



PRESENTATION TO THE ECONOMICS SOCIETY OF NORTHERN ALBERTA

An Alberta Pension Plan?

Making Sense of An Old Idea

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University of Calgary

November 30, 2023

The Road to an Alberta Pension Plan

● **1964-65**

Members of Parliament speculate about possible Alberta plan during the CPP debates

● **Late 1990s**

CPP reforms increased contribution rates substantially

● **2015**

Tension rise with Ottawa

● **September 2023**

APP Engagement Panel launched; LifeWorks report released

Nearly six decades of interest in a separate provincial plan

● **1982**

Western Canada Concept party proposes Alberta pension plan during election

● **2000**

Alberta Budget features analysis of a separate provincial pension plan

● **2020**

Fair deal panel recommends the government explore a separate Alberta Pension Plan



WHAT'S IN IT FOR YOU

An Alberta Pension Plan

On September 21st, 2023, Alberta's government released an independent third-party report exploring the possibility of setting up a potential Alberta Pension Plan (APP). Learn what's in it for you.

Claimed Benefits of an Alberta Pension Plan

Based on LifeWorks (2023)



\$5 billion to workers and businesses

Lower contribution rates



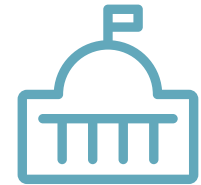
\$2,850 per year in lower payroll taxes

Split equally between employees and employers



\$334 billion in initial assets

53% of the projected assets of the Canada Pension Plan (2027)



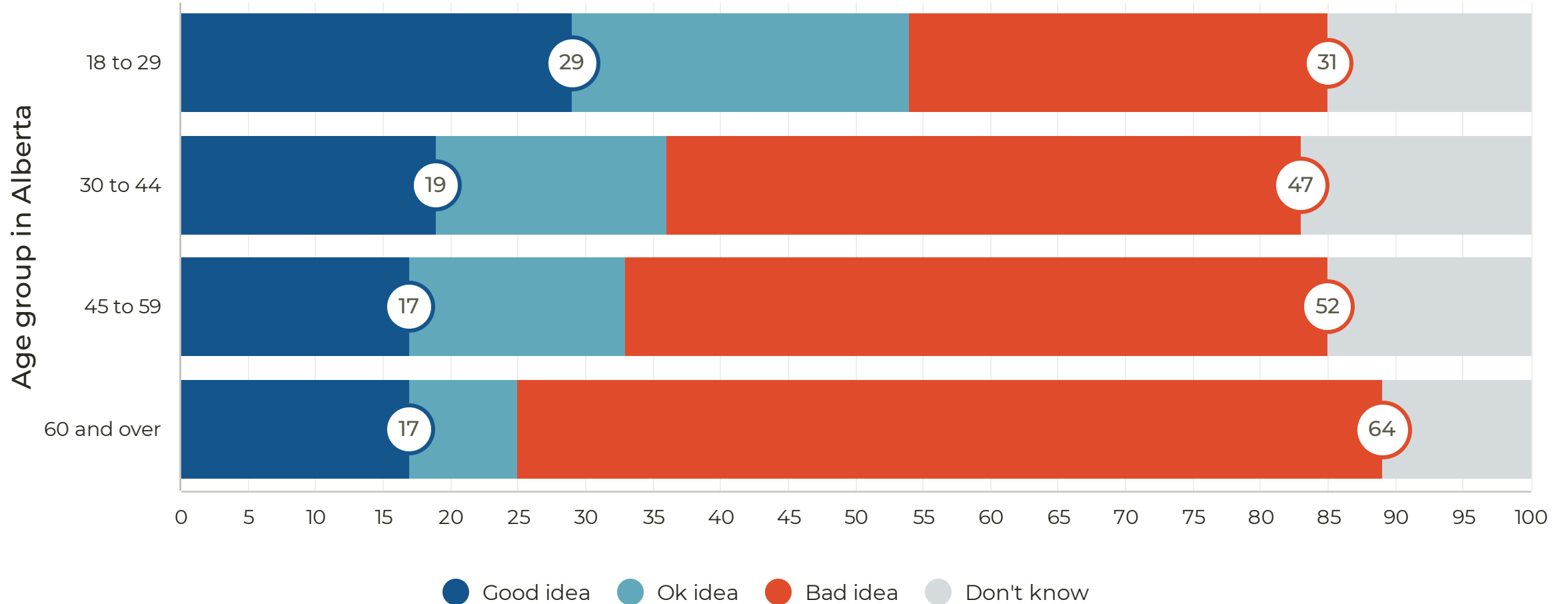
"More Alberta, Less Ottawa"

The government points to \$60 billion in "over contributions" to the Canada Pension Plan

But how reasonable are these benefits?

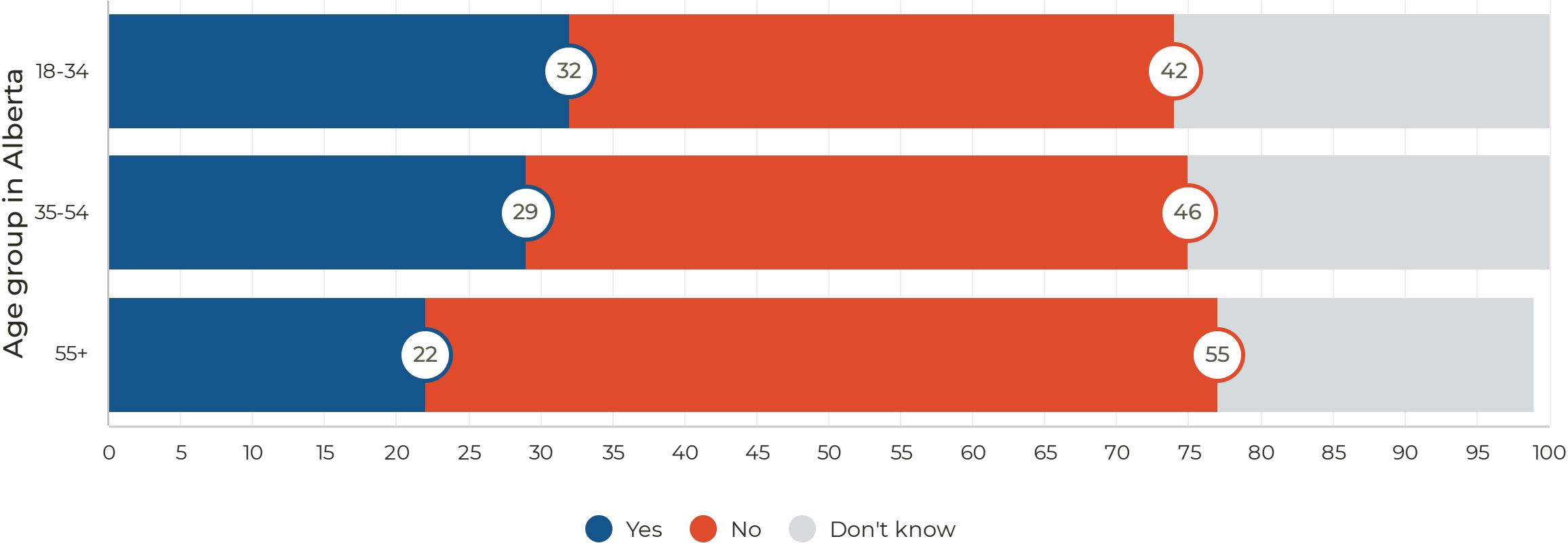
Withdraw from the Canada Pension Plan?

Abacus Data, October 7, 2023



Do you believe that Alberta should create a new Provincial Pension Plan to replace the CPP?

Leger Marketing, November 7, 2023



Section 1

A Crash Course in Pension Analysis

What Affects Pension Plan Sustainability?

Contribution rates are largely determined by a handful of factors



Fertility

Higher birth rates mean more contributors



Mortality

Higher death rates mean fewer beneficiaries



Investment Returns

Supplements worker contributions

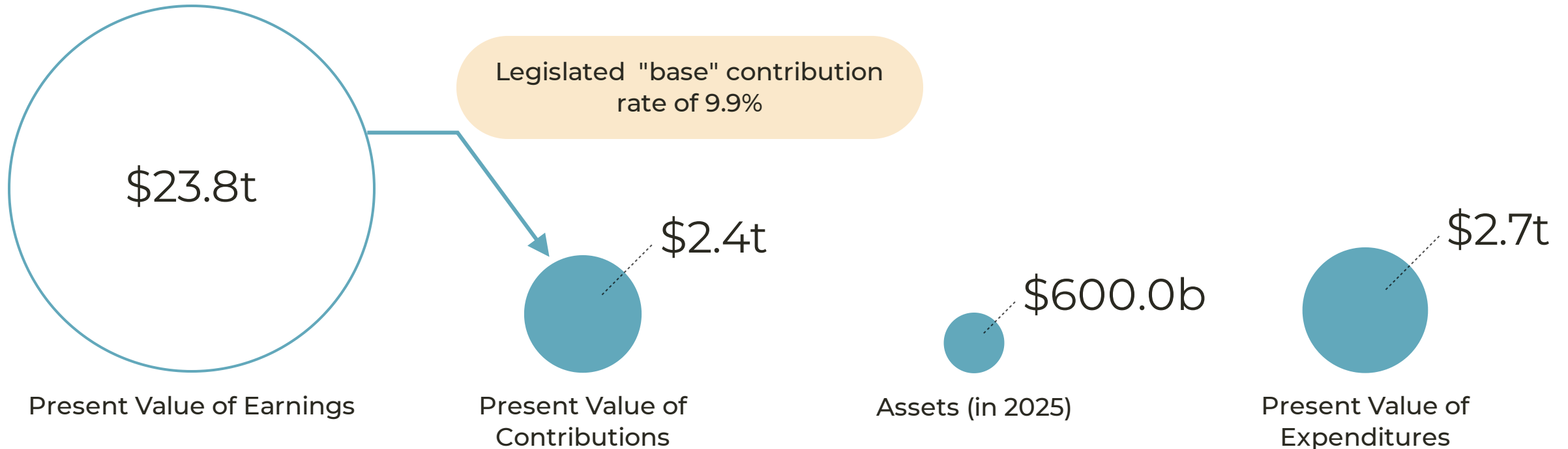


Net in-migration

Young people move, which means more contributors

How the Canada Pension Plan Contribution Rate is Set (2025-2084)

