
North Carolina Retirement Systems

Pension Administration Benchmarking Results

Fiscal Year 2015

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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's *Insights*. Research publications in 2016 will review trends in pension funds usage of social media.
- 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*".

72 leading global pension systems participate in the benchmarking service.

Participants

United States

Arizona SRS
CalPERS
CalSTRS
Colorado PERA
Delaware PERS
Florida RS
Idaho PERS
Illinois MRF
Indiana PRS
Iowa PERS
Kentucky RS
KPERS
LACERA
Maryland RS
Michigan ORS
MOSERS
North Carolina RS
NYC TRS
NYSLRS
Ohio PERS
Ohio SERS
Oregon PERS

Pennsylvania PSERS
South Dakota RS
STRS Ohio
TRS Illinois
TRS Louisiana
TRS of Texas
Utah RS
Virginia RS
Washington State DRS
Wisconsin DETF

The Netherlands

ABN Amro Pensioenfond
ABP
bpfBOUW
Pensioenfond Metaal en Techniek
Pensioenfond van de Metalektro
PFZW
Rabobank Pensioenfond
St. Algemeen Pensioenfond KLM

Canada

APS
BC Pension Corporation
Canada Post
Defence Canada
FPSPP
HOOPP
LAPP
OMERS
Ontario Pension Board
Ontario Teachers
OPTrust
RCMP

Denmark

ATP

Middle East

Abu Dhabi RPB
Oman

Australia*

BUSS(Q)
CBUS
First State Super
HESTA
QSuper
REST
SunSuper
VicSuper

United Kingdom*

Armed Forces Pension Schemes
BAE Systems
National Grid
Principal Civil Service Pension Scheme
Pension Protection Fund
Railway Pensions
Scottish Public Pension Agency
Teachers' Pensions Scheme
Universities Superannuation Scheme

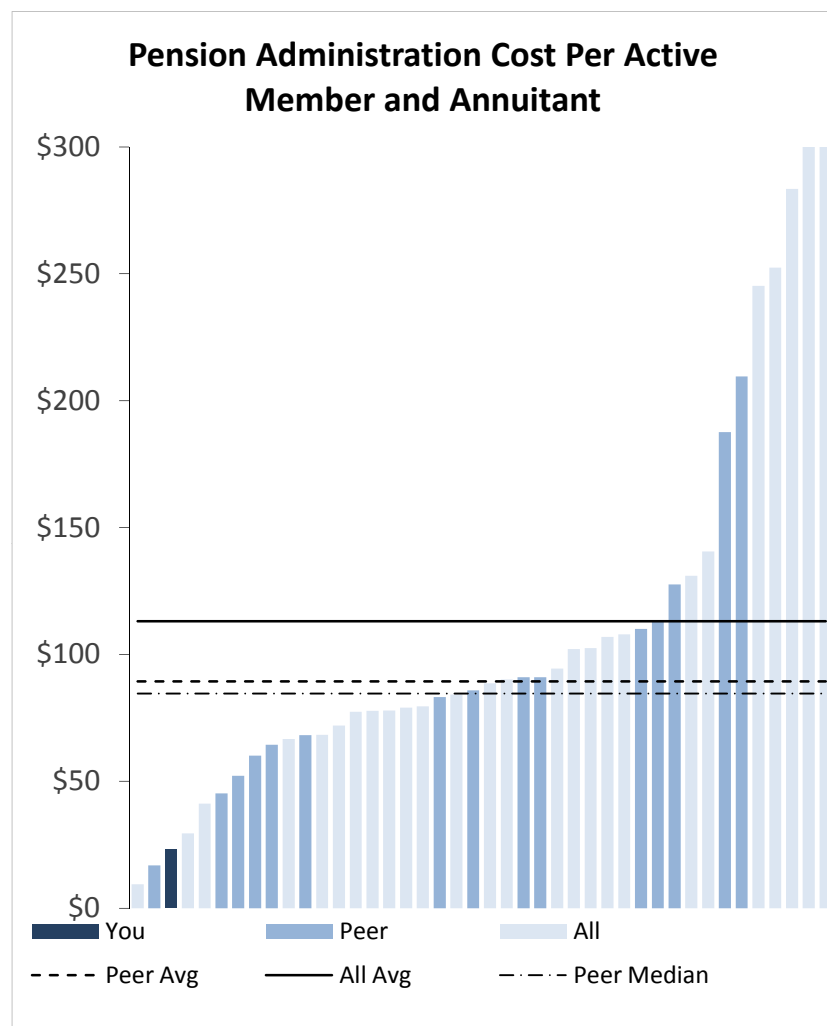
* Systems in Australia and the UK complete different benchmarking surveys and hence your analysis does not include their results.

