



What gets measured
gets managed

North Carolina Retirement Systems Pension Administration Benchmarking Results

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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*.
- 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"*.

71 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
North Carolina RS
NYC ERS
NYC TRS
NYSLRS
Ohio PERS
Oregon PERS
Pennsylvania PSERS
PSRS PEERS of Missouri

South Dakota RS

STRS Ohio

Texas County and District RS

TRS Illinois

TRS 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
Canada Post
Canadian Forces Pension Plans
FPSPP
LAPP
OMERS
Ontario Pension Board
Ontario Teachers
OPTrust
RCMP
Retraite Quebec
SHEPP

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 North Carolina RS consists of the following 16 peers:

Custom Peer Group for North Carolina RS			
Peers (sorted by size)	Membership (in 000's)		
	Active Members	Annuitants	Total
CalPERS	889	670	1,559
Florida RS	634	438	1,073
NYSLRS	529	452	981
North Carolina RS	486	304	790
CalSTRS	458	298	756
Ohio PERS	348	211	559
Virginia RS	341	199	540
Washington State DRS	318	179	497
Michigan ORS	206	273	479
Wisconsin DETF	257	198	455
STRS Ohio	212	160	372
Colorado PERA	242	118	359
Arizona SRS	206	145	351
Oregon PERS	173	141	314
Illinois MRF	176	127	302
Iowa PERS	170	118	288
Peer Median	288	198	488
Peer Average	353	252	605

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.

Key Takeaways:

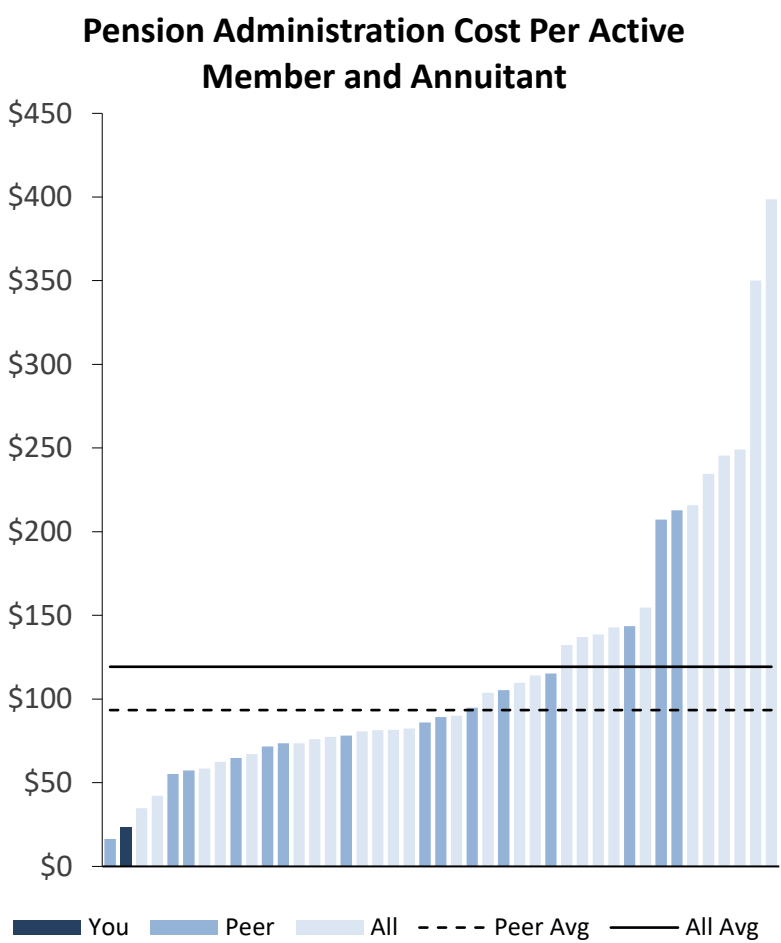
Cost

- Your total pension administration cost was \$23 per active member and annuitant. This was \$70 below the peer average of \$93 and among one of the lowest in CEM's global universe.
- The primary reasons why your costs were lower:
 - Lower costs per FTE
 - Higher transactions per FTE (productivity)
 - Lower IT and major project costs
- Your costs have remained steady between 2013 and 2017.

