a					4	15% Yes / 13% No / 72% n/a					13
y4) View current valuation of their account?	No	No		33% Yes / 11% No / 56% n/a					4	24% Yes / 4% No / 72% n/a					13
If yes, volume?															
a) Benefit calculator in non-secure area?	n/a	n/a		93,002	50,436	10,451	53,339	6	414,371	69,905	5,022	97,580	20		
b) Benefit calculator in secure area not linked to member data?	n/a	n/a		4,901	4,901	4,901	4,901	1	17,206	11,711	4,520	11,011	5		
c) Benefit calculator in secure area linked to member's salary and service data?	108,167	100,117		159,986	102,246	33,869	90,385	8	1,610,158	167,517	23,827	283,323	44		
d) Service credit purchase calculator?	n/a	n/a		24,830	4,215	996	8,529	7	147,677	10,202	723	22,958	33		
f) Register for 1-on-1 counseling sessions?	897	1,261		5,725	2,964	897	3,138	4	36,635	3,854	196	5,661	18		
g) Register for presentations?	1,641	610		12,275	3,131	112	4,943	7	33,709	4,205	0	6,684	25		
h) Live chat?	n/a	n/a		6,955	6,955	6,955	6,955	1	24,609	7,002	149	10,291	5		
j) Change address?	1,644	1,437		15,540	4,263	377	7,280	7	319,224	13,995	377	26,358	40		
k) Change beneficiary?	n/a	n/a		55,496	14,149	44	22,658	5	566,916	14,384	44	39,130	34		
l) Change email address?	1,699	1,284		25,803	5,635	1,158	9,795	7	133,506	15,251	955	31,381	30		
m) Reset password?	32,142	37,511		47,752	34,996	1	27,503	8	382,837	36,635	1	59,638	34		
n) Change banking information for direct deposit?	n/a	n/a		1,306	902	610	961	5	436,247	3,106	150	25,809	27		
o) Change tax withholding amount?	2,323	2,813		4,019	2,561	1,145	2,666	7	161,901	6,546	416	17,155	30		
p) View or download duplicate tax receipts? [i.e., 1099s in the U.S.]	7,779	7,159		50,529	16,259	7,779	20,618	6	474,000	33,405	274	66,921	37		
q) View pension payment details? [i.e., gross amounts, deductions]	23,292	28,921		321,792	40,024	15,406	78,522	8	3,987,109	53,400	592	249,428	34		
r) Submit a retirement application?	n/a	n/a		4,479	3,219	1,959	3,219	2	47,100	4,874	75	8,579	26		
s) View status of online retirement application?	n/a	n/a		7,778	7,778	7,778	7,778	1	285,304	7,778	142	41,040	15		
t) Apply for a refund or transfer-out?	n/a	n/a		n/a	n/a	n/a	n/a	0	41,193	6,744	0	10,201	17		
u) Secure mailbox or digital file including history of recent correspondence and member documents?	Unknown	n/a		140,077	80,855	20,460	80,464	3	1,978,659	91,622	6,341	280,823	18		
v) View or download member statement?	17,344	36,979		1,147,958	31,239	12,300	154,747	9	1,147,958	94,099	6,797	158,144	41		

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
w) Upload documents (such as birth certificates)?	n/a	n/a		24,766	5,942	218	10,591	5	75,194	9,749	9	16,684	23
x) View pensionable earnings and/or service without downloading?	n/a	n/a		1,608,775	260,362	56,105	463,737	6	3,520,430	186,891	3,955	480,019	39
y) If you administer a core DC or hybrid DB/ DC plan:													
y1) Switch between investment options?	n/a	n/a		5,695	5,695	5,695	5,695	1	12,062	3,742	1,400	5,186	5
y2) Change deferral percentage selections for regular contributions?	n/a	n/a		52,280	52,280	52,280	52,280	1	52,280	3,045	950	18,758	3
y3) Initiate withdrawals?	n/a	n/a		16,116	16,116	16,116	16,116	1	16,116	6,195	995	7,375	4
y4) View current valuation of their account?	n/a	n/a		1,616,012	1,616,012	1,616,012	1,616,012	1	1,616,012	366,749	278,856	657,092	4
78 Do you have videos that members can access online?	Yes	Yes		89% Yes / 11% No / 0% n/a				9	91% Yes / 7% No / 2% n/a				45
Activity 2f Mass Communication: (ii) News and Targeted Communication													
79 What % of email addresses do you have in your system for the following groups:													
a) Active members?	83.5%	16.4%		91.0%	63.0%	4.0%	61.4%	9	100.0%	69.0%	0.0%	64.2%	46
b) Inactive members?	41.3%	5.6%		72.0%	45.1%	6.0%	41.2%	9	77.7%	35.7%	0.0%	34.8%	46
c) Annuitants?	44.1%	9.6%		80.1%	52.3%	31.5%	55.1%	9	90.0%	56.4%	0.0%	53.8%	46
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	Yes		33% Yes / 67% No / 0% n/a				9	26% Yes / 74% No / 0% n/a				46
b) Active and inactive members?	No	No		22% Yes / 78% No / 0% n/a				9	24% Yes / 76% No / 0% n/a				46
c) Active members and annuitants?	No	No		0% Yes / 100% No / 0% n/a				9	2% Yes / 98% No / 0% n/a				46
d) Active members only?	Yes	Yes		56% Yes / 44% No / 0% n/a				9	54% Yes / 46% No / 0% n/a				46
e) Inactive members only?	No	No		0% Yes / 100% No / 0% n/a				9	13% Yes / 87% No / 0% n/a				46
f) Annuitants only?	No	No		67% Yes / 33% No / 0% n/a				9	78% Yes / 22% No / 0% n/a				46
g) Age segments (i.e., under 35, 35-50, 50 plus)?	No	No		11% Yes / 89% No / 0% n/a				9	17% Yes / 83% No / 0% n/a				46
h) Women only or men only?	No	No		0% Yes / 100% No / 0% n/a				9	0% Yes / 100% No / 0% n/a				46
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	No	No		22% Yes / 78% No / 0% n/a				9	13% Yes / 87% No / 0% n/a				46
j) Other? (describe your other newsletter segments below)	No	No		0% Yes / 100% No / 0% n/a				9	17% Yes / 83% No / 0% n/a				46
n/a													

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
If yes: # of times you sent last year?													
a) All members (active, inactive and annuitants)?	2	2		10	6	2	6	3	10	3	1	4	12
b) Active and inactive members?	n/a	n/a		2	2	1	2	2	12	3	1	4	11
c) Active members and annuitants?	n/a	n/a		n/a	n/a	n/a	n/a	0	12	12	12	12	1
d) Active members only?	1	1		4	2	1	3	5	18	2	1	4	24
e) Inactive members only?	n/a	n/a		n/a	n/a	n/a	n/a	0	3	1	1	2	6
f) Annuitants only?	n/a	n/a		4	2	1	3	6	17	2	1	3	36
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a	n/a		1	1	1	1	1	27	4	1	9	8
h) Women only or men only?	n/a	n/a		n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a	n/a		8	5	1	5	2	26	5	1	9	6
j) Other? (describe your other newsletter segments below)	n/a	n/a		n/a	n/a	n/a	n/a	0	31	7	1	9	8
Approx. % sent by email													
a) All members (active, inactive and annuitants)?	39.5%	0.0%		75.0%	54.5%	39.5%	56.3%	3	100.0%	68.5%	0.0%	65.6%	12
b) Active and inactive members?	n/a	n/a		28.6%	14.3%	0.0%	14.3%	2	100.0%	45.0%	0.0%	51.4%	11
c) Active members and annuitants?	n/a	n/a		n/a	n/a	n/a	n/a	0	100.0%	100.0%	100.0%	100.0%	1
d) Active members only?	100.0%	92.2%		100.0%	69.0%	0.0%	54.2%	5	100.0%	100.0%	0.0%	66.7%	23
e) Inactive members only?	n/a	n/a		n/a	n/a	n/a	n/a	0	66.0%	10.0%	0.0%	26.4%	5
f) Annuitants only?	n/a	n/a		29.7%	0.0%	0.0%	6.0%	6	100.0%	28.0%	0.0%	37.6%	35
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a	n/a		0.0%	0.0%	0.0%	0.0%	1	100.0%	80.0%	0.0%	59.3%	7
h) Women only or men only?	n/a	n/a		n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a	n/a		29.0%	14.5%	0.0%	14.5%	2	100.0%	14.5%	0.0%	34.3%	6
j) Other? (describe your other newsletter segments below)	n/a	n/a		n/a	n/a	n/a	n/a	0	100.0%	100.0%	0.0%	87.5%	8
81 Are new members issued a 'welcome' kit describing their benefits?	Yes	Yes		78% Yes / 22% No / 0% n/a				9	91% Yes / 9% No / 0% n/a				46
a) If yes, does it include a personalized letter addressing the new member by name?	Yes	Yes		67% Yes / 11% No / 22% n/a				7	83% Yes / 9% No / 9% n/a				42
82 Do you send your members a general brochure with a summary of the benefits every year in either paper or email format?	No	No		33% Yes / 67% No / 0% n/a				9	35% Yes / 65% No / 0% n/a				46
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	No		22% Yes / 78% No / 0% n/a				9	22% Yes / 61% No / 17% n/a				38

