

BenchmarkAdmin

2017 Benchmarking Analysis for Oregon PERS

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How you can use CEM's pension administration benchmarking service:

- Measure and manage costs. Understand the factors influencing cost with a detailed peer analysis of your:
 - Staff costs
 - Transaction volumes
 - Productivity
- Measure and manage service. An analysis of over 120 key performance metrics that compares:
 - Your service levels relative to your peers
 - Service areas to improve or reduce
- Gain insights into current research on pension administration best practices and trends through *CEM Insights*. The topics for 2017 are:
 - The use of dashboards in pension administration
 - Social Media II: Strategy and Measurement
- Network with your peers at CEM's annual Global Pension Administration Conference to share best practices in pension administration.
- Access to CEM's online peer network for research and current issues in pension administration.
- Benchmarking cost and service performance is critical because "*What gets measured gets managed*".

Key Takeaways:

Cost

- Your total pension administration cost was \$144 per active member and annuitant. This was \$38 above the peer average of \$106.
- Primary reasons why your cost per member was higher:
 - lower transactions per FTE (productivity)
 - higher back-office costs
- Oregon PERS has one of the highest plan design complexity scores among CEM's global universe. High complexity negatively impacts service, front-office productivity, and back-office costs.

Service

- Your total service score was 62. This was below the peer median of 83.
- Your service score increased by 3 points between 2014 and 2017, driven by improvements in your purchases and transfers-in, pension estimates, and website activities.

70 leading global pension systems participate in the benchmarking service.

Participants

United States

Arizona SRS
CalPERS
CalSTRS
Colorado PERA
Delaware PERS
ERS of Georgia
Florida RS
Idaho PERS
Illinois MRF
Indiana PRS
Iowa PERS
KPERS
LACERA
Michigan ORS
Nevada PERS
NYC ERS
NYC TRS
NYSLRS
Ohio PERS
Oregon PERS
Pennsylvania PSERS
Pennsylvania SERS

PSRS PEERS of Missouri

South Dakota RS

STRS Ohio

TRS Illinois

TRS Louisiana

TRS of Texas

Utah RS

Virginia RS

Washington State DRS

Wisconsin DETF

United Kingdom*

Armed Forces Pension Schemes
British Airways
BSA NHS Pensions
Pension Protection Fund
Principal Civil Service Pension Scheme
Railways Pension Scheme
Rolls Royce
Scottish Public Pension Agency
Teachers' Pensions Scheme
Tesco
Universities Superannuation Scheme

Canada

APS
BC Pension Corporation
Canadian Forces Pension Plans
FPSPP
HOOPP
LAPP
OMERS
Ontario Pension Board
Ontario Teachers
OPTrust
RCMP

Scandinavia

Alecta
ATP

The Netherlands*

ABN Amro Pensioenfonds
ABP
BPF Koopvaardij
bpfBOUW
Pensioenfonds Metaal en Techniek
Pensioenfonds PGB
Pensioenfonds TNO
Pensioenfonds van de Metalektro
Pensioenfonds Vervoer
Pensioenfonds voor de Woningcorporaties
PFZW
PPF APG
Rabobank Pensioenfonds
Shell Pensioenfonds

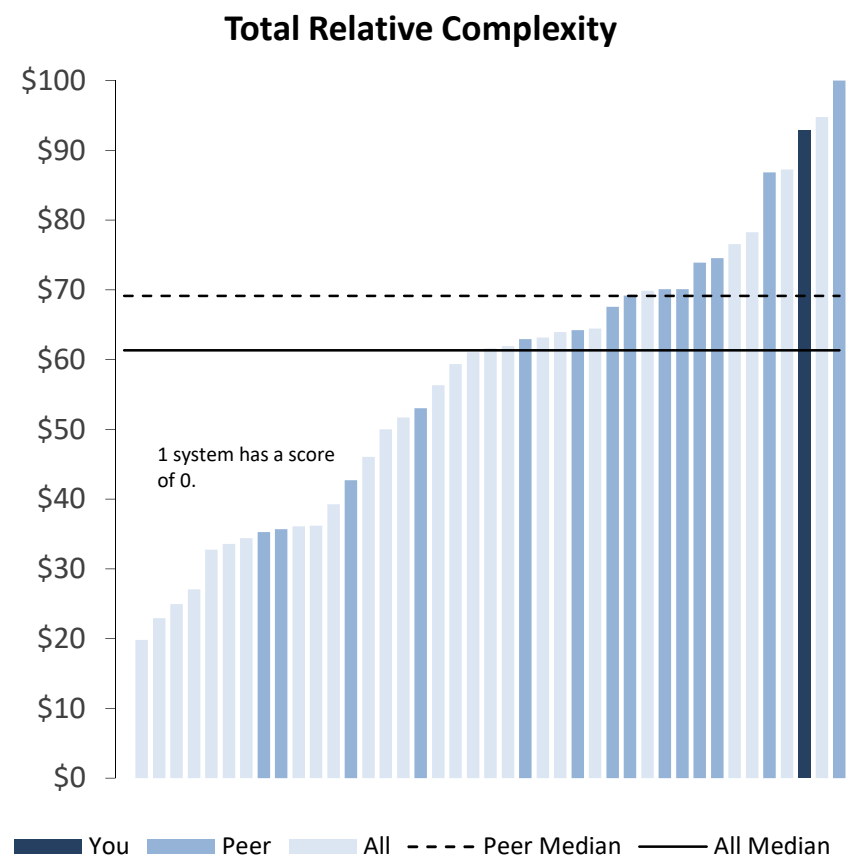
* Systems in the UK and most systems in the Netherlands complete different benchmarking surveys and hence your analysis does not include their results.

The custom peer group for Oregon PERS consists of the following 15 peers:

Custom Peer Group for Oregon PERS			
Peers (sorted by size)	Membership (in 000's)		
	Active Members	Annuitants	Total
Ohio PERS	347	208	555
Virginia RS	341	199	540
Washington State DRS	318	179	497
Wisconsin DETF	257	198	455
Indiana PRS	260	153	413
STRS Ohio	212	160	372
Colorado PERA	240	114	354
Arizona SRS	206	145	351
Oregon PERS	173	141	314
Illinois MRF	175	122	297
Iowa PERS	170	118	288
TRS Illinois	160	120	281
PSRS PEERS of Missouri	126	89	215
TRS Louisiana	90	78	168
LACERA	97	65	162
Peer Median	206	141	351
Peer Average	212	139	351

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.

Your total relative complexity score of 93 was above the peer median of 69. This is among the highest in CEM's database.

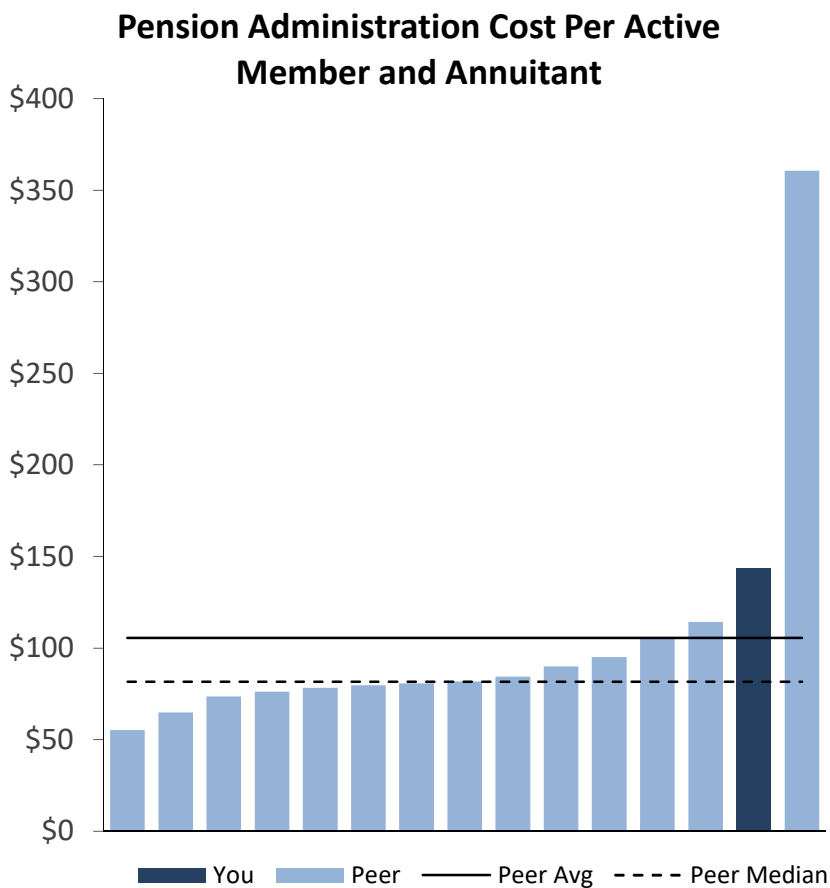


Relative Complexity Score by Cause (0 least - 100 most)		
Cause	You	Peer Avg
Pension Payment Options	56	46
Customization Choices	30	24
Multiple Plan Types and Overlays	100	49
Multiple Benefit Formula	54	38
External Reciprocity	0	31
COLA Rules	61	34
Contribution Rates	72	55
Variable Compensation	100	81
Service Credit Rules	60	57
Divorce Rules	100	60
Purchase Rules	80	66
Refund Rules	31	50
Disability Rules	93	75
Translation	20	7
Defined Contribution Plan Rules	100	60
Total Relative Complexity	93	67

Oregon PERS' high complexity:

- Negatively impacts service
- Reduces front-office productivity
- Increases costs, especially in the back-office

Your total pension administration cost was \$144 per active member and annuitant. This was \$38 above the peer average of \$106.



Your total pension administration cost was \$45.1 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$13.8 million.

Cost comparison per activity.

Activity	(\$000s)	\$s per Active Member and Annuitant			More/ -Less (vs. average)	
	You	You	Peer Med	Peer Avg	\$s	%
1. Member Transactions	<u>5,382</u>	<u>17.14</u>	<u>10.12</u>	<u>16.12</u>	<u>1.02</u>	<u>6%</u>
a. Pension Payments	1,518	4.83	2.62	3.87	0.96	25%
b. Pension Inceptions	1,333	4.25	3.13	3.46	0.79	23%
c. Refunds, Withdrawals and Transfers-out	1,116	3.55	1.56	1.89	1.67	88%
d. Purchases and Transfers-in	659	2.10	1.16	1.47	0.63	43%
e. Disability	757	2.41	2.02	5.43	-3.02	-56%
2. Member Communication	<u>5,830</u>	<u>18.57</u>	<u>16.00</u>	<u>18.66</u>	<u>-0.09</u>	<u>0%</u>
a. Call Center	2,320	7.39	5.66	6.15	1.24	20%
b. Mail Room, Imaging	905	2.88	1.51	3.14	-0.26	-8%
c. 1-on-1 Counseling	488	1.55	1.78	2.33	-0.78	-33%
d. Member Presentations	289	0.92	1.39	1.78	-0.86	-48%
e. Written Pension Estimates	922	2.94	1.34	1.57	1.37	87%
f. Mass Communication	905	2.88	2.88	3.69	-0.80	-22%
3. Collections and Data Maintenance	<u>5,496</u>	<u>17.51</u>	<u>5.71</u>	<u>6.67</u>	<u>10.84</u>	<u>162%</u>
a. Data and Money from Employers	3,463	11.03	2.45	3.30	7.73	234%
b. Service to Employers	1,452	4.63	1.55	1.98	2.65	133%
c. Data Not from Employers	580	1.85	1.23	1.39	0.46	33%
4. Governance and Financial Control	<u>3,056</u>	<u>9.74</u>	<u>8.02</u>	<u>9.26</u>	<u>0.47</u>	<u>5%</u>
a. Financial Administration and Control	1,645	5.24	4.17	4.93	0.31	6%
b. Board, Strategy, Policy	1,207	3.84	2.37	2.70	1.14	42%
c. Government and Public Relations	204	0.65	0.99	1.62	-0.98	-60%
5. Major Projects	<u>3,420</u>	<u>10.89</u>	<u>8.08</u>	<u>6.94</u>	<u>3.95</u>	<u>57%</u>
a. Amortization of non-IT Major Projects	0	0.00	0.00	0.07	-0.07	-100%
b. Non-IT Major Projects (if you don't capitalize)	1,694	5.40	0.00	0.92	4.48	487%
c. Amortization of IT Major Projects	1,726	5.50	0.88	2.42	3.08	127%
d. IT Major Projects (if you don't capitalize)	0	0.00	0.39	3.53	-3.53	-100%
6. Information Technology	<u>10,370</u>	<u>33.04</u>	<u>21.91</u>	<u>26.75</u>	<u>6.28</u>	<u>23%</u>
a. IT Strategy, Database, Applications (excl. major projects)	6,586	20.98	14.34	16.82	4.16	25%
b. IT Desktop, Networks, Telecom	3,784	12.06	8.43	9.93	2.13	21%
7. Support Services and Other	<u>11,508</u>	<u>36.66</u>	<u>17.23</u>	<u>21.14</u>	<u>15.52</u>	<u>73%</u>
a. Building and Utilities	1,505	4.79	4.61	4.92	-0.13	-3%
b. Human Resources	820	2.61	1.94	2.97	-0.35	-12%
c. Actuarial	737	2.35	1.58	1.54	0.80	52%
d. Legal and Rule Interpretation	2,792	8.90	2.62	4.86	4.03	83%
e. Internal and External Audit	801	2.55	2.02	3.46	-0.91	-26%
f. Pay-as-you-go Benefits for Retired Staff	0	0.00	0.00	0.41	-0.41	-100%
g. Other Support Services	4,853	15.46	2.06	2.97	12.49	420%
Total Pension Administration	45,060	143.55	81.71	105.55	38.00	36%

Your total cost of \$45.1 million excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$13.8 million. Your direct costs per the survey for activities 4, 5, 6 and 7 been reduced by attributions to the excluded activities that add up to \$3.3 million. Refer to section 3, page 21 for details.

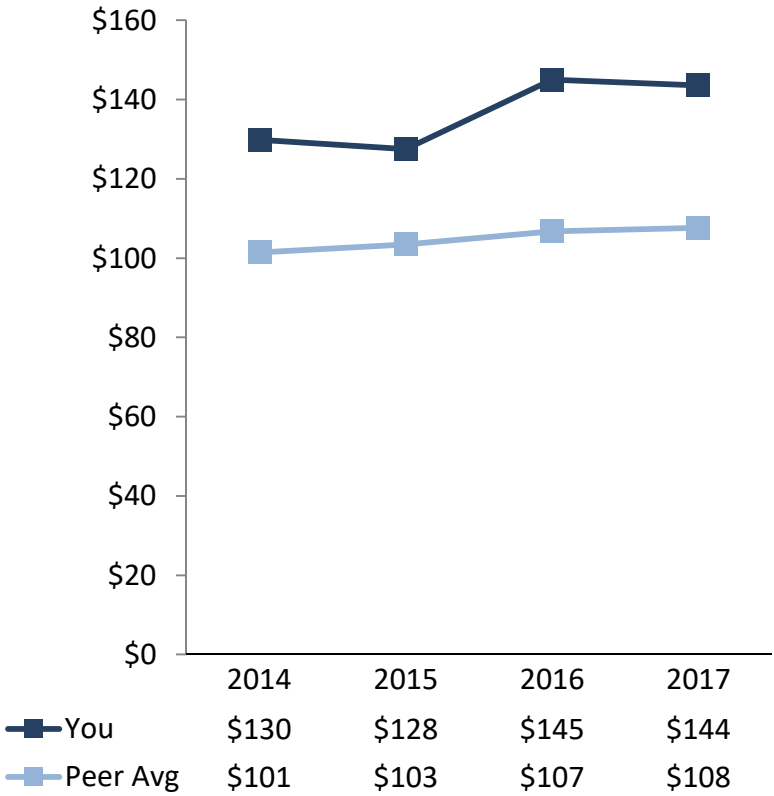
Cost comparison per activity.

(continued)

Activity	Activity Volume		\$s per unit		More/ -Less (vs. average)	
	You		You	Peer Avg	\$s	%
1. Member Transactions						
a. Pension Payments	141,382	annuitants	10.73	9.66	1.07	11%
b. Pension Inceptions	17,759	new payee inceptions	75	153	-78	-51%
c. Refunds, Withdrawals and Transfers-out	9,236	withdrawals and transfers-out	121	173	-52	-30%
d. Purchases and Transfers-in	3,477	purchases and transfers-in	190	413	-224	-54%
e. Disability	199	disability applications	3803	2397	1406	59%
2. Member Communication						
a. Call Center	184,657	calls and emails	12.56	10.29	2.27	22%
b. Mail Room, Imaging	235,404	incoming mail	3.85	7.69	-3.85	-50%
c. 1-on-1 Counseling	3,536	members counseled 1-on-1	138	107	31	29%
d. Member Presentations	528	member presentations	547	1316	-769	-58%
e. Written Pension Estimates	10,992	written estimates	84	67	17	25%
f. Mass Communication	313,895	active members and annuitants	3	4	-1	-22%
3. Collections and Data Maintenance						
a. Data and Money from Employers	172,513	active members	20.07	5.68	14.39	253%
b. Service to Employers	172,513	active members	8.42	3.39	5.03	148%
c. Data Not from Employers	381,008	actives, inactives, annuitants	2	1	0	46%
4. Governance and Financial Control						
a. Financial Administration and Control	313,895	active members and annuitants	5.24	4.93	0.31	6%
b. Board, Strategy, Policy	313,895	active members and annuitants	3.84	2.70	1.14	42%
c. Government and Public Relations	313,895	active members and annuitants	0.65	1.62	-0.98	-60%
5. Major Projects						
a. Amortization of non-IT Major Projects	313,895	active members and annuitants	0.00	0.07	-0.07	-100%
b. Non-IT Major Projects (if you don't capitalize)	313,895	active members and annuitants	5.40	0.92	4.48	487%
c. Amortization of IT Major Projects	313,895	active members and annuitants	5.50	2.42	3.08	127%
d. IT Major Projects (if you don't capitalize)	313,895	active members and annuitants	0.00	3.53	-3.53	-100%
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	313,895	active members and annuitants	20.98	16.82	4.16	25%
b. IT Desktop, Networks, Telecom	339	pension admin fte	11168	14584	-3416.53	-23%
7. Support Services and Other						
a. Building and Utilities	339	pension admin fte	4441	8665	-4223	-49%
b. Human Resources	339	pension admin fte	2420	3809	-1389	-36%
c. Actuarial	313,895	active members and annuitants	2.35	1.54	0.80	52%
d. Legal and Rule Interpretation	313,895	active members and annuitants	8.90	4.86	4.03	83%
e. Internal and External Audit	313,895	active members and annuitants	2.55	3.46	-0.91	-26%
f. Pay-as-you-go Benefits for Retired Staff	339	pension admin fte	0	611	-611	-100%
g. Other Support Services	313,895	active members and annuitants	15.46	2.97	12.49	420%
Total Pension Administration	313,895	active members and annuitants	143.55	105.55	38.00	36%

Cost Trends

Trend in Total Pension Administration Costs



Trend analysis is based on systems that have provided 4 consecutive years of data (14 of your 15 peers).

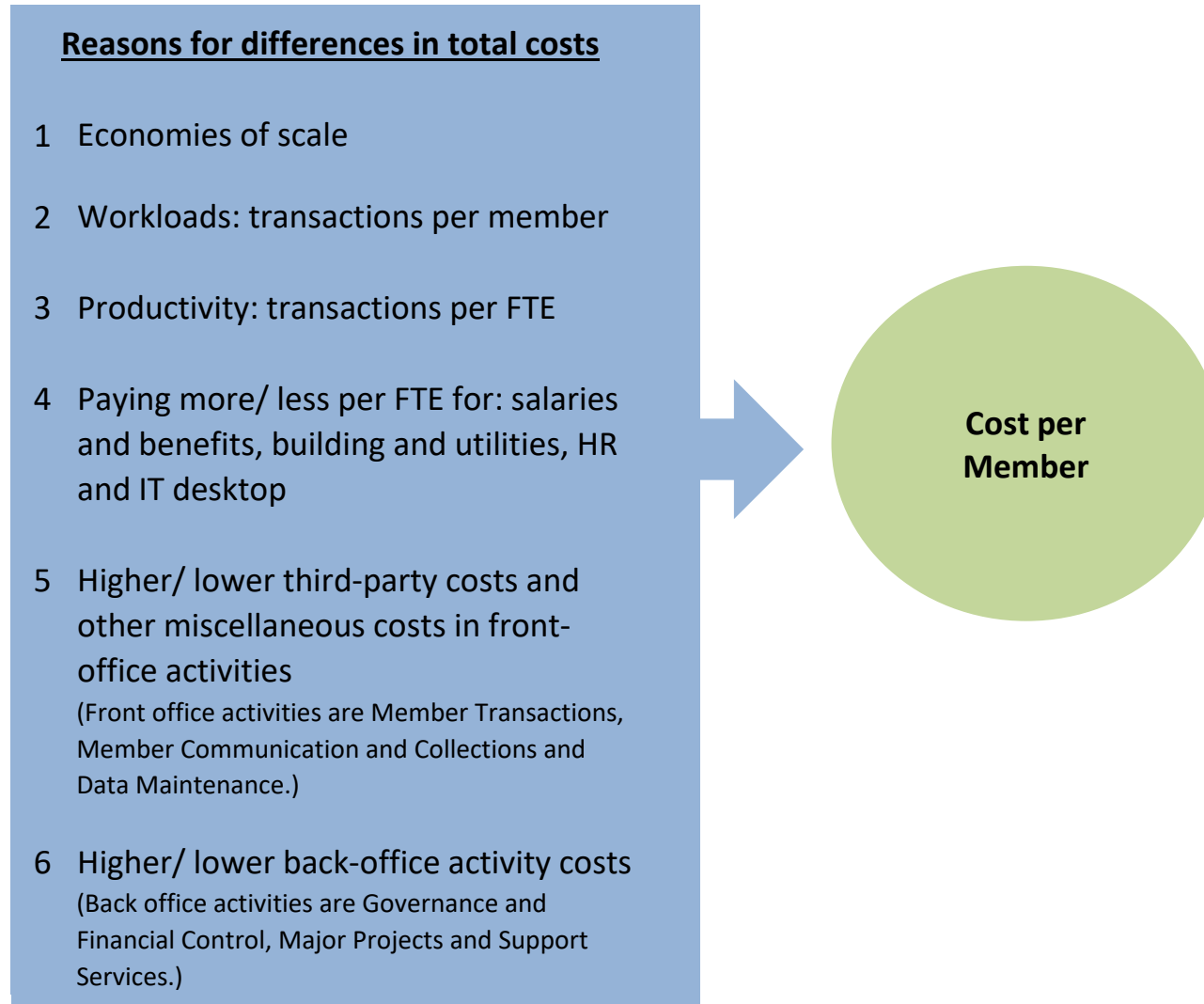
Between 2014 and 2017:

Your total pension administration cost per active member and annuitant increased by 3.4% per annum.

Your cost increase over the past 2 years was due to State Government Service Charges. Excluding these amounts, your cost per member from 2014 to 2017 decreased by 0.4% per annum.

During this same period, the average cost of your peers with 4 years of consecutive data increased by 2.0% per annum.

CEM uses the following cost model to explain differences in costs.



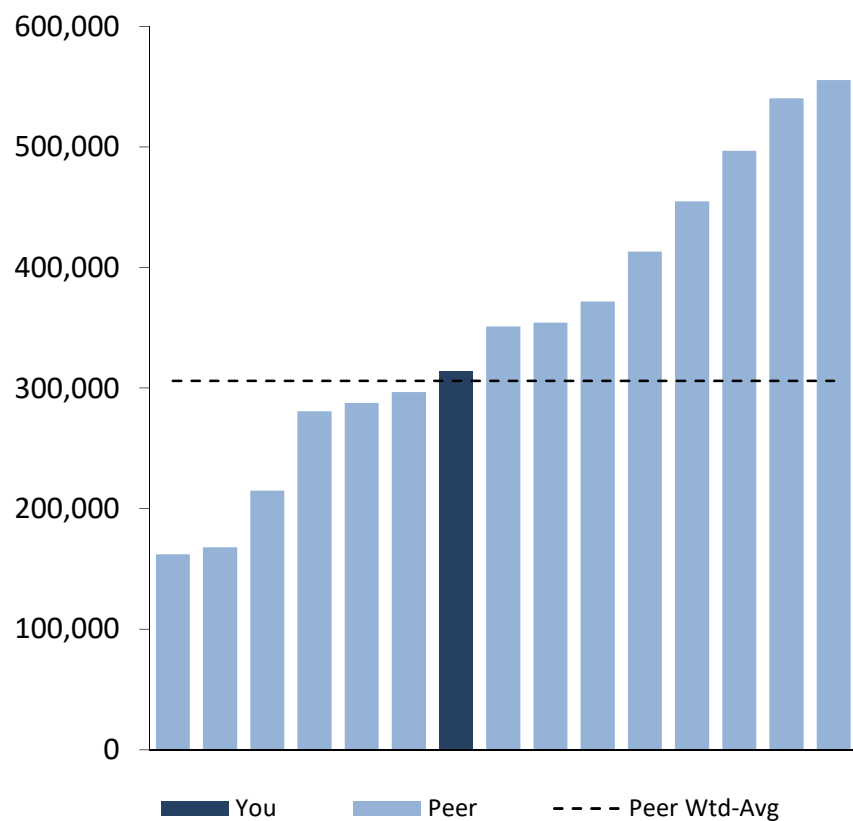
Reasons why your total cost was \$38 above the peer average.

Reason	Impact
1. Economies of scale - minimal impact in this peer group	-\$0.35
2. Higher transactions per member (workloads)	\$6.50
3. Lower transactions per FTE (productivity)	\$18.31
4. Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$16.46
5. Lower third-party and other costs in front-office activities	-\$3.96
6. Paying more/-less for back-office activities:	
- Governance and Financial Control	\$2.33
- Major Projects	\$4.66
- IT Strategy, Database, Applications (excl. major projects)	\$7.96
- Actuarial, Legal, Audit, Other Support Services	\$19.02
Total	\$38.00

The following pages detail the key reasons why your total cost is different from your peers.

Reason 1: Economies of scale did not influence your relative cost position in this peer group.

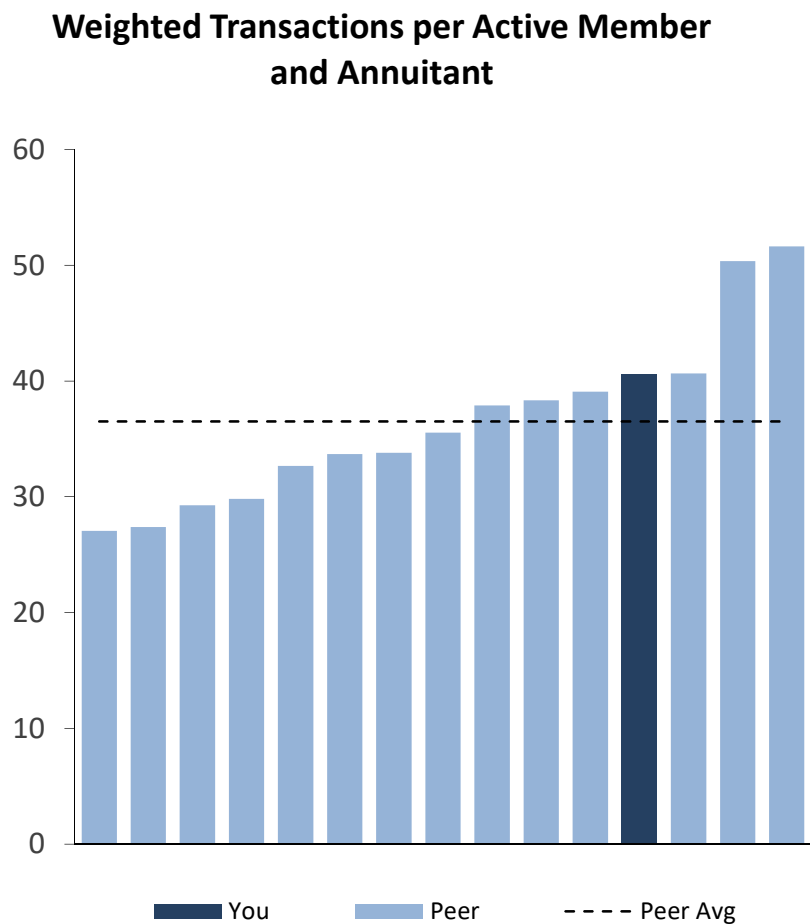
Active Members and Annuitants



Your system had 3% more members than the peer average.

Your larger size means that you had a cost advantage relative to the average peer of \$0.35 per member.

Reason 2: You had higher transaction volumes per member (workloads).



Your weighted transactions were 11% above the peer average.

Your higher transaction volumes increased your total cost per member by an estimated \$6.50 relative to the peer average.

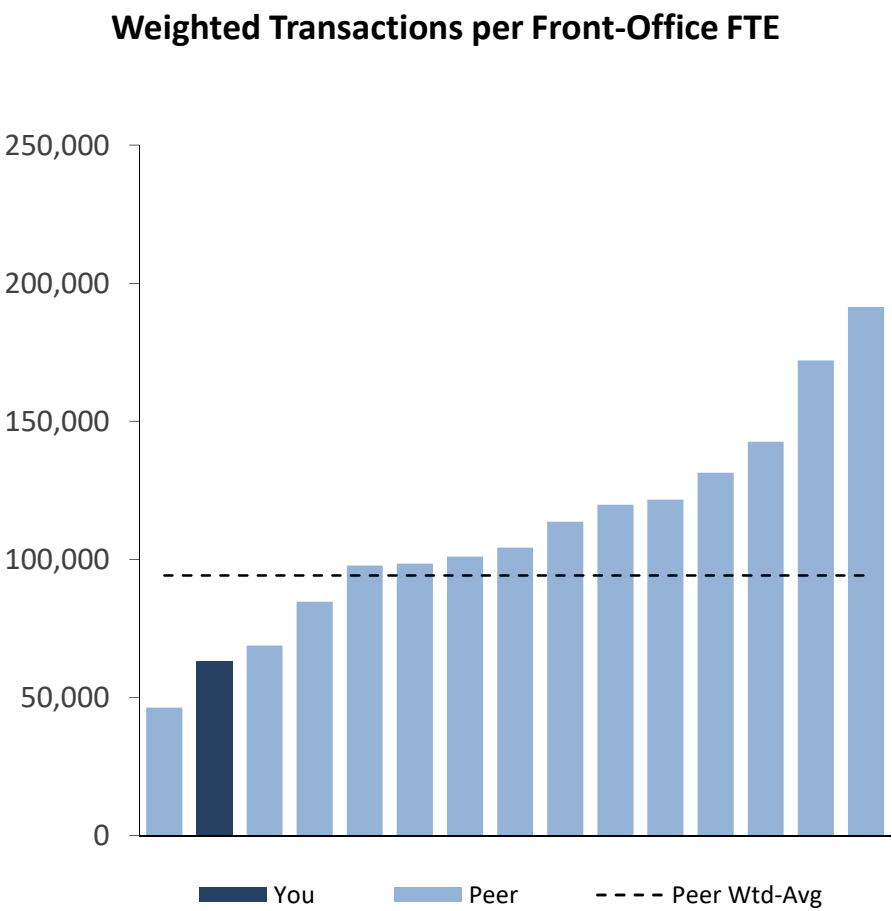
Where did you do more/fewer transactions?

Where did you do more/fewer transactions?				
Front Office Transactions (or Transaction Driver)	Volume per 1,000 Active Members and Annuitants			\$ per Member Transaction Impact
	You	Peer Average	More/-Less	
1. Member Transactions				
a. Pension Payments (Annuitants)	450	403	12%	\$0.61
b. New Payee Inceptions	57	24	134%	\$7.08
c. Withdrawals and Transfers-out	29	27	11%	\$0.49
d. Purchases and Transfers-in	11	7	67%	\$1.64
e. Disability Applications	0.6	2.1	-70%	-\$2.70
2. Member Communication				
a. Calls and Emails	588	581	1%	\$0.12
b. Incoming Mail	750	468	60%	\$2.30
c. Members Counseled 1-on-1	11	30	-62%	-\$1.92
d. Member Presentations	1.7	1.6	6%	\$0.19
e. Written Estimates	35	39	-11%	-\$0.45
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active Members)	550	597	-8%	-\$0.43
b. Service to Employers (Active Members)	550	597	-8%	-\$0.22
c. Data Not from Employers (Actives, Inactives, Annuitants)	1,214	1,387	-12%	-\$0.21
Weighted Total	40,528	36,511	11%	\$6.50

Differences in transaction volumes per member reflect differences in:

- Membership mix
- Member demographics
- Member type/ industry group
- System and plan complexity
- Service Levels

Reason 3: You had lower transactions per FTE (total productivity).



Your transactions per front-office FTE were 33% below the peer average.

Your lower transaction volumes per FTE increased your total cost per member by \$18.31 relative to the peer average.

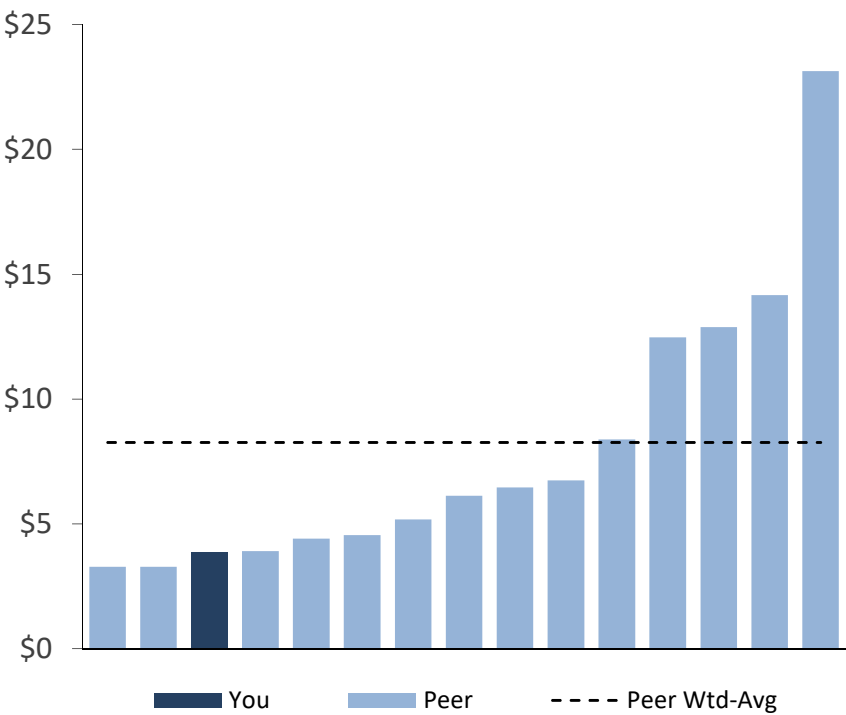
Reason 4: You had lower costs per FTE for: salaries and benefits, IT desktop, networks and telecom, building and utilities, and human resources.

Cost per FTE		
	You	Peer Avg
Salaries and Benefits	\$82,943	\$96,464
Building and Utilities	\$4,741	\$9,651
Human Resources	\$2,583	\$4,228
IT Desktop, Networks, Telecom	\$11,921	\$16,212
Total	\$102,188	\$126,555

Your lower costs per FTE decreased your total cost by \$16.46 per member relative to the peer average.

Reason 5: You had lower third party and other miscellaneous costs in the front-office activities.

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



Your third party and other miscellaneous costs (such as travel, office supplies, etc.) in the front-office activities were \$3.87 per member which was 53% below the peer average of \$8.27.

Your lower third party costs decreased your total cost per member by \$3.96 relative to the peer average.

Reason 6: You paid more for back-office activities.

Back-Office Activities - Cost per Member			
Back Office Activities	You	Peer Avg	More/ -less
Governance and Financial Control	\$10.93	\$8.60	\$2.33
Major Projects	\$11.80	\$7.14	\$4.66
IT Strategy, Database, Applications (excl. major projects)	\$24.30	\$16.34	\$7.96
Actuarial, Legal, Audit, Other	\$30.96	\$11.93	\$19.02
Total	\$77.99	\$44.02	\$33.97

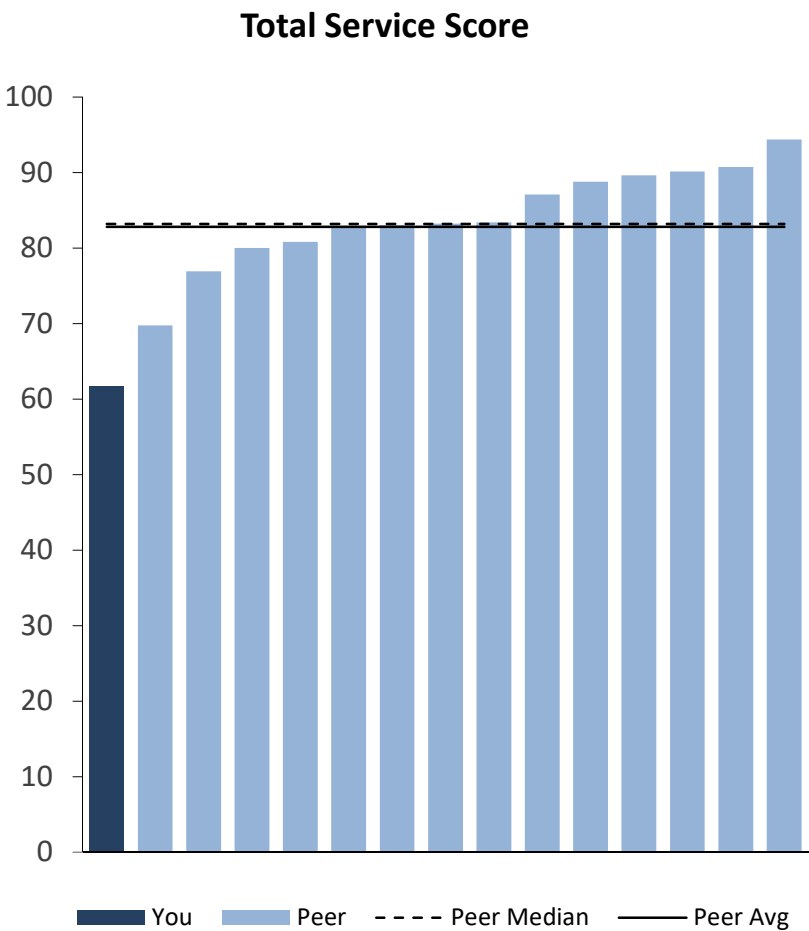
Your cost per active member and annuitant of \$77.99 for back-office activities was above the peer average of \$44.02.

Paying more for back-office activities increased your total cost per member by \$33.97 relative to the peer average.

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

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

Your total service score was 62. This was below the peer median of 83.



- CEM defines service from a member’s perspective:
 - More channels
 - Faster turnaround times
 - More availability
 - More choice
 - Better content
 - Higher quality

The total service score is the weighted average of the activity level service scores.

Service Scores by Activity				
Activity	Weight	You	Score out of 100	
			Peer Median	Higher /-Lower
1. Member Transactions				
a. Pension Payments	19.7%	100	100	0
b. Pension Inceptions	7.4%	7	89	-82
c. Refunds, Withdrawals and Transfers-out	1.3%	5	93	-88
d. Purchases and Transfers-in	3.1%	63	89	-26
e. Disability	3.8%	73	88	-15
2. Member Communication				
a. Call Center	21.2%	34	73	-39
c. 1-on-1 Counseling	7.4%	70	86	-16
d. Presentations and Group Counseling	6.5%	97	92	5
e. Written Pension Estimates	4.7%	42	93	-51
f. Mass Communication				
a. Website	11.3%	76	86	-10
b. News and targeted communication	2.8%	69	81	-12
c. Member statements	4.7%	56	88	-32
3. Other				
Satisfaction Surveying	5.0%	38	55	-17
Disaster Recovery	1.0%	78	96	-18
Weighted Total Service Score	100.0%	62	83	-21

Examples of key service measures included in your Service Score:

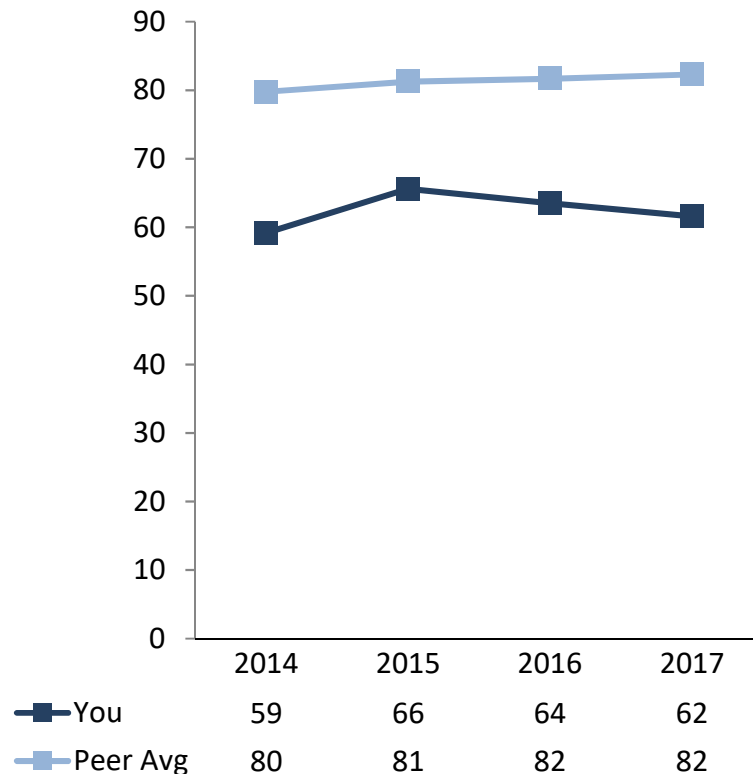
Select Key Service Metrics	You	Peer Avg
<u>Member Contacts</u>		
• % of calls resulting in undesired outcomes (busy signals, messages, hang-ups)	17%	10%
• Average total wait time including time negotiating auto attendants, etc.	258 secs	131 secs
<u>Website</u>		
• Can members access their own data in a secure environment?	Yes	93% Yes
• Do you have an online calculator linked to member data?	Yes	93% Yes
• # of other website tools offered such as changing address information, registering for counseling sessions and/or workshops, viewing or printing tax receipts, etc.	10	14
<u>1-on-1 Counseling and Member Presentations</u>		
• % of your active membership that attended a 1-on-1 counseling session	2.0%	5.0%
• % of your active membership that attended a presentation	6.5%	5.7%
<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?	5.4%	91.6%
<u>Member Statements</u>		
• How current is an active member's data in the statements that the member receives?	5.0 mos	2.5 mos
• Do statements provide an estimate of the future pension entitlement?	No	73% Yes

Where can you improve your total service score?

Potential improvements to your total service score	
Factor	Potential Improvement
94.6% 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. The peer average was 8.4%.	+ 5.5
On average, members calling your call center reach a knowledgeable person in 258 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less.	+ 3.8
16.9% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes.	+ 2.9
<ul style="list-style-type: none">• CEM is not recommending these changes.• Service improvement should be cost effective and important to your members.	

Your service score increased from 59 to 62 between 2014 and 2017.

Trends in Total Service Scores



Trend analysis is based on systems that have provided 4 consecutive years of data (14 of your 15 peers).

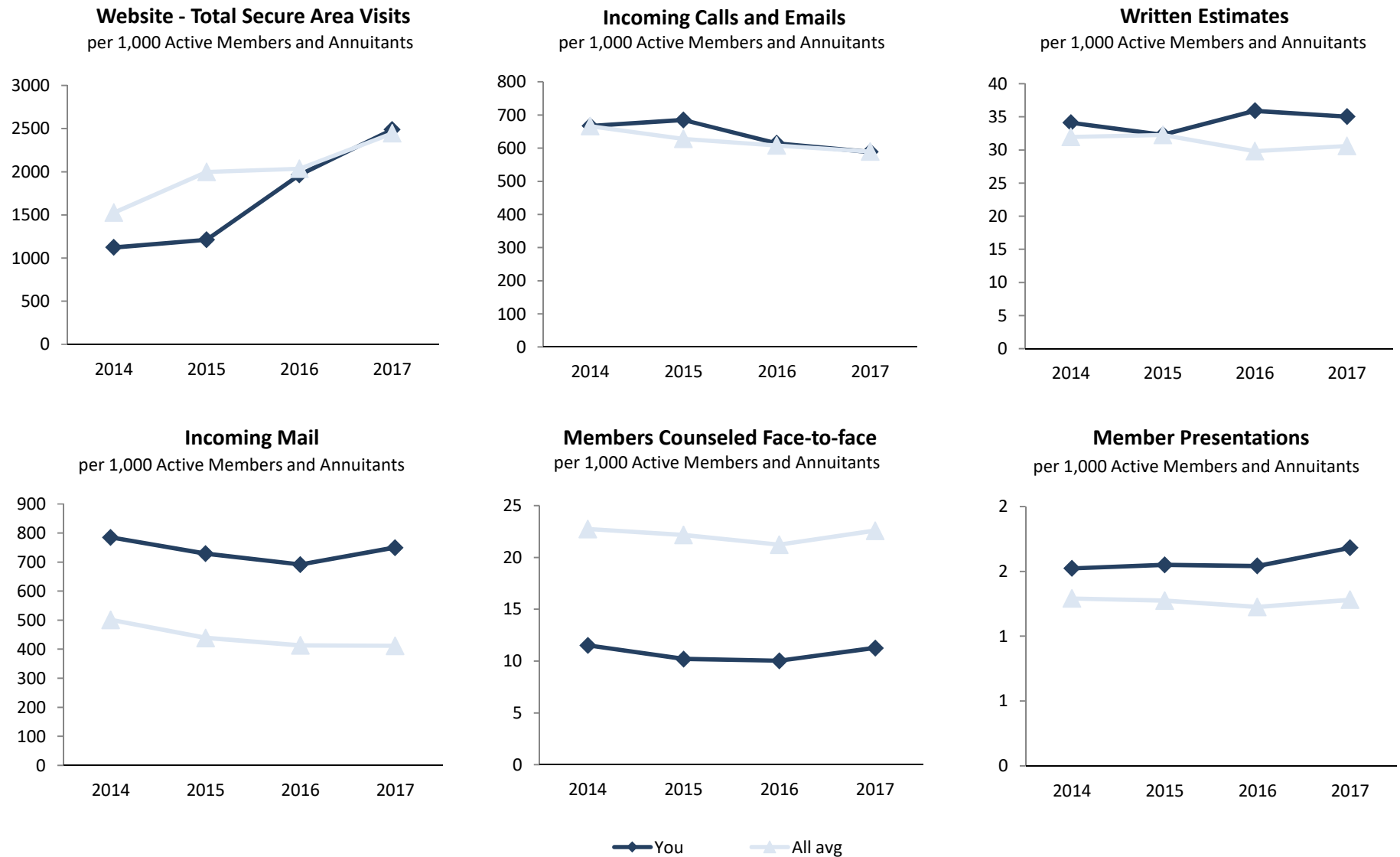
Changes that had a positive impact

- **Purchases and transfers-in:** Your turnaround time for service credit purchase estimates decreased from 37 days to 16 days.
- **Written pension estimates:** Your timeliness for providing estimates improved from 36 days to 15 days.
- **Website:** Your members can now access informative videos on your website.

Change that had a negative impact

- **Call center:** You added 2 additional menu layers. While your call outcomes and wait times have improved from 2014, they have fallen from 2015 levels. From 2015 to 2017, your percentage of undesired outcomes has increased from 8.9% to 16.9% and your wait times have increased from 140s to 258s.

Your volume of secure website visits has more than doubled over the past 4 years.



Trend analysis is based on 40 systems that have provided 4 consecutive years of data.

2

Peer Characteristics

This section contains:

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

Your peer group consists of 15 peers.

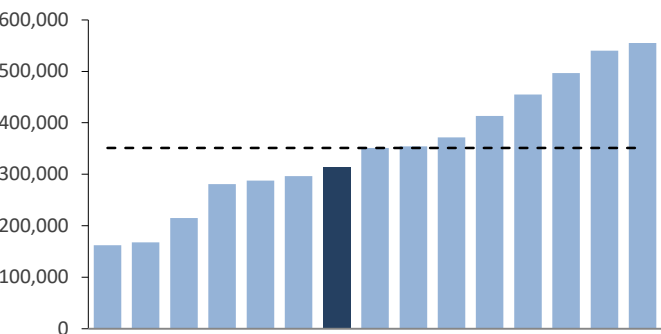
The most relevant comparisons are to systems similar to you in total membership and nationality. Your peer group consists of the following 15 systems:

Custom Peer Group for Oregon PERS			
	Active Members	Annuityants	Total
Ohio PERS	346,959	208,374	555,333
Virginia RS	341,200	199,064	540,264
Washington State DRS	318,224	178,586	496,810
Wisconsin DETF	257,285	197,647	454,932
Indiana PRS	260,005	153,137	413,142
STRS Ohio	211,630	160,203	371,833
Colorado PERA	240,473	113,767	354,240
Arizona SRS	206,055	145,117	351,172
Oregon PERS	172,513	141,382	313,895
Illinois MRF	175,048	121,536	296,584
Iowa PERS	169,910	117,759	287,669
TRS Illinois	160,488	120,151	280,639
PSRS PEERS of Missouri	126,227	88,774	215,001
TRS Louisiana	89,682	78,269	167,951
LACERA	97,221	64,777	161,998
Peer Median	206,055	141,382	351,172
Peer Avg	211,528	139,236	350,764

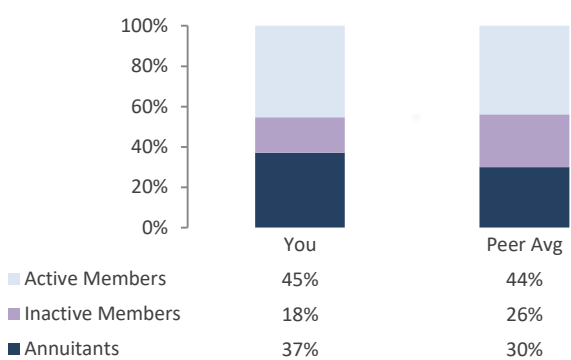
Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded when determining cost per member because they are much less costly to administer than either active members or annuityants.

Graphical summary of peer characteristics

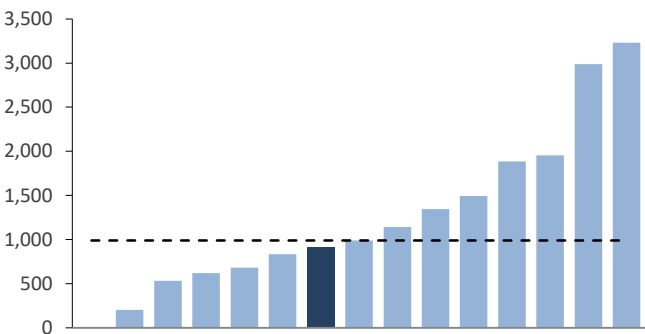
Active Members and Annuitants



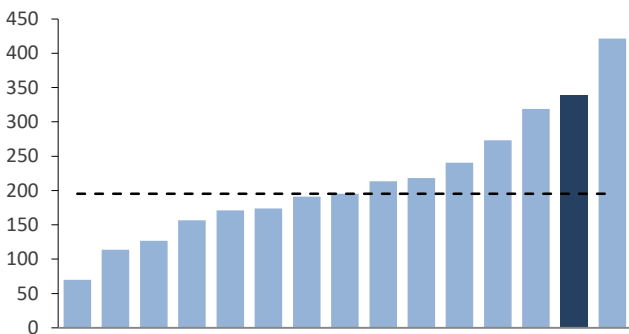
Membership Mix



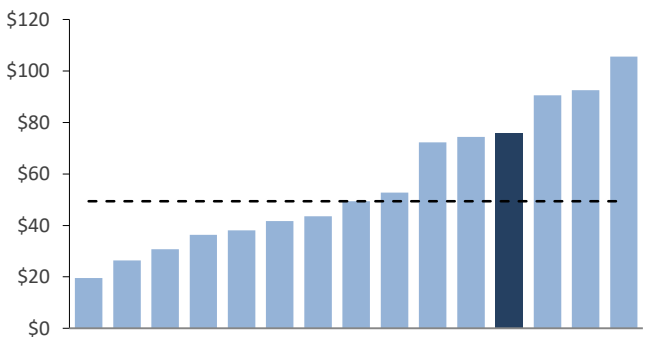
Number of Employers



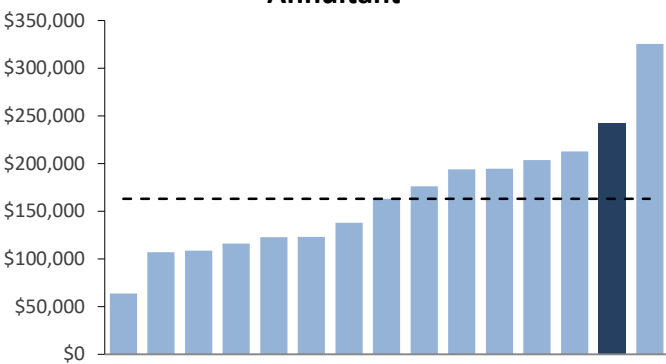
Pension Administration FTE



Total Assets
in \$ billions



Total Assets per Active Member and Annuitant



■ You ■ Peer - - - Peer Median

Profiles of the 47 benchmarking participants (excluding UK systems)

Participant	Members by Type (000s)			Member Groups										Plan Types						
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	Teachers	School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	Industry	DB	Cash Balance	DB/ Cash Balance	DB/ Money Match	Drop	DC	Hybrid DB/ DC	Administer Retiree Healthcare
Canada																				
APS	211	98	51		X		X	X	X	X			X							
BC Pension Corporation	314	181	74		X	X	X	X	X	X	X	X	X		X					X
Canadian Forces Pension Plans	89	112	7							X			X							
FPSP	298	281	14		X								X							
HOOPP	204	92	26		X				X			X	X							
LAPP	158	62	34		X		X	X	X				X							
OMERS	280	147	43				X	X	X	X	X		X							
Ontario Pension Board	42	38	6		X			X					X							
Ontario Teachers	182	136	69		X	X	X						X							
OPTrust	46	36	7		X							X	X							
RCMP	22	20	1		X			X					X							
Scandinavia																				
ATP	3,098	1,004	949		X															
Alecta	481	738	616								X	X								X
The Netherlands																				
ABP	1,105	850	933									X	X							
PFZW	1,156	413	1,064									X	X							

Fund characteristics

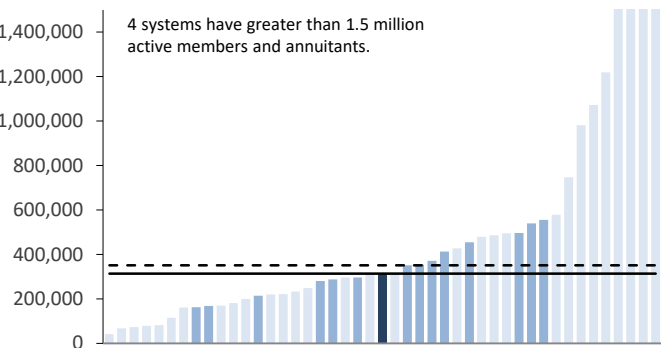
continued

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	206	145	228		X	X	X		X	X			X	X						X
CalPERS	889	670	370		X		X	X	X				X							X
CalSTRS	455	291	185		X	X	X						X		X					
Colorado PERA	240	114	232		X	X	X		X	X			X					X	X	X
Delaware PERS	44	30	16		X	X	X	X	X	X			X							
ERS of Georgia	112	69	209		X		X	X		X			X					X		
Florida RS	634	438	120		X	X	X	X	X	X			X				X	X		
Idaho PERS	70	45	34		X	X	X	X	X	X			X						X	
Illinois MRF	175	122	113				X	X	X				X							
Indiana PRS	260	153	76		X	X	X	X	X	X			X				X	X	X	
Iowa PERS	170	118	68		X	X	X	X	X	X			X							
KPERS	152	97	56		X	X	X	X	X	X			X	X			X			
LACERA	97	65	14	X				X		X			X							X
Michigan ORS	210	269	567		X	X	X	X		X			X				X	X	X	X
Nevada PERS	106	64	17		X	X	X	X		X			X							
NYCERS*																				
NYC TRS	127	95	43	X		X	X						X							
NYSLRS	529	452	124		X		X	X	X	X			X							
Ohio PERS	347	208	537		X			X		X			X	X					X	X
Oregon PERS	173	141	67		X	X	X	X	X	X						X			X	X
PSRS PEERS of Missouri	126	89	50			X	X					X	X							
Pennsylvania PSERS	256	230	148		X	X	X						X							X
Pennsylvania SERS	105	127	5		X	X	X	X		X			X							X
South Dakota RS	40	27	18		X	X	X	X	X	X			X							
STRS Ohio	212	160	153			X							X					X	X	X
TRS Illinois	160	120	132			X							X							
TRS Louisiana	90	78	25			X	X						X				X	X		
TRS of Texas*																				
Utah RS	98	63	55		X	X	X	X	X	X			X					X	X	
Virginia RS	341	199	147		X	X	X	X	X	X			X						X	
Washington State DRS	318	179	262		X	X	X	X	X	X			X						X	
Wisconsin DETF	257	198	167		X	X	X	X	X	X									X	X

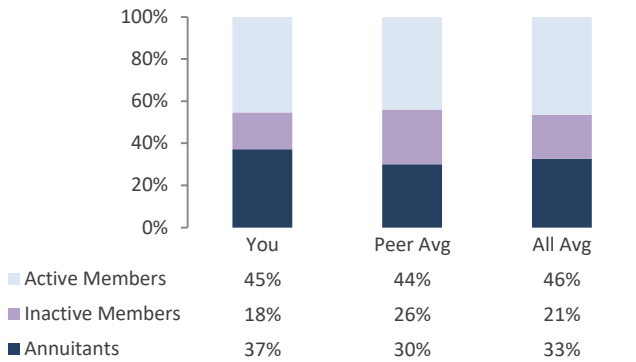
* We have not yet received clean data from the 2 systems identified with an asterisk. Therefore, these systems have been excluded from this analysis.

Graphical summary of all participant characteristics

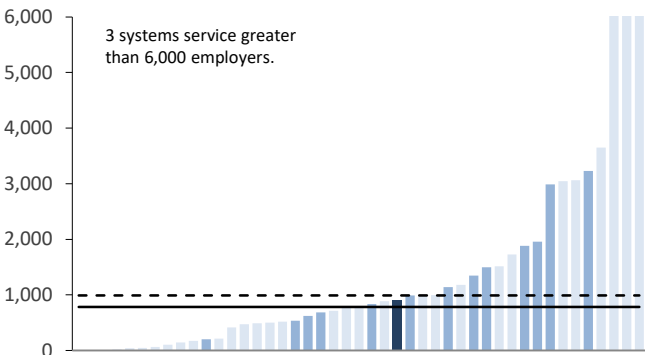
Active Members and Annuitants



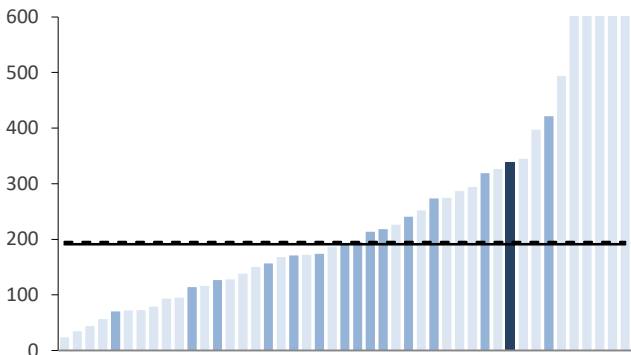
Membership Mix



Number of Employers

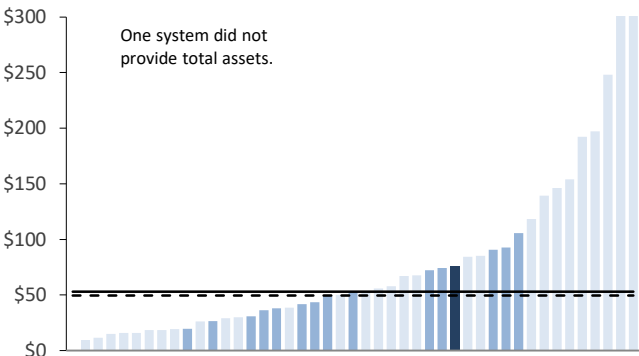


Pension Administration FTE

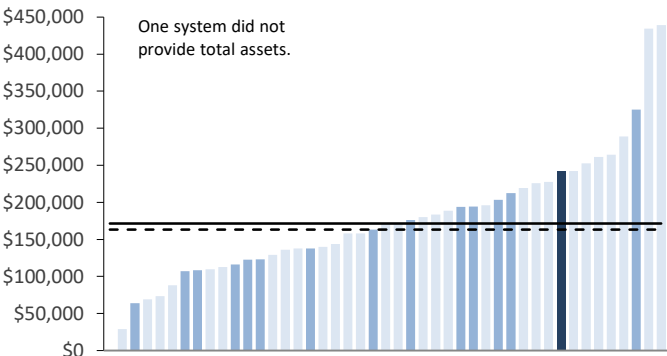


Total Assets

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 economies of scale, transaction volumes, productivity, salary per FTE, and other differences on your relative cost performance.
- Compares your salaries and benefits, and third party costs.

Your total pension administration cost was \$45.1 million or \$144 per active member and annuitant.

Activity ¹	Cost ¹ \$000s	\$s per Active Member and Annuitant			% of Total Pension Administration Cost		
	You	You	Peer Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions							
a. Pension Payments	1,518	4.83	3.87	3.99	3.4%	3.7%	3.3%
b. Pension Inceptions	1,333	4.25	3.46	4.52	3.0%	3.3%	3.8%
c. Refunds, Withdrawals and Transfers-out	1,116	3.55	1.89	2.62	2.5%	1.8%	2.2%
d. Purchases and Transfers-in	659	2.10	1.47	2.97	1.5%	1.4%	2.5%
e. Disability	<u>757</u>	<u>2.41</u>	<u>5.43</u>	<u>2.49</u>	<u>1.7%</u>	<u>5.1%</u>	<u>2.1%</u>
	5,382	17.14	16.12	16.60	11.9%	15.3%	13.9%
2. Member Communication							
a. Call Center	2,320	7.39	6.15	5.55	5.1%	5.8%	4.6%
b. Mail Room, Imaging	905	2.88	3.14	2.65	2.0%	3.0%	2.2%
c. 1-on-1 Counseling	488	1.55	2.33	2.26	1.1%	2.2%	1.9%
d. Member Presentations	289	0.92	1.78	1.26	0.6%	1.7%	1.1%
e. Written Pension Estimates	922	2.94	1.57	1.64	2.0%	1.5%	1.4%
f. Mass Communication	<u>905</u>	<u>2.88</u>	<u>3.69</u>	<u>3.60</u>	<u>2.0%</u>	<u>3.5%</u>	<u>3.0%</u>
	5,830	18.57	18.66	16.96	12.9%	17.7%	14.2%
3. Collections and Data Maintenance							
a. Data and Money from Employers	3,463	11.03	3.30	4.62	7.7%	3.1%	3.9%
b. Service to Employers	1,452	4.63	1.98	2.12	3.2%	1.9%	1.8%
c. Data Not from Employers	<u>580</u>	<u>1.85</u>	<u>1.39</u>	<u>1.33</u>	<u>1.3%</u>	<u>1.3%</u>	<u>1.1%</u>
	5,496	17.51	6.67	8.07	12.2%	6.3%	6.8%
4. Governance and Financial Control							
a. Financial Administration and Control	1,645	5.24	4.93	4.85	3.7%	4.7%	4.1%
b. Board, Strategy, Policy	1,207	3.84	2.70	4.39	2.7%	2.6%	3.7%
c. Government and Public Relations	<u>204</u>	<u>0.65</u>	<u>1.62</u>	<u>1.71</u>	<u>0.5%</u>	<u>1.5%</u>	<u>1.4%</u>
	3,056	9.74	9.26	10.95	6.8%	8.8%	9.2%
5. Major Projects							
a. Amortization of non-IT Major Projects	0	0.00	0.07	0.07	0.0%	0.1%	0.1%
b. Non-IT Major Projects (if you don't capitalize)	1,694	5.40	0.92	1.11	3.8%	0.9%	0.9%
c. Amortization of IT Major Projects	1,726	5.50	2.42	7.59	3.8%	2.3%	6.4%
d. IT Major Projects (if you don't capitalize)	<u>0</u>	<u>0.00</u>	<u>3.53</u>	<u>8.01</u>	<u>0.0%</u>	<u>3.3%</u>	<u>6.7%</u>
	3,420	10.89	6.94	16.79	7.6%	6.6%	14.1%
6. Information Technology							
a. IT Strategy, Database Management and Applications	6,586	20.98	16.82	19.46	14.6%	15.9%	16.3%
b. IT Desktop, Networks, Telecom	<u>3,784</u>	<u>12.06</u>	<u>9.93</u>	<u>8.05</u>	<u>8.4%</u>	<u>9.4%</u>	<u>6.7%</u>
	10,370	33.04	26.75	27.50	23.0%	25.3%	23.0%
7. Support Services and Other							
a. Building and Utilities	1,505	4.79	4.92	7.14	3.3%	4.7%	6.0%
b. Human Resources	820	2.61	2.97	2.85	1.8%	2.8%	2.4%
c. Actuarial	737	2.35	1.54	1.98	1.6%	1.5%	1.7%
d. Legal and Rule Interpretation	2,792	8.90	4.86	4.46	6.2%	4.6%	3.7%
e. Internal and External Audit	801	2.55	3.46	2.57	1.8%	3.3%	2.2%
f. Pay-as-you-go Benefits for Retired Staff	0	0.00	0.41	0.39	0.0%	0.4%	0.3%
g. Other Support Services	<u>4,853</u>	<u>15.46</u>	<u>2.97</u>	<u>3.13</u>	<u>10.8%</u>	<u>2.8%</u>	<u>2.6%</u>
	11,508	36.66	21.14	22.52	25.5%	20.0%	18.9%
Total Pension Administration ²	45,060	143.55	105.55	119.40	100.0%	100.0%	100.0%

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 second to 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).

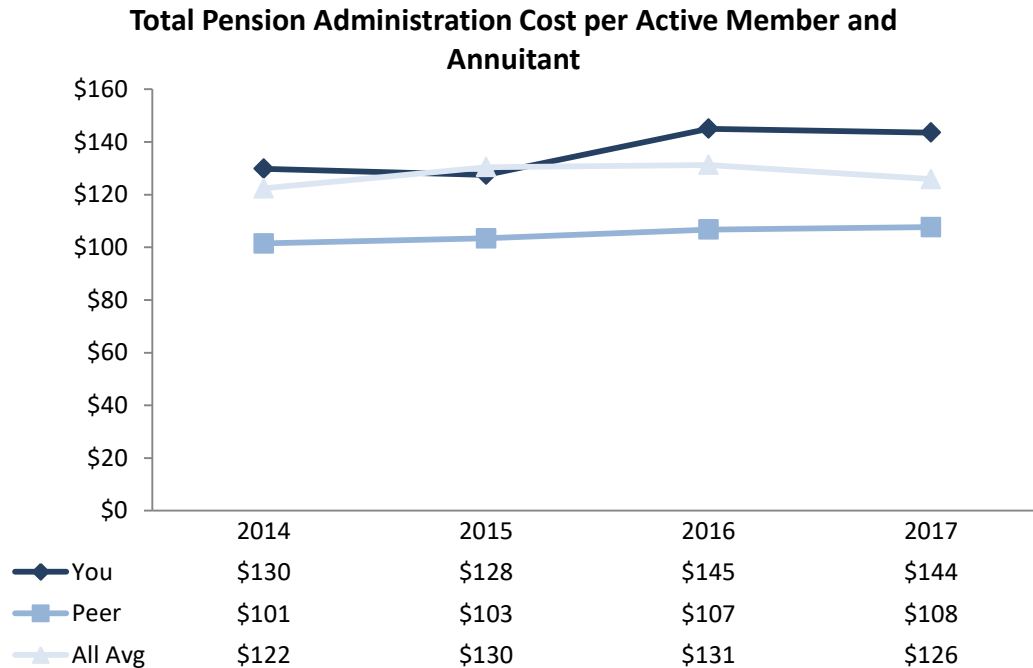
\$ Cost per Active Member and Annuitant													
Activity ¹	Peer							All Participants					
	You	Avg	Max	Q3	Med	Q1	Min	Avg	Max	Q3	Med	Q1	Min
1. Member Transactions													
a. Pension Payments	4.83	3.87	13.73	4.73	2.62	2.08	1.69	3.99	13.73	5.46	3.29	1.88	0.06
b. Pension Inceptions	4.25	3.46	10.83	4.18	3.13	1.56	1.36	4.52	13.49	6.28	3.40	2.08	0.17
c. Refunds, Withdrawals and Transfers-out	3.55	1.89	6.66	2.18	1.56	0.71	0.21	2.62	11.84	3.36	1.72	0.54	0.06
d. Purchases and Transfers-in	2.10	1.47	7.62	1.48	1.16	0.55	0.13	2.97	20.38	3.77	1.38	0.67	0.00
e. Disability	<u>2.41</u>	<u>5.43</u>	53.47	3.36	2.02	0.50	0.27	<u>2.60</u>	53.47	2.34	0.65	0.24	0.00
	17.14	16.12	87.86	16.32	10.12	7.43	4.78	16.60	87.86	20.30	12.56	7.90	0.31
2. Member Communication													
a. Call Center	7.39	6.15	18.23	6.51	5.66	3.89	1.73	5.55	18.23	6.87	5.25	2.89	0.00
b. Mail Room, Imaging	2.88	3.14	20.57	2.90	1.51	1.19	0.83	2.65	20.57	2.88	1.51	0.85	0.05
c. 1-on-1 Counseling	1.55	2.33	5.73	2.50	1.78	1.48	0.88	2.26	8.50	3.16	1.49	0.41	0.00
d. Member Presentations	0.92	1.78	5.55	2.33	1.39	0.76	0.37	1.26	5.55	1.68	0.79	0.51	0.00
e. Written Pension Estimates	2.94	1.57	4.49	2.10	1.34	0.73	0.26	1.64	7.04	2.07	1.13	0.58	0.00
f. Mass Communication	<u>2.88</u>	<u>3.69</u>	10.89	4.94	2.88	2.01	1.12	<u>3.60</u>	12.14	4.93	2.77	1.68	0.17
	18.57	18.66	65.29	20.47	16.00	11.28	8.55	16.96	65.29	21.44	16.00	11.22	0.48
3. Collections and Data Maintenance													
a. Data and Money from Employers	11.03	3.30	11.03	3.61	2.45	1.91	0.69	4.62	20.01	6.13	3.36	2.15	0.40
b. Service to Employers	4.63	1.98	4.63	2.95	1.55	1.06	0.00	2.12	9.31	2.90	1.55	0.94	0.00
c. Data Not from Employers	<u>1.85</u>	<u>1.39</u>	3.29	1.89	1.23	0.70	0.00	<u>1.33</u>	4.54	1.85	1.05	0.39	0.00
	17.51	6.67	17.51	7.19	5.71	4.71	3.88	8.07	21.70	10.81	7.13	4.49	0.48
4. Governance and Financial Control													
a. Financial Administration and Control	5.24	4.93	23.83	4.76	4.17	2.68	1.43	4.85	23.83	5.24	3.94	2.34	0.24
b. Board, Strategy, Policy	3.84	2.70	6.47	3.23	2.37	1.91	0.90	4.39	19.16	6.47	2.91	1.73	0.09
c. Government and Public Relations	<u>0.65</u>	<u>1.62</u>	6.47	2.04	0.99	0.52	0.10	<u>1.71</u>	7.19	2.64	1.13	0.54	0.00
	9.74	9.26	36.77	9.20	8.02	5.86	3.20	10.95	36.77	14.91	8.63	5.52	0.88
5. Major Projects													
a. Amortization of non-IT Major Projects	0.00	0.07	0.99	0.00	0.00	0.00	0.00	0.07	1.46	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	5.40	0.92	5.40	0.71	0.00	0.00	0.00	1.11	9.41	0.50	0.00	0.00	0.00
c. Amortization of IT Major Projects	5.50	2.42	8.21	5.09	0.88	0.00	0.00	7.59	233.75	5.05	0.60	0.00	0.00
d. IT Major Projects (if you don't capitalize)	<u>0.00</u>	<u>3.53</u>	11.99	7.22	0.39	0.00	0.00	<u>8.01</u>	99.71	9.11	2.06	0.00	0.00
	10.89	6.94	16.11	10.00	8.08	2.01	0.00	16.79	235.54	12.84	8.08	1.84	0.00
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major projects)	20.98	16.82	35.18	22.94	14.34	9.43	6.25	19.46	44.72	27.95	15.99	8.61	2.60
b. IT Desktop, Networks, Telecom	<u>12.06</u>	<u>9.93</u>	35.89	10.18	8.43	6.81	2.68	<u>8.05</u>	35.89	10.05	7.37	4.13	0.32
	33.04	26.75	71.08	32.63	21.91	16.97	11.28	27.50	71.08	38.85	23.04	15.56	2.91
7. Support Services and Other													
a. Building and Utilities	4.79	4.92	11.18	5.69	4.61	3.16	1.36	7.14	41.68	9.51	4.84	2.66	0.32
b. Human Resources	2.61	2.97	16.66	2.87	1.94	1.29	0.43	2.85	16.66	3.64	1.93	0.88	0.09
c. Actuarial	2.35	1.54	2.63	2.19	1.58	0.87	0.00	1.98	7.73	2.50	1.63	0.78	0.00
d. Legal and Rule Interpretation	8.90	4.86	26.93	4.69	2.62	1.96	1.17	4.46	26.93	5.64	3.44	1.84	0.07
e. Internal and External Audit	2.55	3.46	25.53	2.45	2.02	1.37	0.46	2.57	25.53	2.72	1.97	1.27	0.06
f. Pay-as-you-go Benefits for Retired Staff	0.00	0.41	3.84	0.21	0.00	0.00	0.00	0.39	8.90	0.00	0.00	0.00	0.00
g. Other Support Services	<u>15.46</u>	<u>2.97</u>	15.46	3.21	2.06	0.63	-0.16	<u>3.13</u>	19.59	4.23	2.05	0.47	-0.16
	36.66	21.14	76.83	23.05	17.23	11.08	8.46	22.52	76.83	27.64	17.23	11.29	1.21
Total Pension Administration ²	143.55	105.55	360.57	100.22	81.71	77.20	55.27	119.40	398.72	141.96	89.99	73.55	8.12

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.

