



Alberta Teachers'
Retirement Fund Board

LOOKING FORWARD TO YOUR FUTURE

2017 ANNUAL
REPORT HIGHLIGHTS



2016 -17 HIGHLIGHTS

CONTRIBUTION RATE REDUCTIONS



TEACHERS' PENSION PLAN CONTRIBUTION RATES		
% of pensionable salary	Effective Sept. 1, 2016	Effective Sept. 1, 2018
up to YMPE ¹	10.74%	10.17%
above YMPE	15.34%	14.52%
Total Teachers' Contribution	12.68%	11.92%
Total Government Contribution	11.95%	11.29%

PRIVATE SCHOOL TEACHERS' PENSION PLAN CONTRIBUTION RATES		
% of pensionable salary	Effective Sept. 1, 2016	Effective Sept. 1, 2018
up to YMPE ¹	9.09%	8.76%
above YMPE	12.98%	12.52%
Total Teachers' Contribution	10.87%	10.27%
Total Employer Contribution	10.23%	9.73%

¹ YMPE: Yearly Maximum Pensionable Earnings used by the Canada Pension Plan (\$55,900 in 2018)

80,338 PLAN MEMBERS:

Active - 40,716

Retired - 27,625

Inactive - 11,997

Of the total 80,338 plan members, 712 are members of the Private School Teachers' Pension Plan.



1,893

Seminar attendees



1,749

Personal interviews



53,534

Pension estimates

92%

CUSTOMER SERVICE SATISFACTION SCORE

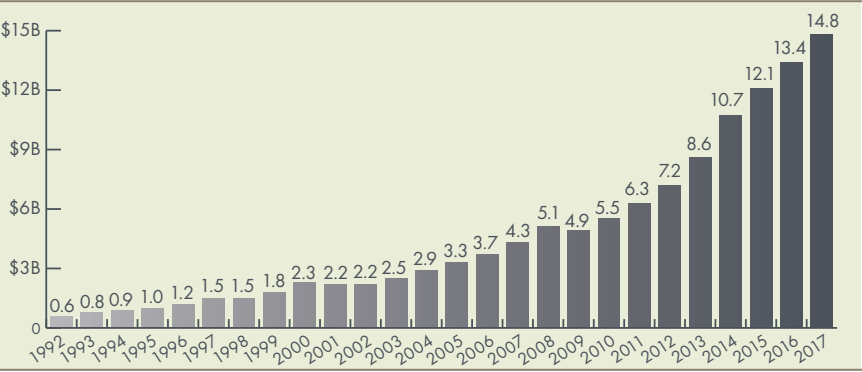
according to recent plan members' survey

\$97

ADMINISTRATIVE COST PER MEMBER

compared to \$150 average cost per member for a peer group of Canadian public sector pension organizations

NET ASSETS as at August 31 (\$billions)

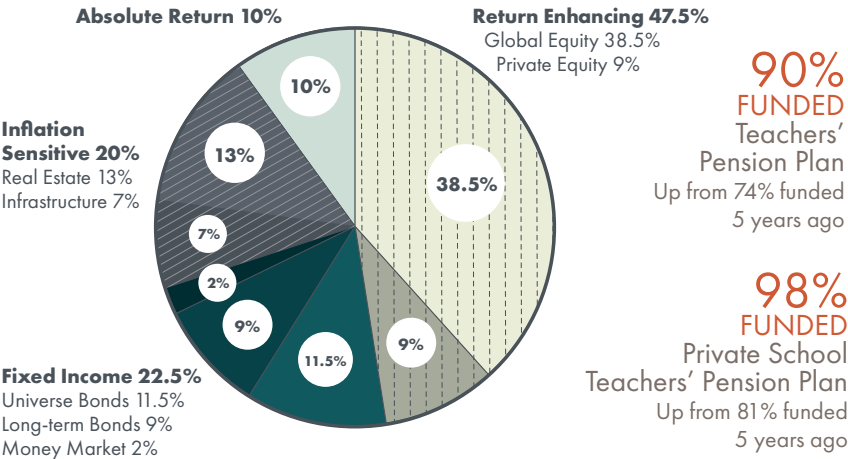


Market value of the Plans' assets grew to **\$14.8 billion**

\$10.5 billion
The increase
in assets over
the last 10 years

ANNUAL RATE OF RETURN
7.7 %
FOUR-YEAR
RATE OF RETURN
10.3 %

POLICY ASSET MIX as at August 31, 2017





FROM THE BOARD BOARD CHAIR MESSAGE

The Alberta Teachers' Retirement Fund has long been guided by the values that drive the organization's work: excellence, accountability, integrity and partnership.