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
b) Vested for disability benefits (if member is not vested immediately)?	No	No		0% Yes / 100% No / 0% n/a					9	7% Yes / 72% No / 22% n/a					36
c) Expiration of disability benefits for inactive members or members that have exited employment?	Yes	Yes		22% Yes / 67% No / 11% n/a					8	24% Yes / 57% No / 20% n/a					37
d) Approaching eligibility, or becoming eligible, for retirement?	No	No		11% Yes / 89% No / 0% n/a					9	48% Yes / 52% No / 0% n/a					46
e) Eligibility or likely eligibility, to purchase service credit?	Yes	Yes		33% Yes / 67% No / 0% n/a					9	26% Yes / 70% No / 4% n/a					44
f) Missing beneficiary?	No	No		22% Yes / 78% No / 0% n/a					9	33% Yes / 63% No / 4% n/a					44
g) Missing email address?	No	No		11% Yes / 89% No / 0% n/a					9	17% Yes / 83% No / 0% n/a					46
h) Never visited the secure member area?	No	No		11% Yes / 78% No / 11% n/a					8	11% Yes / 87% No / 2% n/a					45
i) Other milestone communication? (describe below) n/a	No	No		56% Yes / 44% No / 0% n/a					9	63% Yes / 37% No / 0% n/a					46
84 Do you actively solicit member feedback on your publications through:															
a) Focus groups?	No	No		0% Yes / 100% No / 0% n/a					9	24% Yes / 76% No / 0% n/a					46
b) Tear out surveys or feedback cards in the publications themselves?	No	No		0% Yes / 100% No / 0% n/a					9	2% Yes / 98% No / 0% n/a					46
c) Surveys sent to members who request a publication?	No	No		0% Yes / 100% No / 0% n/a					9	11% Yes / 89% No / 0% n/a					46
d) Other (describe)? n/a	No	Yes		56% Yes / 44% No / 0% n/a					9	54% Yes / 46% No / 0% n/a					46
Activity 2f Mass Communication: (iii) Member Statement															
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	1		4	1	1	1	9	5	1	0	1	46		
b) Inactive members?	1	1		1	1	1	1	9	5	1	0	1	46		
86 Approximately what % of members complain about the accuracy of data in their member statements?	0.0%	0.0%		1.0%	0.1%	0.0%	0.4%	9	2.0%	0.1%	0.0%	0.5%	46		
87 Indicate the approximate percentage breakdown of how you send member statements to active members:															
a) Directed through the employer?	0.0%	0.0%		100.0%	0.0%	0.0%	11.1%	9	100.0%	0.0%	0.0%	8.9%	45		
b) Mailed directly to members' homes?	100.0%	100.0%		100.0%	73.0%	0.0%	59.5%	9	100.0%	46.9%	0.0%	46.2%	45		
c) Email or text message to members that the statement is available in the secure member area?	0.0%	0.0%		100.0%	17.0%	0.0%	32.7%	9	100.0%	52.6%	0.0%	49.4%	45		
88 On average, how current is an active member's data in the statements that the member receives (in months)?	1	1		4	2	1	2	9	7	3	0	3	45		

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
[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.]															
89 Do your statements for active members include:															
a) Total accumulated service credit?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	91% Yes / 4% No / 4% n/a					44
b) Pensionable earnings?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	87% Yes / 11% No / 2% n/a					45
c) A historical summary of salary and service credit earned each year?	No	No		22% Yes / 78% No / 0% n/a					9	35% Yes / 63% No / 2% n/a					45
d) The refund value if you left at the statement date?	Yes	Yes		89% Yes / 11% No / 0% n/a					9	67% Yes / 28% No / 4% n/a					44
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	Yes		78% Yes / 22% No / 0% n/a					9	78% Yes / 20% No / 2% n/a					45
90 Do you have a mobile app(s)?	No	No		0% Yes / 100% No / 0% n/a					9	4% Yes / 96% No / 0% n/a					46
Activity 3 Collections and Data Maintenance															
91 Number of:															
a) Employers at the end of your fiscal year?	22	22		832	233	4	313	9	167,656	732	1	5,074	46		
b) Employers that joined your system during the fiscal year?	0	0		13	2	0	3	9	20,203	3	0	495	46		
c) Employers that exited your system during the fiscal year?	0	0		0	0	0	0	9	18,690	0	0	458	46		
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	21		832	233	4	304	9	4,664	552	1	887	46		
b) Money (i.e., contributions)?	21	21		724	233	4	292	9	25,488	552	1	1,359	46		
[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	21		988	488	4	441	9	167,656	732	1	4,620	46		
b) Reconciling money issues (i.e., contributions)?	21	21		832	363	4	334	9	167,656	629	1	5,044	46		

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	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	5		832	12	0	236	9	4,664	519	0	800	46
b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	16	16		488	0	0	80	9	1,527	0	0	89	45
c) Computer readable? [i.e., via computer tape or disk]	0	0		2	0	0	0	9	2	0	0	0	46
d) Paper?	0	0		2	0	0	0	9	100	0	0	3	46
Total # of active members													
a) 100% electronic? [No manual steps required unless there are errors.]	57.6k	58.4k		128.5k	57.6k	0.0k	64.6k	9	133,427.0k	175.1k	0.0k	3,214.6k	46
b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	433.0k	0.4k		433.0k	0.5k	0.0k	67.3k	8	1,450.0k	0.0k	0.0k	63.0k	42
c) Computer readable? [i.e., via computer tape or disk]	0.0k	0.0k		99.1k	0.0k	0.0k	12.9k	8	99.1k	0.0k	0.0k	2.5k	42
d) Paper?	0.0k	0.0k		0.0k	0.0k	0.0k	0.0k	8	6.0k	0.0k	0.0k	0.2k	42
95 How many warrants of execution or court orders did you obtain against delinquent employers?	0	0		0	0	0	0	9	4,265	0	0	161	46
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	Unknown		100.0%	95.0%	67.0%	92.7%	9	100.0%	97.0%	67.0%	95.0%	46
97 Do you actively keep track of the addresses of inactive members?	Yes	Yes		100% Yes / 0% No / 0% n/a				9	74% Yes / 26% No / 0% n/a				46

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
98 Do you have a diagnostic software system for detecting and correcting contribution errors?	No	No		78% Yes / 22% No / 0% n/a					9	80% Yes / 20% No / 0% n/a					46
99 When you get an address change, how many systems do you need to update?	1	1		2	1	1	1	9	3	1	1	1	46		
Activity 3b - Service to Employers															
100 Number of:															
a) Incoming calls from employers?	Unknown	Unknown		9,000	4,480	400	4,372	9	116,367	6,353	20	10,512	46		
b) Email queries from employers?	Unknown	Unknown		31,169	8,925	281	12,170	9	263,481	13,089	200	22,054	46		
c) Conferences for employers (conferences must span more than half a day and typically involve multiple presentations)? [For example, some administrators with multiple employers host an annual conference to update the employers on trends, regulation, legislation, and new services that might affect their pension plan].	0	0		39	0	0	4	9	39	0	0	2	46		
d) Presentations given to employers such as orientation workshops or seminars on benefit changes, etc. (do not include presentations given at conferences)?	0	0		93	30	0	28	9	372	9	0	46	46		
e) On-site reviews (or audits or inspections) of your employers? [For example, several systems perform reviews of their employers that have problems providing data and or contributions on a timely basis to ensure that they are correctly fulfilling their obligations to their members.]	0	0		142	0	0	17	9	520	0	0	41	46		
f) Other site visits to employers (exclude 'd' and 'e' above)?	0	0		33	0	0	7	9	3,500	0	0	117	46		
101 Do you have an employer targeted section on your website or a separate website for your employers? [Do not include PDF documents.]	Yes	Yes		100% Yes / 0% No / 0% n/a					9	98% Yes / 2% No / 0% n/a					46
102 Do you have online videos targeted for employers?	Yes	Yes		44% Yes / 56% No / 0% n/a					9	70% Yes / 30% No / 0% n/a					46
103 How many different types of presentations did you give to employers?	1	0		7	2	0	3	9	53	4	0	6	46		
104 Do you have a newsletter dedicated to employers that is different from the newsletter for members?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	83% Yes / 17% No / 0% n/a					46
a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	12	12		12	4	0	5	7	76	9	0	13	38		
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	No		11% Yes / 89% No / 0% n/a					9	26% Yes / 74% No / 0% n/a					46

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	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	Yes		100% Yes / 0% No / 0% n/a					9	98% Yes / 2% No / 0% n/a					46
	Yes	Yes		89% Yes / 11% No / 0% n/a					9	93% Yes / 4% No / 2% n/a					45
	No	No		33% Yes / 67% No / 0% n/a					9	65% Yes / 33% No / 2% n/a					45
	No	No		56% Yes / 44% No / 0% n/a					9	70% Yes / 28% No / 2% 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.] Activity 4 - Governance and Financial Control	Yes	Yes		22% Yes / 78% No / 0% n/a					9	22% Yes / 78% No / 0% n/a					46
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 (2 meetings each) # 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	Yes		100% Yes / 0% No / 0% n/a					9	87% Yes / 13% No / 0% n/a					46
	Yes	Yes		33% Yes / 67% No / 0% n/a					9	50% Yes / 50% No / 0% n/a					46
	No	No		0% Yes / 100% No / 0% n/a					9	39% Yes / 61% No / 0% n/a					46
	No	No		11% Yes / 89% No / 0% n/a					9	2% Yes / 98% No / 0% n/a					46
	Yes	Yes		44% Yes / 56% No / 0% n/a					9	46% Yes / 54% No / 0% n/a					46
	7	5		72	11	5	18	9	107	13	1	23	40		
	6	5		6	5	3	5	3	35	4	1	9	23		
	n/a	n/a		n/a	n/a	n/a	n/a	0	28	4	1	5	18		
	n/a	n/a		7	7	7	7	1	7	7	7	7	1		
	4	5		16	4	4	7	4	44	4	1	9	21		
109 Do you have back-up equipment and premises arranged for your operations if substantial damage occurs at your principal location?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	100% Yes / 0% No / 0% n/a					46
110 Do you have an independent auditor that reviews and tests the disaster recovery plan?	No	No		67% Yes / 33% No / 0% n/a					9	76% Yes / 24% No / 0% n/a					46