Basic intuition, based on CPP 31st Actuarial Report data

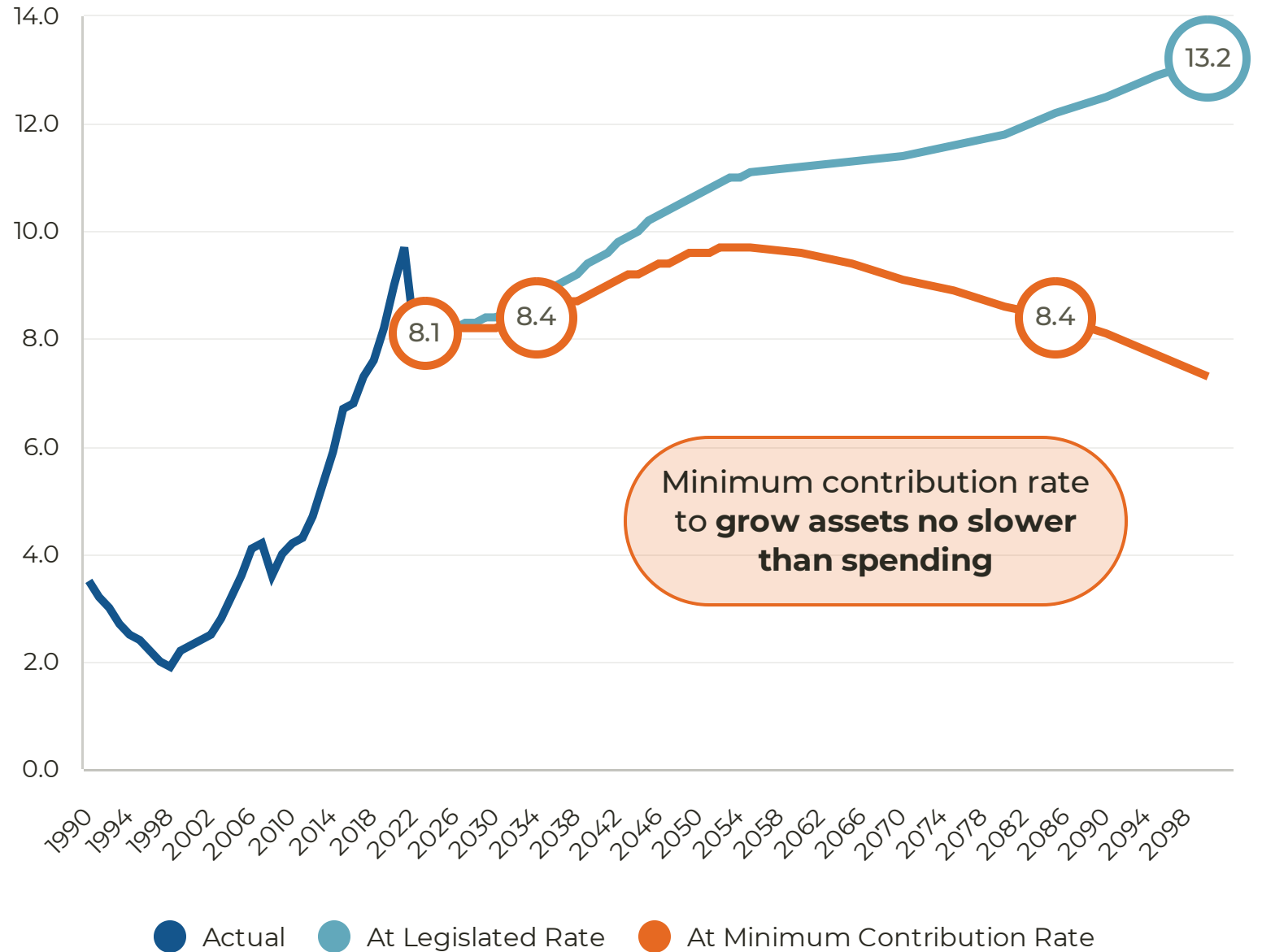


A pension plan's contribution rate is set to ensure contributions, plus assets, can meet future obligations

Is the CPP sustainable?