These values help ATRF ensure it delivers on its mission, which is to secure the pensions of our more than 80,000 plan members. Our values and mission are not just buzzwords or abstract concepts. We live and work by them. In doing so, ATRF provides a crucial service to Alberta's teachers—one that is embedded in the concept of 'Looking forward to your future.'

For the Board, this means we ensure strong governance of a corporation that plays a vital role in securing the retirement future of Alberta's teachers. The investments made on behalf of teachers help grow and secure the fund, improving its assets and funded position. And the service provided to members on all aspects of their pension means they are properly equipped to receive the pension promise, namely, a secure retirement income that helps them realize the goals they have long worked and planned for. Our members—quite literally—bank on this. This is why ATRF proudly embraces the 'Looking forward to your future' concept.

ON A PATH TO FULL FUNDING

I am pleased to report the funding of the Plans continued to improve in 2016-17. The market value of the Plans' assets has increased to \$14.8 billion.

The Teachers' Pension Plan deficiency – the difference between the actuarial value of the Plan's assets and its liabilities – decreased by \$434 million to

\$1.52 billion. The ratio of funding assets to funding liabilities increased to 90% from 86%. The Plan also has a very healthy fluctuation reserve of \$905 million, providing a significant buffer against lower than expected investment returns.

Also improving was the funded position of the Private School Teachers' Pension Plan. The Plan's deficiency decreased by \$2.33 million to \$1.17 million. The ratio of funding assets to liabilities improved to 98% from 94%. A fluctuation reserve of \$4.39 million will help offset potentially lower than expected market returns in the future.

CONTRIBUTION RATES

I am also pleased to announce that the Board approved reductions in contributions to be effective September 1, 2018. These reductions recognize the improvement in the overall funded position of the Plans as per the August 31, 2017 actuarial valuation, which incorporated prudent measures such as lowering long-term return expectations and building additional provisions for adverse experience.

For the Teachers' Pension Plan, the teachers' contributions will reduce by 0.76 % of teachers' salaries, and contributions from the Government of Alberta will reduce by 0.66% of teachers' salaries, for a total contribution reduction of 1.42%.

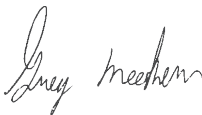
For the Private School Teachers' Pension Plan, the teachers' contributions will reduce by 0.60% of teachers' salaries, whereas contributions from the private schools will reduce by 0.50% of teachers' salaries, for a total contribution reduction of 1.10%.

The Board continues to closely monitor the Plans and take action, as needed, to ensure long-term stability, security and sustainability. On this front, the Board is currently engaged in a comprehensive review of the funding policy to ensure it remains well-positioned to provide guidance on funding decisions, and anticipate and mitigate funding challenges while enhancing the Plans' long-term sustainability.

ACKNOWLEDGEMENTS

The makeup of our Board has also changed over the past fiscal year. I am pleased to welcome five new members to the ATRF Board: John Butler, Catherine Connolly, Maria Holowinsky, Marvin Romanow and Kareen Stangerlin. Together, they bring new ideas and perspectives as the Board continues to offer a diverse mix of educational, private and public sector experience and expertise. I would like to acknowledge the contributions of past Board members, Gene Williams and Lowell Epp, who completed their terms in October 2016 and May 2017, respectively. I would also like to thank Richard Fortier for his services as an external member of our Investment Committee. Their contributions served the Board and ATRF greatly, and I thank them for their work.

It remains my privilege to undertake this work alongside my fellow ATRF Board members and with the employees of ATRF. Indeed, I would like to thank every one of you. By taking ATRF's values to heart and truly embracing the concept of 'Looking forward to your future,' we continue to make a significant difference to Alberta's active and retired teachers.