Service

- Your total service score was 70. This was below the peer median of 80.
- Your service score remained steady between 2013 and 2017.

Your total pension administration cost was \$23 per active member and annuitant. This was \$70 below the peer average of \$93 and among one of the lowest in CEM's global universe.



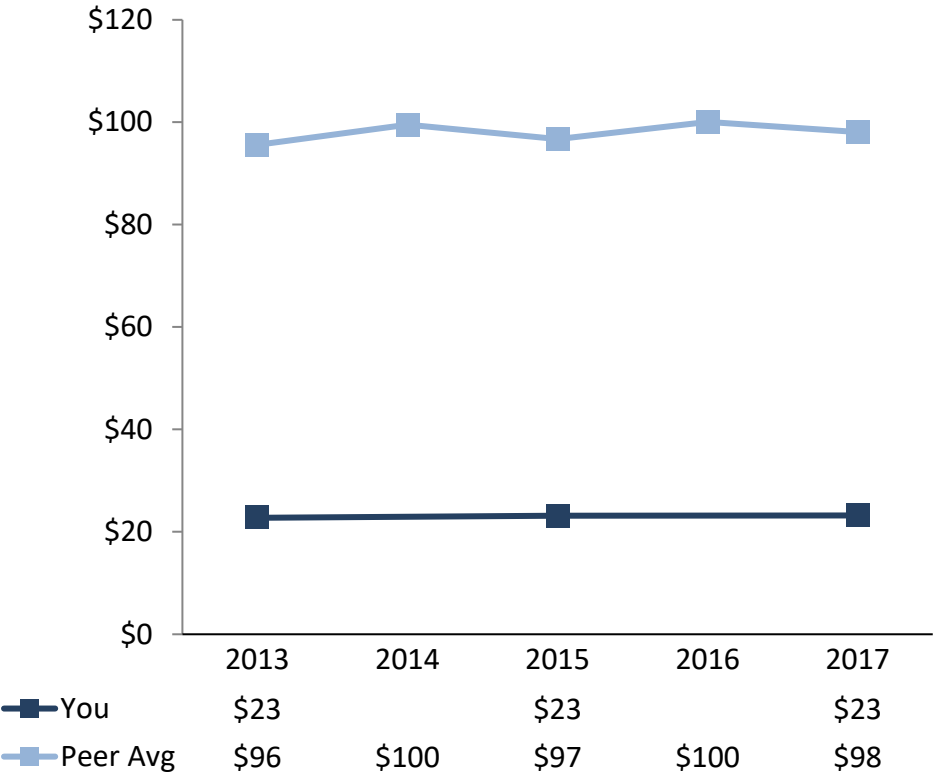
Category	\$ per Active Member and Annuitant			\$000s
	You	Peer Avg	Peer Median	
Member Transactions	5	12	9	3,852
Member Communication	5	16	17	3,846
Collections and Data Maintenance	2	7	6	1,407
Governance and Financial Control	2	7	6	1,418
Major Projects	0	8	8	0
Information Technology	6	23	19	4,724
Building	1	6	4	902
Legal	1	3	2	739
HR, Actuarial, Audit	2	10	4	1,443
Total Pension Administration	23	93	82	18,331

Your total pension administration cost was \$18.3 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$0.5 million.