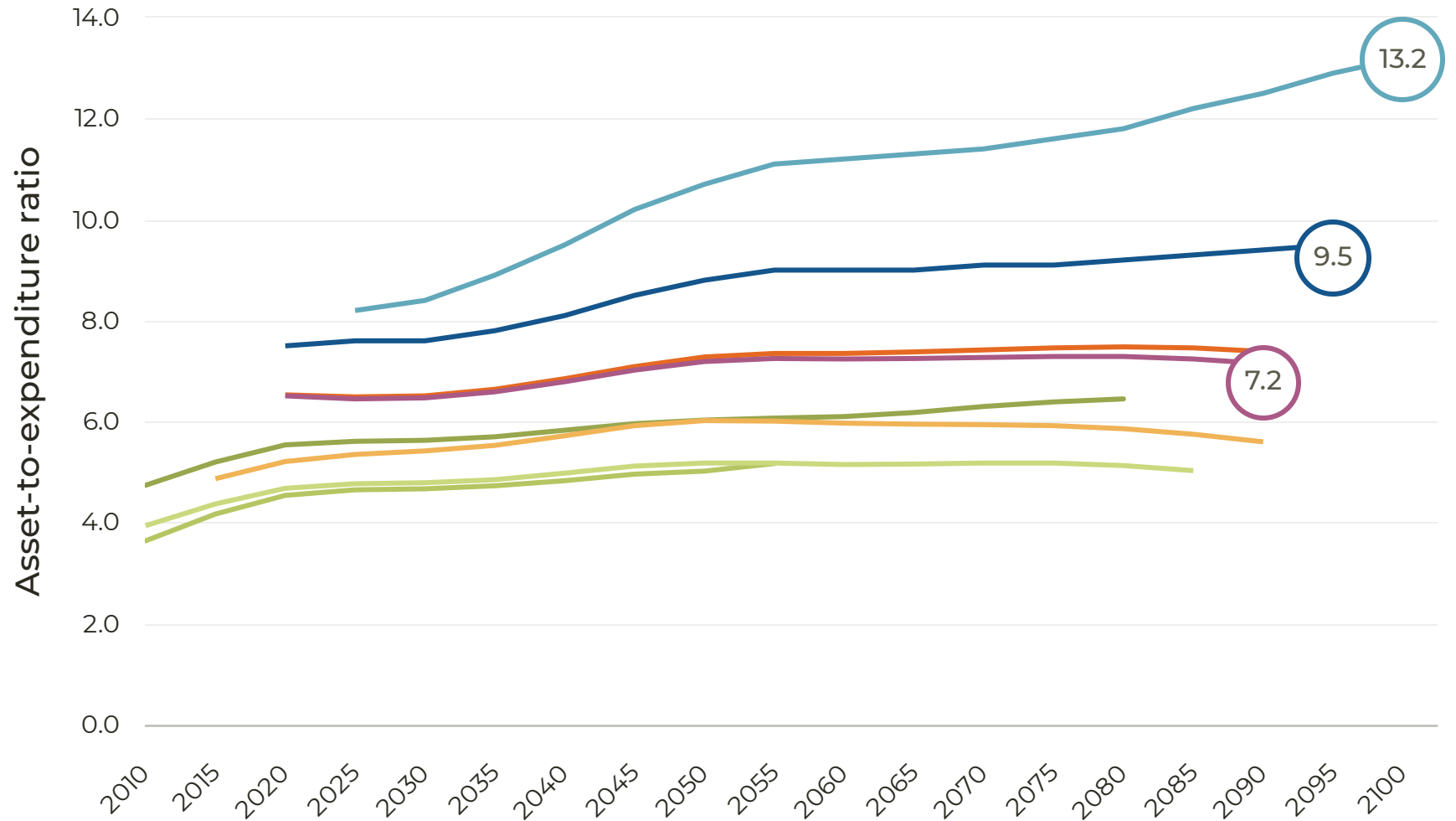
Asset to Expenditure Ratio — Base CPP

Adapted from Chart 15 of the 31st Actuarial Report of the Canada Pension Plan



Projected ratio of CPP assets to expenditures

● 2007 ● 2009 ● 2010 ● 2013 ● 2016 ● 2018 ● 2019 ● 2022



Latest Estimates

9.9%

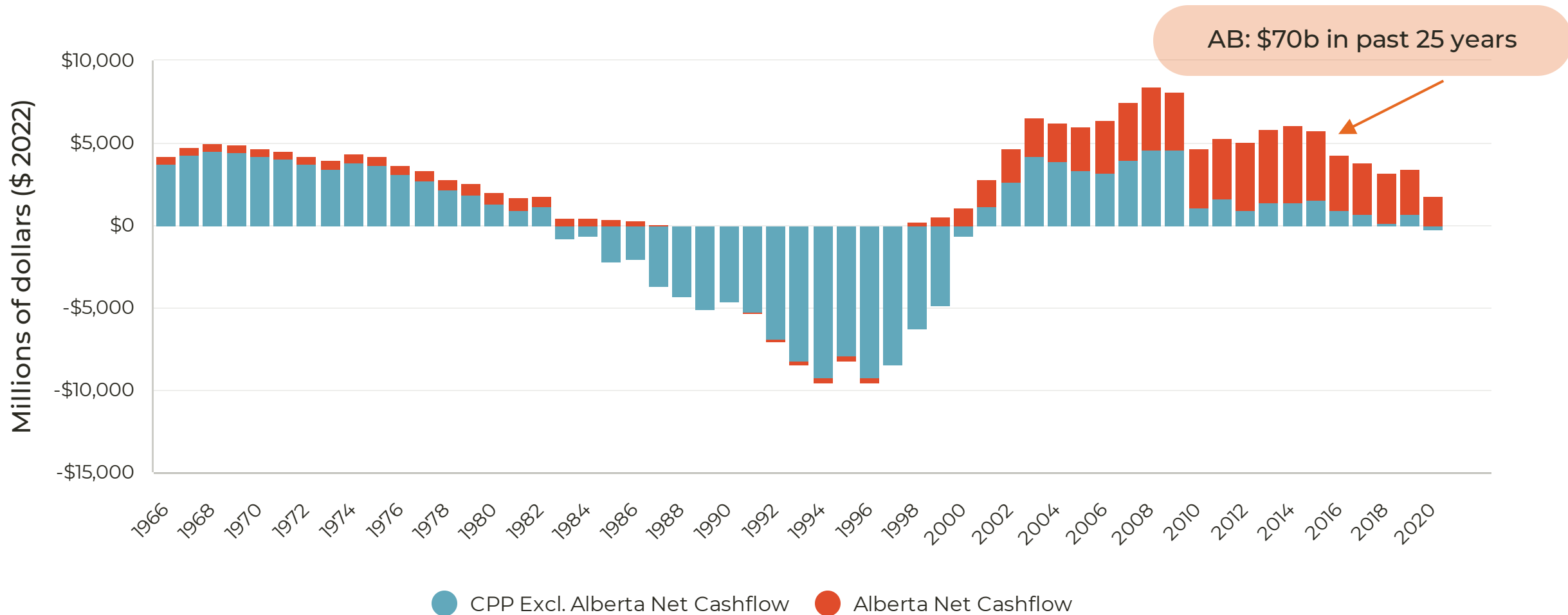
LEGISLATED BASE
CONTRIBUTION RATE

9.5%

MINIMUM
CONTRIBUTION RATE

Does Alberta Over Contribute to the CPP?

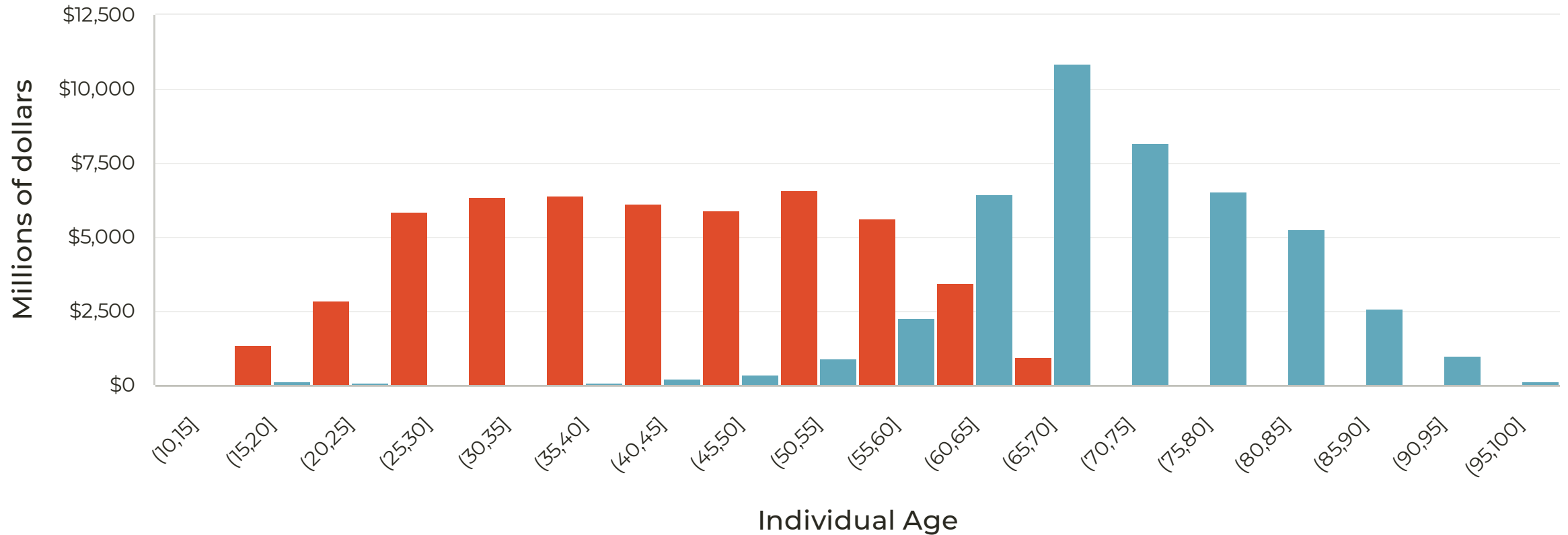
Source: own calculations from LifeWorks (2023), Table B.1, and Statistics Canada data table 18-10-0005-01



CPP Contributions and Expenditures by Age

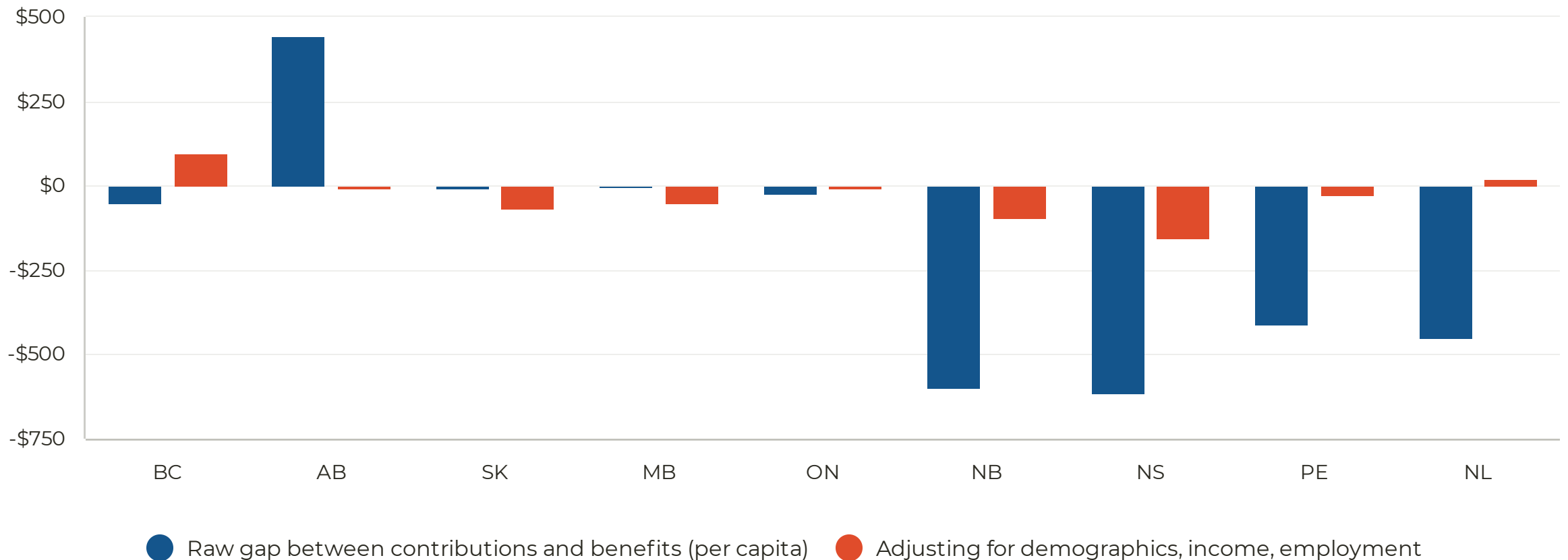
Source: own calculations from Statistics Canada SPSM/D version 30

● Contributions ● Benefits



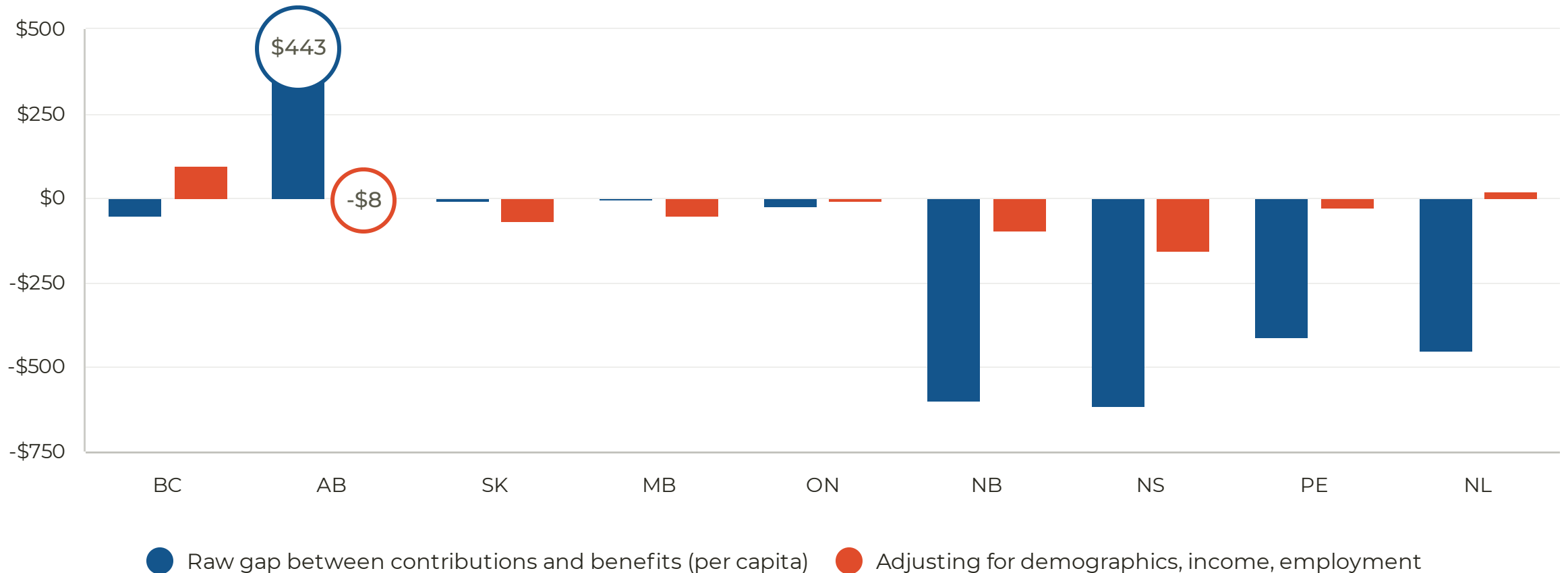
Net CPP Contributions, Raw and Adjusted (2018)

Displays the net per capita CPP contributions for each included province, both unadjusted and controlling for selected individual characteristics, including age, income, and employment status.