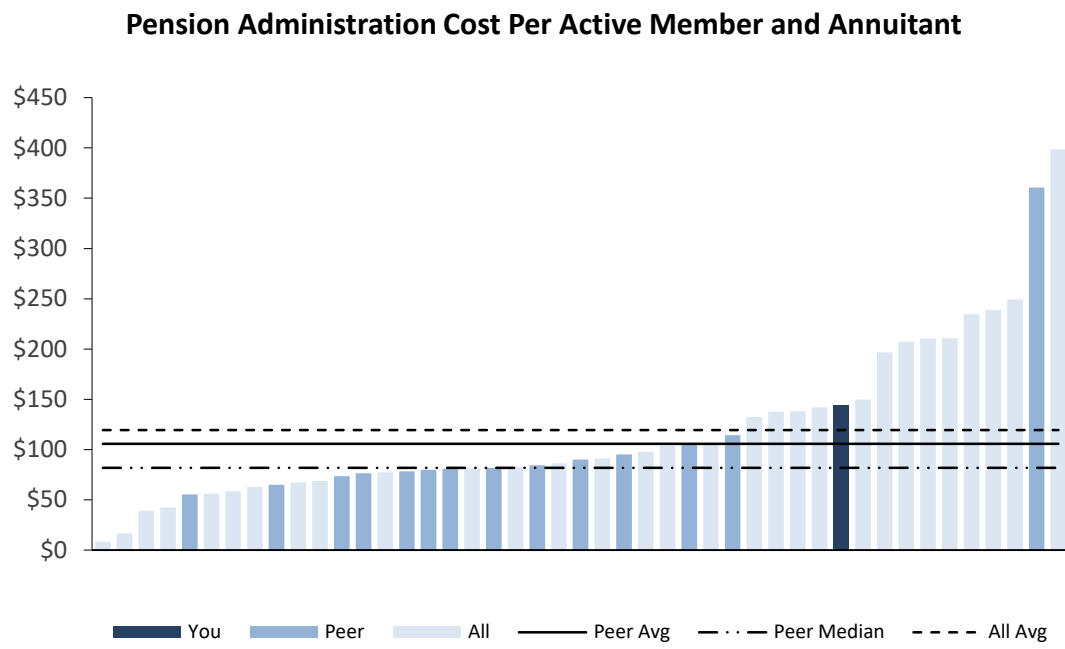
Cost trends

Your total pension administration costs have grown at a compound annual rate of 3.4% between 2014 and 2017. This was above the 2.0% average for your peers that have participated for 4 consecutive years.



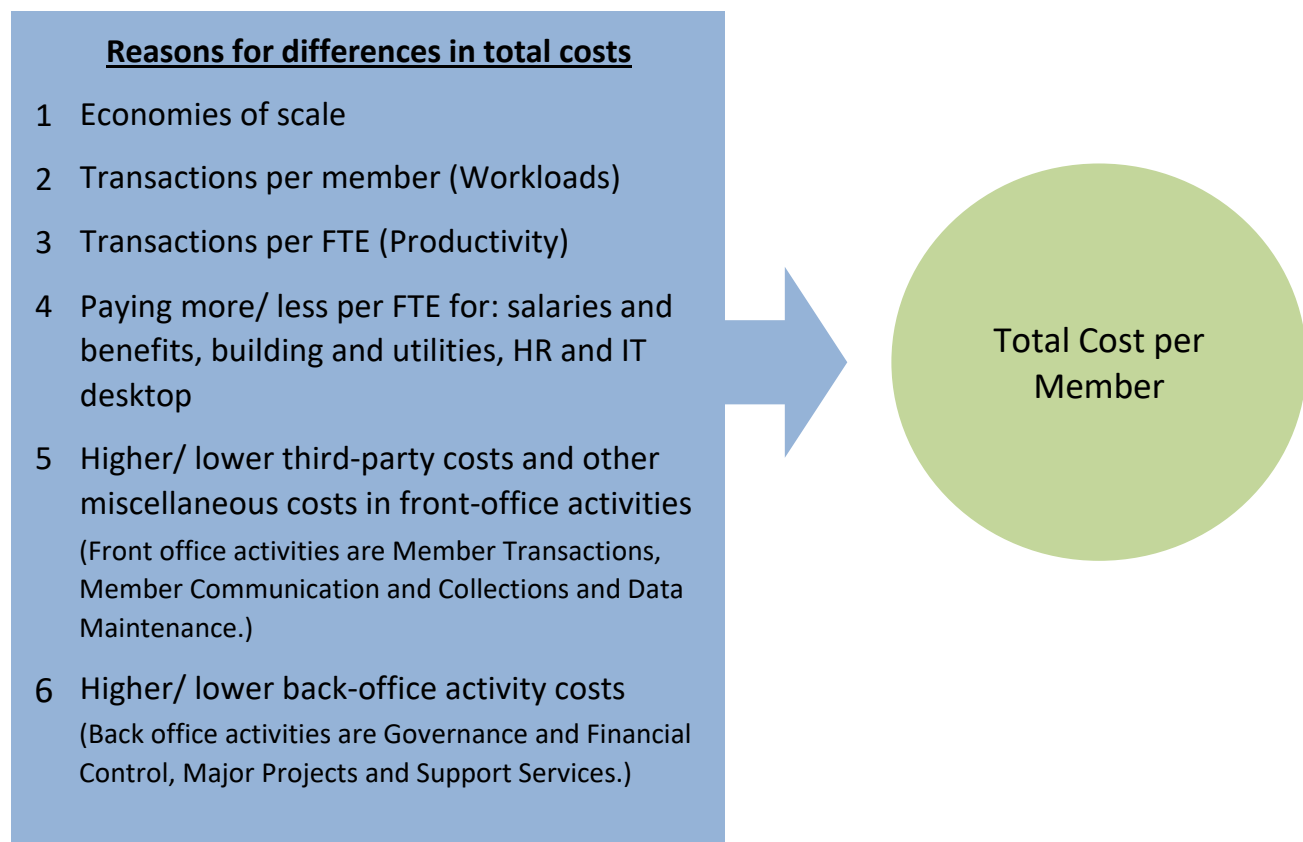
1. Trend analysis is based on systems that have participated for 4-consecutive years (14 peers and 40 World systems). This ensures that trends are not caused by changes in the composition of the participants.
2. All foreign currency amounts have been converted to USDs using Purchasing Power Parity figures 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.

Your total pension administration cost was \$144 per active member and annuitant. This was \$38 above the peer average of \$106 (and \$62 above the peer median of \$82).



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

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 six 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.

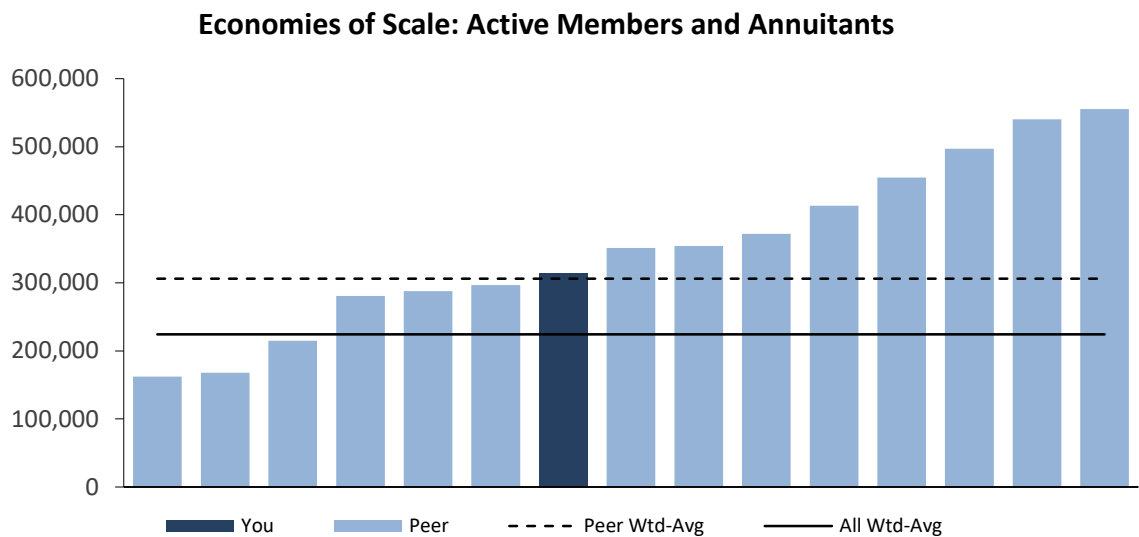
Reasons why your total cost was \$38 above the peer average.

Reason	Impact \$s per active member and annuitant
1. Economies of scale advantage	-\$0.35
2. More transactions per member (workloads)	\$6.50
3. Fewer transactions per FTE	\$18.31
4. Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$16.46
5. Lower 'other miscellaneous' costs in front-office activities	-\$3.96
6. Paying more/-less, after adjusting for economy of scale and salary differences, for:	
- Governance and Financial Control	\$2.33
- Major Projects	\$4.66
- IT Strategy, Database, Applications (excl. major projects)	\$7.96
- Actuarial, Legal, Audit, Other Support Services	\$19.02
Total	\$38.00

Each of these reasons are examined in detail in the remainder of this section.

Reason 1: You had an economies of scale advantage.

Your system had 3% more members than the peer weighted-average. Your larger size means that you had a cost advantage relative to the average peer of \$0.35 per member.



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

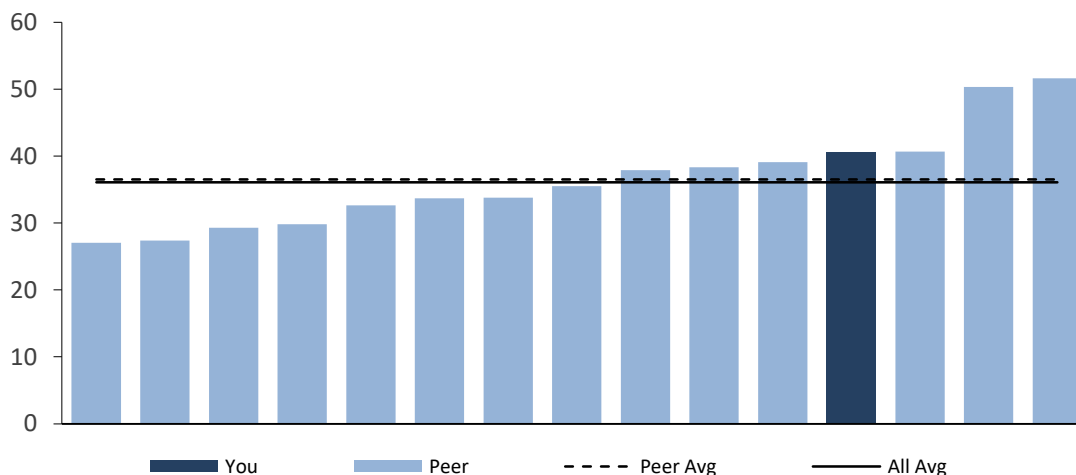
Size is a key driver of costs. More members lets you spread your fixed costs over a larger base. But the benefit of economies of scale is not linear. Scale economies diminish as systems get larger. For example, if your membership was reduced by 50% then your predicted cost would increase by \$13.57 per member, whereas if your membership increased by 50% your predicted cost would only decrease by \$4.52 per member.

How Changes in Membership Impact Your Cost			
% Change in Members	Implied # of Members	Your Predicted Cost per Member	Increase/-Decrease
-75%	78,474	\$184.25	\$40.70
-50%	156,948	\$157.12	\$13.57
-25%	235,421	\$148.07	\$4.52
0%	313,895	\$143.55	\$0.00
25%	392,369	\$140.84	-\$2.71
50%	470,843	\$139.03	-\$4.52
75%	549,316	\$137.74	-\$5.81

Reason 2: You had higher transaction volumes per member (workloads).

Weighted transactions indicates whether you are doing more or less front-office transactions per member in aggregate than your peers. Your weighted transactions were 11% above the peer average. Your higher transaction volumes increased your total cost per member by an estimated \$6.50 relative to the peer average.

Weighted Transactions per Active Member and Annuitant



Where did you do more/less front office transactions?

Volume per 1,000 Active Members and Annuitants

Front Office Transactions (or Proxy)	You	Peer Avg	More/ - Less	Transaction Impact
Pension Payments (Annuitants)	450	403	12%	\$0.61
New Payee Inceptions	57	24	134%	\$7.08
Withdrawals and Transfers-out	29	27	11%	\$0.49
Purchases and Transfers-in	11	7	67%	\$1.64
Disability Applications	1	2	-70%	-\$2.70
Calls and Emails	588	581	1%	\$0.12
Incoming Mail	750	468	60%	\$2.30
Members Counseled 1-on-1	11	30	-62%	-\$1.92
Member Presentations	2	2	6%	\$0.19
Written Estimates	35	39	-11%	-\$0.45
Mass Communication (Active Members and Annuitants)	1,000	1,000	0%	\$0.00
Data and Money from Employers (Active Members)	550	597	-8%	-\$0.43
Service to Employers (Active Members)	550	597	-8%	-\$0.22
Data Not from Employers (Actives, Inactives, Annuitants)	1,214	1,387	-12%	-\$0.21

Differences in front-office transaction volumes are due to differences in activities that you administer (some do not administer disability for example), service levels and, member mix and demographics. Refer to section '6 - Transaction Volumes' for detailed analysis and comparison of your transaction volumes.

Membership Mix

An important source of differences in transaction volumes is membership mix. For example, active members typically produce more transactions than annuitants, so systems with a higher proportion of active members relative to annuitants tend to have higher transaction volumes, and therefore be more expensive to administer on a per member basis.

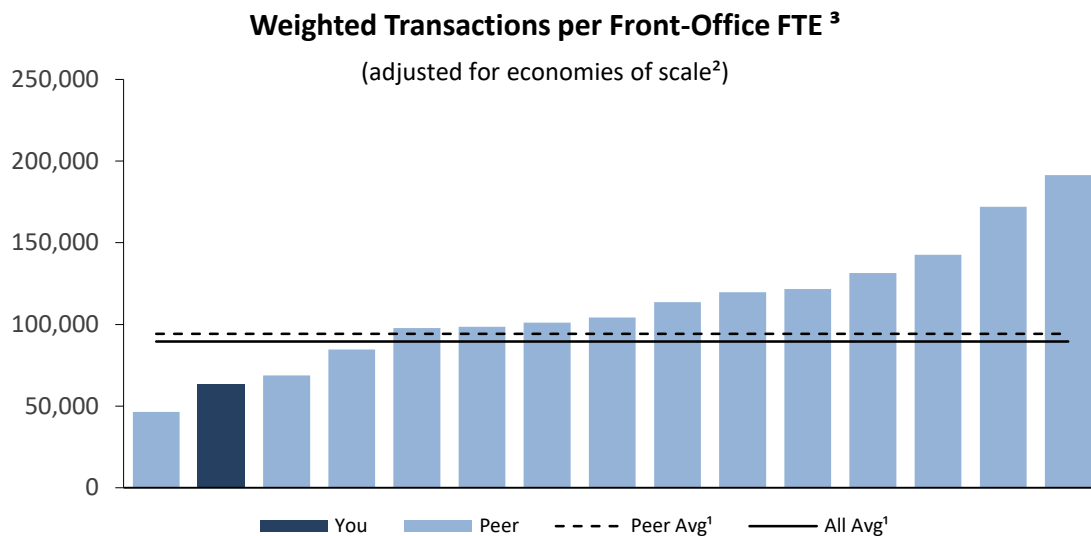
Your membership mix was less expensive than the peer average. If you had the same membership mix as the peer average, your costs would have been \$15.06 per member higher.

Components of Transaction Volume Impact ¹	\$ per active member and annuitant
Less expensive membership mix	-\$15.06
More transactions per member after neutralizing for membership mix	\$21.56
Total transaction volume impact	\$6.50

¹ The impact of your membership mix is neutralized by calculating what your transaction volumes would be if you had the peer average membership mix of 44% actives, 26% inactive and 30% annuitants (versus your actual mix of 45% actives, 18% inactive and 37% annuitants).

Reason 3: You had lower transactions per FTE (productivity).

Your weighted transactions per front-office FTE³ were 33% below the adjusted¹ peer average. Your lower transaction volumes per FTE increased your total cost per member by \$18.31 relative to the peer average.



1. The 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.
2. To avoid double counting, weighted transactions per FTE were adjusted for differences in economies of scale.
3. Front-office FTE work in activities that come in contact with clients or employers, such as paying pensions, member calls and presentations. It excludes back-office activities such as Governance and Financial Control, Major Projects and Support Services. Refer to 'Section 5 - Staff Costs and Productivity' for detailed analysis and comparison of your volumes per FTE for each front-office activity.

Differences in transactions per FTE are due to differences in:

- Economies of scale (adjusted for in the above comparison)
- Staff skills and productivity
- IT capability / on-line transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants or third parties to do part of the front-office work
- Projects
- Organization design

Reason 4: You had overall lower salaries and benefits, building and utilities, HR and IT desktop costs per FTE.

Cost per FTE			FTE-Weighted
Costs that vary per FTE	You	Peer Avg	Peer Avg
Salaries and Benefits			
Front Office	\$76,966	\$82,913	\$86,980
Back Office	<u>\$93,303</u>	<u>\$119,446</u>	<u>\$121,085</u>
Blended Average	\$82,943	\$95,775	\$99,282
Pay-as-you-go Benefits for Retired Staff	\$0	\$689	\$669
Building and Utilities	\$4,741	\$9,651	\$8,117
Human Resources	\$2,583	\$4,228	\$4,890
IT Desktop, Networks, Telecom	\$11,921	\$16,212	\$16,367
Total	\$102,188	\$126,555	\$129,325

Your cost per FTE for salaries and benefits, building and utilities, human resources and IT desktop of \$102,188 was 21% below the FTE-weighted peer average of \$129,325. Your lower costs per FTE decreased your total cost per member by \$16.46 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.

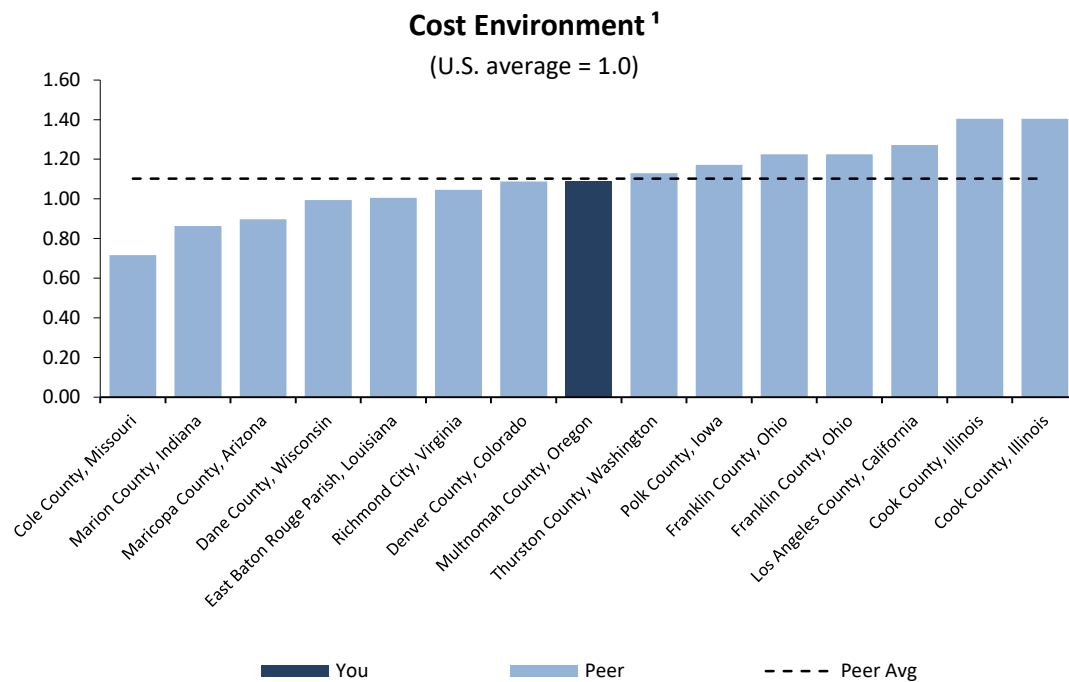
Averages can also mask the often large differences in front and back-office salaries. Therefore, both front and back-office averages for salaries and benefits are shown in the table above. Refer to section '5 - Staff Costs and Productivity' for much more detailed comparisons of your staffing levels and cost per FTE.

Differences in what you pay per FTE reflect differences in:

- Cost environment. Labor costs in your area were 1% below the peer average.
- 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. The impact of differences in third party costs is quantified separately on page 3-14 in this section.

Cost environment

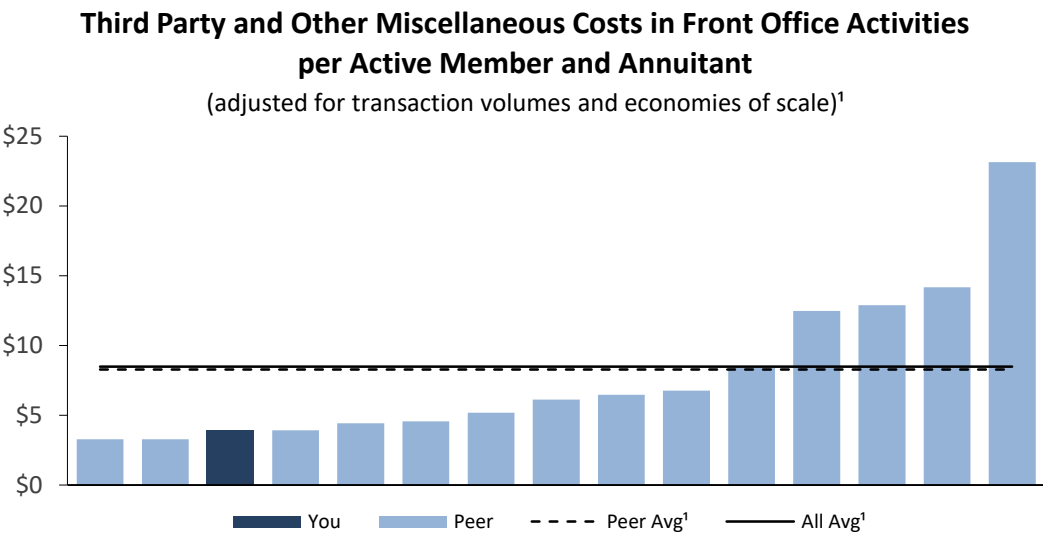
Often a key reason for differences in 'cost per FTE' is cost environment. Labor costs in your area were 1% below the peer average.



1. The cost environment is based on Bureau of Labor Statistics data for state government public administration wages within a given geographical area. It is normalized at 1 to be the national average. Source: Bureau of Labor Statistics (<http://www.bls.gov/>)

Reason 5: You had lower third party and other miscellaneous costs in the front-office activities.

Your third party and other miscellaneous costs (such as travel, office supplies, etc) in the front-office activities² were \$3.87 per member which was 53% below the adjusted¹ peer weighted average of \$8.27. Your lower third party costs decreased your total cost per member by \$3.96 relative to the peer average.



1. The peer costs are adjusted for differences in transaction volumes and economies of scale in order to avoid double counting. The average shown is weighted by transaction volumes per member.
2. Front-office activities are activities that come in contact with clients or employers, such as paying pensions, member calls and presentations. It excludes back-office activities such as Governance and Financial Control, Major Projects and Support Services.

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

- Use of consultants
- Departmental travel and education

Reason 6: You paid more for back-office activities.

Your adjusted¹ cost per active member and annuitant of \$77.99 for back-office activities was above the peer average of \$44.02. Paying more for back-office activities increased your total cost per member by \$33.97 relative to the peer average.

Back-office 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	\$9.74	\$9.26	\$10.93	\$8.60
Major Projects	\$10.89	\$6.94	\$11.80	\$7.14
IT Strategy, Database, Applications (excl. major projects)	\$20.98	\$16.82	\$24.30	\$16.34
Actuarial, Legal, Audit, Other Support Services	\$29.26	\$12.84	\$30.96	\$11.93
Support Services that Vary per FTE	\$7.12	\$6.41		
Total	\$77.99	\$52.28	\$77.99	\$44.02

1. To avoid double counting, back-office costs are adjusted for economies of scale and, cost per FTE for salaries and benefits, building and utilities, IT desktop and, human resources.

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

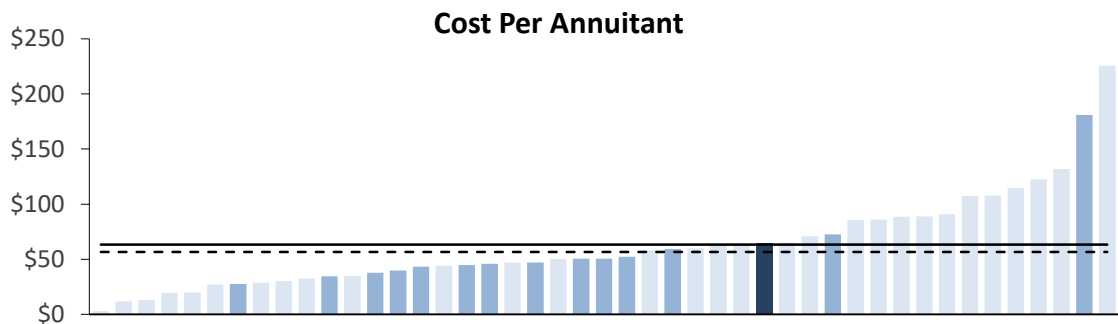
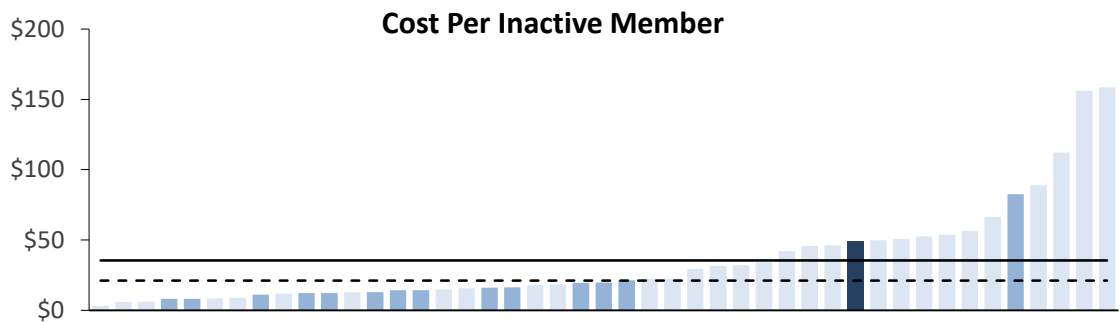
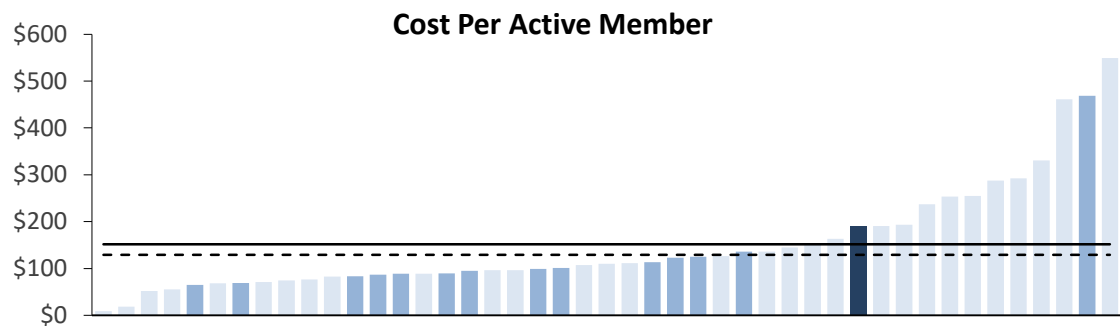
- How much you do. For example, some systems invest more in disaster recovery.
- IT capability
- IT investment cycle
- Plan complexity

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	You	Average	Peer			Average	All		
			Max	Median	Min		Max	Median	Min
Active Member	\$189	\$129	\$468	\$99	\$65	\$152	\$549	\$110	\$9
Inactive Member	\$49	\$21	\$83	\$14	\$8	\$35	\$159	\$20	\$3
Annuitant	\$65	\$57	\$181	\$47	\$28	\$63	\$226	\$51	\$3



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

Calculation of your cost per member type

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

Calculation of Your Cost by Member Type							
		\$000s attributed to:			% attributed to:		
	Your Costs in \$000s ¹	Active	Inactive	Annuitant	Active	Inactive	Annuitant
Activity							
1. Member Transactions							
a. Pension Payments	1,518	0	0	1,518	0.0%	0.0%	100.0%
b. Pension Inceptions	1,333	903	355	75	67.7%	26.7%	5.6%
c. Refunds, Withdrawals and Transfers-out	1,116	717	399	0	64.3%	35.7%	0.0%
d. Purchases and Transfers-in	659	659	0	0	100.0%	0.0%	0.0%
e. Disability	757	757	0	0	100.0%	0.0%	0.0%
2. Member Communication							
a. Call Center	2,320	1,248	49	1,023	53.8%	2.1%	44.1%
b. Mail Room, Imaging	905	487	19	399	53.8%	2.1%	44.1%
c. 1-on-1 Counseling	488	459	26	3	94.0%	5.3%	0.7%
d. Member Presentations	289	272	15	2	94.0%	5.3%	0.7%
e. Written Pension Estimates	922	720	202	0	78.0%	22.0%	0.0%
f. Mass Communication	905	684	53	168	75.5%	5.9%	18.6%
3. Collections and Data Maintenance							
a. Data and Money from Employers	3,463	3,463	0	0	100.0%	0.0%	0.0%
b. Service to Employers	1,452	1,452	0	0	100.0%	0.0%	0.0%
c. Data Not from Employers	580	282	96	202	48.6%	16.5%	34.9%
4. Governance and Financial Control							
a. Financial Administration and Control	1,645	1,192	120	334	72.4%	7.3%	20.3%
b. Board, Strategy, Policy	1,207	874	88	245	72.4%	7.3%	20.3%
c. Government and Public Relations	204	148	15	41	72.4%	7.3%	20.3%
5. Major Projects							
a. Amortization of non-IT Major Projects	0	0	0	0	72.4%	7.3%	20.3%
b. Non-IT Major Projects (if you don't capitalize)	1,694	1,227	123	344	72.4%	7.3%	20.3%
c. Amortization of IT Major Projects	1,726	1,250	125	350	72.4%	7.3%	20.3%
d. IT Major Projects (if you don't capitalize)	0	0	0	0	72.4%	7.3%	20.3%
6. Information Technology							
a. IT Strategy, Database, Applications (excl. major projects)	6,586	4,771	479	1,336	72.4%	7.3%	20.3%
b. IT Desktop, Networks, Telecom	3,784	2,741	275	768	72.4%	7.3%	20.3%
7. Support Services and Other							
a. Building and Utilities	1,505	1,090	109	305	72.4%	7.3%	20.3%
b. Human Resources	820	594	60	166	72.4%	7.3%	20.3%
c. Actuarial	737	534	54	150	72.4%	7.3%	20.3%
d. Legal and Rule Interpretation	2,792	2,023	203	567	72.4%	7.3%	20.3%
e. Internal and External Audit	801	580	58	163	72.4%	7.3%	20.3%
f. Pay-as-you-go Benefits for Retired Staff	0	0	0	0	72.4%	7.3%	20.3%
g. Other Support Services	4,853	3,515	353	985	72.4%	7.3%	20.3%
Total Pension Administration Cost (A)	45,060	32,642	3,275	9,144	72.4%	7.3%	20.3%
# of members by type (B)		172,513	67,113	141,382			
Cost per Member Type (A ÷ B)		\$189	\$49	\$65			

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 second to 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

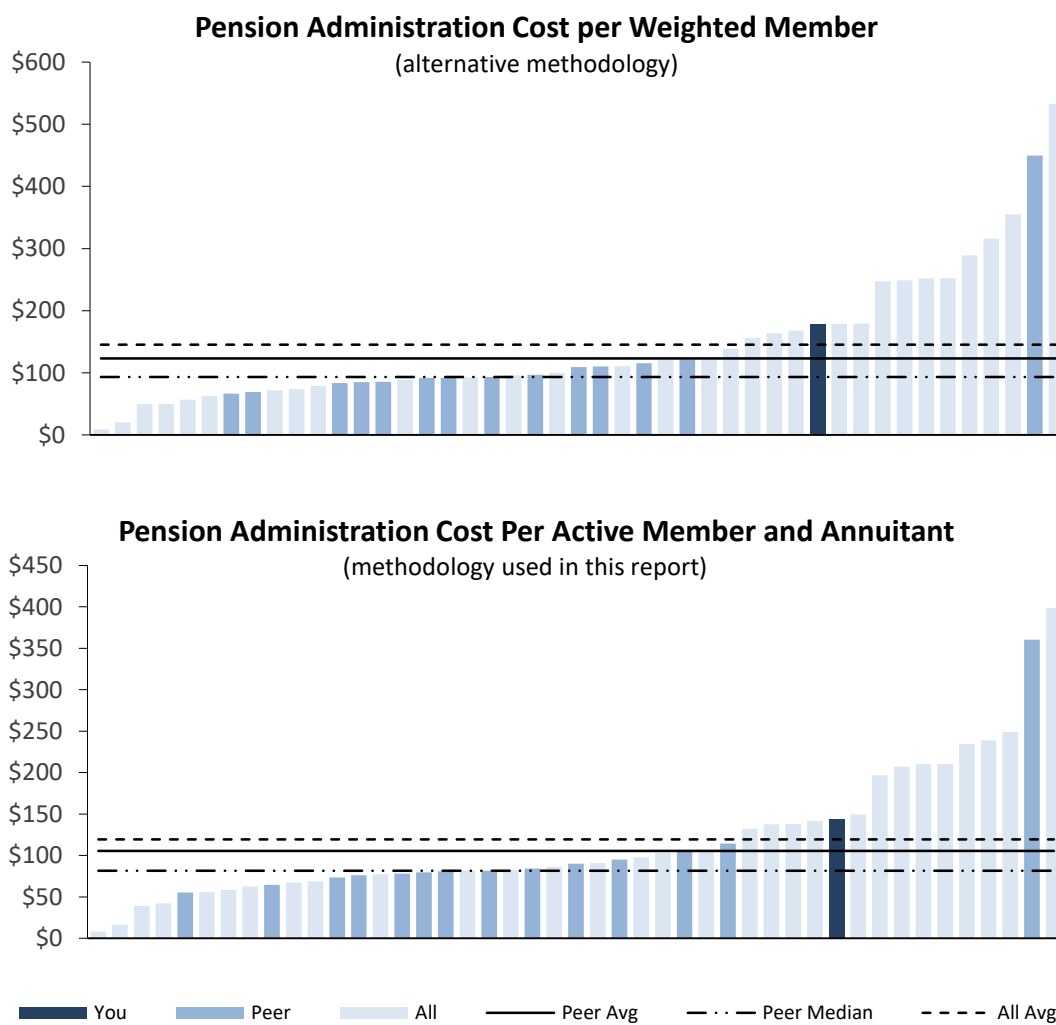
Activity	Attribution Method
1a. Pension Payments	100% annuitants
1b. Pension Inceptions	Pro rata based on weighted inceptions: <ul style="list-style-type: none"> • service retirements of active members weighted 100% • new inceptions annuitants weighted 50% + changes in gross caused by annuitants circumstances 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, inactive 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 inactive 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
5b. IT Desktop, Networks, Telecom	per 4a above
7a. Building and Utilities	per 4a above
7b. Human Resources	per 4a above
7c. Actuarial	per 4a above
7d. Legal and Rule Interpretation	per 4a above
7e. Internal and External Audit	per 4a above
7f. Pay-as-you-go Benefits for Retired Staff	per 4a above
7g. Other Support Services	per 4a above

Cost per weighted member

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

Another way to compare total costs is on a per 'weighted member' basis where the weightings reflect the fact that costs vary by type of member. Your pension administration cost per weighted member was \$178.17. This was above the peer average of \$123.19. Members are weighted as follows: active members at 100%, inactive members at 25% and annuitants at 45%.

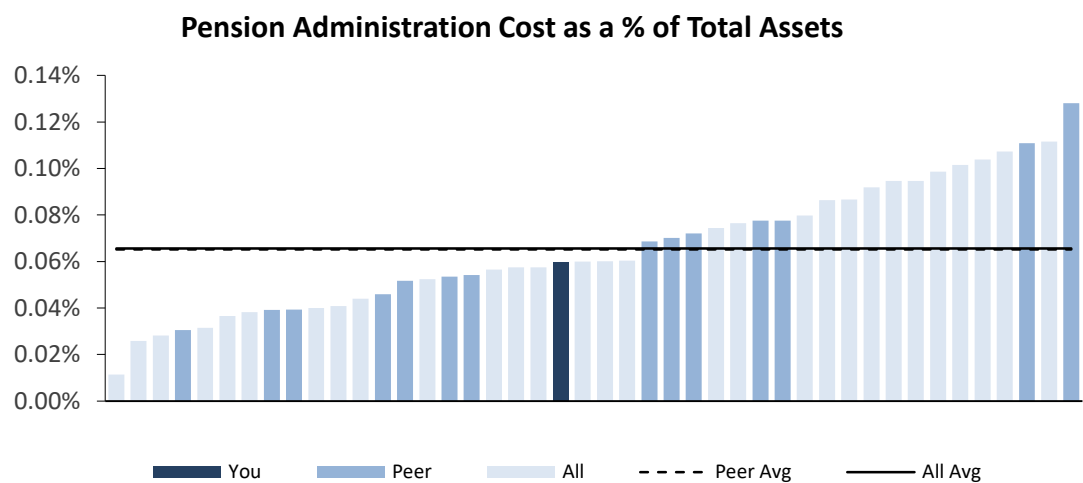
Relative rankings under both methodologies are shown in the graphs below.



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 0.06% of total assets (or 6 basis points). This was below the peer average of 0.07%.



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, 5, 6 and 7 have been reduced by attributions to activities 1F and 1G that add up to \$3,310 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	1,107	411		1,518	4.83
b. Pension Inceptions	1,284	49		1,333	4.25
c. Refunds, Withdrawals and Transfers-out	1,090	25		1,116	3.55
d. Purchases and Transfers-in	645	14		659	2.10
e. Disability	692	65		757	2.41
f. Healthcare Administration	950	3,547	1,183	5,679	18.09
g. Optional and Third Party Administered Benefits	1,561	4,416	2,127	8,104	25.82
2. Member Communication					
a. Call Center	2,234	86		2,320	7.39
b. Mail Room, Imaging	892	13		905	2.88
c. 1-on-1 Counseling	469	19		488	1.55
d. Member Presentations	278	11		289	0.92
e. Written Pension Estimates	905	18		922	2.94
f. Mass Communication	659	246		905	2.88
3. Collections and Data Maintenance					
a. Data and Money from Employers	3,334	129		3,463	11.03
b. Service to Employers	1,411	42		1,452	4.63
c. Data Not from Employers	495	86		580	1.85
4. Governance and Financial Control					
a. Financial Administration and Control	1,411	427	-192	1,645	5.24
b. Board, Strategy, Policy	817	531	-141	1,207	3.84
c. Government and Public Relations	220	7	-24	204	0.65
5. Major Projects					
a. Amortization of non-IT Major Projects	n/a	0	0	0	0.00
b. Non-IT Major Projects (if you don't capitalize)	1,377	515	-198	1,694	5.40
c. Amortization of IT Major Projects	n/a	1,928	-201	1,726	5.50
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)	5,665	1,690	-769	6,586	20.98
b. IT Desktop, Networks, Telecom	1,596	2,630	-442	3,784	12.06
7. Support Services and Other					
a. Building and Utilities	98	1,583	-176	1,505	4.79
b. Human Resources	838	78	-96	820	2.61
c. Actuarial	309	514	-86	737	2.35
d. Legal and Rule Interpretation	1,763	1,355	-326	2,792	8.90
e. Internal and External Audit	541	354	-94	801	2.55
f. Pay-as-you-go Benefits for Retired Staff	0	n/a	0	0	0.00
g. Other Support Services	0	5,419	-567	4,853	15.46
Total Administration	32,638	26,206	0	58,844	187.46
less:					
f. Healthcare Administration	-950	-3,547	-1,183	-5,679	-18.09
g. Optional and Third Party Administered Benefits	-1,561	-4,416	-2,127	-8,104	-25.82
Total Pension Administration				45,060	143.55

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

Appendix: Adjustments to peer data used in attributing cost differences

Peer averages used to explain the reasons why cost per member is different from the peer average are often adjusted. The adjustments are shown in the table below. Each adjustment is applied sequentially from left to right.

Adjustments to Peer Averages used in the Cost Model						
Reasons for differences in cost	Averages			Adjustments used to avoid double counting		Final Adjusted Average Used
	Peer Average	Weighted Average	Inverse Average	Scale	Workloads	Cost per FTE
Scale: Active Members and Annuitants	350,764		306,009			
Workloads: Transactions per member	37					37
Productivity: transactions per front-office FTE	110,710	96,875		-2,632		94,243
Costs that vary per FTE (salaries, etc.) per FTE	\$126,555	\$129,325				129,325
Per member costs for:						
Third party & other costs in front-office	\$7.47	\$7.81		-\$0.02	\$0.48	\$8.27
Back office activities	\$52.28			-\$0.01		-\$8.26
						\$44.02

Scale Adjustments: The impact CEM attributes to economy of scale must be 'backed out' of peer data to avoid double counting in subsequent reasons for cost differences. Each peer is independently adjusted by a total amount equaling the expected cost difference due to scale between you and that peer. That adjustment is divided across three categories: productivity, third party & other costs in the front-office, and back-office costs. The share allocated to each is based on that peer's relative spending on front-office salaries and benefits (including support), front-office third party & other costs, and back-office costs, respectively.

Workload Adjustments: Third party & other costs in the front-office are linked to transaction volumes. The extent to which higher or lower transaction volumes drive higher or lower third party & other costs in front-office activities is already captured in the impact of higher or lower transaction volumes. To avoid double counting, before calculating the impact of higher/lower third party & other costs in the front-office, peer data is adjusted to reflect expected costs if they had your transaction volume.

Cost per FTE Adjustments: The impact of higher or lower cost per FTE in the back office is already captured in the 'salary' impact. To avoid double counting, it cannot also be included as part of 'paying more or less' for back-office activities. Peer back office activity costs are adjusted to reflect what they would be if each peer had your average back office costs per FTE.

Weighted Average vs. Average: Adding up the differences between your fund and the peer average for each category does not add up to the total difference between your fund and the peer average cost per member. This is because some reasons matter more for some peers than for others. For example, salary differences matter more in explaining cost differences between you and peers with higher FTE/member. In order to explain differences in total cost, many of the averages must be weighted. The weightings used are as follows:

Productivity (Inverse): weighted by workload per member.

Cost per FTE: weighted by FTE per member. Additionally re-weighted to reflect your front-office/back-office FTE ratio.

Third party & other costs in front-office: weighted by workload per member.

Inverse: several of the reasons shown are actually the inverse of the true driver of cost differences. Economy of scale advantage/disadvantage, for example, is not associated with active members and annuitants, but with '1/active members and annuitants'. It is not intuitive for most readers to look at this inverse ratio, so the report graphs 'active members and annuitants'. However, it is the peer average of '1/active members and annuitants' that explains cost differences. CEM plots this value on the graph by calculating the peer average of '1/active members and annuitants' and then taking the inverse of that average. Similarly, 'FTE/transaction' is the relevant peer measure, not 'transactions/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	1,518	141,382	annuitants	10.73
b. Pension Inceptions	1,333	17,759	new payee inceptions	75.04
c. Refunds, Withdrawals and Transfers-out	1,116	9,236	withdrawals and transfers-out	120.80
d. Purchases and Transfers-in	659	3,477	purchases and transfers-in	189.50
e. Disability	757	199	disability applications	3,803.02
2. Member Communication				
a. Call Center	2,320	184,657	calls and emails	12.56
b. Mail Room, Imaging	905	235,404	incoming mail	3.85
c. 1-on-1 Counseling	488	3,536	members counseled 1-on-1	138.01
d. Member Presentations	289	528	member presentations	547.16
e. Written Pension Estimates	922	10,992	written estimates	83.90
f. Mass Communication	905	313,895	active members and annuitants	2.88
3. Collections and Data Maintenance				
a. Data and Money from Employers	3,463	172,513	active members	20.07
b. Service to Employers	1,452	172,513	active members	8.42
c. Data Not from Employers	580	381,008	actives, inactives, annuitants	1.52
4. Governance and Financial Control ⁴				
a. Financial Administration and Control	1,645	313,895	active members and annuitants	5.24
b. Board, Strategy, Policy	1,207	313,895	active members and annuitants	3.84
c. Government and Public Relations	204	313,895	active members and annuitants	0.65
5. Major Projects				
a. Amortization of non-IT Major Projects	0	313,895	active members and annuitants	0.00
b. Non-IT Major Projects (if you don't capitalize)	1,694	313,895	active members and annuitants	5.40
c. Amortization of IT Major Projects	1,726	313,895	active members and annuitants	5.50
d. IT Major Projects (if you don't capitalize)	0	313,895	active members and annuitants	0.00
6. Information Technology ⁴				
a. IT Strategy, Database, Applications (excl. major projects)	6,586	313,895	active members and annuitants	20.98
b. IT Desktop, Networks, Telecom	3,784	339	pension admin FTE	11,167.81
7. Support Services and Other ⁴				
a. Building and Utilities	1,505	339	pension admin FTE	4,441.33
b. Human Resources	820	339	pension admin FTE	2,420.19
c. Actuarial	737	313,895	active members and annuitants	2.35
d. Legal and Rule Interpretation	2,792	313,895	active members and annuitants	8.90
e. Internal and External Audit	801	313,895	active members and annuitants	2.55
f. Pay-as-you-go Benefits for Retired Staff	0	339	pension admin FTE	0.00
g. Other Support Services	4,853	313,895	active members and annuitants	15.46
Total Pension Administration ³	45,060	313,895	active members and annuitants	143.55

1. Refer to Appendix C for activity definitions.

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

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

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

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

4. Your direct costs for activities 4, 6, and 7 have been reduced by attributions to 1f. Healthcare Administration and 1g. Optional and Third Party Administered Benefits that add up to \$3,310k. Refer to the last page of this section for details.

Summary comparisons of activity costs by quartile breakdown

Activity	Cost per:	Comparisons of Direct Activity Costs ¹							All Participant					
		You	Avg	Max	Peer		Q1	Min	Avg	Max	Q3	Med	Q1	Min
1. Member Transactions														
a. Pension Payments	annuitant	10.73	9.66	34.33	11.43	7.30	5.58	4.09	9.76	34.33	13.56	8.02	4.36	0.23
b. Pension Inceptions	new payee inception	75.04	153.21	372.69	185.33	105.20	75.66	61.77	186.21	760.38	282.39	135.34	93.38	10.77
c. Refunds, Withdrawals and Transfers-out	withdrawal & transfer-out	120.80	172.76	1,761.60	92.25	38.59	27.89	12.11	260.18	1,761.60	295.29	106.69	33.85	12.11
d. Purchases and Transfers-in	purchase & transfer-in	189.50	413.14	1,901.23	417.67	281.10	156.50	32.73	572.10	6,179.08	577.05	228.03	133.49	30.34
e. Disability	disability application	3,803.02	2,397.43	14,731.97	2,463.51	1,148.44	427.94	220.09	1,998.72	14,731.97	2,403.58	1,101.95	435.87	211.40
2. Member Communication														
a. Call Center	call & email	12.56	10.29	22.23	12.52	9.54	7.13	4.42	10.09	35.60	12.58	9.53	5.25	2.41
b. Mail Room, Imaging	incoming mail	3.85	7.69	43.57	7.08	4.60	3.14	1.32	9.33	54.19	10.99	5.04	2.61	0.48
c. 1-on-1 Counseling	member counseled 1-on-1	138.01	106.87	215.23	140.74	96.52	67.61	30.22	95.34	489.88	131.91	64.60	37.55	17.12
d. Member Presentations	member presentation	547.16	1,316.01	3,031.77	1,631.29	1,498.85	754.66	273.89	1,439.67	9,757.53	1,631.34	1,237.88	629.56	186.98
e. Written Pension Estimates	written estimate	83.90	67.03	214.09	84.72	41.79	28.90	13.37	95.12	507.97	131.14	65.94	27.70	11.51
f. Mass Communication	active member & annuitant	2.88	3.69	10.89	4.94	2.88	2.01	1.12	3.60	12.14	4.93	2.77	1.68	0.17
3. Collections and Data Maintenance														
a. Data and Money from Employers	active member	20.07	5.68	20.07	6.46	4.17	3.07	1.10	8.25	45.16	11.29	5.66	3.54	0.53
b. Service to Employers	active member	8.42	3.39	8.42	5.11	2.69	1.72	0.00	3.61	16.33	5.17	2.94	1.58	0.00
c. Data Not from Employers	active, inactive & annuitant	1.52	1.04	2.78	1.34	0.84	0.44	0.00	1.08	4.17	1.52	0.74	0.29	0.00
4. Governance and Financial Control														
a. Financial Administration and Control	active member & annuitant	5.24	4.93	23.83	4.76	4.17	2.68	1.43	4.85	23.83	5.24	3.94	2.34	0.24
b. Board, Strategy, Policy	active member & annuitant	3.84	2.70	6.47	3.23	2.37	1.91	0.90	4.39	19.16	6.47	2.91	1.73	0.09
c. Government and Public Relations	active member & annuitant	0.65	1.62	6.47	2.04	0.99	0.52	0.10	1.71	7.19	2.64	1.13	0.54	0.00
5. Major Projects														
a. Amortization of non-IT Major Projects	active member & annuitant	0.00	0.07	0.99	0.00	0.00	0.00	0.00	0.07	1.46	0.00	0.00	0.00	0.00
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	5.40	0.92	5.40	0.71	0.00	0.00	0.00	1.11	9.41	0.50	0.00	0.00	0.00
c. Amortization of IT Major Projects	active member & annuitant	5.50	2.42	8.21	5.09	0.88	0.00	0.00	7.59	233.75	5.05	0.60	0.00	0.00
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	3.53	11.99	7.22	0.39	0.00	0.00	8.01	99.71	9.11	2.06	0.00	0.00
6. Information Technology														
a. IT Strategy, Database Management and Applications (excl. major projects)	active member & annuitant	20.98	16.82	35.18	22.94	14.34	9.43	6.25	19.46	44.72	27.95	15.99	8.61	2.60
b. IT Desktop, Networks, Telecom	pension admin fte	11,168	14,584	24,367	16,807	15,027	12,038	6,815	11,786	25,845	15,758	11,011	7,877	1,074
7. Support Services and Other														
a. Building and Utilities	pension admin fte	4,441	8,665	18,919	10,017	8,031	6,144	691	9,688	26,789	13,080	8,853	5,457	691
b. Human Resources	pension admin fte	2,420	3,809	8,459	5,160	2,815	2,498	1,746	3,790	10,730	5,454	3,250	2,031	121
c. Actuarial	active member & annuitant	2.35	1.54	2.63	2.19	1.58	0.87	0.00	1.98	7.73	2.50	1.63	0.78	0.00
d. Legal and Rule Interpretation	active member & annuitant	8.90	4.86	26.93	4.69	2.62	1.96	1.17	4.46	26.93	5.64	3.44	1.84	0.07
e. Internal and External Audit	active member & annuitant	2.55	3.46	25.53	2.45	2.02	1.37	0.46	2.57	25.53	2.72	1.97	1.27	0.06
f. Pay-as-you-go Benefits for Retired Staff	pension admin fte	0.00	610.82	5,086.66	566.03	0.00	0.00	0.00	452.24	8,300.95	0.00	0.00	0.00	0.00
g. Other Support Services	active member & annuitant	15.46	2.97	15.46	3.21	2.06	0.63	-0.16	3.13	19.59	4.23	2.05	0.47	-0.16
Total Pension Administration²	active member & annuitant	143.55	105.55	360.57	100.22	81.71	77.20	55.27	119.40	398.72	141.96	89.99	73.55	8.12

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.

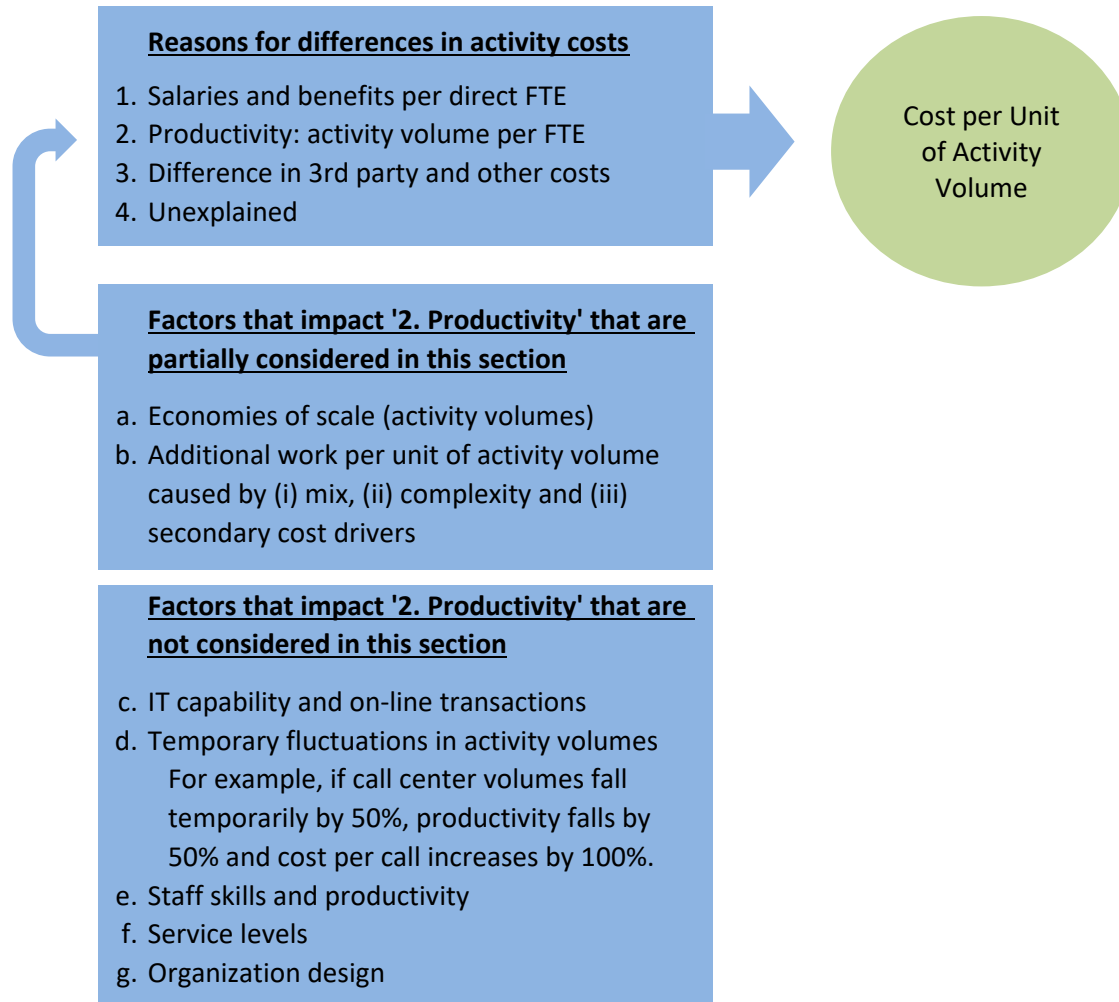
Activity cost history

Comparisons of Direct Activity Costs ¹													
Activity	Cost per:	You				Peer Average				All Participant Average			
		2017	2016	2015	2014	2017	2016	2015	2014	2017	2016	2015	2014
1. Member Transactions													
a. Pension Payments	annuitant	10.73	10.95	8.49	8.24	10.06	9.91	8.55	9.06	9.95	11.37	11.37	13.33
b. Pension Inceptions	new payee inception	75.04	201.06	177.68	140.33	159.60	195.73	155.93	152.26	198.10	206.28	245.33	201.66
c. Refunds, Withdrawals and Transfers-out	withdrawal & transfer-out	120.80	109.07	240.68	214.93	184.24	145.63	183.27	345.35	290.22	271.20	358.83	359.66
d. Purchases and Transfers-in	purchase & transfer-in	189.50	183.54	75.98	76.85	436.86	306.36	282.50	261.48	623.33	416.79	427.66	373.39
e. Disability	disability application	3,803.02	3,903.26	2,539.75	2,341.51	2,515.03	2,671.83	2,469.57	2,261.85	2,166.67	2,191.18	1,901.48	1,860.83
2. Member Communication													
a. Call Center	call & email	12.56	13.22	11.70	11.15	10.60	10.32	9.11	8.33	10.66	10.45	10.03	9.27
b. Mail Room, Imaging	incoming mail	3.85	4.23	4.72	5.22	7.70	10.19	8.87	7.96	9.52	12.11	9.14	7.54
c. 1-on-1 Counseling	member counseled 1-on-1	138.01	147.60	138.25	116.70	102.95	102.56	93.94	88.67	98.00	104.22	161.05	134.31
d. Member Presentations	member presentation	547.16	367.02	341.59	374.94	1,302.34	1,286.17	1,305.49	1,470.04	1,475.59	1,635.68	1,808.63	1,428.85
e. Written Pension Estimates	written estimate	83.90	55.58	67.20	58.46	70.79	61.95	53.13	51.46	100.39	123.79	128.05	136.34
f. Mass Communication	active member & annuitant	2.88	2.87	2.48	1.85	3.60	3.46	3.53	3.57	3.82	3.87	3.78	3.72
3. Collections and Data Maintenance													
a. Data and Money from Employers	active member	20.07	21.30	20.39	19.28	5.79	5.84	6.05	6.03	8.54	8.31	8.42	7.74
b. Service to Employers	active member	8.42	8.64	6.96	6.96	3.39	3.18	3.01	3.16	3.81	3.41	3.88	3.41
c. Data Not from Employers	active, inactive & annuitant	1.52	1.48	3.58	3.57	1.12	0.87	1.15	0.94	1.16	1.03	1.10	0.92
4. Governance and Financial Control													
a. Financial Administration and Control	active member & annuitant	5.24	5.21	3.97	3.44	4.99	4.61	4.22	4.15	5.10	5.09	4.52	4.50
b. Board, Strategy, Policy	active member & annuitant	3.84	2.79	3.47	3.72	2.64	2.54	2.74	2.52	4.61	4.51	5.11	4.93
c. Government and Public Relations	active member & annuitant	0.65	0.68	0.82	0.74	1.68	1.63	1.49	1.43	1.72	1.86	1.91	1.61
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	0.00	0.06	0.05	0.05	0.05
b. Non-IT Major Projects (if you don't capitalize)	active member & annuitant	5.40	0.49	1.15	4.38	0.98	0.71	0.83	1.44	1.21	0.99	1.38	1.12
c. Amortization of IT Major Projects	active member & annuitant	5.50	5.72	6.19	6.30	2.16	2.12	2.06	1.86	8.17	10.11	10.94	8.69
d. IT Major Projects (if you don't capitalize)	active member & annuitant	0.00	0.00	0.00	0.00	3.65	4.10	3.80	4.01	8.55	11.76	10.17	8.89
6. Information Technology													
a. IT Strategy, Database, Applications (excl. major projects)	active member & annuitant	20.98	23.64	23.87	22.35	16.88	15.65	15.75	14.92	20.46	19.37	19.13	16.88
b. IT Desktop, Networks, Telecom	pension admin fte	11,168	11,307	9,552	8,040	14,668	13,494	12,743	11,530	11,730	11,344	10,959	10,084
7. Support Services and Other													
a. Building and Utilities	pension admin fte	4,441	3,607	4,338	4,791	8,984	8,613	8,457	8,108	9,958	9,900	10,425	10,123
b. Human Resources	pension admin fte	2,420	2,134	2,021	2,270	3,880	3,577	3,272	3,063	3,902	4,034	3,851	3,603
c. Actuarial	active member & annuitant	2.35	2.36	2.44	2.17	1.50	1.55	1.61	1.51	1.99	2.29	2.29	2.18
d. Legal and Rule Interpretation	active member & annuitant	8.90	6.78	5.96	5.85	5.06	5.04	4.44	4.46	4.73	4.56	4.52	4.30
e. Internal and External Audit	active member & annuitant	2.55	2.53	2.35	2.42	3.60	3.63	3.15	3.09	2.69	2.71	2.46	2.37
f. Pay-as-you-go Benefits for Retired Staff	pension admin fte	0.00	0.00	0.00	0.00	593.43	542.54	475.61	558.25	457.46	371.99	449.15	448.68
g. Other Support Services	active member & annuitant	15.46	15.23	2.27	4.30	3.19	3.74	2.59	2.72	3.38	4.38	3.42	3.32
Total Pension Administration²	active member & annuitant	143.55	145.00	127.52	129.82	107.65	106.77	103.43	101.45	125.86	131.28	130.42	122.35

1. Trend analysis is based on systems that have participated for 4-consecutive years (14 peers and 40 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



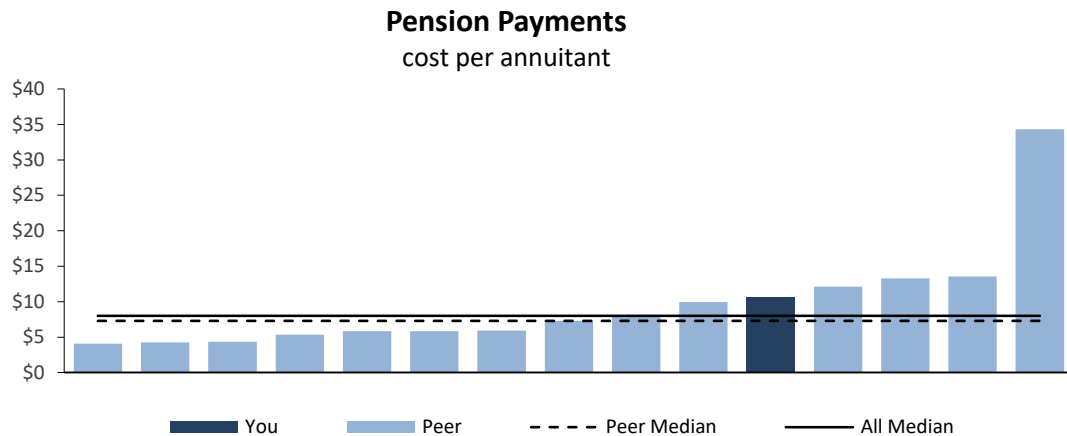
In this section, CEM quantifies the amount by which differences in the four reasons identified in the top box above impact your costs by calculating how your costs would change if you had the peer median salaries/ productivity/ third party and other costs. This methodology results in an unexplained amount, 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 \$10.73. This was \$3.43 above the peer median of \$7.30. The biggest reason why was that you serviced fewer annuitants per direct FTE (productivity).



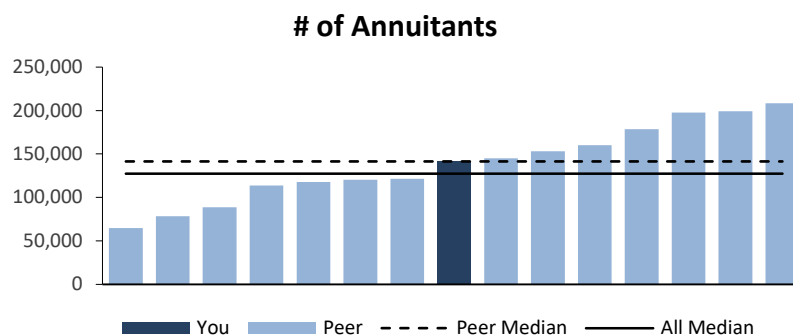
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Annuitant
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$87,165	\$85,841	\$0.12
Fewer annuitants per direct FTE (productivity)	11,132	22,194	\$3.90
Higher third party costs per annuitant	\$2.90	\$2.62	\$0.29
Unexplained ¹			-\$0.88
Cost per annuitant	\$10.73	\$7.30	\$3.43

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

Your 141,382 annuitants was the peer median. Thus the impact of economies of scale was minimized.

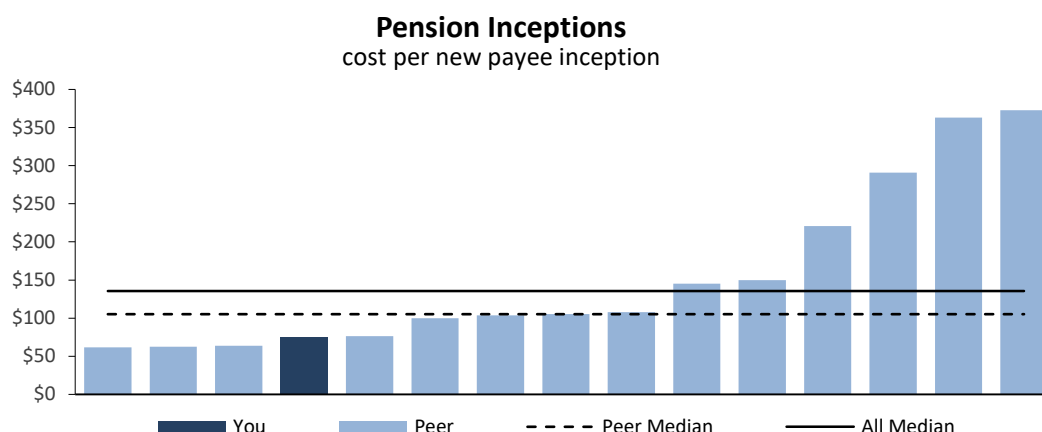


2. Additional pension payments work per annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Percentage of pensioners paid by check (as opposed to Electronic Funds Transfer)	3%	2%	increasing
Number of times per year you sent payment advices with your EFT payments detailing the gross payment and deductions	2.0	6.2	decreasing

1B Pension Inceptions

Your pension inceptions cost per new payee inception was \$75.04. This was \$30.16 below the peer median of \$105.20. The biggest reason why was that you completed more new payee inceptions per direct FTE (productivity).



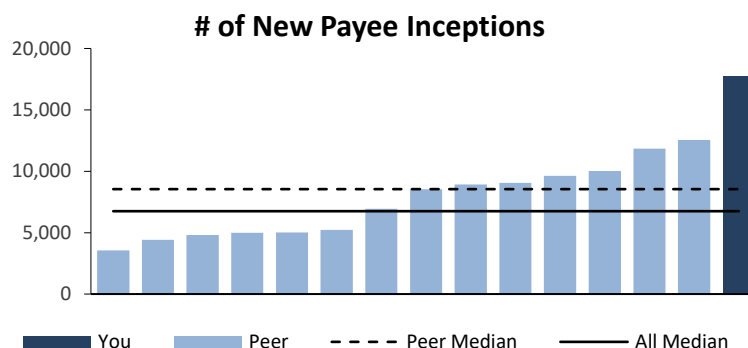
Reasons why your cost was below median	Comparison		Impact ¹ \$s per New Payee Inception
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$75,947	\$84,952	-\$8.57
More new payee inceptions per direct FTE (productivity)	1,051	799	-\$22.84
Lower third party costs per new payee inception	\$2.77	\$5.40	-\$2.63
Unexplained ¹			\$3.87
Cost per new payee inception	\$75.04	\$105.20	-\$30.16

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).

1B Pension Inceptions - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 17,759 new payee inceptions was 108% higher than the peer median of 8,544.



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.

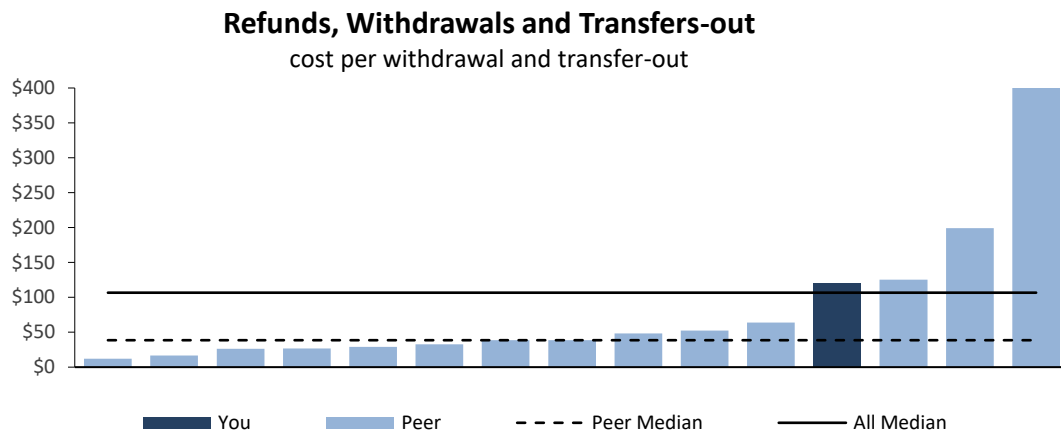
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Annuity inceptions: service retirement (actives)	58%	69%	
Annuity inceptions: service retirement (inactives)	33%	17%	
Annuity inceptions: disability retirement (actives)	1%	3%	
Annuity inceptions: survivor, partner, ex-partner, dependent	8%	11%	increasing
Total new payee inceptions	100%	100%	

3. Additional work per new payee inception

Causes of additional work	You	Peer Avg	Cost Impact
Proportion of inceptions to retiring active members based on estimates	3%	44%	decreasing
Formal appeals (non-disability) of inceptions as a % of new payee inceptions	0.41%	0.12%	increasing
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).	3%	10%	decreasing
Joint account reciprocity with other systems	No	60%Yes	decreasing
Total complexity score (out of 100)	93	67	increasing

1C Refunds, Withdrawals and Transfers-out

Your refunds, withdrawals and transfers-out cost per withdrawal and transfer-out was \$120.80. This was \$82.21 above the peer median of \$38.59. The biggest reason why was that you completed fewer withdrawals and transfers-out per direct FTE (productivity).



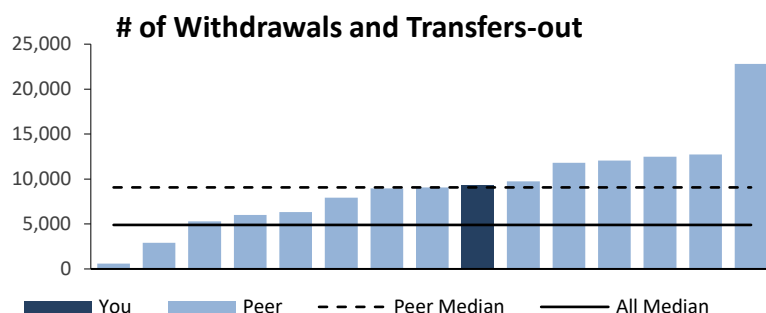
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Withdrawal and Transfer-out
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$77,333	\$83,745	-\$9.79
Fewer withdrawals and transfers-out per direct FTE (productivity)	655	2,264	\$83.91
Higher third party costs per withdrawal and transfer-out	\$2.74	\$1.52	\$1.22
Unexplained ¹			\$6.87
Cost per withdrawal and transfer-out	\$120.80	\$38.59	\$82.21

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 9,236 withdrawals and transfers-out was 2% higher than the peer median of 9,070.



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.

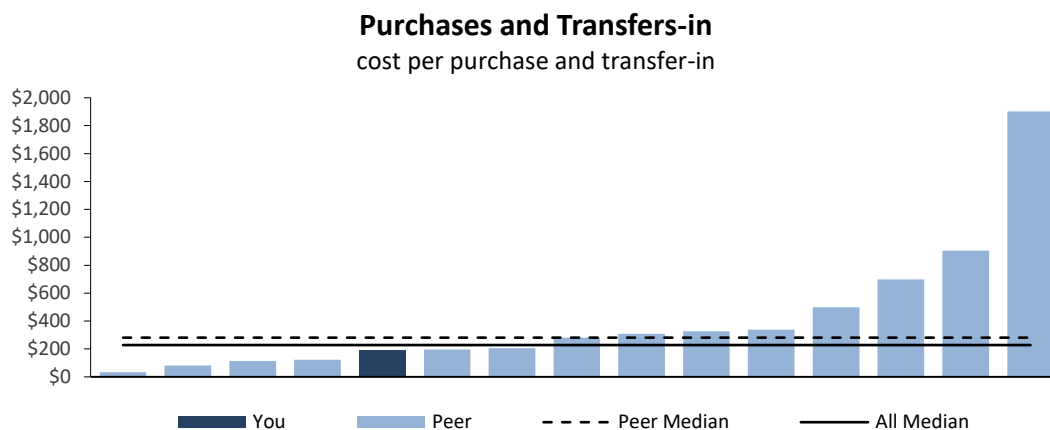
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Full refunds/ withdrawals/ commuted value/ lump sums	100%	97%	
Transfers-out	0%	3%	decreasing
Total withdrawals and transfers-out	100%	100%	

3. Additional work per withdrawal and transfer-out

Causes of additional work	You	Peer Avg	Cost Impact
Written estimates for withdrawals and transfers-out as a % of withdrawals and transfers-out	0%	65%	decreasing
Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	No	60%Yes	decreasing

1D Purchases and Transfers-in

Your purchases and transfers-in cost per purchase and transfer-in was \$189.50. This was \$91.60 below the peer median of \$281.10.