Cost Trends

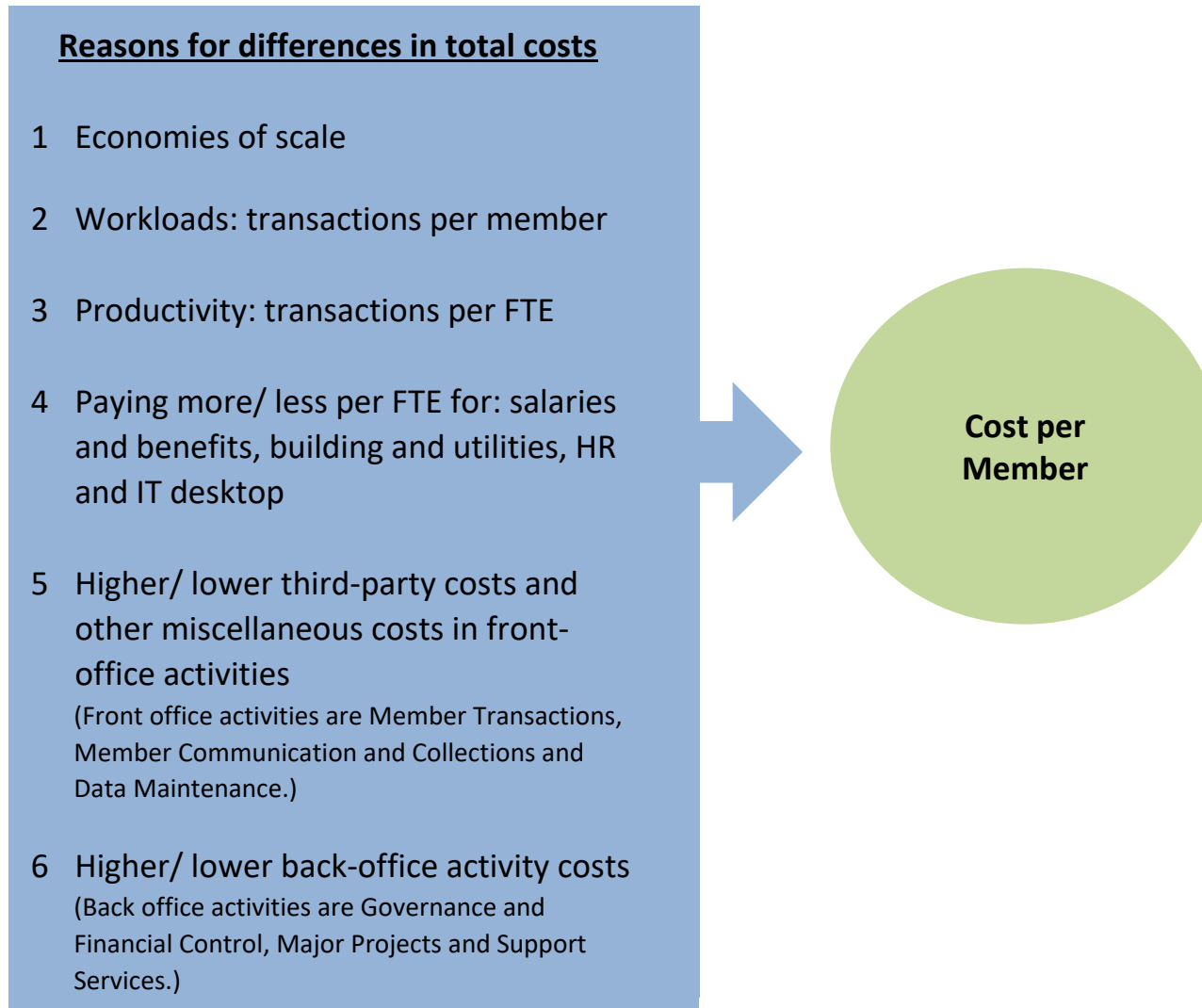
Trend in Total Pension Administration Costs

Between 2013 and 2017, the average cost of your peers with 4 consecutive years of data increased by 0.6% per annum.



Trend analysis is based on systems that have provided 5 consecutive years of data (15 of your 16 peers).

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



Reasons why your total cost was \$70 below the peer average.