The custom peer group for North Carolina RS consists of the following 16 peers:

Custom Peer Group for North Carolina RS			
	<u>Membership (in 000's)</u>		
	Active		
Peers (sorted by size)	Members	Annuitants	Total
CalPERS	832	613	1,445
Florida RS	622	412	1,034
NYSLRS	523	430	953
North Carolina RS	472	284	756
CalSTRS	429	281	711
Ohio PERS	345	206	551
Virginia RS	341	185	525
Michigan ORS	217	265	482
Washington State DRS	301	165	466
Wisconsin DETF	257	186	443
STRS Ohio	207	160	366
Colorado PERA	238	110	348
Arizona SRS	203	136	339
Oregon PERS	165	135	299
Illinois MRF	174	116	291
Iowa PERS	167	111	279
Peer Median	279	185	474
Peer Average	343	237	580

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.

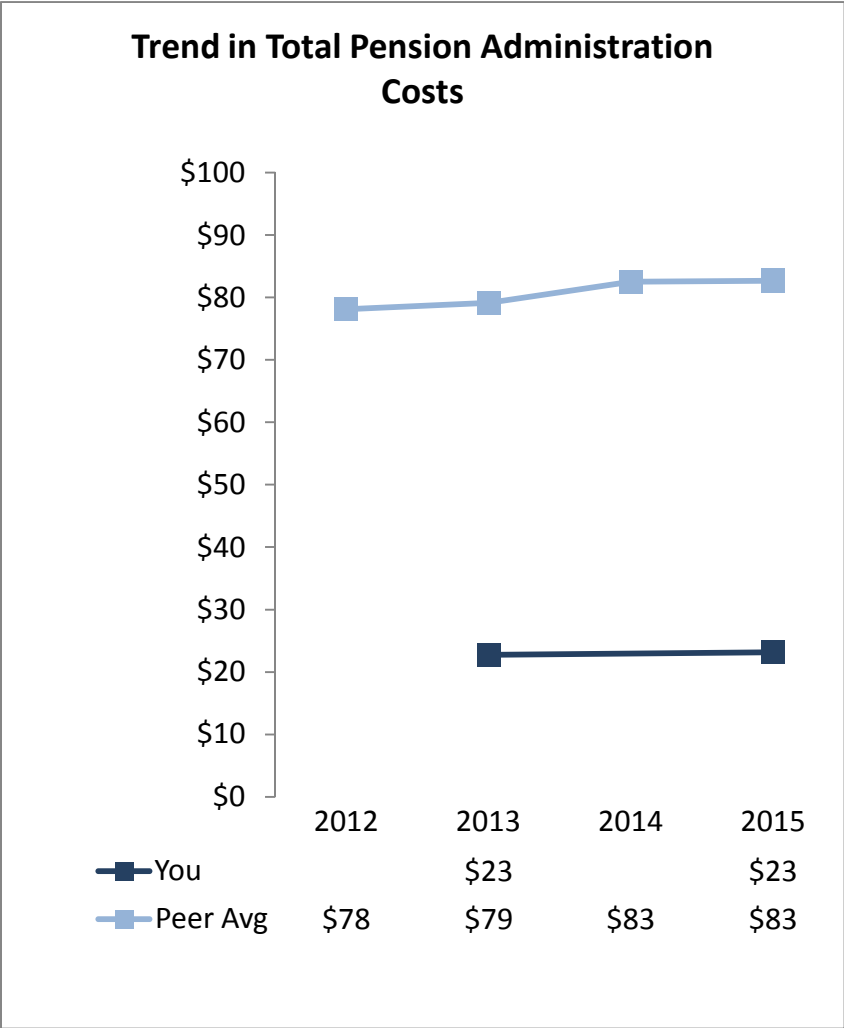
Your total pension administration cost was \$23 per active member and annuitant. This was \$66 below the peer average of \$89. and among one of the lowest in CEM's global universe.



Category	\$ per Active Member and Annuitant			\$000s
	You	Peer Avg	Peer Med	
Member Transactions	5	13	10	3,823
Member Communication	4	15	15	2,982
Collections and Data Maintenance	1	7	5	1,003
Governance and Financial Control	2	6	6	1,187
Major Projects	0	6	5	0
Information Technology	7	22	17	5,521
Support Services and Other	4	19	15	3,004
Total Pension Administration	23	89	85	17,519

Your total pension administration cost was \$17.5 million. This excludes the fully-attributed cost of administering healthcare, and optional and third-party administered benefits of \$0.6 million.