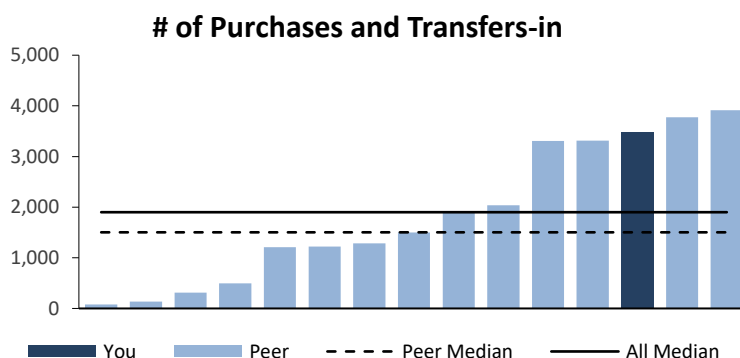
Reasons why your cost was below median	Comparison		Impact ¹
	You	Peer Median	\$s per Purchase and Transfer-in
Lower salaries and benefits per direct FTE	\$77,723	\$84,545	-\$16.29
More purchases and transfers-in per direct FTE (productivity)	419	367	-\$26.33
Lower third party costs per purchase and transfer-in	\$3.97	\$7.26	-\$3.29
Unexplained ¹			-\$45.70
Cost per purchase and transfer-in	\$189.50	\$281.10	-\$91.60

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

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

1. Economies of scale

You had an economy of scale advantage. Your 3,477 purchases and transfers-in was 131% higher than the peer median of 1,503.



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.

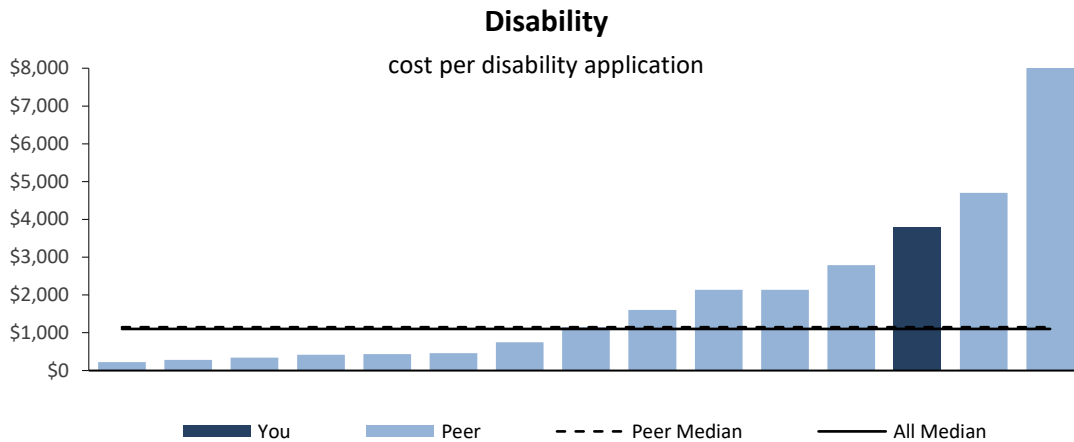
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Service credit purchases	100%	88%	
Upgrades to improve pensionable salary	0%	0%	
Upgrades to a new retirement formula	0%	5%	
Individual transfers-in from external defined benefit systems	0%	7%	decreasing
Members collectively transferred in	0%	0%	
Total 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	314%	304%	increasing
Installment payments permitted	No	80%Yes	decreasing

1E Disability

Your disability cost per disability application was \$3,803.02. This was \$2,654.58 above the peer median of \$1,148.44.



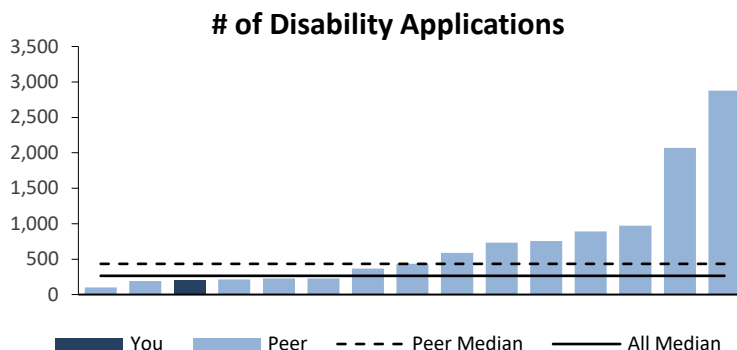
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Disability Application
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$76,011	\$81,907	-\$269.62
Fewer disability applications per direct FTE (productivity)	22	102	\$2,730.67
Higher third party costs per disability application	\$327.14	\$226.04	\$101.09
Unexplained ¹			\$92.43
Cost per disability application	\$3,803.02	\$1,148.44	\$2,654.58

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

1E Disability - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 199 disability applications was 54% lower than the peer median of 433.



2. Mix of activity volume

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

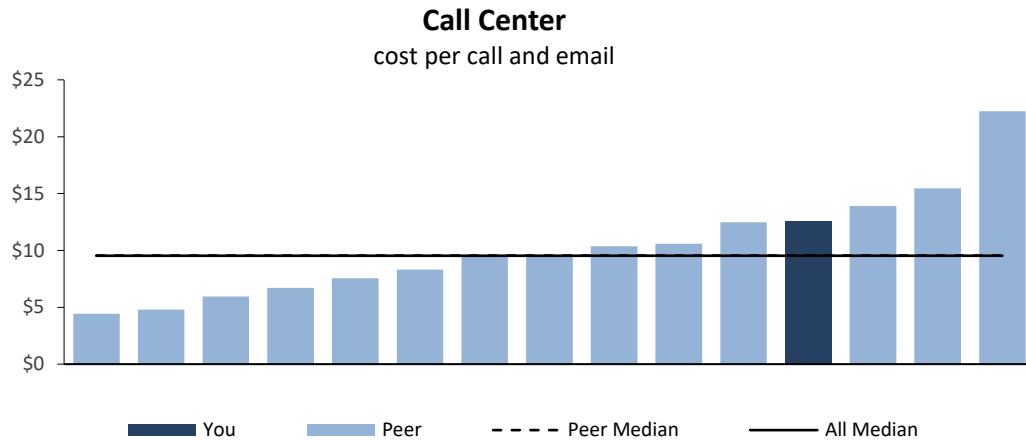
Activity Volume: % by Type	You	Peer Avg	Cost Impact
Applications for short-term disability	0%	16%	
Applications for disability pensions/ long-term disability/ disability lump sums	100%	84%	increasing
Total disability applications	100%	100%	

3. Additional work per disability application

Causes of additional work	You	Peer Avg	Cost Impact
Independent decision process (versus following the ruling of an employer or social security, etc)	Yes	100%Yes	neutral
Recertifications as a % of disability applications	233%	327%	decreasing
Recertifications as a % of disability recipients	11%	37%	decreasing
Medical exams paid for by you as a % of disability applications	0%	31%	decreasing
New member health reviews as a % of disability applications	0%	25%	decreasing
Disability decision appeals as a % of disability applications	6%	6%	neutral
Occupational disability as a % of disability applications	5%	10%	decreasing
Disability complexity score (out of 100)	93	75	increasing

2A Call Center

Your call center cost per call and email was \$12.56. This was \$3.02 above the peer median of \$9.54. The biggest reason why was that you completed fewer calls and emails per direct FTE (productivity).



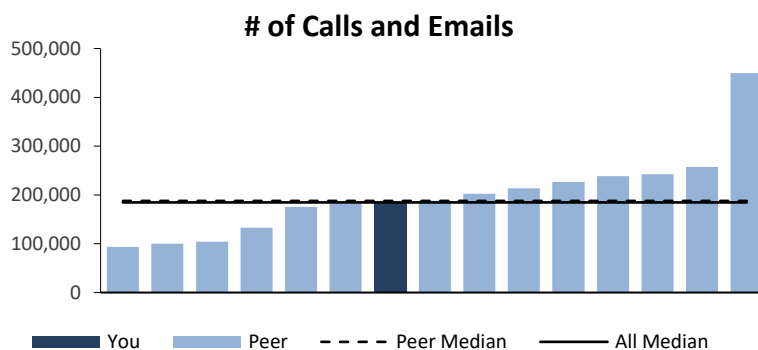
Reasons why your cost was above median	Comparison		Impact ¹ \$s per Call and Email
	You	Peer Median	
Higher salaries and benefits per direct FTE	\$76,500	\$75,797	\$0.11
Fewer calls and emails per direct FTE (productivity)	6,324	8,386	\$2.98
Higher third party costs per call and email	\$0.47	\$0.30	\$0.17
Unexplained ¹			-\$0.24
Cost per call and email	\$12.56	\$9.54	\$3.02

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 disadvantage. Your 184,657 calls and emails was 2% lower than the peer median of 187,732.

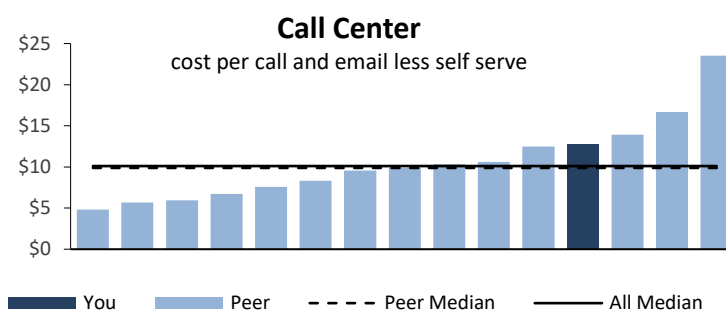


2. Mix of activity volume

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	78%	85%	
Outgoing calls from service representatives	11%	6%	
Calls satisfied by self-serve options	2%	3%	increasing
Email queries from members	9%	6%	
Total calls and emails	100%	100%	

If self-serve calls were excluded from volumes, your cost per active member and annuitant would have increased to \$12.78. This would have been above the peer median cost of \$9.88.



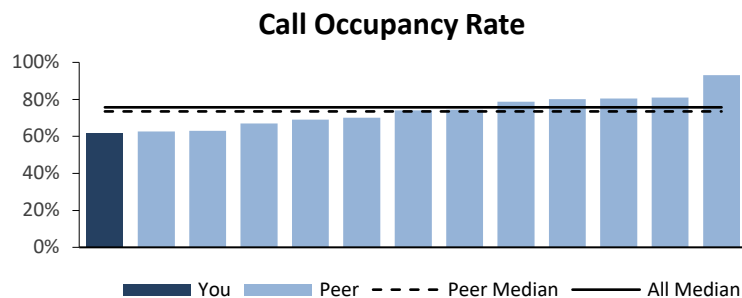
2A Call Center - Factors that impact productivity

continued

3. Additional work per call and email

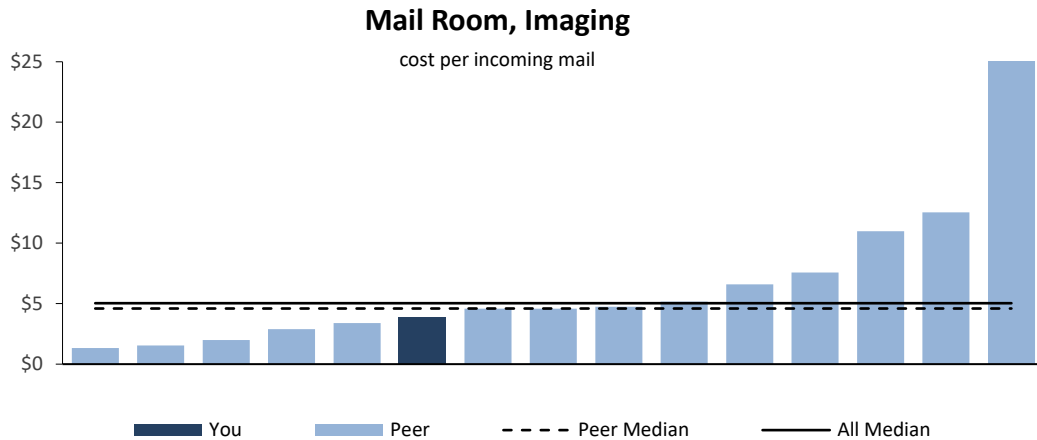
Causes of additional work	You	Peer Avg	Cost Impact
Average talk time of a member call (in seconds)	320	292	increasing
Average after call work time (in seconds)	88	98	decreasing
Do you regularly review staff responses to member calls?	Yes	93%Yes	increasing

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 \$3.85. This was \$0.75 below the peer median of \$4.60. The biggest reason why was that you had lower third party costs per incoming mail.



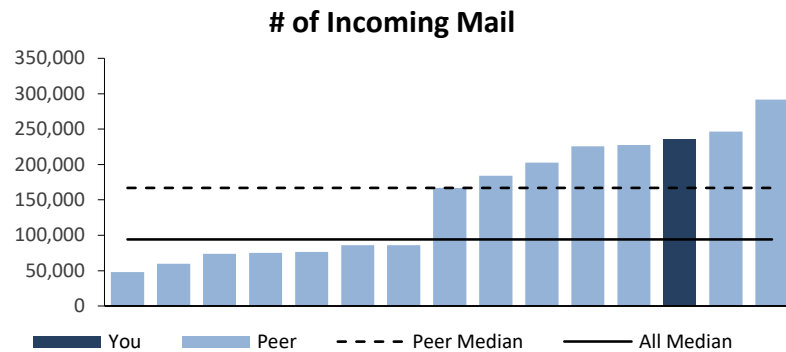
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Incoming Mail
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$62,803	\$63,467	-\$0.04
Fewer incoming mail per direct FTE (productivity)	16,578	21,444	\$0.86
Lower third party costs per incoming mail	\$0.06	\$0.99	-\$0.94
Unexplained ¹			-\$0.63
Cost per incoming mail	\$3.85	\$4.60	-\$0.75

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

2B Mail Room, Imaging - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 235,404 incoming mail was 41% higher than the peer median of 166,906.

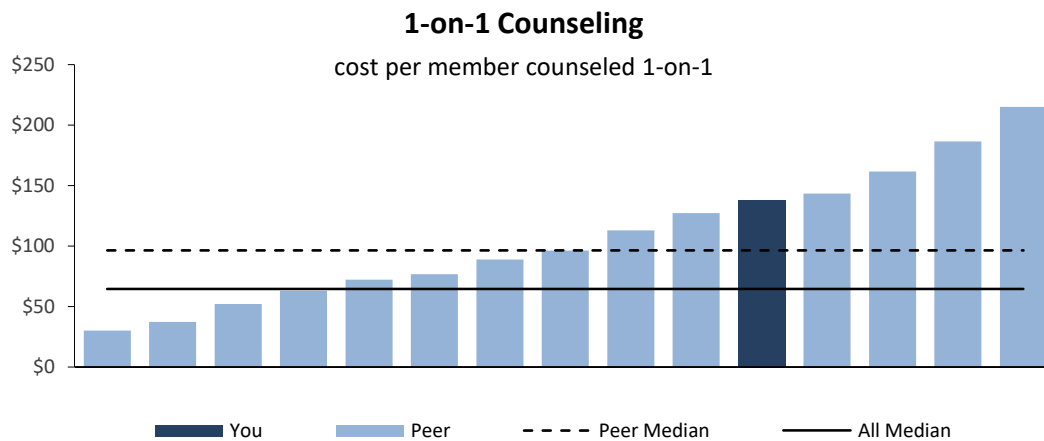


2. Additional work per incoming mail

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).	875%	659%	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 \$138.01. This was \$41.49 above the peer median of \$96.52. The biggest reason why was that you completed fewer members counseled 1-on-1 per direct FTE (productivity).



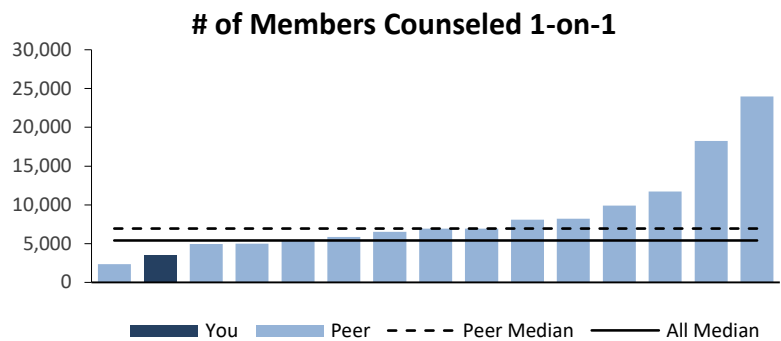
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Member Counseled 1-on-1
Lower salaries and benefits per direct FTE	\$76,918	\$81,616	-\$8.11
Fewer members counseled 1-on-1 per direct FTE (productivity)	580	844	\$41.61
Higher third party costs per member counseled 1-on-1	\$5.32	\$2.34	\$2.97
Unexplained ¹			\$5.01
Cost per member counseled 1-on-1	\$138.01	\$96.52	\$41.49

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

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

1. Economies of scale

You had an economy of scale disadvantage. Your 3,536 members counseled 1-on-1 was 49% lower than the peer median of 6,943.



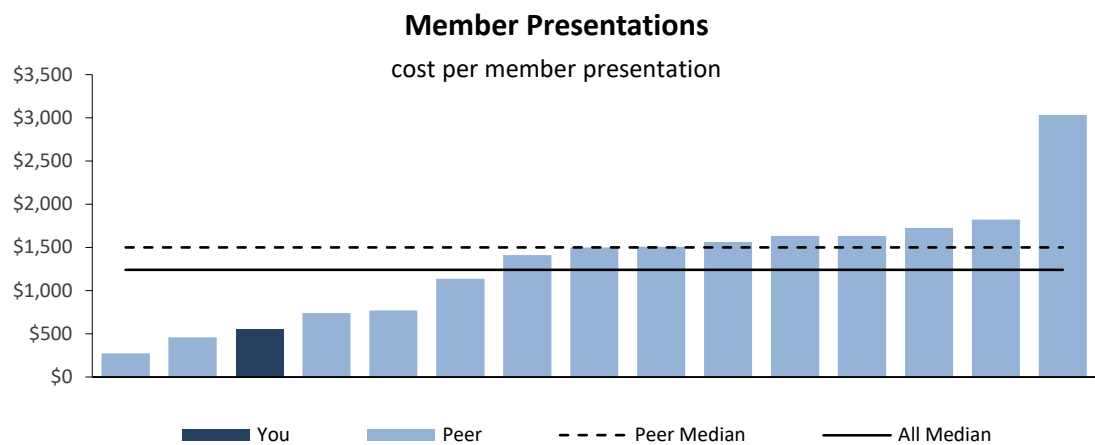
2. Mix of activity volume

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

Activity Volume: % by Type	You	Peer Avg	Cost Impact
In-house	45%	68%	decreasing
In the field	55%	29%	increasing
Via teleconference	0%	3%	increasing
Total members counseled 1-on-1	100%	100%	

2D Member Presentations

Your member presentations cost per member presentation was \$547.16. This was \$951.69 below the peer median of \$1,498.85. The biggest reason why was that you completed more member presentations per direct FTE (productivity).



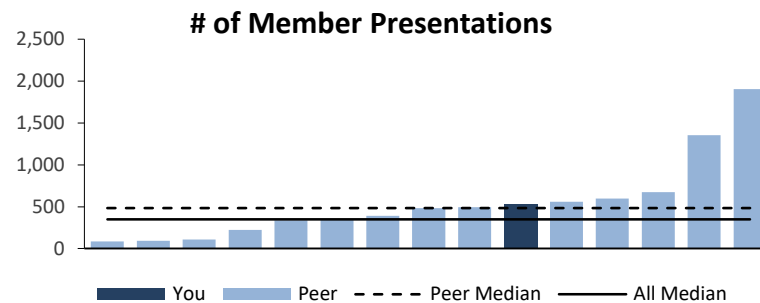
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Member Presentation
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$75,216	\$81,176	-\$41.77
More member presentations per direct FTE (productivity)	143	74	-\$495.53
Lower third party costs per member presentation	\$20.08	\$100.60	-\$80.52
Unexplained ¹			-\$333.87
Cost per member presentation	\$547.16	\$1,498.85	-\$951.69

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

2D Member Presentations - Factors that impact productivity

1. Economies of scale

You had an economy of scale advantage. Your 528 member presentations was 9% higher than the peer median of 484.



2. Mix of activity volume

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

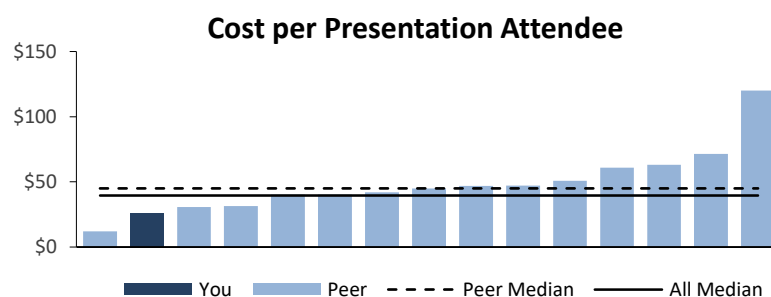
Member Presentations by Location	You	Peer Avg	Cost Impact
In-house and webcast	15%	18%	
In the field	80%	67%	increasing
Benefit fairs	5%	16%	
Total presentations and group counseling	100%	100%	

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 21 attendees per presentation, versus a peer average of 28.

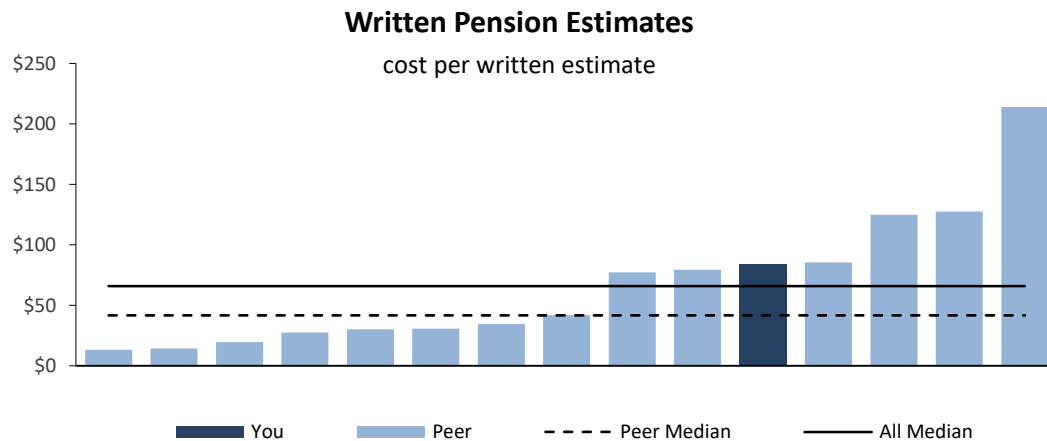
Causes of additional work	You	Peer Avg	Cost Impact
Average attendees per presentation	21	28	increasing

An alternative way of analyzing this activity's cost is on a 'per attendee' basis. Your cost per presentation attendee was \$26. This was below the peer median cost of \$45.



2E Written Pension Estimates

Your written pension estimates cost per written estimate was \$83.90. This was \$42.11 above the peer median of \$41.79. The biggest reason why was that you completed fewer written estimates per direct FTE (productivity).



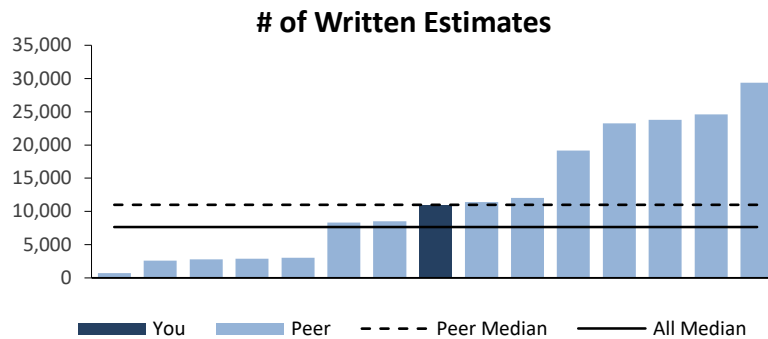
Reasons why your cost was above median	Comparison		Impact ¹
	You	Peer Median	\$s per Written Estimate
Lower salaries and benefits per direct FTE	\$76,008	\$81,560	-\$6.01
Fewer written estimates per direct FTE (productivity)	924	1,974	\$43.78
Equal third party costs per written estimate	\$1.61	\$1.61	\$0.00
Unexplained ¹			\$4.34
Cost per written estimate	\$83.90	\$41.79	\$42.11

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

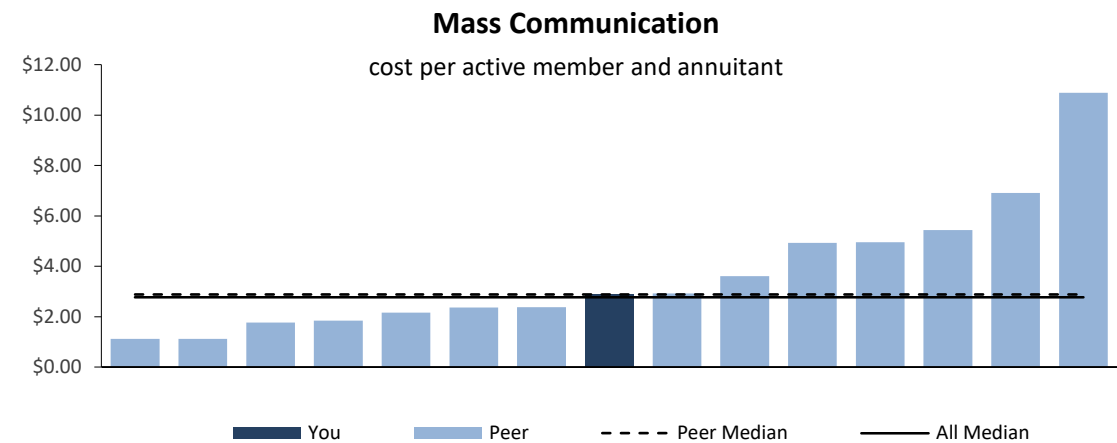
Your 10,992¹ written estimates was the peer median. Thus the impact of economies of scale was minimized.



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 164,873 by your average number of scenarios per request of 15.0.

2F Mass Communication

Your mass communication cost per active member and annuitant was \$2.88. 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	
Higher salaries and benefits per direct FTE	\$98,328	\$92,426	\$0.13
More direct FTE per 10,000 active members and annuitants (productivity) ²	0.21	0.18	\$0.37
Lower third party costs per active member and annuitant	\$0.78	\$1.37	-\$0.59
Unexplained ¹			\$0.09
Cost per active member and annuitant	\$2.88	\$2.88	\$0.00

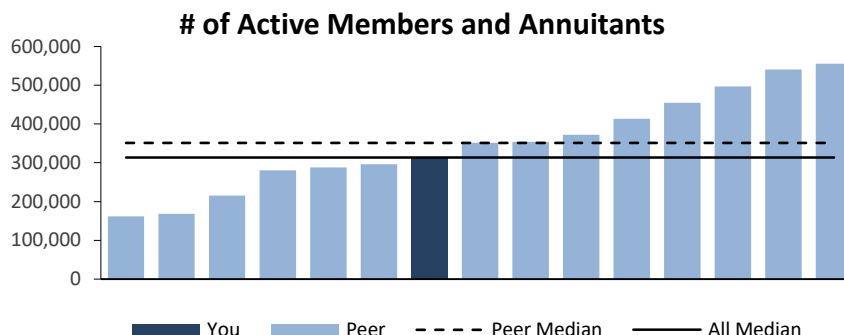
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 6.7 mass communication FTE which was 24% more than the peer median of 5.4. The percentage difference was more favorable on a 'per active members and annuitants' basis (your 0.21 mass communication FTE per 10,000 active members and annuitants was 21% more than the peer median of 0.18).

2F Mass Communication - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 313,895 active members and annuitants was 11% lower than the peer median of 351,172.

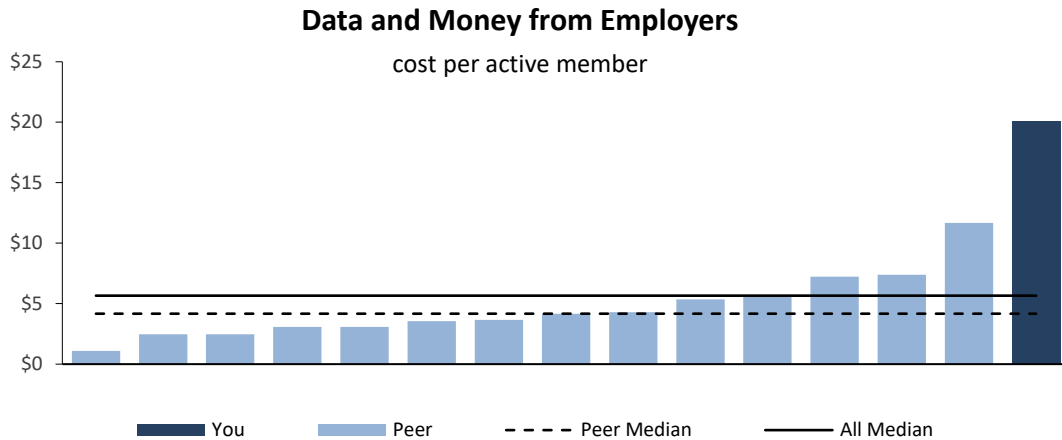


2. Additional mass communication work per active member and annuitant

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.	76	79	decreasing
Times per year you send newsletters to:			
a) All members (active, inactive and annuitants)?	0.0	1.3	decreasing
b) Active and inactive members?	0.0	1.1	decreasing
c) Active members and annuitants?	0.0	0.3	decreasing
d) Active members only?	3.0	3.7	decreasing
e) Inactive members only?	0.0	0.5	decreasing
f) Annuitants only?	3.0	3.4	decreasing
g) Age segments (i.e., under 35, 35-50, 50 plus)?	0.0	0.9	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	3.5	decreasing
j) Other? (describe your other newsletter segments below)	0.0	2.1	decreasing
# of materials you publish in a language other than English	1.0	0.3	increasing
Times per year you send member statements to:			
a) Active members?	1.0	1.2	decreasing
b) Inactive members?	1.0	1.2	decreasing
% of member statements mailed to active members' homes	100%	59%	increasing
Do you send:			
a) Welcome kits to new members?	Yes	100%Yes	neutral
b) Brochure summarizing benefits to active members every year?	No	40%Yes	decreasing

3A Data and Money from Employers

Your data and money from employers cost per active member was \$20.07. This was \$15.90 above the peer median of \$4.17.



Reasons why your cost was above median	Comparison		Impact ¹ \$s per Active Member
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$76,456	\$86,583	-\$2.56
More direct FTE per 10,000 active members (productivity) ²	1.39	0.27	\$8.56
Higher third party costs per active member	\$0.75	\$0.10	\$0.65
Unexplained ¹			\$9.24
Cost per active member	\$20.07	\$4.17	\$15.90

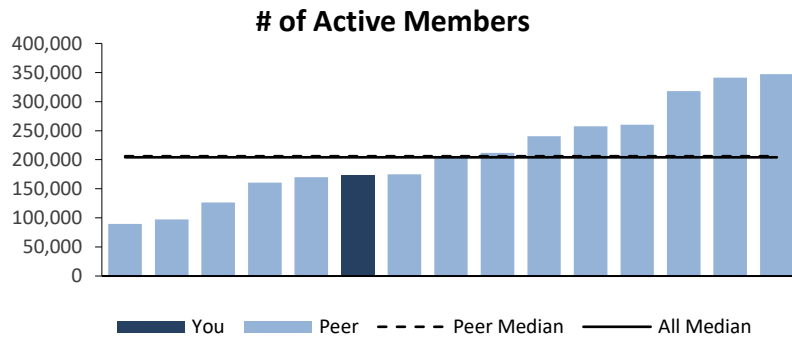
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).
2. You had 43.6 data and money from employers FTE which was 349% more than the peer median of 9.7. The percentage difference was less favorable on a 'per active members' basis (your 1.39 FTE per 10,000 active members was 416% more than the peer median of 0.27) 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

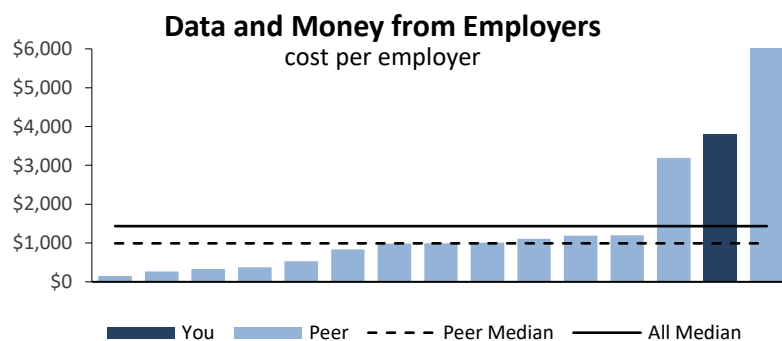
You had an economy of scale disadvantage. Your 172,513 active members was 16% lower than the peer median of 206,055.



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

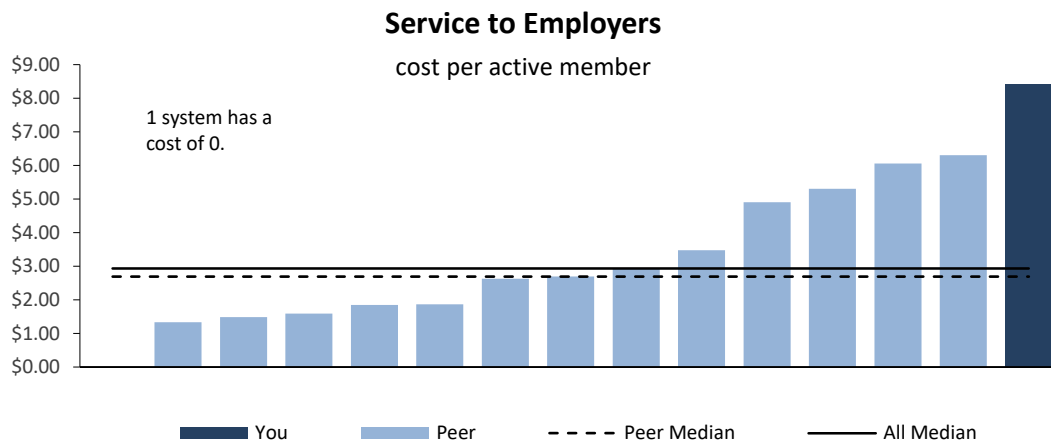
Causes of additional work	You	Peer Avg	Cost Impact
How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:			
• Validating member data? (as a % of active members)	0.5%	0.6%	decreasing
• Reconciling money issues? (as a % of active members)	0.5%	0.6%	decreasing
Active members whose data is provided in paper format (as a % of active members)	0.0%	0.1%	decreasing
Status changes as a % of active members			
• New active members	10.8%	10.0%	increasing
• Re-hired inactive members	9.2%	3.1%	increasing
• Re-hired service retirees, if annuity stops	0.0%	0.0%	neutral
• Active members exiting to inactive or withdrawal	10.5%	7.4%	increasing
• Active member service retirements	6.0%	2.8%	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 \$8.42. This was \$5.73 above the peer median of \$2.69.



Reasons why your cost was above median	Comparison		Impact ¹ \$s per Active Member
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$76,265	\$92,978	-\$1.79
More direct FTE per 10,000 active members (productivity) ²	0.59	0.14	\$3.40
Higher third party costs per active member	\$0.24	\$0.16	\$0.08
Unexplained ¹			\$4.05
Cost per active member	\$8.42	\$2.69	\$5.73

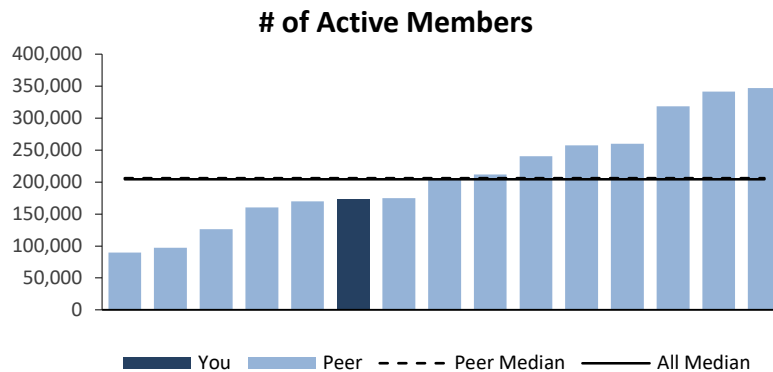
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 18.5 service to employers FTE which was 270% more than the peer median of 5.0. The percentage difference was less favorable on a 'per active members' basis (your 0.59 FTE per 10,000 active members was 310% more than the peer median of 0.14) 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 172,513 active members was 16% lower than the peer median of 206,055.

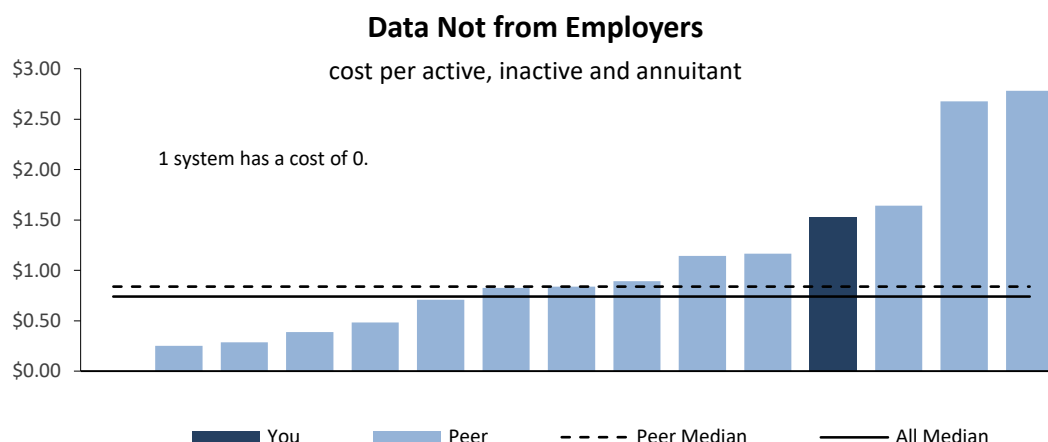


2. Additional service to employers work per active member

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)	0.5%	0.6%	decreasing
• Reconciling money issues? (as a % of active members)	0.5%	0.6%	decreasing
Service transactions a % of active members:			
a) Incoming calls from employers?	26.9%	7.8%	increasing
b) Email queries from employers?	57.3%	7.8%	increasing
c) Conferences for employers?	0.0%	0.0%	neutral
d) Presentations given to employers such as orientation workshops or seminars on benefit changes, etc?	0.0%	0.0%	neutral
e) On-site reviews (or audits or inspections) of your employers? [For example, several systems perform reviews of their employers that have problems providing data and or contributions on a timely basis to ensure that they are correctly fulfilling their obligations to their members.]	0.0%	0.0%	neutral
f) Other site visits to employers [exclude 'd' and 'e' above]?	0.0%	0.0%	neutral

3C Data Not from Employers

Your data not from employers cost per active, inactive and annuitant was \$1.52. This was \$0.68 above the peer median of \$0.84.



Reasons why your cost was above median	Comparison		Impact ¹ \$s per Active, Inactive and Annuitant
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$78,540	\$80,113	-\$0.03
More direct FTE per 10,000 actives, inactives, annuitants (productivity) ²	0.20	0.12	\$0.63
Higher third party costs per active, inactive and annuitant	\$0.22	\$0.08	\$0.14
Unexplained ¹			-\$0.06
Cost per active, inactive and annuitant	\$1.52	\$0.84	\$0.68

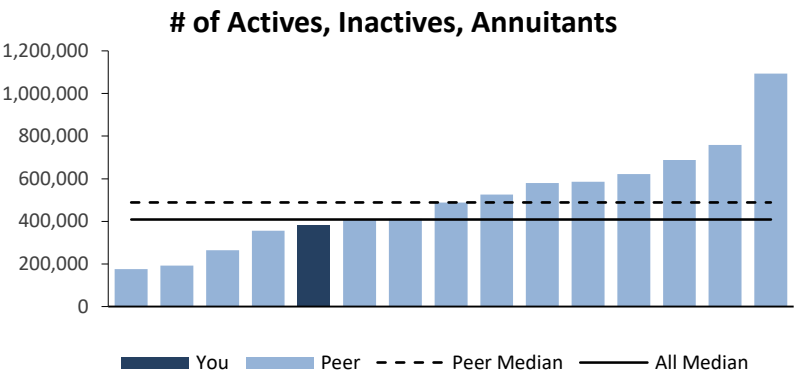
1. Impact equals your activity cost minus what it would have been if your value had equaled the peer median. An unexplained amount occurs using this methodology (refer to page 5 of this section).

2. You had 6.3 data not from employers FTE which was 50% more than the peer median of 4.2. The percentage difference was less favorable on a 'per actives, inactives, annuitants' basis (your 0.20 FTE per 10,000 actives, inactives, annuitants was 66% more than the peer median of 0.12) because you had an economy of scale disadvantage.

3C Data Not from Employers - Factors that impact productivity

1. Economies of scale

You had an economy of scale disadvantage. Your 381,008 actives, inactive, annuitants was 22% lower than the peer median of 488,838.

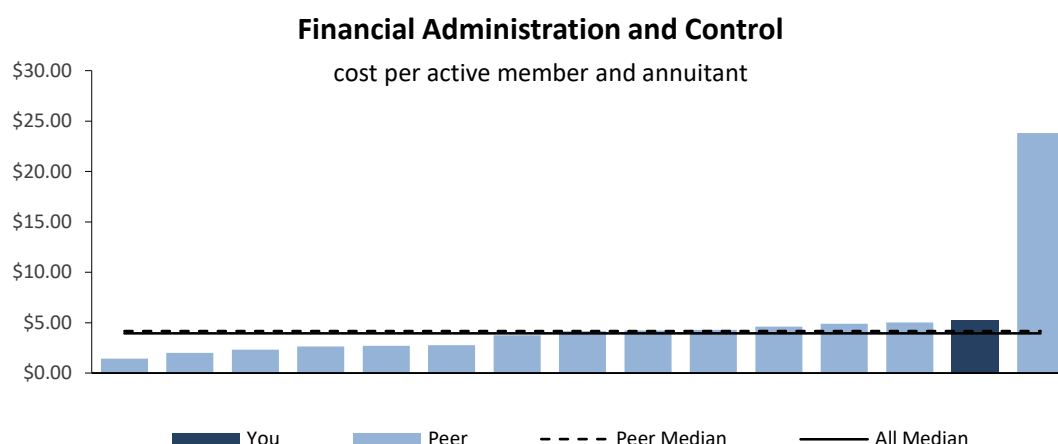


2. Additional data not from employers work per active, inactive and annuitant

Causes of additional work	You	Peer Avg	Cost Impact
Do you actively keep track of the addresses of inactive members?	Yes	93%Yes	increasing
If yes, inactive members as a % of actives, inactive, annuitants	17.6%	25.5%	decreasing
Status changes as a % of actives, inactive, annuitants:			
• Deaths	0.1%	0.1%	neutral

4A Financial Administration and Control

Your financial administration and control cost per active member and annuitant was \$5.24. This was \$1.07 above the peer median of \$4.17.



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	\$115,623	\$111,304	\$0.17
More direct FTE per 10,000 active members and annuitants (productivity) ²	0.39	0.31	\$0.88
Higher third party costs per active member and annuitant	\$1.36	\$0.47	\$0.89
Unexplained ¹			-\$0.86
Cost per active member and annuitant	\$5.24	\$4.17	\$1.07

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).

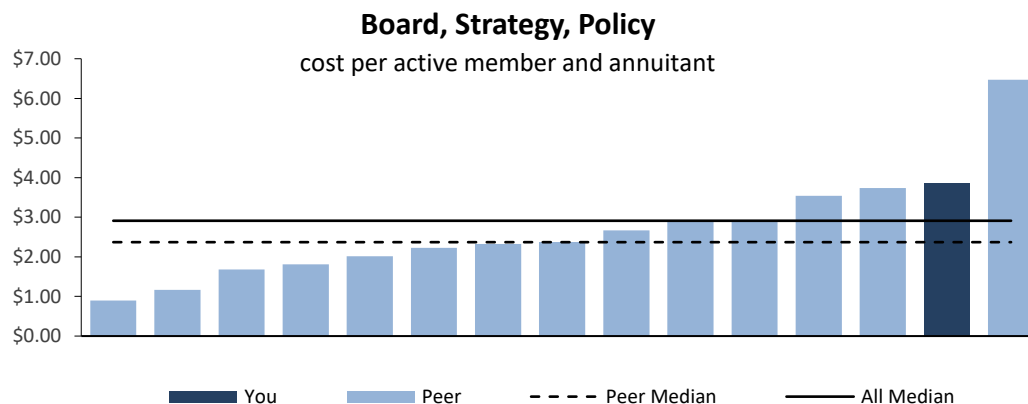
2. You had 12.2 financial administration and control FTE which was equal to the peer median of 12.2. The difference changes direction and was less favorable on a 'per active members and annuitants' basis (your 0.39 financial administration and control FTE per 10,000 active members and annuitants was 24% more than the peer median of 0.31) because you had an economy of scale disadvantage.

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

- Economies of scale - You had an economy of scale disadvantage. Your 313,895 active members and annuitants was 11% lower than the peer median of 351,172.
- 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 \$3.84. This was \$1.47 above the peer median of \$2.37.



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	\$108,893	\$155,083	-\$1.10
More direct FTE per 10,000 active members and annuitants (productivity) ²	0.24	0.12	\$1.26
Higher third party costs per active member and annuitant	\$1.69	\$0.91	\$0.79
Unexplained ¹			\$0.52
Cost per active member and annuitant	\$3.84	\$2.37	\$1.47

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 7.5 board, strategy, policy FTE which was 88% more than the peer median of 4.0. The percentage difference was less favorable on a 'per active members and annuitants' basis (your 0.24 FTE per 10,000 active members and annuitants was 95% more than the peer median of 0.12) 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:

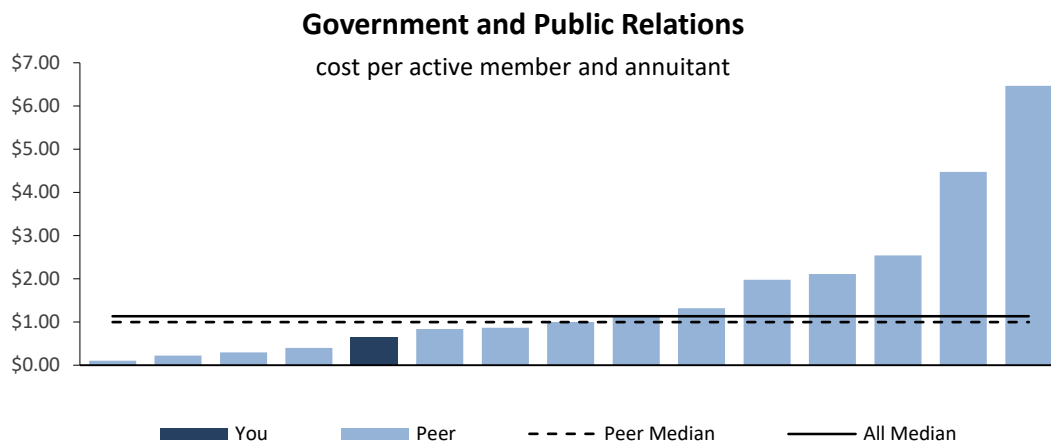
- Economies of scale - You had an economy of scale disadvantage. Your 313,895 active members and annuitants was 11% lower than the peer median of 351,172.
- Doing more/less - For example, your 22 oversight meetings last year was below the peer median of 34.

# of meetings last year, including sub-committees	Peer	
	You	Median * Peer Avg
a) Board of Trustees?	6	23 20.7
b) Non-board legislative oversight committee?	n/a	7 6.3
c) Advisory committee?	12	8 3.1
d) Members' Council?	n/a	2 0.1
e) Other?	4	5 2.6
Total	22	34 33

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

4C Government and Public Relations

Your government and public relations cost per active member and annuitant was \$0.65. This was \$0.34 below the peer median of \$0.99.



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	\$110,100	\$134,545	-\$0.16
Fewer direct FTE per 10,000 active members and annuitants (productivity) ²	0.06	0.08	-\$0.15
Lower third party costs per active member and annuitant	\$0.02	\$0.14	-\$0.12
Unexplained ¹			\$0.09
Cost per active member and annuitant	\$0.65	\$0.99	-\$0.34

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

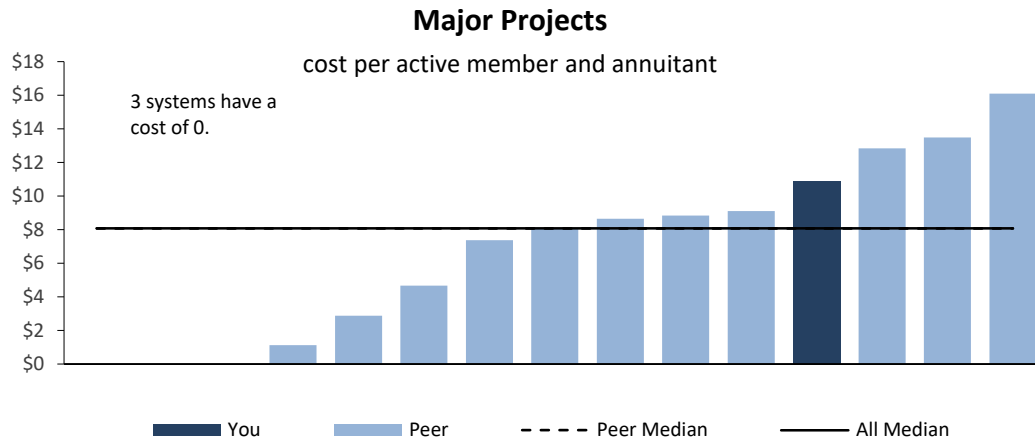
2. You had 2.0 government and public relations FTE which was equal to the peer median of 2.0. The difference changes direction and was more favorable on a 'per active members and annuitants' basis (your 0.06 government and public relations FTE per 10,000 active members and annuitants was 18% less than the peer median of 0.08).

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 313,895 active members and annuitants was 11% lower than the peer median of 351,172.
- Doing more/less - For example, some systems do not have any government relations staff.

5A-D Major Projects

Your major projects cost per active member and annuitant was \$10.89. This was \$2.81 above the peer median of \$8.08. This comparison includes both '5A and 5C Amortized major projects' plus '5B and 5D Major Projects (if you don't capitalize)'.

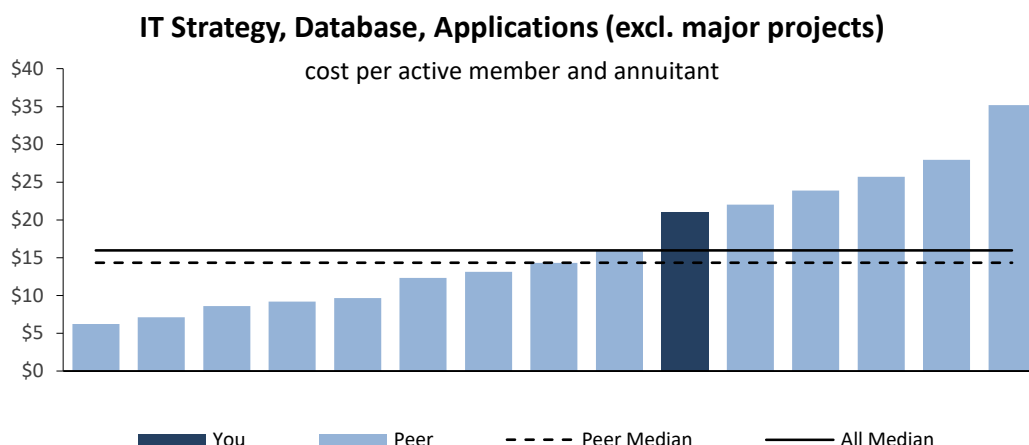


Reasons for differences in the cost for major projects include:

- 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 313,895 active members and annuitants was 10.6% lower than the peer median of 351,172. 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 93 out of 100. This was above the peer median of 69.
- 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 \$20.98. This was \$6.64 above the peer median of \$14.34. 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	\$93,633	\$125,357	-\$6.11
More direct FTE per 10,000 active members and annuitants ²	1.93	0.80	\$10.53
Equal third party costs per active member and annuitant	\$5.38	\$5.38	\$0.00
Unexplained ¹			\$2.22
Cost per active member and annuitant	\$20.98	\$14.34	\$6.64

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).

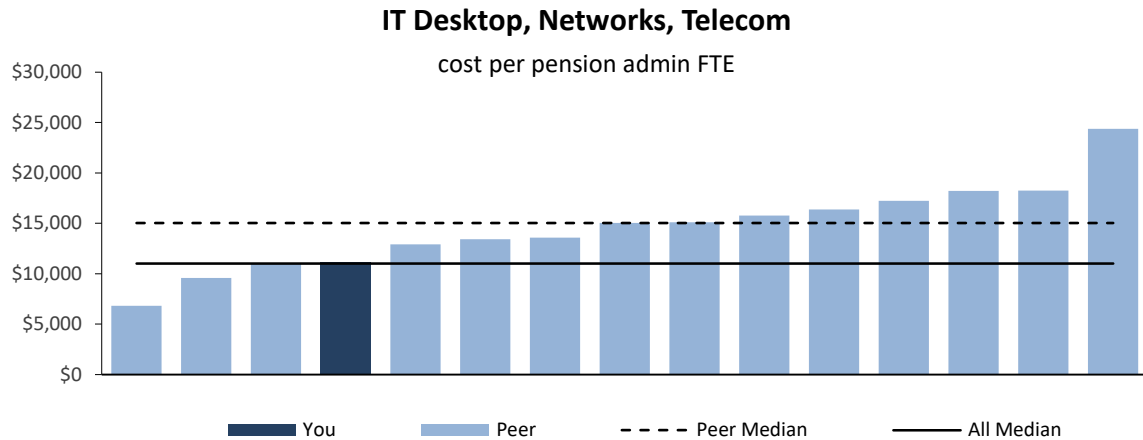
2. You had 60.5 IT strategy, database, applications (excl. major projects) FTE which was 154% more than the peer median of 23.8. The percentage difference was more favorable on a 'per active member and annuitant' basis (your 1.93 FTE per 10,000 active member and annuitant was 140% more than the peer median of 0.80) 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 313,895 active members and annuitants was 10.6% lower than the peer median of 351,172. 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 93 out of 100. This was above the peer median of 69.
- IT investment cycle

6B IT Desktop, Networks, Telecom

Your it desktop, networks, telecom cost per pension admin FTE was \$11,168. This was \$3,859 below the peer median of \$15,027.



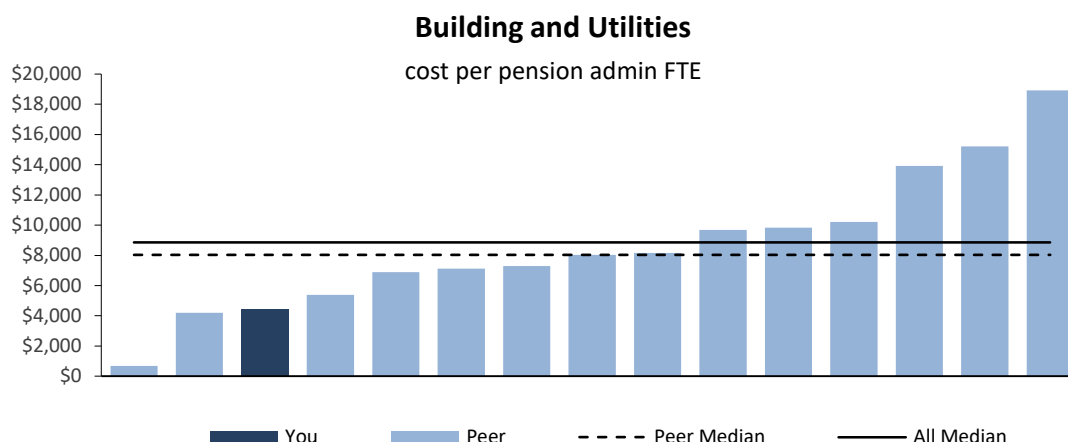
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Pension Admin FTE
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$117,382	\$121,400	-161
Fewer direct FTE per 100 pension admin FTE ²	4.01	6.15	-2,503
Lower third party costs per pension admin FTE	\$7,760	\$9,168	-1,408
Unexplained ¹			213
Cost per pension admin FTE	\$11,168	\$15,027	-\$3,859

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

2. You had 13.6 IT desktop, networks, telecom FTE which was 13% more than the peer median of 12.0. The difference changes direction and was more favorable on a 'per pension admin FTE' basis (your 4.01 IT desktop, networks, telecom FTE per 100 pension admin FTE was 35% less than the peer median of 6.15) because you had an economy of scale advantage.

7A Building and Utilities

Your building and utilities cost per pension admin FTE was \$4,441. This was \$3,590 below the peer median of \$8,031.



Reasons why your cost was below median	Comparison		Impact ¹ \$s per Pension Admin FTE
	You	Peer Median	
Equal salaries and benefits per direct FTE	\$88,636	\$88,636	\$0
Fewer direct FTE per 100 pension admin FTE ²	0.32	0.98	-\$579
Lower third party costs per pension admin FTE	\$4,672	\$7,656	-\$2,984
Unexplained ¹			-\$27
Cost per pension admin FTE	\$4,441	\$8,031	-\$3,590

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

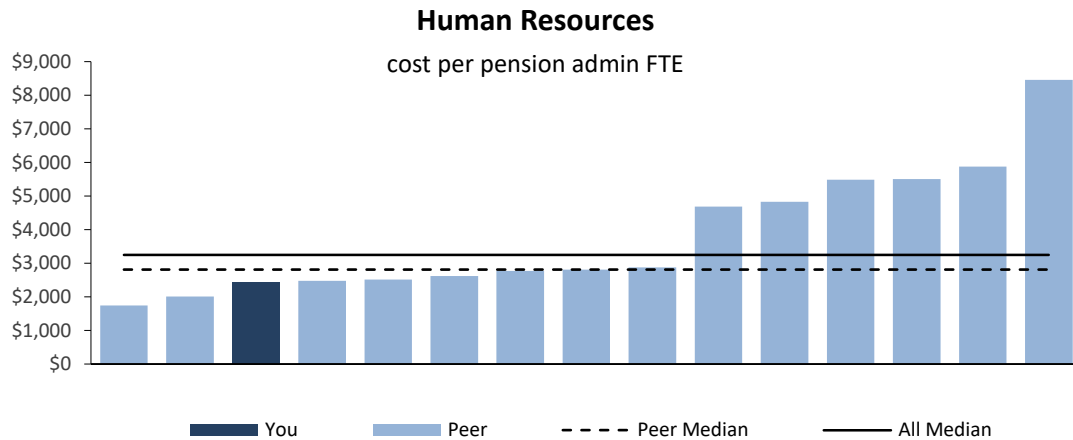
2. You had 1.1 building and utilities FTE which was 35% less than the peer median of 1.7. The percentage difference was more favorable on a 'per pension admin FTE' basis (your 0.32 FTE per 100 pension admin FTE was 67% less than the peer median of 0.98) because you had an economy of scale advantage.

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 \$2,420. This was \$395 below the peer median of \$2,815.



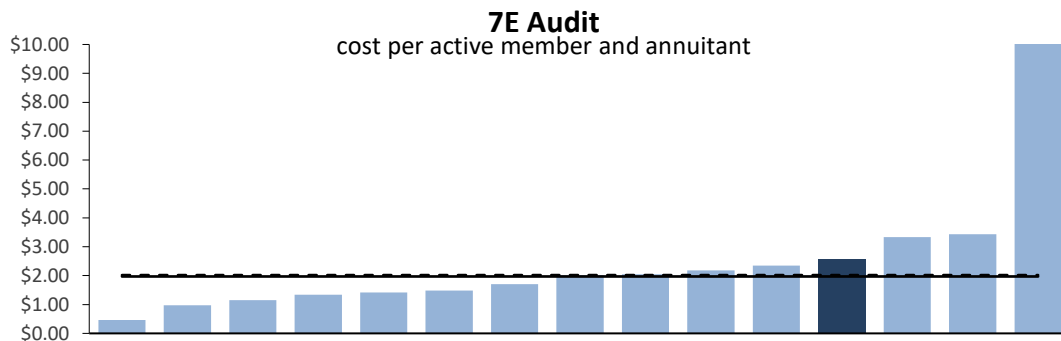
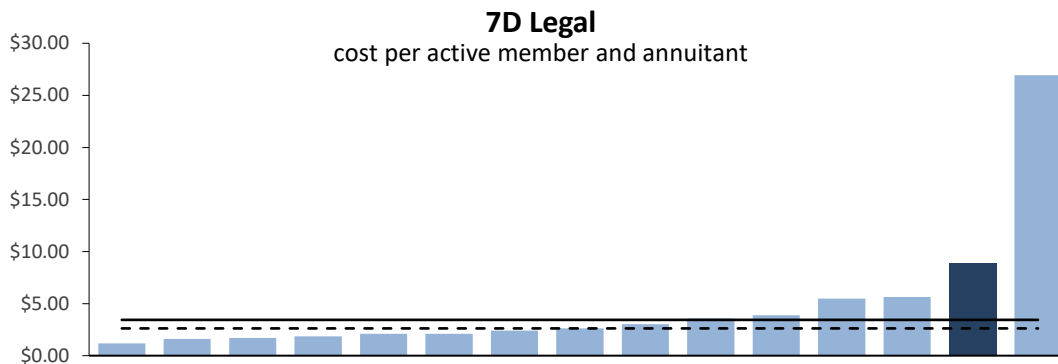
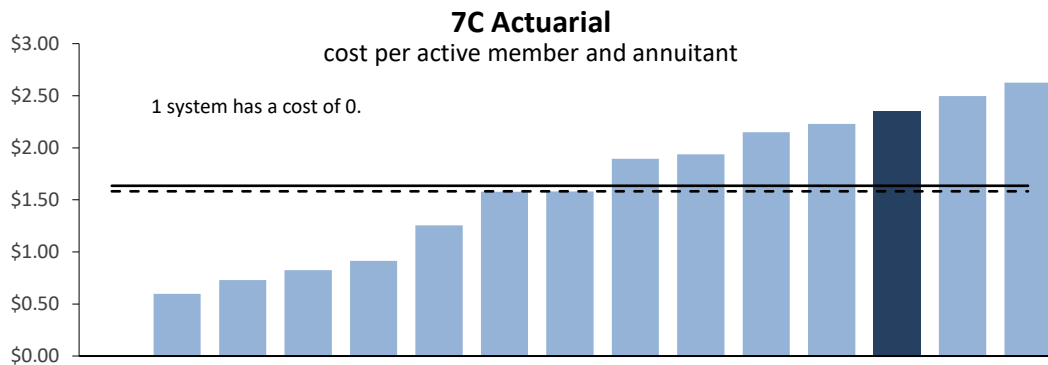
Reasons why your cost was below median	Comparison		Impact ¹ \$s per Pension Admin FTE
	You	Peer Median	
Lower salaries and benefits per direct FTE	\$91,109	\$111,571	-\$556
More direct FTE per 100 pension admin FTE ²	2.72	2.56	\$141
Lower third party costs per pension admin FTE	\$229	\$764	-\$535
Unexplained ¹			\$554
Cost per pension admin FTE	\$2,420	\$2,815	-\$395

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 9.2 human resources FTE which was 67% more than the peer median of 5.5. The percentage difference was more favorable on a 'per pension admin FTE' basis (your 2.72 FTE per 100 pension admin FTE was 6% more than the peer median of 2.56) because you had an economy of scale advantage.

7C-E Professional Costs

Your cost for activity:

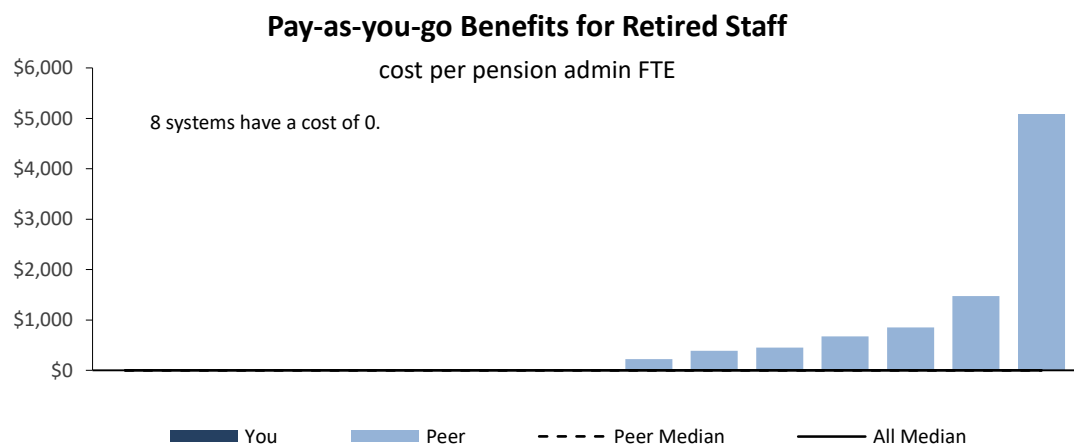
- Your actuarial cost per active member and annuitant was \$2.35. This was \$0.77 above the peer median of \$1.58.
- Your legal cost per active member and annuitant was \$8.90. This was \$6.28 above the peer median of \$2.62.
- Your audit cost per active member and annuitant was \$2.55. This was \$0.53 above the peer median of \$2.02.



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

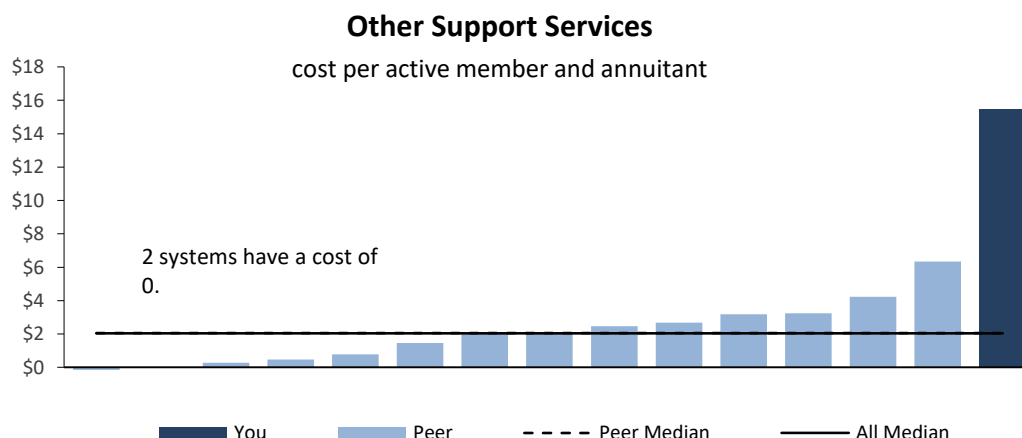
7F Pay-as-you-go benefits for retired staff

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 \$15.46. This was \$13.40 above the peer median of \$2.06. The biggest reason why was that you had higher third party costs per active member and annuitant.



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 313,895 active members and annuitants was 10.6% lower than the peer median of 351,172. 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 93 out of 100. This was above the peer median of 69.
- 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 back office costs (i.e., governance and financial control, major projects, IT, and support services and other) to the front office activities. Front office activities are the activities that come in contact with clients or employers, such as paying pensions, pension inception, and member calls. The methodology used to calculate fully-attributed costs is shown on the following page.

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

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

Fully-Attributed Activity Costs (\$s per unit of activity volume)																	
Activity	Cost per:	You	Peer							#	Avg	Max	All				
			Avg	Max	Q3	Med	Q1	Min	Q3				Med	Q1	Min	#	
1. Member Transactions																	
a. Pension Payments	annuitant	23	22	84	22	14	13	12	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
b. Pension Inceptions	new payee inception	209	471	1,069	751	331	236	190	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
c. Refunds, Withdrawals and Transfers-out	withdrawal and transfer-out	336	454	4,425	260	131	100	39	15	n/a	n/a	n/a	n/a	n/a	n/a	43	
d. Purchases and Transfers-in	purchase and transfer-in	526	1,256	6,075	1,276	861	484	234	15	n/a	n/a	n/a	n/a	n/a	n/a	42	
e. Disability	disability application	10,244	5,047	27,879	4,857	2,569	1,118	537	15	4,785	27,879	6,208	2,502	1,365	537	36	
2. Member Communication																	
a. Call Center	call and email	35	31	62	39	25	22	15	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
b. Mail Room, Imaging	incoming mail	12	19	80	26	12	9	4	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
c. 1-on-1 Counseling	member counseled 1-on-1	381	296	548	418	288	161	68	15	n/a	n/a	n/a	n/a	n/a	n/a	42	
d. Member Presentations	member presentation	1,534	3,402	8,312	4,131	3,358	2,050	538	15	n/a	n/a	n/a	n/a	n/a	n/a	41	
e. Written Pension Estimates	written estimate	236	206	776	243	149	83	47	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
f. Mass Communication	active member and annuitant	6	7	20	8	6	4	2	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
3. Collections and Data Maintenance																	
a. Data and Money from Employers	active member	56	17	56	18	13	8	6	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
b. Service to Employers	active member	24	9	24	12	8	4	0	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
c. Data Not from Employers	active, inactive and annuitant	4	3	7	3	3	1	0	15	n/a	n/a	n/a	n/a	n/a	n/a	44	
Total Pension Administration		active member and annuitant	144	106	361	100	82	77	55	15	119	399	142	90	74	8	45
Non-Pension																	
1f. Healthcare Administration	annuitant	40	24	129	36	4	0	0	15	9	129	2	0	0	0	43	
1g. Optional and Third Party Administered Benefits	active member	47	8	47	7	6	0	0	15	4	47	4	0	0	0	43	

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		4. Governance & Financial Control	Fully-Attributed		
				6a IT Strategy, DB Mgmt, Applications	6b + 7a - g Support Services and Other		Cost per unit ³	Cost per Member and Annuitant	
1. Member Transactions									
a. Pension Payments	12.7	1,518	197	379	880	333	3,306	23	10.53
b. Pension Inceptions	16.9	1,333	262	504	1,171	444	3,713	209	11.83
c. Refunds, Withdrawals and Transfers-out	14.1	1,116	218	421	977	370	3,102	336	9.88
d. Purchases and Transfers-in	8.3	659	129	248	575	218	1,828	526	5.82
e. Disability	9.1	757	141	272	630	239	2,039	10,244	6.49
f. Healthcare Administration	8.4	4,496	130	251	582	220	5,679	40	18.09
g. Optional and Third Party Administered Benefits	15.1	5,977	234	451	1,046	396	8,104	47	25.82
2. Member Communication									
a. Call Center	29.2	2,320	452	871	2,023	766	6,433	35	20.49
b. Mail Room, Imaging	14.2	905	220	424	984	373	2,905	12	9.26
c. 1-on-1 Counseling	6.1	488	95	182	423	160	1,347	381	4.29
d. Member Presentations	3.7	289	57	110	256	97	810	1,534	2.58
e. Written Pension Estimates	11.9	922	184	355	824	312	2,598	236	8.28
f. Mass Communication	6.7	905	104	200	464	176	1,849	6	5.89
3. Collections and Data Maintenance									
a. Data and Money from Employers	43.6	3,463	675	1,301	3,021	1,144	9,604	56	30.60
b. Service to Employers	18.5	1,452	287	552	1,282	486	4,058	24	12.93
c. Data Not from Employers	6.3	580	98	188	436	165	1,468	4	4.68
4. Governance and Financial Control									
a. Financial Administration and Control	12.2	1,837	189	364	845	-3,236	0		
b. Board, Strategy, Policy	7.5	1,348	116	224	520	-2,207	0		
c. Government and Public Relations	2.0	228	31	60	139	-457	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)	16.5	1,891	-1,891				0		
c. Amortization of IT Major Projects	n/a	1,928	-1,928				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)	60.5	7,355		-7,355			0		
b. IT Desktop, Networks, Telecom	13.6	4,226			-4,226		0		
7. Support Services and Other									
a. Building and Utilities	1.1	1,681			-1,681		0		
b. Human Resources	9.2	916			-916		0		
c. Actuarial	3.4	823			-823		0		
d. Legal and Rule Interpretation	22.9	3,118			-3,118		0		
e. Internal and External Audit	4.7	895			-895		0		
f. Pay-as-you-go Benefits for Retired Staff	n/a	0			0		0		
g. Other Support Services	0.0	5,419			-5,419		0		
Total Administration	378.4	58,844	0	0	0	0	58,844		187.46
less: ²									
1f. Healthcare Administration							-5,679		-18.09
1g. Optional and Third Party Administered Benefits							-8,104		-25.82
Total Pension Administration							45,060		143.55

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

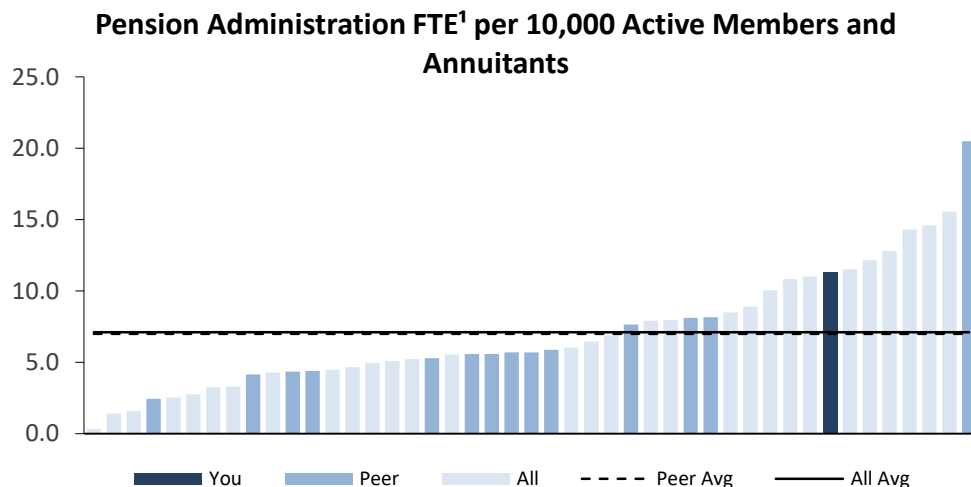
Staff Costs and Productivity

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 11.31 pension administration FTE¹ per 10,000 members. This was above the peer average of 6.98.