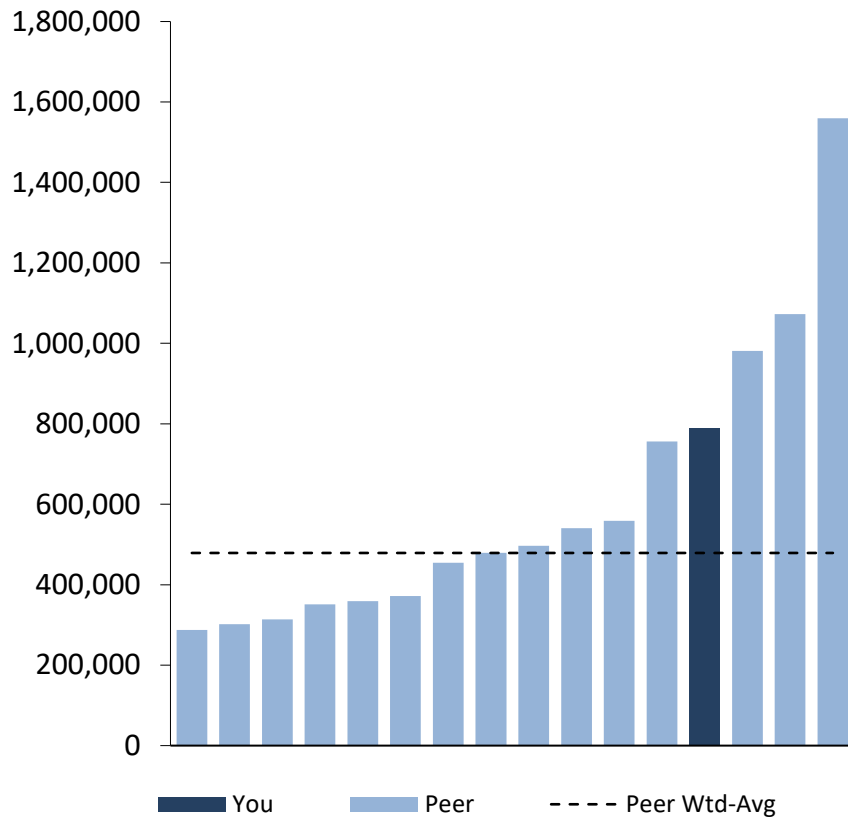
Reason	Impact
1. Economies of scale advantage	-\$3.50
2. Lower transactions per member (workloads)	-\$1.92
3. Higher transactions per FTE (productivity)	-\$6.20
4. Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$28.85
5. Lower third-party and other costs in front-office activities	-\$4.61
6. Paying more/-less for back-office activities ¹ :	
- Governance and Financial Control	-\$3.27
- Major Projects	-\$6.86
- IT Strategy, Database, Applications (excl. major projects)	-\$8.24
- Actuarial, Legal, Audit, Other Support Services	-\$6.76
Total	-\$70.21

¹ To avoid double counting, back office costs are adjusted for economies of scale and cost per FTE for: salaries, benefits, building, utilities, IT desktop and human resources. These figures will, therefore, not match the unadjusted back office cost differences on the previous page.

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

Reason 1: You had an economies of scale advantage.