Greg Meeker
Board Chair

ATRF BOARD



GREG MEEKER
Board Chair



JOHN BUTLER



CATHERINE CONNOLLY



KAREN ELGERT



MARIA HOLOWINSKY



SANDRA JOHNSTON



MARVIN ROMANOW



KAREEN STANGERLIN



FROM ATRF MANAGEMENT CEO MESSAGE

‘Looking forward to your future.’

This message embodies the dynamic relationship we maintain with our pension plan members and stakeholders.

‘Looking forward to your future’ represents our constant search for opportunities in which to invest, grow and safely manage members’ pensions—all with the intention of delivering the pension promise for members to receive a predictable and reliable pension income in retirement.

The ‘Looking forward to your future’ concept also reflects the individualized support we provide plan members: to ensure they get timely and accurate pension information. This includes assisting members ready to retire or those, for example, considering the impact career or life changes may have on their pensions. Our role doesn’t end there though, as we continually provide support to retired plan members.

Finally, ‘Looking forward to your future’ embodies our understanding that plan members are continually thinking about and planning for their future. Members want answers to their pension and retirement questions, the first time they ask. And they need assurance their financial future is always in safe hands.

Through 2016-17, the ‘Looking forward to your future’ approach has been reflected in our results. It was a strong year for ATRF. And while economic growth has returned to many parts of the globe, the geopolitical environment has proved challenging—to say the least. That being said, public and private equity markets, as well as real estate and infrastructure, had strong returns, contributing to an overall net fund return of 7.7%. This exceeded our long-term funding objective, as well as the Plans’ benchmark return.

Over the past 15 years, ATRF’s investment portfolio has generated an annual return of 7.3%, slightly above our long-term funding objective.

Our member services team continued providing plan members with what they needed, the first time and where, when and how they wanted it. In 2017, we released the results of our plan member survey. Member service satisfaction levels remain high, with plan members continuing to find value in our website, resources, online tools and service. We regularly assess how ATRF meets and responds to plan member information and service needs, so I am encouraged to see so many positive results on a wide range of services. This survey equips us with information we can use to continue enhancing services for our plan members.

“‘Looking forward to your future’ represents our constant search for opportunities in which to invest, grow and safely manage members’ pensions...”

On the actuarial front, the Plans' funded status continues to improve. ATRF remains on a path to full funding. The Teachers' Pension Plan is now 90% funded, while the Private School Teachers' Pension Plan is 98% funded.

Our growth has also been recognized externally. In 2017, ATRF was ranked as Canada's fourth-fastest growing pension fund. We were also ranked 20th out of the country's top 100 pension funds in terms of assets, according to the annual Benefits Canada magazine report. These rankings reflect the growth we have experienced and the steps we've taken to build on our asset portfolio.

ACKNOWLEDGEMENTS

I am pleased to acknowledge the addition of Tina Antony, ATRF's Vice President, General Counsel and Corporate Secretary, to our executive management team. Tina brings more than 20 years of experience, specializing in mergers and acquisitions, securities law, fund formation, corporate finance and governance.

I would like to thank the entire team at ATRF for another successful year. Our employees are truly the biggest asset of the fund. Every part of the organization helps ATRF ensure we deliver our mission and values, in support of our aim to continue 'Looking forward to your future.'



Rod Matheson
Chief Executive Officer

ATRF EXECUTIVE



ROD MATHESON
Chief Executive Officer



DEREK BRODERSEN
Chief Investment
Officer



TINA ANTONY
VP, General Counsel &
Corporate Secretary



ALBERT COPELAND
VP, Information &
Technology



MARGOT HRYNYK
VP, Corporate Services



JULIE JOYAL
VP, Pension Services



MYLES NORTON
VP, Finance

PLAN MEMBER SERVICES

FINDING THE ANSWERS WITH ATRF

Having access to a team of knowledgeable and understanding ATRF pension experts over the course of a teaching career proved invaluable, according to retired plan members Carol Anderson and Judy Darroch.

Both agreed their interaction with ATRF resulted in a smooth pension experience.

That's not to say the two teachers didn't encounter issues and concerns about their pensions along the way. But having the ability to pick up the phone or drop in and meet with professional and experienced pension experts made life a little less stressful.