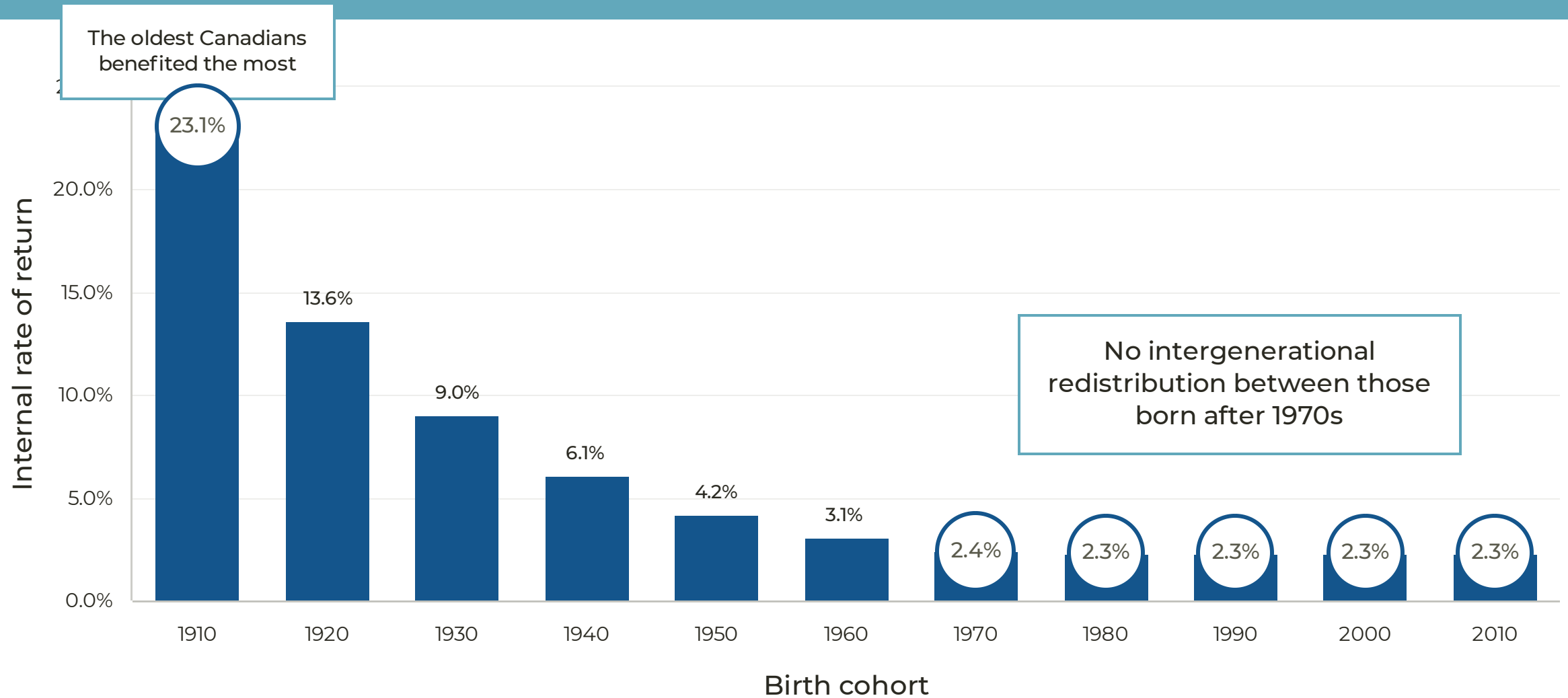
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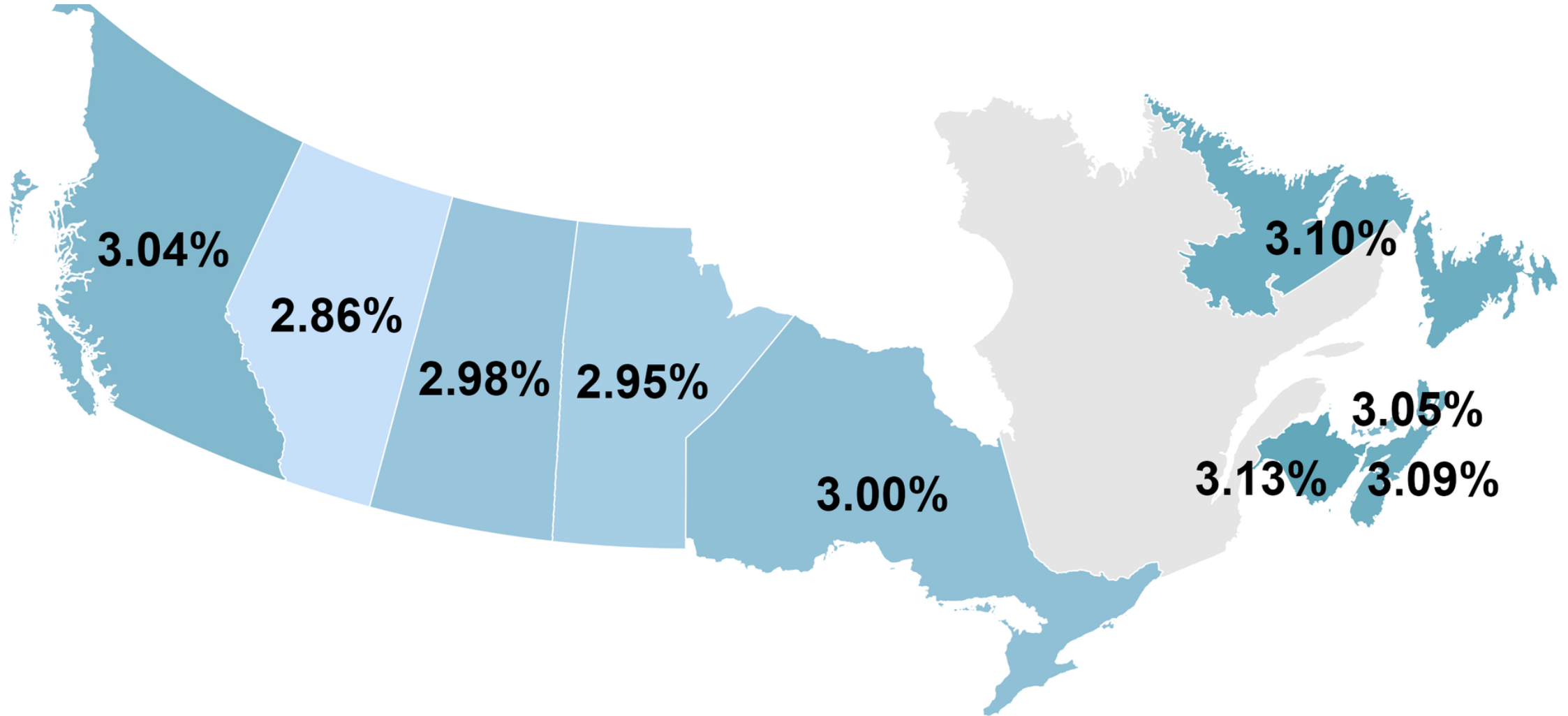
The Implied Return on CPP Contributions

Source: 17th and 27th Actuarial Reports of the Canada Pension Plan.



Average Internal Rate of Return in the CPP

Source: own calculations from various CPP Actuarial Reports and Statistics Canada data table 17-10-0005-01



Section 2

What Might an Alberta Pension Plan Look Like?

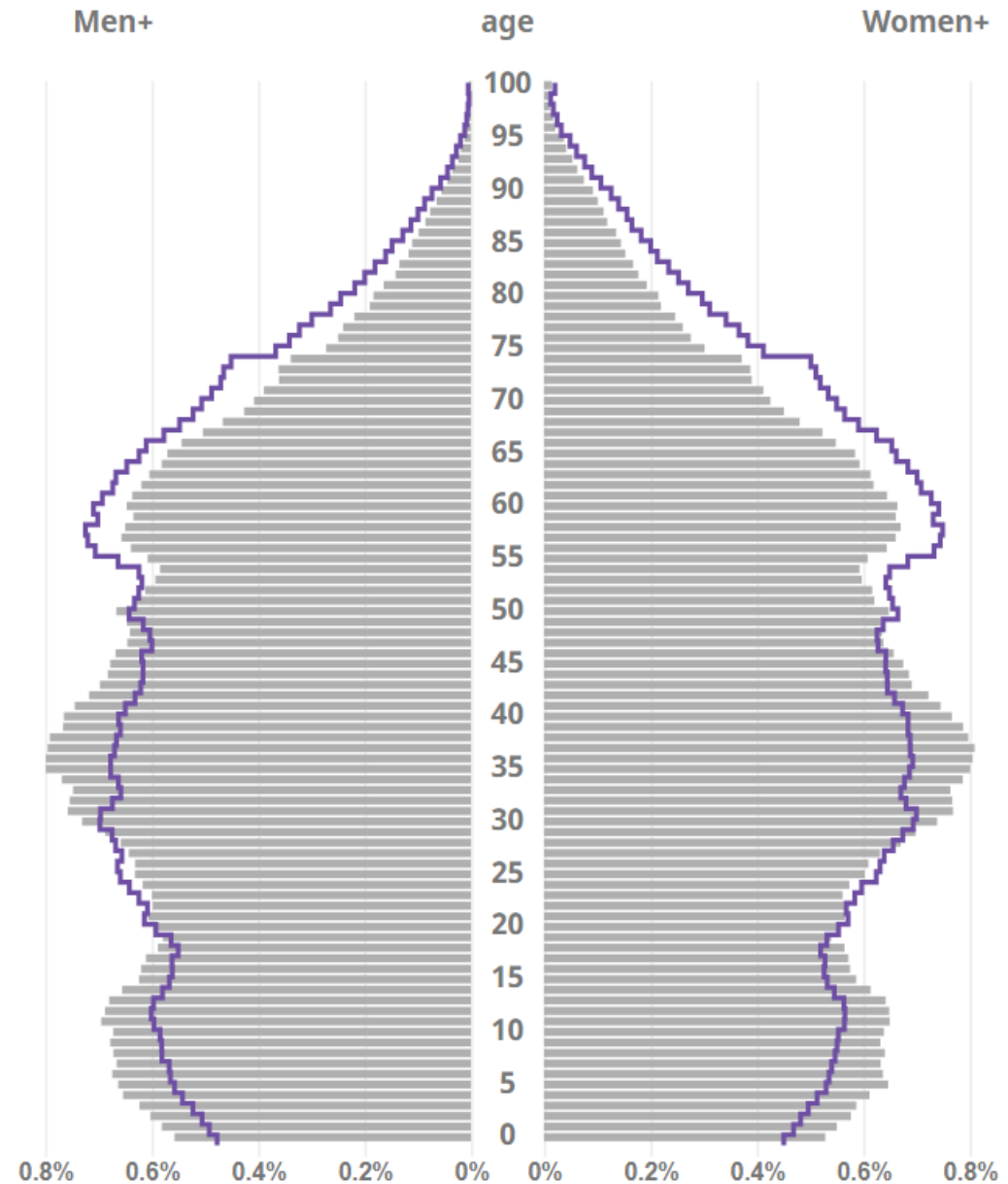
Demographics Matter!