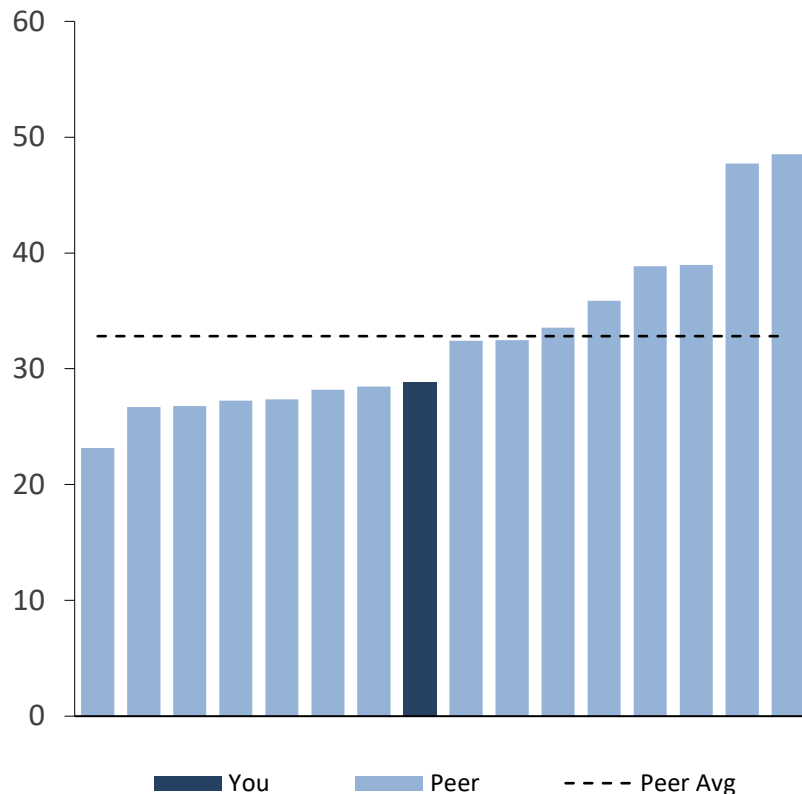
Active Members and Annuity



Your system had 65% more members than the peer weighted-average. Your larger size means that you had a cost advantage relative to the average peer of \$3.50 per member.

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

Weighted Transactions per Active Member and Annuitant



Your weighted transactions were 12% below the peer average. Your lower transaction volumes decreased your total cost per member by an estimated \$1.92 relative to the peer average.

Weighted transactions indicate whether you are doing more or fewer transactions per member in aggregate than your peers. The weights used were the median cost per transaction of all participants. 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.

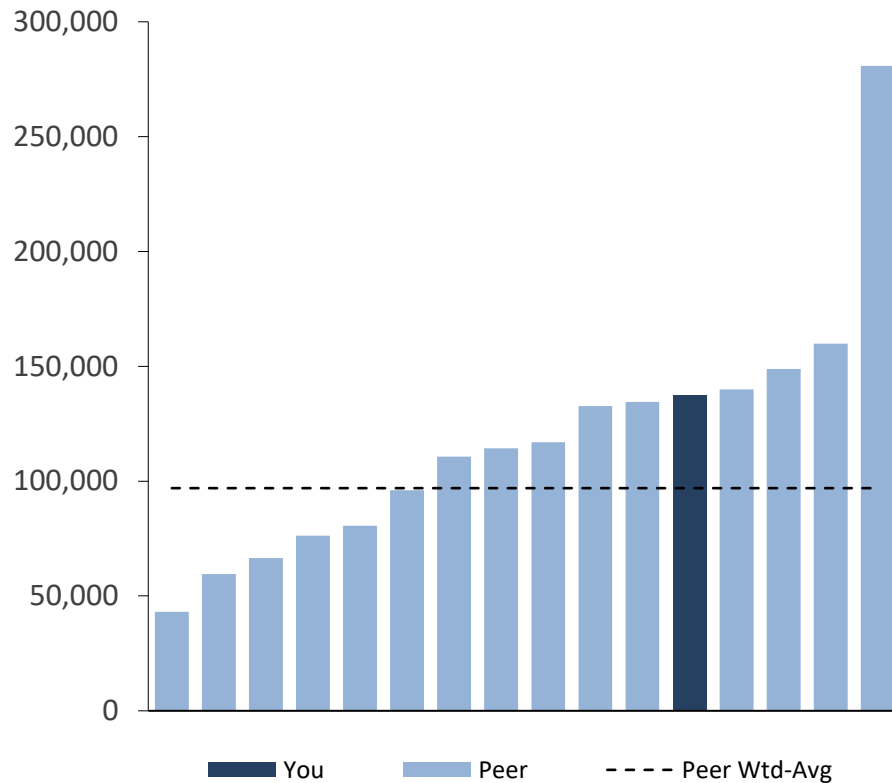
The following page shows where you are doing more and/or fewer transactions by front-office activity.

Where did you do more/fewer transactions?