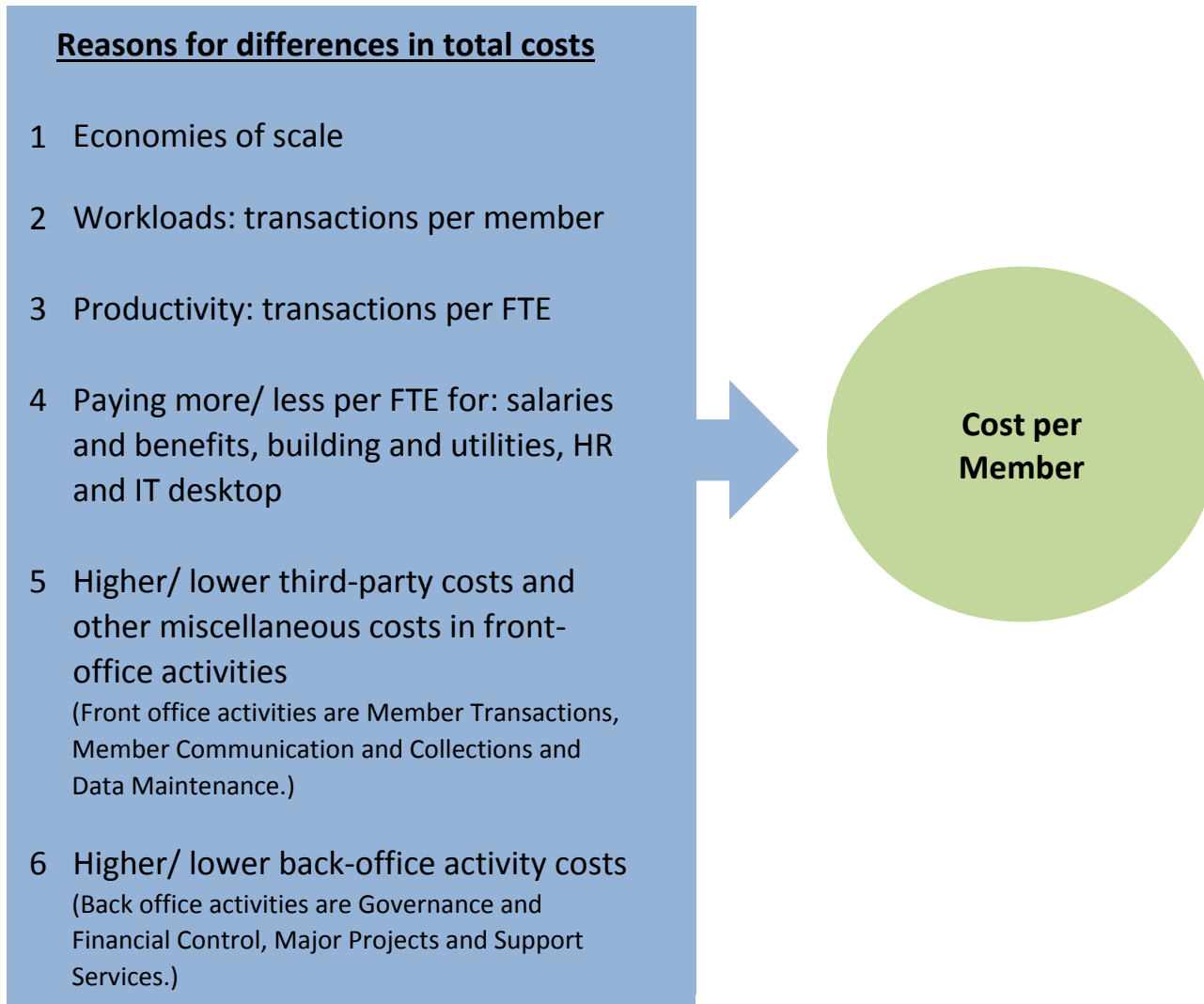
Cost Trends



Between 2012 and 2015, the average cost of your peers with 4 consecutive years of data increased by 1.9% per annum.

Trend analysis is based on systems that have provided 4 consecutive years of data (12 of your 16 peers).

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



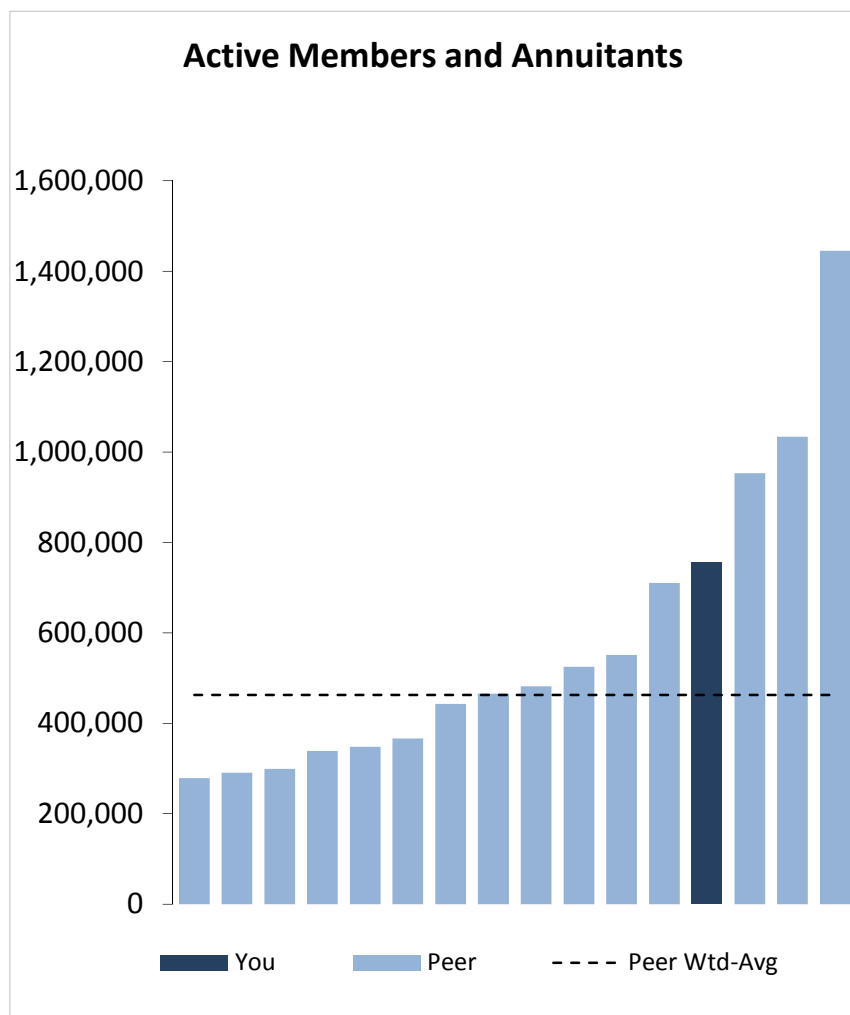
Reasons why your total cost was \$66 below the peer average.