Alberta's population is young

Comparing Alberta's and Canada's population pyramid for 2021

Source: Statistics Canada

■ Alberta ■ Canada



Demographics Matter A Lot

Hypothetical pay-as-you-go pension where population, earnings, etc., don't change over time



Scott Graham on Unsplash

	Population Shares	Contribution Rate
Canada	20% retirees, 50% workers	10%
Alberta	18% retirees, 52% workers	8.7%

To replace 25% of earnings

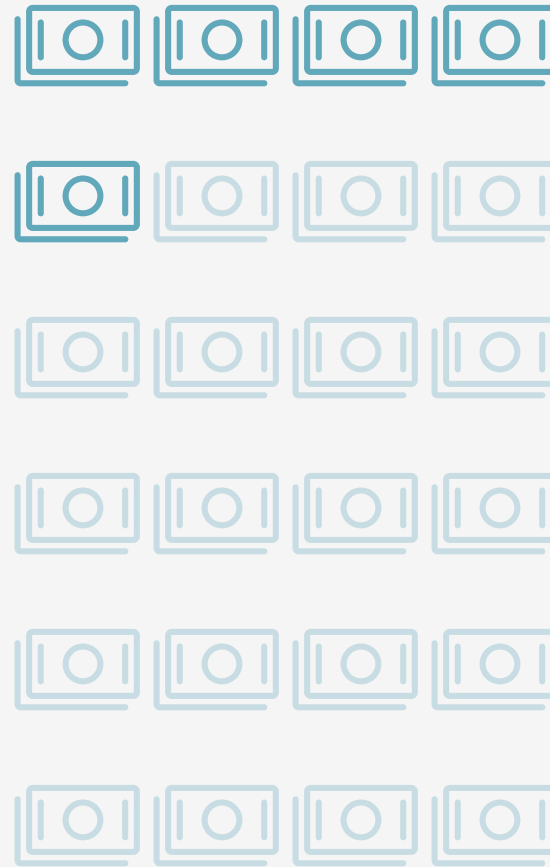
Simple Intuition Around an APP

What share of future base CPP earnings and expenditures are from Albertans?

An estimate from Tombe (2023), forthcoming in Canadian Public Policy

Scale CPP's 9.5% rate by 15.8/18.4 ... get 8.2%

18.4%



Present value of earnings in Alberta is 18.4 percent of the projected CPP total

15.8%



Present value of expenditures in Alberta is 15.8 percent of the projected CPP total

Various estimates

Large Uncertainties

There are various estimates for what an Alberta plan would look like.

Most suggest an APP would have lower contribution rates than the CPP

LifeWorks (2023)

5.9%

Tombe (2023)

8.2 to 9%

LifeWorks' Savings

\$1,425 (max)

Tombe's Savings with LifeWorks' Assumptions

\$136 (median)

Probability APP < CPP

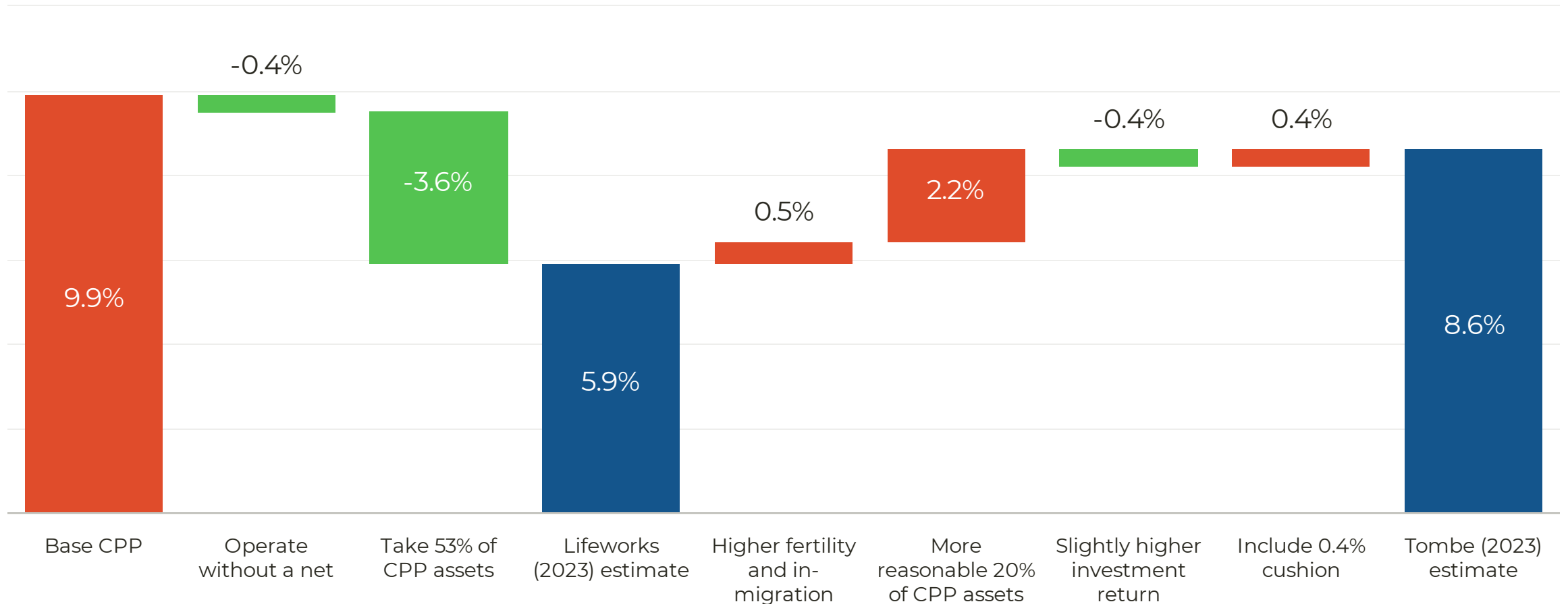
45-66%

Setup costs

\$175m to \$2.2b

Unpacking the Lifeworks Estimate

Source: own calculations from Finances of the Nation, *Alberta Pension Plan Simulator*



Section 3

How Are CPP Assets Split?

The (several) billion-dollar question!

Steps to Calculate Alberta's CPP Assets

Section 113 of the Canada Pension Plan Act

Multiple interpretations of the CPP Act

Amount to be paid to government of province

(2) For the purposes of subsection (1), the amount to be calculated as provided in this subsection in the case of any province shall be calculated by the Minister of Finance as the amount obtained by adding

(a) the total amount of all contributions credited to the Canada Pension Plan Account and the Additional Canada Pension Plan Account, to the day on which the regulation referred to in subsection (1) became effective, in respect of employment in that province or in respect of self-employed earnings of persons resident in that province, and

(b) the part of the net investment return of the Investment Board and all interest credited to or accrued to the credit of the Canada Pension Plan Account and the Additional Canada Pension Plan Account, to the day on which the regulation referred to in subsection (1) became effective, that is derived from the contributions referred to in paragraph (a),

and subtracting from the total so obtained

(c) such part of all amounts paid as or on account of benefits under this Act as would not have been payable under this Act if that province had been a province described in paragraph (a) of the definition *province providing a comprehensive pension plan* in subsection 3(1), and

(d) the part of the costs of administration of this Act, to the day on which the regulation referred to in subsection (1) became effective, that is equal to the proportion of those costs that the total amount of the contributions referred to in paragraph (a) is of the total amount of all contributions credited to the Canada Pension Plan Account and the Additional Canada Pension Plan Account to that day.

1 | Total contributions

Contributions by Alberta workers and employers

2 | Apportion investment returns

Alberta's share of CPP investment income

3 | Minus total expenditures

Benefits to Alberta beneficiaries

4 | Minus share of operating costs

Alberta's share of operating and administrative costs

The "Robarts Interpretation"

Historical sleuthing by Tombe (2023)

Wanted an option to leave and ...

“ ... be placed in precisely the same financial position as if [Ontario] had operated an identical but separate plan from the outset ... [this] was accepted and Bill C-136 allows such opting out with transfer of assets ”

Premier Robarts, in testimony to the joint House-Senate CPP Committee



Source: Legislative Assembly of Ontario

Section 113(2), Paragraph (b)

Canada Pension Plan Act

... the part of the net investment return of the Investment Board and all interest credited to or accrued to the credit of the Canada Pension Plan Account and the Additional Canada Pension Plan Account, to the day on which the regulation referred to in subsection (1) became effective, that is derived from the contributions referred to in paragraph (a).

13-14 ELIZABETH II.

CHAP. 51

An Act to establish a comprehensive program of old age pensions and supplementary benefits in Canada payable to and in respect of contributors.

[Assented to 3rd April, 1965.]

HER Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

SHORT TITLE.

1. This Act may be cited as the *Canada Pension Plan*.

INTERPRETATION.