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 Avg	All Avg	You	Peer Avg	All Avg
1. Member Transactions						
a. Pension Payments	12.7	7.8	11.8	0.40	0.27	0.31
b. Pension Inceptions	16.9	12.0	22.3	0.54	0.39	0.51
c. Refunds, Withdrawals and Transfers-out	14.1	6.2	9.2	0.45	0.20	0.31
d. Purchases and Transfers-in	8.3	4.3	11.9	0.26	0.15	0.35
e. Disability	<u>9.1</u>	<u>8.0</u>	<u>7.1</u>	<u>0.29</u>	<u>0.32</u>	<u>0.17</u>
Total Member Transactions	61.1	38.2	62.3	1.95	1.33	1.64
2. Member Communication						
a. Call Center	29.2	27.0	29.8	0.93	0.78	0.70
b. Mail Room, Imaging	14.2	8.5	10.9	0.45	0.29	0.28
c. 1-on-1 Counseling	6.1	8.6	9.5	0.19	0.25	0.24
d. Member Presentations	3.7	5.9	4.7	0.12	0.18	0.12
e. Written Pension Estimates	11.9	5.6	6.7	0.38	0.18	0.19
f. Mass Communication	<u>6.7</u>	<u>6.5</u>	<u>7.4</u>	<u>0.21</u>	<u>0.20</u>	<u>0.20</u>
Total Member Communication	71.8	62.1	68.9	2.29	1.87	1.72
3. Collections and Data Maintenance						
a. Data and Money from Employers	43.6	11.3	20.7	1.39	0.37	0.50
b. Service to Employers	18.5	7.5	10.4	0.59	0.21	0.21
c. Data Not from Employers	<u>6.3</u>	<u>4.3</u>	<u>5.3</u>	<u>0.20</u>	<u>0.13</u>	<u>0.13</u>
Total Collections and Data Maintenance	68.4	23.1	36.4	2.18	0.70	0.84
4. Governance and Financial Control						
a. Financial Administration and Control	12.2	12.3	14.3	0.39	0.41	0.39
b. Board, Strategy, Policy	7.5	4.4	9.1	0.24	0.13	0.18
c. Government and Public Relations	<u>2.0</u>	<u>3.0</u>	<u>4.1</u>	<u>0.06</u>	<u>0.09</u>	<u>0.09</u>
Total Governance and Financial Control	21.7	19.7	27.4	0.69	0.63	0.67
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)	16.5	2.4	2.5	0.53	0.06	0.06
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>3.1</u>	<u>8.9</u>	<u>n/a</u>	<u>0.09</u>	<u>0.26</u>
Total Major Projects	16.5	5.5	11.4	0.53	0.16	0.32
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	60.5	33.8	34.2	1.93	0.94	0.78
b. IT Desktop, Networks, Telecom	<u>13.6</u>	<u>12.1</u>	<u>9.2</u>	<u>0.43</u>	<u>0.39</u>	<u>0.25</u>
Total Information Technology	74.1	46.0	43.4	2.36	1.33	1.03
7. Support Services and Other						
a. Building and Utilities	1.1	5.2	2.8	0.04	0.14	0.07
b. Human Resources	9.2	5.9	7.9	0.29	0.19	0.18
c. Actuarial	3.4	0.8	2.8	0.11	0.02	0.05
d. Legal and Rule Interpretation	22.9	7.2	9.8	0.73	0.24	0.25
e. Internal and External Audit	4.7	5.3	5.1	0.15	0.21	0.14
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	0.0	5.2	8.5	n/a	0.15	0.19
Total Support Services and Other	41.3	29.6	37.0	1.32	0.96	0.88
Total Pension Admin FTE (excludes below)	354.9	224.3	286.9	11.31	6.98	7.10
FTE whose salaries are being capitalized	0.0	3.7	6.1	n/a	0.08	0.10
1f. Healthcare Administration	8.4	8.0	3.2	0.27	0.24	0.09
1g. Optional and Third Party Administered Benefits	15.1	4.2	2.5	0.48	0.10	0.05
Total Administration FTE	378.4	240.1	298.7	12.05	7.40	7.35

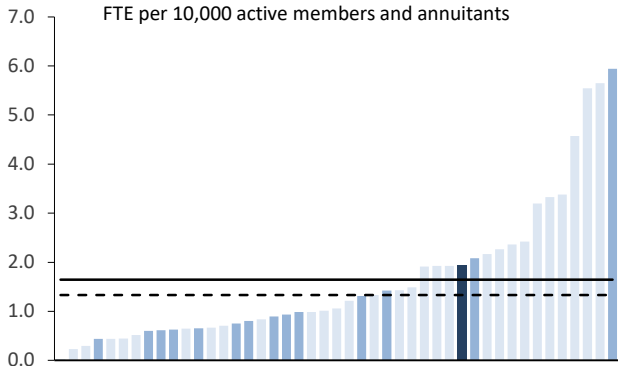
1. Direct staff includes staff directly performing the activity, plus related support and management staff that are in the same department and directly support the activity.

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

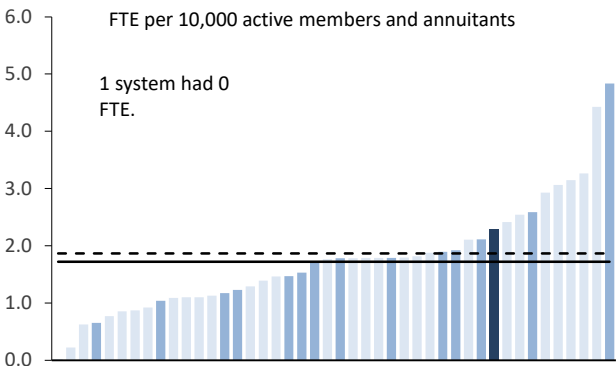
1. Member Transactions

FTE per 10,000 active members and annuitants



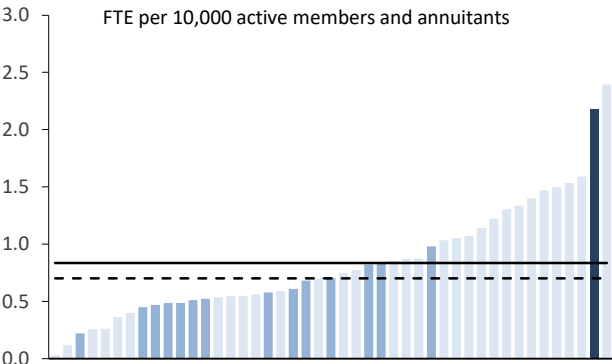
2. Member Communication

FTE per 10,000 active members and annuitants



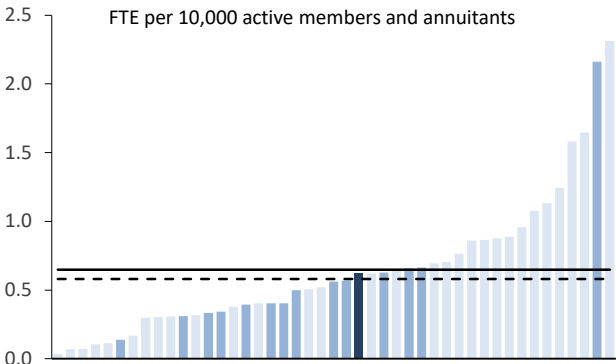
3. Collections and Data Maintenance

FTE per 10,000 active members and annuitants



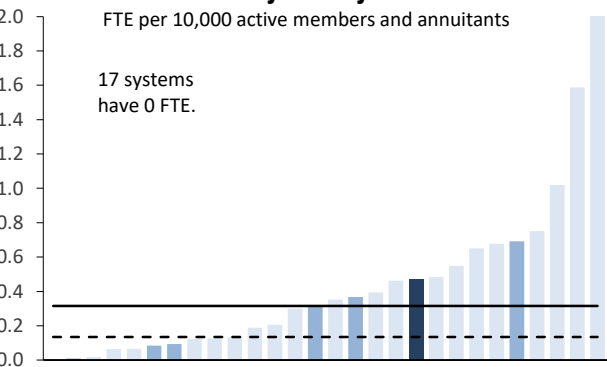
4. Governance and Financial Control

FTE per 10,000 active members and annuitants



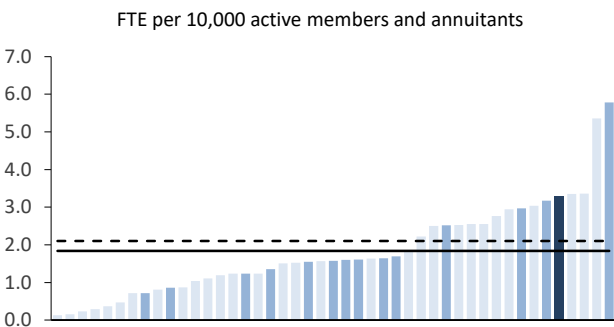
5. Major Projects

FTE per 10,000 active members and annuitants



6. IT and 7. Support Services and Other

FTE per 10,000 active members and annuitants



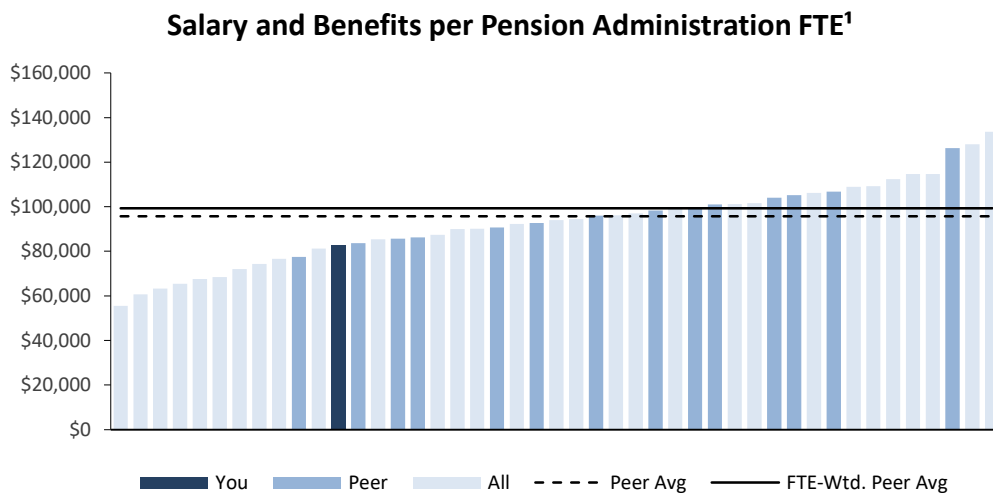
■ You ■ Peer ■ All

--- Peer Avg — All Avg

Salaries and benefits

Your salaries and benefits per pension administration FTE¹ was \$82,943. This was 13% below the peer average of \$95,775.

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 \$82,943 was below the FTE-weighted peer average of \$99,282.



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	\$87,165	\$83,833	\$80,987	73%	62%	65%
b. Pension Inceptions	\$75,947	\$83,998	\$78,932	96%	96%	90%
c. Refunds, Withdrawals and Transfers-out	\$77,333	\$82,718	\$78,341	98%	93%	89%
d. Purchases and Transfers-in	\$77,723	\$87,786	\$80,022	98%	92%	87%
e. Disability	<u>\$76,011</u>	<u>\$88,520</u>	<u>\$78,746</u>	91%	71%	74%
	\$78,849	\$85,091	\$78,806			
2. Member Communication						
a. Call Center	\$76,500	\$75,926	\$73,462	96%	96%	91%
b. Mail Room, Imaging	\$62,803	\$64,357	\$66,876	99%	73%	73%
c. 1-on-1 Counseling	\$76,918	\$85,845	\$81,797	96%	94%	91%
d. Member Presentations	\$75,216	\$88,325	\$88,167	96%	88%	83%
e. Written Pension Estimates	\$76,008	\$81,244	\$80,050	98%	96%	89%
f. Mass Communication	<u>\$98,328</u>	<u>\$95,549</u>	<u>\$97,464</u>	73%	54%	54%
	\$75,716	\$79,332	\$77,931			
3. Collections and Data Maintenance						
a. Data and Money from Employers	\$76,456	\$88,728	\$81,489	96%	97%	88%
b. Service to Employers	\$76,265	\$91,931	\$89,392	97%	94%	87%
c. Data Not from Employers	<u>\$78,540</u>	<u>\$82,130</u>	<u>\$79,852</u>	85%	81%	84%
	\$76,596	\$87,626	\$82,603			
4. Governance and Financial Control						
a. Financial Administration and Control	\$115,623	\$110,119	\$111,668	77%	82%	83%
b. Board, Strategy, Policy	\$108,893	\$151,318	\$176,554	61%	70%	71%
c. Government and Public Relations	<u>\$110,100</u>	<u>\$136,906</u>	<u>\$136,362</u>	97%	80%	78%
	\$112,788	\$122,782	\$133,954			
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)	\$83,436	\$94,153	\$100,109	73%	53%	51%
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>\$138,912</u>	<u>\$119,605</u>	n/a	36%	51%
	\$83,436	\$129,205	\$117,135			
6. Information Technology						
a. IT Strategy, Database, Applications (excl. major projects)	\$93,633	\$123,991	\$115,540	77%	64%	47%
b. IT Desktop, Networks, Telecom	<u>\$117,382</u>	<u>\$118,450</u>	<u>\$110,780</u>	38%	43%	n/a
	\$97,992	\$121,122	\$112,931			
7. Support Services and Other						
a. Building and Utilities	\$88,636	\$86,921	\$91,120	6%	19%	n/a
b. Human Resources	\$91,109	\$110,761	\$109,748	92%	76%	n/a
c. Actuarial	\$90,824	\$168,878	\$147,067	38%	16%	33%
d. Legal and Rule Interpretation	\$76,978	\$140,295	\$130,574	57%	68%	72%
e. Internal and External Audit	\$115,064	\$125,614	\$125,293	60%	64%	60%
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	n/a	100%	100%
g. Other Support Services	<u>n/a</u>	<u>\$78,668</u>	<u>\$84,760</u>	0%	50%	59%
	\$85,910	\$114,086	\$110,939			
Total Pension Administration ¹	\$84,396	\$97,452	\$94,158	63%	62%	57%
Total Pension Admin excluding activities 6b, 7a, 7b, and 7f ²	\$82,943	\$95,775	\$92,844	68%	67%	62%

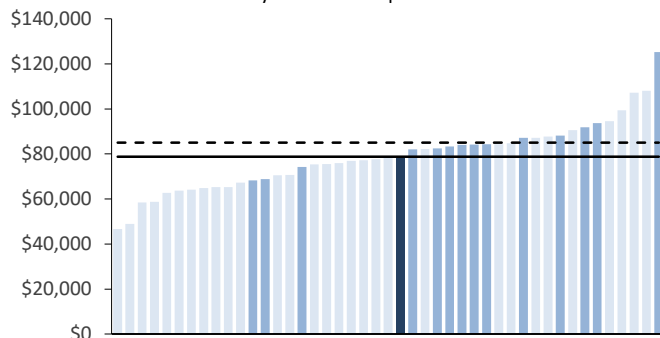
1. Pension administration FTE excludes: FTE whose salaries are being capitalized, FTE administering healthcare and FTE administering optional benefits.

2. Section 3 'Total Costs' and the Executive Summary use the FTE-weighted peer average of \$99,282 to explain cost differences. It is used to explain cost differences because salary differences matter more for peers with more FTEs. To avoid double counting items quantified separately in the cost model, the FTE-weighted average also: (i) excludes activities 6b, 7a, 7b and 7f, and, (ii) weights front and back office salaries per your ratio of front to back office FTE.

Salaries and benefits per FTE by activity aggregates

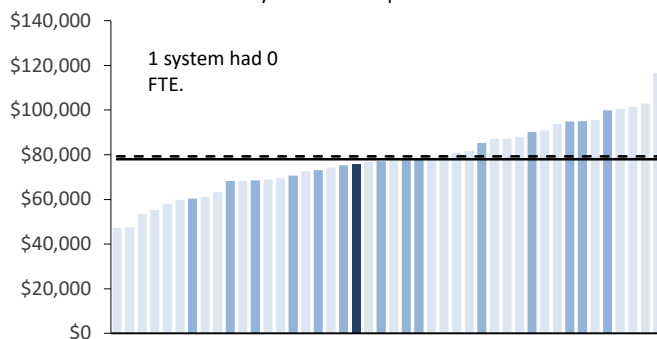
1. Member Transactions

Salary and Benefits per FTE



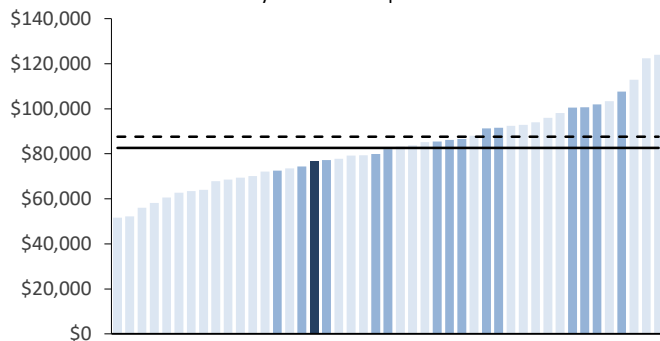
2. Member Communication

Salary and Benefits per FTE



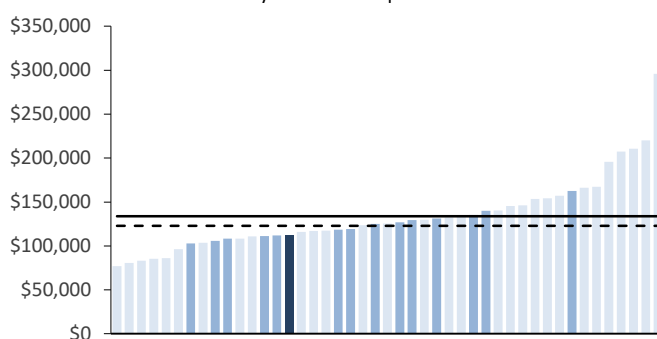
3. Collections and Data Maintenance

Salary and Benefits per FTE



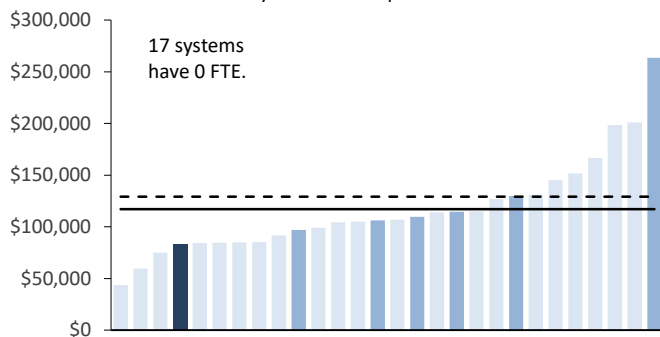
4. Governance and Financial Control

Salary and Benefits per FTE



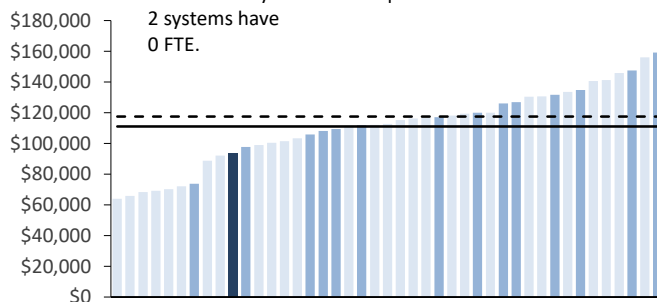
5. Major Projects

Salary and Benefits per FTE



6. IT and 7. Support Services and Other

Salary and Benefits per FTE



■ You

■ Peer

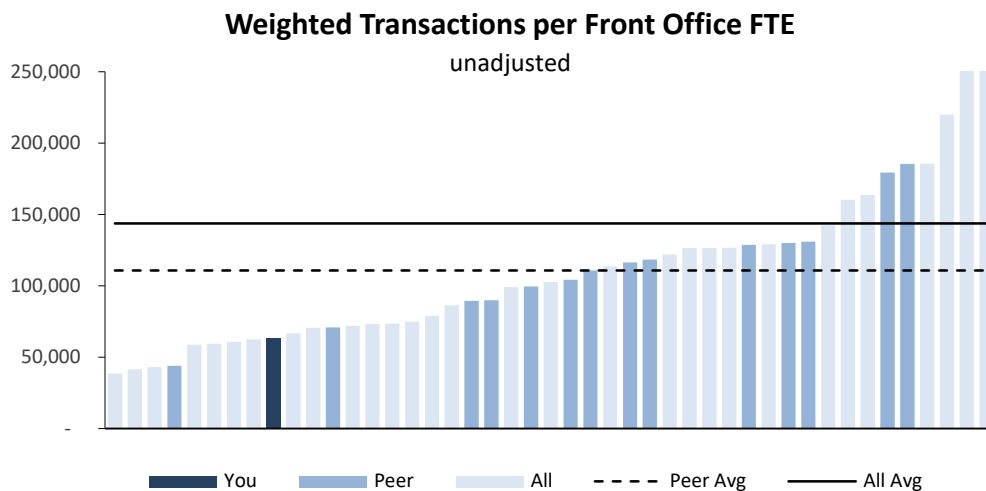
■ All

--- 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 63,197 per front-office FTE. This was below the in-house peer average of 110,710.



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

Differences in productivity are caused by differences in:

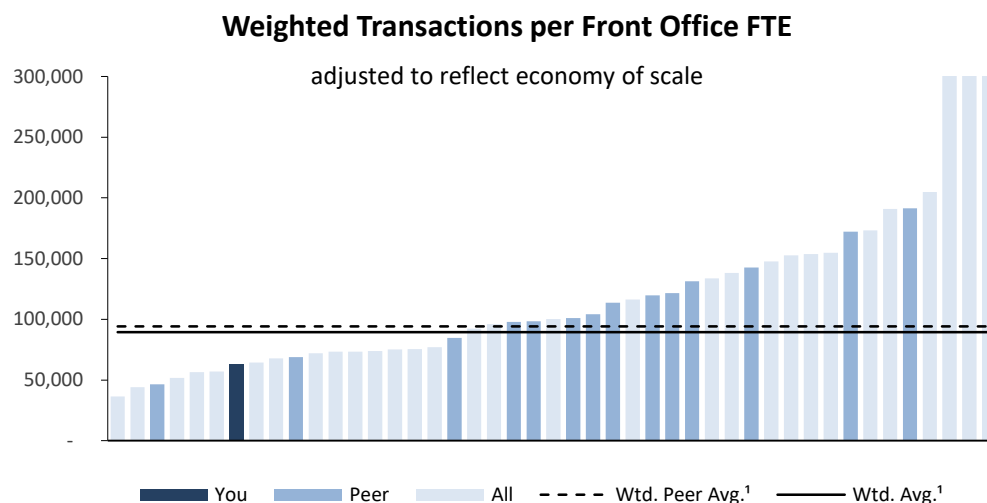
- Economies of scale (see next page)
- Staff skills and staff productivity
- IT capability / online transactions
- Service levels, for example, shorter wait times may require more staff
- Complexity of plan rules
- Using more consultants and third parties to do part of the work
- Projects
- Organization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

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

Productivity - adjusted for economies of scale

Productivity is impacted by economies of scale. CEM research shows that, on average, smaller systems have lower productivity than larger systems. In section 3 Total Costs when we explain reasons for differences between your cost and the peer average, we quantify the impact of economies of scale separately from the impact of productivity. Thus we need to adjust the productivity of your peers for economies of scale to avoid double counting.

After adjusting for economies of scale, your productivity (weighted transaction volumes per FTE) was 33% 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					
Front-Office Activities	Activity Volume Description	Activity Volume per FTE			
		You	Peer Avg	All Avg	
1. Member Transactions					
a. Pension Payments	Annuitants	11,132	22,643	47,221	
b. Pension Inceptions	New Payee Inceptions	1,051	795	901	
c. Refunds, Withdrawals and Transfers-out	Withdrawals and Transfers-out	655	2,310	1,629	
d. Purchases and Transfers-in	Purchases and Transfers-in	419	546	571	
e. Disability	Disability Applications	22	190	152	
2. Member Communication					
a. Call Center	Calls and Emails	6,324	9,217	10,260	
b. Mail Room, Imaging	Incoming Mail	16,578	24,418	26,425	
c. 1-on-1 Counseling	Members Counseled 1-on-1	580	1,183	1,523	
d. Member Presentations	Member Presentations	143	111	122	
e. Written Pension Estimates	Written Estimates	924	2,292	2,469	
f. Mass Communication	Active Members and Annuitants	46,850	73,997	108,710	
3. Collections and Data Maintenance					
a. Data and Money from Employers	Active Members	3,957	24,193	27,188	
b. Service to Employers	Active Members	9,325	37,412	142,112	
c. Data Not from Employers	Actives, Inactives, Annuitants	60,477	150,392	398,075	
Weighted Transactions per Front Office FTE		63,197	110,710	143,643	
adjusted for Economies of Scale ^{1, 2}		63,197	94,243	89,501	

1. Productivity is impacted by economies of scale. CEM research shows that, on average, smaller systems have lower productivity than larger systems. In section 3 Total Costs when we explain reasons for differences between your cost and the peer average, we quantify the impact of economies of scale separately from the impact of productivity. Thus we need to adjust the productivity of your peers for economies of scale to avoid double counting.

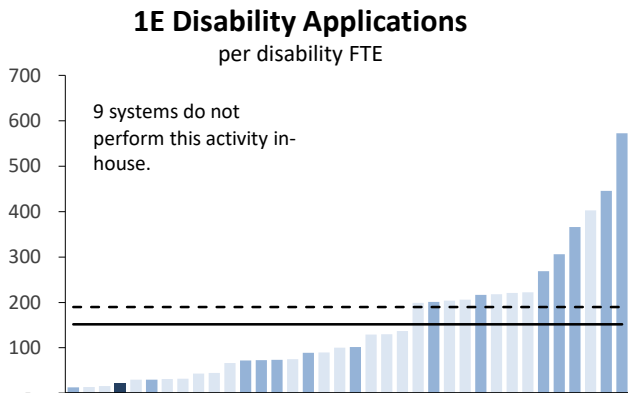
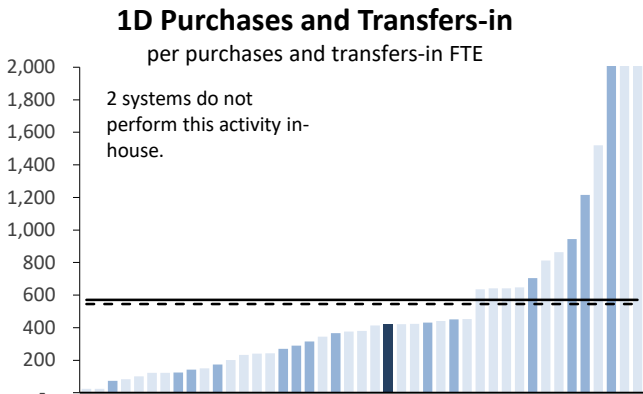
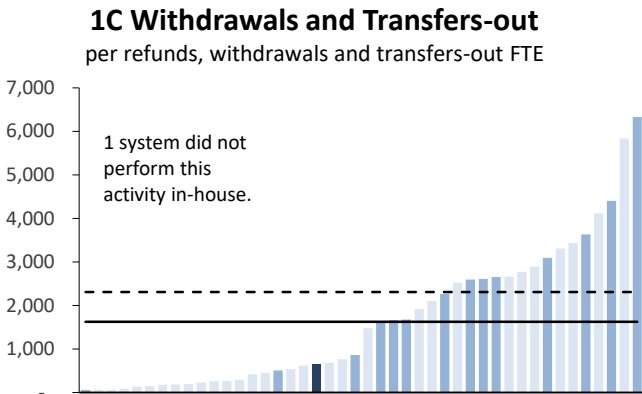
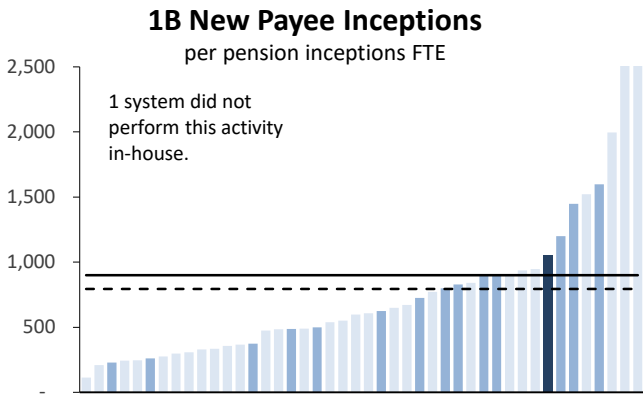
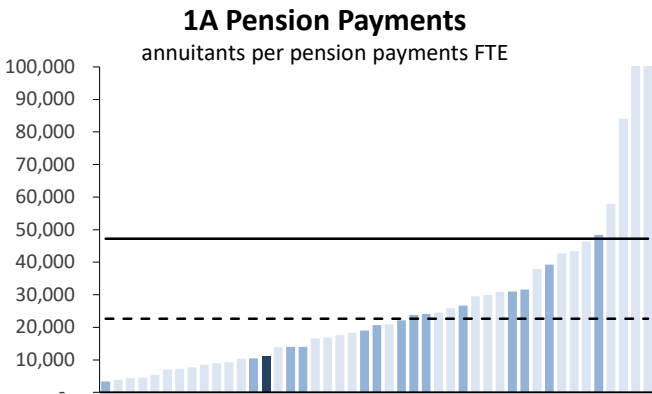
2. The peer and all averages, for this value only, are weighted by workloads (i.e., weighted transactions per member) because differences in productivity matter more for peers with higher workloads when explaining cost differences.

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

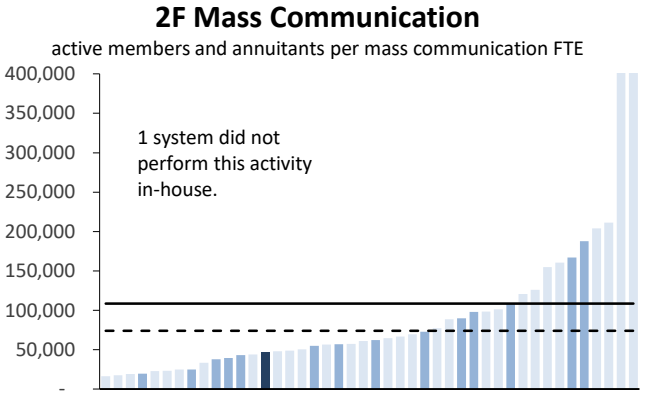
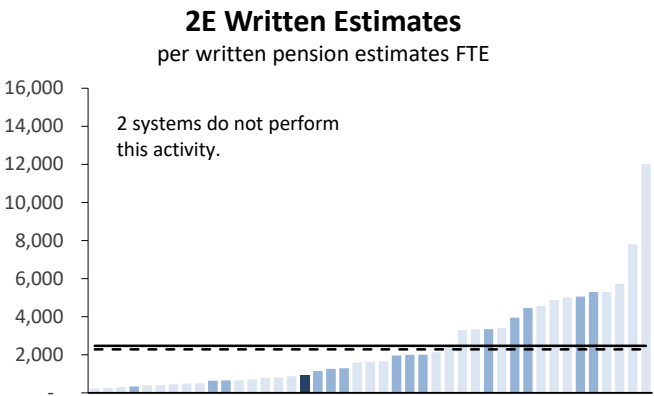
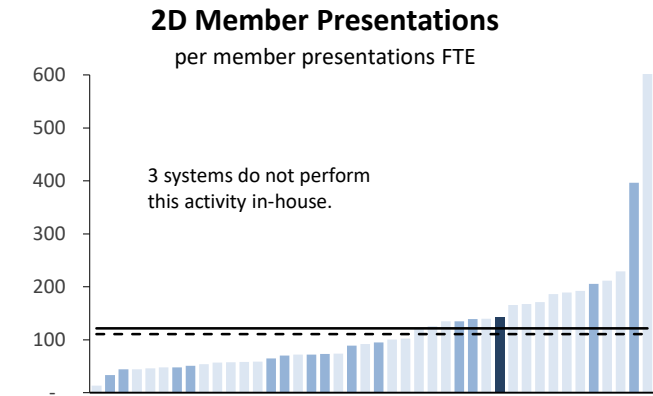
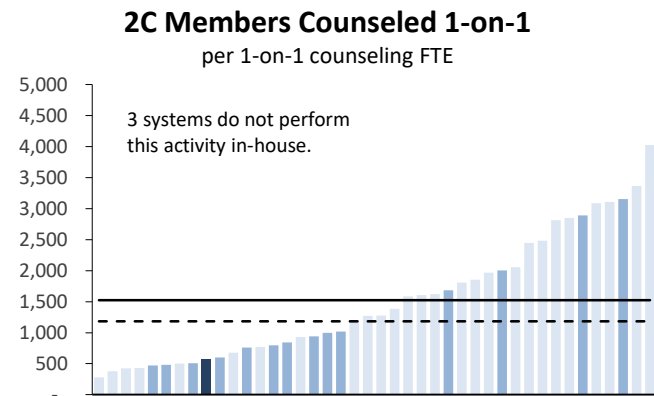
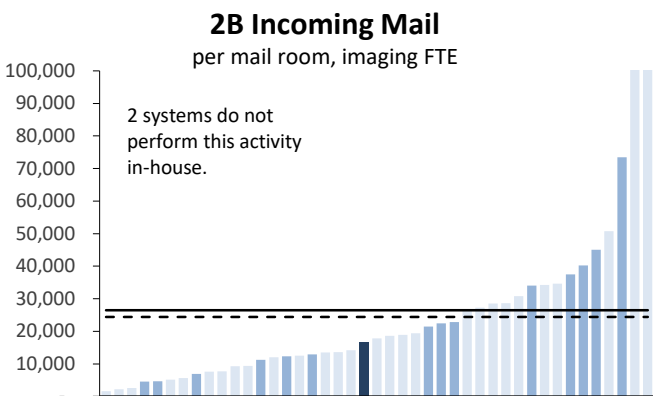
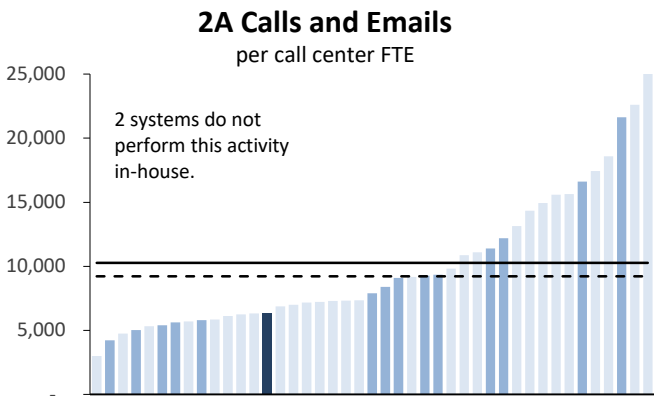
It is important to emphasize that total productivity is not a measure of staff productivity; staff productivity is however a component of total productivity.

Productivity by activity - member transactions



You
 Peer
 All
 Peer Avg
 All Avg

Productivity by activity - member communication

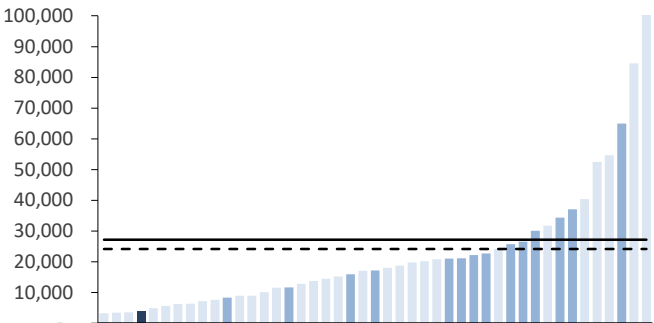


You
 Peer
 All
 Peer Avg
 All Avg

Productivity by activity - collections and data maintenance

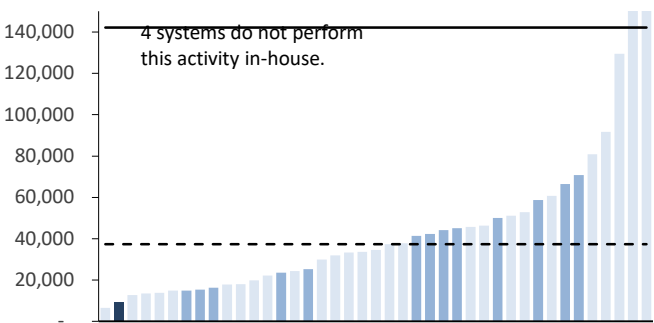
3A Data and Money from Employers

active members per data and money from employers FTE



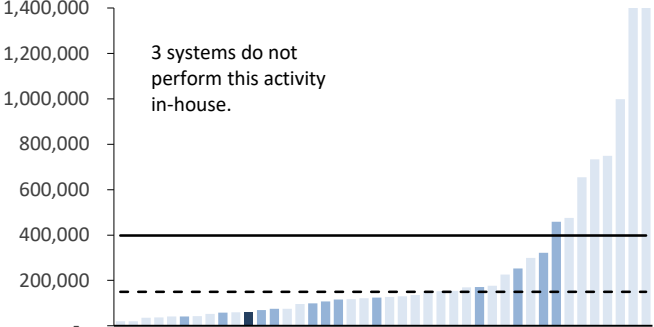
3B Service to Employers

active members per service to employers FTE



3C Data Not from Employers

actives, inactives, annuitants per data not from employers FTE



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

6

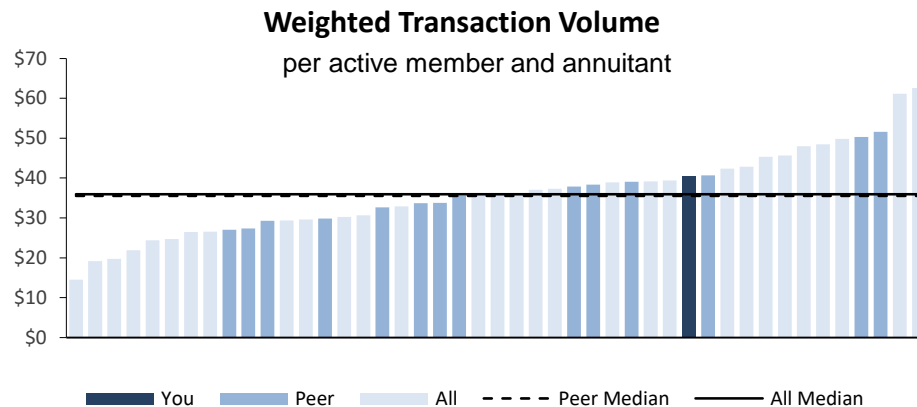
Transaction Volumes

This section contains:

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

Workload: Weighted transaction volume per member

Your weighted transaction volume was \$40.53 per active member and annuitant. This was above the peer median of \$35.53.



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 above average weighted transaction volumes increased your total cost by an estimated \$6.50 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)	141,382	\$8.02	1,133,978
b. New Payee Inceptions	17,759	\$135.34	2,403,499
c. Withdrawals and Transfers-out	9,236	\$106.69	985,381
d. Purchases and Transfers-in	3,477	\$228.03	792,853
e. Disability Applications	199	\$1,101.95	219,288
2. Member Communication			
a. Calls and Emails	184,657	\$9.53	1,760,271
b. Incoming Mail	235,404	\$5.04	1,185,697
c. Members Counseled 1-on-1	3,536	\$64.60	228,415
d. Member Presentations	528	\$1,237.88	653,602
e. Written Estimates	10,992	\$65.94	724,802
f. Mass Communication (Active Members and Annuitants)	313,895	\$2.77	868,682
3. Collections and Data Maintenance			
a. Data and Money from Employers (Active Members)	172,513	\$5.66	976,578
b. Service to Employers (Active Members)	172,513	\$2.94	506,542
c. Data Not from Employers (Actives, Inactives, Annuitants)	381,008	\$0.74	281,956
Total			12,721,546
Total per active member and annuitant			\$40.53

Methodology notes

- **Weights** - The weights used for all activities are the all median cost per transaction. This enables us to normalize for the substantial differences in time and effort expended on each type of task. For example, a 1-on-1 counseling session is more costly and time consuming than answering a telephone call. This difference is reflected in the weights where the cost per 1-on-1 counseling session of \$64.60 is approximately 7 times higher than the cost per call of \$9.53.
- **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

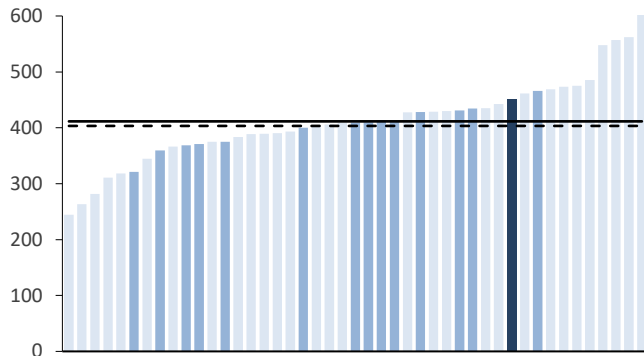
The table below shows whether you are doing more or fewer transactions per member than your peers by front-office activity. All volumes in the table are compared 'per 1,000 active members and annuitants' even if all member types do not always cause the volume. This is because active members and annuitants 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				
		Volume per 1,000 Active Members and Annuitants		
Transaction (or Cost Driver) by Front-Office Activity	Your Volume	You	Peer Avg	All Avg
1. Member Transactions				
a. Pension Payments (Annuitants)	141,382	450	403	411
b. New Payee Inceptions	17,759	57	24	25
c. Withdrawals and Transfers-out	9,236	29	27	19
d. Purchases and Transfers-in	3,477	11	7	12
e. Disability Applications	199	1	2	2
2. Member Communication				
a. Calls and Emails	184,657	588	581	644
b. Incoming Mail	235,404	750	468	393
c. Members Counseled 1-on-1	3,536	11	30	37
d. Member Presentations	528	2	2	1
e. Written Estimates	10,992	35	39	32
f. Mass Communication (Active Members and Annuitants)	313,895	1,000	1,000	1,000
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active Members)	172,513	550	597	589
b. Service to Employers (Active Members)	172,513	550	597	589
c. Data Not from Employers (Actives, Inactives, Annuitants)	381,008	1,214	1,387	1,308
Weighted Total		40,528	36,511	36,074

Member transactions per 1,000 members: Graphical comparisons

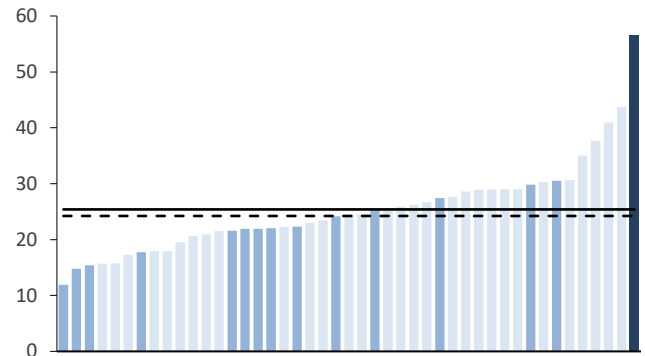
1A Pension Payments (Annuitants)

per 1,000 active members and annuitants



1B New Payee Inceptions

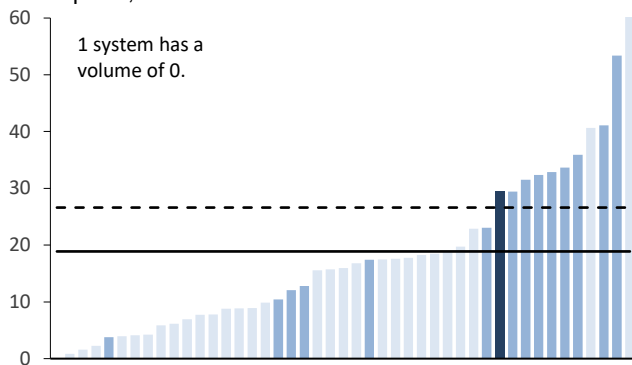
per 1,000 active members and annuitants



1C Withdrawals and Transfers-out

per 1,000 active members and annuitants

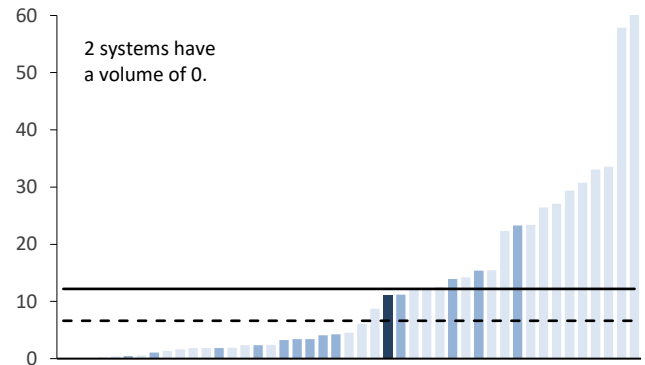
1 system has a volume of 0.



1D Purchases and Transfers-in

per 1,000 active members and annuitants

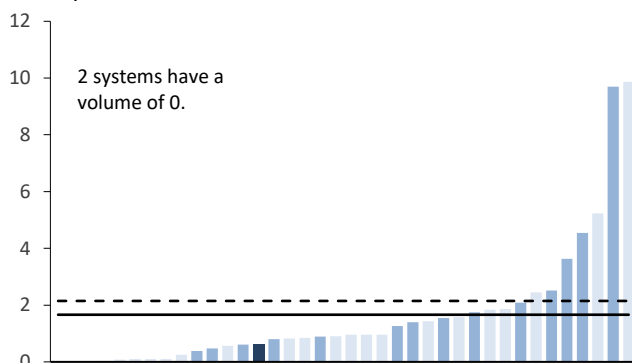
2 systems have a volume of 0.



1E Disability Applications

per 1,000 active members and annuitants

2 systems have a volume of 0.



■ You

■ Peer

■ All

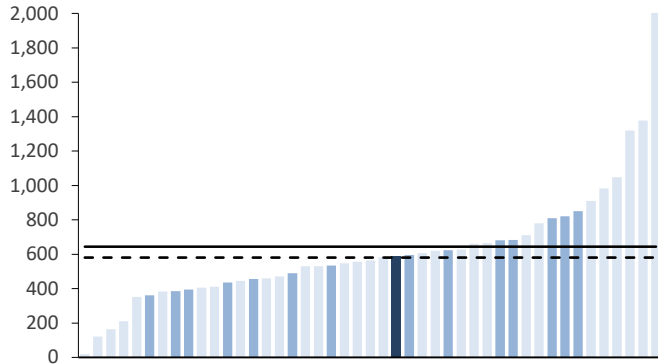
- - - Peer Avg

— All Avg

Communications transactions per 1,000 members: Graphical comparisons

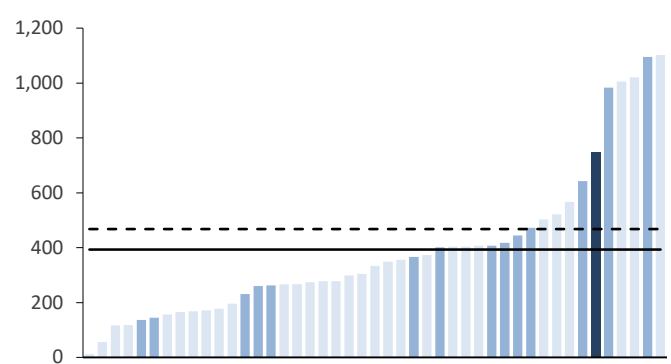
2A Calls and Emails

per 1,000 active members and annuitants



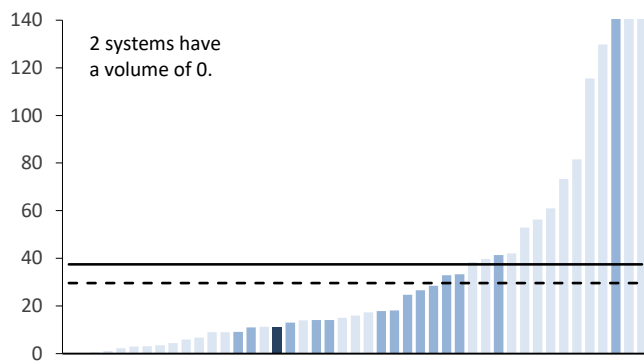
2B Incoming Mail

per 1,000 active members and annuitants



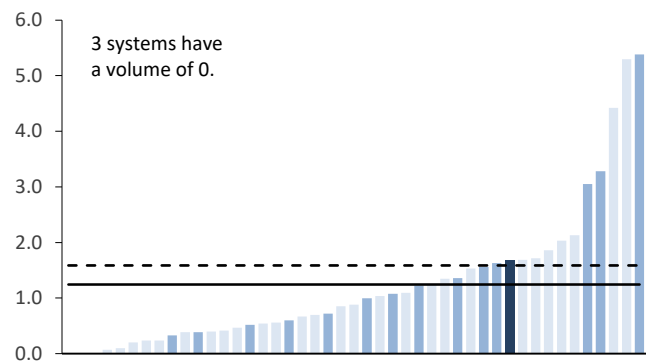
2C Members Counseled 1-on-1

per 1,000 active members and annuitants



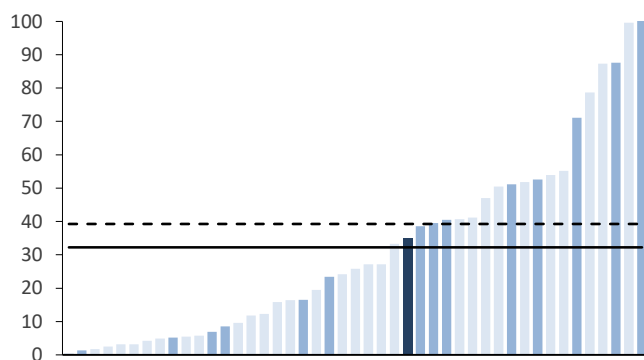
2D Member Presentations

per 1,000 active members and annuitants



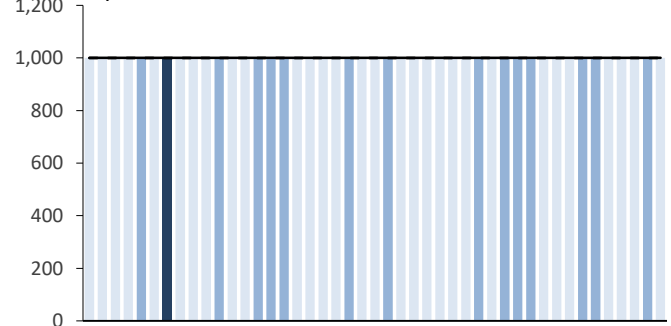
2E Written Estimates

per 1,000 active members and annuitants



2F Mass Communication (Active Members and Annuitants)

per 1,000 active members and annuitants



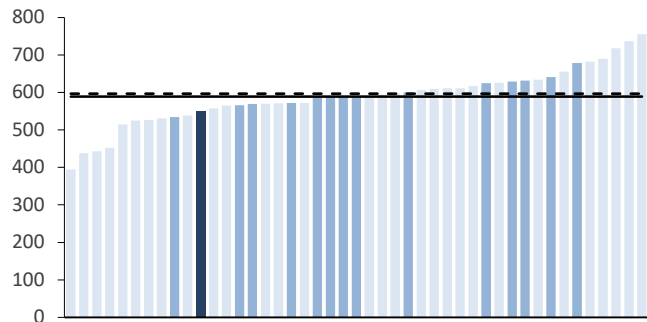
■ You ■ Peer ■ All

--- Peer Avg — All Avg

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

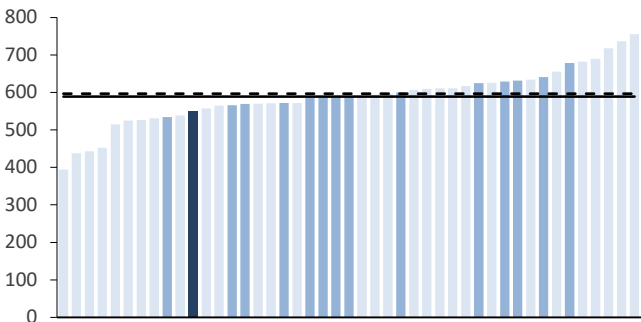
3A Data and Money from Employers (Active Members)

per 1,000 active members and annuitants



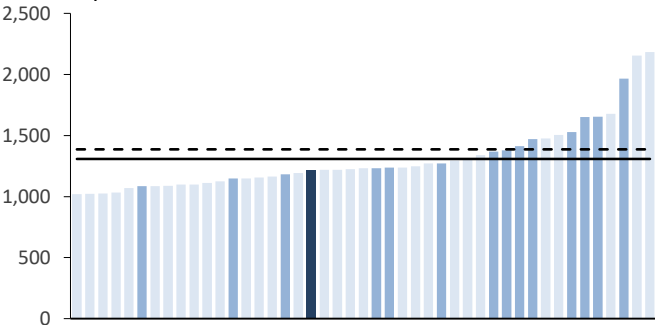
3B Service to Employers (Active Members)

per 1,000 active members and annuitants



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

per 1,000 active members and annuitants



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

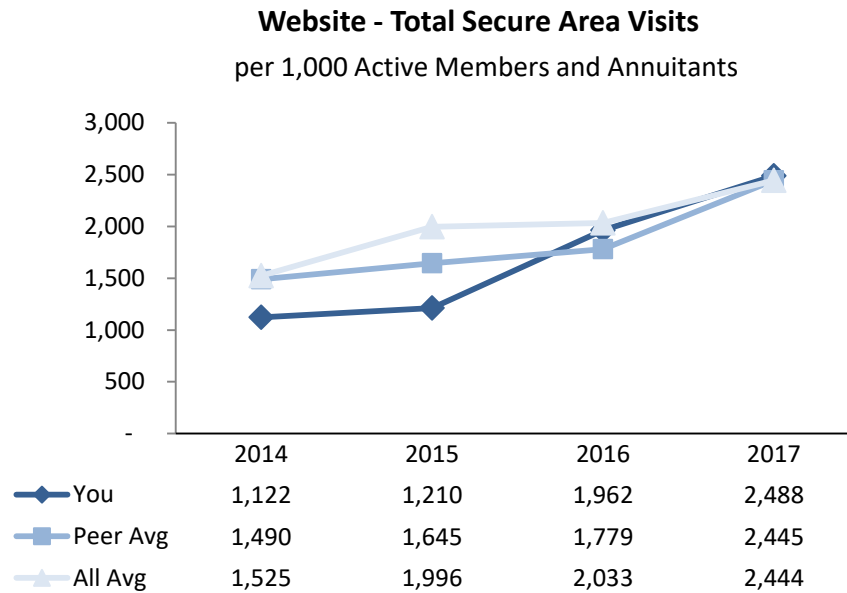
Online transactions

Online Tool	% offering tool			If offered: Volume per 1,000 active members and annuitants		
	You	Peer	All	You	Peer Median	All Median
Benefit calculators						
In non-secure area	No	60% Yes	56% Yes	n/a	200	172
In secure area not linked to member data	No	27% Yes	16% Yes	n/a	13	18
In secure area linked to member's salary and service data	Yes	93% Yes	89% Yes	Unknown	483	326
Service credit purchase calculator	Yes	80% Yes	76% Yes	Unknown	15	27
Register for counseling sessions	Yes	60% Yes	42% Yes	11	11	9
Real-time access to available dates and times	Yes	100% Yes	94% Yes			
Register for counseling presentations	Yes	87% Yes	65% Yes	39	15	15
Live chat	No	0% Yes	5% Yes	n/a	n/a	5
Change address	Yes	93% Yes	84% Yes	Unknown	24	33
Change beneficiary	No	67% Yes	63% Yes	n/a	33	33
Change email address	Yes	93% Yes	87% Yes	Unknown	29	46
Reset password	Yes	93% Yes	86% Yes	Unknown	77	84
Tools for annuitants						
Change banking information for direct deposit	No	67% Yes	63% Yes	n/a	9	6
Change tax withholding amount	No	80% Yes	65% Yes	n/a	13	12
Download or print duplicate tax receipts	No	80% Yes	80% Yes	n/a	60	56
View annuity payment details	Yes	93% Yes	89% Yes	Unknown	175	126
Submit a retirement application	No	60% Yes	44% Yes	n/a	6	6
View status of online retirement application	No	50% Yes	40% Yes	n/a	70	49
Apply for a refund or a transfer-out	Yes	57% Yes	38% Yes	Unknown	19	19
Digital file of recent correspondence and member documents	No	53% Yes	55% Yes	n/a	179	183
Download member statement	No	87% Yes	91% Yes	n/a	140	171
Upload documents	No	60% Yes	45% Yes	n/a	51	8
View pensionable earnings and/or service without downloading	Yes	93% Yes	86% Yes	Unknown	771	670
If yes:						
Are both salary and service data available?	Yes	100% Yes	95% Yes			
Is online data up-to-date to the most recent pay period?	Yes	79% Yes	72% Yes			
Is a complete annual history from the beginning of employment provided?	Yes	79% Yes	63% Yes			
If you administer a core DC or hybrid DB/ DC plan:						
Switch between investment options	No	63% Yes	73% Yes	n/a	3	4
Change deferral percentage selections for regular contributions	No	29% Yes	29% Yes	n/a	4	6
Initiate withdrawals	No	50% Yes	53% Yes	n/a	4	6
View current valuation of their account	No	75% Yes	73% Yes	Unknown	297	377

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

Online trends

Total secure website visits per 1,000 Active Members and Annuitants for your peers that have participated for 4 consecutive years has grown at a compound annual rate of 17.9% between 2014 and 2017. The all participant average is 17.0%. Your growth rate over the same period is 30.4% per annum.



Trend analysis is based on systems that have provided 4 consecutive years of data.

7

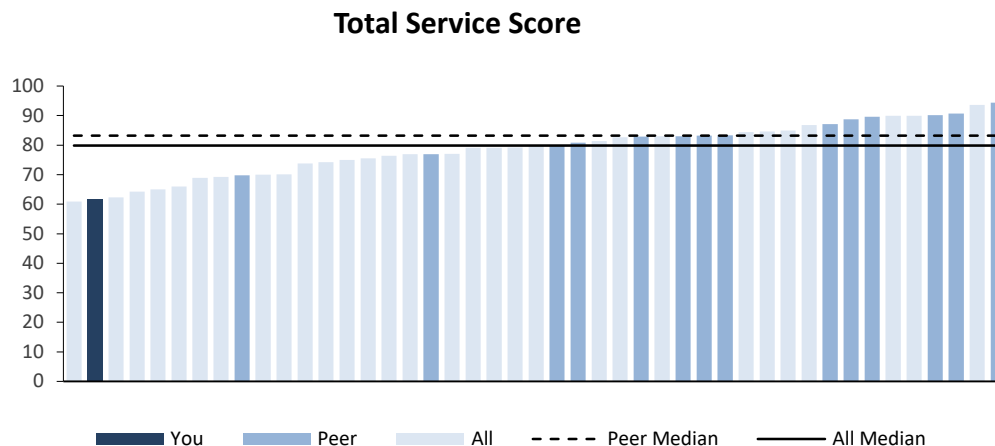
Service Levels

This section:

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

Total Service Score

Your total service score was 62 out of 100. This was below the peer median of 83.



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

Interpreting your service score

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

- High service may not always be cost effective or optimal. For example, it is clearly higher service for your members to have a contact center open 24 hours a day but few systems would be able to justify the cost.
- Our 'weights' are an approximation of the importance of an individual service element. The weights will not always reflect the relative importance that you or your members attach to an individual service element.

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

Service scores by activity

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 2017				All 2017			
		2017	2016	2015	2014	Avg	Max	Med	Min	Avg	Max	Med	Min
1. Member Transactions													
a. Pension Payments	19.7%	100	100	100	100	100	100	100	99	100	100	100	99
b. Pension Inceptions	7.4%	7	7	10	11	85	100	89	7	85	100	89	7
c. Refunds, Withdrawals and Transfers-out	1.3%	5	5	5	5	81	100	93	5	70	100	81	5
d. Purchases and Transfers-in	3.1%	63	70	73	10	75	100	89	8	68	100	78	0
e. Disability	3.8%	73	73	73	73	88	100	88	72	85	100	88	10
2. Member Communication													
a. Call Center	21.2%	34	42	52	37	71	95	73	34	67	95	70	19
c. 1-on-1 Counseling	7.4%	70	70	70	70	86	99	86	70	78	99	83	0
d. Presentations and Group Counseling	6.5%	97	96	95	93	90	100	92	70	81	100	89	0
e. Written Pension Estimates	4.7%	42	42	45	25	86	100	93	42	83	100	85	42
f. Mass Communication													
• Website ²	11.3%	76	76	73	73	79	95	86	22	74	95	77	22
• News and targeted communication	2.8%	69	69	69	69	83	93	81	69	74	100	76	23
• Member statements	4.7%	56	58	58	53	82	96	88	56	79	97	83	10
3. Quality Indicators													
Satisfaction Surveying	5.0%	38	38	37	37	54	90	55	6	48	99	48	0
Disaster Recovery	1.0%	78	78	78	78	91	100	96	66	90	100	96	65
Total service score	100%	62	64	66	59	83	94	83	62	79	94	80	61

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 administer disability whereas some of your peers do not. 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, 1.0%, 2c 1-on-1 Counseling, 1.3%, 2d Member Presentations, 2.4% and 2e Written Pension Estimates, 2.1%, for a total of 6.8%

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 4.6% of its annual budget on member calls versus 1.9% for 1-on-1 counseling. Thus, based solely on relative cost, member calls are 2.5 times more important than 1-on-1 counseling.

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

The average system does 25 pension inception and receives 644 member calls for every 1,000 active members and annuitants. Thus, based solely on relative volume, calls are 25.4 times more important than pension inception.

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					4-Year ¹ Peer Average					4-Year ¹ All Average				
	2014	2015	2016	2017	% ²	2014	2015	2016	2017	% ²	2014	2015	2016	2017	% ²
1. Member Transactions															
a. Pension Payments	100	100	100	100	0.0%	100	100	100	100	0.0%	100	99	100	100	0.0%
b. Pension Inceptions	11	10	7	7	-14.0%	81	83	85	85	1.6%	79	81	82	86	2.9%
c. Refunds and Withdrawals and Transfers-out	5	5	5	5	0.0%	70	74	75	81	5.0%	64	68	68	69	2.5%
d. Purchases and Transfers-in	10	73	70	63	84.7%	70	73	73	74	1.9%	63	66	67	70	3.6%
e. Disability	73	73	73	73	0.0%	86	86	86	87	0.4%	83	84	83	84	0.4%
2. Member Communication															
a. Call Center	37	52	42	34	-2.8%	66	70	70	70	2.0%	63	66	66	68	2.6%
c. 1-on-1 Counseling	70	70	70	70	0.0%	84	84	85	86	0.8%	76	77	77	80	1.7%
d. Presentations and Group Counseling	93	95	96	97	1.4%	87	88	88	90	1.1%	81	83	82	83	0.8%
e. Written Pension Estimates	25	45	42	42	18.9%	84	86	85	85	0.4%	80	81	81	83	1.2%
f. Mass Communication															
• Website	73	73	76	76	1.4%	74	75	78	79	2.2%	69	69	72	74	2.4%
• News and targeted communication	69	69	69	69	0.0%	75	80	80	82	3.0%	70	71	74	75	2.3%
• Member statements	53	58	58	56	1.9%	81	81	81	81	0.0%	77	78	77	78	0.4%
3. Quality Indicators															
Satisfaction Surveying	37	37	38	38	0.9%	51	52	50	54	1.9%	42	46	47	49	5.3%
Disaster Recovery	78	78	78	78	0.0%	89	88	90	90	0.4%	88	89	90	91	1.1%
Total Service Score	59	66	64	62	1.7%	80	81	82	82	0.8%	76	77	78	79	1.3%

1. Trend analysis is based on systems that have participated for 4-consecutive years (14 peers and 40 World systems). This ensures that trends are not caused by changes in the composition of the participants.
2. % is the compound annual growth rate from 2014 to 2017.

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			
a. Pension Payments	19.7%	100.0	0.0 points
b. Pension Inceptions	7.4%	6.7	6.9 points
c. Refunds and Withdrawals and Transfers-out	1.3%	5.0	1.2 points
d. Purchases and Transfers-in	3.1%	62.5	1.2 points
e. Disability	3.8%	73.0	1.0 point
2. Member Communication			
a. Call Center	21.2%	34.4	13.9 points
c. 1-on-1 Counseling	7.4%	70.3	2.2 points
d. Presentations and Group Counseling	6.5%	97.0	0.2 points
e. Written Pension Estimates	4.7%	41.7	2.7 points
f. Mass Communication			
• Website	11.3%	76.0	2.7 points
• News and targeted communication	2.8%	68.7	0.9 points
• Member statements	4.7%	55.8	2.1 points
3. Quality Indicators			
Satisfaction Surveying	5.0%	38.2	3.1 points
Disaster Recovery	1.0%	77.5	0.2 points
Total	100%	61.6	38.4 points

1. Each listed potential improvement to total service score equals 100 minus your 2017 score multiplied by the weight used to determine the total service score.

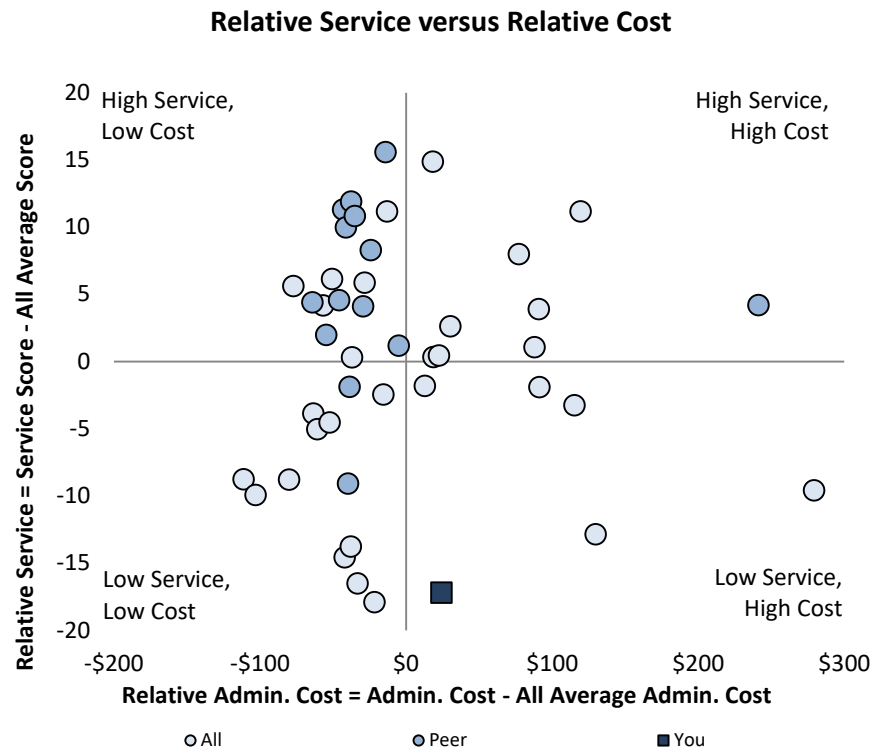
Biggest potential improvements to your total service score

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	94.6% 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.	+ 5.46
# 2	On average, members calling your call center reach a knowledgeable person in 258 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less.	+ 3.82
# 3	16.9% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes.	+ 2.87
# 4	You have 4 menu layers. To achieve a perfect service score you must have one or fewer menu layers.	+ 2.12
# 5	You offer estimates through website. To achieve a perfect service score you must offer estimates via member statement, website and call center.	+ 1.26

Relationship between service and pension administration cost



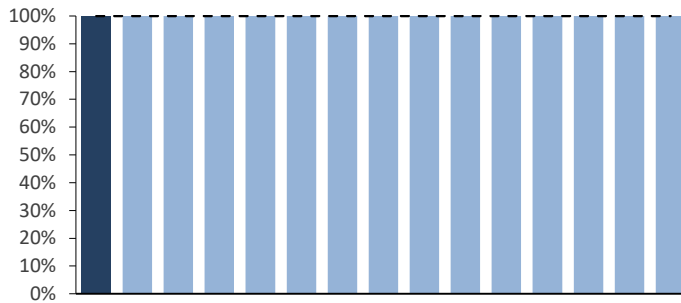
Service scores are not good predictors of costs because:

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

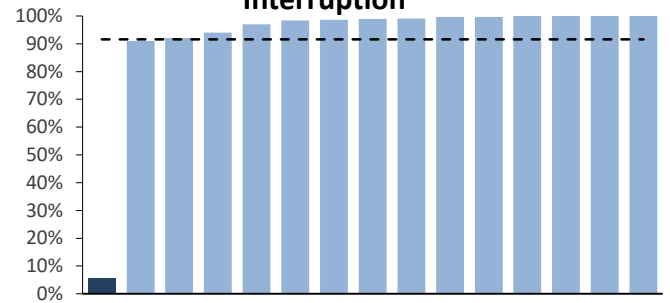
Graphical comparison of key measures

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

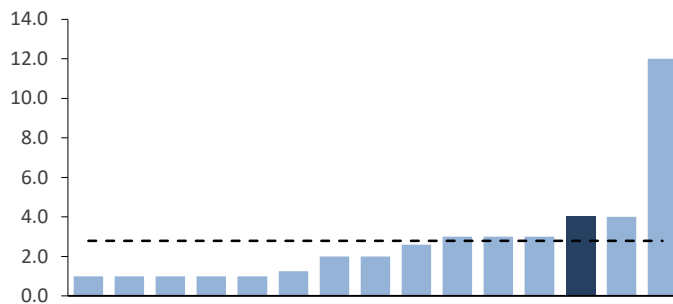
% Payroll on Time



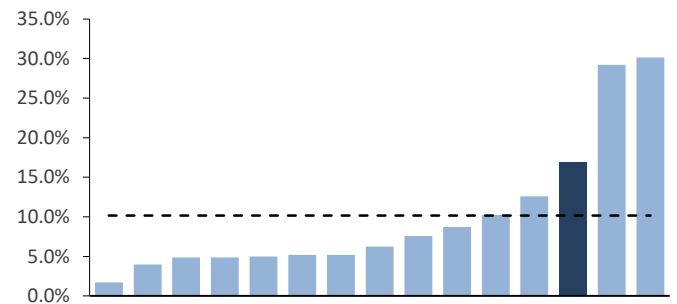
% Inceptions Without a Cash Flow Interruption



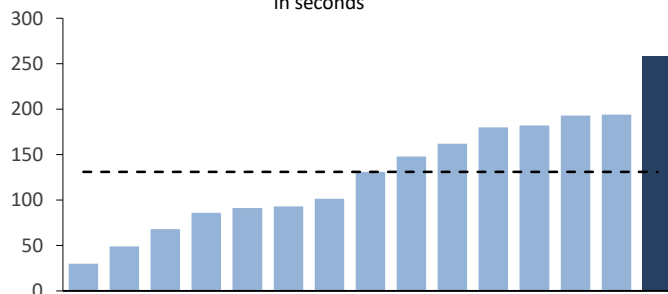
Disability Turnaround Time
in months



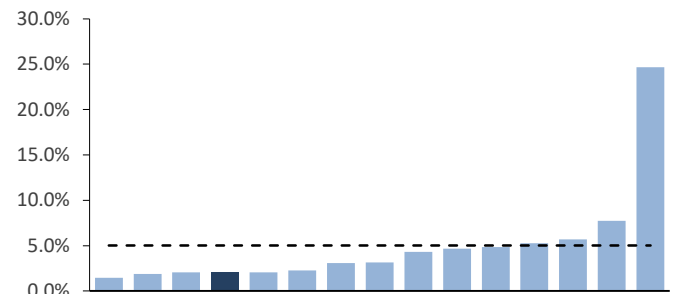
Undesired Call Outcomes
as a % of incoming calls



Call Wait plus Menu/Receptionist Time
in seconds



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



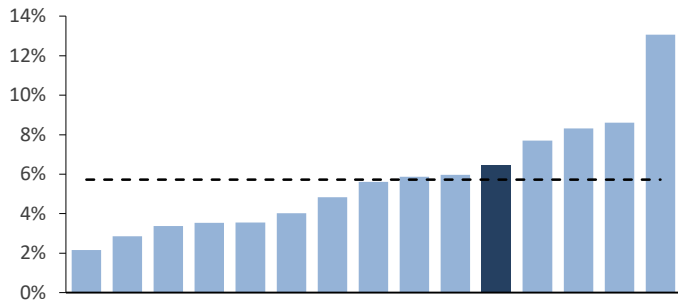
■ You

■ Peer

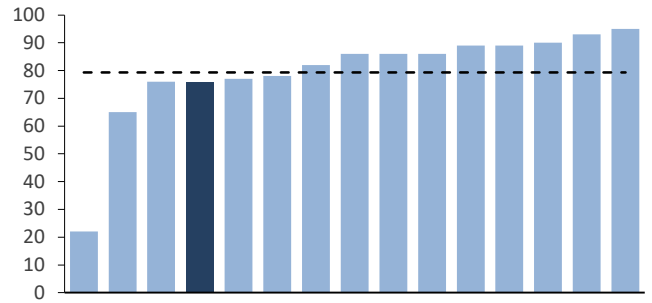
- - - Peer Avg

Graphical comparison of key measures

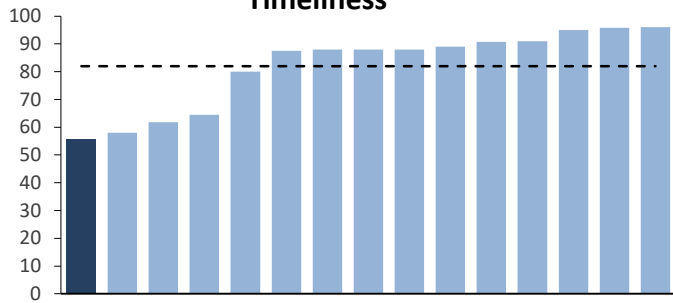
Members Attending Presentations
as a percentage of active members



Website Capability



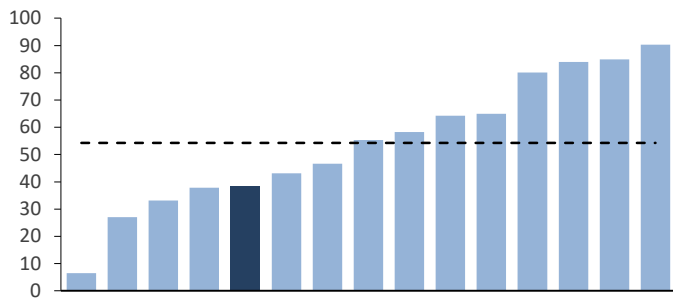
Member Statement Content and Timeliness



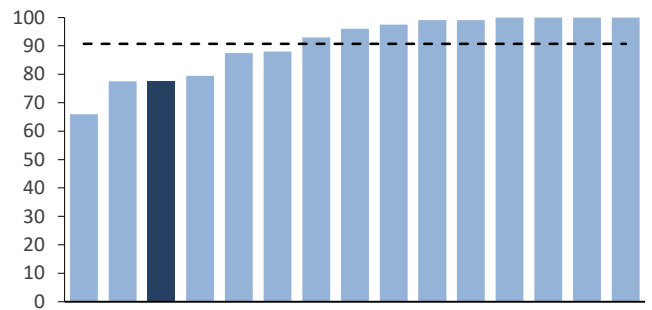
News And Targeted Communication Service Score



Satisfaction Surveying Service Score



Disaster Recovery Service Score



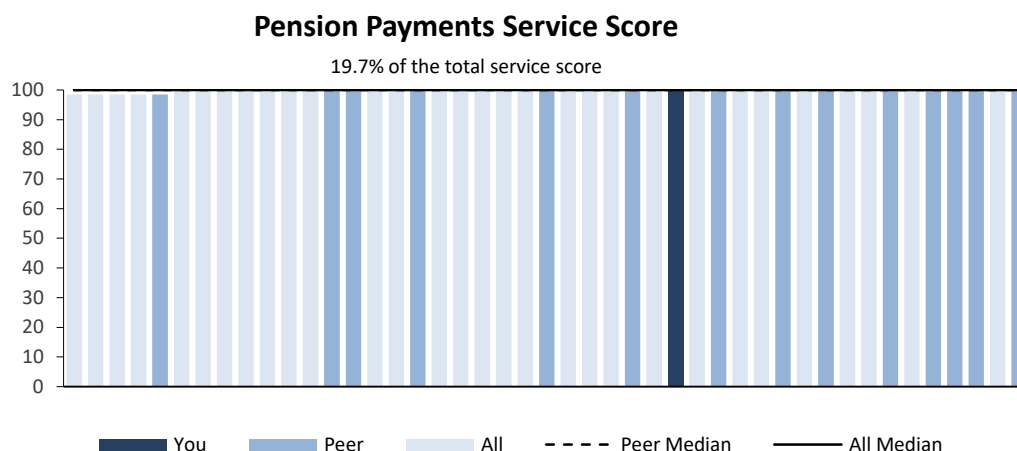
■ You

■ Peer

--- Peer Avg

1A Pension Payments

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

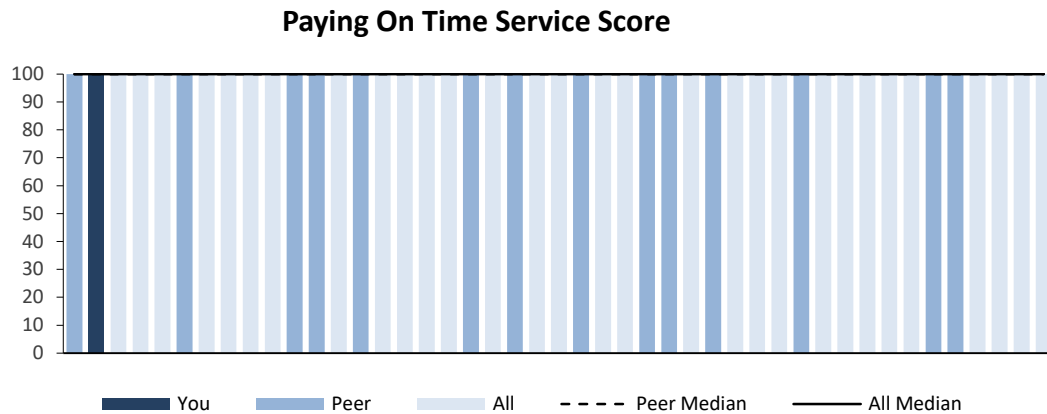


Your service score for 1a pension payments is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

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

a. Paying on time

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



1. Scoring method		Your Data	Your Score
+ 100	if none of your pension payrolls were late vis-à-vis your normal payment cycle, otherwise 100 - (10 X number of late payrolls X average days late)	n/a	100
Total score			100

2. Rationale for the scoring method

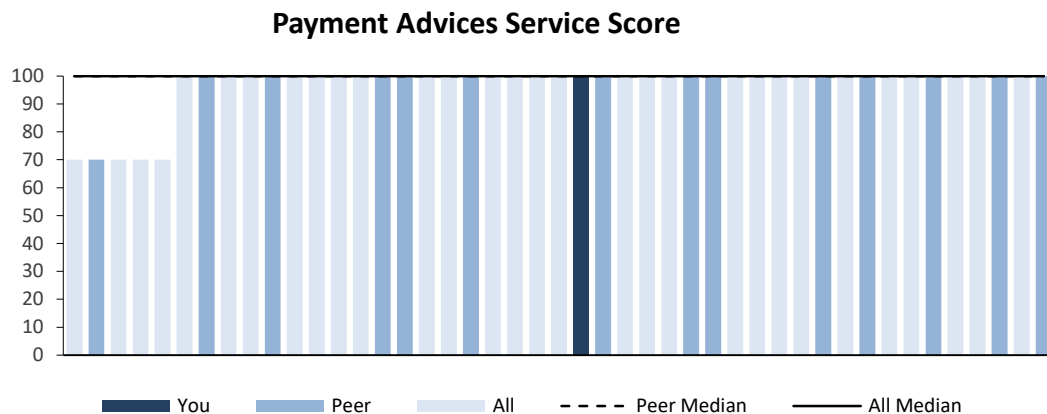
Paying pensions on time is a critical component for all retirement systems. A perfect score requires that all regular payments are paid on time to the correct annuitants.