"Thank goodness for the pension counsellor I was dealing with," said Carol, who remembers a series of calls and meetings about one specific pension



Carol Anderson (left) and Judy Darroch

issue. "She thought of things I never would have thought about. I appreciated the fact I could phone a pension counsellor and ask them a question, think about it for a while, ask another question and then if I needed to, drive to the office and meet with that person to go over even more information."

Another ATRF pension counsellor also met with her at a Tim Horton's to accommodate her schedule.

...continued on page 14

NUMBER OF NEW PENSIONS for the year ending August 31

2017	2016	2015	2014	2013	2012
1,171	1,074	1,080	1,214	1,131	1,234



IN 2016-17:

TOTAL CONTRIBUTIONS

**\$849
MILLION**

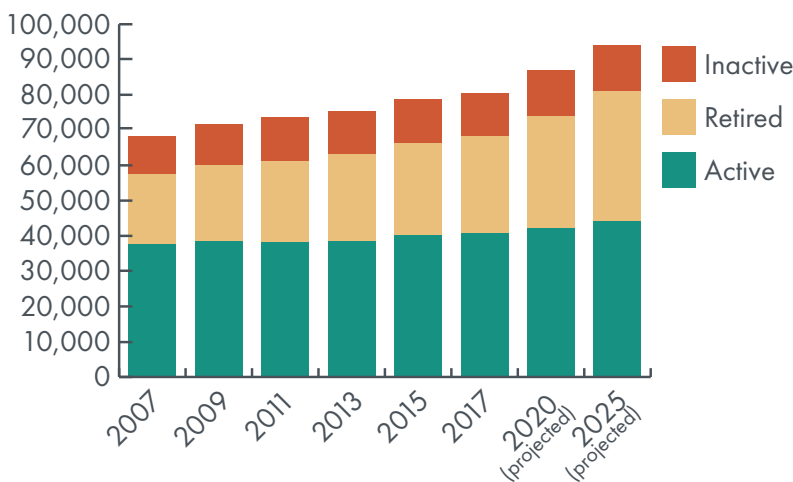
TOTAL BENEFITS PAID

**\$459
MILLION***

*An additional \$471 million was received from the Government of Alberta for benefits paid by ATRF relating to the pre-1992 period.

MEMBERSHIP OVERVIEW

PLAN MEMBERSHIP OVER THE YEARS



In the past decade, the membership base has grown by nearly 20%, including a 40% increase in retired members.

PLAN MEMBER STATISTICS

at August 31

	2017	2015	2010	2005	2000
Active and disabled member average age	42	41.8	41.7	42.4	42.7
Active and disabled member average years of pensionable service	11.4	11.2	11.1	12.2	12
Retired member average age	71.2	70.4	68	68	68
New retired member average age	60.2	60	59	58	57.8
Average pensionable service of new retired members	26.2	25.6	26.2	26.4	26.6

230 retired members are age **95** or older; **35** members are centenarians.

The oldest plan member is **107** years old and has been receiving her pension for **43** years.

The average annual pension in payment is **\$31,655**.



FUNDING

ATRF regularly conducts actuarial funding studies to assess the value of the liabilities compared to the assets and to ensure adequate funding for the following Plans:

- Teachers' Pension Plan (TPP) for benefits accrued after August 1992;
- Private School Teachers' Pension Plan (PSTPP)

The Government of Alberta guarantees the payment of pensions related to the pre-September 1992 period under the TPP.

HOW THE PLANS ARE FUNDED

The ATRF Board has established a funding policy that sets out principles and guidelines that govern how the Plans are funded. The primary objective is benefit security, achieved by ensuring the Plans become and remain fully funded and are able to pay all current and expected pensions. The secondary objective is keeping contribution rates stable and affordable. The Plans, like other pensions, face risks such as plan maturity, long-term low interest rates, volatility, inflation and increasing plan members' longevity.

Plan member contributions pay for the benefits earned, including a 60% Cost of Living Adjustment (COLA), and the funding deficiencies of the Plans. It's a shared responsibility with the Government of Alberta for the TPP and with the employers for PSTPP. Plan members also pay for an additional 10% COLA.