2. (1) In this Act,
- (a) "applicant" means, in Part II, a person who has applied for a benefit; Definition "Applicant"
 - (b) "average monthly pensionable earnings" of a person means an amount calculated in accordance with section 47 or 48; "Average monthly pensionable earnings."
 - (c) "basic exemption" of a person for a year means an amount calculated in accordance with section 18; "Basic exemption"
 - (d) "beneficiary" means a person to whom a benefit has become payable; "Beneficiary."
 - (e) "benefit" means a benefit payable under this Act and includes a pension; "Benefit"
 - (f) "business" includes a profession, calling, trade, "Business"

Historical Aside!

The original CPP was *very* different from today



Invest excess CPP funds in **provincial bonds**

Invested in exact proportion to a rolling-average of gross contribution shares made by contributors in each province



Modern approach of broad/diverse investments did not exist until the 1997 reforms



The result

The "part of" interest that is "derived from contributions" may therefore be that province's gross contribution share



Andre Taissin on Unsplash

How the CPP Originally Worked

16%



If your province accounts for 16% of all contributions

16%



Then 16% of all CPP excess funds invested in your province's bonds

16%



Mechanical effect: 16% of all CPP income was paid by your province

"Derived from" historically meant contribution shares

Calculating Alberta Pension Plan Initial Assets

Main interpretation of the CPP Act by Tombe (2023)



(16% of the total net investment returns)

?
Uncertainties suggest \$120-150 billion may be reasonable



Future Problems for the Supreme Court?

How will CPP Act ambiguities be resolved?

Is the Alberta Pension Plan "comparable" to the CPP?

Not defined in the Act

What does Section 113(2) mean?

In particular, how are investment returns "derived from" paragraph (a) contributions?

Amendments to the CPP Act?

Two-thirds of provinces with at least two-thirds of people + the Fed

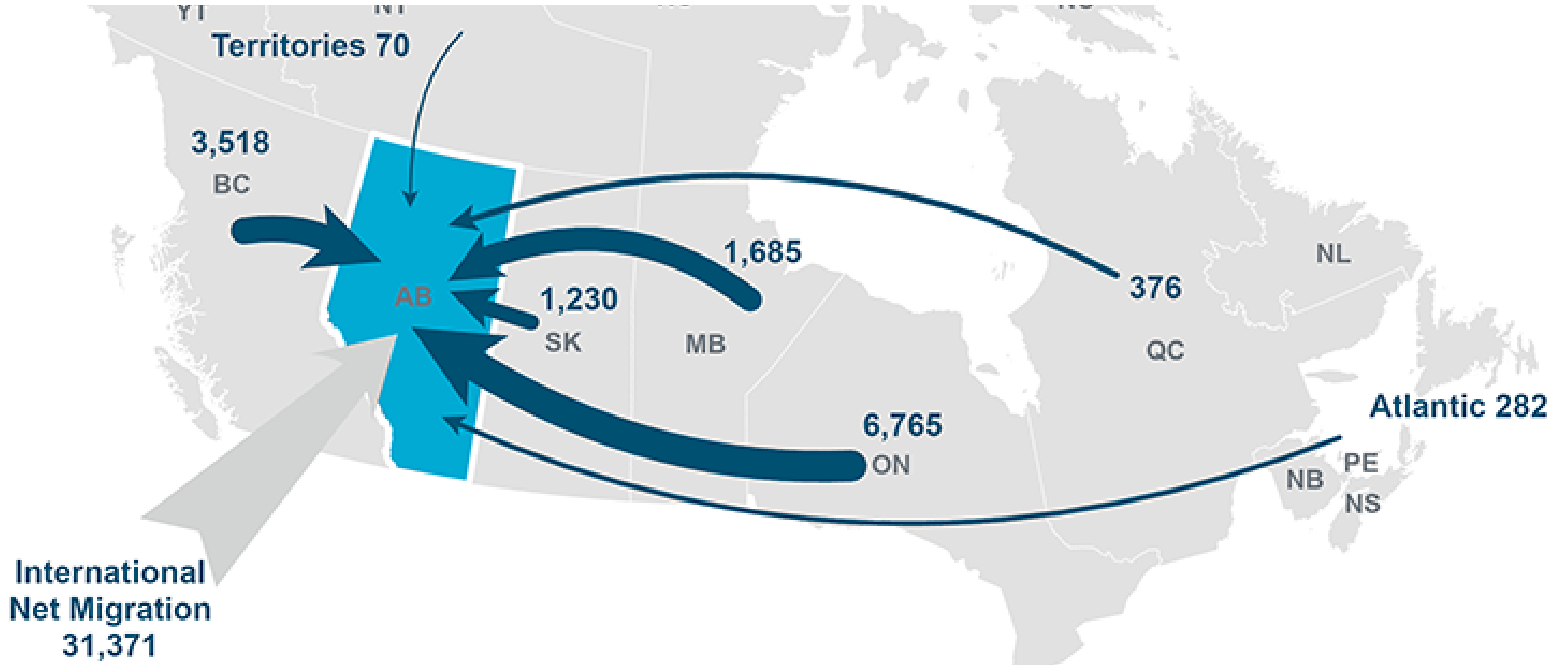
Section 4

Potential Risks to an APP



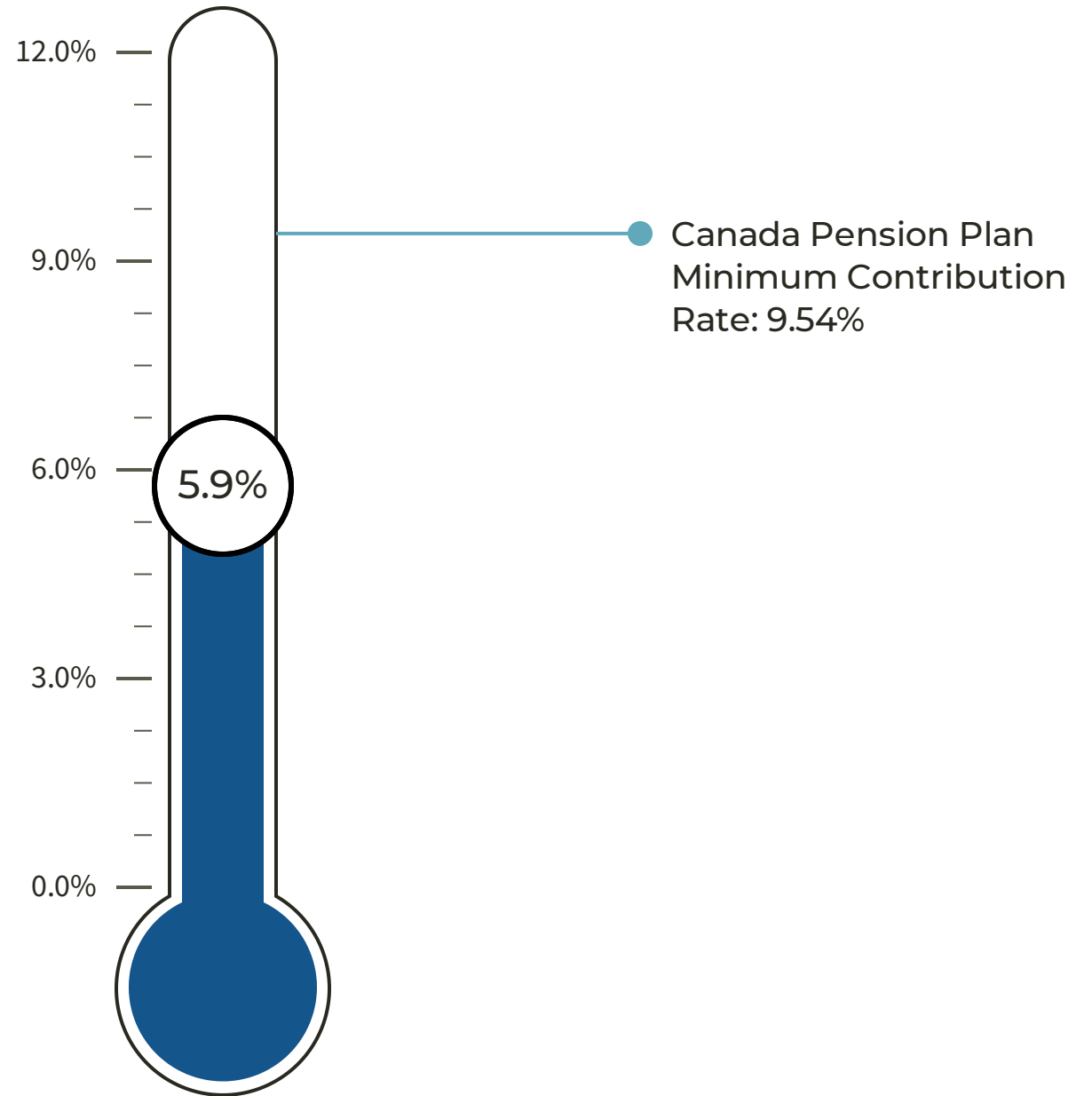
Net population movement for Alberta (Q2 2023)