Reason	Impact
1. Economies of scale advantage	-\$3.56
2. Lower transactions per member (workloads)	-\$2.40
3. Higher transactions per FTE (productivity)	-\$9.67
4. Lower costs per FTE for: salaries and benefits, building and utilities, HR and IT desktop	-\$20.70
5. Lower third-party and other costs in front-office activities	-\$5.08
6. Paying more/-less for back-office activities ¹ :	
- Governance and Financial Control	-\$4.37
- Major Projects	-\$5.53
- IT Strategy, Database, Applications (excl. major projects)	-\$7.80
- Actuarial, Legal, Audit, Other Support Services	-\$7.03
Total	-\$66.14

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

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 page 4.

Reason 1: You had an economies of scale advantage.

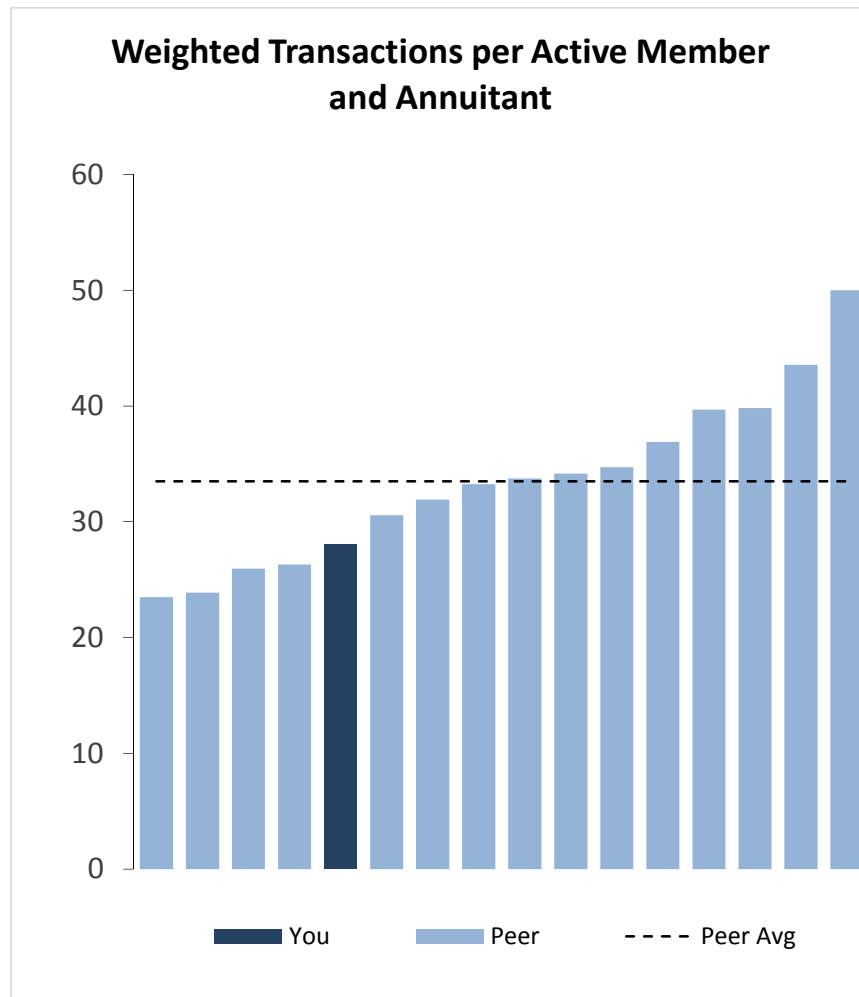


Your system had 63% more members than the peer weighted-average. Your larger size means that you had a cost advantage relative to the average peer of \$3.56 per member.