3. Survey questions used

		You	Peer Avg
Q11	Were any of your pension payrolls late vis-à-vis your normal payment cycle? [For example, a payroll might be late because of IT system problems, etc.]	No	0% Yes
	a) How many payrolls were late?	n/a	n/a
	b) On average, how many days late were they?	n/a	n/a

b. 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	Bi-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

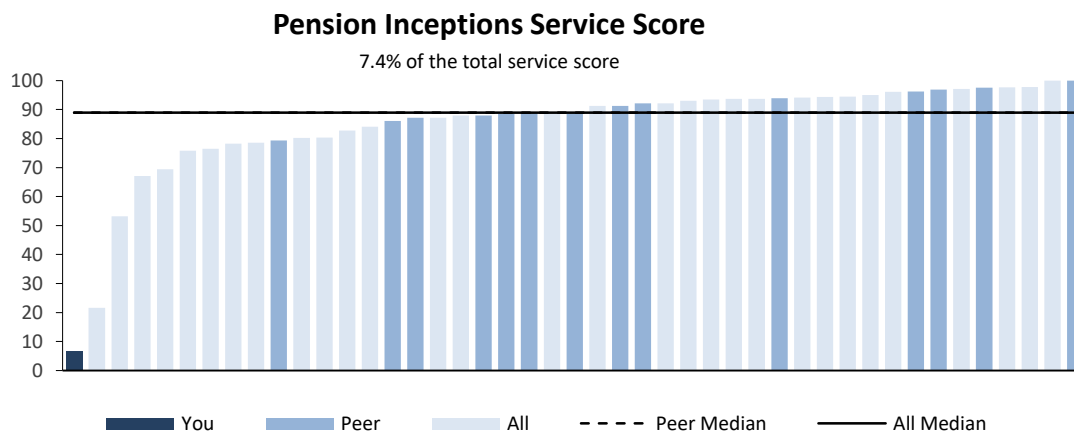
Paperless is most cost-effective. Therefore, systems that provide payment advices online get full points. Alternatively, systems that still send paper and can comply with a members request not to send payment advices, also receive the highest score.

b. 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	87% Yes
	a) How frequently do you send payment advices with your EFT payments detailing the gross payment and deductions?	Bi-Annually	6 times
	b) Can you comply with a member's request not to send them payment advices?	No	31% Yes
Q81	Indicate whether the following capabilities are available on your website and provide volumes:		
	o) View pension payment details? (i.e., gross amounts, deductions)	Yes	93% Yes

1B Pension Inceptions

Your service score for pension inceptions was 7 out of 100. This was below the peer median of 89.

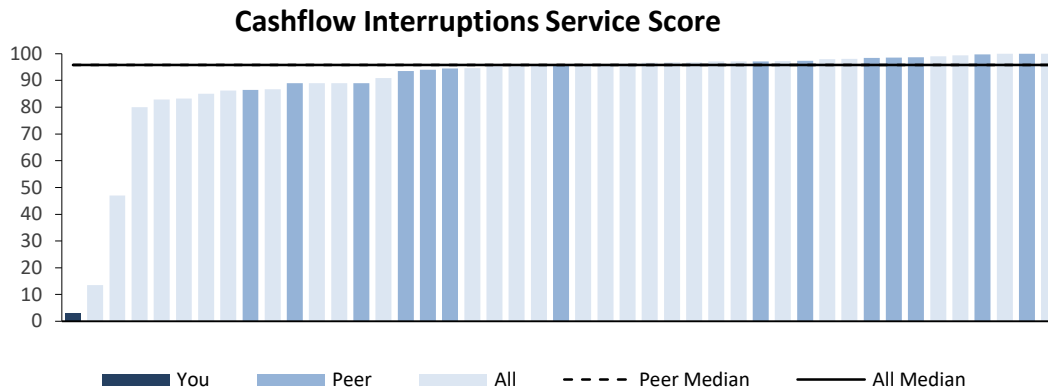


Your service score for 1b pension inceptions is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Pension Inceptions Service Score Components		
	Weight	Your Score
a. Cashflow interruptions	78%	2.9
b. Survivor pensions	11%	40.2
c. Red tape	11%	0.0
Weighted Total	100%	6.7

a. Cashflow interruptions

Your service score for cashflow interruptions was 3 out of 100. This was below the peer median of 96.



1. Scoring method		Your Data	Your Score
+ 100	if 100% of your service pensions were inceptioned without a cashflow interruption greater than 1 month, otherwise 100 X percent of inceptions that occur within 1 month of final paycheck	5.4%	5.4
	If a service retirement is based on estimates, less:	Yes	
- 10	10 X percent of service retirements based on estimates X average number of months to finalize / 3 [Subject to a maximum deduction of 10 and a minimum score of 0]	3.1% 24.0	-2.5
Total score			2.9

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.

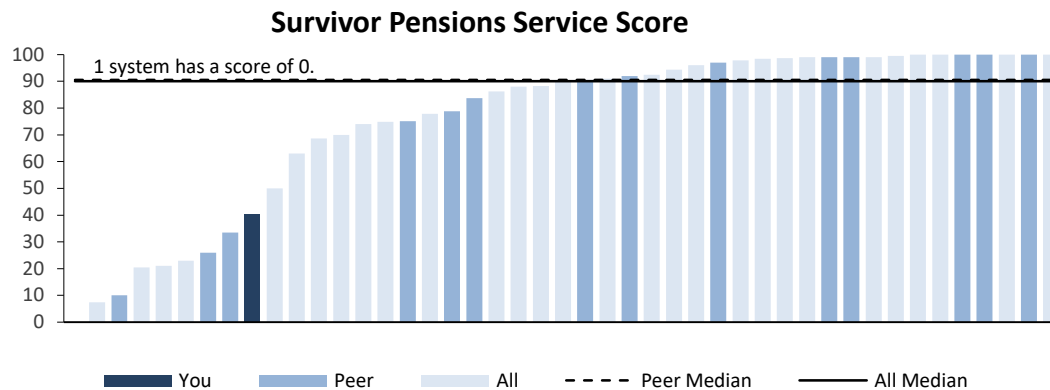
When pension payments are based on estimates, the sooner the amount is finalized, the better because estimates can cause financial uncertainty.

a. Cashflow interruptions

3. Survey questions used		You	Peer Avg
Q17	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?	5.4%	91.6%
Q18	Will you initiate a service retirement pension based on existing data or estimates, recognizing that you will have to finalize the payments later after you get final a) If yes, what proportion of your service retirement inceptions to retiring active members was based on existing data or estimates? b) On average, how long did it take to finalize service retirement inceptions based on estimates? (in months)	Yes 3.1% 24.0	67% Yes 66.5% 4.0 months

b. Survivor pensions

Your service score for survivor pensions was 40 out of 100. This was below the peer median of 91.



1. Scoring method		Your Data	Your Score
+ 100	if all of your survivor pensions were inceptioned without a cashflow interruption greater than 1 month, otherwise: 100 x percent of pensions paid without interruption to survivors	40.2%	40.2
Total score			40.2

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
Q17	What percentage of annuity inception 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?	40.2%	75.0%

c. Red tape

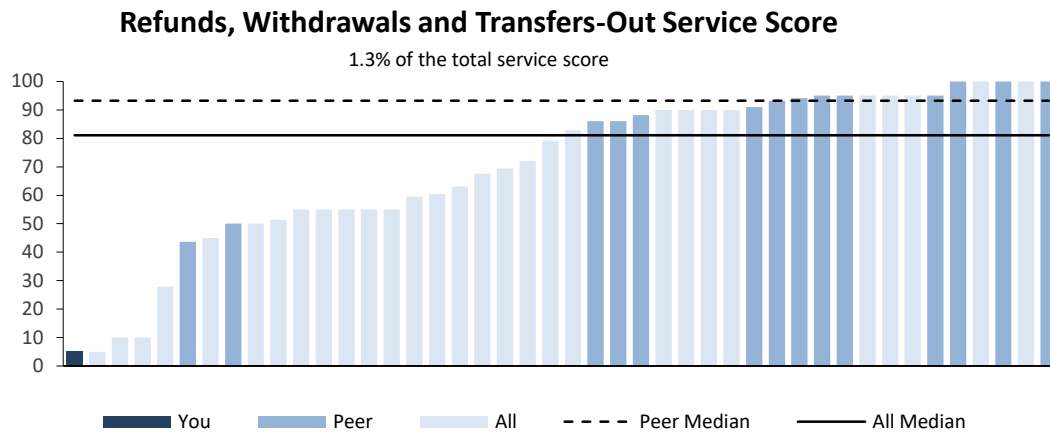
1. Scoring method		Your Data	Your Score
+ 80	if you do not require notarization of retirement applications, or		
+ 40	if you require notarization of some retirement applications	required	0.0
+ 20	if you do not require birth/marriage certificates before incepting a pension	required	0.0
Total score			0.0

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

3. Survey questions used		You	Peer Avg
Q19	Do you require birth certificates and/or marriage certificates before incepting a pension?	Yes	53% Yes
Q20	Do you require notarization of normal or early retirement applications?	Yes	13% Yes

1C Refunds, Withdrawals and Transfers-out

Your service score for refunds, transfers-out and withdrawals was 5 out of 100. This was below the peer median of 93.



1. Scoring method		Your Data	Your Score
<u>Withdrawal timeliness</u>			
+ 45	If withdrawals are completed on the day the mandatory wait period ends, otherwise, otherwise 45 - 4.5 X number of days over the mandatory wait period [Subject to a minimum score of 0]	120 days	0.0
<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]	120 days	0.0
<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	Some	5.0
Total score			5.0

2. Rationale for the scoring method

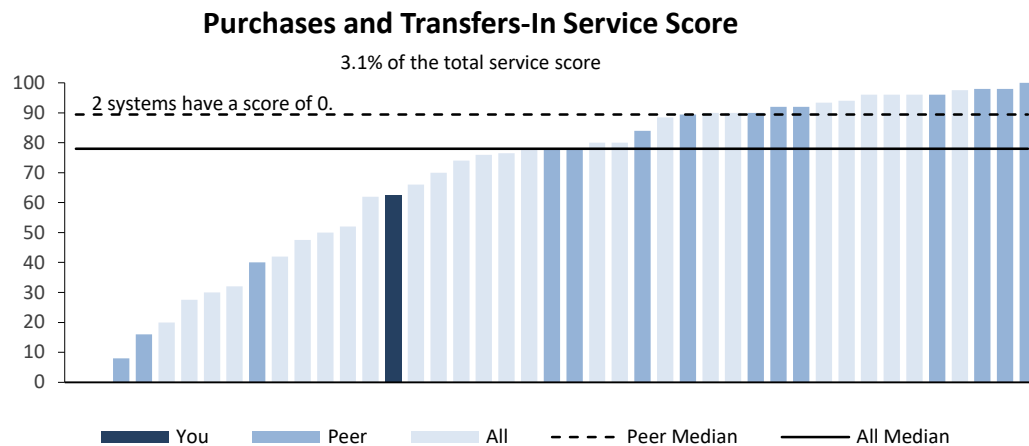
Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external parties.

1C Refunds, Withdrawals and Transfers-out

3. Survey questions used		You	Peer Avg
Q22	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)?	120	44 days
	a) Are you legislated to have a wait period before you can effect a refund?	Yes	67% Yes
	b) How long is the wait period? (in days)	45	51 days
	c) Can the wait period be waived?	No	30% Yes
Q23	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)?	120	23 days
Q24	Do you require notarization of refund or transfer-out applications?	Some	7% Yes

1D Purchases and Transfers-in

Your service score for purchases and transfers-in was 63 out of 100. This was below the peer median of 89.



1. Scoring method		Your Data	Your Score
	<u>Service credit purchase estimates</u>		
+ 100	if you can provide a service credit purchase estimate in 1 day or less, otherwise 100 - 2.5 per day over 1 day	16 days	62.5
	<u>Transfers-in</u>		
n/a	You do not do transfers-in, so excluded from the calculation of your score		
Total score			62.5

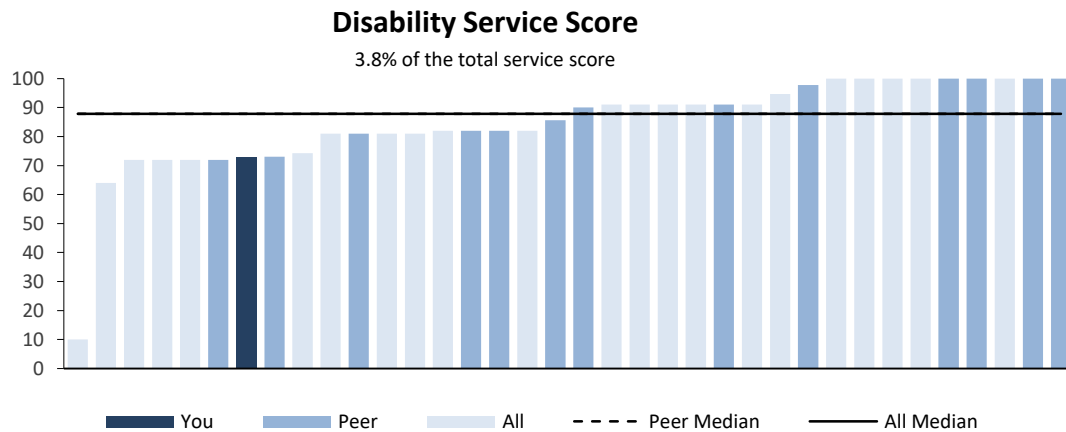
2. Rationale for the scoring method
<p>From a member perspective, faster is higher service.</p> <p>The score for transfers-in is mostly based on your own timeliness. A small part of the score is based on the total time it takes to complete transfers-in (i.e., including delays caused by third parties). Speed from request to completion is what matters to members, regardless of whether the delays are caused by internal or external</p>

1D Purchases and Transfers-in

3. Survey questions used		You	Peer Avg
Q27	On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	16	18 days
Q28	How long does it take on average for you to do individual transfers-in? [Months from request to completion including delays caused by external parties]	n/a	2 months

1E Disability

Your service score for disability was 73 out of 100. This was below the peer median of 88.



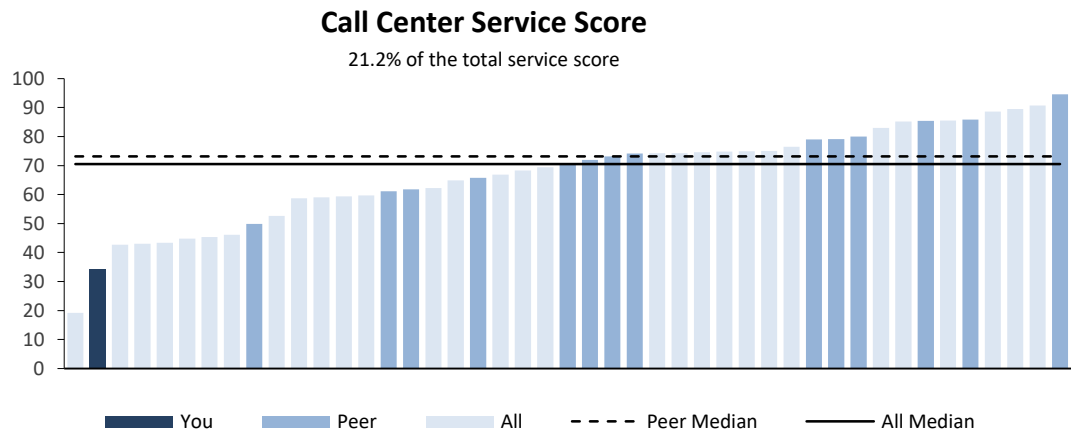
1. Scoring method		Your Data	Your Score
+ 90	if you return a decision on a disability application in 1 month or less, otherwise 90 - 9 for each month over 1 month [Subject to a minimum score of 0]	4.0 months	63
+ 10	if you do not require notarization of disability applications, 5 if some applications require notarization, 0 if notarization is required	not required	10
Total score			73

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
Q32	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?	4.0	3 months
Q34	Do you require notarization of disability applications?	No	20% Yes

2A Call Center

Your call center service score was 34 out of 100. This was below the peer median of 73.

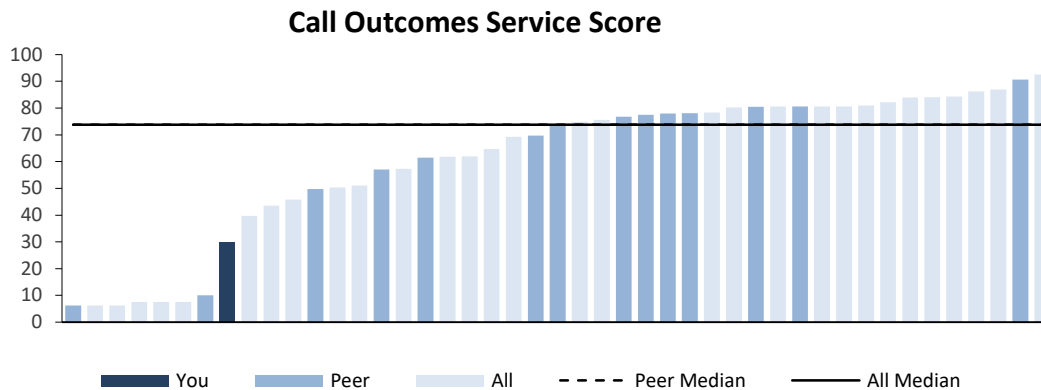


Your service score for 2a call center is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Call Center Service Score Components		
	Weight	Your Score
a. Call outcomes	20%	29.9
b. Call wait time	20%	8.0
c. Menu layers	10%	0.0
d. CRM and other capability	35%	35.0
e. Call quality	15%	96.8
Weighted Total	100%	34.4

a. Call outcomes

Your service score for call outcomes was 30 out of 100. This was below the peer median of 74.



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	16.9%	<u>-67.6</u>
	[Subject to a minimum score of 0]		22.4
+ 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]	45.0	7.5
Total score			29.9

2. Rationale for the scoring method

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

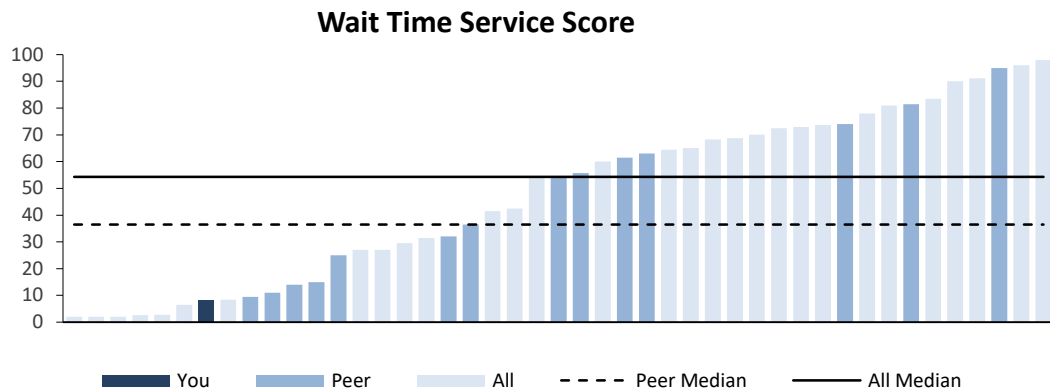
Shorter business hours are treated as an undesired outcome because after-hour callers do not reach a knowledgeable person.

a. Call outcomes

3. Survey questions used		You	Peer Avg
<u>Desired call outcomes</u>			
Q35	a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?	144,384	
	c) Incoming calls satisfied by self-serve options, if any?	<u>3,141</u>	
	Total desired call outcomes (A)	147,525	
<u>Undesired call outcomes during business hours</u>			
Q36	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)?	282	
	e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	29,387	
	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	
Q41	If you have a callback feature, # of callback requests that were not completed	<u>274</u>	
	Total undesired call outcomes during business hours (B)	29,943	
	Undesired outcomes as a percentage of total incoming calls (B / C)	16.9%	10.2%
	Total incoming calls (C = A + B)	177,194	
<u>Undesired outcomes after business hours</u>			
Q51	How many hours per week is your 'call center' operational?	45.0h	47.1h

b. Call wait time

Your service score for call wait time was 8 out of 100. This was below the peer median of 37.



1. Scoring method		Your Data	Your Score
<u>Calls</u>			
+ 90	if members reach a knowledgeable person in 20 seconds or less, otherwise 100 - 0.5 per second to reach a knowledgeable person [Subject to a minimum score of 0]	258 seconds	0.0
+ 2	if member is notified of expected wait time, or their place in the queue, when the expected wait exceeds a certain threshold	Yes	2.0
<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			8.0

2. Rationale for the scoring method
A perfect score requires callers to reach a knowledgeable person with minimal wait time, to be notified of their expected wait time, and a turnaround for emails of half a day or faster.

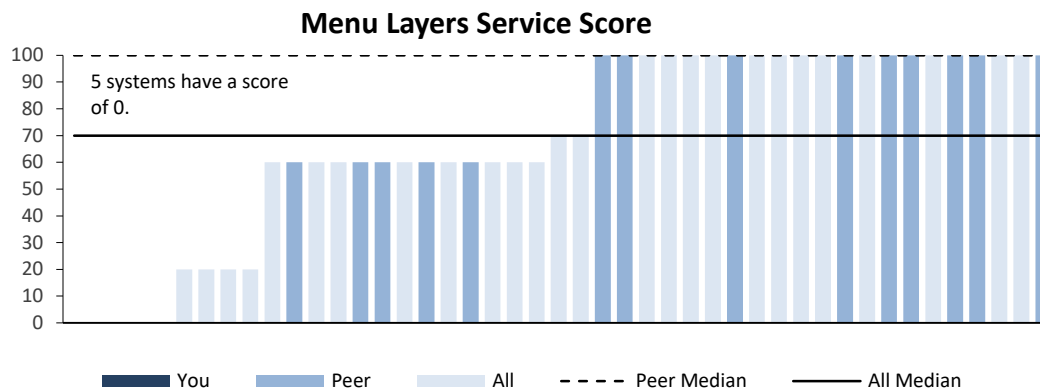
b. Call wait time

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:	258	131
	<u>(1) Navigate menus</u>		
Q37	If you have a menu:	Yes	93% 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)	15	44
	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)]	15	44
	<u>(2) Navigate receptionists</u>		
Q38	If a receptionist usually responds first to member calls:	No	0% Yes
	Do you have a queue for the receptionist(s)?	n/a	n/a
	a1) If yes, what is the average wait time in seconds in the queue for the receptionist(s)? (A)	n/a	n/a
	If no, average time to get through to the receptionist (i.e., time on hold etc.) is assumed to be 10 seconds	n/a	n/a
	b) Average time in seconds for a caller to explain his needs to a receptionist (assumed to be 25 seconds). (B)	n/a	n/a
	b1) Satisfied by the receptionist without forwarding? (C)	<u>n/a</u>	<u>n/a</u>
	Adjusted time to navigate receptionists = (A) + (B) X [1 - (C)]	n/a	n/a
	<u>(3) Wait in queue</u>		
Q39	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?	243	90
	b) % of calls forwarded by a receptionist, if applicable, to the queue.	<u>n/a</u>	<u>n/a</u>
	Adjusted wait in the queue = (A) X (B), if applicable	243	90
Q40	Does your system notify the caller of the expected wait time, or their place in the queue, for reaching a knowledgeable service representative if the expected wait exceeds a certain threshold?	Yes	40% Yes
Q52	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	1.2 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.

c. Menu layers

Your service score for menu layers was 0 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	4	0.0
- 30	if a receptionist is the first point of contact.	No	0.0
Total score			0.0

c. Menu layers

2. Rationale for the scoring method

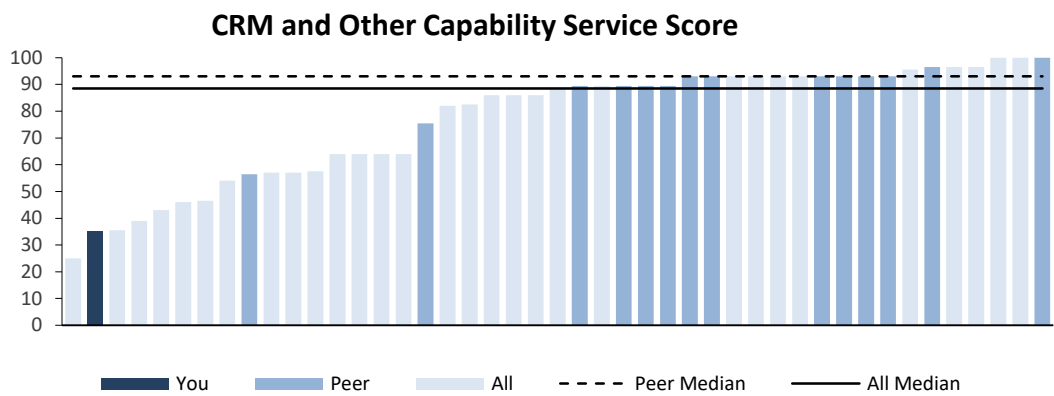
Members prefer to get through to a knowledgeable person who can answer their questions immediately. Irritation increases rapidly with the number of menu layers.

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
Q37	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 4	93% Yes 2
Q38	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	0% Yes

d. CRM and other capability

Your service score for CRM and other capability was 35 out of 100. This was below the peer median of 93.



d. CRM and other capability

1. Scoring method		Your Data	Your Score
<u>If you are able to provide the following information on an immediate real-time basis or conduct the following transactions over the phone:</u>			
+ 10	estimate of the member's pension at retirement	No	0.0
+ 12	estimate is linked to the member's actual account data	n/a	0.0
+ 7	model alternate annuity payment scenarios	n/a	0.0
+ 7	provide refund or transfer value if member exited employment at time of call	No	0.0
+ 4	provide pensionable salary	No	0.0
+ 4	provide service credit history including gaps	No	0.0
+ 7	estimate cost to purchase service credit	No	0.0
+ 7	change address	No	0.0
+ 7	change banking information	No	0.0
+ 7	add or change email address	Yes	7.0
<u>If you offer the following tools to help serve callers better:</u>			
+ 3.5	record of the member's previous calls to the system	Yes	3.5
+ 3.5	copies of recent correspondence online	Yes	3.5
+ 3.5	knowledge based online help system available for use by the service representative	Yes	3.5
+ 3.5	most recent member statement	Yes	3.5
+ 3.5	beneficiary information	Yes	3.5
+ 3.5	toll free number	Yes	3.5
+ 3.5	workflow system with the real-time status of open items	Yes	3.5
+ 3.5	call volume projections	Yes	3.5
Total score			35.0

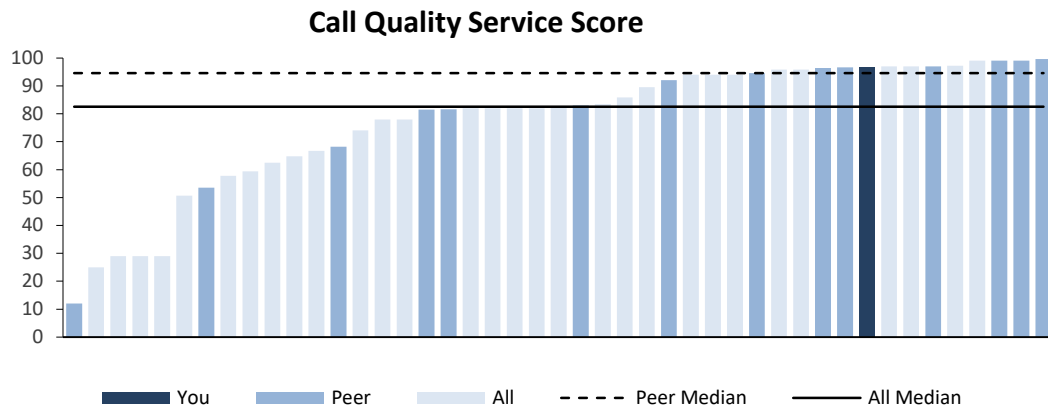
2. Rationale for the scoring method
<p>You can serve your members better if you have real time access to all of their records, have tools that enable you to provide immediate, informed and accurate answers to their questions, and can conduct transactions over the phone.</p> <p>Your ability to serve members is greatly reduced if your capabilities or policies prevent you from answering questions over the phone.</p>

d. CRM and other capability

3. Survey questions used		You	Peer Avg
Q44	When a member calls in, do you have immediate computer access to the following member data:		
	a) Record of the member's previous calls to the system?	Yes	87% Yes
	b) Copies of recent correspondence online?	Yes	100% Yes
	c) Knowledge based online help system available for use by the service representative?	Yes	80% Yes
	d) Most recent member statement?	Yes	100% Yes
	e) Beneficiary information?	Yes	100% Yes
Q45	Do your service representatives have real-time access to a workflow system that lets them know the status of open items?	Yes	100% Yes
Q46	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?	No	87% Yes
	a1) Can you easily model and provide alternate annuity payment scenarios? (i.e., joint and 50% survivor, joint and 70% survivor, etc.)	n/a	87% Yes
	a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	n/a	87% Yes
	b) Refund or transfer value assuming the member exited employment at the time of the call?	No	93% Yes
	c) Pensionable salary?	No	93% Yes
	d) Service credit history including gaps?	No	87% Yes
	e) Cost to purchase service credit?	No	87% Yes
Q47	Can members calling in perform the following transactions over the phone:		
	a) Change address?	No	80% Yes
	b) Add or change email address?	Yes	93% Yes
	c) Change payment instructions? (i.e., bank account)	No	27% Yes
Q49	Do you have and use tools to help you project call volumes?	Yes	87% Yes
Q50	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

e. Call quality

Your service score for call quality monitoring was 97 out of 100. This was above the peer median of 95.



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	4	55.0
+ 15	if the review is based on listening in on a recording (versus a live call)	Both	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]	94%	26.8
Total score			96.8

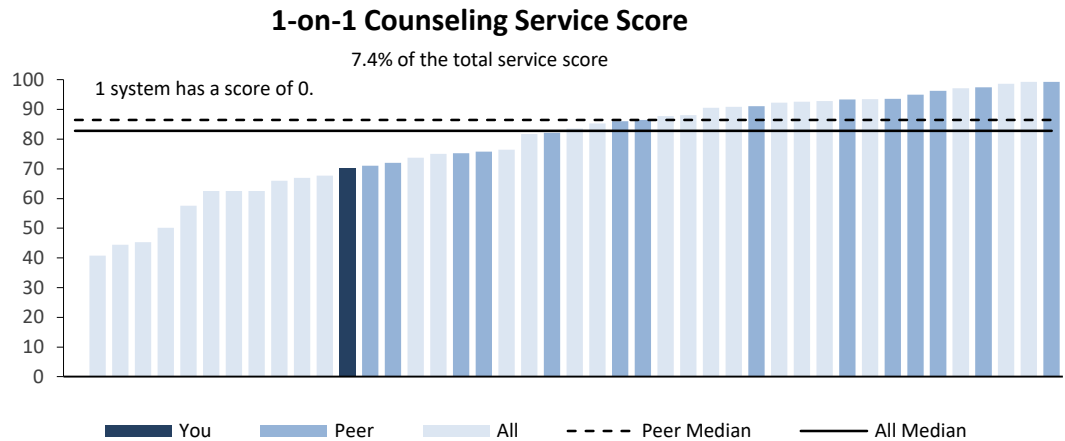
e. Call quality

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
Q42	c) % of calls satisfied by the first contact?	94%	91%
Q48	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	93% Yes
	a) How many calls per agent per month (on average) do you monitor?	4	6
	b) Are you listening in on a live call or a recording?	Both	35% Live

2C 1-on-1 Counseling

Your service score for 1-on-1 counseling was 70 out of 100. This was below the peer median of 86.

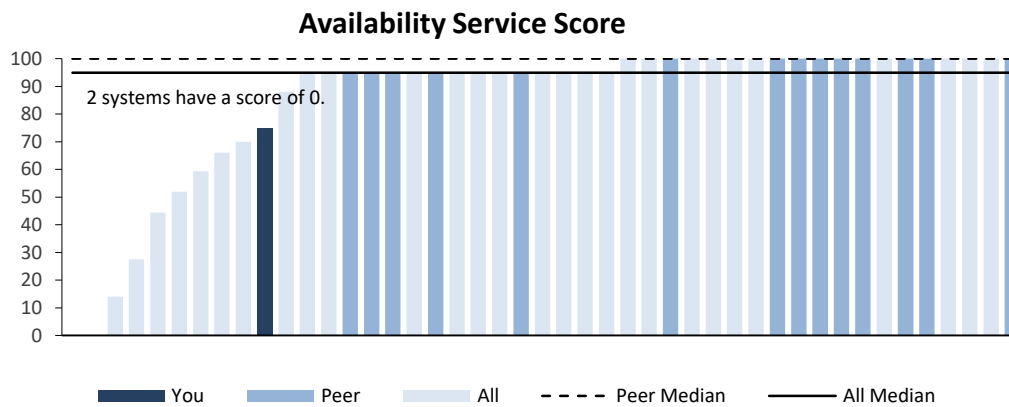


Your service score for 2c 1-on-1 counseling is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

1-on-1 Counseling Service Score Components		
	Weight	Your Score
a. Availability	50%	75.0
b. Field locations	20%	100.0
c. Wait times	20%	47.5
d. Capability	10%	33.3
Weighted Total	100%	70.3

a. Availability

Your service score for availability was 75 out of 100. This was below the peer median of 100.



1. Scoring method		Your Data	Your Score
+ 70	if members counseled 1-on-1 as a % of your active members is 1%* or more, otherwise 7,000 X number of members counseled 1-on-1 as a % of active members	2.0%	70.0
+ 25	if 1-on-1 counseling is freely available, without limitations	No	0.0
+ 5	if 1-on-1 counseling is available outside of normal working hours, otherwise 0	Yes	5.0
Total score			75.0

* The limit above which a perfect score is achieved is shifted downwards from a maximum of 1% linearly with the fraction of total pension inceptions that occur online (e.g. if 50% of your total inceptions occur online, the limit is set to 0.5%).

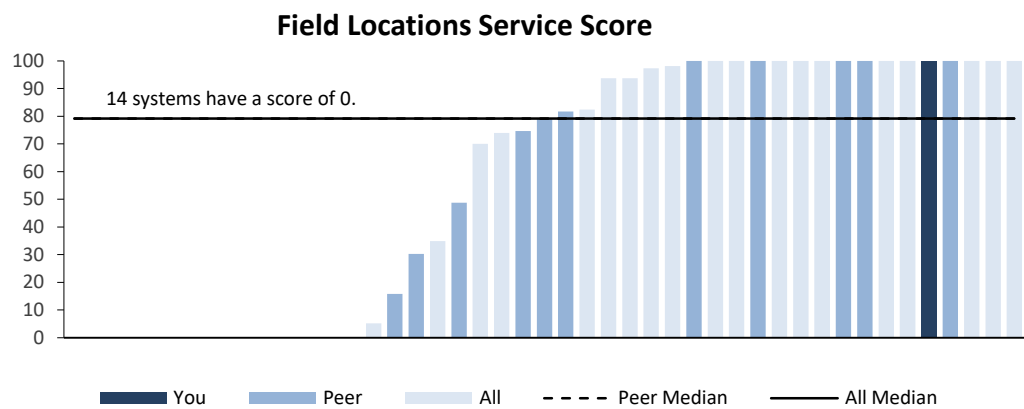
2. Rationale for the scoring method
Higher volumes relative to the number of pension inceptions occurring offline imply greater availability and value.
Members prefer freely available access to counseling with no time period limits, no limits on the number of sessions, etc.

a. Availability

3. Survey questions used		You	Peer Avg
Q56	Total number of members counseled 1-on-1 (A)	3,536	8,510
Q5	Active Members (B)	172,513	211,528
	Members counseled 1-on-1 as a percentage of active members (A / B)	2.0%	5.0%
Q57	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
Q58	Do you limit 1-on-1 counseling by:		
	a) Requiring that members be within a certain time period of earliest possible retirement?	Yes	7% Yes
	b) Placing a limit on the number of counseling sessions a member can request?	Yes	7% Yes
	c) Indicating that members should contact their employers or unions first for counseling?	No	0% Yes
	d) Other (describe)?	No	0% Yes
Q61	Do you offer 1-on-1 counseling sessions after normal working hours, such as evenings and/or weekends?	Yes	67% Yes

b. Field locations

Your service score for field locations was 100 out of 100. This was above the peer median of 79.



1. Scoring method		Your Data	Your Score
+ 70	if the number of 1-on-1 sessions located in the field as % of total sessions is 25% or more, otherwise 280 X % of total sessions located in the field	54.8%	70.0
+ 30	if 75% or more of your 1-on-1 field sessions are held at locations separate from the employer, otherwise 40 X % of field sessions separate from the employer	100%	30.0
Total score			100.0

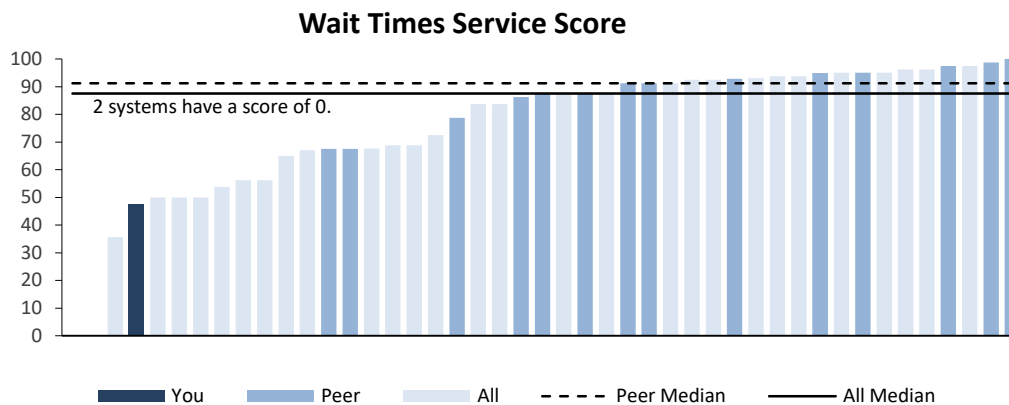
2. Rationale for the scoring method
A combination of in-house and in-the-field locations provides the best access for members to meet with you.
Field locations separate from the employer are preferred because they help preserve confidentiality and privacy.

b. Field locations

3. Survey questions used		You	Peer Avg
Q56	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)	1,939	1,699
	c) At the member's place of employment?	<u>n/a</u>	<u>544</u>
	Total number of members counseled 1-on-1 in the field (B)	1,939	2,242
	% of 1-on-1 field sessions separate from employer (A / B)	100%	59%
	Total number of members counseled 1-on-1 (C)	3,536	8,510
	% of members counseled at 1-on-1 sessions held in the field (B / C)	54.8%	29.4%

c. Wait times

Your service score for wait times was 48 out of 100. This was below the peer median of 91.



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]	2.0 days	22.5
+ 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			47.5

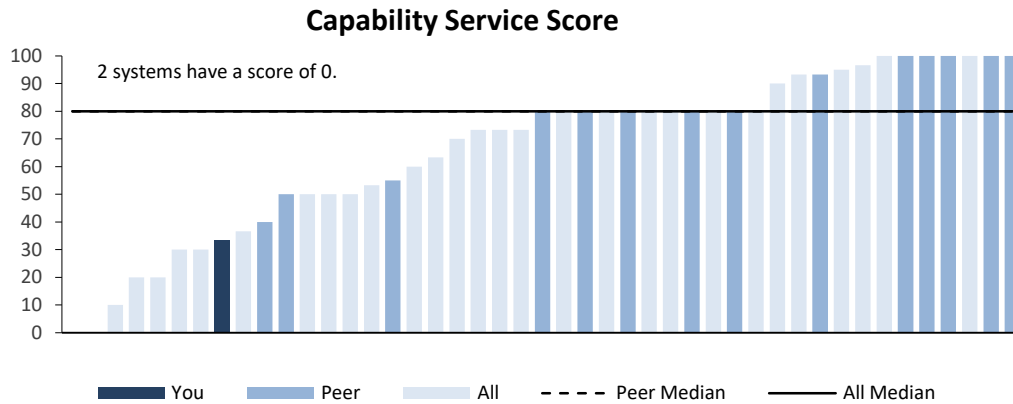
2. Rationale for the scoring method
<p>The shorter the wait times, the better.</p> <p>Some people like to be able to schedule an appointment. Also, a pre-scheduled session gives you the opportunity to prepare in advance.</p>

c. Wait times

3. Survey questions used		You	Peer Avg
Q59	Do you provide counseling for walk-in traffic?	No	93% 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	7 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	0.2%
Q60	Do you offer prescheduled 1-on-1 counseling?	Yes	100% 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?	2.0	2.9 days

d. Capability

Your service score for capability was 33 out of 100. This was below the peer median of 80.



1. Scoring method		Your Data	Your Score
<u>Sessions</u>			
+ 50	if you can provide a new written estimate during each of walk-in, pre-scheduled in-house and in-the-field sessions, otherwise 16.7 for walk-in, 16.7 for pre-scheduled in-house and 16.7 for in-the-field	0 Yes	0.0
+ 10	if you can provide accurate service credit purchase cost estimates during each of walk-in, pre-scheduled in-house and in-the-field sessions, otherwise 3.3 for walk-in, 3.3 for pre-scheduled in-house and 3.3 for in-the-field	0 Yes	0.0
+ 20	if counseling takes place in a private office with a door during each of walk-in, pre-scheduled in-house and in-the-field sessions, otherwise 6.7 for walk-in, 6.7 for pre-scheduled in-house and 6.7 for in-the-field	2 Yes	13.3
<u>Coaching</u>			
+ 20	if you regularly review counselors for coaching purposes	Yes	20.0
Total score			33.3

d. 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

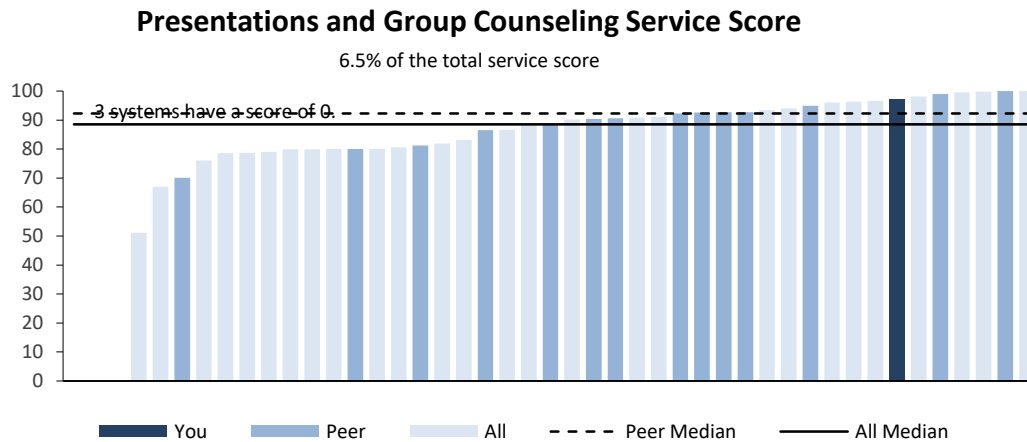
Members feel more comfortable if they can discuss their retirement income in an office with a door. If you review sessions for coaching purposes, this suggests that you monitor quality.

3. Survey questions used

		You	Peer Avg
Q63	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	93% Yes
	a2) Pre-scheduled in-house?	Yes	93% Yes
	a3) In-the-field?	Yes	83% 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	86% Yes
	c2) Pre-scheduled in-house?	No	87% Yes
	c3) In-the-field?	No	75% 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	100% Yes
	d2) pre-scheduled In-house?	No	93% Yes
	d3) In-the-field?	No	83% Yes
Q64	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.]	Yes	53% Yes

2D Member Presentations

Your service score for member presentations was 97 out of 100. This was above the peer median of 92.



1. Scoring method		Your Data	Your Score
<u>Availability</u>			
+ 38	if attendees as a percent of active members is 2.5%* or more, otherwise 1,520 X attendees as percent of active members	6.5%	38.0
+ 23	if 95% or more of your presentations are held in the field or via live webcast, otherwise 23 X (percent field presentations / 95%)	87.4%	21.2
+ 5	if you offer presentations outside of normal working hours	Yes	5.0
<u>Group size</u>			
+ 20	if average of 20 attendees or fewer per presentation, otherwise 20 - 0.5 for each attendee over 20 [Subject to a minimum score of 0]	22.4	18.8
<u>Types</u>			
+ 12	if you have 3 or more different targeted types of presentations (excluding healthcare and benefit changes), otherwise 4 X the number of types of presentations	4	12.0
<u>Coaching</u>			
+ 2	if you regularly review presenters for coaching purposes	Yes	2.0
Total score			97.0

* The limit above which a perfect score is achieved is shifted downwards from a maximum of 2.5% linearly with the fraction of total pension inceptions that occur online (e.g. if 50% of your total inceptions occur online, the limit is set to 1.25%).

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 location and times provide easier access and convenience.

Smaller groups are preferred to larger groups. They provide more opportunities for individual attention.

3. Survey questions used

		You	Peer Avg
Q68	<u>Availability</u> What was the total number of attendees at all of the presentations? [Exclude benefit fair attendees] (A)	11,194	12,352
Q5	Active Members (B)	172,513	211,528
	Attendees as a percent of active members (A / B)	6.5%	5.7%
Q67	How many presentations (including group counseling sessions) for members or annuitants [exclude presentations to employers] did you do that took place:		
	a) In-house?	63	36
	b) In the field? (C)	423	377
	c) Via live webinar? (i.e., a real-time, online presentation that allows two-way communication between the presenter and audience) (D)	<u>14</u>	<u>44</u>
	Total Presentations (E)	500	457
	In the field or webcast presentations as a percent of total presentations (C + D) / E	87.4%	89.4%
Q70	Do you offer presentations after normal working hours such as evenings and/or weekends?	Yes	100% Yes
	<u>Group size</u> Average number of attendees per presentation (A / E)	22.4	33.8

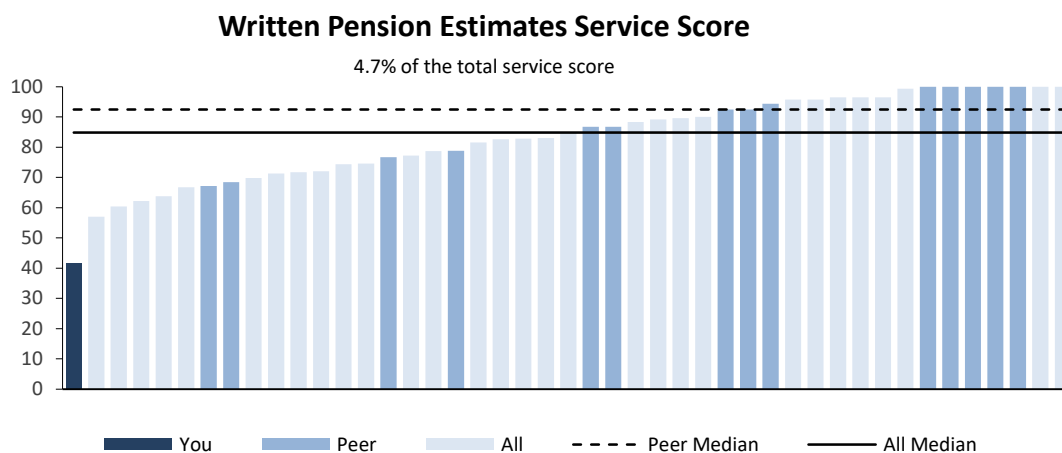
2D Member Presentations

3. Survey questions used

		You	Peer Avg
	<u>Types</u>		
Q69	Did you do specific presentations for members, in the past fiscal year, targeted solely for:		
	a) New members?	Yes	93% Yes
	b) Members in mid career?	Yes	80% Yes
	c) Members approaching retirement or ready to retire?	Yes	100% Yes
	f) Other? (Please describe)	<u>Yes</u>	<u>60% Yes</u>
	Total presentation types	4	3
	<u>Coaching</u>		
Q71	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	80% Yes

2E Written Pension Estimates

Your service score for written pension estimates was 42 out of 100. This was below the peer median of 93.

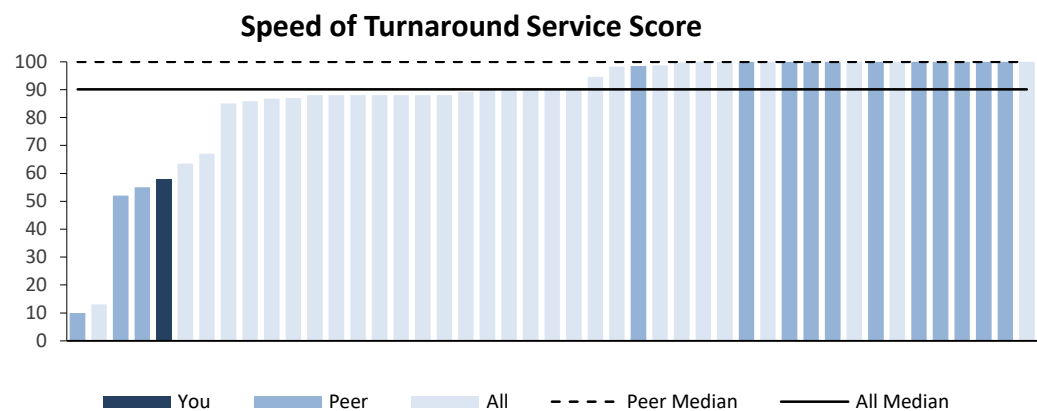


Your service score for 2e written pension estimates is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Written Pension Estimates Service Score Components		
	Weight	Your Score
a. Speed of turnaround	35%	58.0
b. Content	25%	55.0
c. Alternative channels	40%	19.0
Weighted Total	100%	41.7

a. Speed of turnaround

Your service score for speed of turnaround was 58 out of 100. This was below the peer median of 100.



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	15 days	48.0
+ 10 if you regularly measure the time to provide an estimate	Regular	10.0
Total score [Subject to a minimum score of 0]		58.0

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

2. Rationale for the scoring method

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

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

a. Speed of turnaround

3. Survey questions used		You	Peer Avg
Q73	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)	164,873	27,763
Q75	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)	15 days	9 days
	a) Is this a number you regularly measure and track (versus an estimate)?	Regular	100% Yes
Q81	Indicate whether the following capabilities are available on your website and provide volumes:		
	c) Benefit calculator in secure area linked to member's salary and service data?	Yes	93% Yes
	If yes, volume? (C)	107,699*	173,440
	p) Submit a retirement application online?	No	60% Yes
	Weighted average estimate turnaround time ¹ $(A \times B) / (A + C)$	15 days ²	7.5 days

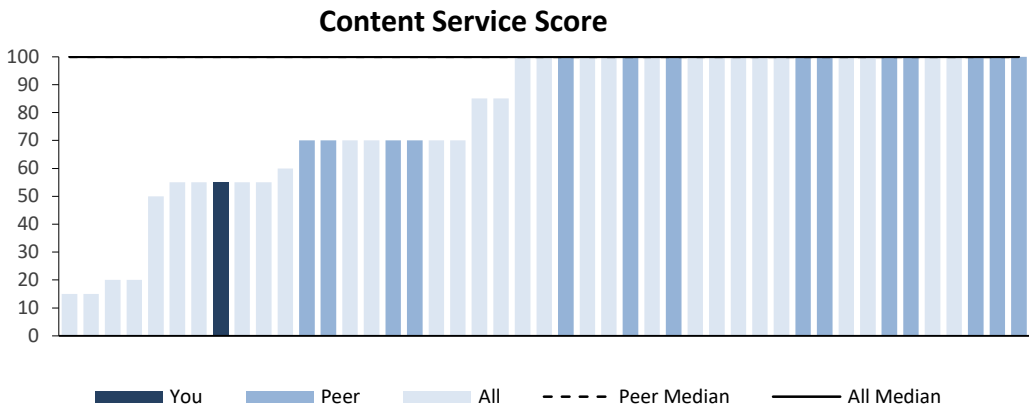
1. The weighted average estimate turnaround time assumes that: (i) online estimates are processed instantaneously; (ii) the volume of online estimates (C) is counted as zero if members cannot apply for retirement online.

2. Were members able to apply for retirement online, your weighted average estimate turnaround time would have been reduced to 9.1 days, because the volume of online estimates would have then been included in the calculation.

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

b. 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

b. Content

2. Rationale for the scoring method

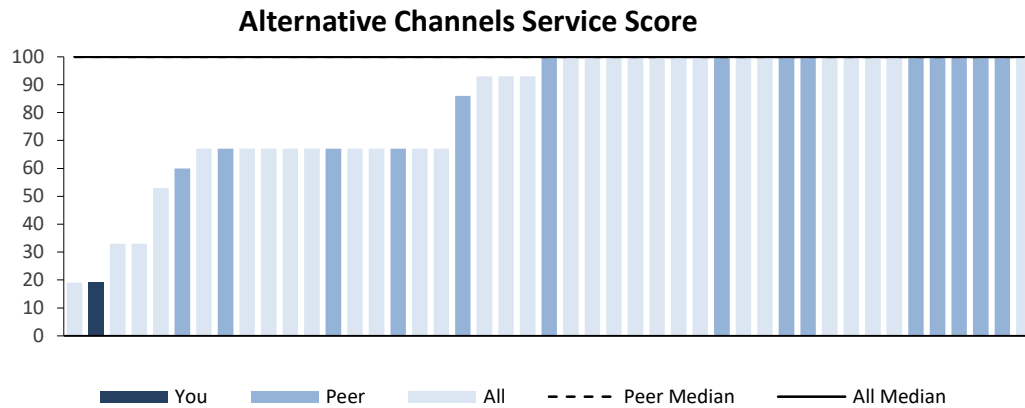
The more members understand about how their pension is affected by inflation, social security, etc. the better they can plan for retirement. A perfect score requires that you provide all this information in a written pension estimate.

3. Survey questions used		You	Peer Avg
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Q78	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	67% Yes
	b) If your pension is coordinated with or reduced by social security (or CPP in Canada) is the impact explained?	No	83% 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	100% Yes

c. Alternative channels

Your service score for alternative channels was 19 out of 100. This was below the peer median of 100.



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	1 option	33.0
- 7	if you limit the timeframe when members can request pension estimates	Yes	-7.0
- 7	if you place a limit on the number of written pension estimates a member can request	Yes	-7.0
Total score			19.0

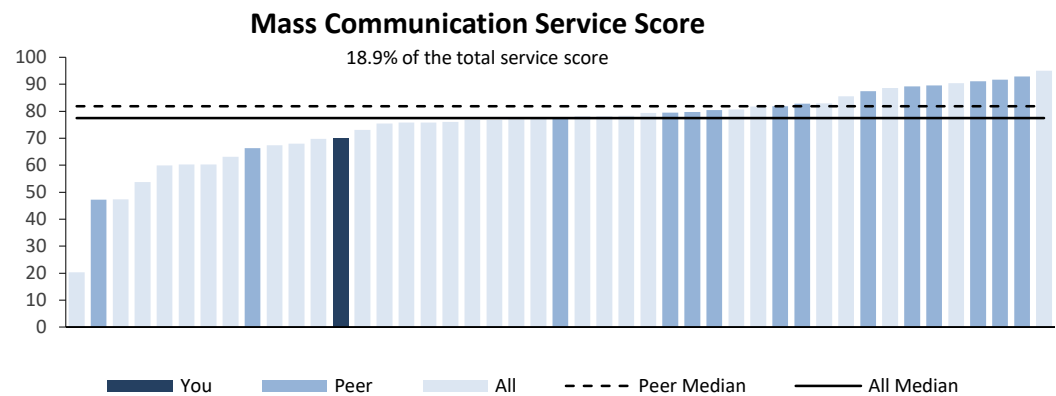
2. Rationale for the scoring method
More choices in obtaining a pension estimate provides greater access and convenience for your members.

c. Alternative channels

3. Survey questions used		You	Peer Avg
Q46	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?	No	87% Yes
Q76	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.]	No	80% Yes
Q77	Do you place a limit on the number of written pension estimates that a member can request?	Yes	13% Yes
Q81	Indicate whether the following capabilities are available on your website and provide volumes: a) Benefit calculator in non-secure area? b) Benefit calculator in secure area not linked to member data? c) Benefit calculator in secure area linked to member's salary and service data?	No No Yes	60% Yes 27% Yes 93% Yes
Q94	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?	No	73% Yes

2F Mass Communication

Your service score for mass communication was 70 out of 100. This was below the peer median of 82.

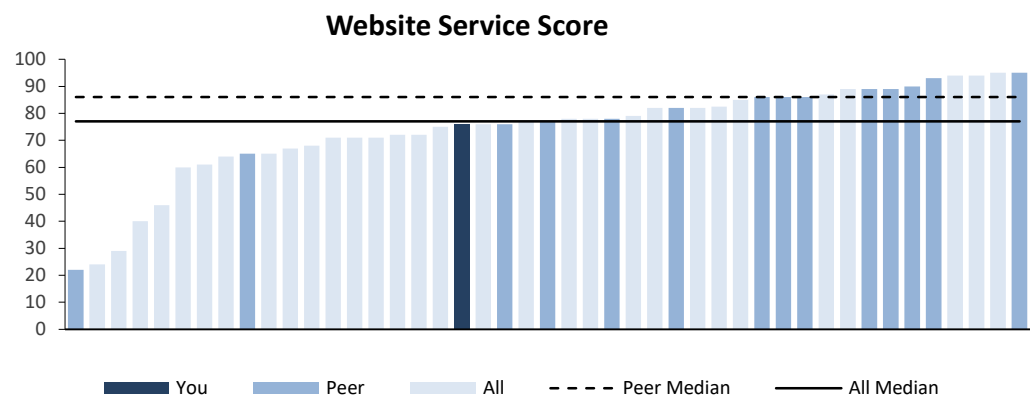


Your service score for 2f mass communication is the weighted total of the components shown in the table below. The methodology and data used to determine your scores for each of these components is described in detail on the following pages.

Mass Communication Service Score Components		
	Weight	Your Score
a. Website	60%	76.0
b. News and targeted communication	15%	68.7
c. Member statements	25%	55.8
Weighted Total	100%	69.8

a. Website

Your service score for the website was 76 out of 100. This was below the peer median of 86.



a. 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 you can calculate the cost of purchasing service credit	Yes	2.0
<u>Salary and service credit</u>			
+ 3	if you offer secure access to both salary and service credit data	Yes	3.0
+ 3	if salary and service credit data is up-to-date to the most recent pay period	Yes	3.0
+ 2	if a complete annual history since employment began of salary and service credit data is available	Yes	2.0
<u>Secure access design</u>			
+ 4	if members can get online immediately upon registering	Yes	4.0
+ 2	if you greet members by name upon log-in	Yes	2.0
- 4	if you force members to acknowledge a disclaimer every time they log-in or use the calculator	No	0.0
+ 1	if inactive members have access to the secure member area	Yes	1.0
+ 2	if you offer a digital file which includes a history of recent correspondence and member documents	No	0.0
<u>Forms</u>			
+ 8	if all forms are available for download (or the transaction or forms can be completed online), 6 if most, 2 if some	All	8.0
<u>Other tools and transactions</u>			
+ 1	register for counseling sessions in real-time	Yes	1.0
+ 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	No	0.0
+ 3	download or print tax receipts	No	0.0
+ 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	Yes	3.0
+ 2	download member statement	No	0.0
+ 3	upload documents in lieu of mailing hardcopies	No	0.0
+ 3	view pensionable earnings and/or service without downloading	Yes	3.0
+ 3	access videos online	Yes	3.0
Total score			76.0

a. 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

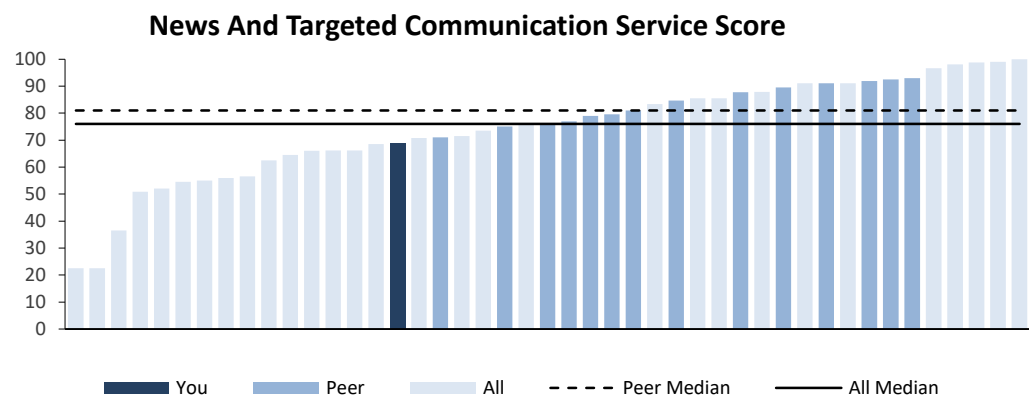
		You	Peer Avg
Q81	<u>Calculators</u>		
	Indicate whether the following capabilities are available on your website and provide volumes:		
	a) Benefit calculator in non-secure area?	No	60% Yes
	b) Benefit calculator in secure area not linked to member data?	No	27% Yes
	c) Benefit calculator in secure area linked to member's salary and service data?	Yes	93% Yes
	d) Service credit purchase calculator?	Yes	80% Yes
	<u>Salary and service credit</u>		
	v) View pensionable earnings and/or service without downloading?	Yes	93% Yes
	v1) Are both salary and service data available?	Yes	100% Yes
	v2) Is online data up-to-date to the most recent pay period?	Yes	79% Yes
	v3) Is a complete annual history from the beginning of employment provided?	Yes	79% Yes
Q80	<u>Secure access design</u>		
	Does your website have a secure member area where members can access their own data?	Yes	93% Yes
	c) If a member wants to register for the first time, does he/she have to wait for a password in the mail?	No	14% 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	21% Yes
	f) Are users required to acknowledge a disclaimer every time they generate a pension estimate?	No	43% Yes
	g) Do inactive members have access to the secure member area?	Yes	100% Yes
Q81	s) Secure mailbox or digital file including history of recent correspondence and member documents?	No	53% Yes
Q79	<u>Forms</u>		
	Are all, most or some of your forms available online for either completion or downloading?	All	47% All

a. Website

3. Survey questions used		You	Peer Avg
Q81	<u>Other tools and transactions</u>		
	Indicate whether the following capabilities are available on your website and provide volumes:		
	e) Register for 1-on-1 counseling sessions?	Yes	60% Yes
	e1) If yes, does the member have real-time access to available dates and times?	Yes	100% Yes
	f) Register for presentations?	Yes	87% Yes
	g) Live chat?	No	0% Yes
	h) Change address?	Yes	93% Yes
	i) Change beneficiary?	No	67% Yes
	j) Change email address?	Yes	93% Yes
	k) Reset password?	Yes	93% Yes
	l) Change banking information for direct deposit?	No	67% Yes
	m) Change tax withholding amount?	No	80% Yes
	n) Download or print duplicate tax receipts? (i.e., 1099s in the U.S.)	No	80% Yes
	o) View pension payment details? (i.e., gross amounts, deductions)	Yes	93% Yes
	p) Submit a retirement application online?	No	60% Yes
	If yes:		
	p1) Does the online application provide an estimate, final value or neither of the annuity payment the member will receive?	n/a	0% Final
	p2) Approximately what % of retirements submitted online require follow-up documents or signatures to be mailed in?	n/a	55.8%
	q) View status of online retirement application?	No	50% Yes
	r) Apply for a refund or transfer-out?	Yes	57% Yes
	t) Download member statement? (i.e., Adobe format)	No	87% Yes
	u) Upload documents (such as birth certificates)?	No	60% Yes
Q82	Do you have videos that members can access online?	Yes	100% Yes

b. News and targeted communication

Your service score for newsletters was 69 out of 100. This was below the peer median of 81.



b. 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	3 times	20.0
+ 2	if inactive members receive a newsletter at least annually	0 times	0.0
+ 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>			
+ 10	if you issue a 'welcome' kit to new members	Yes	10.0
	if you send out personalized letters to members:		
+ 2	that are new (this letter could be part of a welcome kit)	Yes	2.0
+ 7.5	approaching eligibility, or becoming eligible, for retirement	No	0.0
+ 2	about to become vested in pension benefits	No	0.0
+ 2	eligible, or likely eligible, to purchase service credit	No	0.0
+ 2	with no beneficiary on file	No	0.0
+ 1	about to become vested for disability benefits	No	0.0
+ 1	whose disability benefits are able to expire (i.e. after exiting employment)	No	0.0
+ 1	with no email address on file	No	0.0
+ 1	who have never visited the secure member area	No	0.0
+ 1	if you publish member statements, annual reports, newsletters, the website and brochures in a language other than English, otherwise 0.2 for each publication translated	1 publication	0.2
+ 2.5	if you solicit member feedback on your publications through focus groups, or surveys	Yes	2.5
Total score			68.7

b. 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

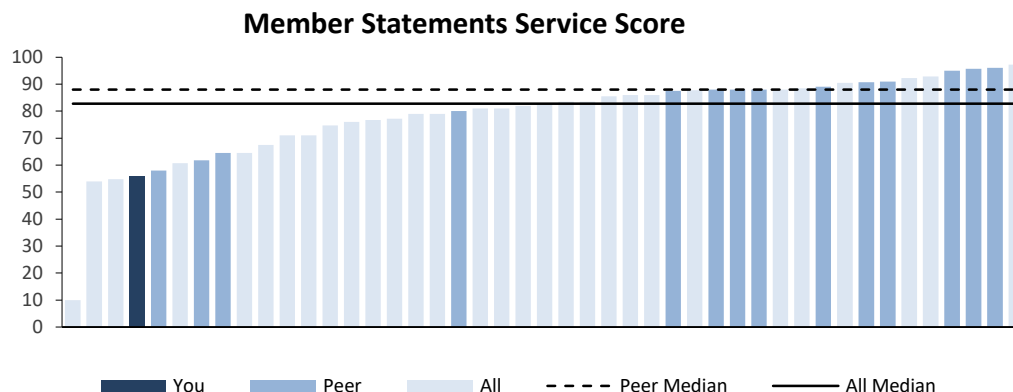
		You	Peer Avg
Q84	Indicate whether you sent newsletters or news magazines (in either electronic or paper format) last year to any of the following member segments, and if yes, the number of times it was sent:		
		#	#
	a) All members (active, inactive and annuitants)?	No n/a	33% Yes 4
	b) Active and inactive members?	No n/a	27% Yes 3
	c) Active members and annuitants?	No n/a	13% Yes 2
	d) Active members only?	Yes 3	67% Yes 6
	e) Inactive members only?	No n/a	20% Yes 2
	f) Annuitants only?	Yes 3	100% Yes 3
	g) Age segments (i.e., under 35, 35-50, 50 plus)?	No n/a	20% Yes 4
	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	27% Yes 13
	j) Other? (describe your other newsletter segments below) n/a	No n/a	33% Yes 6
	Total Segments	2	3.2
Q85	Are new members issued a 'welcome' kit describing their benefits?	Yes	100% Yes
	If yes:		
	a) If yes, does it include a personalized letter addressing the new member by name?	Yes	60% Yes

b. News and targeted communication

3. Survey questions used		You	Peer Avg
Q87	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	43% Yes
	b) Vested for disability benefits (if member is not vested immediately)?	No	29% Yes
	c) Expiration of disability benefits for inactive members or members that have	No	38% Yes
	d) Approaching eligibility, or becoming eligible, for retirement?	No	53% Yes
	e) Eligibility or likely eligibility, to purchase service credit?	No	27% Yes
	f) Missing beneficiary?	No	27% Yes
	g) Missing email address?	No	7% Yes
	h) Never visited the secure member area?	No	14% Yes
	i) Other milestone communication? (describe below)	No	60% Yes
Q88	Do you actively solicit member feedback on your publications through:		
	a) Focus groups?	Yes	27% Yes
	b) Tear out surveys or feedback cards in the publications themselves?	Yes	7% Yes
	c) Surveys sent to members who request a publication?	No	0% Yes
	d) Other (describe)?	Yes	27% Yes
Q89	Do you publish any of the following materials in a language other than English (or other than French in Quebec and France), or in Braille:		
	a) Member statements?	No	0% Yes
	b) Annual report?	No	0% Yes
	c) Newsletters?	No	0% Yes
	d) Website?	Yes	20% Yes
	e) Brochures and pamphlets?	No	13% Yes

c. Member statements

Your service score for member statements was 56 out of 100. This was below the peer median of 88.