Source: Statistics Canada and Alberta Treasury Board and Finance



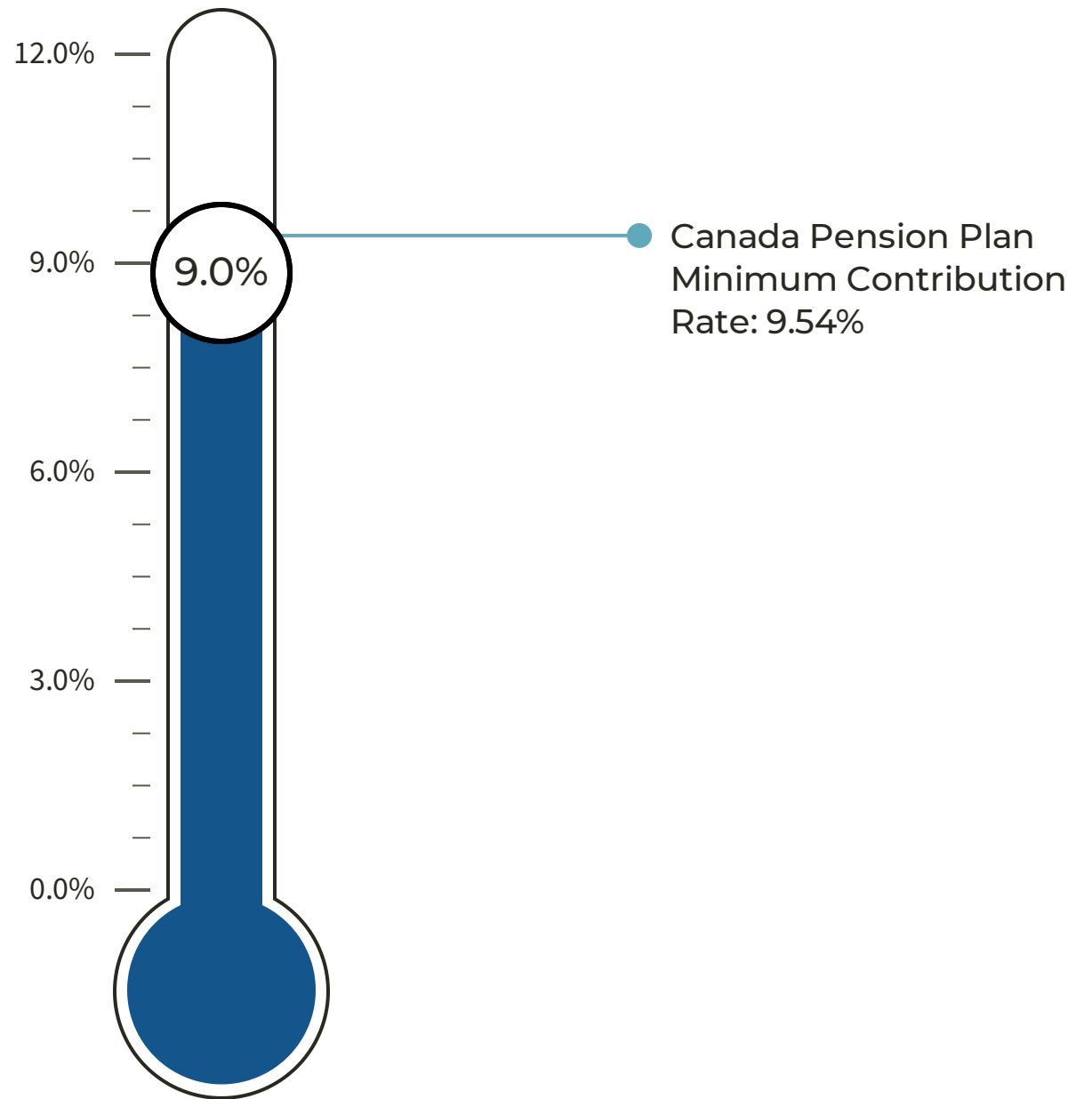
LifeWorks (2023) Estimate

Source: own calculations
from Finances of the Nation,
*Alberta Pension Plan
Simulator*



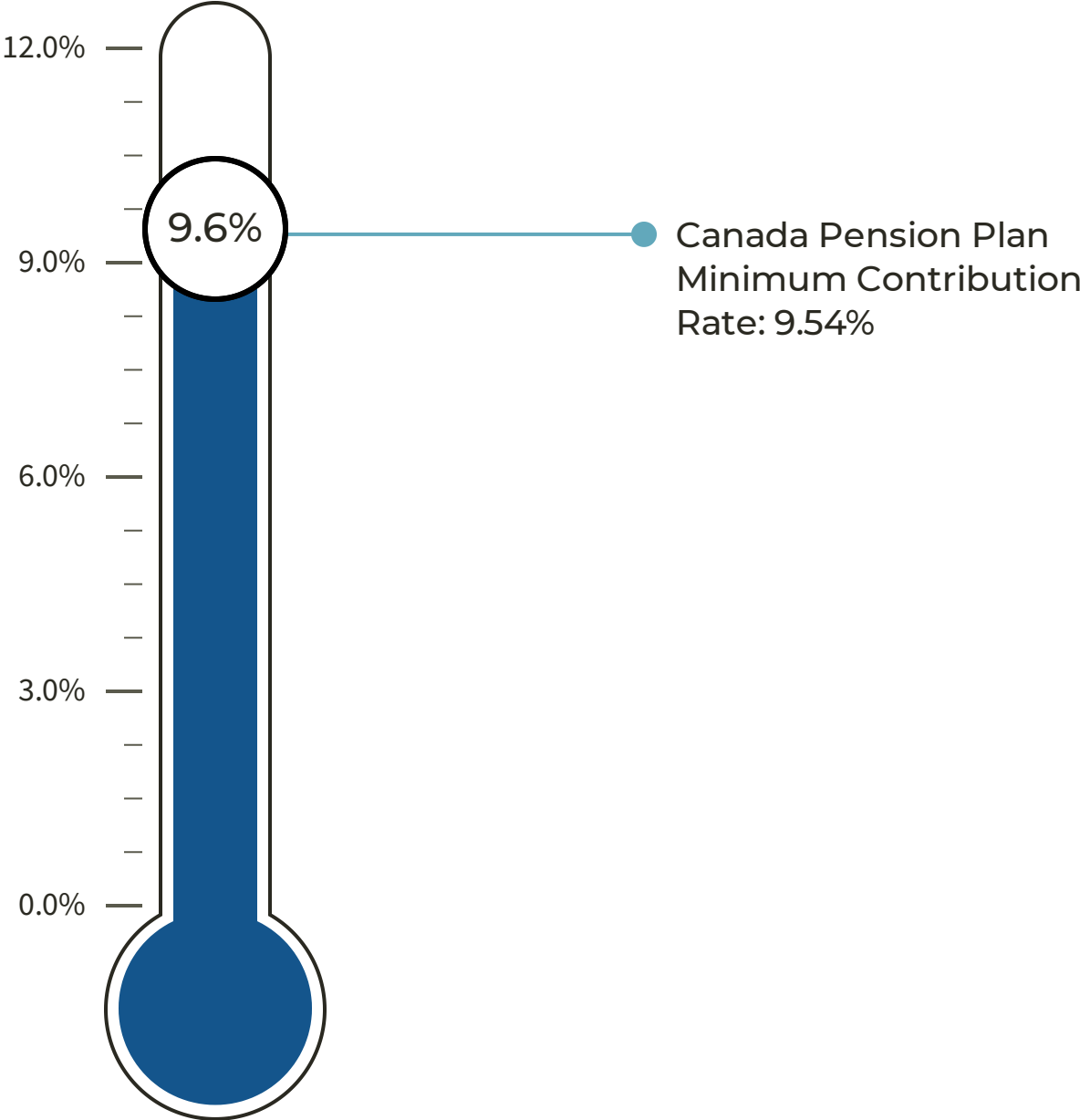
LifeWorks, but with only 20% of CPP assets

Source: own calculations
from Finances of the Nation,
*Alberta Pension Plan
Simulator*



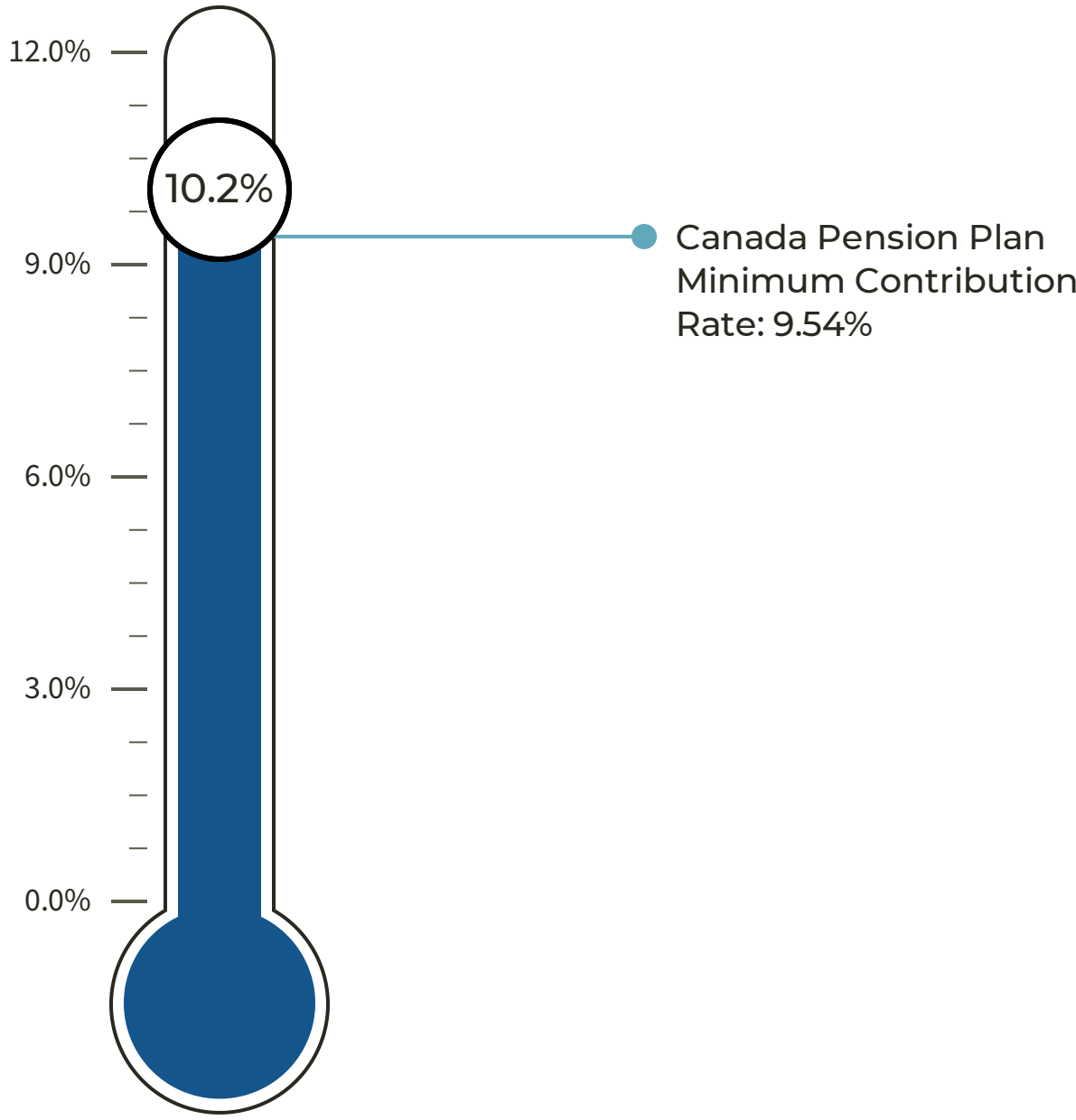
LifeWorks,
but with
only 20% of
CPP assets
+ no net in-
migration