ON A PATH TO FULL FUNDING

The Plans' funded status continued to improve in 2016-17. Based on the funding actuarial valuation as at August 31, 2017:

TEACHERS' PENSION PLAN POST-1992 PERIOD

Funding Value of Assets	\$13.79 billion
Funding Liabilities	\$15.31 billion
Funding Deficiency	\$ 1.52 billion
Funded Ratio	90%

PRIVATE SCHOOL TEACHERS' PENSION PLAN

Funding Value of Assets	\$68.33 million
Funding Liabilities	\$69.50 million
Funding Deficiency	\$ 1.17 million
Funded Ratio	98%

The Plans' funding is calculated using actuarial methods and assumptions, including margins for adverse deviation to help achieve contribution stability. From time to time, changes can be made to the assumptions to reflect updated long-term economic and demographic expectations. This year, for example, the discount rate used to evaluate the Plans' liabilities has been reduced, from 6.0% to 5.4% to account for lower long-term expected returns on investments, lower expected inflation, and a small increase in the margin for adverse deviation. This change to more conservative assumptions will further enhance the long-term sustainability of the Plans.

The Plans also have very healthy fluctuation reserves of \$905 million for the TPP and \$4.39 million for the PSTPP, providing a significant buffer against lower than expected investment returns in the future.

CONTRIBUTION RATES

We are pleased to announce that the Board approved reductions in contributions to be effective September 1, 2018. These reductions recognize the improvement in the overall funded position of the Plans as per the August 31, 2017 actuarial valuation, which incorporated prudent measures such as lowering long-term return expectations and building additional provisions for adverse experience.

For the Teachers' Pension Plan, the teachers' contributions will reduce by 0.76% of teachers' salaries, whereas contributions from the Government of Alberta will reduce by 0.66% of teachers' salaries, for a total contribution reduction of 1.42%.

For the Private School Teachers' Pension Plan, the teachers' contributions will reduce by 0.60% of teachers' salaries, whereas contributions from the private schools will reduce by 0.50% of teachers' salaries, for a total contribution reduction of 1.10%.

TEACHERS' PENSION PLAN

TEACHERS' PENSION PLAN CONTRIBUTION RATES		
% of pensionable salary	Effective Sept. 1, 2016	Effective Sept. 1, 2018
up to YMPE ¹	10.74%	10.17%
above YMPE	15.34%	14.52%
Total Teachers' Contribution	12.68%	11.92%
Total Government Contribution	11.95%	11.29%

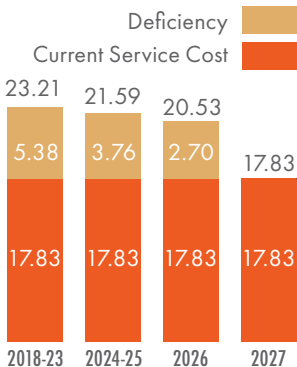
PRIVATE SCHOOL TEACHERS' PENSION PLAN

PRIVATE SCHOOL TEACHERS' PENSION PLAN CONTRIBUTION RATES		
% of pensionable salary	Effective Sept. 1, 2016	Effective Sept. 1, 2018
up to YMPE ¹	9.09%	8.76%
above YMPE	12.98%	12.52%
Total Teachers' Contribution	10.87%	10.27%
Total Employer Contribution	10.23%	9.73%

¹ YMPE: Yearly Maximum Pensionable Earnings used by the Canada Pension Plan (\$55,900 in 2018)

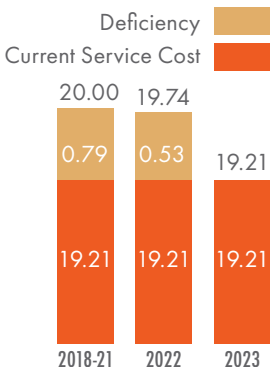
Effective September 1, 2018, the total contribution rate will be 23.21% of teacher salaries, consisting of a current service cost of 17.83% of salaries and total deficiency contributions of 5.38% of salaries.

The deficiency contributions are planned to decrease according to the following schedules.



Effective September 1, 2018, the total contribution rate will be 20.00% of teacher salaries, consisting of a current service cost of 19.21% of salaries and total deficiency contributions of 0.79% of salaries.