1. Scoring method		Your Data	Your Score
<u>Accuracy and timeliness</u>			
+ 10	if no complaints about data errors, otherwise 10 x (1 - 25 X percent of members that complain about data errors) [Subject to a minimum score of 0]	0.5%	8.8
+ 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]	5.0 months	7.0
+ 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	No	0.0
Total score			55.8

c. 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.

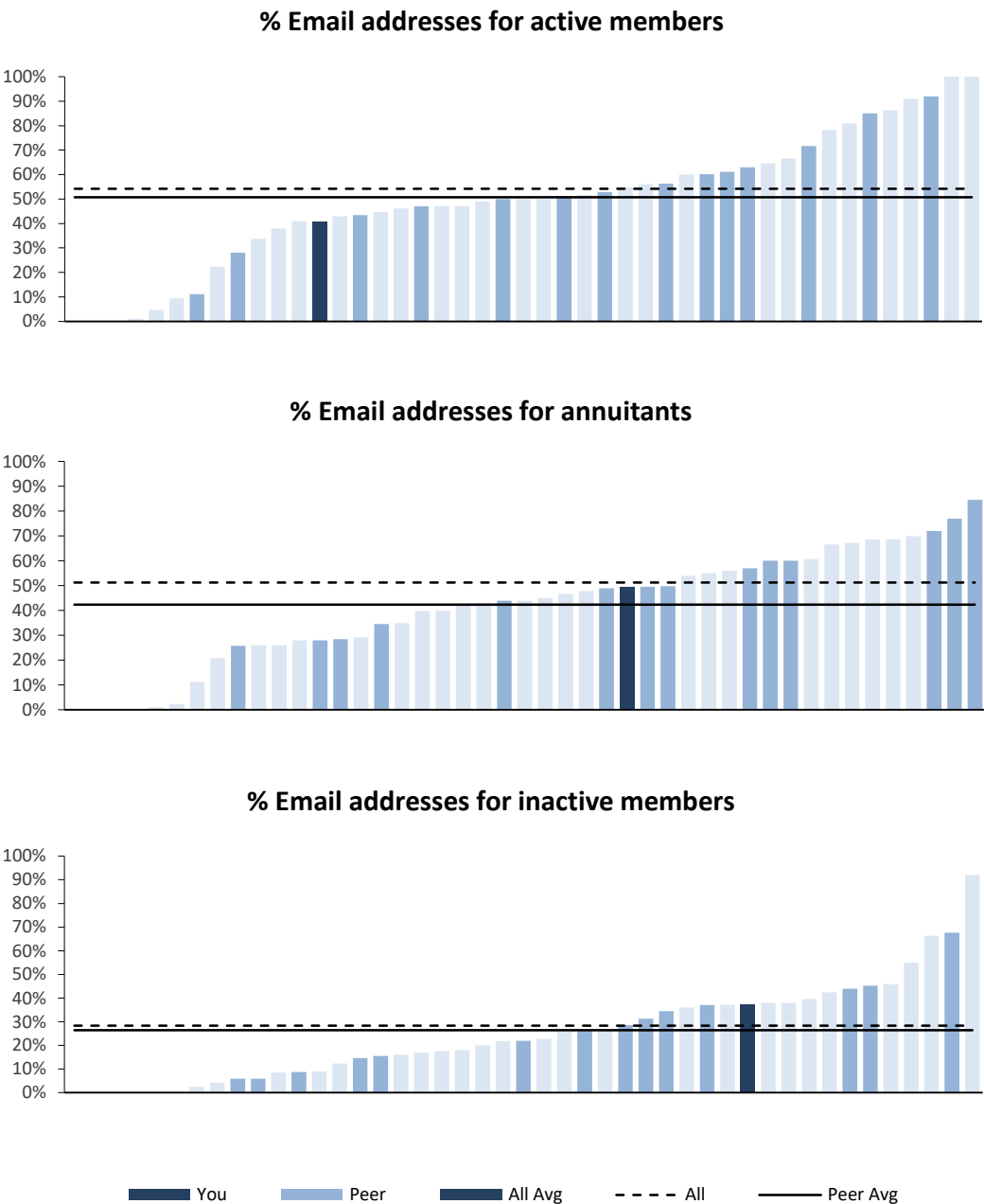
3. Survey questions used

		You	Peer Avg
Q90	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	1.2 times
	b) Inactive members?	1 time	1.2 times
Q91	Approximately what % of members complain about the accuracy of data in their member statements?	0.5%	0.1%
Q92	Indicate the approximate percentage breakdown of how you send member statements to active members:		
	a) Directed through the employer?	0.0%	3.3%
	b) Mailed directly to members' homes?	100.0%	58.5%
	c) Email or text message to members that the statement is available in the secure member area?	0.0%	42.9%
Q93	On average, how current is an active member's data in the statements that the member receives (in months)?	5.0	2 months
Q94	Do your statements for active members include:		
	a) Total accumulated service credit?	Yes	100% Yes
	b) Pensionable earnings?	Yes	87% Yes
	c) A historical summary of salary and service credit earned each year?	No	47% Yes
	d) The refund value if you left at the statement date?	Yes	93% 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?	No	73% 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:



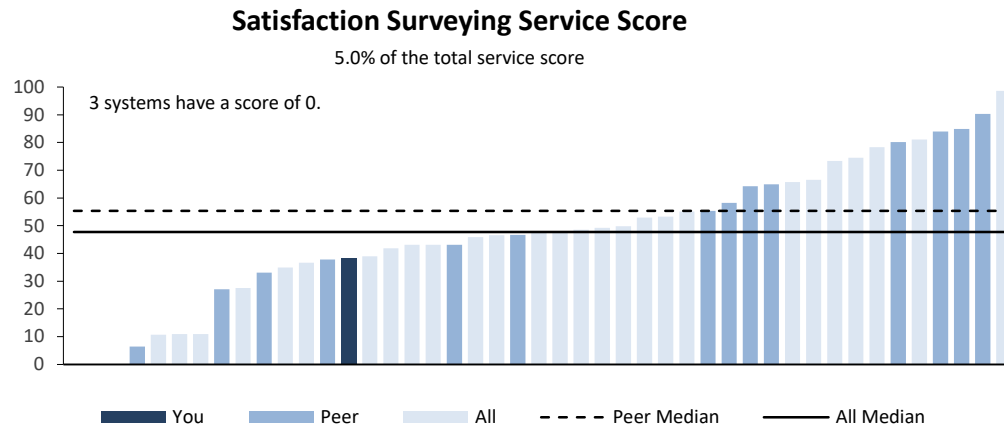
Digital delivery

Social media is another method systems use to communicate with members, for both educational and marketing purposes. Social media is not currently included in the service score, but we are tracking these measures and may use them in the future.

Digital delivery questions		You	Peer Avg	All Avg
Q82	Do you have videos that members can access online? If yes: a) How many different videos do you have for members online? b) What was the total number of new views for all streamed videos?	Yes 2 7,000	100% Yes 26 26,786	87% Yes 55 32,221
Q95	Do you have: a) Facebook? b) Twitter? c) YouTube? d) Google+? e) LinkedIn? f) Pinterest? g) Instagram? h) WhatsApp? i) SnapChat? j) Blog?	No No No No No No No No No No	80% Yes 73% Yes 53% Yes 33% Yes 73% Yes 0% Yes 13% Yes 0% Yes 0% Yes 20% Yes	58% Yes 53% Yes 49% Yes 24% Yes 56% Yes 7% Yes 16% Yes 4% Yes 0% Yes 22% Yes
Q96	If easily available, provide the following metrics for your most recently ended fiscal year (this does not impact your service score): a) For Facebook, what is your average annual post engagement rate (combined clicks, comments, likes and shares divided by total post b) For Twitter, what is your average tweet engagement rate (combined clicks, retweets, replies, follows, and likes divided by total impressions)?	n/a n/a	12.9% 1.8%	12.7% 2.5%
Q97	Approximately how many full time equivalent staff ("FTE") are dedicated to maintaining your social media presence? Include time spent modifying or creating content specifically for social media platforms and time spent monitoring, measuring and responding to comments and questions on social media.	n/a	1	1
Q98	Do you support private two-way communication with members through any social media platforms?	n/a	77% Yes	53% Yes
Q99	Do you have a mobile app? If yes: a) If yes, how many apps do you have?	No n/a	7% Yes 1	9% Yes 2

Satisfaction Surveying

Your service score for satisfaction surveying was 38 out of 100. This was below the peer median of 55.



Your service score for satisfaction 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.

Satisfaction Surveying Service Score Components			
	Weight ¹	Do you survey?	Your Score
a. 1-on-1 counseling	18%	Yes	80.0
b. Presentations and Group Counseling	12%	Yes	100.0
c. Member telephone calls	13%	Yes	13.0
d. Website - secure member area	8%	No	0.0
e. Pension inception	18%	Yes	56.0
f. Written benefit estimates	11%	No	0.0
g. Refunds, withdrawals and transfers-out	1%	No	0.0
h. Purchases and transfers-in	7%	No	0.0
i. Disability	10%	No	0.0
Weighted Total	100%		38.2

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

Satisfaction Surveying

1. Scoring method		Your Data	Your Score
a. 1-on-1 counseling			
	If you survey satisfaction with 1-on-1 counseling:	Yes	
+ 30	if the survey focuses primarily on 1-on-1 counseling.	Yes	30.0
+ 30	if the greatest length of time between the survey and the 1-on-1 counseling session is 14 days or less .	0	30.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly, +3 if once per year.	days continuous	10.0
+ 10	if you can summarize results by service representative.	Yes	10.0
+ 10	if you can summarize results by topic covered.	No	0.0
+ 10	if survey is delayed at least one day from the session.	No	<u>0.0</u>
	Total		80.0
b. Presentations and Group Counseling			
	If you survey satisfaction with presentations and group counseling:	Yes	
+ 35	if the survey focuses primarily on presentations and group counseling.	Yes	35.0
+ 35	if the greatest length of time between the survey and the presentation is 14 days or less .	14	35.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly, +3 if once per year.	days continuous	10.0
+ 10	if you can summarize results by service representative.	Yes	10.0
+ 10	if survey is delayed at least one day from the session.	Yes	<u>10.0</u>
	Total		100.0
c. Member telephone calls			
	If you survey satisfaction with member telephone calls:	Yes	
+ 30	if the survey focuses primarily on member telephone calls.	No	0.0
+ 30	if the greatest length of time between the survey and the telephone call is 14 days or less.	365	0.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly, +3 if once per year.	days Annually	3.0
+ 10	if you can summarize results by service representative.	No	0.0
+ 10	if you can summarize results by topic covered.	No	0.0
+ 10	if survey is delayed at least one day from the session.	Yes	<u>10.0</u>
	Total		13.0

Satisfaction Surveying

1. Scoring method (continued)		Your Data	Your Score
d. Website - secure member area			
	If you survey satisfaction with website - secure member area:	No	
+ 40	if the survey focuses primarily on website - secure member area.	n/a	0.0
+ 40	if the greatest length of time between the survey and secure member area usage is 7 days or less.	n/a	0.0
+ 10	if surveys are continuous or more than 11 times per year, otherwise +8 if quarterly, +3 if once per year.	n/a	0.0
+ 10	if you can summarize results by topic(s) browsed.	n/a	0.0
- 25%	if you survey 100% of unique users, -90% if you survey all users (versus a sample such as every 100th user).	No	0.0
- 50%	if the survey was a menu item that the user had to find and select (as opposed to a survey actively sent to the user via email or a pop up).	No	<u>0.0</u>
	Total [subject to a minimum score of 0]		0.0
e. Pension inception			
	If you survey satisfaction with pension inceptions:	Yes	
+ 40	if the survey focuses primarily on pension inceptions.	Yes	40.0
+ 40	if the greatest length of time between the survey and the pension inception is 14 days or less.	90 days	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly, +6 if once per year.	Quarterly	<u>16.0</u>
	Total		56.0
f. Written benefit estimates			
	If you survey satisfaction with written benefit estimates:	No	
+ 40	if the survey focuses primarily on written benefit estimates.	n/a	0.0
+ 40	if the greatest length of time between the survey and receipt of an estimate is 14 days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly, +6 if once per year.	n/a	<u>0.0</u>
	Total		0.0
g. Refunds, withdrawals and transfers-out			
	If you survey satisfaction with refunds, withdrawals and transfers-out:	No	
+ 40	if the survey focuses primarily on refunds, withdrawals and transfers-out.	n/a	0.0
+ 40	if the greatest length of time between the survey and the refund, lump sum or transfer-out is 14 days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly, +6 if once per year.	n/a	<u>0.0</u>
	Total		0.0

Satisfaction Surveying

1. Scoring method (continued)		Your Data	Your Score
h. Purchases and transfers-in			
	If you survey satisfaction with purchases and transfers-in:	No	
+ 40	if the survey focuses primarily on purchases and transfers-in.	n/a	0.0
+ 40	if the greatest length of time between the survey and the purchase or transfer-in is 7 days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly, +6 if once per year.	n/a	<u>0.0</u>
	Total		0.0
i. Disability			
	If you survey satisfaction with disability:	No	
+ 40	if survey focuses primarily on disability.	n/a	0.0
+ 40	if the greatest length of time between the survey and the disability decision is 14 days or less.	n/a	0.0
+ 20	if surveys are continuous or more than 11 times per year, otherwise +16 if quarterly, +6 if once per year.	n/a	<u>0.0</u>
	Total		0.0

2. Rationale for the scoring method

Best practice satisfaction surveying is single activity focused, sent only to members who have recently received the service, can be summarized by the person that did the work (for 1-on-1 counseling, presentations and calls), tracks the purpose of a call or visit, is performed on a frequent random-sample basis and results are communicated widely. If you measure satisfaction, we assume you do a better job of managing and improving it.

Surveying immediately after the activity tends to give feedback that is heavily influenced by the member's positive or negative impression of the service agent. Surveying a day or so later captures member's feedback regarding the success of the process and whether the member accomplished what they intended to.

When surveying website satisfaction, it is unnecessary and irritating to sample 100% of users, particularly if they get asked to participate every time they visit the website. If the survey is a menu item that users need to find and select, you will only receive feedback from extremely motivated users. This feedback can be useful, albeit biased.

Satisfaction Surveying

3. Survey questions used

	Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	If yes, for each activity surveyed:					
		Did the survey focus primarily on this single activity? (vs including other activities)	What was the longest possible time in days between the activity and the survey?	How often did you survey about the activity? (times per year)	Can you break down the survey results by service agent?	Is the survey delayed by at least 1 day from the date of the session?	Can you break down the survey results by topic covered?
Q123							
<u>Your Responses</u>							
1-on-1 counseling	Yes	Yes	0	continuous	Yes	No	No
Presentations and Group Counseling	Yes	Yes	14	continuous	Yes	Yes	
Member telephone calls	Yes	No	365	Annually	No	Yes	No
Website - secure member area	No	n/a	n/a	n/a			n/a
Pension inception	Yes	Yes	90	Quarterly			
Written benefit estimates	No	n/a	n/a	n/a			
Refunds, withdrawals and transfers-out	No	n/a	n/a	n/a			
Purchases and transfers-in	No	n/a	n/a	n/a			
Disability	No	n/a	n/a	n/a			
<u>Peer Responses</u>							
1-on-1 counseling	87% Yes	92% Yes	6	100% ≥ 12	92% Yes	46% Yes	46% Yes
Presentations and Group Counseling	93% Yes	100% Yes	6	100% ≥ 12	100% Yes	43% Yes	
Member telephone calls	80% Yes	75% Yes	68	83% ≥ 12	67% Yes	58% Yes	33% Yes
Website - secure member area	40% Yes	50% Yes	133	67% ≥ 12			
Pension inception	80% Yes	83% Yes	54	75% ≥ 12			
Written benefit estimates	53% Yes	88% Yes	67	75% ≥ 12			
Refunds, withdrawals and transfers-out	27% Yes	50% Yes	129	50% ≥ 12			
Purchases and transfers-in	40% Yes	67% Yes	88	67% ≥ 12			
Disability	53% Yes	88% Yes	22	88% ≥ 12			

Q124

If you surveyed satisfaction regarding the secure member area on your website, was the survey electronic? (i.e., email or web based)

You Peer Avg

n/a 67% Yes

If yes:

a) Was the survey a menu item that the user had to find and select (as opposed to a survey actively sent to the user via email or a pop up)?

n/a 25% Yes

b) Did you survey 100% of users (versus a sample such as every 100th user)?

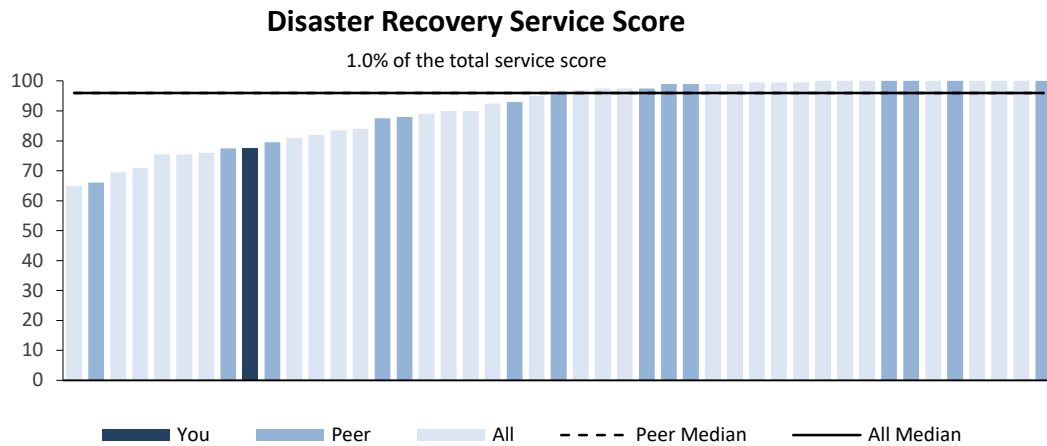
n/a 75% Yes

b1) Do you survey all visitors (meaning the same unique user can be surveyed multiple times)?

n/a 67% Yes

Disaster Recovery

Your service score for disaster recovery was 78 out of 100. This was below the peer median of 96.



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]	2	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]	30	1.0
+ 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]	7	7.5
+ 10	if call center at current service levels in 2 days or less, otherwise 11 - days / 2 [Subject to a minimum score of 0]	14	4.0
+ 10	if you have an independent auditor that reviews and tests the disaster recovery	Yes	10.0
Total score			77.5

Disaster Recovery

2. Rationale for the scoring method

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

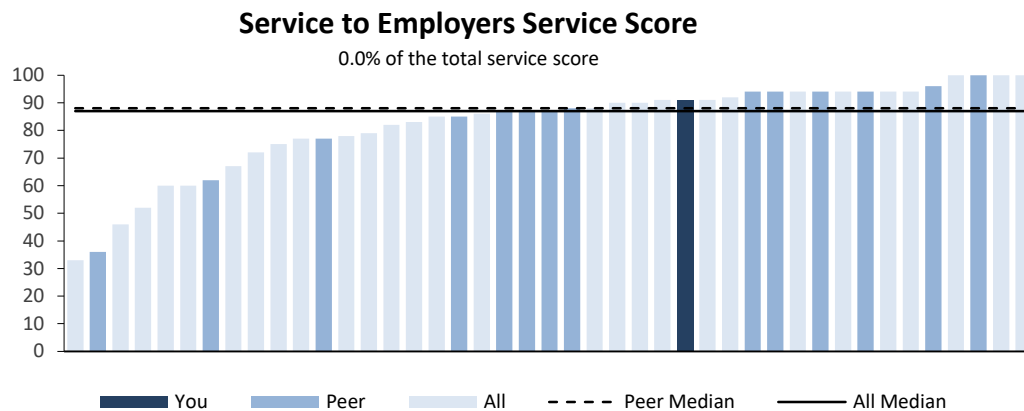
3. Survey questions used

		You	Peer Avg
Q119	Do you have back-up equipment and premises arranged for your operations if substantial damage occurs at your principal location?	Yes	100% Yes
Q120	Do you have an independent auditor that reviews and tests the disaster recovery plan?	Yes	67% Yes
Q121	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?	2	1 day
	b) Begin doing new pension inceptions at normal volumes?	30	7 days
	c) Collect data and money from employers?	7	3 days
	d) Respond to member calls at close to current service levels?	14	6 days

Employer Service Score

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

Your service score for service to employers was 91 out of 100. This was above the peer median of 88.



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	3	12.0
+ 12	if you send newsletters for employers 4 or more times per year, otherwise 3 X newsletter frequency	6	12.0
<u>Satisfaction and service agreements</u>			
+ 7	if you do satisfaction surveying at least once per year	Annually	7.0
+ 6	if you have service level agreements with your employers	Yes	6.0
<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	Yes	8.0
+ 9	if the software provides real time error checking and feedback	No	0.0
Total score			91.0

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
Q111	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
Q113	How many different types of presentations did you give to employers?	3	7
Q114	Do you have a newsletter dedicated to employers that is different from the newsletter for members?	Yes	93% Yes
	a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	6	13
Q115	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?	Yes	20% Yes
Q116	Do you offer and maintain generalized reporting software for your employer collection points?	Yes	93% Yes
	a) Is the application web-based? (i.e., you connect to it through a web browser)	Yes	100% Yes
	b) Can the software integrate both data collection and billing?	Yes	86% 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	71% Yes
Q117	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.]	No	20% Yes
Q123	a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	Yes	80% Yes
	e) How often did you survey about the activity?	Annually	58% ≥ 12

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 38.4 points (from 61.6 to 100) to your Total Service Score if you enhanced service in each activity as follows:

Service Activity	Potential Improvement
<u>1B Pension Inceptions (6.90 potential improvement to your total service score)</u>	
• 94.6% 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.	+ 5.46
• 3.1% of your service pension inceptions are based on estimates which took an average of 24.0 months to finalize. To achieve a perfect service score you must either incept no pensions based on estimates, or if you do incept pensions based on estimates do so on average in less than a month.	+ 0.14
• 59.8% 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.	+ 0.49
• 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
• 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 (1.24 potential improvement to your total service score)</u>	
• On average, you complete withdrawals in 120 days while your mandatory wait period is 45 days. To achieve a perfect service score, withdrawals must be completed on the day the mandatory wait period ends.	+ 0.59
• You complete transfers-out on average in 120 days. To achieve a perfect service score, transfers-out must be completed in 30 days or less.	+ 0.59
• You require notarization for transfer-out applications. To achieve a perfect service score, you must not require notarization of transfer-out applications.	+ 0.07
<u>1D Purchases and Transfers-in (1.16 potential improvement to your total service score)</u>	
• On average, you provide a service credit purchase in 16 days. To achieve a perfect service score, you must be able to provide a service credit purchase estimate in 1 day or less.	+ 1.16
<u>1E Disability (1.03 potential improvement to your total service score)</u>	
• On average, you return a decision on a disability application in 4.0 months. To achieve a perfect service score, you must return a decision on a disability application in 1 month or less.	+ 1.03

2A Call Center (13.92 potential improvement to your total service score)

- 16.9% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes. + 2.87
- Your call center is open 45.0 hours per week. To achieve a perfect service score, your call center must be open 50 or more hours a week. + 0.11
- On average, members calling your call center reach a knowledgeable person in 258 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less. + 3.82
- 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 4 menu layers. To achieve a perfect service score you must have one or fewer menu layers. + 2.12
- You are unable to provide an estimate of the member's pension at retirement on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide an estimate of the member's pension at retirement over the phone. + 0.74
- You are unable to provide an estimate that is linked to the member's actual account data on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide an estimate that is linked to the member's actual account data over the phone. + 0.89
- You are unable to model alternate annuity payment scenarios on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to model alternate annuity payment scenarios over the phone. + 0.52
- You are unable to provide a refund or transfer value if the member exited employment at time of call on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide a refund or transfer value if the member exited employment at time of call over the phone. + 0.52
- You are unable to provide a pensionable salary on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide a pensionable salary over the phone. + 0.30
- You are unable to provide service credit history including gaps on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to provide service credit history including gaps over the phone. + 0.30
- You are unable to estimate the cost to purchase service credit on an immediate real-time basis over the phone. To achieve a perfect service score, you must be able to estimate the cost to purchase service credit over the phone. + 0.52
- You are unable to change an address over the phone. To achieve a perfect service score, you must be able to change an address over the phone. + 0.52
- 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. + 0.52
- 93.6% 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. + 0.10

2C 1-on-1 Counseling (2.20 potential improvement to your total service score)

- You do not provide freely available 1-on-1 counseling without limitations. To achieve a perfect service score, 1-on-1 counseling must be freely available and without limitation. + 0.93
- Your wait time for pre-scheduled in-house counseling sessions was 2 days. To achieve a perfect service score there must be no wait time for pre-scheduled in-house counseling sessions. + 0.04

- 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. + 0.37
- 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. + 0.07
- You do not provide closed door, private office counseling during all of your 1-on-1 counseling sessions. To achieve a perfect service score you must provide closed door, private office 1-on-1 counseling during each of walk-in, pre-scheduled in-house and in-the-field session. + 0.05

2D Member Presentations (0.20 potential improvement to your total service score)

- 87.4% of your presentations are held in the field or via live webcast. To achieve a perfect service score 95% or more of your presentations must be held in the field or via live webcast. + 0.12
- On average, you had 22.4 attendees per presentation. To achieve a perfect service score you must average 20 attendees per presentation or fewer. + 0.08

2E Written Pension Estimates (2.74 potential improvement to your total service score)

- You provide estimates on average in 15.0 days. To achieve a perfect service score, the weighted average time required to provide written and online estimates must be same day or less. + 0.69
- You do not clearly address how the pension benefit is inflation. 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
- You offer estimates through website. To achieve a perfect service score you must offer estimates via member statement, website and call center. + 1.26
- You limit the timeframe when members can request estimates. To achieve a perfect service score you cannot place a limit on the timeframe when members can request an estimate. + 0.13
- You place a limit on the number of written estimates a member can request. To achieve a perfect service score there must be no limits on the number of written estimates a member can request. + 0.13

2F Mass Communication - Website (2.72 potential improvement to your total service score)

- You do not offer a digital file which includes a history of recent correspondence and member documents on your website. To achieve a perfect score you must offer a digital file which includes a history of recent correspondence and member documents on your website. + 0.23

- You do not offer live chat on your website. To achieve a perfect score you must offer live chat on your website. + 0.23
- Members cannot change beneficiaries online. To achieve a perfect score members must be able to change beneficiaries online. + 0.23
- 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. + 0.23
- Members cannot change their tax withholding amount online. To achieve a perfect score members must be able to change their tax withholding amount online. + 0.23
- Members cannot download or print tax receipts online. To achieve a perfect score members must be able to download or print tax receipts online. + 0.34
- Members cannot apply for retirement online. To achieve a perfect score members must be able to apply for retirement online. + 0.34
- To achieve a perfect score pensions initiated online requiring follow-up documents must be less than 50%. + 0.23
- 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. + 0.11
- Members cannot download a member statement online. To achieve a perfect score members must be able to download a member statement online. + 0.23
- 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. + 0.34

2F Mass Communication - Newsletters (0.89 potential improvement to your total service score)

- You do not send newsletters to inactive members. To achieve a perfect service score you must send a newsletter to inactive members at least annually. + 0.06
- 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 eligible, or likely eligible, to purchase service credit. To achieve a perfect service score you must send out personalized letters to members eligible, or likely eligible, to purchase service credit. + 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 whose disability benefits are about to expire (i.e. after exiting employment). To achieve a perfect service score you must send out personalized letters to members whose disability benefits are about to expire. + 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 publish your website in more than one language. To achieve a perfect service score you must publish member statements, your annual report, newsletters, website and brochures in a language other than English. + 0.02

2F Mass Communication - Member Statements (2.09 potential improvement to your total service score)

- Approximately 0.5% of members complain about the accuracy of data in their member statements. To achieve a perfect service score 0% of members complain about the accuracy of data in their member statements. + 0.06
- Your member statement data is current to 5 months. To achieve a perfect service score your member statement data must be current to one month or less. + 0.38
- 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. + 0.24
- 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. + 0.24
- Your member statements do not show members an estimate of future pension entitlements. To achieve a perfect service score member statements must show members an estimate of future pension entitlements. + 1.18

Satisfaction Surveying (3.09 potential improvement to your total service score)

a. 1-on-1 counseling (0.18 potential improvement to your total service score)

- You are unable to summarize 1-on-1 counseling satisfaction survey results by topic covered. To achieve a perfect service score you must be able to summarize 1-on-1 counseling satisfaction survey results by topic covered. + 0.09
- Your survey satisfaction for 1-on-1 counseling was not delayed by as least one day from the session. To achieve a perfect service score you must wait at least one day from the session before surveying. + 0.09

c. Member telephone calls (0.58 potential improvement to your total service score)

- Your satisfaction survey for member telephone calls did not focus primarily on member telephone calls. To achieve a perfect service score your satisfaction survey for member telephone calls must focus primarily on member telephone calls. + 0.20
- The greatest length of time between a members telephone call and your satisfaction survey for the call was 365 days. To achieve a perfect service score the greatest length of time between the survey and the members telephone call must be 14 days or less. + 0.20
- You survey satisfaction for member telephone calls annually times per year. To achieve a perfect service score, you must survey satisfaction for member telephone calls on a continuous basis or more than 11 times per year. + 0.05
- You are unable to summarize member telephone call satisfaction survey results by service + 0.07

- representative. To achieve a perfect service score you must be able to summarize member telephone calls satisfaction survey results by service representative.
- You are unable to summarize member telephone calls satisfaction survey results by topic covered. To achieve a perfect service score you must be able to summarize member telephone calls satisfaction survey results by topic covered. + 0.07
- d. Website - secure member area (0.42 potential improvement to your total service score)**
- You do not survey satisfaction for your website - secure member area. To achieve a perfect service score you must do satisfaction surveying for your website - secure member area where: (i) the website was the primary focus, (ii) the greatest length of time between the visit to the secure member area and the survey is 7 days or less, (iii) the surveys are continuous or occur more than 11 times per year, (iv) you can summarize results by area visited, (v) 100% of users are not surveyed, and (vi) the survey was not a menu item. + 0.42
- e. Pension inceptions (0.39 potential improvement to your total service score)**
- The greatest length of time between a pension inception and your satisfaction survey for the pension inception was 90 days. To achieve a perfect service score the greatest length of time between the survey and the pension inception must be 14 days or less. + 0.36
 - You survey satisfaction for pension inceptions quarterly times per year. To achieve a perfect service score, you must survey satisfaction for pension inceptions on a continuous basis or more than 11 times per year. + 0.04
- f. Written benefit estimates (0.57 potential improvement to your total service score)**
- You do not survey satisfaction for pension estimates. To achieve a perfect service score you must do satisfaction surveying for pension estimates where: (i) estimates are the primary focus, (ii) the greatest length of time between the estimate and the survey is 14 days or less, and (iii) the surveys are continuous or occur more than 11 times per year. + 0.57
- g. Refunds, withdrawals and transfers-out (0.05 potential improvement to your total service score)**
- You do not survey satisfaction for withdrawals and transfers-out. To achieve a perfect service score you must do satisfaction surveying for withdrawals and transfers-out where: (i) the withdrawals and transfers-out were the primary focus, (ii) the greatest length of time between the refund, lump-sum payment or transfers-out and the survey is 14 days or less, (iii) the surveys are continuous or occur more than 11 times per year. + 0.05
- h. Purchases and transfers-in (0.37 potential improvement to your total service score)**
- You do not survey satisfaction for purchases and transfers-in. To achieve a perfect service score you must do satisfaction surveying for purchases and transfers-in where: (i) the purchase or transfer-in were the primary focus, (ii) the greatest length of time between the purchases or transfer-in and the survey is 7 days or less, and (iii) the surveys are continuous or occur more than 11 times per year. + 0.37
- i. Disability (0.52 potential improvement to your total service score)**
- You do not survey satisfaction for disability. To achieve a perfect service score you must do satisfaction surveying for disability where: (i) disability was the primary focus, (ii) the greatest length of time between the disability decision and the survey is 14 days or less, and (iii) the surveys are continuous or occur more than 11 times per year. + 0.52

Disaster Recovery (0.23 potential improvement to your total service score)

- Following a disaster, you can return to normal inception volumes in 30 days. To achieve a perfect + 0.14

service score you must be able to return to normal inception volumes in 2 days or less.

- Following a disaster, you can collect data and money from employers in 7 days. To achieve a perfect service score you must be able to collect data and money from employers in 2 days or less. + 0.03
- Following a disaster, your call center can return to normal service levels in 14 days. To achieve a perfect service score the call center must be able to return to normal service levels in 2 days or less. + 0.06

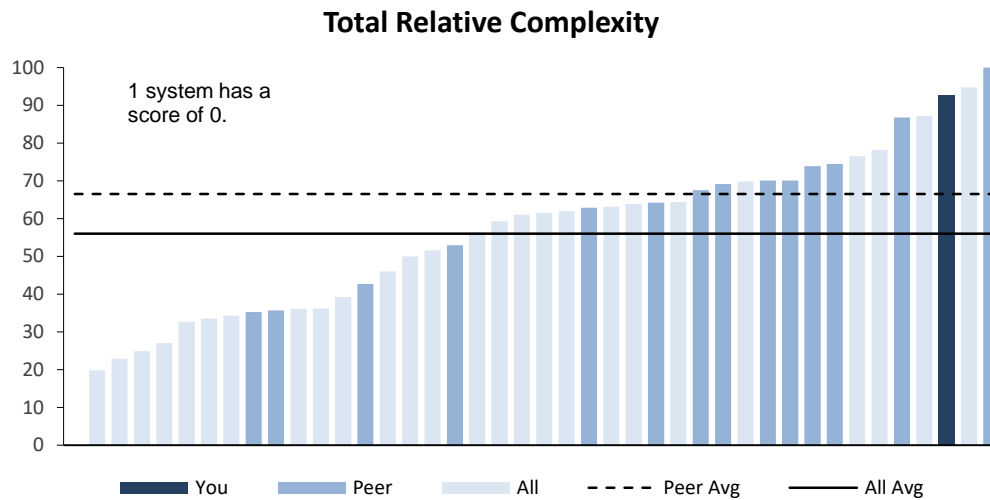
8

Plan Complexity

This section:

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

Your relative complexity score was above the peer average.



Your total relative complexity equals the scaled weighted average of your complexity by cause. The causes of complexity, are summarized on the following page.

Use Caution When Interpreting Your Results

The complexity scores are relative measures. Relative measures rank all participants from relatively least to relatively most complex on a scale of 0 to 100. A low relative complexity score does not mean that your system is not complex, rather it means that your system is relatively less complex than your peers. All retirement systems are very complex, so even a system that has a 0 total relative complexity score is still very complex.

Scaling Methodology

Scaling your responses from 0 (least complex) to 100 (most complex) is done extensively throughout this section. The benefit of scaling is that all results and responses are converted to, and compared on, the same scale. This is true whether the responses range from 3 to 800 or from 1 to 3. The lowest response is always converted to 0 and the highest response is always converted to 100.

Your scaled score =

$$100 \times (\text{your response} - \text{minimum response}) / (\text{maximum response} - \text{minimum response})$$

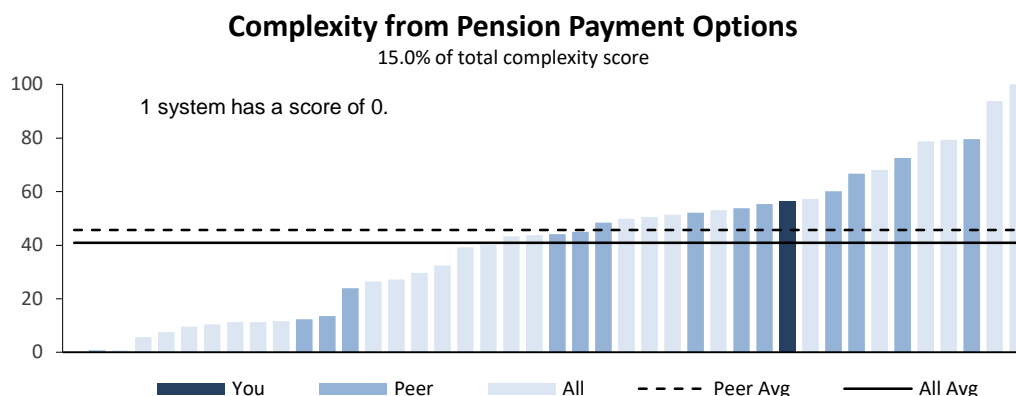
Often, complexity relationships are not linear. For example, the difference in complexity between a system with 1 retirement formula for all members versus a system with 10 different retirement formulas is much greater than the difference in complexity between a system with 10 retirement formulas and a system with 20 retirement formulas. Each additional retirement formula causes increasingly smaller increments in complexity. These diminishing increments in complexity are reflected mathematically by raising the responses to the power of 0.3 prior to using the scaling formula.

Complexity scores by cause

Your total relative complexity equals the scaled weighted average of your complexity by cause. Your relative complexity by cause is summarized in the table below. The remainder of this section shows how the scores were calculated.

Complexity Scores by Cause				
Cause	Weight	Relative Complexity (0 least - 100 most)		
		You	Peer Avg	All Avg
A Pension Payment Options	15.0%	56	46	41
B Customization Choices	20.0%	30	24	20
C Multiple Plan Types and Overlays	10.0%	100	49	34
D Multiple Benefit Formula	16.0%	54	38	35
E External Reciprocity	3.0%	0	31	24
F COLA Rules	4.0%	61	34	33
G Contribution Rates	3.0%	72	55	53
H Variable Compensation	4.0%	100	81	80
I Service Credit Rules	3.0%	60	57	49
J Divorce Rules	3.0%	100	60	62
K Purchase Rules	5.5%	80	66	61
L Refund Rules	4.0%	31	50	45
M Disability Rules	6.0%	93	75	60
N Translation	0.5%	20	7	25
O Defined Contribution Plan Rules	3.0%	100	60	38
Weighted Average (before scaling)	100.0%	61	45	39
Scaled Total Complexity - Average		93	67	56
Scaled Total Complexity - Median		93	69	61

A. Pension Payment Options Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q141 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.] <i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	7% Yes 7	14% Yes 14
30%	<p>Q136 Do you offer "joint and survivor" options that are:</p> <p>a) Reduced to Beneficiary Only? [For example, If the beneficiary dies first, then the retiree's pension continues at the same level. However if the retiree dies first then the beneficiary receives a reduced pension (such as 70% for spouse).]</p> <p>b) Reduced to Last Survivor? [For example, if either the retiree or beneficiary dies the survivor receives a reduced pension (such as 70%, etc.).]</p> <p>c) "Reversion" or "Pop-up"? [For example, if the beneficiary dies first, the retiree's pension increases to an unmodified level. However, if the retiree dies first the pension does not increase for the surviving beneficiary (and it may decrease).] <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 Yes Yes 75	73% Yes 27% Yes 87% Yes 55	71% Yes 24% Yes 57% Yes 41
10%	<p>Q137 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? <i>Complexity: 100 if unlimited, otherwise maximum of 100 and 10 X number of percentages.</i></p>	No n/a 100	1 13 66	1 8 63

A. Pension Payment Options Complexity

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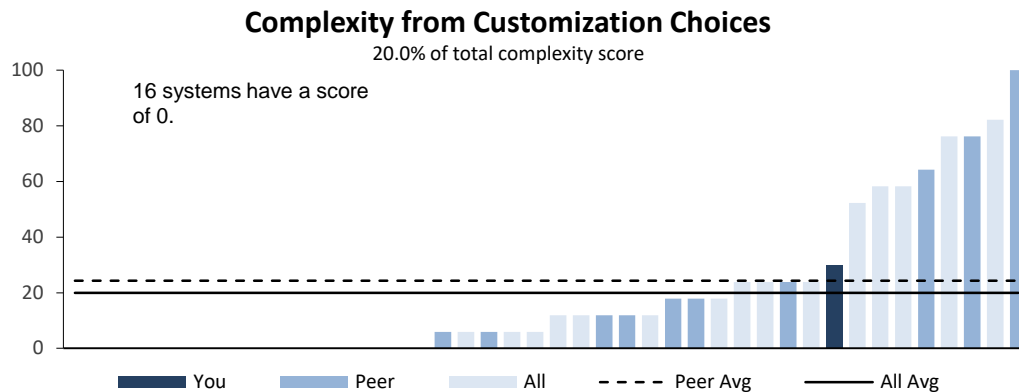
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	Q146 How many mortality tables do you keep track of for determining joint and survivor or beneficiary options? <i>Complexity: Scaled measure where the system that tracks the most mortality tables gets 100 and the least 0.</i>	5	21	9
		30	30	25
10%	Q138 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	27% Yes	52% Yes
		n/a	0% Yes	41% Yes
		n/a	100% Yes	91% Yes
		0	27	46
5%	Q139 Do you have "High/ Low" or "Low/High" options that are not tied to social security? [For example, a retiree might want higher payments for 10 years until a mortgage obligation is repaid, followed by lower payments.] <i>Complexity: 100 if yes, otherwise 0.</i>	No	0% Yes	10% Yes
		0	0	10
5%	Q140 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	53% Yes	50% Yes
		100	53	50
5%	Q142 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	7% Yes	5% Yes
		0	7	5

A. Pension Payment Options Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
5%	<p>Q143 Do you have a Deferred Retirement Option Plan ("DROP")? [This option allows eligible employees to receive payment of retirement benefits while continuing to work. These payments are usually deposited into a separate account, and the total accumulated value of this account is paid via lump sum to the employee on actual retirement.]</p> <p><i>Complexity: 100 if yes, otherwise 0.</i></p>	No 0	20% Yes 20	17% Yes 17
5%	<p>Q144 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>	Yes Yes 100	67% Yes 20% Yes 73	40% Yes 21% Yes 55
5%	<p>Q145 Are members permitted to retire mid-month (in which case they receive a partial pension payment for the remainder of the month) or are they always assumed to retire on a set day (usually the first or the last day) of the month?</p> <p><i>Complexity: 100 if any day, otherwise 0.</i></p>	Set Day 0	33% Any 33	40% Any 40
100%	<p>Weighted Average</p> <p>Scaled Complexity Score for Pension Payment Options</p>	46 56	39 46	36 41

B. Customization Choices Complexity



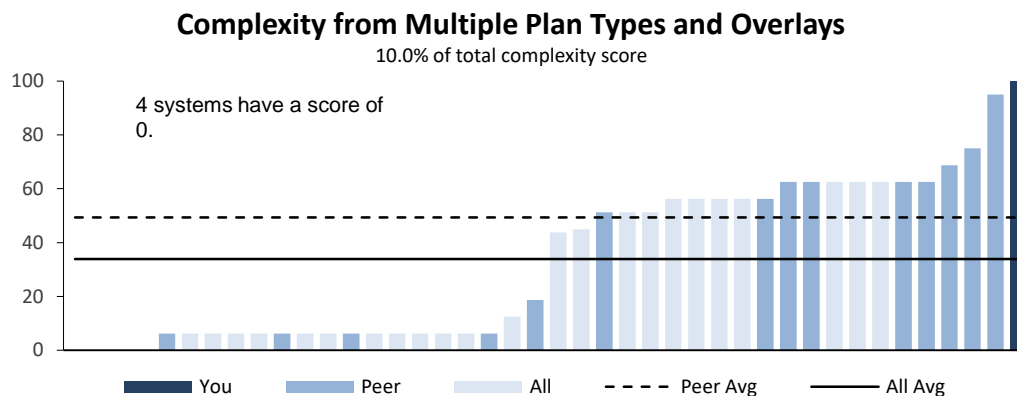
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q177	<p>Can either existing employers, or a new employer joining your system, choose:</p> <p>a) Whether they offer early retirement, or a window of early retirement?</p> <p>b) Whether or not part-time employees are eligible?</p> <p>c) Whether employee contributions are paid pre or post tax?</p> <p>d) Whether they pay for employee contributions themselves, or not?</p> <p>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.]</p> <p>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.]</p> <p>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.]</p>	<p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p>	<p>27% Yes</p> <p>7% Yes</p> <p>40% Yes</p> <p>60% Yes</p> <p>13% Yes</p> <p>13% Yes</p> <p>13% Yes</p>	<p>21% Yes</p> <p>10% Yes</p> <p>17% Yes</p> <p>29% Yes</p> <p>7% Yes</p> <p>10% Yes</p> <p>14% Yes</p>

B. Customization Choices Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q178 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	9
	b) Final salary definition? (i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc)	2	2	2
	c) Retirement eligibility rules? (i.e., age and/or years of service required to retire)	n/a	n/a	3
	d) Cost of living adjustment rules? (i.e., CPI capped at 2%, CPI uncapped, etc.)	n/a	n/a	3
	e) Vesting period?	n/a	n/a	n/a
	f) Service credit purchase categories?	n/a	4	5
	g) Death benefit coverage? (i.e., one system has 3 choices: none, \$5,000 and \$10,000)	n/a	n/a	6
	h) Disability coverage rules?	n/a	2	3
	i) Choice as to whether and how contributions and benefits are coordinated with social security?	n/a	n/a	2
	j) Other (describe)?	n/a	1	5
	Total Customization Choices [Sum of 1 for each yes in Q177 + sum of # of choices in Q178]	5	3	2
90%	<i>Complexity: Scaled measure where the system with the most customization choices receives 100 and the least 0.</i>	7	4	3
	Q179 Can an existing employer change any of the choices (per question 178 above), effectively creating a new or altered rule set, at any time?	No	20% Yes	20% Yes
10%	<i>Complexity: 100 if yes, otherwise 0.</i>	0	20	19
100%	Weighted Average	6	5	4
	Scaled Complexity Score for Customization Choices	30	24	20

C. Multiple Plan Types and Overlays Complexity



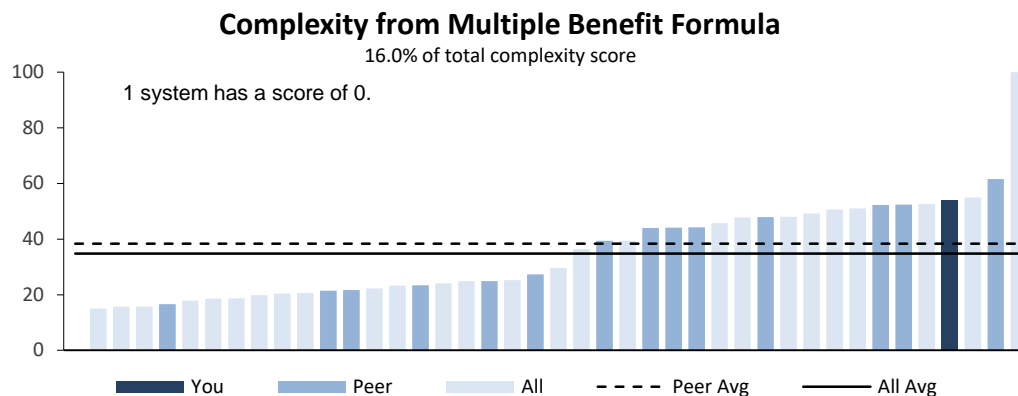
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
45%	Q126 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups:			
	a) Traditional Defined Benefit ("DB")?	No	87% Yes	91% Yes
	b) DB Cash Balance (aka Money Purchase)?	No	13% Yes	7% Yes
	c) Hybrid DB/ DC Cash Balance?	No	0% Yes	4% Yes
	d) Hybrid DB/ Money Match?	Yes	7% Yes	2% Yes
	e) DROP savings?	No	13% Yes	12% Yes
	f) Defined Contribution ("DC")?	No	27% Yes	18% Yes
	g) Hybrid DB/ DC?	Yes	53% Yes	30% Yes
	h) Other (describe)?	No	7% Yes	7% Yes
	Total number of different plan types. Hybrid plans count as 2 types.	4.0	2.7	2.1
	Complexity: 100 if 3 or more different plan types, 80 if 2, 0 if 1.	100	64	45

C. Multiple Plan Types and Overlays Complexity

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Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q127 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'?	Yes	13% Yes	7% Yes
30%	<i>Complexity: 100 if yes, otherwise 0.</i>	100	13	7
	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.]			
10%	<i>Complexity: 100 if yes, otherwise 0.</i>	0	27	10
	c) To change their contribution rate in order to get either more money at retirement or earlier eligibility to retire?	No	0% Yes	2% Yes
10%	<i>Complexity: 100 if yes, otherwise 0.</i>	0	0	2
	Q128 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable earnings?			
5%	<i>Complexity: 100 if yes, otherwise 0.</i>	Yes 100	80% Yes 80	69% Yes 69
100%	Weighted Average Scaled Complexity Score for Multiple Plan Types and Overlays	80 100	39 49	27 34

D. Multiple Benefit Formula Complexity



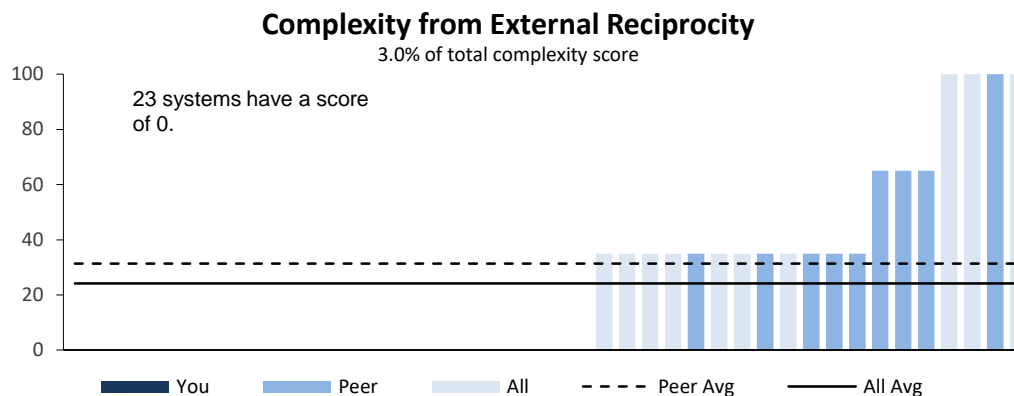
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	Q150 How many different rule sets do you have that apply to member groups or subsets of a member group for qualifying for an unreduced retirement formula? <i>Complexity: Scaled measure where the system with the most rule sets gets 100 and the least 0.</i>	13	7	9
		13	7	8
5%	Q151 Can members retire earlier than the age required for an unreduced retirement formula? <i>Complexity: 100 if yes, 0 if no</i>	Yes 100	100% Yes 100	98% Yes 98
20%	Q152 How many different salary definitions could apply in retirement formula calculations? <i>Complexity: Scaled measure where the system with the most salary definitions receives 100 and the least 0.</i>	12	5	4
		94	68	63
25%	Q153 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas? <i>Complexity: Scaled measure where the system with the most rule sets gets 100 and the least 0.</i>	10	6	7
		25	14	14

D. Multiple Benefit Formula Complexity

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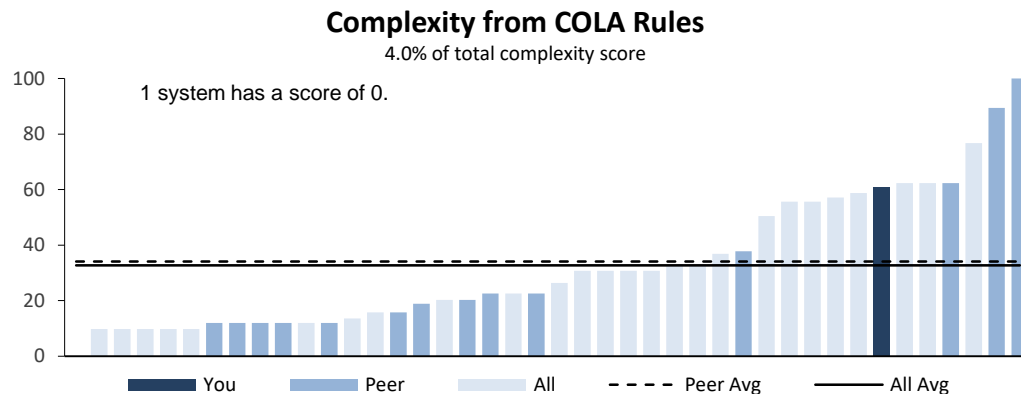
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q154 Do you have different employers with different benefit formula? If yes, which of the following happens when a member moves from one employer that you administer to another with a different benefit formula? [For example, moves from PERS to Law Enforcement.]	Yes	60% Yes	50% Yes
		No	33% Yes	52% Yes
	a) Each system uses its own formula and salary data to determine the benefit.	No	44% Yes	38% Yes
	b) Each system applies its own formula but uses either the salary earned in the last system, or the highest salary (or salaries) in either system.	No	22% Yes	10% Yes
	c) The highest formula will apply.	No	22% Yes	10% Yes
	d) The formula of the plan where the member works last will apply.	Yes	22% Yes	33% Yes
	e) Other (describe).	No	22% Yes	19% Yes
20%	Complexity: 100 if b or c apply, 80 if d or e, 60 if a, otherwise 0.	80	56	43
100%	Weighted Average	50	35	32
	Scaled Complexity Score for Multiple Benefit Formula	54	38	35

E. External Reciprocity Complexity



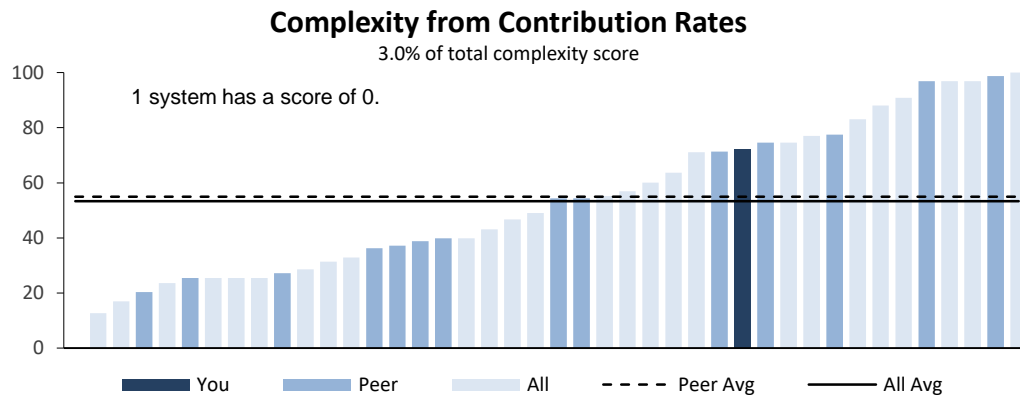
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
35%	<p>Q155 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system 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>	No 0	40% Yes 40	38% Yes 38
65%	<p>Q156 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	27% Yes 27	17% Yes 17
100%	<p>Weighted Average</p> <p>Scaled Complexity Score for External Reciprocity</p>	0 0	31 31	24 24

F. COLA Rules Complexity



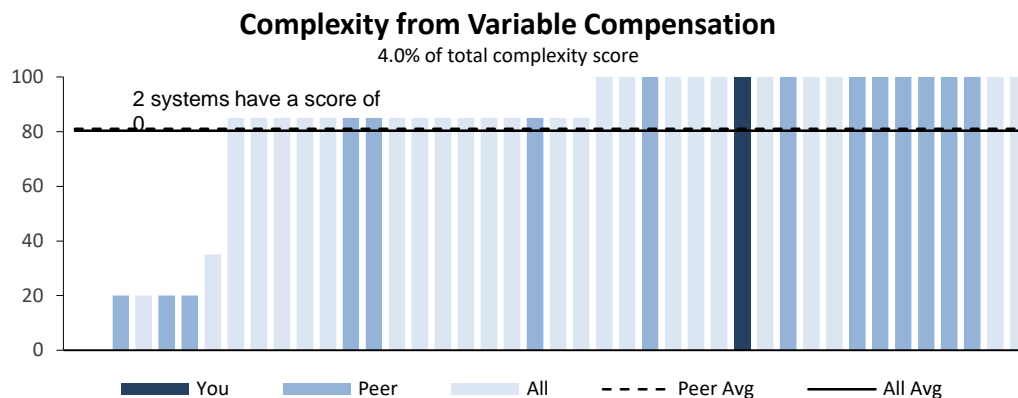
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	Q147 How many different cost of living adjustment ("COLA") rule sets do you have for retired, and if applicable, inactive members? (These rule sets may be either contractual or legislated.) <i>Complexity: Scaled measure where the system with the most rule sets receives 100 and least receives 0.</i>	9 90	4 65	3 59
40%	Q148 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.)? <i>Complexity: 100 if yes, otherwise 0.</i>	Yes 100	27% Yes 27	26% Yes 26
10%	b) Conditional COLA based on the level of funding? <i>Complexity: 100 if yes, otherwise 0.</i>	No 0	40% Yes 40	33% Yes 33
20%	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.] <i>Complexity: 100 if yes, otherwise 0.</i>	No 0	13% Yes 13	14% Yes 14
5%	Q149 Do you have COLA clauses that increase the base pensionable earnings of inactive members? <i>Complexity: 100 if yes, otherwise 0.</i>	No 0	27% Yes 27	31% Yes 31
5%	a) If yes, are these COLA increases the same as they are for annuitants? <i>Complexity: 100 if yes, otherwise 0.</i>	n/a 0	50% Yes 13	77% Yes 24
100%	Weighted Average Scaled Complexity Score for COLA Rules	58 61	32 34	31 33

G. Contribution Rates Complexity



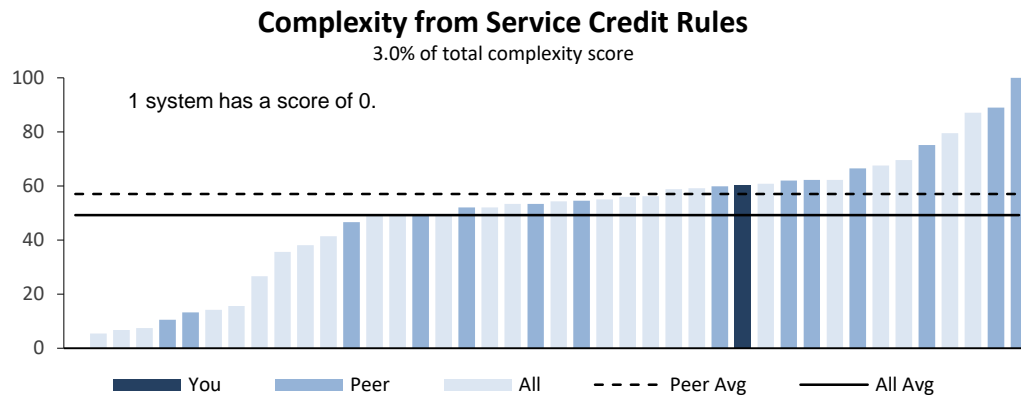
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
	Q180 How many different contribution percentages do you collect from:			
	a) Employers? [For example, single member group systems may have only one contribution percentage whereas some multi-plan systems may collect numerous different contribution rates from various participating employers.] <i>Complexity: 100 if 10 or more, otherwise 10 X number of contribution percentages subject to a maximum of 100.</i>	2129	401	277
40%		100	63	61
	b) Members? <i>Complexity: 100 if 10 or more, otherwise 10 X number of contribution percentages subject to a maximum of 100.</i>	2	19	13
40%		20	39	45
	Q181 Which of the following payment methods for employee contributions occur in the plans that you administer:			
	a) No employee contributions?	Yes	40% Yes	26% Yes
	b) Employer pays his part and also the employee contributions?	Yes	67% Yes	55% Yes
	c) Employer withholds employee contributions pre-tax from his salary?	Yes	100% Yes	93% Yes
	d) Employer withholds employee contributions post-tax from his salary? <i>Complexity: 100 if all 4 methods are possible, 66 if 3 methods, 33 if 2 methods, 0 if 1 method.</i>	Yes	67% Yes	38% Yes
17%		100	57	37
	Q182 Do you have any other contributions in addition to the regular employee and employer contributions? [For example, Ohio SERS collects a surcharge for members who earn less than a minimum compensation amount.] <i>Complexity: 100 if yes, otherwise 0.</i>	Yes	33% Yes	40% Yes
3%		100	33	40
100%	Weighted Average	68	52	50
	Scaled Complexity Score for Contribution Rates	72	55	53

H. Variable Compensation Complexity



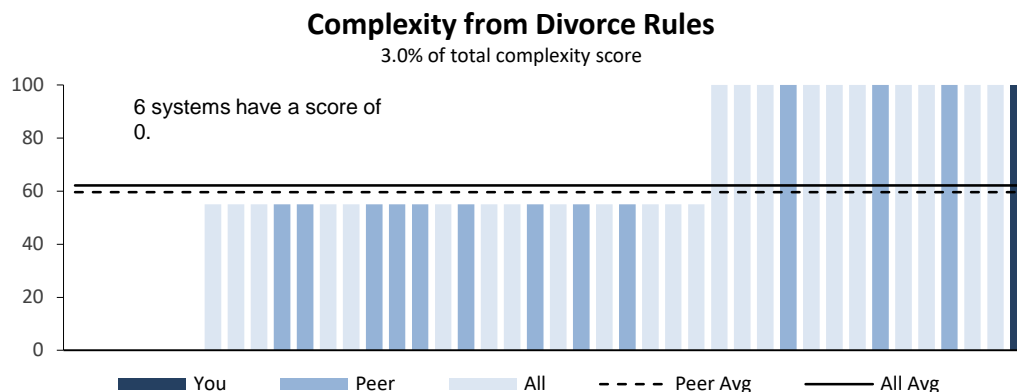
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	Q175 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings. a) Bonuses? b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? c) Overtime pay? d) Commissions or similar payments such as fees paid to sheriffs for process serving? <i>Complexity: 100 if variable compensation is paid in your system, otherwise 0.</i>	Yes Yes Yes Yes	80% Yes 80% Yes 87% Yes 40% Yes	86% Yes 83% Yes 83% Yes 40% Yes
	If yes, is all, some or none of it included in pensionable earnings? a) Bonuses? b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance? c) Overtime pay? d) Commissions or similar payments such as fees paid to sheriffs for process serving? <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>	Some Some All All	34% All 26% All 85% All 67% All	15% All 18% All 55% All 36% All
		100	100	95
15%	Q176 When determining a member's pensionable earnings does a cap on salary increases apply? <i>Complexity: 100 if yes, 0 if no</i>	Yes 100	60% Yes 60	48% Yes 48
100%	Weighted Average Scaled Complexity Score for Variable Compensation	100 100	81 81	80 80

I. Service Credit Rules Complexity



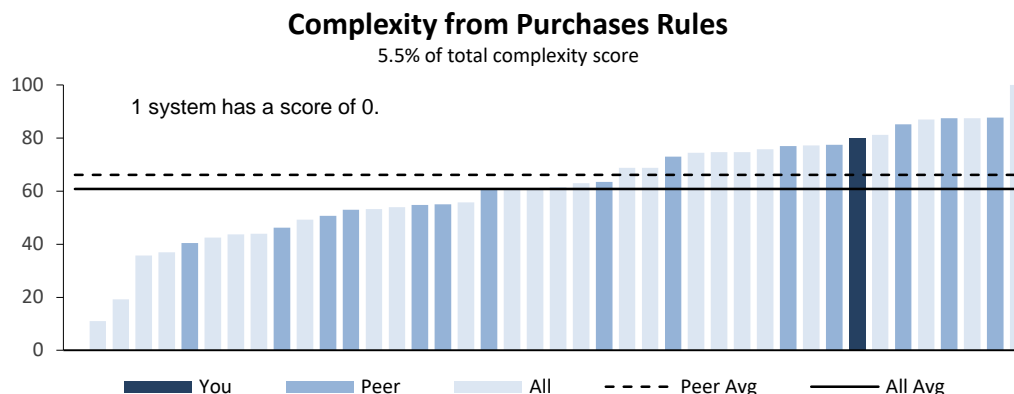
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
30%	Q157 How many different definitions do you have for a "full year" of service credit? <i>Complexity: Scaled measure where the system with the most different definitions receives 100 and least receives 0.</i>	3	9	7
		10	15	13
30%	Q158 Does your system have more than one payroll year for determining service credit?	No	27% Yes	29% Yes
	a) If yes, how many different payroll years exist in your system?	n/a	5	6
	<i>Complexity: Scaled measure where the system with the most different payroll years receives 100 and least receives 0.</i>	0	7	9
5%	Q159 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: Scaled measure where the system with the most different vesting periods receives 100 and least receives 0.</i>	4	2	2
		81	59	52
30%	Q160 b) Casual/ temporary/ intermittent/ seasonal employees to be members? [An example of a "temporary" employee is an infrequent substitute teacher.] <i>Complexity: 100 if yes, otherwise 0.</i>	Yes	87% Yes	71% Yes
		100	87	71
5%	Q161 Are you sometimes asked by employers to determine the eligibility of members? <i>Complexity: 100 if yes, otherwise 0.</i>	Yes	87% Yes	88% Yes
		100	87	88
100%	Weighted Average	42	40	35
	Scaled Complexity Score for Service Credit Rules	60	57	49

J. Divorce Rules Complexity



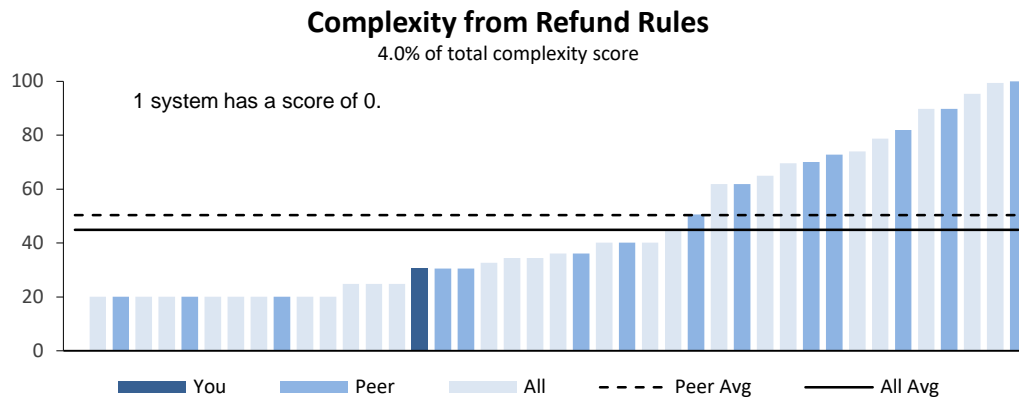
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
Q188	Choose the statement that best describes how divorce settlements for active members (or divorce decrees or QDROS, or QILDROS, or Division of Benefit Orders, etc.) impact your system. If you have different rules for different plans, 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	20% Yes	19% Yes
	b) Minimal impact unless children are involved. With children you may be required to redirect payment.	No	0% Yes	0% Yes
	c) A portion of the pension is paid to the ex-spouse, but ONLY when the member begins receiving benefits.	No	60% Yes	45% Yes
	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.	Yes	27% Yes	33% Yes
	e) Other (describe)	Yes	7% Yes	14% Yes
100%	<i>Complexity: 100 if yes to d, 55 if yes to c or e, 5 if yes to b, otherwise 0.</i>	100	60	62
100%	Weighted Average	100	60	62
	Scaled Complexity Score for Divorce Rules	100	60	62

K. Purchase Rules Complexity



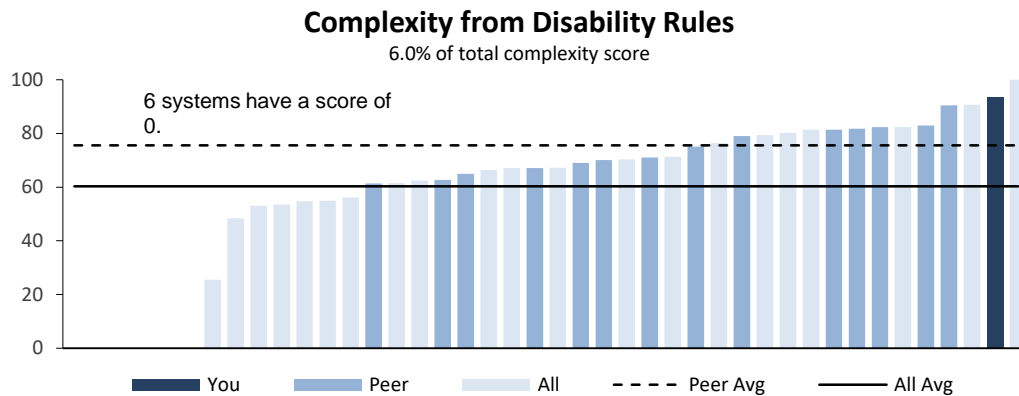
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
25%	Q162 Indicate each of the payment methods you permit for service credit purchases and upgrades: a) Rollover from tax qualified plans such as 401(a) or 401(k) or Conduit IRA or KEOGH in the US; or RRSP plans in Canada? b) Lump sum payments from members? c) Installment payments direct from members? d) Installment payments via payroll deduction through employers? <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>	Yes Yes No No	100% Yes 100% Yes 57% Yes 40% Yes	98% Yes 95% Yes 63% Yes 55% Yes
		20	57	66
	Q163 How many different service credit purchase categories do you have with different definitions and/or eligibility requirements? <i>Complexity: 7 X the number of categories (subject to a maximum of 100).</i>	16	13	13
		100	79	70
	Q164 How many different service credit purchase calculation formula or methodologies do you have? <i>Complexity: 15 X the number of formula (subject to a maximum of 100).</i>	10	7	6
25%		100	82	74
25%	Q165 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies): a) Essentially identical for all your members? b) Similar for all member groups, albeit with some differences? c) Very different for different member groups? <i>Complexity: 100 if very different for all member groups, 50 if some differences between member groups, otherwise 0.</i>	No No Yes	33% Yes 53% Yes 20% Yes	48% Yes 46% Yes 13% Yes
		100	47	35
100%	Weighted Average	80	66	61
	Scaled Complexity Score for Purchase Rules	80	66	61

L. Refund Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
67%	Q166 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)?	No	60% Yes	57% 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
	Complexity: Scaled measure where the system with the most different rule sets gets 100 and the system with the least gets 0.	0	30	27
33%	Q167 How many different refund formulas do you have?	4	3	3
	Complexity: Scaled measure where the system with the most different refund formulas gets 100 and the system with the least gets 0.	81	73	65
100%	Weighted Average	27	45	40
	Scaled Complexity Score for Refund Rules	31	50	45

M. Disability Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
20%	Q29 Do you administer: a) Long-term disability/ disability pensions? <i>Complexity: 100 if you administer, otherwise 0.</i>	Yes 100	100% Yes 100	86% Yes 86
10%	Q173 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>The Complexity measure scales the responses so that the system with the most rule sets equals 100 and the least equals 0.</i>	14 52	5 31	6 26
	Q29 Do you administer: b) Short-term disability?	No	27% Yes	12% Yes
5%	Q173 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>The Complexity measure scales the responses so that the system with the most rule sets equals 100 and the least equals 0.</i>	n/a 0	5 16	4 7
10%	Q31 Do you cover non-occupational disability? [Some systems only cover disabilities that happen at work.] a) If yes, does either the amount paid or the taxation of the disability benefit vary depending on whether the disability is occupational versus non-occupational? <i>Complexity: 100 if you have to determine whether or not the disability occurred at work and you have an independent decision process, otherwise 0.</i>	Yes Yes 100	100% Yes 53% Yes 53	100% Yes 49% Yes 40

M. Disability Rules Complexity

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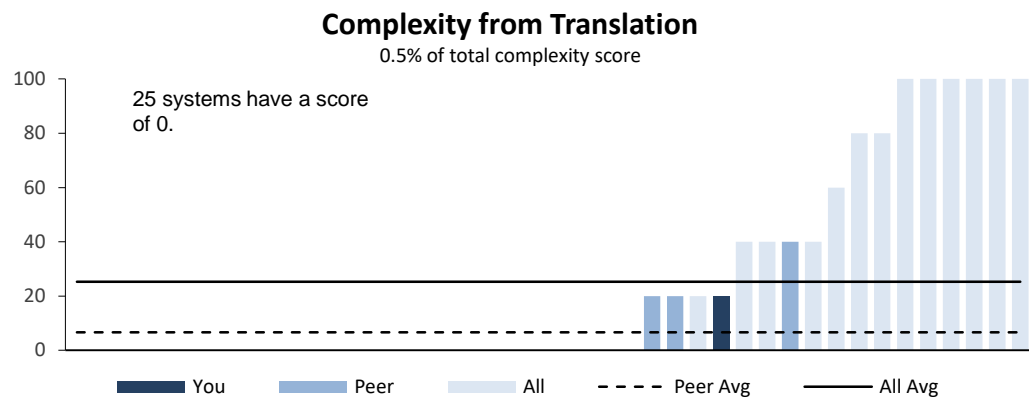
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q135 b) Check income of disabled members after they have started receiving disability payments? <i>Complexity: 100 if yes, otherwise 0.</i></p>	<p>Yes 100</p>	<p>80% Yes 80</p>	<p>63% Yes 57</p>
10%	<p>Q169 Will you pay a disabled 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>	<p>Yes No 80</p>	<p>27% Yes 0% Yes 21</p>	<p>17% Yes 6% Yes 14</p>
15%	<p>Q170 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>	<p>Yes 100</p>	<p>100% Yes 100</p>	<p>97% Yes 83</p>
10%	<p>Q171 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.]</p> <p>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>	<p>No Yes No No 100</p>	<p>47% Yes 20% Yes 27% Yes 20% Yes 77</p>	<p>57% Yes 19% Yes 29% Yes 12% Yes 66</p>

M. Disability Rules Complexity

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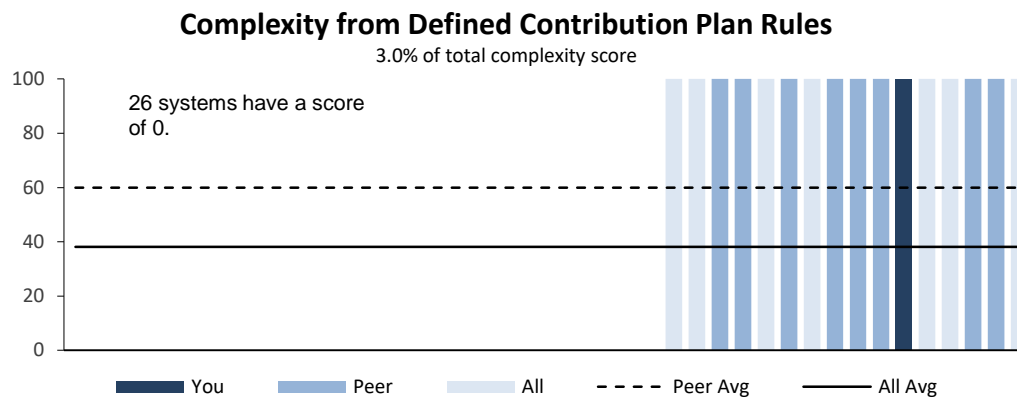
Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
5%	Q172 If you administer short-term disability: a) Are the short-term and long-term disability/ disability pension processes closely entwined? (i.e., difficult to distinguish between costs of long-term/disability pensions and short term disability, same staff do both, similar approval processes)	n/a	60% Yes	71% Yes
	b) Are the disability definitions, other than the expected duration of disability, the same for both long-term and short-term disability? [For example, the only difference between the definition of long-term/ disability pensions and short-term disability at some systems is the disabling injury or illness is expected to last longer than 12 months for long-term.]	n/a	20% Yes	29% Yes
	c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?	n/a	60% Yes	43% Yes
	<i>Complexity: 100 if different definitions and approval processes (i.e., no to b and yes to c), 75 if approval processes or definitions are very different (either no to b or yes to c), otherwise 0.</i>	0	20	9
	Q174 Do you reduce payments if the member qualifies or receives: a) Disability social security? b) Worker's compensation? c) Other public funds (i.e., federal military disability)? d) Income protection plans/other disability insurance? e) Employer sick leave and annual leave pay? f) Unemployment compensation? g) Income from other employment? h) Other (describe)? Total yes responses for disability coordination <i>The Complexity measure scales the responses so that the system with the most yes responses equals 100 and the least equals 0.</i>	No No No No Yes Yes Yes <u>No</u> 3 71	40% Yes 60% Yes 13% Yes 20% Yes 40% Yes 40% Yes 67% Yes <u>27% Yes</u> 3 60	30% Yes 47% Yes 8% Yes 11% Yes 19% Yes 17% Yes 47% Yes <u>20% Yes</u> n/a 40
100%	Weighted Average Scaled Complexity Score for Disability Rules	82 93	66 75	53 60

N. Translation Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
100%	Q89 Do you publish any of the following materials in a language other than English (or other than French in Quebec and France), or in Braille:			
	a) Member statements?	No	0% Yes	22% Yes
	b) Annual report?	No	0% Yes	24% Yes
	c) Newsletters?	No	0% Yes	22% Yes
	d) Website?	Yes	20% Yes	31% Yes
	e) Brochures and pamphlets?	No	13% Yes	36% Yes
100%	Complexity: 100 if you translate all 5 of the above materials, 80 if 4, 60 if 3, 40 if 2, 20 if 1, otherwise 0.	20	7	25
100%	Weighted Average	20	7	25
	Scaled Complexity Score for Translation	20	7	25

O. Defined Contribution Plan Rules Complexity



Weight	Relevant Complexity Questions and Scoring	You	Peer Avg	All Avg
100%	Q126 Which of the following descriptions best describes the non-optional benefit plans that you administer for each of your member groups: f) Defined Contribution ("DC")? g) Hybrid DB/ DC? <i>Complexity: 100 if yes to f or g, otherwise 0.</i>	No Yes 100	27% Yes 53% Yes 60	18% Yes 30% Yes 38
100%	Weighted Average Scaled Complexity Score for Defined Contribution Plan Rules	100 100	60 60	38 38

9

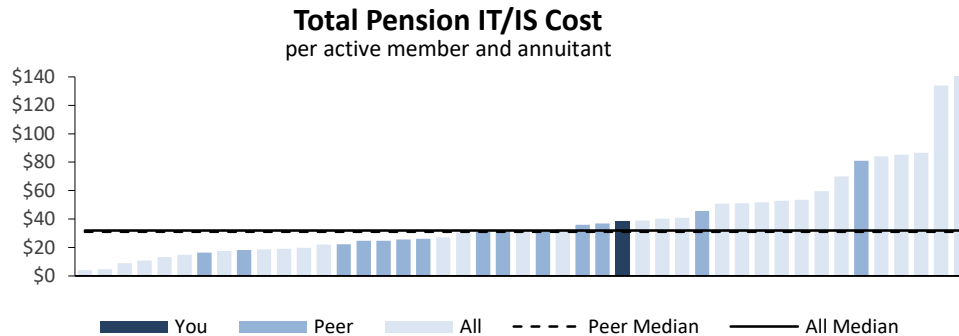
IT and Major Projects

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

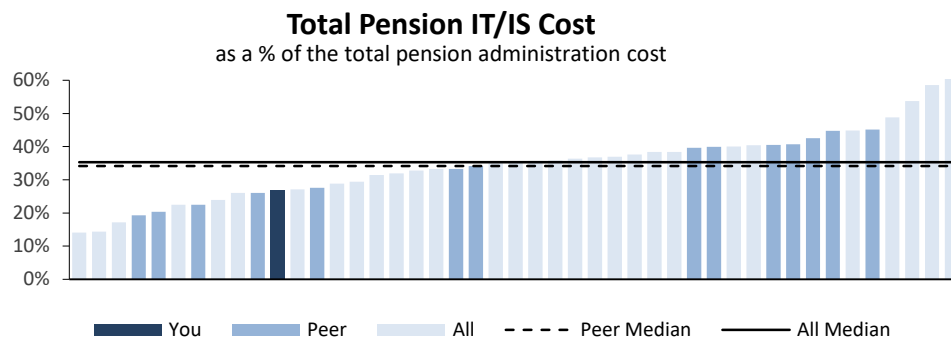
- Total IT/IS costs and trends
- Total major project costs and trends
- Indicators of CRM (Customer Relationship Management) capability
- Attributions of IT/IS and Major Projects to the other administration activities

IT/IS costs

Your IT/IS cost was \$38.54 per active member and annuitant. This was above the peer median of \$30.96.