Source: own calculations
from Finances of the Nation,
*Alberta Pension Plan
Simulator*



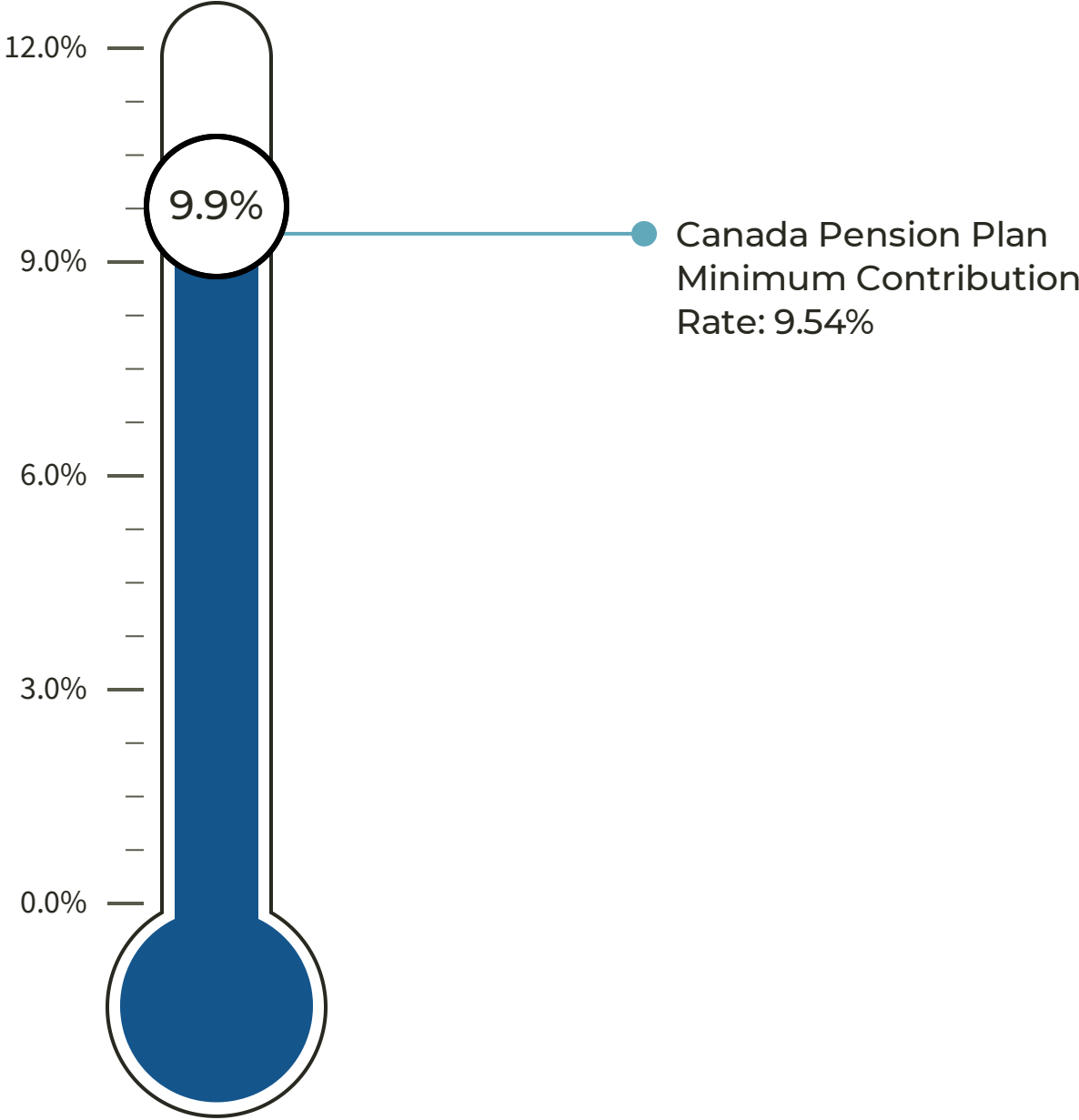
LifeWorks,
but with only
20% of CPP
assets + 5%
higher
benefits and
0.5% lower
investment
return

Source: own calculations
from Finances of the Nation,
*Alberta Pension Plan
Simulator*



LifeWorks,
but with
only 25% of
CPP assets
+ 5% higher
benefits +
0.5% lower
investment
return

Source: own calculations
from Finances of the Nation,
*Alberta Pension Plan
Simulator*

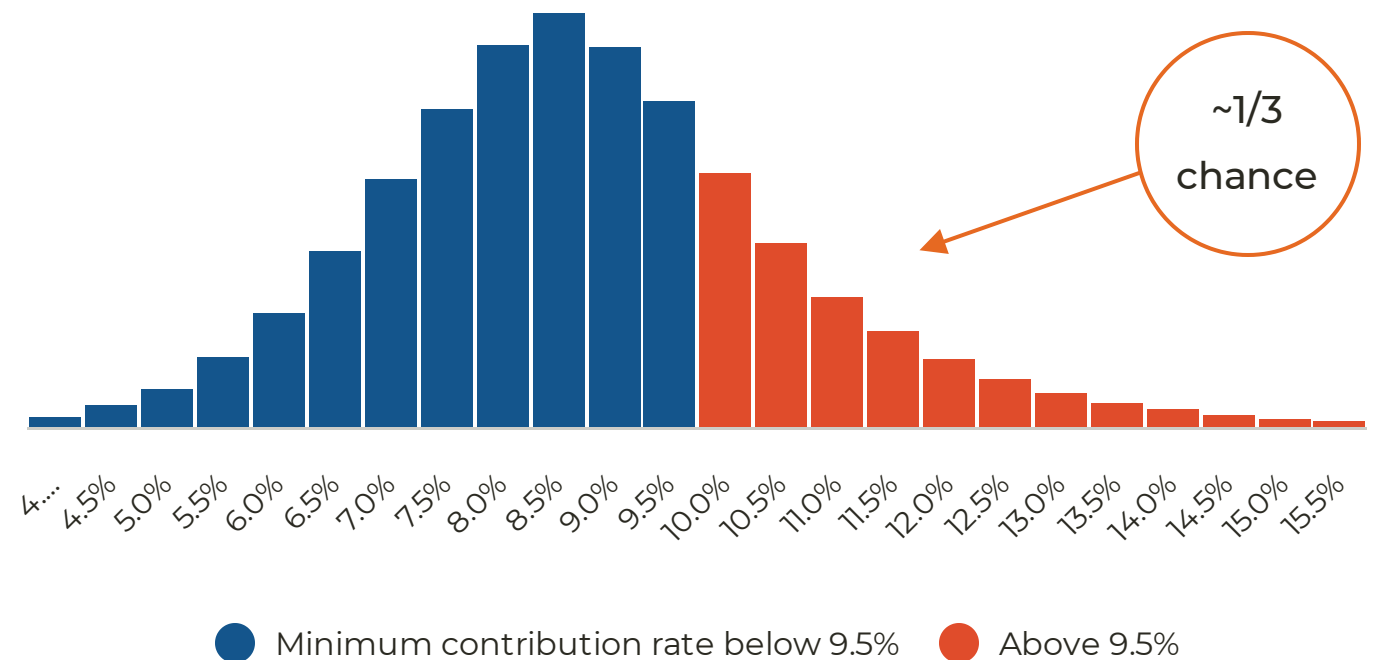


APP Contribution Rates Depend on Uncertain Investment Returns

Source: Adapted from Figure 3, Tombe (2023), forthcoming in Canadian Public Policy, Figure 4



Investment risks are higher in an APP than in the CPP



Alberta Pension Plan Simulator

This simulates various features of a hypothetical Alberta Pension Plan that begins in 2025. It corresponds to the "Base CPP" (which is the main benefit we typically think of) and excludes the additional enhanced benefits that are being phased in after 2019, which are fully funded.

This model is for illustrative and educational purposes only. Please read notes carefully.

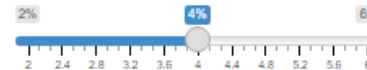
- Parameters and Main Result**
- [Details for Selected Years](#)
- [Internal Rate Of Return](#)
- [Balance Sheet Analysis](#)
- [Investment Risk](#)
- [Notes](#)

The minimum contribution rate is the fraction of pensionable earnings required to ensure the plan's assets do not decline relative to obligations. For the base CPP this is **approximately 9.54 percent**. This is lower than the current 9.9 percent contribution rate, which implies the CPP is more than likely sustainable. To evaluate a separate Alberta plan, compare its minimum contribution rate to the CPP's.

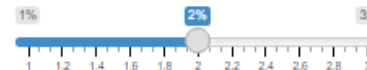
Results	Alberta Pension Plan	Canada Pension Plan
Minimum Contribution Rate:	8.21%	9.54%
Potential APP Advantage:	1.33%	
Max Employee and Employer Savings:	\$418 each / year	
Median Employee Savings:	\$326 / year	

- Economic Assumptions**
- [Demographic Assumptions](#)

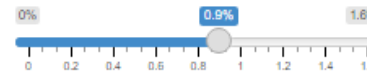
Real Investment Returns:



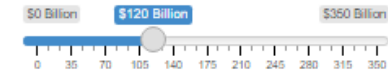
Inflation Rate:



Real Wage Growth:



Initial Assets:



Increase Pension Benefits:



- [Low Scenario](#)
- [Baseline](#)**
- [High Scenario](#)
- [GoA Scenario](#)

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Questions?



Thank **you!**



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