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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:													
a) Continue paying pension payments to retirees?	1	1		5	1	0	2	9	5	1	0	1	46
b) Begin doing new pension inceptions at normal volumes?	1	1		30	3	0	6	9	90	3	0	7	46
c) Collect data and money from employers?	1	1		5	1	0	2	9	90	1	0	4	46
d) Respond to member calls at close to current service levels?	1	1		30	2	0	5	9	30	2	0	5	45
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?	Yes	Yes		44% Yes / 56% No				9	48% Yes / 52% No				46
a) If yes, describe: As the result of Covid, required additional technology and equipment purchases as well as costs related to health screening and testing.													
Member Experience													
113 a. General survey to customers, regardless of whether they interacted with the pension plan or not?	Yes	Yes		78% Yes / 22% No / 0% n/a				9	83% Yes / 17% No / 0% n/a				46
a1. Active members	No	No		44% Yes / 33% No / 22% n/a				7	70% Yes / 13% No / 17% n/a				38
a2. Annuitant	Yes	Yes		56% Yes / 22% No / 22% n/a				7	70% Yes / 13% No / 17% n/a				38
a3. Inactive members	No	No		11% Yes / 67% No / 22% n/a				7	37% Yes / 46% No / 17% n/a				38
a4. Employers	No	No		11% Yes / 67% No / 22% n/a				7	59% Yes / 24% No / 17% n/a				38
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	Yes		67% Yes / 11% No / 22% n/a				7	78% Yes / 4% No / 17% n/a				38
b1. Telephone call													
b1a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		33% Yes / 0% No / 67% n/a				3	63% Yes / 0% No / 37% n/a				29
b1b. Effort	n/a	n/a		11% Yes / 0% No / 89% n/a				1	33% Yes / 0% No / 67% n/a				15
b1c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a	n/a		7	1	1	3	3	60	2	0	7	28
b1d. Can you break down results by service agent?	n/a	n/a		22% Yes / 0% No / 78% n/a				2	50% Yes / 0% No / 50% n/a				23
b1e. Can you break down the survey results by topic or journey covered?	n/a	n/a		22% Yes / 0% No / 78% n/a				2	46% Yes / 0% No / 54% n/a				21
b2. Website visit - secure member area													
b2a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		22% Yes / 0% No / 78% n/a				2	43% Yes / 0% No / 57% n/a				20
b2b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	28% Yes / 0% No / 72% n/a				13

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b2c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a	n/a		1	1	0	1	2	60	3	0	9	20
b2e. Can you break down the survey results by topic or journey covered?	n/a	n/a		0% Yes / 0% No / 100% n/a				0	24% Yes / 0% No / 76% n/a				11
b3. Website - public area													
b3a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		11% Yes / 0% No / 89% n/a				1	24% Yes / 0% No / 76% n/a				11
b3b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	17% Yes / 0% No / 83% n/a				8
b3c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a	n/a		7	4	1	4	2	365	1	0	38	10
b3e. Can you break down the survey results by topic or journey covered?	n/a	n/a		0% Yes / 0% No / 100% n/a				0	13% Yes / 0% No / 87% n/a				6
b4. 1-on-1 counseling													
b4a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		56% Yes / 0% No / 44% n/a				5	57% Yes / 0% No / 43% n/a				26
b4b. Effort	n/a	n/a		22% Yes / 0% No / 78% n/a				2	24% Yes / 0% No / 76% n/a				11
b4c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a	n/a		7	4	1	4	4	90	4	0	9	24
b4d. Can you break down results by service agent?	n/a	n/a		33% Yes / 0% No / 67% n/a				3	41% Yes / 0% No / 59% n/a				19
b4e. Can you break down the survey results by topic or journey covered?	n/a	n/a		22% Yes / 0% No / 78% n/a				2	33% Yes / 0% No / 67% n/a				15
b5. Presentation or group counseling session													
b5a. Satisfaction / Net Promoter Score (NPS)	Yes	Yes		33% Yes / 0% No / 67% n/a				3	65% Yes / 0% No / 35% n/a				30
b5b. Effort	n/a	n/a		11% Yes / 0% No / 89% n/a				1	28% Yes / 0% No / 72% n/a				13
b5c. What was the longest possible time in days between the activity/ journey end and the survey?	0	0		1	1	0	1	3	60	1	0	4	30
b5d. Can you break down results by service agent?	Yes	Yes		33% Yes / 0% No / 67% n/a				3	50% Yes / 0% No / 50% n/a				23
b6. Email													
b6a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	17% Yes / 0% No / 83% n/a				8
b6b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	13% Yes / 0% No / 87% n/a				6
b7. Live chat													
b7a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		11% Yes / 0% No / 89% n/a				1	7% Yes / 0% No / 93% n/a				3
b7b. Effort	n/a	n/a		11% Yes / 0% No / 89% n/a				1	7% Yes / 0% No / 93% n/a				3
b8. Social media													
b8a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	4% Yes / 0% No / 96% n/a				2
b8b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	2% Yes / 0% No / 98% n/a				1

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b9. Member statements													
b9a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	17% Yes / 0% No / 83% n/a				8
b9b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	9% Yes / 0% No / 91% n/a				4
b10. Targeted communication (letters, newsletters, etc.)													
b10a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		11% Yes / 0% No / 89% n/a				1	15% Yes / 0% No / 85% n/a				7
b10b. Effort	n/a	n/a		11% Yes / 0% No / 89% n/a				1	4% Yes / 0% No / 96% n/a				2
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	Yes		56% Yes / 22% No / 22% n/a				7	57% Yes / 26% No / 17% n/a				38
Member Journeys													
c1. New to the pension plan													
c1a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	13% Yes / 0% No / 87% n/a				6
c1b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	0% Yes / 0% No / 100% n/a				0
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	n/a	0	n/a	n/a	n/a	n/a	0
c2. Leaving the pension plan													
c2a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		33% Yes / 0% No / 67% n/a				3	28% Yes / 0% No / 72% n/a				13
c2b. Effort	n/a	n/a		33% Yes / 0% No / 67% n/a				3	26% Yes / 0% No / 74% n/a				12
c2c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a	n/a		30	30	30	30	1	60	30	1	28	11
c3. Leave of absence													
c3a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	11% Yes / 0% No / 89% n/a				5
c3b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	11% Yes / 0% No / 89% n/a				5
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	n/a	0	42	30	7	25	5
c4. Divorce and separation													
c4a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	11% Yes / 0% No / 89% n/a				5
c4b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	11% Yes / 0% No / 89% n/a				5
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	n/a	0	30	30	7	22	5
c5. Disability													

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c5a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		22% Yes / 0% No / 78% n/a				2	30% Yes / 0% No / 70% n/a				14
c5b. Effort	n/a	n/a		22% Yes / 0% No / 78% n/a				2	26% Yes / 0% No / 74% n/a				12
c5c. What was the longest possible time in days between the activity/ journey end and the survey?	n/a	n/a		30	30	30	30	1	365	30	1	57	14
c6. Planning for retirement													
c6a. Satisfaction / Net Promoter Score (NPS)	Yes	Yes		33% Yes / 0% No / 67% n/a				3	41% Yes / 0% No / 59% n/a				19
c6b. Effort	Yes	Yes		33% Yes / 0% No / 67% n/a				3	37% Yes / 0% No / 63% n/a				17
c6c. What was the longest possible time in days between the activity/ journey end and the survey?	42	42		42	22	1	22	2	90	30	1	26	19
c7. Planning for loved ones													
c7a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	17% Yes / 0% No / 83% n/a				8
c7b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	15% Yes / 0% No / 85% n/a				7
c7c. 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	n/a	0	84	15	0	26	7
c8. Retired life													
c8a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		0% Yes / 0% No / 100% n/a				0	11% Yes / 0% No / 89% n/a				5
c8b. Effort	n/a	n/a		11% Yes / 0% No / 89% n/a				1	13% Yes / 0% No / 87% n/a				6
c8c. 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	n/a	0	30	30	7	22	5
c9. Other (describe): n/a													
Employer journeys:													
d1. New to the pension plan													
d1a. Satisfaction / Net Promoter Score (NPS)	n/a	n/a		11% Yes / 0% No / 89% n/a				1	11% Yes / 0% No / 89% n/a				5
d1b. Effort	n/a	n/a		0% Yes / 0% No / 100% n/a				0	7% Yes / 0% No / 93% 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	n/a	0	30	14	7	17	3
d2. Other (describe): n/a													
Feedback measurement													
114 Indicate whether you have targets for any of the following member experience metrics: a) Member satisfaction or Net Promoter Scores?	Yes	Yes		44% Yes / 33% No / 22% n/a				7	67% Yes / 13% No / 20% n/a				37