Your IT/IS cost as a percent of total pension administration cost was 27%. This was below the peer median of 34%.

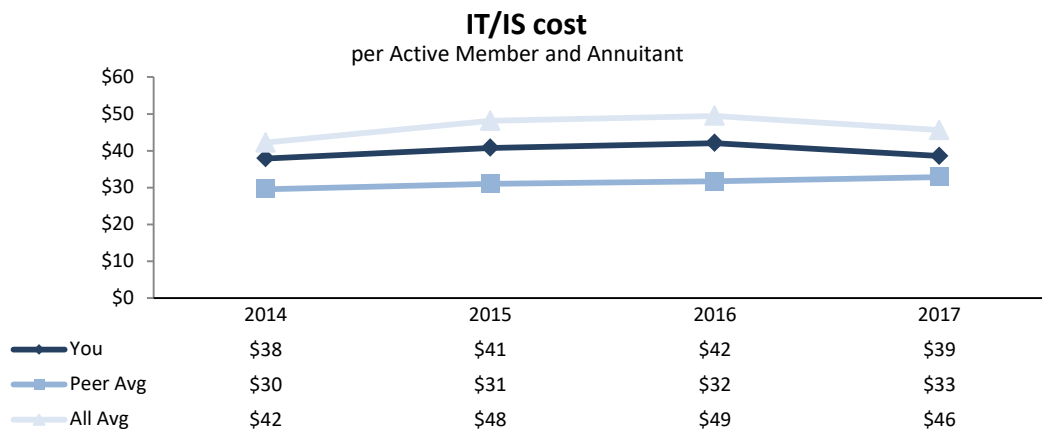


Activity	IT/IS Cost by Category						Cost as a % of Total IT/IS Cost		
	Cost in\$000s	Cost per Active Member and Annuitant							
	You	You	Peer Median	Peer Avg	All Median	All Avg	You	Avg	All Avg
5c. Amortization of IT Major Projects	1,726	5.50	0.88	2.42	0.60	7.59	13%	7%	17%
5d. IT Major Projects (if you don't capitalize)	0	0.00	0.39	3.53	2.06	8.01	0%	10%	18%
6a. IT Strategy, Database Management and Applications (excl. major projects)	6,586	20.98	14.34	16.82	15.99	19.46	49%	47%	44%
6b. IT Desktop, Networks, Telecom	<u>3,784</u>	<u>12.06</u>	<u>8.43</u>	<u>9.93</u>	<u>7.37</u>	<u>8.05</u>	<u>28%</u>	<u>28%</u>	<u>18%</u>
Total Pension IT/IS cost (excludes below)	12,096	38.54	30.96	32.70	31.85	43.10	90%	91%	97%
IT/IS Attributions to: ¹									
1f. Healthcare Administration	505	1.61	0.71	2.22	0.00	0.83	4%	6%	2%
1g. Optional and Third Party Administered Benefits	907	2.89	0.32	0.93	0.00	0.46	7%	3%	1%
Total Administration IT/IS cost	13,508	43.03	30.96	35.86	33.83	44.39	100%	100%	100%

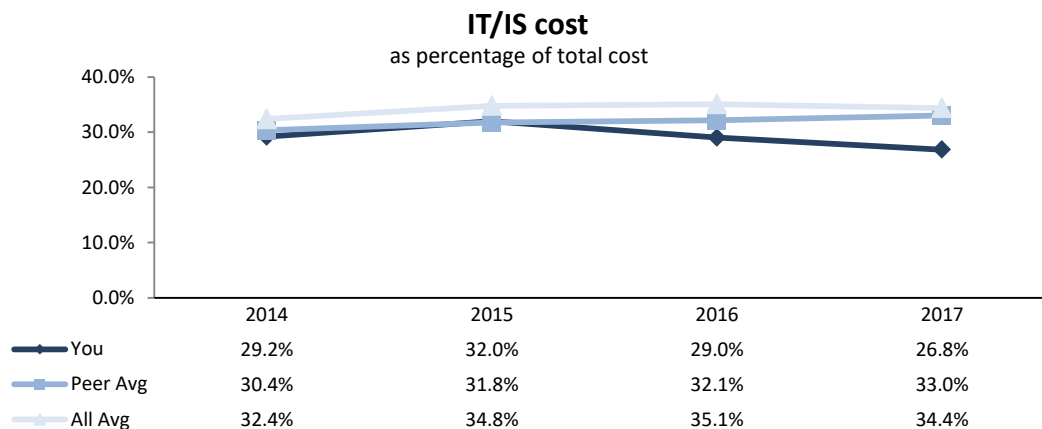
1. Attributions of total administration IT/IS to non-pension activities 1f and 1g includes: (i) pro-rata share of Major Project attribution (5a - 5d) weighted by activity 5c and 5d's contribution to total Major Project cost; (ii) total attribution of activity 6a to 1f and 1g; (iii) pro-rata share of 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 4 consecutive years has grown at a compound annual rate of 3.5% between 2014 and 2017. The all participant average is 2.6%. Your growth rate over the same period is 0.5% per annum.



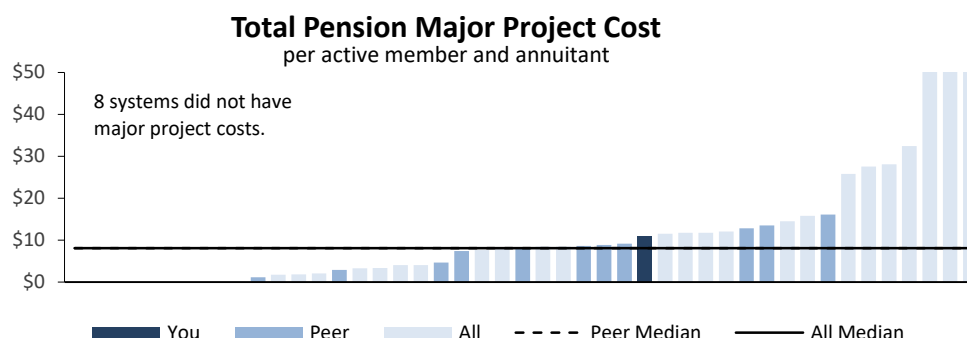
IT/IS cost as a percentage of total cost of your peers that have participated for 4 consecutive years has grown at a compound annual rate of 2.8% between 2014 and 2017. The all participant average is 2.0%. Your growth rate over the same period is -2.8% per annum.



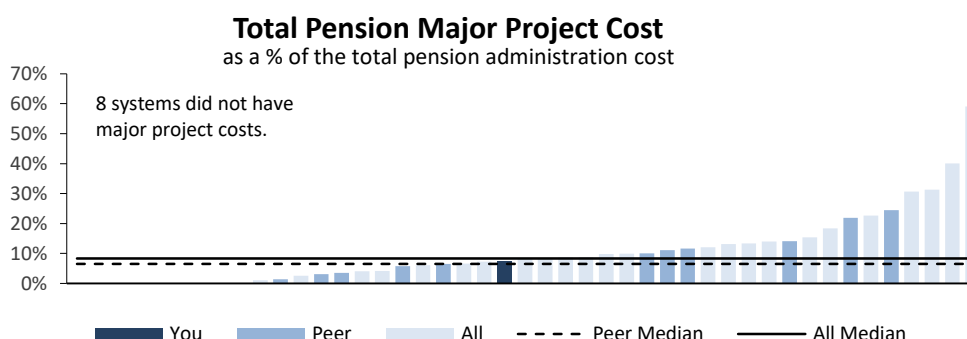
Trend analysis is based on systems that have provided 4 consecutive years of data.

Major project costs

Your major project cost was \$10.89 per active member and annuitant. This was above the peer median of \$8.08.



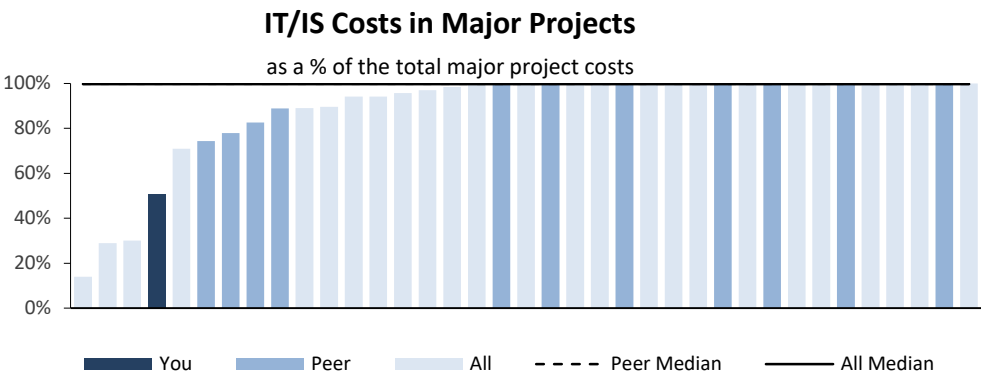
Your major project cost as a percent of total cost was 8%. This was above the peer median of 6%.



Major Project Cost by Category									
Activity	Cost	Cost per Active Member and Annuitant					Cost as a % of Total Major Project Cost		
	in\$000	You	Peer	Peer	All		You	Peer	All
		You	Median	Avg	Median	All Avg		Avg	Avg
5a. Amortization of non-IT Major Projects	0	0.00	0.00	0.07	0.00	0.07	0%	1%	0%
5b. Non-IT Major Projects (if you don't capitalize)	1,694	5.40	0.00	0.92	0.00	1.11	44%	12%	6%
5c. Amortization of IT Major Projects	1,726	5.50	0.88	2.42	0.60	7.59	45%	31%	44%
5d. IT Major Projects (if you don't capitalize)	0	0.00	0.39	3.53	2.06	8.01	0%	46%	47%
Total Pension Major Project cost (excludes below)	3,420	10.89	8.08	6.94	8.08	16.79	90%	90%	98%
Major Project Attributions to:									
1f. Healthcare Administration	143	0.45	0.00	0.50	0.00	0.18	4%	6%	1%
1g. Optional and Third Party Administered Benefits	257	0.82	0.00	0.31	0.00	0.15	7%	4%	1%
Total Administration Major Project cost	3,819	12.17	8.76	7.75	8.48	17.13	100%	100%	100%

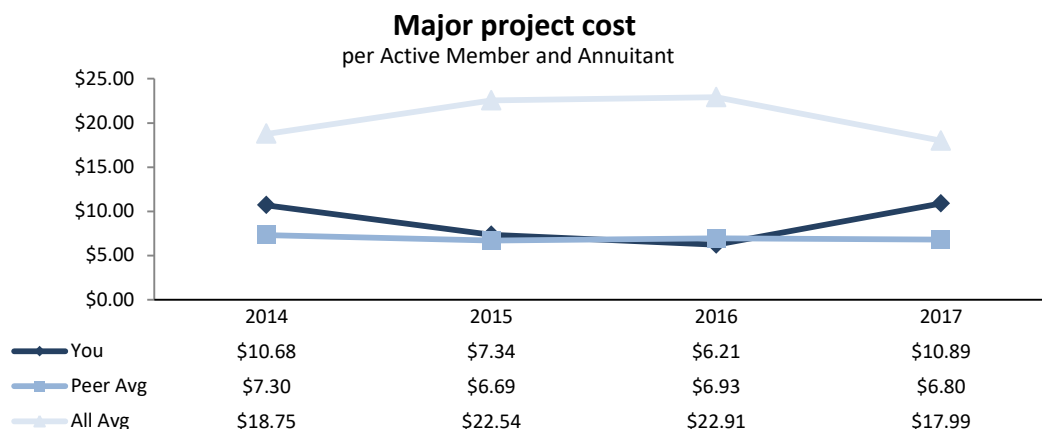
IT/IS cost included in major project costs

Your IT/IS major project costs as a percent of total major project costs was 50%. This was below the peer median of 100%.

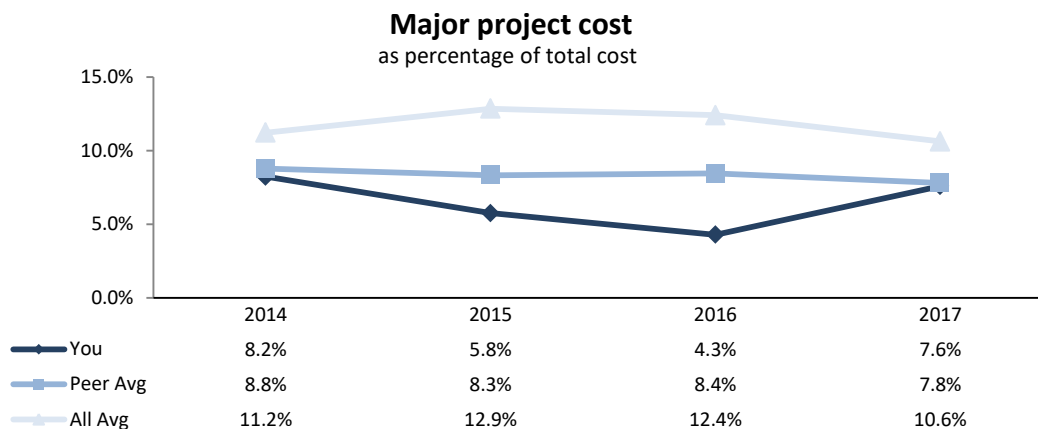


Major project cost trend

Major project cost per member for your peers that have participated for 4 consecutive years has grown at a compound annual rate of -2.3% between 2014 and 2017. The all participant average is -1.4%. Your growth rate over the same period is 0.7% per annum.



Major project cost as a percentage of total cost of your peers that have participated for 4 consecutive years has grown at a compound annual rate of -3.9% between 2014 and 2017. The all participant average is -1.8%. Your growth rate over the same period is -2.7% per annum.



Trend analysis is based on systems that have provided 4 consecutive years of data.

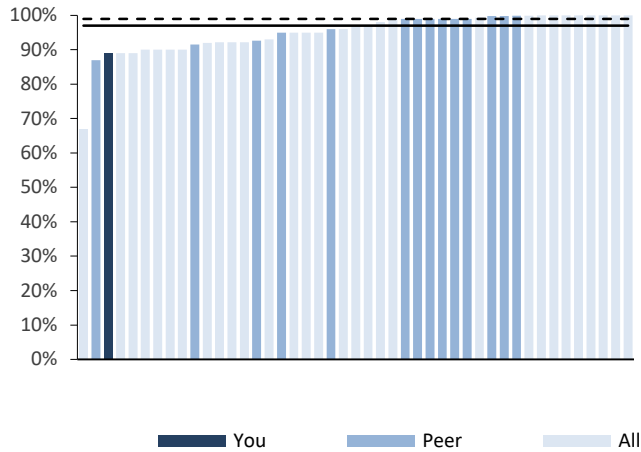
IT and major project attributions by activity

Activity	6a. IT Strategy, Database Management and Applications (excl. major projects)						Total Major Projects (5a. through 5d.)					
	\$s per Active Member and Annuitant			As a % of total			\$s per Active Member and Annuitant			As a % of total		
	Peer		All	Peer		All	Peer		All	Peer		All
	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg	You	Avg	Avg
1. Member Transactions												
a. Pension Payments	1.21	1.08	1.46	6%	7%	8%	0.63	0.63	1.39	6%	9%	9%
b. Pension Inceptions	1.61	1.71	1.92	8%	11%	11%	0.83	0.93	1.28	8%	15%	13%
c. Refunds, Withdrawals and Transfers-out	1.34	0.85	1.21	6%	6%	6%	0.70	0.23	0.86	6%	3%	5%
d. Purchases and Transfers-in	0.79	0.67	1.26	4%	4%	6%	0.41	0.35	1.14	4%	5%	6%
e. Disability	<u>0.86</u>	<u>1.06</u>	<u>0.60</u>	<u>4%</u>	<u>5%</u>	<u>3%</u>	<u>0.45</u>	<u>0.35</u>	<u>0.27</u>	<u>4%</u>	<u>5%</u>	<u>3%</u>
	5.81	5.37	6.44	27%	33%	33%	3.02	2.50	4.94	27%	36%	36%
2. Member Communication												
a. Call Center	2.78	2.45	2.46	13%	13%	14%	1.44	0.97	1.40	13%	13%	14%
b. Mail Room, Imaging	1.35	0.94	0.84	6%	5%	5%	0.70	0.31	0.59	6%	5%	4%
c. 1-on-1 Counseling	0.58	0.76	0.73	3%	4%	4%	0.30	0.29	0.60	3%	4%	4%
d. Member Presentations	0.35	0.63	0.45	2%	3%	2%	0.18	0.18	0.23	2%	3%	2%
e. Written Pension Estimates	1.13	0.82	0.69	5%	5%	4%	0.59	0.24	0.54	5%	4%	4%
f. Mass Communication	<u>0.64</u>	<u>0.81</u>	<u>1.01</u>	<u>3%</u>	<u>5%</u>	<u>5%</u>	<u>0.33</u>	<u>0.24</u>	<u>0.44</u>	<u>3%</u>	<u>3%</u>	<u>4%</u>
	6.82	6.40	6.17	32%	36%	34%	3.54	2.23	3.80	32%	32%	32%
3. Collections and Data Maintenance												
a. Data and Money from Employers	4.14	1.31	2.10	20%	8%	11%	2.15	1.11	3.27	20%	15%	13%
b. Service to Employers	1.76	0.88	0.91	8%	5%	5%	0.91	0.42	0.42	8%	6%	5%
c. Data Not from Employers	<u>0.60</u>	<u>0.49</u>	<u>0.60</u>	<u>3%</u>	<u>3%</u>	<u>3%</u>	<u>0.31</u>	<u>0.16</u>	<u>0.26</u>	<u>3%</u>	<u>2%</u>	<u>3%</u>
	6.50	2.68	3.61	31%	17%	19%	3.38	1.69	3.95	31%	23%	21%
4. Governance and Financial Control												
a. Financial Administration and Control	1.16	1.57	1.74	5%	8%	8%	0.60	0.36	3.53	5%	6%	7%
b. Board, Strategy, Policy	0.71	0.56	0.81	3%	3%	4%	0.37	0.13	0.42	3%	2%	3%
c. Government and Public Relations	<u>0.19</u>	<u>0.46</u>	<u>0.52</u>	<u>1%</u>	<u>2%</u>	<u>2%</u>	<u>0.10</u>	<u>0.05</u>	<u>0.18</u>	<u>1%</u>	<u>1%</u>	<u>2%</u>
	2.06	2.59	3.07	10%	14%	14%	1.07	0.55	4.14	10%	9%	11%
Total Pension Administration	21.20	17.04	19.29	100%	100%	100%	11.01	6.96	16.83	100%	100%	100%

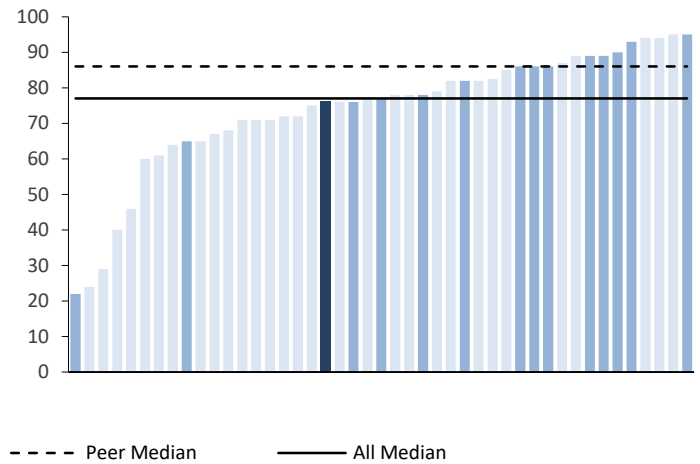
Key measures of CRM/IT capability

On-Line Records

% of on-line records that are complete and accurate

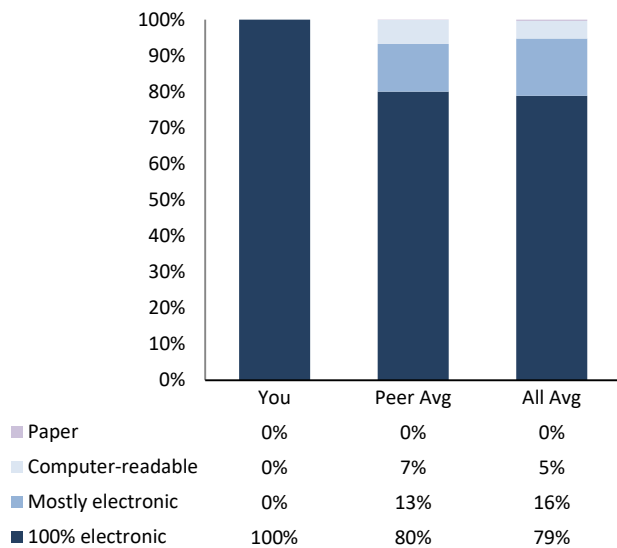


Member Website Capability Score



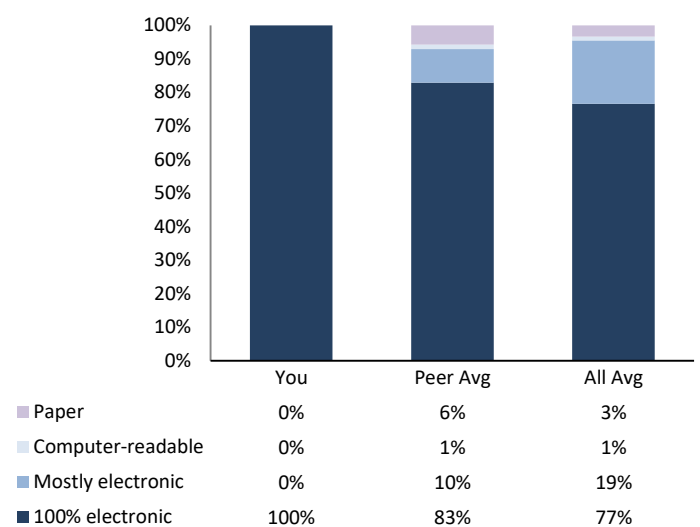
Active Member Data

% by data format

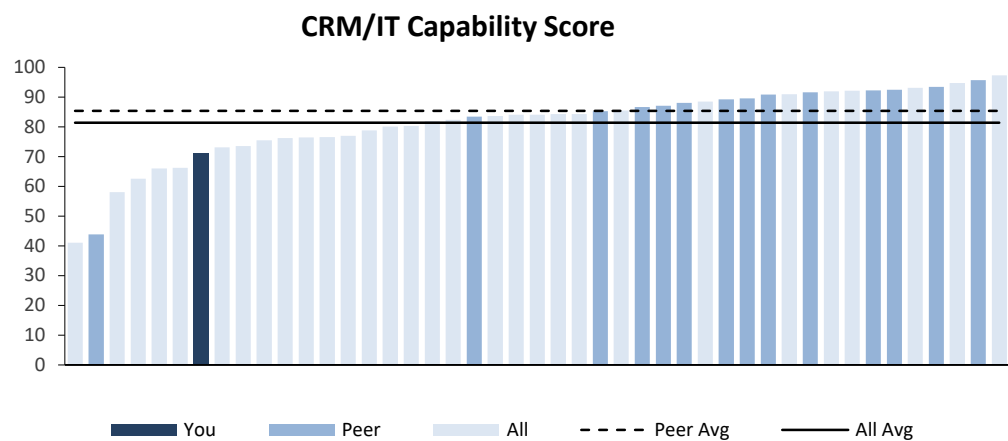


Collection Points

% by data format



Your CRM/IT Capability score was 71 out of 100. This was below the peer average of 85.



Calculation of your CRM/IT capability score

Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
<u>CRM/ Call Capability</u>				
15%	Q44 When a member calls in, do you have immediate computer access to the following member data:			
	a) Record of the member's previous calls to the system?	Yes	87% Yes	80% Yes
	b) Copies of recent correspondence online?	Yes	100% Yes	96% Yes
	c) Knowledge based online help system available for use by the service representative?	Yes	80% Yes	87% Yes
	Score: 100 if all available, otherwise 33.3 for each yes	100	89	87
4%	Q44 When a member calls in, do you have immediate computer access to the following member data:			
	d) Most recent member statement?	Yes	100% Yes	100% Yes
	e) Beneficiary information?	Yes	100% Yes	98% Yes
	Score: 100 if all available, otherwise 50 for each yes	100	100	99

CRM/IT capability score

page 2 of 3

Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
10%	<p>Q46 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, etc.)</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>	No n/a n/a 0	87% Yes 87% Yes 87% Yes 87	69% Yes 67% Yes 69% Yes 68
6%	<p>Q46 b) Refund or transfer value assuming the member exited employment</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>	No No No 0	93% Yes 93% Yes 87% Yes 91	87% Yes 98% Yes 89% Yes 90
5%	<p>Q49 Do you have and use tools to help you project call volumes?</p> <p><i>Score: 100 if yes, otherwise 0</i></p>	Yes 100	87% Yes 87	87% Yes 87
5%	<p>Q35 c) Incoming calls satisfied by self-serve options, if any?</p> <p><i>Score: 100 if yes, otherwise 0</i></p>	Yes 100	53% Yes 53	40% Yes 40
	<u>Document Imaging</u>			
5%	<p>Q54 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 documents are imaged</i></p>	Yes Yes Yes 100	100% Yes 100% Yes 80% Yes 96	100% Yes 98% Yes 76% Yes 95
	<u>Data Collection</u>			
5%	<p>Q104 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>	100% 0% 0% 0%	80% 13% 7% 0%	79% 16% 5% 0%
		100	97	97

CRM/IT capability score

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Weight	Relevant Questions and Scoring	You	Peer Avg	All Avg
	<u>Online Data Quality</u>			
5%	Q106 What % of your active and inactive member online records are complete and accurate? <i>Score: 100 X % of online records that are complete and accurate</i>	89% 89	96% 96	95% 95
	<u>Diagnostic Software</u>			
5%	Q108 Do you have a diagnostic software system for detecting and correcting contribution errors? <i>Score: 100 if yes, otherwise 0</i>	Yes 100	93% Yes 93	93% Yes 93
	<u>Integration</u>			
5%	Q109 When you get an address change, how many systems do you need to update? <i>Score: 100 if 1, otherwise 0</i>	2 0	2 80	1 91
30%	<u>Website</u> Member website capability score [Refer to section 7 Service Levels: Mass communication - website for details.]	76	79	74
100%	Total CRM/ IT Capability Score - Average	71	85	81
	Total CRM/ IT Capability Score- Median	71	89	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

Oregon PERS

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						
	2017			2016		
	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 2016	168,177	64,464	138,786	164,859	64,796	134,520
b. Members at end of fiscal year 2017	172,513	67,113	141,382	168,177	64,464	138,786
Increase/-decrease to be explained	4,336	2,649	2,596	3,318	-332	4,266
Decreases						
c. Full withdrawals/refunds/commuted value payments	0	9,236		0	9,096	
d. Transfers-out to external pension systems	0	0		0	0	
e. Annuity inceptions: service retirement	10,348	5,821		10,156	5,712	
f. Annuity inceptions: disability retirement	112	0		132	0	
g. Active members leaving to inactive status	18,134			16,803		
h. Re-hired inactives and annuitants (if annuity stops)		15,864	45		4,260	213
i. Deaths	173	151	3,881	153	138	3,486
j. Non-death stops of pensions (i.e., dependent no longer eligible)			423			403
k. Other decreases	0	0	0	0	0	0
Increases						
l. New active members	18,592			17,803		
m. Annuity inceptions: survivor, partner, ex-partner, dependent			1,478			1,403
n. Annuity inceptions: service retirement			16,169			15,868
o. Annuity inceptions: disability retirement			112			132
p. Active members leaving to inactive status		18,134			16,803	
q. Re-hired inactives and annuitants (if annuity stops)	15,909			4,473		
r. Other increases	953	1,348	540	645	4,549	2,006
Explained increases/-decreases	6,687	-11,590	13,950	-4,323	2,146	15,307
Unexplained increases/-decreases	-2,351	14,239	-11,354	7,641	-2,478	-11,041

Appendix A - Survey responses: Cost by activity

Oregon PERS

	Your Response		
	2017	2016	
6. Complete the table below:			
a. Total administrative expenses per your financial statements (CAFR in the U.S.)	58,994.7	55,675.6	(\$000s)
Less (if included in administrative expenses):			
b. Investment administration costs	151.1	156.8	(\$000s)
Plus, if not included in administrative expenses:			
c. Amortization and depreciation of administrative assets	0.0	0.0	(\$000s)
d. Actuarial fees and costs	0.0	0.0	(\$000s)
e. Other costs and professional fees relating to pension administration	0.0	0.0	(\$000s)
f. Total benefit administration costs	58,843.6	55,518.8	(\$000s)

Appendix A - Survey responses: Cost and FTE by activity - 2017

Oregon PERS

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

Activity	Direct full time equiv- alents (# FTE)	Direct Costs		
		Salaries and Benefits (\$000s)	Third Party and Other Direct (\$000s)	Total (\$000s)
1. Member Transactions				
a. Pension Payments	12.7	1,107.0	410.5	1,517.5
b. Pension Inceptions	16.9	1,283.5	49.2	1,332.7
c. Refunds, Withdrawals and Transfers-out	14.1	1,090.4	25.3	1,115.7
d. Purchases and Transfers-in	8.3	645.1	13.8	658.9
e. Disability	9.1	691.7	65.1	756.8
f. Healthcare Administration	8.4	949.6	3,546.6	4,496.2
g. Optional and Third Party Administered Benefits	15.1	1,561.3	4,415.7	5,977.0
2. Member Communication				
a. Call Center	29.2	2,233.8	86.4	2,320.2
b. Mail Room, Imaging	14.2	891.8	13.4	905.2
c. 1-on-1 Counseling	6.1	469.2	18.8	488.0
d. Member Presentations	3.7	278.3	10.6	288.9
e. Written Pension Estimates	11.9	904.5	17.7	922.2
f. Mass Communication	6.7	658.8	246.4	905.2
3. Collections and Data Maintenance				
a. Data and Money from Employers	43.6	3,333.5	129.4	3,462.9
b. Service to Employers	18.5	1,410.9	41.5	1,452.4
c. Data Not from Employers	6.3	494.8	85.5	580.3
4. Governance and Financial Control				
a. Financial Administration and Control	12.2	1,410.6	426.7	1,837.3
b. Board, Strategy, Policy	7.5	816.7	531.1	1,347.8
c. Government and Public Relations	2.0	220.2	7.3	227.5
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)	16.5	1,376.7	514.6	1,891.3
c. Amortization of IT Major Projects	n/a	n/a	1,927.5	1,927.5
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)	60.5	5,664.8	1,689.9	7,354.7
b. IT Desktop, Networks, Telecom	13.6	1,596.4	2,629.5	4,225.9
7. Support Services and Other				
a. Building and Utilities	1.1	97.5	1,583.1	1,680.6
b. Human Resources	9.2	838.2	77.6	915.8
c. Actuarial	3.4	308.8	514.3	823.1
d. Legal and Rule Interpretation	22.9	1,762.8	1,355.3	3,118.1
e. Internal and External Audit	4.7	540.8	353.9	894.7
f. Pay-as-you-go Benefits for Retired Staff	n/a	0.0	n/a	0.0
g. Other Support Services	0.0	0.0	5,419.2	5,419.2
Total Administration (includes 1f, 1g)	378.4	32,637.7	26,205.9	58,843.6
FTE relating to major projects capitalized, if any, during this fiscal year.	0.0			
Total Administration FTE	378.4			

Appendix A - Survey responses: Cost and FTE by activity - 2017

continued

Describe and provide the cost of:

Each of your major projects in 5b. 'Non-IT Major Projects' (if you don't capitalize)	(\$000s)
Tax Remedy Legislation implementation	189.10
Moro court decision project (benefit recalculation)	1,702.20
n/a	n/a
n/a	n/a

Appendix A - Survey responses: Cost and FTE by activity - 2016

Oregon PERS

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	13.3	1,096.2	424.0	1,520.2
b. Pension Inceptions	34.7	2,787.2	711.9	3,499.1
c. Refunds, Withdrawals and Transfers-out	12.8	977.3	14.8	992.1
d. Purchases and Transfers-in	7.8	591.0	5.7	596.7
e. Disability	10.0	762.7	76.5	839.2
f. Healthcare Administration	7.4	702.3	3,528.7	4,231.0
g. Optional and Third Party Administered Benefits	13.6	1,179.7	3,054.3	4,234.0
2. Member Communication				
a. Call Center	31.5	2,414.2	78.4	2,492.6
b. Mail Room, Imaging	14.1	865.6	31.5	897.1
c. 1-on-1 Counseling	5.7	440.0	14.9	454.9
d. Member Presentations	2.2	168.2	5.4	173.6
e. Written Pension Estimates	7.9	606.1	6.3	612.4
f. Mass Communication	7.5	705.8	175.5	881.3
3. Collections and Data Maintenance				
a. Data and Money from Employers	42.5	3,245.1	336.7	3,581.8
b. Service to Employers	18.6	1,429.8	23.7	1,453.5
c. Data Not from Employers	5.7	430.0	119.0	549.0
4. Governance and Financial Control				
a. Financial Administration and Control	13.5	1,404.1	352.7	1,756.8
b. Board, Strategy, Policy	9.0	856.1	85.2	941.3
c. Government and Public Relations	2.1	217.9	10.6	228.5
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)	3.7	164.0	0.0	164.0
c. Amortization of IT Major Projects	n/a	n/a	1,928.6	1,928.6
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)	59.6	5,225.2	2,743.8	7,969.0
b. IT Desktop, Networks, Telecom	14.5	1,572.0	2,711.1	4,283.1
7. Support Services and Other				
a. Building and Utilities	1.2	95.9	1,270.3	1,366.2
b. Human Resources	9.0	743.4	65.1	808.5
c. Actuarial	3.6	356.1	440.5	796.6
d. Legal and Rule Interpretation	22.9	1,816.0	467.7	2,283.7
e. Internal and External Audit	4.4	429.5	422.7	852.2
f. Pay-as-you-go Benefits for Retired Staff	n/a	n/a	n/a	0.0
g. Other Support Services	0.0	0.0	5,131.8	5,131.8
Total Administration (includes 1f, 1g)	378.8	31,281.4	24,237.4	55,518.8
FTE relating to major projects capitalized, if any, during this fiscal year.	0.0			
Total Administration FTE	378.8			

Appendix A - Survey responses: Cost and FTE by activity - 2016

continued

Describe and provide the cost of:

Each of your major projects in 5b. 'Non-IT Major Projects' (if you don't capitalize)	(\$000s)
Tax Remedy Legislation implementation	189.10
Moro court decision project (benefit recalculation)	1,702.20
n/a	n/a

Appendix A - Survey responses: Service and plan design

Oregon PERS

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Start													
1 <u>Oregon PERS</u>													
2 Main survey contact: <u>Matt Rickard</u> <u>Central Data Coordinator</u> <u>matthew.rickard@state.or.us</u> <u>503-330-8627</u>													
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	June										
4 What was the end of fiscal year value of your pension fund assets (in billions)?	\$76.0	\$74.6	\$72.8										
8 What percentage of your total salary and benefits costs relates to benefits? Service Activity 1a - Pension Payments	27.9%	30.4%	30.4%	54.0%	27.3%	24.8%	29.6%	15	54.0%	27.3%	5.0%	29.2%	43
10 Do you administer annuity pensions? If no, skip to question 15	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	100% Yes / 0% No / 0% n/a				45
11 Were any of your pension payrolls late vis-à-vis your normal payment cycle? [For example, a payroll might be late because of IT system problems, etc.] If yes: a) How many payrolls were late? b) On average, how many days late were they?	No n/a n/a	No n/a n/a	No n/a n/a	0% Yes / 100% No / 0% n/a				15	0% Yes / 100% No / 0% n/a				45
12 What percentage of pensioners are paid by check [as opposed to Electronic Funds Transfer ("EFT")]? 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? b) Can you comply with a member's request not to send them payment advices?	3.0%	4.0%	5.0%	7.5%	1.8%	0.0%	2.4%	15	8.8%	1.7%	0.0%	2.7%	43
	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	84% Yes / 16% No / 0% n/a				45
	Bi-Annually	Bi-Annually	Bi-Annually	12	6	2	6	13	12	6	1	6	38
	No	No	No	27% Yes / 60% No / 13% n/a				13	24% Yes / 60% No / 16% n/a				38
14 Will you issue a pension payment in a foreign currency if the member requests it? Activity 1b - Pension Inceptions	No	No	No	0% Yes / 100% No / 0% n/a				15	20% Yes / 80% No / 0% n/a				45

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
15 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: <ul style="list-style-type: none"> When the spouse of an annuitant dies "last survivor" options result in decreases, and "pop-up" or "reversion" options result in increases. [Exclude annuitant deaths that result in new pensions paid to spouses.] When an annuitant or their beneficiary becomes eligible for social security, it often results in a reduction of the gross pension paid. Redesign of the payment option, appeal decisions, high low options shifting to low, etc. 	468	130,237	547	4,104	587	0	770	15	101,102	468	0	4,657	45
16 How many formal appeals (non-disability) of pension inceptions did you have?	72	60	59	72	2	0	12	15	244	2	0	17	45
17 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?	5.4%	5.7%	8.6%	100.0%	99.0%	5.4%	91.6%	15	100.0%	98.0%	5.4%	91.6%	45
	40.2%	40.4%	49.9%	100.0%	90.5%	10.0%	75.0%	15	100.0%	90.1%	0.0%	75.4%	45
18 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)	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	80% Yes / 20% No / 0% n/a				45
	3.1%	2.7%	3.0%	100.0%	72.6%	3.1%	66.5%	10	100.0%	72.3%	0.0%	55.6%	36
	24.0	24.0	24.0	24.0	1.4	1.0	4.0	10	24.0	1.0	0.0	3.3	35
19 Do you require birth certificates and/or marriage certificates before incepting a pension?	Yes	Yes	Yes	53% Yes / 47% No / 0% n/a				15	62% Yes / 33% No / 4% n/a				43
20 Do you require notarization of normal or early retirement applications? If some, describe those that require versus those that do not: <u>n/a</u> Activity 1c - Refunds, Transfers-out, Withdrawals	Yes	Yes	Yes	13% Yes / 67% No / 20% Some / 0% n/a				15	22% Yes / 62% No / 16% Some / 0% n/a				45
21 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.]	n/a	n/a	n/a	25,434	710	0	6,544	14	31,832	4,147	0	7,525	39

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
22 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)?	120	120	120	132	30	1	44	15	132	25	1	33	43
a) Are you legislated to have a wait period before you can effect a refund?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a					33% Yes / 62% No / 4% n/a				
If yes:													
b) How long is the wait period? (in days)	45	45	45	120	30	10	51	10	120	31	10	52	15
c) Can the wait period be waived?	No	No	No	20% Yes / 47% No / 33% n/a					7% Yes / 27% No / 67% n/a				
23 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)?	120	120	120	120	10	1	23	14	296	33	1	51	38
24 Do you require notarization of refund or transfer-out applications? (yes, some, no)	Some	Some	Some	7% Yes / 27% No / 67% Some					16% Yes / 51% No / 33% Some				
a) If some, describe those that require versus those that do not: <u>No - Loss of membership and normal w/ds. Yes - Alternate payees (ex-spouse, beneficiaries)</u>													
Activity 1d - Purchases and Transfers-in													
25 Number of actual:													
a) Service credit purchases such as for prior refunded service, military service, etc.?	3,477	3,251	3,126	3,494	1,325	81	1,602	15	35,780	1,467	24	4,092	41
b) Upgrades or 'Top-ups' where members can improve their pensionable salary (but not service credit)?	n/a	n/a	n/a	0	0	0	0	15	1,552	0	0	37	45
c) Upgrades where members can pay to upgrade from an older retirement formula to a new retirement formula?	n/a	n/a	n/a	2,220	0	0	163	15	2,639	0	0	157	45
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	n/a	725	2	0	100	15	2,107	5	0	241	45
26 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.]	10,922	11,620	10,789	10,922	2,942	470	3,699	15	112,143	3,061	0	8,120	44
27 On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	16	13	12	90	5	1	18	15	240	10	1	20	41
28 How long does it take on average for you to do individual transfers-in? [Months from request to completion including delays caused by external parties]	n/a	n/a	n/a	7	2	1	2	13	10	2	1	3	32
Activity 1e - Disability													
29 Do you administer:													
a) Long-term disability/ disability pensions?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a					82% Yes / 13% No / 4% n/a				

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) Short-term disability? If you do not administer either short-term or long-term disability, or disability pensions skip to question 35.	No	No	No	27% Yes / 73% No / 0% n/a					11% Yes / 84% No / 4% n/a				
30 Number of:													
a) Applications for disability pensions/ long-term disability?	199	215	239	970	229	79	427	15	4,219	192	0	444	45
b) Members receiving long-term disability or a disability pension?	4,147	4,320	4,290	22,934	4,147	184	6,040	15	67,560	3,678	65	7,383	37
c) Applications for short-term disability (if you administer)?	n/a	n/a	n/a	2,761	0	0	295	15	2,761	0	0	129	45
d) Members receiving short-term disability (if you administer)?	n/a	n/a	n/a	2,712	1,077	0	1,217	4	3,626	1,638	0	1,698	5
e) Independent medical examinations for disability application assessment or reassessment paid for by you, if any?	0	0	1	836	7	0	145	15	3,242	5	0	203	45
f) New members that you reviewed the health status of?	n/a	n/a	n/a	1,000	0	0	130	15	1,000	0	0	53	45
g) Formal appeals of disability decisions?	11	11	26	436	7	0	44	15	436	4	0	28	45
h) Recertifications of disabled members? [For example, Arizona SRS requires an annual opinion from a physician to continue on disability.]	463	319	455	3,805	463	0	1,005	13	3,805	141	0	815	33
31 Do you cover non-occupational disability? [Some systems only cover disabilities that happen at work.]	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a					82% Yes / 0% No / 18% n/a				
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?	Yes	Yes	Yes	53% Yes / 47% No / 0% n/a					40% Yes / 42% No / 18% n/a				
b) If yes to 'a' immediately above: Number of occupational disability applications?	9	8	11	533	32	1	96	8	1,611	44	0	202	18
32 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?	4.0	4.0	4.0	12.0	2.0	1.0	2.8	15	15.0	2.0	1.0	2.8	37
b) date of receipt of all necessary documentation to complete an application?	1.0	2.0	3.0	2.0	1.0	0.0	1.1	15	8.0	1.0	0.0	1.5	37
33 Do you have an expedited method for processing disability for a terminally ill member?	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a					60% Yes / 22% No / 18% n/a				
34 Do you require notarization of disability applications?	No	No	No	20% Yes / 80% No / 0% Some / 0% n/a					20% Yes / 60% No / 2% Some / 18% n/a				
a) If some, describe those that require versus those that do not: <u>n/a</u> Activity 2a - Call Center Volumes													
35 What were your volumes of:													
a) Incoming calls that reach and are responded to by a knowledgeable service representative (i.e., exclude messages, etc.)?	144,384	145,385	146,356	410,973	163,936	80,539	169,303	15	743,380	150,869	18,289	173,096	45

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up on previous calls?	20,982	19,809	14,500	49,776	8,825	0	12,473	15	371,132	10,463	0	19,714	45
c) Incoming calls satisfied by self-serve options, if any?	3,141	3,257	27,428	56,878	70	0	6,168	15	1,008,170	0	0	32,634	45
d) Email queries from members?	16,150	20,149	16,788	18,215	10,521	3,776	11,394	15	101,643	10,521	0	17,548	45
Before Reaching a Service Rep													
36 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	No	33% Yes / 67% No / 0% n/a				15	24% Yes / 76% No / 0% n/a				45
b) Caller gets pre-recorded 'call another time' message during business hours?	No	No	No	13% Yes / 87% No / 0% n/a				15	33% Yes / 67% No / 0% n/a				45
c) Voice mail takes a message during business hours?	No	No	Yes	33% Yes / 67% No / 0% n/a				15	36% Yes / 64% No / 0% n/a				45
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)?	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	73% Yes / 27% No / 0% n/a				45
e) Abandoned calls in a queue or on hold (i.e., caller hangs-up)?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	98% Yes / 2% No / 0% n/a				45
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	No	7% Yes / 93% No / 0% n/a				15	4% Yes / 96% No / 0% n/a				45
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	No	13% Yes / 87% No / 0% n/a				15	4% Yes / 96% No / 0% n/a				45
h) Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	No	No	No	13% Yes / 87% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
i) Call rings unanswered during business hours?	No	No	No	7% Yes / 93% No / 0% n/a				15	2% Yes / 98% No / 0% n/a				45
If yes: volume													
a) # Busy signal, never enters the system?	n/a	n/a	n/a	2,091	779	0	866	5	2,186	609	0	811	11
b) # Caller gets pre-recorded 'call another time' message during business hours?	n/a	n/a	n/a	3,324	85	42	1,150	3	59,655	1,398	0	7,740	17
c) # Voice mail takes a message during business hours?	n/a	n/a	4,500	2,461	891	70	1,123	5	6,526	891	0	1,844	17
d) # Abandoned calls (i.e., caller hangs-up while in a menu)?	282	651	1,965	48,367	3,129	0	6,922	13	105,965	4,705	0	10,613	33
e) # Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	29,387	25,389	10,604	48,367	9,117	2,377	12,836	15	276,064	6,135	252	17,306	44
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	138	138	138	138	1	475	307	138	307	2
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	565	528	490	528	2	565	528	490	528	2
h) # Busy signal after navigating an automated attendant menu, or after being transferred by a receptionist?	n/a	n/a	n/a	58,727	41,128	23,529	41,128	2	539,851	58,727	23,529	207,369	3
i) # Call rings unanswered during business hours?	n/a	n/a	n/a	108	54	0	54	2	108	54	0	54	2

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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	1.0%	1.0%	1.0%	1.0%	1	1.0%	1.0%	1.0%	1.0%	2
b) % Caller gets pre-recorded 'call another time' message during business hours?	n/a	n/a	n/a	0.1%	0.1%	0.1%	0.1%	1	13.4%	0.4%	0.0%	3.6%	4
c) % Voice mail takes a message during business hours?	n/a	n/a	n/a	1.0%	1.0%	1.0%	1.0%	1	3.0%	1.0%	1.0%	1.7%	3
d) % Abandoned calls (i.e., caller hangs-up while in a menu)?	n/a	n/a	n/a	0.4%	0.2%	0.0%	0.2%	2	1.0%	0.5%	0.0%	0.6%	5
e) % Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	13.2%	9.1%	5.0%	9.1%	2
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	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	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	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	n/a	0	n/a	n/a	n/a	n/a	0
37 Do you have a menu system that callers negotiate before speaking to someone? If yes:	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	84% Yes / 16% No / 0% n/a				45
a) What is the average number of menu layers that must be navigated before a caller can speak to a live person? [Count each and every time a caller must select a menu option by pressing a button on the phone as a menu layer. Use the volume-weighted average number of menu layers if callers must negotiate different numbers of menu layers to reach a service representative on some menu-tree branches than on others.]	4	4	2	4	1	1	2	14	5	2	1	2	38
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)?	15	15	30	70	43	15	44	14	222	41	6	53	38
c) Is the menu system by-passed if a service representative is available?	No	No	No	0% Yes / 93% No / 7% n/a				14	0% Yes / 84% No / 16% n/a				38
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	n/a	0	n/a	n/a	n/a	n/a	0
38 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	No	0% Yes / 100% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
If yes:													
a) Do you have a queue for the receptionist(s)?	n/a	n/a	n/a	0% Yes / 0% No / 100% n/a				0	4% Yes / 4% No / 91% n/a				4

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a1) If yes, what is the average wait time in seconds in the queue for the receptionist(s)?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	20	0	0	7	3
b) Approximately what percentage of callers are:													
b1) Satisfied by the receptionist without forwarding?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	20.0%	7.5%	0.0%	8.8%	4
b2) Forwarded by the receptionist to a queue for service representatives?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	70.0%	0.0%	0.0%	17.5%	4
b3) Forwarded by the receptionist to specific people or departments?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	93.0%	40.0%	0.0%	43.3%	4
b4) Receptionist takes a message?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	20.0%	1.0%	0.0%	5.5%	4
39 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	Yes	100% Yes / 0% No / 0% n/a				15	96% Yes / 4% No / 0% n/a				45
If yes:													
a) Average wait time in seconds in queue for a service representative?	243	123	110	243	72	27	90	15	489	67	4	111	43
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	No	7% Yes / 93% No / 0% n/a				15	11% Yes / 84% No / 4% n/a				43
40 Does your system notify the caller of the expected wait time, or their place in the queue, for reaching a knowledgeable service representative if the expected wait exceeds a certain threshold?	Yes	Yes	No	40% Yes / 60% No / 0% n/a				15	47% Yes / 53% No / 0% n/a				45
41 Do you have a callback feature on your phone system? (i.e., the caller's telephone number is placed in a queue for callback when their turn comes up)	Yes	Yes	No	27% Yes / 73% No / 0% n/a				15	29% Yes / 71% No / 0% n/a				45
If yes:													
a) What was the total volume of callbacks?	4,305	0	n/a	169,068	7,286	2,914	46,639	4	169,068	11,704	1,068	34,595	13
b) Are callbacks made as soon as the caller's turn in the queue comes up or at a later, designated time?	Queue	Queue	n/a	27% Queue/73% n/a				4	29% Queue/ 71% n/a				13
b1) If callbacks are made as soon as the caller's turn in the queue comes up, what is the average time between when the caller hangs up and when they are called back?	300	n/a	n/a	6,564	300	222	2,362	3	6,564	581	194	1,516	10
c) Does the caller have the option of either leaving his number for callback or choosing to remain on the line?	Yes	Yes	n/a	27% Yes / 0% No / 73% n/a				4	29% Yes / 0% No / 71% n/a				13
d) What is the callback completion rate? (i.e., what percentage of callers that chose to be called back, were actually reached)	Unknown	Unknown	n/a	95.4%	93.6%	91.0%	93.4%	4	100.0%	93.6%	85.3%	94.5%	13
<u>After Reaching a Service Rep</u>													
42 What was the:													
a) % of callers transferred after first contact? (exclude receptionists)	3.5%	3.7%	5.8%	33.4%	4.5%	0.0%	6.4%	13	37.0%	4.0%	0.0%	6.3%	40
b) % of callers you called back because their needs were not fully satisfied at first contact?	2.9%	1.3%	2.2%	6.0%	2.9%	0.8%	2.7%	13	18.0%	3.3%	0.1%	4.0%	36
c) % of calls satisfied by the first contact?	93.6%	95.0%	92.0%	99.2%	93.2%	63.1%	90.9%	13	99.2%	93.1%	56.0%	89.8%	40

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
43 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.]	320	284	285	456	271	131	292	15	671	287	131	305	44
b) Average after call work time when service representative is unavailable to take another call?	88	9	61	197	72	30	98	13	229	70	0	91	39
c) Average occupancy %? [time spent handling calls, including after call work, as a percentage of total available time to answer calls.]	62.0%	63.0%	66.0%	93.1%	74.0%	62.0%	73.5%	13	95.0%	75.7%	0.0%	69.8%	36
44 When a member calls in, do you have immediate computer access to the following member data:													
a) Record of the member's previous calls to the system?	Yes	Yes	Yes	87% Yes / 13% No				15	80% Yes / 20% No				45
b) Copies of recent correspondence online?	Yes	Yes	Yes	100% Yes / 0% No / 0% Some				15	96% Yes / 4% No / 0% Some				45
c) Knowledge based online help system available for use by the service representative?	Yes	Yes	Yes	80% Yes / 20% No				15	87% Yes / 13% No				45
d) Most recent member statement?	Yes	Yes	Yes	100% Yes / 0% No				15	100% Yes / 0% No				45
e) Beneficiary information?	Yes	Yes	Yes	100% Yes / 0% No				15	98% Yes / 2% No				45
45 Do your service representatives have real-time access to a workflow system that lets them know the status of open items?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	100% Yes / 0% No / 0% n/a				45
46 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?	No	No	No	87% Yes / 13% No				15	69% Yes / 31% No				45
If yes:													
a1) Can you easily model and provide alternate annuity payment scenarios? (i.e., joint and 50% survivor, joint and 70% survivor, etc.)	n/a	n/a	n/a	87% Yes / 13% No				15	67% Yes / 33% No				45
a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	n/a	n/a	n/a	87% Yes / 13% No				15	69% Yes / 31% No				45
b) Refund or transfer value assuming the member exited employment at the time of the call?	No	No	No	93% Yes / 7% No				15	87% Yes / 13% No				45
c) Pensionable salary?	No	No	No	93% Yes / 7% No / 0% n/a				15	96% Yes / 2% No / 2% n/a				44
d) Service credit history including gaps?	No	No	No	87% Yes / 13% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				45
e) Cost to purchase service credit?	No	No	No	87% Yes / 13% No / 0% n/a				15	67% Yes / 27% No / 7% n/a				42
f) If you administer a DC plan:													
f1) Current value of the DC account?	Yes	Yes	Yes	40% Yes / 7% No / 53% n/a				7	24% Yes / 4% No / 71% n/a				13
f2) Estimate of the value of the DC account at retirement?	No	No	No	27% Yes / 20% No / 53% n/a				7	16% Yes / 13% No / 71% n/a				13
f3) History of account transactions?	Yes	Yes	Yes	40% Yes / 7% No / 53% n/a				7	24% Yes / 4% No / 71% n/a				13

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
47 Can members calling in perform the following transactions over the phone: a) Change address? b) Add or change email address? c) Change payment instructions? (i.e., bank account) d) If you administer a DC plan, switches to investment options?	No Yes No No	No Yes No No	No Yes No No	80% Yes / 20% No / 0% n/a 93% Yes / 7% No / 0% n/a 27% Yes / 73% No / 0% n/a 20% Yes / 27% No / 53% n/a				15 15 15 7	71% Yes / 24% No / 4% n/a 87% Yes / 13% No / 0% n/a 27% Yes / 69% No / 4% n/a 9% Yes / 20% No / 71% n/a				43 45 43 13
<u>Quality and Other</u>													
48 Do you review your staff's responses to member calls for coaching purposes on a regular basis? [As opposed to intermittent or only while training new service representatives, etc.] If yes: a) How many calls per agent per month (on average) do you monitor? b) Are you listening in on a live call or a recording?	Yes 4 Both	Yes 4 Both	Yes 4 Both	93% Yes / 7% No / 0% n/a 10 5 1 6 60% Recording / 7% Live / 27% Both / 7% n/a				15 14 14	89% Yes / 11% No / 0% n/a 200 5 1 11 36% Recording / 16% Live / 38% Both / 11% n/a				45 40 40
49 Do you have and use tools to help you project call volumes?	Yes	Yes	Yes	87% Yes / 13% No				15	87% Yes / 13% No				45
50 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	Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 7% No / 0% n/a				45
51 How many hours per week is your 'call center' operational?	45.0	45.0	45.0	60.0 46.0 38.0 47.1				15	62.5 45.0 37.5 46.5				45
52 Can members communicate questions using email? 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.	Yes 1.0	Yes 1.0	Yes 1.0	100% Yes / 0% No / 0% n/a 2.9 1.0 0.5 1.2				15 15	96% Yes / 4% No / 0% n/a 6.0 1.0 0.5 1.9				45 43
Activity 2b - Mail Room, Imaging													
53 What were your volumes of: a) Incoming mail? b) Outgoing mail?	235,404 2,058,750	212,314 2,326,142	218,432 1,104,278	291,744 166,906 48,070 152,390 3,179,558 990,000 90,000 1,058,281				15 15	813,994 94,155 11,280 159,015 3,953,435 359,115 12,479 852,021				45 45
54 Do you use imaging technology? If yes: a) Do you keep images of ALL incoming member correspondence and submitted forms? b) If not all, describe the member documents you do keep images of below: <u>n/a</u> c) Have all historical documents also been imaged?	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	100% Yes / 0% No / 0% n/a 100% Yes / 0% No / 0% n/a 80% Yes / 20% No / 0% n/a				15 15 15	100% Yes / 0% No / 0% n/a 98% Yes / 2% No / 0% n/a 76% Yes / 24% No / 0% n/a				45 45 45

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Activity 2c - 1-on-1 Member Counseling													
55 Do you provide 1-on-1 counseling? If you do not offer 1-on-1 counseling skip to question 65.	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	96% Yes / 4% No / 0% n/a				45
56 Provide the number of members counseled 1-on-1 that were: a) Pre-scheduled and/or walk-in counseled in-house? [Include only if the member actually sees a counselor. Exclude 'walk-through' traffic (i.e., picking up brochures or forms) where needs can be met by the receptionist.] b) In the field at locations separate from the member's place of employment? c) At the member's place of employment? d) Via teleconference? [These are pre-scheduled counseling sessions that cover materials sent to the member in advance of the session.] (Total counseled 1-on-1)	1,597	1,490	1,836	18,149	4,216	836	6,027	15	22,395	2,380	0	4,530	43
	1,939	1,592	1,220	4,951	921	0	1,699	15	58,528	363	0	3,457	45
	n/a	n/a	n/a	4,896	0	0	544	15	9,471	0	0	658	45
	n/a	n/a	n/a	1,298	42	0	240	15	109,061	0	0	4,017	45
	3,536	3,082	3,056	23,992	6,943	2,367	8,510	15	109,061	5,392	0	12,460	45
57 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	Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 2% No / 4% n/a				43
58 Do you limit 1-on-1 counseling by: a) Requiring that members be within a certain time period of earliest possible retirement? b) Placing a limit on the number of counseling sessions a member can request? c) Indicating that members should contact their employers or unions first for counseling? d) Other (describe)? <u>n/a</u>	Yes	Yes	Yes	7% Yes / 93% No / 0% n/a				15	7% Yes / 89% No / 4% n/a				43
	Yes	Yes	Yes	7% Yes / 93% No / 0% n/a				15	4% Yes / 91% No / 4% n/a				43
	No	No	No	0% Yes / 100% No / 0% n/a				15	0% Yes / 96% No / 4% n/a				43
	No	No	No	0% Yes / 100% No / 0% n/a				15	4% Yes / 91% No / 4% n/a				43
59 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) 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?	No	No	No	93% Yes / 7% No / 0% n/a				15	87% Yes / 9% No / 4% n/a				43
	n/a	n/a	n/a	32	5	0	7	14	40	5	0	8	39
	n/a	n/a	n/a	1.0%	0.0%	0.0%	0.2%	14	99.0%	0.0%	0.0%	2.9%	39
60 Do you offer prescheduled 1-on-1 counseling?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 7% No / 4% n/a				43

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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?	2	4	4	18	2	0	3	15	41	2	0	5	40
61 Do you offer 1-on-1 counseling sessions after normal working hours, such as evenings and/or weekends?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	49% Yes / 47% No / 4% n/a				43
62 If you provide 1-on-1 counseling in the field, indicate the number of different field locations where you provided 1-on-1 counseling last year that were at:													
a) Field offices staffed on a full-time basis and located in cities different from your main office?	1	1	1	2	1	0	1	10	14	1	0	2	20
b) Member's place of employment?	0	0	0	143	8	0	28	11	9,471	14	0	407	27
c) Intermittent locations (such as hotels, offices) separate from the member's place of employment?	28	28	23	690	29	0	83	12	690	15	0	42	30
63 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?	n/a	n/a	n/a	87% Yes / 7% No / 7% n/a				14	76% Yes / 11% No / 13% n/a				39
a2) Pre-scheduled in-house?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	76% Yes / 13% No / 11% n/a				40
a3) In-the-field?	Yes	Yes	Yes	67% Yes / 13% No / 20% n/a				12	47% Yes / 24% No / 29% n/a				32
b) Do you have real-time access to the member's data (i.e., salary, service credit, refund value, beneficiaries, etc.)?													
b1) Walk-in traffic in-house?	n/a	n/a	n/a	93% Yes / 0% No / 7% n/a				14	87% Yes / 0% No / 13% n/a				39
b2) Pre-scheduled in-house?	No	No	No	93% Yes / 7% No / 0% n/a				15	87% Yes / 2% No / 11% n/a				40
b3) In-the-field?	No	No	No	73% Yes / 7% No / 20% n/a				12	56% Yes / 16% No / 29% n/a				32
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	n/a	n/a	80% Yes / 13% No / 7% n/a				14	69% Yes / 18% No / 13% n/a				39
c2) Pre-scheduled in-house?	No	No	No	87% Yes / 13% No / 0% n/a				15	80% Yes / 9% No / 11% n/a				40
c3) In-the-field?	No	No	No	60% Yes / 20% No / 20% n/a				12	42% Yes / 29% No / 29% n/a				32
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	n/a	n/a	93% Yes / 0% No / 7% n/a				14	56% Yes / 29% No / 16% n/a				38
d2) pre-scheduled In-house?	No	No	No	93% Yes / 7% No / 0% n/a				15	67% Yes / 20% No / 13% n/a				39
d3) In-the-field?	No	No	No	67% Yes / 13% No / 20% n/a				12	38% Yes / 31% No / 31% n/a				31

Survey Question		Your Response			Peers 2017					All Participants 2017				
		2017	2016	2015	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	n/a	n/a	27% Yes / 7% No / 67% n/a				5	13% Yes / 9% No / 78% n/a				10
e2) pre-scheduled In-house?		No	No	No	27% Yes / 13% No / 60% n/a				6	16% Yes / 7% No / 78% n/a				10
e3) In-the-field?		No	No	No	13% Yes / 13% No / 73% n/a				4	11% Yes / 7% No / 82% n/a				8
64	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.]	Yes	Yes	Yes	53% Yes / 47% No / 0% n/a				15	53% Yes / 42% No / 4% n/a				43
Activity 2d - Member Presentations and Group Retirement														
65	Do you offer member presentations (including group counseling)?	Yes	Yes	Yes	100% Yes / 0% No				15	93% Yes / 7% No				45
If you do not offer member presentations skip to question 72.														
66	How many benefit fairs did you host or participate in?	28	24	24	435	49	10	89	15	435	17	0	48	45
67	How many presentations (including group counseling sessions) for members or annuitants [exclude presentations to employers] did you do that took place:													
a) In-house?		63	61	68	97	22	0	36	15	151	3	0	23	45
b) In the field?		423	373	357	1,339	236	53	377	15	1,339	226	0	328	45
c) Via live webinar? (i.e., a real-time, online presentation that allows two-way communication between the presenter and audience)		14	15	15	186	21	0	44	15	186	7	0	23	45
(Total Presentations)		500	449	440	1,471	327	74	457	15	1,471	309	0	374	45
68	What was the total number of attendees at all of the presentations per question 67 above? [Exclude benefit fair attendees per question 66]	11,194	11,064	11,297	31,409	9,759	3,182	12,352	15	42,033	8,268	2,048	11,901	42
69	Did you do specific presentations for members, in the past fiscal year, targeted solely for:													
a) New members?		Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	80% Yes / 13% No / 7% n/a				42
b) Members in mid career?		Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	71% Yes / 22% No / 7% n/a				42
c) Members approaching retirement or ready to retire?		Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 0% No / 7% n/a				42
d) Healthcare?		Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	31% Yes / 58% No / 11% n/a				40
e) Changes to benefits?		No	No	No	60% Yes / 40% No / 0% n/a				15	38% Yes / 56% No / 7% n/a				42
f) Other? (Please describe)		Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	58% Yes / 36% No / 7% n/a				42
Plan updates, preparing for retirement, application completion														
70	Do you offer presentations after normal working hours such as evenings and/or weekends?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	87% Yes / 7% No / 7% n/a				42

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
71 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	Yes	80% Yes / 20% No / 0% n/a				15	80% Yes / 13% No / 7% n/a				42
72 Do you offer written pension estimates to members? If no, go directly to question 79.	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	100% Yes / 0% No / 0% n/a				45
73 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.]	164,873	165,290	144,930	164,873	19,143	1,434	27,763	15	164,873	8,510	186	17,736	45
74 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	Each Scenario	67% Each Scenario / 33% Single Estimate				15	49% Each Scenario / 51% Single Estimate				45
	15	15	15	15	2	1	3	10	15	2	1	3	22
75 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)?	15.0	15.0	12.0	60.0	2.5	0.0	9.4	15	60.0	5.0	0.0	9.2	45
	Regular	Regular	Regular	100% Regular / 0% Estimate				15	95% Regular / 5% Estimate				43
76 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? <u>must be within 2 years of retirement eligibility</u>	No	No	No	80% Yes / 20% No / 0% n/a				15	87% Yes / 13% No / 0% n/a				45
77 Do you place a limit on the number of written pension estimates that a member can request? a) If yes, describe the limit? <u>The first two are free, then it is \$100 each thereafter</u>	Yes	Yes	Yes	13% Yes / 87% No / 0% n/a				15	13% Yes / 87% No / 0% n/a				45
78 Do your written pension estimates (including cover letters, etc. sent with the estimate): a) Clearly address if and how the pension is inflation protected (or not protected)? b) If your pension is coordinated with or reduced by social security (or CPP in Canada) is the impact explained? c) Discuss alternative scenarios that could improve the pension such as purchasing service credit or working longer? d) Model alternative retirement payment options?	No	No	No	67% Yes / 33% No / 0% n/a				15	60% Yes / 40% No / 0% n/a				45
	No	No	No	33% Yes / 7% No / 60% n/a				6	53% Yes / 11% No / 36% n/a				29
	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				45
	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				45

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Activity 2f Mass Communication: (i) Website													
79 Are all, most or some of your forms available online for either completion or downloading?	All	All	All	47% All / 20% Some / 33% Most				15	42% All / 9% Some / 49% Most				45
80 Does your website have a secure member area where members can access their own data? If yes: a) How many unique members accessed the secure member area? [Count a member only once even if he visited multiple times.] b) How many visits in total were there by members to the secure member area? [Count each visit even if the same member visits multiple times.] c) If a member wants to register for the first time, does he/she have to wait for a password in the mail? d) Do you welcome the member by name on the home page of the secure member area? e) Are users required to acknowledge a disclaimer every time they log in? f) Are users required to acknowledge a disclaimer every time they generate a pension estimate? g) Do inactive members have access to the secure member area?	Yes	Yes	Yes	93% Yes / 7% No				15	96% Yes / 4% No				45
	Unknown	Unknown	Unknown	849,729	120,507	29,729	172,847	14	849,729	96,584	5,365	155,096	43
	Unknown	Unknown	362,295	1,779,695	728,791	172,165	855,697	14	3,952,056	361,504	59,250	780,850	43
	No	No	No	13% Yes / 80% No / 7% n/a				14	11% Yes / 84% No / 4% n/a				43
	Yes	Yes	Yes	93% Yes / 0% No / 7% n/a				14	87% Yes / 9% No / 4% n/a				43
	No	No	No	20% Yes / 73% No / 7% n/a				14	16% Yes / 80% No / 4% n/a				43
	No	No	No	40% Yes / 53% No / 7% n/a				14	27% Yes / 67% No / 7% n/a				42
	Yes	Yes	Yes	93% Yes / 0% No / 7% n/a				14	84% Yes / 11% No / 4% n/a				43
81 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? d) Service credit purchase calculator? e) Register for 1-on-1 counseling sessions? e1) If yes, does the member have real-time access to available dates and times? f) Register for presentations? g) Live chat? h) Change address? i) Change beneficiary? j) Change email address? k) Reset password? l) Change banking information for direct deposit? m) Change tax withholding amount?	No	No	No	60% Yes / 40% No / 0% n/a				15	56% Yes / 44% No / 0% n/a				45
	No	No	No	27% Yes / 73% No / 0% n/a				15	16% Yes / 84% No / 0% n/a				45
	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				45
	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	69% Yes / 22% No / 9% n/a				41
	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	40% Yes / 56% No / 4% n/a				43
	Yes	Yes	Yes	60% Yes / 0% No / 40% n/a				9	36% Yes / 2% No / 62% n/a				17
	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	62% Yes / 33% No / 4% n/a				43
	No	No	No	0% Yes / 100% No / 0% n/a				15	4% Yes / 93% No / 2% n/a				44
	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	80% Yes / 16% No / 4% n/a				43
	No	No	No	67% Yes / 33% No / 0% n/a				15	60% Yes / 36% No / 4% n/a				43
	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	87% Yes / 13% No / 0% n/a				45
	Yes	Yes	Yes	87% Yes / 7% No / 7% n/a				14	84% Yes / 13% No / 2% n/a				44
	No	No	No	67% Yes / 33% No / 0% n/a				15	60% Yes / 36% No / 4% n/a				43
	No	No	No	80% Yes / 20% No / 0% n/a				15	62% Yes / 33% No / 4% n/a				43