Where did you do more/fewer transactions?				
	Volume per 1,000 Active Members and Annuitants			\$ per Member Transaction Impact
Front Office Transactions (or Transaction Driver)	You	Peer Average	More/-Less	
1. Member Transactions				
a. Pension Payments (Annuitants)	385	415	-7%	-\$0.12
b. New Payee Inceptions	23	25	-8%	-\$0.12
c. Refunds, Withdrawals, and Transfers-out	27	22	23%	\$0.26
d. Purchases and Transfers-in	2	6	-60%	-\$0.46
e. Disability Applications	3.3	2.1	58%	\$0.66
2. Member Communication				
a. Calls and Emails	454	567	-20%	-\$0.44
b. Incoming Mail	372	419	-11%	-\$0.10
c. Members Counseled 1-on-1	2	22	-91%	-\$0.76
d. Member Presentations	0.3	1.3	-78%	-\$0.57
e. Written Estimates	7	24	-71%	-\$0.33
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active Members)	615	585	5%	\$0.08
b. Service to Employers (Active Members)	615	585	5%	\$0.04
c. Data Not from Employers (Actives, Inactives, Annuitants)	1,259	1,433	-12%	-\$0.07
Weighted Total	28,782	32,816	-12%	-\$1.92

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

Weighted Transactions per Front-Office FTE



Your weighted transactions per front-office FTE were 42% above the peer weighted-average. Your higher transaction volumes per FTE decreased your total cost per member by \$6.20 relative to the peer average.

Differences in transaction volumes per FTE are due to differences in:

- Economies of scale. CEM research shows that smaller systems had lower productivity than larger systems
- IT capability / on-line transactions
- Service levels
- Complexity of plan rules
- Staff skills and staff productivity
- Use of consultants versus internal staff
- Projects
- Organization design

Reason 4: You had lower costs per FTE.

Cost per FTE		
	You	Peer Avg
Salaries and Benefits	\$54,425	\$90,920
Building and Utilities	\$4,898	\$10,773
Human Resources	\$1,069	\$3,451
IT Desktop, Networks, Telecom	\$4,294	\$13,126
Total	\$64,687	\$118,271

Your lower costs per FTE decreased your total cost by \$28.85 per member relative to the peer average.

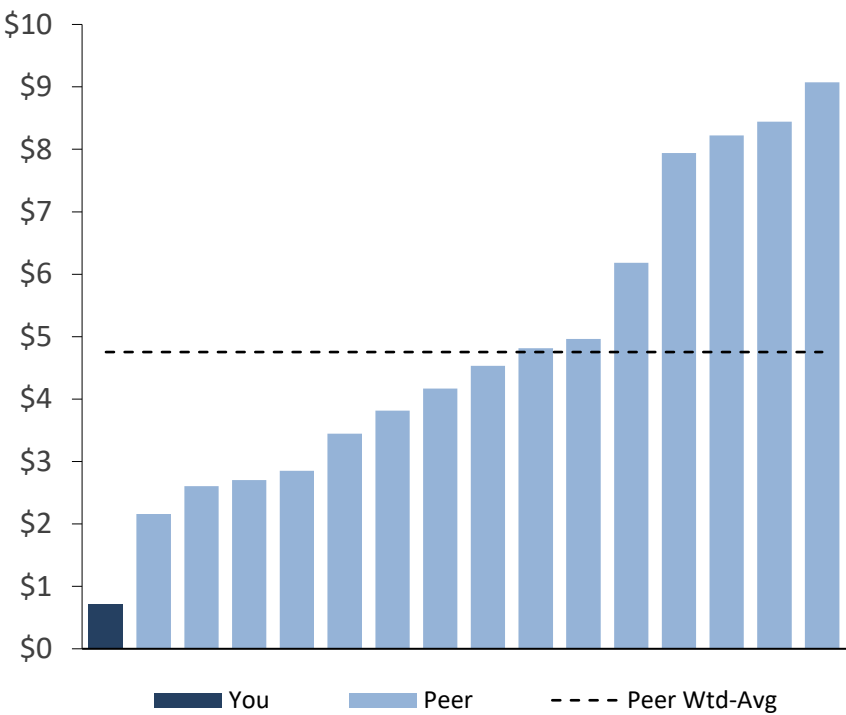
Differences in your cost per FTE reflect differences in:

- Organization structure, strategy and history
- Outsourcing and use of consultants
- Cost environment of your location vs. peers.

Labor costs in your area were 19% below 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 \$0.71 per member which was 85% below the peer average of \$4.75.

Your lower third party costs decreased your total cost per member by \$4.61 relative to the peer average.