The deficiency contributions are planned to decrease according to the following schedules.





INVESTMENTS

For ATRF, the last several years have been good from an investment perspective. Equity markets around the world have hit new highs, and the strong demand for income-generating assets, such as real estate and infrastructure, have driven those values higher as well.

In the seven years since the 2008-09 financial crisis, the fund has returned almost 10% per year, which is well in excess of our long-term expectations.

This has had a very positive impact on the funding of the Plans. Not only has the funded ratio improved more quickly than expected, but the amortization of past deficiencies has been accelerated. This allowed ATRF to reduce contribution rates in September 2016, and will allow a further reduction in September 2018.

While economic growth has returned to most parts of the world, the geopolitical environment has been anything but stable. At the same time, a significant change was taking place in both the tone and actions of key central bankers around the world. After years of “pulling out all the stops” to stimulate economic growth and avoid deflation, central banks have begun to reverse some of this extraordinary stimulus, gradually increasing interest rates and reducing or eliminating their programs to purchase bonds in the open market.

Because financial market returns are unpredictable, ATRF maintains a highly diversified portfolio. This means that not all assets are expected to perform well at the same time. This past year was no exception, as some asset classes generated very strong returns, while others had more modest, or even slightly negative, returns.

LONG-TERM INVESTMENT OBJECTIVE

An essential long-term assumption in determining the funding requirements of the Plans is that net investment returns will, at a minimum, meet the funding discount rate used in the funding valuation of the Plans.

We review this measure of performance for time periods up to 15 years, as this coincides with the 15-year amortization period of deficiencies (required by legislation). Over the past 15 years, the investment return for the Teachers’ Pension Plan was 7.3%, which was 0.5% above the average funding discount rate. For the Private School Teachers’ Pension Plan, the rate of return was 6.9% over the same time period. The return differed slightly from the return on the Teachers’ Pension Plan because it did not include the loan to the Government of Alberta that was part of the assets of the Teachers’ Pension Plan until the end of 2009.

15-YEAR RETURN VS. LONG-TERM FUNDING OBJECTIVE *(as at August 31, 2017)*

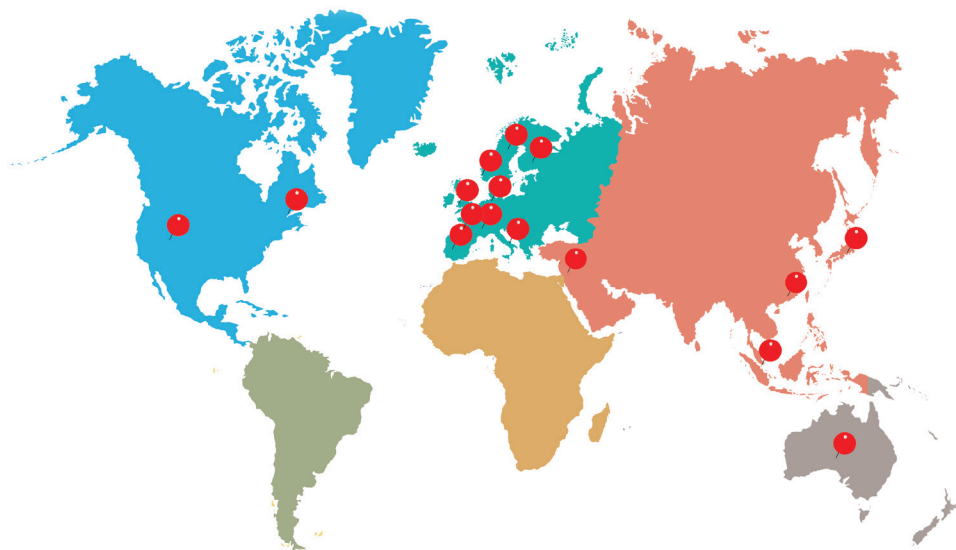
Teachers’ Pension Plan Return	7.3%
Private School Teachers’ Pension Plan Return	6.9%
Average Funding Discount Rate	6.8%

as at August 31, 2017

In order to evaluate the success of our investment strategies, we use a set of Board-approved benchmarks as a comparison tool. The total fund benchmark return (7% for 2017) is calculated by aggregating the benchmark returns of each individual asset class and weighting them according to the fund's policy benchmark.