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	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	No		22% Yes / 56% No / 22% n/a				7	41% Yes / 39% No / 20% n/a				37
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	No		11% Yes / 56% No / 33% n/a				6	26% Yes / 52% No / 22% n/a				36
n/a													
d) If yes to any of the above, are the targets approved by the Board?	No	No		22% Yes / 22% No / 56% n/a				4	39% Yes / 30% No / 30% n/a				32
115 Do all, most, some or none of your member experience surveys include open-ended questions that allow members to provide qualitative feedback?	All	All		56% All / 0% Some / 22% Most / 22% n/a				7	48% All / 8% Some / 24% Most / 20% n/a				37
If all or most:													
a) Do you summarize feedback from members who rate their experience as:													
a1) Negative?	Yes	Yes		67% Yes / 11% No / 22% n/a				7	61% Yes / 11% No / 28% n/a				33
a2) Positive or neutral?	Yes	Yes		67% Yes / 11% No / 22% n/a				7	61% Yes / 11% No / 28% n/a				33
b) Do you have a process to contact members who participated in your survey to resolve issues or clarify feedback?	Yes	Yes		78% Yes / 0% No / 22% n/a				7	54% Yes / 17% No / 28% n/a				33
c) Is there an option in your surveys for members to request a call to discuss their feedback?	Yes	Yes		56% Yes / 22% No / 22% n/a				7	30% Yes / 41% No / 28% n/a				33
116 In your most recent fiscal year, did you solicit qualitative feedback from members via:													
a) In-depth, 1-on-1 interviews?	No	No		0% Yes / 100% No / 0% n/a				9	22% Yes / 74% No / 4% n/a				44
b) Notes from front-line employees on their interactions with members?	No	No		22% Yes / 78% No / 0% n/a				9	33% Yes / 63% No / 4% n/a				44
c) Focus groups, or customer arenas?	No	No		11% Yes / 89% No / 0% n/a				9	26% Yes / 70% No / 4% n/a				44
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	No		0% Yes / 100% No / 0% n/a				9	22% Yes / 74% No / 4% n/a				44
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	No		22% Yes / 78% No / 0% n/a				9	24% Yes / 72% No / 4% n/a				44

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
n/a													
Feedback management													
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?	No	No		0% Yes / 100% No / 0% n/a				9	50% Yes / 46% No / 4% n/a				44
b) Back-office employees that support front-office employees?	No	No		0% Yes / 100% No / 0% n/a				9	33% Yes / 63% No / 4% n/a				44
c) Executives and senior management?	No	No		22% Yes / 78% No / 0% n/a				9	46% Yes / 50% No / 4% n/a				44
d) The Board?	No	No		11% Yes / 89% No / 0% n/a				9	43% Yes / 52% No / 4% n/a				44
Qualitative feedback (yes, no)													
a) Front-office employees that interact with members?	No	No		11% Yes / 78% No / 11% n/a				8	43% Yes / 50% No / 7% n/a				43
b) Back-office employees that support front-office employees?	No	No		0% Yes / 89% No / 11% n/a				8	24% Yes / 70% No / 7% n/a				43
c) Executives and senior management?	No	No		22% Yes / 67% No / 11% n/a				8	37% Yes / 57% No / 7% n/a				43
d) The Board?	No	No		11% Yes / 78% No / 11% n/a				8	30% Yes / 63% No / 7% n/a				43
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	No		44% Yes / 56% No / 0% n/a				9	28% Yes / 67% No / 4% n/a				44
119 Do you track the number of interactions for each individual member via:													
a) Calls?	No	No		44% Yes / 56% No / 0% n/a				9	52% Yes / 43% No / 4% n/a				44
b) Emails?	No	No		33% Yes / 67% No / 0% n/a				9	48% Yes / 48% No / 4% n/a				44
c) Live chat?	No	No		11% Yes / 44% No / 44% n/a				5	7% Yes / 30% No / 63% n/a				17
d) 1-on-1 counseling?	Yes	Yes		56% Yes / 33% No / 11% n/a				8	59% Yes / 33% No / 9% n/a				42
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		33% Yes / 44% No / 22% n/a				7	30% Yes / 35% No / 35% n/a				30
120 Do you track the use of digital tools (e.g., secure website pension calculator, etc.) by individual member?	No	No		56% Yes / 44% No / 0% n/a				9	59% Yes / 37% No / 4% n/a				44
121 Do you have a workflow system that provides service agents with real time information about each member's:													

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
a) Status of open items?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	96% Yes / 0% No / 4% n/a					44
b) Interactions via calls and email?	No	No		56% Yes / 44% No / 0% n/a					9	74% Yes / 22% No / 4% n/a					44
c) Use of digital tools (e.g., the pension calculator in the secure area of the website, etc.)?	No	No		56% Yes / 44% No / 0% n/a					9	57% Yes / 39% No / 4% n/a					44
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. Member experience reporting	No	No		22% Yes / 78% No / 0% n/a					9	48% Yes / 48% No / 4% n/a					44
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? Introduced mid-career webinars as well as Zoom calls for 1-on-1 meetings. All in-person contact replaced by virtual, which we previously didn't offer. Plan Design Plan Characteristics	No	No		11% Yes / 89% No / 0% n/a					9	35% Yes / 59% No / 7% n/a					43
	No	No		11% Yes / 89% No / 0% n/a					9	43% Yes / 50% No / 7% n/a					43
	No	No		11% Yes / 89% No / 0% n/a					9	17% Yes / 78% No / 4% n/a					44
	Yes	No		33% Yes / 67% No / 0% n/a					9	30% Yes / 65% No / 4% n/a					44
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:	No	No		11% Yes / 89% No / 0% n/a					9	2% Yes / 93% No / 4% n/a					44
	No	No		56% Yes / 44% No / 0% n/a					9	52% Yes / 43% No / 4% n/a					44
	Yes	Yes		67% Yes / 33% No / 0% n/a					9	74% Yes / 22% No / 4% n/a					44
	No	No		78% Yes / 22% No / 0% n/a					9	54% Yes / 41% No / 4% n/a					44
	No	No		78% Yes / 22% No / 0% n/a					9	61% Yes / 35% No / 4% n/a					44
	Yes	Yes		78% Yes / 22% No / 0% n/a					9	57% Yes / 39% No / 4% n/a					44
	Yes	Yes		78% Yes / 22% No / 0% n/a					9	54% Yes / 41% No / 4% n/a					44
	No	No		0% Yes / 100% No / 0% n/a					9	4% Yes / 91% No / 4% n/a					44
	No	No		11% Yes / 89% No / 0% n/a					9	17% Yes / 83% No / 0% n/a					46

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
n/a															
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	Yes		100% Yes / 0% No / 0% n/a					9	93% Yes / 7% No / 0% n/a					46
b) DB Cash Balance (aka Money Purchase)?	No	No		0% Yes / 100% No / 0% n/a					9	7% Yes / 93% No / 0% n/a					46
c) Hybrid DB/ DC Cash Balance?	No	No		0% Yes / 100% No / 0% n/a					9	9% Yes / 91% No / 0% n/a					46
d) Hybrid DB/ Money Match?	No	No		0% Yes / 100% No / 0% n/a					9	2% Yes / 93% No / 4% n/a					44
e) DROP savings?	No	No		0% Yes / 100% No / 0% n/a					9	7% Yes / 89% No / 4% n/a					44
f) Defined Contribution ("DC")?	Yes	Yes		22% Yes / 78% No / 0% n/a					9	15% Yes / 85% No / 0% n/a					46
g) Hybrid DB/ DC?	No	No		33% Yes / 67% No / 0% n/a					9	28% Yes / 72% No / 0% n/a					46
h) Other (describe)?	No	No		0% Yes / 100% No / 0% n/a					9	7% Yes / 93% No / 0% n/a					46
n/a															
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	No		11% Yes / 89% No / 0% n/a					9	4% Yes / 89% No / 7% n/a					43
b) A 'pension savings overlay'? [Some Dutch systems have this option. The additional contributions are converted into an annuity at retirement. Interest is based on a fixed percentage or on the performance of the pension fund.]	No	No		0% Yes / 100% No / 0% n/a					9	7% Yes / 87% No / 7% n/a					43
c) To change their contribution rate in order to get either more money at retirement or earlier eligibility to retire?	No	No		11% Yes / 89% No / 0% n/a					9	4% Yes / 89% No / 7% n/a					43
127 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable earnings?	No	No		56% Yes / 44% No / 0% n/a					9	61% Yes / 33% No / 7% n/a					43
128 Are any of the following activities administered by a third party:															