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.

How Changes in Membership Impact Your Cost			
% Change in Members	# of Members	Predicted Cost per Member	Increase/-Decrease
-75%	188,933	\$40.08	\$16.90
-50%	377,866	\$28.82	\$5.63
-25%	566,799	\$25.06	\$1.88
0%	755,732	\$23.18	\$0.00
+25%	944,665	\$22.05	-\$1.13
+50%	1,133,598	\$21.30	-\$1.88
+75%	1,322,531	\$20.77	-\$2.41

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



Your weighted transactions were 16% below the peer average. Your lower transaction volumes decreased your total cost per member by an estimated \$2.40 relative to the peer average.

Weighted transactions indicates 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.

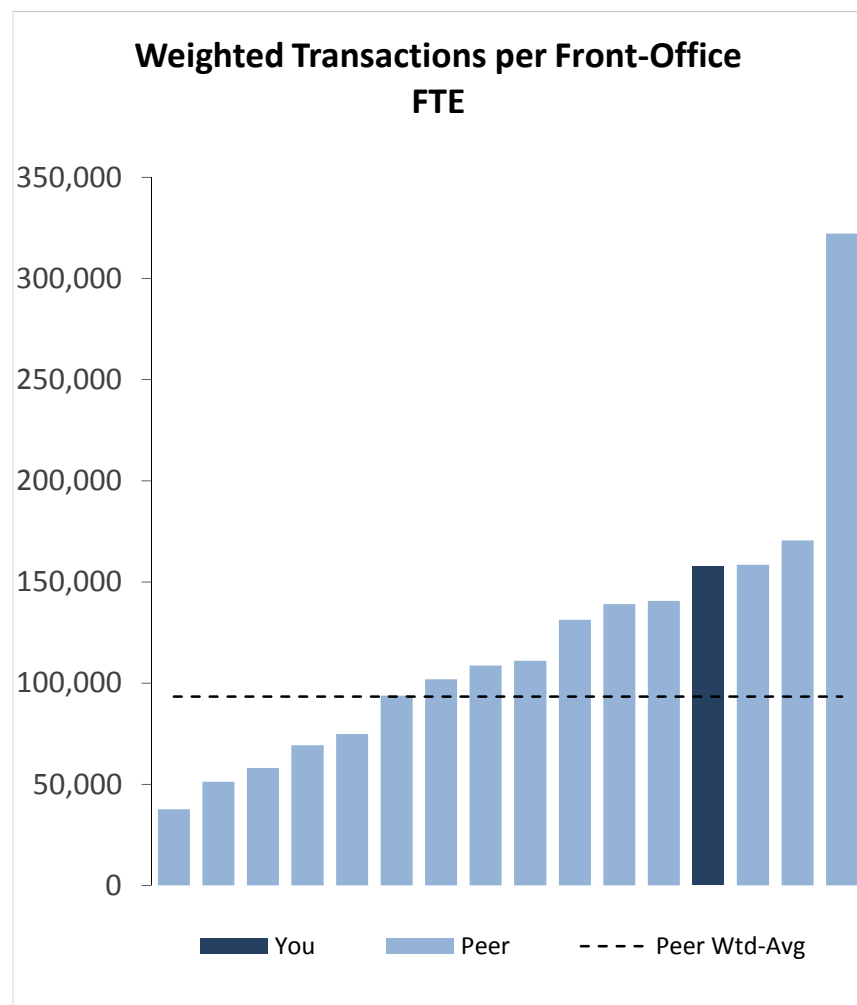
Where did you do more/fewer transactions?

Where did you do more/fewer transactions?				
Front Office Transactions (or Transaction Driver)	Volume per 1,000 Active Members and Annuitants			\$ per Member Transaction
	You	Peer Average	More/-Less	Impact
1. Member Transactions				
a. Pension Payments (Annuitants)	376	406	-7%	-\$0.11
b. New Payee Inceptions	25	26	-3%	-\$0.04
c. Withdrawals and Transfers-out	28	23	19%	\$0.22
d. Purchases and Transfers-in	3	6	-47%	-\$0.31
e. Disability Applications	3.2	2.5	31%	\$0.36
2. Member Communication				
a. Calls and Emails	435	612	-29%	-\$0.61
b. Incoming Mail	285	424	-33%	-\$0.35
c. Members Counseled 1-on-1	2	23	-93%	-\$0.71
d. Member Presentations	0	1	-79%	-\$0.49
e. Written Estimates	10	26	-64%	-\$0.42
3. Collections and Data Maintenance				
a. Data and Money from Employers (Active Members)	624	594	5%	\$0.07
b. Service to Employers (Active Members)	624	594	5%	\$0.04
c. Data Not from Employers (Actives, Inactives, Annuitants)	1,295	1,424	-9%	-\$0.05
Weighted Total	28,065	33,497	-16%	-\$2.40