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

Back-Office Activities - Cost per Member			
Back Office Activities	You	Peer Avg	More/ -less
Governance and Financial Control	\$1.89	\$5.17	-\$3.27
Major Projects	\$0.00	\$6.86	-\$6.86
IT Strategy, Database, Applications (excl. major projects)	\$5.04	\$13.28	-\$8.24
Actuarial, Legal, Audit, Other	\$2.60	\$9.36	-\$6.76
Total	\$9.53	\$34.67	-\$25.13

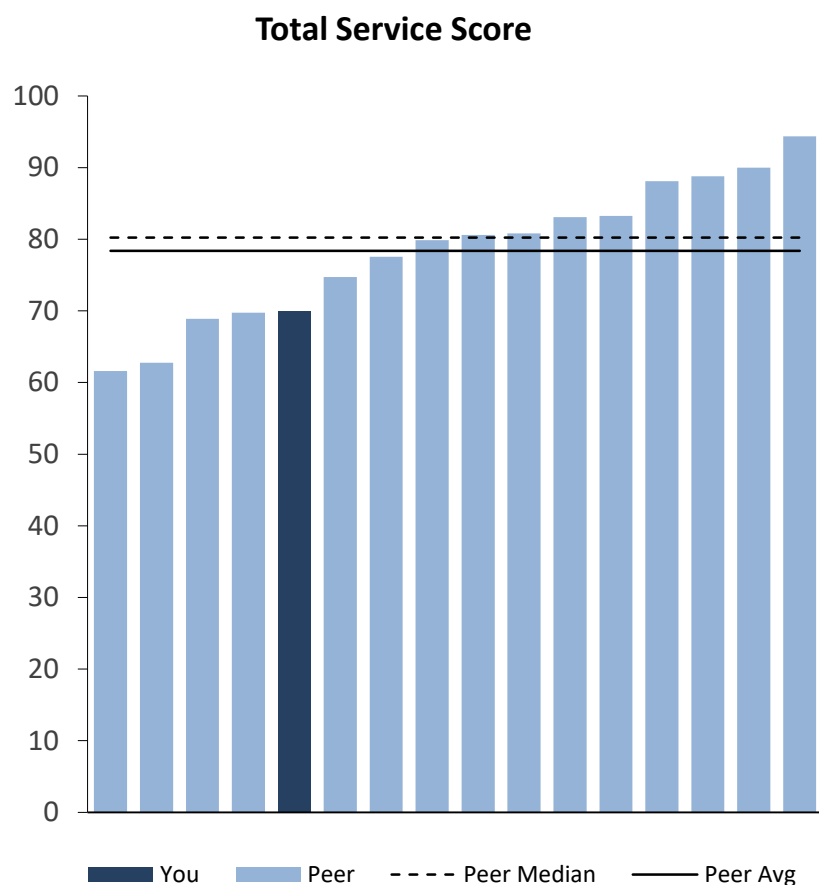
Your cost per active member and annuitant of \$9.53 for back-office activities was below the peer average of \$34.67.

Paying less for back-office activities decreased your total cost per member by \$25.13 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 70. This was below the peer median of 80.



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

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

Service Scores by Activity			
Activity	Weight	You	Peer Median
1. Member Transactions			
a. Pension Payments	19.7%	100	100
b. Pension Inceptions	7.4%	85	89
c. Refunds, Withdrawals, and Transfers-out	1.3%	90	95
d. Purchases and Transfers-in	3.1%	95	91
e. Disability	3.8%	91	82
2. Member Communication			
a. Call Center	21.2%	37	63
c. 1-on-1 Counseling	7.4%	29	84
d. Member Presentations	6.5%	73	91
e. Written Pension Estimates	4.7%	76	82
f. Mass Communication			
• Website	11.3%	82	82
• News and targeted communication	2.8%	68	77
• Member statements	4.7%	77	85
3. Other			
Satisfaction Surveying	5.0%	56	54
Disaster Recovery	1.0%	56	83
Weighted Total Service Score	100.0%	70	80

Examples of key service measures included in your Service Score:

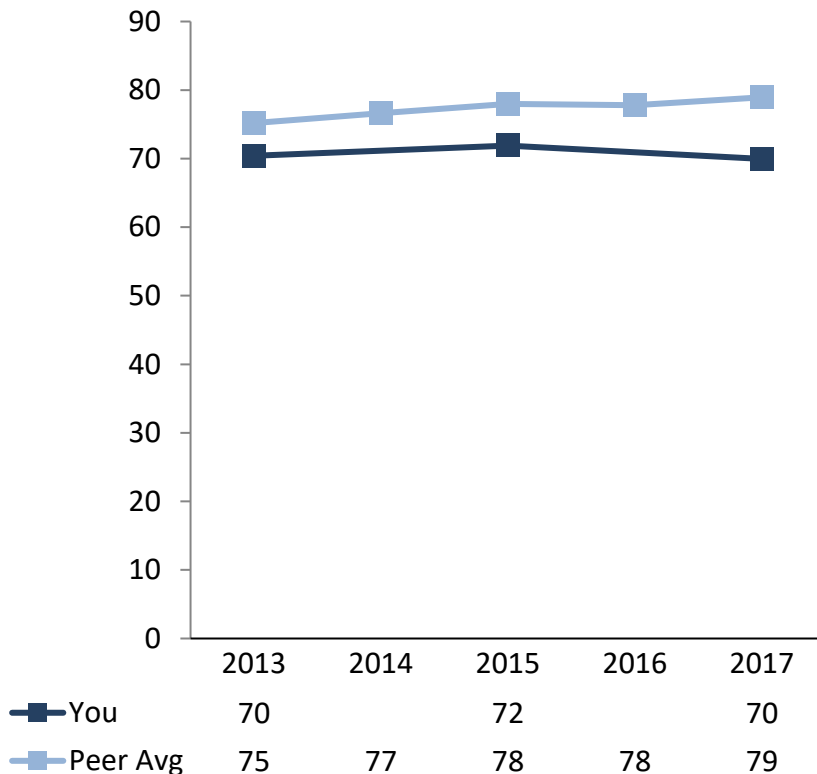
Select Key Service Metrics	You	Peer Avg
<u>Member Contacts</u>		
• % of calls resulting in undesired outcomes (busy signals, messages, hang-ups)	18%	16%
• Average total wait time including time negotiating auto attendants, etc.	297 secs	227 secs
<u>Website</u>		
• Can members access their own data in a secure environment?	Yes	94% Yes
• Do you have an online calculator linked to member data?	Yes	81% Yes
• # of other website tools offered such as changing address information, registering for counseling sessions and/or workshops, viewing or printing tax receipts, etc.	12	14
<u>1-on-1 Counseling and Member Presentations</u>		
• % of your active membership that attended a 1-on-1 counseling session	0.3%	3.8%
• % of your active membership that attended a presentation	1.7%	5.1%
<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?	91.1%	91.3%
<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?	Yes	75% Yes

Where can you improve your total service score?

Potential improvements to your total service score	
Factor	Potential Improvement
On average, members calling your call center reach a knowledgeable person in 297 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less.	+ 3.8
17.9% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes.	+ 3.0
0.3% of your active members received 1-on-1 counseling. To achieve a perfect service score, members counseled 1-on-1 must be 1.0% or more.	+ 1.8
<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 was unchanged over 5 years, with offsetting impacts.

Trends in Total Service Scores



Trend analysis is based on systems that have provided 5 consecutive years of data (15 of your 16 peers).

Changes that had a positive impact

- **Written pension estimates:** Your turnaround time for providing estimates improved from 20 days to 6 days.
- **Purchases:** Your turnaround time for service credit purchase estimates improved from 11 days to 4 days.
- **Withdrawals & Transfers-out:** Your turnaround time for withdrawals and transfers-out improved from 60 days to 25 days.

Changes that had a negative impact

- **Call center:** Your number of menu layers increased from 1 to 8.
- **1-on-1 Counseling:** You started requiring members be within a certain time period of earliest possible retirement to register for counseling.
- **Newsletters:** Your number of newsletter segments decreased from 3 to 2 (segments can include all members, actives and annuitants, age based, gender based, employer/employment category, etc).