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) DB administration?	No	No		0% Yes / 100% No / 0% n/a				9	11% Yes / 87% No / 2% n/a				45
b) DC administration?	No	No		22% Yes / 67% No / 11% n/a				8	30% Yes / 35% No / 35% n/a				30
c) Pensioner data maintenance?	No	No		0% Yes / 100% No / 0% n/a				9	13% Yes / 85% No / 2% n/a				45
d) Active member data maintenance?	No	No		0% Yes / 100% No / 0% n/a				9	11% Yes / 87% No / 2% n/a				45
e) Contribution collection?	No	No		11% Yes / 89% No / 0% n/a				9	11% Yes / 87% No / 2% n/a				45
f) Disability decisions?	Yes	Yes		44% Yes / 56% No / 0% n/a				9	37% Yes / 57% No / 7% n/a				43
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	No		0% Yes / 100% No / 0% n/a				9	7% Yes / 89% No / 4% n/a				44
b) Post-retirement health?	No	No		11% Yes / 89% No / 0% n/a				9	22% Yes / 74% No / 4% n/a				44
c) Pre-retirement dental and vision?	No	No		0% Yes / 100% No / 0% n/a				9	2% Yes / 93% No / 4% n/a				44
d) Post-retirement dental and vision?	No	No		11% Yes / 89% No / 0% n/a				9	17% Yes / 78% No / 4% n/a				44
e) Long-term care insurance?	No	No		0% Yes / 100% No / 0% n/a				9	7% Yes / 89% No / 4% n/a				44
f) Loans to members?	No	No		11% Yes / 89% No / 0% n/a				9	9% Yes / 87% No / 4% n/a				44
g) Optional tax deferred savings plans? [i.e., 457, 403, 401k, 401a, etc.]	Yes	Yes		33% Yes / 67% No / 0% n/a				9	17% Yes / 78% No / 4% n/a				44
h) Optional insurance? [i.e., life and/or auto and/or home]	No	No		0% Yes / 100% No / 0% n/a				9	9% Yes / 87% No / 4% n/a				44
i) Other (describe)?	Yes	Yes		22% Yes / 78% No / 0% n/a				9	15% Yes / 78% No / 7% n/a				43
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	No		56% Yes / 44% No / 0% n/a				9	65% Yes / 33% No / 2% n/a				45
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	No		0% Yes / 100% No / 0% n/a				9	20% Yes / 76% No / 4% n/a				44
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 and General Assembly, etc.]	Yes	Yes		56% Yes / 44% No / 0% n/a				9	43% Yes / 46% No / 11% n/a				41
Paying Pension Rules													

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
<p>133 Do you make payments to annuitants that are accounted for separately from the normal pension? [For example : • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These contributions are often reimbursed to the pensioner. The accounting and the member's payment advice shows 2 different payments (the pension + the reimbursement) and 1 collection (the required contribution).]</p>	No	No		11% Yes / 89% No / 0% n/a					9	37% Yes / 57% No / 7% n/a					43
<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	Yes		33% Yes / 67% No / 0% n/a					9	35% Yes / 59% No / 7% n/a					43
	Yes	Yes		78% Yes / 22% No / 0% n/a					9	54% Yes / 30% No / 15% n/a					39
	Yes	Yes		78% Yes / 22% No / 0% n/a					9	46% Yes / 48% No / 7% n/a					43
	No	No		67% Yes / 33% No / 0% n/a					9	80% Yes / 13% No / 7% n/a					43
	Yes	Yes		89% Yes / 11% No / 0% n/a					9	89% Yes / 4% No / 7% n/a					43
<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%).]</p>	No	No		67% Yes / 33% No / 0% n/a					9	67% Yes / 26% No / 7% n/a					43
	No	No		22% Yes / 78% No / 0% n/a					9	22% Yes / 72% No / 7% n/a					43

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	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	Yes		67% Yes / 33% No / 0% n/a					9	54% Yes / 39% No / 7% n/a					43
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	Yes 3		67% Yes / 33% No / 0% n/a					9	61% Yes / 30% No / 9% n/a					42
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	No n/a n/a		56% Yes / 44% No / 0% n/a					9	46% Yes / 48% No / 7% n/a					43
				0% All / 56% Some / 44% n/a					5	15% All / 30% Some / 54% n/a					21
				56% Yes / 0% No / 44% n/a					5	41% Yes / 4% No / 54% n/a					21
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	Yes		11% Yes / 89% No / 0% n/a					9	11% Yes / 83% No / 7% n/a					43
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	Yes		33% Yes / 67% No / 0% n/a					9	52% Yes / 41% No / 7% n/a					43
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	No		22% Yes / 78% No / 0% n/a					9	9% Yes / 85% No / 7% n/a					43
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	No		0% Yes / 100% No / 0% n/a					9	2% Yes / 91% No / 7% n/a					43

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	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	No		0% Yes / 100% No / 0% n/a					9	17% Yes / 76% No / 7% n/a					43
143 At retirement, can a member convert:															
a) Part of his benefit into a partial lump sum payment?	No	No		22% Yes / 78% No / 0% n/a					9	41% Yes / 52% No / 7% n/a					43
b) All of his benefit into a lump sum or commuted value payment? [That can be rolled over to another fund, or investment account, etc.]	No	No		22% Yes / 78% No / 0% n/a					9	22% Yes / 72% No / 7% n/a					43
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	Any Day		56% Any Day / 44% Set Day / 0% n/a					9	37% Any Day / 57% Set Day / 7% n/a					43
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	3		7	2	1	2	9	310	2	0	11	43		
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	1		9	2	1	4	9	129	2	0	6	43		
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	No		44% Yes / 56% No / 0% n/a					9	26% Yes / 67% No / 7% n/a					43

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
b) Conditional COLA based on the level of funding?	No	No		44% Yes / 56% No / 0% n/a					9	30% Yes / 63% No / 7% n/a					43
c) Umbrella legislation that guarantees the purchasing power of an annuitants' pension will not fall below a certain level? [An example of such legislated protection is the PPPA in California.]	No	No		22% Yes / 78% No / 0% n/a					9	15% Yes / 78% No / 7% n/a					43
148 Do you have COLA clauses that increase the base pensionable earnings of inactive members?	No	No		33% Yes / 67% No / 0% n/a					9	26% Yes / 67% No / 7% n/a					43
a) If yes, are these COLA increases the same as they are for annuitants?	n/a	n/a		33% Yes / 0% No / 67% n/a					3	22% Yes / 4% No / 74% n/a					12
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	4		21	7	2	9	9	91	5	1	9	43		
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	Yes		100% Yes / 0% No / 0% n/a					9	89% Yes / 4% No / 7% n/a					43
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	3		12	3	1	4	9	15	3	0	4	43		
152 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas?	8	8		17	5	2	7	9	91	4	1	7	43		

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
<p>[For example, one system has the following three different 'formula percentage' rule sets:</p> <ol style="list-style-type: none"> 1. Fire and Police get 2.5% per year of service; 2. Public Employees get 1.75% per year of service; 3. Teachers get 1.8% for the first 5 years of service, 2.0% for the next 5 years of service and 2.3% per year of service thereafter.] 															
<p>153 Do you have different employers with different benefit formula?</p> <p>If yes, which of the following happens when a member moves from one employer that you administer to another with a different benefit formula? [For example, moves from PERS to Law Enforcement.]</p> <p>a) Each system uses its own formula and salary data to determine the benefit.</p> <p>b) Each system applies its own formula but uses either the salary earned in the last system, or the highest salary (or salaries) in either system.</p> <p>c) The highest formula will apply.</p> <p>d) The formula of the plan where the member works last will apply.</p> <p>e) Other (describe).</p> <p>n/a</p> <p>External Reciprocity</p>	No	No		44% Yes / 56% No / 0% n/a					9	48% Yes / 46% No / 7% n/a					43
	n/a	n/a		33% Yes / 11% No / 56% n/a					4	28% Yes / 20% No / 52% n/a					22
	n/a	n/a		11% Yes / 33% No / 56% n/a					4	15% Yes / 33% No / 52% n/a					22
	n/a	n/a		0% Yes / 44% No / 56% n/a					4	4% Yes / 43% No / 52% n/a					22
	n/a	n/a		11% Yes / 33% No / 56% n/a					4	15% Yes / 33% No / 52% n/a					22
	n/a	n/a		11% Yes / 33% No / 56% n/a					4	9% Yes / 37% No / 54% n/a					21
<p>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.]</p>	Yes	Yes		33% Yes / 67% No / 0% n/a					9	33% Yes / 61% No / 7% n/a					43
<p>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:</p> <ul style="list-style-type: none"> • 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.] <p>Service Credit Rules</p>	No	No		22% Yes / 78% No / 0% n/a					9	17% Yes / 76% No / 7% n/a					43

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	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"> • One definition such as "more than 120 days = a year". • Or the following three definitions: 9 months = a year for state colleges, 10 months = a year for teachers and 12 months = a year for public employees. • Or the following three definitions: 182 days in school district A or B, 179 days in school district C and 180 days in all other school districts. • Or the following two definitions for hourly employees: 48 weeks of 40 hours per week versus 48 weeks of 36 hours per week.] 	1	1		12	2	1	4	9	63	2	1	4	43
<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	No		44% Yes / 56% No / 0% n/a				9	26% Yes / 67% No / 7% n/a				43
	n/a	n/a		6	4	2	4	4	30	3	1	6	12
<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		9	2	1	3	9	9	2	0	2	43
<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	Yes		100% Yes / 0% No / 0% n/a				9	91% Yes / 2% No / 7% n/a				43
	Yes	Yes		33% Yes / 67% No / 0% n/a				9	67% Yes / 26% No / 7% n/a				43
<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	Yes		78% Yes / 22% No / 0% n/a				9	78% Yes / 15% No / 7% n/a				43