Differences in transaction volumes per member reflect differences in:

- Membership mix (active, inactive, annuitant)
- Member demographics. For example, you may have a higher proportion of active members approaching retirement.
- Member type/ industry group.
- System and plan complexity. For example, if you administer healthcare, you will have higher communication needs.
- Service Levels

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



Your weighted transactions per front-office FTE were 69% above the peer weighted-average (adjusted for economies of scale to avoid double counting). Your higher transaction volumes per FTE decreased your total cost per member by \$9.67 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

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

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	FTE-Wtd Peer Avg
Salaries and Benefits	\$59,412	\$85,686	\$79,116
Benefits for Retired Staff	\$0	\$829	\$1,093
Building and Utilities	\$5,532	\$9,432	\$10,760
Human Resources	\$1,389	\$3,811	\$4,306
IT Desktop, Networks, Telecom	\$4,682	\$11,919	\$12,814
Total	\$71,015	\$110,848	\$106,997

Your lower costs per FTE decreased your total cost by \$20.70 per member relative to the peer average.

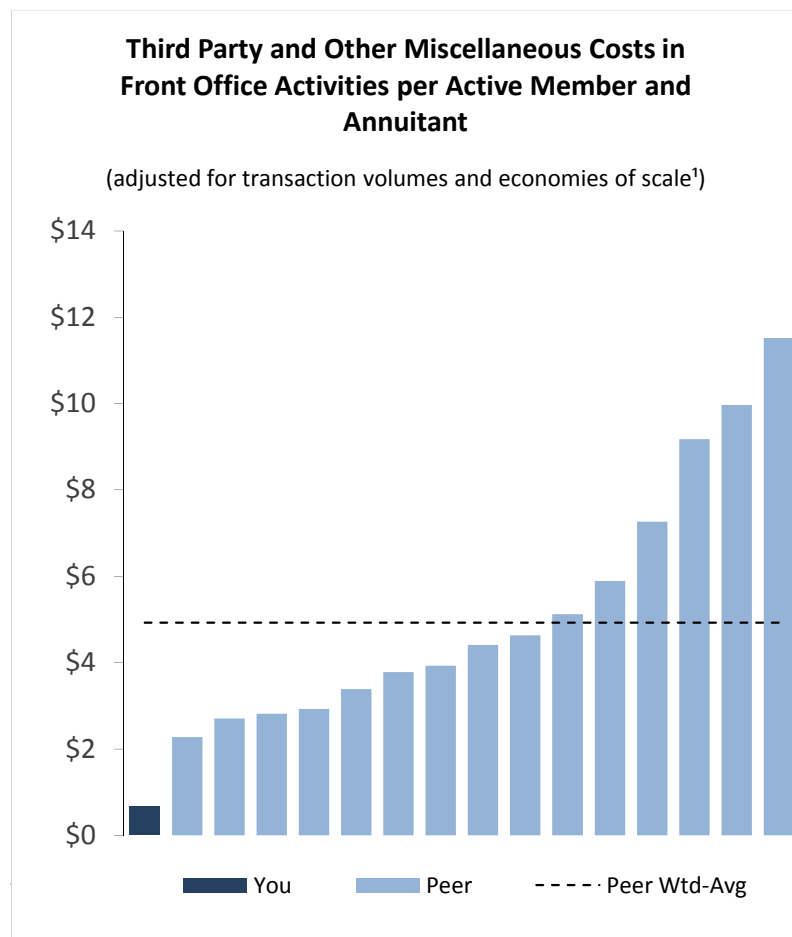
The peer average is weighted such that peers with more FTEs get a higher weight because 'cost per FTE' differences matter more for peers with more FTEs.

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 22% below the peer average.

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 \$0.67 per member which was 86% below the adjusted peer weighted average of \$4.92. Your lower third party costs decreased your total cost per member by \$5.08 relative to the peer average.

1. To avoid double counting, peer costs are adjusted for differences in transaction volumes and economies of scale.
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.

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

Back-Office Activities - Adjusted Cost per Member			
Back Office Activities	You	Peer Avg	More/ -less
Governance and Financial Control	\$1.68	\$6.05	-\$4.37
Major Projects	\$0.00	\$5.53	-\$5.53
IT Strategy, Database, Applications	\$6.43	\$14.22	-\$7.80
Actuarial, Legal, Audit, Other	\$2.68	\$9.71	-\$7.03
Total	\$10.79	\$35.52	-\$24.73