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
n) Download or print duplicate tax receipts? (i.e., 1099s in the U.S.)	No	No	No	80% Yes / 20% No / 0% n/a				15	78% Yes / 20% No / 2% n/a				44
o) View pension payment details? (i.e., gross amounts, deductions)	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	89% Yes / 11% No / 0% n/a				45
p) Submit a retirement application online?	No	No	No	60% Yes / 40% No / 0% n/a				15	44% Yes / 56% No / 0% n/a				45
If yes:													
p1) Does the online application provide an estimate, final value or neither of the annuity payment the member will receive?	n/a	n/a	n/a	20% Neither / 40% Estimate / 40% n/a				9	9% Final / 11% Neither / 24% Estimate / 56% n/a				20
p2) Approximately what % of retirements submitted online require follow-up documents or signatures to be mailed in?	n/a	n/a	n/a	100.0%	65.6%	0.0%	55.8%	8	100.0%	65.6%	0.0%	53.3%	16
q) View status of online retirement application?	No	n/a	n/a	47% Yes / 47% No / 7% n/a				14	31% Yes / 47% No / 22% n/a				35
r) Apply for a refund or transfer-out?	Yes	Yes	Yes	53% Yes / 40% No / 7% n/a				14	33% Yes / 56% No / 11% n/a				40
s) Secure mailbox or digital file including history of recent correspondence and member documents?	No	No	No	53% Yes / 47% No / 0% n/a				15	53% Yes / 44% No / 2% n/a				44
t) Download member statement? (i.e., Adobe format)	No	No	No	87% Yes / 13% No / 0% n/a				15	89% Yes / 9% No / 2% n/a				44
u) Upload documents (such as birth certificates)?	No	No	No	60% Yes / 40% No / 0% n/a				15	44% Yes / 53% No / 2% n/a				44
v) View pensionable earnings and/or service without downloading?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	84% Yes / 13% No / 2% n/a				44
If yes:													
v1) Are both salary and service data available?	Yes	Yes	Yes	93% Yes / 0% No / 7% n/a				14	80% Yes / 4% No / 16% n/a				38
v2) Is online data up-to-date to the most recent pay period?	Yes	Yes	Yes	73% Yes / 20% No / 7% n/a				14	62% Yes / 24% No / 13% n/a				39
v3) Is a complete annual history from the beginning of employment provided?	Yes	Yes	Yes	73% Yes / 20% No / 7% n/a				14	53% Yes / 31% No / 16% n/a				38
w) If you administer a core DC or hybrid DB/ DC plan:													
w1) Switch between investment options?	No	No	No	33% Yes / 20% No / 47% n/a				8	24% Yes / 9% No / 67% n/a				15
w2) Change deferral percentage selections for regular contributions?	No	No	No	13% Yes / 33% No / 53% n/a				7	9% Yes / 22% No / 69% n/a				14
w3) Initiate withdrawals?	No	No	No	27% Yes / 27% No / 47% n/a				8	18% Yes / 16% No / 67% n/a				15
w4) View current valuation of their account?	Yes	Yes	Yes	40% Yes / 13% No / 47% n/a				8	24% Yes / 9% No / 67% n/a				15
If yes, volume?													
a) Benefit calculator in non-secure area?	n/a	n/a	n/a	361,470	53,025	915	87,165	9	361,470	41,444	314	80,413	25
b) Benefit calculator in secure area not linked to member data?	n/a	n/a	n/a	9,939	5,367	745	5,355	4	10,240	8,265	745	6,172	7
c) Benefit calculator in secure area linked to member's salary and service data?	Unknown	Unknown	639,983	503,461	122,194	16,809	173,440	14	1,359,838	100,108	2,179	167,267	40
d) Service credit purchase calculator?	Unknown	Unknown	639,983	58,879	5,700	756	14,158	12	58,879	7,168	94	13,627	30
e) Register for 1-on-1 counseling sessions?	3,536	3,082	3,360	9,388	3,105	408	4,206	9	20,189	2,556	256	4,546	18
f) Register for presentations?	12,273	11,094	9,450	14,570	5,091	923	6,203	13	26,613	4,798	219	6,365	28
g) Live chat?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	10,810	8,019	5,227	8,019	2

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
h) Change address?	Unknown	Unknown	Unknown	49,032	8,694	1,756	13,802	14	75,630	8,560	758	15,077	36
i) Change beneficiary?	n/a	n/a	n/a	104,161	8,734	2,272	20,704	10	468,459	11,000	636	32,254	27
j) Change email address?	Unknown	Unknown	Unknown	77,923	8,920	763	16,010	14	104,135	9,480	60	23,138	39
k) Reset password?	Unknown	Unknown	Unknown	130,452	16,744	1,457	33,227	13	195,218	19,596	92	44,268	38
l) Change banking information for direct deposit?	n/a	n/a	n/a	18,964	3,654	465	4,584	10	257,334	2,399	149	14,801	27
m) Change tax withholding amount?	n/a	n/a	n/a	12,443	5,236	777	5,078	12	127,523	4,438	157	12,063	28
n) Download or print duplicate tax receipts? (i.e., 1099s in the U.S.)	n/a	n/a	n/a	46,579	23,346	3,774	24,021	12	153,399	14,686	508	28,025	35
o) View pension payment details? (i.e., gross amounts, deductions)	Unknown	Unknown	50,715	325,385	51,083	9,957	81,064	14	1,903,834	36,538	102	154,635	40
p) Submit a retirement application?	n/a	n/a	n/a	7,752	2,301	358	3,164	9	30,600	3,205	0	5,181	20
q) View status of online retirement application?	n/a	n/a	n/a	131,290	20,815	3,129	40,519	7	131,290	20,719	0	33,643	14
r) Apply for a refund or transfer-out?	Unknown	Unknown	91	16,341	8,047	1,620	8,262	8	32,443	5,960	0	8,820	13
s) Secure mailbox or digital file including history of recent correspondence and member documents?	n/a	n/a	n/a	450,763	53,399	3,360	113,176	8	1,175,564	53,410	2,736	179,573	24
t) Download member statement? (i.e., Adobe format)	n/a	n/a	n/a	200,788	52,150	6,250	62,181	13	588,852	50,194	3,219	103,655	40
u) Upload documents (such as birth certificates)?	n/a	n/a	n/a	189,908	18,363	333	32,381	9	189,908	4,729	0	17,563	20
v) View pensionable earnings and/or service without downloading?	Unknown	Unknown	362,295	1,348,120	253,297	39,665	314,849	14	3,059,300	250,103	2,171	376,483	38
w) If you administer a core DC or hybrid DB/ DC plan:													
w1) Switch between investment options?	n/a	n/a	n/a	15,178	1,204	926	4,266	5	15,178	1,593	3	3,253	10
w2) Change deferral percentage selections for regular contributions?	n/a	n/a	n/a	3,198	1,904	610	1,904	2	34,255	3,198	610	12,688	3
w3) Initiate withdrawals?	n/a	n/a	n/a	3,886	2,018	123	2,011	4	10,765	3,365	123	3,410	7
w4) View current valuation of their account?	Unknown	Unknown	362,295	258,284	128,878	38,176	138,554	4	897,112	117,755	38,176	227,797	7
<u>Videos</u>													
82 Do you have videos that members can access online?	Yes	Yes	No	100% Yes / 0% No / 0% n/a				15	87% Yes / 13% No / 0% n/a				45
If yes:													
a) How many different videos do you have for members online?	2	2	n/a	76	19	2	26	15	719	17	1	55	39
During your most recent fiscal year:													
b) What was the total number of new views for all streamed videos?	7,000	Unknown	n/a	181,392	12,391	171	26,786	13	276,693	9,932	0	32,221	34
Activity 2f Mass Communication: (ii) News and Targeted Communication													
83 What % of email addresses do you have in your system for the following groups:													
a) Active members?	41.0%	42.0%	35.0%	92.0%	52.8%	11.1%	54.2%	15	100.0%	50.0%	0.0%	50.7%	44

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) Inactive members?	37.4%	20.0%	30.1%	67.7%	28.6%	5.9%	28.3%	15	92.0%	22.9%	0.0%	26.5%	43
c) Annuitants?	49.4%	26.0%	38.0%	84.5%	49.6%	25.8%	51.3%	15	84.5%	44.5%	0.0%	42.4%	44
84 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)?	No	No	No	33% Yes / 67% No / 0% n/a				15	36% Yes / 64% No / 0% n/a				45
b) Active and inactive members?	No	No	No	27% Yes / 73% No / 0% n/a				15	24% Yes / 76% No / 0% n/a				45
c) Active members and annuitants?	No	No	No	13% Yes / 87% No / 0% n/a				15	9% Yes / 91% No / 0% n/a				45
d) Active members only?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	58% Yes / 42% No / 0% n/a				45
e) Inactive members only?	No	No	No	20% Yes / 80% No / 0% n/a				15	13% Yes / 87% No / 0% n/a				45
f) Annuitants only?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	82% Yes / 18% No / 0% n/a				45
g) Age segments (i.e., under 35, 35-50, 50 plus)?	No	No	No	20% Yes / 80% No / 0% n/a				15	20% Yes / 80% No / 0% n/a				45
h) Women only or men only?	No	No	No	0% Yes / 100% No / 0% n/a				15	2% Yes / 98% No / 0% n/a				45
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	No	No	No	27% Yes / 73% No / 0% n/a				15	16% Yes / 84% No / 0% n/a				45
j) Other? (describe your other newsletter segments below)	No	No	No	33% Yes / 67% No / 0% n/a				15	24% Yes / 76% No / 0% n/a				45
<u>n/a</u>													
If yes: # of times you sent last year?													
a) All members (active, inactive and annuitants)?	n/a	n/a	n/a	6	4	1	4	5	15	3	1	4	17
b) Active and inactive members?	n/a	n/a	n/a	5	3	2	3	5	5	3	1	3	12
c) Active members and annuitants?	n/a	n/a	n/a	3	2	1	2	2	3	2	1	2	4
d) Active members only?	3	3	3	20	4	2	6	10	20	3	1	4	26
e) Inactive members only?	n/a	n/a	n/a	4	2	1	2	3	4	2	1	2	6
f) Annuitants only?	3	3	3	11	3	1	3	15	17	2	1	3	37
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a	n/a	n/a	8	4	1	4	3	17	4	1	7	9
h) Women only or men only?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	1	1	1	1	1
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a	n/a	n/a	34	8	2	13	4	34	4	2	10	7
j) Other? (describe your other newsletter segments below)	n/a	n/a	n/a	12	4	1	6	5	12	3	1	4	11
Approx. % sent by email													
a) All members (active, inactive and annuitants)?	n/a	n/a	n/a	100.0%	69.0%	34.0%	64.2%	5	100.0%	47.5%	0.0%	55.3%	16
b) Active and inactive members?	n/a	n/a	n/a	67.0%	29.0%	8.0%	33.3%	4	100.0%	48.0%	0.0%	45.7%	11

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) Active members and annuitants?	n/a	n/a	n/a	100.0%	93.0%	86.0%	93.0%	2	100.0%	64.5%	42.0%	67.8%	4
d) Active members only?	0.0%	0.0%	0.0%	100.0%	96.0%	0.0%	59.9%	10	100.0%	84.0%	0.0%	61.6%	26
e) Inactive members only?	n/a	n/a	n/a	16.0%	0.0%	0.0%	5.3%	3	100.0%	8.0%	0.0%	22.7%	6
f) Annuitants only?	0.0%	0.0%	0.0%	100.0%	3.0%	0.0%	24.3%	15	100.0%	9.0%	0.0%	25.2%	37
g) Age segments (i.e., under 35, 35-50, 50 plus)?	n/a	n/a	n/a	100.0%	100.0%	0.0%	66.7%	3	100.0%	85.0%	0.0%	65.2%	9
h) Women only or men only?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	100.0%	100.0%	100.0%	100.0%	1
i) Employer or employment category (i.e., a different newsletter for teachers vs. bus drivers)?	n/a	n/a	n/a	100.0%	59.0%	0.0%	54.5%	4	100.0%	85.7%	0.0%	57.7%	7
j) Other? (describe your other newsletter segments below)	n/a	n/a	n/a	100.0%	100.0%	7.0%	67.2%	5	100.0%	42.0%	0.0%	57.2%	11
85 Are new members issued a 'welcome' kit describing their benefits?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 7% No / 0% n/a				45
a) If yes, does it include a personalized letter addressing the new member by name?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	73% Yes / 20% No / 7% n/a				42
86 Do you send your members a general brochure with a summary of the benefits every year in either paper or email format?	No	No	No	40% Yes / 60% No / 0% n/a				15	29% Yes / 71% No / 0% n/a				45
87 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	No	40% Yes / 53% No / 7% n/a				14	33% Yes / 49% No / 18% n/a				37
b) Vested for disability benefits (if member is not vested immediately)?	No	No	No	27% Yes / 67% No / 7% n/a				14	11% Yes / 69% No / 20% n/a				36
c) Expiration of disability benefits for inactive members or members that have exited employment?	No	No	No	33% Yes / 53% No / 13% n/a				13	24% Yes / 58% No / 18% n/a				37
d) Approaching eligibility, or becoming eligible, for retirement?	No	No	No	53% Yes / 47% No / 0% n/a				15	53% Yes / 47% No / 0% n/a				45
e) Eligibility or likely eligibility, to purchase service credit?	No	No	No	27% Yes / 73% No / 0% n/a				15	27% Yes / 67% No / 7% n/a				42
f) Missing beneficiary?	No	No	No	27% Yes / 73% No / 0% n/a				15	29% Yes / 67% No / 4% n/a				43
g) Missing email address?	No	No	No	7% Yes / 93% No / 0% n/a				15	13% Yes / 87% No / 0% n/a				45
h) Never visited the secure member area?	No	No	No	13% Yes / 80% No / 7% n/a				14	9% Yes / 87% No / 4% n/a				43
i) Other milestone communication? (describe below) n/a	No	No	No	60% Yes / 40% No / 0% n/a				15	67% Yes / 33% No / 0% n/a				45
88 Do you actively solicit member feedback on your publications through:													
a) Focus groups?	Yes	Yes	Yes	27% Yes / 73% No / 0% n/a				15	31% Yes / 69% No / 0% n/a				45
b) Tear out surveys or feedback cards in the publications themselves?	Yes	No	No	7% Yes / 93% No / 0% n/a				15	18% Yes / 82% No / 0% n/a				45
c) Surveys sent to members who request a publication?	No	No	No	0% Yes / 100% No / 0% n/a				15	11% Yes / 89% No / 0% n/a				45
d) Other (describe)?	Yes	No	No	27% Yes / 73% No / 0% n/a				15	51% Yes / 49% No / 0% n/a				45

Survey Question		Your Response			Peers 2017					All Participants 2017				
		2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
Member satisfaction survey (with additional questions on communications/publications)														
89	Do you publish any of the following materials in a language other than English (or other than French in Quebec and France), or in Braille:													
	a) Member statements?	No	No	No	0% Yes / 100% No / 0% n/a				15	22% Yes / 78% No / 0% n/a				45
	b) Annual report?	No	No	No	0% Yes / 100% No / 0% n/a				15	24% Yes / 76% No / 0% n/a				45
	c) Newsletters?	No	No	No	0% Yes / 100% No / 0% n/a				15	22% Yes / 78% No / 0% n/a				45
	d) Website?	Yes	Yes	Yes	20% Yes / 80% No / 0% n/a				15	31% Yes / 69% No / 0% n/a				45
	e) Brochures and pamphlets?	No	No	No	13% Yes / 87% No / 0% n/a				15	36% Yes / 64% No / 0% n/a				45
Activity 2f Mass Communication: (iii) Member Statement														
90	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	1	4	1	1	1	15	5	1	0	1	45
	b) Inactive members?	1	1	1	4	1	1	1	15	4	1	0	1	45
91	Approximately what % of members complain about the accuracy of data in their member statements?	0.5%	0.5%	0.5%	1.0%	0.0%	0.0%	0.1%	15	3.0%	0.1%	0.0%	0.4%	45
92	Indicate the approximate percentage breakdown of how you send member statements to active members:													
	a) Directed through the employer?	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	3.3%	15	100.0%	0.0%	0.0%	10.9%	42
	b) Mailed directly to members' homes?	100.0%	100.0%	100.0%	100.0%	75.0%	0.0%	58.5%	15	100.0%	76.0%	0.0%	61.2%	44
	c) Email or text message to members that the statement is available in the secure member area?	0.0%	0.0%	0.0%	100.0%	25.0%	0.0%	42.9%	15	100.0%	8.5%	0.0%	32.8%	44
93	On average, how current is an active member's data in the statements that the member receives (in months)? [For example, if statements with data current to December 31st are mailed in a staggered mailing beginning May 1st and finishing June 30th, then the members are receiving data that is between 4 and 6 months old. or 5 months old on average.]	5	4	4	5	2	0	2	15	6	3	0	3	44
94	Do your statements for active members include:													
	a) Total accumulated service credit?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	93% Yes / 2% No / 4% n/a				43
	b) Pensionable earnings?	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	87% Yes / 11% No / 2% n/a				44
	c) A historical summary of salary and service credit earned each year?	No	No	No	47% Yes / 53% No / 0% n/a				15	27% Yes / 71% No / 2% n/a				44
	d) The refund value if you left at the statement date?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	71% Yes / 27% No / 2% n/a				44

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
e) An estimate of the future pension entitlement based on age scenario modeling or assuming the member continues to work until earliest possible retirement? <u>New Media and Other</u>	No	No	No	73% Yes / 27% No / 0% n/a				15	82% Yes / 16% No / 2% n/a				44
95 Indicate if your system has an active account (i.e., you have updated it or posted to it in the past 12 months) on the following social media platforms:													
a) Facebook?	No	No	No	80% Yes / 20% No				15	58% Yes / 42% No				45
b) Twitter?	No	No	No	73% Yes / 27% No				15	53% Yes / 47% No				45
c) YouTube?	No	No	New	53% Yes / 47% No				15	49% Yes / 51% No				45
d) Google+?	No	No	New	33% Yes / 67% No				15	24% Yes / 76% No				45
e) LinkedIn?	No	No	New	73% Yes / 27% No				15	56% Yes / 44% No				45
f) Pinterest?	No	No	New	0% Yes / 100% No				15	7% Yes / 93% No				45
g) Instagram?	No	No	New	13% Yes / 87% No				15	16% Yes / 84% No				45
h) WhatsApp?	No	No	New	0% Yes / 100% No				15	4% Yes / 96% No				45
i) SnapChat?	No	No	New	0% Yes / 100% No				15	0% Yes / 100% No				45
j) Blog?	No	No	New	20% Yes / 80% No				15	22% Yes / 78% No				45
k) Other? Please describe below. <u>n/a</u>	No	No	New	13% Yes / 87% No				15	13% Yes / 87% No				45
96 If easily available, provide the following metrics for your most recently ended fiscal year (this does not impact your service score):													
a) For Facebook, what is your average annual post engagement rate (combined clicks, comments, likes and shares divided by total post reach)?	n/a	n/a	New	67.0%	6.4%	0.3%	12.9%	10	67.0%	4.1%	0.0%	12.7%	21
b) For Twitter, what is your average tweet engagement rate (combined clicks, retweets, replies, follows, and likes divided by total impressions)?	n/a	n/a	New	7.0%	1.1%	0.0%	1.8%	10	18.1%	1.2%	0.0%	2.5%	23
97 Approximately how many full time equivalent staff ("FTE") are dedicated to maintaining your social media presence? Include time spent modifying or creating content specifically for social media platforms and time spent monitoring, measuring and responding to comments and questions on social media	n/a	n/a	New	3.0	1.0	0.0	0.9	13	3.5	0.7	0.0	0.8	34
98 Do you support private two-way communication with members through any social media platforms?	n/a	n/a	New	67% Yes / 20% No / 13% n/a				13	40% Yes / 36% No / 24% n/a				34
99 Do you have a mobile app?	No	No	No	7% Yes / 93% No / 0% n/a				15	9% Yes / 91% No / 0% n/a				45
a) If yes, how many apps do you have?	n/a	n/a	New	1	1	1	1	1	3	1	1	2	4

Survey Question	Your Response			Peers 2017					All Participants 2017						
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#		
100 Do you have a mobile version of your website? (i.e., a version of your website designed specifically for smart phones and tablets)	Yes	No	No	87% Yes / 13% No / 0% n/a					15	78% Yes / 22% No / 0% n/a					45
a) If yes, can members access their own data via the mobile version of your website?	No	n/a	n/a	67% Yes / 27% No / 7% n/a					14	58% Yes / 22% No / 20% n/a					36
Activity 3 Collections and Data Maintenance															
101 Number of:															
a) Employers at the end of your fiscal year?	912	913	920	3,232	989	4	1,254	15	157,480	784	1	5,465	45		
b) Employers that joined your system during the fiscal year?	3	4	5	20	5	0	7	15	27,689	5	0	705	45		
c) Employers that exited your system during the fiscal year?	4	11	6	11	4	0	4	15	19,382	3	0	511	45		
102 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?	833	834	835	3,072	1,029	4	1,237	15	23,913	574	1	1,468	45		
b) Money (i.e., contributions)?	833	834	835	3,072	989	4	1,222	15	23,913	695	1	1,885	45		
[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.]															
103 How many 'reconciliation points' (i.e., employers, state agencies, departments and/or service providers, etc.) do you deal with when:															
a) Validating member data?	912	913	920	3,072	1,029	4	1,253	15	125,000	784	1	4,337	45		
b) Reconciling money issues (i.e., contributions)?	833	834	835	3,072	1,029	4	1,248	15	125,000	775	1	4,678	45		
[For most systems, the number of 'reconciliation points' will be the same as the number of 'collection points' per question 102 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.]															
104 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.]	833	834	835	3,078	833	0	1,106	15	23,459	534	0	1,296	45		

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	0	0	0	1,495	0	0	131	15	1,512	0	0	116	45
c) Computer readable? (i.e., via computer tape or disk)	0	0	0	1	0	0	0	15	1,927	0	0	43	45
d) Paper?	0	0	0	174	0	0	13	15	454	0	0	21	45
Total # of active members													
a) 100% electronic? [No manual steps required unless there are errors.]	173.0k	168.2k	164.9k	346.0k	171.5k	0.0k	161.2k	14	3,081.0k	165.0k	0.0k	274.6k	44
b) Mostly electronic? [For example, some systems receive files by internet and then must manually start a program that uploads the file.]	0.0k	0.0k	0.0k	257.0k	0.0k	0.0k	43.2k	13	257.0k	0.0k	0.0k	32.0k	41
c) Computer readable? (i.e., via computer tape or disk)	0.0k	0.0k	0.0k	97.2k	0.0k	0.0k	7.5k	13	907.7k	0.0k	0.0k	26.6k	41
d) Paper?	0.0k	0.0k	0.0k	3.0k	0.0k	0.0k	0.2k	13	23.9k	0.0k	0.0k	0.9k	41
105 How many warrants of execution or court orders did you obtain against delinquent employers?	0	0	0	5	0	0	0	15	6,627	0	0	256	45
106 What % of your active and inactive member online 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. Online 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.]	89.0%	71.0%	72.2%	99.9%	99.0%	87.0%	96.3%	15	100.0%	97.0%	67.0%	95.2%	45
107 Do you actively keep track of the addresses of inactive members?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	73% Yes / 27% No / 0% n/a				45
108 Do you have a diagnostic software system for detecting and correcting contribution errors?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	93% Yes / 7% No / 0% n/a				45
109 When you get an address change, how many systems do you need to update?	2	2	2	7	1	1	2	15	7	1	1	1	45
Activity 3b - Service to Employers													
110 Number of:													
a) Incoming calls from employers?	46,472	38,501	40,913	51,270	10,695	1	15,927	15	97,336	8,204	0	15,343	45
b) Email queries from employers?	98,798	115,798	113,820	98,798	9,058	0	14,478	15	98,798	6,269	0	9,180	45
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	0	7	0	0	2	15	63	0	0	3	45

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
d) Presentations given to employers such as orientation workshops or seminars on benefit changes, etc. (do not include presentations given at conferences)?	22	53	40	136	28	2	42	15	648	25	0	68	45
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.]	63	62	64	708	26	0	87	15	1,080	3	0	68	45
f) Other site visits to employers (exclude 'd' and 'e' above)?	0	0	1	124	2	0	14	15	3,246	3	0	131	45
111 Do you have an employer targeted section on your website or a separate website for your employers? [Do not include PDF documents.]	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	96% Yes / 4% No / 0% n/a				45
112 Do you have online videos targeted for employers?	No	No	No	93% Yes / 7% No / 0% n/a				15	64% Yes / 36% No / 0% n/a				45
113 How many different types of presentations did you give to employers?	3	3	3	23	6	1	7	15	23	6	0	7	45
114 Do you have a newsletter dedicated to employers that is different from the newsletter for members?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	78% Yes / 22% No / 0% n/a				45
a) If yes, how many times did you prepare and send an employer dedicated newsletter last year?	6	12	12	35	9	2	13	14	74	9	2	13	35
115 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?	Yes	Yes	Yes	20% Yes / 80% No / 0% n/a				15	33% Yes / 67% No / 0% n/a				45
116 Do you offer and maintain generalized reporting software for your employer collection points?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	96% Yes / 4% No / 0% n/a				45
If yes:													
a) Is the application web-based? (i.e., you connect to it through a web browser)	Yes	Yes	Yes	93% Yes / 0% No / 7% n/a				14	96% Yes / 0% No / 4% n/a				43
b) Can the software integrate both data collection and billing?	Yes	Yes	Yes	80% Yes / 13% No / 7% n/a				14	67% Yes / 29% No / 4% n/a				43
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	No	No	67% Yes / 27% No / 7% n/a				14	67% Yes / 29% No / 4% n/a				43
117 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.]	No	No	No	20% Yes / 80% No / 0% n/a				15	24% Yes / 76% No / 0% n/a				45
Activity 4 - Governance and Financial Control													
118 Indicate the oversight bodies that you reported to last year, and the number of meetings, excluding investment related meetings, that you participated in:													

Survey Question	Your Response			Peers 2017					All Participants 2017					
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#	
a) Board of Trustees?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a					15	87% Yes / 13% No / 0% n/a				45
b) Non-board legislative oversight committee?	No	Yes	Yes	60% Yes / 40% No / 0% n/a					15	49% Yes / 51% No / 0% n/a				45
c) Advisory committee?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a					15	36% Yes / 64% No / 0% n/a				45
d) Members' Council?	No	No	No	7% Yes / 93% No / 0% n/a					15	9% Yes / 91% No / 0% n/a				45
e) Other (describe below)?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a					15	47% Yes / 53% No / 0% n/a				45
<u>Board Audit Committee</u>														
# of meetings, including sub-committees, last year														
a) Board of Trustees?	6	6	6	62	23	4	22	14	108	17	1	22	39	
b) Non-board legislative oversight committee?	n/a	1	2	37	7	1	10	9	41	6	1	9	22	
c) Advisory committee?	12	8	10	16	8	0	8	6	16	4	0	6	16	
d) Members' Council?	n/a	n/a	n/a	2	2	2	2	1	8	4	1	4	4	
e) Other (describe below)?	4	3	3	12	5	3	7	6	85	6	1	13	21	
119 Do you have back-up equipment and premises arranged for your operations if substantial damage occurs at your principal location?														
	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a					15	100% Yes / 0% No / 0% n/a				45
120 Do you have an independent auditor that reviews and tests the disaster recovery plan?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a					15	69% Yes / 31% No / 0% n/a				45
121 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?	2	2	2	3	1	0	1	15	5	1	0	1	45	
b) Begin doing new pension inceptions at normal volumes?	30	30	30	30	3	0	7	15	43	3	0	8	45	
c) Collect data and money from employers?	7	7	7	10	3	0	3	15	43	2	0	4	45	
d) Respond to member calls at close to current service levels?	14	14	14	30	3	0	6	15	43	3	0	6	45	
122 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	Yes	40% Yes / 60% No					15	44% Yes / 56% No				45
a) If yes, describe:														
<u>There was new legislation for Target Date Funds. This will be a major undertaking for us to be ready to implement this by January of 2018.</u>														
<u>Satisfaction</u>														
123 Did you do any satisfaction surveying in your most recently ended fiscal year?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a					15	91% Yes / 7% No / 2% n/a				44
If yes, complete the table below for each activity that you surveyed.														
<u>1-on-1 counseling</u>														

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	73% Yes / 16% No / 11% n/a				40
b) Did the survey focus primarily on this single activity? (versus including other activities)	Yes	Yes	Yes	80% Yes / 7% No / 13% n/a				13	71% Yes / 2% No / 27% n/a				33
c) What was the longest possible time in days between the activity and the survey?	0	0	0	60	1	0	6	13	90	1	0	10	33
d) Is the survey delayed by at least 1 day from the date of the session?	No	No	No	40% Yes / 47% No / 13% n/a				13	33% Yes / 40% No / 27% n/a				33
e) How often did you survey about the activity?	Continuous	Continuous	Continuous	250	250	12	232	13	250	250	4	209	33
f) Can you break down the survey results by service agent?	Yes	Yes	No	80% Yes / 7% No / 13% n/a				13	49% Yes / 24% No / 27% n/a				33
g) Can you break down the survey results by topic covered?	No	No	No	40% Yes / 47% No / 13% n/a				13	42% Yes / 31% No / 27% n/a				33
<u>Member presentations</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	80% Yes / 9% No / 11% n/a				40
b) Did the survey focus primarily on this single activity? (versus including other activities)	Yes	Yes	Yes	93% Yes / 0% No / 7% n/a				14	80% Yes / 0% No / 20% n/a				36
c) What was the longest possible time in days between the activity and the survey?	14	14	14	60	0	0	6	14	90	1	0	7	36
d) Is the survey delayed by at least 1 day from the date of the session?	Yes	Yes	Yes	40% Yes / 53% No / 7% n/a				14	31% Yes / 49% No / 20% n/a				36
e) How often did you survey about the activity?	Continuous	Continuous	Continuous	250	250	250	250	14	250	250	4	231	36
f) Can you break down the survey results by service agent?	Yes	Yes	Yes	93% Yes / 0% No / 7% n/a				14	71% Yes / 9% No / 20% n/a				36
<u>Member telephone calls</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	69% Yes / 24% No / 7% n/a				42
b) Did the survey focus primarily on this single activity? (versus including other activities)	No	No	No	60% Yes / 20% No / 20% n/a				12	60% Yes / 9% No / 31% n/a				31
c) What was the longest possible time in days between the activity and the survey?	365	365	364	365	4	0	68	12	365	7	0	37	31
d) Is the survey delayed by at least 1 day from the date of the session?	Yes	Yes	Yes	47% Yes / 33% No / 20% n/a				12	44% Yes / 24% No / 31% n/a				31
e) How often did you survey about the activity?	Annually	Annually	Annually	250	250	1	156	12	250	52	1	123	31
f) Can you break down the survey results by service agent?	No	No	No	53% Yes / 27% No / 20% n/a				12	38% Yes / 31% No / 31% n/a				31
g) Can you break down the survey results by topic covered?	No	No	No	27% Yes / 53% No / 20% n/a				12	38% Yes / 31% No / 31% n/a				31
<u>Website - secure member area</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	No	No	No	40% Yes / 60% No / 0% n/a				15	51% Yes / 42% No / 7% n/a				42
b) Did the survey focus primarily on this single activity? (versus including other activities)	n/a	n/a	n/a	20% Yes / 20% No / 60% n/a				6	38% Yes / 13% No / 49% n/a				23

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) What was the longest possible time in days between the activity and the survey?	n/a	n/a	n/a	365	34	0	133	6	365	7	0	64	23
e) How often did you survey about the activity?	n/a	n/a	n/a	250	131	1	127	6	250	52	1	126	23
g) Can you break down the survey results by topic covered?	n/a	n/a	n/a	27% Yes / 13% No / 60% n/a				6	38% Yes / 13% No / 49% n/a				23
<u>Pension inceptions</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	71% Yes / 22% No / 7% n/a				42
b) Did the survey focus primarily on this single activity? (versus including other activities)	Yes	Yes	Yes	67% Yes / 13% No / 20% n/a				12	64% Yes / 7% No / 29% n/a				32
c) What was the longest possible time in days between the activity and the survey?	90	90	90	365	7	0	54	12	365	14	0	39	32
e) How often did you survey about the activity?	Quarterly	Quarterly	Quarterly	250	250	1	150	12	250	12	1	102	32
<u>Written benefit estimates</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	No	No	No	53% Yes / 47% No / 0% n/a				15	47% Yes / 47% No / 7% n/a				42
b) Did the survey focus primarily on this single activity? (versus including other activities)	n/a	n/a	n/a	47% Yes / 7% No / 47% n/a				8	42% Yes / 4% No / 53% n/a				21
c) What was the longest possible time in days between the activity and the survey?	n/a	n/a	n/a	365	10	0	67	8	365	15	0	43	21
e) How often did you survey about the activity?	n/a	n/a	n/a	250	250	1	158	8	250	26	1	104	21
<u>Refunds, lump-sums & transfers-out</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	No	No	No	27% Yes / 73% No / 0% n/a				15	38% Yes / 56% No / 7% n/a				42
b) Did the survey focus primarily on this single activity? (versus including other activities)	n/a	n/a	n/a	13% Yes / 13% No / 73% n/a				4	29% Yes / 9% No / 62% n/a				17
c) What was the longest possible time in days between the activity and the survey?	n/a	n/a	n/a	365	75	0	129	4	365	30	0	65	17
e) How often did you survey about the activity?	n/a	n/a	n/a	250	8	1	67	4	250	12	1	72	17
<u>Purchases & transfers-in</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	No	No	No	40% Yes / 60% No / 0% n/a				15	44% Yes / 49% No / 7% n/a				42
b) Did the survey focus primarily on this single activity? (versus including other activities)	n/a	n/a	n/a	27% Yes / 13% No / 60% n/a				6	36% Yes / 9% No / 56% n/a				20
c) What was the longest possible time in days between the activity and the survey?	n/a	n/a	n/a	365	38	0	88	6	365	30	0	65	20
e) How often did you survey about the activity?	n/a	n/a	n/a	250	19	1	91	6	250	12	1	64	20
<u>Disability</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	No	No	Yes	53% Yes / 47% No / 0% n/a				15	42% Yes / 42% No / 16% n/a				38

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) Did the survey focus primarily on this single activity? (versus including other activities)	n/a	n/a	No	47% Yes / 7% No / 47% n/a				8	38% Yes / 4% No / 58% n/a				19
c) What was the longest possible time in days between the activity and the survey?	n/a	n/a	364	90	5	0	22	8	180	30	0	35	19
e) How often did you survey about the activity?	n/a	n/a	Annually	250	250	4	162	8	250	26	2	124	19
<u>Service to employers</u>													
a) Did you survey satisfaction regarding this activity in your most recently ended fiscal year?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	67% Yes / 27% No / 7% n/a				42
e) How often did you survey about the activity?	Annually	Annually	Annually	250	250	1	147	12	250	8	1	86	30
124 If you surveyed satisfaction regarding the secure member area on your website, was the survey electronic? (i.e., email or web based)	n/a	n/a	n/a	27% Yes / 13% No / 60% n/a				6	38% Yes / 18% No / 44% n/a				25
If yes:													
a) Was the survey a menu item that the user had to find and select (as opposed to a survey actively sent to the user via email or a pop up)?	n/a	n/a	n/a	7% Yes / 20% No / 73% n/a				4	11% Yes / 29% No / 60% n/a				18
b) Did you survey 100% of users (versus a sample such as every 100th user)?	n/a	n/a	n/a	20% Yes / 7% No / 73% n/a				4	22% Yes / 18% No / 60% n/a				18
If yes:													
b1) Do you survey all visitors (meaning the same unique user can be surveyed multiple times)?	n/a	n/a	n/a	13% Yes / 7% No / 80% n/a				3	18% Yes / 4% No / 78% n/a				10
<u>Plan Design</u>													
<u>Plan Characteristics</u>													
125 Indicate 'yes' if your employers/ member groups can be described as the following (indicate all that apply):													
a) Is your membership limited to a city or county?	No	No	No	7% Yes / 93% No / 0% n/a				15	4% Yes / 91% No / 4% n/a				43
b) Participating Local Employers (i.e., municipalities have a choice in participating in your plan)?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	49% Yes / 47% No / 4% n/a				43
c) State, Province, Country?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	73% Yes / 22% No / 4% n/a				43
d) Teachers?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	58% Yes / 38% No / 4% n/a				43
e) School Employees (Custodians, Admin. Staff)?	Yes	Yes	Yes	73% Yes / 27% No / 0% n/a				15	69% Yes / 27% No / 4% n/a				43
f) Safety (Police, Fire, Sheriff's Dept., etc.)?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	60% Yes / 36% No / 4% n/a				43
g) Other (Judges, Legislators, etc.)?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	56% Yes / 40% No / 4% n/a				43
h) Corporate?	No	No	No	0% Yes / 100% No / 0% n/a				15	7% Yes / 89% No / 4% n/a				43
i) Industry?	No	No	No	7% Yes / 93% No / 0% n/a				15	11% Yes / 84% No / 4% n/a				43
i1) If Industry, describe the industry:													
<u>n/a</u>													

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
126 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")? b) DB Cash Balance (aka Money Purchase)? c) Hybrid DB/ DC Cash Balance? d) Hybrid DB/ Money Match? e) DROP savings? f) Defined Contribution ("DC")? g) Hybrid DB/ DC? h) Other (describe)? <u>n/a</u>													
	No	No	No	87% Yes / 13% No / 0% n/a				15	91% Yes / 9% No / 0% n/a				45
	No	No	No	13% Yes / 87% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
	No	No	No	0% Yes / 100% No / 0% n/a				15	4% Yes / 96% No / 0% n/a				45
	Yes	Yes	Yes	7% Yes / 93% No / 0% n/a				15	2% Yes / 93% No / 4% n/a				43
	No	No	No	13% Yes / 87% No / 0% n/a				15	11% Yes / 84% No / 4% n/a				43
	No	No	No	27% Yes / 73% No / 0% n/a				15	18% Yes / 82% No / 0% n/a				45
	Yes	Yes	Yes	53% Yes / 47% No / 0% n/a				15	29% Yes / 69% No / 2% n/a				44
	No	No	No	7% Yes / 93% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
127 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'? 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.] c) To change their contribution rate in order to get either more money at retirement or earlier eligibility to retire?													
	Yes	Yes	Yes	13% Yes / 87% No / 0% n/a				15	7% Yes / 87% No / 7% n/a				42
	No	No	No	27% Yes / 73% No / 0% n/a				15	9% Yes / 84% No / 7% n/a				42
	No	No	No	0% Yes / 100% No / 0% n/a				15	2% Yes / 91% No / 7% n/a				42
128 Do you have a Highly Compensated Employee replacement benefit program for employees that exceed legal or contractual limits of maximum pensionable earnings?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	64% Yes / 29% No / 7% n/a				42
129 Are any of the following activities administered by a third party: a) DB administration? b) DC administration? c) Pensioner data maintenance? d) Active member data maintenance? e) Contribution collection? f) Disability decisions?													
	No	No	No	0% Yes / 100% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
	Yes	Yes	Yes	60% Yes / 27% No / 13% n/a				13	36% Yes / 38% No / 27% n/a				33
	No	No	No	7% Yes / 93% No / 0% n/a				15	9% Yes / 91% No / 0% n/a				45
	No	No	No	7% Yes / 93% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
	No	No	No	0% Yes / 100% No / 0% n/a				15	7% Yes / 93% No / 0% n/a				45
	No	No	No	53% Yes / 47% No / 0% n/a				15	33% Yes / 62% No / 4% n/a				43

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
130 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	No	13% Yes / 87% No / 0% n/a				15	7% Yes / 89% No / 4% n/a				43
b) Post-retirement health?	Yes	Yes	Yes	47% Yes / 53% No / 0% n/a				15	24% Yes / 71% No / 4% n/a				43
c) Pre-retirement dental and vision?	No	No	No	7% Yes / 93% No / 0% n/a				15	2% Yes / 93% No / 4% n/a				43
d) Post-retirement dental and vision?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a				15	16% Yes / 80% No / 4% n/a				43
e) Long-term care insurance?	Yes	Yes	Yes	7% Yes / 93% No / 0% n/a				15	2% Yes / 93% No / 4% n/a				43
f) Loans to members?	No	No	No	13% Yes / 87% No / 0% n/a				15	9% Yes / 87% No / 4% n/a				43
g) Optional tax deferred savings plans? (i.e., 457, 403, 401k, 401a, etc.)	Yes	Yes	Yes	27% Yes / 73% No / 0% n/a				15	22% Yes / 73% No / 4% n/a				43
h) Optional insurance? (i.e., life and/or auto and/or home)	No	No	No	20% Yes / 80% No / 0% n/a				15	11% Yes / 84% No / 4% n/a				43
i) Other (describe)? n/a	No	No	No	27% Yes / 73% No / 0% n/a				15	20% Yes / 76% No / 4% n/a				43
131 Is your organization directly responsible for both investments and pension administration?	No	No	No	80% Yes / 20% No / 0% n/a				15	67% Yes / 33% No / 0% n/a				45
132 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	No	0% Yes / 100% No / 0% n/a				15	16% Yes / 84% No / 0% n/a				45
133 Does your board have the power on its own to approve your operating budget? (i.e., your budget does not also have to be approved by a separate government representative, such as the Treasury, Legislature, Governor, Minister, General Assembly, etc.) Paying Pension Rules	No	No	No	53% Yes / 40% No / 7% n/a				14	44% Yes / 49% No / 7% n/a				42
134 Do you make payments to annuitants that are accounted for separately from the normal pension?	Yes	Yes	Yes	73% Yes / 27% No / 0% n/a				15	44% Yes / 51% No / 4% n/a				43

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<p>[For example :</p> <ul style="list-style-type: none"> • Some systems permit employers to supplement the normal pension of their retirees. The pension fund collects the supplement from the employer and pays it on behalf of the employer. • At some Dutch systems contributions to the normal retirement pension are required by the pensioner during early retirement. These contributions are often reimbursed to the pensioner. The accounting and the member's payment advice shows 2 different payments (the pension + the reimbursement) and 1 collection (the required contribution).] 													
135 Do you:													
a) Check income of non-disabled pensioners? [For most systems this does not apply. At a few systems, if a pensioner's income from other sources exceeds a certain amount, his/her pension could be stopped or reduced.]	No	No	No	27% Yes / 73% No / 0% n/a				15	33% Yes / 62% No / 4% n/a				43
b) Check income of disabled members after they have started receiving disability payments?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	53% Yes / 31% No / 16% n/a				38
c) Check school status? [For example, some systems will check that a dependent beneficiary is still eligible to receive a survivor pension benefit.]	No	No	No	60% Yes / 40% No / 0% n/a				15	56% Yes / 40% No / 4% n/a				43
d) Do proof-of-life checks that require individual annuitants to provide affidavits or notarization or similar proof of life?	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	87% Yes / 9% No / 4% n/a				43
e) Provide written confirmations of pensioner income or member account balances to third-parties? [For example, provide confirmation of income or account value for loans or for social security or subsidized housing. etc.]	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	91% Yes / 4% No / 4% n/a				43
<u>Payment Options</u>													
136 Do you offer "joint and survivor" options that are:													
a) Reduced to Beneficiary Only? [For example, If the beneficiary dies first, then the retiree's pension continues at the same level. However if the retiree dies first then the beneficiary receives a reduced pension (such as 70% for spouse).]	No	No	No	73% Yes / 27% No / 0% n/a				15	67% Yes / 27% No / 7% n/a				42
b) Reduced to Last Survivor? [For example, if either the retiree or beneficiary dies the survivor receives a reduced pension (such as 70%, etc.).]	Yes	Yes	Yes	27% Yes / 73% No / 0% n/a				15	22% Yes / 71% No / 7% n/a				42
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	Yes	87% Yes / 13% No / 0% n/a				15	53% Yes / 40% No / 7% n/a				42

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
137 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.	No	No	No	60% Yes / 40% No / 0% n/a				15	58% Yes / 36% No / 7% n/a				42
a) How many percentages do you permit?	n/a	n/a	n/a	91	3	2	13	9	91	3	1	8	26
138 Do any of your retirement formula for members explicitly subtract estimated Social Security (or CPP in Canada) when determining the benefit?	No	No	No	27% Yes / 73% No / 0% n/a				15	49% Yes / 44% No / 7% n/a				42
a) If yes, is this true for all of your members or are some pensions reduced to reflect Social Security and others not?	n/a	n/a	n/a	0% All / 27% Some / 73% n/a				4	20% All / 29% Some / 51% n/a				22
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?	n/a	n/a	n/a	27% Yes / 0% No / 73% n/a				4	44% Yes / 4% No / 51% n/a				22
139 Do you have "High/ Low" or "Low/High" options that are not tied to social security? [For example, a retiree might want higher payments for 10 years until a mortgage obligation is repaid, followed by lower payments.]	No	No	No	0% Yes / 100% No / 0% n/a				15	9% Yes / 84% No / 7% n/a				42
140 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	Yes	53% Yes / 47% No / 0% n/a				15	47% Yes / 47% No / 7% n/a				42
141 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	No	7% Yes / 93% No / 0% n/a				15	13% Yes / 80% No / 7% n/a				42
142 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	No	7% Yes / 93% No / 0% n/a				15	4% Yes / 89% No / 7% n/a				42
143 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	No	20% Yes / 80% No / 0% n/a				15	16% Yes / 78% No / 7% n/a				42
144 At retirement, can a member convert:													
a) Part of his benefit into a partial lump sum payment?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	38% Yes / 56% No / 7% n/a				42
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.]	Yes	Yes	Yes	20% Yes / 80% No / 0% n/a				15	20% Yes / 73% No / 7% n/a				42

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
145 Are members permitted to retire mid-month (in which case they receive a partial pension payment for the remainder of the month) or are they always assumed to retire on a set day (usually the first or the last day) of the month?	Set Day	Set Day	Set Day	33% Any Day / 67% Set Day / 0% n/a					38% Any Day / 56% Set Day / 7% n/a				
146 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.] <u>Cost of Living Adjustments</u>	5	5	5	272	2	1	21	15	272	2	0	9	43
147 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]	9	9	9	13	2	1	4	15	13	2	0	3	43
148 Do you have: a) Cost of living adjustment ("COLA") clauses that carry forward inflation that exceeds a cap (versus no cap or no carry forward or no COLA etc.)? b) Conditional COLA based on the level of funding? c) Umbrella legislation that guarantees the purchasing power of an annuitants' pension will not fall below a certain level? [An example of such legislated protection is the PPPA in California.]	Yes No No	Yes No No	Yes No No	27% Yes / 73% No / 0% n/a					24% Yes / 69% No / 7% n/a				
				40% Yes / 60% No / 0% n/a					31% Yes / 62% No / 7% n/a				
				13% Yes / 87% No / 0% n/a					13% Yes / 80% No / 7% n/a				
149 Do you have COLA clauses that increase the base pensionable earnings of inactive members? a) If yes, are these COLA increases the same as they are for annuitants? <u>Benefit Formulas</u>	No n/a	No n/a	No n/a	27% Yes / 73% No / 0% n/a					29% Yes / 64% No / 7% n/a				
				13% Yes / 13% No / 73% n/a					22% Yes / 7% No / 71% n/a				
150 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.]	13	13	13	15	7	2	7	15	91	6	1	9	43

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<p>1. All public employees can get an unreduced retirement at 65 with 5 years of service, or at 60 with 20 years of service. (Even though there are two qualifying rules, it only counts as 1 rule set because the rules apply equally to all members.)</p> <p>2. Pre-1995 public employees can get an unreduced retirement at age 55 with 20 years of service.</p> <p>3. Teachers can get an unreduced retirement when age plus years of service equals 75.]</p>													
<p>151 Can members retire earlier than the age required for an unreduced retirement formula?</p> <p>[For example, at one system an unreduced formula of 1.5% per year of service is available beginning at age 60. Members can retire earlier but the pension is reduced by 5% for each year earlier than age 60.]</p>	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	91% Yes / 2% No / 7% n/a				42
<p>152 How many different salary definitions could apply in retirement formula calculations?</p> <p>[Examples of different salary definitions include:</p> <ul style="list-style-type: none"> • Average of 3 final years' salary subject to raises not in excess of 10%; • Average of 3 best consecutive years' salary with no cap on raises; • Final 12 months salary.] 	12	12	7	15	3	1	5	15	15	3	0	4	43
<p>153 How many different 'formula percentage' rule sets could apply in unreduced retirement formulas?</p> <p>[For example, one system has the following three different 'formula percentage' rule sets:</p> <ol style="list-style-type: none"> 1. Fire and Police get 2.5% per year of service; 2. Public Employees get 1.75% per year of service; 3. Teachers get 1.8% for the first 5 years of service, 2.0% for the next 5 years of service and 2.3% per year of service thereafter.] 	10	10	10	20	4	2	6	15	91	4	1	7	43
<p>154 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>	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	47% Yes / 47% No / 7% n/a				42
	No	No	No	20% Yes / 40% No / 40% n/a				9	24% Yes / 22% No / 53% n/a				21
	No	No	No	27% Yes / 33% No / 40% n/a				9	18% Yes / 29% No / 53% n/a				21
	No	No	No	13% Yes / 47% No / 40% n/a				9	4% Yes / 42% No / 53% n/a				21

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
d) The formula of the plan where the member works last will apply.	Yes	Yes	Yes	13% Yes / 47% No / 40% n/a					16% Yes / 31% No / 53% n/a				
e) Other (describe). <u>n/a</u> <u>External Reciprocity</u>	No	No	No	13% Yes / 47% No / 40% n/a					9% Yes / 38% No / 53% n/a				
155 Do you have agreements with external systems where you both agree to use the member's final salary from the system where the member worked immediately prior to retirement in the benefit calculation? [Otherwise, each system pays the "dual" member a pension benefit based on its own rules for determining the benefit. Neither credit nor money are transferred between systems.]	No	No	No	40% Yes / 60% No / 0% n/a					36% Yes / 58% No / 7% n/a				
156 Do you have agreements with external Systems where the member may combine internal and external credit to form one joint account? [The accounts remain separate until the member applies for a benefit, at which time either: • The System with the most service credit for that person is responsible for the combined account, or • The System where the member worked last is responsible.] <u>Service Credit Rules</u>	No	No	No	27% Yes / 73% No / 0% n/a					16% Yes / 78% No / 7% n/a				
157 How many different definitions do you have for a "full year" of service credit? [For example, a system could have: • One definition such as "more than 120 days = a year". • Or the following three definitions: 9 months = a year for state colleges, 10 months = a year for teachers and 12 months = a year for public employees. • Or the following three definitions: 182 days in school district A or B, 179 days in school district C and 180 days in all other school districts. • Or the following two definitions for hourly employees: 48 weeks of 40 hours per week versus 48 weeks of 36 hours per week.]	3	3	3	100	3	1	9	15	100	3	1	7	43
158 Does your system have more than one payroll year for determining service credit?	No	No	No	27% Yes / 73% No / 0% n/a					27% Yes / 67% No / 7% n/a				

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
[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.]													
a) If yes, how many different payroll years exist in your system?	n/a	n/a	n/a	12	3	2	5	4	30	3	2	6	12
159 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.]	4	4	4	8	2	0	2	15	8	2	0	2	43
160 Do you permit:													
a) Permanent part-time employees to be members? [An example of a permanent part-time employee is someone contracted to work 3 days a week.]	Yes	Yes	Yes	93% Yes / 7% No / 0% n/a				15	91% Yes / 4% No / 4% n/a				43
b) Casual/ temporary/ intermittent/ seasonal employees to be members? [An example of a 'temporary' employee is an infrequent substitute teacher.]	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	67% Yes / 27% No / 7% n/a				42
161 Are you sometimes asked by employers to determine the eligibility of members? [This can occur when a member works for multiple employers in your system or when there is unclear eligibility legislation. For example, a school bus driver may drive buses for multiple districts or counties at the same time. Based on time spent within each district the driver would be ineligible. However, based on the combined employment the driver may be eligible.] <u>Service Credit Purchases</u>	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	82% Yes / 11% No / 7% n/a				42
162 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	Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 2% No / 9% n/a				41
b) Lump sum payments from members?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	89% Yes / 4% No / 7% n/a				42
c) Installment payments direct from members?	No	No	No	53% Yes / 40% No / 7% n/a				14	58% Yes / 33% No / 9% n/a				41
d) Installment payments via payroll deduction through employers?	No	No	No	40% Yes / 60% No / 0% n/a				15	51% Yes / 42% No / 7% n/a				42
163 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'.]	16	16	16	25	13	6	13	15	54	11	2	13	42

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
164 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.]	10	10	10	14	6	3	7	15	19	5	1	6	42
165 Are your service credit purchase rules (category definitions, eligibility requirements and calculation methodologies): a) Essentially identical for all your members? b) Similar for all member groups, albeit with some differences? c) Very different for different member groups? <u>Refunds, Transfers-out and Terminating Payments</u>	No	No	No	33% Yes / 67% No / 0% n/a				15	42% Yes / 47% No / 11% n/a				40
b) Similar for all member groups, albeit with some differences?	No	No	No	53% Yes / 47% No / 0% n/a				15	42% Yes / 49% No / 9% n/a				41
c) Very different for different member groups?	Yes	Yes	Yes	20% Yes / 80% No / 0% n/a				15	11% Yes / 78% No / 11% n/a				40
166 Do you pay a one-time death payment when a member, retiree or the retiree's beneficiary dies (separate from the survivor pension)? a) If yes, how many different one-time death payment rule sets do you have? (i.e., \$5,000, \$2,000 etc.)	No	No	No	60% Yes / 40% No / 0% n/a				15	53% Yes / 40% No / 7% n/a				42
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	n/a	8	3	1	4	9	8	3	1	4	25
167 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.] <u>Disability</u>	4	4	4	7	3	1	3	15	8	2	0	3	42
168 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)?	Yes	Yes	Yes	73% Yes / 27% No / 0% n/a				15	69% Yes / 16% No / 16% n/a				38
b) Disabled members receive the greater of their current disability benefit or service retirement based on their service credit earned to the date of disability? (i.e., time on disability does not count as service credit)	No	No	No	27% Yes / 73% No / 0% n/a				15	13% Yes / 71% No / 16% n/a				38
c) Disabled members receive service retirement (time on disability counts as eligible service credit)?	No	No	No	40% Yes / 60% No / 0% n/a				15	31% Yes / 53% No / 16% n/a				38
d) Other (describe)?	Yes	Yes	Yes	47% Yes / 53% No / 0% n/a				15	22% Yes / 62% No / 16% n/a				38

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
<u>Tier One/Tier Two plans keep paying Disability retirement, OPSRP plan stops Disability and member must apply for Service benefits.</u>													
169 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?	Yes	Yes	Yes	27% Yes / 73% No / 0% n/a				15	13% Yes / 64% No / 22% n/a				35
b) An amount that is potentially greater than the difference between his old salary and his new lower salary?	No	No	No	0% Yes / 100% No / 0% n/a				15	4% Yes / 73% No / 22% n/a				35
170 How do you determine whether a member qualifies for long-term disability/ disability pension:													
a) Follow the ruling of a government agency such as social security or worker's compensation?	No	No	No	20% Yes / 80% No / 0% n/a				15	9% Yes / 73% No / 18% n/a				37
b) Employer decides?	No	No	No	0% Yes / 100% No / 0% Some / 0% n/a				15	2% Yes / 80% No / 2% Some / 16% n/a				38
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)?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	78% Yes / 2% No / 20% n/a				36
<u>Internal counselor, contracted medical advisor, and manager reviews.</u>	Yes	Yes	Yes	13% Yes / 87% No / 0% n/a				15	9% Yes / 71% No / 20% n/a				36
171 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)?	No	No	No	47% Yes / 53% No / 0% n/a				15	47% Yes / 36% No / 18% 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.]	Yes	Yes	Yes	20% Yes / 80% No / 0% n/a				15	16% Yes / 67% No / 18% n/a				37
c) Totally and permanently incapacitated and member is not reasonably expected to recover from disabling medical condition or not expected to ever work again?	No	No	No	27% Yes / 73% No / 0% n/a				15	22% Yes / 56% No / 22% n/a				35
d) Other (describe)?	No	No	No	20% Yes / 80% No / 0% n/a				15	9% Yes / 67% No / 24% n/a				34
<u>n/a</u>													

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
172 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	n/a	20% Yes / 13% No / 67% n/a				5	11% Yes / 4% No / 84% n/a				7
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	n/a	7% Yes / 27% No / 67% n/a				5	4% Yes / 11% No / 84% n/a				7
c) Are there materially different approval processes for short-term and long-term disability/ disability pensions?	n/a	n/a	n/a	20% Yes / 13% No / 67% n/a				5	7% Yes / 9% No / 84% n/a				7
173 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?	14	14	14	14	3	1	5	15	71	2	1	6	37
b) Short-term disability (if you administer it yourself)? [For example, some systems have different disability definitions or benefits for police and fire than they do for other public employees. Other systems have grandfathered disability rule sets that only apply to members hired prior to a certain date.]	n/a	n/a	n/a	14	2	2	5	4	14	2	1	4	6
174 Do you reduce payments if the member qualifies or receives:													
a) Disability social security?	No	No	No	40% Yes / 60% No / 0% n/a				15	24% Yes / 58% No / 18% n/a				37
b) Worker's compensation?	No	No	No	60% Yes / 40% No / 0% n/a				15	38% Yes / 42% No / 20% n/a				36
c) Other public funds (i.e., federal military disability)?	No	No	No	13% Yes / 87% No / 0% n/a				15	7% Yes / 73% No / 20% n/a				36
d) Income protection plans/other disability insurance?	No	No	No	20% Yes / 80% No / 0% n/a				15	9% Yes / 71% No / 20% n/a				36
e) Employer sick leave and annual leave pay?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a				15	16% Yes / 64% No / 20% n/a				36
f) Unemployment compensation?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a				15	13% Yes / 67% No / 20% n/a				36
g) Income from other employment?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	38% Yes / 42% No / 20% n/a				36
h) Other (describe)? <u>n/a</u> <u>Pensionable Earnings</u>	No	No	No	27% Yes / 73% No / 0% n/a				15	16% Yes / 62% No / 22% n/a				35
175 Indicate which of the following forms of variable compensation are paid in your system. And, if paid, indicate whether all, some or none of that type of variable compensation is included in pensionable earnings.													
a) Bonuses?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	80% Yes / 13% No / 7% n/a				42

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	Yes	Yes	Yes	80% Yes / 20% No / 0% n/a				15	78% Yes / 16% No / 7% n/a				42
c) Overtime pay?	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	78% Yes / 16% No / 7% n/a				42
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a				15	38% Yes / 56% No / 7% n/a				42
If yes, is all, some or none of it included in pensionable earnings?													
a) Bonuses?	Some	Some	Some	27% All / 7% None / 47% Some / 20% n/a				12	11% All / 11% None / 58% Some / 20% n/a				36
b) Allowances, such as remote location pay or 'high risk' duty allowance or a car allowance?	Some	Some	Some	20% All / 13% None / 47% Some / 20% n/a				12	13% All / 13% None / 51% Some / 22% n/a				35
c) Overtime pay?	All	All	All	73% All / 0% None / 13% Some / 13% n/a				13	42% All / 13% None / 22% Some / 22% n/a				35
d) Commissions or similar payments such as fees paid to sheriffs for process serving?	All	All	All	27% All / 0% None / 13% Some / 60% n/a				6	13% All / 4% None / 20% Some / 62% n/a				17
176 When determining a member's pensionable earnings does a cap on salary increases apply?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	44% Yes / 49% No / 7% n/a				42
<u>Customization Options</u>													
177 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	No	27% Yes / 73% No / 0% n/a				15	20% Yes / 73% No / 7% n/a				42
b) Whether or not part-time employees are eligible?	No	No	No	7% Yes / 93% No / 0% n/a				15	9% Yes / 84% No / 7% n/a				42
c) Whether employee contributions are paid pre or post tax?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a				15	16% Yes / 78% No / 7% n/a				42
d) Whether they pay for employee contributions themselves, or not?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	27% Yes / 67% No / 7% n/a				42
e) Position coverage based on predetermined rule sets? [For example, employers can choose from a list of pre-determined rules sets such as 1.5% X FAS for General and 2.5% X FAS for Law Enforcement. Employers may have flexibility to determine eligibility for each group.]	No	No	No	13% Yes / 87% No / 0% n/a				15	7% Yes / 87% No / 7% n/a				42
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.]	Yes	Yes	Yes	13% Yes / 87% No / 0% n/a				15	9% Yes / 84% No / 7% n/a				42
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	No	13% Yes / 87% No / 0% n/a				15	13% Yes / 82% No / 4% n/a				43
178 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.													

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
a) Benefit program multipliers? (i.e., 2% per year of service, 2.5% per year of service, etc.)	No	No	No	0% Yes / 100% No / 0% n/a				15	2% Yes / 93% No / 4% n/a				43
b) Final salary definition? (i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc.)	Yes	Yes	Yes	7% Yes / 93% No / 0% n/a				15	4% Yes / 91% No / 4% n/a				43
c) Retirement eligibility rules? (i.e., age and/or years of service required to retire)	No	No	No	0% Yes / 100% No / 0% n/a				15	2% Yes / 93% No / 4% n/a				43
d) Cost of living adjustment rules? (i.e., CPI capped at 2%, CPI uncapped, etc.)	No	No	No	0% Yes / 100% No / 0% n/a				15	4% Yes / 91% No / 4% n/a				43
e) Vesting period?	No	No	No	0% Yes / 100% No / 0% n/a				15	0% Yes / 96% No / 4% n/a				43
f) Service credit purchase categories?	No	No	No	13% Yes / 87% No / 0% n/a				15	9% Yes / 87% No / 4% n/a				43
g) Death benefit coverage? (i.e., one system has 3 choices: none, \$5,000 and \$10,000)	No	No	No	0% Yes / 100% No / 0% n/a				15	2% Yes / 93% No / 4% n/a				43
h) Disability coverage rules?	No	No	No	7% Yes / 93% No / 0% n/a				15	7% Yes / 89% No / 4% n/a				43
i) Choice as to whether and how contributions and benefits are coordinated with social security?	No	No	No	0% Yes / 100% No / 0% n/a				15	4% Yes / 91% No / 4% n/a				43
j) Other (describe)?	No	No	No	7% Yes / 93% No / 0% n/a				15	18% Yes / 78% No / 4% n/a				43
<u>n/a</u>													
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	n/a	0	9	9	9	9	1
b) Final salary definition? (i.e., Sick Leave in or out, Final 1 year, Highest 5 consecutive years, etc.)	2	2	2	2	2	2	2	1	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	n/a	0	3	3	3	3	1
d) Cost of living adjustment rules? (i.e., CPI capped at 2%, CPI uncapped, etc.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	4	3	2	3	2
e) Vesting period?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	0
f) Service credit purchase categories?	n/a	n/a	n/a	5	4	2	4	2	10	4	2	5	4
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	n/a	0	6	6	6	6	1
h) Disability coverage rules?	n/a	n/a	n/a	2	2	2	2	1	4	2	2	3	3
i) Choice as to whether and how contributions and benefits are coordinated with social security?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	2	2	1	2	2
j) Other (describe)?	n/a	n/a	n/a	1	1	1	1	1	30	2	1	5	8
179 Can an existing employer change any of the choices (per question 178 above), effectively creating a new or altered rule set, at any time?	No	No	No	20% Yes / 80% No / 0% n/a				15	18% Yes / 73% No / 9% n/a				41
<u>Collections and Data Maintenance</u>													
180 How many different contribution percentages do you collect from:													

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
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.]	2,129	2,129	592	3,213	6	1	401	15	4,100	6	1	277	42
b) Members?	2	2	2	228	3	1	19	15	228	4	1	13	42
181 Which of the following payment methods for employee contributions occur in the plans that you administer:													
a) No employee contributions?	Yes	Yes	Yes	40% Yes / 60% No / 0% n/a				15	24% Yes / 69% No / 7% n/a				42
b) Employer pays his part and also the employee contributions?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	51% Yes / 42% No / 7% n/a				42
c) Employer withholds employee contributions pre-tax from his salary?	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	87% Yes / 7% No / 7% n/a				42
d) Employer withholds employee contributions post-tax from his salary?	Yes	Yes	Yes	67% Yes / 33% No / 0% n/a				15	36% Yes / 58% No / 7% n/a				42
182 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.]	Yes	Yes	Yes	33% Yes / 67% No / 0% n/a				15	38% Yes / 56% No / 7% n/a				42
a) If yes, describe: <u>Police & Fire unit contributions, optional DC program contributions</u>													
183 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	No	13% Yes / 87% No / 0% n/a				15	20% Yes / 76% No / 4% n/a				43
184 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?	No	No	No	53% Yes / 40% No / 7% n/a				14	38% Yes / 47% No / 16% n/a				38
185 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? <u>Billing and Inspection</u>	Yes	Yes	Yes	100% Yes / 0% No / 0% n/a				15	87% Yes / 9% No / 4% n/a				43
186 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?	Yes	Yes	Yes	87% Yes / 13% No / 0% n/a				15	69% Yes / 22% No / 9% n/a				41
b) Invoice employers in arrears based on actual member service and salary data?	Yes	Yes	Yes	60% Yes / 40% No / 0% n/a				15	58% Yes / 33% No / 9% n/a				41

Survey Question	Your Response			Peers 2017					All Participants 2017				
	2017	2016	2015	Max	Med	Min	Avg	#	Max	Med	Min	Avg	#
c) Invoice employers in advance based on estimated member service and salary data, and then adjust based on actual experience?	Yes	Yes	Yes	13% Yes / 87% No / 0% n/a				15	13% Yes / 78% No / 9% n/a				41
187 If you answered 'yes' to questions 186a, b or c above:													
a) How many times per year do you send invoices or 'advices' to each employer?	26	26	26	20,686	12	1	1,487	14	20,686	2	0	525	40
<u>Divorce</u>													
188 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	No	20% Yes / 80% No / 0% n/a				15	18% Yes / 76% No / 7% n/a				42
b) Minimal impact unless children are involved. With children you may be required to redirect payment.	No	No	No	0% Yes / 100% No / 0% n/a				15	0% Yes / 93% No / 7% n/a				42
c) A portion of the pension is paid to the ex-spouse, but ONLY when the member begins receiving benefits.	No	No	No	60% Yes / 40% No / 0% n/a				15	42% Yes / 51% No / 7% n/a				42
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.	Yes	Yes	Yes	27% Yes / 73% No / 0% n/a				15	31% Yes / 62% No / 7% n/a				42
e) Other (describe)	Yes	Yes	Yes	7% Yes / 93% No / 0% n/a				15	13% Yes / 80% No / 7% n/a				42
<u>Court order can establish a separate account or reduction from member's benefit</u>													

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			
	2017	2016	2015	2014
United States Dollars - USD	1.000	1.000	1.000	1.000
Canada Dollars - CAD	0.794	0.804	0.820	0.797
Euro - EUR	1.339	1.337	1.314	1.287
Denmark Kroner - DKK	0.136	0.139	0.133	0.131
Sweden Kronor - SEK	0.110	0.112	0.111	0.114
United Kingdom Pounds - GBP	1.422	1.450	1.428	1.427
Australia Dollars - AUD	0.660	0.691	0.692	0.667

1. Source OECD Website, February 2018.

Appendix C - Activity definitions

1. Member Transactions	
1a. Pension Payments	<p>1. Paying (but not incepting) annuity pensions for disability, early and normal retirees and their survivors, including:</p> <ul style="list-style-type: none"> • EFT processing. • Check processing and postage. • Resolving failed, misdirected and lost payments. • Paying, but not calculating, adjustments to pensions. For example, many systems pay retroactive adjustments to pensions initiated based on incomplete data. • Collecting overpayments. • The processing of return payments from annuitants. • Stopping pension payments upon the death of an annuitant. <p>2. Processing deductions from the gross pension payment. For example:</p> <ul style="list-style-type: none"> • Processing and paying taxes and other governmental deductions, such as social security. • Processing legally required deductions such as liens on wages ordered by a judge. • Processing and effecting payment of optional deductions that the member can request, such as for health care or optional life insurance or union dues. • Processing and mailing of check stubs or EFT payment advices. • Processing and mailing of annual tax receipts to annuitants. • Keeping track of the rules and regulations for deductions. <p>3. Confirming payment eligibility. This includes:</p> <ul style="list-style-type: none"> • Cross referencing pension payrolls with death records. • Obtaining proof that someone is alive. • Checking eligibility. <p>If a sister organization performs any of the above tasks, then the costs incurred by the sister organization should be included here and in your Total Costs.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Maintaining banking, address and beneficiary data for retirees. These belong in 3c Data Not from Employers. • The work of inflation adjustments. It belongs in 1b Pension Inceptions.
1b. Pension Inceptions	<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

1c. Withdrawals, Refunds, Transfers-out	<p>Payments that terminate your relationship with a member including:</p> <ul style="list-style-type: none"> • Withdrawals and Refunds of contributions. • Lump sum and commuted value payments. • Pre-retirement death that results in a final payment (refund, commuted value, death payment). • One time death payments that are supplemental to the annuity payments. Do not include the cost of paying or stopping the final pension payment which belong in 1a Pension Payments. • Hardship withdrawals (including partials). • Excess contribution refunds (For example, 50% Rule Refunds in Canada). • Individual rollovers of DB monies to internal DC accounts which effectively terminate the DB pension entitlement. • Individual transfers-out of monies to authorized external systems. • Collective transfers-out when an employer exits your system. <p>The activity also includes:</p> <ul style="list-style-type: none"> • Providing written estimates of refunds and transfers-out (do not include estimates for Lump Sums and Commuted Value Payments which belong in 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.
1d. Purchases and Transfers-in	<ul style="list-style-type: none"> • Service credit purchases for refunded past service, military service, etc. • Purchases that provide members with additional pensionable salary. • Individual transfers-in/ rollover of monies from external retirement systems. • Collective transfers-in such as when a new employer is merged into your system. <p>The activity also includes:</p> <ul style="list-style-type: none"> • Providing formal written estimates of purchases and transfers-in/ rollovers. • Posting purchases and applying payments. • Receiving purchase payments. • Related tax reporting sent to members and tax authorities. • Purchases applicant dealing directly with the Purchase division, subsequent to an initial request for a purchase.
1e. Disability	<p>Include only if you are responsible for the administration of non-optional long term disability, and/ or short term disability. Includes:</p> <ul style="list-style-type: none"> • Written disability estimates. • Disability approval process. • Applications and inception. • 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>

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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 Communication. • Email: reading, responding to simple requests, redirecting activity specific requests. • Written correspondence: reading, responding to simple requests, redirecting activity specific requests. <p>Includes contact center hardware and software.</p> <p>Do NOT include:</p> <ul style="list-style-type: none"> • Work performed after the call for activities where costs are collected separately. For example, if a member requests a written pension or benefit estimate, then the cost of preparing it belongs in 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 session. • 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	
3a. Data and Money from Employers	<ul style="list-style-type: none"> • Collection and cashing of member and employer contributions from employers. • Collection of member data (service credit, salary, personal information, employer, etc) from employers. • Reconciliation of required versus remitted money. • Analysis, correction and confirmation with employer of member data. • Setting up the data and money collection process for new employers. • Improving the data collection process for existing employers (i.e., converting paper systems to electronic, etc). <p>• Registering member choices and instructions that are received through the employer. For example:</p> <ul style="list-style-type: none"> ▫ Some hybrid DB/ DC systems require that a member's DC instructions come through the employer. ▫ Members at some Dutch systems can choose to contribute more to get early retirement. This choice is registered via the employer. <p>(The activities below used to be in a separate activity 'Billing and Inspection' and are now merged into 3a Data and Money from Employers)</p> <ul style="list-style-type: none"> • Advising employers of the required contribution rate (but excluding the actuarial cost of determining the rates which belongs in 7c Actuarial). • Billing employers for regular contributions, special contributions to cover funding shortfalls, additional payments to retirees funded by the employer, etc. • Collecting bad debts. But do not include legal costs. These belong in 7d Legal and Rules Interpretation. • Employer reviews or audits. For example, several systems perform on-site reviews of employers that have problems providing data and or contributions on a timely basis. They want to ensure that the employers are correctly fulfilling their obligations to their members. • Inspection and enforcement of obligation to participate in the System (i.e., participation in some Dutch industry funds is mandatory if the employer has certain characteristics).
3b. Service to Employers	<ul style="list-style-type: none"> • Training employers. • Helping new employers. • Maintaining employer relationships. • Presentations, counseling, workshops for employers. • Publications and newsletters for employers (as opposed to materials sent to members through employers). • Employer helpdesk/ Employer Call Center. • Employer website including the design, development and maintenance. as well as the pro rata share of the website infrastructure. • Advice, account management, HRM support re: pensions. <p>Do NOT include marketing to employers. Marketing costs belong in 4c Government and Public Relations.</p>
3c. Data Not From Employers	<p>Gathering and maintaining member data that is not provided by employers including:</p> <ul style="list-style-type: none"> • Retiree and Inactive data maintenance such as change of address, change of beneficiary, change in marital status, death, registering changes in payments, etc. • Tracking 'lost' inactive members. • If applicable, registering cost of living adjustments to the salary base of inactive members (a few systems do this). • 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

Survey Question	Method	Default
Q80 Does your website have a secure member area where members can access their own data?		
a) How many unique members accessed the secure member area? [Count a member only once even if he visited multiple times.]	Your response was unknown. As a default we have used the average response of other participants to this question.	155,096
b) How many visits in total were there by members to the secure member area? [Count each visit even if the same member visits multiple times.]	Your response was unknown. As a default we have used the average response of other participants to this question.	780,850
Q81 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?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	107,699
d) Service credit purchase calculator?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	11,153
h) Change address?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	11,341
o) View pension payment details? (i.e., gross amounts, deductions)	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	73,134
v) View pensionable earnings and/or service without downloading?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	255,223

Appendix D - Defaults

Survey Question	Method	Default
Q41 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)		
d) What is the callback completion rate? (i.e., what percentage of callers that chose to be called back, were actually reached)	Your response was unknown. We used a default equal to the 25th Percentile of other systems' responses.	93.6%
Q81 Indicate whether the following capabilities are available on your website and provide volumes:		
j) Change email address?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	15,543
k) Reset password?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	30,483
r) Apply for a refund or transfer-out?	Your response was unknown. We have used as a default the value that ensures that the ratio of this value to the active members is equal to the all-participant average ratio.	5,960