Survey Question	Your Response			Peers 2021					All Participants 2021					
	2021	2020	2019	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	Yes		100% Yes / 0% No / 0% n/a					9	89% Yes / 2% No / 9% n/a				42
b) Lump sum payments from members?	Yes	Yes		100% Yes / 0% No / 0% n/a					9	91% Yes / 0% No / 9% n/a				42
c) Installment payments direct from members?	Yes	Yes		67% Yes / 33% No / 0% n/a					9	67% Yes / 24% No / 9% n/a				42
d) Installment payments via payroll deduction through employers?	No	No		44% Yes / 56% No / 0% n/a					9	52% Yes / 39% No / 9% n/a				42
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	4		21	7	4	9	9	54	12	2	13	42	
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	7		10	6	3	6	9	19	5	1	6	42	
164 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies):														
a) Essentially identical for all your members?	Yes	Yes		56% Yes / 44% No / 0% n/a					9	33% Yes / 57% No / 11% n/a				41
b) Similar for all member groups, albeit with some differences?	No	No		44% Yes / 56% No / 0% n/a					9	50% Yes / 39% No / 11% n/a				41
c) Very different for different member groups?	No	No		22% Yes / 78% No / 0% n/a					9	13% Yes / 74% No / 13% n/a				40
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	No		67% Yes / 33% No / 0% n/a					9	57% Yes / 37% No / 7% n/a				43
a) If yes, how many different one-time death payment rule sets do you have? [i.e., \$5,000, \$2,000 etc.]	n/a	n/a		8	4	1	4	6	8	3	1	4	26	

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	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	2	1	2	9	8	2	0	3	43		
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	Yes		78% Yes / 22% No / 0% n/a					9	67% Yes / 15% No / 17% n/a					38
	No	No		22% Yes / 78% No / 0% n/a					9	13% Yes / 72% No / 15% n/a					39
	No	No		33% Yes / 67% No / 0% n/a					9	33% Yes / 52% No / 15% n/a					39
	No	No		0% Yes / 100% No / 0% n/a					9	15% Yes / 65% No / 20% n/a					37
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	Yes		22% Yes / 78% No / 0% n/a					9	15% Yes / 61% No / 24% n/a					35
	No	No		11% Yes / 89% No / 0% n/a					9	4% Yes / 72% No / 24% n/a					35
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	No		11% Yes / 89% No / 0% n/a					9	9% Yes / 72% No / 20% n/a					37
	No	No		0% Yes / 100% No / 0% Some / 0% n/a					9	2% Yes / 74% No / 7% Some / 17% n/a					38
	Yes	Yes		100% Yes / 0% No / 0% n/a					9	74% Yes / 7% No / 20% n/a					37
	Yes	Yes		11% Yes / 78% No / 11% n/a					8	17% Yes / 61% No / 22% n/a					36

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	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	Yes		78% Yes / 22% No / 0% n/a					9	46% Yes / 35% No / 20% n/a					37
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	n/a		0% Yes / 89% No / 11% n/a					8	15% Yes / 63% No / 22% n/a					36
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	n/a		33% Yes / 56% No / 11% n/a					8	22% Yes / 50% No / 28% n/a					33
d) Other (describe)? n/a	Yes	Yes		22% Yes / 67% No / 11% n/a					8	11% Yes / 61% No / 28% n/a					33
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	n/a		0% Yes / 0% No / 100% n/a					0	9% Yes / 4% No / 87% 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	n/a		0% Yes / 0% No / 100% n/a					0	4% Yes / 9% No / 87% n/a					6
c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?	n/a	n/a		0% Yes / 0% No / 100% n/a					0	4% Yes / 9% No / 87% n/a					6

Survey Question	Your Response			Peers 2021					All Participants 2021					
	2021	2020	2019	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?	4	4		12	4	1	5	9	97	3	1	7	37	
b) Short-term disability (if you administer it yourself)?	n/a	n/a		n/a	n/a	n/a	n/a	0	2	2	1	2	4	
[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.]														
173 Do you reduce payments if the member qualifies or receives:														
a) Disability social security?	No	No		11% Yes / 89% No / 0% n/a					9	22% Yes / 59% No / 20% n/a				37
b) Worker's compensation?	No	No		44% Yes / 56% No / 0% n/a					9	33% Yes / 46% No / 22% n/a				36
c) Other public funds (i.e., federal military disability)?	No	No		0% Yes / 100% No / 0% n/a					9	7% Yes / 72% No / 22% n/a				36
d) Income protection plans/other disability insurance?	No	No		0% Yes / 100% No / 0% n/a					9	9% Yes / 70% No / 22% n/a				36
e) Employer sick leave and annual leave pay?	No	No		11% Yes / 89% No / 0% n/a					9	17% Yes / 61% No / 22% n/a				36
f) Unemployment compensation?	No	No		0% Yes / 100% No / 0% n/a					9	11% Yes / 67% No / 22% n/a				36
g) Income from other employment?	Yes	Yes		44% Yes / 56% No / 0% n/a					9	37% Yes / 41% No / 22% n/a				36
h) Other (describe)?	n/a	n/a		0% Yes / 78% No / 22% n/a					7	11% Yes / 61% No / 28% n/a				33
n/a														
Pensionable Earnings														
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?	No	No		67% Yes / 33% No / 0% n/a					9	72% Yes / 22% No / 7% n/a				43
b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	Yes	Yes		67% Yes / 33% No / 0% n/a					9	78% Yes / 15% No / 7% n/a				43
c) Overtime pay?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	76% Yes / 17% No / 7% n/a				43
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	No	No		56% Yes / 44% No / 0% n/a					9	37% Yes / 57% No / 7% n/a				43
If yes, is all, some or none of it included in pensionable earnings?														
a) Bonuses?	n/a	n/a		11% All / 0% None / 56% Some / 33% n/a					6	9% All / 13% None / 50% Some / 28% n/a				33
b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	All	All		33% All / 0% None / 33% Some / 33% n/a					6	15% All / 13% None / 50% Some / 22% n/a				36

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) Overtime pay?	All	All		44% All / 0% None / 33% Some / 22% n/a				7	39% All / 13% None / 24% Some / 24% n/a				35
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	n/a	n/a		22% All / 0% None / 33% Some / 44% n/a				5	13% All / 9% None / 15% Some / 63% n/a				17
175 When determining a member's pensionable earnings does a cap on salary increases apply? Customization Options	No	No		67% Yes / 33% No / 0% n/a				9	41% Yes / 52% No / 7% n/a				43
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?	No	No		22% Yes / 78% No / 0% n/a				9	22% Yes / 72% No / 7% n/a				43
b) Whether or not part-time employees are eligible?	No	No		0% Yes / 100% No / 0% n/a				9	11% Yes / 83% No / 7% n/a				43
c) Whether employee contributions are paid pre or post tax?	No	No		0% Yes / 100% No / 0% n/a				9	17% Yes / 76% No / 7% n/a				43
d) Whether they pay for employee contributions themselves, or not?	No	No		33% Yes / 67% No / 0% n/a				9	26% Yes / 67% No / 7% n/a				43
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	Yes		11% Yes / 89% No / 0% n/a				9	11% Yes / 83% No / 7% n/a				43
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	No		0% Yes / 100% No / 0% n/a				9	11% Yes / 83% No / 7% n/a				43
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	No		11% Yes / 89% No / 0% n/a				9	13% Yes / 80% No / 7% n/a				43
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.]	No	No		0% Yes / 100% No / 0% n/a				9	4% Yes / 89% No / 7% n/a				43
b) Final salary definition? [i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc.]	No	No		0% Yes / 100% No / 0% n/a				9	4% Yes / 89% No / 7% n/a				43
c) Retirement eligibility rules? [i.e., age and/or years of service required to retire]	No	No		0% Yes / 100% No / 0% n/a				9	2% Yes / 91% No / 7% n/a				43
d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	No	No		11% Yes / 89% No / 0% n/a				9	4% Yes / 89% No / 7% n/a				43
e) Vesting period?	No	No		0% Yes / 100% No / 0% n/a				9	2% Yes / 91% No / 7% n/a				43

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
f) Service credit purchase categories?	No	No		0% Yes / 100% No / 0% n/a				9	7% Yes / 87% No / 7% n/a				43
g) Death benefit coverage? [i.e., one system has 3 choices: none, \$5,000 and \$10,000]	No	No		0% Yes / 100% No / 0% n/a				9	4% Yes / 89% No / 7% n/a				43
h) Disability coverage rules?	No	No		0% Yes / 100% No / 0% n/a				9	9% Yes / 85% No / 7% n/a				43
i) Choice as to whether and how contributions and benefits are coordinated with social security?	No	No		11% Yes / 89% No / 0% n/a				9	4% Yes / 89% No / 7% n/a				43
j) Other (describe)? n/a	No	No		0% Yes / 100% No / 0% n/a				9	15% Yes / 78% No / 7% n/a				43
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	n/a	0	876	441	5	441	2
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	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	n/a	0	12	12	12	12	1
d) Cost of living adjustment rules? [i.e., CPI capped at 2%, CPI uncapped, etc]	n/a	n/a		2	2	2	2	1	4	3	2	3	2
e) Vesting period?	n/a	n/a		n/a	n/a	n/a	n/a	0	3	3	3	3	1
f) Service credit purchase categories?	n/a	n/a		n/a	n/a	n/a	n/a	0	10	2	1	4	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	n/a	0	6	5	3	5	2
h) Disability coverage rules?	n/a	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	n/a		1	1	1	1	1	2	2	1	2	2
j) Other (describe)?	n/a	n/a		n/a	n/a	n/a	n/a	0	30	1	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	No		11% Yes / 78% No / 11% n/a				8	20% Yes / 72% No / 9% n/a				42
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	4		42	6	4	10	9	4,331	6	1	313	43
b) Members?	5	5		228	5	2	29	9	228	4	1	11	43
180 Which of the following payment methods for employee contributions occur in the plans that you administer:													