*Returns are net of fees.

This map presents a snapshot of the global reach of ATRF's investment portfolio. Our team invests around the world and across a variety of asset types. This helps us diversify risks and ensure a sufficient long-term return can be earned to fund the pension of every plan member when they retire. Each marker represents the country that is home to one or more of ATRF's investments.



FINDING THE ANSWERS WITH ATRF (cont'd from page 8)

The access was important, but the teachers agree that what's equally important for active teachers—no matter how new or experienced they may be—is to begin thinking about and planning their retirement.

When it comes time to decide on retirement, both suggest teachers figure out what their goals are, and learn about the pension implications of life and career decisions.

"Retirement is such a big decision. And it's a permanent decision," said Judy, who retired three years ago. "It's very personal. You have to ask yourself a lot of questions. For example, do you retire and take what you have, or sub and work somewhere else part time to make up the difference?"

A lot of teachers get advice from their colleagues about retirement, which helps prepare for the eventual retirement conversations with ATRF.

"When you're nearing retirement, you start asking your colleagues questions about their pensions and advice along the way," said Judy. "But you also find a lot more information that's pertinent to you once you're in front of your pension counsellor. I was able to ask and confirm information I had heard about, and they were able to provide scenarios based on the options I was considering. The information was laid out very well for me, and very easy to go through."

According to Carol, issues like maternity leave and buying back service, moving from school to school (or even to different jurisdictions) can, over the length of a

career, make it more challenging to understand pension statements and information at first glance.

"It can be totally confusing, even when you're prepared. I had it laid out for me in the ATRF office. I asked questions, and all the time in the world was offered to me. I went away, thought about it, talked it over with my family, had more questions, and came back again. And you know what? She answered all of my questions. There were big decisions to make. They were very professional, and she told me what I needed to know."

As the two retired teachers point out, retirement is a major decision for anyone. And it goes beyond just filling out paperwork. They were both pleased that ATRF gave them the personal touch.

Online tools, as well as the Pension Points newsletter, also proved helpful in keeping tabs on their pensions and learning about changes and news in the pension realm, they said.

At the same time, ATRF provided a service that reflected the importance of retirement.

"It's not only about the numbers," added Carol. "It's in the emotions, too. Retirement is a big decision. You want to get it right. But the pension counsellor I dealt with didn't push me or influence me in any particular direction. She didn't try to influence me by saying that, 'More than 25 people have taken this option and they're all happy so you should do this, too.'"





CORPORATE DIRECTORY

COMMITTEES OF THE BOARD

Investment Committee

Chair Catherine Connolly, Vice Chair Marvin Romanow, John Butler, Karen Elgert, Maria Holowinsky, Sandra Johnston, Greg Meeker, Kareen Stangherlin

Audit and Finance Committee

Chair Kareen Stangherlin, Vice Chair Greg Meeker, John Butler, Maria Holowinsky

Governance Committee

Chair Maria Holowinsky, Vice Chair John Butler, Catherine Connolly, Sandra Johnston

Human Resources and Compensation Committee

Chair Sandra Johnston, Vice Chair Karen Elgert, Marvin Romanow, Kareen Stangherlin

Review Committee

The committee consists of the entire Board.

ALBERTA'S TOP EMPLOYERS IN 2017

Alberta's



The Alberta Teachers' Retirement Fund was selected as one of Alberta's Top Employers in 2017. We're proud of this recognition. ATRF employees are a highly respected team, who provide pension information support and benefits, investment expertise, industry-leading technology, and corporate governance to best serve the needs of our active teachers, retired members and employers.

ATRF strives to attract, retain, engage, and motivate high-performance employees through a total rewards program that is aligned with ATRF's mission, corporate values and business strategies, and recognizes employees for their talent, commitment, contribution and time.

Learn more at: www.atrf.com/corporate/careers/why-choose-atrf

For more information, please view the
full Annual Report online at ATRF.com



600 BARNETT HOUSE, 11010 142 ST NW
EDMONTON, ALBERTA T5N 2R1

Telephone: 780.451.4166 Toll Free: 1.800.661.9582
Online: ATRF.com Email: info@ATRF.com