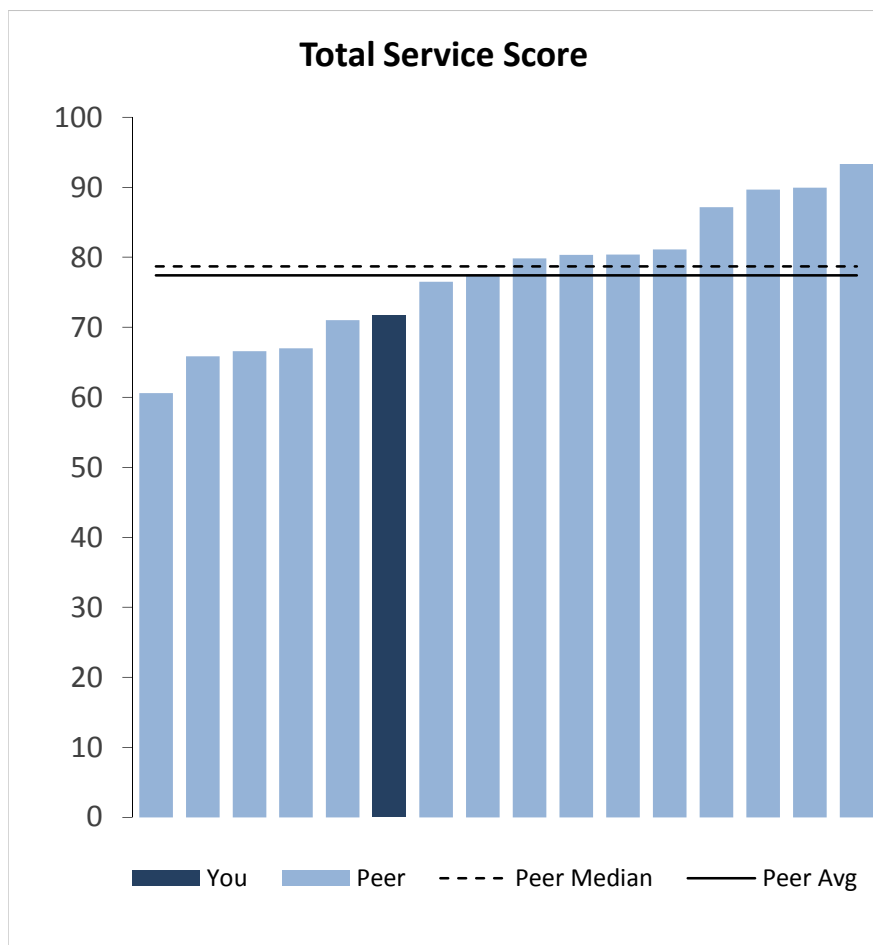
To avoid double counting, back office costs are adjusted for economies of scale and cost per FTE for: salaries, benefits, building, utilities, IT desktop and human resources. Before adjustments, your total costs for the above back-office activities were \$14. The unadjusted peer average was \$61.

Your adjusted cost per active member and annuitant of \$10.79 for back-office activities was below the peer average of \$35.52. Paying less for back-office activities decreased your total cost per member by \$24.73 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 72. This was below the peer median of 79.



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%	82	87
c. Withdrawals and Transfers-out	1.3%	63	93
d. Purchases and Transfers-in	3.1%	82	82
e. Disability	3.8%	91	82
2. Member Communication			
a. Call Center	21.2%	48	61
c. 1-on-1 Counseling	7.4%	39	85
d. Member Presentations	6.5%	70	83
e. Written Pension Estimates	4.7%	67	87
f. Mass Communication			
• Website	11.3%	82	82
• News and targeted communication	2.8%	79	78
• Member statements	4.7%	75	82
3. Other			
Satisfaction Surveying	5.0%	56	40
Disaster Recovery	1.0%	56	83
Weighted Total Service Score	100.0%	72	79

Examples of key service measures included in your Service Score:

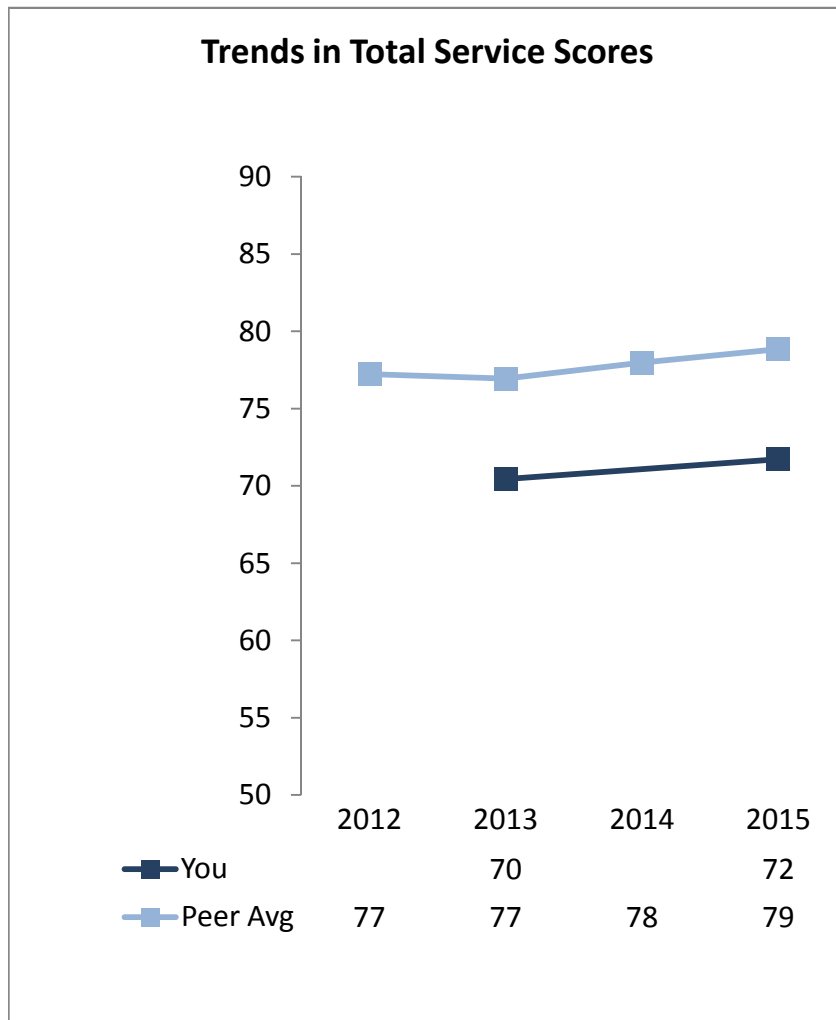
Select Key Service Metrics	You	Peer Avg
<u>Member Contacts</u>		
• % of calls resulting in undesired outcomes (busy signals, messages, hang-ups)	16.2%	17.3%
• Average total wait time including time negotiating auto attendants, etc.	227 secs	215 secs
<u>Website</u>		
• Can members access their own data 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	13
<u>1-on-1 Counseling and Member Presentations</u>		
• % of your active membership that attended a 1-on-1 counseling session	0.3%	4.0%
• % of your active membership that attended a presentation	2.4%	5.6%
<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?	84.8%	90.8%
<u>Member Statements</u>		
• How current is an active member's data in the statements that the member receives?	5.0 mos	2.4 mos
• Do statements provide an estimate of the future pension entitlement?	Yes	69% Yes

Where can you improve your total service score?

Potential improvements to your total service score		
Rank	Factor	Potential Improvement
	<ul style="list-style-type: none">On average, members calling your call center reach a knowledgeable person in 227 seconds. To achieve a perfect service score, members must reach a knowledgeable person on the phone in 20 seconds or less. The peer average is 215 seconds.	+ 3.8
	<ul style="list-style-type: none">16.2% of your incoming calls resulted in undesired outcomes. To achieve a perfect service score, members must experience no undesired call outcomes. The peer average is 17.3%.	+ 2.7
	<ul style="list-style-type: none">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. The peer average is 4.0%.	+ 1.9

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

Your service score increased from 70 to 72 between 2013 and 2015.



Trend analysis is based on systems that have provided 4 consecutive years of data (12 of your 16 peers).

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

This was primarily due to your higher call center score:

- Decreased undesired call outcomes. Specifically, abandoned calls decreased from 23% to 16% between 2013 and 2015; and
- Agents now monitor 8 calls per agent per month (on average) vs. 2 in 2013.

However, this increase was partially offset by:

- In 2013, 91% of annuity pension inceptions were paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check, versus 85% in 2015; and
- New members are no longer issued a 'welcome' kit describing their benefits.

Key Takeaways:

Cost

- Your total pension administration cost was \$23 per active member and annuitant. This was \$66 below the peer average of \$89. and among one of the lowest in CEM's global universe.

The primary reasons why were:

- Lower costs per FTE
 - Higher transactions per fte (productivity)
 - Lower costs for IT Strategy, Database, Applications (excl. major projects)
- Between 2012 and 2015, the average cost of your peers with 4 consecutive years of data increased by 1.9% per annum.

Service

- Your total service score was 72. This was below the peer median of 79.
- Your service score increased from 70 to 72 between 2013 and 2015.

Global trends

1. Improved efficiency
 - Improving processes - Lean, Six Sigma
 - Straight through processing
 - Maximizing online transactions
2. Competition in Australia & the Netherlands. Operating more like competitive businesses in the rest of the world.
 - Better communication
 - Branding, member engagement, customer satisfaction
 - Improved Board quality
3. Better communication
 - Customer experience vs. transaction
 - More targeted messaging
 - More segmentation
 - Personas
 - Data mining
 - More channels: Web, Apps, YouTube, Facebook, Twitter, Linked In, etc.
4. Belief that online is the highest service channel if done correctly.
 - Reduced emphasis on counseling and presentations (less true for systems with health care)
5. Pension envy and poor funded status
 - Dutch plans had to reduce payments to retirees when funded status below 95%.
 - Political advocacy using members
6. System upgrades
 - Lots of failures. But few are characterized that way.
 - Processes and data need to be optimized first.
 - One driver is the need for better online real-time capability.