Survey Question	Your Response			Peers 2021					All Participants 2021						
	2021	2020	2019	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
a) No employee contributions?	No	No		44% Yes / 56% No / 0% n/a					9	22% Yes / 72% No / 7% n/a					43
b) Employer pays their part and also the employee contributions?	No	No		67% Yes / 33% No / 0% n/a					9	48% Yes / 46% No / 7% n/a					43
c) Employer withholds employee contributions pre-tax from their salary?	Yes	Yes		78% Yes / 22% No / 0% n/a					9	89% Yes / 4% No / 7% n/a					43
d) Employer withholds employee contributions post-tax from their salary?	No	No		33% Yes / 67% No / 0% n/a					9	33% Yes / 61% No / 7% n/a					43
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	Yes		56% Yes / 44% No / 0% n/a					9	52% Yes / 41% No / 7% n/a					43
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	No		22% Yes / 78% No / 0% n/a					9	26% Yes / 67% No / 7% n/a					43
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	Yes		44% Yes / 56% No / 0% n/a					9	39% Yes / 46% No / 15% n/a					39
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	No		89% Yes / 11% No / 0% n/a					9	87% Yes / 7% No / 7% n/a					43
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	No		67% Yes / 33% No / 0% n/a					9	65% Yes / 24% No / 11% n/a					41
	No	No		56% Yes / 44% No / 0% n/a					9	52% Yes / 37% No / 11% n/a					41
	No	No		11% Yes / 89% No / 0% n/a					9	13% Yes / 76% No / 11% n/a					41

Survey Question	Your Response			Peers 2021					All Participants 2021				
	2021	2020	2019	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	0		41	1	0	6	8	42	1	0	9	41
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	No		11% Yes / 89% No / 0% n/a				9	11% Yes / 83% No / 7% n/a				43
b) Minimal impact unless children are involved. With children you may be required to redirect payment.	No	No		0% Yes / 100% No / 0% n/a				9	0% Yes / 93% No / 7% n/a				43
c) A portion of the pension is paid to the ex-spouse, but ONLY when the member begins receiving benefits.	Yes	Yes		78% Yes / 22% No / 0% n/a				9	48% Yes / 46% No / 7% n/a				43
d) A portion of the pension is paid to the ex-spouse. The ex-spouse can initiate the pension at a time different than the member provided that eligibility conditions are met.	No	No		11% Yes / 89% No / 0% n/a				9	30% Yes / 63% No / 7% n/a				43
e) Other (describe) n/a	No	No		0% Yes / 100% No / 0% n/a				9	17% Yes / 76% No / 7% n/a				43

Appendix B - Foreign currency conversion

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

Currency	Purchasing Power Parity ¹			
	2021	2020	2019	2018
United States Dollars - USD	1.000	1.000	1.000	1.000
Canada Dollars - CAD	0.777	0.835	0.832	0.801
Euro - EUR	1.449	1.406	1.400	1.427
Denmark Kroner - DKK	0.155	0.150	0.148	0.147
Sweden Kronor - SEK	0.115	0.112	0.112	0.113
United Kingdom Pounds - GBP	1.497	1.396	1.451	1.452
Australia Dollars - AUD	0.683	0.684	0.680	0.697

¹. 2021 Purchasing power parity values will be available in March, 2022.

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"> • EFT processing. • Check processing and postage. • Resolving failed, misdirected and lost payments. • Paying, but not calculating, adjustments to pensions. For example, many systems pay retroactive adjustments to pensions initiated based on incomplete data. • Collecting overpayments. • The processing of return payments from annuitants. • Stopping pension payments upon the death of an annuitant. <p>2. Processing deductions from the gross pension payment. For example:</p> <ul style="list-style-type: none"> • Processing and paying taxes and other governmental deductions, such as social security. • Processing legally required deductions such as liens on wages ordered by a judge. • Processing and effecting payment of optional deductions that the member can request, such as for health care or optional life insurance or union dues. • Processing and mailing of check stubs or EFT payment advices. • Processing and mailing of annual tax receipts to annuitants. • Keeping track of the rules and regulations for deductions. <p>3. Confirming payment eligibility. This includes:</p> <ul style="list-style-type: none"> • Cross referencing pension payrolls with death records. • Obtaining proof that someone is alive. • Checking eligibility. <p>If a sister organization performs any of the above tasks, then the costs incurred by the sister organization should be included here and in your Total Costs.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Maintaining banking, address and beneficiary data for retirees. These belong in 3c Data Not from Employers. • The work of inflation adjustments. It belongs in 1b Pension Inceptions.
<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"> • Adjusting pensions that were initiated based on incomplete or estimated data. • Reducing the annuity payment when pensioner begins receiving social security (NL: AOW, Canada: CPP). • Cost of living adjustments for pensioners. • Last survivor options that reduce the amount paid to the pensioner when a spouse dies. • High/Low construction: Reducing the gross annuity paid from the "High" amount to the "Low" amount. • Pop-up options that increase the amount paid to the pensioner if spouse dies first. • Redesign of the payment option (such as changing from 0% survivor to 50% survivor) at request of the annuitant. <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"> • Withdrawals and Refunds of contributions. • Lump sum and commuted value payments. • Pre-retirement death that results in a final payment (refund, commuted value, death payment). • One time death payments that are supplemental to the annuity payments. Do not include the cost of paying or stopping the final pension payment which belong in 1a Pension Payments. • Hardship withdrawals (including partials). • Excess contribution refunds (For example, 50% Rule Refunds in Canada). • Individual rollovers of DB monies to internal DC accounts which effectively terminate the DB pension entitlement. <ul style="list-style-type: none"> • Individual transfers-out of monies to authorized external systems. • Collective transfers-out when an employer exits your system. <p>The activity also includes:</p> <ul style="list-style-type: none"> • Providing written estimates of refunds and transfers-out (do not include estimates for Lump Sums and Commuted Value Payments which belong in 2e Written Pension Estimates). • Calculating, arranging and making estimated and final payments. • Related tax deductions, filings and reporting sent to members and tax authorities. • Reminders to speed up processing by external parties. • Collecting overpayments of lump sums or other terminating payments.
<p>1d. Purchases and Transfers-in</p>	<ul style="list-style-type: none"> • Service credit purchases for refunded past service, military service, etc. • Purchases that provide members with additional pensionable salary. • Individual transfers-in/ rollover of monies from external retirement systems. • Collective transfers-in such as when a new employer is merged into your system. <p>The activity also includes:</p> <ul style="list-style-type: none"> • Providing formal written estimates of purchases and transfers-in/ rollovers. • Posting purchases and applying payments. • Receiving purchase payments. • Related tax reporting sent to members and tax authorities. • Purchases applicant dealing directly with the Purchase division, subsequent to an initial request for a purchase.
<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"> • Written disability estimates. • Disability approval process. • Applications and inceptions. • Disability appeals and complaints, provided that they are not handled by your legal staff or external legal counsel. Legal costs belong in 7d Legal Rule Interpretation. • Monitoring and reviewing disabled pensioners and/ or temporarily disabled members for continuing entitlement, including checks on income and medical reviews. • Checks on eligibility of disability payments. • Rehabilitation of disability recipients (very few systems perform this activity). • Medical assessment reviews of new hires for eligibility for death and disability benefits. <p>Do not include if disability is an optional benefit for members. Instead include in 1g Optional and Third Party Administered Benefits.</p> <p>Do not include insurance costs. If an insurance company administers the disability program on your behalf, and you cannot clearly separate the administration cost from the insurance cost, then treat disability as a third party administered benefit.</p> <p>Do not include paying disability pensions. This belongs in 1a Pension Payments.</p>

Appendix C - Activity definitions

1f. Healthcare Administration	<p>This activity only applies to the subset of U.S. systems that administer healthcare. Include only the costs of the healthcare department and any healthcare activities that are not closely integrated with pension administration activities (i.e., If the healthcare call center is separate from the pension administration call center, include its costs and volumes here. But if healthcare calls are integrated with the pension call center, include the costs and volumes in the Call Center activity.). The healthcare department will usually, at a minimum, be responsible for design, vendor management and enrolment.</p> <p>Do NOT include any activities that are integrated with pension administration and not done by the healthcare department. For example:</p> <ul style="list-style-type: none"> • Communication activities such as call center calls and presentations are often integrated with pension administration. In these cases the cost and volumes belong in the pension administration activity. • Similarly, the legal and actuarial departments often handle both healthcare and pension issues. If this is the case, these costs belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.
1g. Optional and Third Party Administered Benefits	<p>Examples of optional and third party administered benefits are:</p> <ul style="list-style-type: none"> • Benefits that are supplemental to the members' primary pension benefit at retirement. Examples include tax deferred savings plans (i.e., 403B, 457, 401k and 401a), insurance (dental, vision, long-term care) and loans to members. • Third party administered benefits. For example, the defined contribution portion of hybrid DB/DC plans are often outsourced. <p>Include the costs of:</p> <ul style="list-style-type: none"> • Specialists responsible for optional and third party benefits, including design, vendor management and enrolment. • Fees paid to third parties to administer outsourced benefits. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Communication activities such as call center calls, presentations and brochures. These belong in the communication activities. For example, the cost and volumes of call center calls about supplemental benefits belong in 2a Call Center. • Actuarial and legal costs. These belong in activities 7c Actuarial and 7d Legal and Rules Interpretation.

2. Member Communication

2a. Call Center	<p>The 'first-line' communication work for active, inactive and annuitant member inquiries. First-line communication includes responding to general questions, initial requests for activity specific work to be performed (such as a request for a written estimate or a refund of contributions, death reporting, change of address or direct deposit or beneficiary), questions about account status or annual statements, advice given over the phone, etc. This activity includes member inquiries by:</p> <ul style="list-style-type: none"> • Telephone: waiting for calls, talking to members on the phone, redirecting calls, training Contact Center staff, auditing calls, call satisfaction surveying and long distance charges. • Automated information or self-serve lines (i.e., telephone lines where the member never needs to speak to a service representative and can navigate menu options where they request forms and publications, etc.). But do NOT include the cost of responding to requests for forms and publications. This belongs in Activity 2f Mass • Email: reading, responding to simple requests, redirecting activity specific requests. • Written correspondence: reading, responding to simple requests, redirecting activity specific requests. <p>Includes contact center hardware and software.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Work performed after the call for activities where costs are collected separately. For example, if a member requests a written pension or benefit estimate, then the cost of preparing it belongs in 2e Written Pension Estimates and not here, even if the work is done in the Contact Center. • Subsequent follow-up activity specific communication. For example, a disability applicant dealing directly with the disability division belongs in 1e Disability.
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Appendix C - Activity definitions

2b. Mail Room, Imaging	<ul style="list-style-type: none"> • Managing incoming and outgoing mail. • Incoming written correspondence: sorting, redirecting activity specific requests. • Scanning and imaging of incoming documents and forms to start a workflow process. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Postage. This belongs in the activities where they were incurred. For example, the mailing of pension checks, check stubs, EFT advices or annual tax receipts belong in 1a Pension Payments.
2c. 1-on-1 Counseling	<ul style="list-style-type: none"> • Walk-in traffic that meets with counselors. • Pre-scheduled 1-on-1 retirement and other counseling. Include pre-scheduled counseling sessions that are conducted via teleconference or over the phone that cover materials sent to the member in advance of the • If written pension estimates are prepared during a counseling session the cost belongs in counseling and not in written estimates.
2d. Presentations and Group Counseling	<ul style="list-style-type: none"> • All presentations to members and retirees. • Group retirement counseling. • Webinars.
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"> • Annuity pensions including early and service retirement. • Giving customized written insight into pension consequences of divorce, death, layoffs, taxes, gaps in pension coverage, etc. • Lump sum or commuted value payouts. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Estimates for transfers, purchases or refunds of contributions. These belong in 1c Withdrawals, Refunds, Transfers-out and 1d Purchases and Transfers-in. • 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. • Non-written estimates such as verbal estimates provided over the phone or obtained by the member from the website. • Time spent during a counseling session preparing written estimates. This belongs in 2c 1-on-1 Counseling.
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"> • Member statements. • Brochures and publications. • Newsletters and information letters. • Videos, CD-ROMS. • Website pension content targeted at members and annuitants. Includes design, development and maintenance of the member content, as well as its pro rata share of the website infrastructure. • Annual reports and popular annual report summaries, but do not include the accounting and auditing costs incurred to prepare the annual report. Accounting costs belong in 4a Financial Administration and Control and auditing costs belong in 7e Audit. • Welcome kits. • Letters informing members when they reach or approach certain milestones such as becoming vested, eligible for disability, eligibility for retirement, etc. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Pre-scheduled retirement counseling done in group sessions or 1-on-1 or member presentations. These belong in 2c 1-on-1 Counseling and 2d Presentations and Group Counseling. • 1-on-1 correspondence. These costs belong in the activity to which the correspondence pertains. For example, correspondence re: pension estimates belongs in 2e Written Pension Estimates. • Payment advices, check stubs, letters informing of changes in gross amount, and annual tax receipts prepared for retirees. These belong in 1a Pension Payments. • Employer targeted communication such as the employer portions of the website and employer newsletters. These belong in 3b Service to Employers.

Appendix C - Activity definitions

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

Appendix C - Activity definitions

4. Governance and Financial Control	
4a. Financial Administration and Control	<ul style="list-style-type: none"> • Budgeting and forecasting. • Financial reporting including preparing the annual report. • The chief financial officer's office including assistants. Exclude time spent on investments. • Compliance unless it is done by the legal department. If this is the case compliance costs belong in 7d Legal and Rules Interpretation. • Risk. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Internal auditing of activity processes, or auditing of financial statements. These belong in 7e Auditing. • Actuarial work. This belongs in 7c Actuarial. • Printing and mailing, including postage, of annual reports to members. This goes in 2f Mass Communication. • Administration work that pertains to the Investment division, such as investment accounting.
4b. Board, Strategy, Policy	<ul style="list-style-type: none"> • Board of Trustees: elections, fees, expenses, etc. • The CEO's office including assistants. Exclude time spent on investments (when in doubt we suggest 50% administration, 50% investments). • Benchmarking studies, strategic planning, fiduciary audits, asset liability studies. But exclude portions attributed to investments. • New and existing plan/ product development. • Strategic market research. <p>Do NOT include:</p> <ul style="list-style-type: none"> • Actuarial or legal advisors to the Board. These costs belong in 7c Actuarial and 7d Legal, respectively.
4c. Government and Public Relations	<ul style="list-style-type: none"> • Maintaining relationships with government, unions and employer organizations. • Anticipating, influencing and initiating plan rule changes by government, by unions, by employers, and by employer organizations. • Costs of coordination with organizations of employers and employees. • Formulating a Governmental Policy document. • Media relations. • Marketing costs to attract new employers, or new members, or to support the position of the pension fund within the industry or other interest groups. • General communication/ marketing to support the position of the pension system in the community or in the industry. • Memberships in Councils of Industry Funds, Company Funds or International Organizations.
5. Major Projects	
	<p>Major Projects are long lived assets that could be (or are) capitalized and expensed over their useful life if you follow GAAP (Generally Accepted Accounting Principles). Examples of Major Projects include:</p> <ul style="list-style-type: none"> • Acquisitions of long lived assets such as computer hardware or a new building. • Major software development projects that will have an extended life. <p>If you do not capitalize Major Projects, provide the actual costs expensed during the year. If you do capitalize Major Projects, include the depreciation or amortization costs of all past and current Major projects. But do not include the current year's cash investment in Major Projects that are being capitalized.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Major Projects that pertain to non-pension or optional benefits such as a new IT system for health care. These costs should be excluded from Total Pension Administration Costs per question 7.1 Non-Pension and Optional Benefits are defined in the comment field in question 7.1.

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"> • Amortization of the IT portion major projects. This belong in activity 5c Amortization of IT major projects. • Amortization of leaseholds or office furniture. This belongs in activity 7a Building and Utilities.
5b. Non-IT major projects (if you don't capitalize)	<p>If you do not capitalize major projects, then include the current year cost of the non-IT portion of major projects that could be capitalized under GASB 51 or GAAP.</p> <p>Do NOT include the IT portion of major projects. This belong in activity 5d IT Major Projects (if you don't capitalize).</p>
5c. Amortization of IT major projects	<p>Current year amortization of the IT portion of capitalized major projects.</p> <p>Major Projects are long lived assets that are capitalized (under GAAP or GASB 51) and expensed over their useful life, which is greater than one reporting period. An example of an IT major project could be a major software development project in the application stage of development, i.e., design, software configuration, software interfacing, coding, installing hardware and testing.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Amortization of the non-IT portion major projects. This belongs in activity 5a Amortization of non-IT major projects. • Amortization/depreciation of IT infrastructure such as mainframes and servers. This belongs in 6a IT Strategy, Database Management and Applications (excl. major projects). • Amortization/depreciation of desktop hardware and software, or telecommunications equipment. This belongs in activity 6b. IT Desktop, Network, and Telecommunication. • Amortization of projects that relate to investment management.
5d. IT major projects (if you don't capitalize)	<p>If you do not capitalize major projects, then include the current year cost of the IT portion of major projects that could be capitalized under GASB 51 or GAAP.</p> <p>Do NOT include the non-IT portion of major projects. This belong in activity 5b Non-IT major projects (if you don't capitalize).</p>

6. Information Technology

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

Appendix C - Activity definitions

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

Appendix D - Defaults

Page	<u>Transactions</u>
Question	27.
Default	Your response was unknown. As a default we used value of 6.
Page	<u>Communication</u>
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 (7,896.77) we used a value that ensures that ratio of this value to call and email is equal to participant average ratio.
Page	<u>Communication</u>
Question	50. What were your volumes of: a) Incoming mail?
Default	Your response was unknown. As a default (28,671.19) we used a value that ensures that ratio of this value to active members is equal to participant average ratio.
Page	<u>Communication</u>
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 (228,858.48) we used a value that ensures that ratio of this value to active members is equal to participant average ratio.
Page	<u>Communication</u>
Question	96.
Default	Your response was unknown. As a default (0.93) we used 25th percentile response of other participants to this question.
Page	<u>Communication</u>
Question	100. Number of: a) Incoming calls from employers?
Default	Your response was unknown. As a default (2,276.85) we used a value that ensures that ratio of this value to active members is equal to participant average ratio.
Page	<u>Communication</u>
Question	100. Number of: b) Email queries from employers?
Default	Your response was unknown. As a default (22,053.61) we used average response of other participants to this question.